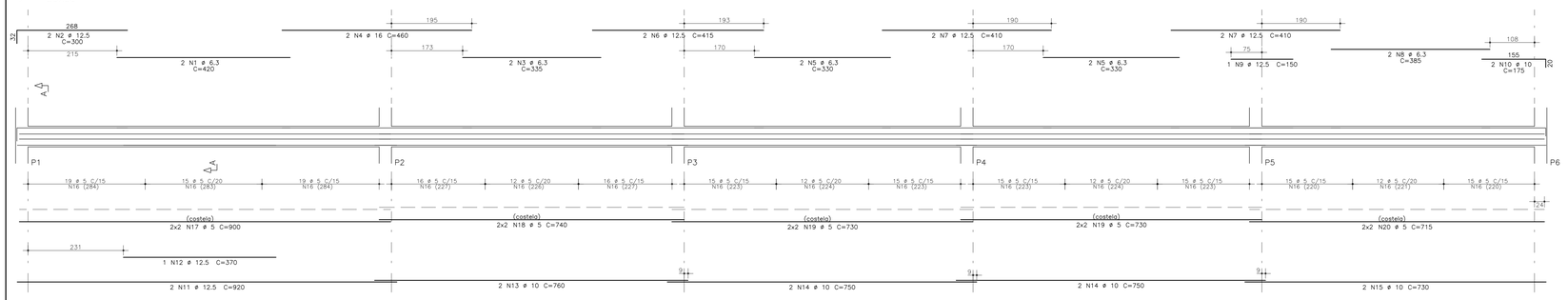
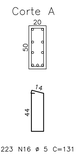
V1 20X50

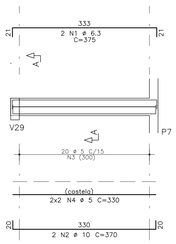


Corte A

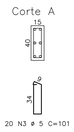


223 N16 ø 5 C=131

V2=V7 15X40

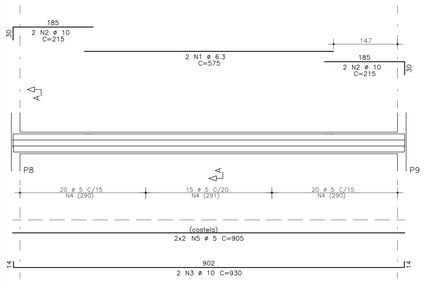


Corte A

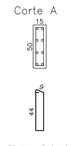


20 N3 ø 5 C=101

V3 15X50

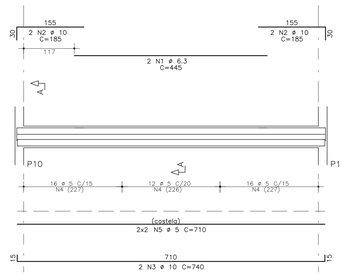


Corte A

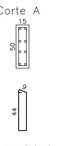


55 N4 ø 5 C=121

V4 15X50

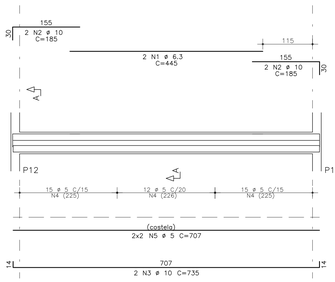


Corte A

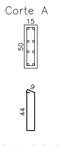


44 N4 ø 5 C=121

V5 15X50

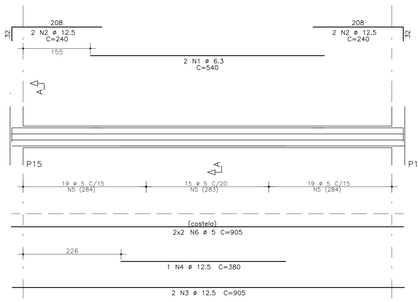


Corte A



42 N4 ø 5 C=121

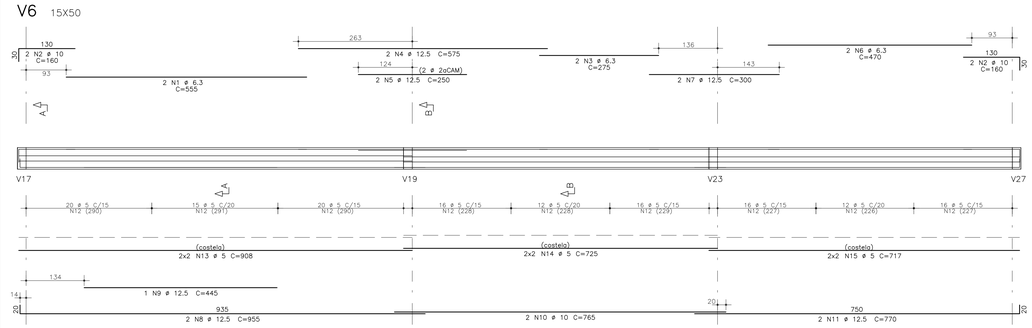
V8=V12=V14 15X50



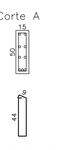
Corte A

53 N5 ø 5 C=121

V6 15X50



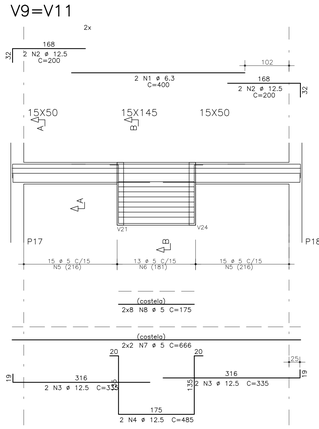
Corte A



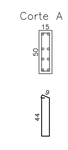
143 N12 ø 5 C=121

Corte B

V9=V11

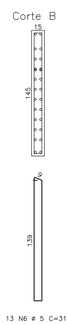


Corte A



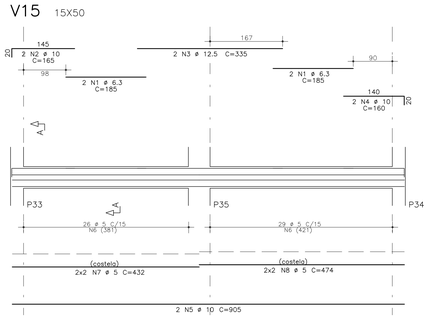
30 N5 ø 5 C=121

Corte B

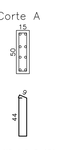


13 N6 ø 5 C=311

V15 15X50



Corte A

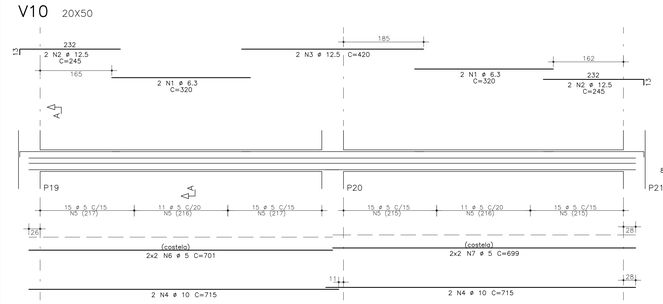


55 N6 ø 5 C=121

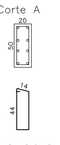
	AÇO	POS	BIT (mm)	QUANT	COMPRIMENTO UNIT (cm)	COMPRIMENTO TOTAL (cm)
V1						
	50A	1	6.3	2	420	840
	50A	2	12.5	2	300	600
	50A	3	6.3	2	335	670
	50A	4	16	2	460	920
	50A	5	6.3	4	330	1320
	50A	6	12.5	2	415	830
	50A	7	12.5	4	410	1640
	50A	8	6.3	2	385	770
	50A	9	12.5	1	150	150
	50A	10	10	2	175	350
	50A	11	12.5	2	920	1840
	50A	12	12.5	1	370	370
	50A	13	10	2	760	1520
	50A	14	10	4	750	3000
	50A	15	10	2	730	1460
	60B	16	5	223	131	29213
	60B	17	5	4	900	3600
	60B	18	5	4	740	2960
	60B	19	5	8	730	5840
	60B	20	5	4	715	2860
V2=V7	(X2)					
	50A	1	6.3	4	375	1500
	50A	2	10	4	370	1480
	60B	3	5	40	101	4040
	60B	4	5	8	330	2640
V3						
	50A	1	6.3	2	575	1150
	50A	2	10	4	215	860
	50A	3	10	2	930	1860
	60B	4	5	55	121	6655
	60B	5	5	4	905	3620
V4						
	50A	1	6.3	2	445	890
	50A	2	10	4	185	740
	50A	3	10	2	740	1480
	60B	4	5	44	121	5324
	60B	5	5	4	710	2840
V5						
	50A	1	6.3	2	445	890
	50A	2	10	4	185	740
	50A	3	10	2	735	1470
	60B	4	5	42	121	5082
	60B	5	5	4	707	2828
V6						
	50A	1	6.3	2	555	1110
	50A	2	10	4	160	640
	50A	3	6.3	2	275	550
	50A	4	12.5	2	575	1150
	50A	5	12.5	2	250	500
	50A	6	6.3	2	470	940
	50A	7	12.5	2	300	600
	50A	8	12.5	2	955	1910
	50A	9	12.5	1	445	445
	50A	10	10	2	765	1530
	50A	11	12.5	2	770	1540
	60B	12	5	143	121	17303
	60B	13	5	4	908	3632
	60B	14	5	4	725	2900
	60B	15	5	4	717	2868
V8=V12=V14	(X3)					
	50A	1	6.3	6	540	3240
	50A	2	12.5	12	240	2880
	50A	3	12.5	6	905	5430
	50A	4	12.5	3	380	1140
	60B	5	5	159	121	19239
	60B	6	5	12	905	10860
V9=V11	(X2)					
	50A	1	6.3	4	400	1600
	50A	2	12.5	8	200	1600
	50A	3	12.5	8	335	2680
	50A	4	12.5	4	485	1940
	60B	5	5	60	121	7260
	60B	6	5	26	311	8086
	60B	7	5	8	666	5328
	60B	8	5	32	175	5600
V10						
	50A	1	6.3	4	320	1280
	50A	2	12.5	4	245	980
	50A	3	12.5	2	420	840
	50A	4	10	4	715	2860
	60B	5	5	82	131	10742
	60B	6	5	4	701	2804
	60B	7	5	4	699	2796
V13						
	50A	1	6.3	2	300	600
	50A	2	10	4	225	900
	50A	3	10	2	665	1330
	60B	4	5	39	121	4719
	60B	5	5	4	660	2640
V15						
	50A	1	6.3	4	185	740
	50A	2	10	2	165	330
	50A	3	12.5	2	335	670
	50A	4	10	2	160	320
	50A	5	10	2	905	1810
	60B	6	5	55	121	6655
	60B	7	5	4	432	1728
	60B	8	5	4	474	1896
V16						
	50A	1	10	4	765	3060
	50A	2	6.3	2	500	1000
	50A	3	10	2	200	400
	50A	4	10	4	500	2000
	50A	5	12.5	2	1000	2000
	60B	6	5	114	131	14934
	60B	7	5	8	490	3920
	60B	8	5	4	968	3872

RESUMO AÇO CA 50–60			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60B	5	2173	335
50A	6.3	191	47
50A	10	301	186
50A	12.5	317	306
50A	16	9	15
Peso Total	60B =		335 kg
Peso Total	50A =		553 kg

V10 20X50

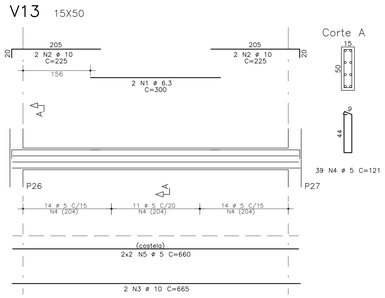


Corte A



82 N5 ø 5 C=131

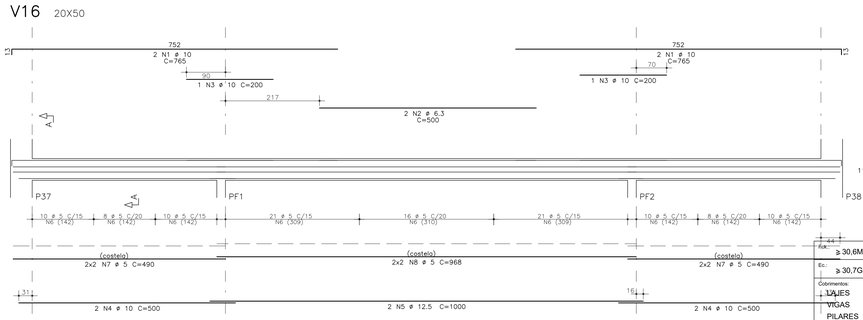
V13 15X50



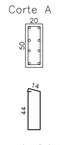
Corte A

39 N4 ø 5 C=121

V16 20X50



Corte A



114 N6 ø 5 C=131

00	EMISSÃO INICIAL	KN	20/06/2023
REVISÃO	ASSUNTO	DESENHO	DATA

PAGO

APROVO

PROPRIETÁRIO

PROJETO

PROJETO

CONSTRUÇÃO

CONSELHO PROFISSIONAL

SOP-CE
SUPERINTENDÊNCIA DE OBRAS PÚBLICAS

GOVERNO DO ESTADO DO CEARÁ
Secretaria das Cidades

SECRETARIA DAS CIDADES
SOP - SUPERINTENDÊNCIA DE OBRAS PÚBLICAS

PROJETO: **ESCOLA DE ENSINO MÉDIO PADRÃO - TIPO II**
PROJETO PADRÃO

INTERESSADO: SEDUC - SECRETARIA DE EDUCAÇÃO
ENDEREÇO: RSDO S/N
MUNICÍPIO: CEARÁ
AUTOR: JM CREA:
TELEFONE: EMAIL:
AUTOR: CREA:
TELEFONE: EMAIL:

AREA TÉCNICA: ESTRUTURA DE CONCRETO ARMADO
ETAPA: EXECUTIVO
CONTEÚDO: ARM. VIGAS CINTAS - V1 a V20
ESCALA: 1/50

fck: ≥ 30,6MPa
Ec: ≥ 30,7GPa

Cobrimentos:
LAJES - 2,5cm
VIGAS - 3,0cm
PILARES - 3,0cm
FUNDAÇÕES - 4,5cm

Faixa de Agressividade Ambiental: MODERADA

RESERVA DE PROPRIEDADE INTELECTUAL

A PROPRIEDADE INTELECTUAL DO PRESENTE PROJETO É RESERVADA AO SEUS AUTORES, DE ACORDO COM A LEGISLAÇÃO PERTINENTE. O USO DESTE PROJETO OU DE QUALQUER DE SEUS ELEMENTOS SEM O CONSENTIMENTO DE SEUS AUTORES CONFIGURA-SE COMO ATO ILÍCITO, SUJEITO A SERÃO APLICADAS AS LEIS QUE DEFENDEM OS TITOS DIREITOS A TODOS OS EFEITOS.

DESENHO: KN
DATA: 20/06/2023
REVISÃO: 00
ARQUIVO: 01 EEEM TIPO2 R0 04-10-2023.dwg

PRANCHA: 06 30