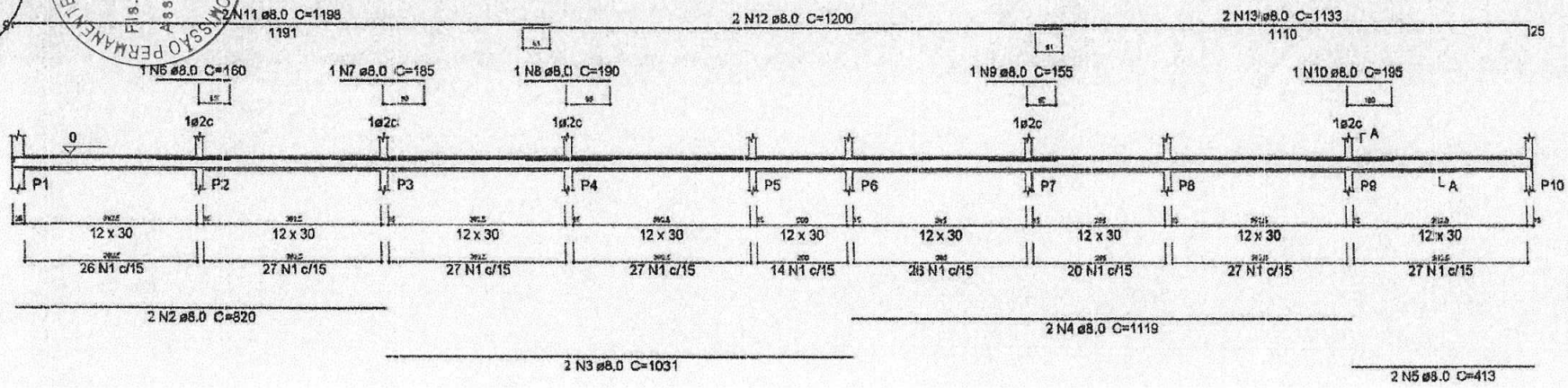
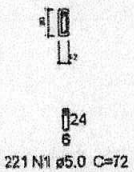
COMISSÃO PERMANENTE DE LICITAÇÃO DE URUOCA - CE
Fls. 616
Ass.
FL: 58
ASS.

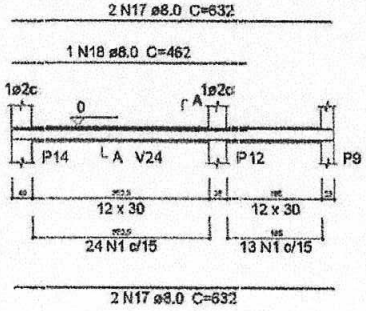
V1
ESC 1:50



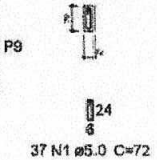
SEÇÃO A-A
ESC 1:30



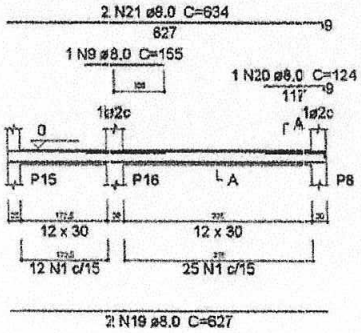
V3
ESC 1:50



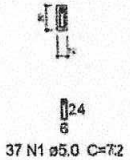
SEÇÃO A-A
ESC 1:30



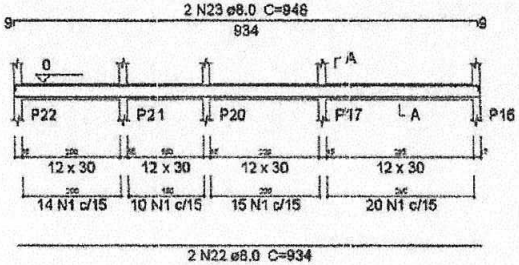
V4
ESC 1:50



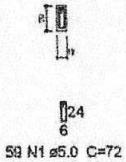
SEÇÃO A-A
ESC 1:30



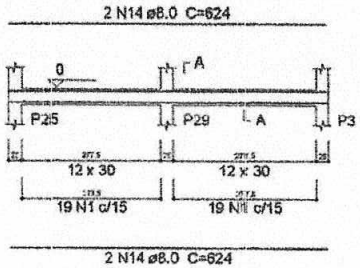
V5
ESC 1:50



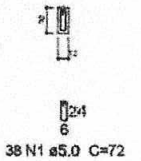
SEÇÃO A-A
ESC 1:30



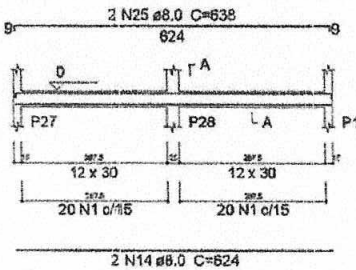
V7
ESC 1:50



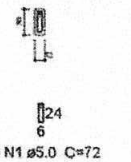
SEÇÃO A-A
ESC 1:30



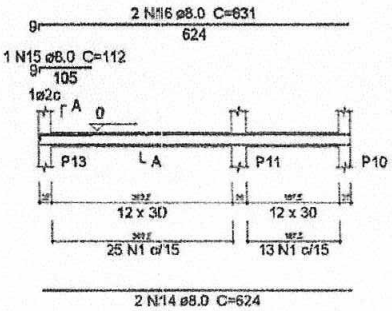
V8
ESC 1:50



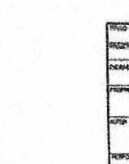
SEÇÃO A-A
ESC 1:30



V2
ESC 1:50



SEÇÃO A-A
ESC 1:30

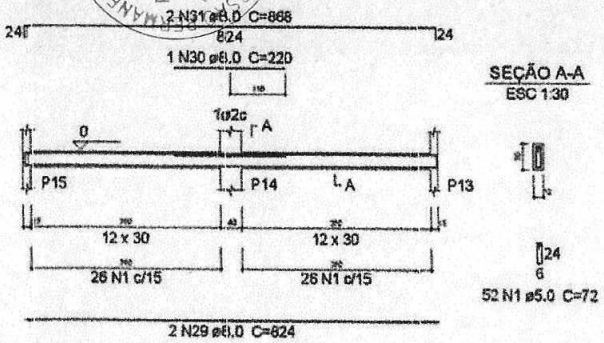


Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

TÍTULO	REQUALIFICAÇÃO DO CEO ANTONIA ALMEIDA
ASSUNTO	PROJETO ESTRUTURAL
ENDEREÇO	RUA ANTONIA ALMEIDA, S/N, DISTRITO DE CAMPESTRE, URUOCA/CE
PROPRIETÁRIO	GOVERNO MUNICIPAL DE URUOCA
AUTOR DO PROJETO	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO	RENAN ROCHA AQUINO
ÁREA	CONTEÚDO: DETALHAMENTO
DATA 01/03/2021	ESCALA VARIÁVEL / RESPONSÁVEL RRA / FOLHA 01/11

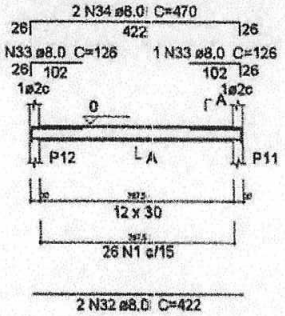
PREFEITURA MUNICIPAL DE URUOCA - CE
COMISSÃO PERMANENTE DE LICITAÇÃO
FLS. 617
ASS.
PMU FL: 51 ASS:

V10
ESC 1:50

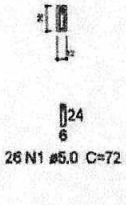


SEÇÃO A-A
ESC 1:30

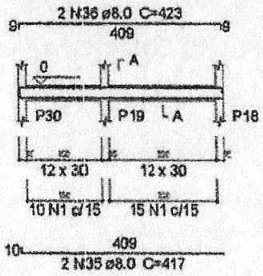
V11
ESC 1:50



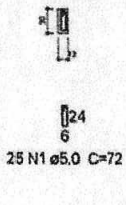
SEÇÃO A-A
ESC 1:30



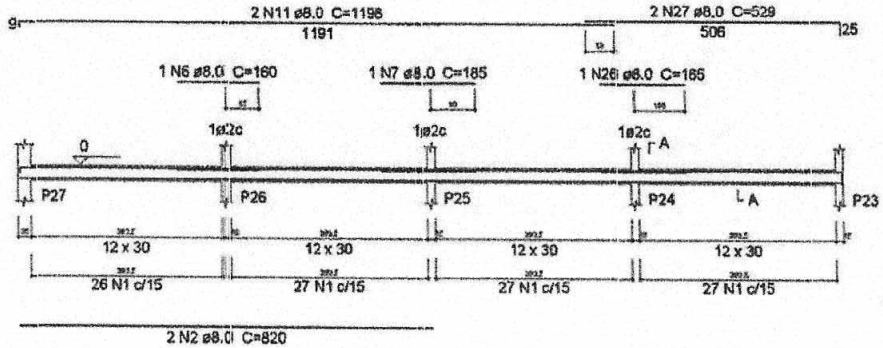
V13
ESC 1:50



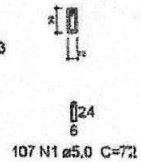
SEÇÃO A-A
ESC 1:30



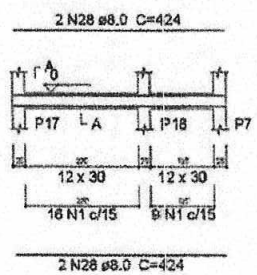
V9
ESC 1:50



SEÇÃO A-A
ESC 1:30

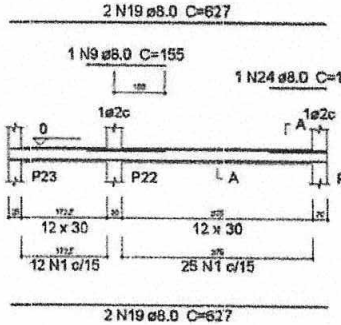


V12
ESC 1:50



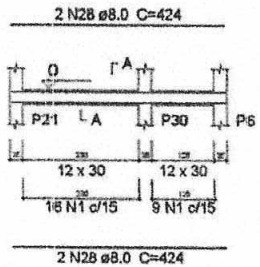
SEÇÃO A-A
ESC 1:30

V6
ESC 1:50

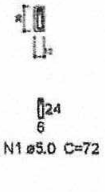


SEÇÃO A-A
ESC 1:30

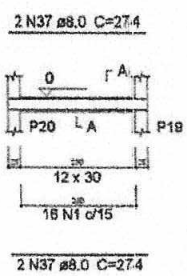
V14
ESC 1:50



SEÇÃO A-A
ESC 1:30



V15
ESC 1:50



SEÇÃO A-A
ESC 1:30

Relação do aço

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	783	72	56376
CA50	2	8.0	8	820	4920
	3	8.0	2	1031	2062
	4	8.0	2	1119	2238
	5	8.0	2	413	826
	6	8.0	2	160	320
	7	8.0	2	185	370
	8	8.0	1	190	190
	9	8.0	3	155	465
	10	8.0	1	195	195
	11	8.0	4	1198	4792
	12	8.0	2	1200	2400
	13	8.0	2	1133	2266
	14	8.0	8	624	4992
	15	8.0	1	112	112
	16	8.0	2	631	1262
	17	8.0	4	632	2528
	18	8.0	1	462	462
	19	8.0	6	627	3762
	20	8.0	1	124	124
	21	8.0	2	634	1268
	22	8.0	2	834	1668
	23	8.0	2	948	1896
	24	8.0	1	112	112
	25	8.0	2	638	1276
	26	8.0	1	165	165
	27	8.0	2	529	1058
	28	8.0	8	424	3392
	29	8.0	2	824	1648
	30	8.0	1	220	220
	31	8.0	2	868	1736
	32	8.0	2	422	844
	33	8.0	2	126	252
	34	8.0	2	470	940
	35	8.0	2	417	834
	36	8.0	2	423	846
	37	8.0	4	274	1096

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8.0	537.4	212
CA60	5.0	563.8	86.9

PESO TOTAL (kg)	
CA50	212
CA60	86.9

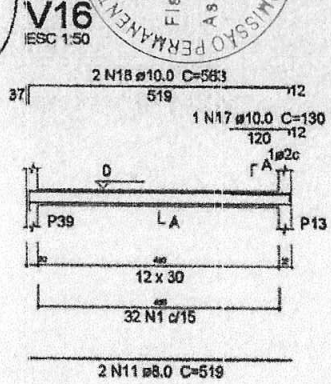
Volume de concreto (C-25) = 4.513 m³
Área de forma = 90.54 m²

Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

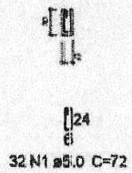
OBRA:	PESQUISA/PROJETO DE 120 UNIDADES HABITACIONAIS
ASSUNTO:	PROJETO ESTRUTURAL
ENDEREÇO:	RUA ANTONIA ALMEIDA, S/N, DISTRITO DE CAMPANARIO, URUOCA/CE
PROPRIETÁRIO:	GOVERNO MUNICIPAL DE URUOCA
CONTEÚDO DO PROJETO:	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO:	RENAN ROCHA AQUINO
DATA:	

COMISSÃO PERMANENTE DE LICITAÇÃO
Fls. 618
Ass.
PMU - SOLO
Fl: 52
ASS:

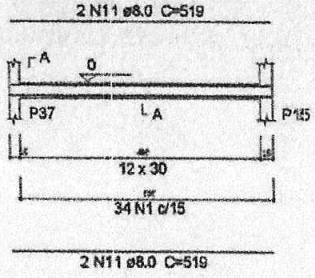
V16
ESC 1:50



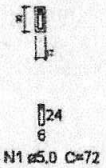
SEÇÃO A-A
ESC 1:30



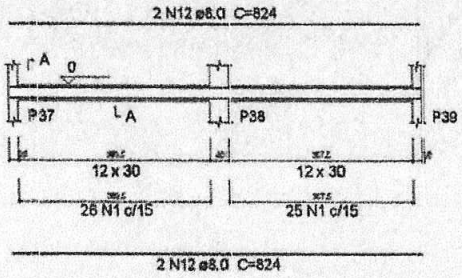
V18
ESC 1:50



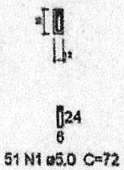
SEÇÃO A-A
ESC 1:30



V19
ESC 1:50



SEÇÃO A-A
ESC 1:30



Relação do aço

8xP1	4xP9	P11
P15	3xP21	P37
P39	6xS17	3xS33
5xS25	S37	S39
V16	V18	V19
V22	V23	V24
V25		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	5,0	251	72	18072
	2	5,0	32	68	2176
	3	5,0	256	68	17408
	4	5,0	16	88	1408
CA50	5	6,3	12	89	1068
	6	6,3	21	94	1974
	7	6,3	32	104	3328
	8	6,3	64	99	6336
	9	6,3	106	109	11554
	10	6,3	40	119	4760
	11	8,0	6	519	3114
	12	8,0	4	824	3296
	13	8,0	4	639	2556
	14	8,0	2	423	846
	15	8,0	2	436	872
	16	8,0	4	537	2148
	17	10,0	1	130	130
	18	10,0	2	563	1126
	19	10,0	4	639	2556
	20	10,0	92	VAR	VAR

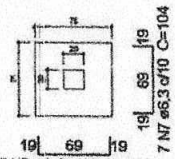
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6,3	280,2	71
	8,0	1319,4	50,6
	10,0	287,1	127,6
CA60	5,0	361,7	60,2

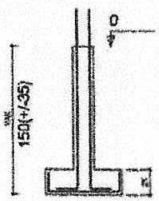
PESO TOTAL (kg)	
CA50	249,3
CA60	60,2

Volume de concreto (C-25) = 2,8 m³
Volume de concreto (C-20) = 2,62 m³
Área de forma = 68,56 m²

S39
PLANTA
ESC 1:25



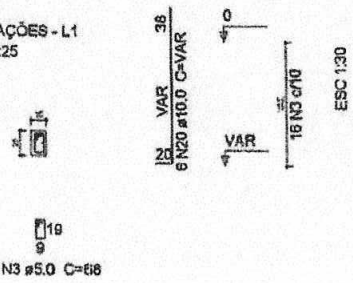
CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

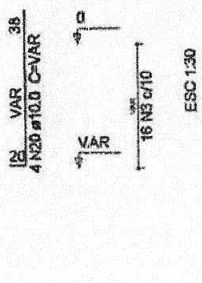
P15

FUNDAÇÕES - L1
ESC 1:25



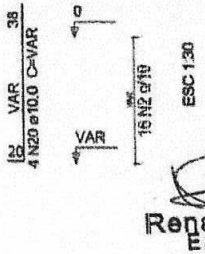
P9=P18=P25=P28

FUNDAÇÕES - L1
ESC 1:25

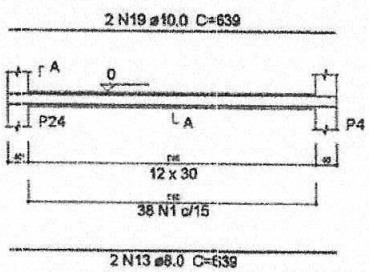


P37

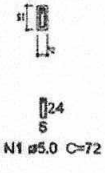
FUNDAÇÕES - L1
ESC 1:25



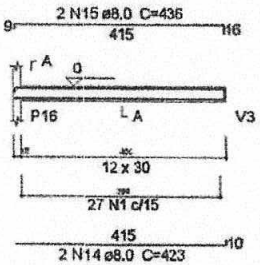
V23
ESC 1:50



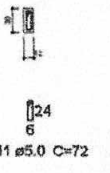
SEÇÃO A-A
ESC 1:30



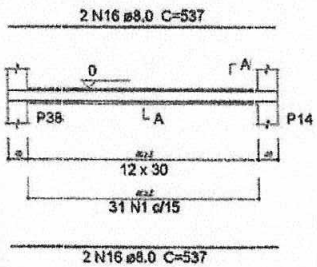
V24
ESC 1:50



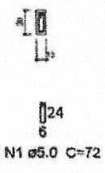
SEÇÃO A-A
ESC 1:30



V25
ESC 1:50



SEÇÃO A-A
ESC 1:30

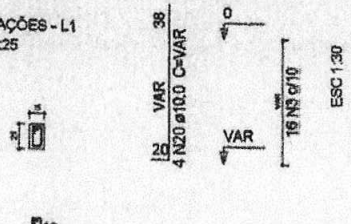


Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.848-08
RNP: 081356332-8

PROJETO ESTRUTURAL
GOVERNO MUNICIPAL DE URUOCA
RENAN ROCHA AQUINO
RENAN ROCHA AQUINO

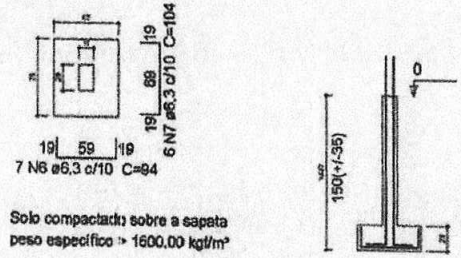
P21=P23=P30

FUNDAÇÕES - L1
ESC 1:25



S21=S23=S30

PLANTA
ESC 1:25

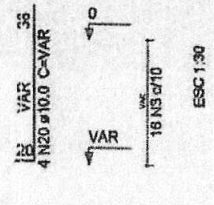


CORTE
ESC 1:25

Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

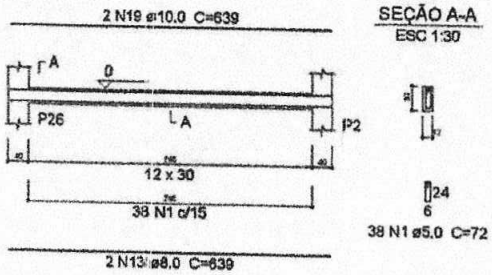
P1=P6=P7=P10=P17=P19=P20=P27

FUNDAÇÕES - L1
ESC 1:25

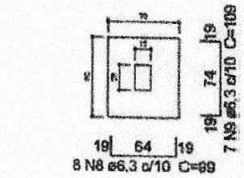


V22

ESC 1:50

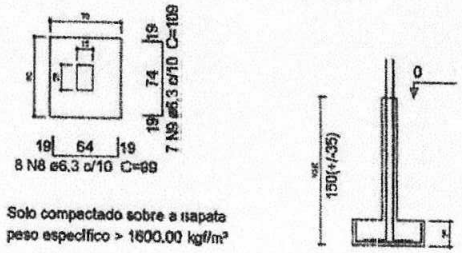


SEÇÃO A-A
ESC 1:30



S1=S6=S7=S10=S17=S19=S20=S27

PLANTA
ESC 1:25

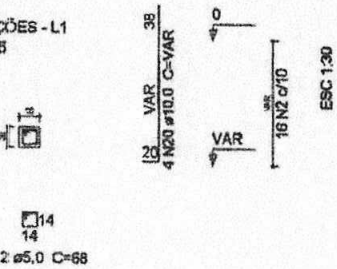


CORTE
ESC 1:25

Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

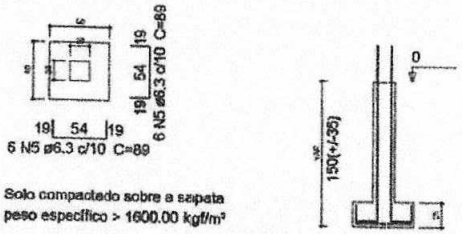
P39

FUNDAÇÕES - L1
ESC 1:25



S37

PLANTA
ESC 1:25

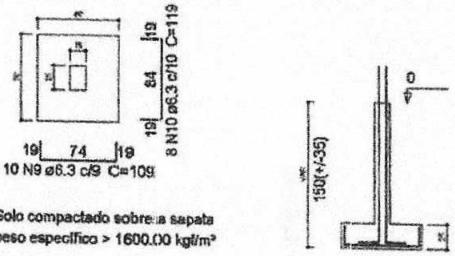


CORTE
ESC 1:25

Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S9=S15=S18=S25=S28

PLANTA
ESC 1:25

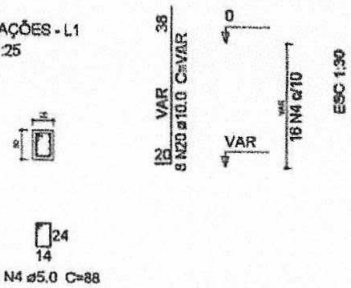


CORTE
ESC 1:25

Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P11

FUNDAÇÕES - L1
ESC 1:25



Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

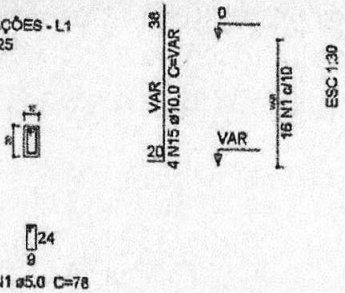
OBRA:	REQUALIFICAÇÃO DO CE ANTÔNIA ALMEIDA
ASSUNTO:	PROJETO ESTRUTURAL
ENDEREÇO:	RUA ANTÔNIA ALMEIDA, S/N, DISTRITO DE CANINDÉ/MIRIM, URUOCA/CE
PROPRIETÁRIO:	CONVÊNIO MUNICIPAL DE URUOCA
AUTOR DO PROJETO:	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO:	RENAN ROCHA AQUINO
ESCALAS:	DATA: DESENHO: CONFERIU: DESENHISTA: FOLHA:

PMU FL. 53 ASS:
COMISSÃO PERMANENTE DE LICITAÇÃO DE URUOCA - CE
FL. 619 ASS.

PMU
FL: 54
ASS:
COMISSÃO PERMANENTE DE LICITAÇÃO DE URUOCA - CE
Fls. 620
Ass.

P22

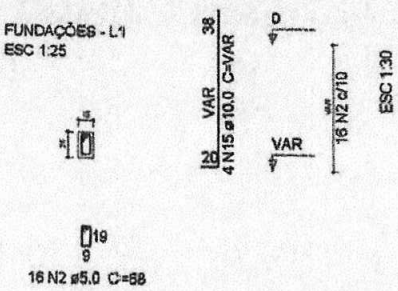
FUNDAÇÕES - L1
ESC 1:25



16 N1 ø5.0 C=78

P3=P29

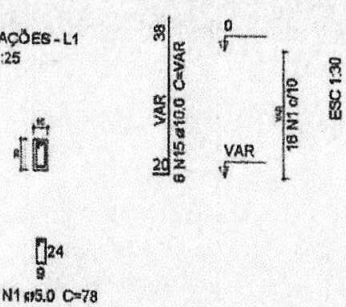
FUNDAÇÕES - L1
ESC 1:25



16 N2 ø5.0 C=68

P8

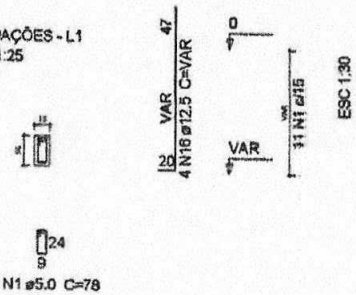
FUNDAÇÕES - L1
ESC 1:25



16 N1 ø5.0 C=78

P16

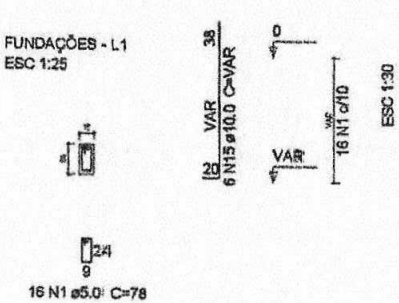
FUNDAÇÕES - L1
ESC 1:25



11 N1 ø5.0 C=78

P5

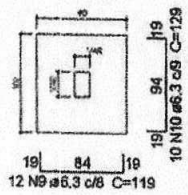
FUNDAÇÕES - L1
ESC 1:25



16 N1 ø5.0 C=78

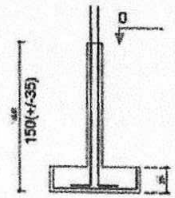
S5=S13=S16

PLANTA
ESC 1:25



12 N9 ø6.3 c/8 C=119

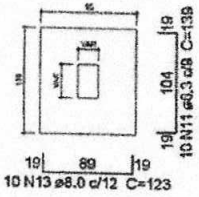
CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

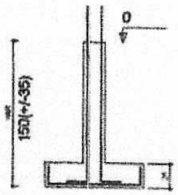
S4=S12=S24=S26

PLANTA
ESC 1:25



10 N13 ø8.0 c/12 C=123

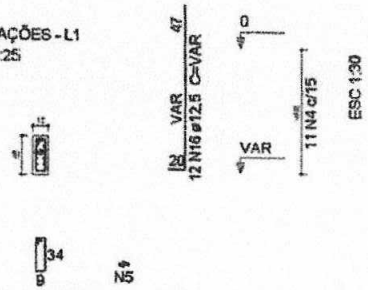
CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P2

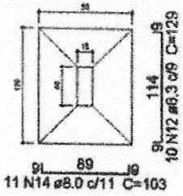
FUNDAÇÕES - L1
ESC 1:25



11 N4 ø5.0 C=98
10 N5 ø5.0 C=24

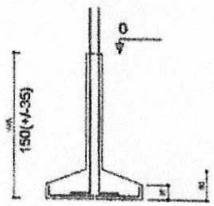
S2

PLANTA
ESC 1:25



11 N14 ø8.0 c/11 C=103

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

Relação do aço

P2	2xP3	3xP4
P5	P8	P12
P13	P14	P16
P22	P38	S2
5xS11	4xS12	3xS13
S14	S38	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	59	78	4602
	2	5.0	48	68	3264
	3	5.0	16	98	1568
	4	5.0	44	98	4312
	5	5.0	40	24	960
	6	5.0	18	148	2664
CA50	7	6.3	50	114	5700
	8	6.3	40	124	4960
	9	6.3	36	119	4284
	10	6.3	30	129	3870
	11	6.3	40	139	5560
	12	6.3	10	129	1290
	13	8.0	40	123	4920
	14	8.0	11	103	1133
	15	10.0	36	VAR	VAR
	16	12.5	52	VAR	VAR
	17	16.0	8	VAR	VAR
	18	16.0	40	260	10400
	19	16.0	46	275	12650

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	256.7	62.8
	8.0	60.6	23.9
	10.0	74.2	45.7
	12.5	111.3	107.2
	16.0	248.6	392.3
CA60	5.0	173.7	26.8

PESO TOTAL (kg)	
CA50	632
CA60	26.8

Volume de concreto (C-25) = 1.38 m³
Volume de concreto (C-20) = 7.91 m³
Área de forma = 39 m²

Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-06
RNP: 061356332-8

PROJETO ESTRUTURAL

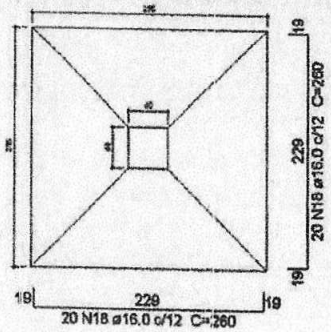
GOVERNO MUNICIPAL DE URUOCA

RENAN ROCHA AQUINO

RENAN ROCHA AQUINO

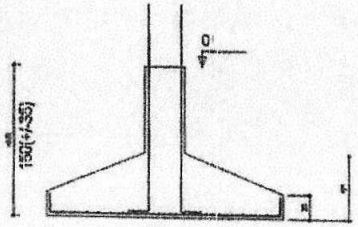
COMISSÃO PERMANENTE DE LICITAÇÃO DE URUOCA - CE
Fls. 62
Ass.
PMU - SOLO
Fl: 55
ASS:

S38
PLANTA
ESC 1:25

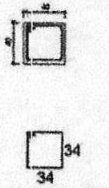


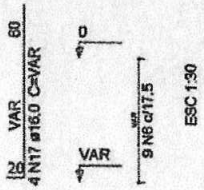
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m²

CORTE
ESC 1:25

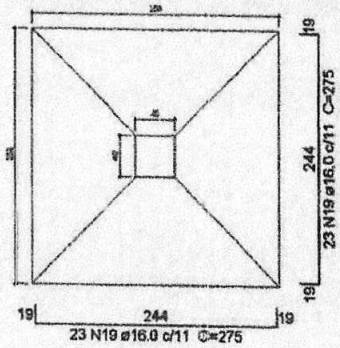


P14
FUNDAÇÕES - L1
ESC 1:25



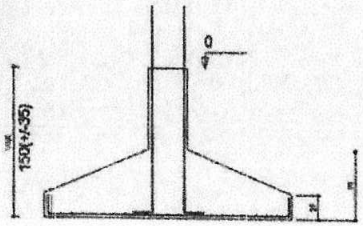


S14
PLANTA
ESC 1:25

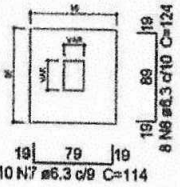


Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m²

CORTE
ESC 1:25

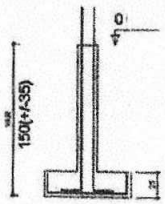


S3=S8=S11=S22=S29
PLANTA
ESC 1:25

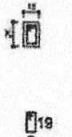


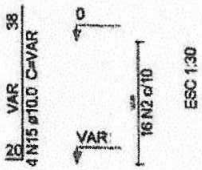
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m²

CORTE
ESC 1:25

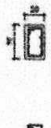


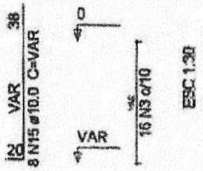
P13
FUNDAÇÕES - L1
ESC 1:25



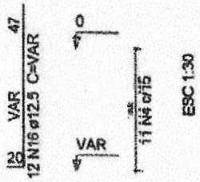


P12
FUNDAÇÕES - L1
ESC 1:25

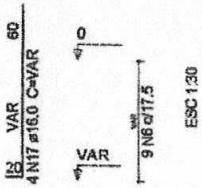




P4=P24=P26
FUNDAÇÕES - L1
ESC 1:25



P38
FUNDAÇÕES - L1
ESC 1:25



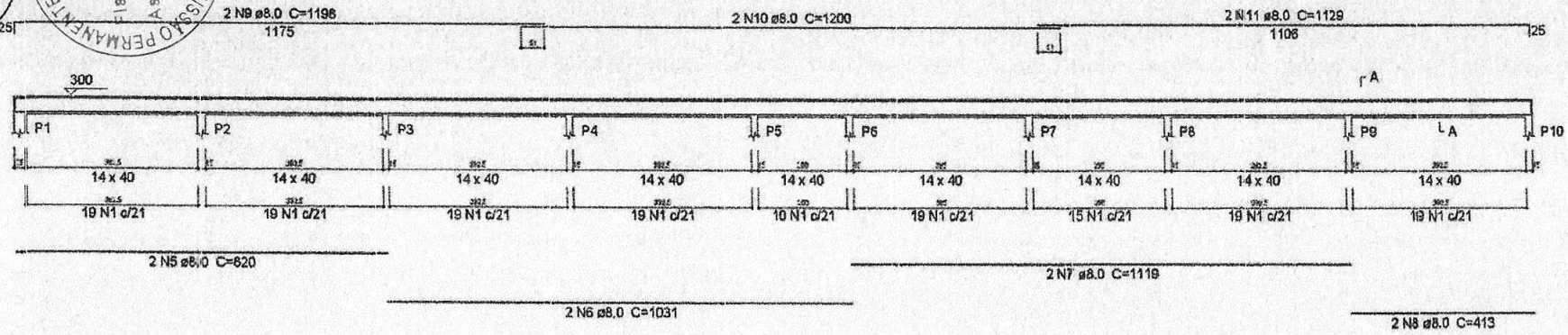
9 N6 ø5.0 C=148

Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

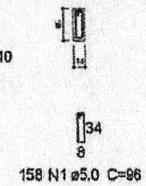
OBRA	PROJETO ESTRUTURAL
LOCAL	RUA ANTÔNIO ALMEIDA, S/N, DISTRITO DE CAMPINARIO, URUOCA/CE
PROPRIETÁRIO	GOVERNO MUNICIPAL DE URUOCA
RESPONSÁVEL TÉCNICO	RENAN ROCHA AQUINO
DESENHISTA	RENAN ROCHA AQUINO
DATA	21/03/2021

PMU-COLO
FL: 96
ASS:
PREFEITURA MUNICIPAL DE URUOCA - CE
COMISSÃO PERMANENTE DE LICITAÇÃO
Fls. 622
Ass.

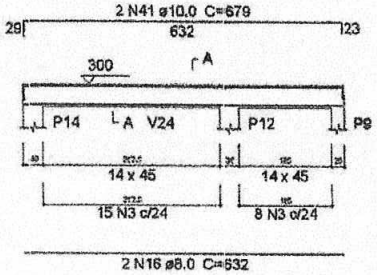
V1
ESC 1:50



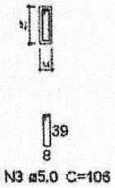
SEÇÃO A-A
ESC 1:30



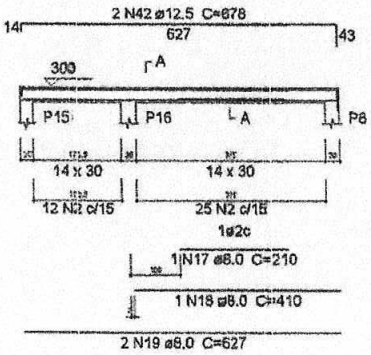
V3
ESC 1:50



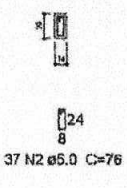
SEÇÃO A-A
ESC 1:30



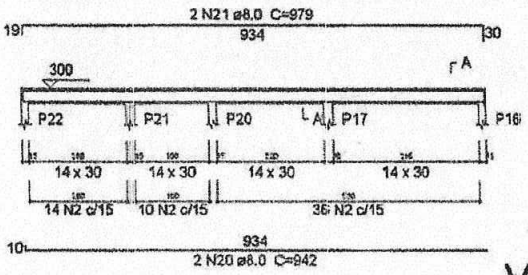
V4
ESC 1:50



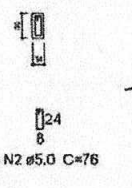
SEÇÃO A-A
ESC 1:30



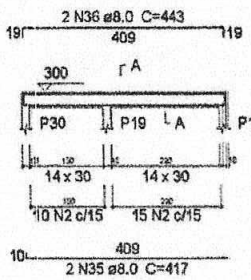
V5
ESC 1:50



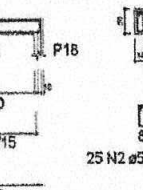
SEÇÃO A-A
ESC 1:30



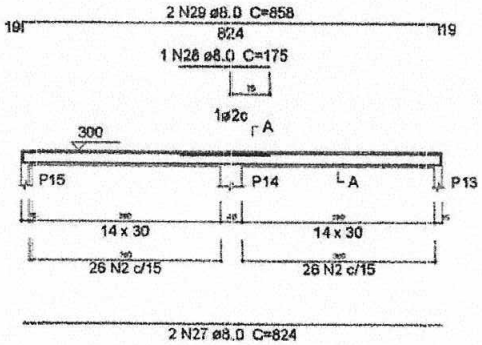
V13
ESC 1:50



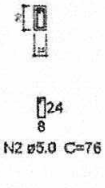
SEÇÃO A-A
ESC 1:30



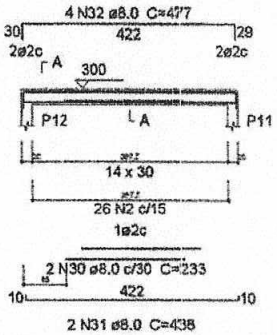
V10
ESC 1:50



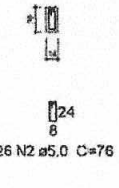
SEÇÃO A-A
ESC 1:30



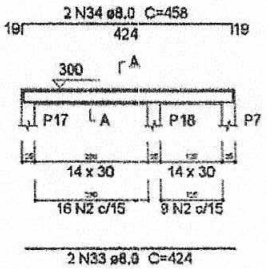
V11
ESC 1:50



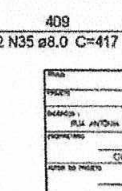
SEÇÃO A-A
ESC 1:30



V12
ESC 1:50



SEÇÃO A-A
ESC 1:30

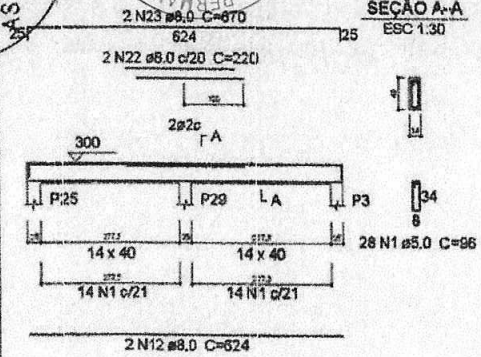


Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

OBRA	REQUALIFICAÇÃO DO CD ANTONIA ALMEIDA
PROJETO	PROJETO ESTRUTURAL
LOCALIZAÇÃO	RUA ANTONIA ALMEIDA S/N, DISTRITO DE CAMPANARIO, URUOCA/CE
CONTRATANTE	GOVERNO MUNICIPAL DE URUOCA
AUTOR DO PROJETO	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO	RENAN ROCHA AQUINO
DATA	31/01/2017
DESENHO	RRAQ
RESPONSÁVEL	RRAQ
FOLHA	07/13

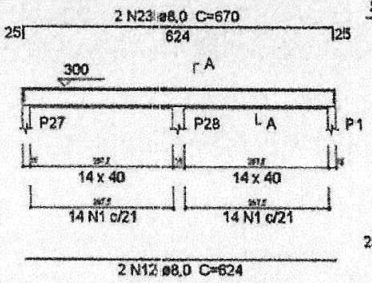
PMU - PROTOCOLO
FL. 57
ASS:
COMISSÃO PERMANENTE DE LICITAÇÃO
Fls. 623
Ass.

V7
ESC 1:50

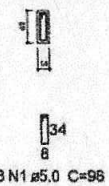


SEÇÃO A-A
ESC 1:30

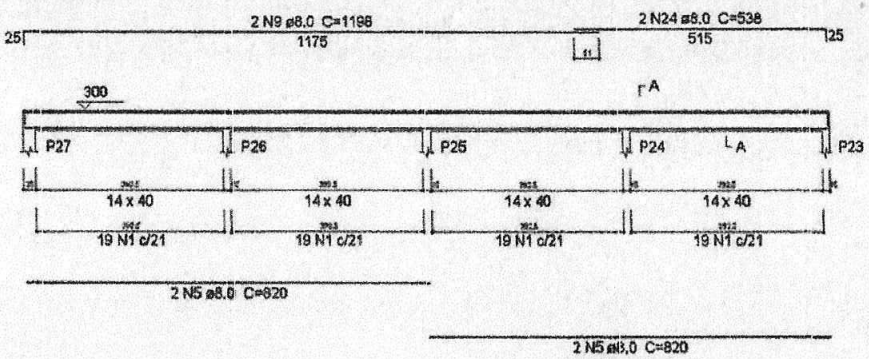
V8
ESC 1:50



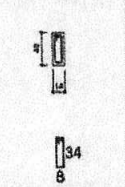
SEÇÃO A-A
ESC 1:30



V9
ESC 1:50



SEÇÃO A-A
ESC 1:30



Relação do aço

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	290	96	27840
	2	5.0	341	75	25575
	3	5.0	23	106	2438
	4	5.0	83	72	5976
CA50	5	8.0	5	820	4020
	6	8.0	2	1031	2062
	7	8.0	2	1119	2238
	8	8.0	2	413	826
	9	8.0	4	1198	4792
	10	8.0	2	1280	2560
	11	8.0	2	1129	2258
	12	8.0	6	624	3744
	13	8.0	1	136	136
	14	8.0	1	120	120
	15	8.0	2	667	1334
	16	8.0	2	632	1264
	17	8.0	1	210	210
	18	8.0	2	410	820
	19	8.0	4	627	2508
	20	8.0	2	942	1884
	21	8.0	2	979	1958
	22	8.0	2	220	440
	23	8.0	4	670	2680
	24	8.0	2	538	1076
	25	8.0	2	274	548
	26	8.0	2	308	616
	27	8.0	4	824	3296
	28	8.0	1	175	175
	29	8.0	2	858	1716
	30	8.0	2	233	466
	31	8.0	2	438	876
	32	8.0	4	477	1908
	33	8.0	4	424	1696
	34	8.0	4	458	1832
	35	8.0	2	417	834
	36	8.0	2	443	886
	37	8.0	2	519	1038
	38	8.0	1	142	142
	39	8.0	2	574	1148
	40	8.0	2	852	1704
	41	10.0	2	678	1356
	42	12.5	2	678	1356
	43	12.5	2	671	1342

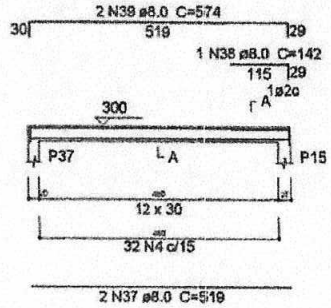
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8.0	565.6	223.1
	10.0	13.6	8.4
	12.5	27	26
CA60	5.0	621.7	95.8

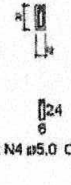
PESO TOTAL (kg)	
CA50	257.5
CA60	95.8

Volume de concreto (C-25) = 6,78 m³
Área de forma = 117,3 m²

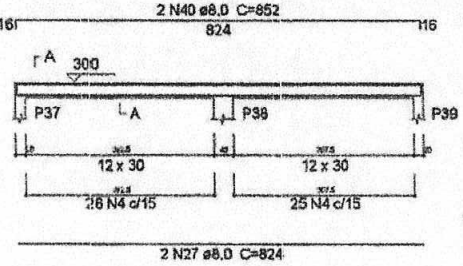
V18
ESC 1:50



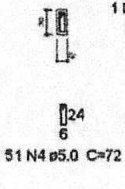
SEÇÃO A-A
ESC 1:30



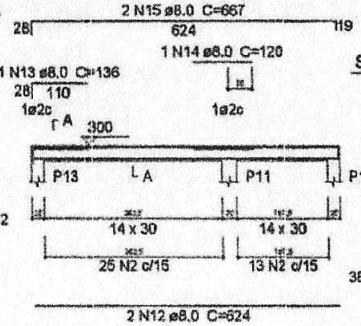
V19
ESC 1:50



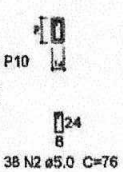
SEÇÃO A-A
ESC 1:30



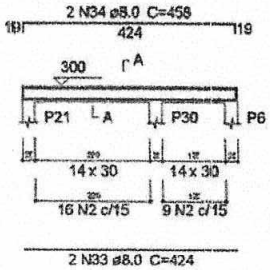
V2
ESC 1:50



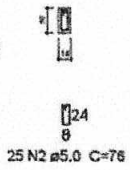
SEÇÃO A-A
ESC 1:30



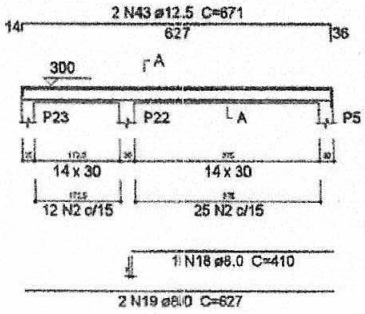
V14
ESC 1:50



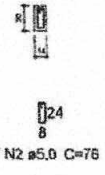
SEÇÃO A-A
ESC 1:30



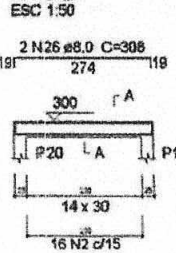
V6
ESC 1:50



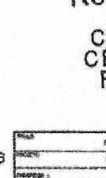
SEÇÃO A-A
ESC 1:30



V15
ESC 1:50

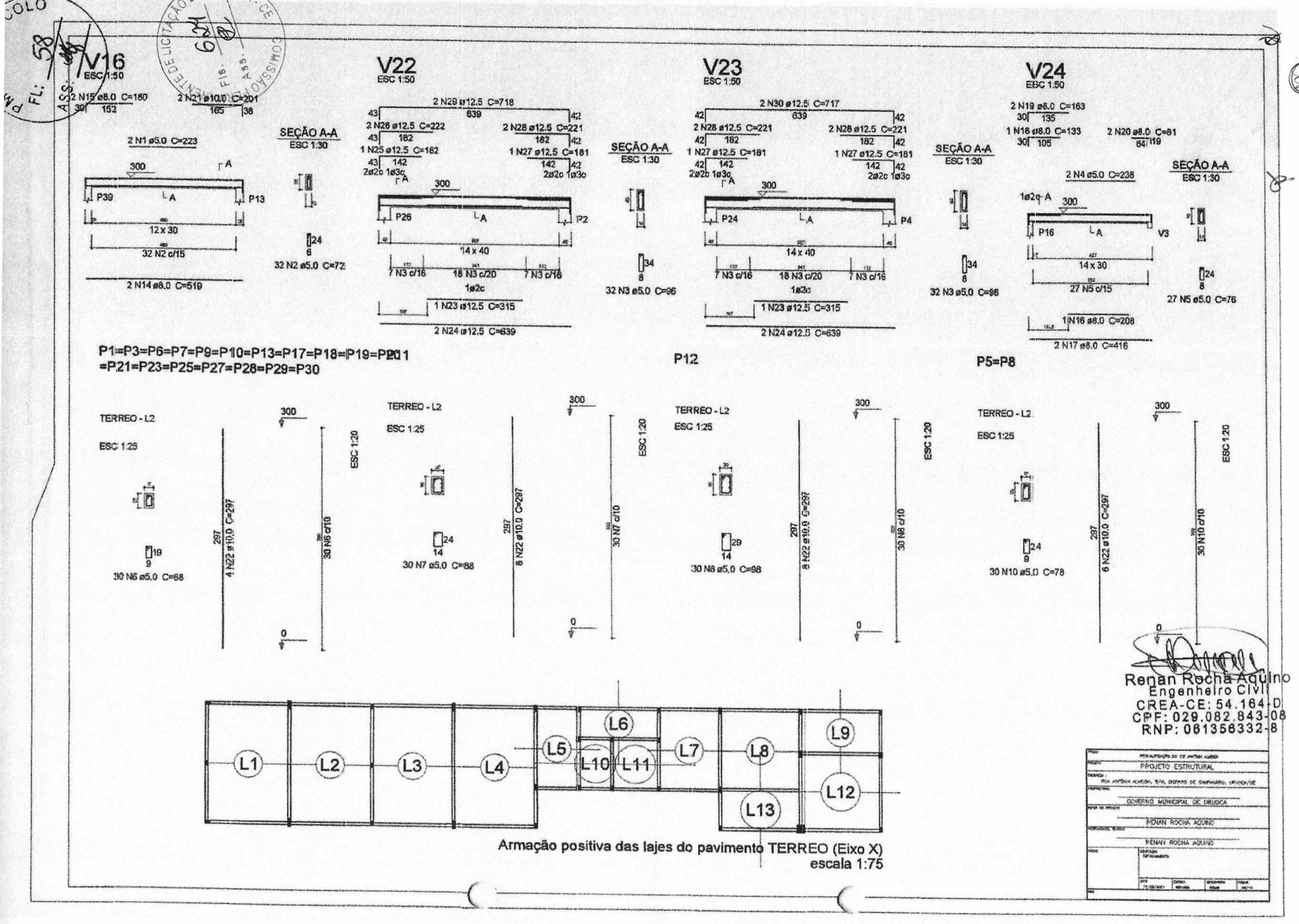


SEÇÃO A-A
ESC 1:30



Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

OBRA:	REHABILITAÇÃO DE CEP ANTÔNIO ALMEIDA
PROJETO:	PROJETO ESTRUTURAL
ENDEREÇO:	R/A. ANTÔNIO ALMEIDA, S/N, DISTRITO DE CAMPANÁRIO, URUOCA/CE
PROPRIETÁRIO:	GOVERNO MUNICIPAL DE URUOCA
RESP. TÉCNICO:	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO:	RENAN ROCHA AQUINO
DATA:	
ESCALA:	
DESENHISTA:	
FOLHA:	



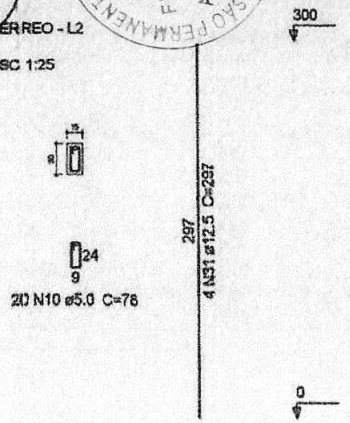
Armação positiva das lajes do pavimento TERREO (Eixo X)
escala 1:75

PROTOCOLO
FL: 59
ASS:
PREFEITURA MUNICIPAL DE URUOCA - CE
COMISSÃO PERMANENTE DE LICITAÇÃO
FLS. 625
ASS.

P16

TERREO - L2

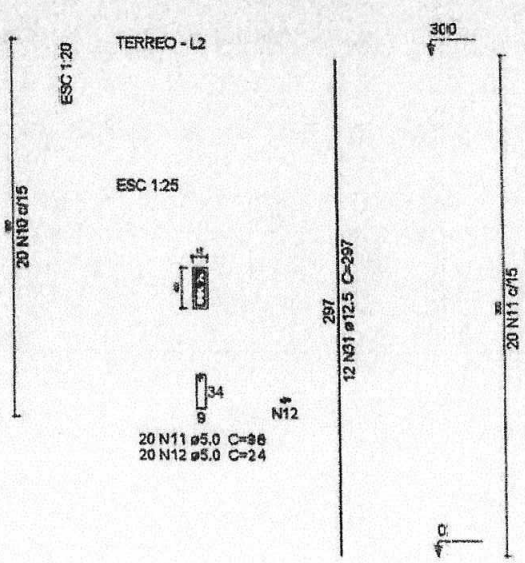
ESC 1:25



P2=P4=P24=P26

TERREO - L2

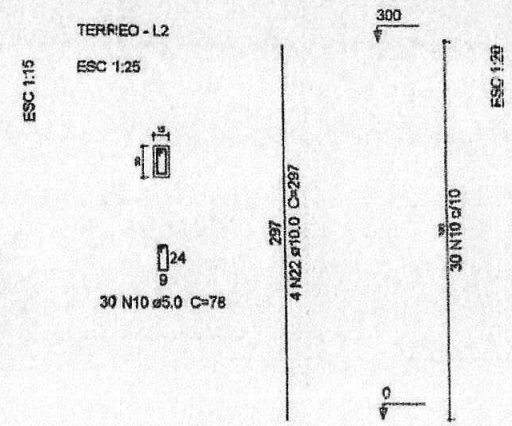
ESC 1:25



P22

TERREO - L2

ESC 1:25



Relação do aço

116xP1	4xP2	2xP5
9P11	P12	2xP14
8P15	P16	P22
2xP37	V18	V22
1V23	V24	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	223	446
	2	5.0	32	72	2304
	3	5.0	64	96	6144
	4	5.0	2	238	476
	5	5.0	27	76	2052
	6	5.0	570	68	38760
	7	5.0	30	88	2640
	8	5.0	30	98	2940
	9	5.0	36	148	5328
	10	5.0	110	78	8580
	11	5.0	80	98	7840
	12	5.0	80	24	1920
	13	5.0	80	68	4080
CA50	14	8.0	2	519	1038
	15	8.0	2	180	360
	16	8.0	1	298	298
	17	8.0	2	416	832
	18	8.0	1	133	133
	19	8.0	2	163	326
	20	8.0	2	81	162
	21	10.0	2	201	402
	22	10.0	118	297	35046
	23	12.5	2	315	630
	24	12.5	4	639	2556
	25	12.5	1	182	182
	26	12.5	2	222	444
	27	12.5	3	181	543
	28	12.5	6	221	1326
	29	12.5	2	718	1436
	30	12.5	2	717	1434
	31	12.5	53	297	15444
	32	16.0	8	297	2376

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8.0	300.8	121.1
	10.0	354.5	218.8
	12.5	249	231.2
	16.0	23.8	37.5
CA60	5.0	835.1	128.7

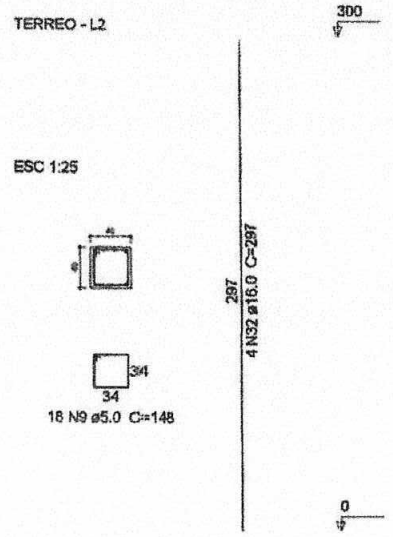
PESO TOTAL (kg)	
CA50	608.3
CA60	128.7

Volume de concreto (C-25) = 6.08 m³
Área de forma = 109.33 m²

P14=P38

TERREO - L2

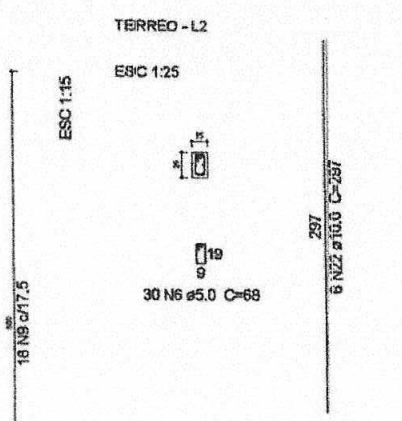
ESC 1:25



P15

TERREO - L2

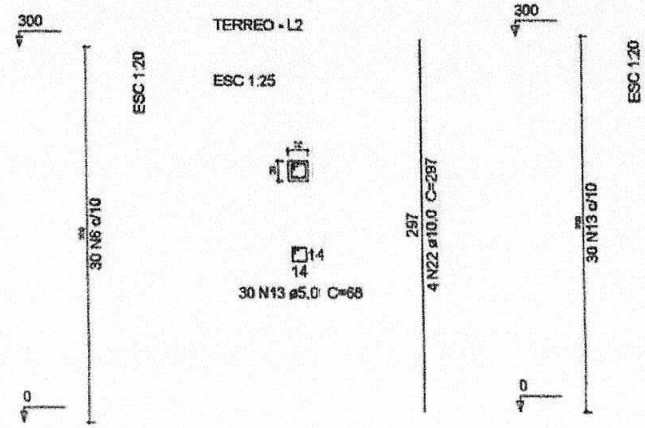
ESC 1:25



P37=P39

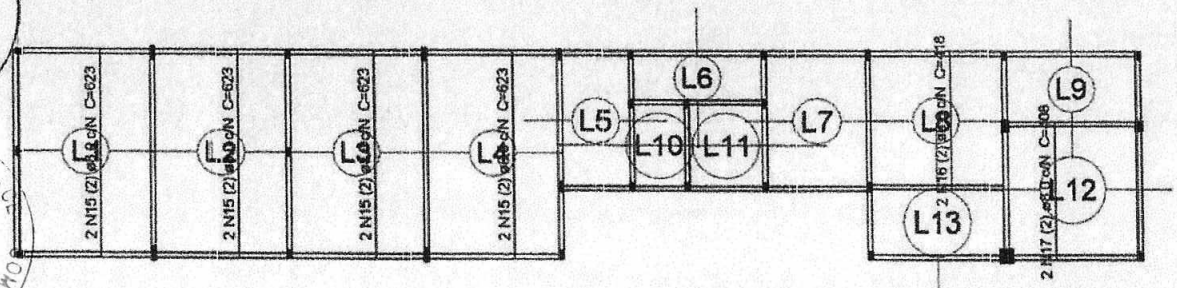
TERREO - L2

ESC 1:25



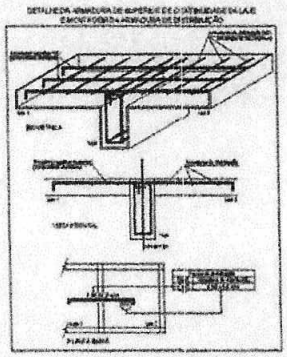
Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

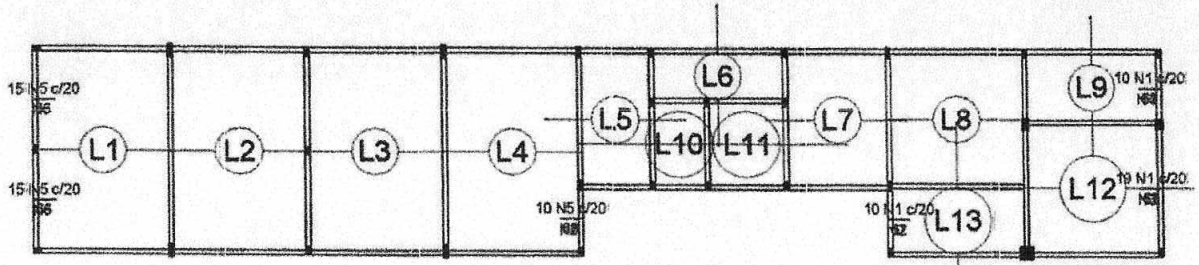
PROJETO	PROJETO ESTRUTURAL
PROPRIETÁRIO	GOVERNO MUNICIPAL DE URUOCA
AUTOR DO PROJETO	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO	RENAN ROCHA AQUINO
DATA	OUTUBRO DE 2024



Armação positiva das lajes do pavimento TERREO (Eixo Y)
escala 1:75

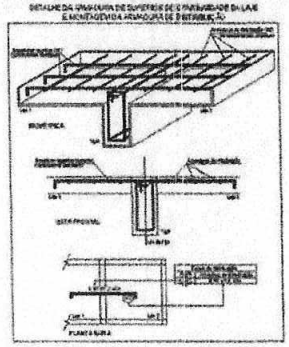
Ferros de distribuição	
Ferro	Armadura de distribuição
N1	3 N2 ø5.0 c/20 C=191
N1	3 N3 ø5.0 c/20 C=381
N1	3 N4 ø5.0 c/20 C=206
N5	4 N6 ø5.0 c/20 C=308
N5	4 N6 ø5.0 c/20 C=308
N5	4 N2 ø5.0 c/20 C=191

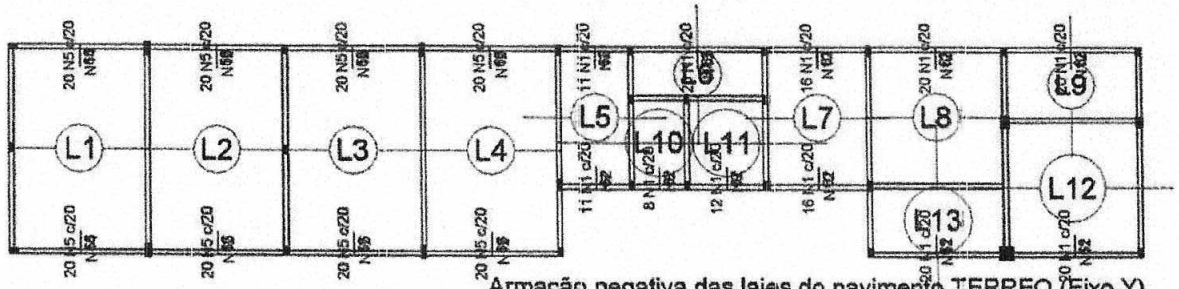




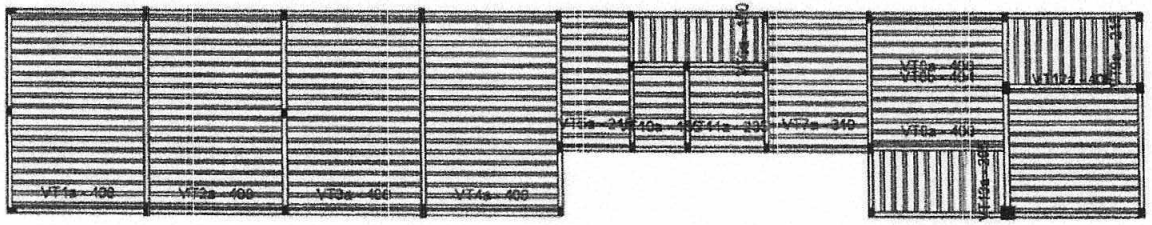
Armação negativa das lajes do pavimento TERREO (Eixo X)
escala 1:75

Ferros de distribuição	
Ferro	Armadura de distribuição
N1	3 N7 ø5.0 c/20 C=215
N1	3 N7 ø5.0 c/20 C=215
N1	3 N8 ø5.0 c/20 C=165
N1	3 N9 ø5.0 c/20 C=235
N1	3 N10 ø5.0 c/20 C=310
N1	3 N10 ø5.0 c/20 C=310
N1	3 N11 ø5.0 c/20 C=397
N1	3 N11 ø5.0 c/20 C=397
N1	3 N12 ø5.0 c/20 C=408
N1	3 N12 ø5.0 c/20 C=408
N1	3 N13 ø5.0 c/20 C=400
N5	4 N14 ø5.0 c/20 C=403
N5	4 N14 ø5.0 c/20 C=403
N5	4 N12 ø5.0 c/20 C=408
N5	4 N12 ø5.0 c/20 C=408
N5	4 N12 ø5.0 c/20 C=408
N5	4 N12 ø5.0 c/20 C=408
N5	4 N12 ø5.0 c/20 C=408
N5	4 N12 ø5.0 c/20 C=408





Armação negativa das lajes do pavimento TERREO (Eixo Y)
escala 1:75



Planta de vigotas pré-moldadas
escala 1:75

Relação do aço

Negativos X Negativos Y Positivos Y

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	213	62	13206
	2	5.0	7	191	1337
	3	5.0	3	381	1143
	4	5.0	3	206	618
	5	5.0	200	66	13200
	6	5.0	8	308	2464
	7	5.0	6	215	1290
	8	5.0	3	165	495
	9	5.0	3	235	705
	10	5.0	6	310	1860
	11	5.0	6	397	2382
	12	5.0	30	408	12240
	13	5.0	3	400	1200
	14	5.0	8	403	3224
CA50	15	8.0	8	523	4184
	16	8.0	2	418	836
	17	8.0	2	408	816

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8.0	66.4	26.2
CA60	5.0	553.7	85.3

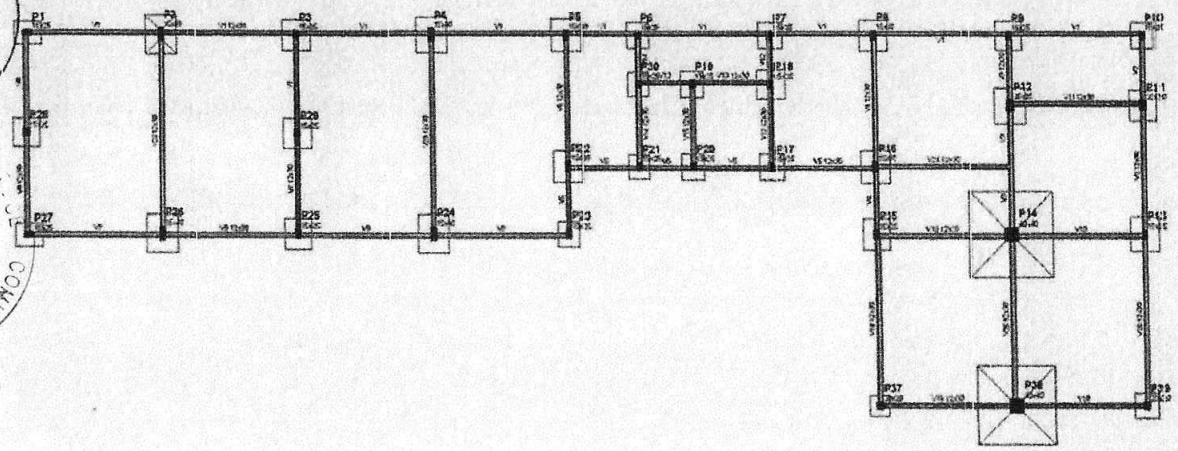
PESO TOTAL (kg)	
CA50	26.2
CA60	85.3

Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

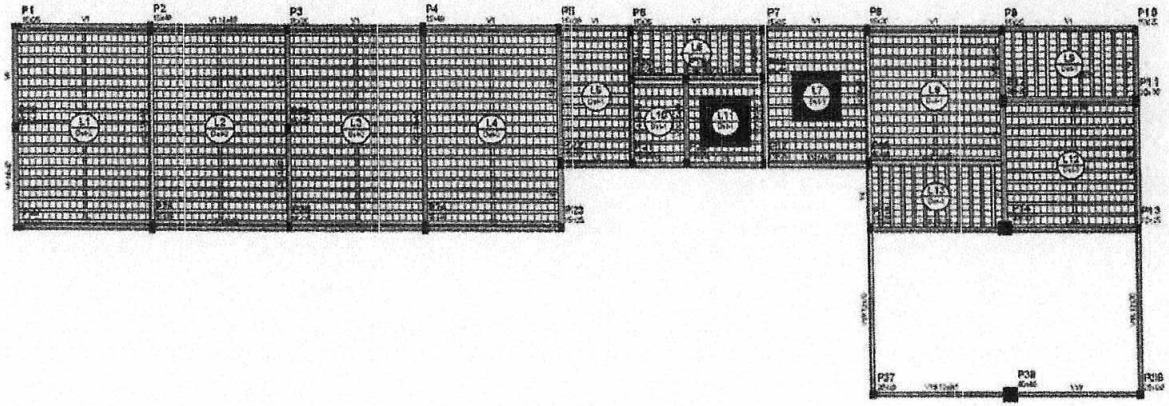
OBRA	REVITALIZAÇÃO DO CIS ANTONIA ALVIDA
PROJETO	PROJETO ESTRUTURAL
ENDEREÇO	RUA ANTONIA ALVIDA, S/N, DISTRITO DE CAMPANÁRIO, URUOCA/CE
CONTRATANTE	CONSÓRCIO MUNICIPAL DE URUOCA
AUTOR DO PROJETO	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO	RENAN ROCHA AQUINO
ÁREA	CONCRETO ARMADO

PMU - FL: 60 ASS:
COMISSÃO PERMANENTE DE LICITAÇÃO DE URUOCA - CE
Fls. 626

PMU - PROTOCOLO
Fl: 61
ASS:
COMISSÃO PERMANENTE DE LICITAÇÃO DE URUÇUCA - CE
Fls: 627
Ass.

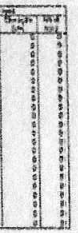


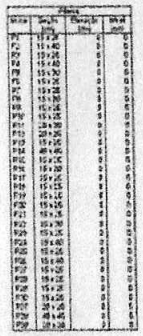
Forma do pavimento FUNDAÇÕES
escala 1:75

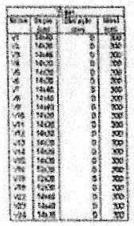


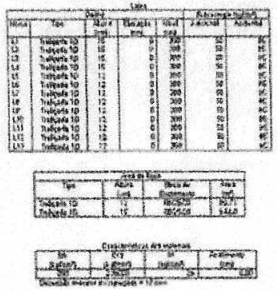
Forma do pavimento TIERREO
escala 1:75

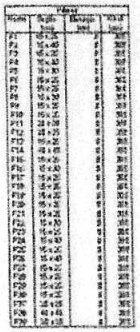
Blocos de enchimento						
Detalhe	Tipo	Nome	Dimensões(cm)			Quantidade
			hb	bx	by	
1/2	Lajota cerâmica	S9/25/20	8	25	20	2333



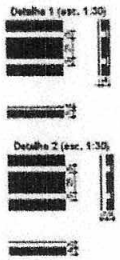




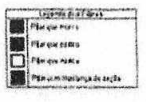




Detalhe 1 (esc. 1:30)



Detalhe 2 (esc. 1:30)



Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
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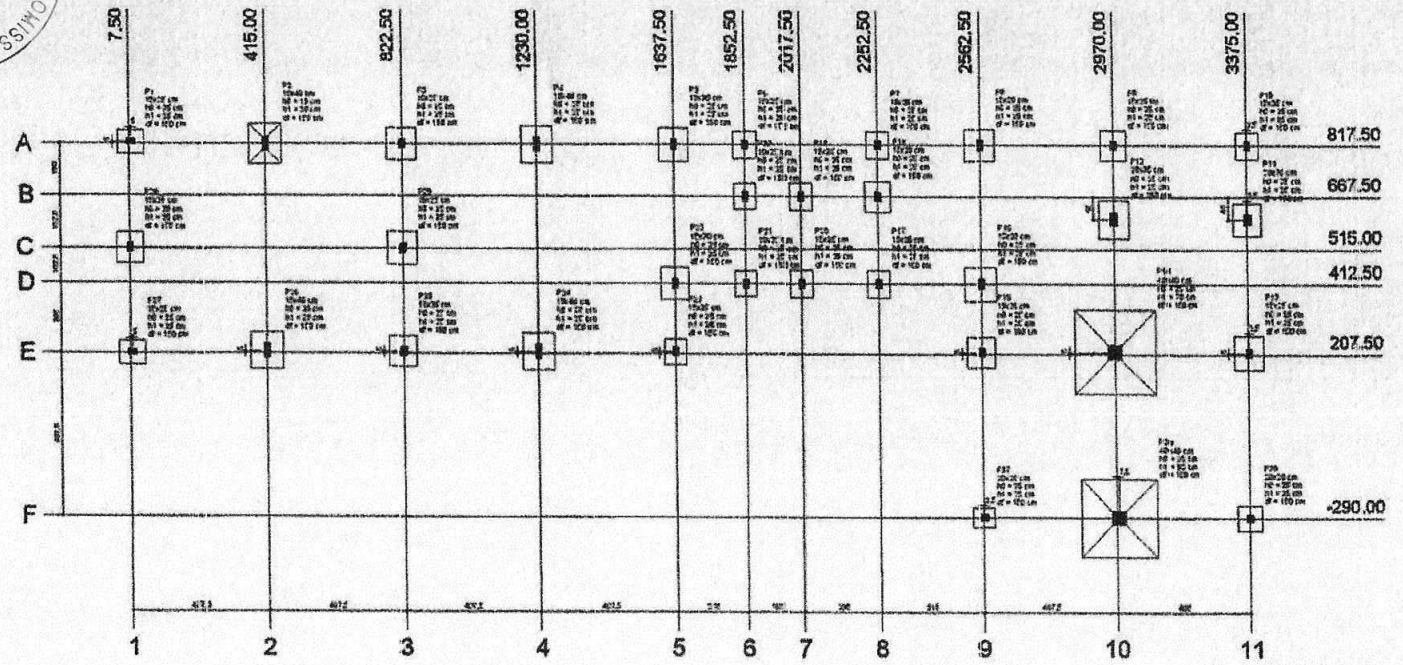
PROJETO ESTRUTURAL

GOVERNO MUNICIPAL DE URUÇUCA

RENAN ROCHA AQUINO

RENAN ROCHA AQUINO

PMU - PROTOCOLO
FL: 02
ASS:
COMISSÃO PERMANENTE DE LICITAÇÃO DE URUOCA/CE
Fls. 028
Ass.

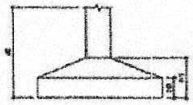


Planta de locação
escala 1:75

Pilar						Fundação				
Nome	Seção (cm)	X (cm)	Y (cm)	Carga Máx. (tf)	Carga min. (tf)	Lado B (cm)	Lado H (cm)	h/ho (cm)	4/3 ho (cm)	df (cm)
P1	15x30	15.00	817.50	4.2	0.1	70	90	25	35	150
P2	15x40	415.00	817.50	10.7	0.1	95	120	25	35	150
P3	15x30	822.50	817.50	7.8	0.1	90	95	25	35	150
P4	15x40	1230.00	817.50	10.8	0.1	95	130	25	35	150
P5	15x30	1637.50	817.50	7.0	0.1	90	90	25	35	150
P6	15x30	1852.50	817.50	6.2	0.1	80	80	25	35	150
P7	15x30	2017.50	817.50	6.3	0.1	80	80	25	35	150
P8	15x30	2252.50	817.50	7.6	0.1	90	90	25	35	150
P9	15x30	2562.50	817.50	6.3	0.1	80	80	25	35	150
P10	15x30	2970.00	817.50	3.4	0.1	70	60	25	35	150
P11	30x30	2970.00	667.50	7.8	0.1	90	90	25	35	150
P12	30x50	2970.00	667.50	11.0	0.1	90	130	25	35	150
P13	15x30	2970.00	515.00	7.8	0.1	90	100	25	35	150
P14	40x40	2970.00	412.50	10.8	0.1	100	100	25	35	150
P15	15x30	2970.00	207.50	4.8	0.1	70	80	25	35	150
P16	15x30	2970.00	412.50	9.1	0.1	90	100	25	35	150
P17	15x30	2970.00	412.50	4.8	0.1	70	80	25	35	150
P18	15x30	2970.00	667.50	9.1	0.1	90	90	25	35	150
P19	15x30	2970.00	667.50	9.2	0.1	90	90	25	35	150
P20	15x30	2970.00	412.50	4.3	0.1	70	80	25	35	150
P21	15x30	1637.50	412.50	9.9	0.1	90	90	25	35	150
P22	15x30	1637.50	412.50	7.9	0.1	90	90	25	35	150
P23	15x30	1637.50	212.50	3.5	0.1	70	70	25	35	150
P24	15x40	1230.00	212.50	10.3	0.1	90	110	25	35	150
P25	15x40	822.50	212.50	7.8	0.1	90	100	25	35	150
P26	15x40	415.00	212.50	10.1	0.1	90	110	25	35	150
P27	15x30	15.00	207.50	4.3	0.1	70	80	25	35	150
P28	15x40	1.00	207.50	6.2	0.1	80	90	25	35	150
P29	15x40	415.00	207.50	9.1	0.1	90	90	25	35	150
P30	15x30	822.50	207.50	4.3	0.1	70	70	25	35	150
P31	30x30	1637.50	-290.00	3.4	0.1	60	60	25	35	150
P32	40x40	2970.00	-290.00	10.8	0.1	100	100	25	35	150
P33	30x30	2970.00	-290.00	9.6	0.1	70	70	25	35	150

Locação de viga X	
Distância (cm)	Nome
1.20	P28
12.20	P1, P27
407.50	P2, P26
815.00	P3, P25, P29
1230.00	P4, P24
1637.50	P5, P23, P31
1852.50	P6, P22, P21
2017.50	P16, P20
2252.50	P7, P18, P17
2562.50	P8, P19, P15
2967.50	P37
2970.00	P9, P13, P14
2977.50	P30
3375.00	P10
3387.80	P30, P31, P10

Locação de viga Y	
Distância (cm)	Nome
822.50	P1
817.50	P1, P2, P4, P5, P6, P7, P8, P9, P11
667.50	P10, P18, P19
515.00	P12, P11
412.50	P20, P25
212.50	P24, P21, P22, P17, P16
207.50	P26, P28, P29, P30, P14, P13
207.50	P27
-290.50	P27, P32, P33



Renan Rocha Aquino
Engenheiro Civil
CREA-CE: 54.164-D
CPF: 029.082.843-08
RNP: 061356332-8

TÍTULO	REVITALIZAÇÃO DO CE ANTONIA ALMEIDA
PROJETO	PROJETO ESTRUTURAL
ENDEREÇO	RUA ANTONIA ALMEIDA, S/N, DISTRITO DE CAMPAMARIO, URUOCA/CE
PROPRIETÁRIO	GOVERNO MUNICIPAL DE URUOCA
AUTOR DO PROJETO	RENAN ROCHA AQUINO
RESPONSÁVEL TÉCNICO	RENAN ROCHA AQUINO
ESCALA	DESENHO 1:75