

	CINNANTI ARQUITETURA E ENGENHARIA LTDA	
	SECRETARIA DE ESTADO DE EDUCAÇÃO DO DISTRITO FEDERAL SEEDF	29/12/2022

MEMÓRIA DE CÁLCULO – ESTRUTURA DE CONCRETO ARMADO E FUNDAÇÕES CEM QUADRA 04 AE 02 - ESTRUTURAL (RESERVATÓRIO ADASA)

Autor do Projeto: Eng. Civil Dalmo Blanco Cinnanti

CREA: 7962/D-DF

R01	29/12/2022	Versão inicial	DALMO CINNANTI
REVISÃO	DATA	DESCRIÇÃO	RESPONSÁVEL
<i>Nome do projeto</i>		<i>MEMÓRIA DE CÁLCULO – ESTRUTURA DE CONCRETO ARMADO – CEM ESTRUTURAL QD. 04</i>	
<i>Número do projeto</i>		<i>314-SEEDF-CEM-ESTRUTURAL QD. 04 - MEM-RESERVATÓRIO ADASA-EST-R01</i>	
<i>Local</i>		<i>Quadra 04 AE 02 - RA XXV - SCIA / ESTRUTURAL - Vila Estrutural - DF</i>	

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	CINNANTI ARQUITETURA E ENGENHARIA LTDA	
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Memorial de cálculo

1. Resumo de resultados

a) Cargas verticais:

Peso próprio = 404.54 tf

Adicional = 9.18 tf

Solo = 145.88 tf

Acidental = 27.55 tf

Água = 342.71 tf

Vento X+ = 0.00 tf

Vento X- = 0.00 tf

Desaprumo X+ = 0.00 tf

Desaprumo X- = 0.00 tf

Total = 929.85 tf

Área aproximada = 184.97 m²

Relação = 5027.06 kgf/m²

AVISO: Relação de carga por área não usual para edifícios

b) Deslocamento horizontal:

X+ = 0.11 cm (limite 0.28)

X- = 0.11 cm (limite 0.28)

Y+ = 0.41 cm (limite 0.28)

Y- = 0.41 cm (limite 0.28)

AVISO: Deslocamento horizontal excessivo

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Verificação de estabilidade (Gama-Z):

Gama-Z tende ao infinito (estrutura instável)

c) Análise de 2ª ordem:

Processo P-Delta

Deslocamentos no topo da edificação:

Vento X+: 0.36 »» 0.36 (+0.14%)

Vento X-: 0.36 »» 0.36 (+0.14%)

Vento Y+: 1.39 »» 1.39 (+0.13%)

Vento Y-: 1.39 »» 1.39 (+0.13%)

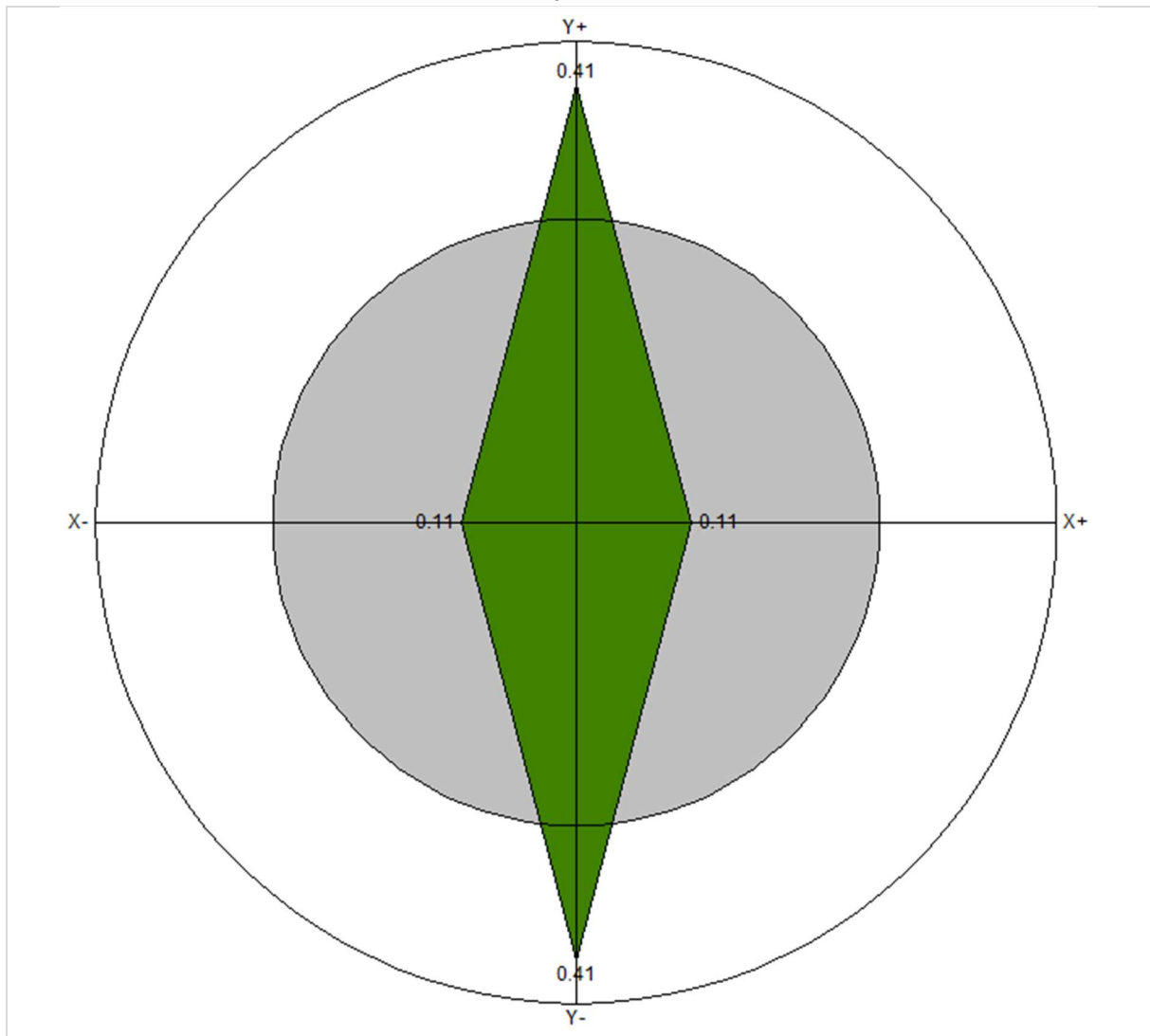
Desaprumo X+: 0.07 »» 0.07 (+5.86%)

Desaprumo X-: 0.07 »» 0.07 (+5.86%)

Desaprumo Y+: 0.07 »» 0.07 (+5.79%)

Desaprumo Y-: 0.07 »» 0.07 (+5.79%)

d) Deslocamentos Horizontais Devido à Ação do Vento



Verificações	X+	X-	Y+	Y-
Altura total da edificação (cm)	480.00			
Deslocamento limite (cm)	0.28			
Deslocamento característico (cm)	0.36	-0.36	1.35	-1.35
gf2	0.30	0.30	0.30	0.30
Deslocamento combinações frequentes (cm)	0.11	-0.11	0.41	-0.41

Pavimento	Altura (cm)	Deslocamento combinações frequentes (cm)				Diferença (cm)				Limite (cm)
		X+	X-	Y+	Y-	X+	X-	Y+	Y-	
TAMPA	420.00	0.11	-0.11	0.41	-0.41	0.00	0.00	0.00	0.00	0.49
FUNDO	60.00	0.11	-0.11	0.41	-0.41	0.11	-0.11	0.41	-0.41	0.07

2. Relatório de Esforços nas Fundações por Elementos

Fundação B1						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	14.17	-331.65	200.42	0.00	0.00	-8.59
Adicional (G2)	0.29	-5.48	4.91	0.00	0.00	-0.16
Solo (S)	8.49	276.25	80.20	-0.71	0.00	-17.57
Acidental (Q)	0.88	-16.45	14.73	0.00	0.00	-0.47
Água (A)	7.65	-433.00	115.10	0.00	0.00	-9.85
Vento X+ (V1)	-0.07	-2.09	-8.62	0.01	0.00	-0.34
Vento X- (V2)	0.07	2.09	8.62	-0.01	0.00	0.34
Vento Y+ (V3)	0.77	77.10	4.72	0.00	0.04	-284.73
Vento Y- (V4)	-0.77	-77.10	-4.72	0.00	-0.04	284.73
Desaprumo X+ (D1)	-0.12	-2.14	11.65	0.11	0.00	0.71
Desaprumo X- (D2)	0.12	2.14	-11.65	-0.11	0.00	-0.71
Desaprumo Y+ (D3)	0.20	-26.27	3.37	0.00	0.11	-6.62
Desaprumo Y- (D4)	-0.20	26.27	-3.37	0.00	-0.11	6.62
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	23.42	-75.79	302.32	-0.59	0.00	-26.15
G1+G2+S+0.7Q+0.6V2+D2	23.73	-69.00	289.37	-0.82	0.00	-27.16
G1+G2+S+0.7Q+0.6V3+D3	24.23	-52.40	302.04	-0.71	0.13	-204.11
G1+G2+S+0.7Q+0.6V4+D4	22.91	-92.39	289.64	-0.70	-0.13	150.80
G1+G2+S+0.7Q+A+0.6V1+0.6D1	31.11	-507.94	412.76	-0.64	0.00	-36.29
G1+G2+S+0.7Q+A+0.6V1+D1	31.06	-508.80	417.42	-0.59	0.00	-36.00
G1+G2+S+0.7Q+A+0.6V2+0.6D2	31.33	-502.86	409.13	-0.78	0.00	-36.73
G1+G2+S+0.7Q+A+0.6V2+D2	31.38	-502.00	404.47	-0.82	0.00	-37.01
G1+G2+S+0.7Q+A+0.6V3+0.6D3	31.80	-474.90	415.80	-0.71	0.09	-211.31
G1+G2+S+0.7Q+A+0.6V3+D3	31.88	-485.41	417.15	-0.71	0.13	-213.96
G1+G2+S+0.7Q+A+0.6V4+0.6D4	30.64	-535.90	406.09	-0.70	-0.09	138.30
G1+G2+S+0.7Q+A+0.6V4+D4	30.56	-525.39	404.74	-0.70	-0.13	140.95
G1+G2+S+0.7Q+A+D1	31.11	-507.54	422.59	-0.60	0.00	-35.80
G1+G2+S+0.7Q+A+D2	31.34	-503.26	399.30	-0.81	0.00	-37.22
G1+G2+S+0.7Q+A+D3	31.42	-531.67	414.31	-0.71	0.11	-43.12
G1+G2+S+0.7Q+A+D4	31.02	-479.13	407.58	-0.71	-0.11	-29.89
G1+G2+S+0.7Q+A+V1+0.6D1	31.08	-508.78	409.31	-0.63	0.00	-36.42
G1+G2+S+0.7Q+A+V2+0.6D2	31.36	-502.02	412.58	-0.78	0.00	-36.59
G1+G2+S+0.7Q+A+V3+0.6D3	32.11	-444.06	417.69	-0.71	0.10	-325.21
G1+G2+S+0.7Q+A+V4+0.6D4	30.33	-566.74	404.20	-0.70	-0.10	252.20
G1+G2+S+0.7Q+V1+0.6D1	23.44	-75.77	294.21	-0.63	0.00	-26.57
G1+G2+S+0.7Q+V2+0.6D2	23.71	-69.02	297.47	-0.78	0.00	-26.74
G1+G2+S+0.7Q+V3+0.6D3	24.46	-11.05	302.58	-0.71	0.10	-315.35
G1+G2+S+0.7Q+V4+0.6D4	22.69	-133.74	289.10	-0.70	-0.10	262.05
G1+G2+S+A+0.6V1+0.6D1	30.50	-496.42	402.45	-0.64	0.00	-35.95
G1+G2+S+A+0.6V1+D1	30.45	-497.28	407.11	-0.59	0.00	-35.67
G1+G2+S+A+0.6V2+0.6D2	30.72	-491.34	398.81	-0.78	0.00	-36.40
G1+G2+S+A+0.6V2+D2	30.76	-490.48	394.15	-0.82	0.00	-36.68
G1+G2+S+A+0.6V3+0.6D3	31.19	-463.38	405.48	-0.71	0.09	-210.98
G1+G2+S+A+0.6V3+D3	31.27	-473.89	406.83	-0.71	0.13	-213.63
G1+G2+S+A+0.6V4+0.6D4	30.02	-524.38	395.78	-0.70	-0.09	138.63
G1+G2+S+A+0.6V4+D4	29.94	-513.88	394.43	-0.70	-0.13	141.28
G1+G2+S+A+D1	30.49	-496.03	412.28	-0.60	0.00	-35.47
G1+G2+S+A+D2	30.72	-491.74	388.98	-0.81	0.00	-36.88

G1+G2+S+A+D3	30.81	-520.15	404.00	-0.71	0.11	-42.79
G1+G2+S+A+D4	30.40	-467.62	397.26	-0.71	-0.11	-29.56
G1+G2+S+A+V1+0.6D1	30.47	-497.26	399.00	-0.63	0.00	-36.09
G1+G2+S+A+V2+0.6D2	30.74	-490.50	402.26	-0.78	0.00	-36.26
G1+G2+S+A+V3+0.6D3	31.49	-432.54	407.37	-0.71	0.10	-324.88
G1+G2+S+A+V4+0.6D4	29.72	-555.22	393.89	-0.70	-0.10	252.53
G1+G2+S+D1	22.84	-63.02	297.18	-0.60	0.00	-25.61
G1+G2+S+D2	23.07	-58.74	273.88	-0.81	0.00	-27.03
G1+G2+S+D3	23.16	-87.14	288.90	-0.71	0.11	-32.94
G1+G2+S+D4	22.76	-34.61	282.16	-0.71	-0.11	-19.71
G1+G2+S+Q+0.6V1+0.6D1	23.73	-79.87	302.08	-0.64	0.00	-26.57
G1+G2+S+Q+0.6V2+0.6D2	23.95	-74.79	298.45	-0.78	0.00	-27.02
G1+G2+S+Q+0.6V3+0.6D3	24.42	-46.83	305.12	-0.71	0.09	-201.60
G1+G2+S+Q+0.6V4+0.6D4	23.26	-107.83	295.41	-0.70	-0.09	148.01
G1+G2+S+Q+A+0.6V1+0.6D1	31.37	-512.88	417.18	-0.64	0.00	-36.43
G1+G2+S+Q+A+0.6V2+0.6D2	31.59	-507.80	413.55	-0.78	0.00	-36.87
G1+G2+S+Q+A+0.6V3+0.6D3	32.06	-479.84	420.22	-0.71	0.09	-211.46
G1+G2+S+Q+A+0.6V4+0.6D4	30.90	-540.84	410.51	-0.70	-0.09	138.16
G1+G2+S+Q+A+D1	31.37	-512.48	427.01	-0.60	0.00	-35.94
G1+G2+S+Q+A+D2	31.60	-508.19	403.72	-0.81	0.00	-37.36
G1+G2+S+Q+A+D3	31.69	-536.60	418.73	-0.71	0.11	-43.26
G1+G2+S+Q+A+D4	31.28	-484.07	412.00	-0.71	-0.11	-30.03
G1+G2+S+Q+D1	23.72	-79.47	311.91	-0.60	0.00	-26.09
G1+G2+S+Q+D2	23.95	-75.19	288.61	-0.81	0.00	-27.50
G1+G2+S+Q+D3	24.04	-103.60	303.63	-0.71	0.11	-33.41
G1+G2+S+Q+D4	23.63	-51.07	296.89	-0.71	-0.11	-20.18

Fundação B2						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	19.42	375.26	-27.27	0.00	0.00	0.78
Adicional (G2)	0.46	5.78	-1.49	0.00	0.00	0.03
Solo (S)	4.82	2308.70	-579.74	-0.71	0.00	-1.32
Acidental (Q)	1.37	17.18	-4.52	0.00	0.00	0.08
Água (A)	17.09	-1199.08	-44.89	0.00	0.00	1.14
Vento X+ (V1)	-0.02	-0.19	9.44	0.01	0.00	0.11
Vento X- (V2)	0.02	0.19	-9.44	-0.01	0.00	-0.11
Vento Y+ (V3)	0.06	14.89	-41.75	0.00	0.04	-306.70
Vento Y- (V4)	-0.06	-14.89	41.75	0.00	-0.04	306.70
Desaprumo X+ (D1)	-0.02	-2.00	74.41	0.18	0.00	-0.41
Desaprumo X- (D2)	0.02	2.00	-74.41	-0.18	0.00	0.41
Desaprumo Y+ (D3)	0.37	21.82	0.29	0.00	0.18	-7.11
Desaprumo Y- (D4)	-0.37	-21.82	-0.29	0.00	-0.18	7.11
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	25.62	2699.65	-531.59	-0.52	0.00	-0.80
G1+G2+S+0.7Q+0.6V2+D2	25.68	2703.87	-691.74	-0.89	0.00	-0.12
G1+G2+S+0.7Q+0.6V3+D3	26.06	2732.51	-636.42	-0.71	0.20	-191.59
G1+G2+S+0.7Q+0.6V4+D4	25.24	2671.01	-586.91	-0.70	-0.20	190.67
G1+G2+S+0.7Q+A+0.6V1+0.6D1	42.72	1501.37	-606.25	-0.59	0.00	0.50
G1+G2+S+0.7Q+A+0.6V1+D1	42.71	1500.57	-576.49	-0.52	0.00	0.34
G1+G2+S+0.7Q+A+0.6V2+0.6D2	42.77	1503.99	-706.87	-0.82	0.00	0.86
G1+G2+S+0.7Q+A+0.6V2+D2	42.78	1504.79	-736.63	-0.89	0.00	1.03
G1+G2+S+0.7Q+A+0.6V3+0.6D3	43.01	1524.71	-681.43	-0.71	0.13	-187.60
G1+G2+S+0.7Q+A+0.6V3+D3	43.16	1533.44	-681.32	-0.71	0.20	-190.44
G1+G2+S+0.7Q+A+0.6V4+0.6D4	42.49	1480.66	-631.69	-0.70	-0.13	188.97

G1+G2+S+0.7Q+A+0.6V4+D4	42.34	1471.93	-631.80	-0.70	-0.20	191.81
G1+G2+S+0.7Q+A+D1	42.73	1500.69	-582.15	-0.53	0.00	0.27
G1+G2+S+0.7Q+A+D2	42.77	1504.68	-730.97	-0.88	0.00	1.09
G1+G2+S+0.7Q+A+D3	43.12	1524.50	-656.27	-0.71	0.18	-6.43
G1+G2+S+0.7Q+A+D4	42.37	1480.86	-656.86	-0.71	-0.18	7.79
G1+G2+S+0.7Q+A+V1+0.6D1	42.72	1501.30	-602.47	-0.59	0.00	0.55
G1+G2+S+0.7Q+A+V2+0.6D2	42.78	1504.07	-710.65	-0.82	0.00	0.82
G1+G2+S+0.7Q+A+V3+0.6D3	43.03	1530.66	-698.13	-0.71	0.15	-310.28
G1+G2+S+0.7Q+A+V4+0.6D4	42.46	1474.71	-614.99	-0.70	-0.15	311.65
G1+G2+S+0.7Q+V1+0.6D1	25.62	2700.38	-557.58	-0.59	0.00	-0.60
G1+G2+S+0.7Q+V2+0.6D2	25.68	2703.15	-665.75	-0.82	0.00	-0.32
G1+G2+S+0.7Q+V3+0.6D3	25.94	2729.74	-653.24	-0.71	0.15	-311.42
G1+G2+S+0.7Q+V4+0.6D4	25.37	2673.78	-570.09	-0.70	-0.15	310.50
G1+G2+S+A+0.6V1+0.6D1	41.77	1489.35	-603.09	-0.59	0.00	0.45
G1+G2+S+A+0.6V1+D1	41.76	1488.55	-573.32	-0.52	0.00	0.29
G1+G2+S+A+0.6V2+0.6D2	41.81	1491.97	-703.71	-0.82	0.00	0.81
G1+G2+S+A+0.6V2+D2	41.82	1492.77	-733.47	-0.89	0.00	0.97
G1+G2+S+A+0.6V3+0.6D3	42.05	1512.68	-678.27	-0.71	0.13	-187.65
G1+G2+S+A+0.6V3+D3	42.20	1521.41	-678.15	-0.71	0.20	-190.50
G1+G2+S+A+0.6V4+0.6D4	41.53	1468.63	-628.52	-0.70	-0.13	188.91
G1+G2+S+A+0.6V4+D4	41.38	1459.91	-628.64	-0.70	-0.20	191.76
G1+G2+S+A+D1	41.77	1488.66	-578.99	-0.53	0.00	0.22
G1+G2+S+A+D2	41.81	1492.65	-727.81	-0.88	0.00	1.04
G1+G2+S+A+D3	42.16	1512.48	-653.10	-0.71	0.18	-6.48
G1+G2+S+A+D4	41.42	1468.84	-653.69	-0.71	-0.18	7.74
G1+G2+S+A+V1+0.6D1	41.76	1489.27	-599.31	-0.59	0.00	0.49
G1+G2+S+A+V2+0.6D2	41.82	1492.05	-707.48	-0.82	0.00	0.76
G1+G2+S+A+V3+0.6D3	42.07	1518.64	-694.97	-0.71	0.15	-310.33
G1+G2+S+A+V4+0.6D4	41.50	1462.68	-611.82	-0.70	-0.15	311.59
G1+G2+S+D1	24.67	2687.74	-534.09	-0.53	0.00	-0.92
G1+G2+S+D2	24.72	2691.73	-682.91	-0.88	0.00	-0.10
G1+G2+S+D3	25.07	2711.56	-608.21	-0.71	0.18	-7.62
G1+G2+S+D4	24.32	2667.92	-608.80	-0.71	-0.18	6.59
G1+G2+S+Q+0.6V1+0.6D1	26.04	2705.61	-562.71	-0.59	0.00	-0.62
G1+G2+S+Q+0.6V2+0.6D2	26.09	2708.23	-663.33	-0.82	0.00	-0.26
G1+G2+S+Q+0.6V3+0.6D3	26.32	2728.94	-637.90	-0.71	0.13	-188.72
G1+G2+S+Q+0.6V4+0.6D4	25.80	2684.89	-588.15	-0.70	-0.13	187.85
G1+G2+S+Q+A+0.6V1+0.6D1	43.13	1506.53	-607.61	-0.59	0.00	0.52
G1+G2+S+Q+A+0.6V2+0.6D2	43.18	1509.15	-708.23	-0.82	0.00	0.88
G1+G2+S+Q+A+0.6V3+0.6D3	43.42	1529.86	-682.79	-0.71	0.13	-187.58
G1+G2+S+Q+A+0.6V4+0.6D4	42.90	1485.81	-633.04	-0.70	-0.13	188.99
G1+G2+S+Q+A+D1	43.14	1505.84	-583.51	-0.53	0.00	0.29
G1+G2+S+Q+A+D2	43.18	1509.83	-732.33	-0.88	0.00	1.12
G1+G2+S+Q+A+D3	43.53	1529.66	-657.62	-0.71	0.18	-6.40
G1+G2+S+Q+A+D4	42.78	1486.02	-658.21	-0.71	-0.18	7.81
G1+G2+S+Q+D1	26.04	2704.92	-538.61	-0.53	0.00	-0.85
G1+G2+S+Q+D2	26.08	2708.91	-687.43	-0.88	0.00	-0.03
G1+G2+S+Q+D3	26.44	2728.74	-612.73	-0.71	0.18	-7.54
G1+G2+S+Q+D4	25.69	2685.10	-613.32	-0.71	-0.18	6.67

Fundação B3						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	20.93	366.01	94.01	0.00	0.00	-1.66
Adicional (G2)	0.51	5.38	4.24	0.00	0.00	-0.06
Solo (S)	4.41	2300.93	-440.44	-0.71	0.00	-2.07
Acidental (Q)	1.53	15.98	12.77	0.00	0.00	-0.17
Água (A)	19.19	-1240.90	172.24	0.00	0.00	-2.45

Vento X+ (V1)	0.02	0.32	8.66	0.01	0.00	0.10
Vento X- (V2)	-0.02	-0.32	-8.66	-0.01	0.00	-0.10
Vento Y+ (V3)	0.06	15.28	-26.75	0.00	0.04	-307.58
Vento Y- (V4)	-0.06	-15.28	26.75	0.00	-0.04	307.58
Desaprumo X+ (D1)	0.02	2.84	76.86	0.19	0.00	-0.44
Desaprumo X- (D2)	-0.02	-2.84	-76.86	-0.19	0.00	0.44
Desaprumo Y+ (D3)	0.37	17.95	-2.00	0.00	0.19	-7.17
Desaprumo Y- (D4)	-0.37	-17.95	2.00	0.00	-0.19	7.17
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	26.96	2686.53	-251.20	-0.50	0.00	-4.29
G1+G2+S+0.7Q+0.6V2+D2	26.90	2680.47	-415.32	-0.91	0.00	-3.53
G1+G2+S+0.7Q+0.6V3+D3	27.33	2710.62	-351.31	-0.71	0.22	-195.63
G1+G2+S+0.7Q+0.6V4+D4	26.53	2656.38	-315.21	-0.70	-0.22	187.81
G1+G2+S+0.7Q+A+0.6V1+0.6D1	46.14	1444.50	-109.70	-0.58	0.00	-6.57
G1+G2+S+0.7Q+A+0.6V1+D1	46.15	1445.64	-78.96	-0.50	0.00	-6.74
G1+G2+S+0.7Q+A+0.6V2+0.6D2	46.10	1440.71	-212.33	-0.83	0.00	-6.16
G1+G2+S+0.7Q+A+0.6V2+D2	46.09	1439.58	-243.08	-0.91	0.00	-5.99
G1+G2+S+0.7Q+A+0.6V3+0.6D3	46.37	1462.54	-178.27	-0.71	0.14	-195.21
G1+G2+S+0.7Q+A+0.6V3+D3	46.52	1469.72	-179.07	-0.71	0.22	-198.08
G1+G2+S+0.7Q+A+0.6V4+0.6D4	45.86	1422.67	-143.76	-0.70	-0.14	182.49
G1+G2+S+0.7Q+A+0.6V4+D4	45.72	1415.49	-142.96	-0.70	-0.22	185.35
G1+G2+S+0.7Q+A+D1	46.14	1445.44	-84.16	-0.51	0.00	-6.80
G1+G2+S+0.7Q+A+D2	46.10	1439.77	-237.88	-0.90	0.00	-5.93
G1+G2+S+0.7Q+A+D3	46.49	1460.56	-163.02	-0.71	0.19	-13.53
G1+G2+S+0.7Q+A+D4	45.75	1424.65	-159.01	-0.71	-0.19	0.81
G1+G2+S+0.7Q+A+V1+0.6D1	46.15	1444.63	-106.24	-0.58	0.00	-6.53
G1+G2+S+0.7Q+A+V2+0.6D2	46.09	1440.58	-215.80	-0.83	0.00	-6.20
G1+G2+S+0.7Q+A+V3+0.6D3	46.39	1468.66	-188.97	-0.71	0.16	-318.25
G1+G2+S+0.7Q+A+V4+0.6D4	45.84	1416.56	-133.06	-0.70	-0.16	305.52
G1+G2+S+0.7Q+V1+0.6D1	26.95	2685.53	-278.48	-0.58	0.00	-4.08
G1+G2+S+0.7Q+V2+0.6D2	26.90	2681.48	-388.04	-0.83	0.00	-3.75
G1+G2+S+0.7Q+V3+0.6D3	27.20	2709.55	-361.21	-0.71	0.16	-315.80
G1+G2+S+0.7Q+V4+0.6D4	26.65	2657.45	-305.31	-0.70	-0.16	307.97
G1+G2+S+A+0.6V1+0.6D1	45.07	1433.32	-118.64	-0.58	0.00	-6.45
G1+G2+S+A+0.6V1+D1	45.07	1434.45	-87.89	-0.50	0.00	-6.62
G1+G2+S+A+0.6V2+0.6D2	45.02	1429.53	-221.27	-0.83	0.00	-6.04
G1+G2+S+A+0.6V2+D2	45.02	1428.39	-252.01	-0.91	0.00	-5.86
G1+G2+S+A+0.6V3+0.6D3	45.30	1451.36	-187.20	-0.71	0.14	-195.09
G1+G2+S+A+0.6V3+D3	45.45	1458.54	-188.01	-0.71	0.22	-197.96
G1+G2+S+A+0.6V4+0.6D4	44.79	1411.48	-152.70	-0.70	-0.14	182.61
G1+G2+S+A+0.6V4+D4	44.64	1404.30	-151.90	-0.70	-0.22	185.48
G1+G2+S+A+D1	45.06	1434.26	-93.09	-0.51	0.00	-6.68
G1+G2+S+A+D2	45.03	1428.59	-246.81	-0.90	0.00	-5.81
G1+G2+S+A+D3	45.41	1449.37	-171.96	-0.71	0.19	-13.41
G1+G2+S+A+D4	44.68	1413.47	-167.95	-0.71	-0.19	0.93
G1+G2+S+A+V1+0.6D1	45.07	1433.45	-115.17	-0.58	0.00	-6.41
G1+G2+S+A+V2+0.6D2	45.02	1429.40	-224.73	-0.83	0.00	-6.08
G1+G2+S+A+V3+0.6D3	45.32	1457.47	-197.90	-0.71	0.16	-318.12
G1+G2+S+A+V4+0.6D4	44.77	1405.37	-142.00	-0.70	-0.16	305.64
G1+G2+S+D1	25.87	2675.15	-265.33	-0.51	0.00	-4.23
G1+G2+S+D2	25.84	2669.48	-419.06	-0.90	0.00	-3.35
G1+G2+S+D3	26.22	2690.27	-344.20	-0.71	0.19	-10.96
G1+G2+S+D4	25.49	2654.37	-340.19	-0.71	-0.19	3.38
G1+G2+S+Q+0.6V1+0.6D1	27.41	2690.19	-278.12	-0.58	0.00	-4.17
G1+G2+S+Q+0.6V2+0.6D2	27.37	2686.40	-380.74	-0.83	0.00	-3.76

G1+G2+S+Q+0.6V3+0.6D3	27.64	2708.23	-346.68	-0.71	0.14	-192.81
G1+G2+S+Q+0.6V4+0.6D4	27.13	2668.36	-312.18	-0.70	-0.14	184.89
G1+G2+S+Q+A+0.6V1+0.6D1	46.60	1449.29	-105.87	-0.58	0.00	-6.62
G1+G2+S+Q+A+0.6V2+0.6D2	46.56	1445.50	-208.50	-0.83	0.00	-6.21
G1+G2+S+Q+A+0.6V3+0.6D3	46.83	1467.34	-174.44	-0.71	0.14	-195.27
G1+G2+S+Q+A+0.6V4+0.6D4	46.32	1427.46	-139.93	-0.70	-0.14	182.43
G1+G2+S+Q+A+D1	46.60	1450.24	-80.33	-0.51	0.00	-6.85
G1+G2+S+Q+A+D2	46.56	1444.56	-234.05	-0.90	0.00	-5.98
G1+G2+S+Q+A+D3	46.95	1465.35	-159.19	-0.71	0.19	-13.59
G1+G2+S+Q+A+D4	46.21	1429.45	-155.18	-0.71	-0.19	0.75
G1+G2+S+Q+D1	27.41	2691.13	-252.57	-0.51	0.00	-4.40
G1+G2+S+Q+D2	27.37	2685.46	-406.29	-0.90	0.00	-3.53
G1+G2+S+Q+D3	27.75	2706.25	-331.43	-0.71	0.19	-11.13
G1+G2+S+Q+D4	27.02	2670.34	-327.43	-0.71	-0.19	3.20

Fundação B4						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	28.25	-788.58	-29.28	0.00	0.00	0.56
Adicional (G2)	0.74	-16.24	-1.14	0.00	0.00	0.07
Solo (S)	12.14	609.23	-160.03	-0.71	0.00	14.74
Acidental (Q)	2.23	-48.71	-3.41	0.00	0.00	0.21
Água (A)	25.19	-1061.13	-88.45	0.00	0.00	21.66
Vento X+ (V1)	0.02	-2.51	-10.67	0.01	0.00	-1.04
Vento X- (V2)	-0.02	2.51	10.67	-0.01	0.00	1.04
Vento Y+ (V3)	0.62	156.22	4.47	0.00	0.04	-298.56
Vento Y- (V4)	-0.62	-156.22	-4.47	0.00	-0.04	298.56
Desaprumo X+ (D1)	0.04	-0.22	30.41	0.26	0.00	0.71
Desaprumo X- (D2)	-0.04	0.22	-30.41	-0.26	0.00	-0.71
Desaprumo Y+ (D3)	0.25	-54.57	0.49	0.00	0.26	-7.05
Desaprumo Y- (D4)	-0.25	54.57	-0.49	0.00	-0.26	7.05
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	42.75	-231.41	-168.82	-0.44	0.00	15.61
G1+G2+S+0.7Q+0.6V2+D2	42.65	-227.95	-216.83	-0.97	0.00	15.43
G1+G2+S+0.7Q+0.6V3+D3	43.33	-190.52	-189.66	-0.71	0.29	-170.66
G1+G2+S+0.7Q+0.6V4+D4	42.07	-268.84	-195.99	-0.70	-0.29	201.70
G1+G2+S+0.7Q+A+0.6V1+0.6D1	67.93	-1292.45	-269.43	-0.54	0.00	36.98
G1+G2+S+0.7Q+A+0.6V1+D1	67.94	-1292.54	-257.27	-0.44	0.00	37.27
G1+G2+S+0.7Q+A+0.6V2+0.6D2	67.85	-1289.17	-293.12	-0.87	0.00	37.38
G1+G2+S+0.7Q+A+0.6V2+D2	67.83	-1289.08	-305.28	-0.97	0.00	37.09
G1+G2+S+0.7Q+A+0.6V3+0.6D3	68.41	-1229.82	-278.30	-0.71	0.18	-146.18
G1+G2+S+0.7Q+A+0.6V3+D3	68.52	-1251.65	-278.11	-0.71	0.29	-149.00
G1+G2+S+0.7Q+A+0.6V4+0.6D4	67.36	-1351.80	-284.25	-0.70	-0.18	220.55
G1+G2+S+0.7Q+A+0.6V4+D4	67.26	-1329.97	-284.44	-0.70	-0.29	223.37
G1+G2+S+0.7Q+A+D1	67.93	-1291.03	-250.87	-0.45	0.00	37.90
G1+G2+S+0.7Q+A+D2	67.85	-1290.59	-311.68	-0.97	0.00	36.47
G1+G2+S+0.7Q+A+D3	68.14	-1345.38	-280.79	-0.71	0.26	30.13
G1+G2+S+0.7Q+A+D4	67.64	-1236.24	-281.76	-0.71	-0.26	44.23
G1+G2+S+0.7Q+A+V1+0.6D1	67.93	-1293.46	-273.70	-0.54	0.00	36.57
G1+G2+S+0.7Q+A+V2+0.6D2	67.84	-1288.16	-288.85	-0.87	0.00	37.80
G1+G2+S+0.7Q+A+V3+0.6D3	68.66	-1167.33	-276.52	-0.71	0.20	-265.60
G1+G2+S+0.7Q+A+V4+0.6D4	67.11	-1414.29	-286.03	-0.70	-0.20	339.97
G1+G2+S+0.7Q+V1+0.6D1	42.75	-232.33	-185.25	-0.54	0.00	14.90
G1+G2+S+0.7Q+V2+0.6D2	42.65	-227.04	-200.40	-0.87	0.00	16.13
G1+G2+S+0.7Q+V3+0.6D3	43.47	-106.20	-188.06	-0.71	0.20	-287.27

G1+G2+S+0.7Q+V4+0.6D4	41.92	-353.16	-197.58	-0.70	-0.20	318.31
G1+G2+S+A+0.6V1+0.6D1	66.36	-1258.35	-267.05	-0.54	0.00	36.84
G1+G2+S+A+0.6V1+D1	66.38	-1258.44	-254.89	-0.44	0.00	37.12
G1+G2+S+A+0.6V2+0.6D2	66.29	-1255.07	-290.73	-0.87	0.00	37.23
G1+G2+S+A+0.6V2+D2	66.27	-1254.98	-302.89	-0.97	0.00	36.95
G1+G2+S+A+0.6V3+0.6D3	66.85	-1195.72	-275.92	-0.71	0.18	-146.33
G1+G2+S+A+0.6V3+D3	66.95	-1217.55	-275.72	-0.71	0.29	-149.15
G1+G2+S+A+0.6V4+0.6D4	65.80	-1317.70	-281.86	-0.70	-0.18	220.40
G1+G2+S+A+0.6V4+D4	65.70	-1295.87	-282.06	-0.70	-0.29	223.22
G1+G2+S+A+D1	66.37	-1256.93	-248.48	-0.45	0.00	37.75
G1+G2+S+A+D2	66.28	-1256.49	-309.30	-0.97	0.00	36.32
G1+G2+S+A+D3	66.58	-1311.29	-278.40	-0.71	0.26	29.98
G1+G2+S+A+D4	66.07	-1202.14	-279.38	-0.71	-0.26	44.08
G1+G2+S+A+V1+0.6D1	66.37	-1259.36	-271.32	-0.54	0.00	36.42
G1+G2+S+A+V2+0.6D2	66.28	-1254.07	-286.46	-0.87	0.00	37.65
G1+G2+S+A+V3+0.6D3	67.10	-1133.23	-274.13	-0.71	0.20	-265.75
G1+G2+S+A+V4+0.6D4	65.55	-1380.19	-283.65	-0.70	-0.20	339.82
G1+G2+S+D1	41.18	-195.81	-160.03	-0.45	0.00	16.08
G1+G2+S+D2	41.09	-195.37	-220.84	-0.97	0.00	14.66
G1+G2+S+D3	41.39	-250.16	-189.95	-0.71	0.26	8.32
G1+G2+S+D4	40.88	-141.01	-190.92	-0.71	-0.26	22.42
G1+G2+S+Q+0.6V1+0.6D1	43.41	-245.94	-182.00	-0.54	0.00	15.39
G1+G2+S+Q+0.6V2+0.6D2	43.33	-242.65	-205.69	-0.87	0.00	15.78
G1+G2+S+Q+0.6V3+0.6D3	43.90	-183.30	-190.87	-0.71	0.18	-167.78
G1+G2+S+Q+0.6V4+0.6D4	42.84	-305.29	-196.82	-0.70	-0.18	198.95
G1+G2+S+Q+A+0.6V1+0.6D1	68.60	-1307.06	-270.46	-0.54	0.00	37.05
G1+G2+S+Q+A+0.6V2+0.6D2	68.52	-1303.78	-294.14	-0.87	0.00	37.44
G1+G2+S+Q+A+0.6V3+0.6D3	69.08	-1244.43	-279.33	-0.71	0.18	-146.12
G1+G2+S+Q+A+0.6V4+0.6D4	68.03	-1366.41	-285.27	-0.70	-0.18	220.61
G1+G2+S+Q+A+D1	68.60	-1305.64	-251.89	-0.45	0.00	37.96
G1+G2+S+Q+A+D2	68.52	-1305.20	-312.70	-0.97	0.00	36.53
G1+G2+S+Q+A+D3	68.81	-1359.99	-281.81	-0.71	0.26	30.20
G1+G2+S+Q+A+D4	68.31	-1250.85	-282.78	-0.71	-0.26	44.30
G1+G2+S+Q+D1	43.41	-244.52	-163.44	-0.45	0.00	16.30
G1+G2+S+Q+D2	43.33	-244.07	-224.25	-0.97	0.00	14.87
G1+G2+S+Q+D3	43.62	-298.87	-193.36	-0.71	0.26	8.53
G1+G2+S+Q+D4	43.12	-189.72	-194.33	-0.71	-0.26	22.63

Fundação B5						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	13.08	-251.61	-189.32	0.00	0.00	10.68
Adicional (G2)	0.23	-2.99	-4.50	0.00	0.00	0.21
Solo (S)	2.87	160.74	-279.94	-0.71	0.00	22.98
Acidental (Q)	0.69	-8.98	-13.50	0.00	0.00	0.64
Água (A)	6.85	-174.45	-54.77	0.00	0.00	-26.42
Vento X+ (V1)	0.04	4.39	-7.37	0.01	0.00	-0.41
Vento X- (V2)	-0.04	-4.39	7.37	-0.01	0.00	0.41
Vento Y+ (V3)	0.43	42.65	-8.42	0.00	0.05	-288.19
Vento Y- (V4)	-0.43	-42.65	8.42	0.00	-0.05	288.19
Desaprumo X+ (D1)	0.12	2.08	11.03	0.10	0.00	0.61
Desaprumo X- (D2)	-0.12	-2.08	-11.03	-0.10	0.00	-0.61
Desaprumo Y+ (D3)	0.16	-22.31	-3.57	0.00	0.10	-6.51
Desaprumo Y- (D4)	-0.16	22.31	3.57	0.00	-0.10	6.51
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00

G1+G2+S+0.7Q+0.6V1+D1	16.81	-95.43	-476.60	-0.60	0.00	34.69
G1+G2+S+0.7Q+0.6V2+D2	16.51	-104.86	-489.82	-0.81	0.00	33.96
G1+G2+S+0.7Q+0.6V3+D3	17.08	-96.87	-491.83	-0.71	0.13	-145.10
G1+G2+S+0.7Q+0.6V4+D4	16.25	-103.43	-474.59	-0.70	-0.13	213.75
G1+G2+S+0.7Q+A+0.6V1+0.6D1	23.61	-270.71	-535.79	-0.64	0.00	8.03
G1+G2+S+0.7Q+A+0.6V1+D1	23.66	-269.88	-531.37	-0.60	0.00	8.28
G1+G2+S+0.7Q+A+0.6V2+0.6D2	23.41	-278.48	-540.17	-0.77	0.00	7.79
G1+G2+S+0.7Q+A+0.6V2+D2	23.36	-279.31	-544.59	-0.81	0.00	7.54
G1+G2+S+0.7Q+A+0.6V3+0.6D3	23.87	-262.39	-545.18	-0.71	0.09	-168.91
G1+G2+S+0.7Q+A+0.6V3+D3	23.93	-271.32	-546.61	-0.71	0.13	-171.51
G1+G2+S+0.7Q+A+0.6V4+0.6D4	23.16	-286.80	-530.79	-0.70	-0.09	184.73
G1+G2+S+0.7Q+A+0.6V4+D4	23.10	-277.88	-529.36	-0.70	-0.13	187.33
G1+G2+S+0.7Q+A+D1	23.64	-272.51	-526.95	-0.61	0.00	8.52
G1+G2+S+0.7Q+A+D2	23.39	-276.68	-549.01	-0.80	0.00	7.30
G1+G2+S+0.7Q+A+D3	23.67	-296.90	-541.55	-0.71	0.10	1.40
G1+G2+S+0.7Q+A+D4	23.36	-252.29	-534.41	-0.71	-0.10	14.42
G1+G2+S+0.7Q+A+V1+0.6D1	23.63	-268.95	-538.73	-0.64	0.00	7.87
G1+G2+S+0.7Q+A+V2+0.6D2	23.40	-280.24	-537.23	-0.78	0.00	7.95
G1+G2+S+0.7Q+A+V3+0.6D3	24.04	-245.33	-548.54	-0.71	0.10	-284.19
G1+G2+S+0.7Q+A+V4+0.6D4	22.99	-303.86	-527.42	-0.70	-0.10	300.01
G1+G2+S+0.7Q+V1+0.6D1	16.77	-94.51	-483.96	-0.64	0.00	34.29
G1+G2+S+0.7Q+V2+0.6D2	16.55	-105.79	-482.46	-0.78	0.00	34.36
G1+G2+S+0.7Q+V3+0.6D3	17.19	-70.89	-493.77	-0.71	0.10	-257.77
G1+G2+S+0.7Q+V4+0.6D4	16.13	-129.41	-472.65	-0.70	-0.10	326.42
G1+G2+S+A+0.6V1+0.6D1	23.13	-264.42	-526.34	-0.64	0.00	7.58
G1+G2+S+A+0.6V1+D1	23.18	-263.59	-521.92	-0.60	0.00	7.83
G1+G2+S+A+0.6V2+0.6D2	22.93	-272.19	-530.72	-0.77	0.00	7.34
G1+G2+S+A+0.6V2+D2	22.88	-273.03	-535.14	-0.81	0.00	7.09
G1+G2+S+A+0.6V3+0.6D3	23.38	-256.11	-535.73	-0.71	0.09	-169.36
G1+G2+S+A+0.6V3+D3	23.44	-265.03	-537.15	-0.71	0.13	-171.96
G1+G2+S+A+0.6V4+0.6D4	22.68	-280.51	-521.33	-0.70	-0.09	184.28
G1+G2+S+A+0.6V4+D4	22.61	-271.59	-519.91	-0.70	-0.13	186.88
G1+G2+S+A+D1	23.15	-266.23	-517.50	-0.61	0.00	8.07
G1+G2+S+A+D2	22.90	-270.39	-539.56	-0.80	0.00	6.85
G1+G2+S+A+D3	23.18	-290.62	-532.10	-0.71	0.10	0.95
G1+G2+S+A+D4	22.87	-246.00	-524.96	-0.71	-0.10	13.97
G1+G2+S+A+V1+0.6D1	23.14	-262.67	-529.28	-0.64	0.00	7.42
G1+G2+S+A+V2+0.6D2	22.91	-273.95	-527.78	-0.78	0.00	7.50
G1+G2+S+A+V3+0.6D3	23.55	-239.05	-539.09	-0.71	0.10	-284.64
G1+G2+S+A+V4+0.6D4	22.50	-297.57	-517.97	-0.70	-0.10	299.56
G1+G2+S+D1	16.30	-91.78	-462.73	-0.61	0.00	34.49
G1+G2+S+D2	16.05	-95.94	-484.79	-0.80	0.00	33.27
G1+G2+S+D3	16.33	-116.17	-477.33	-0.71	0.10	27.37
G1+G2+S+D4	16.02	-71.55	-470.19	-0.71	-0.10	40.39
G1+G2+S+Q+0.6V1+0.6D1	16.97	-98.96	-485.07	-0.64	0.00	34.64
G1+G2+S+Q+0.6V2+0.6D2	16.77	-106.73	-489.45	-0.77	0.00	34.39
G1+G2+S+Q+0.6V3+0.6D3	17.22	-90.64	-494.46	-0.71	0.09	-142.30
G1+G2+S+Q+0.6V4+0.6D4	16.51	-115.04	-480.06	-0.70	-0.09	211.34
G1+G2+S+Q+A+0.6V1+0.6D1	23.82	-273.41	-539.84	-0.64	0.00	8.23
G1+G2+S+Q+A+0.6V2+0.6D2	23.62	-281.17	-544.23	-0.77	0.00	7.98
G1+G2+S+Q+A+0.6V3+0.6D3	24.07	-265.09	-549.23	-0.71	0.09	-168.72
G1+G2+S+Q+A+0.6V4+0.6D4	23.37	-289.49	-534.84	-0.70	-0.09	184.92
G1+G2+S+Q+A+D1	23.84	-275.21	-531.00	-0.61	0.00	8.71
G1+G2+S+Q+A+D2	23.60	-279.37	-553.06	-0.80	0.00	7.49
G1+G2+S+Q+A+D3	23.88	-299.60	-545.60	-0.71	0.10	1.59
G1+G2+S+Q+A+D4	23.56	-254.98	-538.46	-0.71	-0.10	14.61
G1+G2+S+Q+D1	16.99	-100.76	-476.23	-0.61	0.00	35.13
G1+G2+S+Q+D2	16.74	-104.92	-498.29	-0.80	0.00	33.91

G1+G2+S+Q+D3	17.02	-125.15	-490.83	-0.71	0.10	28.01
G1+G2+S+Q+D4	16.71	-80.53	-483.69	-0.71	-0.10	41.03

Fundação B6						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	14.92	-1.25	390.38	0.00	0.00	0.10
Adicional (G2)	0.35	0.00	6.23	0.00	0.00	0.00
Solo (S)	6.82	3.03	2199.42	-0.71	0.00	0.15
Acidental (Q)	1.05	-0.01	18.57	0.00	0.00	0.01
Água (A)	13.09	-2.15	-728.10	0.00	0.00	0.04
Vento X+ (V1)	-0.05	-0.04	-6.06	0.01	0.00	0.00
Vento X- (V2)	0.05	0.04	6.06	-0.01	0.00	0.00
Vento Y+ (V3)	0.00	-16.68	0.01	0.00	0.04	-305.48
Vento Y- (V4)	0.00	16.68	-0.01	0.00	-0.04	305.48
Desaprumo X+ (D1)	-0.30	-0.01	-36.36	0.14	0.00	0.00
Desaprumo X- (D2)	0.30	0.01	36.36	-0.14	0.00	0.00
Desaprumo Y+ (D3)	0.00	-60.20	0.00	0.00	0.14	-7.36
Desaprumo Y- (D4)	0.00	60.20	0.00	0.00	-0.14	7.36
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	22.50	1.73	2569.04	-0.56	0.00	0.26
G1+G2+S+0.7Q+0.6V2+D2	23.16	1.79	2649.02	-0.85	0.00	0.26
G1+G2+S+0.7Q+0.6V3+D3	22.83	-68.45	2609.04	-0.71	0.16	-190.39
G1+G2+S+0.7Q+0.6V4+D4	22.83	71.97	2609.01	-0.71	-0.16	190.91
G1+G2+S+0.7Q+A+0.6V1+0.6D1	35.72	-0.42	1855.48	-0.62	0.00	0.30
G1+G2+S+0.7Q+A+0.6V1+D1	35.60	-0.42	1840.94	-0.56	0.00	0.30
G1+G2+S+0.7Q+A+0.6V2+0.6D2	36.13	-0.37	1906.37	-0.79	0.00	0.31
G1+G2+S+0.7Q+A+0.6V2+D2	36.25	-0.36	1920.92	-0.85	0.00	0.31
G1+G2+S+0.7Q+A+0.6V3+0.6D3	35.92	-46.52	1880.94	-0.71	0.10	-187.40
G1+G2+S+0.7Q+A+0.6V3+D3	35.92	-70.60	1880.94	-0.71	0.16	-190.35
G1+G2+S+0.7Q+A+0.6V4+0.6D4	35.93	45.74	1880.92	-0.71	-0.10	188.01
G1+G2+S+0.7Q+A+0.6V4+D4	35.93	69.82	1880.92	-0.71	-0.16	190.95
G1+G2+S+0.7Q+A+D1	35.63	-0.40	1844.57	-0.57	0.00	0.30
G1+G2+S+0.7Q+A+D2	36.22	-0.39	1917.28	-0.84	0.00	0.31
G1+G2+S+0.7Q+A+D3	35.92	-60.60	1880.93	-0.71	0.14	-7.06
G1+G2+S+0.7Q+A+D4	35.93	59.81	1880.92	-0.71	-0.14	7.66
G1+G2+S+0.7Q+A+V1+0.6D1	35.69	-0.44	1853.06	-0.61	0.00	0.30
G1+G2+S+0.7Q+A+V2+0.6D2	36.16	-0.35	1908.80	-0.80	0.00	0.31
G1+G2+S+0.7Q+A+V3+0.6D3	35.92	-53.20	1880.94	-0.71	0.12	-309.59
G1+G2+S+0.7Q+A+V4+0.6D4	35.93	52.41	1880.91	-0.71	-0.12	310.20
G1+G2+S+0.7Q+V1+0.6D1	22.60	1.72	2581.16	-0.61	0.00	0.26
G1+G2+S+0.7Q+V2+0.6D2	23.06	1.80	2636.90	-0.80	0.00	0.26
G1+G2+S+0.7Q+V3+0.6D3	22.83	-51.04	2609.04	-0.71	0.12	-309.64
G1+G2+S+0.7Q+V4+0.6D4	22.83	54.56	2609.01	-0.71	-0.12	310.16
G1+G2+S+A+0.6V1+0.6D1	34.98	-0.41	1842.48	-0.62	0.00	0.30
G1+G2+S+A+0.6V1+D1	34.86	-0.41	1827.94	-0.56	0.00	0.30
G1+G2+S+A+0.6V2+0.6D2	35.40	-0.36	1893.37	-0.79	0.00	0.30
G1+G2+S+A+0.6V2+D2	35.52	-0.35	1907.92	-0.85	0.00	0.30
G1+G2+S+A+0.6V3+0.6D3	35.19	-46.51	1867.94	-0.71	0.10	-187.41
G1+G2+S+A+0.6V3+D3	35.19	-70.60	1867.94	-0.71	0.16	-190.35
G1+G2+S+A+0.6V4+0.6D4	35.19	45.75	1867.92	-0.71	-0.10	188.00
G1+G2+S+A+0.6V4+D4	35.19	69.83	1867.92	-0.71	-0.16	190.95
G1+G2+S+A+D1	34.89	-0.39	1831.57	-0.57	0.00	0.30
G1+G2+S+A+D2	35.48	-0.38	1904.28	-0.84	0.00	0.30
G1+G2+S+A+D3	35.19	-60.59	1867.93	-0.71	0.14	-7.06

G1+G2+S+A+D4	35.19	59.82	1867.92	-0.71	-0.14	7.66
G1+G2+S+A+V1+0.6D1	34.96	-0.43	1840.06	-0.61	0.00	0.30
G1+G2+S+A+V2+0.6D2	35.42	-0.34	1895.80	-0.80	0.00	0.30
G1+G2+S+A+V3+0.6D3	35.19	-53.19	1867.94	-0.71	0.12	-309.60
G1+G2+S+A+V4+0.6D4	35.19	52.42	1867.91	-0.71	-0.12	310.20
G1+G2+S+D1	21.80	1.76	2559.67	-0.57	0.00	0.25
G1+G2+S+D2	22.39	1.78	2632.38	-0.84	0.00	0.25
G1+G2+S+D3	22.09	-58.43	2596.03	-0.71	0.14	-7.11
G1+G2+S+D4	22.09	61.97	2596.02	-0.71	-0.14	7.61
G1+G2+S+Q+0.6V1+0.6D1	22.94	1.73	2589.15	-0.62	0.00	0.26
G1+G2+S+Q+0.6V2+0.6D2	23.36	1.78	2640.04	-0.79	0.00	0.26
G1+G2+S+Q+0.6V3+0.6D3	23.15	-44.37	2614.61	-0.71	0.10	-187.44
G1+G2+S+Q+0.6V4+0.6D4	23.15	47.89	2614.59	-0.71	-0.10	187.97
G1+G2+S+Q+A+0.6V1+0.6D1	36.03	-0.43	1861.05	-0.62	0.00	0.31
G1+G2+S+Q+A+0.6V2+0.6D2	36.45	-0.37	1911.94	-0.79	0.00	0.31
G1+G2+S+Q+A+0.6V3+0.6D3	36.24	-46.53	1886.51	-0.71	0.10	-187.40
G1+G2+S+Q+A+0.6V4+0.6D4	36.24	45.73	1886.49	-0.71	-0.10	188.01
G1+G2+S+Q+A+D1	35.94	-0.40	1850.14	-0.57	0.00	0.31
G1+G2+S+Q+A+D2	36.54	-0.39	1922.85	-0.84	0.00	0.31
G1+G2+S+Q+A+D3	36.24	-60.60	1886.50	-0.71	0.14	-7.05
G1+G2+S+Q+A+D4	36.24	59.81	1886.49	-0.71	-0.14	7.67
G1+G2+S+Q+D1	22.85	1.75	2578.24	-0.57	0.00	0.26
G1+G2+S+Q+D2	23.44	1.76	2650.95	-0.84	0.00	0.26
G1+G2+S+Q+D3	23.15	-58.45	2614.60	-0.71	0.14	-7.10
G1+G2+S+Q+D4	23.15	61.96	2614.59	-0.71	-0.14	7.62

Fundação B10

Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	15.05	0.68	-553.91	0.00	0.00	-0.11
Adicional (G2)	0.28	0.08	-11.56	0.00	0.00	-0.01
Solo (S)	-1.02	-7.29	-1553.95	-0.71	0.00	-0.61
Acidental (Q)	0.85	0.24	-34.68	0.00	0.00	-0.02
Água (A)	12.64	1.92	952.05	0.00	0.00	0.06
Vento X+ (V1)	0.07	0.11	-4.57	0.01	0.00	0.00
Vento X- (V2)	-0.07	-0.11	4.57	-0.01	0.00	0.00
Vento Y+ (V3)	0.00	-73.14	0.04	0.00	0.05	-307.63
Vento Y- (V4)	0.00	73.14	-0.04	0.00	-0.05	307.63
Desaprumo X+ (D1)	0.29	0.00	-1.45	0.13	0.00	0.00
Desaprumo X- (D2)	-0.29	0.00	1.45	-0.13	0.00	0.00
Desaprumo Y+ (D3)	0.00	-49.31	0.01	0.00	0.13	-6.94
Desaprumo Y- (D4)	0.00	49.31	-0.01	0.00	-0.13	6.94
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	15.24	-6.29	-2147.89	-0.57	0.00	-0.74
G1+G2+S+0.7Q+0.6V2+D2	14.58	-6.43	-2139.50	-0.85	0.00	-0.74
G1+G2+S+0.7Q+0.6V3+D3	14.91	-99.56	-2143.66	-0.71	0.16	-192.25
G1+G2+S+0.7Q+0.6V4+D4	14.91	86.84	-2143.73	-0.71	-0.16	190.78
G1+G2+S+0.7Q+A+0.6V1+0.6D1	27.77	-4.37	-1195.26	-0.62	0.00	-0.68
G1+G2+S+0.7Q+A+0.6V1+D1	27.88	-4.37	-1195.84	-0.57	0.00	-0.68
G1+G2+S+0.7Q+A+0.6V2+0.6D2	27.34	-4.51	-1188.03	-0.79	0.00	-0.68
G1+G2+S+0.7Q+A+0.6V2+D2	27.22	-4.51	-1187.45	-0.85	0.00	-0.68
G1+G2+S+0.7Q+A+0.6V3+0.6D3	27.55	-77.91	-1191.61	-0.71	0.11	-189.42
G1+G2+S+0.7Q+A+0.6V3+D3	27.55	-97.64	-1191.61	-0.71	0.16	-192.20
G1+G2+S+0.7Q+A+0.6V4+0.6D4	27.55	69.03	-1191.67	-0.71	-0.11	188.06
G1+G2+S+0.7Q+A+0.6V4+D4	27.55	88.76	-1191.68	-0.71	-0.16	190.83

G1+G2+S+0.7Q+A+D1	27.84	-4.44	-1193.10	-0.57	0.00	-0.68
G1+G2+S+0.7Q+A+D2	27.26	-4.44	-1190.19	-0.84	0.00	-0.68
G1+G2+S+0.7Q+A+D3	27.55	-53.75	-1191.63	-0.71	0.13	-7.62
G1+G2+S+0.7Q+A+D4	27.55	44.87	-1191.66	-0.71	-0.13	6.25
G1+G2+S+0.7Q+A+V1+0.6D1	27.79	-4.33	-1197.08	-0.61	0.00	-0.68
G1+G2+S+0.7Q+A+V2+0.6D2	27.31	-4.55	-1186.21	-0.80	0.00	-0.68
G1+G2+S+0.7Q+A+V3+0.6D3	27.55	-107.17	-1191.60	-0.71	0.13	-312.47
G1+G2+S+0.7Q+A+V4+0.6D4	27.56	98.29	-1191.69	-0.71	-0.13	311.11
G1+G2+S+0.7Q+V1+0.6D1	15.15	-6.24	-2149.13	-0.62	0.00	-0.74
G1+G2+S+0.7Q+V2+0.6D2	14.67	-6.47	-2138.26	-0.80	0.00	-0.74
G1+G2+S+0.7Q+V3+0.6D3	14.91	-109.09	-2143.65	-0.71	0.13	-312.53
G1+G2+S+0.7Q+V4+0.6D4	14.92	96.37	-2143.74	-0.71	-0.13	311.05
G1+G2+S+A+0.6V1+0.6D1	27.17	-4.54	-1170.98	-0.62	0.00	-0.67
G1+G2+S+A+0.6V1+D1	27.28	-4.54	-1171.56	-0.57	0.00	-0.67
G1+G2+S+A+0.6V2+0.6D2	26.74	-4.68	-1163.75	-0.79	0.00	-0.67
G1+G2+S+A+0.6V2+D2	26.62	-4.68	-1163.17	-0.85	0.00	-0.67
G1+G2+S+A+0.6V3+0.6D3	26.95	-78.08	-1167.34	-0.71	0.11	-189.41
G1+G2+S+A+0.6V3+D3	26.95	-97.81	-1167.33	-0.71	0.16	-192.19
G1+G2+S+A+0.6V4+0.6D4	26.96	68.86	-1167.40	-0.71	-0.11	188.07
G1+G2+S+A+0.6V4+D4	26.96	88.59	-1167.40	-0.71	-0.16	190.84
G1+G2+S+A+D1	27.24	-4.61	-1168.82	-0.57	0.00	-0.67
G1+G2+S+A+D2	26.66	-4.61	-1165.91	-0.84	0.00	-0.67
G1+G2+S+A+D3	26.95	-53.92	-1167.35	-0.71	0.13	-7.61
G1+G2+S+A+D4	26.95	44.70	-1167.38	-0.71	-0.13	6.26
G1+G2+S+A+V1+0.6D1	27.19	-4.50	-1172.80	-0.61	0.00	-0.67
G1+G2+S+A+V2+0.6D2	26.71	-4.72	-1161.93	-0.80	0.00	-0.67
G1+G2+S+A+V3+0.6D3	26.95	-107.34	-1167.32	-0.71	0.13	-312.46
G1+G2+S+A+V4+0.6D4	26.96	98.12	-1167.41	-0.71	-0.13	311.12
G1+G2+S+D1	14.60	-6.52	-2120.87	-0.57	0.00	-0.73
G1+G2+S+D2	14.02	-6.53	-2117.96	-0.84	0.00	-0.73
G1+G2+S+D3	14.31	-55.84	-2119.41	-0.71	0.13	-7.66
G1+G2+S+D4	14.31	42.78	-2119.43	-0.71	-0.13	6.21
G1+G2+S+Q+0.6V1+0.6D1	15.38	-6.22	-2157.71	-0.62	0.00	-0.74
G1+G2+S+Q+0.6V2+0.6D2	14.95	-6.36	-2150.49	-0.79	0.00	-0.74
G1+G2+S+Q+0.6V3+0.6D3	15.16	-79.76	-2154.07	-0.71	0.11	-189.48
G1+G2+S+Q+0.6V4+0.6D4	15.17	67.19	-2154.13	-0.71	-0.11	188.00
G1+G2+S+Q+A+0.6V1+0.6D1	28.02	-4.30	-1205.66	-0.62	0.00	-0.69
G1+G2+S+Q+A+0.6V2+0.6D2	27.59	-4.44	-1198.44	-0.79	0.00	-0.69
G1+G2+S+Q+A+0.6V3+0.6D3	27.80	-77.84	-1202.02	-0.71	0.11	-189.43
G1+G2+S+Q+A+0.6V4+0.6D4	27.81	69.10	-1202.08	-0.71	-0.11	188.05
G1+G2+S+Q+A+D1	28.10	-4.36	-1203.50	-0.57	0.00	-0.69
G1+G2+S+Q+A+D2	27.52	-4.37	-1200.60	-0.84	0.00	-0.69
G1+G2+S+Q+A+D3	27.81	-53.68	-1202.04	-0.71	0.13	-7.62
G1+G2+S+Q+A+D4	27.81	44.94	-1202.06	-0.71	-0.13	6.25
G1+G2+S+Q+D1	15.46	-6.28	-2155.55	-0.57	0.00	-0.74
G1+G2+S+Q+D2	14.88	-6.29	-2152.65	-0.84	0.00	-0.74
G1+G2+S+Q+D3	15.17	-55.60	-2154.09	-0.71	0.13	-7.68
G1+G2+S+Q+D4	15.17	43.03	-2154.11	-0.71	-0.13	6.19

Fundação B11						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	14.10	327.41	200.08	0.00	0.00	8.72
Adicional (G2)	0.29	5.45	4.91	0.00	0.00	0.16
Solo (S)	8.65	-266.02	81.39	-0.71	0.00	17.97
Acidental (Q)	0.88	16.37	14.73	0.00	0.00	0.49
Água (A)	7.53	425.64	114.38	0.00	0.00	9.85
Vento X+ (V1)	-0.07	1.92	-8.56	0.01	0.00	0.33

Vento X- (V2)	0.07	-1.92	8.56	-0.01	0.00	-0.33
Vento Y+ (V3)	-0.77	76.15	-4.72	0.00	0.04	-284.75
Vento Y- (V4)	0.77	-76.15	4.72	0.00	-0.04	284.75
Desaprumo X+ (D1)	-0.12	2.13	11.53	0.11	0.00	-0.71
Desaprumo X- (D2)	0.12	-2.13	-11.53	-0.11	0.00	0.71
Desaprumo Y+ (D3)	-0.20	-26.14	-3.38	0.00	0.11	-6.62
Desaprumo Y- (D4)	0.20	26.14	3.38	0.00	-0.11	6.62
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	23.51	81.57	303.08	-0.59	0.00	26.69
G1+G2+S+0.7Q+0.6V2+D2	23.82	75.01	290.30	-0.82	0.00	27.71
G1+G2+S+0.7Q+0.6V3+D3	23.00	97.84	290.48	-0.70	0.13	-150.26
G1+G2+S+0.7Q+0.6V4+D4	24.33	58.74	302.89	-0.71	-0.13	204.66
G1+G2+S+0.7Q+A+0.6V1+0.6D1	31.08	506.36	412.84	-0.64	0.00	36.82
G1+G2+S+0.7Q+A+0.6V1+D1	31.03	507.22	417.45	-0.59	0.00	36.54
G1+G2+S+0.7Q+A+0.6V2+0.6D2	31.30	501.51	409.28	-0.78	0.00	37.27
G1+G2+S+0.7Q+A+0.6V2+D2	31.35	500.65	404.67	-0.82	0.00	37.56
G1+G2+S+0.7Q+A+0.6V3+0.6D3	30.61	533.94	406.21	-0.70	0.09	-137.77
G1+G2+S+0.7Q+A+0.6V3+D3	30.53	523.48	404.86	-0.70	0.13	-140.41
G1+G2+S+0.7Q+A+0.6V4+0.6D4	31.78	473.93	415.92	-0.71	-0.09	211.87
G1+G2+S+0.7Q+A+0.6V4+D4	31.86	484.39	417.27	-0.71	-0.13	214.51
G1+G2+S+0.7Q+A+D1	31.08	506.07	422.59	-0.60	0.00	36.34
G1+G2+S+0.7Q+A+D2	31.31	501.80	399.54	-0.81	0.00	37.76
G1+G2+S+0.7Q+A+D3	30.99	477.79	407.69	-0.71	0.11	30.43
G1+G2+S+0.7Q+A+D4	31.39	530.08	414.44	-0.71	-0.11	43.66
G1+G2+S+0.7Q+A+V1+0.6D1	31.05	507.13	409.42	-0.63	0.00	36.96
G1+G2+S+0.7Q+A+V2+0.6D2	31.33	500.74	412.71	-0.78	0.00	37.14
G1+G2+S+0.7Q+A+V3+0.6D3	30.30	564.40	404.32	-0.70	0.10	-251.67
G1+G2+S+0.7Q+A+V4+0.6D4	32.08	443.47	417.80	-0.71	-0.10	325.76
G1+G2+S+0.7Q+V1+0.6D1	23.52	81.49	295.04	-0.63	0.00	27.11
G1+G2+S+0.7Q+V2+0.6D2	23.80	75.10	298.33	-0.78	0.00	27.29
G1+G2+S+0.7Q+V3+0.6D3	22.77	138.76	289.94	-0.70	0.10	-261.51
G1+G2+S+0.7Q+V4+0.6D4	24.56	17.83	303.43	-0.71	-0.10	315.91
G1+G2+S+A+0.6V1+0.6D1	30.47	494.91	402.53	-0.64	0.00	36.48
G1+G2+S+A+0.6V1+D1	30.42	495.76	407.14	-0.59	0.00	36.20
G1+G2+S+A+0.6V2+0.6D2	30.69	490.05	398.97	-0.78	0.00	36.93
G1+G2+S+A+0.6V2+D2	30.74	489.20	394.36	-0.82	0.00	37.21
G1+G2+S+A+0.6V3+0.6D3	29.99	522.48	395.89	-0.70	0.09	-138.11
G1+G2+S+A+0.6V3+D3	29.91	512.03	394.54	-0.70	0.13	-140.76
G1+G2+S+A+0.6V4+0.6D4	31.16	462.47	405.61	-0.71	-0.09	211.52
G1+G2+S+A+0.6V4+D4	31.24	472.93	406.96	-0.71	-0.13	214.17
G1+G2+S+A+D1	30.46	494.61	412.28	-0.60	0.00	36.00
G1+G2+S+A+D2	30.69	490.35	389.22	-0.81	0.00	37.41
G1+G2+S+A+D3	30.38	466.34	397.37	-0.71	0.11	30.09
G1+G2+S+A+D4	30.78	518.62	404.13	-0.71	-0.11	43.32
G1+G2+S+A+V1+0.6D1	30.44	495.67	399.11	-0.63	0.00	36.62
G1+G2+S+A+V2+0.6D2	30.72	489.28	402.39	-0.78	0.00	36.80
G1+G2+S+A+V3+0.6D3	29.69	552.94	394.01	-0.70	0.10	-252.01
G1+G2+S+A+V4+0.6D4	31.47	432.01	407.49	-0.71	-0.10	325.42
G1+G2+S+D1	22.93	68.97	297.90	-0.60	0.00	26.15
G1+G2+S+D2	23.17	64.70	274.85	-0.81	0.00	27.56
G1+G2+S+D3	22.85	40.69	283.00	-0.71	0.11	20.24
G1+G2+S+D4	23.25	92.98	289.75	-0.71	-0.11	33.47
G1+G2+S+Q+0.6V1+0.6D1	23.81	85.63	302.88	-0.64	0.00	27.12
G1+G2+S+Q+0.6V2+0.6D2	24.04	80.77	299.33	-0.78	0.00	27.57
G1+G2+S+Q+0.6V3+0.6D3	23.34	113.21	296.25	-0.70	0.09	-147.47

G1+G2+S+Q+0.6V4+0.6D4	24.51	53.20	305.96	-0.71	-0.09	202.16
G1+G2+S+Q+A+0.6V1+0.6D1	31.34	511.27	417.26	-0.64	0.00	36.97
G1+G2+S+Q+A+0.6V2+0.6D2	31.57	506.42	413.70	-0.78	0.00	37.42
G1+G2+S+Q+A+0.6V3+0.6D3	30.87	538.85	410.63	-0.70	0.09	-137.62
G1+G2+S+Q+A+0.6V4+0.6D4	32.04	478.84	420.34	-0.71	-0.09	212.01
G1+G2+S+Q+A+D1	31.34	510.98	427.01	-0.60	0.00	36.49
G1+G2+S+Q+A+D2	31.57	506.71	403.95	-0.81	0.00	37.90
G1+G2+S+Q+A+D3	31.25	482.70	412.11	-0.71	0.11	30.58
G1+G2+S+Q+A+D4	31.66	534.99	418.86	-0.71	-0.11	43.81
G1+G2+S+Q+D1	23.81	85.33	312.63	-0.60	0.00	26.64
G1+G2+S+Q+D2	24.04	81.07	289.58	-0.81	0.00	28.05
G1+G2+S+Q+D3	23.72	57.06	297.73	-0.71	0.11	20.73
G1+G2+S+Q+D4	24.13	109.34	304.48	-0.71	-0.11	33.96

Fundação B12						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	19.44	-375.80	-24.86	0.00	0.00	-0.64
Adicional (G2)	0.46	-5.78	-1.41	0.00	0.00	-0.02
Solo (S)	4.94	-2307.37	-580.78	-0.71	0.00	1.80
Acidental (Q)	1.37	-17.19	-4.27	0.00	0.00	-0.05
Água (A)	17.06	1198.12	-42.12	0.00	0.00	-1.15
Vento X+ (V1)	-0.02	0.17	9.48	0.01	0.00	-0.12
Vento X- (V2)	0.02	-0.17	-9.48	-0.01	0.00	0.12
Vento Y+ (V3)	-0.06	14.88	41.99	0.00	0.04	-306.70
Vento Y- (V4)	0.06	-14.88	-41.99	0.00	-0.04	306.70
Desaprumo X+ (D1)	-0.02	1.99	74.41	0.18	0.00	0.41
Desaprumo X- (D2)	0.02	-1.99	-74.41	-0.18	0.00	-0.41
Desaprumo Y+ (D3)	-0.37	21.83	-0.23	0.00	0.18	-7.11
Desaprumo Y- (D4)	0.37	-21.83	0.23	0.00	-0.18	7.11
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	25.76	-2698.89	-529.93	-0.52	0.00	1.45
G1+G2+S+0.7Q+0.6V2+D2	25.83	-2703.09	-690.13	-0.89	0.00	0.77
G1+G2+S+0.7Q+0.6V3+D3	25.39	-2670.23	-585.07	-0.70	0.20	-190.02
G1+G2+S+0.7Q+0.6V4+D4	26.21	-2731.75	-634.99	-0.71	-0.20	192.24
G1+G2+S+0.7Q+A+0.6V1+0.6D1	42.84	-1501.57	-601.81	-0.59	0.00	0.14
G1+G2+S+0.7Q+A+0.6V1+D1	42.83	-1500.77	-572.05	-0.52	0.00	0.30
G1+G2+S+0.7Q+A+0.6V2+0.6D2	42.88	-1504.17	-702.49	-0.82	0.00	-0.22
G1+G2+S+0.7Q+A+0.6V2+D2	42.89	-1504.96	-732.25	-0.89	0.00	-0.38
G1+G2+S+0.7Q+A+0.6V3+0.6D3	42.60	-1480.84	-627.10	-0.70	0.13	-188.33
G1+G2+S+0.7Q+A+0.6V3+D3	42.45	-1472.11	-627.19	-0.70	0.20	-191.17
G1+G2+S+0.7Q+A+0.6V4+0.6D4	43.12	-1524.89	-677.20	-0.71	-0.13	188.25
G1+G2+S+0.7Q+A+0.6V4+D4	43.27	-1533.63	-677.11	-0.71	-0.20	191.09
G1+G2+S+0.7Q+A+D1	42.84	-1500.87	-577.74	-0.53	0.00	0.37
G1+G2+S+0.7Q+A+D2	42.88	-1504.86	-726.56	-0.88	0.00	-0.45
G1+G2+S+0.7Q+A+D3	42.49	-1481.03	-652.38	-0.71	0.18	-7.15
G1+G2+S+0.7Q+A+D4	43.23	-1524.70	-651.92	-0.71	-0.18	7.07
G1+G2+S+0.7Q+A+V1+0.6D1	42.83	-1501.50	-598.02	-0.59	0.00	0.09
G1+G2+S+0.7Q+A+V2+0.6D2	42.89	-1504.24	-706.28	-0.82	0.00	-0.17
G1+G2+S+0.7Q+A+V3+0.6D3	42.57	-1474.89	-610.30	-0.70	0.15	-311.01
G1+G2+S+0.7Q+A+V4+0.6D4	43.14	-1530.85	-694.00	-0.71	-0.15	310.93
G1+G2+S+0.7Q+V1+0.6D1	25.77	-2699.62	-555.90	-0.59	0.00	1.24
G1+G2+S+0.7Q+V2+0.6D2	25.83	-2702.36	-664.16	-0.82	0.00	0.98
G1+G2+S+0.7Q+V3+0.6D3	25.51	-2673.01	-568.18	-0.70	0.15	-309.86
G1+G2+S+0.7Q+V4+0.6D4	26.08	-2728.97	-651.88	-0.71	-0.15	312.08

G1+G2+S+A+0.6V1+0.6D1	41.88	-1489.53	-598.83	-0.59	0.00	0.17
G1+G2+S+A+0.6V1+D1	41.87	-1488.74	-569.06	-0.52	0.00	0.34
G1+G2+S+A+0.6V2+0.6D2	41.92	-1492.13	-699.50	-0.82	0.00	-0.18
G1+G2+S+A+0.6V2+D2	41.93	-1492.93	-729.26	-0.89	0.00	-0.34
G1+G2+S+A+0.6V3+0.6D3	41.64	-1468.81	-624.11	-0.70	0.13	-188.29
G1+G2+S+A+0.6V3+D3	41.49	-1460.07	-624.20	-0.70	0.20	-191.13
G1+G2+S+A+0.6V4+0.6D4	42.16	-1512.86	-674.22	-0.71	-0.13	188.28
G1+G2+S+A+0.6V4+D4	42.31	-1521.59	-674.12	-0.71	-0.20	191.13
G1+G2+S+A+D1	41.88	-1488.84	-574.75	-0.53	0.00	0.41
G1+G2+S+A+D2	41.92	-1492.83	-723.57	-0.88	0.00	-0.41
G1+G2+S+A+D3	41.53	-1469.00	-649.39	-0.71	0.18	-7.11
G1+G2+S+A+D4	42.27	-1512.67	-648.93	-0.71	-0.18	7.10
G1+G2+S+A+V1+0.6D1	41.87	-1489.46	-595.03	-0.59	0.00	0.13
G1+G2+S+A+V2+0.6D2	41.93	-1492.20	-703.29	-0.82	0.00	-0.13
G1+G2+S+A+V3+0.6D3	41.61	-1462.85	-607.31	-0.70	0.15	-310.97
G1+G2+S+A+V4+0.6D4	42.18	-1518.81	-691.01	-0.71	-0.15	310.96
G1+G2+S+D1	24.81	-2686.96	-532.64	-0.53	0.00	1.56
G1+G2+S+D2	24.86	-2690.95	-681.45	-0.88	0.00	0.74
G1+G2+S+D3	24.46	-2667.12	-607.28	-0.71	0.18	-5.96
G1+G2+S+D4	25.21	-2710.79	-606.81	-0.71	-0.18	8.26
G1+G2+S+Q+0.6V1+0.6D1	26.18	-2704.85	-560.98	-0.59	0.00	1.27
G1+G2+S+Q+0.6V2+0.6D2	26.23	-2707.45	-661.65	-0.82	0.00	0.92
G1+G2+S+Q+0.6V3+0.6D3	25.95	-2684.12	-586.26	-0.70	0.13	-187.19
G1+G2+S+Q+0.6V4+0.6D4	26.47	-2728.17	-636.37	-0.71	-0.13	189.38
G1+G2+S+Q+A+0.6V1+0.6D1	43.25	-1506.72	-603.09	-0.59	0.00	0.12
G1+G2+S+Q+A+0.6V2+0.6D2	43.29	-1509.32	-703.77	-0.82	0.00	-0.23
G1+G2+S+Q+A+0.6V3+0.6D3	43.01	-1486.00	-628.38	-0.70	0.13	-188.34
G1+G2+S+Q+A+0.6V4+0.6D4	43.53	-1530.05	-678.48	-0.71	-0.13	188.23
G1+G2+S+Q+A+D1	43.25	-1506.03	-579.02	-0.53	0.00	0.35
G1+G2+S+Q+A+D2	43.29	-1510.02	-727.84	-0.88	0.00	-0.47
G1+G2+S+Q+A+D3	42.90	-1486.19	-653.66	-0.71	0.18	-7.16
G1+G2+S+Q+A+D4	43.64	-1529.86	-653.20	-0.71	-0.18	7.05
G1+G2+S+Q+D1	26.19	-2704.15	-536.91	-0.53	0.00	1.50
G1+G2+S+Q+D2	26.23	-2708.14	-685.72	-0.88	0.00	0.68
G1+G2+S+Q+D3	25.83	-2684.31	-611.54	-0.71	0.18	-6.01
G1+G2+S+Q+D4	26.58	-2727.98	-611.08	-0.71	-0.18	8.20

Fundação B13						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	21.05	-366.68	97.37	0.00	0.00	1.81
Adicional (G2)	0.52	-5.36	4.50	0.00	0.00	0.07
Solo (S)	4.86	-2297.48	-437.57	-0.71	0.00	2.65
Acidental (Q)	1.56	-15.94	13.54	0.00	0.00	0.21
Água (A)	19.17	1238.56	175.39	0.00	0.00	2.44
Vento X+ (V1)	0.01	-0.35	8.71	0.01	0.00	-0.10
Vento X- (V2)	-0.01	0.35	-8.71	-0.01	0.00	0.10
Vento Y+ (V3)	-0.05	15.28	26.91	0.00	0.04	-307.58
Vento Y- (V4)	0.05	-15.28	-26.91	0.00	-0.04	307.58
Desaprumo X+ (D1)	0.02	-2.84	77.01	0.20	0.00	0.44
Desaprumo X- (D2)	-0.02	2.84	-77.01	-0.20	0.00	-0.44
Desaprumo Y+ (D3)	-0.37	17.84	2.06	0.00	0.20	-7.17
Desaprumo Y- (D4)	0.37	-17.84	-2.06	0.00	-0.20	7.17
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	27.55	-2683.73	-243.99	-0.50	0.00	5.05

G1+G2+S+0.7Q+0.6V2+D2	27.49	-2677.62	-408.45	-0.91	0.00	4.30
G1+G2+S+0.7Q+0.6V3+D3	27.13	-2653.67	-308.01	-0.70	0.22	-187.04
G1+G2+S+0.7Q+0.6V4+D4	27.91	-2707.68	-344.42	-0.71	-0.22	196.39
G1+G2+S+0.7Q+A+0.6V1+0.6D1	46.71	-1444.04	-99.40	-0.58	0.00	7.32
G1+G2+S+0.7Q+A+0.6V1+D1	46.72	-1445.17	-68.60	-0.50	0.00	7.49
G1+G2+S+0.7Q+A+0.6V2+0.6D2	46.67	-1440.21	-202.26	-0.83	0.00	6.92
G1+G2+S+0.7Q+A+0.6V2+D2	46.66	-1439.07	-233.06	-0.91	0.00	6.74
G1+G2+S+0.7Q+A+0.6V3+0.6D3	46.44	-1422.25	-133.45	-0.70	0.14	-181.73
G1+G2+S+0.7Q+A+0.6V3+D3	46.30	-1415.11	-132.63	-0.70	0.22	-184.60
G1+G2+S+0.7Q+A+0.6V4+0.6D4	46.94	-1461.99	-168.21	-0.71	-0.14	195.96
G1+G2+S+0.7Q+A+0.6V4+D4	47.08	-1469.13	-169.04	-0.71	-0.22	198.83
G1+G2+S+0.7Q+A+D1	46.71	-1444.96	-73.83	-0.51	0.00	7.55
G1+G2+S+0.7Q+A+D2	46.67	-1439.28	-227.84	-0.90	0.00	6.68
G1+G2+S+0.7Q+A+D3	46.32	-1424.28	-148.77	-0.71	0.20	-0.05
G1+G2+S+0.7Q+A+D4	47.05	-1459.96	-152.89	-0.71	-0.20	14.28
G1+G2+S+0.7Q+A+V1+0.6D1	46.72	-1444.18	-95.92	-0.58	0.00	7.28
G1+G2+S+0.7Q+A+V2+0.6D2	46.66	-1440.07	-205.74	-0.83	0.00	6.96
G1+G2+S+0.7Q+A+V3+0.6D3	46.42	-1416.13	-122.69	-0.70	0.16	-304.76
G1+G2+S+0.7Q+A+V4+0.6D4	46.96	-1468.11	-178.98	-0.71	-0.16	319.00
G1+G2+S+0.7Q+V1+0.6D1	27.54	-2682.73	-271.31	-0.58	0.00	4.83
G1+G2+S+0.7Q+V2+0.6D2	27.49	-2678.62	-381.13	-0.83	0.00	4.51
G1+G2+S+0.7Q+V3+0.6D3	27.25	-2654.69	-298.07	-0.70	0.16	-307.21
G1+G2+S+0.7Q+V4+0.6D4	27.78	-2706.66	-354.36	-0.71	-0.16	316.55
G1+G2+S+A+0.6V1+0.6D1	45.62	-1432.88	-108.89	-0.58	0.00	7.17
G1+G2+S+A+0.6V1+D1	45.62	-1434.02	-78.08	-0.50	0.00	7.34
G1+G2+S+A+0.6V2+0.6D2	45.58	-1429.05	-211.74	-0.83	0.00	6.77
G1+G2+S+A+0.6V2+D2	45.57	-1427.91	-242.54	-0.91	0.00	6.59
G1+G2+S+A+0.6V3+0.6D3	45.35	-1411.09	-142.93	-0.70	0.14	-181.88
G1+G2+S+A+0.6V3+D3	45.20	-1403.96	-142.11	-0.70	0.22	-184.75
G1+G2+S+A+0.6V4+0.6D4	45.84	-1450.84	-177.69	-0.71	-0.14	195.82
G1+G2+S+A+0.6V4+D4	45.99	-1457.97	-178.52	-0.71	-0.22	198.68
G1+G2+S+A+D1	45.61	-1433.81	-83.31	-0.51	0.00	7.40
G1+G2+S+A+D2	45.58	-1428.12	-237.32	-0.90	0.00	6.53
G1+G2+S+A+D3	45.23	-1413.13	-158.25	-0.71	0.20	-0.20
G1+G2+S+A+D4	45.96	-1448.80	-162.37	-0.71	-0.20	14.14
G1+G2+S+A+V1+0.6D1	45.62	-1433.02	-105.40	-0.58	0.00	7.13
G1+G2+S+A+V2+0.6D2	45.57	-1428.81	-215.22	-0.83	0.00	6.81
G1+G2+S+A+V3+0.6D3	45.33	-1404.98	-132.17	-0.70	0.16	-304.91
G1+G2+S+A+V4+0.6D4	45.86	-1456.95	-188.46	-0.71	-0.16	318.85
G1+G2+S+D1	26.44	-2672.36	-258.69	-0.51	0.00	4.96
G1+G2+S+D2	26.41	-2666.68	-412.70	-0.90	0.00	4.09
G1+G2+S+D3	26.06	-2651.68	-333.64	-0.71	0.20	-2.64
G1+G2+S+D4	26.79	-2687.36	-337.76	-0.71	-0.20	11.69
G1+G2+S+Q+0.6V1+0.6D1	28.01	-2687.37	-270.73	-0.58	0.00	4.94
G1+G2+S+Q+0.6V2+0.6D2	27.97	-2683.54	-373.58	-0.83	0.00	4.54
G1+G2+S+Q+0.6V3+0.6D3	27.74	-2665.59	-304.77	-0.70	0.14	-184.11
G1+G2+S+Q+0.6V4+0.6D4	28.23	-2705.33	-339.54	-0.71	-0.14	193.59
G1+G2+S+Q+A+0.6V1+0.6D1	47.18	-1448.82	-95.34	-0.58	0.00	7.38
G1+G2+S+Q+A+0.6V2+0.6D2	47.14	-1444.99	-198.20	-0.83	0.00	6.98
G1+G2+S+Q+A+0.6V3+0.6D3	46.91	-1427.03	-129.39	-0.70	0.14	-181.67
G1+G2+S+Q+A+0.6V4+0.6D4	47.41	-1466.78	-164.15	-0.71	-0.14	196.03
G1+G2+S+Q+A+D1	47.18	-1449.75	-69.76	-0.51	0.00	7.62
G1+G2+S+Q+A+D2	47.14	-1444.06	-223.77	-0.90	0.00	6.74
G1+G2+S+Q+A+D3	46.79	-1429.06	-144.71	-0.71	0.20	0.01
G1+G2+S+Q+A+D4	47.52	-1464.74	-148.83	-0.71	-0.20	14.35
G1+G2+S+Q+D1	28.01	-2688.30	-245.15	-0.51	0.00	5.17
G1+G2+S+Q+D2	27.97	-2682.62	-399.16	-0.90	0.00	4.30
G1+G2+S+Q+D3	27.62	-2667.62	-320.10	-0.71	0.20	-2.43

G1+G2+S+Q+D4	28.35	-2703.30	-324.21	-0.71	-0.20	11.90
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Fundação B14						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	28.59	812.14	-29.38	0.00	0.00	-0.62
Adicional (G2)	0.78	18.23	-1.17	0.00	0.00	-0.07
Solo (S)	13.13	-537.34	-163.12	-0.71	0.00	-15.42
Acidental (Q)	2.33	54.70	-3.50	0.00	0.00	-0.22
Água (A)	25.26	1065.24	-87.66	0.00	0.00	-21.41
Vento X+ (V1)	0.02	2.43	-10.76	0.01	0.00	1.06
Vento X- (V2)	-0.02	-2.43	10.76	-0.01	0.00	-1.06
Vento Y+ (V3)	-0.62	158.21	-4.56	0.00	0.04	-298.55
Vento Y- (V4)	0.62	-158.21	4.56	0.00	-0.04	298.55
Desaprumo X+ (D1)	0.04	0.25	30.71	0.26	0.00	-0.72
Desaprumo X- (D2)	-0.04	-0.25	-30.71	-0.26	0.00	0.72
Desaprumo Y+ (D3)	-0.25	-54.97	-0.51	0.00	0.26	-7.05
Desaprumo Y- (D4)	0.25	54.97	0.51	0.00	-0.26	7.05
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	44.17	333.03	-171.85	-0.44	0.00	-16.36
G1+G2+S+0.7Q+0.6V2+D2	44.06	329.62	-220.36	-0.97	0.00	-16.19
G1+G2+S+0.7Q+0.6V3+D3	43.50	371.28	-199.36	-0.70	0.29	-202.46
G1+G2+S+0.7Q+0.6V4+D4	44.74	291.37	-192.86	-0.71	-0.29	169.90
G1+G2+S+0.7Q+A+0.6V1+0.6D1	69.42	1398.16	-271.80	-0.54	0.00	-37.49
G1+G2+S+0.7Q+A+0.6V1+D1	69.44	1398.26	-259.51	-0.44	0.00	-37.77
G1+G2+S+0.7Q+A+0.6V2+0.6D2	69.34	1394.96	-295.74	-0.87	0.00	-37.89
G1+G2+S+0.7Q+A+0.6V2+D2	69.33	1394.86	-308.02	-0.97	0.00	-37.60
G1+G2+S+0.7Q+A+0.6V3+0.6D3	68.86	1458.50	-286.81	-0.70	0.18	-221.05
G1+G2+S+0.7Q+A+0.6V3+D3	68.76	1436.52	-287.02	-0.70	0.29	-223.87
G1+G2+S+0.7Q+A+0.6V4+0.6D4	69.90	1334.62	-280.72	-0.71	-0.18	145.67
G1+G2+S+0.7Q+A+0.6V4+D4	70.00	1356.60	-280.52	-0.71	-0.29	148.49
G1+G2+S+0.7Q+A+D1	69.42	1396.81	-253.06	-0.44	0.00	-38.41
G1+G2+S+0.7Q+A+D2	69.34	1396.31	-314.48	-0.97	0.00	-36.97
G1+G2+S+0.7Q+A+D3	69.13	1341.59	-284.28	-0.71	0.26	-44.74
G1+G2+S+0.7Q+A+D4	69.63	1451.53	-283.25	-0.71	-0.26	-30.64
G1+G2+S+0.7Q+A+V1+0.6D1	69.43	1399.14	-276.10	-0.54	0.00	-37.06
G1+G2+S+0.7Q+A+V2+0.6D2	69.34	1393.99	-291.43	-0.87	0.00	-38.31
G1+G2+S+0.7Q+A+V3+0.6D3	68.61	1521.79	-288.64	-0.70	0.20	-340.47
G1+G2+S+0.7Q+A+V4+0.6D4	70.15	1271.34	-278.90	-0.71	-0.20	265.10
G1+G2+S+0.7Q+V1+0.6D1	44.16	333.90	-188.44	-0.54	0.00	-15.65
G1+G2+S+0.7Q+V2+0.6D2	44.07	328.75	-203.77	-0.87	0.00	-16.90
G1+G2+S+0.7Q+V3+0.6D3	43.35	456.55	-200.98	-0.70	0.20	-319.06
G1+G2+S+0.7Q+V4+0.6D4	44.89	206.10	-191.24	-0.71	-0.20	286.51
G1+G2+S+A+0.6V1+0.6D1	67.79	1359.87	-269.35	-0.54	0.00	-37.33
G1+G2+S+A+0.6V1+D1	67.81	1359.97	-257.06	-0.44	0.00	-37.62
G1+G2+S+A+0.6V2+0.6D2	67.71	1356.67	-293.29	-0.87	0.00	-37.73
G1+G2+S+A+0.6V2+D2	67.70	1356.57	-305.57	-0.97	0.00	-37.44
G1+G2+S+A+0.6V3+0.6D3	67.23	1420.21	-284.36	-0.70	0.18	-220.89
G1+G2+S+A+0.6V3+D3	67.13	1398.23	-284.57	-0.70	0.29	-223.71
G1+G2+S+A+0.6V4+0.6D4	68.27	1296.33	-278.27	-0.71	-0.18	145.83
G1+G2+S+A+0.6V4+D4	68.37	1318.32	-278.07	-0.71	-0.29	148.65
G1+G2+S+A+D1	67.79	1358.52	-250.61	-0.44	0.00	-38.25
G1+G2+S+A+D2	67.71	1358.02	-312.03	-0.97	0.00	-36.81
G1+G2+S+A+D3	67.50	1303.30	-281.83	-0.71	0.26	-44.58
G1+G2+S+A+D4	68.00	1413.24	-280.81	-0.71	-0.26	-30.48

G1+G2+S+A+V1+0.6D1	67.80	1360.85	-273.65	-0.54	0.00	-36.91
G1+G2+S+A+V2+0.6D2	67.71	1355.70	-288.98	-0.87	0.00	-38.16
G1+G2+S+A+V3+0.6D3	66.98	1483.50	-286.19	-0.70	0.20	-340.31
G1+G2+S+A+V4+0.6D4	68.52	1233.05	-276.45	-0.71	-0.20	265.25
G1+G2+S+D1	42.53	293.28	-162.95	-0.44	0.00	-16.84
G1+G2+S+D2	42.45	292.78	-224.37	-0.97	0.00	-15.40
G1+G2+S+D3	42.24	238.06	-194.17	-0.71	0.26	-23.17
G1+G2+S+D4	42.74	348.00	-193.15	-0.71	-0.26	-9.07
G1+G2+S+Q+0.6V1+0.6D1	44.85	349.34	-185.19	-0.54	0.00	-16.14
G1+G2+S+Q+0.6V2+0.6D2	44.78	346.13	-209.13	-0.87	0.00	-16.55
G1+G2+S+Q+0.6V3+0.6D3	44.30	409.67	-200.20	-0.70	0.18	-199.71
G1+G2+S+Q+0.6V4+0.6D4	45.34	285.79	-194.11	-0.71	-0.18	167.02
G1+G2+S+Q+A+0.6V1+0.6D1	70.12	1414.57	-272.85	-0.54	0.00	-37.55
G1+G2+S+Q+A+0.6V2+0.6D2	70.04	1411.37	-296.79	-0.87	0.00	-37.96
G1+G2+S+Q+A+0.6V3+0.6D3	69.56	1474.91	-287.86	-0.70	0.18	-221.12
G1+G2+S+Q+A+0.6V4+0.6D4	70.60	1351.03	-281.77	-0.71	-0.18	145.61
G1+G2+S+Q+A+D1	70.12	1413.22	-254.11	-0.44	0.00	-38.48
G1+G2+S+Q+A+D2	70.04	1412.72	-315.53	-0.97	0.00	-37.03
G1+G2+S+Q+A+D3	69.83	1358.00	-285.33	-0.71	0.26	-44.80
G1+G2+S+Q+A+D4	70.33	1467.94	-284.30	-0.71	-0.26	-30.71
G1+G2+S+Q+D1	44.86	347.98	-166.45	-0.44	0.00	-17.07
G1+G2+S+Q+D2	44.77	347.48	-227.87	-0.97	0.00	-15.62
G1+G2+S+Q+D3	44.57	292.76	-197.67	-0.71	0.26	-23.39
G1+G2+S+Q+D4	45.07	402.70	-196.64	-0.71	-0.26	-9.30

Fundação B15

Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	13.23	257.28	-191.61	0.00	0.00	-11.05
Adicional (G2)	0.24	3.52	-4.70	0.00	0.00	-0.24
Solo (S)	2.91	-173.09	-285.06	-0.71	0.00	-24.35
Acidental (Q)	0.73	10.56	-14.10	0.00	0.00	-0.71
Água (A)	6.95	181.65	-55.66	0.00	0.00	26.32
Vento X+ (V1)	0.04	-4.15	-7.51	0.01	0.00	0.41
Vento X- (V2)	-0.04	4.15	7.51	-0.01	0.00	-0.41
Vento Y+ (V3)	-0.44	44.08	8.43	0.00	0.05	-288.19
Vento Y- (V4)	0.44	-44.08	-8.43	0.00	-0.05	288.19
Desaprumo X+ (D1)	0.12	-2.04	11.21	0.10	0.00	-0.62
Desaprumo X- (D2)	-0.12	2.04	-11.21	-0.10	0.00	0.62
Desaprumo Y+ (D3)	-0.16	-22.66	3.58	0.00	0.10	-6.50
Desaprumo Y- (D4)	0.16	22.66	-3.58	0.00	-0.10	6.50
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	17.04	90.59	-484.53	-0.60	0.00	-36.51
G1+G2+S+0.7Q+0.6V2+D2	16.74	99.63	-497.94	-0.81	0.00	-35.76
G1+G2+S+0.7Q+0.6V3+D3	16.47	98.90	-482.60	-0.70	0.13	-215.55
G1+G2+S+0.7Q+0.6V4+D4	17.31	91.32	-499.88	-0.71	-0.13	143.28
G1+G2+S+0.7Q+A+0.6V1+0.6D1	23.94	273.05	-544.68	-0.64	0.00	-9.94
G1+G2+S+0.7Q+A+0.6V1+D1	23.99	272.23	-540.20	-0.60	0.00	-10.19
G1+G2+S+0.7Q+A+0.6V2+0.6D2	23.74	280.46	-549.12	-0.77	0.00	-9.69
G1+G2+S+0.7Q+A+0.6V2+D2	23.69	281.28	-553.61	-0.81	0.00	-9.44
G1+G2+S+0.7Q+A+0.6V3+0.6D3	23.48	289.61	-539.70	-0.70	0.09	-186.63
G1+G2+S+0.7Q+A+0.6V3+D3	23.42	280.54	-538.27	-0.70	0.13	-189.23
G1+G2+S+0.7Q+A+0.6V4+0.6D4	24.20	263.90	-554.11	-0.71	-0.09	167.00
G1+G2+S+0.7Q+A+0.6V4+D4	24.26	272.97	-555.54	-0.71	-0.13	169.60
G1+G2+S+0.7Q+A+D1	23.96	274.72	-535.69	-0.61	0.00	-10.44

G1+G2+S+0.7Q+A+D2	23.71	278.79	-558.11	-0.80	0.00	-9.20
G1+G2+S+0.7Q+A+D3	23.68	254.10	-543.32	-0.71	0.10	-16.32
G1+G2+S+0.7Q+A+D4	24.00	299.41	-550.48	-0.71	-0.10	-3.32
G1+G2+S+0.7Q+A+V1+0.6D1	23.96	271.39	-547.69	-0.64	0.00	-9.77
G1+G2+S+0.7Q+A+V2+0.6D2	23.72	282.12	-546.12	-0.78	0.00	-9.86
G1+G2+S+0.7Q+A+V3+0.6D3	23.31	307.24	-536.33	-0.70	0.11	-301.90
G1+G2+S+0.7Q+A+V4+0.6D4	24.37	246.27	-557.48	-0.71	-0.11	282.27
G1+G2+S+0.7Q+V1+0.6D1	17.01	89.74	-492.02	-0.64	0.00	-36.09
G1+G2+S+0.7Q+V2+0.6D2	16.77	100.48	-490.46	-0.78	0.00	-36.18
G1+G2+S+0.7Q+V3+0.6D3	16.36	125.59	-480.66	-0.70	0.11	-328.22
G1+G2+S+0.7Q+V4+0.6D4	17.43	64.63	-501.82	-0.71	-0.11	255.95
G1+G2+S+A+0.6V1+0.6D1	23.43	265.66	-534.81	-0.64	0.00	-9.44
G1+G2+S+A+0.6V1+D1	23.48	264.84	-530.33	-0.60	0.00	-9.69
G1+G2+S+A+0.6V2+0.6D2	23.23	273.07	-539.25	-0.77	0.00	-9.20
G1+G2+S+A+0.6V2+D2	23.18	273.89	-543.74	-0.81	0.00	-8.95
G1+G2+S+A+0.6V3+0.6D3	22.97	282.22	-529.83	-0.70	0.09	-186.13
G1+G2+S+A+0.6V3+D3	22.91	273.15	-528.40	-0.70	0.13	-188.73
G1+G2+S+A+0.6V4+0.6D4	23.69	256.51	-544.24	-0.71	-0.09	167.49
G1+G2+S+A+0.6V4+D4	23.75	265.58	-545.67	-0.71	-0.13	170.09
G1+G2+S+A+D1	23.45	267.33	-525.82	-0.61	0.00	-9.94
G1+G2+S+A+D2	23.20	271.40	-548.24	-0.80	0.00	-8.70
G1+G2+S+A+D3	23.17	246.71	-533.45	-0.71	0.10	-15.82
G1+G2+S+A+D4	23.49	292.02	-540.61	-0.71	-0.10	-2.82
G1+G2+S+A+V1+0.6D1	23.45	264.00	-537.82	-0.64	0.00	-9.28
G1+G2+S+A+V2+0.6D2	23.21	274.73	-536.25	-0.78	0.00	-9.36
G1+G2+S+A+V3+0.6D3	22.80	299.85	-526.46	-0.70	0.11	-301.41
G1+G2+S+A+V4+0.6D4	23.86	238.88	-547.61	-0.71	-0.11	282.77
G1+G2+S+D1	16.51	85.68	-470.16	-0.61	0.00	-36.26
G1+G2+S+D2	16.26	89.76	-492.58	-0.80	0.00	-35.02
G1+G2+S+D3	16.22	65.06	-477.79	-0.71	0.10	-42.14
G1+G2+S+D4	16.54	110.38	-484.95	-0.71	-0.10	-29.14
G1+G2+S+Q+0.6V1+0.6D1	17.21	94.57	-493.25	-0.64	0.00	-36.47
G1+G2+S+Q+0.6V2+0.6D2	17.01	101.99	-497.69	-0.77	0.00	-36.22
G1+G2+S+Q+0.6V3+0.6D3	16.75	111.13	-488.27	-0.70	0.09	-213.16
G1+G2+S+Q+0.6V4+0.6D4	17.47	85.43	-502.67	-0.71	-0.09	140.47
G1+G2+S+Q+A+0.6V1+0.6D1	24.16	276.21	-548.91	-0.64	0.00	-10.15
G1+G2+S+Q+A+0.6V2+0.6D2	23.96	283.63	-553.35	-0.77	0.00	-9.90
G1+G2+S+Q+A+0.6V3+0.6D3	23.70	292.77	-543.93	-0.70	0.09	-186.84
G1+G2+S+Q+A+0.6V4+0.6D4	24.42	267.07	-558.34	-0.71	-0.09	166.79
G1+G2+S+Q+A+D1	24.18	277.89	-539.92	-0.61	0.00	-10.65
G1+G2+S+Q+A+D2	23.93	281.96	-562.35	-0.80	0.00	-9.41
G1+G2+S+Q+A+D3	23.90	257.26	-547.55	-0.71	0.10	-16.53
G1+G2+S+Q+A+D4	24.22	302.58	-554.71	-0.71	-0.10	-3.53
G1+G2+S+Q+D1	17.24	96.24	-484.26	-0.61	0.00	-36.97
G1+G2+S+Q+D2	16.99	100.31	-506.68	-0.80	0.00	-35.73
G1+G2+S+Q+D3	16.95	75.62	-491.89	-0.71	0.10	-42.85
G1+G2+S+Q+D4	17.27	120.94	-499.05	-0.71	-0.10	-29.85

Fundação E1						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	8.11	17.86	17.25	0.00	0.00	-0.01
Adicional (G2)	0.13	0.65	0.79	0.00	0.00	0.00
Solo (S)	2.87	-9.11	-4685.78	-0.63	0.00	-0.02
Acidental (Q)	0.40	2.33	2.83	0.00	0.00	0.00
Água (A)	6.94	49.36	39.34	0.00	0.00	-0.04
Vento X+ (V1)	-0.01	0.01	75.67	0.01	0.00	0.00
Vento X- (V2)	0.01	-0.01	-75.67	-0.01	0.00	0.00

Vento Y+ (V3)	0.04	-266.82	-6.87	0.00	0.03	-9.88
Vento Y- (V4)	-0.04	266.82	6.87	0.00	-0.03	9.88
Desaprumo X+ (D1)	-0.04	-0.07	512.38	0.06	0.00	0.00
Desaprumo X- (D2)	0.04	0.07	-512.38	-0.06	0.00	0.00
Desaprumo Y+ (D3)	0.10	-512.07	-0.06	0.00	0.06	-0.23
Desaprumo Y- (D4)	-0.10	512.07	0.06	0.00	-0.06	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	11.34	10.97	-4107.97	-0.56	0.00	-0.04
G1+G2+S+0.7Q+0.6V2+D2	11.43	11.10	-5223.54	-0.70	0.00	-0.04
G1+G2+S+0.7Q+0.6V3+D3	11.52	-661.13	-4669.94	-0.63	0.09	-6.19
G1+G2+S+0.7Q+0.6V4+D4	11.26	683.20	-4661.57	-0.63	-0.08	6.12
G1+G2+S+0.7Q+A+0.6V1+0.6D1	18.30	60.36	-4273.58	-0.59	0.00	-0.08
G1+G2+S+0.7Q+A+0.6V1+D1	18.28	60.33	-4068.63	-0.56	0.00	-0.08
G1+G2+S+0.7Q+A+0.6V2+0.6D2	18.35	60.43	-4979.24	-0.67	0.00	-0.08
G1+G2+S+0.7Q+A+0.6V2+D2	18.37	60.45	-5184.20	-0.70	0.00	-0.08
G1+G2+S+0.7Q+A+0.6V3+0.6D3	18.41	-406.94	-4630.57	-0.63	0.06	-6.14
G1+G2+S+0.7Q+A+0.6V3+D3	18.45	-611.77	-4630.60	-0.63	0.09	-6.23
G1+G2+S+0.7Q+A+0.6V4+0.6D4	18.24	527.73	-4622.25	-0.63	-0.06	5.99
G1+G2+S+0.7Q+A+0.6V4+D4	18.20	732.56	-4622.23	-0.63	-0.08	6.08
G1+G2+S+0.7Q+A+D1	18.28	60.32	-4114.03	-0.57	0.00	-0.08
G1+G2+S+0.7Q+A+D2	18.37	60.46	-5138.79	-0.69	0.00	-0.08
G1+G2+S+0.7Q+A+D3	18.43	-451.68	-4626.48	-0.63	0.07	-0.31
G1+G2+S+0.7Q+A+D4	18.22	572.46	-4626.35	-0.63	-0.06	0.15
G1+G2+S+0.7Q+A+V1+0.6D1	18.29	60.36	-4243.31	-0.58	0.00	-0.08
G1+G2+S+0.7Q+A+V2+0.6D2	18.36	60.42	-5009.51	-0.68	0.00	-0.08
G1+G2+S+0.7Q+A+V3+0.6D3	18.43	-513.67	-4633.32	-0.63	0.08	-10.09
G1+G2+S+0.7Q+A+V4+0.6D4	18.22	634.46	-4619.51	-0.63	-0.07	9.94
G1+G2+S+0.7Q+V1+0.6D1	11.35	11.01	-4282.65	-0.58	0.00	-0.04
G1+G2+S+0.7Q+V2+0.6D2	11.42	11.06	-5048.86	-0.68	0.00	-0.04
G1+G2+S+0.7Q+V3+0.6D3	11.49	-563.03	-4672.66	-0.63	0.07	-10.05
G1+G2+S+0.7Q+V4+0.6D4	11.28	585.10	-4658.85	-0.63	-0.07	9.98
G1+G2+S+A+0.6V1+0.6D1	18.02	58.72	-4275.56	-0.59	0.00	-0.08
G1+G2+S+A+0.6V1+D1	18.00	58.70	-4070.61	-0.56	0.00	-0.08
G1+G2+S+A+0.6V2+0.6D2	18.07	58.79	-4981.23	-0.67	0.00	-0.08
G1+G2+S+A+0.6V2+D2	18.09	58.82	-5186.18	-0.70	0.00	-0.08
G1+G2+S+A+0.6V3+0.6D3	18.13	-408.58	-4632.55	-0.63	0.06	-6.14
G1+G2+S+A+0.6V3+D3	18.17	-613.41	-4632.58	-0.63	0.09	-6.23
G1+G2+S+A+0.6V4+0.6D4	17.96	526.09	-4624.24	-0.63	-0.06	5.99
G1+G2+S+A+0.6V4+D4	17.92	730.92	-4624.21	-0.63	-0.08	6.08
G1+G2+S+A+D1	18.00	58.69	-4116.02	-0.57	0.00	-0.08
G1+G2+S+A+D2	18.09	58.83	-5140.78	-0.69	0.00	-0.08
G1+G2+S+A+D3	18.15	-453.31	-4628.46	-0.63	0.07	-0.31
G1+G2+S+A+D4	17.94	570.83	-4628.33	-0.63	-0.06	0.15
G1+G2+S+A+V1+0.6D1	18.01	58.73	-4245.30	-0.58	0.00	-0.08
G1+G2+S+A+V2+0.6D2	18.08	58.79	-5011.50	-0.68	0.00	-0.08
G1+G2+S+A+V3+0.6D3	18.15	-515.31	-4635.30	-0.63	0.08	-10.09
G1+G2+S+A+V4+0.6D4	17.94	632.82	-4621.49	-0.63	-0.07	9.94
G1+G2+S+D1	11.06	9.33	-4155.36	-0.56	0.00	-0.04
G1+G2+S+D2	11.15	9.47	-5180.12	-0.69	0.00	-0.04
G1+G2+S+D3	11.21	-502.67	-4667.80	-0.63	0.06	-0.27
G1+G2+S+D4	11.00	521.47	-4667.67	-0.63	-0.06	0.19
G1+G2+S+Q+0.6V1+0.6D1	11.48	11.70	-4312.07	-0.58	0.00	-0.04
G1+G2+S+Q+0.6V2+0.6D2	11.54	11.77	-5017.74	-0.67	0.00	-0.04
G1+G2+S+Q+0.6V3+0.6D3	11.59	-455.60	-4669.06	-0.63	0.06	-6.10
G1+G2+S+Q+0.6V4+0.6D4	11.42	479.07	-4660.75	-0.63	-0.06	6.02

G1+G2+S+Q+A+0.6V1+0.6D1	18.42	61.06	-4272.73	-0.59	0.00	-0.08
G1+G2+S+Q+A+0.6V2+0.6D2	18.47	61.13	-4978.39	-0.67	0.00	-0.08
G1+G2+S+Q+A+0.6V3+0.6D3	18.53	-406.24	-4629.72	-0.63	0.06	-6.14
G1+G2+S+Q+A+0.6V4+0.6D4	18.36	528.43	-4621.40	-0.63	-0.06	5.99
G1+G2+S+Q+A+D1	18.40	61.02	-4113.18	-0.57	0.00	-0.08
G1+G2+S+Q+A+D2	18.49	61.16	-5137.94	-0.69	0.00	-0.08
G1+G2+S+Q+A+D3	18.55	-450.98	-4625.63	-0.63	0.07	-0.31
G1+G2+S+Q+A+D4	18.34	573.16	-4625.50	-0.63	-0.06	0.15
G1+G2+S+Q+D1	11.46	11.67	-4152.53	-0.56	0.00	-0.04
G1+G2+S+Q+D2	11.55	11.81	-5177.28	-0.69	0.00	-0.04
G1+G2+S+Q+D3	11.61	-500.33	-4664.97	-0.63	0.07	-0.27
G1+G2+S+Q+D4	11.40	523.81	-4664.84	-0.63	-0.06	0.19

Fundação E2						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	10.34	52.96	-5.13	0.00	0.00	-0.01
Adicional (G2)	0.24	2.48	-0.29	0.00	0.00	0.00
Solo (S)	5.17	21.93	-4649.87	-0.63	0.00	-0.09
Acidental (Q)	0.72	9.30	-1.10	0.00	0.00	0.00
Água (A)	8.29	103.99	-15.63	0.00	0.01	-0.01
Vento X+ (V1)	0.00	-0.02	75.85	0.01	0.00	0.00
Vento X- (V2)	0.00	0.02	-75.85	-0.01	0.00	0.00
Vento Y+ (V3)	0.01	-274.83	-6.95	0.00	0.03	-9.92
Vento Y- (V4)	-0.01	274.83	6.95	0.00	-0.03	9.92
Desaprumo X+ (D1)	-0.06	-0.86	642.49	0.08	0.00	0.00
Desaprumo X- (D2)	0.06	0.86	-642.49	-0.08	0.00	0.00
Desaprumo Y+ (D3)	0.06	-637.74	0.10	0.00	0.08	-0.23
Desaprumo Y- (D4)	-0.06	637.74	-0.10	0.00	-0.08	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	16.19	83.01	-3968.07	-0.54	0.01	-0.10
G1+G2+S+0.7Q+0.6V2+D2	16.32	84.76	-5344.07	-0.71	0.01	-0.10
G1+G2+S+0.7Q+0.6V3+D3	16.32	-718.75	-4660.14	-0.63	0.11	-6.28
G1+G2+S+0.7Q+0.6V4+D4	16.20	886.53	-4652.00	-0.63	-0.10	6.08
G1+G2+S+0.7Q+A+0.6V1+0.6D1	24.51	187.35	-4240.69	-0.57	0.01	-0.10
G1+G2+S+0.7Q+A+0.6V1+D1	24.48	187.01	-3983.70	-0.54	0.01	-0.10
G1+G2+S+0.7Q+A+0.6V2+0.6D2	24.59	188.41	-5102.70	-0.68	0.01	-0.11
G1+G2+S+0.7Q+A+0.6V2+D2	24.61	188.76	-5359.70	-0.71	0.01	-0.11
G1+G2+S+0.7Q+A+0.6V3+0.6D3	24.59	-359.66	-4675.81	-0.63	0.08	-6.20
G1+G2+S+0.7Q+A+0.6V3+D3	24.61	-614.76	-4675.77	-0.63	0.11	-6.29
G1+G2+S+0.7Q+A+0.6V4+0.6D4	24.51	735.42	-4667.59	-0.63	-0.06	5.98
G1+G2+S+0.7Q+A+0.6V4+D4	24.49	990.52	-4667.63	-0.63	-0.09	6.07
G1+G2+S+0.7Q+A+D1	24.49	187.02	-4029.20	-0.55	0.01	-0.11
G1+G2+S+0.7Q+A+D2	24.61	188.74	-5314.19	-0.71	0.01	-0.11
G1+G2+S+0.7Q+A+D3	24.60	-449.86	-4671.60	-0.63	0.09	-0.34
G1+G2+S+0.7Q+A+D4	24.49	825.62	-4671.80	-0.63	-0.07	0.12
G1+G2+S+0.7Q+A+V1+0.6D1	24.51	187.34	-4210.36	-0.57	0.01	-0.10
G1+G2+S+0.7Q+A+V2+0.6D2	24.59	188.42	-5133.04	-0.69	0.01	-0.11
G1+G2+S+0.7Q+A+V3+0.6D3	24.59	-469.59	-4678.59	-0.63	0.09	-10.16
G1+G2+S+0.7Q+A+V4+0.6D4	24.50	845.36	-4664.81	-0.63	-0.07	9.95
G1+G2+S+0.7Q+V1+0.6D1	16.22	83.35	-4194.72	-0.57	0.01	-0.10
G1+G2+S+0.7Q+V2+0.6D2	16.30	84.43	-5117.41	-0.69	0.01	-0.11
G1+G2+S+0.7Q+V3+0.6D3	16.30	-573.59	-4662.96	-0.63	0.09	-10.16
G1+G2+S+0.7Q+V4+0.6D4	16.21	741.36	-4649.18	-0.63	-0.08	9.95
G1+G2+S+A+0.6V1+0.6D1	24.00	180.84	-4239.92	-0.57	0.01	-0.10

G1+G2+S+A+0.6V1+D1	23.98	180.50	-3982.93	-0.54	0.01	-0.10
G1+G2+S+A+0.6V2+0.6D2	24.08	181.90	-5101.93	-0.68	0.01	-0.11
G1+G2+S+A+0.6V2+D2	24.11	182.25	-5358.93	-0.71	0.01	-0.11
G1+G2+S+A+0.6V3+0.6D3	24.08	-366.17	-4675.04	-0.63	0.08	-6.20
G1+G2+S+A+0.6V3+D3	24.10	-621.27	-4675.00	-0.63	0.11	-6.29
G1+G2+S+A+0.6V4+0.6D4	24.00	728.91	-4666.82	-0.63	-0.06	5.98
G1+G2+S+A+0.6V4+D4	23.98	984.01	-4666.86	-0.63	-0.09	6.07
G1+G2+S+A+D1	23.98	180.51	-4028.43	-0.55	0.01	-0.11
G1+G2+S+A+D2	24.10	182.23	-5313.42	-0.71	0.01	-0.11
G1+G2+S+A+D3	24.10	-456.37	-4670.83	-0.63	0.09	-0.34
G1+G2+S+A+D4	23.98	819.11	-4671.02	-0.63	-0.07	0.12
G1+G2+S+A+V1+0.6D1	24.00	180.83	-4209.58	-0.57	0.01	-0.10
G1+G2+S+A+V2+0.6D2	24.08	181.91	-5132.27	-0.69	0.01	-0.11
G1+G2+S+A+V3+0.6D3	24.09	-476.11	-4677.82	-0.63	0.09	-10.16
G1+G2+S+A+V4+0.6D4	24.00	838.85	-4664.04	-0.63	-0.07	9.95
G1+G2+S+D1	15.69	76.51	-4012.80	-0.55	0.00	-0.10
G1+G2+S+D2	15.81	78.24	-5297.79	-0.71	0.00	-0.10
G1+G2+S+D3	15.81	-560.36	-4655.20	-0.63	0.09	-0.33
G1+G2+S+D4	15.70	715.12	-4655.39	-0.63	-0.08	0.13
G1+G2+S+Q+0.6V1+0.6D1	16.44	86.15	-4225.39	-0.57	0.01	-0.10
G1+G2+S+Q+0.6V2+0.6D2	16.52	87.21	-5087.40	-0.68	0.01	-0.10
G1+G2+S+Q+0.6V3+0.6D3	16.52	-460.86	-4660.51	-0.63	0.07	-6.19
G1+G2+S+Q+0.6V4+0.6D4	16.44	634.22	-4652.29	-0.63	-0.06	5.99
G1+G2+S+Q+A+0.6V1+0.6D1	24.73	190.14	-4241.02	-0.57	0.01	-0.10
G1+G2+S+Q+A+0.6V2+0.6D2	24.80	191.20	-5103.03	-0.68	0.01	-0.11
G1+G2+S+Q+A+0.6V3+0.6D3	24.81	-356.87	-4676.14	-0.63	0.08	-6.20
G1+G2+S+Q+A+0.6V4+0.6D4	24.73	738.22	-4667.92	-0.63	-0.06	5.98
G1+G2+S+Q+A+D1	24.70	189.81	-4029.53	-0.55	0.01	-0.11
G1+G2+S+Q+A+D2	24.83	191.54	-5314.52	-0.71	0.01	-0.11
G1+G2+S+Q+A+D3	24.82	-447.07	-4671.93	-0.63	0.09	-0.34
G1+G2+S+Q+A+D4	24.71	828.41	-4672.13	-0.63	-0.07	0.12
G1+G2+S+Q+D1	16.41	85.82	-4013.90	-0.55	0.01	-0.10
G1+G2+S+Q+D2	16.54	87.54	-5298.89	-0.71	0.01	-0.10
G1+G2+S+Q+D3	16.53	-551.06	-4656.30	-0.63	0.09	-0.33
G1+G2+S+Q+D4	16.42	724.42	-4656.50	-0.63	-0.08	0.13

Fundação E3						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	8.42	27.41	-0.02	0.00	0.00	0.00
Adicional (G2)	0.14	1.14	0.01	0.00	0.00	0.00
Solo (S)	2.76	-12.70	-4681.69	-0.63	0.00	-0.04
Acidental (Q)	0.42	4.11	0.02	0.00	0.00	0.00
Água (A)	6.71	69.25	-0.61	0.00	0.00	0.00
Vento X+ (V1)	0.00	0.00	75.52	0.01	0.00	0.00
Vento X- (V2)	0.00	0.00	-75.52	-0.01	0.00	0.00
Vento Y+ (V3)	0.04	-284.84	-6.84	0.00	0.04	-9.92
Vento Y- (V4)	-0.04	284.84	6.84	0.00	-0.04	9.92
Desaprumo X+ (D1)	0.00	-0.01	515.72	0.06	0.00	0.00
Desaprumo X- (D2)	0.00	0.01	-515.72	-0.06	0.00	0.00
Desaprumo Y+ (D3)	0.17	-515.51	-0.15	0.00	0.06	-0.23
Desaprumo Y- (D4)	-0.17	515.51	0.15	0.00	-0.06	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	11.62	18.71	-4120.66	-0.56	0.00	-0.04
G1+G2+S+0.7Q+0.6V2+D2	11.62	18.73	-5242.72	-0.70	0.00	-0.04

G1+G2+S+0.7Q+0.6V3+D3	11.81	-667.69	-4685.94	-0.63	0.09	-6.22
G1+G2+S+0.7Q+0.6V4+D4	11.43	705.13	-4677.44	-0.63	-0.09	6.14
G1+G2+S+0.7Q+A+0.6V1+0.6D1	18.33	87.97	-4327.55	-0.58	0.00	-0.04
G1+G2+S+0.7Q+A+0.6V1+D1	18.33	87.96	-4121.27	-0.56	0.00	-0.04
G1+G2+S+0.7Q+A+0.6V2+0.6D2	18.33	87.97	-5037.04	-0.67	0.00	-0.05
G1+G2+S+0.7Q+A+0.6V2+D2	18.33	87.98	-5243.33	-0.70	0.00	-0.05
G1+G2+S+0.7Q+A+0.6V3+0.6D3	18.45	-392.24	-4686.49	-0.63	0.07	-6.13
G1+G2+S+0.7Q+A+0.6V3+D3	18.51	-598.44	-4686.55	-0.63	0.09	-6.23
G1+G2+S+0.7Q+A+0.6V4+0.6D4	18.21	568.18	-4678.10	-0.63	-0.06	6.05
G1+G2+S+0.7Q+A+0.6V4+D4	18.14	774.38	-4678.05	-0.63	-0.08	6.14
G1+G2+S+0.7Q+A+D1	18.33	87.96	-4166.58	-0.56	0.00	-0.04
G1+G2+S+0.7Q+A+D2	18.33	87.98	-5198.02	-0.69	0.00	-0.05
G1+G2+S+0.7Q+A+D3	18.49	-427.53	-4682.44	-0.63	0.07	-0.28
G1+G2+S+0.7Q+A+D4	18.16	603.48	-4682.15	-0.63	-0.06	0.19
G1+G2+S+0.7Q+A+V1+0.6D1	18.33	87.97	-4297.35	-0.58	0.00	-0.04
G1+G2+S+0.7Q+A+V2+0.6D2	18.33	87.97	-5067.24	-0.68	0.00	-0.05
G1+G2+S+0.7Q+A+V3+0.6D3	18.46	-506.17	-4689.22	-0.63	0.08	-10.10
G1+G2+S+0.7Q+A+V4+0.6D4	18.19	682.11	-4675.37	-0.63	-0.07	10.01
G1+G2+S+0.7Q+V1+0.6D1	11.62	18.72	-4296.74	-0.58	0.00	-0.04
G1+G2+S+0.7Q+V2+0.6D2	11.62	18.72	-5066.63	-0.68	0.00	-0.04
G1+G2+S+0.7Q+V3+0.6D3	11.75	-575.42	-4688.61	-0.63	0.08	-10.10
G1+G2+S+0.7Q+V4+0.6D4	11.49	612.86	-4674.76	-0.63	-0.07	10.02
G1+G2+S+A+0.6V1+0.6D1	18.03	85.09	-4327.57	-0.58	0.00	-0.04
G1+G2+S+A+0.6V1+D1	18.03	85.09	-4121.28	-0.56	0.00	-0.04
G1+G2+S+A+0.6V2+0.6D2	18.03	85.10	-5037.06	-0.67	0.00	-0.05
G1+G2+S+A+0.6V2+D2	18.03	85.10	-5243.34	-0.70	0.00	-0.05
G1+G2+S+A+0.6V3+0.6D3	18.15	-395.11	-4686.51	-0.63	0.07	-6.13
G1+G2+S+A+0.6V3+D3	18.22	-601.31	-4686.56	-0.63	0.09	-6.23
G1+G2+S+A+0.6V4+0.6D4	17.91	565.30	-4678.12	-0.63	-0.06	6.05
G1+G2+S+A+0.6V4+D4	17.85	771.50	-4678.06	-0.63	-0.08	6.14
G1+G2+S+A+D1	18.03	85.09	-4166.59	-0.56	0.00	-0.04
G1+G2+S+A+D2	18.03	85.10	-5198.03	-0.69	0.00	-0.05
G1+G2+S+A+D3	18.20	-430.41	-4682.46	-0.63	0.07	-0.28
G1+G2+S+A+D4	17.87	600.60	-4682.17	-0.63	-0.06	0.19
G1+G2+S+A+V1+0.6D1	18.03	85.09	-4297.36	-0.58	0.00	-0.04
G1+G2+S+A+V2+0.6D2	18.03	85.10	-5067.26	-0.68	0.00	-0.05
G1+G2+S+A+V3+0.6D3	18.17	-509.04	-4689.24	-0.63	0.08	-10.10
G1+G2+S+A+V4+0.6D4	17.90	679.24	-4675.39	-0.63	-0.07	10.01
G1+G2+S+D1	11.33	15.84	-4165.98	-0.56	0.00	-0.04
G1+G2+S+D2	11.32	15.85	-5197.42	-0.69	0.00	-0.04
G1+G2+S+D3	11.49	-499.66	-4681.85	-0.63	0.07	-0.27
G1+G2+S+D4	11.16	531.35	-4681.56	-0.63	-0.06	0.19
G1+G2+S+Q+0.6V1+0.6D1	11.75	19.95	-4326.94	-0.58	0.00	-0.04
G1+G2+S+Q+0.6V2+0.6D2	11.75	19.95	-5036.42	-0.67	0.00	-0.04
G1+G2+S+Q+0.6V3+0.6D3	11.87	-460.25	-4685.87	-0.63	0.06	-6.13
G1+G2+S+Q+0.6V4+0.6D4	11.63	500.16	-4677.49	-0.63	-0.06	6.05
G1+G2+S+Q+A+0.6V1+0.6D1	18.45	89.20	-4327.55	-0.58	0.01	-0.04
G1+G2+S+Q+A+0.6V2+0.6D2	18.45	89.21	-5037.03	-0.67	0.01	-0.05
G1+G2+S+Q+A+0.6V3+0.6D3	18.57	-391.00	-4686.48	-0.63	0.07	-6.13
G1+G2+S+Q+A+0.6V4+0.6D4	18.33	569.41	-4678.10	-0.63	-0.06	6.04
G1+G2+S+Q+A+D1	18.46	89.20	-4166.57	-0.56	0.01	-0.04
G1+G2+S+Q+A+D2	18.45	89.21	-5198.01	-0.69	0.01	-0.05
G1+G2+S+Q+A+D3	18.62	-426.30	-4682.43	-0.63	0.07	-0.28
G1+G2+S+Q+A+D4	18.29	604.71	-4682.14	-0.63	-0.06	0.19
G1+G2+S+Q+D1	11.75	19.94	-4165.96	-0.56	0.00	-0.04
G1+G2+S+Q+D2	11.74	19.96	-5197.40	-0.69	0.00	-0.04
G1+G2+S+Q+D3	11.91	-495.55	-4681.82	-0.63	0.07	-0.27
G1+G2+S+Q+D4	11.58	535.46	-4681.53	-0.63	-0.06	0.19

Fundação E4						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	10.32	52.79	4.86	0.00	0.00	-0.04
Adicional (G2)	0.24	2.50	0.30	0.00	0.00	0.00
Solo (S)	4.84	20.01	-4644.97	-0.63	0.00	-0.10
Acidental (Q)	0.73	9.37	1.14	0.00	0.00	0.00
Água (A)	8.14	102.03	15.74	0.00	0.01	-0.04
Vento X+ (V1)	0.00	0.03	75.83	0.01	0.00	0.00
Vento X- (V2)	0.00	-0.03	-75.83	-0.01	0.00	0.00
Vento Y+ (V3)	0.01	-291.39	-6.96	0.00	0.04	-9.93
Vento Y- (V4)	-0.01	291.39	6.96	0.00	-0.04	9.93
Desaprumo X+ (D1)	0.06	0.65	636.91	0.08	0.00	0.00
Desaprumo X- (D2)	-0.06	-0.65	-636.91	-0.08	0.00	0.00
Desaprumo Y+ (D3)	0.06	-632.62	-0.33	0.00	0.08	-0.23
Desaprumo Y- (D4)	-0.06	632.62	0.33	0.00	-0.08	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	15.97	82.53	-3956.60	-0.54	0.01	-0.15
G1+G2+S+0.7Q+0.6V2+D2	15.86	81.19	-5321.41	-0.72	0.00	-0.15
G1+G2+S+0.7Q+0.6V3+D3	15.99	-725.59	-4643.51	-0.63	0.11	-6.34
G1+G2+S+0.7Q+0.6V4+D4	15.85	889.31	-4634.50	-0.63	-0.10	6.04
G1+G2+S+0.7Q+A+0.6V1+0.6D1	24.09	184.30	-4195.62	-0.58	0.01	-0.19
G1+G2+S+0.7Q+A+0.6V1+D1	24.12	184.56	-3940.86	-0.54	0.01	-0.19
G1+G2+S+0.7Q+A+0.6V2+0.6D2	24.02	183.48	-5050.91	-0.68	0.01	-0.19
G1+G2+S+0.7Q+A+0.6V2+D2	24.00	183.22	-5305.67	-0.72	0.01	-0.20
G1+G2+S+0.7Q+A+0.6V3+0.6D3	24.10	-370.52	-4627.64	-0.63	0.08	-6.29
G1+G2+S+0.7Q+A+0.6V3+D3	24.13	-623.56	-4627.77	-0.63	0.11	-6.38
G1+G2+S+0.7Q+A+0.6V4+0.6D4	24.01	738.30	-4618.89	-0.63	-0.06	5.91
G1+G2+S+0.7Q+A+0.6V4+D4	23.99	991.34	-4618.76	-0.63	-0.09	6.00
G1+G2+S+0.7Q+A+D1	24.11	184.54	-3986.35	-0.55	0.01	-0.19
G1+G2+S+0.7Q+A+D2	24.00	183.24	-5260.18	-0.71	0.01	-0.19
G1+G2+S+0.7Q+A+D3	24.12	-448.73	-4623.59	-0.63	0.09	-0.42
G1+G2+S+0.7Q+A+D4	23.99	816.51	-4622.94	-0.63	-0.07	0.04
G1+G2+S+0.7Q+A+V1+0.6D1	24.10	184.31	-4165.29	-0.57	0.01	-0.19
G1+G2+S+0.7Q+A+V2+0.6D2	24.02	183.47	-5081.24	-0.69	0.01	-0.20
G1+G2+S+0.7Q+A+V3+0.6D3	24.11	-487.07	-4630.43	-0.63	0.10	-10.26
G1+G2+S+0.7Q+A+V4+0.6D4	24.01	854.85	-4616.10	-0.63	-0.07	9.88
G1+G2+S+0.7Q+V1+0.6D1	15.95	82.28	-4181.03	-0.57	0.01	-0.14
G1+G2+S+0.7Q+V2+0.6D2	15.88	81.44	-5096.98	-0.69	0.00	-0.15
G1+G2+S+0.7Q+V3+0.6D3	15.96	-589.10	-4646.17	-0.63	0.09	-10.22
G1+G2+S+0.7Q+V4+0.6D4	15.87	752.82	-4631.84	-0.63	-0.08	9.92
G1+G2+S+A+0.6V1+0.6D1	23.58	177.74	-4196.42	-0.58	0.01	-0.19
G1+G2+S+A+0.6V1+D1	23.61	178.00	-3941.66	-0.54	0.01	-0.19
G1+G2+S+A+0.6V2+0.6D2	23.51	176.92	-5051.71	-0.68	0.01	-0.19
G1+G2+S+A+0.6V2+D2	23.49	176.66	-5306.47	-0.72	0.01	-0.19
G1+G2+S+A+0.6V3+0.6D3	23.59	-377.07	-4628.44	-0.63	0.08	-6.29
G1+G2+S+A+0.6V3+D3	23.62	-630.12	-4628.57	-0.63	0.11	-6.38
G1+G2+S+A+0.6V4+0.6D4	23.50	731.74	-4619.69	-0.63	-0.06	5.91
G1+G2+S+A+0.6V4+D4	23.48	984.79	-4619.56	-0.63	-0.09	6.00
G1+G2+S+A+D1	23.60	177.98	-3987.15	-0.55	0.01	-0.19
G1+G2+S+A+D2	23.49	176.68	-5260.98	-0.71	0.01	-0.19
G1+G2+S+A+D3	23.61	-455.28	-4624.39	-0.63	0.09	-0.42
G1+G2+S+A+D4	23.48	809.95	-4623.74	-0.63	-0.07	0.04
G1+G2+S+A+V1+0.6D1	23.58	177.75	-4166.09	-0.57	0.01	-0.19

G1+G2+S+A+V2+0.6D2	23.51	176.91	-5082.04	-0.69	0.01	-0.19
G1+G2+S+A+V3+0.6D3	23.59	-493.63	-4631.22	-0.63	0.10	-10.26
G1+G2+S+A+V4+0.6D4	23.50	848.30	-4616.90	-0.63	-0.08	9.88
G1+G2+S+D1	15.46	75.95	-4002.89	-0.55	0.00	-0.15
G1+G2+S+D2	15.35	74.65	-5276.71	-0.71	0.00	-0.15
G1+G2+S+D3	15.47	-557.31	-4640.13	-0.63	0.09	-0.38
G1+G2+S+D4	15.34	707.92	-4639.48	-0.63	-0.08	0.09
G1+G2+S+Q+0.6V1+0.6D1	16.17	85.08	-4211.02	-0.58	0.01	-0.15
G1+G2+S+Q+0.6V2+0.6D2	16.10	84.26	-5066.31	-0.68	0.01	-0.15
G1+G2+S+Q+0.6V3+0.6D3	16.18	-469.74	-4643.04	-0.63	0.08	-6.25
G1+G2+S+Q+0.6V4+0.6D4	16.09	639.08	-4634.29	-0.63	-0.07	5.95
G1+G2+S+Q+A+0.6V1+0.6D1	24.31	187.11	-4195.28	-0.58	0.01	-0.19
G1+G2+S+Q+A+0.6V2+0.6D2	24.24	186.29	-5050.57	-0.68	0.01	-0.20
G1+G2+S+Q+A+0.6V3+0.6D3	24.32	-367.71	-4627.30	-0.63	0.08	-6.29
G1+G2+S+Q+A+0.6V4+0.6D4	24.23	741.11	-4618.55	-0.63	-0.06	5.90
G1+G2+S+Q+A+D1	24.33	187.35	-3986.01	-0.55	0.01	-0.19
G1+G2+S+Q+A+D2	24.22	186.05	-5259.84	-0.71	0.01	-0.19
G1+G2+S+Q+A+D3	24.34	-445.92	-4623.25	-0.63	0.09	-0.43
G1+G2+S+Q+A+D4	24.21	819.32	-4622.60	-0.63	-0.07	0.04
G1+G2+S+Q+D1	16.19	85.32	-4001.75	-0.55	0.01	-0.15
G1+G2+S+Q+D2	16.08	84.02	-5275.57	-0.71	0.01	-0.15
G1+G2+S+Q+D3	16.20	-547.95	-4638.99	-0.63	0.09	-0.38
G1+G2+S+Q+D4	16.07	717.29	-4638.34	-0.63	-0.08	0.08

Fundação E5

Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	8.04	15.03	-14.12	0.00	0.00	-0.05
Adicional (G2)	0.13	0.49	-0.66	0.00	0.00	0.00
Solo (S)	1.99	-15.35	-4705.76	-0.63	0.00	-0.10
Acidental (Q)	0.39	1.78	-2.38	0.00	0.00	-0.01
Água (A)	7.37	49.73	-21.58	0.00	0.00	-0.04
Vento X+ (V1)	0.01	0.01	75.85	0.01	0.00	0.00
Vento X- (V2)	-0.01	-0.01	-75.85	-0.01	0.00	0.00
Vento Y+ (V3)	0.05	-303.40	-6.87	0.00	0.04	-9.95
Vento Y- (V4)	-0.05	303.40	6.87	0.00	-0.04	9.95
Desaprumo X+ (D1)	0.04	0.07	525.56	0.07	0.00	0.00
Desaprumo X- (D2)	-0.04	-0.07	-525.56	-0.07	0.00	0.00
Desaprumo Y+ (D3)	0.15	-523.98	-0.33	0.00	0.07	-0.23
Desaprumo Y- (D4)	-0.15	523.98	0.33	0.00	-0.07	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	10.48	1.50	-4151.14	-0.55	0.00	-0.16
G1+G2+S+0.7Q+0.6V2+D2	10.40	1.34	-5293.28	-0.70	0.00	-0.16
G1+G2+S+0.7Q+0.6V3+D3	10.61	-704.61	-4726.67	-0.62	0.09	-6.36
G1+G2+S+0.7Q+0.6V4+D4	10.26	707.44	-4717.75	-0.62	-0.09	6.05
G1+G2+S+0.7Q+A+0.6V1+0.6D1	17.83	51.20	-4382.94	-0.58	0.00	-0.20
G1+G2+S+0.7Q+A+0.6V1+D1	17.85	51.23	-4172.72	-0.55	0.00	-0.20
G1+G2+S+0.7Q+A+0.6V2+0.6D2	17.78	51.10	-5104.64	-0.67	0.00	-0.20
G1+G2+S+0.7Q+A+0.6V2+D2	17.76	51.07	-5314.86	-0.69	0.00	-0.20
G1+G2+S+0.7Q+A+0.6V3+0.6D3	17.92	-445.28	-4748.11	-0.62	0.07	-6.31
G1+G2+S+0.7Q+A+0.6V3+D3	17.98	-654.88	-4748.25	-0.62	0.09	-6.40
G1+G2+S+0.7Q+A+0.6V4+0.6D4	17.69	547.58	-4739.47	-0.62	-0.06	5.91
G1+G2+S+0.7Q+A+0.6V4+D4	17.63	757.17	-4739.33	-0.62	-0.09	6.01
G1+G2+S+0.7Q+A+D1	17.85	51.22	-4218.23	-0.56	0.00	-0.20
G1+G2+S+0.7Q+A+D2	17.77	51.07	-5269.35	-0.69	0.00	-0.20

G1+G2+S+0.7Q+A+D3	17.96	-472.83	-4744.12	-0.62	0.07	-0.43
G1+G2+S+0.7Q+A+D4	17.66	575.13	-4743.46	-0.62	-0.06	0.04
G1+G2+S+0.7Q+A+V1+0.6D1	17.84	51.20	-4352.60	-0.57	0.00	-0.20
G1+G2+S+0.7Q+A+V2+0.6D2	17.78	51.10	-5134.98	-0.67	0.00	-0.20
G1+G2+S+0.7Q+A+V3+0.6D3	17.94	-566.64	-4750.86	-0.62	0.08	-10.29
G1+G2+S+0.7Q+A+V4+0.6D4	17.67	668.94	-4736.72	-0.62	-0.07	9.89
G1+G2+S+0.7Q+V1+0.6D1	10.47	1.47	-4331.02	-0.58	0.00	-0.16
G1+G2+S+0.7Q+V2+0.6D2	10.41	1.37	-5113.40	-0.67	0.00	-0.16
G1+G2+S+0.7Q+V3+0.6D3	10.57	-616.38	-4729.28	-0.63	0.08	-10.25
G1+G2+S+0.7Q+V4+0.6D4	10.31	619.21	-4715.14	-0.62	-0.08	9.93
G1+G2+S+A+0.6V1+0.6D1	17.56	49.95	-4381.27	-0.58	0.00	-0.19
G1+G2+S+A+0.6V1+D1	17.58	49.98	-4171.05	-0.55	0.00	-0.19
G1+G2+S+A+0.6V2+0.6D2	17.51	49.85	-5102.97	-0.67	0.00	-0.19
G1+G2+S+A+0.6V2+D2	17.49	49.83	-5313.19	-0.69	0.00	-0.19
G1+G2+S+A+0.6V3+0.6D3	17.65	-446.53	-4746.45	-0.62	0.07	-6.30
G1+G2+S+A+0.6V3+D3	17.71	-656.12	-4746.58	-0.62	0.09	-6.40
G1+G2+S+A+0.6V4+0.6D4	17.42	546.34	-4737.80	-0.62	-0.06	5.92
G1+G2+S+A+0.6V4+D4	17.36	755.93	-4737.67	-0.62	-0.09	6.01
G1+G2+S+A+D1	17.57	49.98	-4216.56	-0.56	0.00	-0.19
G1+G2+S+A+D2	17.49	49.83	-5267.68	-0.69	0.00	-0.19
G1+G2+S+A+D3	17.68	-474.08	-4742.45	-0.62	0.07	-0.43
G1+G2+S+A+D4	17.38	573.89	-4741.79	-0.62	-0.06	0.04
G1+G2+S+A+V1+0.6D1	17.56	49.96	-4350.93	-0.57	0.00	-0.19
G1+G2+S+A+V2+0.6D2	17.50	49.85	-5133.31	-0.67	0.00	-0.19
G1+G2+S+A+V3+0.6D3	17.67	-567.89	-4749.19	-0.62	0.08	-10.28
G1+G2+S+A+V4+0.6D4	17.40	667.70	-4735.05	-0.62	-0.07	9.90
G1+G2+S+D1	10.21	0.25	-4194.98	-0.56	0.00	-0.15
G1+G2+S+D2	10.12	0.10	-5246.10	-0.69	0.00	-0.15
G1+G2+S+D3	10.31	-523.81	-4720.88	-0.62	0.07	-0.39
G1+G2+S+D4	10.02	524.16	-4720.21	-0.62	-0.07	0.08
G1+G2+S+Q+0.6V1+0.6D1	10.58	2.00	-4362.08	-0.58	0.00	-0.16
G1+G2+S+Q+0.6V2+0.6D2	10.53	1.90	-5083.77	-0.67	0.00	-0.16
G1+G2+S+Q+0.6V3+0.6D3	10.67	-494.48	-4727.25	-0.62	0.06	-6.27
G1+G2+S+Q+0.6V4+0.6D4	10.44	498.38	-4718.60	-0.62	-0.06	5.95
G1+G2+S+Q+A+0.6V1+0.6D1	17.95	51.73	-4383.66	-0.58	0.00	-0.20
G1+G2+S+Q+A+0.6V2+0.6D2	17.90	51.63	-5105.35	-0.67	0.00	-0.20
G1+G2+S+Q+A+0.6V3+0.6D3	18.04	-444.75	-4748.83	-0.62	0.07	-6.31
G1+G2+S+Q+A+0.6V4+0.6D4	17.81	548.11	-4740.18	-0.62	-0.06	5.91
G1+G2+S+Q+A+D1	17.97	51.76	-4218.94	-0.56	0.00	-0.20
G1+G2+S+Q+A+D2	17.88	51.61	-5270.06	-0.69	0.00	-0.20
G1+G2+S+Q+A+D3	18.07	-472.30	-4744.84	-0.62	0.07	-0.43
G1+G2+S+Q+A+D4	17.78	575.67	-4744.17	-0.62	-0.06	0.04
G1+G2+S+Q+D1	10.60	2.03	-4197.36	-0.56	0.00	-0.16
G1+G2+S+Q+D2	10.52	1.88	-5248.49	-0.69	0.00	-0.16
G1+G2+S+Q+D3	10.71	-522.03	-4723.26	-0.62	0.07	-0.39
G1+G2+S+Q+D4	10.41	525.93	-4722.59	-0.62	-0.07	0.08

Fundação E6						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	7.15	6.82	-4.00	0.00	0.00	0.12
Adicional (G2)	0.08	0.13	-0.15	0.00	0.00	0.00
Solo (S)	1.05	0.32	-4660.06	-0.63	0.00	0.08
Acidental (Q)	0.25	0.46	-0.52	0.00	0.00	0.01
Água (A)	3.80	3.16	-15.93	0.00	0.00	0.15
Vento X+ (V1)	0.00	-0.03	74.49	0.01	0.00	0.00
Vento X- (V2)	0.00	0.03	-74.49	-0.01	0.00	0.00
Vento Y+ (V3)	0.04	-313.74	-6.69	0.00	0.04	-9.93

Vento Y- (V4)	-0.04	313.74	6.69	0.00	-0.04	9.93
Desaprumo X+ (D1)	-0.02	-0.28	369.38	0.05	0.00	0.00
Desaprumo X- (D2)	0.02	0.28	-369.38	-0.05	0.00	0.00
Desaprumo Y+ (D3)	0.03	-371.10	-0.06	0.00	0.05	-0.23
Desaprumo Y- (D4)	-0.03	371.10	0.06	0.00	-0.05	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	8.44	7.30	-4250.51	-0.58	0.00	0.22
G1+G2+S+0.7Q+0.6V2+D2	8.48	7.90	-5078.65	-0.68	0.00	0.22
G1+G2+S+0.7Q+0.6V3+D3	8.51	-551.75	-4668.65	-0.63	0.07	-5.97
G1+G2+S+0.7Q+0.6V4+D4	8.40	566.94	-4660.51	-0.63	-0.07	6.41
G1+G2+S+0.7Q+A+0.6V1+0.6D1	12.25	10.57	-4414.19	-0.59	0.00	0.37
G1+G2+S+0.7Q+A+0.6V1+D1	12.24	10.46	-4266.44	-0.57	0.00	0.37
G1+G2+S+0.7Q+A+0.6V2+0.6D2	12.27	10.94	-4946.83	-0.66	0.00	0.37
G1+G2+S+0.7Q+A+0.6V2+D2	12.28	11.06	-5094.59	-0.68	0.00	0.37
G1+G2+S+0.7Q+A+0.6V3+0.6D3	12.30	-400.15	-4684.56	-0.63	0.05	-5.73
G1+G2+S+0.7Q+A+0.6V3+D3	12.31	-548.59	-4684.58	-0.63	0.07	-5.82
G1+G2+S+0.7Q+A+0.6V4+0.6D4	12.21	421.66	-4676.47	-0.63	-0.05	6.46
G1+G2+S+0.7Q+A+0.6V4+D4	12.20	570.10	-4676.44	-0.63	-0.07	6.55
G1+G2+S+0.7Q+A+D1	12.24	10.48	-4311.14	-0.58	0.00	0.37
G1+G2+S+0.7Q+A+D2	12.28	11.04	-5049.89	-0.67	0.00	0.37
G1+G2+S+0.7Q+A+D3	12.29	-360.35	-4680.57	-0.63	0.05	0.14
G1+G2+S+0.7Q+A+D4	12.23	381.86	-4680.46	-0.63	-0.05	0.60
G1+G2+S+0.7Q+A+V1+0.6D1	12.25	10.55	-4384.40	-0.59	0.00	0.37
G1+G2+S+0.7Q+A+V2+0.6D2	12.27	10.96	-4976.63	-0.66	0.00	0.37
G1+G2+S+0.7Q+A+V3+0.6D3	12.32	-525.64	-4687.24	-0.63	0.07	-9.70
G1+G2+S+0.7Q+A+V4+0.6D4	12.20	547.16	-4673.79	-0.63	-0.07	10.43
G1+G2+S+0.7Q+V1+0.6D1	8.45	7.40	-4368.47	-0.59	0.00	0.22
G1+G2+S+0.7Q+V2+0.6D2	8.47	7.80	-4960.69	-0.67	0.00	0.22
G1+G2+S+0.7Q+V3+0.6D3	8.52	-528.80	-4671.30	-0.63	0.07	-9.85
G1+G2+S+0.7Q+V4+0.6D4	8.40	544.00	-4657.86	-0.63	-0.07	10.29
G1+G2+S+A+0.6V1+0.6D1	12.07	10.24	-4413.83	-0.59	0.00	0.36
G1+G2+S+A+0.6V1+D1	12.06	10.13	-4266.08	-0.57	0.00	0.36
G1+G2+S+A+0.6V2+0.6D2	12.09	10.62	-4946.47	-0.66	0.00	0.36
G1+G2+S+A+0.6V2+D2	12.10	10.73	-5094.22	-0.68	0.00	0.36
G1+G2+S+A+0.6V3+0.6D3	12.13	-400.47	-4684.20	-0.63	0.05	-5.74
G1+G2+S+A+0.6V3+D3	12.14	-548.92	-4684.22	-0.63	0.07	-5.83
G1+G2+S+A+0.6V4+0.6D4	12.04	421.33	-4676.10	-0.63	-0.05	6.45
G1+G2+S+A+0.6V4+D4	12.03	569.78	-4676.08	-0.63	-0.07	6.55
G1+G2+S+A+D1	12.06	10.15	-4310.77	-0.58	0.00	0.36
G1+G2+S+A+D2	12.10	10.71	-5049.53	-0.67	0.00	0.36
G1+G2+S+A+D3	12.11	-360.67	-4680.21	-0.63	0.05	0.13
G1+G2+S+A+D4	12.05	381.53	-4680.09	-0.63	-0.05	0.59
G1+G2+S+A+V1+0.6D1	12.07	10.23	-4384.03	-0.59	0.00	0.36
G1+G2+S+A+V2+0.6D2	12.10	10.63	-4976.26	-0.67	0.00	0.36
G1+G2+S+A+V3+0.6D3	12.14	-525.97	-4686.87	-0.63	0.07	-9.71
G1+G2+S+A+V4+0.6D4	12.02	546.83	-4673.43	-0.63	-0.07	10.43
G1+G2+S+D1	8.26	6.99	-4294.84	-0.58	0.00	0.21
G1+G2+S+D2	8.30	7.55	-5033.59	-0.68	0.00	0.21
G1+G2+S+D3	8.31	-363.83	-4664.27	-0.63	0.05	-0.02
G1+G2+S+D4	8.25	378.37	-4664.16	-0.63	-0.05	0.44
G1+G2+S+Q+0.6V1+0.6D1	8.52	7.55	-4398.42	-0.59	0.00	0.22
G1+G2+S+Q+0.6V2+0.6D2	8.55	7.92	-4931.06	-0.66	0.00	0.22
G1+G2+S+Q+0.6V3+0.6D3	8.58	-403.17	-4668.78	-0.63	0.05	-5.87
G1+G2+S+Q+0.6V4+0.6D4	8.49	418.64	-4660.69	-0.63	-0.05	6.32
G1+G2+S+Q+A+0.6V1+0.6D1	12.32	10.71	-4414.35	-0.59	0.00	0.37

G1+G2+S+Q+A+0.6V2+0.6D2	12.35	11.08	-4946.99	-0.66	0.00	0.37
G1+G2+S+Q+A+0.6V3+0.6D3	12.38	-400.01	-4684.72	-0.63	0.05	-5.73
G1+G2+S+Q+A+0.6V4+0.6D4	12.29	421.80	-4676.62	-0.63	-0.05	6.47
G1+G2+S+Q+A+D1	12.31	10.61	-4311.29	-0.58	0.00	0.37
G1+G2+S+Q+A+D2	12.35	11.17	-5050.05	-0.67	0.00	0.37
G1+G2+S+Q+A+D3	12.36	-360.21	-4680.73	-0.63	0.05	0.14
G1+G2+S+Q+A+D4	12.30	382.00	-4680.61	-0.63	-0.05	0.60
G1+G2+S+Q+D1	8.51	7.46	-4295.36	-0.58	0.00	0.22
G1+G2+S+Q+D2	8.55	8.02	-5034.11	-0.68	0.00	0.22
G1+G2+S+Q+D3	8.56	-363.37	-4664.79	-0.63	0.05	-0.01
G1+G2+S+Q+D4	8.50	378.84	-4664.68	-0.63	-0.05	0.45

Fundação E7						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	10.16	-0.01	41.22	0.00	0.00	0.00
Adicional (G2)	0.21	0.00	1.96	0.00	0.00	0.00
Solo (S)	3.36	0.00	-4620.28	-0.63	0.00	0.00
Acidental (Q)	0.65	0.00	7.42	0.00	0.00	0.00
Água (A)	9.76	-0.01	84.21	0.00	0.00	0.00
Vento X+ (V1)	0.00	0.00	75.88	0.01	0.00	0.00
Vento X- (V2)	0.00	0.00	-75.88	-0.01	0.00	0.00
Vento Y+ (V3)	0.00	-267.62	0.00	0.00	0.03	-9.87
Vento Y- (V4)	0.00	267.62	0.00	0.00	-0.03	9.87
Desaprumo X+ (D1)	-0.03	0.00	679.96	0.09	0.00	0.00
Desaprumo X- (D2)	0.03	0.00	-679.96	-0.09	0.00	0.00
Desaprumo Y+ (D3)	0.00	-682.58	0.00	0.00	0.09	-0.23
Desaprumo Y- (D4)	0.00	682.58	0.00	0.00	-0.09	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	14.15	-0.01	-3846.42	-0.54	0.00	0.01
G1+G2+S+0.7Q+0.6V2+D2	14.22	-0.01	-5297.39	-0.72	0.00	0.01
G1+G2+S+0.7Q+0.6V3+D3	14.18	-843.15	-4571.91	-0.63	0.11	-6.14
G1+G2+S+0.7Q+0.6V4+D4	14.18	843.14	-4571.90	-0.63	-0.11	6.16
G1+G2+S+0.7Q+A+0.6V1+0.6D1	23.92	-0.01	-4034.20	-0.58	0.00	0.01
G1+G2+S+0.7Q+A+0.6V1+D1	23.91	-0.01	-3762.21	-0.55	0.00	0.01
G1+G2+S+0.7Q+A+0.6V2+0.6D2	23.97	-0.01	-4941.20	-0.70	0.00	0.01
G1+G2+S+0.7Q+A+0.6V2+D2	23.98	-0.01	-5213.19	-0.73	0.00	0.01
G1+G2+S+0.7Q+A+0.6V3+0.6D3	23.95	-570.13	-4487.70	-0.64	0.07	-6.05
G1+G2+S+0.7Q+A+0.6V3+D3	23.95	-843.16	-4487.70	-0.64	0.11	-6.14
G1+G2+S+0.7Q+A+0.6V4+0.6D4	23.95	570.10	-4487.70	-0.64	-0.07	6.07
G1+G2+S+0.7Q+A+0.6V4+D4	23.95	843.13	-4487.70	-0.64	-0.11	6.16
G1+G2+S+0.7Q+A+D1	23.91	-0.01	-3807.74	-0.55	0.00	0.01
G1+G2+S+0.7Q+A+D2	23.98	-0.01	-5167.66	-0.72	0.00	0.01
G1+G2+S+0.7Q+A+D3	23.95	-682.59	-4487.70	-0.64	0.09	-0.22
G1+G2+S+0.7Q+A+D4	23.95	682.56	-4487.70	-0.64	-0.09	0.24
G1+G2+S+0.7Q+A+V1+0.6D1	23.92	-0.01	-4003.85	-0.58	0.00	0.01
G1+G2+S+0.7Q+A+V2+0.6D2	23.97	-0.01	-4971.55	-0.70	0.00	0.01
G1+G2+S+0.7Q+A+V3+0.6D3	23.95	-677.18	-4487.70	-0.64	0.08	-10.00
G1+G2+S+0.7Q+A+V4+0.6D4	23.95	677.15	-4487.70	-0.64	-0.08	10.02
G1+G2+S+0.7Q+V1+0.6D1	14.16	-0.01	-4088.05	-0.57	0.00	0.01
G1+G2+S+0.7Q+V2+0.6D2	14.21	-0.01	-5055.76	-0.69	0.00	0.01
G1+G2+S+0.7Q+V3+0.6D3	14.18	-677.17	-4571.91	-0.63	0.08	-10.00
G1+G2+S+0.7Q+V4+0.6D4	14.18	677.16	-4571.90	-0.63	-0.08	10.02
G1+G2+S+A+0.6V1+0.6D1	23.47	-0.01	-4039.39	-0.58	0.00	0.01
G1+G2+S+A+0.6V1+D1	23.46	-0.01	-3767.40	-0.55	0.00	0.01

G1+G2+S+A+0.6V2+0.6D2	23.52	-0.01	-4946.39	-0.69	0.00	0.01
G1+G2+S+A+0.6V2+D2	23.53	-0.01	-5218.38	-0.73	0.00	0.01
G1+G2+S+A+0.6V3+0.6D3	23.50	-570.13	-4492.89	-0.64	0.07	-6.05
G1+G2+S+A+0.6V3+D3	23.50	-843.16	-4492.89	-0.64	0.11	-6.14
G1+G2+S+A+0.6V4+0.6D4	23.50	570.10	-4492.89	-0.64	-0.07	6.07
G1+G2+S+A+0.6V4+D4	23.50	843.13	-4492.89	-0.64	-0.11	6.16
G1+G2+S+A+D1	23.46	-0.01	-3812.93	-0.55	0.00	0.01
G1+G2+S+A+D2	23.53	-0.01	-5172.85	-0.72	0.00	0.01
G1+G2+S+A+D3	23.50	-682.59	-4492.89	-0.64	0.09	-0.22
G1+G2+S+A+D4	23.50	682.56	-4492.89	-0.64	-0.09	0.24
G1+G2+S+A+V1+0.6D1	23.47	-0.01	-4009.04	-0.58	0.00	0.01
G1+G2+S+A+V2+0.6D2	23.52	-0.01	-4976.74	-0.70	0.00	0.01
G1+G2+S+A+V3+0.6D3	23.50	-677.18	-4492.89	-0.64	0.08	-10.00
G1+G2+S+A+V4+0.6D4	23.50	677.15	-4492.89	-0.64	-0.08	10.02
G1+G2+S+D1	13.70	-0.01	-3897.13	-0.55	0.00	0.01
G1+G2+S+D2	13.77	-0.01	-5257.06	-0.72	0.00	0.01
G1+G2+S+D3	13.73	-682.58	-4577.10	-0.63	0.09	-0.22
G1+G2+S+D4	13.73	682.57	-4577.10	-0.63	-0.09	0.23
G1+G2+S+Q+0.6V1+0.6D1	14.35	-0.01	-4116.18	-0.58	0.00	0.01
G1+G2+S+Q+0.6V2+0.6D2	14.40	-0.01	-5023.18	-0.69	0.00	0.01
G1+G2+S+Q+0.6V3+0.6D3	14.38	-570.12	-4569.68	-0.63	0.07	-6.05
G1+G2+S+Q+0.6V4+0.6D4	14.38	570.11	-4569.68	-0.63	-0.07	6.07
G1+G2+S+Q+A+0.6V1+0.6D1	24.12	-0.01	-4031.97	-0.58	0.00	0.01
G1+G2+S+Q+A+0.6V2+0.6D2	24.16	-0.01	-4938.98	-0.70	0.00	0.01
G1+G2+S+Q+A+0.6V3+0.6D3	24.14	-570.13	-4485.47	-0.64	0.07	-6.05
G1+G2+S+Q+A+0.6V4+0.6D4	24.14	570.10	-4485.47	-0.64	-0.07	6.07
G1+G2+S+Q+A+D1	24.11	-0.01	-3805.51	-0.55	0.00	0.01
G1+G2+S+Q+A+D2	24.17	-0.01	-5165.44	-0.72	0.00	0.01
G1+G2+S+Q+A+D3	24.14	-682.59	-4485.47	-0.64	0.09	-0.22
G1+G2+S+Q+A+D4	24.14	682.56	-4485.47	-0.64	-0.09	0.24
G1+G2+S+Q+D1	14.34	-0.01	-3889.72	-0.55	0.00	0.01
G1+G2+S+Q+D2	14.41	-0.01	-5249.64	-0.72	0.00	0.01
G1+G2+S+Q+D3	14.38	-682.58	-4569.68	-0.63	0.09	-0.22
G1+G2+S+Q+D4	14.38	682.57	-4569.68	-0.63	-0.09	0.23

Fundação E8						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	17.28	0.00	0.27	0.00	0.00	0.01
Adicional (G2)	0.43	0.00	0.07	0.00	0.00	0.00
Solo (S)	5.68	0.00	-4950.28	-0.67	0.00	0.01
Acidental (Q)	1.30	0.00	0.25	0.00	0.00	0.00
Água (A)	15.88	0.00	-3.65	0.00	0.00	0.00
Vento X+ (V1)	0.00	0.00	80.38	0.01	0.00	0.00
Vento X- (V2)	0.00	0.00	-80.38	-0.01	0.00	0.00
Vento Y+ (V3)	0.00	-303.36	0.00	0.00	0.04	-20.58
Vento Y- (V4)	0.00	303.36	0.00	0.00	-0.04	20.58
Desaprumo X+ (D1)	0.00	0.00	1200.46	0.15	0.00	0.00
Desaprumo X- (D2)	0.00	0.00	-1200.46	-0.15	0.00	0.00
Desaprumo Y+ (D3)	0.00	-1217.09	0.00	0.00	0.15	-0.48
Desaprumo Y- (D4)	0.00	1217.09	0.00	0.00	-0.15	0.48
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	24.30	0.00	-3701.08	-0.51	0.00	0.02
G1+G2+S+0.7Q+0.6V2+D2	24.30	0.00	-6198.47	-0.82	0.00	0.02
G1+G2+S+0.7Q+0.6V3+D3	24.30	-1399.10	-4949.77	-0.67	0.17	-12.81

G1+G2+S+0.7Q+0.6V4+D4	24.30	1399.10	-4949.77	-0.67	-0.17	12.84
G1+G2+S+0.7Q+A+0.6V1+0.6D1	40.17	-0.01	-4184.91	-0.57	0.00	0.02
G1+G2+S+0.7Q+A+0.6V1+D1	40.17	-0.01	-3704.73	-0.51	0.00	0.02
G1+G2+S+0.7Q+A+0.6V2+0.6D2	40.17	-0.01	-5721.93	-0.76	0.00	0.02
G1+G2+S+0.7Q+A+0.6V2+D2	40.17	-0.01	-6202.12	-0.82	0.00	0.02
G1+G2+S+0.7Q+A+0.6V3+0.6D3	40.17	-912.27	-4953.42	-0.67	0.11	-12.61
G1+G2+S+0.7Q+A+0.6V3+D3	40.17	-1399.11	-4953.42	-0.67	0.17	-12.80
G1+G2+S+0.7Q+A+0.6V4+0.6D4	40.17	912.26	-4953.42	-0.67	-0.11	12.66
G1+G2+S+0.7Q+A+0.6V4+D4	40.17	1399.10	-4953.42	-0.67	-0.17	12.85
G1+G2+S+0.7Q+A+D1	40.17	-0.01	-3752.96	-0.51	0.00	0.02
G1+G2+S+0.7Q+A+D2	40.17	-0.01	-6153.88	-0.82	0.00	0.02
G1+G2+S+0.7Q+A+D3	40.17	-1217.09	-4953.42	-0.67	0.15	-0.46
G1+G2+S+0.7Q+A+D4	40.17	1217.08	-4953.42	-0.67	-0.15	0.50
G1+G2+S+0.7Q+A+V1+0.6D1	40.17	-0.01	-4152.76	-0.56	0.00	0.02
G1+G2+S+0.7Q+A+V2+0.6D2	40.17	-0.01	-5754.08	-0.77	0.00	0.02
G1+G2+S+0.7Q+A+V3+0.6D3	40.17	-1033.61	-4953.42	-0.67	0.13	-20.84
G1+G2+S+0.7Q+A+V4+0.6D4	40.17	1033.60	-4953.42	-0.67	-0.13	20.89
G1+G2+S+0.7Q+V1+0.6D1	24.30	0.00	-4149.11	-0.56	0.00	0.02
G1+G2+S+0.7Q+V2+0.6D2	24.30	0.00	-5750.43	-0.77	0.00	0.02
G1+G2+S+0.7Q+V3+0.6D3	24.30	-1033.61	-4949.77	-0.67	0.13	-20.85
G1+G2+S+0.7Q+V4+0.6D4	24.30	1033.61	-4949.77	-0.67	-0.13	20.88
G1+G2+S+A+0.6V1+0.6D1	39.26	-0.01	-4185.08	-0.57	0.00	0.02
G1+G2+S+A+0.6V1+D1	39.26	-0.01	-3704.90	-0.51	0.00	0.02
G1+G2+S+A+0.6V2+0.6D2	39.26	-0.01	-5722.10	-0.76	0.00	0.02
G1+G2+S+A+0.6V2+D2	39.26	0.00	-6202.29	-0.82	0.00	0.02
G1+G2+S+A+0.6V3+0.6D3	39.26	-912.27	-4953.60	-0.67	0.11	-12.61
G1+G2+S+A+0.6V3+D3	39.26	-1399.11	-4953.60	-0.67	0.17	-12.80
G1+G2+S+A+0.6V4+0.6D4	39.26	912.26	-4953.59	-0.67	-0.11	12.65
G1+G2+S+A+0.6V4+D4	39.26	1399.10	-4953.59	-0.67	-0.17	12.85
G1+G2+S+A+D1	39.26	-0.01	-3753.13	-0.51	0.00	0.02
G1+G2+S+A+D2	39.26	-0.01	-6154.06	-0.82	0.00	0.02
G1+G2+S+A+D3	39.26	-1217.09	-4953.59	-0.67	0.15	-0.46
G1+G2+S+A+D4	39.26	1217.08	-4953.59	-0.67	-0.15	0.50
G1+G2+S+A+V1+0.6D1	39.26	-0.01	-4152.93	-0.56	0.00	0.02
G1+G2+S+A+V2+0.6D2	39.26	0.00	-5754.26	-0.77	0.00	0.02
G1+G2+S+A+V3+0.6D3	39.26	-1033.61	-4953.60	-0.67	0.13	-20.84
G1+G2+S+A+V4+0.6D4	39.26	1033.60	-4953.59	-0.67	-0.13	20.89
G1+G2+S+D1	23.39	0.00	-3749.48	-0.51	0.00	0.02
G1+G2+S+D2	23.39	0.00	-6150.41	-0.82	0.00	0.02
G1+G2+S+D3	23.39	-1217.09	-4949.94	-0.67	0.15	-0.46
G1+G2+S+D4	23.39	1217.09	-4949.94	-0.67	-0.15	0.50
G1+G2+S+Q+0.6V1+0.6D1	24.69	0.00	-4181.19	-0.57	0.00	0.02
G1+G2+S+Q+0.6V2+0.6D2	24.69	0.00	-5718.21	-0.76	0.00	0.02
G1+G2+S+Q+0.6V3+0.6D3	24.69	-912.27	-4949.70	-0.67	0.11	-12.62
G1+G2+S+Q+0.6V4+0.6D4	24.69	912.26	-4949.70	-0.67	-0.11	12.65
G1+G2+S+Q+A+0.6V1+0.6D1	40.56	-0.01	-4184.84	-0.57	0.00	0.02
G1+G2+S+Q+A+0.6V2+0.6D2	40.56	-0.01	-5721.86	-0.76	0.00	0.02
G1+G2+S+Q+A+0.6V3+0.6D3	40.56	-912.27	-4953.35	-0.67	0.11	-12.61
G1+G2+S+Q+A+0.6V4+0.6D4	40.56	912.26	-4953.34	-0.67	-0.11	12.66
G1+G2+S+Q+A+D1	40.56	-0.01	-3752.88	-0.51	0.00	0.02
G1+G2+S+Q+A+D2	40.56	-0.01	-6153.81	-0.82	0.00	0.02
G1+G2+S+Q+A+D3	40.56	-1217.09	-4953.35	-0.67	0.15	-0.46
G1+G2+S+Q+A+D4	40.56	1217.08	-4953.35	-0.67	-0.15	0.50
G1+G2+S+Q+D1	24.69	0.00	-3749.23	-0.51	0.00	0.02
G1+G2+S+Q+D2	24.69	0.00	-6150.16	-0.82	0.00	0.02
G1+G2+S+Q+D3	24.69	-1217.09	-4949.70	-0.67	0.15	-0.46
G1+G2+S+Q+D4	24.69	1217.08	-4949.70	-0.67	-0.15	0.50

Fundação E9						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	13.90	0.02	-80.97	0.00	0.00	0.00
Adicional (G2)	0.26	0.00	-3.95	0.00	0.00	0.00
Solo (S)	2.79	0.05	-5015.23	-0.66	0.00	0.00
Acidental (Q)	0.79	0.00	-13.74	0.00	0.00	0.00
Água (A)	13.68	0.00	-119.05	0.00	0.00	0.01
Vento X+ (V1)	0.01	0.00	80.03	0.01	0.00	0.00
Vento X- (V2)	-0.01	0.00	-80.03	-0.01	0.00	0.00
Vento Y+ (V3)	0.00	-320.82	0.00	0.00	0.04	-20.67
Vento Y- (V4)	0.00	320.82	0.00	0.00	-0.04	20.67
Desaprumo X+ (D1)	0.05	0.00	980.48	0.12	0.00	0.00
Desaprumo X- (D2)	-0.05	0.00	-980.48	-0.12	0.00	0.00
Desaprumo Y+ (D3)	0.00	-991.67	0.00	0.00	0.12	-0.49
Desaprumo Y- (D4)	0.00	991.67	0.00	0.00	-0.12	0.49
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	17.56	0.07	-4081.26	-0.53	0.00	0.00
G1+G2+S+0.7Q+0.6V2+D2	17.45	0.07	-6138.27	-0.79	0.00	0.00
G1+G2+S+0.7Q+0.6V3+D3	17.50	-1184.09	-5109.76	-0.66	0.15	-12.89
G1+G2+S+0.7Q+0.6V4+D4	17.50	1184.23	-5109.77	-0.66	-0.15	12.90
G1+G2+S+0.7Q+A+0.6V1+0.6D1	31.22	0.08	-4592.51	-0.58	0.00	0.01
G1+G2+S+0.7Q+A+0.6V1+D1	31.24	0.08	-4200.32	-0.53	0.00	0.01
G1+G2+S+0.7Q+A+0.6V2+0.6D2	31.15	0.08	-5865.13	-0.74	0.00	0.01
G1+G2+S+0.7Q+A+0.6V2+D2	31.13	0.08	-6257.32	-0.79	0.00	0.01
G1+G2+S+0.7Q+A+0.6V3+0.6D3	31.19	-787.41	-5228.82	-0.66	0.10	-12.69
G1+G2+S+0.7Q+A+0.6V3+D3	31.19	-1184.08	-5228.82	-0.66	0.15	-12.88
G1+G2+S+0.7Q+A+0.6V4+0.6D4	31.18	787.57	-5228.82	-0.66	-0.10	12.71
G1+G2+S+0.7Q+A+0.6V4+D4	31.18	1184.23	-5228.82	-0.66	-0.15	12.90
G1+G2+S+0.7Q+A+D1	31.24	0.08	-4248.34	-0.53	0.00	0.01
G1+G2+S+0.7Q+A+D2	31.13	0.08	-6209.30	-0.78	0.00	0.01
G1+G2+S+0.7Q+A+D3	31.19	-991.59	-5228.82	-0.66	0.12	-0.48
G1+G2+S+0.7Q+A+D4	31.19	991.75	-5228.82	-0.66	-0.12	0.50
G1+G2+S+0.7Q+A+V1+0.6D1	31.22	0.08	-4560.50	-0.57	0.00	0.01
G1+G2+S+0.7Q+A+V2+0.6D2	31.15	0.08	-5897.14	-0.74	0.00	0.01
G1+G2+S+0.7Q+A+V3+0.6D3	31.19	-915.74	-5228.81	-0.66	0.12	-20.95
G1+G2+S+0.7Q+A+V4+0.6D4	31.18	915.89	-5228.82	-0.66	-0.12	20.97
G1+G2+S+0.7Q+V1+0.6D1	17.54	0.07	-4441.45	-0.58	0.00	0.00
G1+G2+S+0.7Q+V2+0.6D2	17.47	0.07	-5778.09	-0.75	0.00	0.00
G1+G2+S+0.7Q+V3+0.6D3	17.50	-915.75	-5109.76	-0.66	0.12	-20.96
G1+G2+S+0.7Q+V4+0.6D4	17.50	915.89	-5109.77	-0.66	-0.12	20.97
G1+G2+S+A+0.6V1+0.6D1	30.67	0.07	-4582.90	-0.58	0.00	0.01
G1+G2+S+A+0.6V1+D1	30.69	0.07	-4190.70	-0.53	0.00	0.01
G1+G2+S+A+0.6V2+0.6D2	30.60	0.07	-5855.51	-0.74	0.00	0.01
G1+G2+S+A+0.6V2+D2	30.58	0.07	-6247.70	-0.79	0.00	0.01
G1+G2+S+A+0.6V3+0.6D3	30.64	-787.42	-5219.20	-0.66	0.10	-12.69
G1+G2+S+A+0.6V3+D3	30.64	-1184.09	-5219.20	-0.66	0.15	-12.88
G1+G2+S+A+0.6V4+0.6D4	30.64	787.56	-5219.21	-0.66	-0.10	12.71
G1+G2+S+A+0.6V4+D4	30.64	1184.23	-5219.21	-0.66	-0.15	12.90
G1+G2+S+A+D1	30.69	0.07	-4238.72	-0.53	0.00	0.01
G1+G2+S+A+D2	30.58	0.07	-6199.69	-0.78	0.00	0.01
G1+G2+S+A+D3	30.64	-991.60	-5219.20	-0.66	0.12	-0.48
G1+G2+S+A+D4	30.64	991.74	-5219.20	-0.66	-0.12	0.50
G1+G2+S+A+V1+0.6D1	30.67	0.07	-4550.88	-0.57	0.00	0.01
G1+G2+S+A+V2+0.6D2	30.60	0.07	-5887.52	-0.74	0.00	0.01

G1+G2+S+A+V3+0.6D3	30.64	-915.74	-5219.20	-0.66	0.12	-20.95
G1+G2+S+A+V4+0.6D4	30.64	915.89	-5219.21	-0.66	-0.12	20.97
G1+G2+S+D1	17.00	0.07	-4119.67	-0.54	0.00	0.00
G1+G2+S+D2	16.90	0.07	-6080.63	-0.79	0.00	0.00
G1+G2+S+D3	16.95	-991.60	-5100.15	-0.66	0.12	-0.48
G1+G2+S+D4	16.95	991.74	-5100.15	-0.66	-0.12	0.49
G1+G2+S+Q+0.6V1+0.6D1	17.77	0.07	-4477.58	-0.58	0.00	0.00
G1+G2+S+Q+0.6V2+0.6D2	17.70	0.07	-5750.19	-0.74	0.00	0.00
G1+G2+S+Q+0.6V3+0.6D3	17.74	-787.42	-5113.88	-0.66	0.10	-12.69
G1+G2+S+Q+0.6V4+0.6D4	17.74	787.56	-5113.89	-0.66	-0.10	12.70
G1+G2+S+Q+A+0.6V1+0.6D1	31.46	0.08	-4596.63	-0.58	0.00	0.01
G1+G2+S+Q+A+0.6V2+0.6D2	31.39	0.08	-5869.25	-0.74	0.00	0.01
G1+G2+S+Q+A+0.6V3+0.6D3	31.42	-787.41	-5232.94	-0.66	0.10	-12.69
G1+G2+S+Q+A+0.6V4+0.6D4	31.42	787.57	-5232.94	-0.66	-0.10	12.71
G1+G2+S+Q+A+D1	31.47	0.08	-4252.46	-0.53	0.00	0.01
G1+G2+S+Q+A+D2	31.37	0.08	-6213.42	-0.78	0.00	0.01
G1+G2+S+Q+A+D3	31.42	-991.59	-5232.94	-0.66	0.12	-0.48
G1+G2+S+Q+A+D4	31.42	991.75	-5232.94	-0.66	-0.12	0.50
G1+G2+S+Q+D1	17.79	0.07	-4133.40	-0.54	0.00	0.00
G1+G2+S+Q+D2	17.69	0.07	-6094.37	-0.79	0.00	0.00
G1+G2+S+Q+D3	17.74	-991.60	-5113.89	-0.66	0.12	-0.48
G1+G2+S+Q+D4	17.74	991.74	-5113.89	-0.66	-0.12	0.49

Fundação E10						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	7.16	0.02	-10.54	0.00	0.00	0.00
Adicional (G2)	0.08	0.00	-0.37	0.00	0.00	0.00
Solo (S)	1.33	0.03	-4605.99	-0.63	0.00	-0.02
Acidental (Q)	0.25	0.00	-1.26	0.00	0.00	0.00
Água (A)	2.68	0.01	-23.84	0.00	0.00	0.00
Vento X+ (V1)	-0.01	0.00	73.22	0.01	0.00	0.00
Vento X- (V2)	0.01	0.00	-73.22	-0.01	0.00	0.00
Vento Y+ (V3)	0.00	-308.90	-0.01	0.00	0.04	-9.95
Vento Y- (V4)	0.00	308.90	0.01	0.00	-0.04	9.95
Desaprumo X+ (D1)	-0.06	0.00	328.81	0.04	0.00	0.00
Desaprumo X- (D2)	0.06	0.00	-328.81	-0.04	0.00	0.00
Desaprumo Y+ (D3)	0.00	-330.42	0.00	0.00	0.04	-0.23
Desaprumo Y- (D4)	0.00	330.42	0.00	0.00	-0.04	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	8.68	0.05	-4245.04	-0.58	0.00	-0.03
G1+G2+S+0.7Q+0.6V2+D2	8.80	0.05	-4990.52	-0.68	0.00	-0.03
G1+G2+S+0.7Q+0.6V3+D3	8.74	-515.71	-4617.79	-0.63	0.07	-6.23
G1+G2+S+0.7Q+0.6V4+D4	8.74	515.81	-4617.78	-0.63	-0.07	6.17
G1+G2+S+0.7Q+A+0.6V1+0.6D1	11.38	0.07	-4400.40	-0.60	0.00	-0.03
G1+G2+S+0.7Q+A+0.6V1+D1	11.36	0.07	-4268.88	-0.58	0.00	-0.03
G1+G2+S+0.7Q+A+0.6V2+0.6D2	11.46	0.07	-4882.84	-0.66	0.00	-0.03
G1+G2+S+0.7Q+A+0.6V2+D2	11.48	0.07	-5014.36	-0.68	0.00	-0.03
G1+G2+S+0.7Q+A+0.6V3+0.6D3	11.42	-383.53	-4641.63	-0.63	0.05	-6.14
G1+G2+S+0.7Q+A+0.6V3+D3	11.42	-515.69	-4641.63	-0.63	0.07	-6.23
G1+G2+S+0.7Q+A+0.6V4+0.6D4	11.42	383.66	-4641.62	-0.63	-0.05	6.08
G1+G2+S+0.7Q+A+0.6V4+D4	11.42	515.83	-4641.62	-0.63	-0.07	6.17
G1+G2+S+0.7Q+A+D1	11.36	0.07	-4312.82	-0.59	0.00	-0.03
G1+G2+S+0.7Q+A+D2	11.48	0.07	-4970.43	-0.67	0.00	-0.03
G1+G2+S+0.7Q+A+D3	11.42	-330.36	-4641.62	-0.63	0.04	-0.26

G1+G2+S+0.7Q+A+D4	11.42	330.49	-4641.62	-0.63	-0.04	0.20
G1+G2+S+0.7Q+A+V1+0.6D1	11.38	0.07	-4371.12	-0.59	0.00	-0.03
G1+G2+S+0.7Q+A+V2+0.6D2	11.46	0.07	-4912.13	-0.67	0.00	-0.03
G1+G2+S+0.7Q+A+V3+0.6D3	11.42	-507.09	-4641.63	-0.63	0.07	-10.12
G1+G2+S+0.7Q+A+V4+0.6D4	11.42	507.22	-4641.62	-0.63	-0.07	10.06
G1+G2+S+0.7Q+V1+0.6D1	8.70	0.05	-4347.28	-0.60	0.00	-0.03
G1+G2+S+0.7Q+V2+0.6D2	8.78	0.05	-4888.29	-0.67	0.00	-0.03
G1+G2+S+0.7Q+V3+0.6D3	8.74	-507.10	-4617.79	-0.63	0.07	-10.12
G1+G2+S+0.7Q+V4+0.6D4	8.74	507.20	-4617.78	-0.63	-0.07	10.06
G1+G2+S+A+0.6V1+0.6D1	11.21	0.06	-4399.52	-0.60	0.00	-0.03
G1+G2+S+A+0.6V1+D1	11.18	0.06	-4268.00	-0.58	0.00	-0.03
G1+G2+S+A+0.6V2+0.6D2	11.29	0.06	-4881.95	-0.66	0.00	-0.03
G1+G2+S+A+0.6V2+D2	11.31	0.06	-5013.48	-0.68	0.00	-0.03
G1+G2+S+A+0.6V3+0.6D3	11.25	-383.53	-4640.74	-0.63	0.05	-6.14
G1+G2+S+A+0.6V3+D3	11.25	-515.70	-4640.74	-0.63	0.07	-6.23
G1+G2+S+A+0.6V4+0.6D4	11.25	383.66	-4640.73	-0.63	-0.05	6.08
G1+G2+S+A+0.6V4+D4	11.25	515.82	-4640.73	-0.63	-0.07	6.18
G1+G2+S+A+D1	11.19	0.06	-4311.93	-0.59	0.00	-0.03
G1+G2+S+A+D2	11.31	0.06	-4969.54	-0.67	0.00	-0.03
G1+G2+S+A+D3	11.25	-330.36	-4640.74	-0.63	0.04	-0.26
G1+G2+S+A+D4	11.25	330.48	-4640.74	-0.63	-0.04	0.21
G1+G2+S+A+V1+0.6D1	11.21	0.06	-4370.23	-0.59	0.00	-0.03
G1+G2+S+A+V2+0.6D2	11.29	0.06	-4911.24	-0.67	0.00	-0.03
G1+G2+S+A+V3+0.6D3	11.25	-507.09	-4640.74	-0.63	0.07	-10.12
G1+G2+S+A+V4+0.6D4	11.25	507.22	-4640.73	-0.63	-0.07	10.06
G1+G2+S+D1	8.51	0.05	-4288.09	-0.59	0.00	-0.03
G1+G2+S+D2	8.63	0.05	-4945.70	-0.67	0.00	-0.03
G1+G2+S+D3	8.57	-330.37	-4616.90	-0.63	0.04	-0.26
G1+G2+S+D4	8.57	330.47	-4616.90	-0.63	-0.04	0.20
G1+G2+S+Q+0.6V1+0.6D1	8.78	0.05	-4376.94	-0.60	0.00	-0.03
G1+G2+S+Q+0.6V2+0.6D2	8.86	0.05	-4859.38	-0.66	0.00	-0.03
G1+G2+S+Q+0.6V3+0.6D3	8.82	-383.54	-4618.17	-0.63	0.05	-6.14
G1+G2+S+Q+0.6V4+0.6D4	8.82	383.65	-4618.16	-0.63	-0.05	6.08
G1+G2+S+Q+A+0.6V1+0.6D1	11.46	0.07	-4400.78	-0.60	0.00	-0.03
G1+G2+S+Q+A+0.6V2+0.6D2	11.54	0.07	-4883.22	-0.66	0.00	-0.03
G1+G2+S+Q+A+0.6V3+0.6D3	11.50	-383.52	-4642.00	-0.63	0.05	-6.14
G1+G2+S+Q+A+0.6V4+0.6D4	11.50	383.66	-4642.00	-0.63	-0.05	6.08
G1+G2+S+Q+A+D1	11.44	0.07	-4313.20	-0.59	0.00	-0.03
G1+G2+S+Q+A+D2	11.56	0.07	-4970.81	-0.67	0.00	-0.03
G1+G2+S+Q+A+D3	11.50	-330.35	-4642.00	-0.63	0.04	-0.26
G1+G2+S+Q+A+D4	11.50	330.49	-4642.00	-0.63	-0.04	0.20
G1+G2+S+Q+D1	8.76	0.05	-4289.36	-0.59	0.00	-0.03
G1+G2+S+Q+D2	8.88	0.05	-4946.97	-0.67	0.00	-0.03
G1+G2+S+Q+D3	8.82	-330.37	-4618.16	-0.63	0.04	-0.26
G1+G2+S+Q+D4	8.82	330.47	-4618.16	-0.63	-0.04	0.20

Fundação E11

Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	8.11	-17.87	17.25	0.00	0.00	0.02
Adicional (G2)	0.13	-0.65	0.79	0.00	0.00	0.00
Solo (S)	2.87	9.12	-4685.80	-0.63	0.00	0.04
Acidental (Q)	0.40	-2.34	2.83	0.00	0.00	0.00
Água (A)	6.94	-49.37	39.35	0.00	0.00	0.04
Vento X+ (V1)	-0.01	-0.01	75.67	0.01	0.00	0.00
Vento X- (V2)	0.01	0.01	-75.67	-0.01	0.00	0.00
Vento Y+ (V3)	-0.04	-266.82	6.87	0.00	0.03	-9.88
Vento Y- (V4)	0.04	266.82	-6.87	0.00	-0.03	9.88

Desaprumo X+ (D1)	-0.04	0.07	512.36	0.06	0.00	0.00
Desaprumo X- (D2)	0.04	-0.07	-512.36	-0.06	0.00	0.00
Desaprumo Y+ (D3)	-0.10	-512.05	0.06	0.00	0.06	-0.23
Desaprumo Y- (D4)	0.10	512.05	-0.06	0.00	-0.06	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	11.34	-10.98	-4108.01	-0.56	0.00	0.06
G1+G2+S+0.7Q+0.6V2+D2	11.43	-11.10	-5223.54	-0.70	0.00	0.06
G1+G2+S+0.7Q+0.6V3+D3	11.26	-683.18	-4661.59	-0.63	0.08	-6.10
G1+G2+S+0.7Q+0.6V4+D4	11.52	661.11	-4669.96	-0.63	-0.09	6.21
G1+G2+S+0.7Q+A+0.6V1+0.6D1	18.30	-60.37	-4273.60	-0.59	0.00	0.10
G1+G2+S+0.7Q+A+0.6V1+D1	18.28	-60.35	-4068.66	-0.56	0.00	0.10
G1+G2+S+0.7Q+A+0.6V2+0.6D2	18.35	-60.44	-4979.24	-0.67	0.00	0.10
G1+G2+S+0.7Q+A+0.6V2+D2	18.37	-60.47	-5184.19	-0.70	0.00	0.10
G1+G2+S+0.7Q+A+0.6V3+0.6D3	18.24	-527.73	-4622.26	-0.63	0.06	-5.97
G1+G2+S+0.7Q+A+0.6V3+D3	18.20	-732.55	-4622.24	-0.63	0.08	-6.06
G1+G2+S+0.7Q+A+0.6V4+0.6D4	18.41	406.92	-4630.58	-0.63	-0.06	6.16
G1+G2+S+0.7Q+A+0.6V4+D4	18.45	611.74	-4630.61	-0.63	-0.09	6.25
G1+G2+S+0.7Q+A+D1	18.28	-60.34	-4114.06	-0.57	0.00	0.10
G1+G2+S+0.7Q+A+D2	18.37	-60.48	-5138.78	-0.69	0.00	0.10
G1+G2+S+0.7Q+A+D3	18.22	-572.46	-4626.36	-0.63	0.06	-0.13
G1+G2+S+0.7Q+A+D4	18.43	451.64	-4626.48	-0.63	-0.07	0.33
G1+G2+S+0.7Q+A+V1+0.6D1	18.29	-60.38	-4243.33	-0.58	0.00	0.10
G1+G2+S+0.7Q+A+V2+0.6D2	18.36	-60.44	-5009.51	-0.68	0.00	0.10
G1+G2+S+0.7Q+A+V3+0.6D3	18.22	-634.46	-4619.52	-0.63	0.07	-9.92
G1+G2+S+0.7Q+A+V4+0.6D4	18.43	513.65	-4633.33	-0.63	-0.08	10.11
G1+G2+S+0.7Q+V1+0.6D1	11.36	-11.01	-4282.68	-0.58	0.00	0.05
G1+G2+S+0.7Q+V2+0.6D2	11.42	-11.07	-5048.86	-0.68	0.00	0.06
G1+G2+S+0.7Q+V3+0.6D3	11.28	-585.09	-4658.87	-0.63	0.07	-9.96
G1+G2+S+0.7Q+V4+0.6D4	11.49	563.02	-4672.68	-0.63	-0.07	10.07
G1+G2+S+A+0.6V1+0.6D1	18.02	-58.74	-4275.58	-0.59	0.00	0.10
G1+G2+S+A+0.6V1+D1	18.00	-58.71	-4070.64	-0.56	0.00	0.10
G1+G2+S+A+0.6V2+0.6D2	18.08	-58.81	-4981.23	-0.67	0.00	0.10
G1+G2+S+A+0.6V2+D2	18.09	-58.83	-5186.17	-0.70	0.00	0.10
G1+G2+S+A+0.6V3+0.6D3	17.96	-526.10	-4624.25	-0.63	0.06	-5.97
G1+G2+S+A+0.6V3+D3	17.92	-730.92	-4624.22	-0.63	0.08	-6.06
G1+G2+S+A+0.6V4+0.6D4	18.13	408.55	-4632.56	-0.63	-0.06	6.16
G1+G2+S+A+0.6V4+D4	18.18	613.37	-4632.59	-0.63	-0.09	6.25
G1+G2+S+A+D1	18.00	-58.70	-4116.04	-0.57	0.00	0.10
G1+G2+S+A+D2	18.09	-58.84	-5140.77	-0.69	0.00	0.10
G1+G2+S+A+D3	17.94	-570.82	-4628.34	-0.63	0.06	-0.13
G1+G2+S+A+D4	18.15	453.28	-4628.47	-0.63	-0.07	0.32
G1+G2+S+A+V1+0.6D1	18.01	-58.74	-4245.31	-0.58	0.00	0.09
G1+G2+S+A+V2+0.6D2	18.08	-58.80	-5011.49	-0.68	0.00	0.10
G1+G2+S+A+V3+0.6D3	17.94	-632.83	-4621.50	-0.63	0.07	-9.92
G1+G2+S+A+V4+0.6D4	18.15	515.28	-4635.31	-0.63	-0.08	10.11
G1+G2+S+D1	11.07	-9.33	-4155.40	-0.56	0.00	0.06
G1+G2+S+D2	11.15	-9.47	-5180.12	-0.69	0.00	0.06
G1+G2+S+D3	11.00	-521.45	-4667.69	-0.63	0.06	-0.17
G1+G2+S+D4	11.21	502.65	-4667.82	-0.63	-0.06	0.28
G1+G2+S+Q+0.6V1+0.6D1	11.48	-11.70	-4312.10	-0.58	0.00	0.06
G1+G2+S+Q+0.6V2+0.6D2	11.54	-11.77	-5017.75	-0.67	0.00	0.06
G1+G2+S+Q+0.6V3+0.6D3	11.42	-479.06	-4660.77	-0.63	0.06	-6.01
G1+G2+S+Q+0.6V4+0.6D4	11.59	455.59	-4669.08	-0.63	-0.06	6.12
G1+G2+S+Q+A+0.6V1+0.6D1	18.42	-61.07	-4272.75	-0.59	0.00	0.10
G1+G2+S+Q+A+0.6V2+0.6D2	18.47	-61.14	-4978.39	-0.67	0.00	0.10

G1+G2+S+Q+A+0.6V3+0.6D3	18.36	-528.43	-4621.41	-0.63	0.06	-5.97
G1+G2+S+Q+A+0.6V4+0.6D4	18.53	406.22	-4629.73	-0.63	-0.06	6.16
G1+G2+S+Q+A+D1	18.40	-61.04	-4113.21	-0.57	0.00	0.10
G1+G2+S+Q+A+D2	18.49	-61.18	-5137.93	-0.69	0.00	0.10
G1+G2+S+Q+A+D3	18.34	-573.16	-4625.51	-0.63	0.06	-0.13
G1+G2+S+Q+A+D4	18.55	450.94	-4625.64	-0.63	-0.07	0.33
G1+G2+S+Q+D1	11.46	-11.67	-4152.56	-0.56	0.00	0.06
G1+G2+S+Q+D2	11.55	-11.81	-5177.29	-0.69	0.00	0.06
G1+G2+S+Q+D3	11.40	-523.79	-4664.86	-0.63	0.06	-0.17
G1+G2+S+Q+D4	11.61	500.31	-4664.99	-0.63	-0.07	0.29

Fundação E12						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	10.34	-52.96	-5.13	0.00	0.00	0.01
Adicional (G2)	0.24	-2.48	-0.29	0.00	0.00	0.00
Solo (S)	5.17	-21.93	-4649.88	-0.63	0.00	0.11
Acidental (Q)	0.72	-9.30	-1.10	0.00	0.00	0.00
Água (A)	8.29	-103.99	-15.63	0.00	-0.01	0.00
Vento X+ (V1)	0.00	0.02	75.85	0.01	0.00	0.00
Vento X- (V2)	0.00	-0.02	-75.85	-0.01	0.00	0.00
Vento Y+ (V3)	-0.01	-274.83	6.95	0.00	0.03	-9.92
Vento Y- (V4)	0.01	274.83	-6.95	0.00	-0.03	9.92
Desaprumo X+ (D1)	-0.06	0.86	642.53	0.08	0.00	0.00
Desaprumo X- (D2)	0.06	-0.86	-642.53	-0.08	0.00	0.00
Desaprumo Y+ (D3)	-0.06	-637.77	-0.10	0.00	0.08	-0.23
Desaprumo Y- (D4)	0.06	637.77	0.10	0.00	-0.08	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	16.19	-83.01	-3968.04	-0.54	-0.01	0.12
G1+G2+S+0.7Q+0.6V2+D2	16.32	-84.76	-5344.11	-0.71	-0.01	0.13
G1+G2+S+0.7Q+0.6V3+D3	16.20	-886.56	-4652.00	-0.63	0.10	-6.06
G1+G2+S+0.7Q+0.6V4+D4	16.32	718.79	-4660.15	-0.63	-0.11	6.30
G1+G2+S+0.7Q+A+0.6V1+0.6D1	24.51	-187.34	-4240.68	-0.57	-0.01	0.12
G1+G2+S+0.7Q+A+0.6V1+D1	24.48	-187.00	-3983.67	-0.54	-0.01	0.12
G1+G2+S+0.7Q+A+0.6V2+0.6D2	24.59	-188.40	-5102.73	-0.68	-0.01	0.13
G1+G2+S+0.7Q+A+0.6V2+D2	24.61	-188.75	-5359.74	-0.71	-0.01	0.13
G1+G2+S+0.7Q+A+0.6V3+0.6D3	24.51	-735.43	-4667.59	-0.63	0.06	-5.96
G1+G2+S+0.7Q+A+0.6V3+D3	24.49	-990.54	-4667.63	-0.63	0.09	-6.05
G1+G2+S+0.7Q+A+0.6V4+0.6D4	24.59	359.69	-4675.81	-0.63	-0.08	6.22
G1+G2+S+0.7Q+A+0.6V4+D4	24.61	614.80	-4675.77	-0.63	-0.11	6.31
G1+G2+S+0.7Q+A+D1	24.49	-187.01	-4029.17	-0.55	-0.01	0.13
G1+G2+S+0.7Q+A+D2	24.61	-188.73	-5314.23	-0.71	-0.01	0.13
G1+G2+S+0.7Q+A+D3	24.49	-825.65	-4671.80	-0.63	0.07	-0.10
G1+G2+S+0.7Q+A+D4	24.61	449.90	-4671.60	-0.63	-0.09	0.36
G1+G2+S+0.7Q+A+V1+0.6D1	24.51	-187.33	-4210.34	-0.57	-0.01	0.12
G1+G2+S+0.7Q+A+V2+0.6D2	24.59	-188.41	-5133.06	-0.69	-0.01	0.13
G1+G2+S+0.7Q+A+V3+0.6D3	24.50	-845.37	-4664.81	-0.63	0.07	-9.93
G1+G2+S+0.7Q+A+V4+0.6D4	24.59	469.63	-4678.59	-0.63	-0.09	10.18
G1+G2+S+0.7Q+V1+0.6D1	16.22	-83.35	-4194.71	-0.57	-0.01	0.12
G1+G2+S+0.7Q+V2+0.6D2	16.30	-84.42	-5117.44	-0.69	-0.01	0.13
G1+G2+S+0.7Q+V3+0.6D3	16.21	-741.38	-4649.19	-0.63	0.08	-9.93
G1+G2+S+0.7Q+V4+0.6D4	16.30	573.61	-4662.97	-0.63	-0.09	10.18
G1+G2+S+A+0.6V1+0.6D1	24.00	-180.83	-4239.91	-0.57	-0.01	0.12
G1+G2+S+A+0.6V1+D1	23.98	-180.48	-3982.89	-0.54	-0.01	0.12
G1+G2+S+A+0.6V2+0.6D2	24.08	-181.89	-5101.96	-0.68	-0.01	0.13

G1+G2+S+A+0.6V2+D2	24.11	-182.23	-5358.97	-0.71	-0.01	0.13
G1+G2+S+A+0.6V3+0.6D3	24.00	-728.92	-4666.82	-0.63	0.06	-5.96
G1+G2+S+A+0.6V3+D3	23.98	-984.03	-4666.86	-0.63	0.09	-6.05
G1+G2+S+A+0.6V4+0.6D4	24.08	366.20	-4675.04	-0.63	-0.08	6.22
G1+G2+S+A+0.6V4+D4	24.10	621.31	-4675.00	-0.63	-0.11	6.31
G1+G2+S+A+D1	23.98	-180.50	-4028.40	-0.55	-0.01	0.13
G1+G2+S+A+D2	24.10	-182.22	-5313.46	-0.71	-0.01	0.13
G1+G2+S+A+D3	23.98	-819.13	-4671.03	-0.63	0.07	-0.10
G1+G2+S+A+D4	24.10	456.41	-4670.83	-0.63	-0.09	0.36
G1+G2+S+A+V1+0.6D1	24.00	-180.82	-4209.57	-0.57	-0.01	0.12
G1+G2+S+A+V2+0.6D2	24.08	-181.90	-5132.29	-0.69	-0.01	0.13
G1+G2+S+A+V3+0.6D3	24.00	-838.86	-4664.04	-0.63	0.07	-9.93
G1+G2+S+A+V4+0.6D4	24.09	476.14	-4677.82	-0.63	-0.09	10.18
G1+G2+S+D1	15.69	-76.51	-4012.78	-0.55	0.00	0.12
G1+G2+S+D2	15.81	-78.24	-5297.83	-0.71	0.00	0.12
G1+G2+S+D3	15.69	-715.15	-4655.40	-0.63	0.08	-0.11
G1+G2+S+D4	15.81	560.40	-4655.21	-0.63	-0.09	0.35
G1+G2+S+Q+0.6V1+0.6D1	16.44	-86.14	-4225.38	-0.57	-0.01	0.12
G1+G2+S+Q+0.6V2+0.6D2	16.52	-87.20	-5087.43	-0.68	-0.01	0.13
G1+G2+S+Q+0.6V3+0.6D3	16.44	-634.24	-4652.30	-0.63	0.06	-5.97
G1+G2+S+Q+0.6V4+0.6D4	16.52	460.89	-4660.52	-0.63	-0.07	6.21
G1+G2+S+Q+A+0.6V1+0.6D1	24.73	-190.13	-4241.01	-0.57	-0.01	0.13
G1+G2+S+Q+A+0.6V2+0.6D2	24.81	-191.19	-5103.06	-0.68	-0.01	0.13
G1+G2+S+Q+A+0.6V3+0.6D3	24.73	-738.23	-4667.92	-0.63	0.06	-5.96
G1+G2+S+Q+A+0.6V4+0.6D4	24.81	356.90	-4676.14	-0.63	-0.08	6.22
G1+G2+S+Q+A+D1	24.70	-189.80	-4029.50	-0.55	-0.01	0.13
G1+G2+S+Q+A+D2	24.83	-191.52	-5314.56	-0.71	-0.01	0.13
G1+G2+S+Q+A+D3	24.71	-828.44	-4672.13	-0.63	0.07	-0.10
G1+G2+S+Q+A+D4	24.82	447.11	-4671.93	-0.63	-0.09	0.36
G1+G2+S+Q+D1	16.41	-85.81	-4013.88	-0.55	-0.01	0.12
G1+G2+S+Q+D2	16.54	-87.54	-5298.93	-0.71	-0.01	0.12
G1+G2+S+Q+D3	16.42	-724.45	-4656.50	-0.63	0.08	-0.11
G1+G2+S+Q+D4	16.53	551.10	-4656.31	-0.63	-0.09	0.35

Fundação E13

Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	8.42	-27.39	-0.02	0.00	0.00	0.01
Adicional (G2)	0.14	-1.14	0.01	0.00	0.00	0.00
Solo (S)	2.76	12.74	-4681.70	-0.63	0.00	0.05
Acidental (Q)	0.42	-4.10	0.02	0.00	0.00	0.00
Água (A)	6.71	-69.24	-0.61	0.00	0.00	0.01
Vento X+ (V1)	0.00	0.00	75.52	0.01	0.00	0.00
Vento X- (V2)	0.00	0.00	-75.52	-0.01	0.00	0.00
Vento Y+ (V3)	-0.04	-284.84	6.84	0.00	0.04	-9.92
Vento Y- (V4)	0.04	284.84	-6.84	0.00	-0.04	9.92
Desaprumo X+ (D1)	0.00	0.01	515.78	0.06	0.00	0.00
Desaprumo X- (D2)	0.00	-0.01	-515.78	-0.06	0.00	0.00
Desaprumo Y+ (D3)	-0.17	-515.57	0.15	0.00	0.06	-0.23
Desaprumo Y- (D4)	0.17	515.57	-0.15	0.00	-0.06	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	11.62	-18.65	-4120.61	-0.56	0.00	0.06
G1+G2+S+0.7Q+0.6V2+D2	11.62	-18.66	-5242.79	-0.70	0.00	0.06
G1+G2+S+0.7Q+0.6V3+D3	11.43	-705.12	-4677.45	-0.63	0.09	-6.12
G1+G2+S+0.7Q+0.6V4+D4	11.81	667.81	-4685.95	-0.63	-0.09	6.24

G1+G2+S+0.7Q+A+0.6V1+0.6D1	18.33	-87.89	-4327.53	-0.58	0.00	0.06
G1+G2+S+0.7Q+A+0.6V1+D1	18.33	-87.89	-4121.21	-0.56	0.00	0.06
G1+G2+S+0.7Q+A+0.6V2+0.6D2	18.33	-87.90	-5037.08	-0.67	0.00	0.07
G1+G2+S+0.7Q+A+0.6V2+D2	18.33	-87.90	-5243.39	-0.70	0.00	0.07
G1+G2+S+0.7Q+A+0.6V3+0.6D3	18.21	-568.14	-4678.11	-0.63	0.06	-6.02
G1+G2+S+0.7Q+A+0.6V3+D3	18.14	-774.36	-4678.05	-0.63	0.08	-6.12
G1+G2+S+0.7Q+A+0.6V4+0.6D4	18.45	392.35	-4686.50	-0.63	-0.07	6.15
G1+G2+S+0.7Q+A+0.6V4+D4	18.52	598.58	-4686.56	-0.63	-0.09	6.25
G1+G2+S+0.7Q+A+D1	18.33	-87.89	-4166.53	-0.56	0.00	0.06
G1+G2+S+0.7Q+A+D2	18.33	-87.90	-5198.08	-0.69	0.00	0.07
G1+G2+S+0.7Q+A+D3	18.16	-603.46	-4682.16	-0.63	0.06	-0.17
G1+G2+S+0.7Q+A+D4	18.50	427.67	-4682.45	-0.63	-0.07	0.30
G1+G2+S+0.7Q+A+V1+0.6D1	18.33	-87.89	-4297.32	-0.58	0.00	0.06
G1+G2+S+0.7Q+A+V2+0.6D2	18.33	-87.90	-5067.29	-0.68	0.00	0.07
G1+G2+S+0.7Q+A+V3+0.6D3	18.20	-682.07	-4675.38	-0.63	0.07	-9.99
G1+G2+S+0.7Q+A+V4+0.6D4	18.46	506.29	-4689.23	-0.63	-0.08	10.12
G1+G2+S+0.7Q+V1+0.6D1	11.62	-18.65	-4296.71	-0.58	0.00	0.06
G1+G2+S+0.7Q+V2+0.6D2	11.62	-18.66	-5066.68	-0.68	0.00	0.06
G1+G2+S+0.7Q+V3+0.6D3	11.49	-612.83	-4674.77	-0.63	0.07	-10.00
G1+G2+S+0.7Q+V4+0.6D4	11.76	575.52	-4688.62	-0.63	-0.08	10.12
G1+G2+S+A+0.6V1+0.6D1	18.04	-85.02	-4327.54	-0.58	0.00	0.06
G1+G2+S+A+0.6V1+D1	18.04	-85.02	-4121.23	-0.56	0.00	0.06
G1+G2+S+A+0.6V2+0.6D2	18.03	-85.02	-5037.10	-0.67	0.00	0.07
G1+G2+S+A+0.6V2+D2	18.03	-85.03	-5243.41	-0.70	0.00	0.07
G1+G2+S+A+0.6V3+0.6D3	17.91	-565.26	-4678.13	-0.63	0.06	-6.03
G1+G2+S+A+0.6V3+D3	17.85	-771.49	-4678.07	-0.63	0.08	-6.12
G1+G2+S+A+0.6V4+0.6D4	18.16	395.22	-4686.51	-0.63	-0.07	6.15
G1+G2+S+A+0.6V4+D4	18.22	601.45	-4686.57	-0.63	-0.09	6.25
G1+G2+S+A+D1	18.04	-85.01	-4166.54	-0.56	0.00	0.06
G1+G2+S+A+D2	18.03	-85.03	-5198.10	-0.69	0.00	0.06
G1+G2+S+A+D3	17.87	-600.59	-4682.18	-0.63	0.06	-0.17
G1+G2+S+A+D4	18.20	430.54	-4682.47	-0.63	-0.07	0.29
G1+G2+S+A+V1+0.6D1	18.04	-85.02	-4297.34	-0.58	0.00	0.06
G1+G2+S+A+V2+0.6D2	18.03	-85.02	-5067.31	-0.68	0.00	0.07
G1+G2+S+A+V3+0.6D3	17.90	-679.20	-4675.39	-0.63	0.07	-9.99
G1+G2+S+A+V4+0.6D4	18.17	509.16	-4689.25	-0.63	-0.08	10.12
G1+G2+S+D1	11.33	-15.78	-4165.93	-0.56	0.00	0.06
G1+G2+S+D2	11.33	-15.79	-5197.49	-0.69	0.00	0.06
G1+G2+S+D3	11.16	-531.35	-4681.57	-0.63	0.06	-0.17
G1+G2+S+D4	11.49	499.78	-4681.86	-0.63	-0.07	0.29
G1+G2+S+Q+0.6V1+0.6D1	11.75	-19.88	-4326.91	-0.58	0.00	0.06
G1+G2+S+Q+0.6V2+0.6D2	11.75	-19.89	-5036.47	-0.67	0.00	0.06
G1+G2+S+Q+0.6V3+0.6D3	11.63	-500.13	-4677.50	-0.63	0.06	-6.03
G1+G2+S+Q+0.6V4+0.6D4	11.87	460.36	-4685.88	-0.63	-0.06	6.15
G1+G2+S+Q+A+0.6V1+0.6D1	18.46	-89.12	-4327.52	-0.58	-0.01	0.06
G1+G2+S+Q+A+0.6V2+0.6D2	18.46	-89.13	-5037.08	-0.67	-0.01	0.07
G1+G2+S+Q+A+0.6V3+0.6D3	18.34	-569.37	-4678.11	-0.63	0.06	-6.02
G1+G2+S+Q+A+0.6V4+0.6D4	18.58	391.12	-4686.49	-0.63	-0.07	6.15
G1+G2+S+Q+A+D1	18.46	-89.12	-4166.52	-0.56	-0.01	0.06
G1+G2+S+Q+A+D2	18.45	-89.13	-5198.08	-0.69	-0.01	0.07
G1+G2+S+Q+A+D3	18.29	-604.69	-4682.15	-0.63	0.06	-0.17
G1+G2+S+Q+A+D4	18.62	426.44	-4682.44	-0.63	-0.07	0.30
G1+G2+S+Q+D1	11.75	-19.88	-4165.91	-0.56	0.00	0.06
G1+G2+S+Q+D2	11.75	-19.89	-5197.47	-0.69	0.00	0.06
G1+G2+S+Q+D3	11.58	-535.45	-4681.54	-0.63	0.06	-0.17
G1+G2+S+Q+D4	11.91	495.68	-4681.84	-0.63	-0.07	0.29

Fundação E14						
Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	10.32	-52.76	4.87	0.00	0.00	0.04
Adicional (G2)	0.24	-2.50	0.30	0.00	0.00	0.00
Solo (S)	4.84	-19.99	-4644.97	-0.63	0.00	0.12
Acidental (Q)	0.73	-9.36	1.14	0.00	0.00	0.00
Água (A)	8.14	-102.00	15.75	0.00	-0.01	0.04
Vento X+ (V1)	0.00	-0.03	75.83	0.01	0.00	0.00
Vento X- (V2)	0.00	0.03	-75.83	-0.01	0.00	0.00
Vento Y+ (V3)	-0.01	-291.40	6.97	0.00	0.04	-9.93
Vento Y- (V4)	0.01	291.40	-6.97	0.00	-0.04	9.93
Desaprumo X+ (D1)	0.06	-0.65	637.01	0.08	0.00	0.00
Desaprumo X- (D2)	-0.06	0.65	-637.01	-0.08	0.00	0.00
Desaprumo Y+ (D3)	-0.06	-632.71	0.33	0.00	0.08	-0.23
Desaprumo Y- (D4)	0.06	632.71	-0.33	0.00	-0.08	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	15.97	-82.48	-3956.50	-0.54	-0.01	0.17
G1+G2+S+0.7Q+0.6V2+D2	15.86	-81.14	-5321.51	-0.72	0.00	0.17
G1+G2+S+0.7Q+0.6V3+D3	15.85	-889.36	-4634.50	-0.63	0.10	-6.02
G1+G2+S+0.7Q+0.6V4+D4	15.99	725.74	-4643.51	-0.63	-0.11	6.36
G1+G2+S+0.7Q+A+0.6V1+0.6D1	24.10	-184.22	-4195.55	-0.58	-0.01	0.21
G1+G2+S+0.7Q+A+0.6V1+D1	24.12	-184.48	-3940.75	-0.54	-0.01	0.21
G1+G2+S+0.7Q+A+0.6V2+0.6D2	24.02	-183.41	-5050.95	-0.68	-0.01	0.21
G1+G2+S+0.7Q+A+0.6V2+D2	24.00	-183.15	-5305.76	-0.72	-0.01	0.21
G1+G2+S+0.7Q+A+0.6V3+0.6D3	24.01	-738.28	-4618.88	-0.63	0.06	-5.89
G1+G2+S+0.7Q+A+0.6V3+D3	23.99	-991.36	-4618.75	-0.63	0.09	-5.98
G1+G2+S+0.7Q+A+0.6V4+0.6D4	24.10	370.65	-4627.63	-0.63	-0.08	6.31
G1+G2+S+0.7Q+A+0.6V4+D4	24.13	623.73	-4627.76	-0.63	-0.11	6.40
G1+G2+S+0.7Q+A+D1	24.12	-184.47	-3986.25	-0.55	-0.01	0.21
G1+G2+S+0.7Q+A+D2	24.00	-183.16	-5260.26	-0.71	-0.01	0.21
G1+G2+S+0.7Q+A+D3	24.00	-816.53	-4622.92	-0.63	0.07	-0.02
G1+G2+S+0.7Q+A+D4	24.12	448.90	-4623.58	-0.63	-0.09	0.44
G1+G2+S+0.7Q+A+V1+0.6D1	24.10	-184.24	-4165.22	-0.57	-0.01	0.21
G1+G2+S+0.7Q+A+V2+0.6D2	24.02	-183.39	-5081.29	-0.69	-0.01	0.21
G1+G2+S+0.7Q+A+V3+0.6D3	24.01	-854.84	-4616.09	-0.63	0.07	-9.86
G1+G2+S+0.7Q+A+V4+0.6D4	24.11	487.21	-4630.42	-0.63	-0.10	10.28
G1+G2+S+0.7Q+V1+0.6D1	15.95	-82.23	-4180.97	-0.57	-0.01	0.16
G1+G2+S+0.7Q+V2+0.6D2	15.88	-81.39	-5097.04	-0.69	0.00	0.17
G1+G2+S+0.7Q+V3+0.6D3	15.87	-752.83	-4631.84	-0.63	0.08	-9.90
G1+G2+S+0.7Q+V4+0.6D4	15.96	589.21	-4646.17	-0.63	-0.09	10.24
G1+G2+S+A+0.6V1+0.6D1	23.58	-177.67	-4196.35	-0.58	-0.01	0.21
G1+G2+S+A+0.6V1+D1	23.61	-177.93	-3941.55	-0.54	-0.01	0.21
G1+G2+S+A+0.6V2+0.6D2	23.51	-176.85	-5051.75	-0.68	-0.01	0.21
G1+G2+S+A+0.6V2+D2	23.49	-176.59	-5306.56	-0.72	-0.01	0.21
G1+G2+S+A+0.6V3+0.6D3	23.50	-731.72	-4619.68	-0.63	0.06	-5.89
G1+G2+S+A+0.6V3+D3	23.48	-984.81	-4619.54	-0.63	0.09	-5.98
G1+G2+S+A+0.6V4+0.6D4	23.59	377.20	-4628.43	-0.63	-0.08	6.31
G1+G2+S+A+0.6V4+D4	23.62	630.29	-4628.56	-0.63	-0.11	6.40
G1+G2+S+A+D1	23.60	-177.91	-3987.04	-0.55	-0.01	0.21
G1+G2+S+A+D2	23.49	-176.61	-5261.06	-0.71	-0.01	0.21
G1+G2+S+A+D3	23.48	-809.97	-4623.72	-0.63	0.07	-0.02
G1+G2+S+A+D4	23.61	455.45	-4624.38	-0.63	-0.09	0.44
G1+G2+S+A+V1+0.6D1	23.59	-177.68	-4166.02	-0.57	-0.01	0.20
G1+G2+S+A+V2+0.6D2	23.51	-176.84	-5082.08	-0.69	-0.01	0.21

G1+G2+S+A+V3+0.6D3	23.50	-848.28	-4616.89	-0.63	0.08	-9.86
G1+G2+S+A+V4+0.6D4	23.60	493.76	-4631.21	-0.63	-0.10	10.28
G1+G2+S+D1	15.46	-75.91	-4002.80	-0.55	0.00	0.16
G1+G2+S+D2	15.35	-74.61	-5276.81	-0.71	0.00	0.17
G1+G2+S+D3	15.34	-707.97	-4639.48	-0.63	0.08	-0.07
G1+G2+S+D4	15.47	557.45	-4640.13	-0.63	-0.09	0.40
G1+G2+S+Q+0.6V1+0.6D1	16.17	-85.03	-4210.96	-0.58	-0.01	0.17
G1+G2+S+Q+0.6V2+0.6D2	16.10	-84.21	-5066.36	-0.68	-0.01	0.17
G1+G2+S+Q+0.6V3+0.6D3	16.09	-639.08	-4634.29	-0.63	0.07	-5.93
G1+G2+S+Q+0.6V4+0.6D4	16.18	469.84	-4643.04	-0.63	-0.08	6.27
G1+G2+S+Q+A+0.6V1+0.6D1	24.31	-187.03	-4195.21	-0.58	-0.01	0.21
G1+G2+S+Q+A+0.6V2+0.6D2	24.24	-186.21	-5050.61	-0.68	-0.01	0.21
G1+G2+S+Q+A+0.6V3+0.6D3	24.23	-741.09	-4618.53	-0.63	0.06	-5.89
G1+G2+S+Q+A+0.6V4+0.6D4	24.32	367.84	-4627.29	-0.63	-0.08	6.31
G1+G2+S+Q+A+D1	24.33	-187.27	-3985.90	-0.55	-0.01	0.21
G1+G2+S+Q+A+D2	24.22	-185.97	-5259.92	-0.71	-0.01	0.21
G1+G2+S+Q+A+D3	24.21	-819.33	-4622.58	-0.63	0.07	-0.02
G1+G2+S+Q+A+D4	24.34	446.09	-4623.24	-0.63	-0.09	0.44
G1+G2+S+Q+D1	16.19	-85.27	-4001.66	-0.55	-0.01	0.17
G1+G2+S+Q+D2	16.08	-83.97	-5275.67	-0.71	-0.01	0.17
G1+G2+S+Q+D3	16.07	-717.33	-4638.33	-0.63	0.08	-0.06
G1+G2+S+Q+D4	16.20	548.09	-4638.99	-0.63	-0.09	0.40

Fundação E15

Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	8.04	-14.96	-14.11	0.00	0.00	0.05
Adicional (G2)	0.13	-0.49	-0.66	0.00	0.00	0.00
Solo (S)	2.00	15.48	-4705.70	-0.63	0.00	0.10
Acidental (Q)	0.39	-1.76	-2.38	0.00	0.00	0.01
Água (A)	7.37	-49.68	-21.59	0.00	0.00	0.04
Vento X+ (V1)	0.01	-0.01	75.85	0.01	0.00	0.00
Vento X- (V2)	-0.01	0.01	-75.85	-0.01	0.00	0.00
Vento Y+ (V3)	-0.05	-303.41	6.87	0.00	0.04	-9.95
Vento Y- (V4)	0.05	303.41	-6.87	0.00	-0.04	9.95
Desaprumo X+ (D1)	0.04	-0.07	525.75	0.07	0.00	0.00
Desaprumo X- (D2)	-0.04	0.07	-525.75	-0.07	0.00	0.00
Desaprumo Y+ (D3)	-0.15	-524.17	0.33	0.00	0.07	-0.23
Desaprumo Y- (D4)	0.15	524.17	-0.33	0.00	-0.07	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	10.49	-1.28	-4150.87	-0.55	0.00	0.16
G1+G2+S+0.7Q+0.6V2+D2	10.40	-1.12	-5293.40	-0.70	0.00	0.16
G1+G2+S+0.7Q+0.6V3+D3	10.27	-707.42	-4717.68	-0.62	0.09	-6.04
G1+G2+S+0.7Q+0.6V4+D4	10.62	705.02	-4726.59	-0.62	-0.09	6.37
G1+G2+S+0.7Q+A+0.6V1+0.6D1	17.85	-50.93	-4382.77	-0.58	0.00	0.20
G1+G2+S+0.7Q+A+0.6V1+D1	17.86	-50.96	-4172.47	-0.55	0.00	0.20
G1+G2+S+0.7Q+A+0.6V2+0.6D2	17.79	-50.83	-5104.69	-0.67	0.00	0.21
G1+G2+S+0.7Q+A+0.6V2+D2	17.77	-50.80	-5314.99	-0.69	0.00	0.21
G1+G2+S+0.7Q+A+0.6V3+0.6D3	17.70	-547.43	-4739.41	-0.62	0.06	-5.90
G1+G2+S+0.7Q+A+0.6V3+D3	17.64	-757.10	-4739.27	-0.62	0.09	-6.00
G1+G2+S+0.7Q+A+0.6V4+0.6D4	17.93	445.67	-4748.05	-0.62	-0.07	6.32
G1+G2+S+0.7Q+A+0.6V4+D4	17.99	655.34	-4748.19	-0.62	-0.09	6.41
G1+G2+S+0.7Q+A+D1	17.86	-50.95	-4217.98	-0.56	0.00	0.21
G1+G2+S+0.7Q+A+D2	17.78	-50.81	-5269.48	-0.69	0.00	0.20
G1+G2+S+0.7Q+A+D3	17.67	-575.05	-4743.40	-0.62	0.06	-0.03

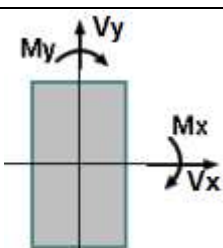
G1+G2+S+0.7Q+A+D4	17.97	473.29	-4744.06	-0.62	-0.07	0.44
G1+G2+S+0.7Q+A+V1+0.6D1	17.85	-50.93	-4352.42	-0.57	0.00	0.20
G1+G2+S+0.7Q+A+V2+0.6D2	17.79	-50.83	-5135.03	-0.67	0.00	0.21
G1+G2+S+0.7Q+A+V3+0.6D3	17.68	-668.79	-4736.66	-0.62	0.07	-9.88
G1+G2+S+0.7Q+A+V4+0.6D4	17.95	567.03	-4750.80	-0.62	-0.08	10.29
G1+G2+S+0.7Q+V1+0.6D1	10.48	-1.25	-4330.83	-0.58	0.00	0.16
G1+G2+S+0.7Q+V2+0.6D2	10.42	-1.15	-5113.44	-0.67	0.00	0.16
G1+G2+S+0.7Q+V3+0.6D3	10.31	-619.11	-4715.06	-0.62	0.08	-9.93
G1+G2+S+0.7Q+V4+0.6D4	10.58	616.71	-4729.21	-0.63	-0.08	10.25
G1+G2+S+A+0.6V1+0.6D1	17.57	-49.70	-4381.10	-0.58	0.00	0.20
G1+G2+S+A+0.6V1+D1	17.59	-49.73	-4170.80	-0.55	0.00	0.20
G1+G2+S+A+0.6V2+0.6D2	17.52	-49.60	-5103.03	-0.67	0.00	0.20
G1+G2+S+A+0.6V2+D2	17.50	-49.57	-5313.33	-0.69	0.00	0.20
G1+G2+S+A+0.6V3+0.6D3	17.43	-546.19	-4737.74	-0.62	0.06	-5.91
G1+G2+S+A+0.6V3+D3	17.37	-755.86	-4737.61	-0.62	0.09	-6.00
G1+G2+S+A+0.6V4+0.6D4	17.66	446.90	-4746.39	-0.62	-0.07	6.31
G1+G2+S+A+0.6V4+D4	17.72	656.57	-4746.52	-0.62	-0.09	6.40
G1+G2+S+A+D1	17.58	-49.72	-4216.32	-0.56	0.00	0.20
G1+G2+S+A+D2	17.50	-49.57	-5267.82	-0.69	0.00	0.20
G1+G2+S+A+D3	17.39	-573.82	-4741.73	-0.62	0.06	-0.03
G1+G2+S+A+D4	17.69	474.53	-4742.40	-0.62	-0.07	0.43
G1+G2+S+A+V1+0.6D1	17.57	-49.70	-4350.76	-0.57	0.00	0.20
G1+G2+S+A+V2+0.6D2	17.51	-49.59	-5133.37	-0.67	0.00	0.20
G1+G2+S+A+V3+0.6D3	17.41	-667.56	-4734.99	-0.62	0.07	-9.89
G1+G2+S+A+V4+0.6D4	17.68	568.26	-4749.14	-0.62	-0.08	10.29
G1+G2+S+D1	10.21	-0.04	-4194.72	-0.56	0.00	0.16
G1+G2+S+D2	10.13	0.11	-5246.22	-0.69	0.00	0.16
G1+G2+S+D3	10.03	-524.14	-4720.14	-0.62	0.07	-0.07
G1+G2+S+D4	10.32	524.21	-4720.80	-0.62	-0.07	0.39
G1+G2+S+Q+0.6V1+0.6D1	10.59	-1.78	-4361.89	-0.58	0.00	0.16
G1+G2+S+Q+0.6V2+0.6D2	10.54	-1.68	-5083.81	-0.67	0.00	0.16
G1+G2+S+Q+0.6V3+0.6D3	10.45	-498.28	-4718.52	-0.62	0.06	-5.95
G1+G2+S+Q+0.6V4+0.6D4	10.68	494.82	-4727.17	-0.62	-0.06	6.27
G1+G2+S+Q+A+0.6V1+0.6D1	17.96	-51.46	-4383.48	-0.58	0.00	0.21
G1+G2+S+Q+A+0.6V2+0.6D2	17.91	-51.36	-5105.41	-0.67	0.00	0.21
G1+G2+S+Q+A+0.6V3+0.6D3	17.82	-547.96	-4740.12	-0.62	0.06	-5.90
G1+G2+S+Q+A+0.6V4+0.6D4	18.05	445.14	-4748.77	-0.62	-0.07	6.32
G1+G2+S+Q+A+D1	17.98	-51.48	-4218.69	-0.56	0.00	0.21
G1+G2+S+Q+A+D2	17.90	-51.33	-5270.19	-0.69	0.00	0.21
G1+G2+S+Q+A+D3	17.79	-575.58	-4744.11	-0.62	0.06	-0.03
G1+G2+S+Q+A+D4	18.08	472.76	-4744.78	-0.62	-0.07	0.44
G1+G2+S+Q+D1	10.61	-1.80	-4197.10	-0.56	0.00	0.16
G1+G2+S+Q+D2	10.53	-1.65	-5248.60	-0.69	0.00	0.16
G1+G2+S+Q+D3	10.42	-525.90	-4722.52	-0.62	0.07	-0.07
G1+G2+S+Q+D4	10.71	522.45	-4723.18	-0.62	-0.07	0.40

Fundação E16

Combinação	N (tf)	Mx (kgf.m)	My (kgf.m)	Vx (tf)	Vy (tf)	Mt (kgf/m)
Peso próprio (G1)	7.16	-6.77	-4.01	0.00	0.00	-0.13
Adicional (G2)	0.08	-0.13	-0.15	0.00	0.00	0.00
Solo (S)	1.05	-0.25	-4660.16	-0.63	0.00	-0.11
Acidental (Q)	0.25	-0.45	-0.53	0.00	0.00	-0.01
Água (A)	3.80	-3.14	-15.92	0.00	0.00	-0.15
Vento X+ (V1)	0.00	0.03	74.49	0.01	0.00	0.00
Vento X- (V2)	0.00	-0.03	-74.49	-0.01	0.00	0.00
Vento Y+ (V3)	-0.04	-313.75	6.68	0.00	0.04	-9.93
Vento Y- (V4)	0.04	313.75	-6.68	0.00	-0.04	9.93

Desaprumo X+ (D1)	-0.02	0.28	369.59	0.05	0.00	0.00
Desaprumo X- (D2)	0.02	-0.28	-369.59	-0.05	0.00	0.00
Desaprumo Y+ (D3)	-0.03	-371.32	0.06	0.00	0.05	-0.23
Desaprumo Y- (D4)	0.03	371.32	-0.06	0.00	-0.05	0.23
Subpressão (AS)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 1 (T1)	0.00	0.00	0.00	0.00	0.00	0.00
Temperatura 2 (T2)	0.00	0.00	0.00	0.00	0.00	0.00
Retração (R)	0.00	0.00	0.00	0.00	0.00	0.00
G1+G2+S+0.7Q+0.6V1+D1	8.45	-7.17	-4250.41	-0.58	0.00	-0.26
G1+G2+S+0.7Q+0.6V2+D2	8.49	-7.77	-5078.98	-0.68	0.00	-0.26
G1+G2+S+0.7Q+0.6V3+D3	8.41	-567.04	-4660.63	-0.63	0.07	-6.44
G1+G2+S+0.7Q+0.6V4+D4	8.53	552.09	-4668.76	-0.63	-0.07	5.93
G1+G2+S+0.7Q+A+0.6V1+0.6D1	12.26	-10.42	-4414.17	-0.59	0.00	-0.40
G1+G2+S+0.7Q+A+0.6V1+D1	12.25	-10.31	-4266.33	-0.57	0.00	-0.40
G1+G2+S+0.7Q+A+0.6V2+0.6D2	12.28	-10.80	-4947.06	-0.66	0.00	-0.40
G1+G2+S+0.7Q+A+0.6V2+D2	12.29	-10.91	-5094.90	-0.68	0.00	-0.40
G1+G2+S+0.7Q+A+0.6V3+0.6D3	12.23	-421.65	-4676.58	-0.63	0.05	-6.50
G1+G2+S+0.7Q+A+0.6V3+D3	12.22	-570.17	-4676.55	-0.63	0.07	-6.59
G1+G2+S+0.7Q+A+0.6V4+0.6D4	12.32	400.43	-4684.66	-0.63	-0.05	5.69
G1+G2+S+0.7Q+A+0.6V4+D4	12.33	548.96	-4684.68	-0.63	-0.07	5.79
G1+G2+S+0.7Q+A+D1	12.25	-10.33	-4311.03	-0.58	0.00	-0.40
G1+G2+S+0.7Q+A+D2	12.29	-10.89	-5050.21	-0.67	0.00	-0.40
G1+G2+S+0.7Q+A+D3	12.24	-381.92	-4680.56	-0.63	0.05	-0.63
G1+G2+S+0.7Q+A+D4	12.30	360.71	-4680.67	-0.63	-0.05	-0.17
G1+G2+S+0.7Q+A+V1+0.6D1	12.26	-10.41	-4384.37	-0.59	0.00	-0.40
G1+G2+S+0.7Q+A+V2+0.6D2	12.28	-10.81	-4976.86	-0.67	0.00	-0.40
G1+G2+S+0.7Q+A+V3+0.6D3	12.21	-547.15	-4673.90	-0.63	0.07	-10.47
G1+G2+S+0.7Q+A+V4+0.6D4	12.33	525.93	-4687.33	-0.63	-0.07	9.66
G1+G2+S+0.7Q+V1+0.6D1	8.46	-7.27	-4368.45	-0.59	0.00	-0.26
G1+G2+S+0.7Q+V2+0.6D2	8.48	-7.67	-4960.94	-0.67	0.00	-0.26
G1+G2+S+0.7Q+V3+0.6D3	8.41	-544.01	-4657.98	-0.63	0.07	-10.32
G1+G2+S+0.7Q+V4+0.6D4	8.53	529.07	-4671.41	-0.63	-0.07	9.81
G1+G2+S+A+0.6V1+0.6D1	12.08	-10.10	-4413.80	-0.59	0.00	-0.39
G1+G2+S+A+0.6V1+D1	12.08	-9.99	-4265.96	-0.57	0.00	-0.39
G1+G2+S+A+0.6V2+0.6D2	12.11	-10.48	-4946.70	-0.66	0.00	-0.39
G1+G2+S+A+0.6V2+D2	12.12	-10.59	-5094.53	-0.68	0.00	-0.39
G1+G2+S+A+0.6V3+0.6D3	12.05	-421.33	-4676.21	-0.63	0.05	-6.49
G1+G2+S+A+0.6V3+D3	12.04	-569.86	-4676.18	-0.63	0.07	-6.58
G1+G2+S+A+0.6V4+0.6D4	12.14	400.75	-4684.29	-0.63	-0.05	5.70
G1+G2+S+A+0.6V4+D4	12.15	549.27	-4684.31	-0.63	-0.07	5.80
G1+G2+S+A+D1	12.08	-10.01	-4310.66	-0.58	0.00	-0.39
G1+G2+S+A+D2	12.11	-10.57	-5049.84	-0.67	0.00	-0.39
G1+G2+S+A+D3	12.06	-381.61	-4680.19	-0.63	0.05	-0.62
G1+G2+S+A+D4	12.13	361.02	-4680.30	-0.63	-0.05	-0.16
G1+G2+S+A+V1+0.6D1	12.08	-10.09	-4384.00	-0.59	0.00	-0.39
G1+G2+S+A+V2+0.6D2	12.11	-10.49	-4976.49	-0.67	0.00	-0.39
G1+G2+S+A+V3+0.6D3	12.03	-546.83	-4673.54	-0.63	0.07	-10.46
G1+G2+S+A+V4+0.6D4	12.16	526.25	-4686.96	-0.63	-0.07	9.67
G1+G2+S+D1	8.28	-6.88	-4294.73	-0.58	0.00	-0.25
G1+G2+S+D2	8.31	-7.44	-5033.91	-0.68	0.00	-0.25
G1+G2+S+D3	8.26	-378.47	-4664.27	-0.63	0.05	-0.48
G1+G2+S+D4	8.32	364.16	-4664.38	-0.63	-0.05	-0.02
G1+G2+S+Q+0.6V1+0.6D1	8.53	-7.42	-4398.40	-0.59	0.00	-0.26
G1+G2+S+Q+0.6V2+0.6D2	8.56	-7.80	-4931.30	-0.66	0.00	-0.26
G1+G2+S+Q+0.6V3+0.6D3	8.50	-418.65	-4660.81	-0.63	0.05	-6.36
G1+G2+S+Q+0.6V4+0.6D4	8.59	403.43	-4668.89	-0.63	-0.05	5.84
G1+G2+S+Q+A+0.6V1+0.6D1	12.34	-10.55	-4414.33	-0.59	0.00	-0.41
G1+G2+S+Q+A+0.6V2+0.6D2	12.36	-10.93	-4947.22	-0.66	0.00	-0.41

G1+G2+S+Q+A+0.6V3+0.6D3	12.30	-421.78	-4676.73	-0.63	0.05	-6.50
G1+G2+S+Q+A+0.6V4+0.6D4	12.39	400.30	-4684.82	-0.63	-0.05	5.69
G1+G2+S+Q+A+D1	12.33	-10.46	-4311.18	-0.58	0.00	-0.41
G1+G2+S+Q+A+D2	12.37	-11.02	-5050.36	-0.67	0.00	-0.41
G1+G2+S+Q+A+D3	12.32	-382.06	-4680.72	-0.63	0.05	-0.64
G1+G2+S+Q+A+D4	12.38	360.57	-4680.83	-0.63	-0.05	-0.18
G1+G2+S+Q+D1	8.53	-7.33	-4295.26	-0.58	0.00	-0.26
G1+G2+S+Q+D2	8.56	-7.89	-5034.44	-0.68	0.00	-0.26
G1+G2+S+Q+D3	8.52	-378.92	-4664.80	-0.63	0.05	-0.49
G1+G2+S+Q+D4	8.58	363.71	-4664.91	-0.63	-0.05	-0.03

Legenda	
	- Caso: indica o caso de carregamento no qual serão apresentados os esforços atuantes;
	- Elemento: nome da fundação;
	- N: esforço axial na fundação (inclui o peso próprio do bloco caso sua seção tenha sido definida no lançamento);
	- Mx: momento fletor na fundação, atuante em torno do eixo X global;
	- My: momento fletor na fundação, atuante em torno do eixo Y global;
	- Vx: esforço cortante na fundação, atuante no plano paralelo à direção X global;
	- Vy: esforço cortante na fundação, atuante no plano paralelo à direção Y global;
	- Mt: momento de torção atuante.

3. Pavimento FUNDO

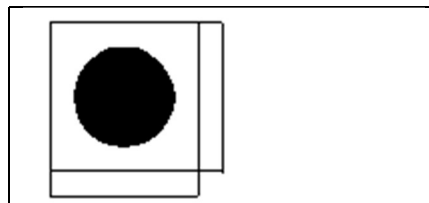
a) Cálculo dos blocos

Cálculo do Bloco B1

Pavimento FUNDO -
Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 1 Cobrimento= 4.50 cm	fck = 300 kgf/cm ² Ecs = 268384 kgf/cm ² Peso específico = 2500 kgf/m ³

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	60.00	LB	80.00
Seção	50.00	Total	75.00	LH	80.00
Espaçamento entre estacas (e)	0.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	2.40 m ²
Volume concreto	0.45 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
1.13	32.11	0.00	33.23

	CINNANTI ARQUITETURA E ENGENHARIA LTDA	
	SECRETARIA DE ESTADO DE EDUCAÇÃO DO DISTRITO FEDERAL SEEDF	29/12/2022

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	80x80	75	1.13	33.23	23.81	596	0.82
Limites					37.00	-1.85	6500	5.00

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E1-1	33.23	23.81	596	0.82

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm²)
Estribo horizontal	Lento	10.73	19.24	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

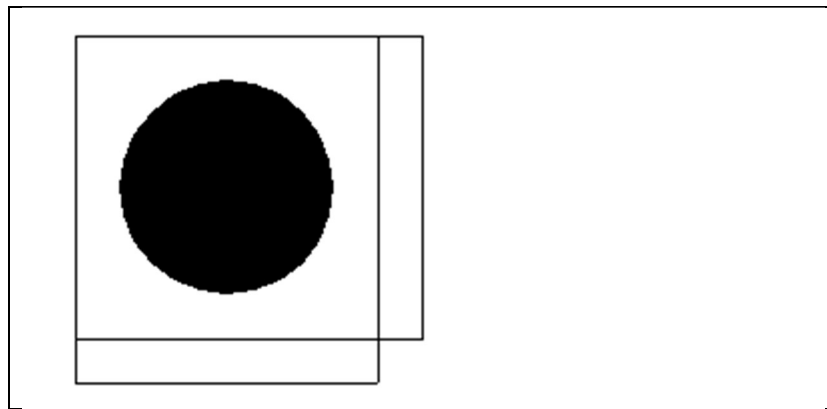
	Tensão (tf)	As (cm²)	Armaduras
Armadura principal na direção X	-	-	-
Armadura principal na direção Y	-	-	-
Estribo horizontal	1.14	2.94	6 ø 8.0
Estribo vertical	1.14	2.16	4 ø 10.0 (2 estribos)
Armadura superior na direção X	-	-	-
Armadura superior na direção Y	-	-	-
Armadura distribuição	-	-	-

Cálculo do Bloco B2

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 2 Cobrimento= 4.50 cm	$f_{ck} = 300 \text{ kgf/cm}^2$ $E_{cs} = 268384 \text{ kgf/cm}^2$ Peso específico = 2500 kgf/m^3

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	50.00	LB	230.00
Seção	50.00	Total	65.00	LH	80.00
Espaçamento entre estacas (e)	150.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	4.03 m ²
Volume concreto	1.14 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
2.84	43.53	1.33	47.70

Verificação ao esmagamento da biela - Método de Blevot e Frémy

	Junto ao pilar	Junto à estaca
Tensão solicitante (kgf/cm ²)	99.62	47.22
Tensão admissível (kgf/cm ²)	224.40	135.77
Condição	Ok	Ok

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	80x80	75	1.13	44.66	25.45	2899	0.89
2	2	230x80	65	2.84	23.76	13.04	1368	0.44
Limites					37.00	-1.85	6500	5.00

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E2-1	23.76	14.12	1368	0.44
E2-2	22.61	13.04	1368	0.44

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm ²)
Estribo horizontal	Lento	10.94	19.22	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

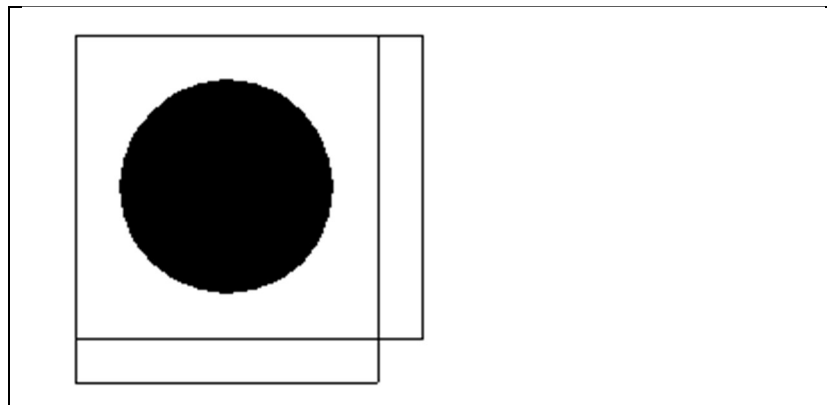
	Tensão (tf)	As (cm ²)	Armaduras
Armadura principal na direção X	32.91	12.39	6 ø 16.0
Armadura principal na direção Y	-	-	-
Estribo horizontal	4.11	1.55	5 ø 6.3
Estribo vertical	4.11	1.55	20 ø 8.0 (10 estribos)
Armadura superior na direção X	-	2.48	4 ø 10.0
Armadura superior na direção Y	-	-	-
Armadura distribuição	8.23	1.01	ø 8.0 c/10

Cálculo do Bloco B3

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 2 Cobrimento= 4.50 cm	$f_{ck} = 300 \text{ kgf/cm}^2$ $E_{cs} = 268384 \text{ kgf/cm}^2$ Peso específico = 2500 kgf/m^3

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	50.00	LB	230.00
Seção	50.00	Total	65.00	LH	80.00
Espaçamento entre estacas (e)	150.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	4.03 m ²
Volume concreto	1.14 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
2.84	46.95	0.91	50.70

Verificação ao esmagamento da biela - Método de Blevot e Frémy

	Junto ao pilar	Junto à estaca
Tensão solicitante (kgf/cm ²)	105.75	49.95
Tensão admissível (kgf/cm ²)	224.40	135.77
Condição	Ok	Ok

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	80x80	75	1.13	48.07	26.61	2812	0.91
2	2	230x80	65	2.84	25.14	13.80	1363	0.45
Limites					37.00	-1.85	6500	5.00

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E3-1	25.14	14.53	1363	0.45
E3-2	24.65	13.80	1363	0.45

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm ²)
Estribo horizontal	Lento	10.94	19.22	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

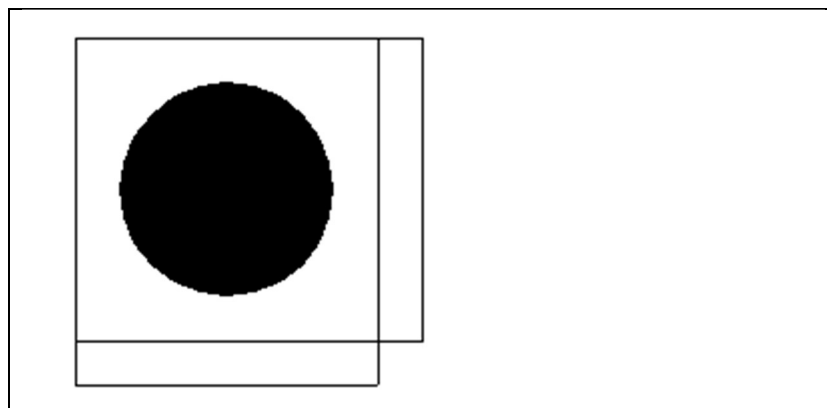
	Tensão (tf)	As (cm ²)	Armaduras
Armadura principal na direção X	34.98	13.16	7 ø 16.0
Armadura principal na direção Y	-	-	-
Estribo horizontal	4.37	1.65	6 ø 6.3
Estribo vertical	4.37	1.65	20 ø 8.0 (10 estribos)
Armadura superior na direção X	-	2.63	4 ø 10.0
Armadura superior na direção Y	-	-	-
Armadura distribuição	8.75	1.01	ø 8.0 c/10

Cálculo do Bloco B4

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 2 Cobrimento= 4.50 cm	fck = 300 kgf/cm ² Ecs = 268384 kgf/cm ² Peso específico = 2500 kgf/m ³

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	75.00	LB	270.00
Seção	60.00	Total	90.00	LH	90.00
Espaçamento entre estacas (e)	180.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	6.48 m ²
Volume concreto	2.10 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
5.26	69.08	0.93	75.27

Verificação ao esmagamento da biela - Método de Blevot e Frémy

	Junto ao pilar	Junto à estaca
Tensão solicitante (kgf/cm²)	150.61	50.12
Tensão admissível (kgf/cm²)	224.40	135.77
Condição	Ok	Ok

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	90x90	90	1.72	70.80	42.60	1640	0.97
2	2	270x90	90	5.26	37.54	22.75	750	0.49
Limites					47.17	-2.36	7500	6.90

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E4-1	37.54	23.39	750	0.49
E4-2	36.80	22.75	750	0.49

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm²)
Estribo horizontal	Lento	14.28	18.96	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

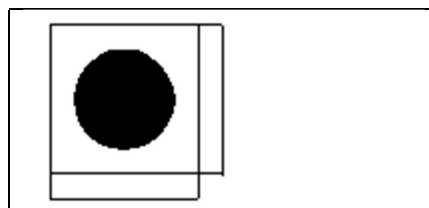
	Tensão (tf)	As (cm²)	Armaduras
Armadura principal na direção X	50.43	18.90	9 ø 16.0
Armadura principal na direção Y	-	-	-
Estribo horizontal	6.30	2.36	5 ø 8.0
Estribo vertical	6.30	2.36	22 ø 8.0 (11 estribos)
Armadura superior na direção X	-	3.78	5 ø 10.0
Armadura superior na direção Y	-	-	-
Armadura distribuição	12.61	1.01	ø 8.0 c/10

Cálculo do Bloco B5

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 1 Cobrimento= 4.50 cm	fck = 300 kgf/cm ² Ecs = 268384 kgf/cm ² Peso específico = 2500 kgf/m ³

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	60.00	LB	80.00
Seção	50.00	Total	75.00	LH	80.00
Espaçamento entre estacas (e)	0.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	2.40 m ²
Volume concreto	0.45 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
1.13	24.07	0.00	25.20

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	80x80	75	1.13	25.20	17.15	910	0.81
Limites					37.00	-1.85	6500	5.00

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E5-1	25.20	17.15	910	0.81

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm ²)
Estribo horizontal	Lento	10.73	19.24	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

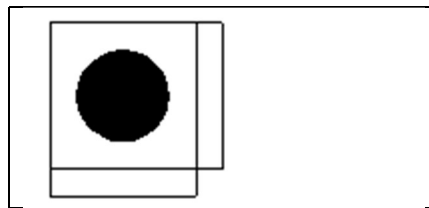
	Tensão (tf)	As (cm ²)	Armaduras
Armadura principal na direção X	-	-	-
Armadura principal na direção Y	-	-	-
Estribo horizontal	0.87	2.23	5 ø 8.0
Estribo vertical	0.87	1.64	4 ø 8.0 (2 estribos)
Armadura superior na direção X	-	-	-
Armadura superior na direção Y	-	-	-
Armadura distribuição	-	-	-

Cálculo do Bloco B6

Pavimento FUNDO -
Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 1 Cobrimento= 4.50 cm	$f_{ck} = 300 \text{ kgf/cm}^2$ $E_{cs} = 268384 \text{ kgf/cm}^2$ Peso específico = 2500 kgf/m^3

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	75.00	LB	90.00
Seção	60.00	Total	90.00	LH	90.00
Espaçamento entre estacas (e)	0.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	3.24 m ²
Volume concreto	0.69 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
1.72	36.54	0.00	38.25

Determinação do número de estacas

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Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	90x90	90	1.72	38.25	23.51	2271	0.85
Limites					47.17	-2.36	7500	6.90

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E6-1	38.25	23.51	2271	0.85

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm²)
Estribo horizontal	Lento	12.48	19.11	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

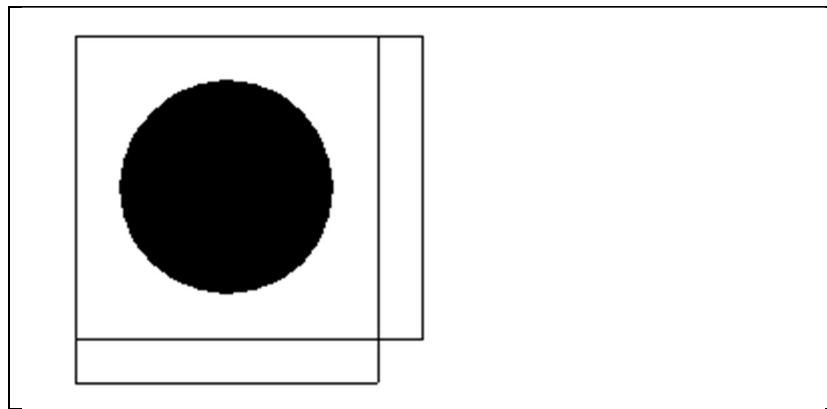
	Tensão (tf)	As (cm²)	Armaduras
Armadura principal na direção X	-	-	-
Armadura principal na direção Y	-	-	-
Estribo horizontal	1.24	3.20	5 ø 10.0
Estribo vertical	1.24	2.49	4 ø 10.0 (2 estribos)
Armadura superior na direção X	-	-	-
Armadura superior na direção Y	-	-	-
Armadura distribuição	-	-	-

Cálculo do Bloco B10

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 2 Cobrimento= 4.50 cm	fck = 300 kgf/cm ² Ecs = 268384 kgf/cm ² Peso específico = 2500 kgf/m ³

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	50.00	LB	230.00
Seção	50.00	Total	65.00	LH	80.00
Espaçamento entre estacas (e)	150.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	4.03 m ²
Volume concreto	1.14 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
2.84	28.10	2.55	33.49

Verificação ao esmagamento da biela - Método de Blevot e Frémy

	Junto ao pilar	Junto à estaca
Tensão solicitante (kgf/cm²)	62.66	30.75
Tensão admissível (kgf/cm²)	224.40	135.77
Condição	Ok	Ok

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	80x80	75	1.13	29.22	15.15	2480	0.85
2	2	230x80	65	2.84	15.47	8.43	1198	0.42
Limites					37.00	-1.85	6500	5.00

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E10-1	15.47	8.44	1198	0.42
E10-2	15.47	8.43	1198	0.42

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm²)
Estribo horizontal	Lento	10.94	19.22	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

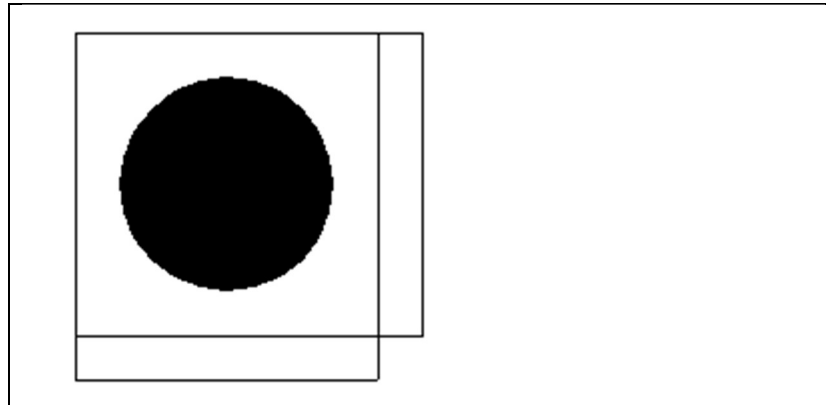
	Tensão (tf)	As (cm²)	Armaduras
Armadura principal na direção X	23.11	8.75	7 ø 12.5
Armadura principal na direção Y	-	-	-
Estribo horizontal	2.89	1.09	5 ø 6.3
Estribo vertical	2.89	1.09	20 ø 8.0 (10 estribos)
Armadura superior na direção X	-	1.75	4 ø 8.0
Armadura superior na direção Y	-	-	-
Armadura distribuição	5.78	1.01	ø 8.0 c/10

Cálculo do Bloco B11

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 1 Cobrimento= 4.50 cm	fck = 300 kgf/cm ² Ecs = 268384 kgf/cm ² Peso específico = 2500 kgf/m ³

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	75.00	LB	90.00
Seção	60.00	Total	90.00	LH	90.00
Espaçamento entre estacas (e)	0.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	3.24 m ²
Volume concreto	0.69 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
1.72	32.08	0.00	33.80

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	90x90	90	1.72	33.80	24.49	593	0.82
Limites					47.17	-2.36	7500	6.90

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Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E11-1	33.80	24.49	593	0.82

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm ²)
Estribo horizontal	Lento	12.48	19.11	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

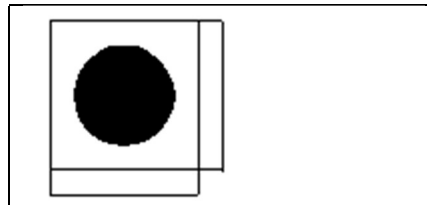
	Tensão (tf)	As (cm ²)	Armaduras
Armadura principal na direção X	-	-	-
Armadura principal na direção Y	-	-	-
Estribo horizontal	1.10	2.83	6 ø 8.0
Estribo vertical	1.10	2.20	4 ø 10.0 (2 estribos)
Armadura superior na direção X	-	-	-
Armadura superior na direção Y	-	-	-
Armadura distribuição	-	-	-

Cálculo do Bloco B12

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 2 Cobrimento= 4.50 cm	fck = 300 kgf/cm ² Ecs = 268384 kgf/cm ² Peso específico = 2500 kgf/m ³

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	50.00	LB	230.00
Seção	50.00	Total	65.00	LH	80.00
Espaçamento entre estacas (e)	150.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	4.03 m ²
Volume concreto	1.14 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
2.84	43.64	1.32	47.81

Verificação ao esmagamento da biela - Método de Blevot e Frémy

	Junto ao pilar	Junto à estaca
Tensão solicitante (kgf/cm²)	99.86	47.32
Tensão admissível (kgf/cm²)	224.40	135.77
Condição	Ok	Ok

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	80x80	75	1.13	44.77	25.59	2897	0.89
2	2	230x80	65	2.84	23.82	13.11	1368	0.44
Limites					37.00	-1.85	6500	5.00

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E12-1	23.82	14.19	1368	0.44
E12-2	22.67	13.11	1368	0.44

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm²)
Estribo horizontal	Lento	10.94	19.22	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

	Tensão (tf)	As (cm²)	Armaduras
Armadura principal na direção X	32.99	12.42	6 ø 16.0
Armadura principal na direção Y	-	-	-
Estribo horizontal	4.12	1.55	5 ø 6.3
Estribo vertical	4.12	1.55	20 ø 8.0 (10 estribos)
Armadura superior na direção X	-	2.48	4 ø 10.0
Armadura superior na direção Y	-	-	-
Armadura distribuição	8.25	1.01	ø 8.0 c/10

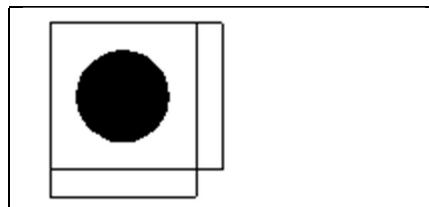
	CINNANTI ARQUITETURA E ENGENHARIA LTDA	
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Cálculo do Bloco B13

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 2 Cobrimento= 4.50 cm	fck = 300 kgf/cm ² Ecs = 268384 kgf/cm ² Peso específico = 2500 kgf/m ³

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	50.00	LB	230.00
Seção	50.00	Total	65.00	LH	80.00
Espaçamento entre estacas (e)	150.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	4.03 m ²
Volume concreto	1.14 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
2.84	47.52	0.90	51.27

Verificação ao esmagamento da biela - Método de Blevot e Frémy

	Junto ao pilar	Junto à estaca
Tensão solicitante (kgf/cm²)	107.01	50.51
Tensão admissível (kgf/cm²)	224.40	135.77
Condição	Ok	Ok

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	80x80	75	1.13	48.65	27.19	2808	0.91
2	2	230x80	65	2.84	25.42	14.09	1362	0.45
Limites					37.00	-1.85	6500	5.00

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E13-1	25.42	14.81	1362	0.45
E13-2	24.95	14.09	1362	0.45

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm ²)
Estribo horizontal	Lento	10.94	19.22	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

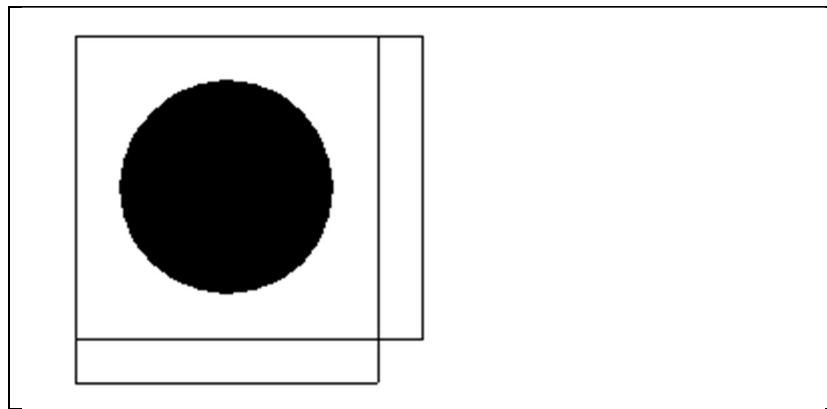
	Tensão (tf)	As (cm ²)	Armaduras
Armadura principal na direção X	35.37	13.31	7 ø 16.0
Armadura principal na direção Y	-	-	-
Estribo horizontal	4.42	1.66	6 ø 6.3
Estribo vertical	4.42	1.66	20 ø 8.0 (10 estribos)
Armadura superior na direção X	-	2.66	4 ø 10.0
Armadura superior na direção Y	-	-	-
Armadura distribuição	8.84	1.01	ø 8.0 c/10

Cálculo do Bloco B14

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 2 Cobrimento= 4.50 cm	$f_{ck} = 300 \text{ kgf/cm}^2$ $E_{cs} = 268384 \text{ kgf/cm}^2$ Peso específico = 2500 kgf/m^3

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	75.00	LB	270.00
Seção	60.00	Total	90.00	LH	90.00
Espaçamento entre estacas (e)	180.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	6.48 m ²
Volume concreto	2.10 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
5.26	70.60	0.94	76.79

Verificação ao esmagamento da biela - Método de Blevot e Frémy

	Junto ao pilar	Junto à estaca
Tensão solicitante (kgf/cm²)	153.88	51.13
Tensão admissível (kgf/cm²)	224.40	135.77
Condição	Ok	Ok

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	90x90	90	1.72	72.32	43.95	1742	0.97
2	2	270x90	90	5.26	38.30	23.43	805	0.49
Limites					47.17	-2.36	7500	6.90

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E14-1	38.30	24.07	805	0.49
E14-2	37.56	23.43	805	0.49

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm ²)
Estribo horizontal	Lento	14.28	18.96	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

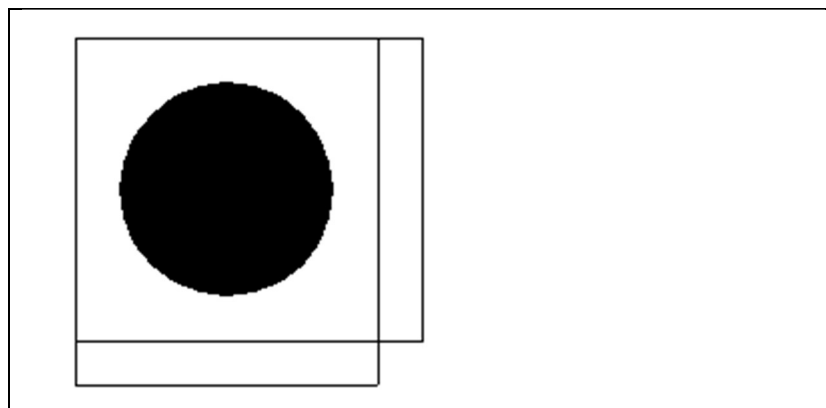
	Tensão (tf)	As (cm ²)	Armaduras
Armadura principal na direção X	51.45	19.28	10 ø 16.0
Armadura principal na direção Y	-	-	-
Estribo horizontal	6.43	2.41	5 ø 8.0
Estribo vertical	6.43	2.41	22 ø 8.0 (11 estribos)
Armadura superior na direção X	-	3.86	5 ø 10.0
Armadura superior na direção Y	-	-	-
Armadura distribuição	12.86	1.01	ø 8.0 c/10

Cálculo do Bloco B15

Pavimento FUNDO - Lance 1

Dados gerais	Dados do concreto
Tipo do bloco: 1 Cobrimento= 4.50 cm	$f_{ck} = 300 \text{ kgf/cm}^2$ $E_{cs} = 268384 \text{ kgf/cm}^2$ Peso específico = 2500 kgf/m^3

Cálculo das dimensões do bloco



Estaca (cm)		Altura do bloco (cm)		Seção do bloco (cm)	
Tipo	circular	Útil	75.00	LB	90.00
Seção	60.00	Total	90.00	LH	90.00
Espaçamento entre estacas (e)	0.00	Cobrimento do bloco na estaca	15.00	Cobrimento do bloco (CB)	15.00

Área de forma	3.24 m ²
Volume concreto	0.69 m ³

Estimativa da carga solicitante

Peso próprio (tf)	Nmax (tf)	Carga momento (tf)	Carga total (tf)
1.72	24.42	0.00	26.13

Determinação do número de estacas

Modelo	NE	Dimensões (cm)	Altura (cm)	Peso próprio (tf)	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
1	1	90x90	90	1.72	26.13	17.94	1036	0.81
Limites					47.17	-2.36	7500	6.90

	CINNANTI ARQUITETURA E ENGENHARIA LTDA	
	SECRETARIA DE ESTADO DE EDUCAÇÃO DO DISTRITO FEDERAL SEEDF	29/12/2022

Estimativa dos esforços nas estacas

Estaca	Carga máx. (tf)	Carga mín. (tf)	Momento (kgf.m)	Força horiz. (tf)
E15-1	26.13	17.94	1036	0.81

Dimensionamento da armadura de retração

	Tipo de endurecimento	Delta T (°C)	Delta Tcr (°C)	As (cm ²)
Estribo horizontal	Lento	12.48	19.11	-

Dimensionamento da armadura

Método de cálculo: biela-tirante

	Tensão (tf)	As (cm ²)	Armaduras
Armadura principal na direção X	-	-	-
Armadura principal na direção Y	-	-	-
Estribo horizontal	0.85	2.19	5 ø 8.0
Estribo vertical	0.85	1.70	4 ø 8.0 (2 estribos)
Armadura superior na direção X	-	-	-
Armadura superior na direção Y	-	-	-
Armadura distribuição	-	-	-

4. Cálculo dos Pilares

FUNDO	$f_{ck} = 300.00 \text{ kgf/cm}^2$	$E = 268384 \text{ kgf/cm}^2$	Peso Espec = 2500.00 kgf/m^3
Lance 1		$cobr = 3.00 \text{ cm}$	

Pilar	Seção (cm)	vínc esb B vínc esb H	Nd máx Nd mín (tf)	Msd(x) Msd(y) (kgf.m)	Mrd(x) Mrd(y) (kgf.m)	Mrd/Msd	As b As h (cm²)
P1	25.00 X 70.00	RR 2.91 RR 1.04	42.00 22.58	932 631	6200 4202	6.65	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P2	25.00 X 70.00	RR 2.91 RR 1.04	55.58 24.08	3811 1194	5909 1851	1.55	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P3	25.00 X 70.00	RR 2.91 RR 1.04	59.79 25.25	3787 1246	5993 1972	1.58	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P4	25.00 X 70.00	RR 2.91 RR 1.04	88.86 40.69	1937 1748	8156 7358	4.21	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P5	25.00 X 70.00	RR 2.91 RR 1.04	31.02 15.87	744 1093	4904 7199	6.59	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P6	25.00 X 70.00	RR 2.91 RR 1.04	47.04 21.59	3894 1075	5701 1574	1.46	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P10	25.00 X 70.00	RR 2.91 RR 1.04	35.30 13.82	2910 653	4806 1078	1.65	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P11	25.00 X 70.00	RR 2.91 RR 1.04	42.00 22.67	932 631	6200 4200	6.66	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P12	25.00 X 70.00	RR 2.91 RR 1.04	55.75 24.22	3810 1201	5921 1866	1.55	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P13	25.00 X 70.00	RR 2.91 RR 1.04	60.59 25.82	3783 1274	6041 2035	1.60	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P14	25.00 X 70.00	RR 2.91 RR 1.04	90.93 42.04	1983 1895	8155 7793	4.11	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P15	25.00 X 70.00	RR 2.91 RR 1.04	31.47 16.07	757 1109	4933 7224	6.52	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)

5. Quadro de Cargas e Taxa de Compressão Permanente nos Pilares

FUNDO						
Pilares	Seção (cm)	Nmáx (tf)	Nmin (tf)	Nperm (tf)	Taxa de compressão (bruta)	Taxa de compressão (homogeneizada)
P1	25x70	32.11	0.00	20.25	0.05	0.05
P2	25x70	43.53	0.00	27.83	0.07	0.07
P3	25x70	46.95	0.00	30.02	0.08	0.08
P4	25x70	69.08	0.00	40.59	0.11	0.10
P5	25x70	24.07	0.00	18.63	0.05	0.05
P6	25x70	36.54	0.00	21.38	0.06	0.05
P10	25x70	28.10	0.00	21.47	0.06	0.05
P11	25x70	32.08	0.00	20.15	0.05	0.05
P12	25x70	43.64	0.00	27.85	0.07	0.07
P13	25x70	47.52	0.00	30.19	0.08	0.08
P14	25x70	70.60	0.00	41.11	0.11	0.10
P15	25x70	24.42	0.00	18.87	0.05	0.05

6. Vigas do pavimento FUNDO

Viga	Vãos			Nós			Avisos
	Md (kgf.m)	As	Als	Md (kgf.m)	As	Als	
VB1	1232.47	3 ø 16.0	3 ø 10.0	-2871.25	3 ø 16.0	3 ø 10.0	Avisos 11, 38, 82
	5881.01	4 ø 12.5	3 ø 10.0	-3706.45	3 ø 16.0	3 ø 10.0	
	1232.20	3 ø 16.0	3 ø 10.0	-3706.77	3 ø 16.0	3 ø 10.0	
				-2871.25	3 ø 16.0	3 ø 10.0	
VB2	1288.43	4 ø 12.5	3 ø 10.0	-2845.11	4 ø 12.5	3 ø 10.0	Avisos 11, 38, 82
	5847.89	3 ø 16.0	3 ø 10.0	-3669.11	3 ø 16.0	3 ø 10.0	
	1287.81	4 ø 12.5	3 ø 10.0	-3670.46	3 ø 16.0	3 ø 10.0	
				-2846.23	4 ø 12.5	3 ø 10.0	
VB3	1246.32	4 ø 12.5		-3144.75	4 ø 12.5		Avisos 11, 38, 82
	7819.99	4 ø 12.5		-6575.50	4 ø 12.5		
	8581.30	5 ø 12.5		-12593.25	7 ø 12.5		
	1884.22	4 ø 12.5		-8174.87	5 ø 12.5		
	3465.35	4 ø 12.5		-3322.86	4 ø 12.5		
				-1895.42	4 ø 12.5		
			-1646.08	4 ø 12.5			

Resultados da Viga VB1

fck = 300.00 kgf/cm ²	Ecs = 268384 kgf/cm ²
Cobrimento = 3.00 cm	Peso específico = 2500.00 kgf/m ³

Dados			Resultados						
Pilar Trecho	Apoio 1 e 1o (cm)	Seção (cm)	As Inf (cm ²)	As Sup (cm ²)	As esq trecho (cm ²)	Asw min (cm ²)	As dir trecho (cm ²)	Asw Pele (cm ²)	Fissura (mm)
P2	25.00		3 ø 10.0 1.59	3 ø 16.0 5.27					0.04
1	118.75	70.00 x 40.00	3 ø 16.0 5.27	3 ø 10.0 1.59		ø 8.0 c/7		2x3 ø 10.0	0.00
E2	50.00		3 ø 10.0 1.59	3 ø 16.0 5.27					0.05
2	262.50	70.00 x 40.00	4 ø 12.5 5.15	3 ø 10.0 1.31		ø 8.0 c/7		2x3 ø 10.0	0.15
E12	50.00		3 ø 10.0 1.59	3 ø 16.0 5.27					0.05
3	118.75	70.00 x 40.00	3 ø 16.0 5.27	3 ø 10.0 1.59		ø 8.0 c/7		2x3 ø 10.0	0.00
P12	25.00		3 ø 10.0 1.59	3 ø 16.0 5.27					0.04

Resultados da Viga VB2

fck = 300.00 kgf/cm ²	Ecs = 268384 kgf/cm ²
Cobrimento = 3.00 cm	Peso específico = 2500.00 kgf/m ³

Dados			Resultados						
Pilar Trecho	Apoio 1 e 1o (cm)	Seção (cm)	As Inf (cm ²)	As Sup (cm ²)	As esq trecho (cm ²)	Asw min (cm ²)	As dir trecho (cm ²)	Asw Pele (cm ²)	Fissura (mm)
P3	25.00		3 ø 10.0 1.25	4 ø 12.5 4.92					0.04
1	118.75	70.00 x 40.00	4 ø 12.5 4.66	3 ø 10.0 1.25		ø 8.0 c/7		2x3 ø 10.0	0.01
E4	50.00		3 ø 10.0 1.92	3 ø 16.0 5.61					0.05
2	262.50	70.00 x 40.00	3 ø 16.0 5.76	3 ø 10.0 1.92		ø 8.0 c/7		2x3 ø 10.0	0.13
E14	50.00		3 ø 10.0 1.92	3 ø 16.0 5.61					0.05
3	118.75	70.00 x 40.00	4 ø 12.5 4.66	3 ø 10.0 1.25		ø 8.0 c/7		2x3 ø 10.0	0.01
P13	25.00		3 ø 10.0 1.25	4 ø 12.5 4.92					0.04

Resultados da Viga VB3

fck = 300.00 kgf/cm ²	Ecs = 268384 kgf/cm ²
Cobrimento = 3.00 cm	Peso específico = 2500.00 kgf/m ³

Dados			Resultados						
Pilar Trecho	Apoio 1 e 1o (cm)	Seção (cm)	As Inf (cm ²)	As Sup (cm ²)	As esq trecho (cm ²)	Asw min (cm ²)	As dir trecho (cm ²)	Asw Pele (cm ²)	Fissura (mm)
P6	25.00			4 ø 12.5 4.20					0.05
1	154.38	70.00 x 40.00	4 ø 12.5 4.20			ø 5.0 c/ 7			0.01
E7	50.00			4 ø 12.5 4.30					0.18
2	349.68	70.00 x 40.00	4 ø 12.5 5.14			ø 5.0 c/ 7			0.26
E8	60.00			7 ø 12.5 8.41					0.24
3	360.62	70.00 x 40.00	5 ø 12.5 5.65			ø 5.0 c/ 10			0.20
E9	60.00			5 ø 12.5 5.38					0.19
4	165.32	70.00 x 40.00	4 ø 12.5 4.20			ø 5.0 c/ 7			0.01
P9	25.00			4 ø 12.5 4.20					0.05
5	240.00	70.00 x 40.00	4 ø 12.5 4.20			ø 5.0 c/ 7			0.05
P10	25.00			4 ø 12.5 4.20					0.01

7. Pavimento TAMPA

8. Cálculo dos Pilares

TAMPA	fck = 300.00 kgf/cm ²	E = 268384 kgf/cm ²	Peso Espec = 2500.00 kgf/m ³
Lance 2		cobr = 3.00 cm	

Pilar	Seção (cm)	vínc esb B vínc esb H	Nd máx Nd mín (tf)	Msd(x) Msd(y) (kgf.m)	Mrd(x) Mrd(y) (kgf.m)	Mrd/Msd	As b As h (cm ²)
P1	25.00 X 70.00	RR 58.13 RR 20.76	26.07 -0.33	1186 705	5233 3109	4.41	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)

P2	25.00 X 70.00	RR 58.13 RR 20.76	32.39 4.22	5753 145	6228 157	1.08	2.45 (2 ø 12.5) 4.91 (4 ø 12.5)
P3	25.00 X 70.00	RR 58.13 RR 20.76	35.21 4.20	5823 174	6312 189	1.08	2.45 (2 ø 12.5) 4.91 (4 ø 12.5)
P4	25.00 X 70.00	RR 58.13 RR 20.76	48.10 0.81	2090 2401	6368 7314	3.05	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P5	25.00 X 70.00	RR 58.13 RR 20.76	19.14 0.06	900 700	4705 3658	5.23	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P6	25.00 X 70.00	RR 58.13 RR 20.76	24.92 2.57	3659 2	4982 3	1.36	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P7	25.00 X 70.00	RR 58.13 RR 20.76	38.67 23.13	1670 681	6495 2648	3.89	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P8	25.00 X 70.00	RR 58.13 RR 20.76	39.65 23.84	1713 1081	6347 4005	3.71	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P9	25.00 X 70.00	RR 58.13 RR 20.76	6.48 -7.23	4069 9	4130 9	1.01	1.57 (2 ø 10.0) 3.93 (5 ø 10.0)
P10	25.00 X 70.00	RR 58.13 RR 20.76	19.74 1.61	4199 12	4553 13	1.08	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P11	25.00 X 70.00	RR 58.13 RR 20.76	26.06 -0.33	1186 705	5232 3112	4.41	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P12	25.00 X 70.00	RR 58.13 RR 20.76	32.50 4.22	5758 147	6236 160	1.08	2.45 (2 ø 12.5) 4.91 (4 ø 12.5)
P13	25.00 X 70.00	RR 58.13 RR 20.76	35.73 4.20	5842 193	6352 210	1.09	2.45 (2 ø 12.5) 4.91 (4 ø 12.5)
P14	25.00 X 70.00	RR 58.13 RR 20.76	49.16 0.83	2137 2444	6432 7356	3.01	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)
P15	25.00 X 70.00	RR 58.13 RR 20.76	19.44 0.05	911 717	4723 3721	5.19	2.45 (2 ø 12.5) 3.68 (3 ø 12.5)

9. Quadro de Cargas e Taxa de Compressão Permanente nos Pilares

TAMPA						
Pilares	Seção (cm)	Nmáx (tf)	Nmin (tf)	Nperm (tf)	Taxa de compressão (bruta)	Taxa de compressão (homogeneizada)
P1	25x70	19.83	-0.27	12.47	0.03	0.03
P2	25x70	25.15	0.00	16.76	0.04	0.04
P3	25x70	27.43	0.00	18.17	0.05	0.04
P4	25x70	37.24	0.00	22.00	0.06	0.05
P5	25x70	14.79	0.00	11.53	0.03	0.03
P6	25x70	19.20	0.00	12.47	0.03	0.03
P7	25x70	28.53	0.00	13.80	0.04	0.03
P8	25x70	29.25	0.00	14.09	0.04	0.04
P9	25x70	4.92	-5.91	1.88	0.01	0.00
P10	25x70	15.41	0.00	11.85	0.03	0.03
P11	25x70	19.81	-0.27	12.41	0.03	0.03
P12	25x70	25.23	0.00	16.77	0.04	0.04
P13	25x70	27.80	0.00	18.28	0.05	0.05
P14	25x70	38.01	0.00	22.26	0.06	0.06
P15	25x70	15.02	0.00	11.68	0.03	0.03

10. Vigas do pavimento TAMPA

Viga	Vãos			Nós			Avisos
	Md (kgf.m)	As	Als	Md (kgf.m)	As	Als	
V1	4350.07	4 ø 12.5		-5391.31	4 ø 12.5		
	4349.93	4 ø 12.5		-5203.86	4 ø 12.5		
				-5390.42	4 ø 12.5		
V2	4388.34	4 ø 12.5		-5385.07	4 ø 12.5		
	4395.40	4 ø 12.5		-5445.27	4 ø 12.5		
				-5389.78	4 ø 12.5		

Resultados da Viga V1

fck = 300.00 kgf/cm ²	Ecs = 268384 kgf/cm ²
Cobrimento = 3.00 cm	Peso específico = 2500.00 kgf/m ³

Dados			Resultados						
Pilar Trecho	Apoio 1 e 1o (cm)	Seção (cm)	As Inf (cm ²)	As Sup (cm ²)	As esq trecho (cm ²)	Asw min (cm ²)	As dir trecho (cm ²)	Asw Pele (cm ²)	Fissura (mm)
P12	25.00			4 ø 12.5 4.20					0.12
1	287.50	70.00 x 40.00	4 ø 12.5 4.20				ø 5.0 c/ 7		0.08
P7	25.00			4 ø 12.5 4.20					0.11
2	287.50	70.00 x 40.00	4 ø 12.5 4.20				ø 5.0 c/ 7		0.08
P2	25.00			4 ø 12.5 4.20					0.12

Resultados da Viga V2

fck = 300.00 kgf/cm ²	Ecs = 268384 kgf/cm ²
Cobrimento = 3.00 cm	Peso específico = 2500.00 kgf/m ³

Dados			Resultados						
Pilar Trecho	Apoio 1 e 1o (cm)	Seção (cm)	As Inf (cm ²)	As Sup (cm ²)	As esq trecho (cm ²)	Asw min (cm ²)	As dir trecho (cm ²)	Asw Pele (cm ²)	Fissura (mm)
P13	25.00			4 ø 12.5 4.20					0.12
1	287.50	70.00 x 40.00	4 ø 12.5 4.20			ø 5.0 c/ 7			0.08
P8	25.00			4 ø 12.5 4.20					0.12
2	287.50	70.00 x 40.00	4 ø 12.5 4.20			ø 5.0 c/ 7			0.08
P3	25.00			4 ø 12.5 4.20					0.12