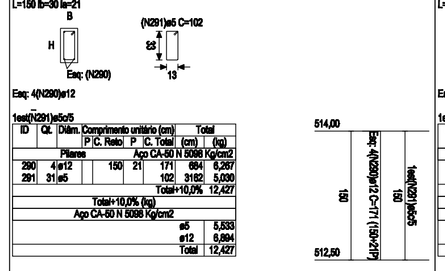
P015 | P016 | P017 | P018 | P019 | P020 | P021

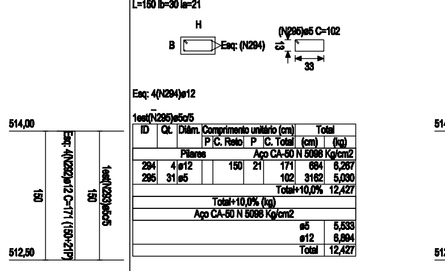
Pilar P017
CONC 30x40
L=150 B=30 la=21



1ses(N290)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
290	4	pr12	150	21	171	684	6,267
291	31	pr5			102	3162	5,030
					Total+10,0%		12,427
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	5,535
						pr12	6,894
						Total	12,427

Pilar P018
CONC 30x40
L=150 B=30 la=21



1ses(N292)x5x5

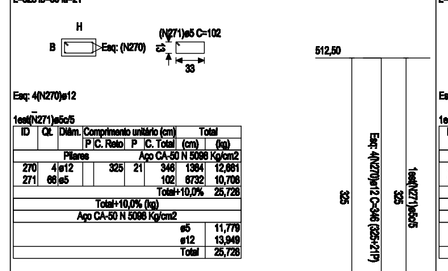
ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
292	4	pr12	150	21	171	684	6,267
293	31	pr5			102	3162	5,030
					Total+10,0%		12,427
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	5,535
						pr12	6,894
						Total	12,427

Pilar P019
CONC 30x40
L=150 B=30 la=21

1ses(N294)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
294	4	pr12	150	21	171	684	6,267
295	31	pr5			102	3162	5,030
					Total+10,0%		12,427
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	5,535
						pr12	6,894
						Total	12,427

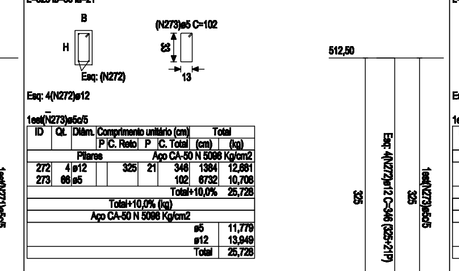
Pilar P015
CONC 30x40
L=325 B=30 la=21



1ses(N271)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
270	4	pr12	325	21	346	1384	12,281
271	66	pr5			102	6732	10,706
					Total+10,0%		25,726
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	13,949
						Total	25,726

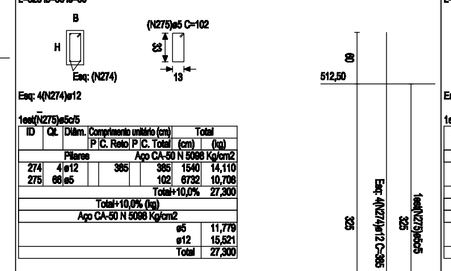
Pilar P016
CONC 30x40
L=325 B=30 la=21



1ses(N272)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
272	4	pr12	325	21	346	1384	12,281
273	66	pr5			102	6732	10,706
					Total+10,0%		25,726
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	13,949
						Total	25,726

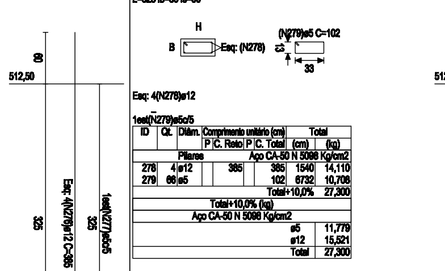
Pilar P017
CONC 30x40
L=325 B=30 la=60



1ses(N274)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
274	4	pr12	385		385	1540	14,110
275	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

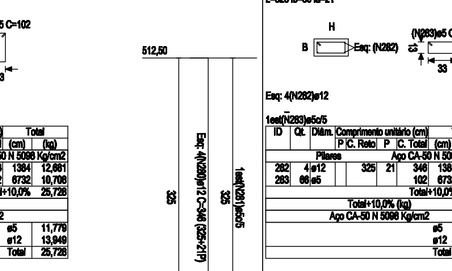
Pilar P018
CONC 30x40
L=325 B=30 la=60



1ses(N276)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
276	4	pr12	385		385	1540	14,110
277	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

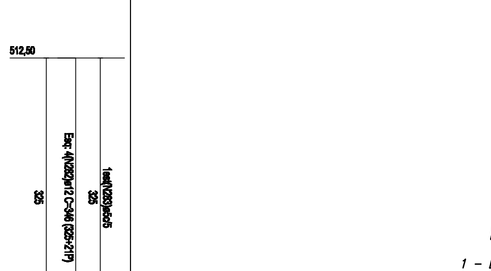
Pilar P019
CONC 30x40
L=325 B=30 la=60



1ses(N278)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
278	4	pr12	385		385	1540	14,110
279	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

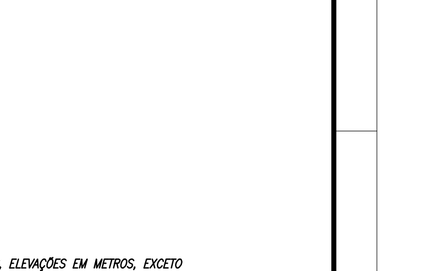
Pilar P020
CONC 30x40
L=325 B=30 la=21



1ses(N280)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
280	4	pr12	325	21	346	1384	12,281
281	66	pr5			102	6732	10,706
					Total+10,0%		25,726
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	13,949
						Total	25,726

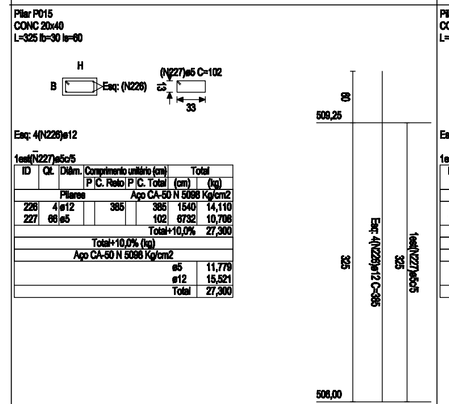
Pilar P021
CONC 30x40
L=325 B=30 la=21



1ses(N282)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
282	4	pr12	325	21	346	1384	12,281
283	66	pr5			102	6732	10,706
					Total+10,0%		25,726
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	13,949
						Total	25,726

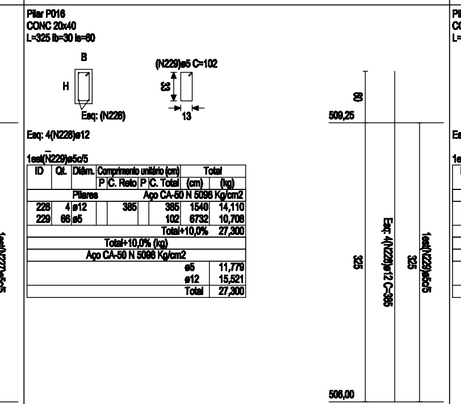
Pilar P015
CONC 30x40
L=325 B=30 la=60



1ses(N226)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
226	4	pr12	385		385	1540	14,110
227	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

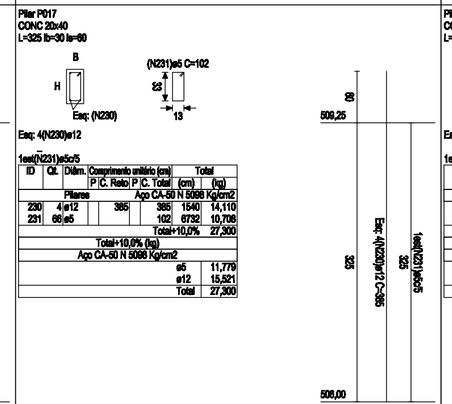
Pilar P016
CONC 30x40
L=325 B=30 la=60



1ses(N228)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
228	4	pr12	385		385	1540	14,110
229	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

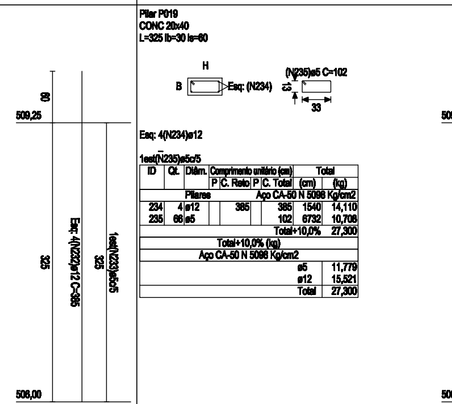
Pilar P017
CONC 30x40
L=325 B=30 la=60



1ses(N230)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
230	4	pr12	385		385	1540	14,110
231	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

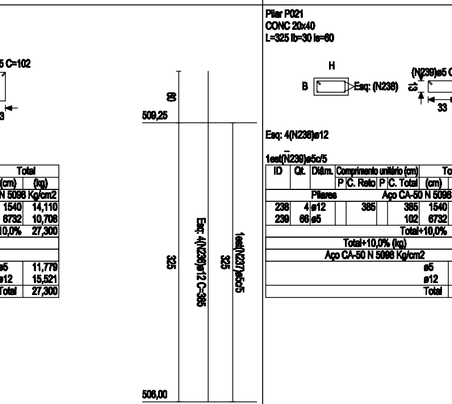
Pilar P018
CONC 30x40
L=325 B=30 la=60



1ses(N232)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
232	4	pr12	385		385	1540	14,110
233	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

Pilar P019
CONC 30x40
L=325 B=30 la=60



1ses(N234)x5x5

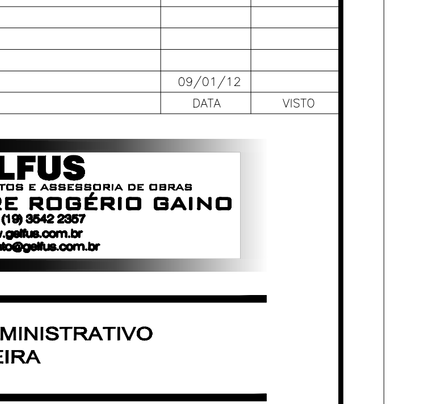
ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
234	4	pr12	385		385	1540	14,110
235	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

Pilar P020
CONC 30x40
L=325 B=30 la=60

1ses(N236)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
236	4	pr12	385		385	1540	14,110
237	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

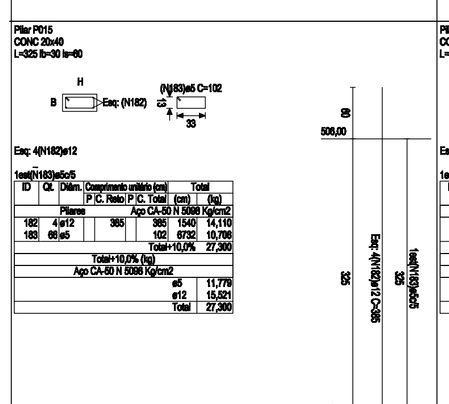
Pilar P021
CONC 30x40
L=325 B=30 la=60



1ses(N238)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
238	4	pr12	385		385	1540	14,110
239	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

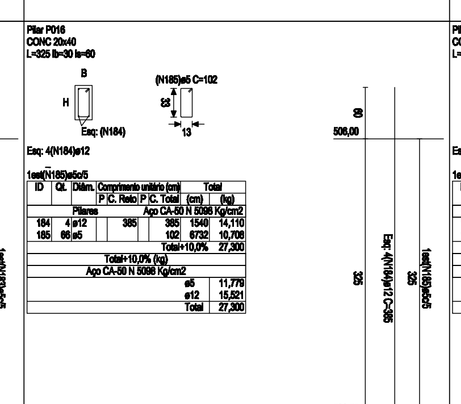
Pilar P015
CONC 30x40
L=325 B=30 la=60



1ses(N182)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
182	4	pr12	385		385	1540	14,110
183	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

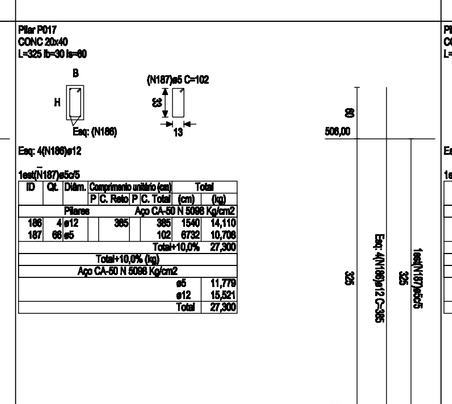
Pilar P016
CONC 30x40
L=325 B=30 la=60



1ses(N184)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
184	4	pr12	385		385	1540	14,110
185	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

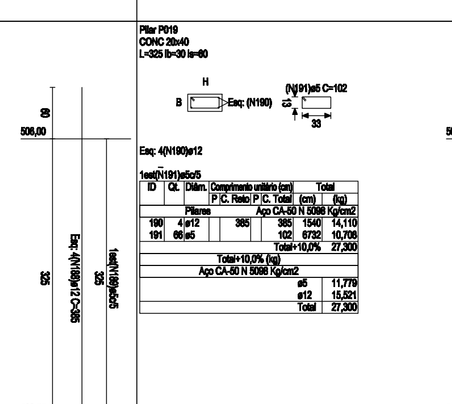
Pilar P017
CONC 30x40
L=325 B=30 la=60



1ses(N186)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
186	4	pr12	385		385	1540	14,110
187	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

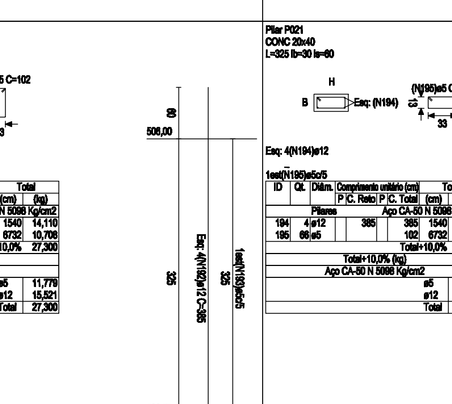
Pilar P018
CONC 30x40
L=325 B=30 la=60



1ses(N188)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
188	4	pr12	385		385	1540	14,110
189	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

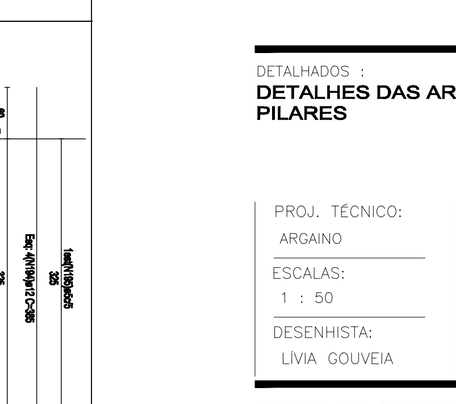
Pilar P019
CONC 30x40
L=325 B=30 la=60



1ses(N190)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
190	4	pr12	385		385	1540	14,110
191	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

Pilar P020
CONC 30x40
L=325 B=30 la=60



1ses(N192)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
192	4	pr12	385		385	1540	14,110
193	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

Pilar P021
CONC 30x40
L=325 B=30 la=60

1ses(N194)x5x5

ID	Qt.	Diâm.	Comprimento unitário (cm) P.C. Reto	P.	C. Total	Total (cm)	(kg)
	Pilares						Aço CA-50 N 5088 Kg/cm2
194	4	pr12	385		385	1540	14,110
195	66	pr5			102	6732	10,706
					Total+10,0%		27,300
Total+10,0% (kg)							
Aço CA-50 N 5088 Kg/cm2							
						pr5	11,779
						pr12	15,521
						Total	27,300

NOTAS

1 – DIMENSÕES EM CENTÍMETROS, ELEVAÇÕES EM METROS, EXCETO ONDE INDICADO

2 – LEGENDA DOS PILARES
- ⊠ PILAR – NASCE
- ⊠ PILAR – SEGUE
- ⊠ PILAR – MORRE

3 – CONCRETO FCK 30MPA
Alturas e cotas em cm Cobrimento 36 mm

REVISÃO	DETALHADOS	DATA	VISTO
00	INICIAL	09/01/12	

GELFUS
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OBRA :
CONSTRUÇÃO DE EDIFÍCIOS ADMINISTRATIVO
NA CÂMARA MUNICIPAL DE LIMEIRA

CLIENTE :
CÂMARA MUNICIPAL DE LIMEIRA

DETALHADOS :
DETALHES DAS ARMADURAS
PILARES

PROJ. TÉCNICO:	DATA:	PROJETO:
ARGAINO	09 / 01 / 2012	ESTRUTURAL
ESCALAS: 1 : 50	REVISÃO: 00	FOLHA: 20 / 36
DESENHISTA: LÍVIA GOUVEIA	ARQUIVO: 132-D-556-16-003_1	

ESTE PROJETO É PROPRIEDADE INTELECTUAL DE SEUS AUTORES, PODENDO SER UTILIZADO SOMENTE DE ACORDO COM OS LIMITES CONTRATUAIS. PORTANTO É VETADA SUA UTILIZAÇÃO EM PARTE OU NO TODO SEM EXPRESSA AUTORIZAÇÃO DOS MESMOS.

DESENHO ELABORADO EM ZWCAD