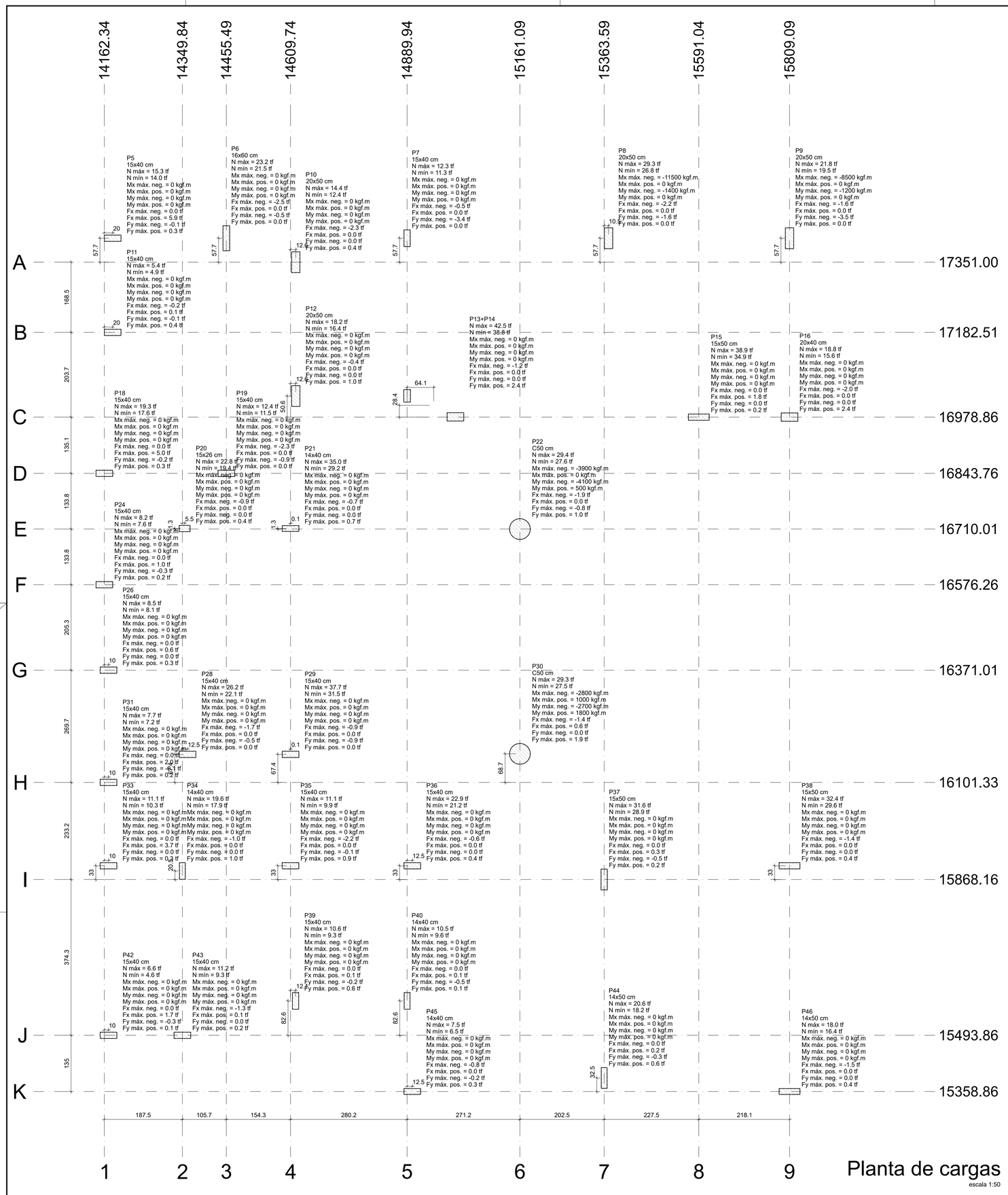


Pilar													
Nome	Seção (cm)	X (cm)	Y (cm)	Posição	CAP (cm)	Carga Máx. (tf)	Carga Mín. (tf)	Mx Máximo (kgf.m)		My Máximo (kgf.m)		Fx Máximo (tf)		Fy Máximo (tf)	
								Positivo	Negativo	Positivo	Negativo	Positivo	Negativo	Positivo	Negativo
P5	15x40	14182.34	17408.66	A-1	-	15.3	14.0	0	0	0	0	5.9	0.0	0.3	-0.1
P6	16x60	14455.49	17408.66	A-3	-	23.2	21.5	0	0	0	0	0.0	-2.5	0.0	-0.5
P7	15x40	14889.94	17408.66	A-5	-	12.3	11.3	0	0	0	0	0.0	-0.5	0.0	-3.4
P8	20x50	15374.10	17408.66	A-7	-	29.3	26.8	0	-11500	0	-1400	0.0	-2.2	0.0	-1.6
P9	20x50	15809.09	17408.66	A-9	-	21.8	19.5	0	-8500	0	-1200	0.0	-1.6	0.0	-3.5
P10	20x50	14622.34	17351.00	A-4	-	14.4	12.4	0	0	0	0	0.0	-2.3	0.4	0.0
P11	15x40	14182.34	17182.51	B-1	-	5.4	4.9	0	0	0	0	0.1	-0.2	0.4	-0.1
P12	20x50	14622.34	17029.50	C-4	-	18.2	16.4	0	0	0	0	0.0	-0.4	1.0	0.0
P15	15x50	15591.04	16978.86	C-8	-	38.9	34.9	0	0	0	0	1.8	0.0	0.2	0.0
P16	20x40	15809.09	16978.86	C-9	-	18.8	15.6	0	0	0	0	0.0	-2.0	2.4	0.0
P18	15x40	14162.34	16843.76	D-1	-	19.3	17.6	0	0	0	0	5.0	0.0	0.3	-0.2
P19	15x40	14455.49	16843.76	D-3	-	12.4	11.5	0	0	0	0	0.0	-2.3	0.0	-0.9
P20	15x26	14355.34	16711.26	E-2	-	22.8	19.4	0	0	0	0	0.0	-0.9	0.4	0.0
P21	14x40	14609.84	16711.26	E-4	-	35.0	29.2	0	0	0	0	0.0	-0.7	0.7	0.0
P22	C50	15161.09	16710.01	E-6	-	29.4	27.6	0	-3900	500	-4100	0.0	-1.9	1.0	-0.8
P24	15x40	14162.34	16576.26	F-1	-	8.2	7.6	0	0	0	0	1.0	0.0	0.2	-0.3
P26	15x40	14172.34	16371.01	G-1	-	8.5	8.1	0	0	0	0	0.6	0.0	0.3	0.0
P28	15x40	14362.34	16168.76	H-2	-	26.2	22.1	0	0	0	0	0.0	-1.7	0.0	-0.5
P29	15x40	14609.84	16168.76	H-4	-	37.7	31.5	0	0	0	0	0.0	-0.9	0.0	-0.9
P30	C50	15161.09	16170.01	H-6	-	29.3	27.5	1000	-2800	1800	-2700	0.6	-1.4	1.9	0.0
P31	15x40	14172.34	16101.33	H-1	-	7.7	7.2	0	0	0	0	2.0	0.0	0.2	-0.1
P33	15x40	14172.34	15901.16	I-1	-	11.1	10.3	0	0	0	0	3.7	0.0	0.3	0.0
P34	14x40	14349.84	15888.66	I-2	-	19.6	17.9	0	0	0	0	0.0	-1.0	1.0	0.0
P35	15x40	14609.74	15901.16	I-4	-	11.1	9.9	0	0	0	0	0.0	-2.2	0.9	-0.1
P36	15x40	14902.44	15901.16	I-5	-	22.9	21.2	0	0	0	0	0.0	-0.6	0.4	0.0
P37	15x50	15363.59	15868.16	I-7	-	31.6	28.9	0	0	0	0	0.3	0.0	0.2	-0.5
P38	15x50	15809.09	15901.16	I-9	-	32.4	29.6	0	0	0	0	0.0	-1.4	0.4	0.0
P39	15x40	14621.84	15576.50	J-4	-	10.6	9.3	0	0	0	0	0.1	0.0	0.6	-0.2
P40	14x40	14889.94	15576.50	J-5	-	10.5	9.6	0	0	0	0	0.1	0.0	0.1	-0.5
P42	15x40	14172.34	15493.86	J-1	-	6.6	4.6	0	0	0	0	1.7	0.0	0.1	-0.3
P43	15x40	14349.84	15493.86	J-2	-	11.2	9.3	0	0	0	0	0.1	-1.3	0.2	0.0
P44	14x50	15363.59	15391.36	K-7	-	20.6	18.2	0	0	0	0	0.2	0.0	0.6	-0.3
P45	14x40	14902.44	15358.86	K-5	-	7.5	6.5	0	0	0	0	0.0	-0.8	0.3	-0.2
P46	14x50	15809.09	15358.86	K-9	-	18.0	16.4	0	0	0	0	0.0	-1.5	0.4	0.0
P13+P14		14954.01	17007.26	C-5	-	42.5	38.8	0	0	0	0	0.0	-1.2	2.4	0.0

Os esforços indicados nesta tabela são os valores máximos obtidos pela envoltória de todas as combinações definidas para as fundações. Para análises complementares, deve-se consultar o relatório de esforços na fundação, que apresenta os valores calculados para cada combinação.

Locação no eixo X	
Coordenadas (cm)	Nome
14162.34	P18, P24
14172.34	P26, P31, P33, P42
14182.34	P5, P11
14349.84	P34, P43
14355.34	P20
14362.34	P28
14455.49	P6, P19
14609.74	P35
14609.84	P21, P29
14621.84	P39
14622.34	P10, P12
14889.94	P7, P40
14902.44	P36, P45
14954.01	P13+P14
15161.09	P22, P30
15363.59	P37, P44
15374.10	P8
15591.04	P15
15809.09	P9, P16, P38, P46

Locação no eixo Y	
Coordenadas (cm)	Nome
17408.66	P5, P6, P7, P8, P9
17351.00	P10
17182.51	P11
17029.50	P12
17007.26	P13+P14
16978.86	P15, P16
16843.76	P18, P19
16711.26	P20, P21
16710.01	P22
16576.26	P24
16371.01	P26
16170.01	P30
16168.76	P28, P29
16101.33	P31
15901.16	P33, P35, P36, P38
15888.66	P34
15868.16	P37
15576.50	P39, P40
15493.86	P42, P43
15391.36	P44
15358.86	P45, P46

CEU DA CULTURA

AUTOR DO PROJETO :	ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

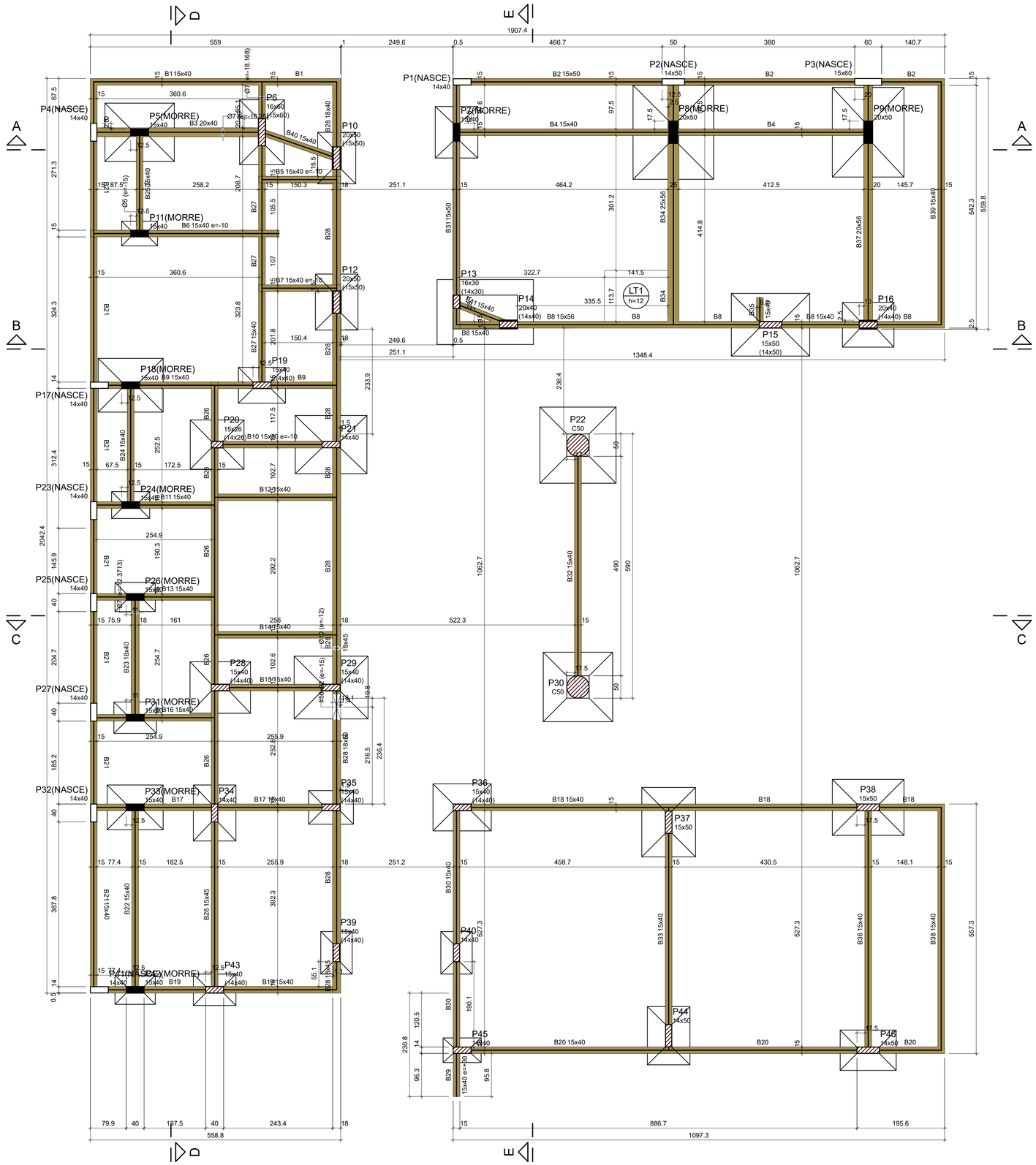
ETAPA:

PLANTA DE CARGAS

PRANCHA Nº 01/35

DISCIPLINA:	ARQUIVO:	DATA :	ESCALA :
ESTRUTURA	.NBE.300 ESTR.003	02/08/2024	1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.



Forma do pavimento A102.Térreo NO (Nível -7)

escala 1:50

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
B1	15x40	0	-7
B2	15x50	0	-7
B3	20x40	0	-7
B4	15x40	0	-7
B5	15x40	-10	-17
B6	15x40	-10	-17
B7	15x40	-10	-17
B8	15x40	0	-7
	15x56	0	-7
	15x40	0	-7
B9	15x40	0	-7
B10	15x30	-10	-17
B11	15x40	0	-7
B12	15x40	0	-7
B13	15x40	0	-7
B14	15x40	0	-7
B15	15x40	0	-7
B16	15x40	0	-7
B17	15x40	0	-7
B18	15x40	0	-7
B19	15x40	0	-7
B20	15x40	0	-7
B21	15x40	0	-7
B22	15x40	0	-7
B23	18x40	0	-7
B24	15x40	0	-7
B25	15x40	0	-7
B26	15x45	0	-7
B27	15x40	0	-7
B28	18x45	0	-7
	18x50	0	-7
	18x45	0	-7
	18x40	0	-7
B29	15x40	30	23
B30	15x40	0	-7
B31	15x50	0	-7
B32	15x40	0	-7
B33	15x40	0	-7
B34	25x56	0	-7
B35	15x40	0	-7
B36	15x40	0	-7
B37	20x56	0	-7
B38	15x40	0	-7
B39	15x40	0	-7
B40	15x40	0	-7
B41	15x40	0	-7

Lajes									
	Dados					Sobrecarga (kgf/m²)			
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Adicional	Acidental	Localizada	Solo
LT1	Maciça	12	0	-7	300	154	250	-	660

Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	241546	5.00

Dimensão máxima do agregado = 19 mm

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	14x40	33	26
P2	14x50	0	-7
P3	15x60	0	-7
P4	14x40	0	-7
P5	15x40	0	-7
P6	16x60	0	-7
P7	15x40	0	-7
P8	20x50	0	-7
P9	20x50	0	-7
P10	20x50	0	-7
P11	15x40	-10	-17
P12	20x50	0	-7
P13	16x30	0	-7
P14	20x40	0	-7
P15	15x50	0	-7
P16	20x40	0	-7
P17	14x40	0	-7
P18	15x40	0	-7
P19	15x40	0	-7
P20	15x26	0	-7
P21	14x40	0	-7
P22	Circ 50	0	-7
P23	14x40	0	-7
P24	15x40	0	-7
P25	14x40	0	-7
P26	15x40	0	-7
P27	14x40	0	-7
P28	15x40	0	-7
P29	15x40	0	-7
P30	Circ 50	0	-7
P31	15x40	0	-7
P32	14x40	0	-7
P33	15x40	0	-7
P34	14x40	0	-7
P35	15x40	0	-7
P36	15x40	0	-7
P37	15x50	0	-7
P38	15x50	0	-7
P39	15x40	0	-7
P40	14x40	0	-7
P41	14x40	0	-7
P42	15x40	0	-7
P43	15x40	0	-7
P44	14x50	0	-7
P45	14x40	0	-7
P46	14x50	0	-7

Legenda dos pilares
Pilar que morre
Pilar que passa
Pilar que nasce
Pilar com mudança de seção

Legenda das vigas e paredes
Viga

Legenda das lajes
Laje

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

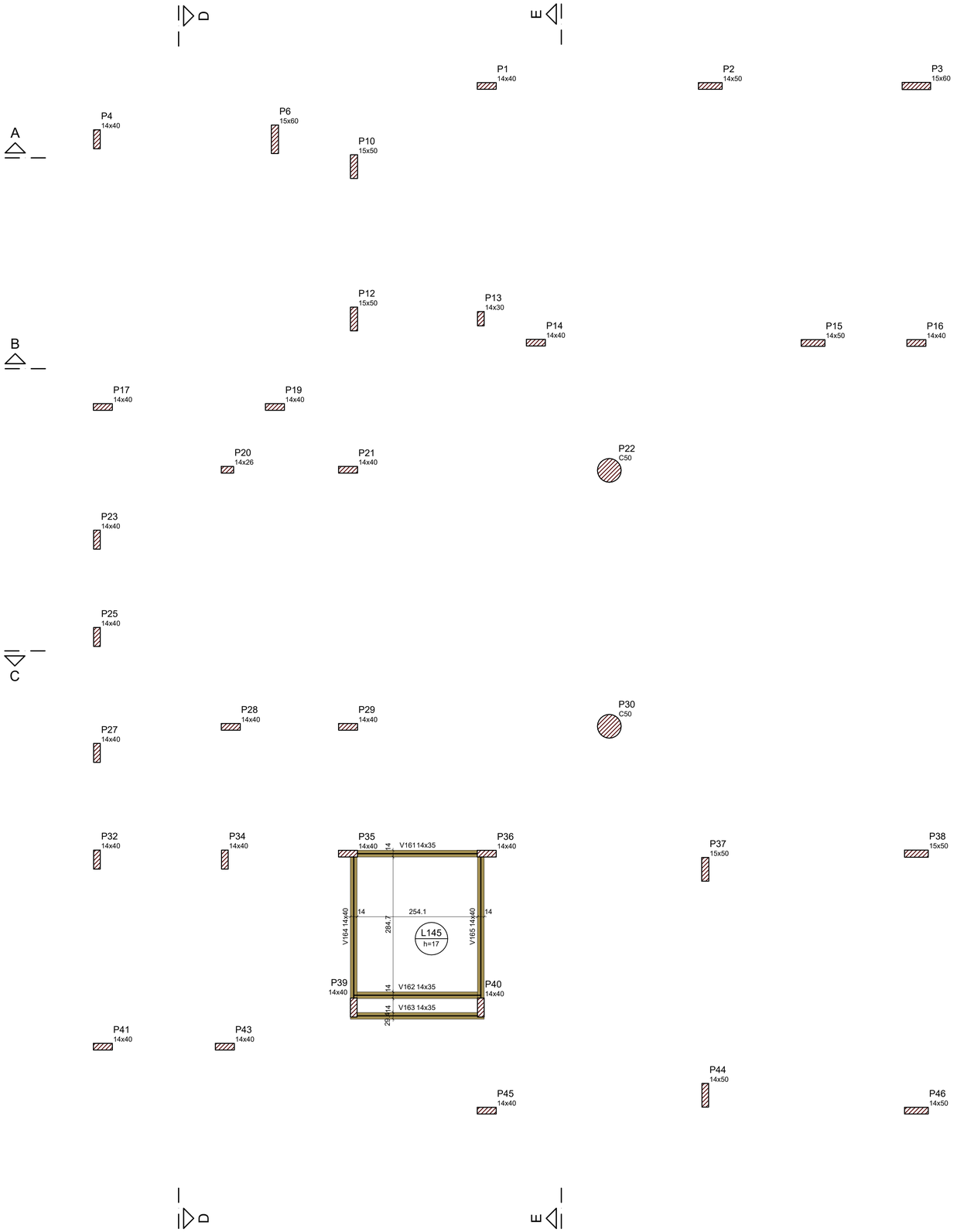
NÚCLEO BÁSICO EDIFICADO

ETAPA: PLANTA DE FORMA PAVIMENTO A105. TÉRREO (BALDRAMES) COTA -7cm

PRANCHA Nº 02/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.



Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V161	14x35	0	245
V162	14x35	0	245
V163	14x35	0	245
V164	14x40	0	245
V165	14x40	0	245

Lajes									
		Dados				Sobrecarga (kgf/m²)			
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Adicional	Acidental	Localizada	Solo
L145	Maciça	17	0	245	425	182	150	-	660

Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	241546	5.00

Dimensão máxima do agregado = 19 mm

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	14x40	0	245
P2	14x50	33	278
P3	15x60	33	278
P4	14x40	0	245
P6	15x60	0	245
P10	15x50	0	245
P12	15x50	33	278
P13	14x30	0	245
P14	14x40	33	278
P15	14x50	33	278
P16	14x40	33	278
P17	14x40	0	245
P19	14x40	0	245
P20	14x26	0	245
P21	14x40	0	245
P22	Circ 50	0	245
P23	14x40	33	278
P25	14x40	33	278
P27	14x40	0	245
P28	14x40	0	245
P29	14x40	0	245
P30	Circ 50	0	245
P32	14x40	0	245
P34	14x40	0	245
P35	14x40	33	278
P36	14x40	33	278
P37	15x50	33	278
P38	15x50	33	278
P39	14x40	33	278
P40	14x40	33	278
P41	14x40	0	245
P43	14x40	33	278
P44	14x50	33	278
P45	14x40	33	278
P46	14x50	33	278

Legenda dos pilares
Pilar que passa

Legenda das vigas e paredes
Viga

Legenda das lajes
Laje

Forma intermediária do pavimento A105.Laje (topo estrutura) (Nível 245)

escala 1:50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

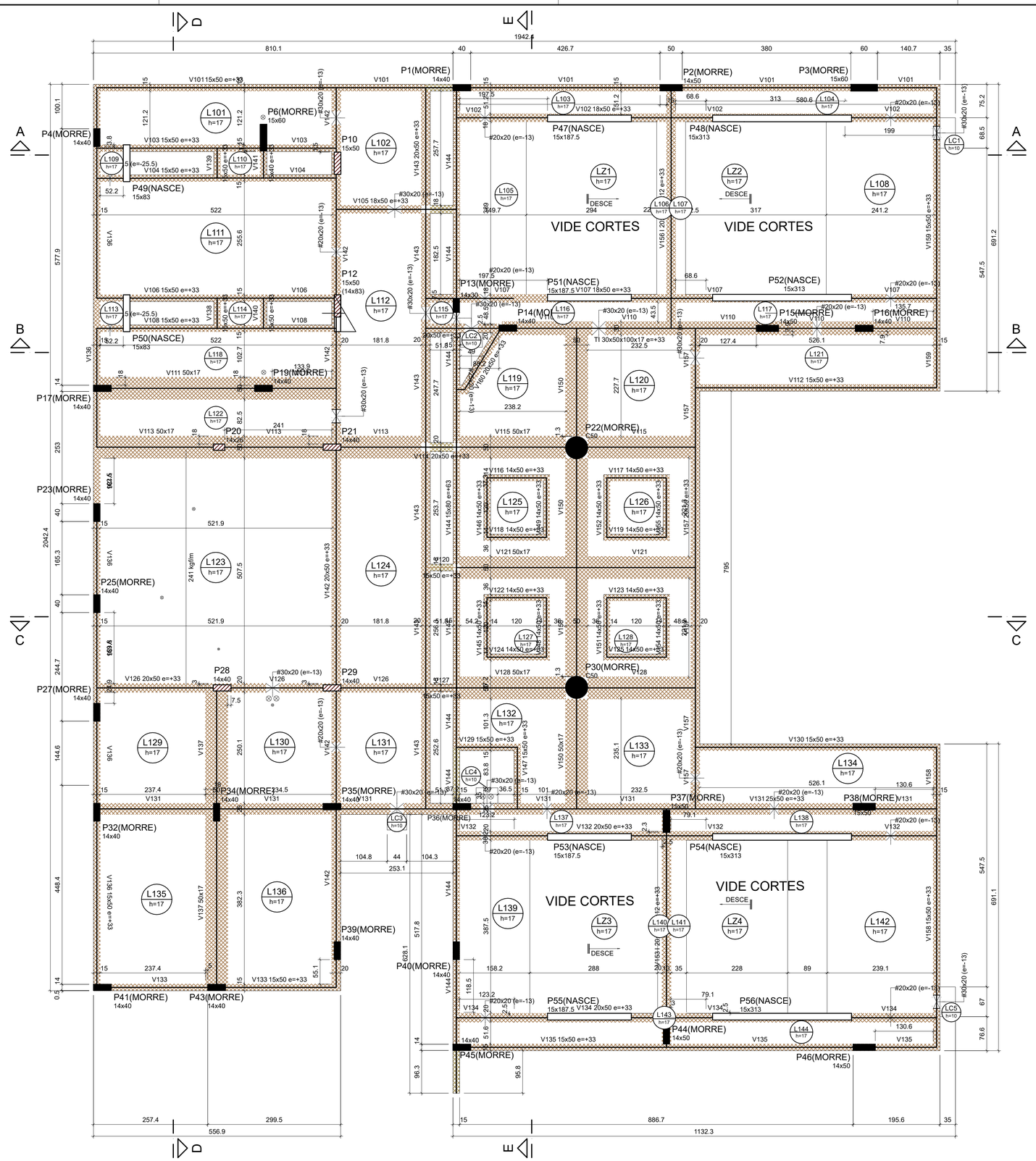
R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:
PLANTA DE FORMA DA MARQUISE DE ENTRADA
COTA 245cm

PRANCHA Nº 03/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50



Forma do pavimento A105.Laje (topo estrutura) (Nível 287)

escala 1:50

Vigas

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V101	15x50	33	320
V102	18x50	33	320
V103	15x50	33	320
V104	15x50	33	320
V105	18x50	33	320
V106	15x50	33	320
V107	18x50	33	320
V108	15x50	33	320
V109	20x50	33	320
V110	TI 30x50x100x17	33	320
V111	50x17	0	287
V112	15x50	33	320
V113	50x17	0	287
V114	20x50	33	320
V115	50x17	0	287
V116	14x50	33	320
V117	14x50	33	320
V118	14x50	33	320
V119	14x50	33	320
V120	15x50	33	320
V121	50x17	0	287
V122	14x50	33	320
V123	14x50	33	320
V124	14x50	33	320
V125	14x50	33	320
V126	20x50	33	320
V127	15x50	33	320
V128	50x17	0	287
V129	15x50	33	320
V130	15x50	33	320
V131	25x50	33	320
V132	20x50	33	320
V133	15x50	33	320
V134	20x50	33	320
V135	15x50	33	320
V136	15x50	33	320
V137	50x17	0	287
V138	15x50	33	320
V139	15x50	33	320
V140	15x50	33	320
V141	15x40	33	320
V142	20x50	33	320
V143	20x50	33	320
V144	15x80	63	350
V145	14x50	33	320
V146	14x50	33	320
V147	15x50	33	320
V148	14x50	33	320
V149	14x50	33	320
V150	50x17	0	287
V151	14x50	33	320
V152	14x50	33	320
V153	I 20x50x40x12	33	320
V154	14x50	33	320
V155	14x50	33	320
V156	I 20x50x65x12	33	320
V157	20x50	33	320
V158	15x50	33	320
V159	15x50	33	320
V160	20x50	33	320

Pilares

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	14x40	0	287
P2	14x50	33	320
P3	15x60	33	320
P4	14x40	0	287
P6	15x60	0	287
P10	15x50	0	287
P12	15x50	33	320
P13	14x30	0	287
P14	14x40	33	320
P15	14x50	33	320
P16	14x40	33	320
P17	14x40	0	287
P19	14x40	0	287
P20	14x26	0	287
P21	14x40	0	287
P22	Circ 50	0	287
P23	14x40	33	320
P25	14x40	33	320
P27	14x40	0	287
P28	14x40	0	287
P29	14x40	0	287
P30	Circ 50	0	287
P32	14x40	0	287
P34	14x40	0	287
P35	14x40	33	320
P36	14x40	33	320
P37	15x50	33	320
P38	15x50	33	320
P39	14x40	33	320
P40	14x40	0	287
P41	14x40	0	287
P43	14x40	0	287
P44	14x50	0	287
P45	14x40	0	287
P46	14x50	0	287
P47	15x187.5	0	287
P48	15x313	0	287
P49	15x83	0	287
P50	15x83	0	287
P51	15x187.5	0	287
P52	15x313	0	287
P53	15x187.5	0	287
P54	15x313	0	287
P55	15x187.5	0	287
P56	15x313	0	287

Lajes

Nome	Tipo	Dados: Altura (cm)	Dados: Elevação (cm)	Dados: Nível (cm)	Dados: Peso próprio (kgf/m²)	Sobrecarga (kgf/m²): Adicional	Sobrecarga (kgf/m²): Acidental	Sobrecarga (kgf/m²): Localizada	Sobrecarga (kgf/m²): Solo
L101	Maciça	17	0	287	425	182	100	-	594
L102	Maciça	17	0	287	425	182	100	-	594
L103	Maciça	17	0	287	425	182	100	-	594
L104	Maciça	17	0	287	425	182	100	-	594
L105	Maciça	17	0	287	425	182	100	-	594
L106	Maciça	17	0	287	425	182	100	-	594
L107	Maciça	17	0	287	425	182	100	-	594
L108	Maciça	17	0	287	425	182	100	-	594
L109	Maciça	17	0	287	425	182	100	-	594
L110	Maciça	17	0	287	425	182	100	-	594
L111	Maciça	17	0	287	425	182	100	-	594
L112	Maciça	17	0	287	425	182	100	-	594
L113	Maciça	17	0	287	425	182	100	-	594
L114	Maciça	17	0	287	425	182	100	-	594
L115	Maciça	17	0	287	425	182	100	-	594
L116	Maciça	17	0	287	425	182	100	-	594
L117	Maciça	17	0	287	425	182	100	-	594
L118	Maciça	17	0	287	425	182	100	-	594
L119	Maciça	17	0	287	425	182	100	-	594
L120	Maciça	17	0	287	425	182	100	-	594
L121	Maciça	17	0	287	425	182	100	-	594
L122	Maciça	17	0	287	425	182	100	-	594
L123	Maciça	17	0	287	425	182	100	sim	594
L124	Maciça	17	0	287	425	182	100	-	594
L125	Maciça	17	0	287	425	182	100	-	594
L126	Maciça	17	0	287	425	182	100	-	594
L127	Maciça	17	0	287	425	182	100	-	594
L128	Maciça	17	0	287	425	182	100	-	594
L129	Maciça	17	0	287	425	182	100	-	594
L130	Maciça	17	0	287	425	182	100	-	594
L131	Maciça	17	0	287	425	182	100	-	594
L132	Maciça	17	0	287	425	182	100	-	594
L133	Maciça	17	0	287	425	182	100	-	594
L134	Maciça	17	0	287	425	182	100	-	594
L135	Maciça	17	0	287	425	182	100	-	594
L136	Maciça	17	0	287	425	182	100	-	594
L137	Maciça	17	0	287	425	182	100	-	594
L138	Maciça	17	0	287	425	182	100	-	594
L139	Maciça	17	0	287	425	182	100	-	594
L140	Maciça	17	0	287	425	182	100	-	594
L141	Maciça	17	0	287	425	182	100	-	594
L142	Maciça	17	0	287	425	182	100	-	594
L143	Maciça	17	0	287	425	182	100	-	594
L144	Maciça	17	0	287	425	182	100	-	594
LC1	Maciça	10	0	287	250	182	100	-	0
LC2	Maciça	10	0	287	250	182	100	-	0
LC3	Maciça	10	0	287	250	182	100	-	0
LC4	Maciça	10	0	287	250	182	100	-	0
LC5	Maciça	10	0	287	250	182	100	-	0

Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	241546	5.00

Dimensão máxima do agregado = 19 mm

Legenda dos pilares
- Pilar que morre
- Pilar que passa
- Pilar que nasce
- Pilar com mudança de seção

Legenda das vigas e paredes
- Viga
- Viga chata ou invertida

Legenda das lajes
- Laje

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA: PLANTA DE FORMA DO PAVIMENTO A105. TOPO COTA 287cm

PRANCHA Nº 04/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V205	15x28	21	408
V206	15x28	21	408
V207	15x28	21	408
V208	15x28	21	408
V209	15x40	0	387
V210	14x40	0	387
V211	15x40	0	387
V212	15x28	21	408
V213	15x28	21	408
V214	14x40	0	387
V215	15x40	0	387
V216	15x28	21	408
V217	15x28	21	408

Lajes									
		Dados				Sobrecarga (kgf/m²)			
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Adicional	Acidental	Localizada	Água
L205	Maciça	10	3	390	250	182	100	-	0
L206	Maciça	10	3	390	250	182	100	-	0
L207	Maciça	15	0	387	375	137	150	-	1000
L208	Maciça	15	0	387	375	137	150	-	1000

Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	241546	5.00

Dimensão máxima do agregado = 19 mm

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P10	15x50	0	387
P12	14x83	0	387
P20	14x26	-30	357
P21	14x40	-30	357
P28	14x40	-30	357
P29	14x40	-30	357
P47	15x83	-100	287
P48	15x227	-75	312
P49	15x83	0	387
P50	15x83	0	387
P51	15x83	-100	287
P52	15x227	-75	312
P53	15x83	-100	287
P54	15x227	-75	312
P55	15x83	-100	287
P56	15x227	-75	312

Legenda dos pilares
Pilar que morre
Pilar que passa
Pilar com mudança de seção

Legenda das vigas e paredes
Viga
Viga chata ou invertida

Legenda das lajes
Laje
Laje com elevação positiva

Forma intermediária do pavimento A106.Teto Quadra 5.20 (Nível 387)

escala 1:50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

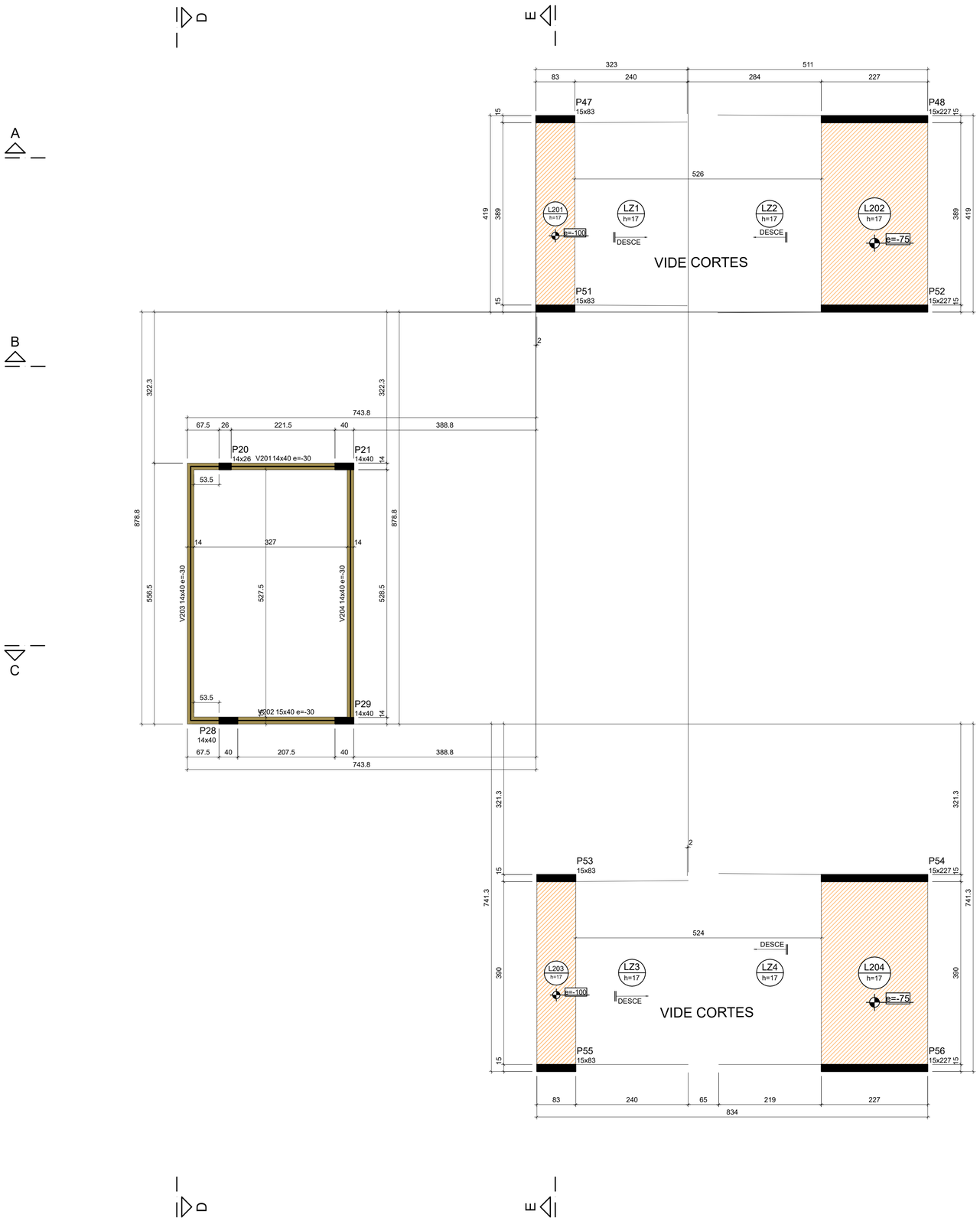
R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:
PLANTA DE FORMA DO PAVIMENTO A106
NÍVEL INTERMEDIÁRIO
COTA 387cm

PRANCHA Nº 05/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50



Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V201	14x40	-30	490
V202	15x40	-30	490
V203	14x40	-30	490
V204	14x40	-30	490

Lajes								
Dados						Sobrecarga (kgf/m²)		
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Adicional	Acidental	Localizada
L201	Maciça	17	-100	420	425	0	150	-
L202	Maciça	17	-75	445	425	0	150	-
L203	Maciça	17	-100	420	425	0	150	-
L204	Maciça	17	-75	445	425	0	150	-
LZ1	Maciça	17	0	520	463	0	100	-
LZ2	Maciça	17	0	520	467	0	100	-
LZ3	Maciça	17	0	520	463	0	100	-
LZ4	Maciça	17	0	520	467	0	100	-

Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	241546	5.00

Dimensão máxima do agregado = 19 mm

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P20	14x26	-30	490
P21	14x40	-30	490
P28	14x40	-30	490
P29	14x40	-30	490
P47	15x83	-100	420
P48	15x227	-75	445
P51	15x83	-100	420
P52	15x227	-75	445
P53	15x83	-100	420
P54	15x227	-75	445
P55	15x83	-100	420
P56	15x227	-75	445

Legenda dos pilares	Legenda das vigas e paredes	Legenda das lajes
Pilar que morre	Viga	Laje com elevação negativa

Forma do pavimento A106.Teto Quadra 5.20 (Nível 520)

escala 1:50

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA: PLANTA DE FORMA DO PAVIMENTO A106 COTA 520cm

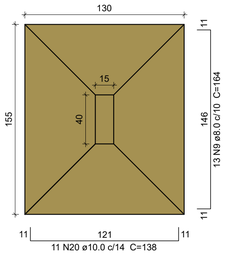
PRANCHA Nº 06/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

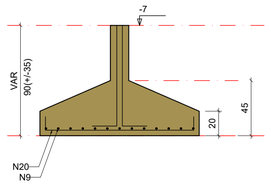
FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

S5

PLANTA
ESC 1:25



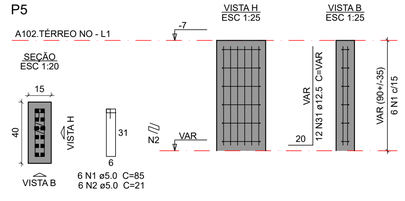
CORTE
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

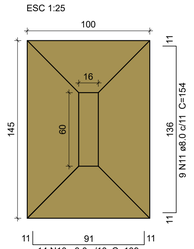
P5

A102.TÉRREO NO - L1

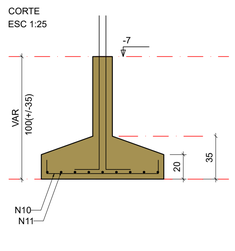


S6

PLANTA
ESC 1:25



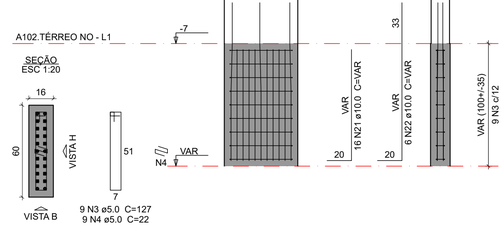
CORTE
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

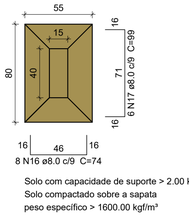
P6

A102.TÉRREO NO - L1

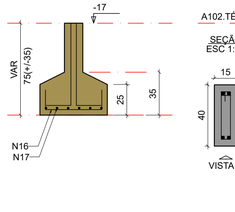


S7

PLANTA
ESC 1:25



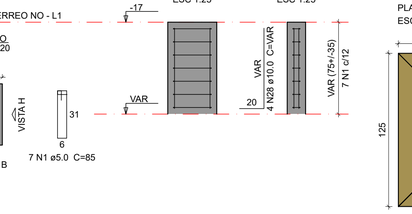
CORTE
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

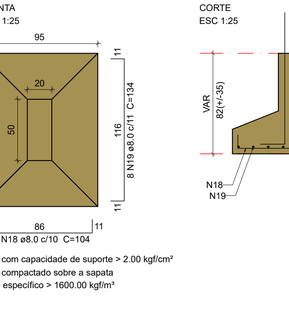
P7

A102.TÉRREO NO - L1

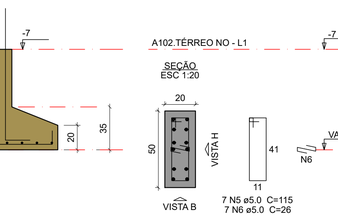


S8

PLANTA
ESC 1:25



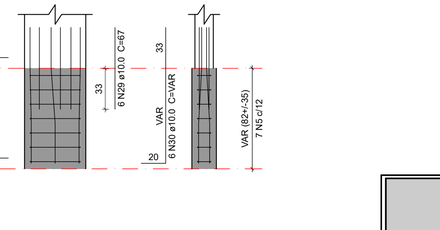
CORTE
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P8

A102.TÉRREO NO - L1



Relação do aço

S5 S6 S7
S8 S9 S10
S11 S12

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	20	85	1700
	2	5.0	6	21	126
	3	5.0	9	127	1143
	4	5.0	9	22	198
	5	5.0	15	115	1725
	6	5.0	15	26	390
CA50	7	6.3	20	116	2320
	8	6.3	30	27	810
	9	8.0	13	164	2132
	10	8.0	14	109	1526
	11	8.0	9	154	1386
	12	8.0	14	114	1596
	13	8.0	10	134	1340
	14	8.0	11	94	1034
	15	8.0	7	124	868
	16	8.0	8	74	592
	17	8.0	6	99	594
	18	8.0	12	104	1248
	19	8.0	8	134	1072
	20	10.0	11	138	1518
	21	10.0	16	VAR	VAR
	22	10.0	6	VAR	VAR
	23	10.0	17	188	3196
	24	10.0	14	218	3052
	25	10.0	16	168	2688
	26	10.0	12	208	2496
	27	10.0	6	VAR	VAR
	28	10.0	4	VAR	VAR
	29	10.0	6	67	402
	30	10.0	6	VAR	VAR
	31	12.5	12	VAR	VAR
	32	12.5	4	VAR	VAR
	33	16.0	18	VAR	VAR

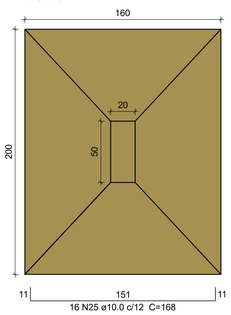
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	31.3	8.4
	8.0	133.9	58.1
	10.0	179.1	121.5
	12.5	16.1	17
	16.0	19.3	33.4
CA60	5.0	52.9	9
PESO TOTAL (kg)			
CA50	238.5		
CA60	9		

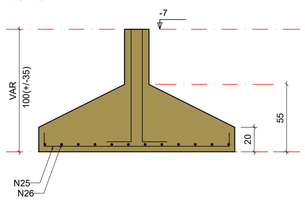
Volume de concreto (30 MPa) = 4.78 m³
Área de forma = 13.74 m²

S9

PLANTA
ESC 1:25



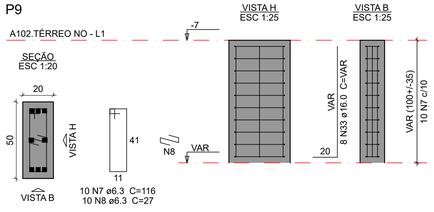
CORTE
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

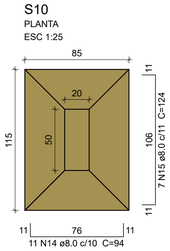
P9

A102.TÉRREO NO - L1

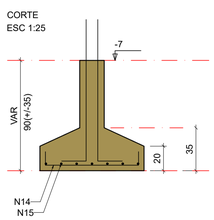


S10

PLANTA
ESC 1:25



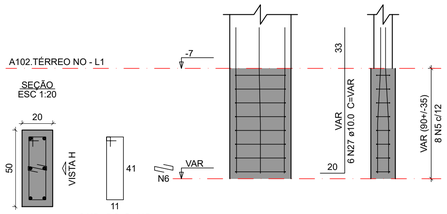
CORTE
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P10

A102.TÉRREO NO - L1



S11

PLANTA
ESC 1:25

CORTE
ESC 1:25

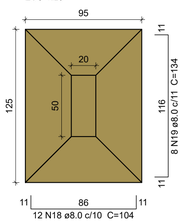
Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P11

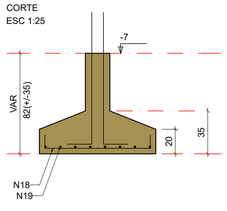
A102.TÉRREO NO - L1

S12

PLANTA
ESC 1:25



CORTE
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P12

A102.TÉRREO NO - L1

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA: DETALHE DAS SAPATAS 1/4

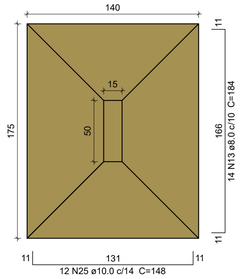
PRANCHA Nº 07/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

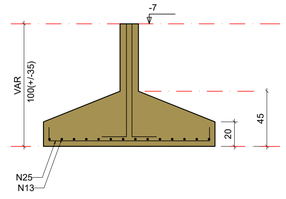
FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

S15

PLANTA
ESC 1:25

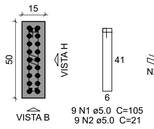


CORTE
ESC 1:25

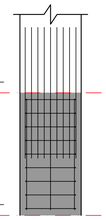


A102.TÉRREO NO - L1

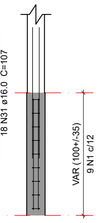
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



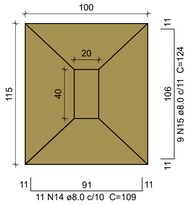
VISTA B
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S16

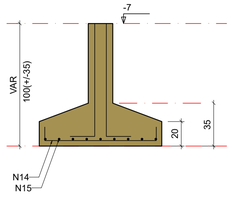
PLANTA
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

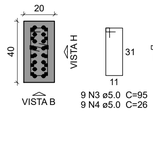
P15

CORTE
ESC 1:25

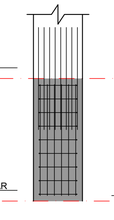


A102.TÉRREO NO - L1

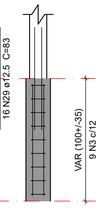
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



VISTA B
ESC 1:25



Relação do aço

S15 S16 S18
S19 S20 S21
S22

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	9	105	945
	2	5.0	9	21	189
	3	5.0	9	95	855
	4	5.0	9	26	234
	5	5.0	7	85	595
	6	5.0	7	21	147
	7	5.0	9	97	873
	8	5.0	9	24	216
	9	5.0	7	69	483
	10	5.0	7	95	665
	11	5.0	7	23	161
CA50	12	6.3	9	158	1422
	13	8.0	14	184	2576
	14	8.0	11	109	1199
	15	8.0	9	124	1116
	16	8.0	25	129	3225
	17	8.0	12	154	1848
	18	8.0	10	89	890
	19	8.0	7	114	798
	20	8.0	11	119	1309
	21	8.0	16	139	2224
	22	8.0	11	169	1859
	23	8.0	34	179	6086
	24	10.0	18	VAR	VAR
	25	10.0	12	148	1776
	26	10.0	6	VAR	VAR
	27	10.0	18	67	1206
	28	10.0	20	VAR	VAR
	29	12.5	16	83	1328
	30	12.5	10	VAR	VAR
	31	16.0	18	107	1926

Resumo do aço

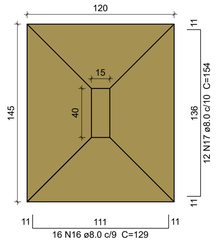
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	14.3	3.8
	8.0	231.3	100.4
	10.0	84.1	57
	12.5	24.1	25.5
	16.0	19.3	33.4
CA60	5.0	53.7	9.1

PESO TOTAL (kg)	
CA50	220.2
CA60	9.1

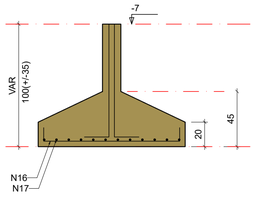
Volume de concreto (30 MPa) = 3.85 m³
Área de forma = 11.65 m²

S18

PLANTA
ESC 1:25



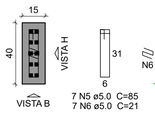
CORTE
ESC 1:25



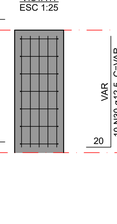
P18

A102.TÉRREO NO - L1

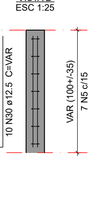
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

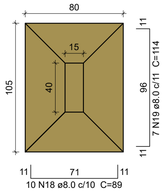


VISTA B
ESC 1:25



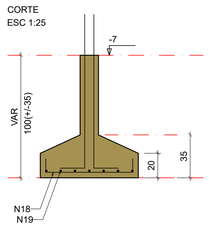
S19

PLANTA
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

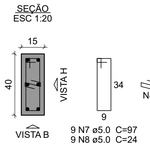
CORTE
ESC 1:25



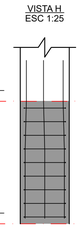
P19

A102.TÉRREO NO - L1

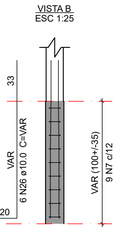
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

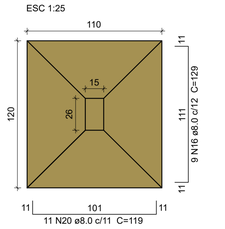


VISTA B
ESC 1:25



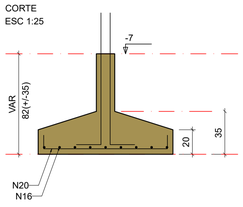
S20

PLANTA
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

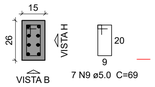
CORTE
ESC 1:25



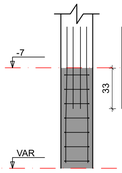
P20

A102.TÉRREO NO - L1

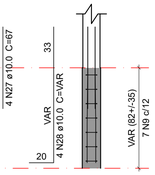
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

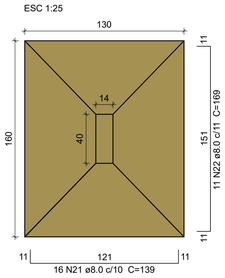


VISTA B
ESC 1:25



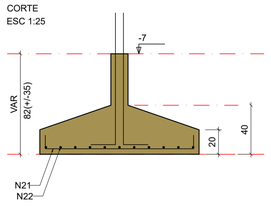
S21

PLANTA
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

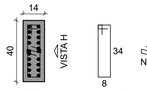
CORTE
ESC 1:25



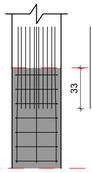
P21

A102.TÉRREO NO - L1

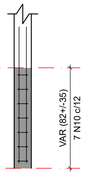
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

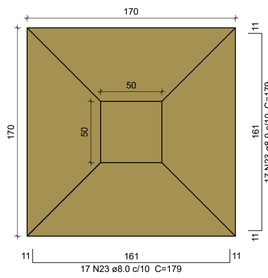


VISTA B
ESC 1:25



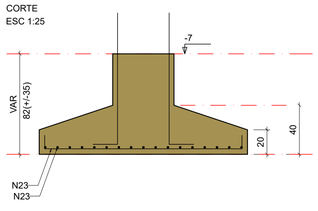
S22

PLANTA
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

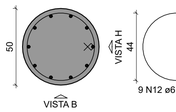
CORTE
ESC 1:25



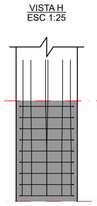
P22

A102.TÉRREO NO - L1

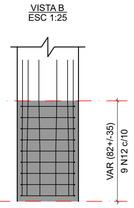
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



VISTA B
ESC 1:25



FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

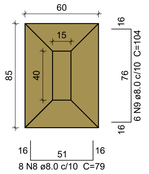
DETALHE DAS SAPATAS 2/4

PRANCHA Nº 08/35

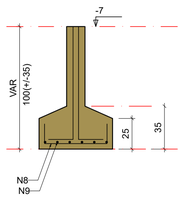
DISCIPLINA: ESTRUTURA
ARQUIVO: .NBE.300 ESTR.003
DATA : 02/08/2024
ESCALA : 1/50

S24

PLANTA
ESC 1:25



CORTE
ESC 1:25

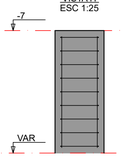


P24

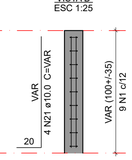
A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

VISTA H
ESC 1:25



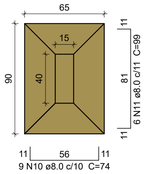
VISTA B
ESC 1:25



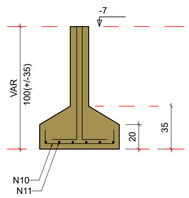
Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S26

PLANTA
ESC 1:25



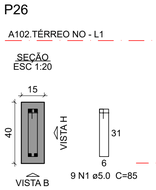
CORTE
ESC 1:25



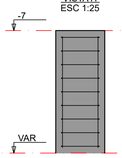
P26

A102.TÉRREO NO - L1

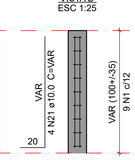
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



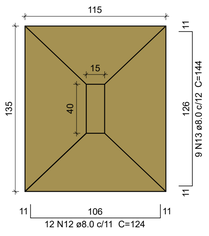
VISTA B
ESC 1:25



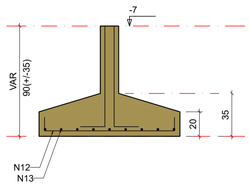
Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S28

PLANTA
ESC 1:25



CORTE
ESC 1:25



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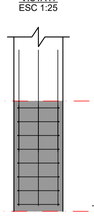
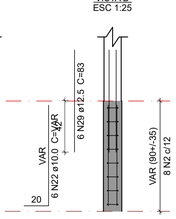
A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

VISTA H
ESC 1:25

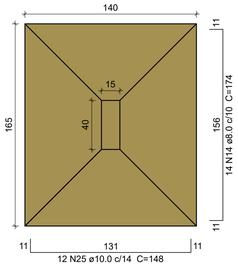


VISTA B
ESC 1:25

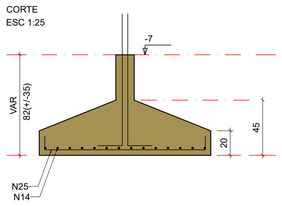


S29

PLANTA
ESC 1:25



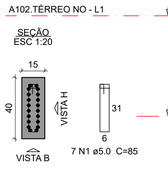
CORTE
ESC 1:25



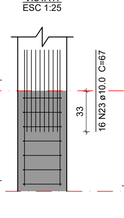
P29

A102.TÉRREO NO - L1

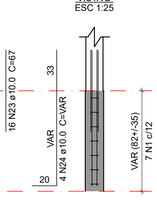
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



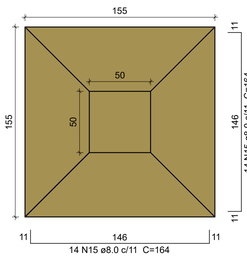
VISTA B
ESC 1:25



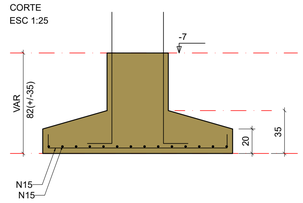
Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S30

PLANTA
ESC 1:25



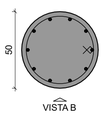
CORTE
ESC 1:25



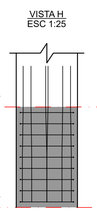
P30

A102.TÉRREO NO - L1

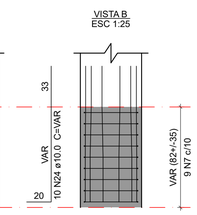
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

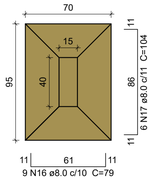


VISTA B
ESC 1:25

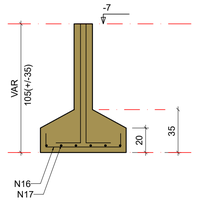


S31

PLANTA
ESC 1:25



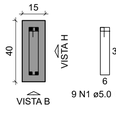
CORTE
ESC 1:25



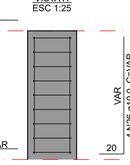
P31

A102.TÉRREO NO - L1

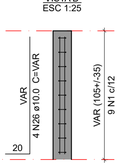
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



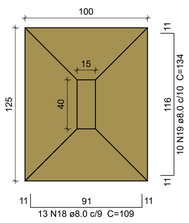
VISTA B
ESC 1:25



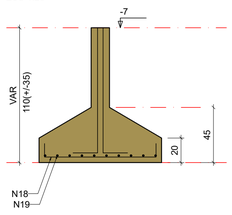
Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S33

PLANTA
ESC 1:25



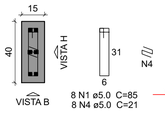
CORTE
ESC 1:25



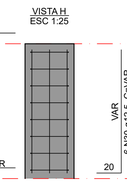
P33

A102.TÉRREO NO - L1

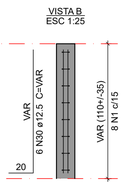
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

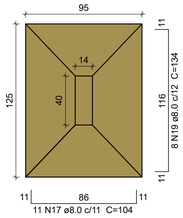


VISTA B
ESC 1:25

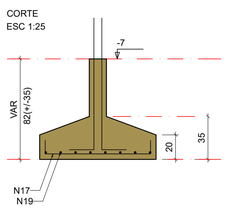


S34

PLANTA
ESC 1:25



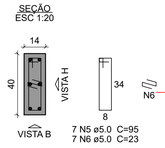
CORTE
ESC 1:25



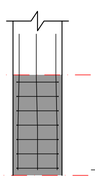
P34

A102.TÉRREO NO - L1

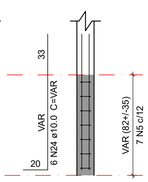
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



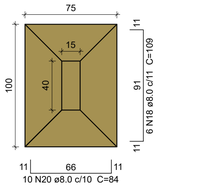
VISTA B
ESC 1:25



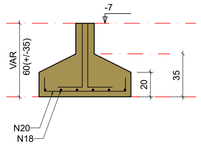
Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S35

PLANTA
ESC 1:25



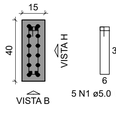
CORTE
ESC 1:25



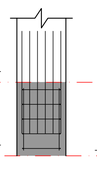
P35

A102.TÉRREO NO - L1

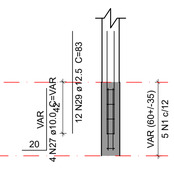
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

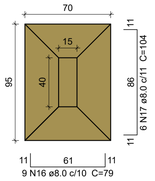


VISTA B
ESC 1:25

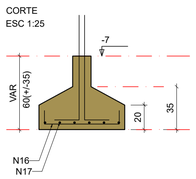


S39=S43

PLANTA
ESC 1:25



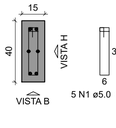
CORTE
ESC 1:25



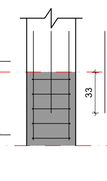
P39=P43

A102.TÉRREO NO - L1

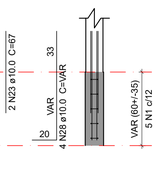
SEÇÃO
ESC 1:20



VISTA H
ESC 1:25



VISTA B
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

Relação do aço

S24 S26 S28
S29 S30 S31
S33 S34 S35
2xS39

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	57	85	4845
	2	5.0	8	97	776
	3	5.0	8	24	192
	4	5.0	8	21	168
	5	5.0	7	95	665
	6	5.0	7	23	161
CA50	7	6.3	9	158	1422
	8	8.0	8	79	632
	9	8.0	6	104	624
	10	8.0	9	74	666
	11	8.0	6	99	594
	12	8.0	12	124	1488
	13	8.0	9	144	1296
	14	8.0	14	174	2436
	15	8.0	28	164	4592
	16	8.0	27	79	2133
	17	8.0	29	104	3016
	18	8.0	19	109	2071
	19	8.0	18	134	2412
	20	8.0	10	84	840
	21	10.0	8	VAR	VAR
	22	10.0	6	VAR	VAR
	23	10.0	20	67	1340
	24	10.0	20	VAR	VAR
	25	10.0	12	148	1776
	26	10.0	4	VAR	VAR
	27	10.0	4	VAR	VAR
	28	10.0	8	VAR	VAR
	29	12.5	18	83	1494
	30	12.5	6	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	14.3	3.8
	8.0	228	99
	10.0	87.6	59.4
	12.5	22.1	23.3
CA60	5.0	68.1	11.5

PESO TOTAL (kg)	
CA50	185.5
CA60	11.5

Volume de concreto (30 MPa) = 3.87 m³
Área de forma = 15.24 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

DETALHE DAS SAPATAS 3/4

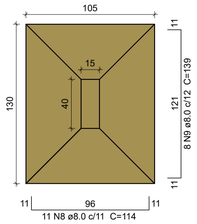
PRANCHA Nº 09/35

DISCIPLINA: ESTRUTURA
ARQUIVO: .NBE.300 ESTR.003
DATA : 02/08/2024
ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

S36

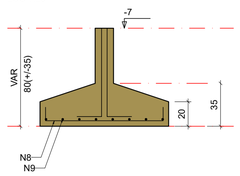
PLANTA
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

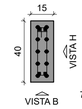
P36

CORTE
ESC 1:25



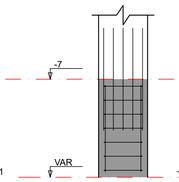
A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

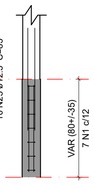


7 N1 ø5.0 C=85

VISTA H
ESC 1:25

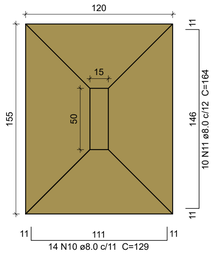


VISTA B
ESC 1:25



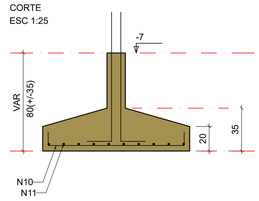
S37

PLANTA
ESC 1:25



Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

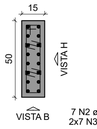
CORTE
ESC 1:25



P37

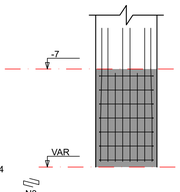
A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

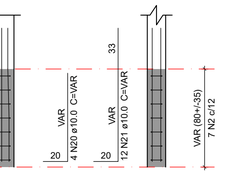


7 N2 ø5.0 C=117
2x7 N3 ø5.0 C=24

VISTA H
ESC 1:25



VISTA B
ESC 1:25



S38

PLANTA
ESC 1:25

Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P38

CORTE
ESC 1:25

A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

7 N2 ø5.0 C=117
7 N3 ø5.0 C=24

VISTA H
ESC 1:25

VISTA B
ESC 1:25

S40

PLANTA
ESC 1:25

Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25

P40

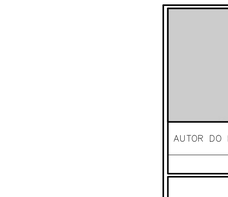
A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

7 N4 ø5.0 C=95
7 N5 ø5.0 C=23

VISTA H
ESC 1:25

VISTA B
ESC 1:25



S42

PLANTA
ESC 1:25

Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25

P42

A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

10 N1 ø5.0 C=85

VISTA H
ESC 1:25

VISTA B
ESC 1:25

S44

PLANTA
ESC 1:25

Solo com capacidade de suporte > 2.00 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25

P44

A102.TÉRREO NO - L1

SEÇÃO
ESC 1:20

6 N6 ø5.0 C=115
6 N7 ø5.0 C=23

VISTA H
ESC 1:25

VISTA B
ESC 1:25

Relação do aço

S36 S37 S38
S40 S42 S44

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	17	85	1445
	2	5.0	14	117	1638
	3	5.0	21	24	504
	4	5.0	7	95	665
	5	5.0	7	23	161
	6	5.0	6	115	690
	7	5.0	6	23	138
CA50	8	8.0	11	114	1254
	9	8.0	8	139	1112
	10	8.0	14	129	1806
	11	8.0	10	164	1640
	12	8.0	16	134	2144
	13	8.0	11	169	1859
	14	8.0	9	79	711
	15	8.0	6	104	624
	16	8.0	9	74	666
	17	8.0	6	99	594
	18	8.0	10	149	1490
	19	10.0	4	VAR	VAR
	20	10.0	12	VAR	VAR
	21	10.0	16	VAR	VAR
	22	10.0	8	67	536
	23	10.0	4	VAR	VAR
	24	10.0	10	113	1130
	25	12.5	24	83	1992
	26	12.5	6	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	139	60.3
	10.0	56.1	38
	12.5	28.1	29.7
CA60	5.0	52.5	8.9
PESO TOTAL (kg)			
CA50	128.1		
CA60	8.9		

Volume de concreto (30 MPa) = 2.35 m³
Área de forma = 8.94 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

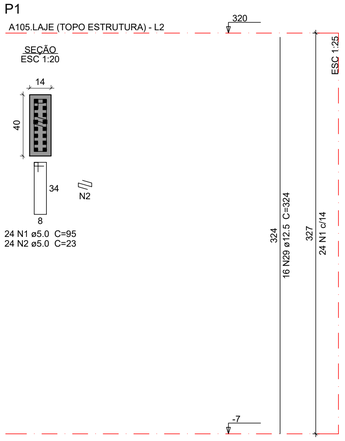
ETAPA: DETALHE DAS SAPATAS 4/4

PRANCHA Nº 10/35

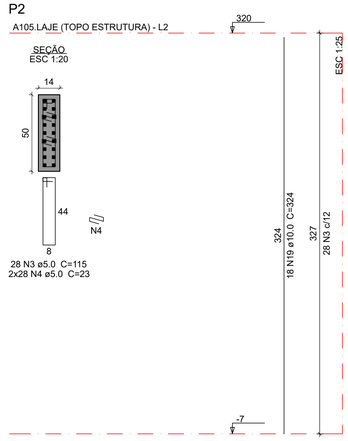
DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

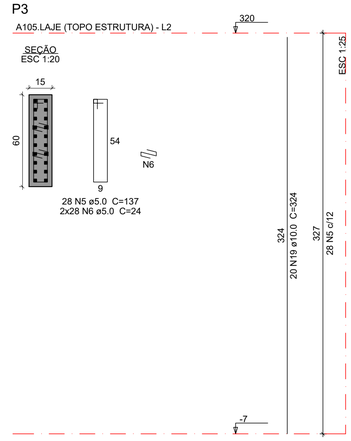
P1



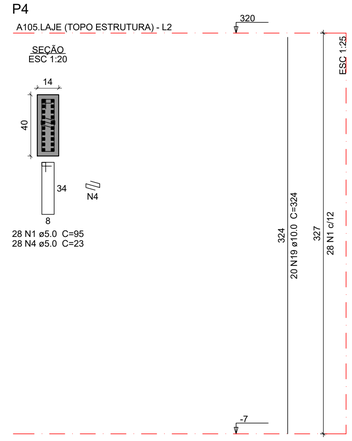
P2



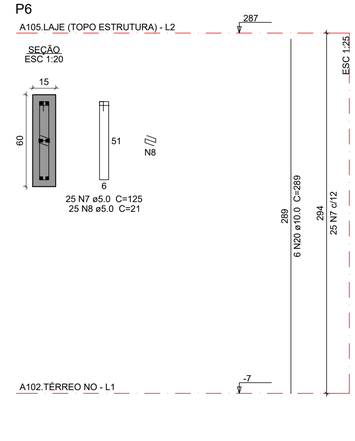
P3



P4



P6



Relação do aço

A105.Laje (topo estrutura):
P1 P2
P3 P4
P6 P13
P14 P15
P16 P17
P19

A106.Teto Quadra 5.20:
P10 P12
P20

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	150	95	14250
	2	5.0	48	23	1104
	3	5.0	52	115	5980
	4	5.0	137	23	3151
	5	5.0	28	137	3836
	6	5.0	81	24	1944
	7	5.0	25	125	3125
	8	5.0	25	21	525
	9	5.0	30	75	2250
	10	5.0	28	117	3276
	11	5.0	30	24	720
	12	5.0	7	VAR	VAR
	13	5.0	69	23	1587
	14	5.0	40	67	2680
	15	5.0	28	121	3388
	16	5.0	28	25	700
CA50	17	6.3	6	VAR	VAR
	18	6.3	42	25	1050
	19	10.0	76	324	24624
	20	10.0	6	289	1734
	21	10.0	20	291	5820
	22	10.0	2	85	170
	23	10.0	12	360	4320
	24	10.0	6	98	588
	25	10.0	4	94	376
	26	10.0	4	87	348
	27	10.0	4	90	360
	28	10.0	4	86	344
	29	12.5	32	324	10368
	30	12.5	12	354	4248
	31	12.5	2	121	242
	32	12.5	2	117	234
	33	12.5	2	121	242
	34	12.5	2	132	264
	35	12.5	2	132	264
	36	12.5	10	200	2000
	37	12.5	10	83	830
	38	16.0	6	107	642
	39	16.0	6	291	1746
	40	16.0	18	324	5832

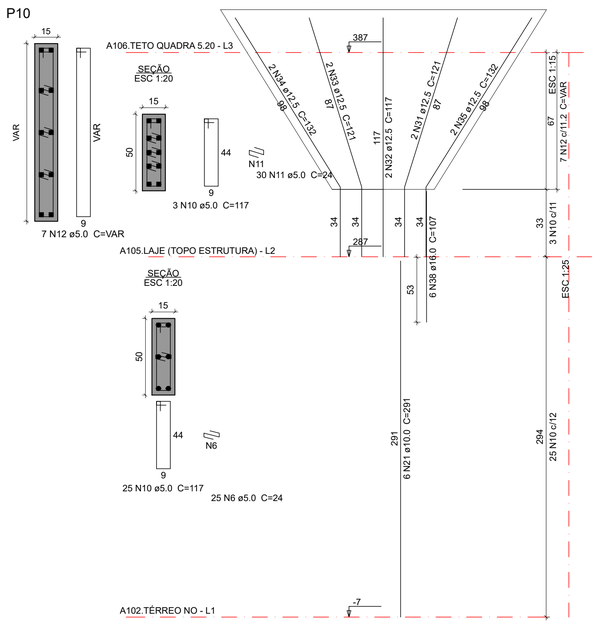
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	25.7	6.9
	10.0	386.9	262.4
	12.5	187	198.1
	16.0	82.2	142.7
CA60	5.0	502.6	85.2

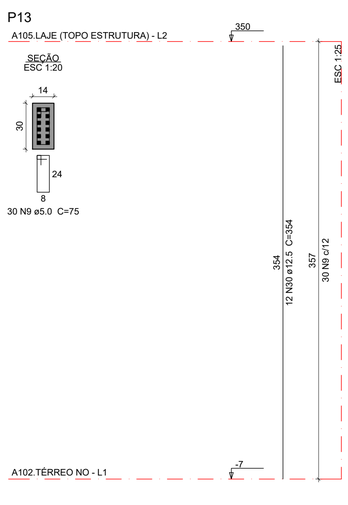
PESO TOTAL (kg)	
CA50	610.1
CA60	85.2

Volume de concreto (30 MPa) = 3.03 m³
Área de forma = 55.98 m²

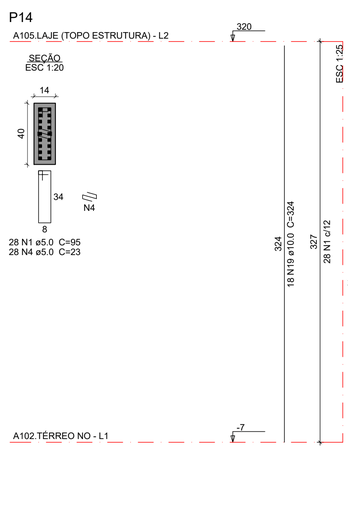
P10



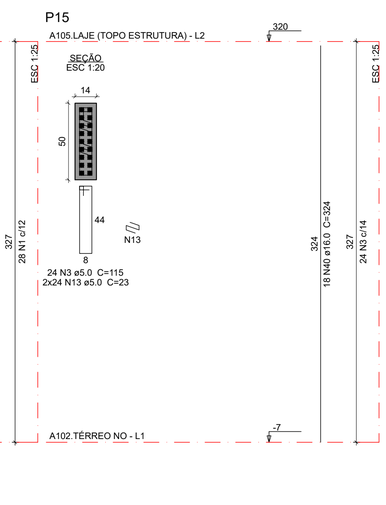
P13



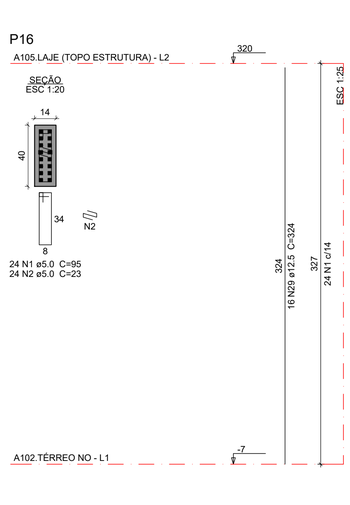
P14



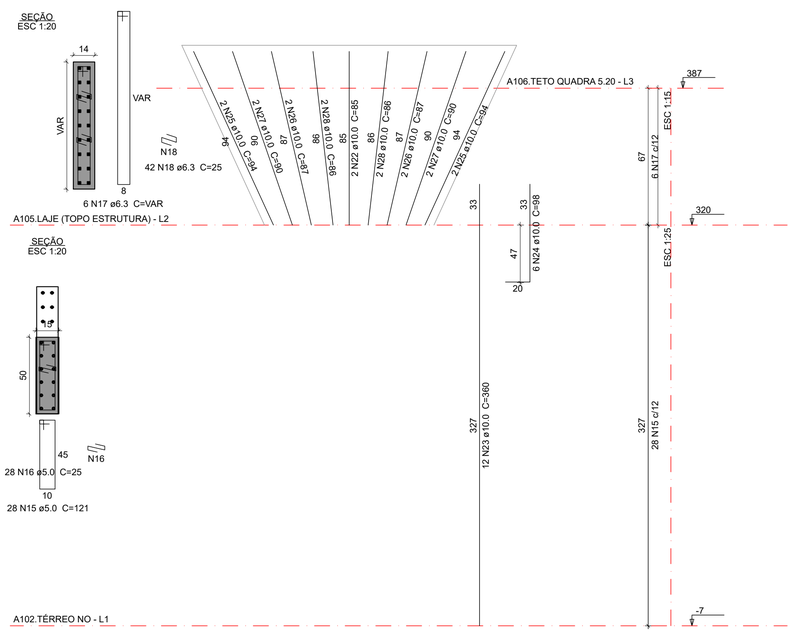
P15



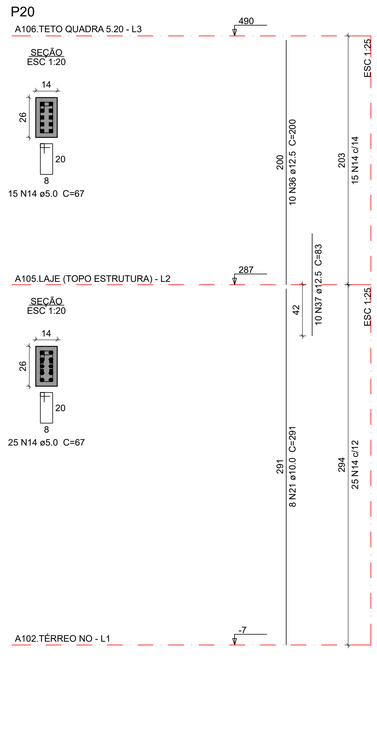
P16



P12



P20



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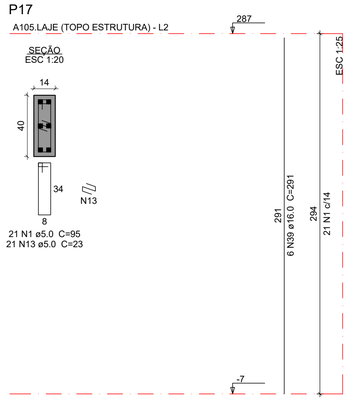
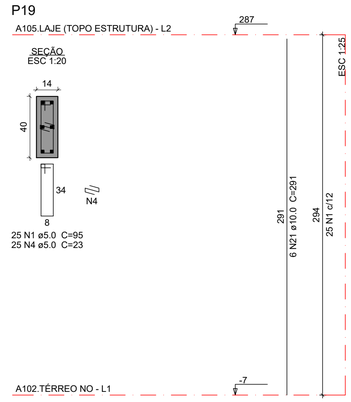


P19



CEU DA CULTURA

AUTOR DO PROJETO :	ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

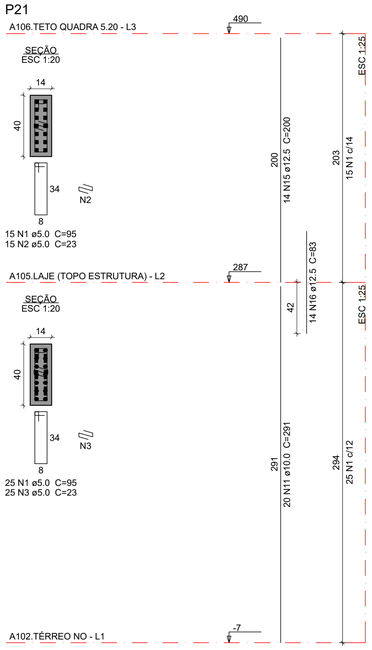
ETAPA:
DETALHE DOS PILARES 1/4

PRANCHA Nº
11 /35

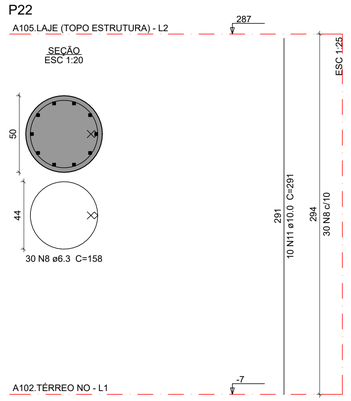
DISCIPLINA:	ARQUIVO:	DATA :	ESCALA :
ESTRUTURA	.NBE.300 ESTR.003	02/08/2024	1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

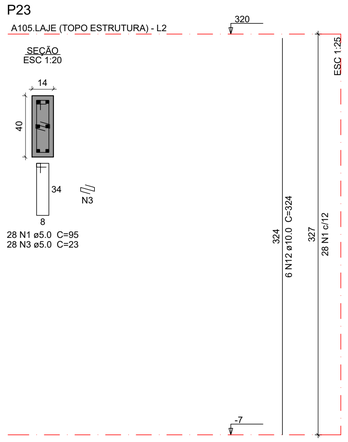
P21



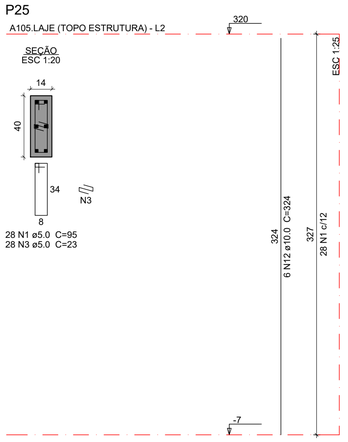
P22



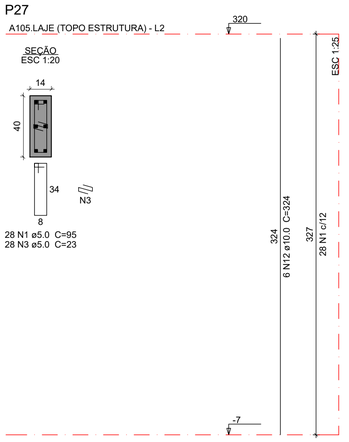
P23



P25



P27



Relação do aço

A105.Laje (topo estrutura): P22, P23, P25, P27, P30, P32, P34, P35, P36, P37, P38

A106.Teto Quadra 5.20: P21, P28, P29

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	275	95	26125
	2	5.0	108	23	2484
	3	5.0	176	23	4048
	4	5.0	30	23	690
	5	5.0	50	117	5850
	6	5.0	28	24	672
	7	5.0	22	24	528
CA50	8	6.3	60	158	9480
	9	6.3	27	96	2592
	10	6.3	27	25	675
	11	10.0	84	291	24444
	12	10.0	30	324	9720
	13	10.0	20	200	4000
	14	10.0	14	67	938
	15	12.5	14	200	2800
	16	12.5	14	83	1162
	17	12.5	6	336	2016
	18	12.5	32	324	10368
	19	16.0	8	200	1600
	20	16.0	8	107	856

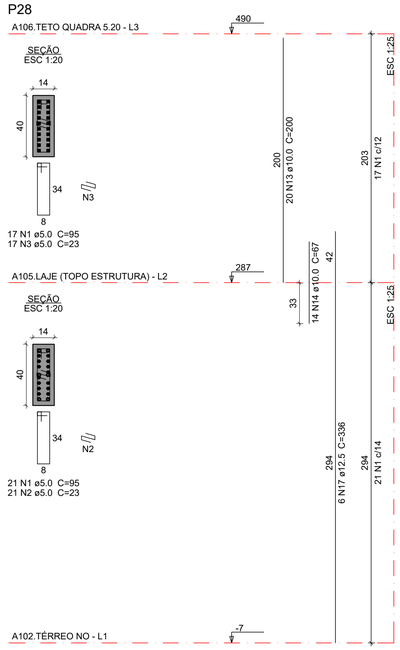
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	127.5	34.3
	10.0	391.1	265.2
	12.5	163.5	173.2
	16.0	24.6	42.6
CA60	5.0	404	68.5

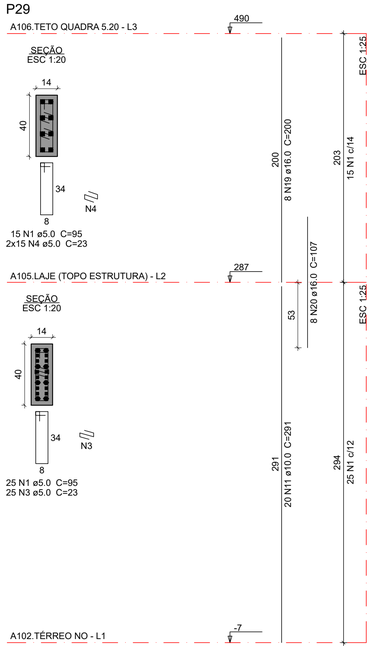
PESO TOTAL (kg)	
CA50	515.4
CA60	68.5

Volume de concreto (30 MPa) = 3.69 m³
Área de forma = 57.58 m²

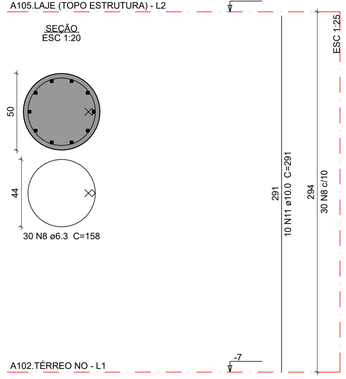
P28



P29



P30



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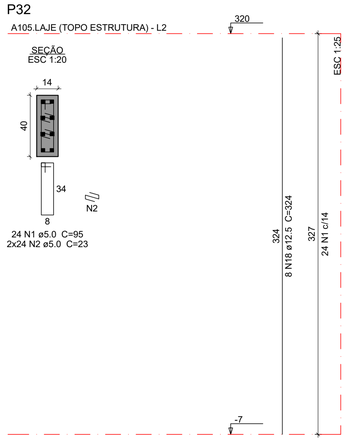
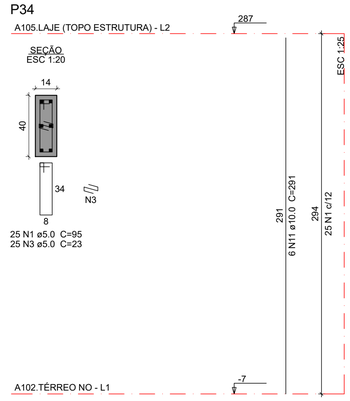
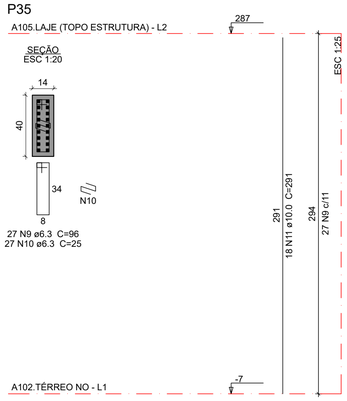


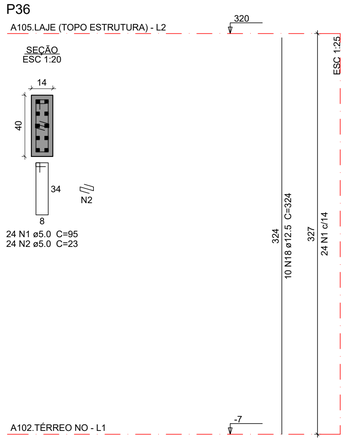
P34



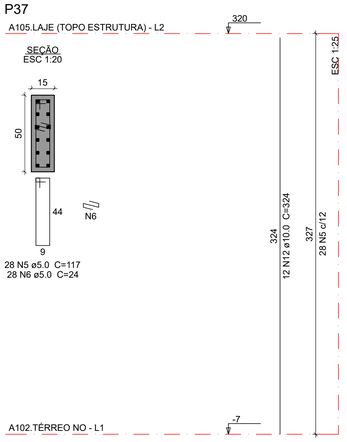
P35



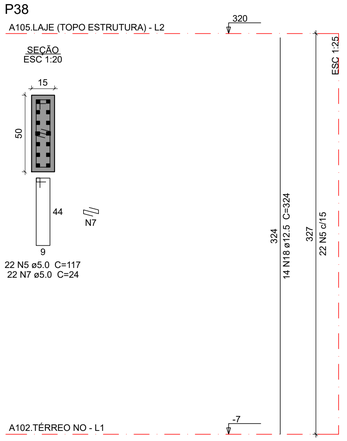
P36



P37



P38



CEU DA CULTURA

AUTOR DO PROJETO :	ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

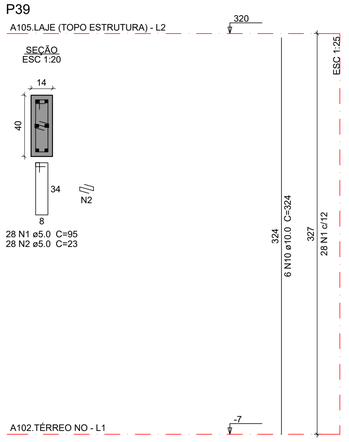
DETALHE DOS PILARES 2/4

PRANCHA Nº 12/35

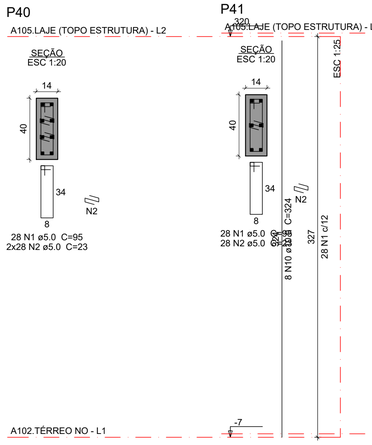
DISCIPLINA:	ARQUIVO:	DATA :	ESCALA :
ESTRUTURA	.NBE.300 ESTR.003	02/08/2024	1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

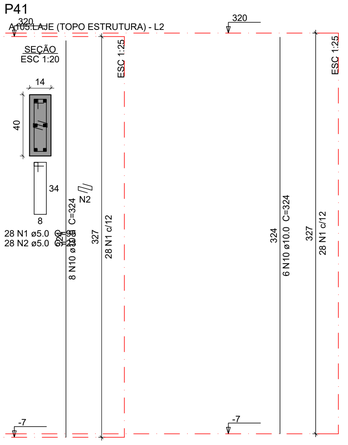
P39



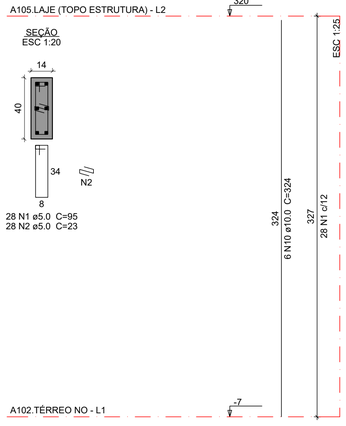
P40



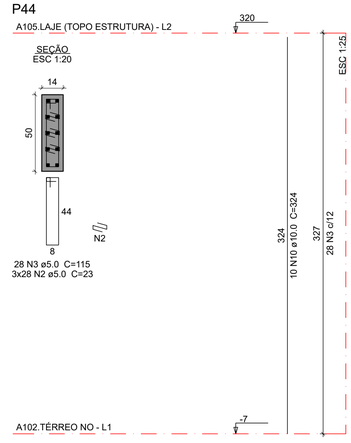
P41



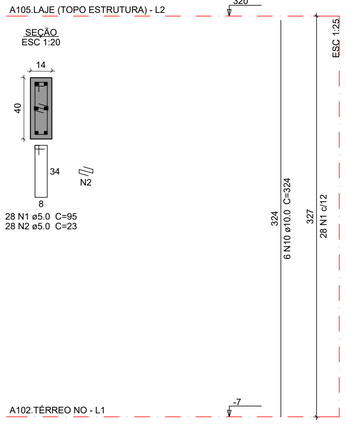
P43



P44



P45



Relação do aço

A105.Laje (topo estrutura): P39 P40 P41 P43 P44 P45 P46

A106.Teto Quadra 5.20: 2xP47 2xP50

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	140	95	13300
	2	5.0	280	23	6440
	3	5.0	56	115	6440
	4	5.0	96	24	2304
CA50	5	6.3	36	VAR	VAR
	6	6.3	12	394	4728
	7	6.3	6	184	1104
	8	6.3	36	26	936
	9	6.3	12	VAR	VAR
	10	10.0	48	324	15552
	11	10.0	8	182	1456
	12	10.0	8	297	2376
	13	10.0	8	230	1840
	14	10.0	8	260	2080
	15	10.0	8	155	1240
	16	10.0	4	153	612
	17	10.0	8	150	1200
	18	10.0	4	148	592
	19	10.0	8	148	1184
	20	10.0	4	152	608

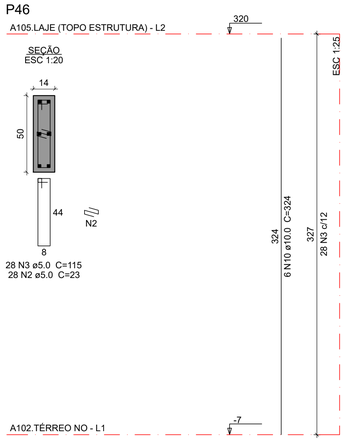
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	198.3	53.4
	10.0	287.4	194.9
CA60	5.0	284.9	48.3

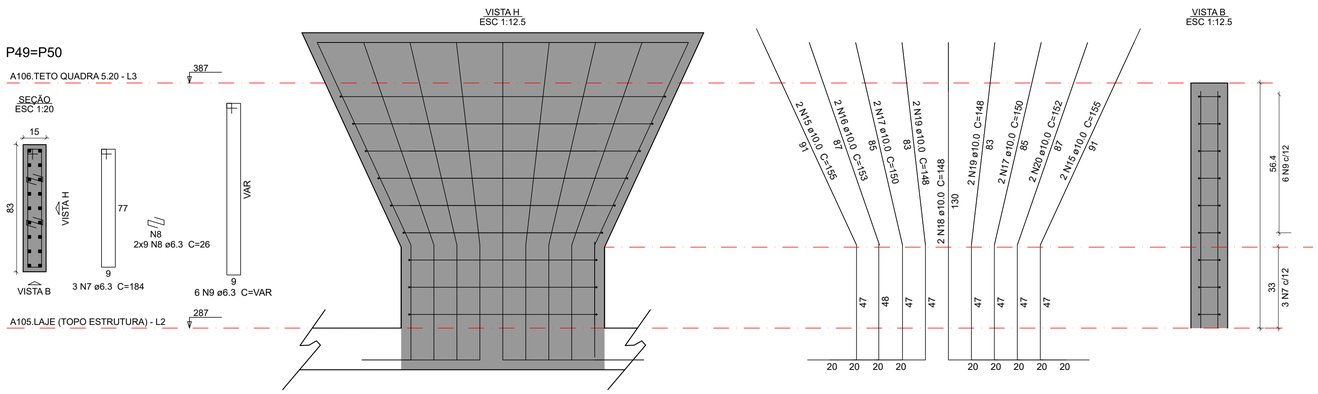
PESO TOTAL (kg)	
CA50	248.3
CA60	48.3

Volume de concreto (30 MPa) = 2.28 m³
Área de forma = 40.38 m²

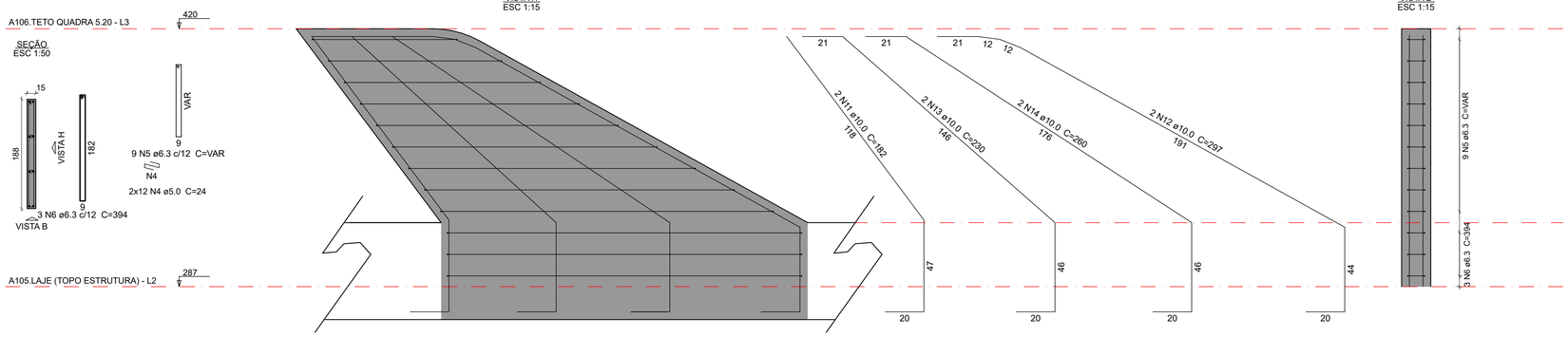
P46



P49=P50



P47=P51=P53=P55



AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

DETALHE DOS PILARES 1/4

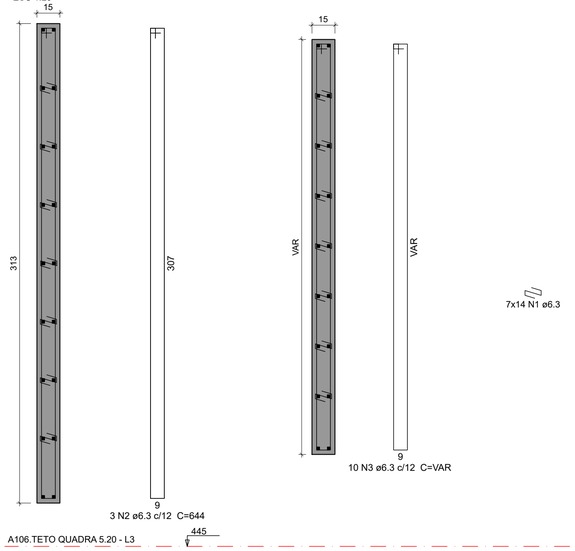
PRANCHA Nº 13/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

P48=P52=P54=P56

SEÇÃO
ESC 1:20



Relação do aço

4xP48

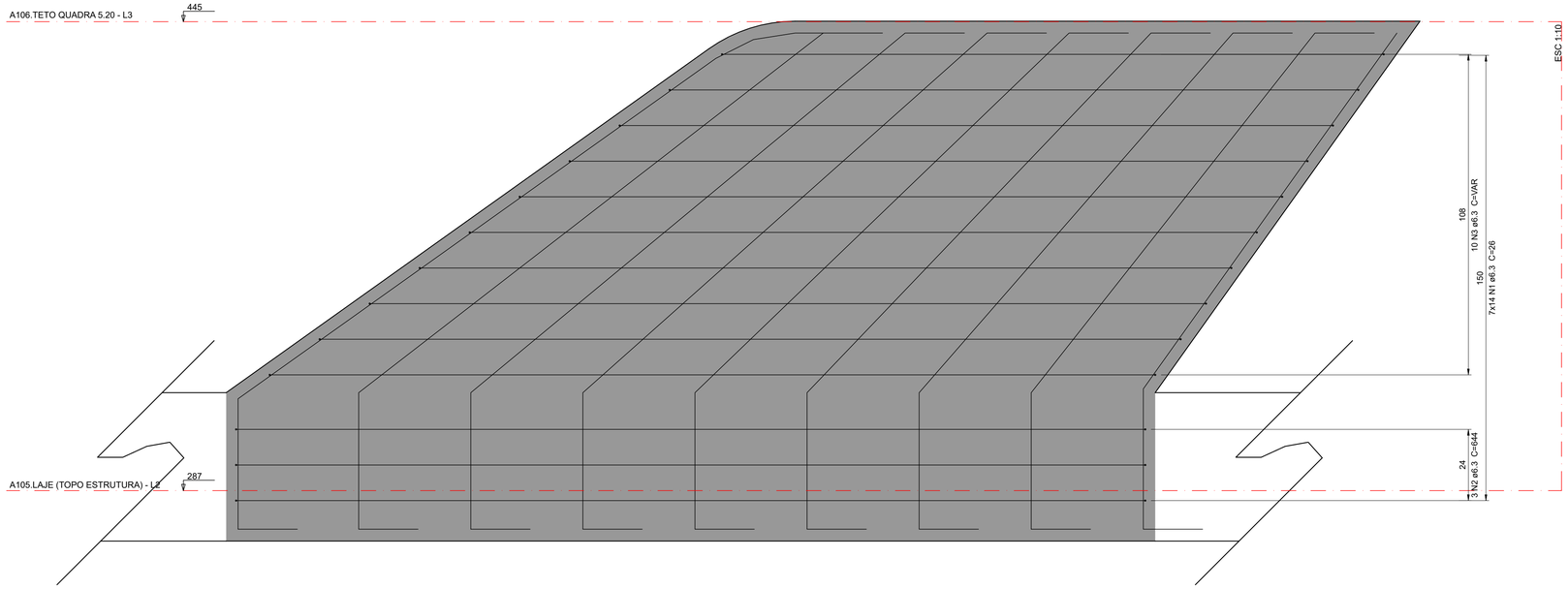
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	392	26	10192
	2	6.3	12	644	7728
	3	6.3	40	VAR	VAR
	4	10.0	72	211	15192
	5	10.0	72	307	22104
	6	10.0	72	237	17064
	7	10.0	72	244	17568
	8	10.0	72	251	18072
	9	10.0	72	258	18576
	10	10.0	72	265	19080
	11	10.0	72	273	19656
	12	10.0	72	281	20232

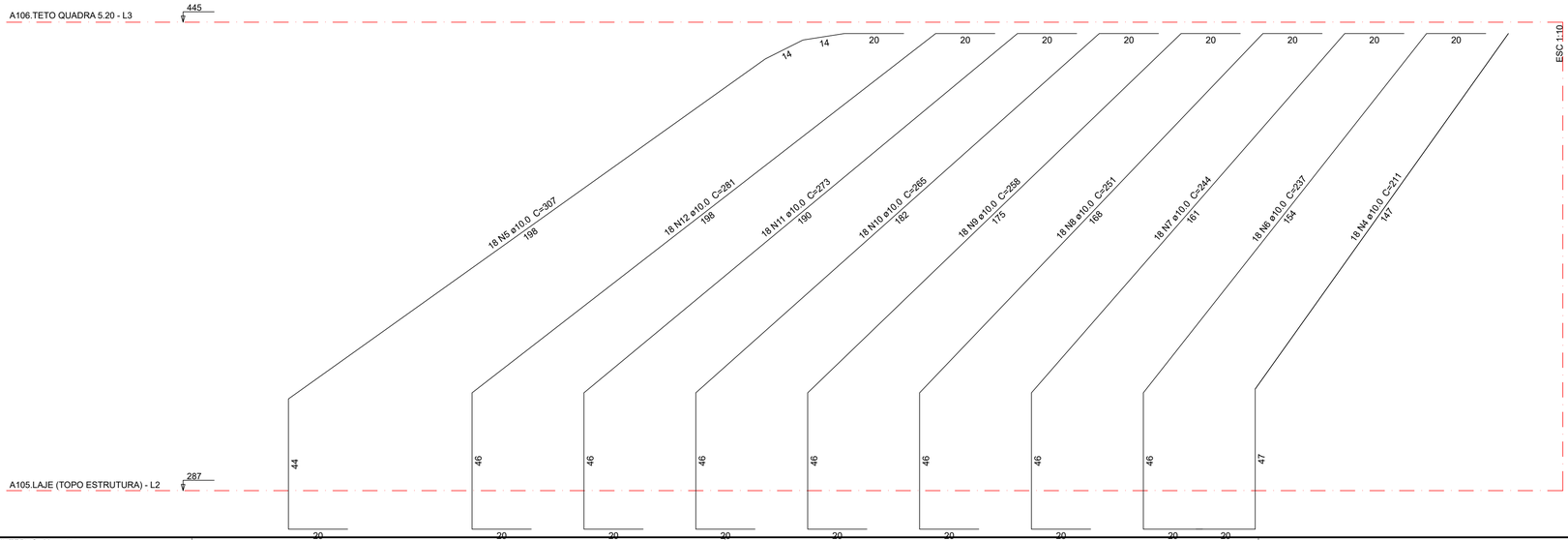
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	403.2	108.5
	10.0	1675.5	1136.3

PESO TOTAL (kg)	
CA50	1244.8

Volume de concreto (30 MPa) = 2.31 m³
Área de forma = 27.9 m²





CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

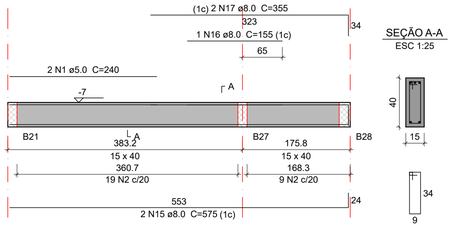
ETAPA:
DETALHE DOS PILARES 4/4

PRANCHA Nº
14/35

DISCIPLINA: ESTRUTURA
ARQUIVO: .NBE.300 ESTR.003
DATA : 02/08/2024
ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

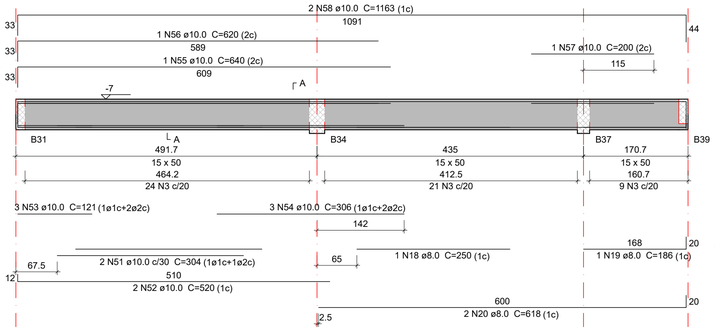
B1
ESC 1:50



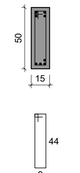
SEÇÃO A-A
ESC 1:25

28 N2 ø5.0 C=97

B2
ESC 1:50

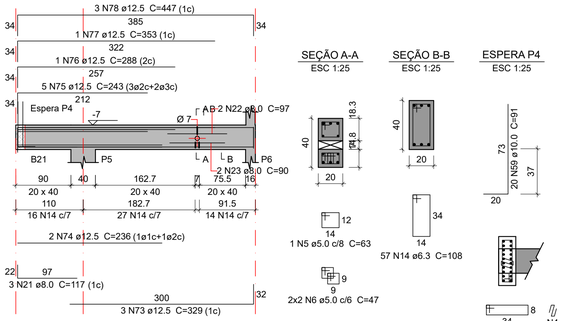


SEÇÃO A-A
ESC 1:25



54 N3 ø5.0 C=117

B3
ESC 1:50



SEÇÃO A-A
ESC 1:25

1 N5 ø5.0 c/8 C=63

SEÇÃO B-B
ESC 1:25

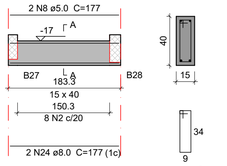
57 N14 ø6.3 C=108

ESPERA P4
ESC 1:25

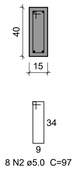
2x2 N6 ø5.0 c/6 C=47

4 N7 ø5.0 c/12 C=95
4 N4 ø5.0 C=23

B5
ESC 1:50

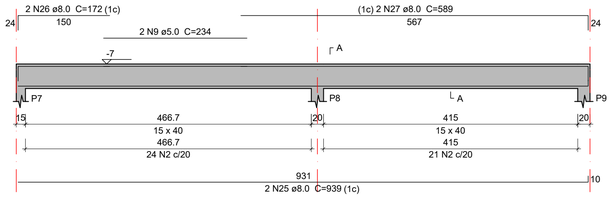


SEÇÃO A-A
ESC 1:25

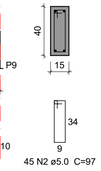


8 N2 ø5.0 C=97

B4
ESC 1:50

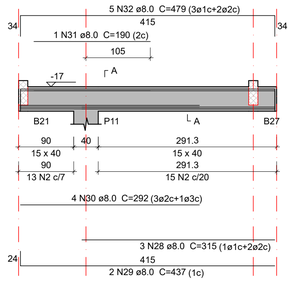


SEÇÃO A-A
ESC 1:25

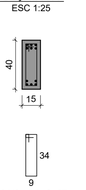


45 N2 ø5.0 C=97

B6
ESC 1:50

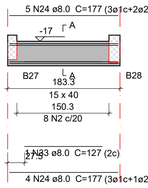


SEÇÃO A-A
ESC 1:25

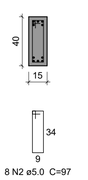


28 N2 ø5.0 C=97

B7
ESC 1:50

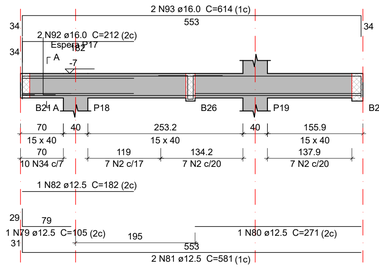


SEÇÃO A-A
ESC 1:25

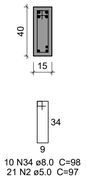


8 N2 ø5.0 C=97

B9
ESC 1:50

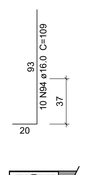


SEÇÃO A-A
ESC 1:25



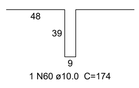
10 N34 ø8.0 C=98
21 N2 ø5.0 C=97

ESPERA P17
ESC 1:25



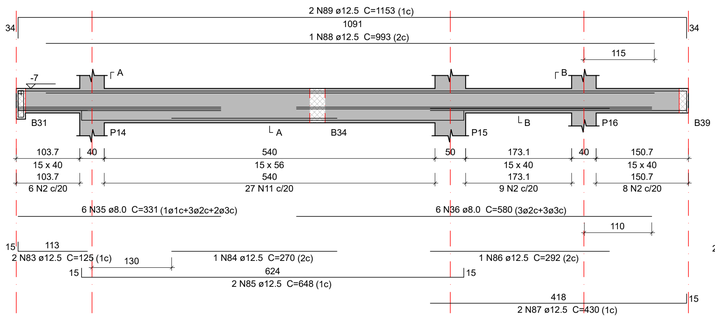
3 N7 ø5.0 c/14 C=95
3 N10 ø5.0 C=22

SUSPENSÃO B26
ESC 1:25

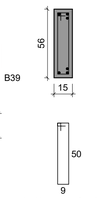


1 N60 ø10.0 C=174

B8
ESC 1:50

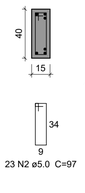


SEÇÃO A-A
ESC 1:25



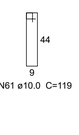
27 N11 ø5.0 C=129

SEÇÃO B-B
ESC 1:25



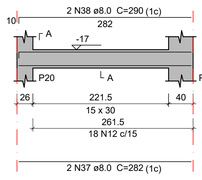
23 N2 ø5.0 C=97

SUSPENSÃO B31
ESC 1:25

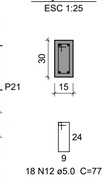


1 N61 ø10.0 C=119

B10
ESC 1:50

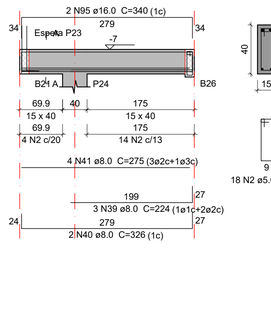


SEÇÃO A-A
ESC 1:25

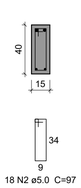


18 N12 ø5.0 C=77

B11
ESC 1:50

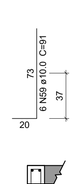


SEÇÃO A-A
ESC 1:25



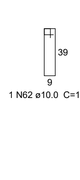
18 N2 ø5.0 C=97

ESPERA P23
ESC 1:25



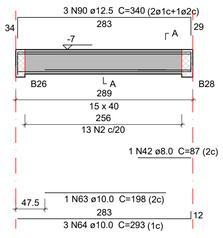
4 N7 ø5.0 c/12 C=95
4 N4 ø5.0 C=23

SUSPENSÃO B26
ESC 1:25

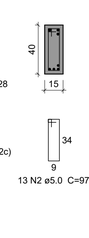


1 N62 ø10.0 C=109

B12
ESC 1:50

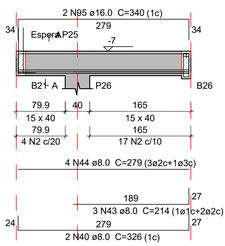


SEÇÃO A-A
ESC 1:25

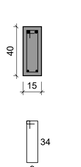


13 N2 ø5.0 C=97

B13
ESC 1:50

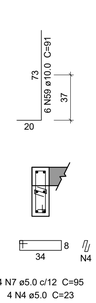


SEÇÃO A-A
ESC 1:25



21 N2 ø5.0 C=97

ESPERA P25
ESC 1:25

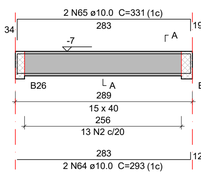


4 N7 ø5.0 c/12 C=95
4 N4 ø5.0 C=23

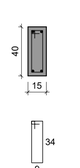
SUSPENSÃO B26
ESC 1:25

1 N62 ø10.0 C=109

B14
ESC 1:50

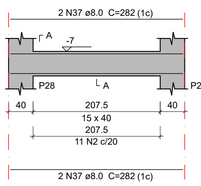


SEÇÃO A-A
ESC 1:25

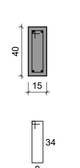


13 N2 ø5.0 C=97

B15
ESC 1:50

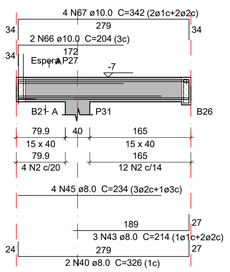


SEÇÃO A-A
ESC 1:25

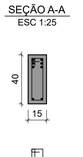


11 N2 ø5.0 C=97

B16
ESC 1:50

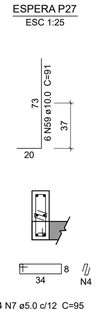


SEÇÃO A-A
ESC 1:25



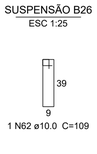
16 N2 ø5.0 C=97

ESPERA P27
ESC 1:25



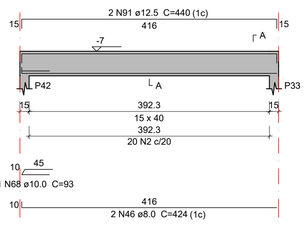
4 N7 ø5.0 c/12 C=95
4 N4 ø5.0 C=23

SUSPENSÃO B26
ESC 1:25

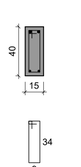


1 N62 ø10.0 C=109

B22
ESC 1:50

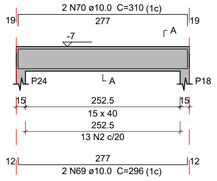


SEÇÃO A-A
ESC 1:25

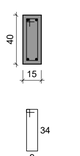


20 N2 ø5.0 C=97

B24
ESC 1:50

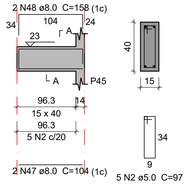


SEÇÃO A-A
ESC 1:25



13 N2 ø5.0 C=97

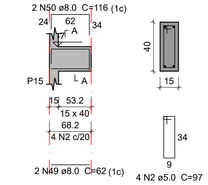
B29
ESC 1:50



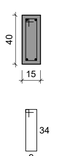
SEÇÃO A-A
ESC 1:25

5 N2 ø5.0 C=97

B35
ESC 1:50

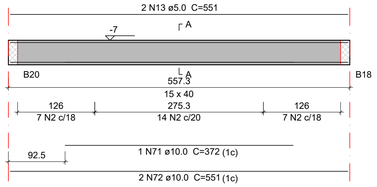


SEÇÃO A-A
ESC 1:25

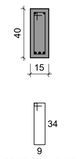


4 N2 ø5.0 C=97

B38
ESC 1:50

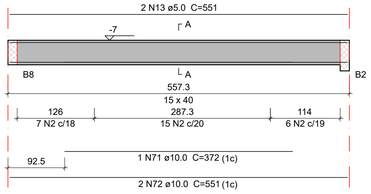


SEÇÃO A-A
ESC 1:25

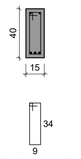


28 N2 ø5.0 C=97

B39
ESC 1:50



SEÇÃO A-A
ESC 1:25



28 N2 ø5.0 C=97

Relação do aço

B1 B2 B3
B4 B5 B6
B7 B8 B9
B10 B11 B12
B13 B14 B15
B16 B22 B24
B29 B35 B38
B39

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	240	480
	2	5.0	351	97	34047
	3	5.0	54	117	6318
	4	5.0	16	23	368
	5	5.0	1	63	63
	6	5.0	4	47	188
	7	5.0	19	95	1805
	8	5.0	2	177	354
	9	5.0	2	234	468
	10	5.0	3	22	66
	11	5.0	27	129	3483
	12	5.0	18	77	1386
	13	5.0	4	551	2204
CA50	14	6.3	57	108	6156
	15	8.0	2	575	1150
	16	8.0	1	155	155
	17	8.0	2	355	710
	18	8.0	1	250	250
	19	8.0	1	186	186
	20	8.0	2	618	1236
	21	8.0	3	117	351
	22	8.0	2	97	194
	23	8.0	2	90	180
	24	8.0	11	177	1947
	25	8.0	2	939	1878
	26	8.0	2	172	344
	27	8.0	2	589	1178
	28	8.0	3	315	945
	29	8.0	2	437	874
	30	8.0	4	292	1168
	31	8.0	1	190	190
	32	8.0	5	479	2395
	33	8.0	1	127	127
	34	8.0	10	98	980
	35	8.0	6	331	1986
	36	8.0	6	580	3480
	37	8.0	6	282	1692
	38	8.0	2	290	580
	39	8.0	3	224	672
	40	8.0	6	326	1956
	41	8.0	4	275	1100
	42	8.0	1	87	87
	43	8.0	6	214	1284
	44	8.0	4	279	1116
	45	8.0	4	234	936
	46	8.0	2	424	848
	47	8.0	2	104	208
	48	8.0	2	158	316
	49	8.0	2	62	124
	50	8.0	2	116	232
	51	10.0	2	304	608
	52	10.0	2	520	1040
	53	10.0	3	121	363
	54	10.0	3	306	918
	55	10.0	1	640	640
	56	10.0	1	620	620
	57	10.0	1	200	200
	58	10.0	2	1163	2326
	59	10.0	38	91	3458
	60	10.0	1	174	174
	61	10.0	1	119	119
	62	10.0	3	109	327
	63	10.0	1	198	198
	64	10.0	5	293	1465
	65	10.0	2	331	662
	66	10.0	2	204	408
	67	10.0	4	342	1368
	68	10.0	1	93	93
	69	10.0	2	296	592
	70	10.0	2	310	620
	71	10.0	2	372	744
	72	10.0	4	551	2204
	73	12.5	3	329	987
	74	12.5	2	236	472
	75	12.5	5	243	1215
	76	12.5	1	288	288
	77	12.5	1	353	353
	78	12.5	3	447	1341
	79	12.5	1	105	105
	80	12.5	1	271	271
	81	12.5	2	581	1162
	82	12.5	1	182	182
	83	12.5	2	125	250
	84	12.5	1	270	270
	85	12.5	2	648	1296
	86	12.5	1	292	292
	87	12.5	2	430	860
	88	12.5	1	993	993
	89	12.5	2	1153	2306
	90	12.5	3	340	1020
	91	12.5	2	440	880
	92	16.0	2	212	424
	93	16.0	2	614	1228
	94	16.0	10	109	1090
	95	16.0	4	340	1360

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	61.6	16.6
	8.0	330.6	143.5
	10.0	191.5	129.9
	12.5	145.5	154.1
	16.0	41.1	71.2
CA60	5.0	512.3	86.9

PESO TOTAL (kg)	
CA50	515.2
CA60	86.9

Volume de concreto (30 MPa) = 5.47 m³
Área de forma = 84.32 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

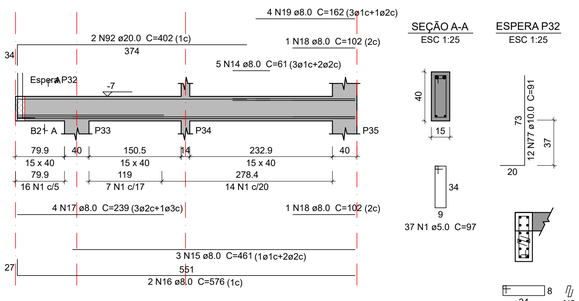
ETAPA:
DETALHE DAS VIGAS BALDRAMES 1/3

PRANCHA Nº
15/35

DISCIPLINA: ESTRUTURA
ARQUIVO: NBE.300 ESTR.003
DATA : 02/08/2024
ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

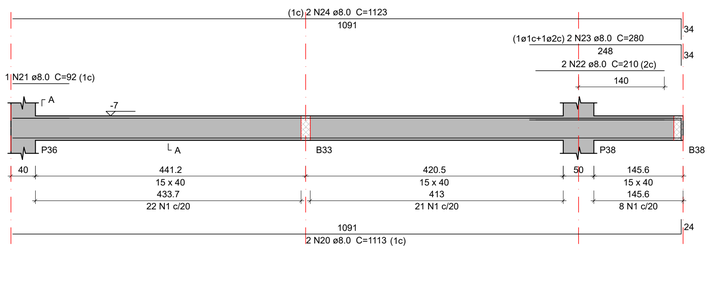
B17
ESC 1:50



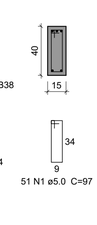
SEÇÃO A-A
ESC 1:25

ESPERA P32
ESC 1:25

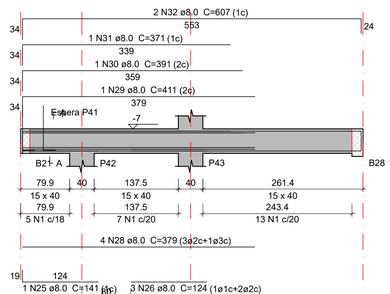
B18
ESC 1:50



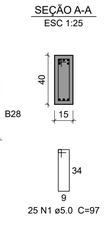
SEÇÃO A-A
ESC 1:25



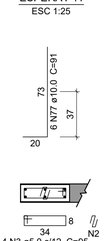
B19
ESC 1:50



SEÇÃO A-A
ESC 1:25



ESPERA P41
ESC 1:25

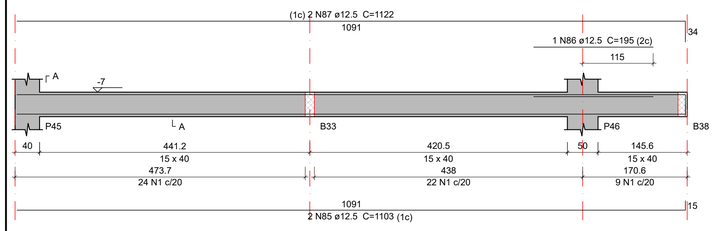


Relação do aço

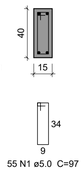
B17	B18	B19
B20	B21	B23
B25	B26	B30
B31	B32	B40

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	344	97	33368
	2	5.0	8	23	184
	3	5.0	12	95	1140
	4	5.0	14	103	1442
	5	5.0	4	39	156
	6	5.0	1	65	65
	7	5.0	1	47	47
	8	5.0	1	57	57
	9	5.0	2	297	594
	10	5.0	33	117	3861
	11	5.0	4	23	92
	12	5.0	67	107	7169
CA50	13	6.3	4	209	836
	14	8.0	5	61	305
	15	8.0	3	461	1383
	16	8.0	2	576	1152
	17	8.0	4	239	956
	18	8.0	2	102	204
	19	8.0	4	162	648
	20	8.0	2	1113	2226
	21	8.0	1	92	92
	22	8.0	2	210	420
	23	8.0	2	280	560
	24	8.0	2	1123	2246
	25	8.0	1	141	141
	26	8.0	3	124	372
	27	8.0	2	578	1156
	28	8.0	4	379	1516
	29	8.0	1	411	411
	30	8.0	1	391	391
	31	8.0	1	371	371
	32	8.0	2	607	1214
	33	8.0	3	295	885
	34	8.0	3	313	939
	35	8.0	2	82	164
	36	8.0	2	91	182
	37	8.0	2	88	176
	38	8.0	2	98	196
	39	8.0	1	220	220
	40	8.0	2	325	650
	41	8.0	2	1106	2212
	42	8.0	1	123	123
	43	8.0	2	242	484
	44	8.0	3	174	522
	45	8.0	1	103	103
	46	8.0	2	153	306
	47	8.0	2	991	1982
	48	8.0	4	228	912
	49	8.0	4	349	1396
	50	8.0	4	196	784
	51	8.0	8	484	3872
	52	8.0	1	165	165
	53	8.0	5	1200	6000
	54	8.0	2	326	652
	55	8.0	1	415	415
	56	8.0	2	636	1272
	57	8.0	3	125	375
	58	8.0	3	235	705
	59	8.0	1	329	329
	60	8.0	4	260	1040
	61	8.0	2	886	1772
	62	8.0	2	480	960
	63	8.0	3	50	150
	64	8.0	1	728	728
	65	8.0	3	763	2289
	66	8.0	2	1198	2396
	67	8.0	2	277	554
	68	8.0	2	265	530
	69	8.0	1	412	412
	70	8.0	7	584	4088
	71	8.0	3	152	456
	72	8.0	4	193	772
	73	8.0	2	104	208
	74	8.0	3	223	669
	75	8.0	3	94	282
	76	8.0	5	247	1235
	77	10.0	18	91	1638
	78	10.0	2	136	272
	79	10.0	2	245	490
	80	10.0	1	91	91
	81	10.0	2	561	1122
	82	10.0	1	154	154
	83	10.0	3	458	1374
	84	10.0	3	309	927
	85	12.5	2	1103	2206
	86	12.5	1	195	195
	87	12.5	2	1122	2244
	88	12.5	1	109	109
	89	12.5	3	287	861
	90	12.5	2	573	1146
	91	12.5	16	109	1744
	92	20.0	2	402	804
	93	20.0	2	627	1254

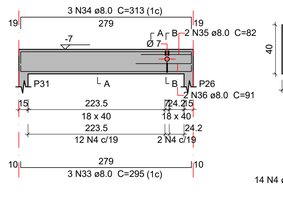
B20
ESC 1:50



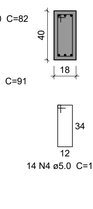
SEÇÃO A-A
ESC 1:25



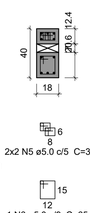
B23
ESC 1:50



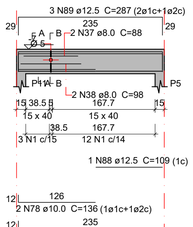
SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25

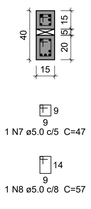


B25
ESC 1:50

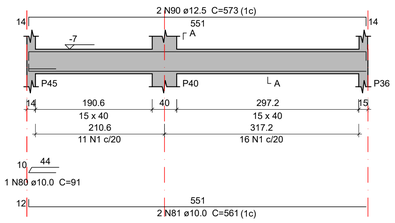


SEÇÃO A-A
ESC 1:25

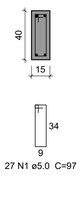
SEÇÃO B-B
ESC 1:25



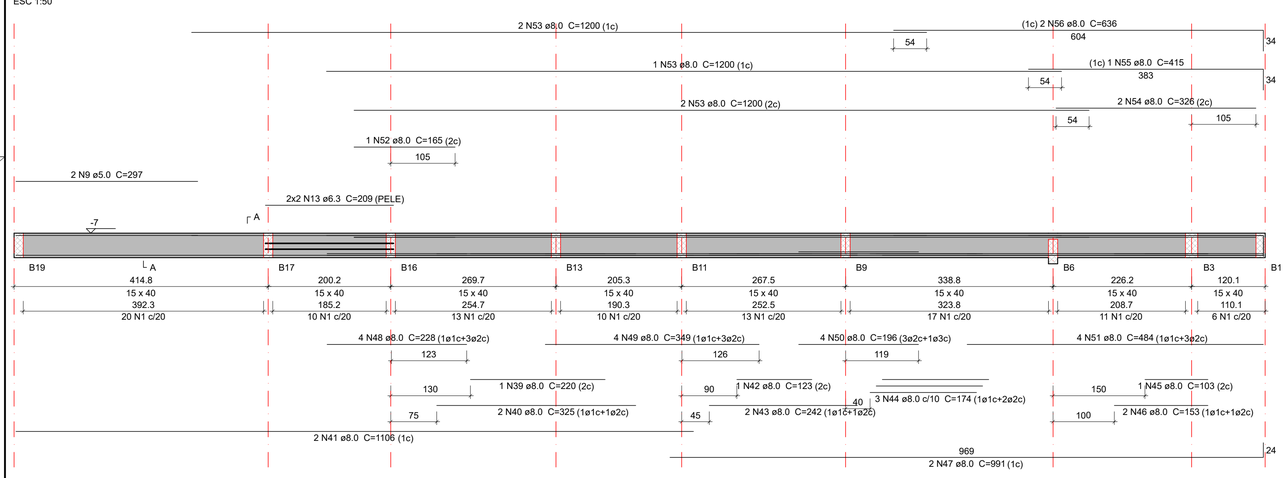
B30
ESC 1:50



SEÇÃO A-A
ESC 1:25

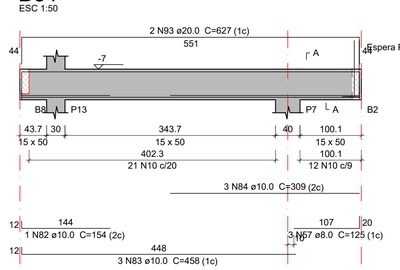


B21
ESC 1:50

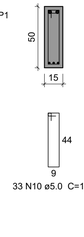


SEÇÃO A-A
ESC 1:25

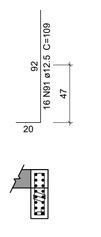
B31
ESC 1:50



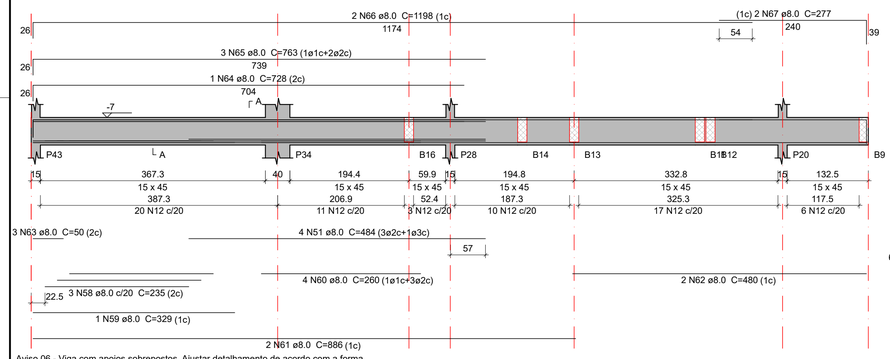
SEÇÃO A-A
ESC 1:25



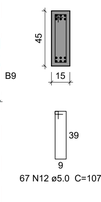
ESPERA P1
ESC 1:25



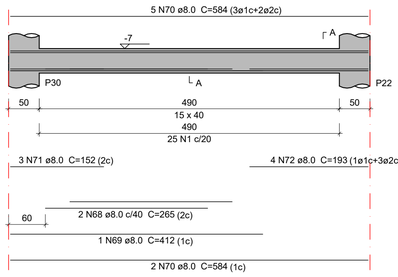
B26
ESC 1:50



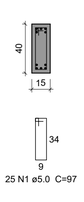
SEÇÃO A-A
ESC 1:25



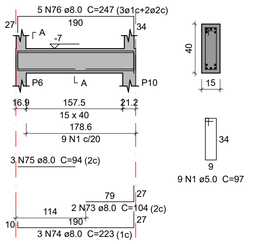
B32
ESC 1:50



SEÇÃO A-A
ESC 1:25



B40
ESC 1:50



SEÇÃO A-A
ESC 1:25

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	8.4	2.3
	8.0	603.3	261.8
	10.0	60.7	41.2
	12.5	85.1	90.1
	20.0	20.6	55.8
CA60	5.0	481.8	81.7

PESO TOTAL (kg)	
CA50	451.2
CA60	81.7

Volume de concreto (30 MPa) = 5.29 m³
Área de forma = 82.38 m²

Aviso 06 - Viga com apoios sobrepostos. Ajustar detalhamento de acordo com a forma.

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

DETALHE DAS VIGAS BALDRAMES 2/3

PRANCHA Nº 16/35

DISCIPLINA: ESTRUTURA

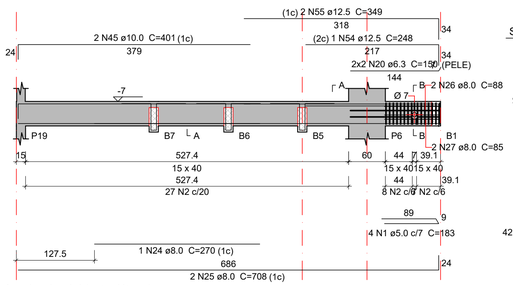
ARQUIVO: .NBE.300 ESTR.003

DATA : 02/08/2024

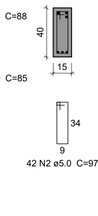
ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

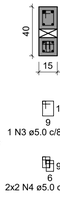
B27
ESC 1:50



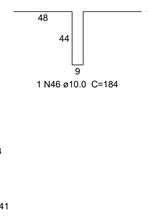
SEÇÃO A-A
ESC 1:25



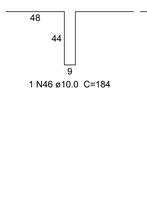
SEÇÃO B-B
ESC 1:25



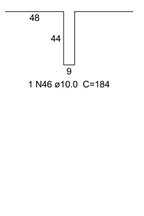
SUSPENSÃO B7
ESC 1:25



SUSPENSÃO B6
ESC 1:25

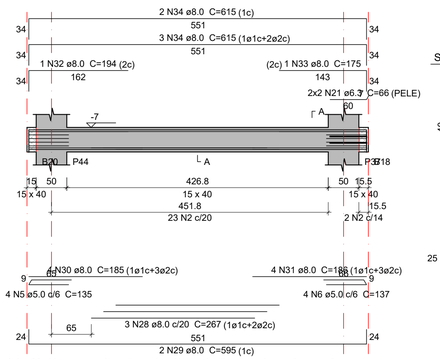


SUSPENSÃO B5
ESC 1:25

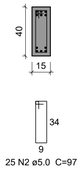


Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

B33
ESC 1:50

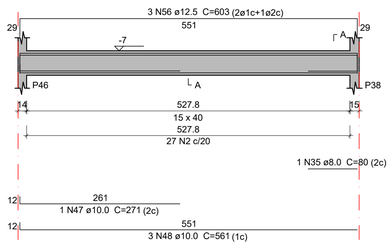


SEÇÃO A-A
ESC 1:25

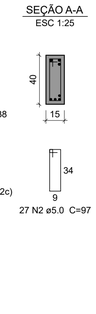


Aviso 06 - Viga com apoios sobrepostos. Ajustar detalhamento de acordo com a forma.

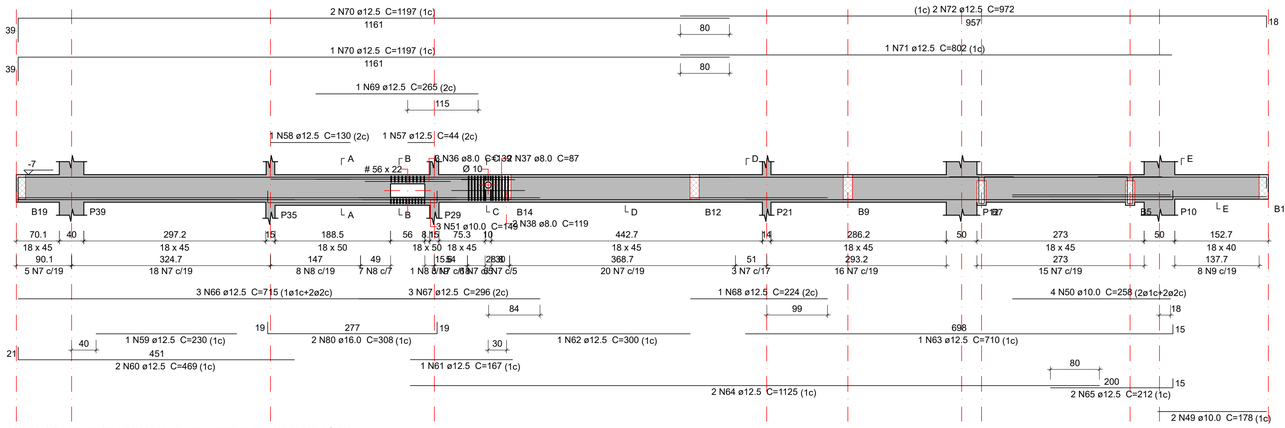
B36
ESC 1:50



SEÇÃO A-A
ESC 1:25



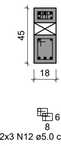
B28
ESC 1:50



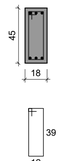
SEÇÃO A-A
ESC 1:25

SEÇÃO B-B
ESC 1:25

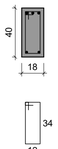
SEÇÃO C-C
ESC 1:25



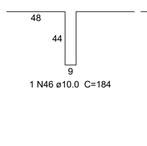
SEÇÃO D-D
ESC 1:25



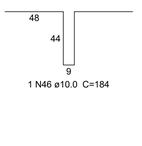
SEÇÃO E-E
ESC 1:25



SUSPENSÃO B7
ESC 1:25

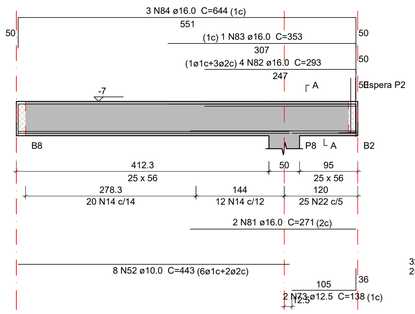


SUSPENSÃO B5
ESC 1:25

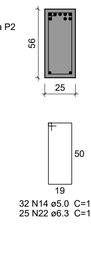


Aviso 06 - Viga com apoios sobrepostos. Ajustar detalhamento de acordo com a forma.

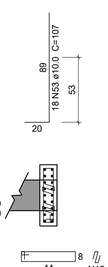
B34
ESC 1:50



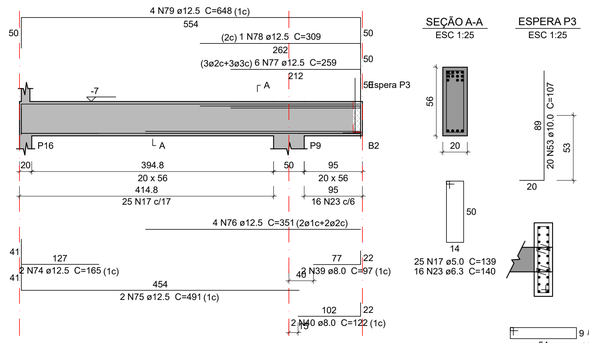
SEÇÃO A-A
ESC 1:25



ESPERA P2
ESC 1:25

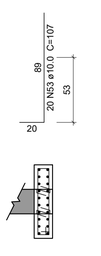


B37
ESC 1:50

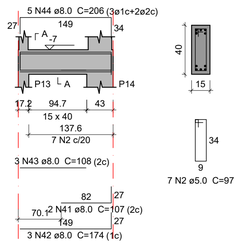


SEÇÃO A-A
ESC 1:25

ESPERA P3
ESC 1:25



B41
ESC 1:50



SEÇÃO A-A
ESC 1:25

Relação do aço

B27 B28 B33
B34 B36 B37
B41

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	4	183	732
	2	5.0	101	97	9797
	3	5.0	1	53	53
	4	5.0	4	41	164
	5	5.0	4	135	540
	6	5.0	4	137	548
	7	5.0	92	113	10396
	8	5.0	16	123	1968
	9	5.0	8	103	824
	10	5.0	20	45	900
	11	5.0	24	41	984
	12	5.0	6	39	234
	13	5.0	2	69	138
	14	5.0	32	149	4768
	15	5.0	10	23	230
	16	5.0	5	115	575
	17	5.0	25	139	3475
	18	5.0	10	24	240
	19	5.0	5	137	685
CA50	20	6.3	4	150	600
	21	6.3	4	66	264
	22	6.3	25	150	3750
	23	6.3	16	140	2240
	24	8.0	1	270	270
	25	8.0	2	708	1416
	26	8.0	2	88	176
	27	8.0	2	85	170
	28	8.0	3	267	801
	29	8.0	2	595	1190
	30	8.0	4	185	740
	31	8.0	4	186	744
	32	8.0	1	194	194
	33	8.0	1	175	175
	34	8.0	5	615	3075
	35	8.0	1	80	80
	36	8.0	3	139	417
	37	8.0	2	87	174
	38	8.0	2	119	238
	39	8.0	2	97	194
	40	8.0	2	122	244
	41	8.0	2	107	214
	42	8.0	3	174	522
	43	8.0	3	108	324
	44	8.0	5	206	1030
	45	10.0	2	401	802
	46	10.0	5	184	920
	47	10.0	1	271	271
	48	10.0	3	561	1683
	49	10.0	2	178	356
	50	10.0	4	258	1032
	51	10.0	3	149	447
	52	10.0	8	443	3544
	53	10.0	38	107	4066
	54	12.5	1	248	248
	55	12.5	2	349	698
	56	12.5	3	603	1809
	57	12.5	1	44	44
	58	12.5	1	130	130
	59	12.5	1	230	230
	60	12.5	2	469	938
	61	12.5	1	167	167
	62	12.5	1	300	300
	63	12.5	1	710	710
	64	12.5	2	1125	2250
	65	12.5	2	212	424
	66	12.5	3	715	2145
	67	12.5	3	296	888
	68	12.5	1	224	224
	69	12.5	1	265	265
	70	12.5	3	1197	3591
	71	12.5	1	802	802
	72	12.5	2	972	1944
	73	12.5	2	138	276
	74	12.5	2	165	330
	75	12.5	2	491	982
	76	12.5	4	351	1404
	77	12.5	6	259	1554
	78	12.5	1	309	309
	79	12.5	4	648	2592
	80	16.0	2	308	616
	81	16.0	2	271	542
	82	16.0	4	293	1172
	83	16.0	1	353	353
	84	16.0	3	644	1932

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	68.6	18.4
	8.0	123.9	53.8
	10.0	131.3	89
	12.5	252.6	267.6
	16.0	46.2	80.1
CA60	5.0	372.6	63.2

PESO TOTAL (kg)	
CA50	508.9
CA60	63.2

Volume de concreto (30 MPa) = 3.95 m³
Área de forma = 51.62 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

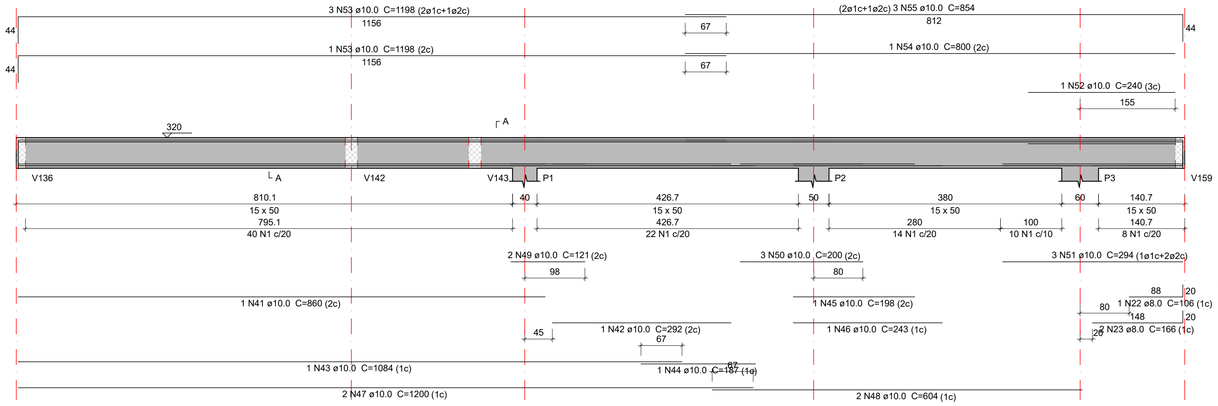
ETAPA:
DETALHE DAS VIGAS BALDRAMES 3/3

PRANCHA Nº
17/35

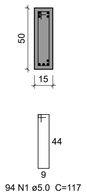
DISCIPLINA: ESTRUTURA
ARQUIVO: .NBE.300 ESTR.003
DATA : 02/08/2024
ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

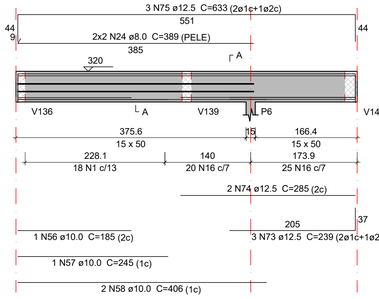
V101
ESC 1:50



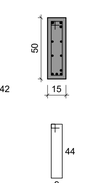
SEÇÃO A-A
ESC 1:25



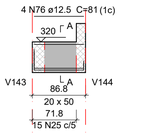
V103
ESC 1:50



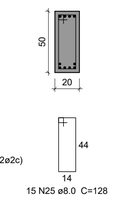
SEÇÃO A-A
ESC 1:25



V114
ESC 1:50



SEÇÃO A-A
ESC 1:25

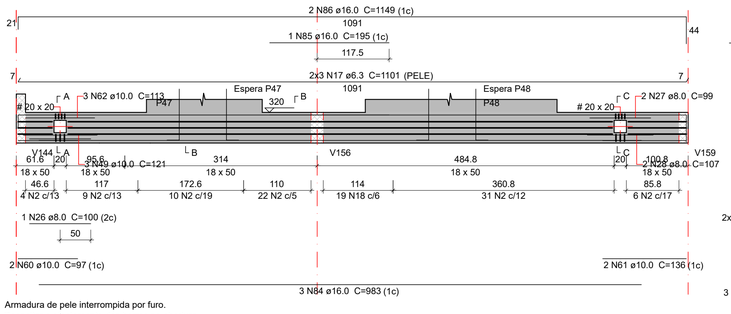


Relação do aço

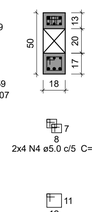
V101 V102 V103
V104 V105 V106
V107 V108 V109
V110 V114

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	192	117	22464
	2	5.0	186	123	22878
	3	5.0	8	24	192
	4	5.0	44	41	1804
	5	5.0	14	57	798
	6	5.0	4	183	732
	7	5.0	2	69	138
	8	5.0	14	51	714
	9	5.0	22	127	2794
	10	5.0	12	43	516
	11	5.0	6	49	294
	12	5.0	279	147	41013
	13	5.0	18	53	954
	14	5.0	22	65	1430
	15	5.0	8	57	456
CA50	16	6.3	207	118	24426
	17	6.3	6	1101	6606
	18	6.3	19	124	2356
	19	6.3	6	181	1086
	20	6.3	6	VAR	VAR
	21	6.3	8	148	1184
	22	8.0	1	106	106
	23	8.0	2	166	332
	24	8.0	4	389	1556
	25	8.0	15	128	1920
	26	8.0	1	100	100
	27	8.0	10	99	990
	28	8.0	12	107	1284
	29	8.0	4	VAR	VAR
	30	8.0	3	54	162
	31	8.0	4	90	360
	32	8.0	4	82	328
	33	8.0	2	109	218
	34	8.0	2	117	234
	35	8.0	4	564	2256
	36	8.0	4	VAR	VAR
	37	8.0	1	176	176
	38	8.0	1	564	564
	39	8.0	4	VAR	VAR
	40	8.0	6	996	5976
	41	10.0	1	860	860
	42	10.0	1	292	292
	43	10.0	1	1084	1084
	44	10.0	1	187	187
	45	10.0	1	198	198
	46	10.0	1	243	243
	47	10.0	2	1200	2400
	48	10.0	2	604	1208
	49	10.0	5	121	605
	50	10.0	3	200	600
	51	10.0	3	294	882
	52	10.0	1	240	240
	53	10.0	4	1198	4792
	54	10.0	1	800	800
	55	10.0	3	854	2562
	56	10.0	1	185	185
	57	10.0	1	245	245
	58	10.0	2	406	812
	59	10.0	6	119	714
	60	10.0	2	97	194
	61	10.0	2	136	272
	62	10.0	6	113	678
	63	10.0	9	131	1179
	64	10.0	22	125	2750
	65	10.0	1	505	505
	66	10.0	4	582	2328
	67	10.0	2	58	116
	68	10.0	7	130	910
	69	10.0	4	119	476
	70	10.0	2	189	378
	71	10.0	1	100	100
	72	10.0	6	123	738
	73	12.5	3	239	717
	74	12.5	2	285	570
	75	12.5	3	633	1899
	76	12.5	4	81	324
	77	12.5	1	302	302
	78	12.5	1	312	312
	79	12.5	2	648	1296
	80	12.5	4	243	972
	81	12.5	4	284	1136
	82	12.5	3	551	1653
	83	12.5	5	373	1865
	84	16.0	3	983	2949
	85	16.0	1	195	195
	86	16.0	2	1149	2298
	87	16.0	2	604	1208
	88	16.0	2	163	326
	89	16.0	2	336	672
	90	16.0	2	364	728
	91	16.0	1	1059	1059
	92	16.0	2	1081	2162
	93	16.0	2	262	524
	94	16.0	1	271	271
	95	16.0	1	180	180
	96	16.0	1	378	378
	97	16.0	2	1083	2166
	98	16.0	2	237	474
	99	16.0	2	589	1178
	100	16.0	2	632	1264
	101	16.0	1	288	288
	102	16.0	1	250	250
	103	16.0	2	608	1216
	104	16.0	1	224	224
	105	16.0	2	300	600
	106	16.0	1	255	255
	107	16.0	3	1071	3213
	108	20.0	2	220	440

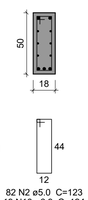
V102
ESC 1:50



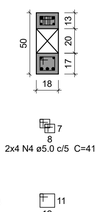
SEÇÃO A-A
ESC 1:25



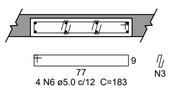
SEÇÃO B-B
ESC 1:25



SEÇÃO C-C
ESC 1:25



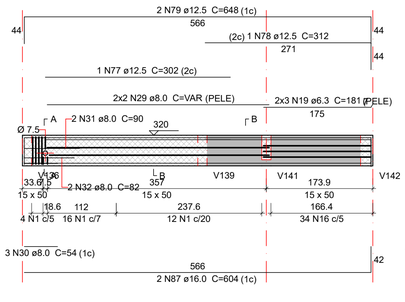
ESPERA P47
ESC 1:25



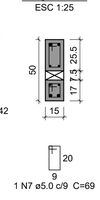
VIDE PROJETO DE PILARES

Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

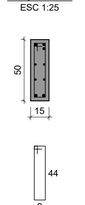
V104
ESC 1:50



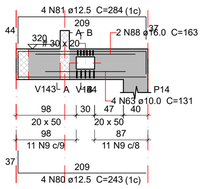
SEÇÃO A-A
ESC 1:25



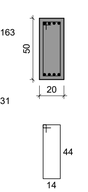
SEÇÃO B-B
ESC 1:25



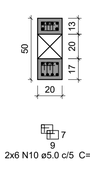
V109
ESC 1:50



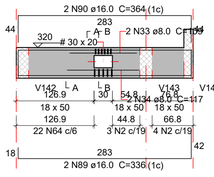
SEÇÃO A-A
ESC 1:25



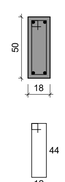
SEÇÃO B-B
ESC 1:25



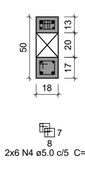
V105
ESC 1:50



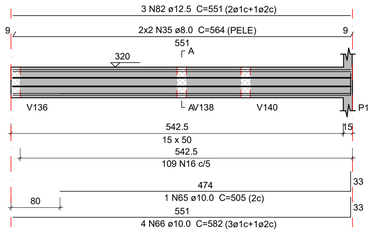
SEÇÃO A-A
ESC 1:25



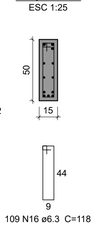
SEÇÃO B-B
ESC 1:25



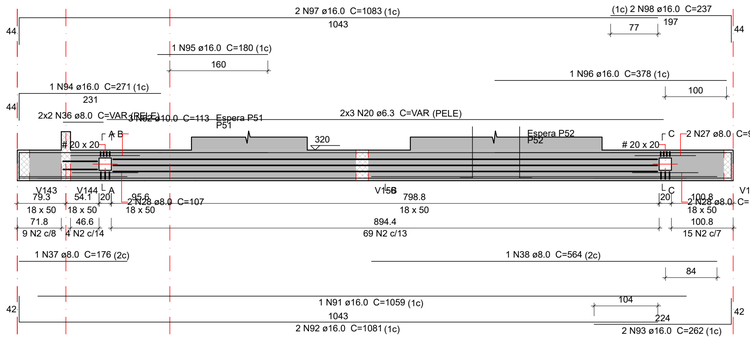
V106
ESC 1:50



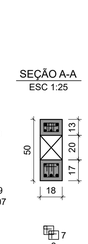
SEÇÃO A-A
ESC 1:25



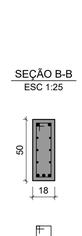
V107
ESC 1:50



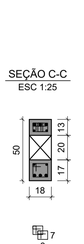
SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25



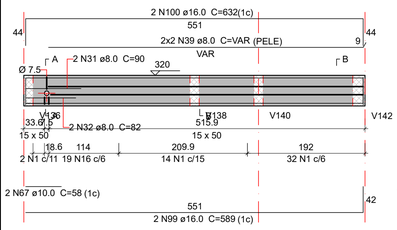
SEÇÃO C-C
ESC 1:25



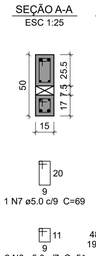
ESPERA P51
ESC 1:25

VIDE PROJETO DE PILARES

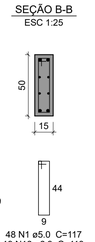
V108
ESC 1:50



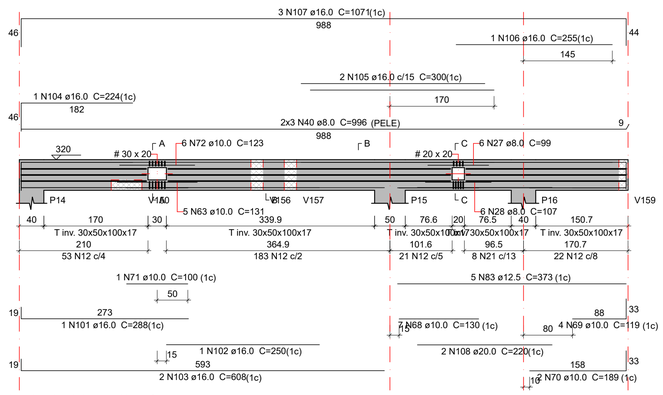
SEÇÃO A-A
ESC 1:25



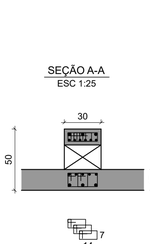
SEÇÃO B-B
ESC 1:25



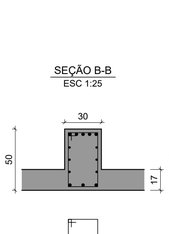
V110
ESC 1:50



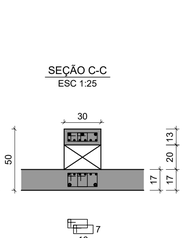
SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25



SEÇÃO C-C
ESC 1:25



Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	411.1	110.6
	8.0	203.7	88.4
	10.0	295.4	200.3
	12.5	110.5	117.1
	16.0	240.8	418
	20.0	4.4	11.9
CA60	5.0	971.8	164.8

PESO TOTAL (kg)	
CA50	946.3
CA60	164.8

Volume de concreto (30 MPa) = 8.1 m³
Área de forma = 76.05 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

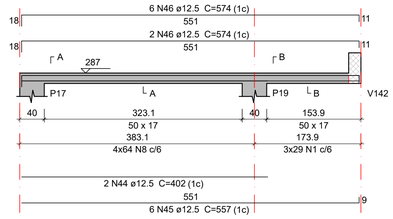
ETAPA: DETALHE DAS VIGAS COBERTURA 1/6

PRANCHA Nº 18/35

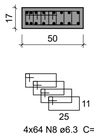
DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

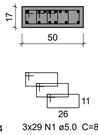
V111
ESC 1:50



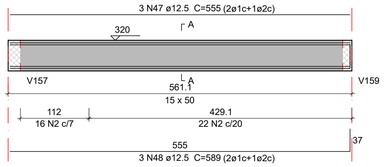
SEÇÃO A-A
ESC 1:25



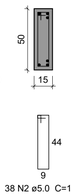
SEÇÃO B-B
ESC 1:25



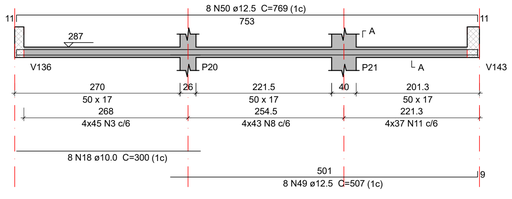
V112
ESC 1:50



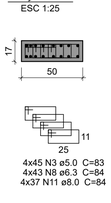
SEÇÃO A-A
ESC 1:25



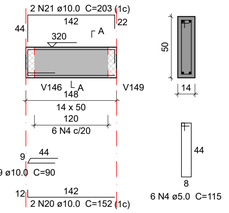
V113
ESC 1:50



SEÇÃO A-A
ESC 1:25

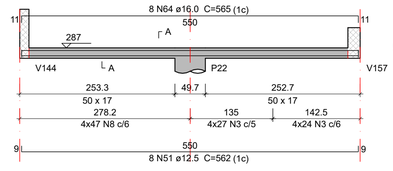


V116
ESC 1:50

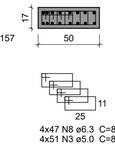


SEÇÃO A-A
ESC 1:25

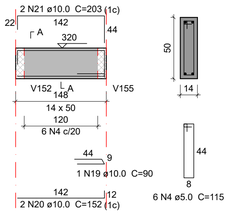
V115
ESC 1:50



SEÇÃO A-A
ESC 1:25

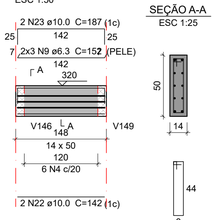


V117
ESC 1:50



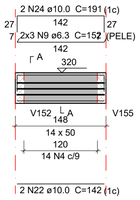
SEÇÃO A-A
ESC 1:25

V118
ESC 1:50

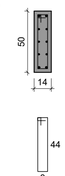


SEÇÃO A-A
ESC 1:25

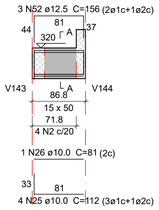
V119
ESC 1:50



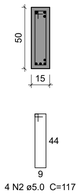
SEÇÃO A-A
ESC 1:25



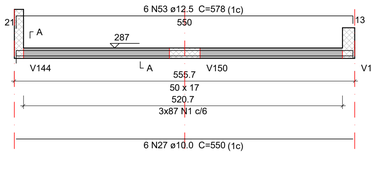
V120
ESC 1:50



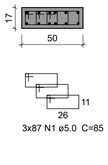
SEÇÃO A-A
ESC 1:25



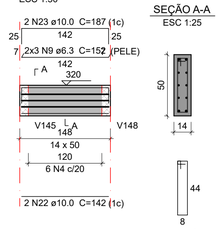
V121
ESC 1:50



SEÇÃO A-A
ESC 1:25

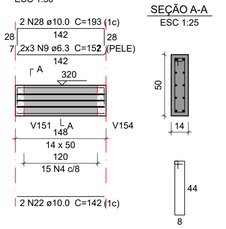


V122
ESC 1:50



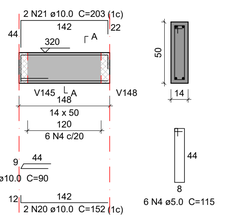
SEÇÃO A-A
ESC 1:25

V123
ESC 1:50



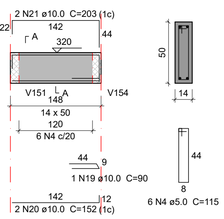
SEÇÃO A-A
ESC 1:25

V124
ESC 1:50



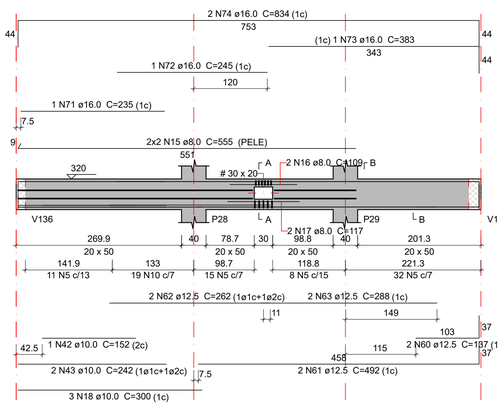
SEÇÃO A-A
ESC 1:25

V125
ESC 1:50



SEÇÃO A-A
ESC 1:25

V126
ESC 1:50

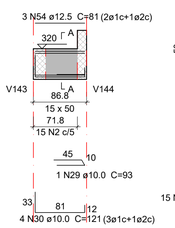


Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

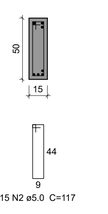
SEÇÃO A-A
ESC 1:25

SEÇÃO B-B
ESC 1:25

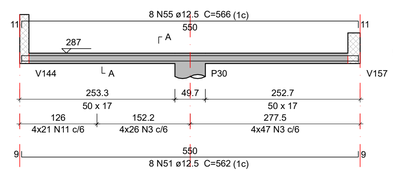
V127
ESC 1:50



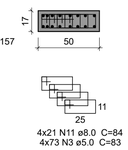
SEÇÃO A-A
ESC 1:25



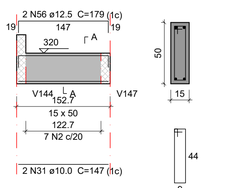
V128
ESC 1:50



SEÇÃO A-A
ESC 1:25

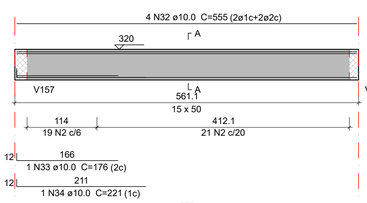


V129
ESC 1:50

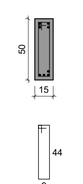


SEÇÃO A-A
ESC 1:25

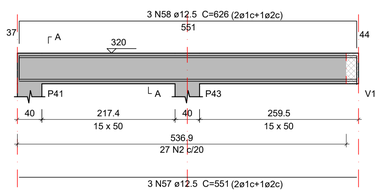
V130
ESC 1:50



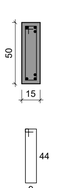
SEÇÃO A-A
ESC 1:25



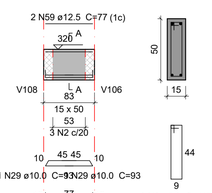
V133
ESC 1:50



SEÇÃO A-A
ESC 1:25

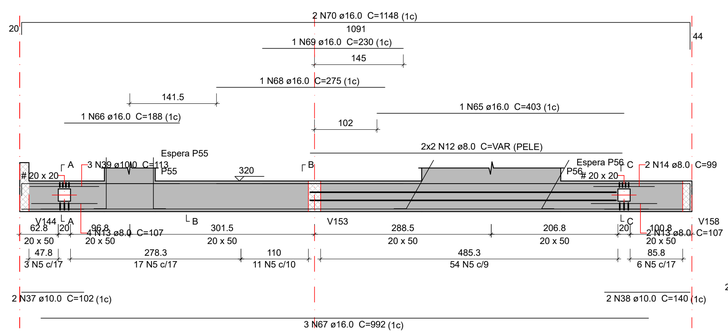


V138
ESC 1:50

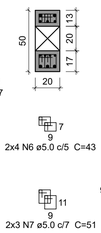


SEÇÃO A-A
ESC 1:25

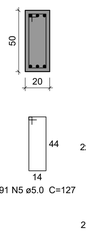
V134
ESC 1:50



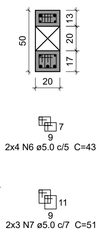
SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25



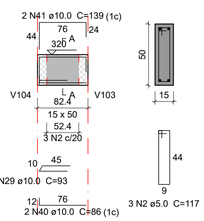
SEÇÃO C-C
ESC 1:25



ESPERA P55 E P56
ESC 1:25

VIDE DETALHE DOS PILARES

V139
ESC 1:50



SEÇÃO A-A
ESC 1:25

Relação do aço

V111	V112	V113
V115	V116	V117
V118	V119	V120
V121	V122	V123
V124	V125	V126
V127	V128	V129
V130	V133	V134
V138	V139	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	348	85	29580
	2	5.0	137	117	16029
	3	5.0	676	83	56108
	4	5.0	65	115	7475
	5	5.0	157	127	19939
	6	5.0	28	43	1204
	7	5.0	22	51	1122
CA50	8	6.3	616	84	51744
	9	6.3	24	152	3648
	10	6.3	19	128	2432
	11	8.0	232	84	19488
	12	8.0	4	VAR	VAR
	13	8.0	6	107	642
	14	8.0	2	99	198
	15	8.0	4	555	2220
	16	8.0	2	109	218
	17	8.0	2	117	234
	18	10.0	11	300	3300
	19	10.0	4	90	360
	20	10.0	8	152	1216
	21	10.0	8	203	1624
	22	10.0	8	142	1136
	23	10.0	4	187	748
	24	10.0	2	191	382
	25	10.0	4	112	448
	26	10.0	1	81	81
	27	10.0	6	550	3300
	28	10.0	2	193	386
	29	10.0	4	93	372
	30	10.0	4	121	484
	31	10.0	2	147	294
	32	10.0	4	555	2220
	33	10.0	1	176	176
	34	10.0	1	221	221
	35	10.0	2	565	1130
	36	10.0	2	96	192
	37	10.0	2	102	204
	38	10.0	2	140	280
	39	10.0	3	113	339
	40	10.0	2	86	172
	41	10.0	2	139	278
	42	10.0	1	152	152
	43	10.0	2	242	484
	44	12.5	2	402	804
	45	12.5	6	557	3342
	46	12.5	8	574	4592
	47	12.5	3	555	1665
	48	12.5	3	589	1767
	49	12.5	8	507	4056
	50	12.5	8	769	6152
	51	12.5	16	562	8992
	52	12.5	3	156	468
	53	12.5	6	578	3468
	54	12.5	3	81	243
	55	12.5	8	566	4528
	56	12.5	2	179	358
	57	12.5	3	551	1653
	58	12.5	3	626	1878
	59	12.5	2	77	154
	60	12.5	2	137	274
	61	12.5	2	492	984
	62	12.5	2	262	524
	63	12.5	2	288	576
	64	16.0	8	565	4520
	65	16.0	1	403	403
	66	16.0	1	188	188
	67	16.0	3	992	2976
	68	16.0	1	275	275
	69	16.0	1	230	230
	70	16.0	2	1148	2296
	71	16.0	1	235	235
	72	16.0	1	245	245
	73	16.0	1	383	383
	74	16.0	2	834	1668

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	578.3	155.6
	8.0	250.4	108.7
	10.0	199.8	135.5
	12.5	464.8	492.5
	16.0	134.2	233
CA60	5.0	1314.6	222.9

PESO TOTAL (kg)	
CA50	1125.3
CA60	222.9

Volume de concreto (30 MPa) = 6.58 m³
Área de forma = 61.99 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

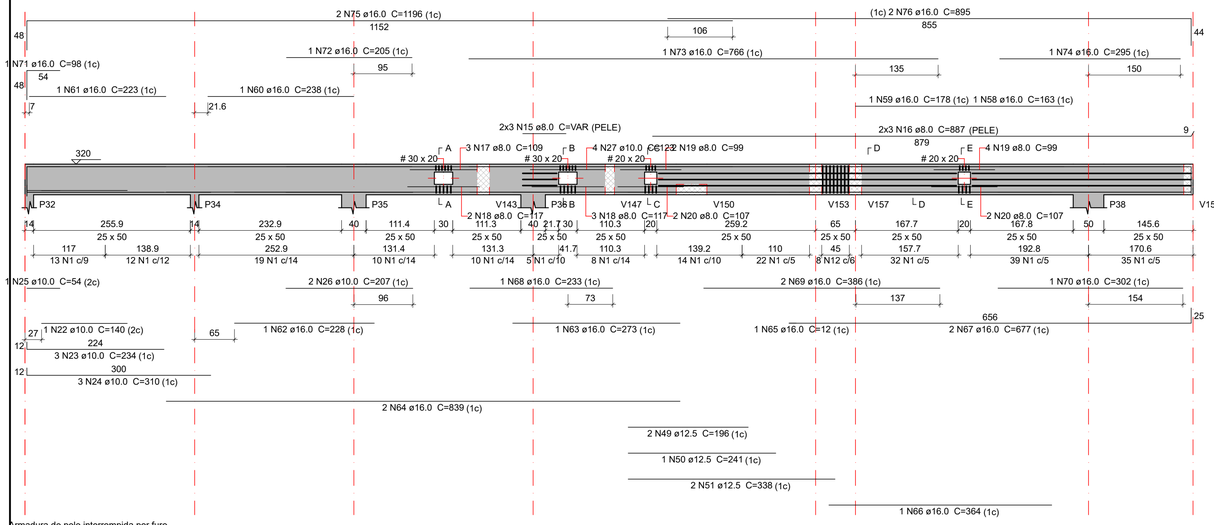
DETALHE DAS VIGAS COBERTURA 2/6

PRANCHA Nº 19/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

V131
ESC 1:50



Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

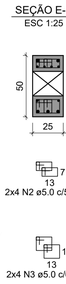
SEÇÃO A-A
ESC 1:25

SEÇÃO B-B
ESC 1:25

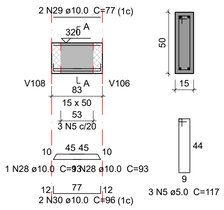
SEÇÃO C-C
ESC 1:25

SEÇÃO D-D
ESC 1:25

SEÇÃO E-E
ESC 1:25



V140
ESC 1:50



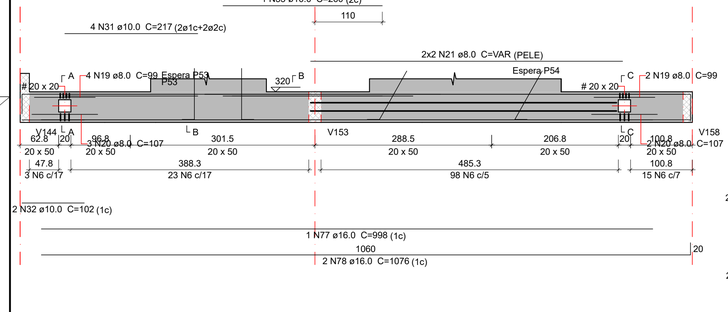
SEÇÃO A-A
ESC 1:25

Relação do aço

V131	V132	V135
V137	V140	V141
V145	V146	V147
V148	V149	V150
V151	V154	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	219	137	30003
	2	5.0	28	51	1428
	3	5.0	36	59	2124
	4	5.0	18	47	846
	5	5.0	67	117	7839
	6	5.0	139	127	17653
	7	5.0	16	43	688
	8	5.0	12	51	612
	9	5.0	1004	83	83332
	10	5.0	7	97	679
	11	5.0	40	115	4600
CA50	12	6.3	8	138	1104
	13	6.3	24	152	3648
	14	6.3	184	84	15456
	15	8.0	6	VAR	VAR
	16	8.0	6	887	5322
	17	8.0	3	109	327
	18	8.0	5	117	585
	19	8.0	12	99	1188
	20	8.0	9	107	963
	21	8.0	4	VAR	VAR
	22	10.0	1	140	140
	23	10.0	3	234	702
	24	10.0	3	310	930
	25	10.0	1	54	54
	26	10.0	2	207	414
	27	10.0	4	123	492
	28	10.0	2	93	186
	29	10.0	2	77	154
	30	10.0	2	96	192
	31	10.0	4	217	868
	32	10.0	2	102	204
	33	10.0	1	260	260
	34	10.0	2	295	590
	35	10.0	1	385	385
	36	10.0	1	785	785
	37	10.0	2	1162	2324
	38	10.0	8	399	3192
	39	10.0	2	140	280
	40	10.0	3	181	543
	41	10.0	1	119	119
	42	10.0	8	90	720
	43	10.0	4	142	568
	44	10.0	4	161	644
	45	10.0	2	153	306
	46	10.0	2	196	392
	47	10.0	8	152	1216
	48	10.0	8	206	1648
	49	12.5	2	196	392
	50	12.5	1	241	241
	51	12.5	2	338	676
	52	12.5	5	150	750
	53	12.5	5	186	930
	54	12.5	8	701	5608
	55	12.5	8	1110	8880
	56	12.5	2	379	758
	57	12.5	8	1120	8960
	58	16.0	1	163	163
	59	16.0	1	178	178
	60	16.0	1	238	238
	61	16.0	1	223	223
	62	16.0	1	228	228
	63	16.0	1	273	273
	64	16.0	2	839	1678
	65	16.0	1	12	12
	66	16.0	1	364	364
	67	16.0	2	677	1354
	68	16.0	1	233	233
	69	16.0	2	386	772
	70	16.0	1	302	302
	71	16.0	1	98	98
	72	16.0	1	205	205
	73	16.0	1	766	766
	74	16.0	1	295	295
	75	16.0	2	1196	2392
	76	16.0	2	895	1790
	77	16.0	1	998	998
	78	16.0	2	1076	2152
	79	16.0	8	322	2576
	80	16.0	2	1103	2206
	81	16.0	2	1144	2288

V132
ESC 1:50



SEÇÃO A-A
ESC 1:25

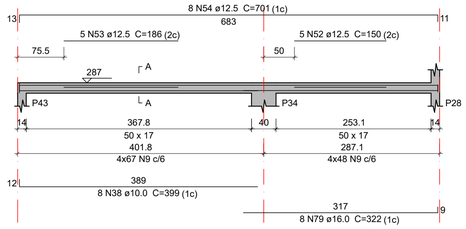
SEÇÃO B-B
ESC 1:25

SEÇÃO C-C
ESC 1:25

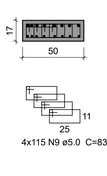
ESPERA P53 E P54
ESC 1:25

VIDE DETALHE DOS PILARES

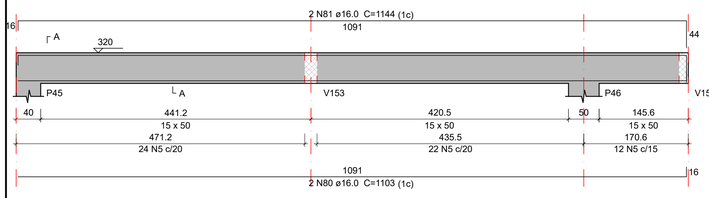
V137
ESC 1:50



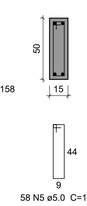
SEÇÃO A-A
ESC 1:25



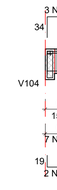
V135
ESC 1:50



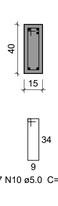
SEÇÃO A-A
ESC 1:25



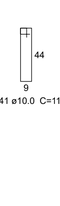
V141
ESC 1:50



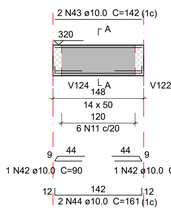
SEÇÃO A-A
ESC 1:25



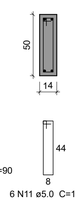
SUSPENSÃO V104
ESC 1:25



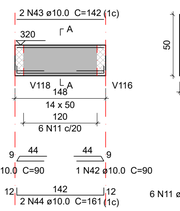
V145
ESC 1:50



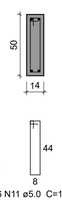
SEÇÃO A-A
ESC 1:25



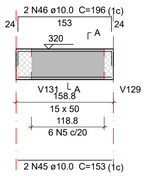
V146
ESC 1:50



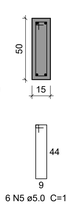
SEÇÃO A-A
ESC 1:25



V147
ESC 1:50



SEÇÃO A-A
ESC 1:25

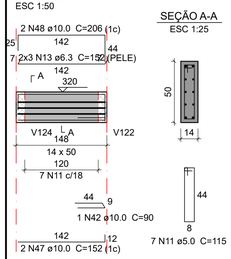


Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	202.1	54.4
	8.0	108.5	47.1
	10.0	183.1	124.2
	12.5	272	288.2
	16.0	217.9	378.2
CA60	5.0	1498.1	254
PESO TOTAL (kg)			
CA50	892		
CA60	254		

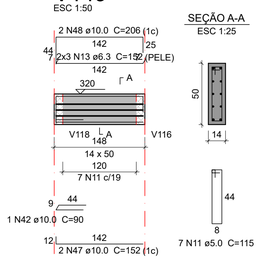
Volume de concreto (30 MPa) = 6.44 m³
Área de forma = 57.18 m²

V148
ESC 1:50



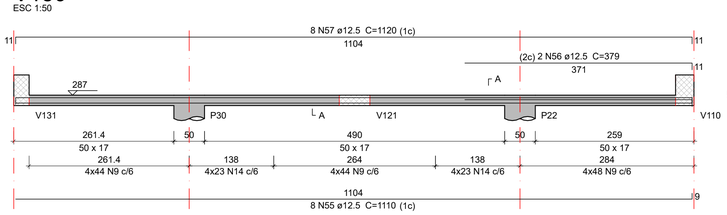
SEÇÃO A-A
ESC 1:25

V149
ESC 1:50

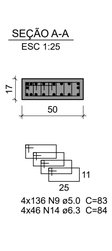


SEÇÃO A-A
ESC 1:25

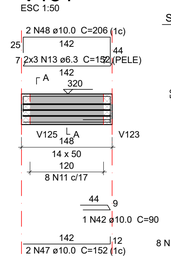
V150
ESC 1:50



SEÇÃO A-A
ESC 1:25

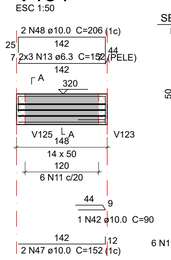


V151
ESC 1:50

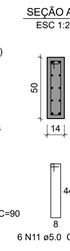


SEÇÃO A-A
ESC 1:25

V154
ESC 1:50



SEÇÃO A-A
ESC 1:25



CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

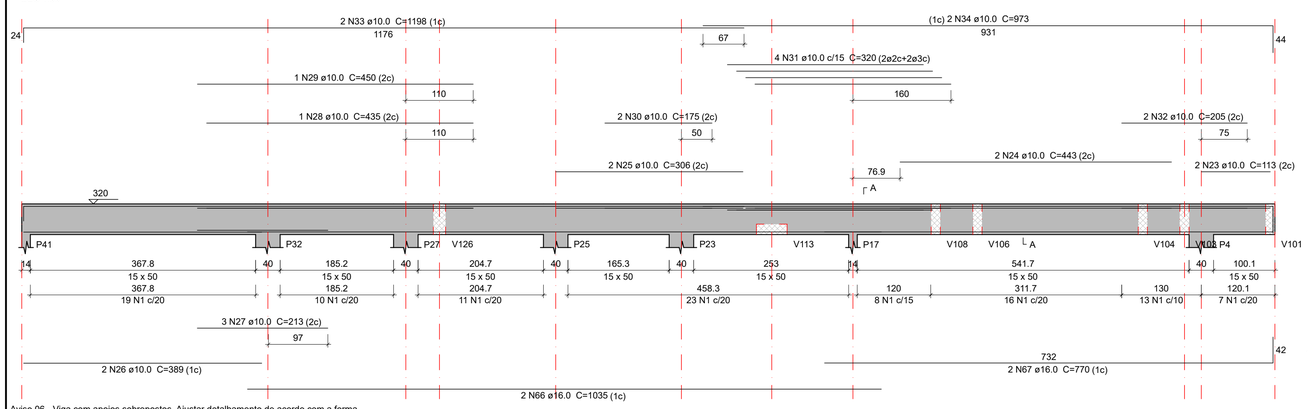
ETAPA:
DETALHE DAS VIGAS COBERTURA 3/6

PRANCHA Nº
20/35

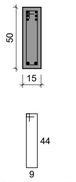
DISCIPLINA: ESTRUTURA
ARQUIVO: .NBE.300 ESTR.003
DATA : 02/08/2024
ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

V136
ESC 1:50

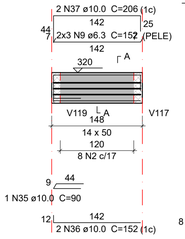


SEÇÃO A-A
ESC 1:25

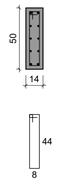


Aviso 06 - Viga com apoios sobrepostos. Ajustar detalhamento de acordo com a forma.

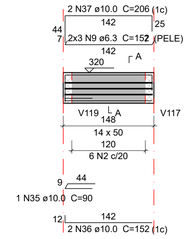
V152
ESC 1:50



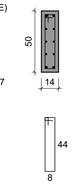
SEÇÃO A-A
ESC 1:25



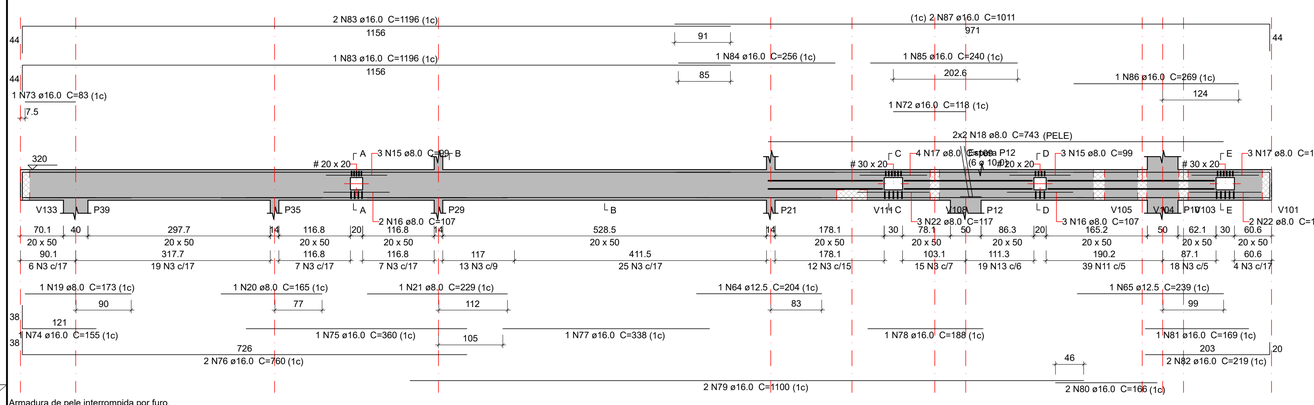
V155
ESC 1:50



SEÇÃO A-A
ESC 1:25

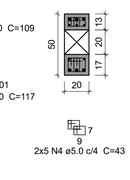


V142
ESC 1:50

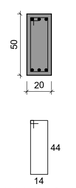


Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

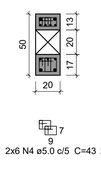
SEÇÃO A-A
ESC 1:25



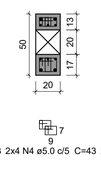
SEÇÃO B-B
ESC 1:25



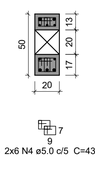
SEÇÃO C-C
ESC 1:25



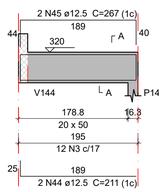
SEÇÃO D-D
ESC 1:25



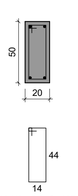
SEÇÃO E-E
ESC 1:25



V160
ESC 1:50

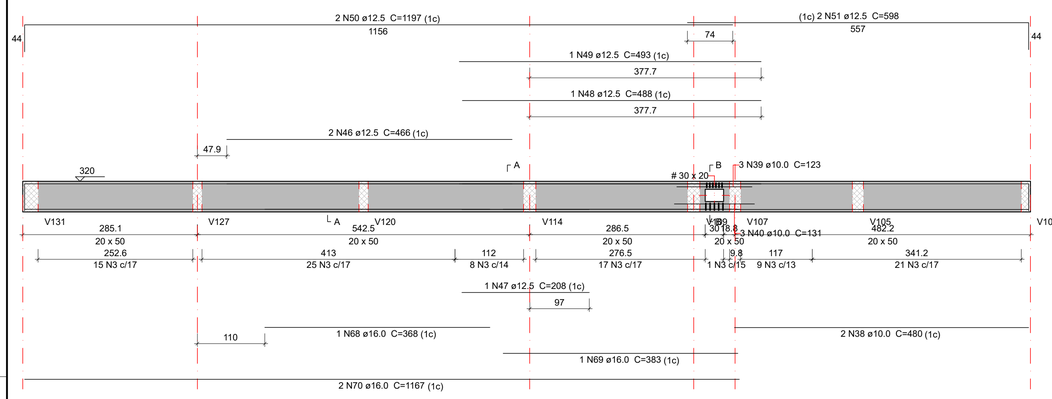


SEÇÃO A-A
ESC 1:25

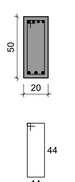


Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

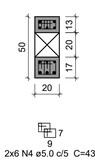
V143
ESC 1:50



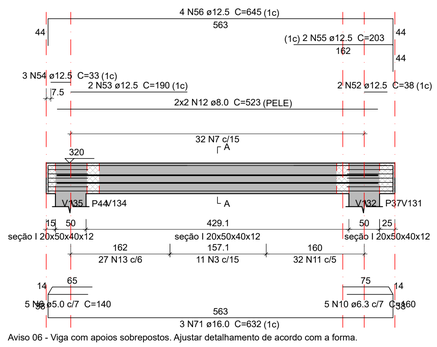
SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25

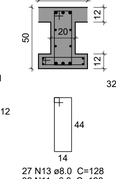


V153
ESC 1:50

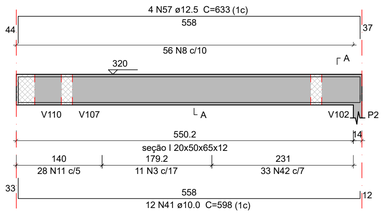


Aviso 06 - Viga com apoios sobrepostos. Ajustar detalhamento de acordo com a forma.

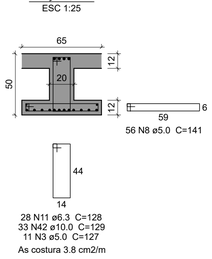
SEÇÃO A-A
ESC 1:25



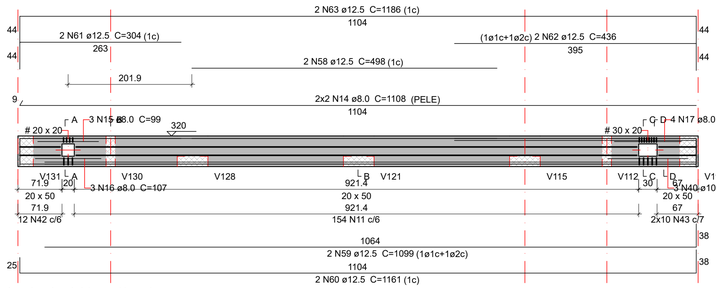
V156
ESC 1:50



SEÇÃO A-A
ESC 1:25

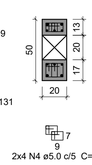


V157
ESC 1:50

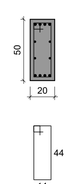


Armadura de pele interrompida por furo.
Respeitar o afastamento das barras na abertura.

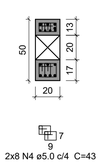
SEÇÃO A-A
ESC 1:25



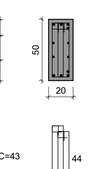
SEÇÃO B-B
ESC 1:25



SEÇÃO C-C
ESC 1:25



SEÇÃO D-D
ESC 1:25



Relação do aço

V136 V142 V143
V152 V153 V155
V156 V157 V160

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	107	117	12519
	2	5.0	14	115	1610
	3	5.0	256	127	32512
	4	5.0	78	43	3354
	5	5.0	60	51	3060
	6	5.0	5	140	700
	7	5.0	32	91	2912
	8	5.0	56	141	7896
CA50	9	6.3	12	152	1824
	10	6.3	5	160	800
	11	6.3	253	128	32384
	12	8.0	4	523	2092
	13	8.0	46	128	5888
	14	8.0	4	1108	4432
	15	8.0	9	99	891
	16	8.0	8	107	856
	17	8.0	11	109	1199
	18	8.0	4	743	2972
	19	8.0	1	173	173
	20	8.0	1	165	165
	21	8.0	1	229	229
	22	8.0	5	117	585
	23	10.0	2	113	226
	24	10.0	2	443	886
	25	10.0	2	306	612
	26	10.0	2	389	778
	27	10.0	3	213	639
	28	10.0	1	435	435
	29	10.0	1	450	450
	30	10.0	2	175	350
	31	10.0	4	320	1280
	32	10.0	2	205	410
	33	10.0	2	1198	2396
	34	10.0	2	973	1946
	35	10.0	2	90	180
	36	10.0	4	152	608
	37	10.0	4	206	824
	38	10.0	2	480	960
	39	10.0	3	123	369
	40	10.0	6	131	786
	41	10.0	12	598	7176
	42	10.0	45	129	5805
	43	10.0	20	119	2380
	44	12.5	2	211	422
	45	12.5	2	267	534
	46	12.5	2	466	932
	47	12.5	1	208	208
	48	12.5	1	488	488
	49	12.5	1	493	493
	50	12.5	2	1197	2394
	51	12.5	2	598	1196
	52	12.5	2	38	76
	53	12.5	2	190	380
	54	12.5	3	33	99
	55	12.5	2	203	406
	56	12.5	4	645	2580
	57	12.5	4	633	2532
	58	12.5	2	498	996
	59	12.5	2	1099	2198
	60	12.5	2	1161	2322
	61	12.5	2	304	608
	62	12.5	2	436	872
	63	12.5	2	1186	2372
	64	12.5	1	204	204
	65	12.5	1	239	239
	66	16.0	2	1035	2070
	67	16.0	2	770	1540
	68	16.0	1	368	368
	69	16.0	1	383	383
	70	16.0	2	1167	2334
	71	16.0	3	632	1896
	72	16.0	1	118	118
	73	16.0	1	83	83
	74	16.0	1	155	155
	75	16.0	1	360	360
	76	16.0	2	760	1520
	77	16.0	1	338	338
	78	16.0	1	188	188
	79	16.0	2	1100	2200
	80	16.0	2	166	332
	81	16.0	1	169	169
	82	16.0	2	219	438
	83	16.0	3	1196	3588
	84	16.0	1	256	256
	85	16.0	1	240	240
	86	16.0	1	269	269
	87	16.0	2	1011	2022

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	350.1	94.2
	8.0	194.9	84.6
	10.0	295	200
	12.5	225.6	239
	16.0	208.7	362.3
CA60	5.0	645.7	109.5

PESO TOTAL (kg)	
CA50	980.1
CA60	109.5

Volume de concreto (30 MPa) = 8.49 m³
Área de forma = 90.13 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

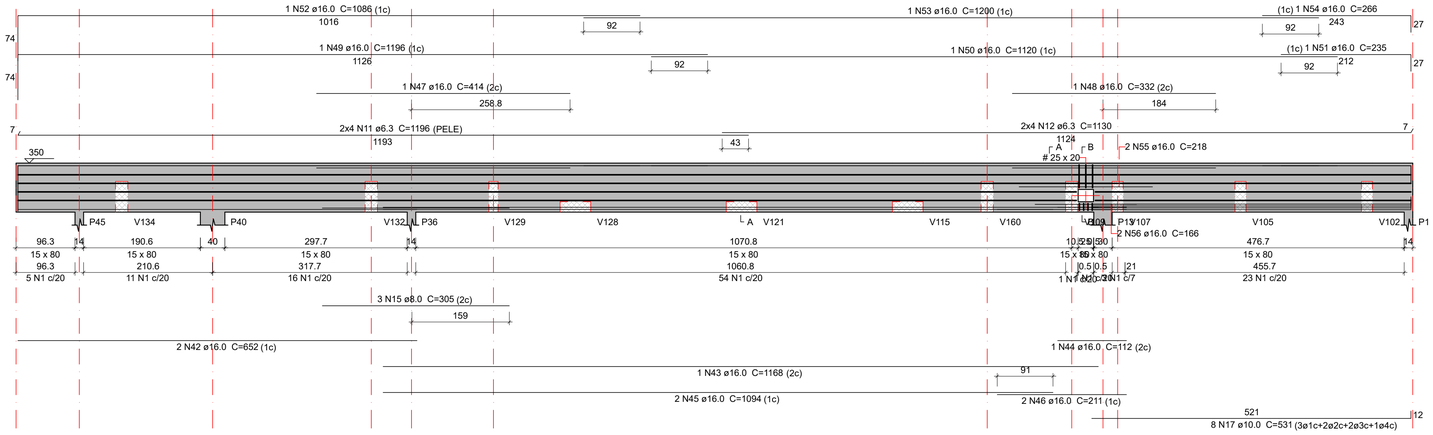
DETALHE DAS VIGAS COBERTURA 4/6

PRANCHA Nº 21/35

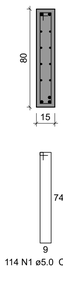
DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

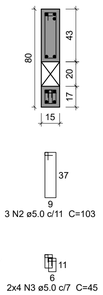
V144
ESC 1:50



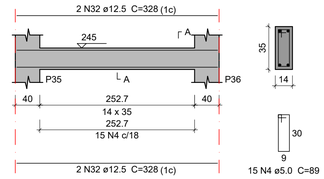
SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25



V161
ESC 1:50



SEÇÃO A-A
ESC 1:25

Relação do aço

V144 V158 V159
V161 V162 V163
V164 V165

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	114	177	20178
	2	5.0	3	103	309
	3	5.0	8	45	360
	4	5.0	31	89	2759
	5	5.0	15	85	1275
	6	5.0	45	99	4455
	7	5.0	97	117	11349
	8	5.0	28	37	1036
	9	5.0	10	51	510
	10	5.0	2	315	630
CA50	11	6.3	8	1196	9568
	12	6.3	8	1130	9040
	13	6.3	8	354	2832
	14	6.3	6	VAR	VAR
	15	8.0	3	305	915
	16	8.0	4	VAR	VAR
	17	10.0	8	531	4248
	18	10.0	1	188	188
	19	10.0	2	276	552
	20	10.0	4	296	1184
	21	10.0	1	93	93
	22	10.0	4	358	1432
	23	10.0	4	348	1392
	24	10.0	2	321	642
	25	10.0	1	87	87
	26	10.0	3	131	393
	27	10.0	2	156	312
	28	10.0	3	140	420
	29	10.0	2	100	200
	30	10.0	2	276	552
	31	10.0	2	198	396
	32	12.5	4	328	1312
	33	12.5	1	80	80
	34	12.5	2	319	638
	35	12.5	6	375	2250
	36	12.5	1	327	327
	37	12.5	2	631	1262
	38	12.5	2	305	610
	39	12.5	1	341	341
	40	12.5	2	478	956
	41	12.5	2	139	278
	42	16.0	2	652	1304
	43	16.0	1	1168	1168
	44	16.0	1	112	112
	45	16.0	2	1094	2188
	46	16.0	2	211	422
	47	16.0	1	414	414
	48	16.0	1	332	332
	49	16.0	1	1196	1196
	50	16.0	1	1120	1120
	51	16.0	1	235	235
	52	16.0	1	1086	1086
	53	16.0	1	1200	1200
	54	16.0	1	266	266
	55	16.0	2	218	436
	56	16.0	2	166	332
	57	16.0	2	197	394
	58	16.0	4	171	684
	59	20.0	2	189	378

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	221	59.5
	8.0	13.5	5.8
	10.0	121	82
	12.5	80.6	85.3
	16.0	128.9	223.8
	20.0	3.8	10.3
CA60	5.0	428.7	72.7

PESO TOTAL (kg)	
CA50	466.7
CA60	72.7

Volume de concreto (30 MPa) = 4.44 m³
Área de forma = 59.04 m²

V158
ESC 1:50

SEÇÃO A-A
ESC 1:25

SEÇÃO B-B
ESC 1:25

V159
ESC 1:50

SEÇÃO A-A
ESC 1:25

SEÇÃO B-B
ESC 1:25

V162
ESC 1:50

SEÇÃO A-A
ESC 1:25

V163
ESC 1:50

SEÇÃO A-A
ESC 1:25

V164
ESC 1:50

SEÇÃO A-A
ESC 1:25

V165
ESC 1:50

SEÇÃO A-A
ESC 1:25

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

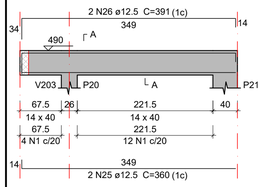
NÚCLEO BÁSICO EDIFICADO

ETAPA:
DETALHE DAS VIGAS COBERTURA 5/6

PRANCHA Nº
22/35

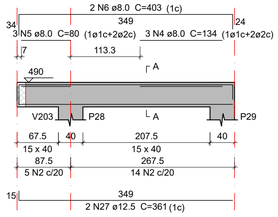
DISCIPLINA: ESTRUTURA
ARQUIVO: .NBE.300 ESTR.003
DATA : 02/08/2024
ESCALA : 1/50

V201
ESC 1:50



SEÇÃO A-A
ESC 1:25

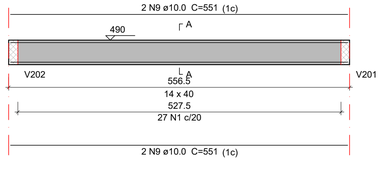
V202
ESC 1:50



SEÇÃO A-A
ESC 1:25

19 N2 ø5.0 C=97

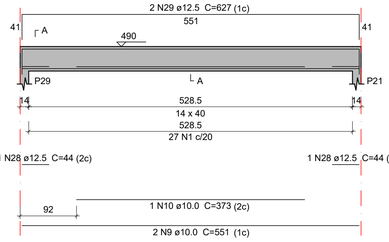
V203
ESC 1:50



SEÇÃO A-A
ESC 1:25

27 N1 ø5.0 C=95

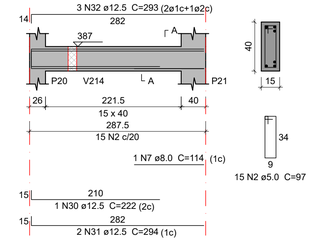
V204
ESC 1:50



SEÇÃO A-A
ESC 1:25

27 N1 ø5.0 C=95

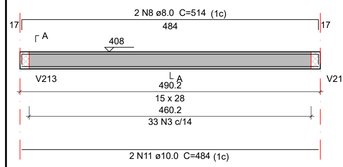
V209
ESC 1:50



SEÇÃO A-A
ESC 1:25

15 N2 ø5.0 C=97

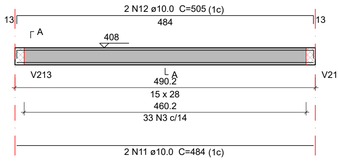
V205
ESC 1:50



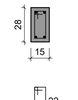
SEÇÃO A-A
ESC 1:25

33 N3 ø5.0 C=73

V206
ESC 1:50

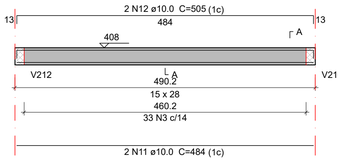


SEÇÃO A-A
ESC 1:25

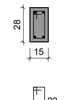


33 N3 ø5.0 C=73

V207
ESC 1:50

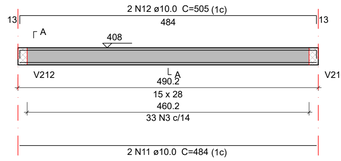


SEÇÃO A-A
ESC 1:25

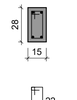


33 N3 ø5.0 C=73

V208
ESC 1:50

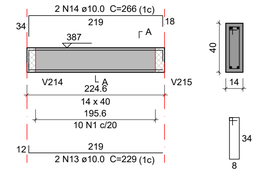


SEÇÃO A-A
ESC 1:25



33 N3 ø5.0 C=73

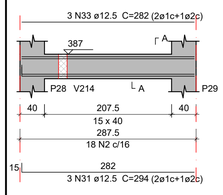
V210
ESC 1:50



SEÇÃO A-A
ESC 1:25

10 N1 ø5.0 C=95

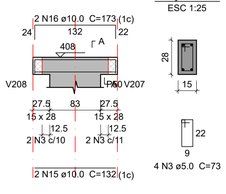
V211
ESC 1:50



SEÇÃO A-A
ESC 1:25

18 N2 ø5.0 C=97

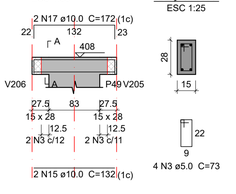
V212
ESC 1:50



SEÇÃO A-A
ESC 1:25

4 N3 ø5.0 C=73

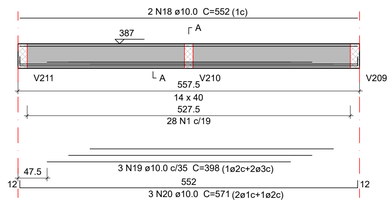
V213
ESC 1:50



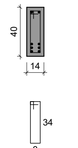
SEÇÃO A-A
ESC 1:25

4 N3 ø5.0 C=73

V214
ESC 1:50

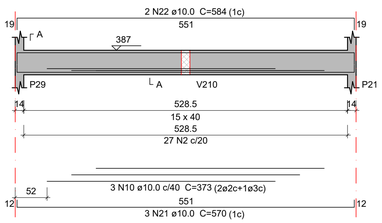


SEÇÃO A-A
ESC 1:25



28 N1 ø5.0 C=95

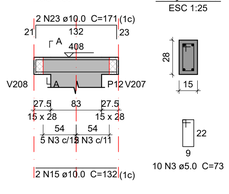
V215
ESC 1:50



SEÇÃO A-A
ESC 1:25

27 N2 ø5.0 C=97

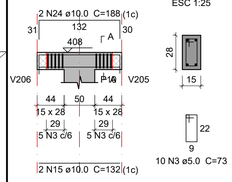
V216
ESC 1:50



SEÇÃO A-A
ESC 1:25

10 N3 ø5.0 C=73

V217
ESC 1:50



SEÇÃO A-A
ESC 1:25

10 N3 ø5.0 C=73

Relação do aço

V201	V202	V203
V204	V205	V206
V207	V208	V209
V210	V211	V212
V213	V214	V215
V216	V217	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	108	95	10260
	2	5.0	79	97	7663
	3	5.0	160	73	11680
CA50	4	8.0	3	134	402
	5	8.0	3	80	240
	6	8.0	2	403	806
	7	8.0	1	114	114
	8	8.0	2	514	1028
	9	10.0	6	551	3306
	10	10.0	4	373	1492
	11	10.0	8	484	3872
	12	10.0	6	505	3030
	13	10.0	2	229	458
	14	10.0	2	266	532
	15	10.0	8	132	1056
	16	10.0	2	173	346
	17	10.0	2	172	344
	18	10.0	2	552	1104
	19	10.0	3	398	1194
	20	10.0	3	571	1713
	21	10.0	3	570	1710
	22	10.0	2	584	1168
	23	10.0	2	171	342
	24	10.0	2	188	376
	25	12.5	2	360	720
	26	12.5	2	391	782
	27	12.5	2	361	722
	28	12.5	2	44	88
	29	12.5	2	627	1254
	30	12.5	1	222	222
	31	12.5	5	294	1470
	32	12.5	3	293	879
	33	12.5	3	282	846

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	25.9	11.2
	10.0	220.5	149.5
	12.5	69.9	74
CA60	5.0	296.1	50.2

PESO TOTAL (kg)	
CA50	234.7
CA60	50.2

Volume de concreto (30 MPa) = 2.94 m³
Área de forma = 43.64 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

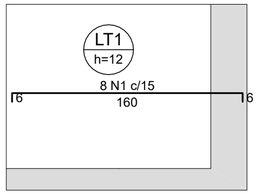
NÚCLEO BÁSICO EDIFICADO

ETAPA: DETALHE DAS VIGAS COBERTURA 6/6

PRANCHA Nº 23/35

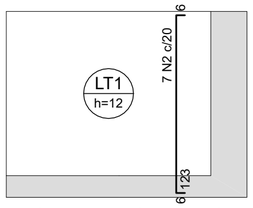
DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.



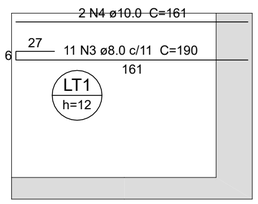
Armação negativa das lajes do pavimento A102.Térreo NO (Eixo X)

escala 1:30



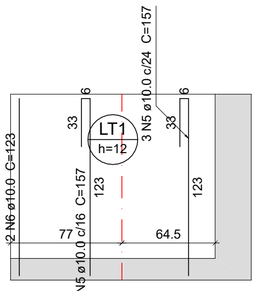
Armação negativa das lajes do pavimento A102.Térreo NO (Eixo Y)

escala 1:30



Armação positiva das lajes do pavimento A102.Térreo NO (Eixo X)

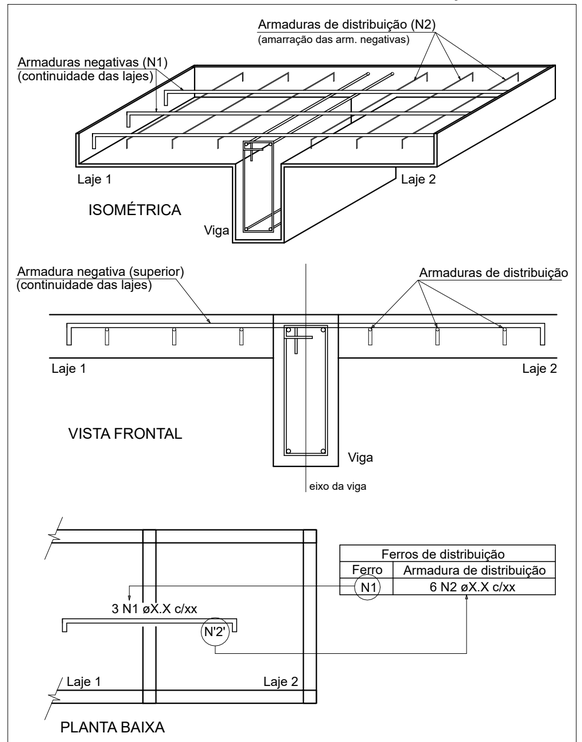
escala 1:30



Armação positiva das lajes do pavimento A102.Térreo NO (Eixo Y)

escala 1:30

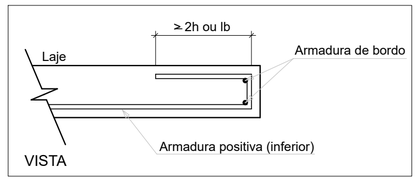
DETALHE DA ARMADURA SUPERIOR DE CONTINUIDADE DA LAJE E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



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

NOTA: A ARMADURA DE DISTRIBUIÇÃO DAS CONTINUIDADES DEVE SER ININTERRUPTA E COM TRASPASSE (CASO HAJA EMENDAS).

DETALHE DA ARMADURA DE BORDO LIVRE DA LAJE



Relação do aço

Negativos X
Negativos Y
Positivos X
Positivos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	8	168	1344
	2	8.0	7	131	917
	3	8.0	11	190	2090
	4	10.0	2	161	322
	5	10.0	8	157	1256
	6	10.0	2	123	246

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	43.6	18.9
	10.0	18.3	12.4

PESO TOTAL (kg)	
CA50	31.3

Volume de concreto (30 MPa) = 0.19 m³
Área de forma = 1.94 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

DETALHE ARAMADURA DAS LAJES 1/10

PRANCHA Nº 24/35

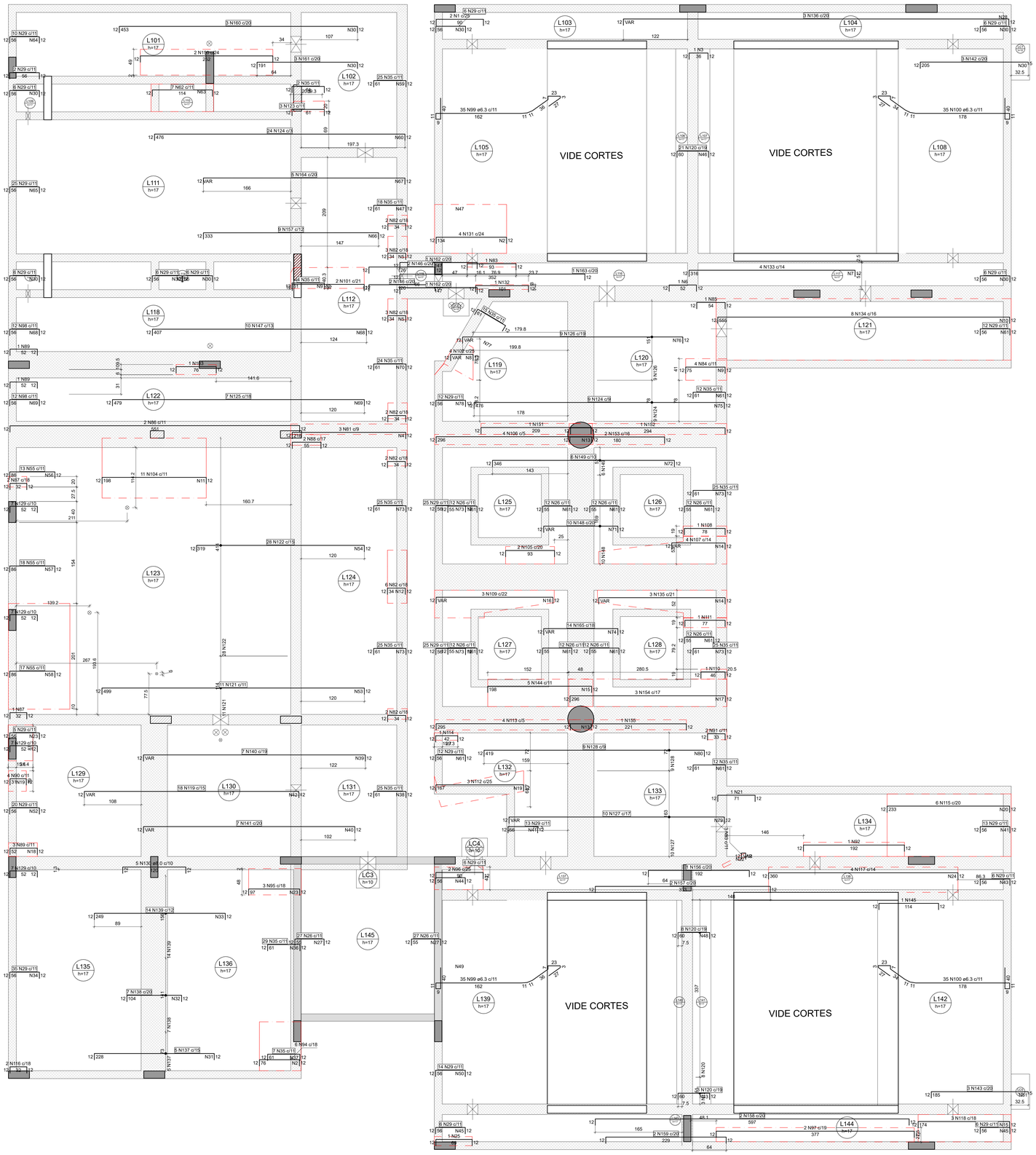
DISCIPLINA: ESTRUTURA

ARQUIVO: .NBE.300 ESTR.003

DATA : 02/08/2024

ESCALA : 1/50

FORMATO A2



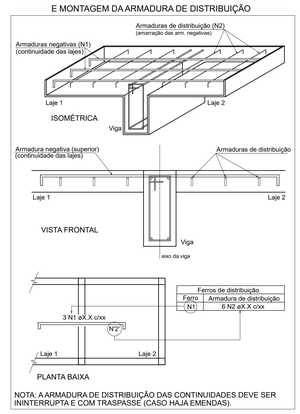
Armação negativa das lajes do pavimento A105.Laje (topo estrutura) (Eixo X)

escala 1:30

Armaduras de distribuição

Armadura	Armadura de distribuição
N131	9 N2 ø5.0 c/15 C=93
N81	15 N4 ø5.0 c/15 C=20
N82	3 N5 ø5.0 c/15 C=40
N82	3 N5 ø5.0 c/15 C=40
N133	21 N7 ø5.0 c/15 C=51
N102	3 N8 ø5.0 c/15 C=VAR
N84	5 N9 ø5.0 c/15 C=41
N134	37 N10 ø5.0 c/15 C=117
N104	14 N11 ø5.0 c/15 C=114
N82	3 N12 ø5.0 c/15 C=101
N106	33 N13 ø5.0 c/9 C=19
N107	7 N14 ø5.0 c/15 C=VAR
N144	25 N15 ø5.0 c/8 C=52
N109	15 N16 ø5.0 c/15 C=VAR
N154	37 N17 ø5.0 c/8 C=52
N135	16 N18 ø5.0 c/15 C=VAR
N89	4 N19 ø5.0 c/15 C=26
N90	2 N19 ø5.0 c/15 C=39
N112	12 N19 ø5.0 c/15 C=39
N113	33 N13 ø5.0 c/9 C=19
N115	16 N20 ø5.0 c/15 C=119
N93	1 N22 ø5.0 c/15 C=VAR
N94	5 N2 ø5.0 c/15 C=93
N95	7 N23 ø5.0 c/15 C=50
N117	24 N24 ø5.0 c/15 C=48
N118	12 N15 ø5.0 c/15 C=52
N26	4 N27 ø5.0 c/15 C=299
N26	4 N27 ø5.0 c/15 C=299
N136	49 N28 ø5.0 c/15 C=VAR
N29	4 N30 ø5.0 c/15 C=68
N137	16 N31 ø5.0 c/15 C=80
N138	7 N32 ø5.0 c/15 C=141
N139	17 N33 ø5.0 c/15 C=171
N29	4 N34 ø5.0 c/15 C=390
N35	3 N36 ø5.0 c/15 C=320
N35	4 N37 ø5.0 c/15 C=78
N35	4 N38 ø5.0 c/15 C=273
N140	29 N39 ø5.0 c/15 C=VAR
N141	27 N40 ø5.0 c/15 C=VAR
N29	4 N41 ø5.0 c/15 C=139
N119	28 N42 ø5.0 c/15 C=VAR
N29	4 N43 ø5.0 c/15 C=61
N29	4 N44 ø5.0 c/15 C=66
N29	4 N45 ø5.0 c/15 C=69
N120	4 N46 ø5.0 c/15 C=407
N29	4 N30 ø5.0 c/15 C=68
N29	4 N30 ø5.0 c/15 C=68
	4 N47 ø5.0 c/15 C=200
N142	11 N30 ø5.0 c/20 C=68
N120	4 N43 ø5.0 c/15 C=61
N120	4 N48 ø5.0 c/15 C=143
	4 N49 ø5.0 c/15 C=259
N29	4 N50 ø5.0 c/15 C=149
N143	10 N51 ø5.0 c/20 C=67
N29	4 N23 ø5.0 c/15 C=50
N29	4 N52 ø5.0 c/15 C=215
N29	4 N30 ø5.0 c/15 C=68
N29	4 N30 ø5.0 c/15 C=68
N121	34 N53 ø5.0 c/15 C=121
N122	22 N54 ø5.0 c/15 C=422
N55	6 N56 ø5.0 c/15 C=142
N55	6 N57 ø5.0 c/15 C=195
N55	6 N58 ø5.0 c/15 C=185
N35	4 N59 ø5.0 c/15 C=274
N160	51 N30 ø5.0 c/9 C=68
N161	22 N30 ø5.0 c/9 C=68
N124	96 N60 ø5.0 c/5 C=71
N29	4 N61 ø5.0 c/15 C=134
N62	8 N63 ø5.0 c/15 C=73
N29	4 N30 ø5.0 c/15 C=68
N29	4 N30 ø5.0 c/15 C=68
N29	4 N64 ø5.0 c/15 C=108
N29	4 N65 ø5.0 c/15 C=270
N157	67 N66 ø5.0 c/5 C=112
N164	43 N67 ø5.0 c/9 C=VAR
N147	41 N68 ø5.0 c/15 C=135
N68	4 N68 ø5.0 c/15 C=135
N125	32 N69 ø5.0 c/15 C=133
N68	4 N69 ø5.0 c/15 C=133
N35	4 N47 ø5.0 c/15 C=200
N35	4 N70 ø5.0 c/15 C=41
N35	4 N70 ø5.0 c/15 C=268
N148	10 N71 ø5.0 c/15 C=VAR
N149	44 N72 ø5.0 c/8 C=56
N29	4 N73 ø5.0 c/15 C=271
N26	4 N61 ø5.0 c/15 C=134
N26	4 N61 ø5.0 c/15 C=134
N35	4 N73 ø5.0 c/15 C=271
N26	4 N61 ø5.0 c/15 C=134
N26	4 N61 ø5.0 c/15 C=134
N165	18 N74 ø5.0 c/8 C=VAR
N29	4 N73 ø5.0 c/15 C=271
N26	4 N61 ø5.0 c/15 C=134
N26	4 N61 ø5.0 c/15 C=134
N35	4 N73 ø5.0 c/15 C=271
N26	4 N61 ø5.0 c/15 C=134
N26	4 N61 ø5.0 c/15 C=134
N35	4 N73 ø5.0 c/15 C=271
N35	4 N73 ø5.0 c/15 C=271
N29	4 N45 ø5.0 c/15 C=69
N124	32 N75 ø5.0 c/15 C=84
N126	28 N76 ø5.0 c/15 C=VAR
N35	4 N77 ø5.0 c/15 C=161
N29	4 N78 ø5.0 c/15 C=130
N35	4 N61 ø5.0 c/15 C=134
N35	4 N61 ø5.0 c/15 C=134
N127	28 N79 ø5.0 c/15 C=VAR
N128	28 N80 ø5.0 c/15 C=79
N29	4 N61 ø5.0 c/15 C=134
N29	4 N41 ø5.0 c/15 C=139

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



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

NOTA: A ARMADURA DE DISTRIBUIÇÃO DAS CONTINUIDADES DEVE SER ININTERRUPTA E COM TRASPASSE (CASO HAJA EMENDAS).

Relação do aço

Negativos X

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	111	222
	2	5.0	14	93	1302
	3	5.0	1	57	57
	4	5.0	15	20	300
	5	5.0	6	40	240
	6	5.0	1	73	73
	7	5.0	21	51	1071
	8	5.0	3	VAR	VAR
	9	5.0	9	41	369
	10	5.0	37	117	4329
	11	5.0	14	114	1596
	12	5.0	3	101	303
	13	5.0	66	19	1254
	14	5.0	23	VAR	VAR
	15	5.0	37	52	1924
	16	5.0	15	VAR	VAR
	17	5.0	37	52	1924
	18	5.0	4	26	104
	19	5.0	14	39	546
	20	5.0	16	119	1904
	21	5.0	1	92	92
	22	5.0	1	VAR	VAR
	23	5.0	11	50	550
	24	5.0	24	48	1152
	25	5.0	1	90	90
	26	5.0	150	76	11400
	27	5.0	8	299	2392
	28	5.0	49	VAR	VAR
	29	5.0	289	77	22253
	30	5.0	112	68	7616
	31	5.0	16	80	1280
	32	5.0	7	141	987
	33	5.0	17	171	2907
	34	5.0	4	390	1560
	35	5.0	273	82	22386
	36	5.0	4	320	1280
	37	5.0	4	78	312
	38	5.0	4	273	1092
	39	5.0	29	VAR	VAR
	40	5.0	27	VAR	VAR
	41	5.0	8	139	1112
	42	5.0	28	VAR	VAR
	43	5.0	8	61	488
	44	5.0	4	66	264
	45	5.0	8	69	552
	46	5.0	4	407	1628
	47	5.0	8	200	1600
	48	5.0	4	143	572
	49	5.0	4	259	1036
	50	5.0	4	149	596
	51	5.0	10	67	670
	52	5.0	4	215	860
	53	5.0	34	121	4114
	54	5.0	22	422	9284
	55	5.0	48	107	5136
	56	5.0	6	142	852
	57	5.0	6	195	1170
	58	5.0	6	185	1110
	59	5.0	4	274	1096
	60	5.0	96	71	6816
	61	5.0	48	134	6432
	62	5.0	7	135	945
	63	5.0	8	73	584
	64	5.0	4	108	432
	65	5.0	4	270	1080
	66	5.0	67	112	7504
	67	5.0	43	VAR	VAR
	68	5.0	45	135	6075
	69	5.0	36	133	4788
	70	5.0	4	268	1072
	71	5.0	10	VAR	VAR
	72	5.0	44	56	2464
	73	5.0	24	271	6504
	74	5.0	18	VAR	VAR
	75	5.0	32	84	2688
	76	5.0	28	VAR	VAR
	77	5.0	4	161	644
	78	5.0	4	130	520
	79	5.0	28	VAR	VAR
	80	5.0	28	79	2212
CA50	81	6.3	3	237	711
	82	6.3	20	55	1100
	83	6.3	1	114	114
	84	6.3	4	96	384
	85	6.3	1	75	75
	86	6.3	2	572	1144
	87	6.3	3	53	159
	88	6.3	2	76	152
	89	6.3	5	73	365
	90	6.3	4	52	208
	91	6.3	2	54	108
	92	6.3	1	213	213
	93	6.3	3	VAR	VAR
	94	6.3	6	97	582
	95	6.3	3	118	354
	96	6.3	2	111	222
	97	6.3	2	398	796
	98	6.3	24	77	1848
	99	6.3	70	332	23240
	100	6.3	70	346	24220
	101	8.0	2	157	314
	102	8.0	4	VAR	VAR
	103	8.0	1	96	96
	104	8.0	11	218	2398
	105	8.0	2	113	226
	106	8.0	4	316	1264
	107	8.0	4	VAR	VAR
	108	8.0	1	98	98
	109	8.0	3	VAR	VAR
	110	8.0	1	66	66
	111	8.0	1	97	97
	112	8.0	3	187	561
	113	8.0	4	315	1260
	114	8.0	1	62	62
	115	8.0	6	253	1518
	116	8.0	2	52	104
	117	8.0	4	380	1520
	118	8.0	3	194	582
	119	8.0	18	VAR	VAR
	120	8.0	32	80	2560
	121	8.0	11	519	5709
	122	8.0	28	339	9492
	123	8.0	3	81	243
	124	8.0	33	496	16368
	125	8.0	7	499	3493
	126	8.0	9	VAR	VAR
	127	8.0	10	VAR	VAR
	128	8.0	9	439	3951
	129	8.0	28	72	2016
	130	8.0	5	140	700
	131	10.0	4	153	612
	132	10.0	1	120	120
	133	10.0	4	335	1340
	134	10.0	8	574	4592
	135	10.0	9	VAR	VAR
	136	10.0	3	VAR	VAR
	137	10.0	5	247	1235
	138	10.0	7	123	861
	139	10.0	14	268	3752
	140	10.0	7	VAR	VAR
	141	10.0	7	VAR	VAR
	142	10.0	3	217	651
	143	10.0	3	197	591
	144	12.5	5	216	1080
	145	12.5	1	132	132
	146	12.5	4	144	576
	147	12.5	10	425	4250
	148	12.5	10	VAR	VAR
	149	12.5	6	364	2184
	150	16.0	2	269	538
	151	16.0	1	226	226
	152	16.0	1	311	311
	153	16.0	2	197	394
	154	16.0	3	313	939
	155	16.0	1	238	238
	156	16.0	1	209	209
	157	16.0	11	350	3850
	158	16.0	2	614	1228
	159	16.0	2	246	492
	160	16.0	3	470	1410
	161	16.0	3	208	624
	162	16.0	2	164	328
	163	16.0	1	369	369
	164	16.0	5	VAR	VAR
	165	16.0	14	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	560.9	151
	8.0	721.2	313
	10.0	228.3	154.8
	12.5	98.2	104
	16.0	153.7	266.8
CA60	5.0	2183.7	370.2

PESO TOTAL (kg)	
CA50	989.5
CA60	370.2

CEU DA CULTURA

AUTOR DO PROJETO :	ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

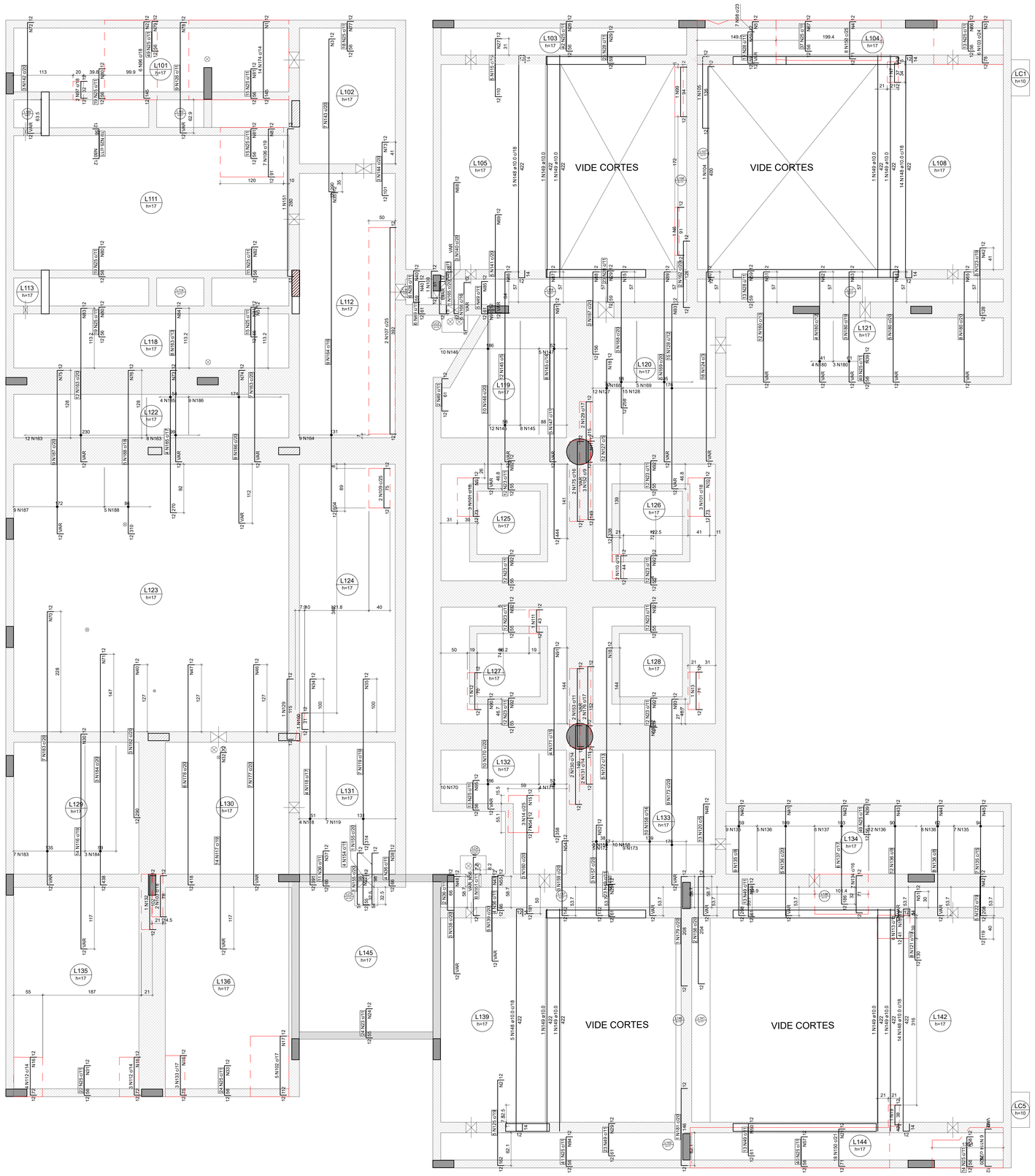
NÚCLEO BÁSICO EDIFICADO

ETAPA: DETALHE ARAMADURA DAS LAJES 2/10

PRANCHA Nº 25/35

DISCIPLINA:	ARQUIVO:	DATA :	ESCALA :
ESTRUTURA	NBE.300 ESTR.003	02/08/2024	1/50

FORMATO A0 - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.

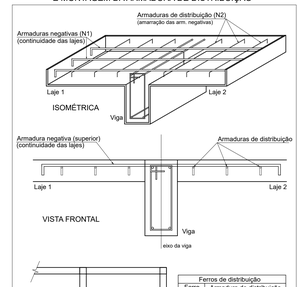


Armação negativa das lajes do pavimento A105.Laje (topo estrutura) (Eixo Y)

escala 1:30

Armaduras de distribuição	
Armadura	Armadura de distribuição
N174	25 N1 e5.0 c/8 C=190
N96	10 N2 e5.0 c/15 C=100
N103	6 N3 e5.0 c/15 C=132
N150	5 N4 e5.0 c/15 C=199
N98	6 N5 e5.0 c/15 C=VAR
N106	6 N6 e5.0 c/15 C=120
N101	5 N9 e5.0 c/15 C=39
N101	5 N10 e5.0 c/15 C=41
N102	22 N11 e5.0 c/7 C=21
N14	5 N15 e5.0 c/15 C=58
N112	5 N16 e5.0 c/15 C=37
N133	5 N16 e5.0 c/15 C=37
N102	8 N17 e5.0 c/15 C=73
N113	3 N18 e5.0 c/15 C=62
N114	5 N20 e5.0 c/15 C=VAR
N150	5 N21 e5.0 c/15 C=378
N154	4 N22 e5.0 c/15 C=274
N23	4 N24 e5.0 c/15 C=268
N25	4 N26 e5.0 c/15 C=457
N115	8 N27 e5.0 c/15 C=93
N28	4 N29 e5.0 c/15 C=255
N116	28 N30 e5.0 c/15 C=VAR
N25	4 N31 e5.0 c/15 C=247
N117	25 N32 e5.0 c/15 C=VAR
N25	4 N33 e5.0 c/15 C=265
N118	26 N34 e5.0 c/15 C=61
N119	21 N35 e5.0 c/15 C=141
N36	5 N37 e5.0 c/15 C=119
N36	5 N38 e5.0 c/15 C=43
N25	4 N39 e5.0 c/15 C=544
N135	21 N40 e5.0 c/10 C=69
N136	14 N41 e5.0 c/15 C=VAR
N137	13 N42 e5.0 c/15 C=103
N136	21 N43 e5.0 c/10 C=VAR
N136	21 N44 e5.0 c/10 C=VAR
N135	14 N45 e5.0 c/15 C=101
N177	47 N46 e5.0 c/9 C=VAR
N178	47 N47 e5.0 c/9 C=116
N120	24 N48 e5.0 c/9 C=VAR
N49	4 N50 e5.0 c/15 C=145
N121	9 N51 e5.0 c/15 C=143
N122	8 N42 e5.0 c/15 C=103
N157	12 N52 e5.0 c/15 C=63
N158	33 N53 e5.0 c/11 C=VAR
N159	10 N54 e5.0 c/15 C=67
N160	12 N54 e5.0 c/15 C=67
N36	5 N55 e5.0 c/15 C=44
	7 N56 e5.0 c/13 C=VAR
N138	13 N48 e5.0 c/15 C=VAR
N139	11 N43 e5.0 c/15 C=VAR
N49	4 N29 e5.0 c/15 C=255
N49	4 N50 e5.0 c/15 C=145
N25	4 N57 e5.0 c/15 C=436
N25	4 N58 e5.0 c/15 C=153
N123	9 N42 e5.0 c/15 C=103
N28	4 N59 e5.0 c/15 C=147
N124	72 N60 e5.0 c/5 C=VAR
N180	35 N61 e5.0 c/9 C=VAR
N180	42 N62 e5.0 c/5 C=VAR
N180	24 N63 e5.0 c/9 C=VAR
N180	24 N64 e5.0 c/9 C=VAR
N180	24 N65 e5.0 c/9 C=VAR
N25	4 N66 e5.0 c/15 C=148
N25	4 N67 e5.0 c/15 C=410
N28	4 N59 e5.0 c/15 C=147
N140	17 N68 e5.0 c/15 C=VAR
N141	13 N69 e5.0 c/15 C=VAR
N125	11 N2 e5.0 c/15 C=100
N182	33 N40 e5.0 c/9 C=69
N183	58 N70 e5.0 c/9 C=VAR
N184	49 N71 e5.0 c/9 C=59
N142	14 N72 e5.0 c/15 C=VAR
N185	34 N73 e5.0 c/8 C=70
N186	33 N74 e5.0 c/9 C=VAR
N187	35 N75 e5.0 c/9 C=VAR
N188	39 N76 e5.0 c/8 C=90
N25	4 N77 e5.0 c/15 C=202
N143	20 N3 e5.0 c/15 C=132
N144	7 N73 e5.0 c/15 C=70
N28	4 N40 e5.0 c/15 C=69
N49	4 N40 e5.0 c/15 C=69
N25	4 N39 e5.0 c/15 C=544
N126	14 N78 e5.0 c/15 C=VAR
N25	4 N79 e5.0 c/15 C=540
N25	4 N80 e5.0 c/15 C=204
N25	4 N81 e5.0 c/15 C=164
N25	4 N80 e5.0 c/15 C=204
N25	4 N80 e5.0 c/15 C=204
N25	4 N82 e5.0 c/15 C=167
N25	4 N81 e5.0 c/15 C=164
N25	4 N80 e5.0 c/15 C=204
N163	20 N83 e5.0 c/15 C=VAR
N163	30 N84 e5.0 c/10 C=VAR
N163	20 N5 e5.0 c/15 C=VAR
N164	51 N35 e5.0 c/12 C=141
N28	4 N29 e5.0 c/15 C=255
N49	4 N85 e5.0 c/15 C=52
N145	60 N86 e5.0 c/6 C=VAR
N145	24 N87 e5.0 c/15 C=VAR
N167	11 N88 e5.0 c/15 C=50
N168	18 N15 e5.0 c/15 C=58
N169	24 N89 e5.0 c/15 C=VAR
N146	23 N90 e5.0 c/15 C=VAR
N147	35 N91 e5.0 c/13 C=57
N23	4 N92 e5.0 c/15 C=134
N23	4 N92 e5.0 c/15 C=134
N127	38 N18 e5.0 c/9 C=62
N128	24 N93 e5.0 c/15 C=VAR
N23	4 N92 e5.0 c/15 C=134
N23	4 N92 e5.0 c/15 C=134
N170	14 N80 e5.0 c/15 C=VAR
N171	30 N91 e5.0 c/12 C=57
N23	4 N92 e5.0 c/15 C=134
N23	4 N92 e5.0 c/15 C=134
N172	45 N18 e5.0 c/10 C=62
N173	24 N93 e5.0 c/15 C=VAR
N23	4 N92 e5.0 c/15 C=134
N23	4 N92 e5.0 c/15 C=134
N49	4 N29 e5.0 c/15 C=255
N25	4 N94 e5.0 c/15 C=456
N25	4 N95 e5.0 c/15 C=138

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



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

NOTA: A ARMADURA DE DISTRIBUIÇÃO DAS CONTINUIDADES DEVE SER ININTERRUPTA E COM TRASPASSE (CASO HAJA EMENDAS).

Relação do aço

Negativos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	25	190	4750
	2	5.0	21	100	2100
	3	5.0	26	132	3432
	4	5.0	5	199	995
	5	5.0	26	VAR	VAR
	6	5.0	1	112	112
	7	5.0	1	58	58
	8	5.0	6	120	720
	9	5.0	5	39	195
	10	5.0	5	41	205
	11	5.0	22	21	462
	12	5.0	1	91	91
	13	5.0	1	92	92
	14	5.0	3	93	279
	15	5.0	23	58	1334
	16	5.0	15	37	555
	17	5.0	8	73	584
	18	5.0	86	62	5332
	19	5.0	1	59	59
	20	5.0	5	VAR	VAR
	21	5.0	5	378	1890
	22	5.0	4	274	1096
	23	5.0	120	76	9120
	24	5.0	4	268	1072
	25	5.0	547	77	42119
	26	5.0	4	457	1828
	27	5.0	8	93	744
	28	5.0	78	80	6240
	29	5.0	16	255	4080
	30	5.0	28	VAR	VAR
	31	5.0	4	247	988
	32	5.0	25	VAR	VAR
	33	5.0	4	265	1060
	34	5.0	26	61	1586
	35	5.0	72	141	10152
	36	5.0	21	87	1827
	37	5.0	5	119	595
	38	5.0	5	43	215
	39	5.0	8	544	4352
	40	5.0	62	69	4278
	41	5.0	14	VAR	VAR
	42	5.0	30	103	3090
	43	5.0	32	VAR	VAR
	44	5.0	21	VAR	VAR
	45	5.0	14	101	1414
	46	5.0	47	VAR	VAR
	47	5.0	47	116	5452
	48	5.0	37	VAR	VAR
	49	5.0	86	82	7052
	50	5.0	8	145	1160
	51	5.0	9	143	1287
	52	5.0	12	63	756
	53	5.0	33	VAR	VAR
	54	5.0	22	67	1474
	55	5.0	5	44	220
	56	5.0	7	VAR	VAR
	57	5.0	4	436	1744
	58	5.0	4	153	612
	59	5.0	8	147	1176
	60	5.0	72	VAR	VAR
	61	5.0	35	VAR	VAR
	62	5.0	42	VAR	VAR
	63	5.0	24	VAR	VAR
	64	5.0	24	VAR	VAR
	65	5.0	24	VAR	VAR
	66	5.0	4	148	592
	67	5.0	4	410	1640
	68	5.0	17	VAR	VAR
	69	5.0	13	VAR	VAR
	70	5.0	58	VAR	VAR
	71	5.0	49	59	2891
	72	5.0	14	VAR	VAR
	73	5.0	41	70	2870
	74	5.0	33	VAR	VAR
	75	5.0	35	VAR	VAR
	76	5.0	39	90	3510
	77	5.0	4	202	808
	78	5.0	14	VAR	VAR
	79	5.0	4	540	2160
	80	5.0	16	204	3264
	81	5.0	12	164	1968
	82	5.0	4	167	668
	83	5.0	20	VAR	VAR
	84	5.0	30	VAR	VAR
	85	5.0	4	52	208
	86	5.0	60	VAR	VAR
	87	5.0	24	VAR	VAR
	88	5.0	11	50	550
	89	5.0	24	VAR	VAR
	90	5.0	37	VAR	VAR
	91	5.0	65	57	3705
	92	5.0	32	134	4288
	93	5.0	48	VAR	VAR
	94	5.0	4	456	1824
	95	5.0	4	138	552
	96	6.3	6	166	996
	97	6.3	2	53	106
	98	6.3	7	VAR	VAR
	99	6.3	1	115	115
	100	6.3	1	52	52
	101	6.3	6	94	564
	102	6.3	5	133	665
	103	8.0	8	98	784
	104	8.0	1	420	420
	105	8.0	1	156	156
	106	8.0	7	111	777
	107	8.0	2	412	824
	108	8.0	1	71	71
	109	8.0	2	95	190
	110	8.0	2	64	128
	111	8.0	1	63	63
	112	8.0	7	92	644
	113	8.0	6	61	366
	114	8.0	0	VAR	VAR
	115	8.0	5	130	650
	116	8.0	14	VAR	VAR
	117	8.0	14	VAR	VAR
	118	8.0	4	411	1644
	119	8.0	7	334	2338
	120	8.0	13	VAR	VAR
	121	8.0	8	150	1200
	122	8.0	5	139	695
	123	8.0	5	148	740
	124	8.0	18	VAR	VAR
	125	8.0	5	182	910
	126	8.0	8	134	1072
	127	8.0	12	358	4296
	128	8.0	15	VAR	VAR
	129	10.0	3	134	402
	130	10.0	2	168	336
	131	10.0	2	130	260
	132	10.0	1	121	121
	133	10.0	3	94	282
	134	10.0	7	90	630
	135	10.0	16	227	3632
	136	10.0	29	VAR	VAR
	137	10.0	6	205	1230
	138	10.0	3	VAR	VAR
	139	10.0	5	VAR	VAR
	140	10.0	3	VAR	VAR
	141	10.0	9	VAR	VAR
	142	10.0	3	VAR	VAR
	143	10.0	3	309	2163
	144	10.0	3	120	360
	145	10.0	20	VAR	VAR
	146	10.0	10	VAR	VAR
	147	10.0	5	463	2315
	148	10.0	38	465	17670
	149	10.0	8	422	3376
	150	12.5	26	89	2314
	151	12.5	1	298	298
	152	12.5	3	167	501
	153	12.5	2	VAR	VAR
	154	12.5	4	73	292
	155	12.5	2	109	218
	156	12.5	2	222	444
	157	12.5	3	190	570
	158	12.5	10	VAR	VAR
	159	12.5	3	160	480
	160	12.5	3	199	597
	161	12.5	6	VAR	VAR
	162	12.5	2	144	288
	163	12.5	27	VAR	VAR
	164	12.5	9	622	5598
	165	12.5	1	VAR	VAR
	166	12.5	5	VAR	VAR
	167	12.5	3	174	522
	168	12.5	3	276	828
	169	12.5	5	VAR	VAR
	170	12.5	10	VAR	VAR
	171	12.5	4	376	1504
	172	12.5	5	468	2340
	173	12.5	9	VAR	VAR
	174	16.0	14	162	2268
	175	16.0	2	VAR	VAR
	176	16.0	2	169	338
	177	16.0	7	VAR	VAR
	178	16.0	6	435	2610
	179	16.0	1	225	225
	180	16.0	32	VAR	VAR
	181	16.0	1	163	163
	182	16.0	3	307	921
	183	16.0	7	VAR	VAR
	184	16.0	3	455	1365
	185	16.0	4	287	1148
	186	16.0	9	VAR	VAR
	187	16.0	9	VAR	VAR
	188	16.0	5	327	1635

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	32	8.6
	8.0	464	201.4
	10.0	536.4	363.8
	12.5	380.7	403.4
	16.0	307.5	533.8
CA60	5.0	2875.4	487.5

PESO TOTAL (kg)	
CA50	1510.9
CA60	487.5

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

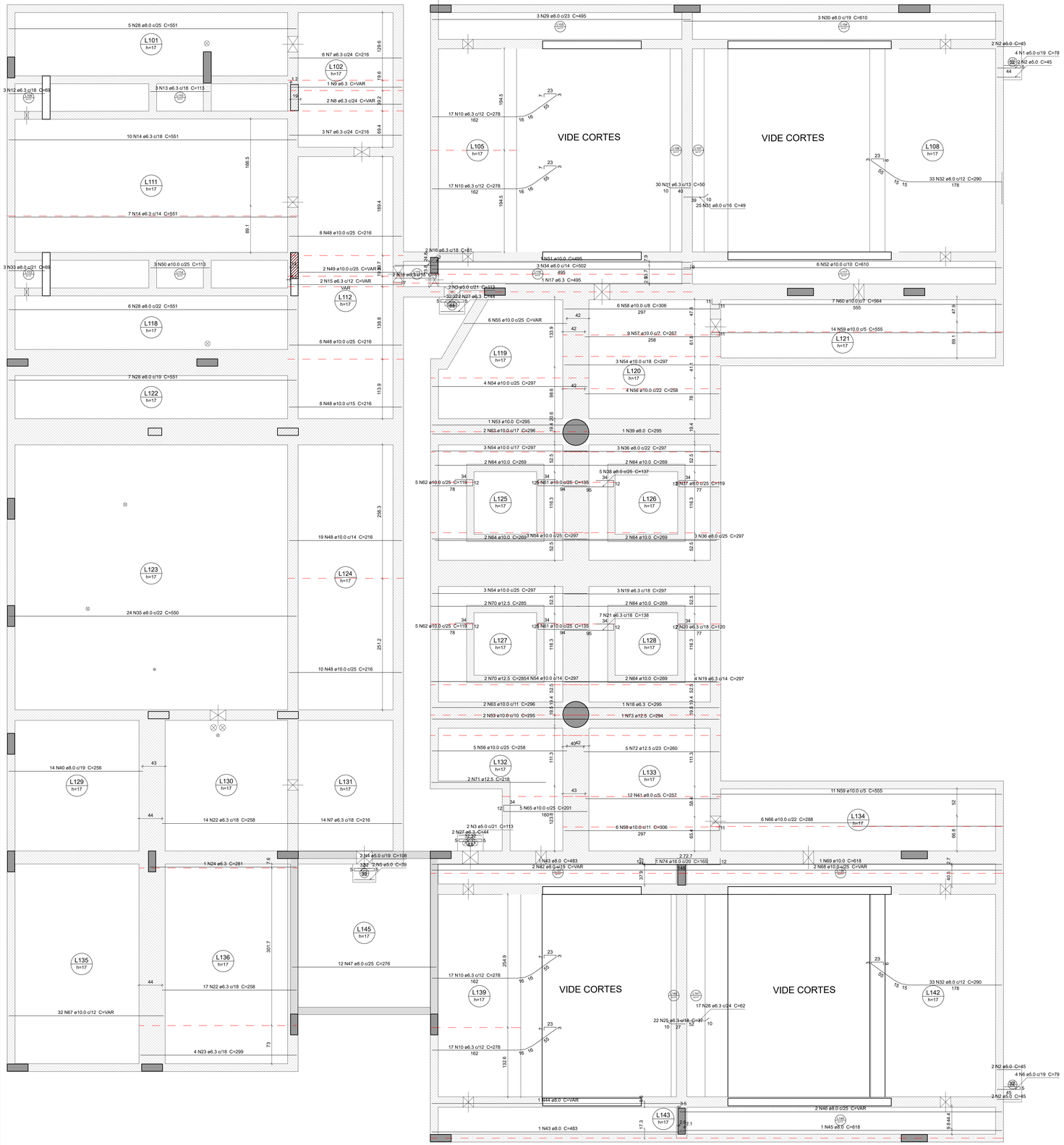
NÚCLEO BÁSICO EDIFICADO

ETAPA: DETALHE ARAMADURA DAS LAJES 3/10

PRANCHA Nº: 26/35

DISCIPLINA: ESTRUTURA | ARQUIVO: .NBE.300 ESTR.003 | DATA: 02/08/2024 | ESCALA: 1/50

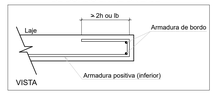
FORMATO A0 - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.



Armação positiva das lajes do pavimento A105.Laje (topo estrutura) (Eixo X)

escala 1:30

DETALHE DA ARMADURA DE BORDO LIVRE DA LAJE



ARMADURA COM COMPRIMENTO VARIÁVEL				
N8	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	199	199	199
B	1	216	216	216

ARMADURA COM COMPRIMENTO VARIÁVEL				
N9	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	216	216	216

ARMADURA COM COMPRIMENTO VARIÁVEL				
N15	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)

ARMADURA COM COMPRIMENTO VARIÁVEL				
N49	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	199	199	199
B	1	216	216	216

ARMADURA COM COMPRIMENTO VARIÁVEL				
N55	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	175	175	175
B	1	188	188	188
C	1	201	201	201
D	1	214	214	214
E	1	228	228	228
F	1	241	241	241

ARMADURA COM COMPRIMENTO VARIÁVEL				
N67	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	268	268	268
B	31	297	297	9207

ARMADURA COM COMPRIMENTO VARIÁVEL				
N42	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	471	471	471
B	1	488	488	488

ARMADURA COM COMPRIMENTO VARIÁVEL				
N68	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	606	606	606
B	1	623	623	623

ARMADURA COM COMPRIMENTO VARIÁVEL				
N44	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	64	64	64

ARMADURA COM COMPRIMENTO VARIÁVEL				
N45	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	607	607	607
B	1	624	624	624

Relação do aço

Positivos X

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	4	78	312
	2	5.0	8	45	360
	3	5.0	4	113	452
	4	5.0	2	108	216
	5	5.0	2	39	78
	6	5.0	4	79	316
CA50	7	6.3	23	216	4968
	8	6.3	2	VAR	VAR
	9	6.3	1	VAR	VAR
	10	6.3	68	278	18904
	11	6.3	30	50	1500
	12	6.3	3	69	207
	13	6.3	3	113	339
	14	6.3	17	551	9367
	15	6.3	2	VAR	VAR
	16	6.3	4	81	324
	17	6.3	1	495	495
	18	6.3	1	295	295
	19	6.3	7	297	2079
	20	6.3	7	120	840
	21	6.3	7	138	966
	22	6.3	31	258	7998
	23	6.3	4	299	1196
	24	6.3	1	281	281
	25	6.3	22	37	814
	26	6.3	17	62	1054
	27	6.3	4	44	176
	28	8.0	18	551	9918
	29	8.0	3	495	1485
	30	8.0	3	610	1830
	31	8.0	25	49	1225
	32	8.0	66	290	19140
	33	8.0	3	69	207
	34	8.0	3	502	1506
	35	8.0	24	550	13200
	36	8.0	6	297	1782
	37	8.0	5	119	595
	38	8.0	5	137	685
	39	8.0	1	295	295
	40	8.0	14	256	3584
	41	8.0	12	257	3084
	42	8.0	2	VAR	VAR
	43	8.0	2	483	966
	44	8.0	1	VAR	VAR
	45	8.0	1	618	618
	46	8.0	2	VAR	VAR
	47	8.0	12	276	3312
	48	10.0	51	216	11016
	49	10.0	2	VAR	VAR
	50	10.0	3	113	339
	51	10.0	1	495	495
	52	10.0	6	610	3660
	53	10.0	3	295	885
	54	10.0	20	297	5940
	55	10.0	6	VAR	VAR
	56	10.0	9	258	2322
	57	10.0	9	267	2403
	58	10.0	12	306	3672
	59	10.0	25	555	13875
	60	10.0	7	564	3948
	61	10.0	10	135	1350
	62	10.0	10	119	1190
	63	10.0	4	296	1184
	64	10.0	12	269	3228
	65	10.0	5	201	1005
	66	10.0	6	288	1728
	67	10.0	32	VAR	VAR
	68	10.0	2	VAR	VAR
	69	10.0	1	618	618
	70	12.5	4	285	1140
	71	12.5	2	218	436
	72	12.5	5	260	1300
	73	12.5	1	294	294
	74	16.0	1	165	165

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	528.5	142.2
	8.0	861.2	287
	10.0	711.6	482.5
	12.5	31.7	33.6
	16.0	1.7	2.9
CA60	5.0	17.4	2.9

PESO TOTAL (kg)	
CA50	948.2
CA60	2.9

Volume de concreto (30 MPa) = 37.9 m³
Área de forma = 229.55 m²

CEU DA CULTURA

AUTOR DO PROJETO :	ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:	PRANCHA Nº
DETALHE ARAMADURA DAS LAJES 4/10	27/35

DISCIPLINA	ARQUIVO	DATA :	ESCALA :
ESTRUTURA	NBE.300 ESTR.003	02/08/2024	1/50

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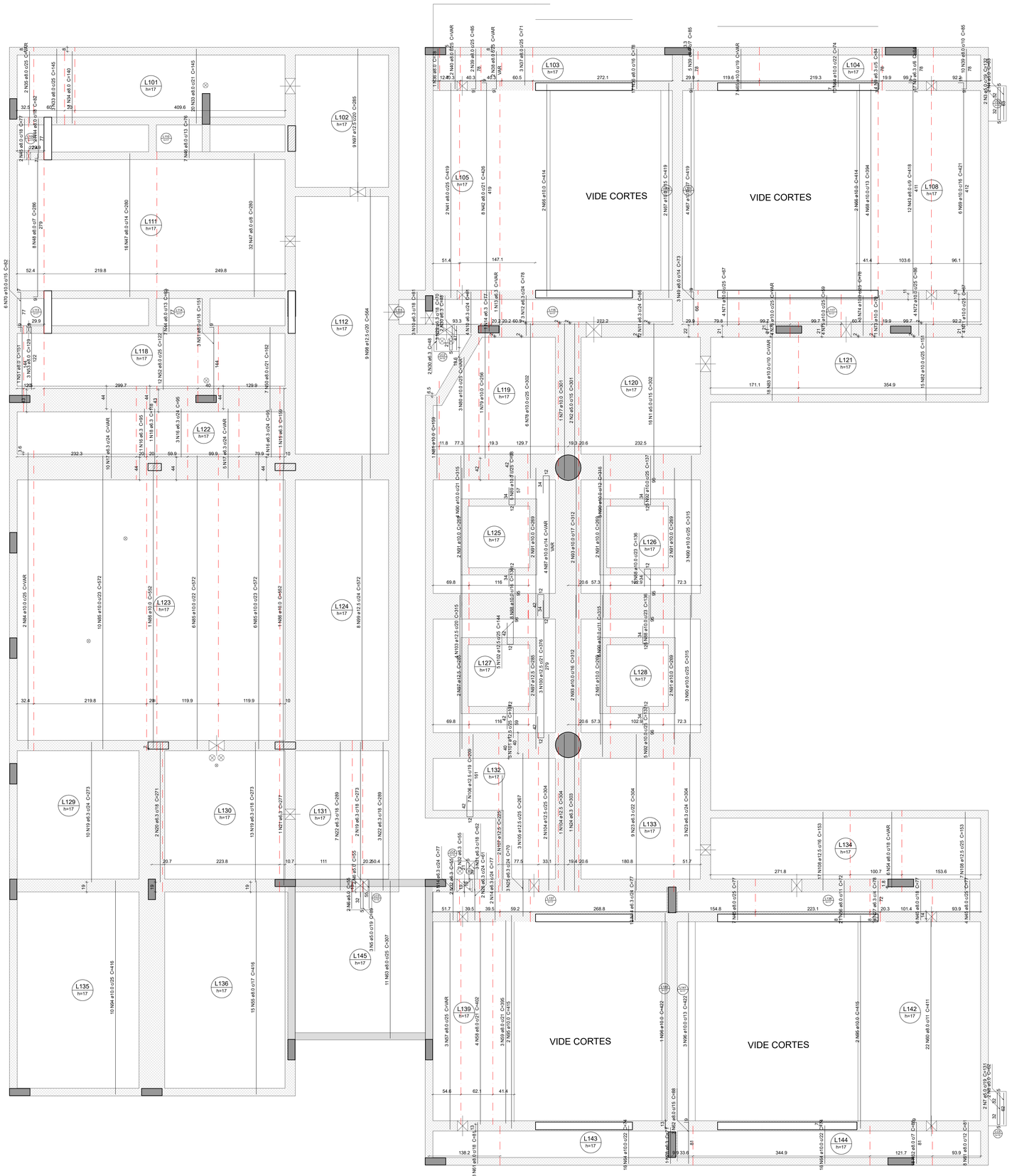
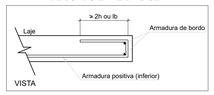
EXTERNO: 1189 x 841 mm.



Armação positiva das lajes do pavimento A105.Laje (topo estrutura) (Eixo Y)

escala 1:30

DETALHE DA ARMADURA DE BORDO LIVRE DA LAJE



ARMADURA COM COMPRIMENTO VARIÁVEL				
N35	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	2	146	146	292

ARMADURA COM COMPRIMENTO VARIÁVEL				
N38	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)

ARMADURA COM COMPRIMENTO VARIÁVEL				
N40	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	2	79	79	158

ARMADURA COM COMPRIMENTO VARIÁVEL				
N65	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	7	79	79	553

ARMADURA COM COMPRIMENTO VARIÁVEL				
N13	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	96	96	96

ARMADURA COM COMPRIMENTO VARIÁVEL				
N76	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	56	56	56
B	1	63	63	63
C	2	68	68	136

ARMADURA COM COMPRIMENTO VARIÁVEL				
N53	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)

ARMADURA COM COMPRIMENTO VARIÁVEL				
N80	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	184	184	184
B	1	216	216	216
C	1	249	249	249
D	1	282	282	282

ARMADURA COM COMPRIMENTO VARIÁVEL				
N83	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	2	132	132	264
B	14	133	133	1862
C	2	140	140	280

ARMADURA COM COMPRIMENTO VARIÁVEL				
N17	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	2	148	148	296
B	3	177	177	531

ARMADURA COM COMPRIMENTO VARIÁVEL				
N17	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	9	136	136	1224
B	1	148	148	148

ARMADURA COM COMPRIMENTO VARIÁVEL				
N84	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	2	572	572	1144

ARMADURA COM COMPRIMENTO VARIÁVEL				
N87	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)

ARMADURA COM COMPRIMENTO VARIÁVEL				
N100	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)

ARMADURA COM COMPRIMENTO VARIÁVEL				
N54	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	1	131	131	131
B	5	153	153	765

ARMADURA COM COMPRIMENTO VARIÁVEL				
N57	QUANT	C. VAR (cm)	C. UNIT (cm)	C. TOTAL (cm)
A	3	422	422	1266

Relação do aço

Positivos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	16	302	4832
	2	5.0	2	301	602
	3	5.0	2	132	264
	4	5.0	2	63	126
	5	5.0	3	89	267
	6	5.0	4	55	220
	7	5.0	2	131	262
	8	5.0	2	62	124
CA50	9	6.3	21	84	1764
	10	6.3	7	81	567
	11	6.3	12	86	1032
	12	6.3	3	78	234
	13	6.3	1	VAR	VAR
	14	6.3	18	77	1386
	15	6.3	1	159	159
	16	6.3	8	95	760
	17	6.3	15	VAR	VAR
	18	6.3	1	118	118
	19	6.3	25	273	6825
	20	6.3	2	271	542
	21	6.3	1	277	277
	22	6.3	10	289	2890
	23	6.3	12	304	3648
	24	6.3	1	303	303
	25	6.3	3	70	210
	26	6.3	2	61	122
	27	6.3	5	78	390
	28	6.3	1	71	71
	29	6.3	3	70	210
	30	6.3	4	48	192
	31	6.3	3	62	186
	32	6.3	4	55	220
	33	8.0	23	145	3335
	34	8.0	1	140	140
	35	8.0	2	VAR	VAR
	36	8.0	18	78	1404
	37	8.0	3	71	213
	38	8.0	2	VAR	VAR
	39	8.0	17	85	1445
	40	8.0	2	VAR	VAR
	41	8.0	2	419	838
	42	8.0	8	426	3408
	43	8.0	12	418	5016
	44	8.0	9	82	738
	45	8.0	19	77	1463
	46	8.0	7	76	532
	47	8.0	48	280	13440
	48	8.0	8	286	2288
	49	8.0	3	73	219
	50	8.0	7	162	1134
	51	8.0	4	151	604
	52	8.0	12	122	1464
	53	8.0	3	129	387
	54	8.0	6	VAR	VAR
	55	8.0	15	416	6240
	56	8.0	21	72	1512
	57	8.0	3	VAR	VAR
	58	8.0	4	402	1608
	59	8.0	3	395	1185
	60	8.0	22	411	9042
	61	8.0	16	81	1296
	62	8.0	21	88	1848
	63	8.0	11	307	3377
	64	10.0	42	74	3108
	65	10.0	7	VAR	VAR
	66	10.0	4	414	1656
	67	10.0	6	419	2514
	68	10.0	4	394	1576
	69	10.0	6	421	2526
	70	10.0	6	82	492
	71	10.0	8	67	536
	72	10.0	4	86	344
	73	10.0	1	79	79
	74	10.0	3	78	234
	75	10.0	4	59	236
	76	10.0	4	VAR	VAR
	77	10.0	1	301	301
	78	10.0	6	302	1812
	79	10.0	1	256	256
	80	10.0	3	VAR	VAR
	81	10.0	1	159	159
	82	10.0	15	151	2265
	83	10.0	18	VAR	VAR
	84	10.0	2	VAR	VAR
	85	10.0	22	572	12584
	86	10.0	2	552	1104
	87	10.0	4	VAR	VAR
	88	10.0	18	136	2448
	89	10.0	5	98	490
	90	10.0	21	315	6615
	91	10.0	12	269	3228
	92	10.0	10	137	1370
	93	10.0	4	312	1248
	94	10.0	10	416	4160
	95	10.0	4	415	1660
	96	10.0	4	422	1688
	97	12.5	13	285	3705
	98	12.5	9	564	5076
	99	12.5	8	572	4576
	100	12.5	3	376	1128
	101	12.5	5	107	535
	102	12.5	5	144	720
	103	12.5	4	315	1260
	104	12.5	3	304	912
	105	12.5	3	267	801
	106	12.5	7	209	1463
	107	12.5	2	225	450
	108	12.5	24	153	3672

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	242.4	65.2
	8.0	669.3	290.5
	10.0	611.9	414.9
	12.5	243	257.5
CA60	5.0	67	11.4

PESO TOTAL (kg)	
CA50	1028.1
CA60	11.4

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

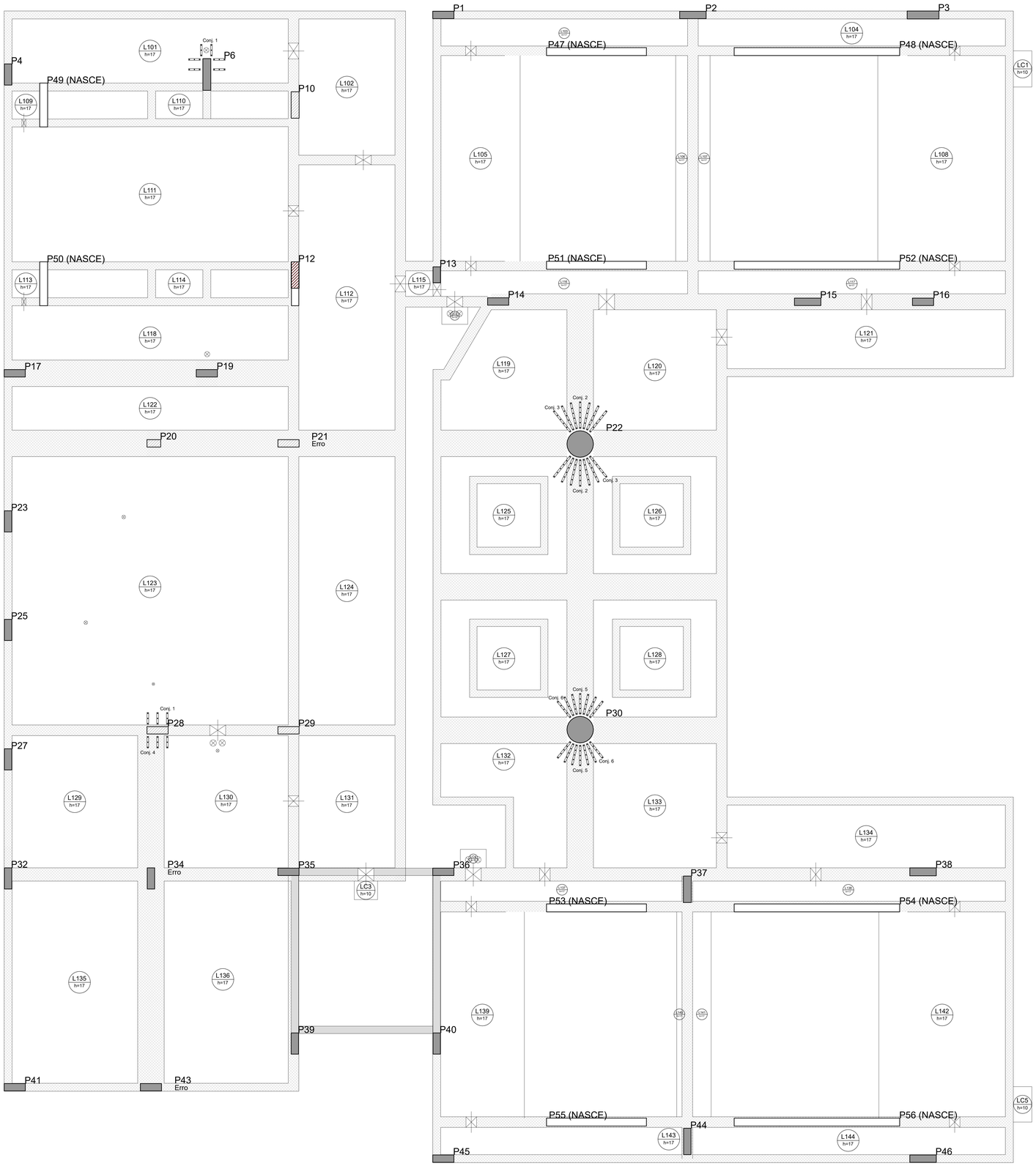
NÚCLEO BÁSICO EDIFICADO

ETAPA: DETALHE ARAMADURA DAS LAJES 5/10

PRANCHA Nº 28/35

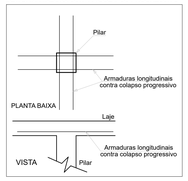
DISCIPLINA: ESTRUTURA | ARQUIVO: NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO A0 - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.

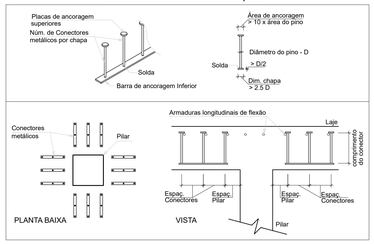


ARMADURA DE PUNÇÃO									
Conjunto	Quant.	Dim. chapa (cm)	Característica dos conectores					Quant. por chapa	Quant. total
			Aço	Diam. (mm)	Comp. (cm)	Espaç. Pilar (cm)	Espaç. Conectores (cm)		
1	10	22.2x3.2	CA50	8.0	14.0	6.5	9.5	3	30
2	6	50.7x3.2	CA50	8.0	13.0	6	9.5	6	36
3	8	50.7x3.2	CA50	8.0	14.0	6	9.5	6	48
4	2	22.2x3.2	CA50	8.0	13.0	6	9.5	3	6
5	6	39.2x3.2	CA50	8.0	13.0	6	9	5	30
6	8	39.2x3.2	CA50	8.0	14.0	6	9	5	40

DET. DA ARMADURA CONTRA COLAPSO PROGRESSIVO



DETALHE DA ARMADURA DE PUNÇÃO



Detalhamento de punção e cisalhamento das lajes do pavimento A105.Laje (topo estrutura) (Nível 287)

escala 1:30

FORMATO A0 - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.

CEU DA CULTURA

AUTOR DO PROJETO :	ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

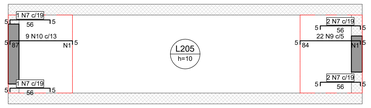
PROJETO 300

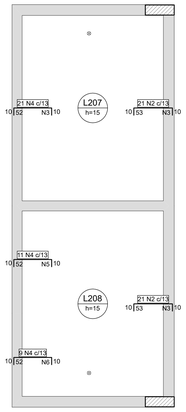
R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

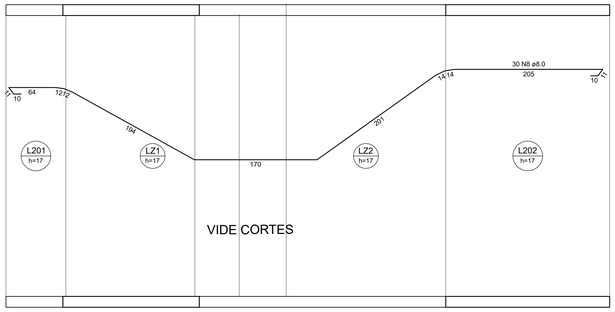
NÚCLEO BÁSICO EDIFICADO

ETAPA:	PRANCHA Nº
DETALHE ARAMADURA DAS LAJES 6/10	29/35

DISCIPLINA:	ARQUIVO	DATA :	ESCALA :
ESTRUTURA	NBE.300 ESTR.003	02/08/2024	1/50

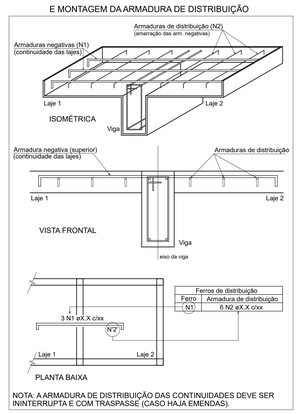




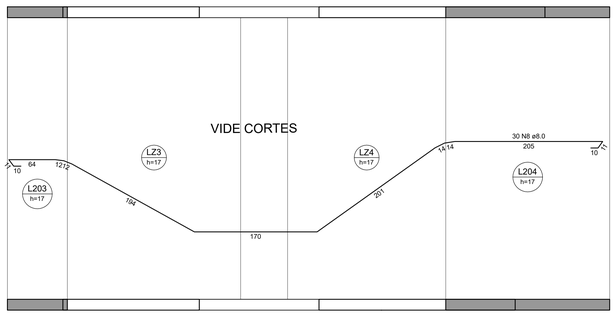


Armaduras de distribuição	
Armadura	Armadura de distribuição
N9	14 N1 ø5.0 c/6 C=108
N10	9 N1 ø5.0 c/10 C=108
N11	8 N1 ø5.0 c/11 C=108
N12	12 N1 ø5.0 c/9 C=108
N2	4 N3 ø5.0 c/17 C=271
N4	3 N3 ø5.0 c/17 C=271
N2	4 N3 ø5.0 c/17 C=271
N4	3 N5 ø5.0 c/17 C=149
N4	3 N6 ø5.0 c/17 C=123

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



NOTA: A ARMADURA DE DISTRIBUIÇÃO DAS CONTINUIDADES DEVE SER ININTERRUPTA E COM TRASPASSE (CASO HAJA EMENDAS).



Armação negativa das lajes do pavimento A106.Teto Quadra 5.20 (Eixo X)

escala 1:30

Relação do aço

Negativos X

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	43	108	4644
	2	5.0	42	70	2940
	3	5.0	11	271	2981
	4	5.0	41	69	2829
	5	5.0	3	149	447
	6	5.0	3	123	369
	7	5.0	10	63	630
CA50	8	8.0	60	914	54840
	9	10.0	22	89	1958
	10	12.5	9	91	819
	11	12.5	8	90	720
	12	12.5	9	111	999

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	548.4	238
	10.0	19.6	13.3
	12.5	25.4	26.9
CA60	5.0	148.4	25.2

PESO TOTAL (kg)	
CA50	278.2
CA60	25.2

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

DETALHE ARAMADURA DAS LAJES 7/10

PRANCHA Nº 30/35

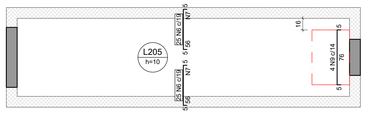
DISCIPLINA: ESTRUTURA

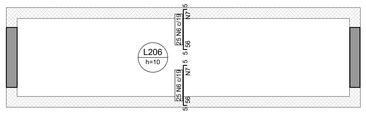
ARQUIVO: NBE.300 ESTR.003

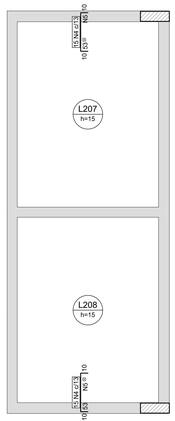
DATA : 02/08/2024

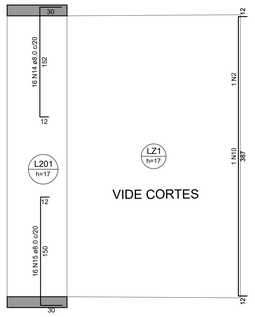
ESCALA : 1/50

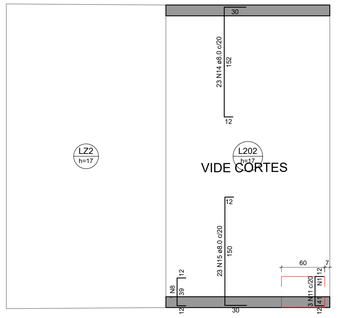
FORMATO A0 - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.





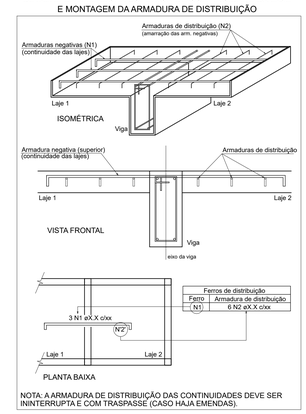




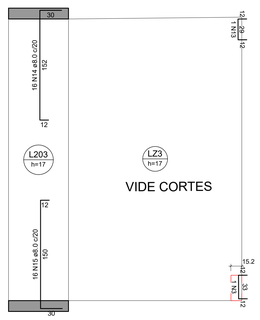


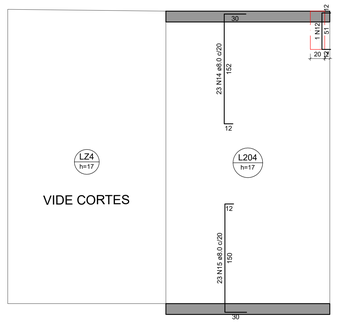
Armaduras de distribuição	
Armadura	Armadura de distribuição
N11	3 N1 ø5.0 c/15 C=60
N4	4 N5 ø5.0 c/17 C=190
N4	4 N5 ø5.0 c/17 C=190
N6	3 N7 ø5.0 c/20 C=475
N6	3 N7 ø5.0 c/20 C=475
N6	3 N7 ø5.0 c/20 C=475
N6	3 N7 ø5.0 c/20 C=475

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



NOTA: A ARMADURA DE DISTRIBUIÇÃO DAS CONTINUIDADES DEVE SER ININTERRUPTA E COM TRASPASSE (CASO HAJA EMENDAS).





Armação negativa das lajes do pavimento A106.Teto Quadra 5.20 (Eixo Y)
escala 1:30

Relação do aço

Negativos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	3	60	180
	2	5.0	1	408	408
	3	5.0	1	54	54
	4	5.0	30	70	2100
	5	5.0	8	190	1520
	6	5.0	100	63	6300
	7	5.0	12	475	5700
CA50	8	6.3	1	60	60
	9	6.3	4	83	332
	10	6.3	1	408	408
	11	8.0	3	61	183
	12	8.0	1	71	71
	13	8.0	1	49	49
	14	8.0	78	190	14820
	15	8.0	78	188	14664

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	8	2.2
	8.0	297.9	129.3
CA60	5.0	162.7	27.6

PESO TOTAL (kg)	
CA50	131.4
CA60	27.6

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

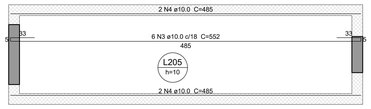
ETAPA:

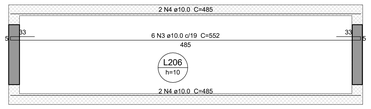
DETALHE ARAMADURA DAS LAJES 8/10

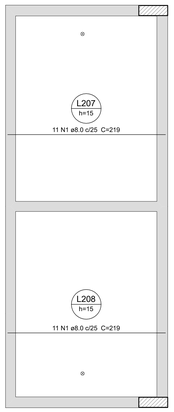
PRANCHA Nº 31/35

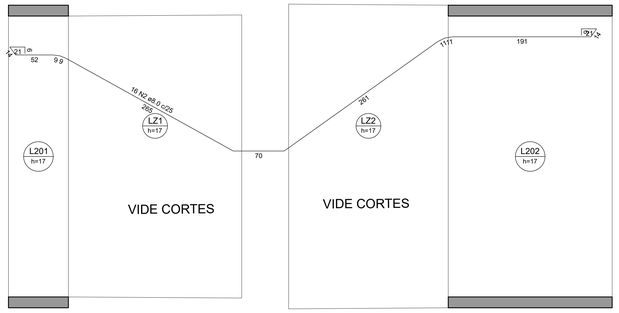
DISCIPLINA: ESTRUTURA | ARQUIVO: NBE_300_ESTR-003 | DATA : 02/08/2024 | ESCALA : 1/50

FORMATO AO - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.

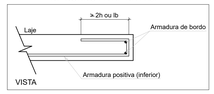


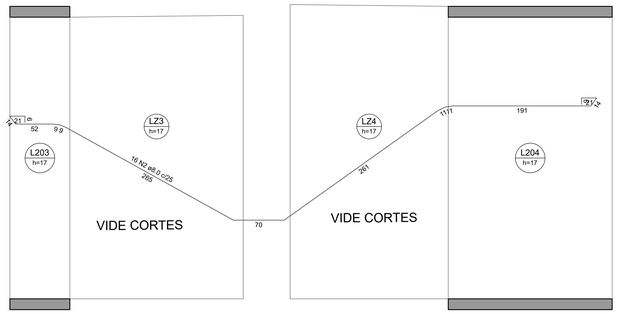






DETALHE DA ARMADURA
DE BORDO LIVRE DA LAJE





Armação positiva das lajes do pavimento A106.Teto Quadra 5.20 (Eixo X)

escala 1:30

Relação do aço

Positivos X

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	22	219	4818
	2	8.0	32	950	30400
	3	10.0	12	552	6624
	4	10.0	8	485	3880

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	352.2	152.9
	10.0	105.1	71.2
PESO TOTAL (kg)			
CA50	224.1		

Volume de concreto (30 MPa) = 15.64 m³
Área de forma = 114.25 m²

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

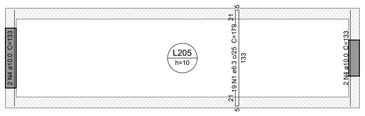
ETAPA:

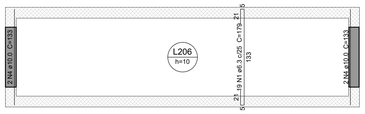
DETALHE ARAMADURA DAS LAJES 9/10

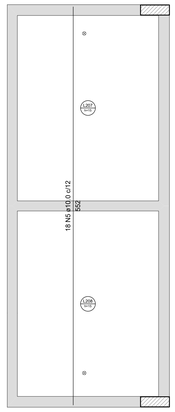
PRANCHA Nº 32/35

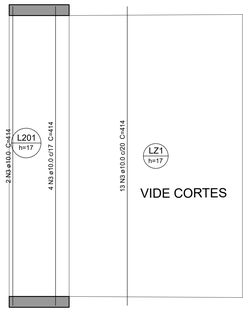
DISCIPLINA: ESTRUTURA | ARQUIVO: NBE.300 ESTR.003 | DATA : 02/08/2024 | ESCALA : 1/50

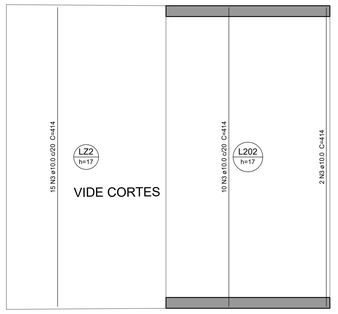
FORMATO A0 - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.



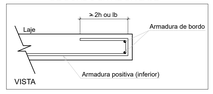


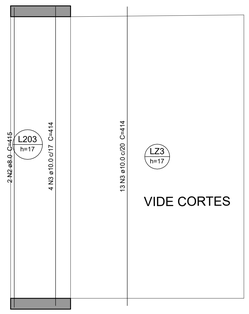


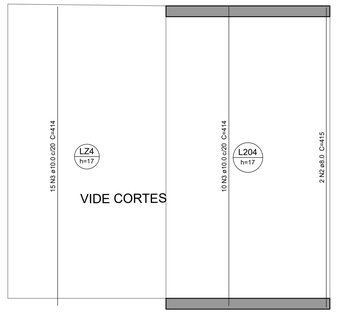




DETALHE DA ARMADURA
DE BORDO LIVRE DA LAJE







Armação positiva das lajes do pavimento A106.Teto Quadra 5.20 (Eixo Y)

escala 1:30

Relação do aço

Positivos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	38	179	6802
	2	8.0	4	415	1660
	3	10.0	88	414	36432
	4	10.0	8	133	1064
	5	10.0	18	552	9936

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	68.1	18.3
	8.0	16.6	7.2
	10.0	474.4	321.7
PESO TOTAL (kg)			
CA50	347.2		

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

DETALHE ARAMADURA DAS LAJES 10/10

PRANCHA Nº

33/35

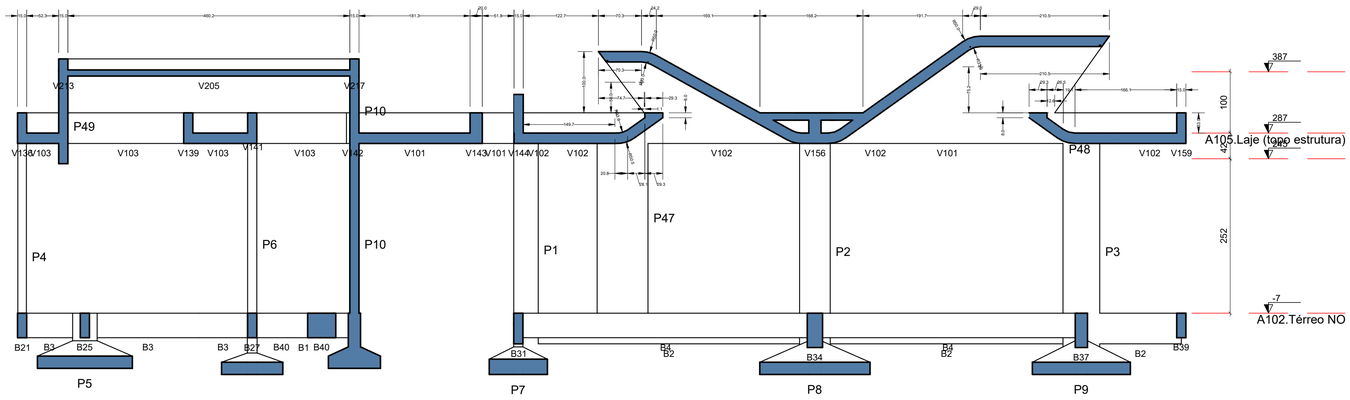
DISCIPLINA: ESTRUTURA

ARQUIVO: NBE.300 ESTR.003

DATA : 02/08/2024

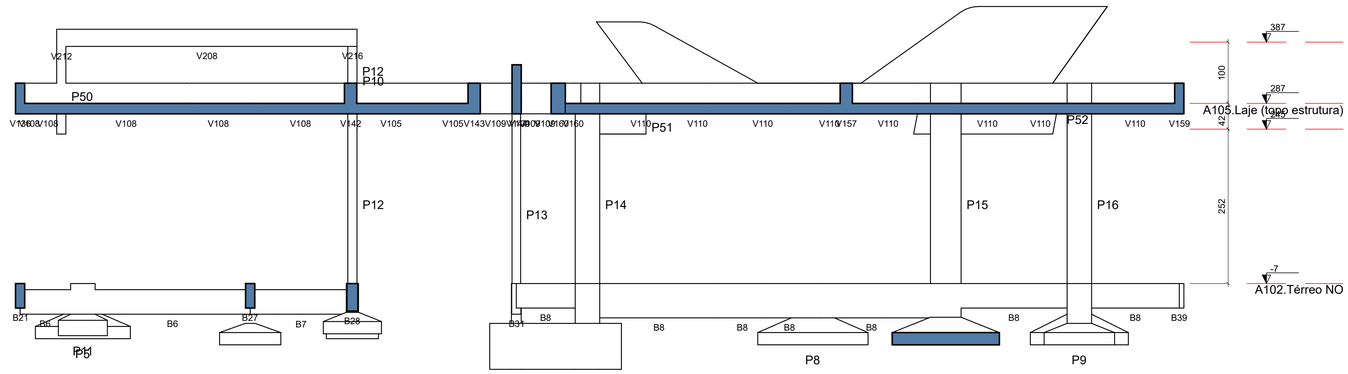
ESCALA : 1/50

FORMATO AO - INTERNO: 1149 x 821 mm.
EXTERNO: 1189 x 841 mm.



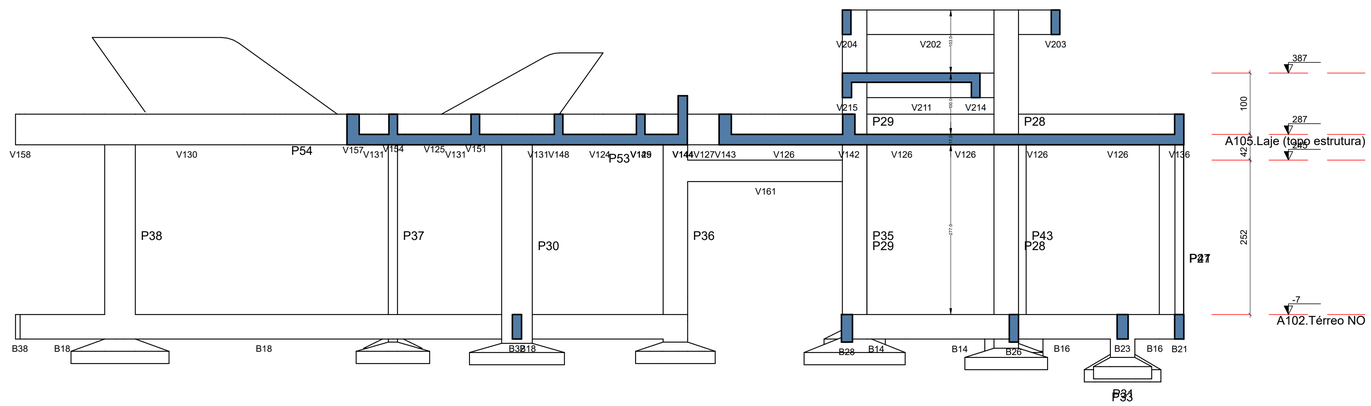
Corte A-A

escala 1:50



Corte B-B

escala 1:50



Corte C-C

escala 1:50

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

CORTES A-A, B-B, C-C

PRANCHA Nº 34/35

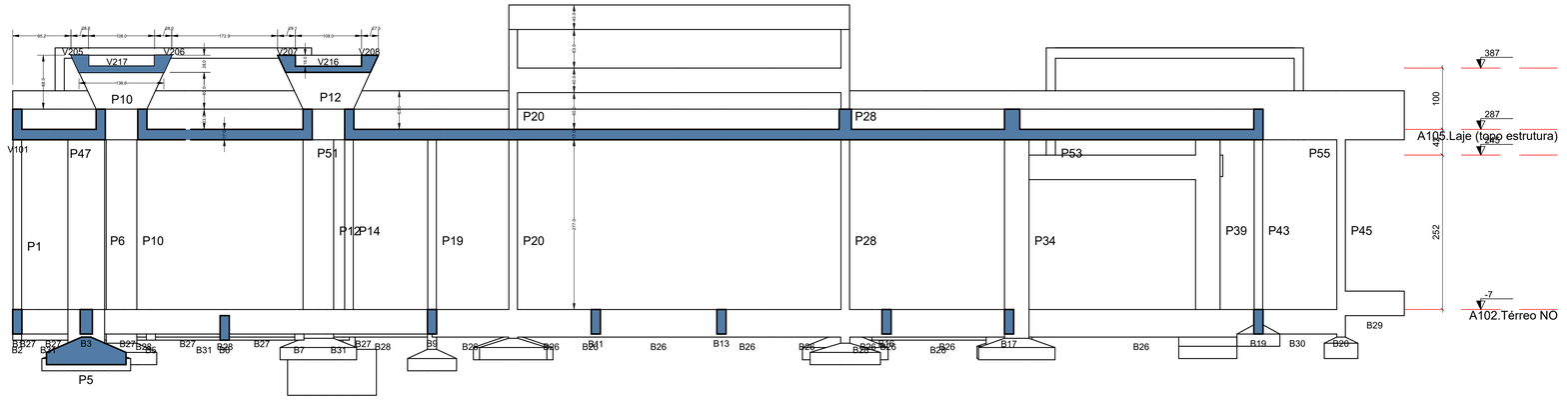
DISCIPLINA: ESTRUTURA

ARQUIVO: .NBE.300 ESTR.003

DATA : 02/08/2024

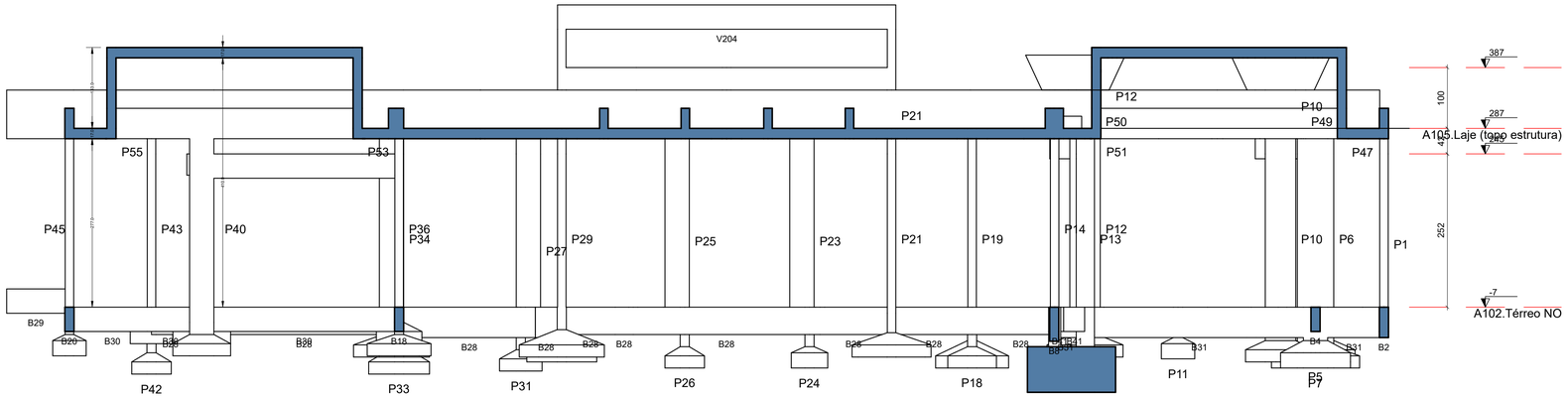
ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.



Corte D-D

escala 1:50



Corte E-E

escala 1:50

CEU DA CULTURA

AUTOR DO PROJETO : ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

PROJETO 300

R. T. DE PROJETO: ENG. ATILA GONÇALVES BARCELOS DA SILVA DUVAL – CREA 1018788743 D/GO

NÚCLEO BÁSICO EDIFICADO

ETAPA:

CORTES D-D, E-E

PRANCHA Nº 35/35

DISCIPLINA: ESTRUTURA

ARQUIVO: .NBE.300 ESTR.003

DATA : 02/08/2024

ESCALA : 1/50

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.