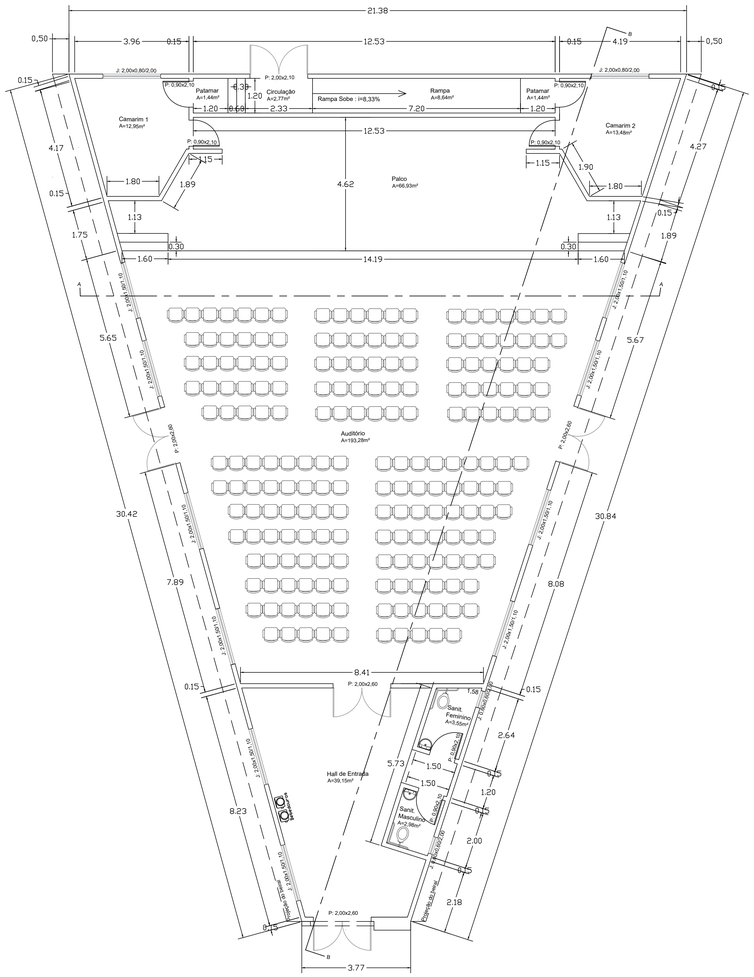
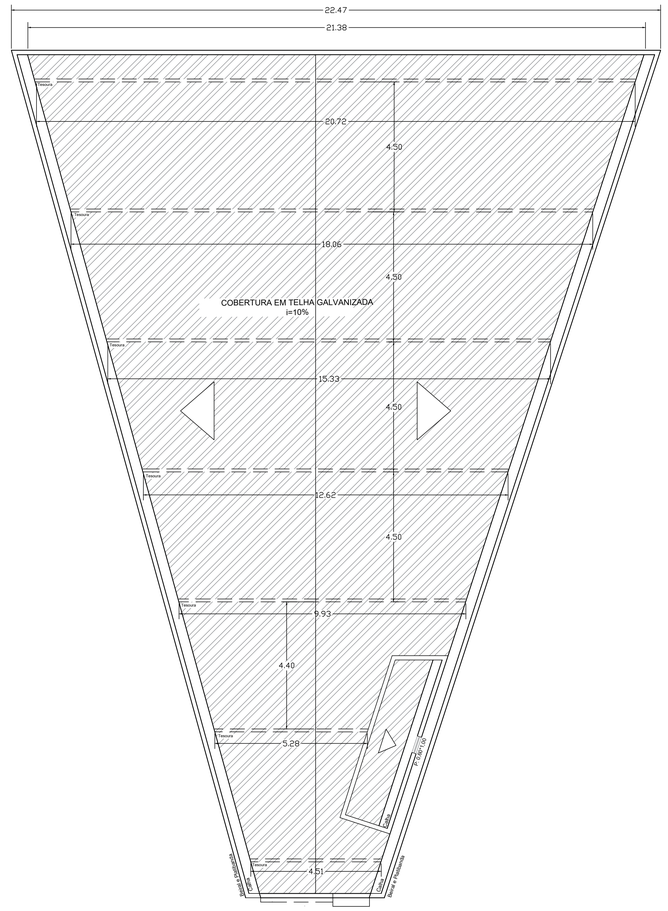
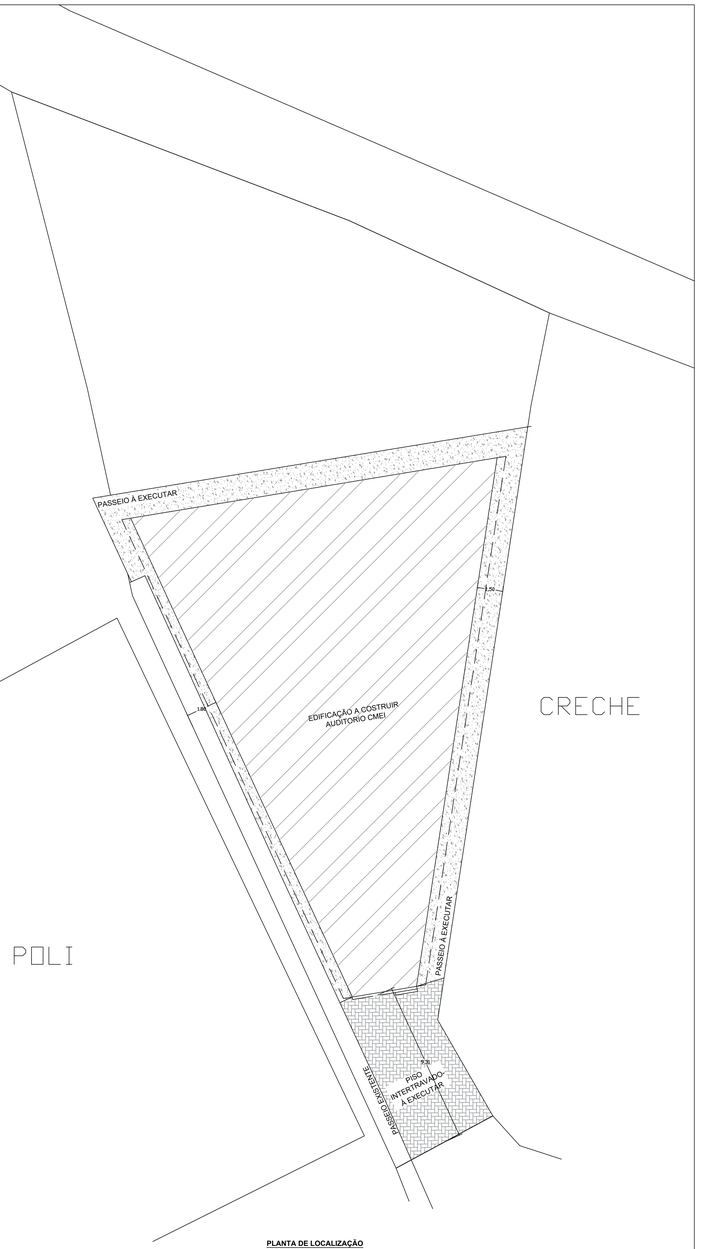


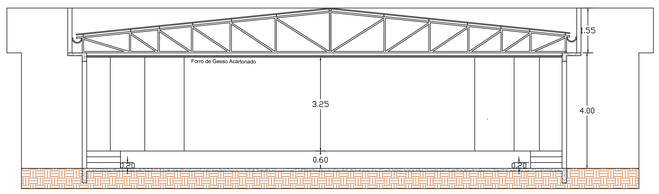
PLANTA BAIXA - AUDITORIO CMEI
ESC.: 1/75 - ÁREA CONSTRUÍDA: 369,15m²



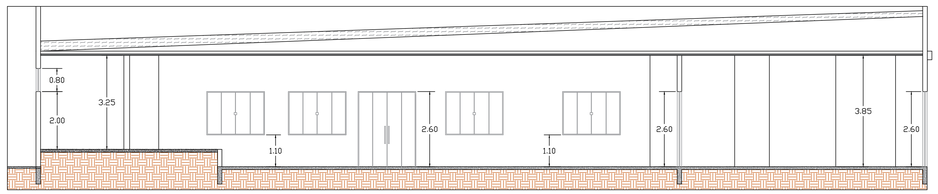
PLANTA COBERTURA - AUDITORIO CMEI
ESC.: 1/75



PLANTA DE LOCALIZAÇÃO
ESC.: 1/125



CORTE A - A
ESC.: 1/75



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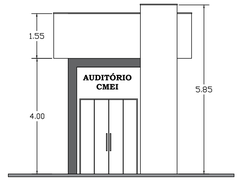
ESC.: 1/75



FACHADA FRONTAL
ESC.: 1/75

Prefeitura de Piranga

PROJETO ARQUITETÔNICO
CONSTRUÇÃO DO AUDITÓRIO CMEI

ENDEREÇO : Rua José Americo Quintão - s/n - B: Margarida Cruz
Piranga- MG CEP: 36480-000

PROPRIETÁRIO: Prefeitura Municipal de Piranga/MG
CNPJ:23.515.687/0001-01

PROJETO-RT: SUANE EVELYN DOS REIS SOARES:11324655674 Assinado de forma digital por SUANE EVELYN DOS REIS SOARES:11324655674 Dados: 2025.05.30 16:22:37 -03'00'
Suane Evelyn dos Reis Soares
ENG CIVIL - CREA MG 200214/D

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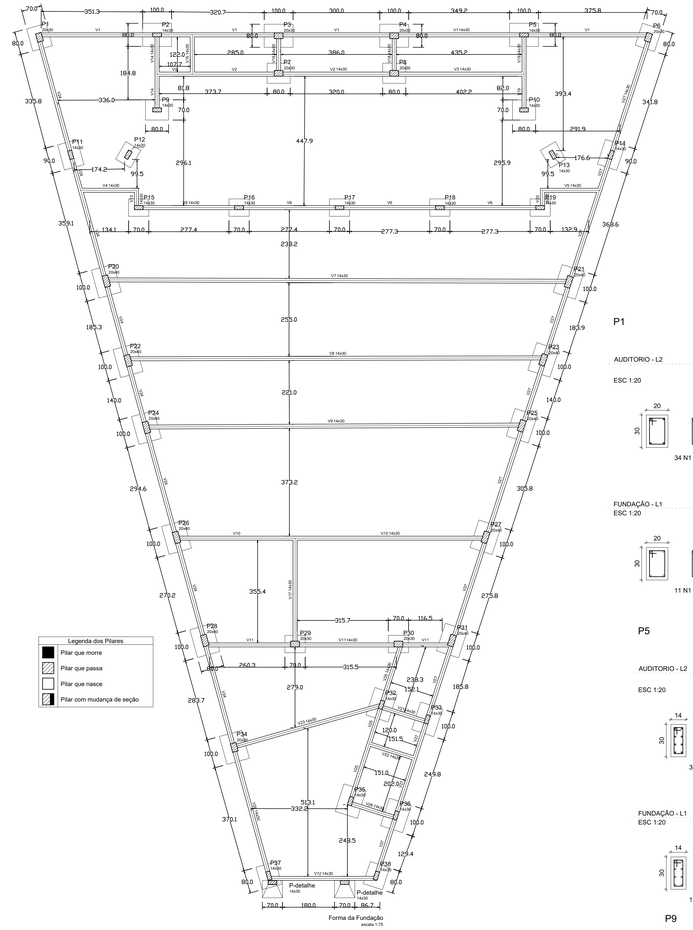
INDICADAS	369,15m²	MAIO/2025	01/05



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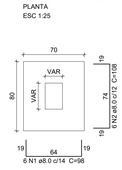

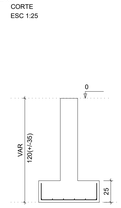

SAPATAS

P1

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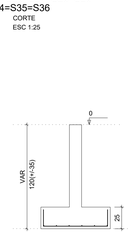

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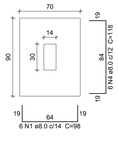

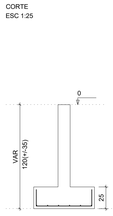

P3

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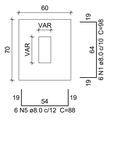
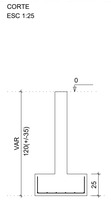




P4

Relação do aço

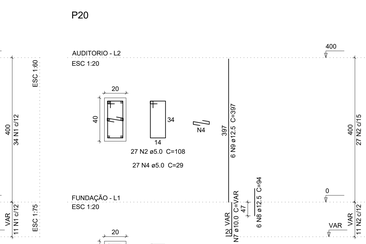
8xS1 11xS12 19xD2 2xS11

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	126	98	12348
	2	8.0	181	108	19548
	3	8.0	114	128	14592
	4	8.0	12	118	1416
	5	8.0	66	88	5808

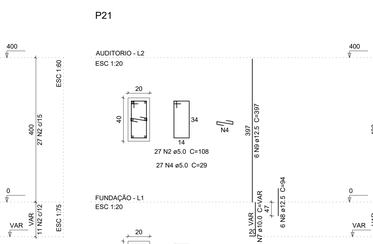
Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	537.2	233.1
PESO TOTAL			
CA50	233.1		

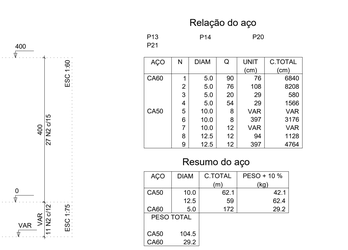
Vol. de concreto total (C-25) = 6.39 m³
Área de forma total = 31.85 m²



P5



P6- PILARES DETALHE FACHADA 1 E 2



P7

P8

Relação do aço

P1 P4 P2 P3

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	135	88	11880
	2	5.0	45	76	3420
CA50	3	10.0	16	VAR	VAR
	4	10.0	20	397	7940
	5	10.0	4	75	300

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	110.6	75
CA60	5.0	153	25.9
PESO TOTAL			
CA50	75		
CA60	25.9		

Vol. de concreto total (C-25) = 1.15 m³
Área de forma total = 20.18 m²

P9

P10

P11

P12

Relação do aço

P5 P8 3xP6 P7

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	45	76	3420
	2	5.0	225	88	19800
CA50	3	10.0	4	75	300
	4	10.0	24	VAR	VAR
	5	10.0	28	397	11116

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	156.4	106.1
CA60	5.0	232.2	39.4
PESO TOTAL			
CA50	106.1		
CA60	39.4		

Vol. de concreto total (C-25) = 1.78 m³
Área de forma total = 30.58 m²

Relação do aço

P9 P12 P10 P11

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	180	76	13680
	2	5.0	34	23	782
CA50	3	10.0	6	75	450
	4	10.0	16	VAR	VAR
	5	10.0	22	397	8734

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	120	81.4
CA60	5.0	144.7	24.5
PESO TOTAL			
CA50	81.4		
CA60	24.5		

Vol. de concreto total (C-25) = 0.87 m³
Área de forma total = 18.3 m²

P13

P14

P20

P21

PILARES - CONTINUA ...

Relação do aço

P13 P21 P14 P20

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	90	76	6840
	2	5.0	76	108	8208
	3	5.0	20	29	580
	4	5.0	54	29	1566
CA50	5	10.0	8	VAR	VAR
	6	10.0	8	397	3176
	7	10.0	12	VAR	VAR
	8	12.5	12	94	1128
	9	12.5	12	397	4764

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	62.1	42.1
	12.5	59	62.4
CA60	5.0	172	29.2
PESO TOTAL			
CA50	104.5		
CA60	29.2		

Vol. de concreto total (C-25) = 1.27 m³
Área de forma total = 21.63 m²

Prefeitura de Piranga

PROJETO ESTRUTURAL - CONSTRUÇÃO DO AUDITÓRIO DO CMEI

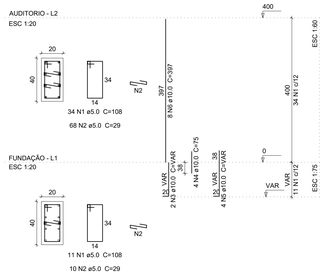
ENDEREÇO : Rua José Americo Quintão - s/n - B: Margarida Cruz
Piranga- MG CEP: 36480-000

PROPRIETÁRIO:
Prefeitura Municipal de Piranga/MG
CNPJ:23.515.687/0001-01

PROJETO-RT:
SUANE EVELYN DOS REIS SOARES:11324655674
Assinado de forma digital por SUANE EVELYN DOS REIS SOARES:11324655674
Dados: 2025.05.30 15:16:27 -03'00'
Suane Evelyn dos Reis Soares
ENG CIVIL - CREA MG 200214/D

ESCALAS:	DATA:	PRANCHA:
INDICADAS	MAIO/2025	01/05

P22



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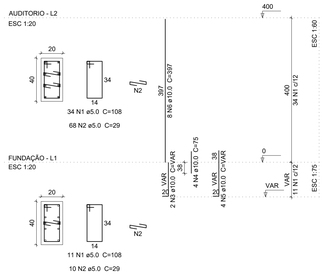

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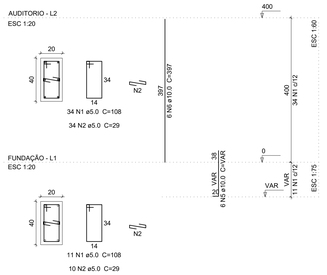

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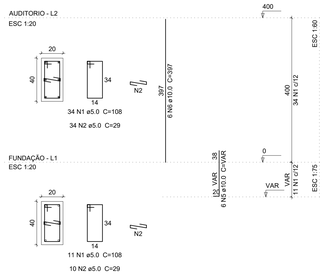


Relação do aço

P22
P25
P23
P24

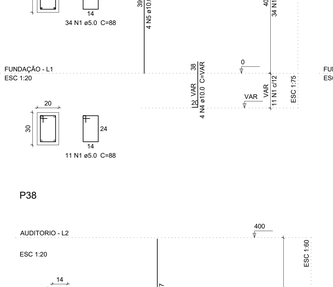
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	180	108	19440
	2	5.0	244	29	7076
CA50	3	10.0	4	VAR	VAR
	4	10.0	8	75	600
	5	10.0	20	VAR	VAR
	6	10.0	28	397	11116

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	157.8	107
CA60	5.0	265.2	45
PESO TOTAL			
CA50	107		
CA60	45		

Vol. de concreto total (C-25) = 1.66 m³
Área de forma total = 24.96 m²

P26



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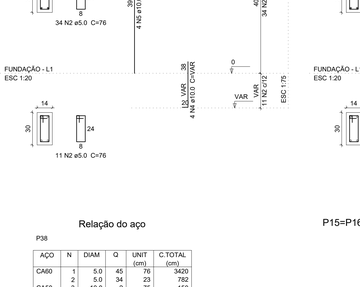

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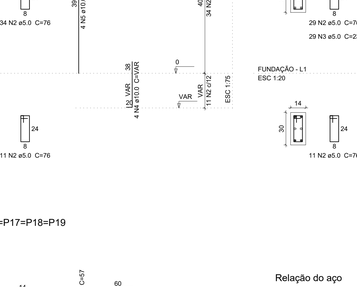

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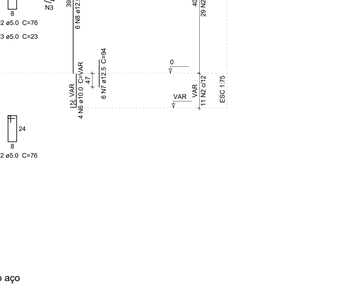

Relação do aço

P26
P29
P27
P28

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	135	108	14580
	2	5.0	132	29	3828
	3	5.0	45	88	3960
CA50	4	10.0	22	VAR	VAR
	5	10.0	22	397	8734

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	126.1	85.5
CA60	5.0	223.7	37.9
PESO TOTAL			
CA50	85.5		
CA60	37.9		

Vol. de concreto total (C-25) = 1.56 m³
Área de forma total = 23.92 m²

P30

P31

P32

P33

Relação do aço

P30
P33
P31
P32

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	45	88	3960
	2	5.0	45	108	4860
	3	5.0	44	29	1276
	4	5.0	90	76	6840
CA50	5	10.0	18	VAR	VAR
	6	10.0	18	397	7146

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	103.2	69.9
CA60	5.0	169.4	28.7
PESO TOTAL			
CA50	69.9		
CA60	28.7		

Vol. de concreto total (C-25) = 1.16 m³
Área de forma total = 20.59 m²

P34

P35

P36

P37

Relação do aço

P34
P37
P35
P36

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	45	88	3960
	2	5.0	150	76	9880
	3	5.0	29	23	667
CA50	4	10.0	12	VAR	VAR
	5	10.0	12	397	4764
	6	10.0	4	VAR	VAR
	7	12.5	6	94	564
	8	12.5	6	397	2382

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	74.2	50.3
	12.5	29.5	31.2
CA60	5.0	145.1	24.6
PESO TOTAL			
CA50	81.5		
CA60	24.6		

Vol. de concreto total (C-25) = 0.97 m³
Área de forma total = 18.93 m²

P38

PILARES - CONTINUAÇÃO

Relação do aço

P38

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	45	76	3420
	2	5.0	34	23	782
CA50	3	10.0	2	75	150
	4	10.0	4	VAR	VAR
	5	10.0	6	397	2382

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	32.4	21.9
CA60	5.0	42.1	7.1
PESO TOTAL			
CA50	21.9		
CA60	7.1		

Vol. de concreto total (C-25) = 0.22 m³
Área de forma total = 4.58 m²

P15=P16=P17=P18=P19

Relação do aço

5xP11

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	80	76	6080
CA50	2	10.0	20	VAR	VAR
	3	10.0	20	57	1140

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	46.6	31.6
CA60	5.0	60.8	10.3
PESO TOTAL			
CA50	31.6		
CA60	10.3		

Vol. de concreto total (C-25) = 0.37 m³
Área de forma total = 7.8 m²

Prefeitura de Piranga

PROJETO ESTRUTURAL - CONSTRUÇÃO DO AUDITÓRIO DO CMEI

ENDEREÇO : Rua José Americo Quintão - s/n - B: Margarida Cruz
Piranga- MG CEP: 36480-000

PROPRIETÁRIO: Prefeitura Municipal de Piranga/MG
CNPJ:23.515.687/0001-01

PROJETO-RT: SUANE EVELYN DOS REIS:11324655674 Assinado de forma digital por SUANE EVELYN DOS REIS:11324655674 Dados: 2025.05.30 15:17:14 -03'00'
Suane Evelyn dos Reis Soares
ENG CIVIL - CREA MG 200214/D

ESCALAS: INDICADAS
DATA: MAIO/2025
PRANCHA: 02/05

V1
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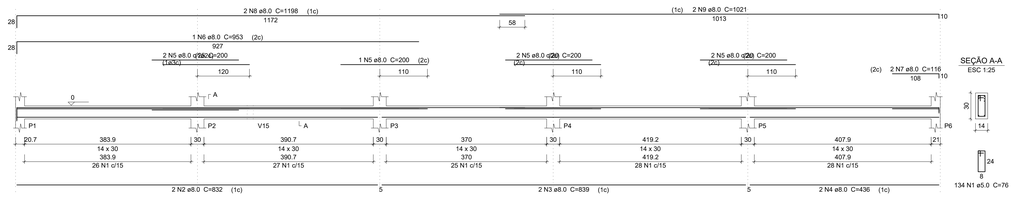
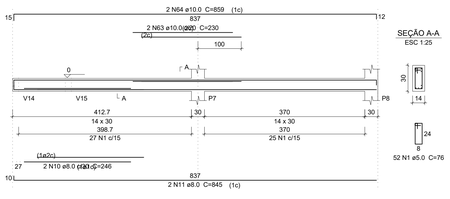


V2
ESC 1:50



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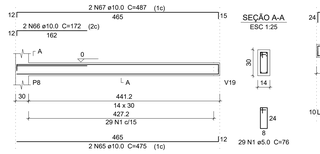
ESC 1:50



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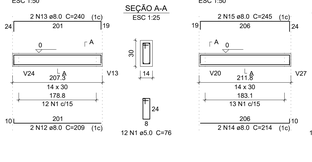
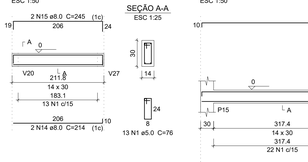
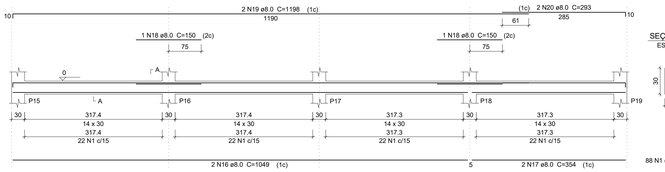
ESC 1:50



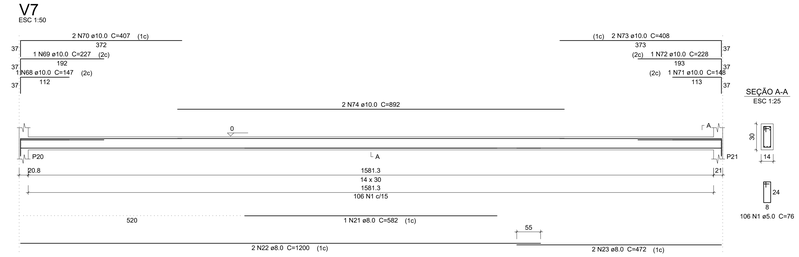
V5
ESC 1:50



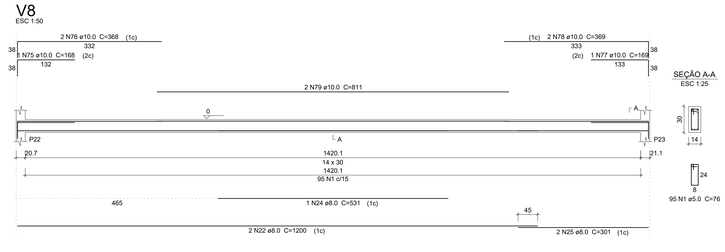
V6
ESC 1:50



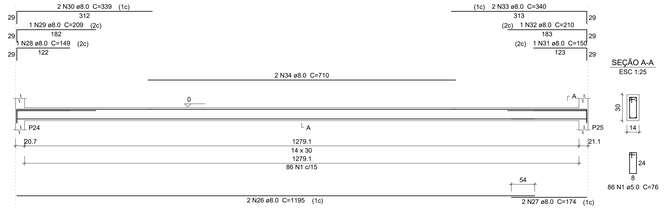
V7
ESC 1:50



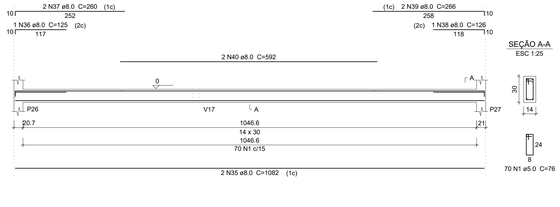
V8
ESC 1:50



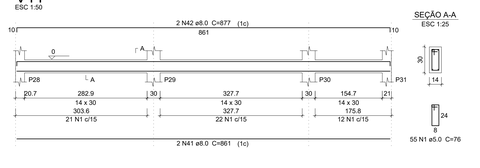
V9
ESC 1:50



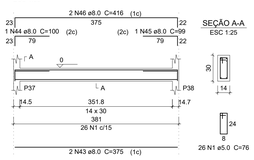
V10
ESC 1:50



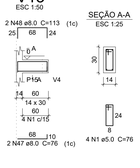
V11
ESC 1:50



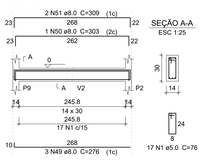
V12
ESC 1:50



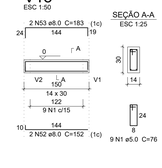
V13
ESC 1:50



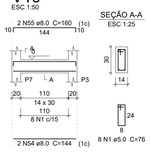
V14
ESC 1:50



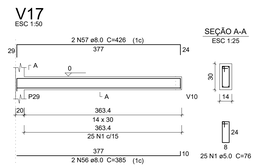
V15
ESC 1:50



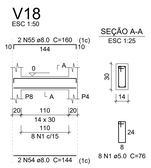
V16
ESC 1:50



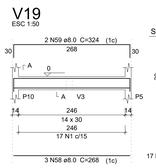
V17
ESC 1:50



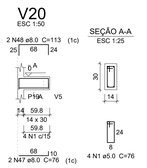
V18
ESC 1:50



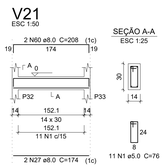
V19
ESC 1:50



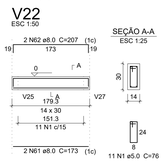
V20
ESC 1:50



V21
ESC 1:50



V22
ESC 1:50



BALDRAMES - CONTINUA ...

Relação do aço

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	V18
V19	V20	V21
V22		

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	880	76	66880
CA50	2	8.0	2	832	1664
	3	8.0	2	839	1678
	4	8.0	2	436	872
	5	8.0	7	200	1400
	6	8.0	1	953	953
	7	8.0	2	116	232
	8	8.0	2	1198	2396
	9	8.0	2	1021	2042
	10	8.0	2	246	492
	11	8.0	2	845	1690
	12	8.0	2	209	418
	13	8.0	2	240	480
	14	8.0	2	214	428
	15	8.0	2	245	490
	16	8.0	2	1049	2098
	17	8.0	2	354	708
	18	8.0	2	150	300
	19	8.0	2	1198	2396
	20	8.0	2	293	586
	21	8.0	1	582	582
	22	8.0	4	1200	4800
	23	8.0	2	472	944
	24	8.0	1	531	531
	25	8.0	2	301	602
	26	8.0	2	1195	2390
	27	8.0	4	174	696
	28	8.0	1	149	149
	29	8.0	1	209	209
	30	8.0	1	339	678
	31	8.0	1	150	150
	32	8.0	1	210	210
	33	8.0	2	340	680
	34	8.0	2	710	1420
	35	8.0	2	1082	2164
	36	8.0	1	125	125
	37	8.0	2	260	520
	38	8.0	1	126	126
	39	8.0	2	266	532
	40	8.0	2	592	1184
	41	8.0	2	861	1722
	42	8.0	2	877	1754
	43	8.0	2	375	750
	44	8.0	1	100	100
	45	8.0	1	99	99
	46	8.0	2	416	832
	47	8.0	4	76	304
	48	8.0	4	113	452
	49	8.0	3	276	828
	50	8.0	1	303	303
	51	8.0	2	309	618
	52	8.0	2	152	304
	53	8.0	2	183	366
	54	8.0	4	144	576
	55	8.0	4	160	640
	56	8.0	2	385	770
	57	8.0	2	426	852
	58	8.0	3	268	804
	59	8.0	2	324	648
	60	8.0	2	208	416
	61	8.0	2	173	346
	62	8.0	2	207	414
	63	10.0	2	230	460
	64	10.0	2	859	1718
	65	10.0	2	475	950
	66	10.0	2	172	344
	67	10.0	2	487	974
	68	10.0	1	147	147
	69	10.0	1	227	227
	70	10.0	2	407	814
	71	10.0	1	148	148
	72	10.0	1	228	228
	73	10.0	2	408	816
	74	10.0	2	892	1784
	75	10.0	1	168	168
	76	10.0	2	368	736
	77	10.0	1	169	169
	78	10.0	2	369	738
	79	10.0	2	811	1622

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	539.2	234
	10.0	120.5	81.7
CA60	5.0	668.8	113.4
PESO TOTAL			
CA50	315.7		
CA60	113.4		

Vol. de concreto total (C-25) = 5.84 m³
Área de forma total = 102.98 m²

Prefeitura de Piranga

PROJETO ESTRUTURAL - CONSTRUÇÃO DO AUDITÓRIO DO CMEI

ENDEREÇO : Rua José Americo Quintão - s/n - B: Margarida Cruz
Piranga- MG CEP: 36480-000

PROPRIETÁRIO: Prefeitura Municipal de Piranga/MG
CNPJ:23.515.687/0001-01

PROJETO-RT: Suane Evelyn dos Reis Soares
ENG CIVIL - CREA MG 200214/D

SUANE EVELYN DOS REIS SOARES:11324655674 Dados: 2025.05.30 15:17:52 -03'00'

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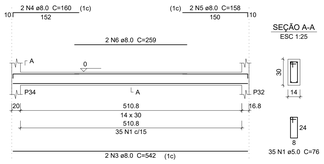
INDICADAS	MAIO/2025	03/05

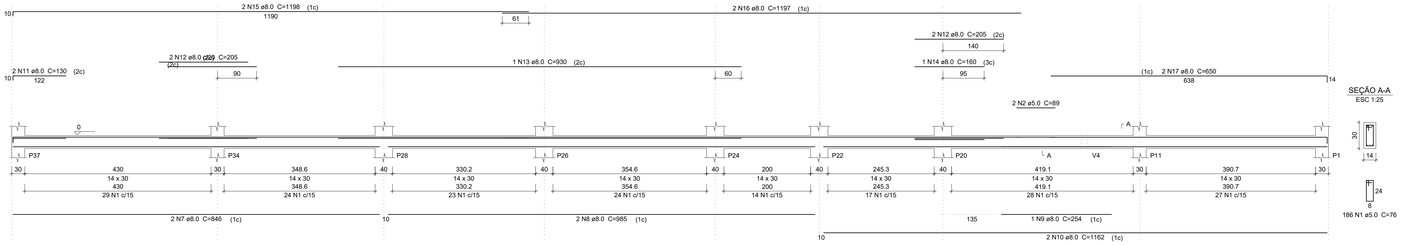
V23
ESC 1:50



SEÇÃO A-A
ESC 1:25

35 N1 ø5.0 C=76

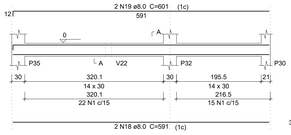
V24
ESC 1:50



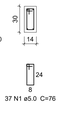
SEÇÃO A-A
ESC 1:25

186 N1 ø5.0 C=76

V25
ESC 1:50

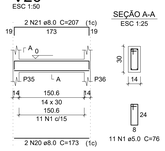


SEÇÃO A-A
ESC 1:25



37 N1 ø5.0 C=76

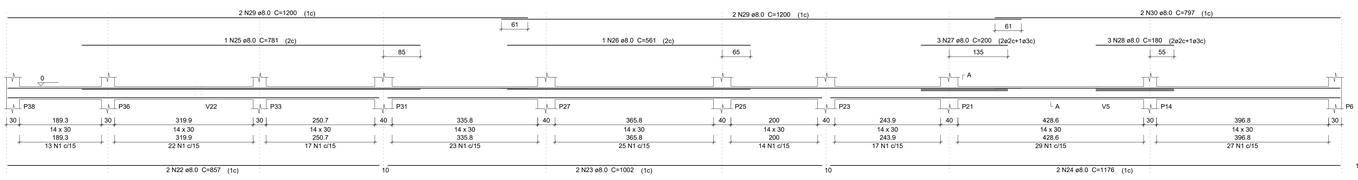
V26
ESC 1:50



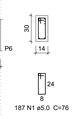
SEÇÃO A-A
ESC 1:25

11 N1 ø5.0 C=76

V27
ESC 1:50



SEÇÃO A-A
ESC 1:25



187 N1 ø5.0 C=76

Relação do aço

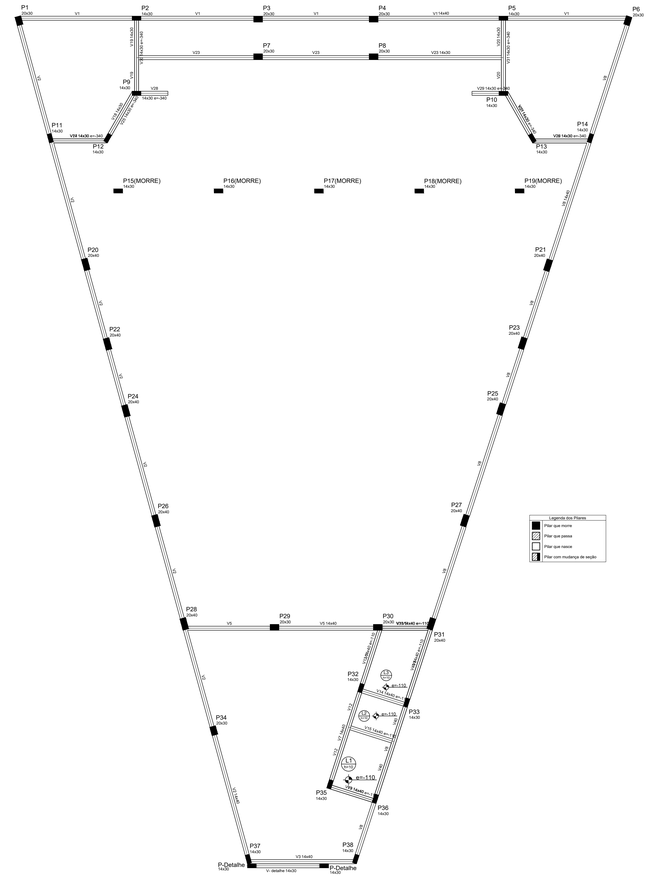
V23 V24 V25 V26 V27

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	456	76	34656
	2	5.0	2	89	178
CA50	3	8.0	2	542	1084
	4	8.0	2	160	320
	5	8.0	2	158	316
	6	8.0	2	259	518
	7	8.0	2	846	1692
	8	8.0	2	985	1970
	9	8.0	1	254	254
	10	8.0	2	1162	2324
	11	8.0	2	130	260
	12	8.0	4	205	820
	13	8.0	1	930	930
	14	8.0	1	160	160
	15	8.0	2	1198	2396
	16	8.0	2	1197	2394
	17	8.0	2	650	1300
	18	8.0	2	591	1182
	19	8.0	2	601	1202
	20	8.0	2	173	346
	21	8.0	2	207	414
	22	8.0	2	857	1714
	23	8.0	2	1002	2004
	24	8.0	2	1176	2352
	25	8.0	1	781	781
	26	8.0	1	561	561
	27	8.0	3	200	600
	28	8.0	3	180	540
	29	8.0	4	1200	4800
	30	8.0	2	797	1594

Resumo do aço

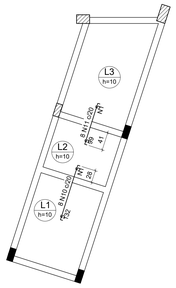
AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	348.3	151.2
CA60	5.0	348.4	59.1
PESO TOTAL			
CA50	151.2		
CA60	59.1		

Vol. de concreto total (C-25) = 3.13 m³
Área de forma total = 55.07 m²



Forma do Pavimento Auditório
escala 1:75

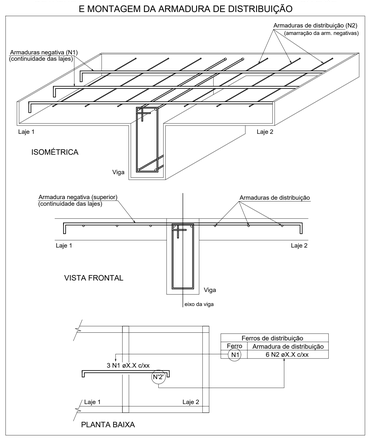
BALDRAMES - CONTINUAÇÃO



Armação negativa das lajes do pavimento auditório (Eixo Y)
escala 1:50

Ferros de distribuição	
Ferro	Armadura de distribuição
N10	7 N1 ø5.0 c/20 C=165
N11	5 N1 ø5.0 c/20 C=165

DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Ferros de distribuição	
Ferro	Armadura de distribuição
N1	6 N2 øX.X c/xx

Relação do aço

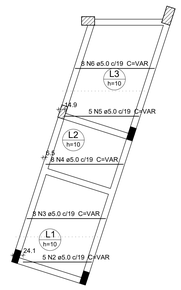
Negativos Y Positivos X Positivos Y

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	12	165	1980
	2	5.0	5	VAR	VAR
	3	5.0	8	VAR	VAR
	4	5.0	8	VAR	VAR
	5	5.0	5	VAR	VAR
	6	5.0	8	VAR	VAR
	7	5.0	10	VAR	VAR
	8	5.0	9	VAR	VAR
	9	5.0	11	VAR	VAR
CA50	10	6.3	8	139	1112
	11	6.3	8	106	848

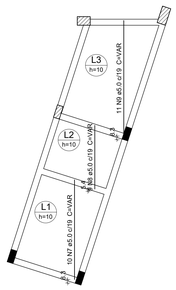
Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	19.6	5.3
CA60	5.0	145.4	24.6
PESO TOTAL			
CA50	5.3		
CA60	24.6		

Vol. de concreto total (C-25) = 0.85 m³
Área de forma total = 8.49 m²



Armação positiva das lajes do pavimento auditório (Eixo X)
escala 1:50



Armação positiva das lajes do pavimento auditório (Eixo Y)
escala 1:50

Prefeitura de Piranga

PROJETO ESTRUTURAL - CONSTRUÇÃO DO AUDITÓRIO DO CMEI

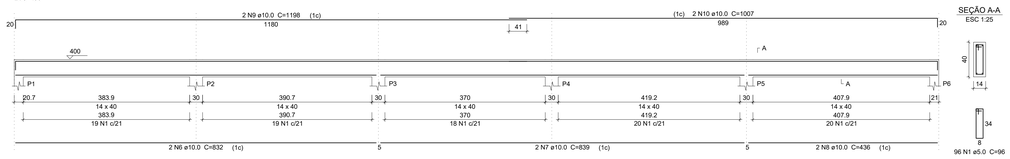
ENDEREÇO : Rua José Americo Quintão - s/n - B: Margarida Cruz
Piranga- MG CEP: 36480-000

PROPRIETÁRIO:
Prefeitura Municipal de Piranga/MG
CNPJ:23.515.687/0001-01

PROJETO-RT:
SUANE EVELYN DOS REIS SOARES:11324655674
Dados: 2025.05.30 15:19:21 -03'00'
Suane Evelyn dos Reis Soares
ENG CIVIL - CREA MG 200214/D

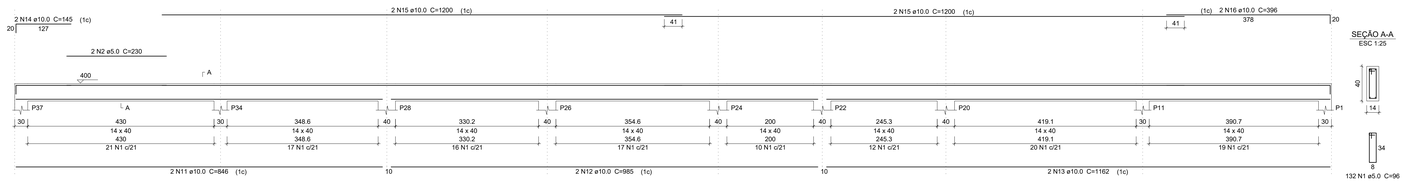
ESCALAS:	DATA:	PRANCHA:
INDICADAS	MAIO/2025	04/05

V1
ESC 1:50



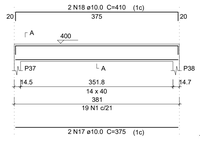
SEÇÃO A-A
ESC 1:25

V2
ESC 1:50

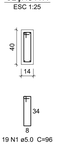


SEÇÃO A-A
ESC 1:25

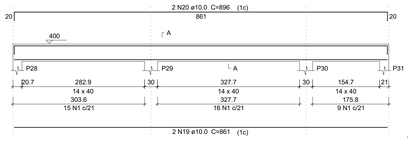
V3
ESC 1:50



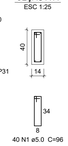
SEÇÃO A-A
ESC 1:25



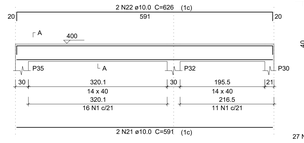
V5
ESC 1:50



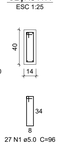
SEÇÃO A-A
ESC 1:25



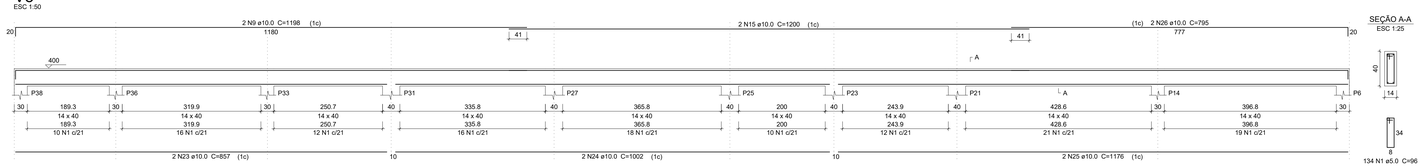
V7
ESC 1:50



SEÇÃO A-A
ESC 1:25

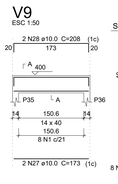


V8
ESC 1:50

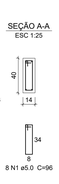


SEÇÃO A-A
ESC 1:25

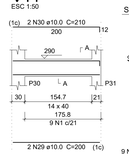
V9
ESC 1:50



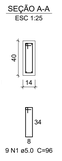
SEÇÃO A-A
ESC 1:25



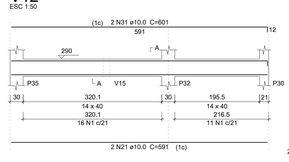
V11
ESC 1:50



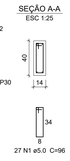
SEÇÃO A-A
ESC 1:25



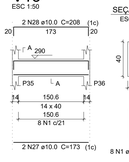
V12
ESC 1:50



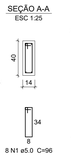
SEÇÃO A-A
ESC 1:25



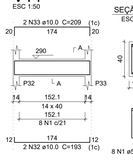
V13
ESC 1:50



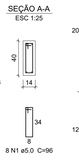
SEÇÃO A-A
ESC 1:25



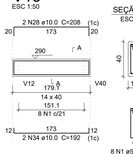
V14
ESC 1:50



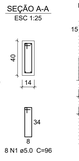
SEÇÃO A-A
ESC 1:25



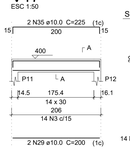
V15
ESC 1:50



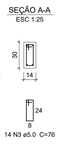
SEÇÃO A-A
ESC 1:25



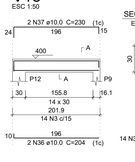
V17
ESC 1:50



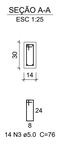
SEÇÃO A-A
ESC 1:25



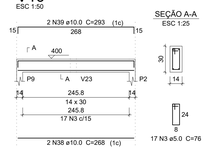
V18
ESC 1:50



SEÇÃO A-A
ESC 1:25

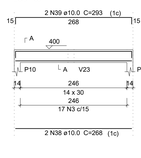


V19
ESC 1:50

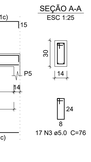


SEÇÃO A-A
ESC 1:25

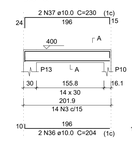
V20
ESC 1:50



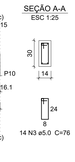
SEÇÃO A-A
ESC 1:25



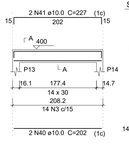
V21
ESC 1:50



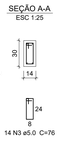
SEÇÃO A-A
ESC 1:25



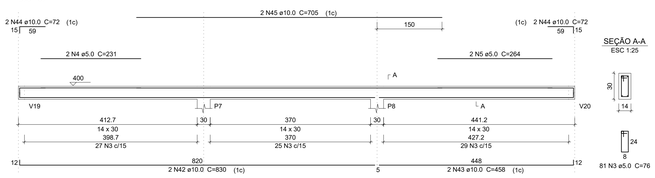
V22
ESC 1:50



SEÇÃO A-A
ESC 1:25

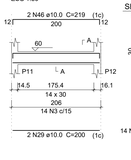


V23
ESC 1:50

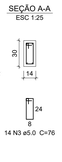


SEÇÃO A-A
ESC 1:25

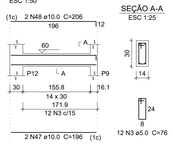
V24
ESC 1:50



SEÇÃO A-A
ESC 1:25

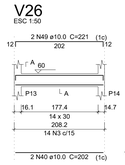


V25
ESC 1:50



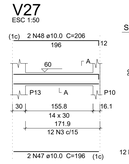
SEÇÃO A-A
ESC 1:25

V26
ESC 1:50

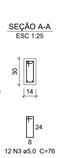


SEÇÃO A-A
ESC 1:25

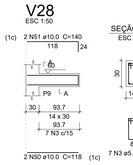
V27
ESC 1:50



SEÇÃO A-A
ESC 1:25

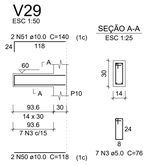


V28
ESC 1:50

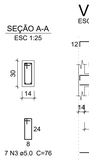


SEÇÃO A-A
ESC 1:25

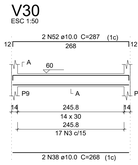
V29
ESC 1:50



SEÇÃO A-A
ESC 1:25

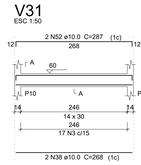


V30
ESC 1:50

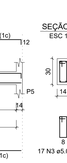


SEÇÃO A-A
ESC 1:25

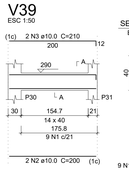
V31
ESC 1:50



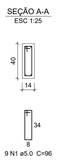
SEÇÃO A-A
ESC 1:25



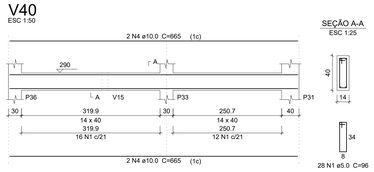
V39
ESC 1:50



SEÇÃO A-A
ESC 1:25



V40
ESC 1:50



SEÇÃO A-A
ESC 1:25

VIGAS PAV. AUDITÓRIO

Relação do aço
V39 V40

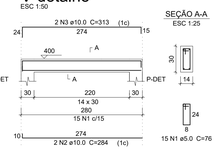
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	37	96	3552
CA50	2	10.0	2	200	400
	3	10.0	2	210	420
	4	10.0	4	665	2660

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	34.8	23.6
CA60	5.0	35.6	6
PESO TOTAL			
CA50	23.6		
CA60	6		

Vol. de concreto total (C-25) = 0.49 m³
Área de forma total = 8.24 m²

V-detalhe
ESC 1:50



SEÇÃO A-A
ESC 1:25

Relação do aço
V-DETALHE

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	15	76	1140
CA50	2	10.0	2	284	568
	3	10.0	2	313	626

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	11.4	8.1
CA60	5.0	11.4	2
PESO TOTAL			
CA50	8.1		
CA60	2		

Vol. de concreto total (C-25) = 0.26 m³
Área de forma total = 1.63 m²

Relação do aço

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	516	96	49536
	2	5.0	2	230	460
	3	5.0	271	76	20596
	4	5.0	2	231	462
	5	5.0	2	264	528
CA50	6	10.0	2	832	1664
	7	10.0	2	839	1678
	8	10.0	2	436	872
	9	10.0	4	1198	4792
	10	10.0	2	1007	2014
	11	10.0	2	846	1692
	12	10.0	2	985	1970
	13	10.0	2	1162	2324
	14	10.0	2	145	290
	15	10.0	6	1200	7200
	16	10.0	2	396	792
	17	10.0	2	375	750
	18	10.0	2	410	820
	19	10.0	2	861	1722
	20	10.0	2	896	1792
	21	10.0	4	591	2364
	22	10.0	2	626	1252
	23	10.0	2	857	1714
	24	10.0	2	1002	2004
	25	10.0	2	1176	2352
	26	10.0	2	795	1590
	27	10.0	4	173	692
	28	10.0	6	208	1248
	29	10.0	6	200	1200
	30	10.0	2	210	420
	31	10.0	2	601	1202
	32	10.0	2	193	386
	33	10.0	2	209	418
	34	10.0	2	192	384
	35	10.0	2	225	450
	36	10.0	4	204	816
	37	10.0	4	230	920
	38	10.0	8	268	2144
	39	10.0	4	293	1172
	40	10.0	4	202	808
	41	10.0	2	227	454
	42	10.0	2	830	1660
	43	10.0	2	458	916
	44	10.0	4	72	288
	45	10.0	2	705	1410
	46	10.0	2	219	438
	47	10.0	4	196	784
	48	10.0	4	206	824
	49	10.0	2	221	442
	50	10.0	4	118	472
	51	10.0	4	140	560
	52	10.0	4	287	1148

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	633.1	429.3
CA60	5.0	715.9	121.4
PESO TOTAL			
CA50	429.3		
CA60	121.4		

Vol. de concreto total (C-25) = 8.3 m³
Área de forma total = 140.74 m²

Prefeitura de Piranga

PROJETO ESTRUTURAL - CONSTRUÇÃO DO AUDITÓRIO DO CMEI

ENDEREÇO : Rua José Americo Quintão - s/n - B: Margarida Cruz
Piranga- MG CEP: 36480-000

PROPRIETÁRIO: Prefeitura Municipal de Piranga/MG
CNPJ:23.515.687/0001-01

PROJETO-RT: SUANE EVELYN DOS REIS SOARES:11324655674 Assinado de forma digital por SUANE EVELYN DOS REIS SOARES:11324655674 Dados: 2025.05.30 15:18:55 -03'00'

Suane Evelyn dos Reis Soares
ENG CIVIL - CREA MG 200214/D

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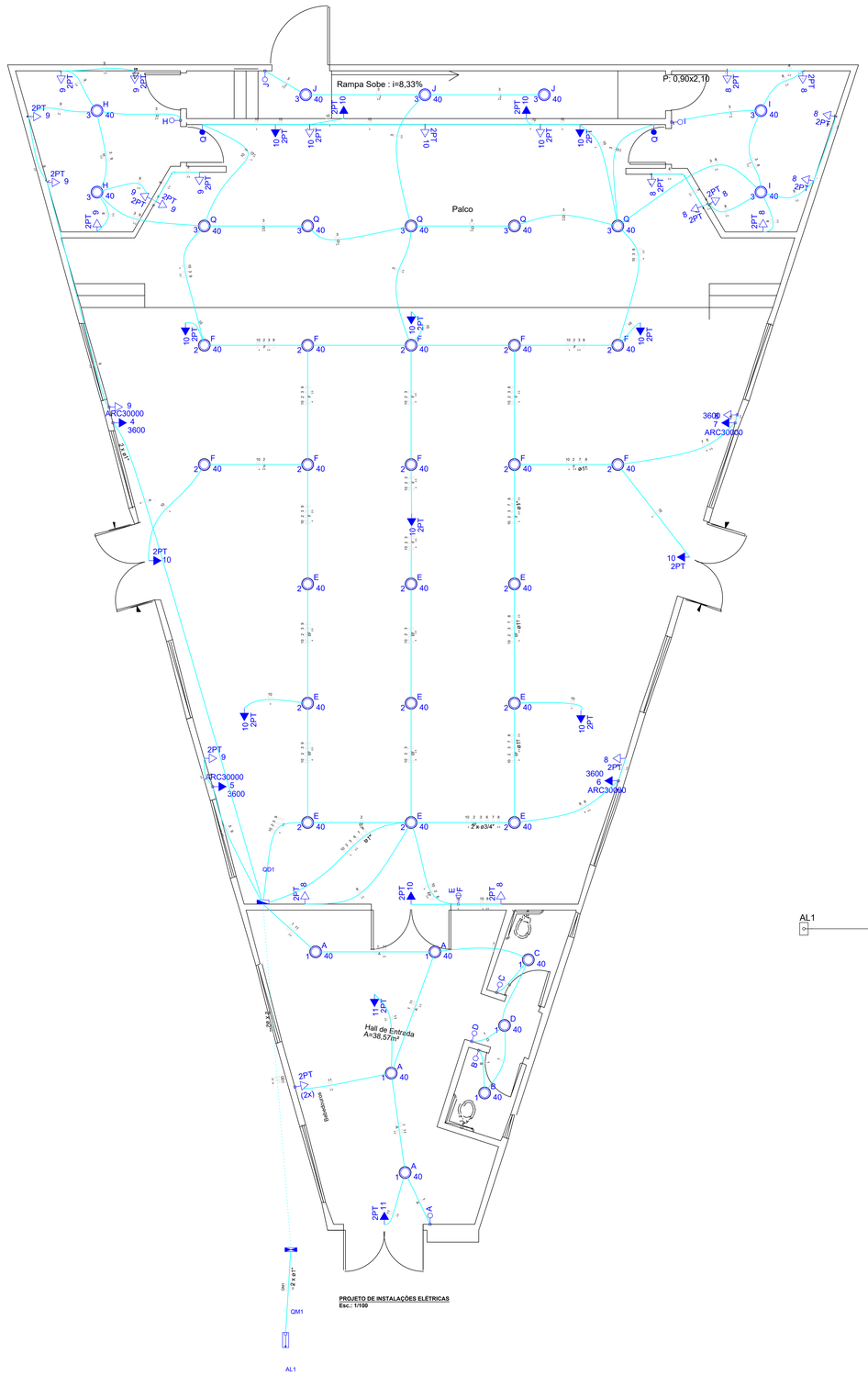
INDICADAS	MAIO/2025	05/05



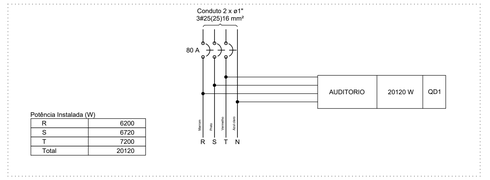
Quadro de Cargas (QD1)

Circuito	Descrição	Esquema	Método de inst.	V (V)	Iluminação (W)	Tomadas (W)		Pot. total. (VA)	Pot. total. (W)	Fases	Pot. - R (W)	Pot. - S (W)	Pot. - T (W)	FCT	FCA	Ib' (A)	Seção (mm2)	Ic (A)	Disj (A)	dV parc (%)	dV total (%)	Status
					40	100	3600															
1	ILUMINAÇÃO HALL DE ENTRADA	F+N	B1	127 V	7			280	280	S		280		1.00	0.80	2.8	1.5	17.5	10.0	0.58	1.66	Ok
2	ILUMINAÇÃO AUDITÓRIO	F+N	B1	127 V	19			760	760	S		760		1.00	0.57	10.5	2.5	24.0	10.0	1.66	2.73	Ok
3	ILUMINAÇÃO PALCO + CAMARINS	F+N	B1	127 V	12			480	480	S		480		1.00	0.57	5.5	2.5	24.0	10.0	1.14	2.22	Ok
4	AR COND. 1	F+F+T	B1	220 V			1	4000	3600	S+T		1800	1800	1.00	1.00	18.2	6	41.0	20.0	0.89	1.97	Ok
5	AR COND. 2	F+F+T	B1	220 V			1	4000	3600	S+T		1800	1800	1.00	0.80	22.7	6	41.0	20.0	0.38	1.46	Ok
6	AR COND. 3	F+F+T	B1	220 V			1	4000	3600	R+T	1800		1800	1.00	0.57	31.9	6	41.0	20.0	0.74	1.82	Ok
7	AR COND. 4	F+F+T	B1	220 V			1	4000	3600	R+T	1800		1800	1.00	0.57	31.9	6	41.0	20.0	1.45	2.52	Ok
8	TOMADAS DIREITA HALL E CAMARIM	F+N+T	B1	127 V		12		1486	1200	S	1200			1.00	0.57	20.5	2.5	24.0	13.0	3.84	4.92	Ok
9	TOMADAS ESQUERDA HALL E CAMARIM	F+N+T	B1	127 V		10		1236	1000	R	1000			1.00	0.65	13.5	2.5	24.0	10.0	3.35	4.43	Ok
10	FUNDO PALCO E ILUMINAÇÃO DE EMERGENCIA	F+N+T	B1	127 V		16		2000	1600	R	1600			1.00	0.57	15.5	4	32.0	16.0	1.43	2.51	Ok
11	TOMADAS HALL DE ENTRADA	F+N+T	B1	127 V		4		500	400	S		400		1.00	0.80	4.9	2.5	24.0	10.0	0.65	1.73	Ok
TOTAL					38	42	4	22742	20120	R+S+T	6200	6720	7200									

Quadro de Demanda (QD1)

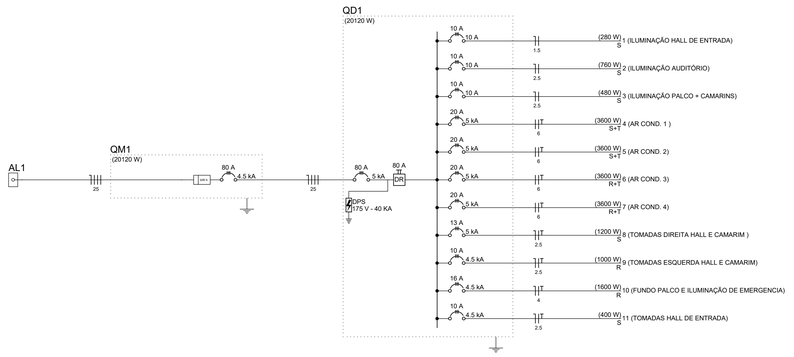
Tipo de carga	Potência instalada (kVA)	Fator de demanda (%)	Demanda (kVA)
Iluminação e TUG´s (Casas e Apartamentos)	1.52	75	1.14
Uso específico	21.22	100	21.22
		TOTAL	22.36

QM1



Potência Instalada (W)

R	6200
S	6720
T	7200
Total	20120



Lista de Materiais

Elétrica

Acessórios p/ eletrodutos	
Arruela zamak	
1"	2 pç
1/2"	1 pç
Braçadeira aço galv. tipo cunha	
2"	6 pç
Bucha zamak	
1"	4 pç
1/2"	1 pç
Bujão de aço galvanizado	
4"	1 pç
Caixa PVC	
4x2"	54 pç
4x4"	1 pç
Caixa PVC octogonal	
3x3"	38 pç
Curva 45° PVC rosca	
1"	4 pç
Curva 90° PVC longa rosca	
1/2"	2 pç
Luva PVC encaixe	
3/4"	2 pç
Luva PVC rosca	
1/2"	2 pç
Luva aço galvan. pesado	
1"	10 pç
1.1/2"	2 pç
Acessórios uso geral	
Bucha de nylon	
S6	12 pç
Fita isolante autofusão	
20m	1 pç
Parafuso fenda galvan. cab. panela 4.2x32mm autoatarrachante	12 pç
Cabo Unipolar (cobre)	
Isol.PVC - 450/750V (ref. Pirelli Pirastic Ecoplus BWF Flexivel)	
1.5 mm²	91.20 m
16 mm²	15.20 m
2.5 mm²	1017.40 m
25 mm²	60.80 m
4 mm²	387.10 m
6 mm²	201.30 m
Canaleta PVC	
Canaleta PVC lisa	
50x80mm	2.00 m
80x80mm	1.00 m
Dispositivo Elétrico - embutido	
Placa 2x4"	
Interruptor simples - 1 tecla	7 pç
Placa p/ 1 função	6 pç
Placa p/ 1 função redonda	23 pç
Placa p/ 1 função retangular	17 pç
Placa p/ 2 funções retangulares	1 pç
Placa 4x4"	
Placa p/ 2 funções redondas	1 pç
S/ placa	
Interruptor 1 tecla paralela	2 pç
Interruptor 2 teclas simples	1 pç
Tomada hexagonal (NBR 14136) 2P+T 10A	2 pç
Tomada hexagonal (NBR 14136) 2P+T 20A	4 pç
Tomada universal redonda 2P+T 10A	25 pç
Tomada universal retangular 2P+T 10A	15 pç
Dispositivo de Proteção	
Disjuntor tripolar termomagnético (220 V/127 V) - DIN	
10 A - 5 kA	3 pç
13 A - 5 kA	1 pç
20 A - 5 kA	4 pç
80 A - 5 kA	1 pç
Disjuntor tripolar termomagnético (380 V/220 V) - DIN	
10 A - 4,5 kA	2 pç
16 A - 4,5 kA	1 pç
80 A - 4,5 kA	1 pç
Dispositivo de proteção contra surto	
175 V - 40 KA	4 pç
Interruptor bipolar DR (fase/fase - In 30mA) - DIN	
80 A	1 pç
Eletroduto PVC encaixe	
Braçadeira galvan. tipo cunha	
1"	4 pç
2"	6 pç
3/4"	8 pç
Eletroduto, vara 3,0m	
1"	5.90 m
3/4"	8.70 m
Eletroduto PVC flexível	
Eletroduto leve	
1"	57.60 m
3/4"	332.60 m
Eletroduto PVC rosca	
Eletroduto, vara 3,0m	
1/2"	2.00 m
3/4"	1.00 m
Luminária e acessórios	
Luminária embutir p/ incandescente	
40 W	38 pç
Plafonier	
4"	38 pç
Soquete	
base E 27	38 pç
Lâmpada Incandescente	
Uso geral	
40 W	38 pç
Material p/ entrada serviço	
Cabeçote alumínio p/ eletroduto	
1"	2 pç
Caixa inspeção de aterramento 250x250x400mm	1 pç
Haste de aterramento aço/cobre D=15mm, comprimento 2,4m	1 pç
Isolador roldana 600V	
Porcelana vidrada	5 pç
Parafuso aço galvanizado cabeça quadr.	
Rosca M16x2, comprim. 100mm	1 pç
Poste de tubo galvanizado D=102mm, L=6,0m	1 pç
Quadro de medição - CEMIG	
Unidade consumidora individual - sobrepor	
Caixa polifásica e disjuntor "CM-2" de 10,1 a 47 kW	pç
Quadro distrib. plástico - embutir	
Barr. trif. - DIN (Ref. Hager)	
Cap. 12 disj. unip. - In Ponte 80A	1 pç

Legenda

	Caixa de medição sobrepor a 1,50m do piso
	Entrada de serviço aérea - Saída aérea
Q	Interruptor paralelo 1 tecla - 1,10m do piso
B	Interruptor simples 1 tecla - 1,10m do piso
E	Interruptor simples 2 teclas - 1,10m do piso
H 3 40	Luminária p/ lâmp. incand. comum - embutir
	Quadro de distribuição - embutir a 1,50m do piso
9	Tomada hexagonal (NBR 14136) - 2P+T 10 A a 0,30m do piso
ARC30000 4 3600	Tomada hexagonal (NBR 14136) - 2P+T 20 A a 2,20m do piso
2PT 11 (2x)	Tomada universal (2)2P+T a 0,30m do piso
2PT 9	Tomada universal 2P+T a 0,30m do piso
2PT 11	Tomada universal 2P+T a 2,20m do piso

Prefeitura de Piranga

PROJETO INSTALAÇÕES ELETRICAS
CONSTRUÇÃO DO AUDITÓRIO CMEI

ENDEREÇO : Rua José Americo Quintão - s/n - B: Margarida Cruz
Piranga- MG CEP: 36480-000

PROPRIETÁRIO: Prefeitura Municipal de Piranga/MG
CNPJ: 23.515.687/0001-01

PROJETO-RT: Suane Evelyn dos Reis Soares
ENG CIVIL - CREA MG 200214/D

SUANE EVELYN DOS REIS SOARES:11324655674 Digitally signed by SUANE EVELYN DOS REIS SOARES:11324655674 Date: 2025.05.30 12:44:35 -03'00'

ESCALAS:	DATA:	PRANCHA:
INDICADAS	MAIO/2025	01/01

Rampa Sobe - i=8,33%
CAIXA DE GORDURA
CAIXA DE INSPEÇÃO
CAIXA DE PASSAGEM
CAIXA SIFONAD