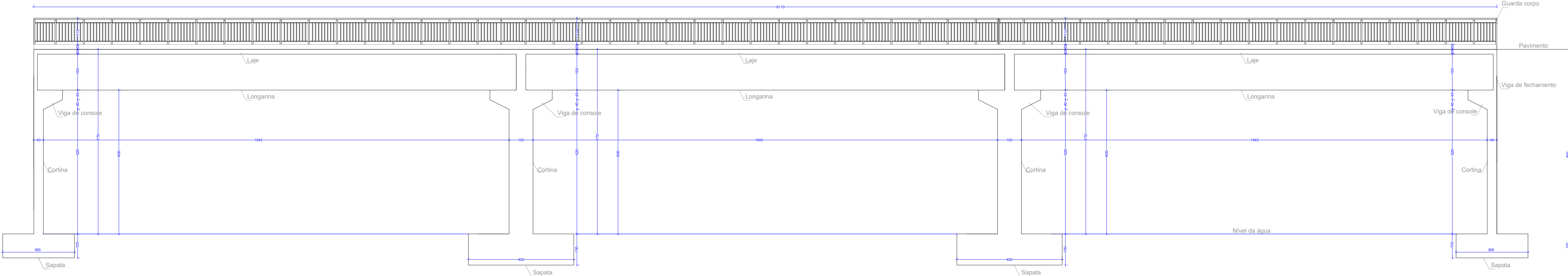
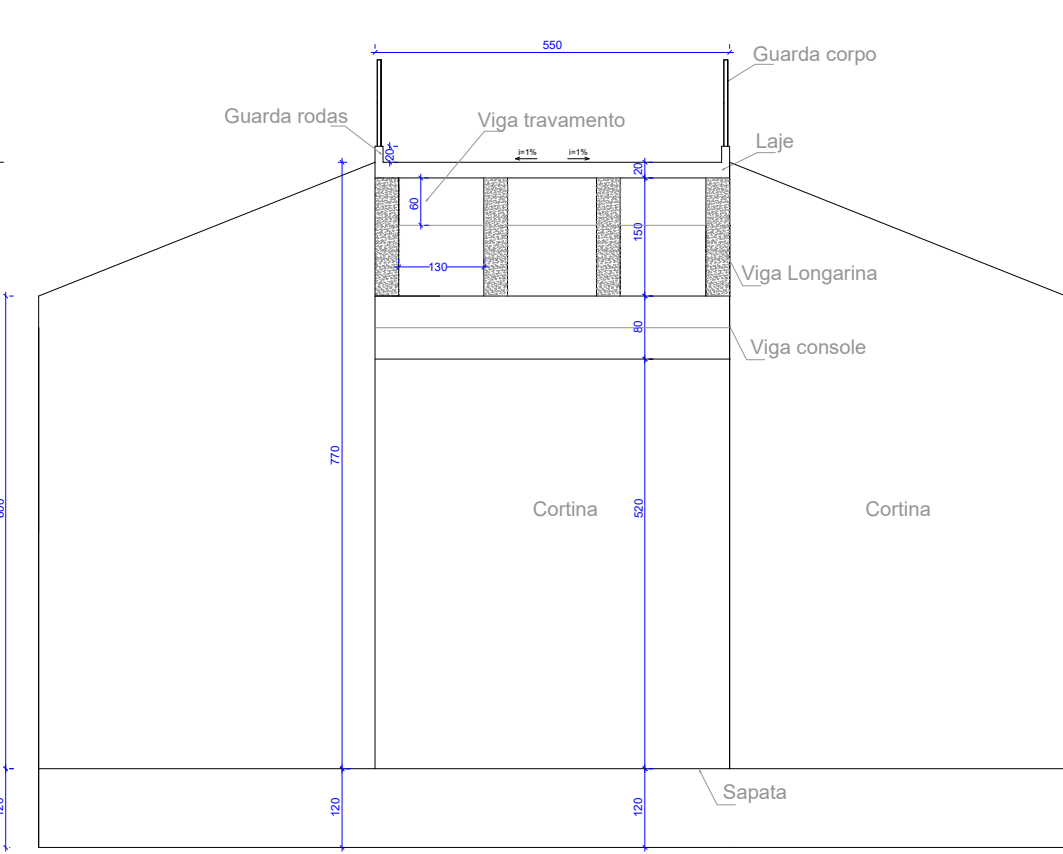


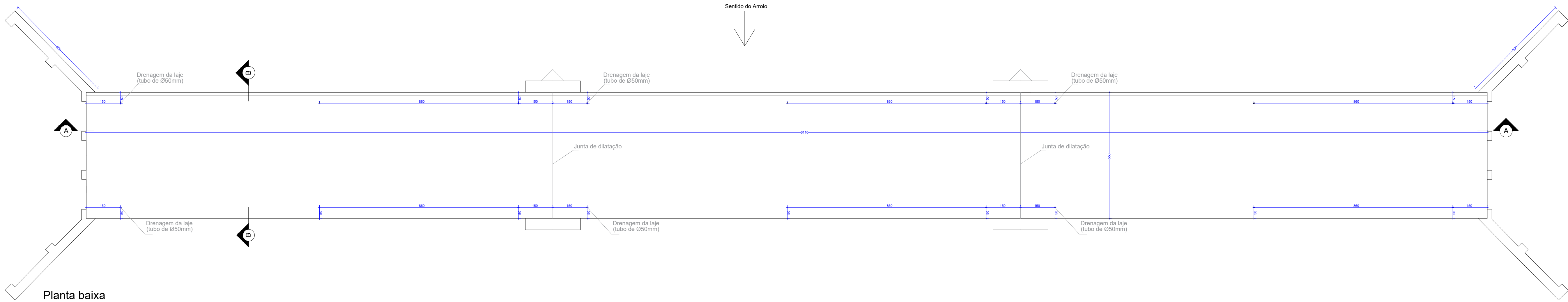
Corte A-A



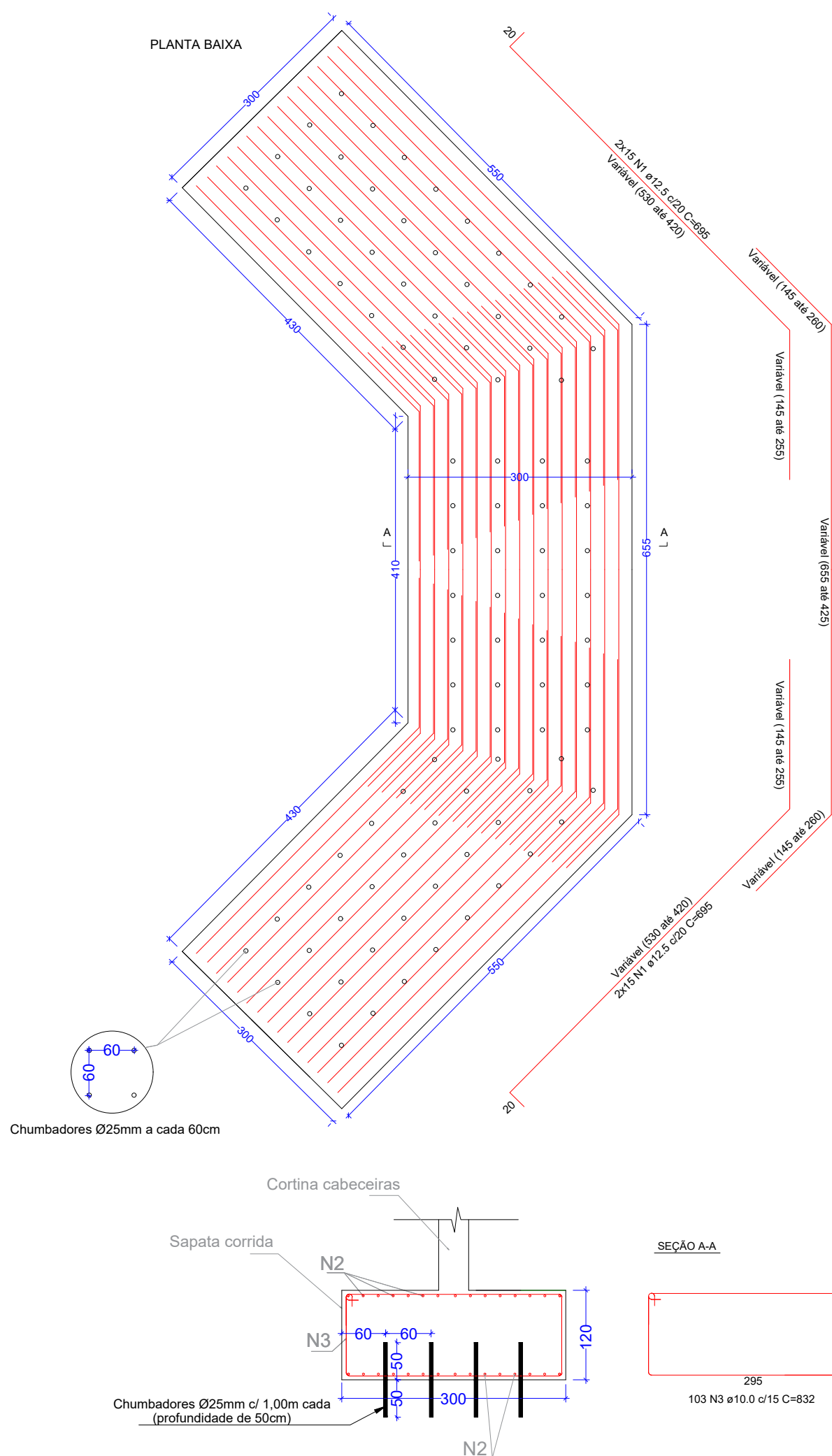
Corte B-B



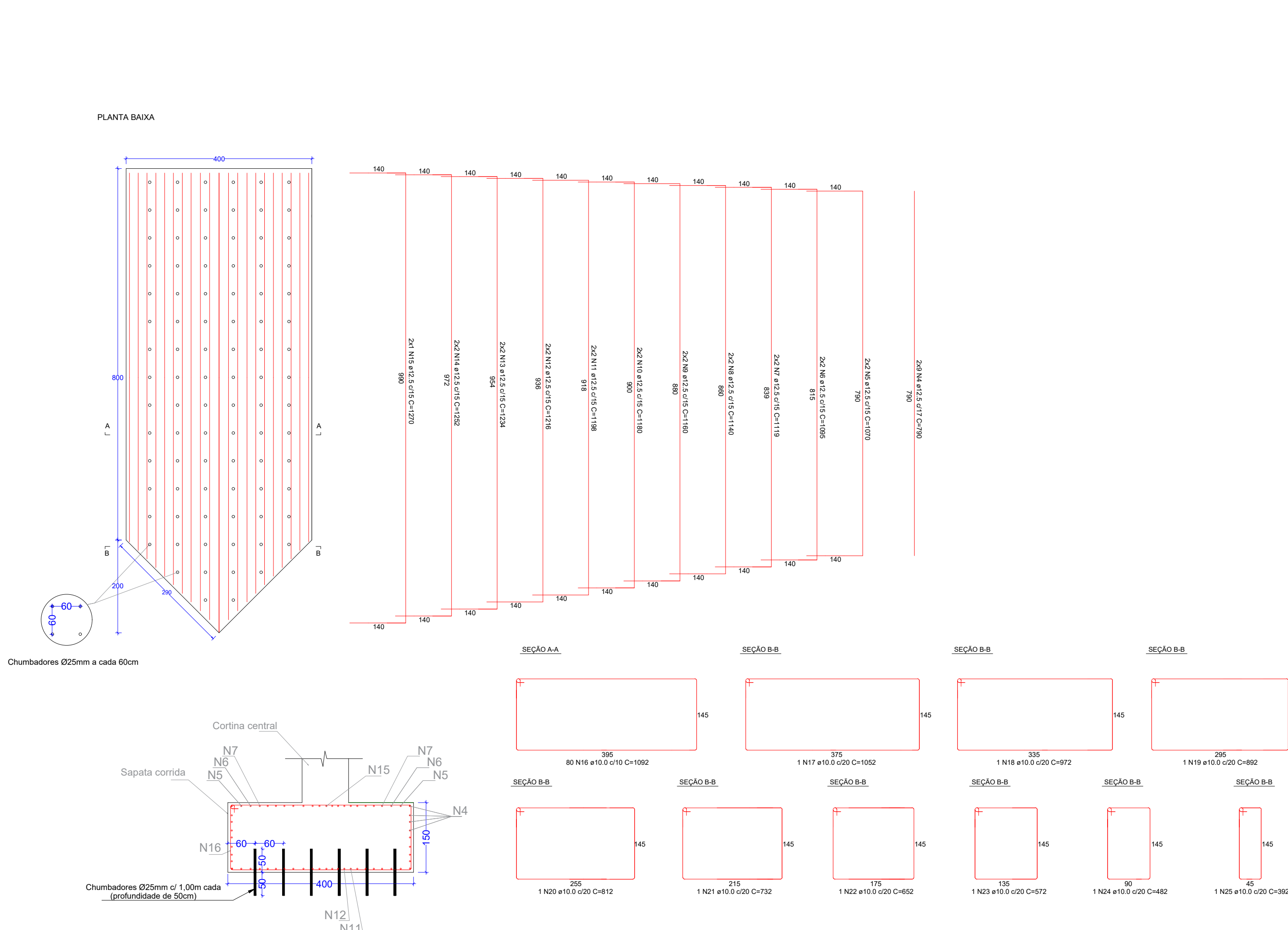
Planta baixa



Detalhamento das fundações nas cabeceiras (x2)



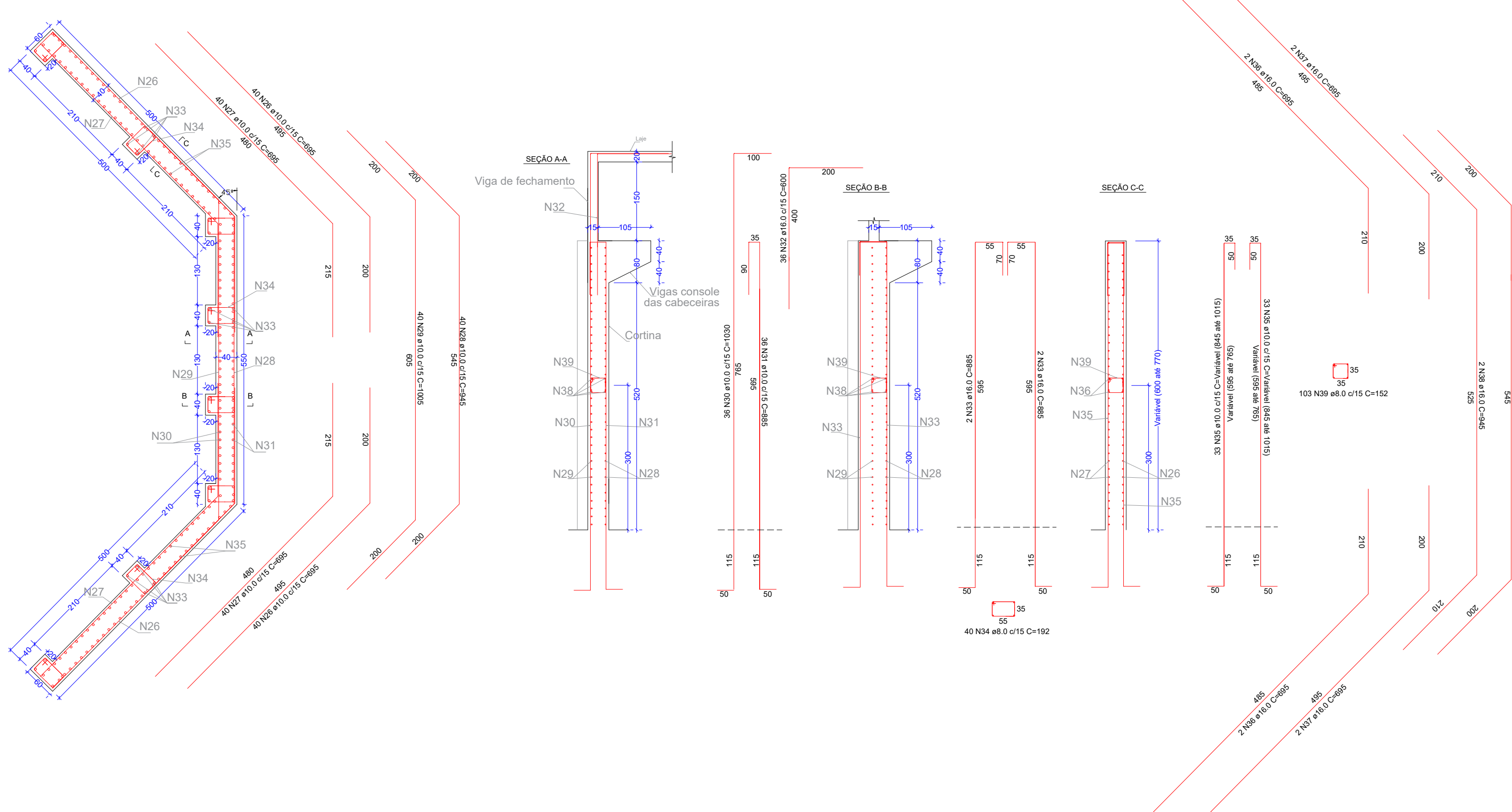
Detalhamento das fundações centrais (x2)



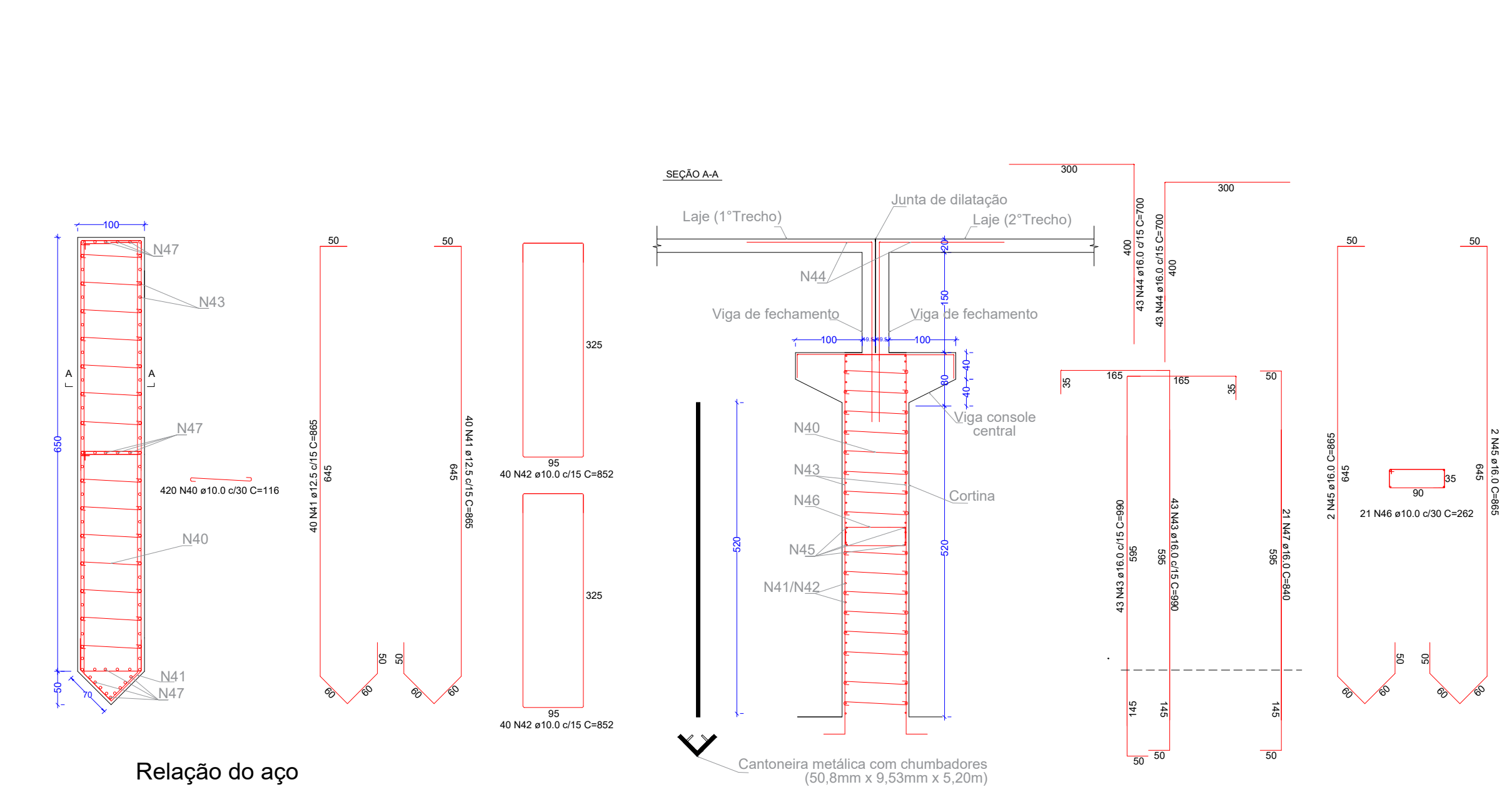
Relação do aço					
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	12.5	120	695	83400
	2	12.5	60	945	56700
	3	10.0	206	832	171392
	4	12.5	36	790	28440
	5	12.5	8	1070	8560
	6	12.5	8	1085	8760
	7	12.5	8	1119	8952
	8	12.5	8	1140	9120
	9	12.5	8	1160	9280
	10	12.5	8	1180	9440
	11	12.5	8	1198	9584
	12	12.5	8	1216	9728
	13	12.5	8	1234	9872
	14	12.5	8	1252	10016
	15	12.5	4	1270	5080
	16	10.0	160	1092	174720
	17	10.0	2	1052	2104
	18	10.0	2	972	1944
	19	10.0	2	892	1784
	20	10.0	2	812	1624
	21	10.0	2	732	1464
	22	10.0	2	652	1304
	23	10.0	2	572	1144
	24	10.0	2	482	964
	25	10.0	2	392	784

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% PERDA (kg)
CA50	10.0	3592.28	2438.08
	12.5	2669.32	2827.61

Detalhamento das cortinas nas cabeceiras (x2)



Detalhamento das cortinas centrais (x2)



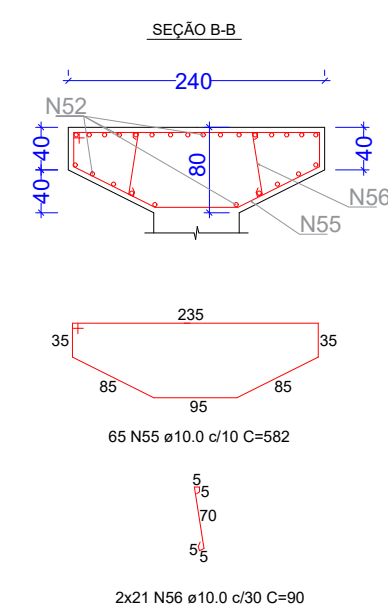
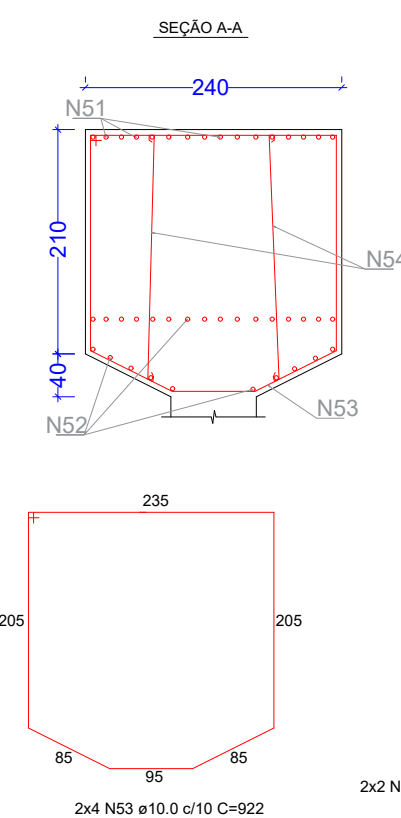
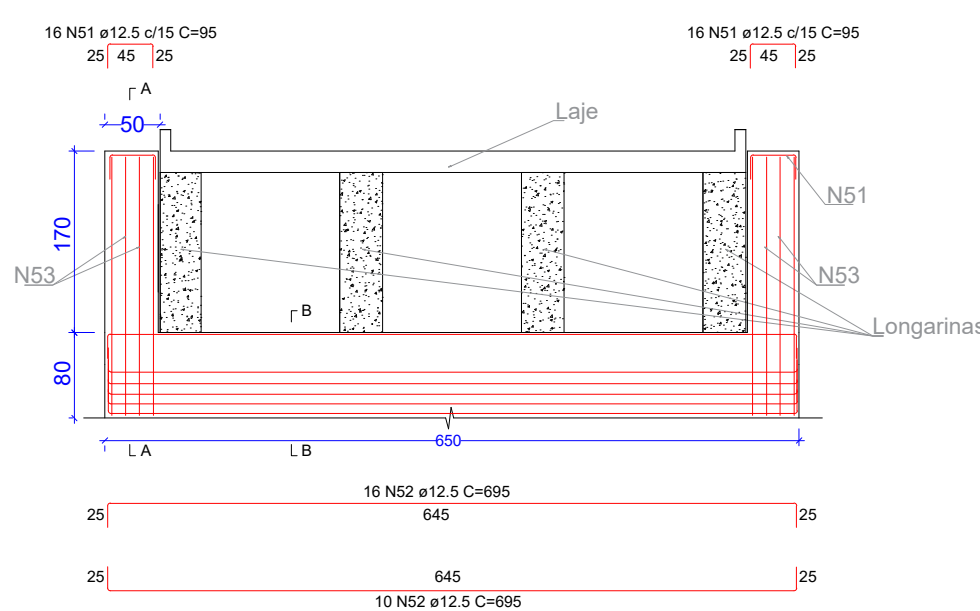
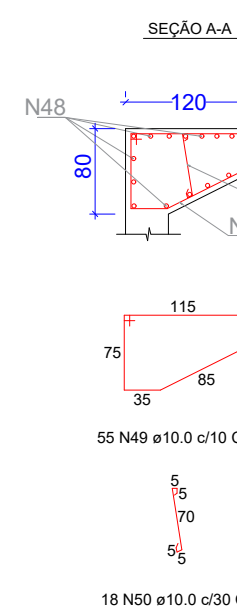
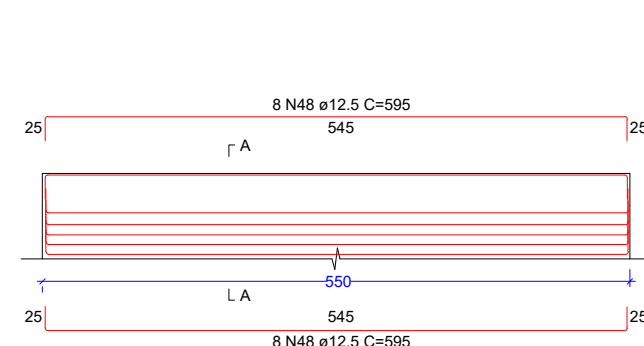
Relação do aço					
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	26	10.0	160	695	111200
	27	10.0	160	695	111200
	28	10.0	80	945	75600
	29	10.0	80	1005	80400
	30	10.0	72	1030	74160
	31	10.0	72	885	63720
	32	16.0	72	800	43200
	33	16.0	64	885	56640
	34	8.0	640	192	122880
	35	10.0	264	930	245520
	36	16.0	8	695	5560
	37	16.0	8	695	5560
	38	16.0	8	945	7560
	39	8.0	206	152	31312
	40	10.0	840	116	97440
	41	12.5	160	865	138400
	42	10.0	160	852	136320
	43	16.0	172	990	170280
	44	16.0	172	700	120400
	45	16.0	8	865	6920
	46	10.0	42	262	11004
	47	16.0	42	840	35280

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% PERDA (kg)
CA50	8.0	1541.92	669.96
	12.5	10065.64	6831.54
	16.0	1384	1466.07
	16.0	4514	7835.40

Documento assinado digitalmente
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LUIZ ANTONIO CHANAN
Data: 23/08/2024 16:39:05 -0300
Verifique em https://validar.digov.br

PROVINCIA ENGENHARIA		Projeto de construção de ponte 01 da Barra do Zeferino LOCAL: Estrada Linha Barra do Zeferino, Doutor Ricardo/RS (29°05'29.34"S, -51°56'28.69"O)	
<input checked="" type="checkbox"/> AMPLIAÇÃO	<input type="checkbox"/> INTERIORES	<input type="checkbox"/> REFORMA	<input type="checkbox"/> REGULARIZAÇÃO
PROPRIETÁRIO (a) - Prefeitura Municipal de Doutor Ricardo			
PROJETO E RESP. TÉCNICA - Eng. Luis Antonio Chanan (CREA/RS - 223549)			
Detalhamento estrutura			
ÁREA TOTAL: 336.05 m²	DATA - Agosto de 2024	PRIMICIA Nº	02
ESCALA - na prancha			

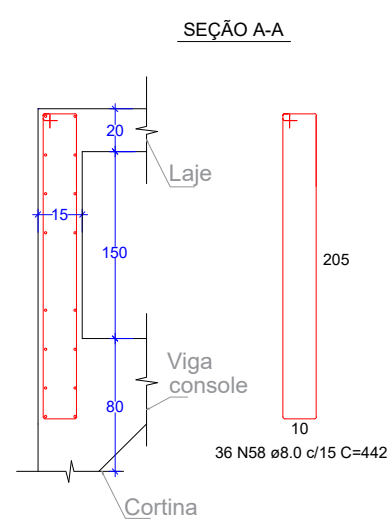
Detalhamento das vigas de console centrais (x2)



AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	48	12.5	32	595	19040
	49	10.0	110	357	39270
	50	10.0	36	90	3240
	51	12.5	64	95	6080
	52	12.5	52	695	36140
	53	10.0	16	922	14752
	54	10.0	8	1920	15360
	55	10.0	130	582	75660
	56	10.0	84	90	7560

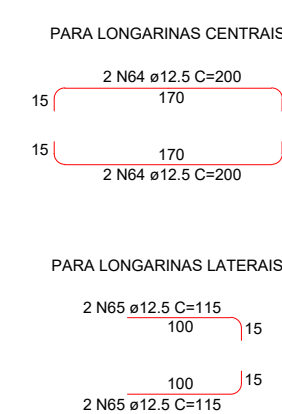
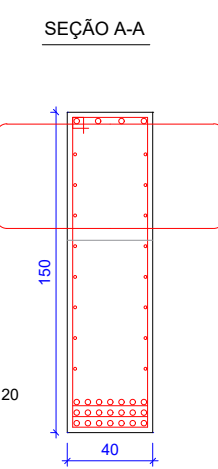
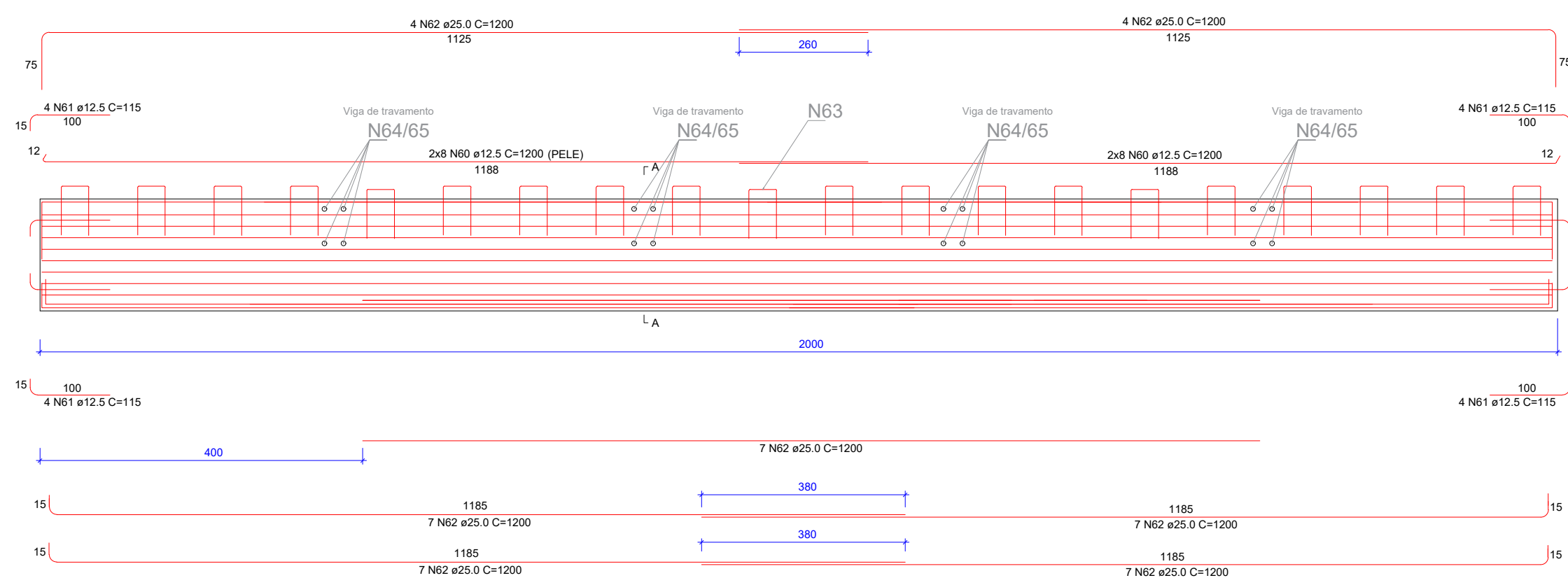
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% PERDA (kg)
CA50	10.0	1424.02	966.48
	12.5	612.60	648.92

Figure 1 consists of two schematic cross-sectional diagrams of a specimen, labeled A and B. Both diagrams show a rectangular specimen with a central horizontal hole. In diagram A, there is a vertical crack on the right side of the specimen. In diagram B, there is a vertical crack on the left side of the specimen. The specimen is supported by a base. Dimensions are indicated by arrows and labels: a vertical dimension of 25 is shown on the left of both diagrams; a horizontal dimension of 545 is shown below the specimen; and a horizontal dimension of 2 N57 a8.0 C=595 is shown above the specimen. The labels A and B are placed below the respective diagrams.



SEÇÃO LONGITUDINAL

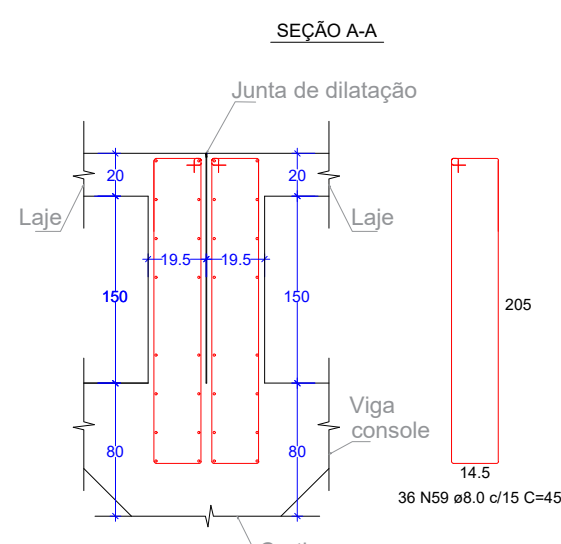
Detalhamento dos ganchos para içamento das longarinas deverão ser dimensionados pela empresa executora, de modo que não prejudiquem a estrutura das mesmas.



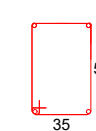
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	57	8.0	96	595	57120
	58	8.0	72	442	31824
	59	8.0	144	451	64944
	60	12.5	384	1200	460800
	61	12.5	192	115	22080
	62	25.0	60	1200	619200
	63	8.0	600	120	72000
	64	12.5	96	200	19200
	65	12.5	96	115	11040
	66	10.0	2400	372	892800
	67	8.3	1200	95	140400
	68	8.0	288	192	55296
	69	12.5	288	155	44640
70	10.0	814	545	443630	
71	10.0	72	920	518400	
72	12.5	48	1200	67200	
73	6.3	810	72	74520	

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% PERDA (kg)
CA50	6.3	1885.20	508.06
	8.0	2811.84	1221.74
	10.0	18548.30	12588.73
	12.5	6153.60	6518.50
	25.0	6192	26243.55

Figure 1: Schematic representation of the experimental setup. The figure consists of two parts, (a) and (b). Part (a) shows a cross-sectional view of a rectangular channel with a central region of width 'L' and height 'A'. The channel is divided into four horizontal layers, each labeled '545'. The top and bottom layers are labeled '2 N57 a8.0 C=595'. The middle two layers are labeled '545'. The channel is bounded by '25' on the left and right sides. Part (b) shows a top-down view of the same channel, with a central region of width 'L' and height 'A'. The channel is divided into four horizontal layers, each labeled '545'. The top and bottom layers are labeled '2 N57 a8.0 C=595'. The middle two layers are labeled '545'. The channel is bounded by '25' on the left and right sides.



Technical drawing of a reinforced concrete slab cross-section. The drawing shows three reinforcement bars labeled N65, N69, and N64. The vertical dimension is 150, with a section height of 60. The horizontal dimension is 130. The structure is labeled 'Laje' (slab) and 'Longarina' (beam).



8 N68 @8.0 C=192

2 N69 @12.5 C=155
15' 125 1

2 N69 @12.5 C=155
15' 125 1

2 N69 @12.5 C=155
15' 125 1

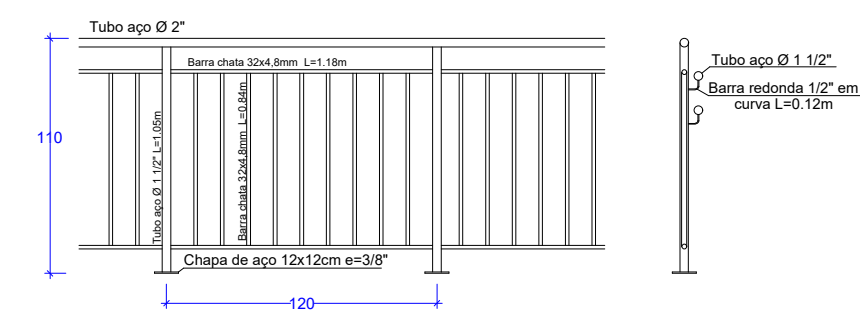
2 N69 @12.5 C=155
15' 125 1

The drawing shows a circular structure with a grid of red lines. The grid is composed of 20 horizontal lines and 20 vertical lines, creating a 19x19 grid of squares. The grid is centered within the circle. The grid lines are labeled with 'L' and 'A' at the bottom and 'L' and 'A' at the top. The grid is labeled with '2x407 N70 ±10.0 c/15 C=545 (duas camadas)' and '2x368 N71 ±10.0 c/15 C=1200+1200+1200+1200+1200 com transpassos de 3,70m (duas camadas)'. The grid is also labeled with 'L' and 'A' at the bottom and 'L' and 'A' at the top. The grid is labeled with '2x407 N70 ±10.0 c/15 C=545 (duas camadas)' and '2x368 N71 ±10.0 c/15 C=1200+1200+1200+1200+1200 com transpassos de 3,70m (duas camadas)'. The grid is also labeled with 'L' and 'A' at the bottom and 'L' and 'A' at the top.

Technical drawing showing a circular structure with a grid of reinforcement bars (N70 and N71) and a cross-section view.

The circular structure is defined by a grid of reinforcement bars (N70 and N71) with a spacing of 15 cm (c/15). The grid is labeled with dimensions: 2x407 N70 ±10.0 c/15 C=545 (duas camadas) and 2x368 N71 ±10.0 c/15 C=1200+1200+1200+1200+1200 com transpassos de 3,70m (duas camadas).

The cross-section view shows the reinforcement bars (N70 and N71) and the concrete structure. The total height of the structure is 20 cm, and the width is 20 cm.



Technical drawing of a beam cross-section (SEÇÃO A-A) showing reinforcement details. The drawing includes a top view and a side view. The top view shows a rectangular cross-section with a width of 300 mm and a height of 1188 mm. It features 2 N72 reinforcement bars at the top and 2 N72 reinforcement bars at the bottom, with a center-to-center spacing of 1200 mm. The side view shows the beam's profile with a top reinforcement bar of 10# and a bottom reinforcement bar of 35#. The beam is labeled 'SEÇÃO A-A' and '135 N73 ad. 3 or'.

