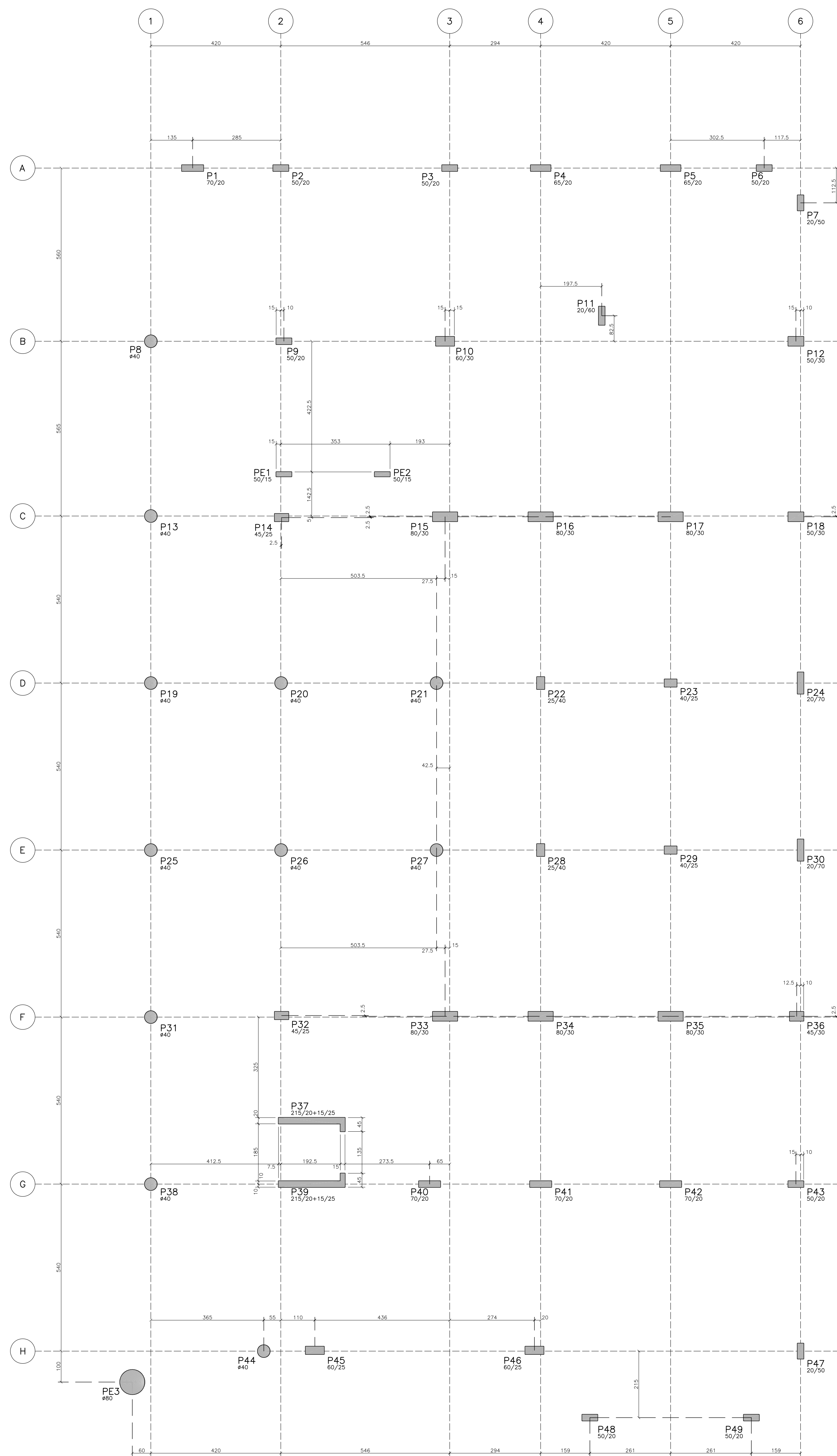
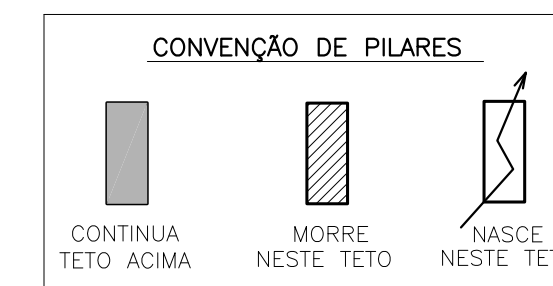


LOCAÇÃO DOS PILARES



Elem	Caso 1	Vento (1) 90°			Vento (2) 270°			Vento (3) 0°			Vento (4) 180°			FZ MAX-ELU2-Verificações de estado limite último - Pilares e fundações			MX MAX-ELU2-Verificações de estado limite último - Pilares e fundações			MY MAX-ELU2-Verificações de estado limite último - Pilares e fundações		
		Fz	Fy	Mx	Fz	Fy	Mx	Fz	Fx	My	Fz	Fx	My	Fz	Mx	My	Fz	Mx	My	Fz	Mx	My
P1	52.7	0.2	0.3	-0.5	-0.2	-0.3	0.5	-5.4	1.0	3.3	5.4	-1.0	-3.3	59.2	-0.6	-4.0	51.5	-0.1	-0.1	46.0	-0.6	3.4
P2	59.2	0.2	0.0	-0.3	-0.2	0.0	0.3	4.4	1.5	1.4	-4.4	-1.5	-1.4	62.2	-0.3	1.4	57.3	0.0	0.0	62.2	-0.3	1.4
P3	84.5	1.0	-0.1	-0.2	-1.0	0.1	0.2	-1.5	1.4	1.5	1.5	-1.4	-1.5	86.5	-0.1	-1.1	74.2	0.2	-0.1	73.7	0.0	1.4
P4	44.3	0.5	0.5	-0.4	-0.5	-0.5	0.4	0.7	1.3	1.5	-0.7	-1.3	-1.5	51.9	-0.5	0.4	42.8	0.0	-0.5	50.4	-0.4	1.0
P5	51.8	0.2	0.0	-0.3	-0.2	0.0	0.3	-1.6	1.4	1.4	1.6	-1.4	-1.4	58.0	-0.4	-1.6	50.4	0.0	-0.7	48.7	-0.4	0.8
P6	16.4	1.4	0.1	-0.3	-1.4	-0.1	0.3	2.3	1.1	1.4	-2.3	-1.1	-1.4	19.4	0.0	0.5	14.6	0.3	-1.0	19.4	0.0	0.5
P7	40.1	0.8	0.8	-1.7	-0.8	-0.8	1.7	1.0	0.1	0.2	-1.0	-0.1	-0.2	41.7	1.1	0.5	38.0	3.2	0.4	40.0	1.5	0.6
P8	119.3	2.2	1.4	-1.2	-2.2	-1.4	1.2	-1.8	0.7	0.9	1.8	-0.7	-0.9	123.9	-0.5	-0.8	114.2	1.6	-0.7	115.5	0.3	0.2
P9	128.4	0.5	0.3	-0.3	-0.5	-0.3	0.3	-0.2	1.2	1.4	0.2	-1.2	-1.4	128.9	0.3	0.2	123.4	0.9	0.2	123.7	0.5	1.7
P10	281.8	-0.7	-0.2	-1.0	0.7	0.2	1.0	0.5	1.3	3.0	-0.5	-1.3	-3.0	282.4	1.4	0.1	274.3	1.8	0.1	274.1	0.8	3.3
P11	105.9	0.4	0.6	-2.8	-0.4	-0.6	2.8	0.0	0.1	0.3	0.0	-0.1	-0.3	106.3	1.3	-0.3	102.7	6.0	-0.3	102.0	2.6	0.0
P12	185.9	-1.4	1.0	-1.1	1.4	-1.0	1.1	1.6	1.0	1.9	-1.6	-1.0	-1.9	186.9	0.9	-0.3	182.5	2.0	-1.5	182.5	0.7	0.7
P13	131.5	-0.7	1.6	-1.2	0.7	-1.6	1.2	-1.7	0.7	0.8	1.7	-0.7	-0.8	132.5	0.8	-1.0	129.3	2.1	-0.4	125.1	0.7	0.4
P14	134.7	-0.2	0.6	-0.6	0.2	-0.6	0.6	-1.0	1.1	1.3	1.0	-1.1	-1.3	135.2	-0.4	-0.9	130.3	0.4	-0.1	129.5	-0.4	1.2
P15	187.8	0.8	0.7	-1.5	-0.8	-0.7	1.5	-4.4	1.4	6.4	4.4	-1.4	-6.4	194.0	0.7	-6.2	183.4	2.4	-2.2	179.7	0.9	4.6
P16	217.5	0.7	0.4	-1.4	-0.7	-0.4	1.4	0.1	1.9	5.9	-0.1	-1.9	-5.9	218.2	-0.1	1.1	210.6	2.4	1.0	209.1	0.7	7.6
P17	236.6	0.9	0.3	-1.4	-0.9	-0.3	1.4	2.5	1.6	6.2	-2.5	-1.6	-6.2	238.1	0.7	1.3	228.4	2.1	-2.7	228.9	0.5	4.8
P18	81.5	1.2	0.8	-1.0	-1.2	-0.8	1.0	4.5	0.9	1.8	-4.5	-0.9	-1.8	91.4	0.4	0.2	78.1	1.7	-1.3	87.7	0.5	0.8
P19	92.1	0.9	1.5	-1.2	0.0	-1.5	1.2	-1.3	0.8	0.8	1.3	-0.8	-0.8	104.8	-0.1	-0.8	100.2	1.2	-0.3	94.8	-0.2	0.6
P20	119.9	-0.6	0.6	-1.0	0.6	-0.6	1.0	0.6	1.1	0.9	-0.6	-1.1	-0.9	120.3	1.1	-0.2	116.3	1.5	-0.2	112.6	0.2	0.7
P21	63.7	-0.5	1.2	-1.2	0.5	-1.2	1.2	0.0	1.0	0.9	0.0	-1.0	-0.9	64.4	1.0	0.3	61.5	1.5	0.3	60.4	0.2	1.2
P22	59.0	-0.4	0.9	-1.2	0.4	-0.9	1.2	0.1	0.6	0.5	-0.1	-0.6	-0.5	59.4	1.0	-0.3	57.1	1.6	-0.3	56.6	0.2	0.2
P23	71.8	-0.7	0.6	-0.6	0.7	-0.6	0.6	0.1	0.9	0.9	-0.1	-0.9	-0.9	72.6	0.9	-0.5	69.6	1.1	-0.5	67.5	0.5	0.5
P24	69.1	1.8	0.7	-4.3	-1.8	-0.7	4.3	0.2	0.4	0.4	-0.2	-0.4	-0.4	71.1	-3.1	0.4	64.9	5.1	0.4	67.9	0.5	0.8
P25	147.8	0.0	1.5	-1.2	0.0	-1.5	1.2	-1.1	0.8	0.8	1.1	-0.8	-0.8	149.7	0.5	-1.2	145.5	1.7	-0.7	144.4	0.3	0.1
P26	109.3	0.5	0.5	-1.0	-0.5	-0.5	1.0	0.6	1.1	0.9	-0.6	-1.1	-0.9	109.7	0.0	0.5	102.9	1.3	-0.1	102.5	0.2	0.9
P27	63.4	0.4	1.1	-1.1	-0.4	-1.1	1.1	0.0	0.9	0.8	0.0	-0.9	-0.8	64.0	-0.5	0.3	59.8	1.4	0.3	60.1	0.2	1.2
P28	59.1	0.4	0.8	-1.2	-0.4	-0.8	1.2	0.1	0.6	0.4	-0.1	-0.6	-0.4	59.5	-0.7	-0.3	56.3	1.4	-0.3	56.6	0.1	0.2
P29	72.1	0.7	0.5	-0.6	-0.7	-0.5	0.6	-0.1	0.8	0.8	0.1	-0.8	-0.8	72.5	-0.8	-0.5	67.9	0.2	-0.5	67.4	-0.4	0.4
P30	69.4	-1.8	0.7	-4.3	1.8	-0.7	4.3	0.7	0.4	0.3	-0.7	-0.4	-0.3	71.4	2.9	0.5	69.1	5.1	0.5	68.7	0.8	0.9
P31	91.0	0.5	1.6	-1.2	-0.5	-1.6	1.2	-1.4	1.0	0.8	1.4	-1.0	-0.8	96.0	0.9	0.1	91.2	2.3	0.6	86.4	0.9	1.4
P32	143.6	-0.4	0.5	-0.6	0.4	-0.5	0.6	-0.8	1.5	1.3	0.8	-1.5	-1.3	144.1	0.2	-1.1	138.7	0.8	-0.3	137.3	0.2	1.0
P33	174.7	-1.0	1.0	-1.5	1.0	-1.0	1.5	-3.8	1.8	4.4	3.8	-1.8	-4.4	178.3	-0.2	-5.9	171.6	1.4	-3.0	165.9	-0.2	1.5
P34	166.6	-0.9	0.5	-1.5	0.9	-0.5	1.5	1.4	1.6	4.2	-1.4	-1.6	-4.2	169.1	-0.1	3.9	164.6	1.5	1.4	164.7	-0.1	5.7
P35	184.4	-0.8	0.5	-1.4	0.8	-0.5	1.4	1.4	1.3	4.3	-1.4	-1.3	-4.3	185.5	0.2	1.8	176.4	1.7	0.6	178.3	0.3	5.0
P36	63.2	-1.9	0.7	-0.9	1.9	-0.7	0.9	3.7	0.9	1.1	-3.7	-0.9	-1.1	69.7	-0.1	0.6	67.6	0.8	-0.2	68.3	0.0	0.9
P37	81.8	7.8	2.4	-2.6	-7.8	-2.4	2.6	-0.3	3.1	42.0	0.3	-3.1	-42.0	89.1	-3.6	-17.6	70.9	2.3	-2.9	79.6	0.9	33.8
P38	144.7	0.8	1.7	-1.3	-0.8	-1.7	1.3	-4.6	1.6	0.9	4.6	-1.6	-0.9	148.8	0.0	-0.9	138.5	1.3	-0.3	134.7	-0.2	0.6
P39	91.2	-3.1	2.3	-2.4	3.1	-2.3	2.4	-0.1	3.2	37.4	0.1	-3.2	-37.4	96.9	2.3	-21.5	95.3	3.3	-21.4	88.2	-1.3	20.0
P40	89.0	-0.2	0.6	-0.5	0.2	-0.6	0.5	4.1	2.0	2.0	-4.1	-2.0	-2.0	91.6	-0.3	1.3	82.8	0.3	0.4	88.4	-0.2	2.4
P41	113.7	1.7	0.4	-0.5	-1.7	-0.4	0.5	0.1	1.6	1.9	-0.1	-1.6	-1.9	115.3	-0.5	-0.1	108.5	0.4	0.4	110.2	-0.1	2.3
P42	130.7	-0.2	0.4	-0.5	0.2	-0.4	0.5	0.2	1.4	1.8	-0.2	-1.4	-1.8	131.2	-0.4	-0.4	123.0	-0.2	0.2	123.6	-0.6	2.0
P43	68.5	1.1	0.5	-0.4	-1.1	-0.5	0.4	1.6	0.9	0.9	-1.6	-0.9	-0.9	71.0	0.0	0.4	67.1	0.4	-0.1	69.7	0.0	0.8
P44	66.2	0.2	0.9	-1.2	-0.2	-0.9	1.2	-1.8	1.0	0.8	1.8	-1.0	-0.8	67.3	0.7	-0.2	63.9	2.0	0.3	62.3	0.7	1.0
P45	72.0	-2.4	0.6	-5.7	2.4	-0.6	5.7	1.7	0.9	0.6	-1.7	-0.9	-0.6	75.3	4.6	-0.6	75.3	4.6	-0.6	73.9	-2.1	0.0
P46	157.7	-1.6	0.9	-5.5	1.6	-0.9	5.5	0.1	0.6	0.5	-0.1	-0.6	-0.5	158.8	-0.1	-0.7	153.9	3.2	-0.5	152.2	-2.5	-0.1
P47	69.5	-1.1	0.8	-1.7	1.1	-0.8	1.7	0.4	0.3	0.2	-0.4	-0.3	-0.2	71.4	0.9	1.6	69.9	1.6	1.5	69.1	0.0	1.7
P48	27.3	-1.0	0.2	-0.3	1.0	-0.2	0.3	-0.6	0.6	0.7	0.6	-0.6	-0.7	28.8	0.5	-0.1	28.8	0.5	-0.1	26.8	0.1	0.6
P49	32.3	-0.7	0.1	-0.3	0.7	-0.1	0.3	0.9	0.6	0.7	-0.9	-0.6	-0.7	34.0	0.3	0.6	33.6	0.6	0.0	33.7	0.3	0.7
PE1	37.8	0.8	0.3	-0.2	-0.8	-0.3	0.2	-1.3	0.1	1.0	1.3	-0.1	-1.0	39.8	0.4	-0.4	35.7	0.6	0.2	34.6	0.4	1.2
PE2	38.7	0.5	0.2	-0.2	-0.5	-0.2	0.2	1.0	0.1	1.0	-1.0	-0.1	-1.0	41.4	0.3	0.2	37.1	0.5	-0.4	40.7	0.3	0.6
PE3	205.2	-5.9	1.9	-16.3	5.9	-1.9	16.3	-1.8	0.9	3.9	1.8	-0.9	-3.9	210.3	11.9	2.7	207.8	19.2	2.4	197.9	-5.4	7.6

Observações:
 =====
 1 - Esforços com valores característicos
 2 - Forças em tf
 3 - Momentos em tfm
 4 - Sistema de coordenadas GLOBAL
 5 - CA é a cota de arrasamento/assentamento da fundação



OBSERVAÇÕES:

- 1 - CONFERIR MEDIDAS NO LOCAL
- 2 -

02	REVISÃO GERAL	25/05/11
01	REVISÃO GERAL	09/05/11
REV.	DESCRIÇÃO	DATA

Eng. MANOEL ORMOND CREA 21.603-D
 Rua Colina, 60 loja 10 - Ilha do Governador/RJ
 Tel: (21) 3396-0018 / 2462-3283 manoelormond@terra.com.br

CLIENTE MENEZES ALMEIDA ENGENHARIA LTDA		PROJETO/COMP. 337/11/M06/TQS12	
OBJETO PAVILHÃO DIVISÃO DE ENSINO INTEGRADO		ESCALA 1/75	
LOCAL IME - CCOPAB		DATA 28/04/11	
DESCRIÇÃO POSIÇÃO DOS PILARES COM MAPA DE CARGAS		DESIGNO 01	
FATOR MÁXIMO ÁGUA/CIMENTO= 0,5		Fck= 35 Mpa	