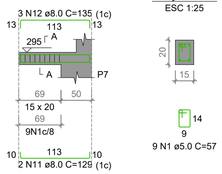
V1 (15 x 20)

ESC 1:50

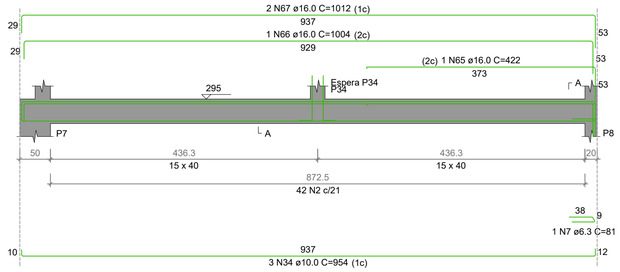


SEÇÃO A-A

ESC 1:25

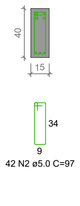
V2 (15 x 40)

ESC 1:50



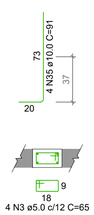
SEÇÃO A-A

ESC 1:25



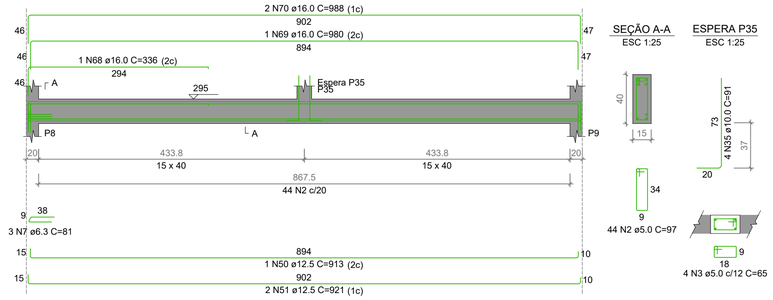
ESPERA P34

ESC 1:25



V3 (15 x 40)

ESC 1:50



SEÇÃO A-A

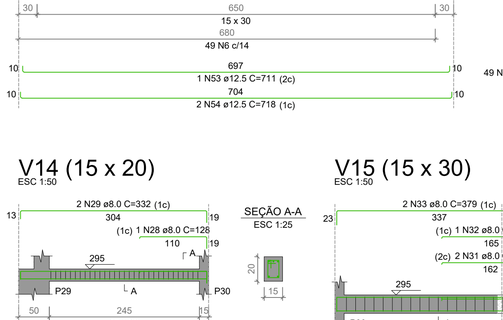
ESC 1:25

ESPERA P35

ESC 1:25

V4 (15 x 35)

ESC 1:50



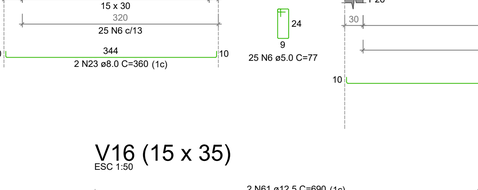
SEÇÃO A-A

ESC 1:25



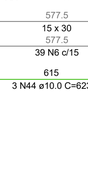
V5 (20 x 40)

ESC 1:50



SEÇÃO A-A

ESC 1:25



V6 (15 x 20)

ESC 1:50



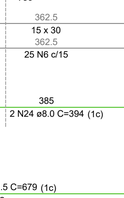
SEÇÃO A-A

ESC 1:25



V7 (15 x 20)

ESC 1:50



SEÇÃO A-A

ESC 1:25



V8 (15 x 40)

ESC 1:50

SEÇÃO A-A

ESC 1:25

ESPERA P38

ESC 1:25

V9 (15 x 40)

ESC 1:50

SEÇÃO A-A

ESC 1:25

ESPERA P39

ESC 1:25

ESPERA P40

ESC 1:25

V10 (15 x 30)

ESC 1:50

SEÇÃO A-A

ESC 1:25

V11 (15 x 30)

ESC 1:50

SEÇÃO A-A

ESC 1:25

V12 (15 x 30)

ESC 1:50

SEÇÃO A-A

ESC 1:25

V13 (15 x 20)

ESC 1:50

SEÇÃO A-A

ESC 1:25

V14 (15 x 20)

ESC 1:50

SEÇÃO A-A

ESC 1:25

V15 (15 x 30)

ESC 1:50

SEÇÃO A-A

ESC 1:25

V16 (15 x 35)

ESC 1:50

SEÇÃO A-A

ESC 1:25

V17 (15 x 35)

ESC 1:50

SEÇÃO A-A

ESC 1:25

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	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	66	57	3762
	2	5.0	177	97	17169
	3	5.0	20	65	1300
	4	5.0	118	87	10266
	5	5.0	41	107	4387
	6	5.0	159	77	12243
CA50	7	6.3	10	81	810
	8	6.3	1	77	77
	9	6.3	4	945	3780
	10	6.3	4	613	2452
	11	8.0	2	129	258
	12	8.0	3	135	405
	13	8.0	2	200	400
	14	8.0	3	204	612
	15	8.0	3	783	2349
	16	8.0	2	116	232
	17	8.0	3	130	390
	18	8.0	2	125	250
	19	8.0	3	131	393
	20	8.0	1	374	374
	21	8.0	3	955	2865
	22	8.0	3	599	1797
	23	8.0	2	360	720
	24	8.0	2	394	788
	25	8.0	2	130	260
	26	8.0	3	136	408
	27	8.0	2	320	640
	28	8.0	1	128	128
	29	8.0	2	332	664
	30	8.0	2	353	706
	31	8.0	2	181	362
	32	8.0	1	184	184
	33	8.0	2	379	758
	34	10.0	3	954	2862
	35	10.0	20	91	1820
	36	10.0	2	540	1080
	37	10.0	1	593	593
	38	10.0	1	987	987
	39	10.0	2	994	1988
	40	10.0	3	308	924
	41	10.0	1	552	552
	42	10.0	1	947	947
	43	10.0	2	954	1908
	44	10.0	3	623	1869
	45	10.0	1	245	245
	46	10.0	1	912	912
	47	10.0	2	1060	2120
	48	10.0	2	638	1276
	49	10.0	3	621	1863
	50	12.5	1	913	913
	51	12.5	2	921	1842
	52	12.5	4	740	2960
	53	12.5	1	711	711
	54	12.5	2	718	1436
	55	12.5	1	202	202
	56	12.5	2	770	1540
	57	12.5	1	398	398
	58	12.5	2	401	802
	59	12.5	1	286	286
	60	12.5	1	683	683
	61	12.5	2	690	1380
	62	12.5	1	290	290
	63	12.5	1	671	671
	64	12.5	2	679	1358
	65	16.0	1	422	422
	66	16.0	1	1004	1004
	67	16.0	2	1012	2024
	68	16.0	1	336	336
	69	16.0	1	980	980
	70	16.0	2	988	1976
	71	16.0	2	313	626
	72	16.0	2	803	1606

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	71.2	19.2
	8.0	159.4	69.2
	10.0	219.5	148.8
	12.5	154.7	164
	16.0	89.7	155.8
CA60	5.0	491.3	83.3

PESO TOTAL (kg)	
CA50	557
CA60	83.3

Volume de concreto (C-30) = 4.74 m³
Área de forma = 58.34 m²

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

INSTITUTO FEDERAL SERGIPE

AUTOR DO PROJETO:
Engº. Fredrico Damasceno Pinheiro
CREA 270082778-3

AD ENGENHARIA
adengenharia.eng.br

ENDEREÇO:
Rua Dom José Thomaz, 194 - Bairro São José - Aracaju/SE
dipop@ifs.edu.br TEL: (79)3711-3139

PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

ESCALA: 1:100

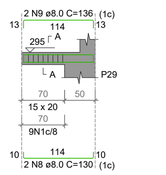
DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
ARMAÇÃO DAS VIGAS LAJE IMP. 1-2

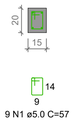
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CAMPUS:	OBRA:	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	012	022	R00

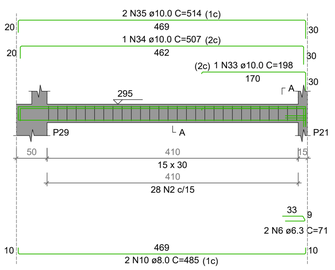
V18 (15 x 20)
ESC 1:50



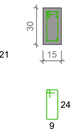
SEÇÃO A-A
ESC 1:25



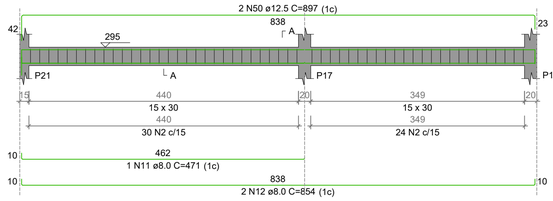
V19 (15 x 30)
ESC 1:50



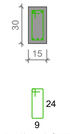
SEÇÃO A-A
ESC 1:25



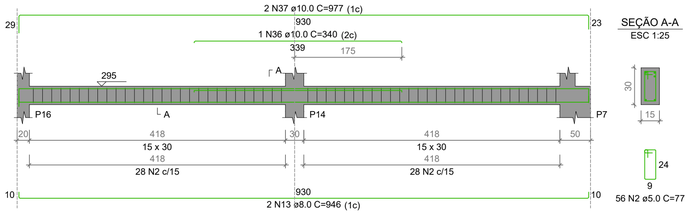
V20 (15 x 30)
ESC 1:50



SEÇÃO A-A
ESC 1:25

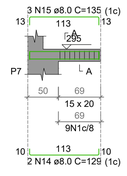


V21 (15 x 30)
ESC 1:50

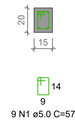


SEÇÃO A-A
ESC 1:25

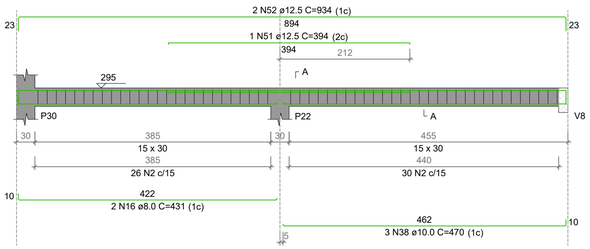
V22 (15 x 20)
ESC 1:50



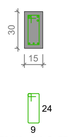
SEÇÃO A-A
ESC 1:25



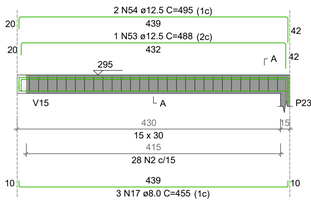
V23 (15 x 30)
ESC 1:50



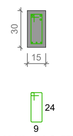
SEÇÃO A-A
ESC 1:25



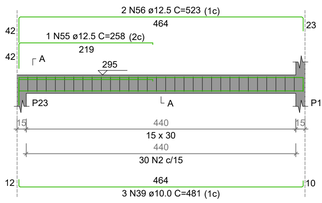
V24 (15 x 30)
ESC 1:50



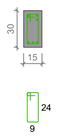
SEÇÃO A-A
ESC 1:25



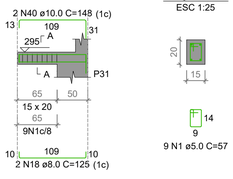
V25 (15 x 30)
ESC 1:50



SEÇÃO A-A
ESC 1:25

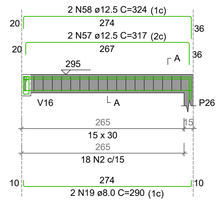


V26 (15 x 20)
ESC 1:50

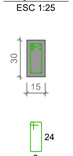


SEÇÃO A-A
ESC 1:25

V27 (15 x 30)
ESC 1:50



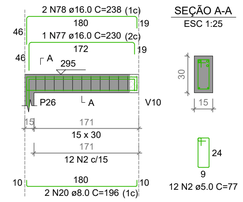
SEÇÃO A-A
ESC 1:25



SUSPENSÃO V16
ESC 1:25

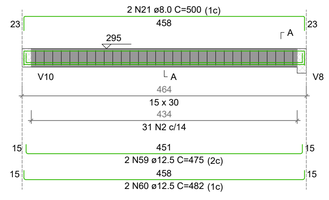


V28 (15 x 30)
ESC 1:50

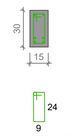


SEÇÃO A-A
ESC 1:25

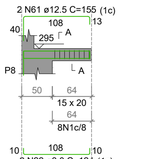
V29 (15 x 30)
ESC 1:50



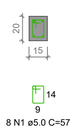
SEÇÃO A-A
ESC 1:25



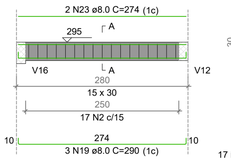
V30 (15 x 20)
ESC 1:50



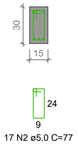
SEÇÃO A-A
ESC 1:25



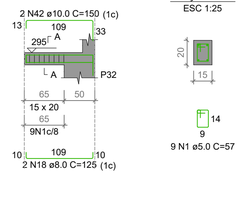
V31 (15 x 30)
ESC 1:50



SEÇÃO A-A
ESC 1:25

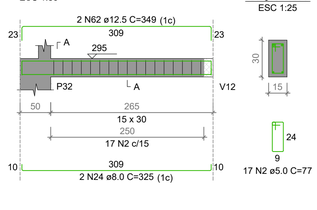


V32 (15 x 20)
ESC 1:50



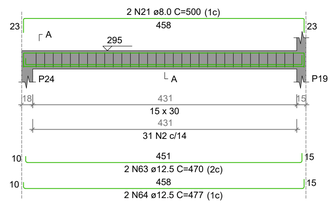
SEÇÃO A-A
ESC 1:25

V33 (15 x 30)
ESC 1:50

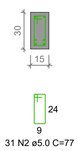


SEÇÃO A-A
ESC 1:25

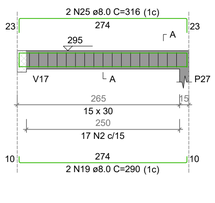
V34 (15 x 30)
ESC 1:50



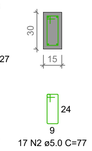
SEÇÃO A-A
ESC 1:25



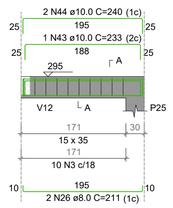
V35 (15 x 30)
ESC 1:50



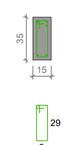
SEÇÃO A-A
ESC 1:25



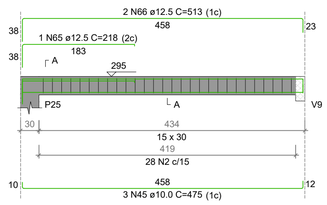
V36 (15 x 35)
ESC 1:50



SEÇÃO A-A
ESC 1:25



V37 (15 x 30)
ESC 1:50



SEÇÃO A-A
ESC 1:25

V38 (15 x 20)
ESC 1:50

SEÇÃO A-A
ESC 1:25

V41 (15 x 20)
ESC 1:50

SEÇÃO A-A
ESC 1:25

V39 (15 x 30)
ESC 1:50

SEÇÃO A-A
ESC 1:25

V40 (15 x 40)
ESC 1:50

SEÇÃO A-A
ESC 1:25

ESPERA P37
ESC 1:25

ESPERA P36
ESC 1:25

V42 (15 x 30)
ESC 1:50

SEÇÃO A-A
ESC 1:25

RELAÇÃO DO AÇO

V18 V19 V20
V21 V22 V23
V24 V25 V26
V27 V28 V29
V30 V31 V32
V33 V34 V35
V36 V37 V38
V39 V40 V41
V42

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	66	57	3762
	2	5.0	510	77	39270
	3	5.0	10	87	870
	4	5.0	82	97	7954
	5	5.0	8	65	520
CA50	6	6.3	2	71	142
	7	6.3	4	652	2608
	8	8.0	2	130	260
	9	8.0	2	136	272
	10	8.0	2	485	970
	11	8.0	1	471	471
	12	8.0	2	854	1708
	13	8.0	2	946	1892
	14	8.0	2	129	258
	15	8.0	3	135	405
	16	8.0	2	431	862
	17	8.0	3	455	1365
	18	8.0	4	125	500
	19	8.0	7	290	2030
	20	8.0	2	196	392
	21	8.0	4	500	2000
	22	8.0	2	124	248
	23	8.0	2	274	548
	24	8.0	2	325	650
	25	8.0	2	316	632
	26	8.0	2	211	422
	27	8.0	2	117	234
	28	8.0	2	131	262
	29	8.0	3	309	927
	30	8.0	2	658	1316
	31	8.0	2	139	278
	32	8.0	3	360	1080
	33	10.0	1	198	198
	34	10.0	1	507	507
	35	10.0	2	514	1028
	36	10.0	1	340	340
	37	10.0	2	977	1954
	38	10.0	3	470	1410
	39	10.0	3	481	1443
	40	10.0	2	148	296
	41	10.0	1	89	89
	42	10.0	2	150	300
	43	10.0	1	233	233
	44	10.0	2	240	480
	45	10.0	3	475	1425
	46	10.0	2	645	1290
	47	10.0	8	91	728
	48	10.0	1	223	223
	49	10.0	2	385	770
	50	12.5	2	897	1794
	51	12.5	1	394	394
	52	12.5	2	934	1868
	53	12.5	1	488	488
	54	12.5	2	495	990
	55	12.5	1	258	258
	56	12.5	2	523	1046
	57	12.5	2	317	634
	58	12.5	2	324	648
	59	12.5	2	475	950
	60	12.5	2	482	964
	61	12.5	2	155	310
	62	12.5	2	349	698
	63	12.5	2	470	940
	64	12.5	2	477	954
	65	12.5	1	218	218
	66	12.5	2	513	1026
	67	12.5	1	245	245
	68	12.5	1	973	973
	69	12.5	2	981	1962
	70	12.5	2	660	1320
	71	12.5	2	663	1326
	72	12.5	3	521	1563
	73	12.5	2	1187	2374
	74	12.5	2	225	450
	75	12.5	1	166	166
	76	12.5	2	169	338
	77	16.0	1	230	230
	78	16.0	2	238	476

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	27.5	7.4
	8.0	199.8	86.7
	10.0	127.1	86.2
	12.5	249	263.8
	16.0	7.1	12.3
CA60	5.0	523.8	88.8

PESO TOTAL (kg)	
CA50	456.4
CA60	88.8

Volume de concreto (C-30) = 4.25 m³
Área de forma = 52.63 m²

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

INSTITUTO FEDERAL SERGIPE

AUTOR DO PROJETO:
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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

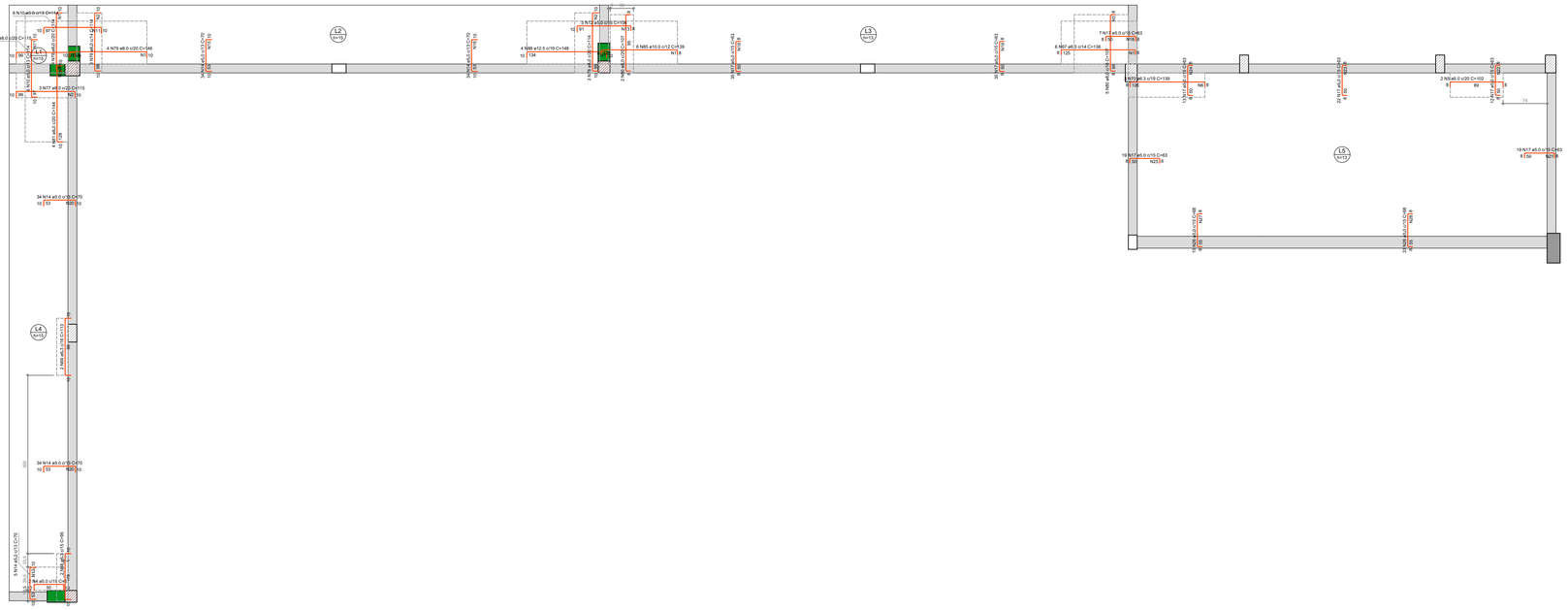
ESCALA: 1:100

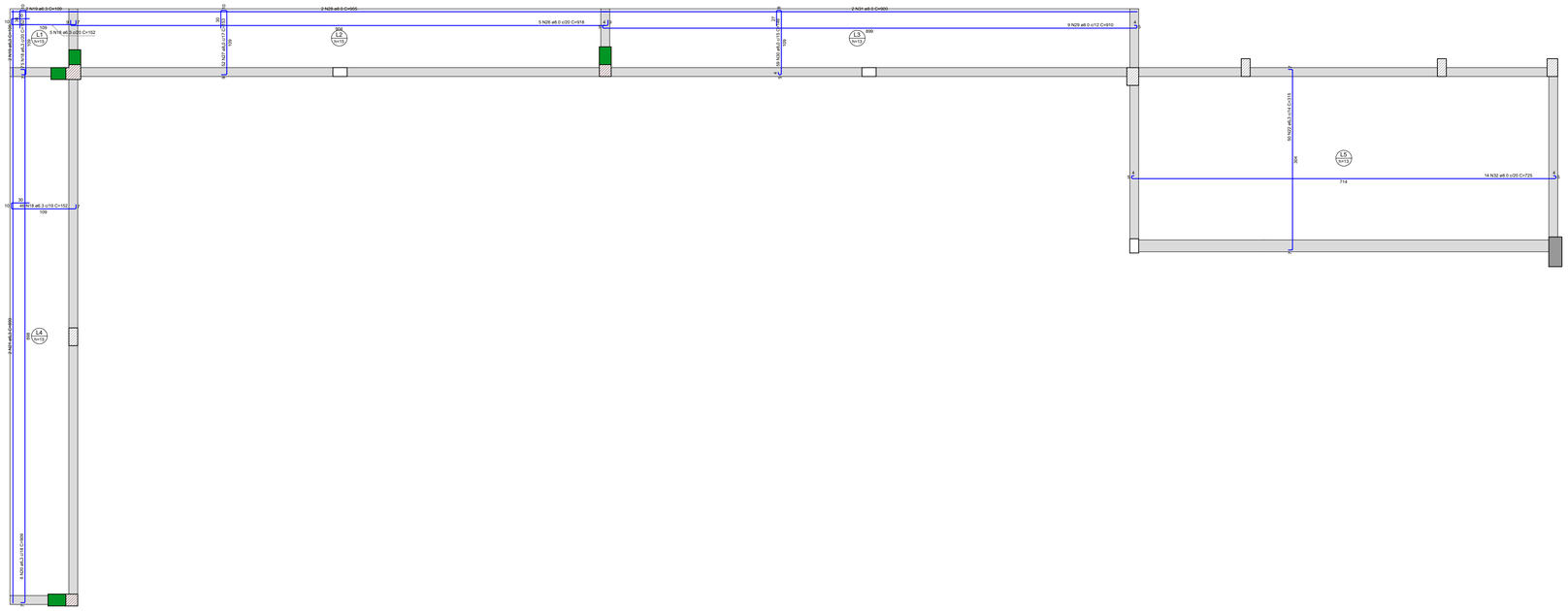
DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
ARMAÇÃO DAS VIGAS LAJE IMP. 2-2

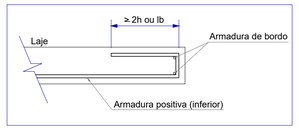
PRANCHA: 13/22

CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	013	022	R00


L2 N=15
L3 N=15
L4 N=15
L5 N=15
6 N10 ø6.0 c/10 C=116
4 N77 ø8.0 c/20 C=136
4 N79 ø8.0 c/20 C=146
3 N77 ø8.0 c/20 C=115
4 N78 ø8.0 c/20 C=146
4 N88 ø12.5 c/10 C=148
6 N85 ø10.0 c/12 C=139
7 N1 ø5.0 c/10 C=63
3 N77 ø8.0 c/15 C=79
3 N77 ø8.0 c/15 C=43
3 N77 ø8.0 c/15 C=46



DETALHE DA ARMADURA DE BORDO LIVRE DA LAJE



RELAÇÃO DO AÇO

Positivos

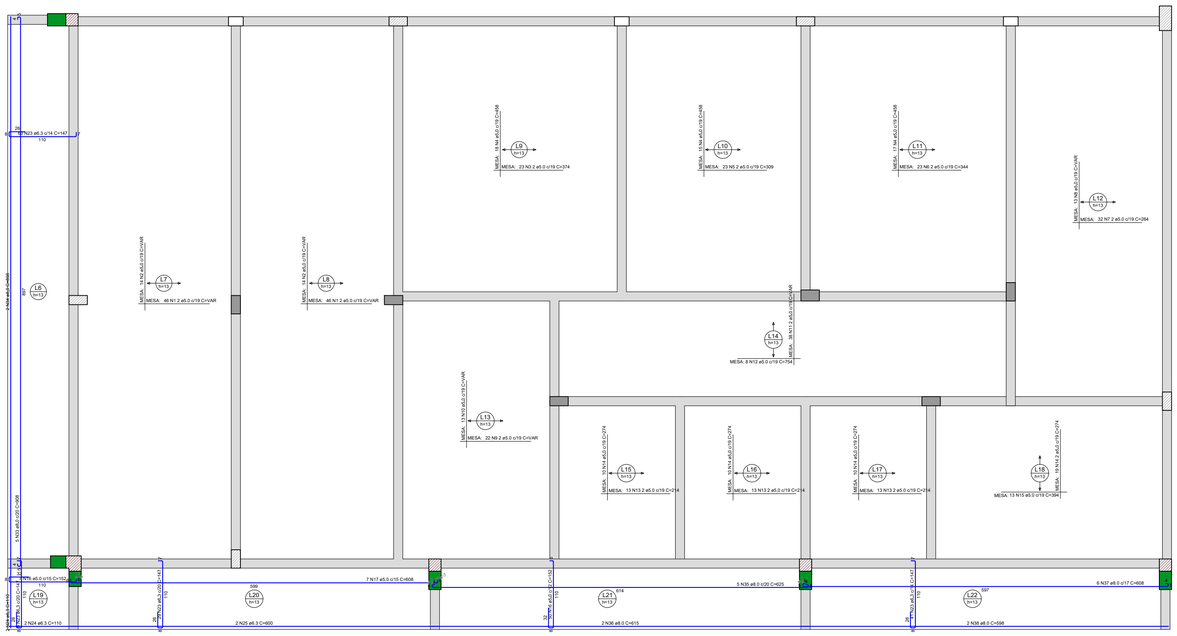
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	92	VAR	VAR
	2	5.0	28	VAR	VAR
	3	5.0	23	374	8602
	4	5.0	50	458	22900
	5	5.0	23	309	7107
	6	5.0	23	344	7912
	7	5.0	32	264	8448
	8	5.0	13	VAR	VAR
	9	5.0	22	VAR	VAR
	10	5.0	13	VAR	VAR
	11	5.0	38	VAR	VAR
	12	5.0	8	754	6032
	13	5.0	39	214	8346
	14	5.0	49	274	13426
	15	5.0	13	394	5122
	16	5.0	57	152	8664
	17	5.0	7	608	4256
CA50	18	6.3	56	152	8512
	19	6.3	4	109	436
	20	6.3	6	909	5454
	21	6.3	2	899	1798
	22	6.3	50	315	15750
	23	6.3	138	147	20286
	24	6.3	4	110	440
	25	6.3	2	600	1200
	26	8.0	5	918	4590
	27	8.0	52	153	7956
	28	8.0	2	905	1810
	29	8.0	9	910	8190
	30	8.0	59	146	8614
	31	8.0	2	900	1800
	32	8.0	14	725	10150
	33	8.0	5	908	4540
	34	8.0	2	898	1796
	35	8.0	5	625	3125
	36	8.0	2	615	1230
	37	8.0	6	608	3648
	38	8.0	2	598	1196

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	538.8	145
	8.0	586.5	254.5
CA60	5.0	1758.9	298.2

PESO TOTAL (kg)	
CA50	399.6
CA60	298.2

Volume de concreto (C-30) = 18.70 m³
Área de forma = 80.69 m²



Armação positiva das lajes do pavimento LAJE IMP.
escala 1:50

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

INSTITUTO FEDERAL SERGIPE

AUTOR DO PROJETO:
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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
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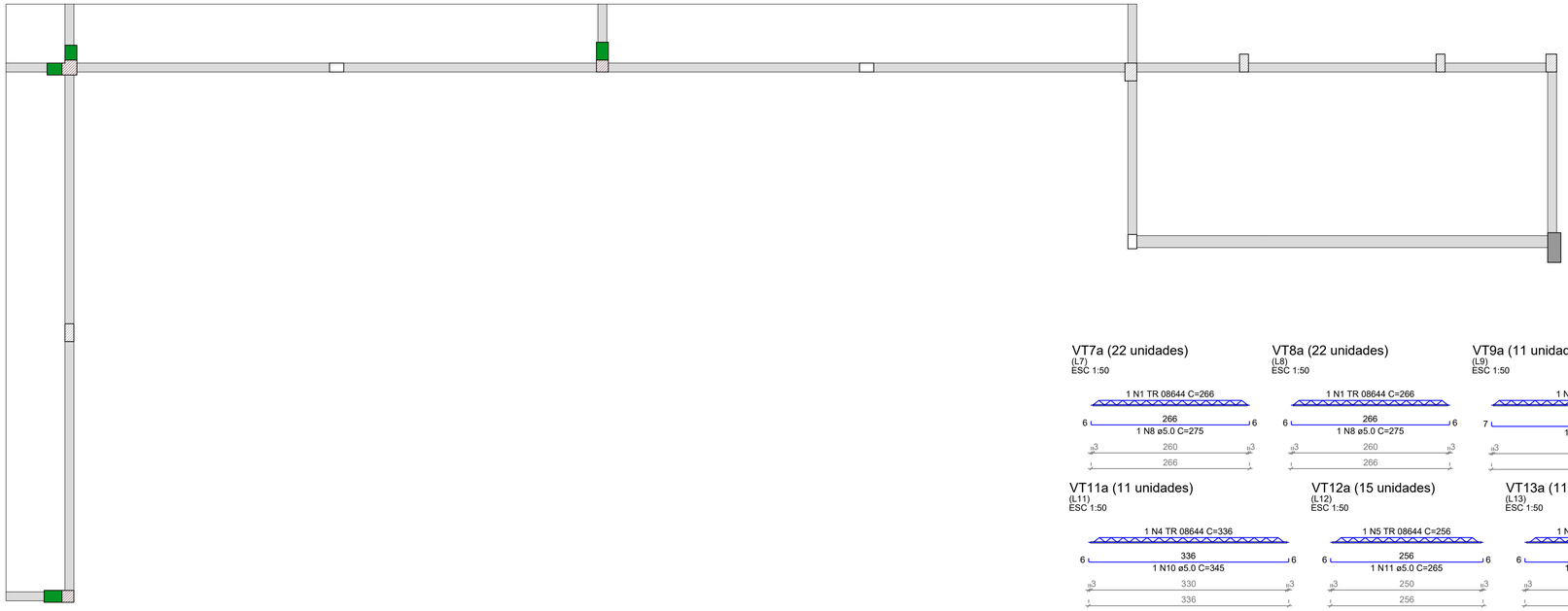
ESCALA: 1:100

DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
ARMAÇÃO POSITIVA DAS LAJES

PRANCHA: 15/22

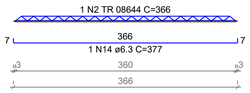
CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	015	022	R00



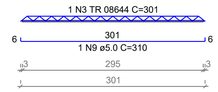
VT7a (22 unidades)
(L7)
ESC 1:50

VT8a (22 unidades)
(L8)
ESC 1:50

VT9a (11 unidades)
(L9)
ESC 1:50



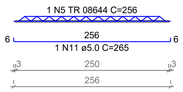
VT10a (11 unidades)
(L10)
ESC 1:50



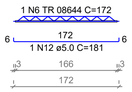
VT11a (11 unidades)
(L11)
ESC 1:50

VT12a (15 unidades)
(L12)
ESC 1:50

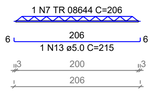
VT13a (11 unidades)
(L13)
ESC 1:50



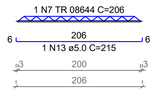
VT14a (19 unidades)
(L14)
ESC 1:50



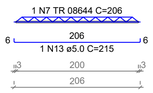
VT15a (6 unidades)
(L15)
ESC 1:50



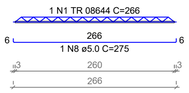
VT16a (6 unidades)
(L16)
ESC 1:50



VT17a (6 unidades)
(L17)
ESC 1:50



VT18a (9 unidades)
(L18)
ESC 1:50



RELAÇÃO DO AÇO

22xVT7a	22xVT8a	11xVT9a
11xVT10a	11xVT11a	15xVT12a
11xVT13a	19xVT14a	6xVT15a
6xVT16a	6xVT17a	9xVT18a

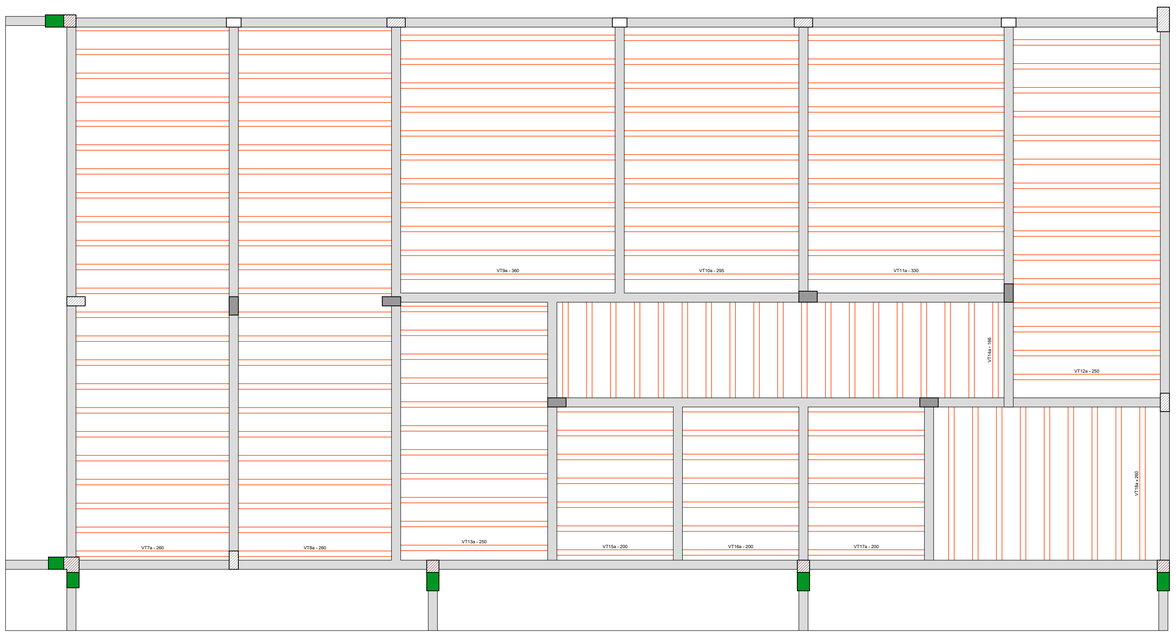
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 08644	53	266	14098
	2	TR 08644	11	366	4026
	3	TR 08644	11	301	3311
	4	TR 08644	11	336	3696
	5	TR 08644	26	256	6656
	6	TR 08644	19	172	3268
	7	TR 08644	18	206	3708
	8	5.0	53	275	14575
	9	5.0	11	310	3410
	10	5.0	11	345	3795
	11	5.0	26	265	6890
	12	5.0	19	181	3439
	13	5.0	18	215	3870
CA50	14	6.3	11	377	4147

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	41.5	11.2
CA60	5.0	359.8	61
	TR 08644	387.6	313.4

PESO TOTAL (kg)	
CA50	11.2
CA60	374.4

Volume de concreto (C-30) = 0.00 m³
Área de forma = 0.00 m²



Planta de vigotas pré-moldadas
escala 1:50

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

INSTITUTO FEDERAL
SERGIPE

AUTOR DO PROJETO:
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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

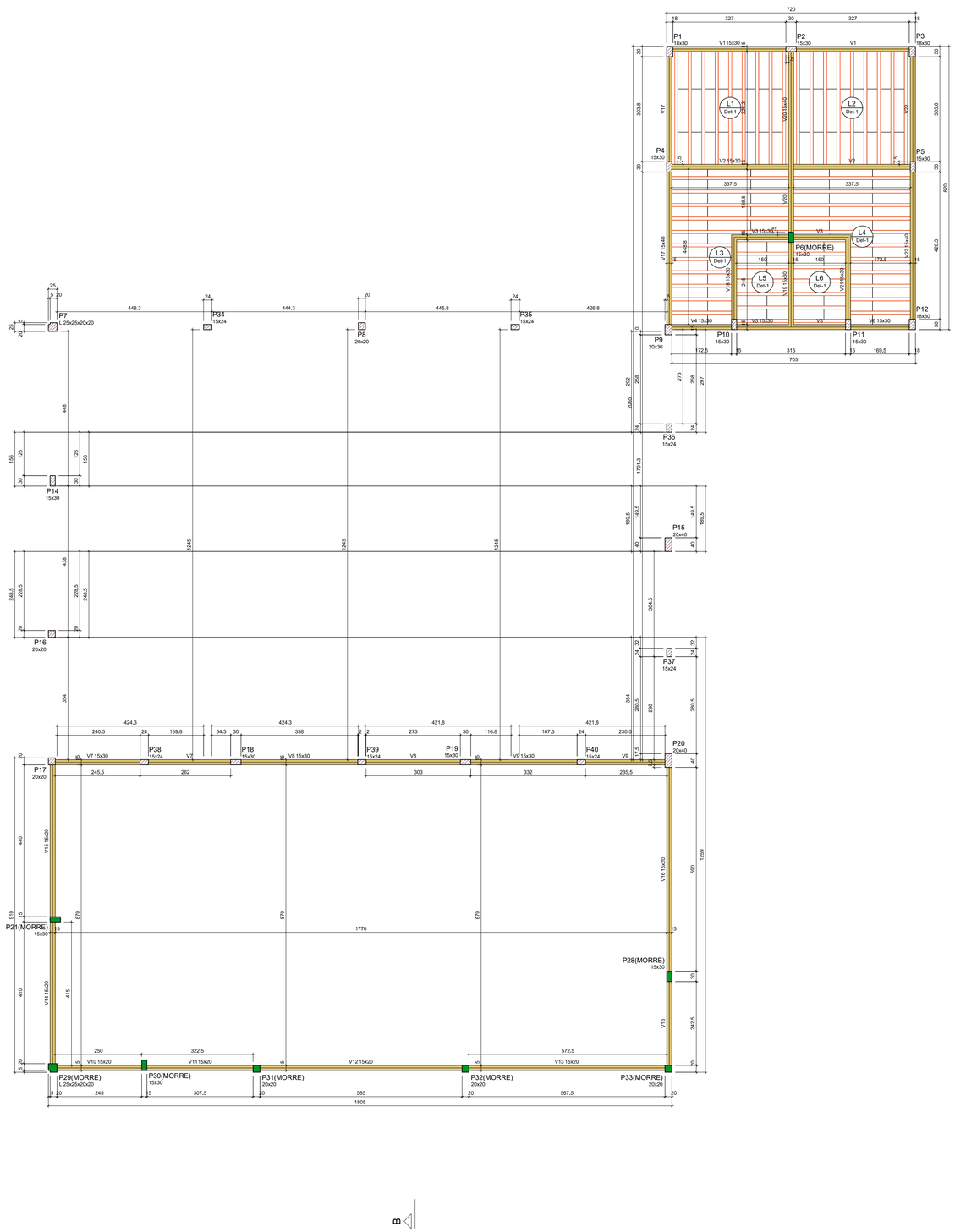
ESCALA: 1:100

DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
FORMA E ARMAÇÃO DAS VIGOTAS PRÉ-MOLDADAS

PRANCHA: 16/22

CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	016	022	R00



Forma do pavimento CINTA LAJE IMP. (Nível 425)

escala 1:75

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	15x30	0	425
V2	15x30	0	425
V3	15x30	0	425
V4	15x30	0	425
V5	15x30	0	425
V6	15x30	0	425
V7	15x30	0	425
V8	15x30	0	425
V9	15x30	0	425
V10	15x20	0	425
V11	15x20	0	425
V12	15x20	0	425
V13	15x20	0	425
V14	15x20	0	425
V15	15x20	0	425
V16	15x20	0	425
V17	15x40	0	425
V18	15x30	0	425
V19	15x30	0	425
V20	15x40	0	425
V21	15x30	0	425
V22	15x40	0	425

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	18x30	0	425
P2	15x30	0	425
P3	18x30	0	425
P4	15x30	0	425
P5	15x30	0	425
P6	15x30	0	425
P7	L 25x25x20x20	0	425
P8	20x20	0	425
P9	20x30	0	425
P10	15x30	0	425
P11	15x30	0	425
P12	18x30	0	425
P14	15x30	0	425
P15	20x40	0	425
P16	20x20	0	425
P17	20x20	0	425
P18	15x30	0	425
P19	15x30	0	425
P20	20x40	0	425
P21	15x30	0	425
P28	15x30	0	425
P29	L 25x25x20x20	0	425
P30	15x30	0	425
P31	20x20	0	425
P32	20x20	0	425
P33	20x20	0	425
P34	15x24	0	425
P35	15x24	0	425
P36	15x24	0	425
P37	15x24	0	425
P38	15x24	0	425
P39	15x24	0	425
P40	15x24	0	425

Blocos de enchimento							
Detalhe	Tipo	Nome	Dimensões(cm)				Quantidade
			hb	bx	by		
1	EPS Unidirecional	B8/30/125	8	30	125		130

Lajes								
Dados						Sobrecarga (kgf/m²)		
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Adicional	Acidental	Localizada	Água
L1	Treliçada 1D	13	0	425	172	50	100	-	416
L2	Treliçada 1D	13	0	425	172	50	100	-	416
L3	Treliçada 1D	13	0	425	172	50	100	-	306
L4	Treliçada 1D	13	0	425	172	50	100	-	306
L5	Treliçada 1D	13	0	425	172	50	100	-	582
L6	Treliçada 1D	13	0	425	172	50	100	-	582

Área de lajes			
Tipo	Altura (cm)	Bloco de Enchimento	Área (m²)
Treliçada 1D	13	B8/30/125	51.08

Características dos materiais			
fck (kgf/cm²)	Ecs (kgf/cm²)	fct (kgf/cm²)	Abatimento (cm)
300	268384	29	5.00

Dimensão máxima do agregado = 19 mm

Legenda dos pilares	
	Pilar que morre
	Pilar que passa

Legenda das vigas e paredes	
	Viga

Detalhe 1 (esc. 1:30)

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

AUTOR DO PROJETO:
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INSTITUTO FEDERAL SERGIPE

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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

ESCALA: 1:100

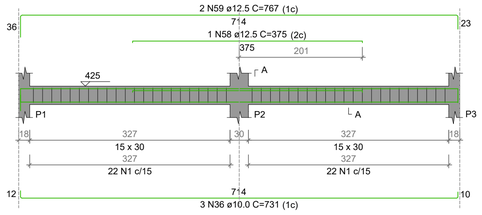
DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
FORMA DAS VIGAS CINTA SUPERIOR LAJE IMP.

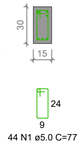
PRANCHA: 17/22

CAMPUS:	OBRA:	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	017	022	R00

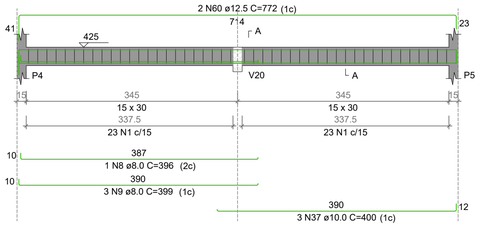
V1 (15 x 30)
ESC 1:50



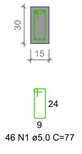
SEÇÃO A-A
ESC 1:25



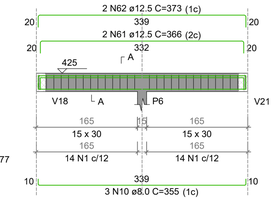
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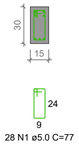
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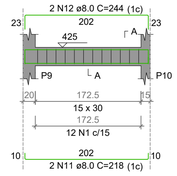
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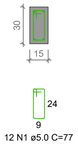
SEÇÃO A-A
ESC 1:25



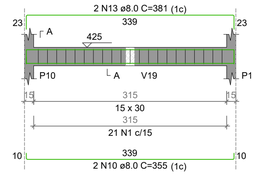
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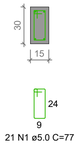
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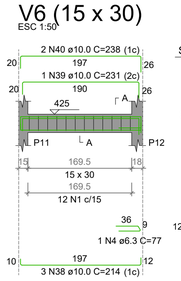
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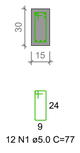
SEÇÃO A-A
ESC 1:25



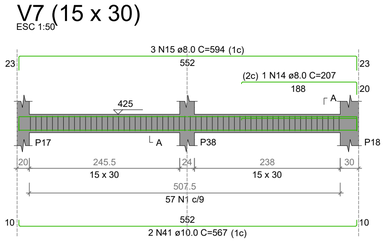
V6 (15 x 30)
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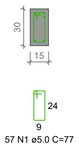
SEÇÃO A-A
ESC 1:25



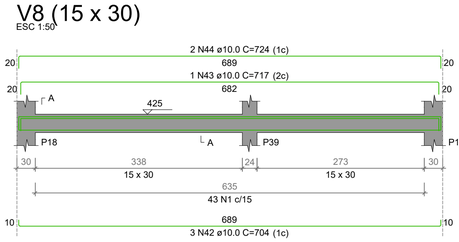
V7 (15 x 30)
ESC 1:50



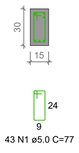
SEÇÃO A-A
ESC 1:25



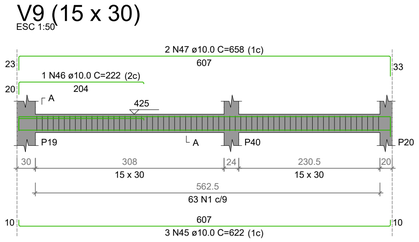
V8 (15 x 30)
ESC 1:50



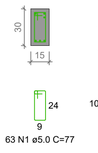
SEÇÃO A-A
ESC 1:25



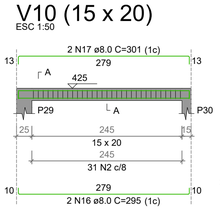
V9 (15 x 30)
ESC 1:50



SEÇÃO A-A
ESC 1:25



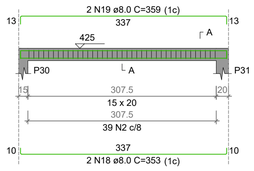
V10 (15 x 20)
ESC 1:50



SEÇÃO A-A
ESC 1:25



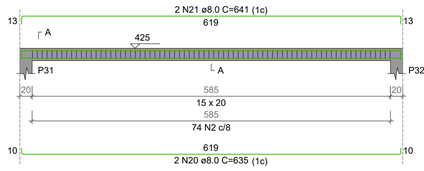
V11 (15 x 20)
ESC 1:50



SEÇÃO A-A
ESC 1:25



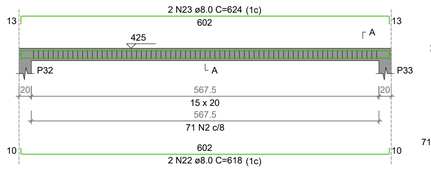
V12 (15 x 20)
ESC 1:50



SEÇÃO A-A
ESC 1:25



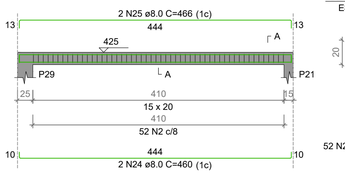
V13 (15 x 20)
ESC 1:50



SEÇÃO A-A
ESC 1:25



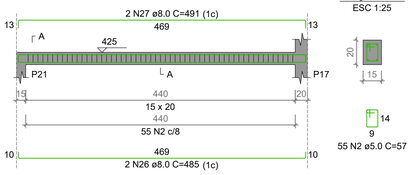
V14 (15 x 20)
ESC 1:50



SEÇÃO A-A
ESC 1:25

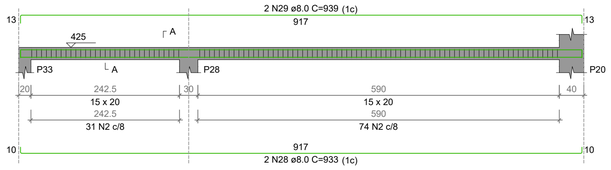


V15 (15 x 20)
ESC 1:50



SEÇÃO A-A
ESC 1:25

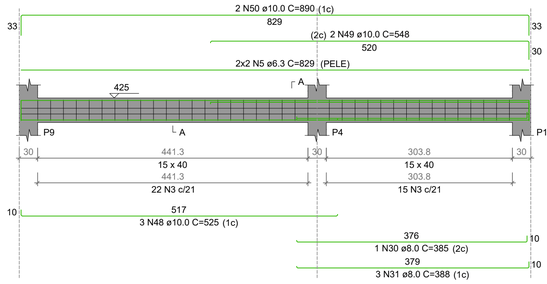
V16 (15 x 20)
ESC 1:50



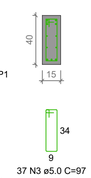
SEÇÃO A-A
ESC 1:25



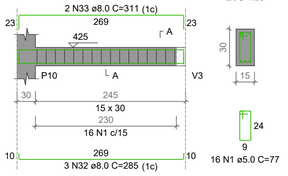
V17 (15 x 40)
ESC 1:50



SEÇÃO A-A
ESC 1:25

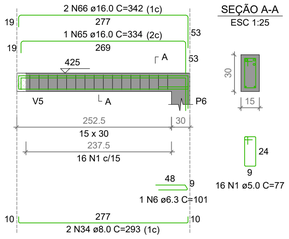


V18 (15 x 30)
ESC 1:50



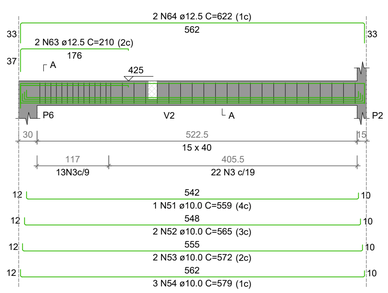
SEÇÃO A-A
ESC 1:25

V19 (15 x 30)
ESC 1:50

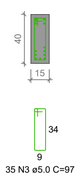


SEÇÃO A-A
ESC 1:25

V20 (15 x 40)
ESC 1:50



SEÇÃO A-A
ESC 1:25



V21 (15 x 30)
ESC 1:50

SEÇÃO A-A
ESC 1:25

V22 (15 x 40)
ESC 1:50

SEÇÃO A-A
ESC 1:25

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 (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	374	77	28798
	2	5.0	427	57	24339
	3	5.0	113	97	10961
CA50	4	6.3	1	77	77
	5	6.3	4	829	3316
	6	6.3	1	101	101
	7	6.3	4	814	3256
	8	8.0	1	396	396
	9	8.0	3	399	1197
	10	8.0	5	355	1775
	11	8.0	2	218	436
	12	8.0	2	244	488
	13	8.0	2	381	762
	14	8.0	1	207	207
	15	8.0	3	594	1782
	16	8.0	2	295	590
	17	8.0	2	301	602
	18	8.0	2	353	706
	19	8.0	2	359	718
	20	8.0	2	635	1270
	21	8.0	2	641	1282
	22	8.0	2	618	1236
	23	8.0	2	624	1248
	24	8.0	2	460	920
	25	8.0	2	466	932
	26	8.0	2	485	970
	27	8.0	2	491	982
	28	8.0	2	933	1866
	29	8.0	2	939	1878
	30	8.0	1	385	385
	31	8.0	3	388	1164
	32	8.0	6	285	1710
	33	8.0	4	311	1244
	34	8.0	2	293	586
	35	8.0	2	350	700
	36	10.0	3	731	2193
	37	10.0	3	400	1200
	38	10.0	3	214	642
	39	10.0	1	231	231
	40	10.0	2	238	476
	41	10.0	2	567	1134
	42	10.0	3	704	2112
	43	10.0	1	717	717
	44	10.0	2	724	1448
	45	10.0	3	622	1866
	46	10.0	1	222	222
	47	10.0	2	658	1316
	48	10.0	3	525	1575
	49	10.0	2	548	1096
	50	10.0	2	890	1780
	51	10.0	1	559	559
	52	10.0	2	565	1130
	53	10.0	2	572	1144
	54	10.0	3	579	1737
	55	10.0	2	471	942
	56	10.0	1	869	869
	57	10.0	2	875	1750
	58	12.5	1	375	375
	59	12.5	2	767	1534
	60	12.5	2	772	1544
	61	12.5	2	366	732
	62	12.5	2	373	746
	63	12.5	2	210	420
	64	12.5	2	622	1244
	65	16.0	1	334	334
	66	16.0	2	342	684

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	67.5	18.2
	8.0	280.3	121.7
	10.0	261.4	177.3
	12.5	66	69.9
	16.0	10.2	17.7
CA60	5.0	641	108.7

PESO TOTAL (kg)	
CA50	404.7
CA60	108.7

Volume de concreto (C-30) = 4.32 m³
Área de forma = 63.16 m²

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

AUTOR DO PROJETO:
Engº. Fredrico Damasceno Pinheiro
CREA 270082778-3

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adengenharia.eng.br

INSTITUTO FEDERAL
SERGIPE

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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

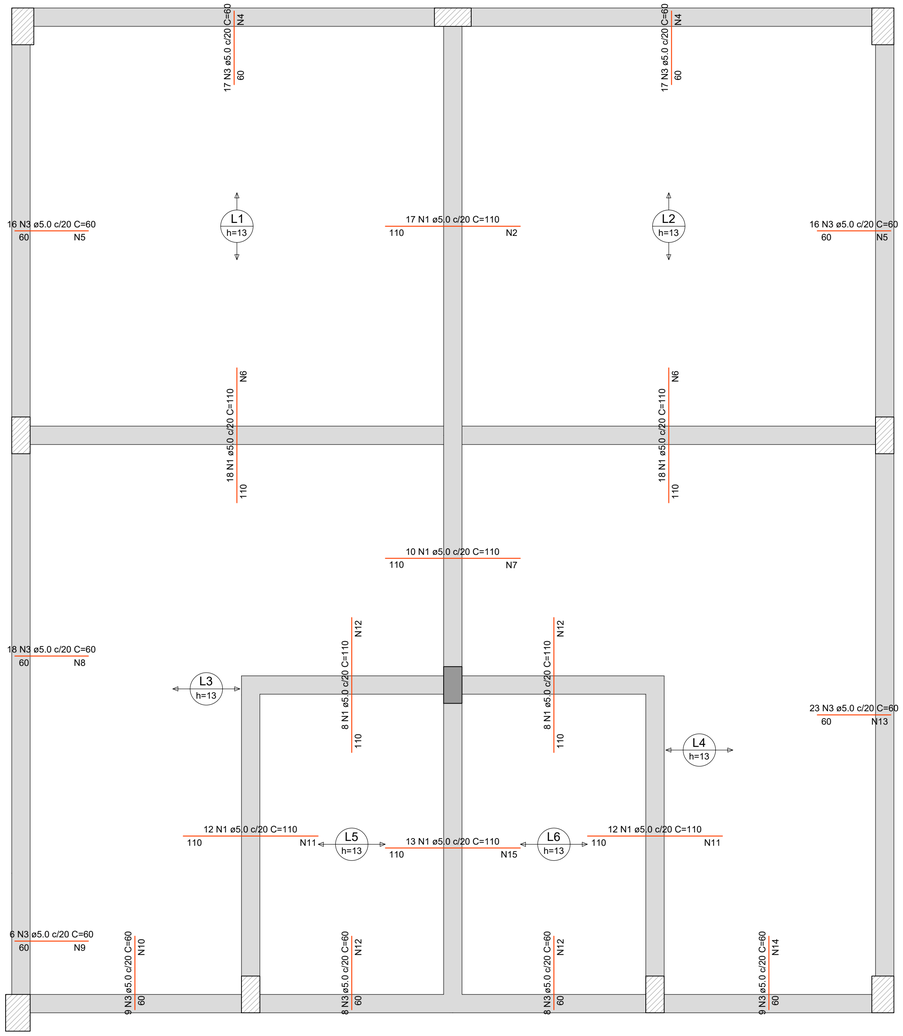
ESCALA: 1:100

DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
ARMAÇÃO DAS VIGAS CINTA SUPERIOR LAJE IMP.

CAMPUS:	OBRA:	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	018	022	R00

PRANCHA: 18/22

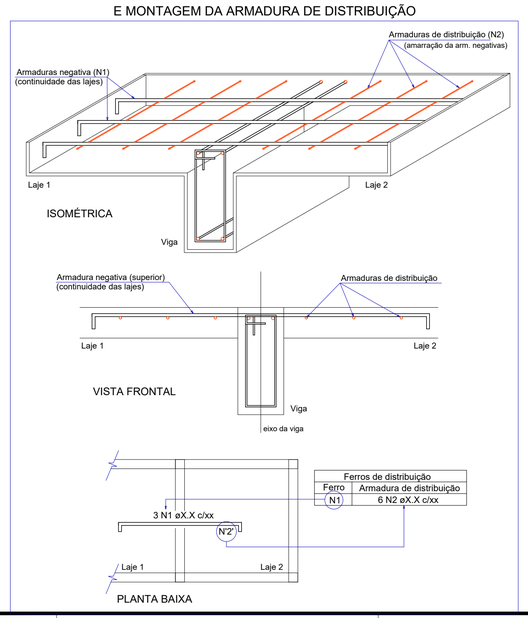


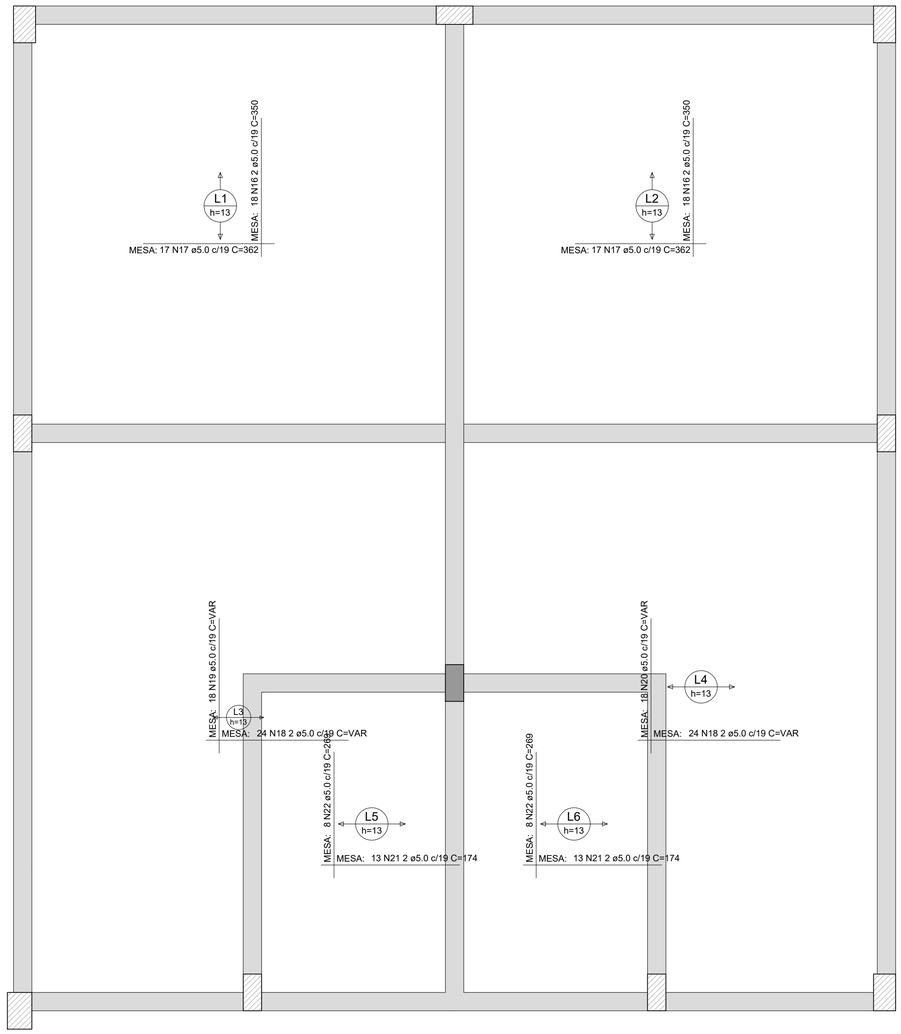
Armação negativa das lajes do pavimento CINTA LAJE IMP.

escala 1:25

Armaduras de distribuição	
Armadura	Armadura de distribuição
N1	6 N2 ø5.0 c/20 C=341
N3	3 N4 ø5.0 c/20 C=345
N3	3 N5 ø5.0 c/20 C=328
N1	6 N6 ø5.0 c/20 C=353
N3	3 N5 ø5.0 c/20 C=328
N3	3 N4 ø5.0 c/20 C=345
N1	6 N6 ø5.0 c/20 C=353
N1	6 N7 ø5.0 c/20 C=201
N3	3 N8 ø5.0 c/20 C=354
N3	3 N9 ø5.0 c/20 C=111
N3	3 N10 ø5.0 c/20 C=189
N1	6 N11 ø5.0 c/20 C=247
N1	6 N12 ø5.0 c/20 C=165
N3	3 N13 ø5.0 c/20 C=450
N1	6 N12 ø5.0 c/20 C=165
N1	6 N11 ø5.0 c/20 C=247
N3	3 N14 ø5.0 c/20 C=186
N1	6 N15 ø5.0 c/20 C=254
N3	3 N12 ø5.0 c/20 C=165
N3	3 N12 ø5.0 c/20 C=165

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





Armação positiva das lajes do pavimento CINTA LAJE IMP.

escala 1:25

RELAÇÃO DO AÇO

Negativos Positivos

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	116	110	12760
	2	5.0	6	341	2046
	3	5.0	147	60	8820
	4	5.0	6	345	2070
	5	5.0	6	328	1968
	6	5.0	12	353	4236
	7	5.0	6	201	1206
	8	5.0	3	354	1062
	9	5.0	3	111	333
	10	5.0	3	189	567
	11	5.0	12	247	2964
	12	5.0	18	165	2970
	13	5.0	3	450	1350
	14	5.0	3	186	558
	15	5.0	6	254	1524
	16	5.0	36	350	12600
	17	5.0	34	362	12308
	18	5.0	48	VAR	VAR
	19	5.0	18	VAR	VAR
	20	5.0	18	VAR	VAR
	21	5.0	26	174	4524
	22	5.0	16	269	4304

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA60	5.0	1038.3	176

PESO TOTAL (kg)	
CA60	176

Volume de concreto (C-30) = 3.14 m³
Área de forma = 0.00 m²

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

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INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

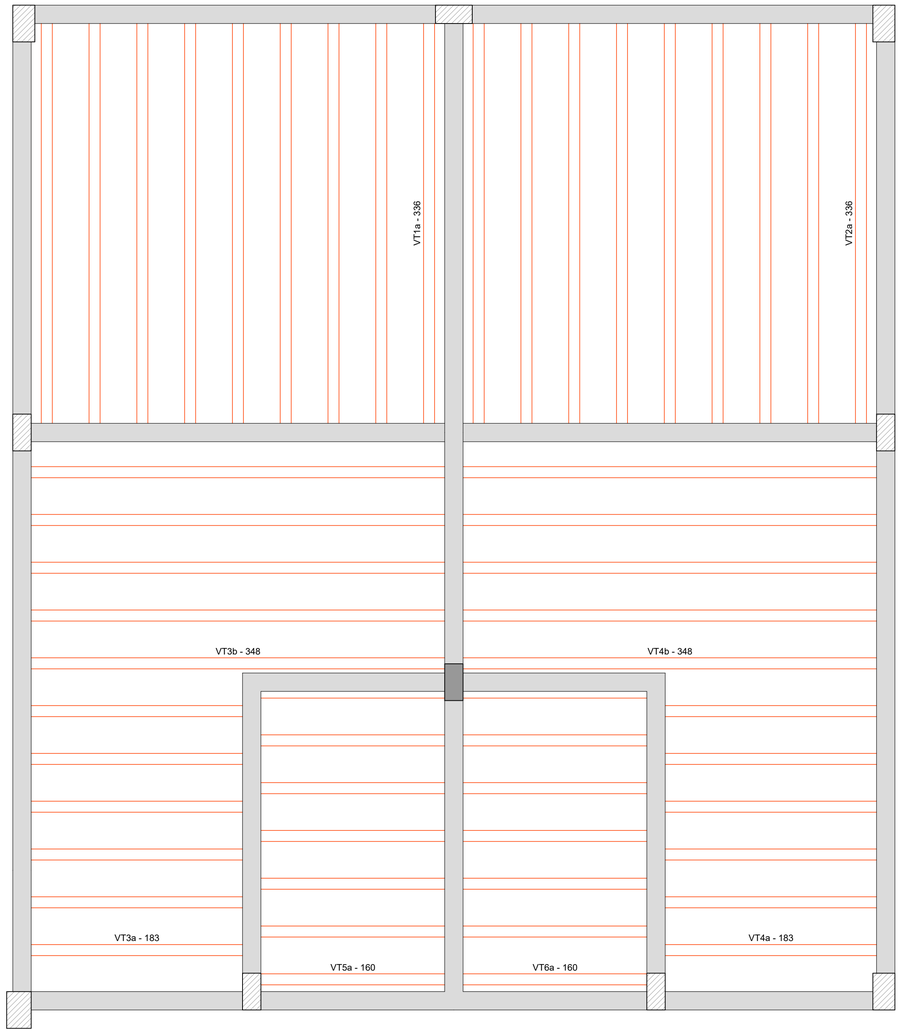
ESCALA: 1:100

DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
ARMAÇÃO POSITIVA E NEGATIVA DAS LAJES RESERVATÓRIO

PRANCHA: 19/22

CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	019	022	R00

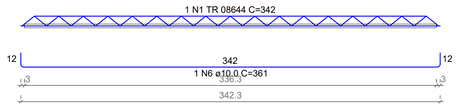


Planta de vigotas pré-moldadas

escala 1:25

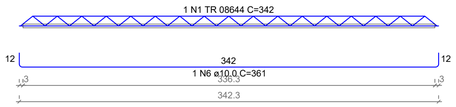
VT1a (9 unidades)

(L1)
ESC 1:25



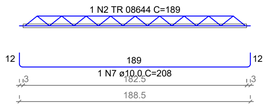
VT2a (9 unidades)

(L2)
ESC 1:25



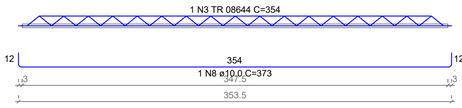
VT3a (6 unidades)

(L3)
ESC 1:25



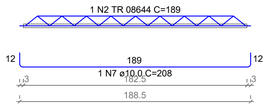
VT3b (5 unidades)

(L3)
ESC 1:25



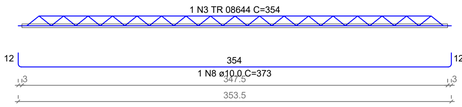
VT4a (6 unidades)

(L4)
ESC 1:25



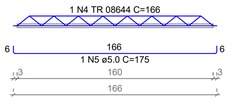
VT4b (5 unidades)

(L4)
ESC 1:25



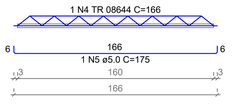
VT5a (6 unidades)

(L5)
ESC 1:25



VT6a (6 unidades)

(L6)
ESC 1:25



RELAÇÃO DO AÇO

9xVT1a	9xVT2a	6xVT3a
5xVT3b	6xVT4a	5xVT4b
6xVT5a	6xVT6a	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 08644	18	342	6156
	2	TR 08644	12	189	2268
	3	TR 08644	10	354	3540
	4	TR 08644	12	166	1992
	5	5.0	12	175	2100
CA50	6	10.0	18	361	6498
	7	10.0	12	208	2496
	8	10.0	10	373	3730

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	127.2	86.3
CA60	5.0	21	3.6
	TR 08644	139.6	112.8

PESO TOTAL (kg)	
CA50	86.3
CA60	116.4

Volume de concreto (C-30) = 0.00 m³

Área de forma = 0.00 m²

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

INSTITUTO FEDERAL SERGIPE

AUTOR DO PROJETO:
Engº. Fredrico Damasceno Pinheiro
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ENDEREÇO:
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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

ESCALA: 1:100

DATA: OUTUBRO/2026

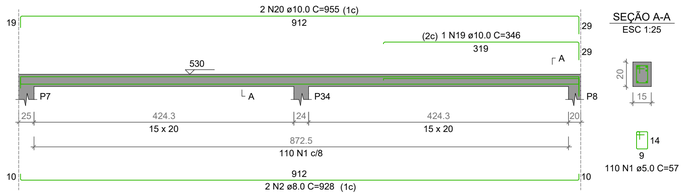
PLANTA:
RESTAURANTE
FORMA E ARMAÇÃO DAS VIGOTAS PRÉ-MOLDADAS RESERVATÓRIO

PRANCHA: 20/22

CAMPUS:	OBRA:	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	020	022	R00

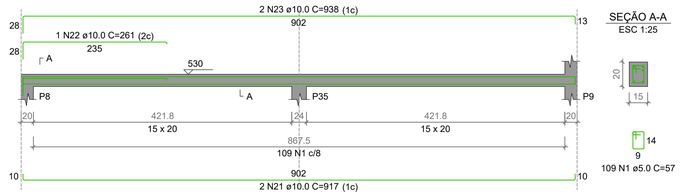
V1 (15 x 20)

ESC 1:50



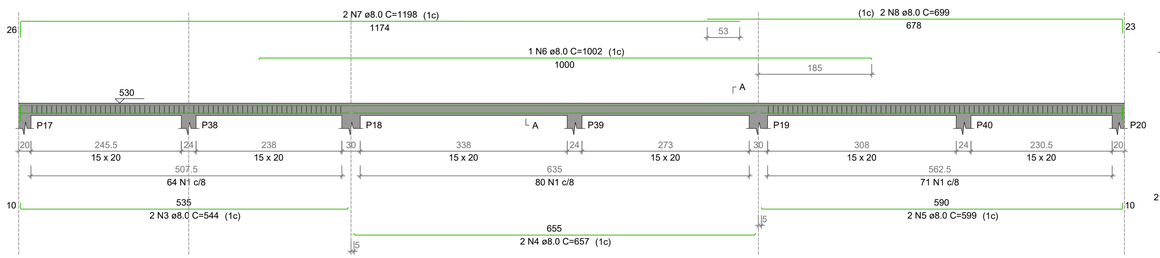
V2 (15 x 20)

ESC 1:50



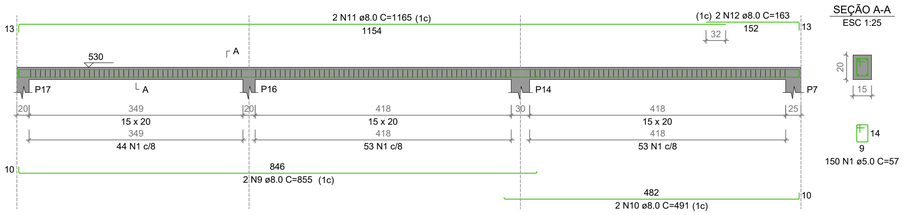
V3 (15 x 20)

ESC 1:50



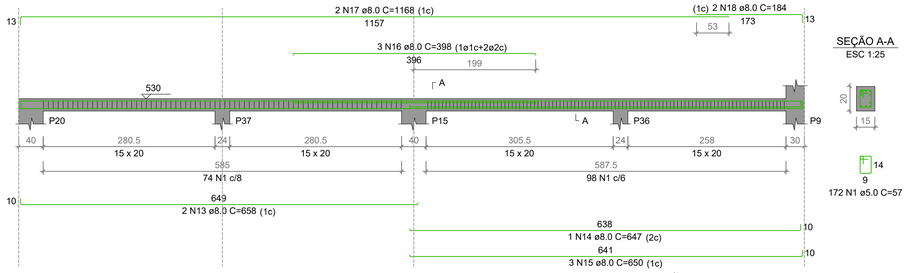
V4 (15 x 20)

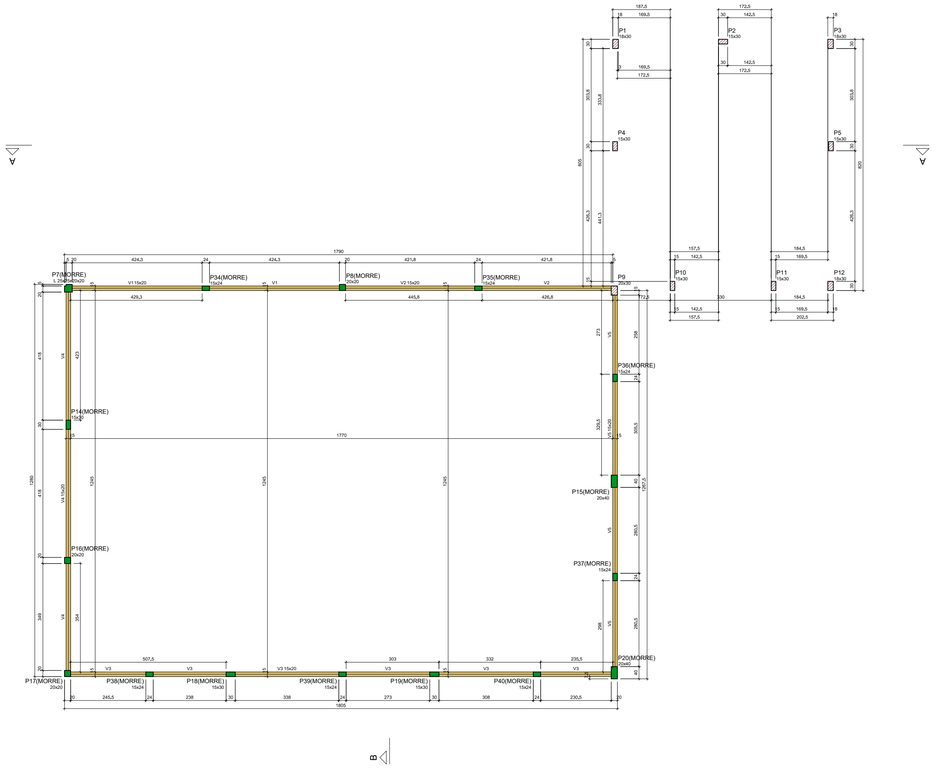
ESC 1:50



V5 (15 x 20)

ESC 1:50





Forma do pavimento CINTA SALÃO (Nível 530)

escala 1:100

RELAÇÃO DO AÇO

V1 V2 V3 V4 V5

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	756	57	43092
CA50	2	8.0	2	928	1856
	3	8.0	2	544	1088
	4	8.0	2	657	1314
	5	8.0	2	599	1198
	6	8.0	1	1002	1002
	7	8.0	2	1198	2396
	8	8.0	2	699	1398
	9	8.0	2	855	1710
	10	8.0	2	491	982
	11	8.0	2	1165	2330
	12	8.0	2	163	326
	13	8.0	2	658	1316
	14	8.0	1	647	647
	15	8.0	3	650	1950
	16	8.0	3	398	1194
	17	8.0	2	1168	2336
	18	8.0	2	184	368
	19	10.0	1	346	346
	20	10.0	2	955	1910
	21	10.0	2	917	1834
	22	10.0	1	261	261
	23	10.0	2	938	1876

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	234.1	101.6
	10.0	62.3	42.2
CA60	5.0	430.9	73.1

PESO TOTAL (kg)	
CA50	143.8
CA60	73.1

Volume de concreto (C-30) = 1.69 m³
Área de forma = 30.99 m²

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	15x20	0	530
V2	15x20	0	530
V3	15x20	0	530
V4	15x20	0	530
V5	15x20	0	530

Características dos materiais			
fck (kgf/cm²)	Ecs (kgf/cm²)	fct (kgf/cm²)	Abatimento (cm)
300	268384	29	5.00

Dimensão máxima do agregado = 19 mm

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	18x30	0	530
P2	15x30	0	530
P3	18x30	0	530
P4	15x30	0	530
P5	15x30	0	530
P7	L 25x25x20x20	0	530
P8	20x20	0	530
P9	20x30	0	530
P10	15x30	0	530
P11	15x30	0	530
P12	18x30	0	530
P14	15x30	0	530
P15	20x40	0	530
P16	20x20	0	530
P17	20x20	0	530
P18	15x30	0	530
P19	15x30	0	530
P20	20x40	0	530
P34	15x24	0	530
P35	15x24	0	530
P36	15x24	0	530
P37	15x24	0	530
P38	15x24	0	530
P39	15x24	0	530
P40	15x24	0	530

Legenda dos pilares
Pilar que morre
Pilar que passa

Legenda das vigas e paredes
Viga

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

INSTITUTO FEDERAL SERGIPE

AUTOR DO PROJETO:
Engº. Fredrico Damasceno Pinheiro
CREA 270082778-3

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ENDEREÇO:
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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

ESCALA: 1:100

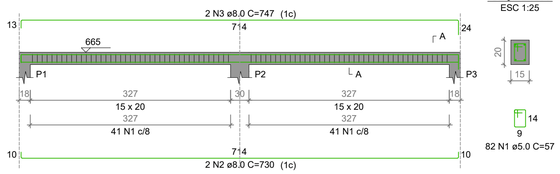
DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
FORMA E ARMAÇÃO DAS VIGAS DO CINT. SALÃO

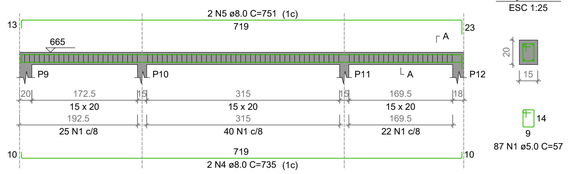
PRANCHA: 21/22

CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	021	022	R00

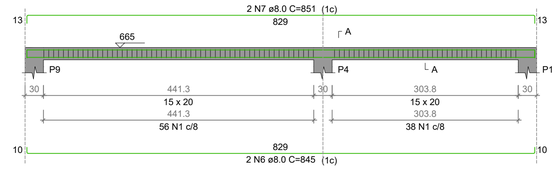
V1 (15 x 20)
ESC 1:50



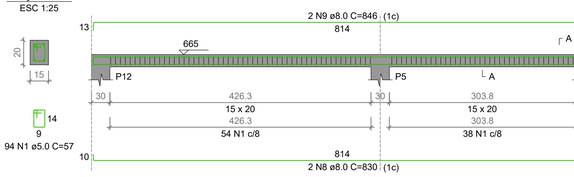
V2 (15 x 20)
ESC 1:50



V3 (15 x 20)
ESC 1:50



V4 (15 x 20)
ESC 1:50



RELAÇÃO DO AÇO

V1 V2 V3 V4

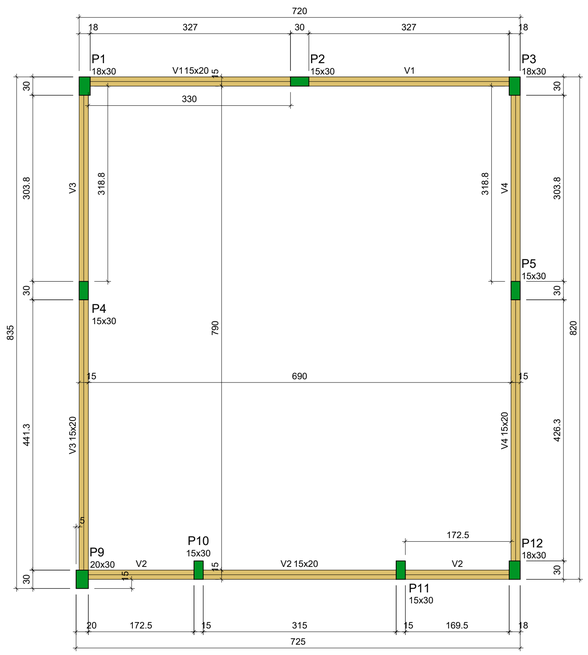
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	355	57	20235
CA50	2	8.0	2	730	1460
	3	8.0	2	747	1494
	4	8.0	2	735	1470
	5	8.0	2	751	1502
	6	8.0	2	845	1690
	7	8.0	2	851	1702
	8	8.0	2	830	1660
	9	8.0	2	846	1692

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	126.7	55
CA60	5.0	202.3	34.3

PESO TOTAL (kg)	
CA50	55
CA60	34.3

Volume de concreto (C-30) = 0.84 m³
Área de forma = 15.32 m²



Forma do pavimento CINTA RESERVATÓRIO (Nível 665)
escala 1:50

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	15x20	0	665
V2	15x20	0	665
V3	15x20	0	665
V4	15x20	0	665

Características dos materiais			
fck (kgf/cm²)	Ecs (kgf/cm²)	fct (kgf/cm²)	Abatimento (cm)
300	268384	29	5.00

Dimensão máxima do agregado = 19 mm

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	18x30	0	665
P2	15x30	0	665
P3	18x30	0	665
P4	15x30	0	665
P5	15x30	0	665
P9	20x30	0	665
P10	15x30	0	665
P11	15x30	0	665
P12	18x30	0	665

Legenda dos pilares	
	Pilar que morre

Legenda das vigas e paredes	
	Viga

Nº	ALTERAÇÃO/REVISÕES	REVISADO POR	DATA

INSTITUTO FEDERAL
SERGIPE

AUTOR DO PROJETO:
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PROJETO ESTRUTURAL
RESTAURANTE CAMPUS ESTÂNCIA/SE

CLIENTE:
INSTITUTO FEDERAL DE SERGIPE - CAMPUS ESTÂNCIA

ENDEREÇO:
R. JOÃO CAFÉ FILHO,260, ESTÂNCIA/ SE

ESCALA: 1:100

DATA: OUTUBRO/2026

PLANTA:
RESTAURANTE
FORMA E ARMAÇÃO DAS VIGAS DO CINT. RESER.

PRANCHA: 22/22

CAMPUS	OBRA	ESPECIALIDADE	FASE	SERIAL	QUANTITATIVO	REVISÃO
EST	RES	EST	PE	002	002	R00