


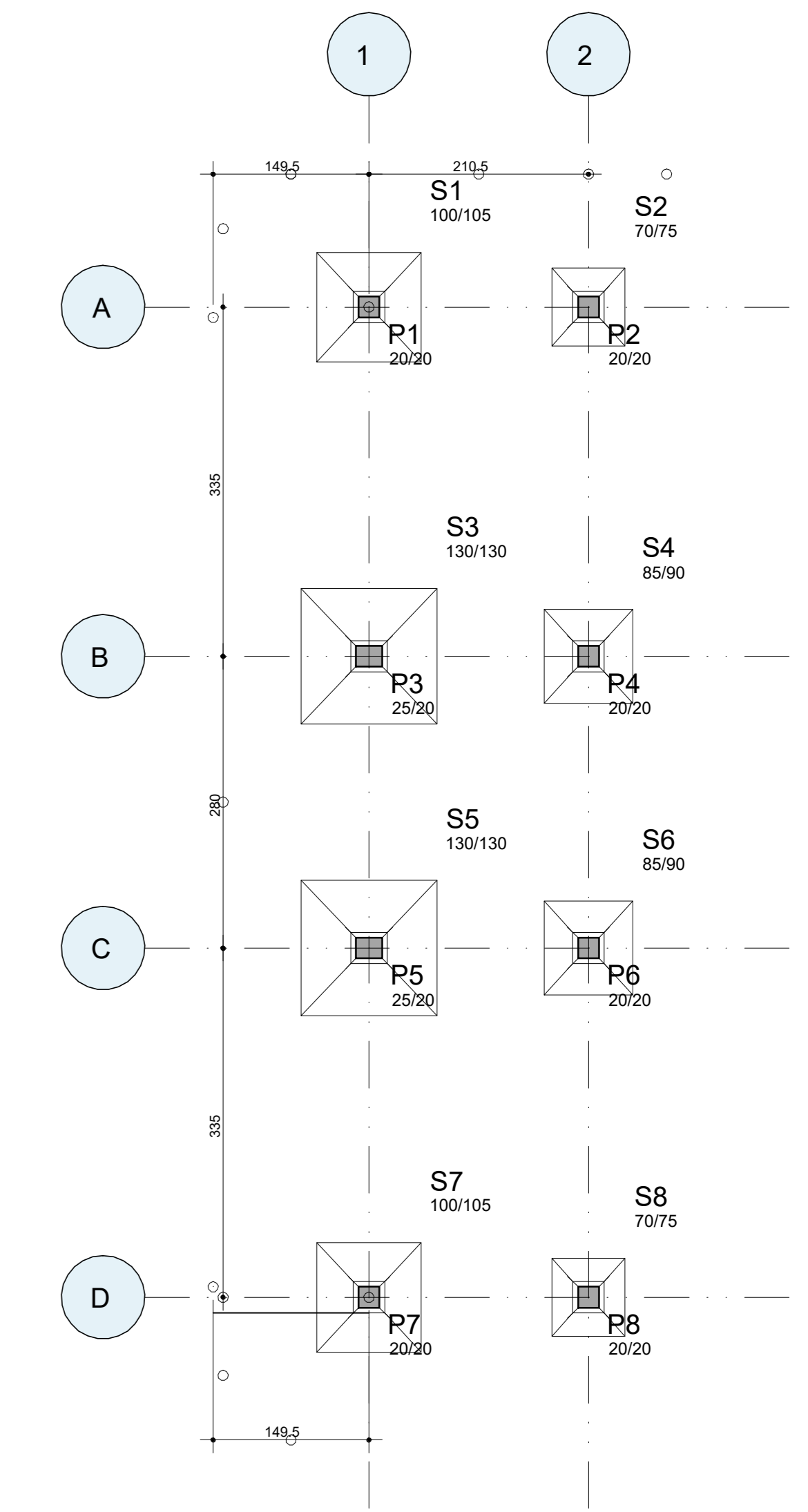
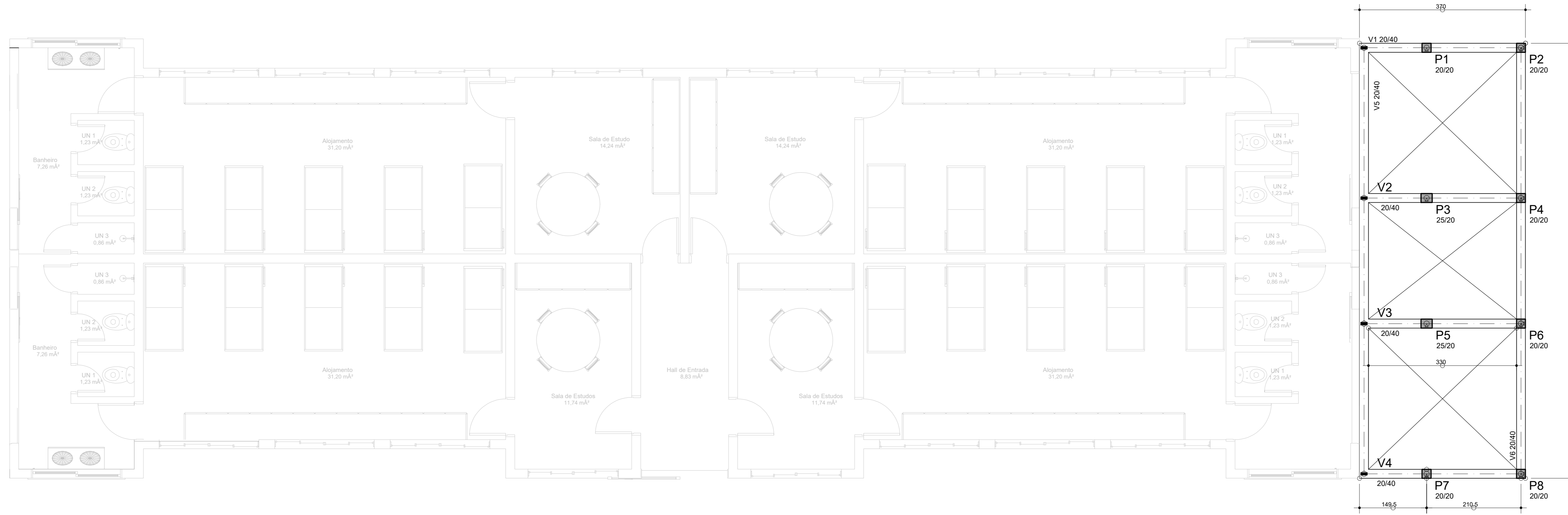
Pavimento	Nível s/acab m	PD abaixo m
02-Cobertura	3.92	2.92
01-Térreo	1.0	1.0
00-Fundacao	0.0	0.0

IFSUL DE MINAS Campus Machado – MG

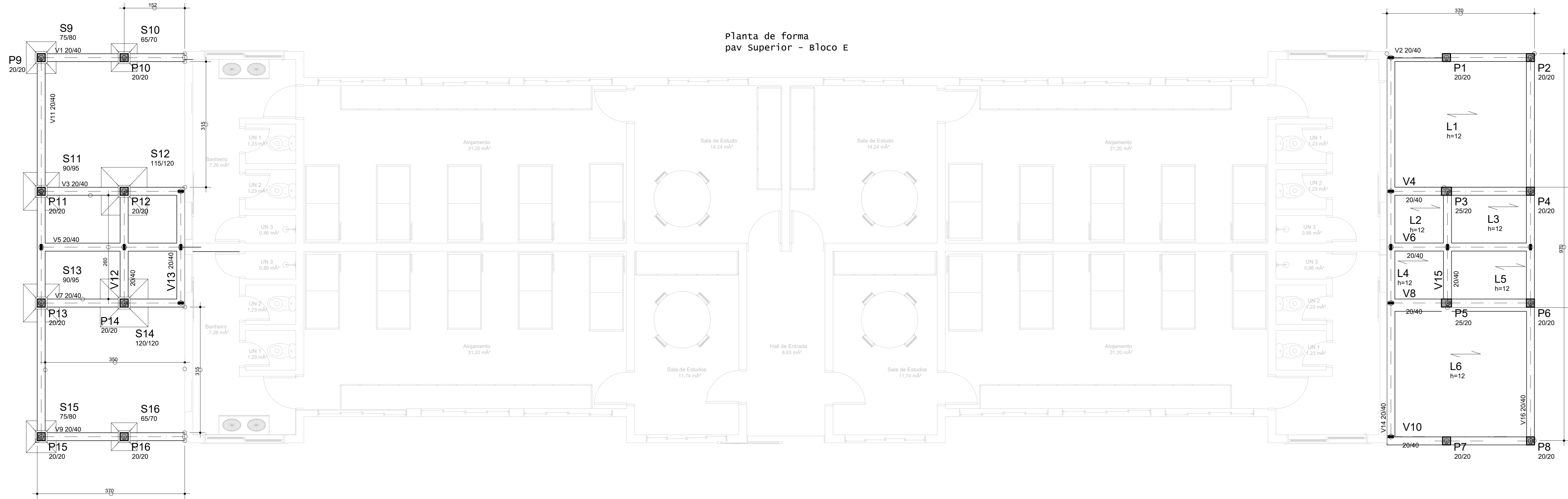
DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO
RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO: RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAGUÁ, S/Nº, CAMPUS MACHADO	MUNICÍPIO: Machado - MG	PROJETO: REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E
ASSUNTO: PROJETO ESTRUTURAL CONTEÚDO: PLANTA DE FORMA BLOCO D	CONTRATANTE: INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS	ESCALA: 1/50
 AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG elker@win.com.br (35) 9.9880-7080	Verif. A/C	Arquivo: WIN.FORMALIFSULMG.ALOJ.R00.dwg
FASE:	AUTORIA PROJ.: ENG. ELKER LUCAS GARRONI CREA MG 209.623/D	RESP. PROJ.: ENG. ELKER LUCAS GARRONI CREA MG 209.623/D
DATA: NOVEMBRO/2020	REVISÃO:	DESENHO:
PRANCHA:		1/2

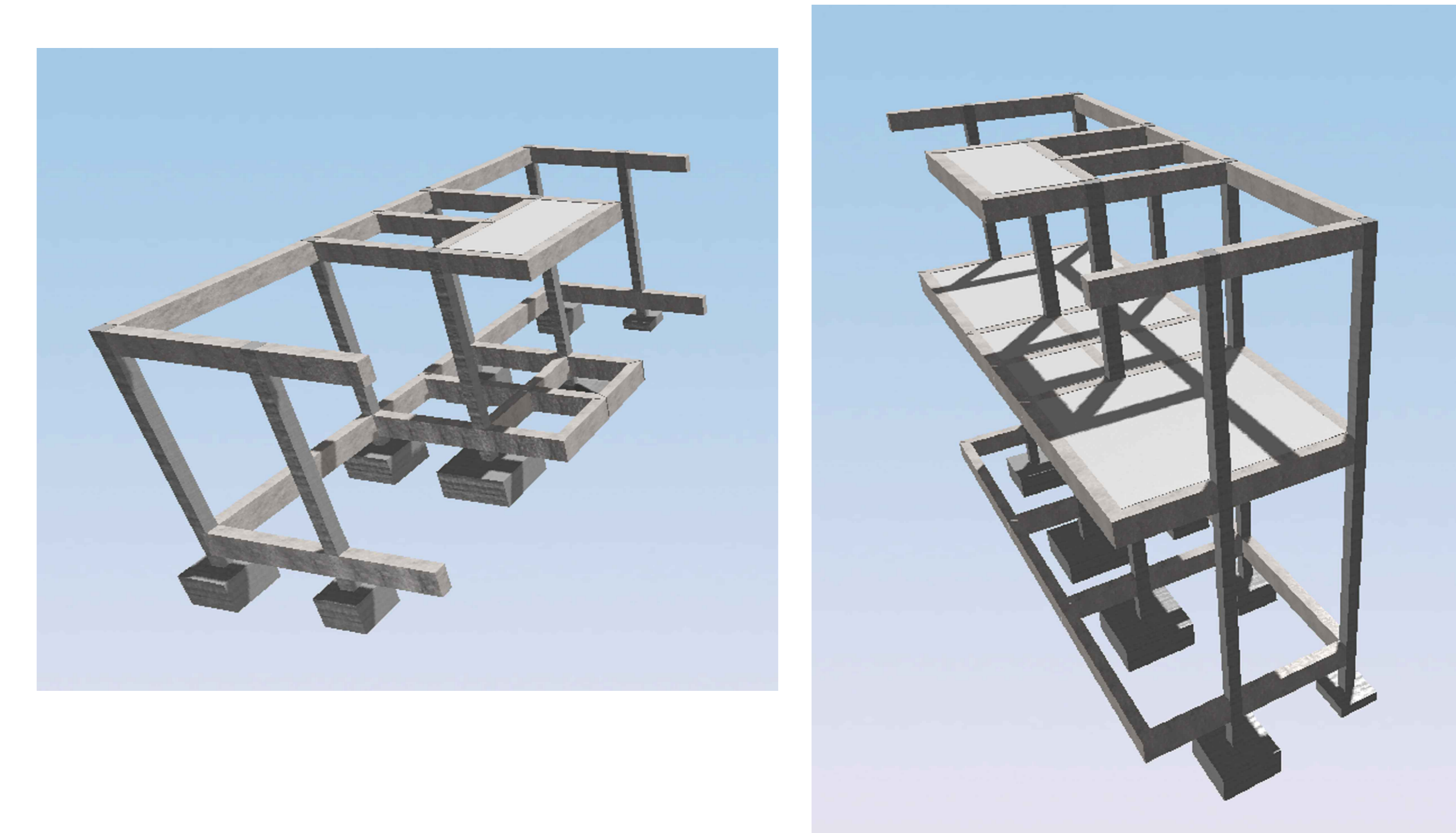
Planta de forma Sapata - Bloco E
Térreo



Planta de forma pav Superior - Bloco E



Planta de forma Sapata - Bloco E
Térreo



Planta de forma cobertura - Bloco E

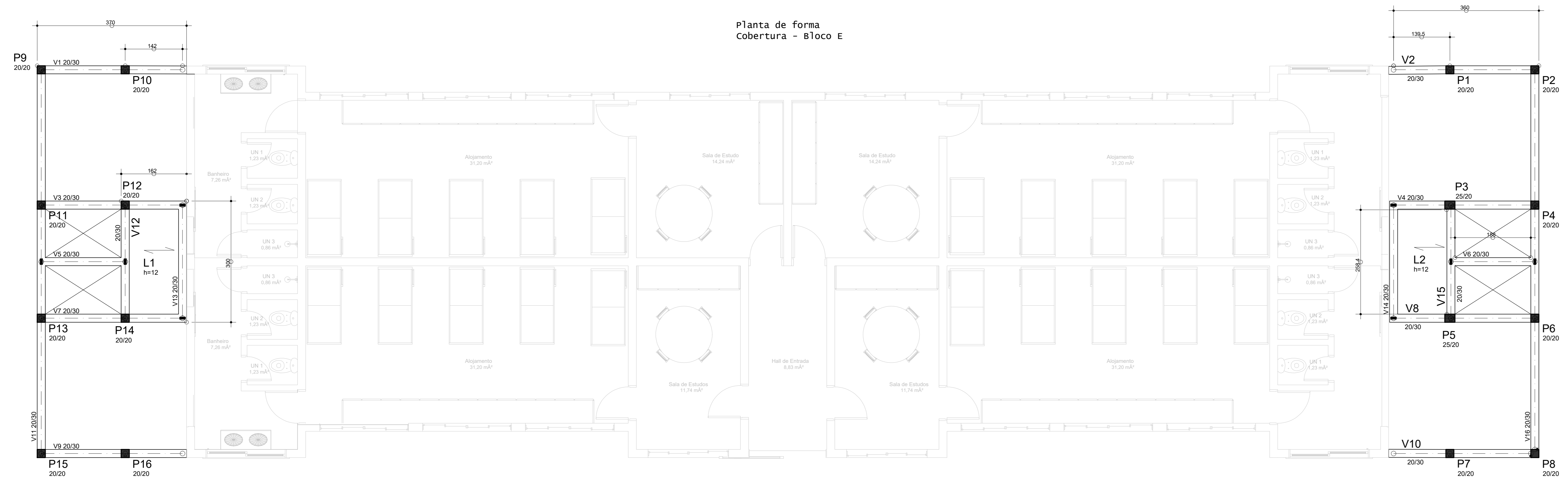


Tabela de níveis

Pavimento	Nível s/acab m	PD abaixo m
03-Cobertura	7.77	2.92
02-Pav Superior	4.85	3.85
01-Térreo	1.0	1.0
00-Fundacao	0.0	0.0

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO
RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO: RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAGUÁ, S/Nº, CAMPUS MACHADO	MUNICÍPIO: Machado - MG	PROJETO: REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E
---	-----------------------------------	--

ASSUNTO: PROJETO ESTRUTURAL CONTEÚDO: PLANTA DE FORMA BLOCO E	CONTRATANTE: INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS	ESCALA: 1/50
Verif. A/C	Arquivo : WIN.FORMIFSULMG.ALOJ.R00.dwg	
	AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI CREA MG 209.623/D	
	RESP. PROJ. : ENG. ELKER LUCAS GARRONI CREA MG 209.623/D	
FASE:	REVISÃO:	
DATA: NOVEMBRO/2020	DESENHO:	PRANCHA: 2/2



AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@win.com.br | (35) 9.9880-7080

BLOCO D - LAJE (COBERTURA)

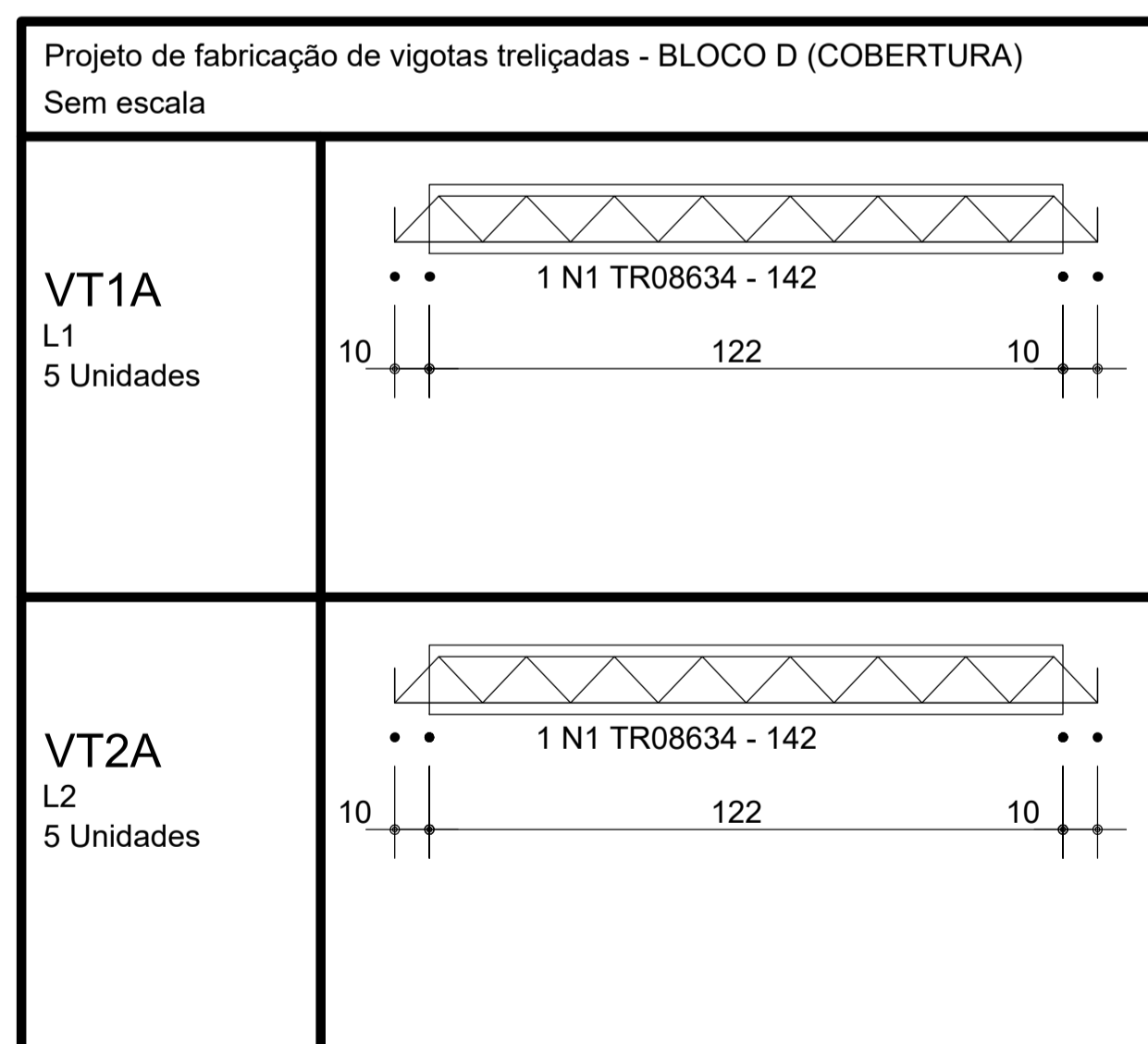
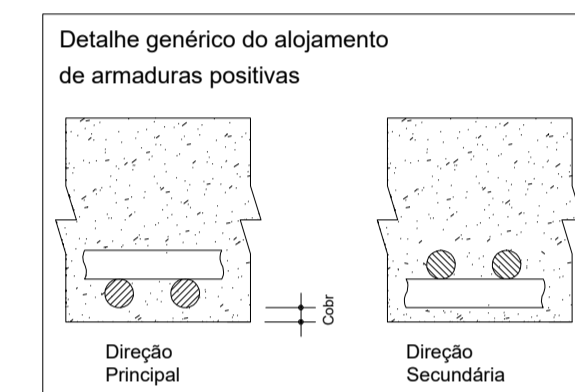
Cobertura - Armadura negativa principal

1X



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
Cobertura - Armadura negativa principal					
60A	1	6.3	22	182	3964
60A	2	6.3	3	1140	3420

RESUMO DE AÇO				
AÇO	BIT	COMPR	PESO	
		m	kgf	
60A	6.3	34	5	
60A	6.3	36	9	
Peso Total			60A =	5 kgf
Peso Total			50A =	9 kgf



IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:

RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:

Machado - MG

PROJETO:

REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: LAJE - BLOCO D (ARMADURA NEGATIVA E VIGOTAS)

OBS: fck 25 mPa

CONTRATANTE:
INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

Verif. A/C

Arquivo : WIN.LAJE.IFSULMG.ALOJE.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

FASE:

REVISÃO:

DATA: NOVEMBRO/2020

DESENHO:

PRANCHA:

1/2



AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080

BLOCO E - LAJE (COBERTURA)

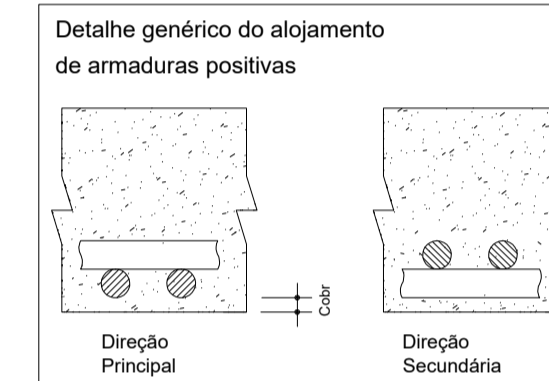
Cobertura - Armadura negativa principal

1X



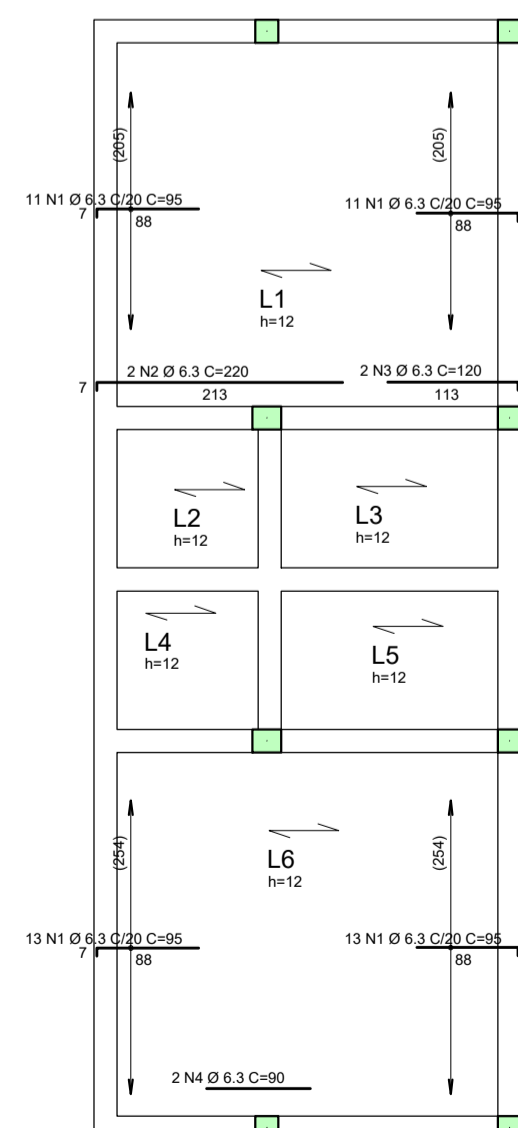
ÁÇO	POS	BIT	QUANT	COMPRIMENTO	
				mm	cm
Cobertura - Armadura negativa principal					
50A	1	6.3	22	162	3564
60A	2	5	3	1140	3420

RESUMO DE AÇO				
ÁÇO	BIT	COMPR	PESO	
	mm	m	kgf	
60A	5	34	5	
50A	6.3	36	5	
Peso Total			60A =	5 kgf
Peso Total			50A =	9 kgf



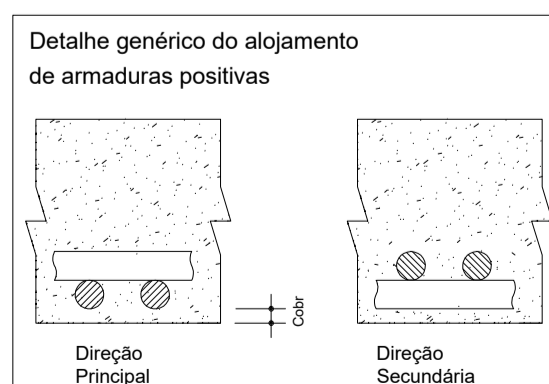
BLOCO E - LAJE (PAV SUPERIOR)

Cobertura - Armadura negativa principal

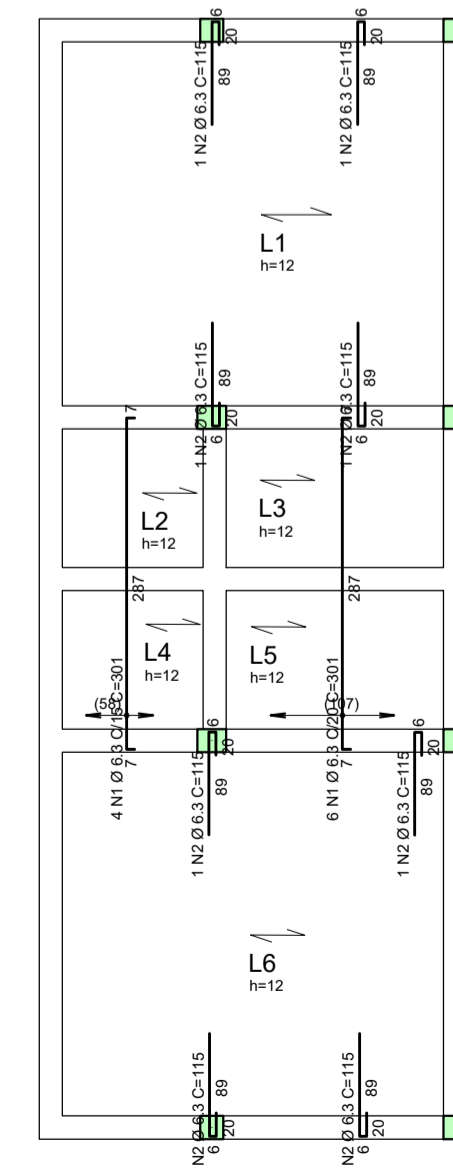


ÁÇO	POS	BIT	QUANT	COMPRIMENTO	
				mm	cm
Pav Superior - Armadura negativa principal					
50A	1	6.3	48	95	4560
50A	2	6.3	2	220	440
50A	3	6.3	2	120	240
50A	4	6.3	2	90	180
60A	5	5	3	1140	3420

RESUMO DE AÇO				
ÁÇO	BIT	COMPR	PESO	
	mm	m	kgf	
50A	5	34	5	
50A	6.3	54	13	
Peso Total			60A =	5 kgf
Peso Total			50A =	13 kgf

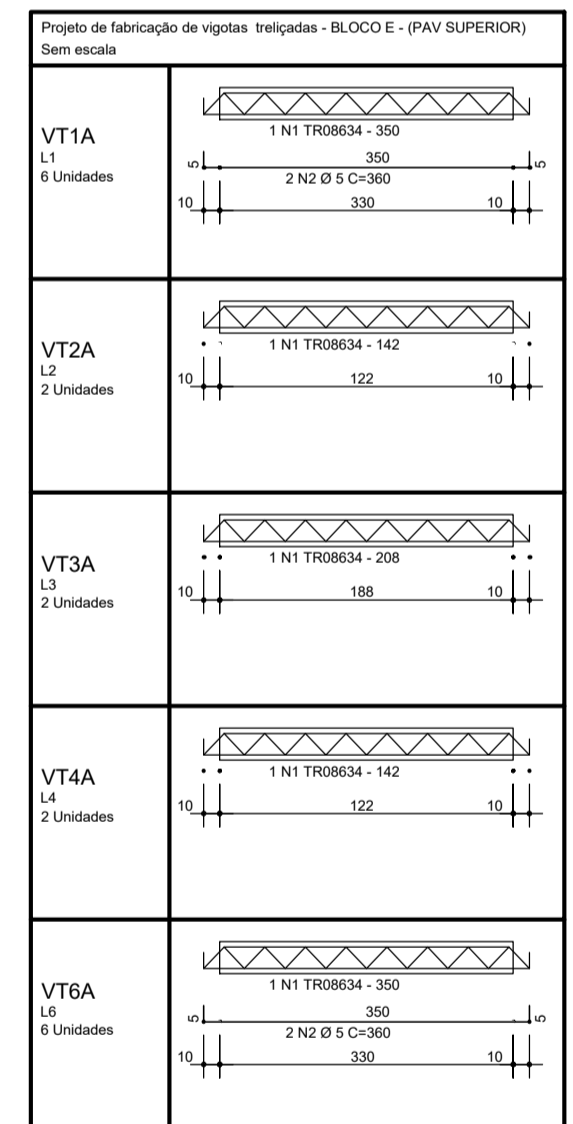
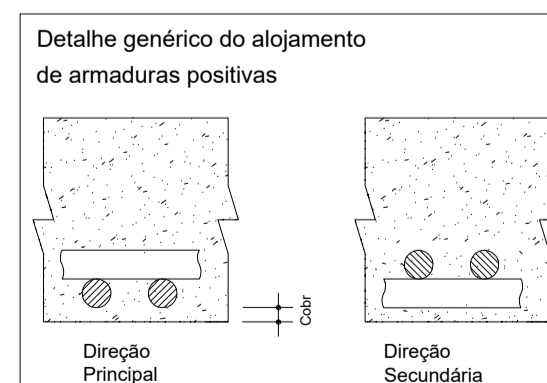


Cobertura - Armadura negativa secundária



ÁÇO	POS	BIT	QUANT	COMPRIMENTO	
				mm	cm
Pav Superior - Armadura negativa secundária					
50A	1	6.3	10	301	3010
50A	2	6.3	8	115	920

RESUMO DE AÇO				
ÁÇO	BIT	COMPR	PESO	
	mm	m	kgf	
50A	6.3	39	10	
Peso Total			50A =	10 kgf



IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:

RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:

Machado - MG

PROJETO:

REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: LAJE - BLOCO E (ARMADURA NEGATIVA E VIGOTAS)

OBS: fck 25 mPa

CONTRATANTE:
INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

ESCALA:

S/ESCALA

Verif. A/C

Arquivo : WIN.LAJE.IFSULMG.ALOJE.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

FASE:

REVISÃO:

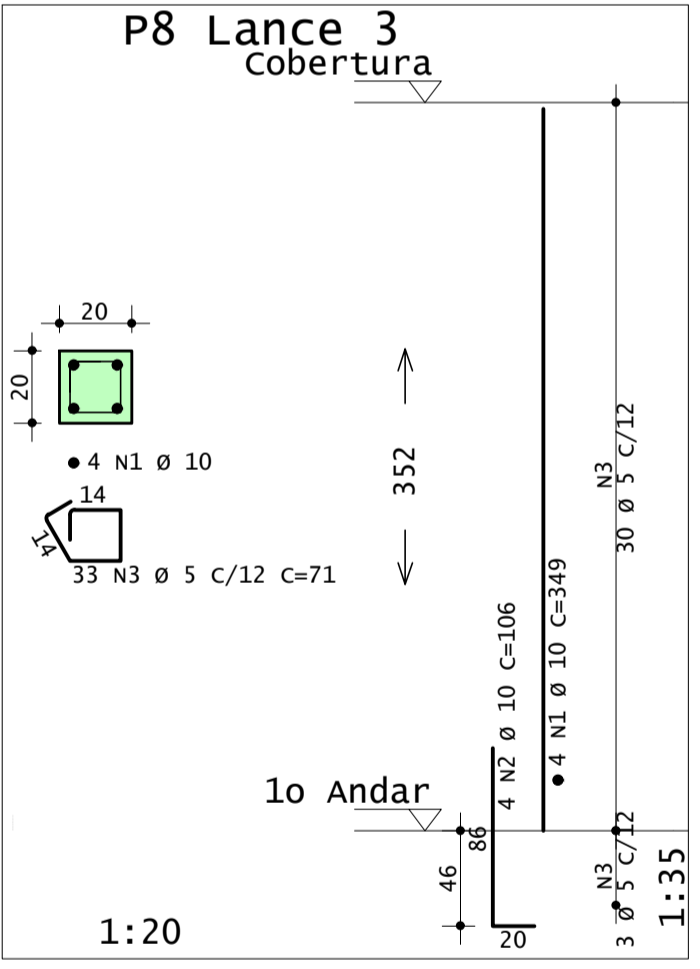
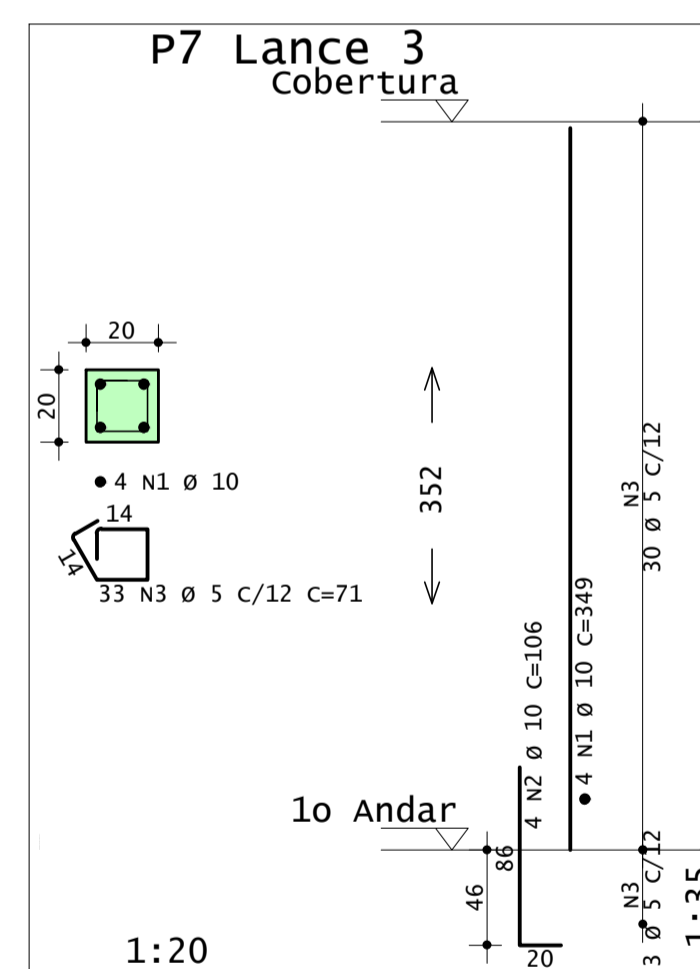
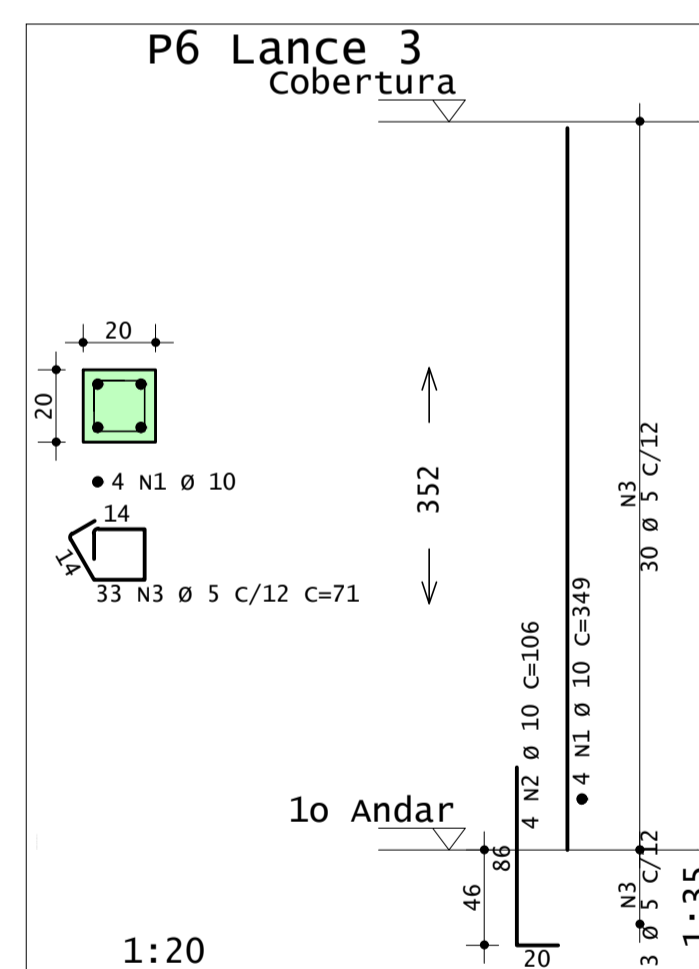
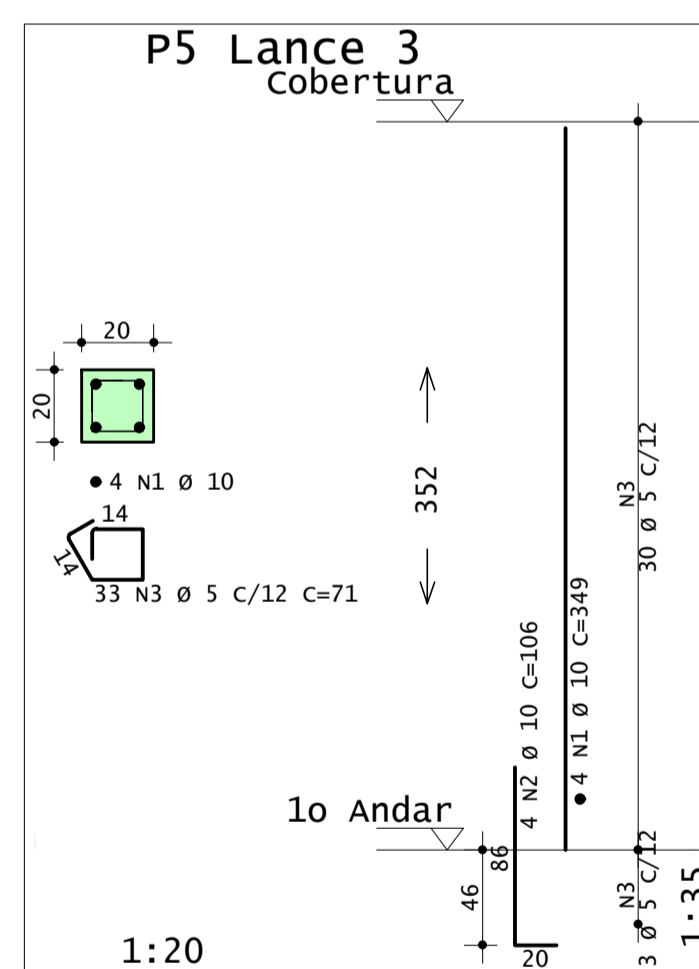
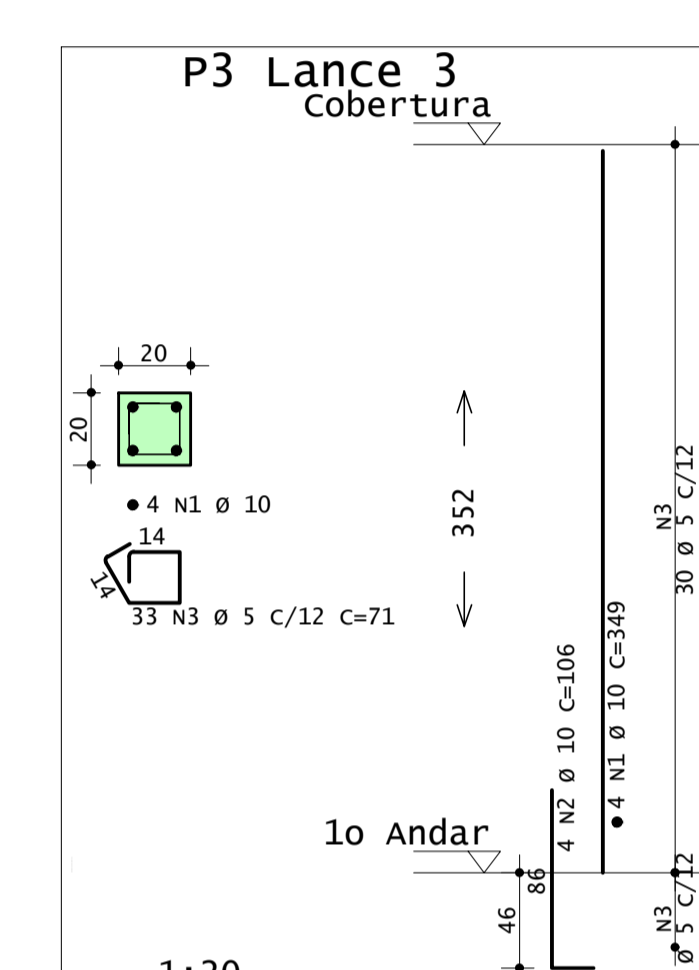
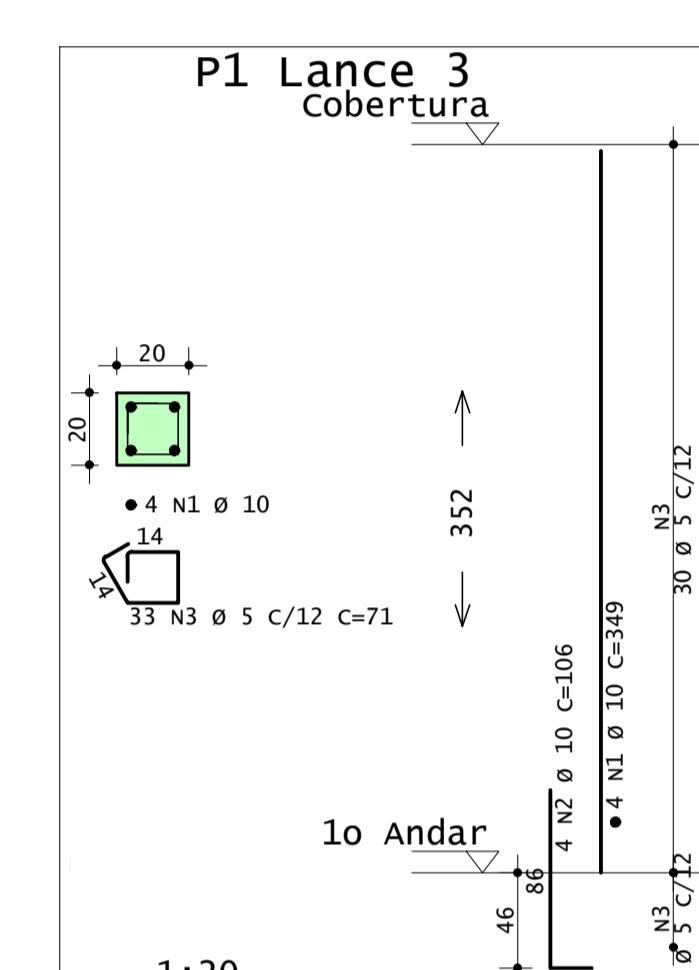
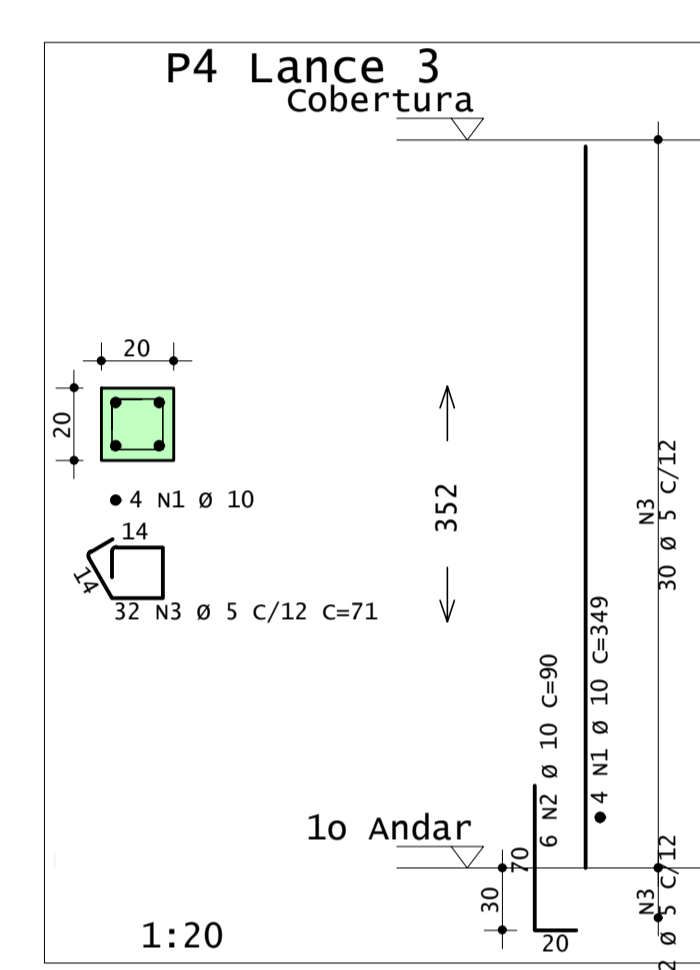
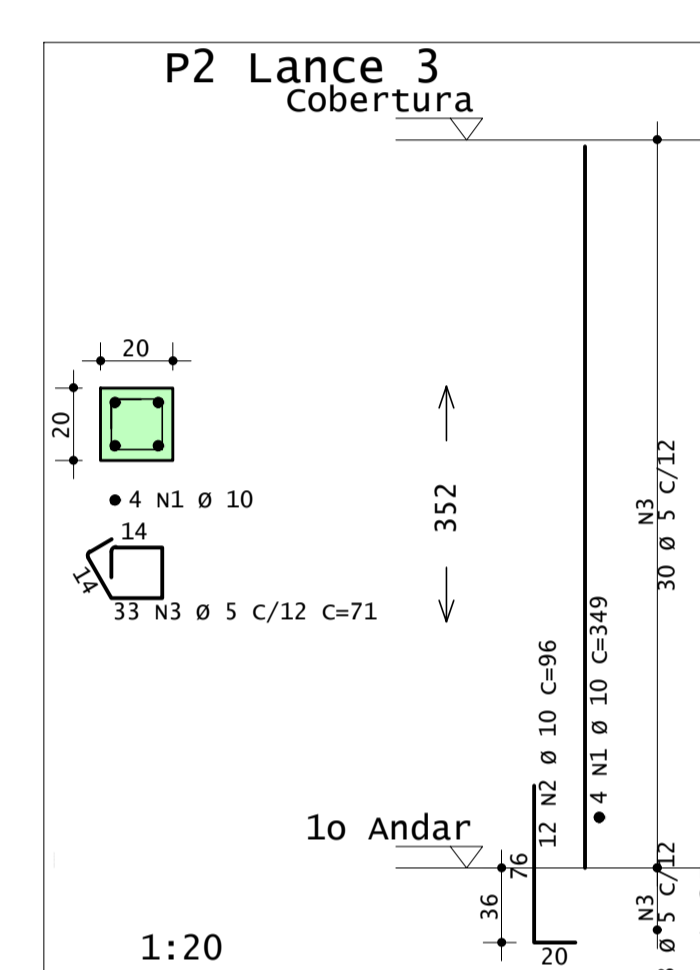
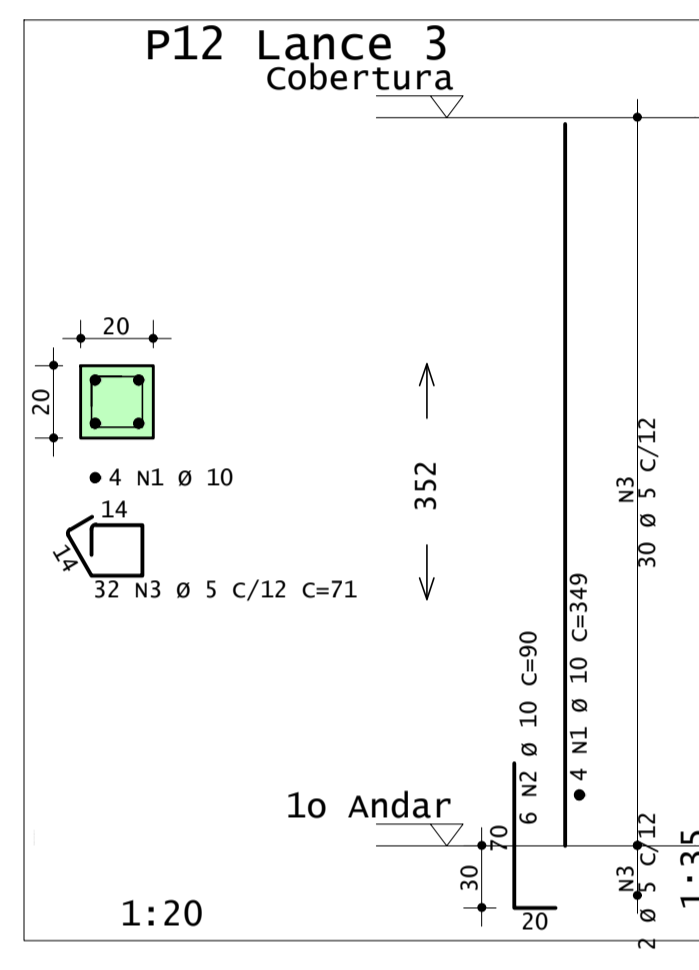
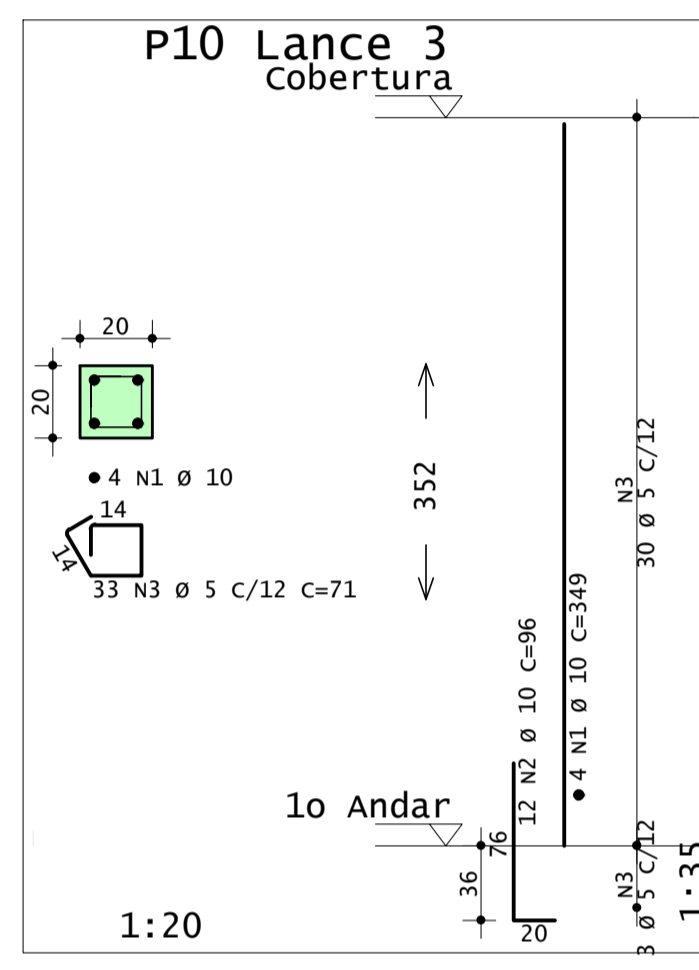
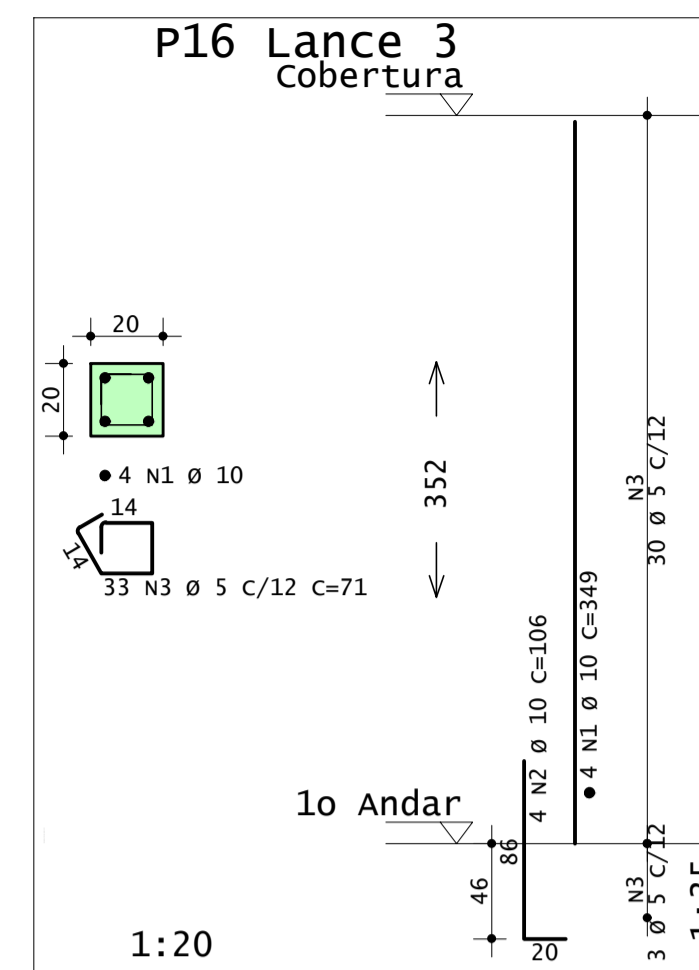
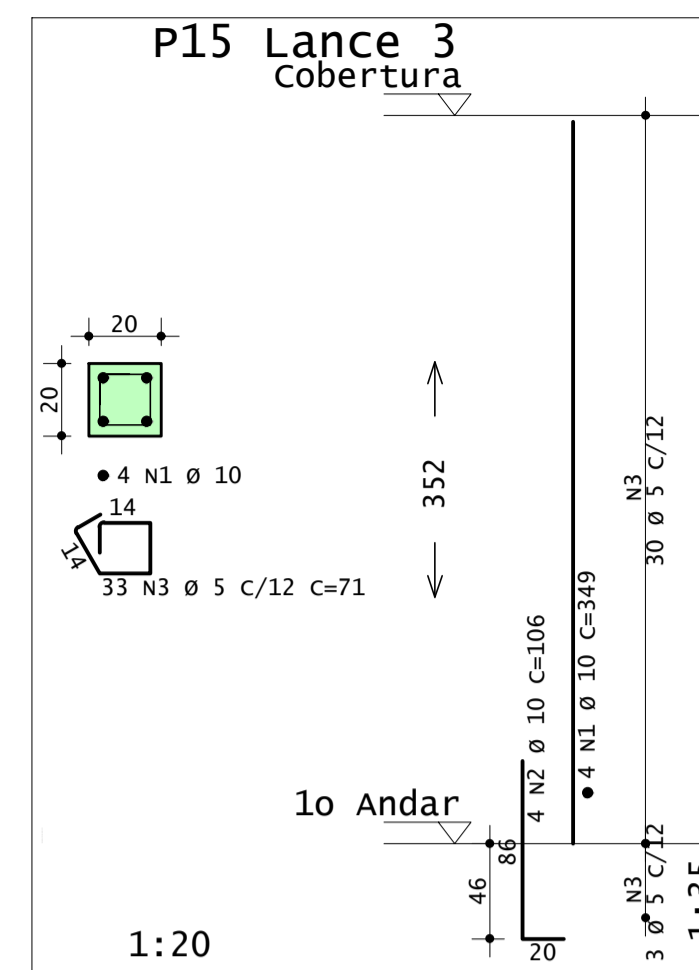
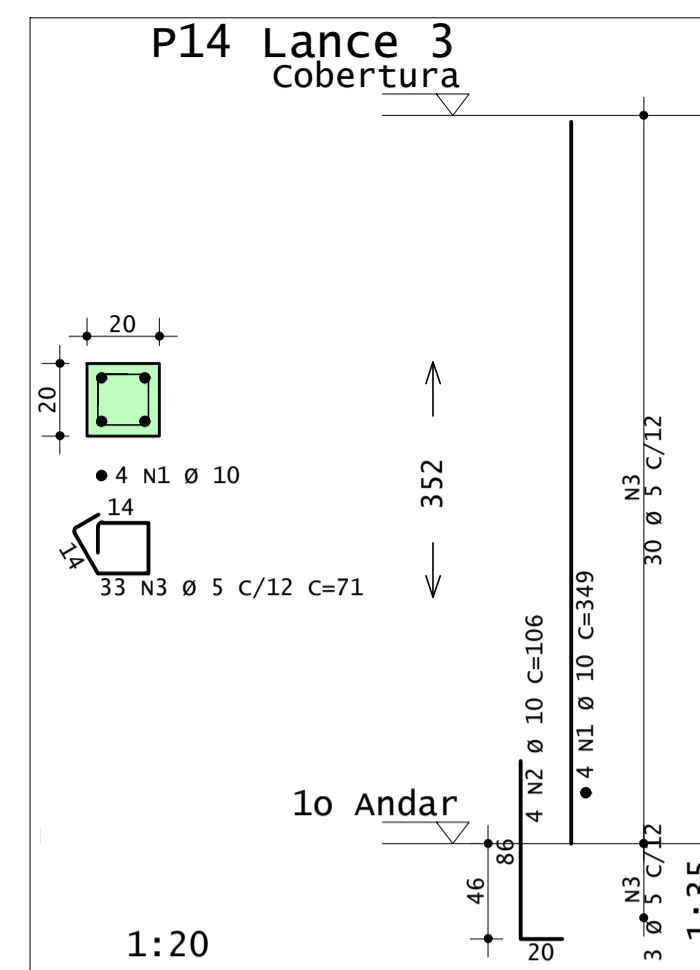
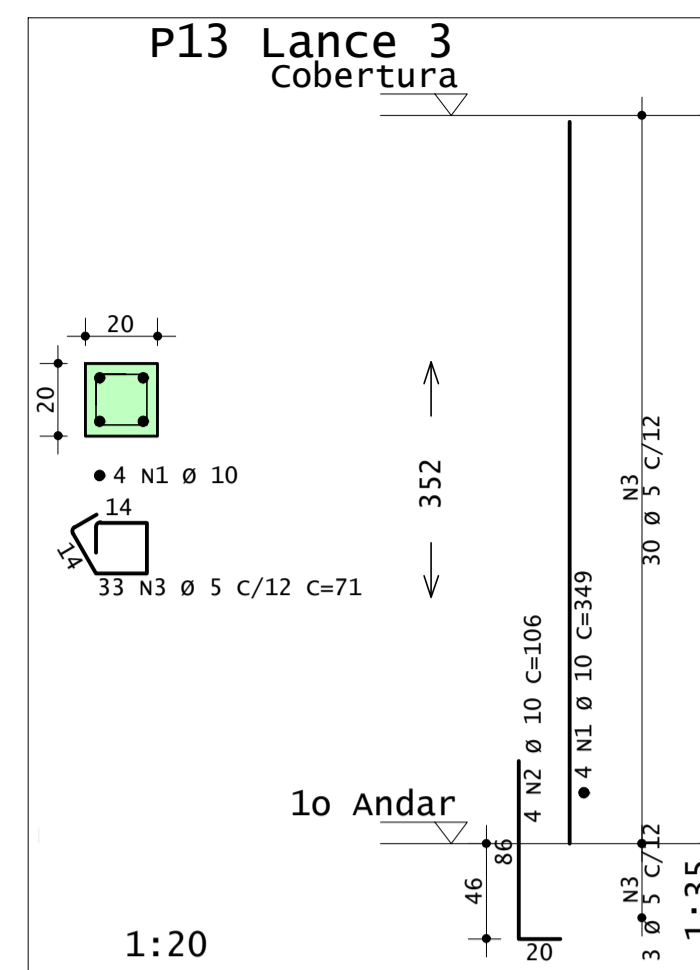
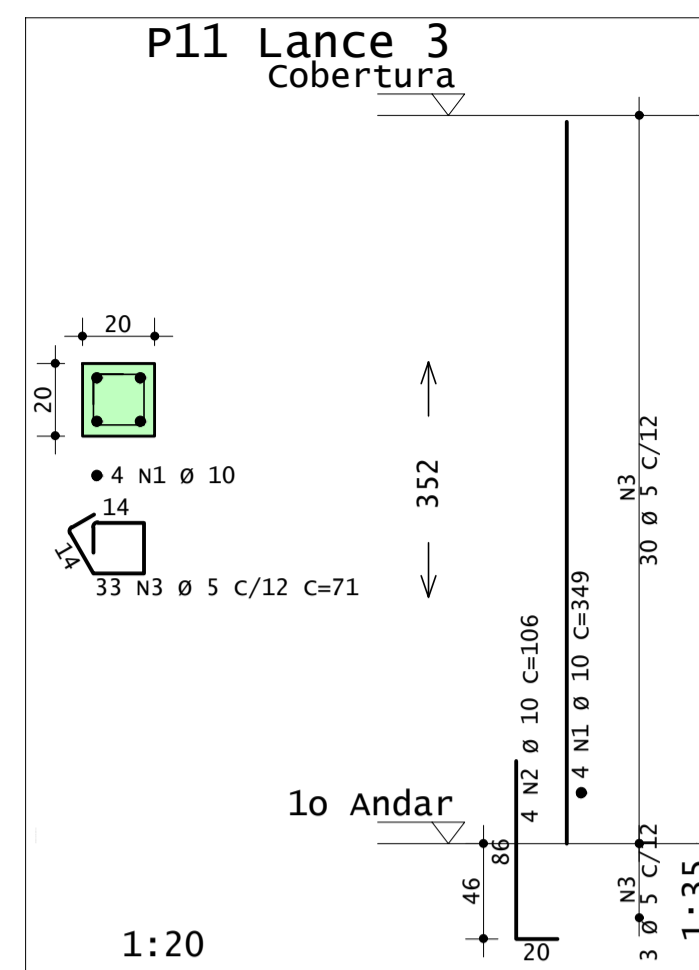
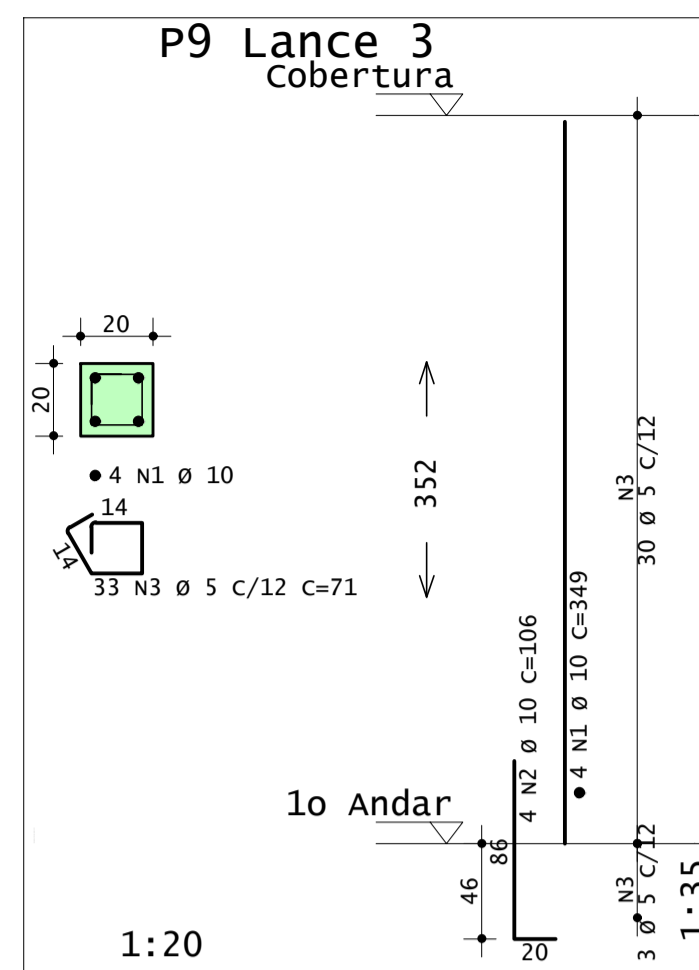
DATA: NOVEMBRO/2020

DESENHO:

PRANCHA: 2/2



AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
P1 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P2 Lance 3					
50A	1	10	4	349	1396
50A	2	10	12	96	1152
60A	3	5	33	71	2343
P3 Lance 3					
50A	1	10	4	349	1396
50A	2	10	6	90	540
60A	3	5	33	71	2343
P4 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	32	71	2272
P5 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P6 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P7 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P8 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P9 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P10 Lance 3					
50A	1	10	4	349	1396
50A	2	10	12	96	1152
60A	3	5	33	71	2343
P11 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P12 Lance 3					
50A	1	10	4	349	1396
50A	2	10	6	90	540
60A	3	5	32	71	2272
P13 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P14 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P15 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P16 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	374	58
50A	10	308	190
Peso Total	60A =		58 kgf
Peso Total	50A =		190 kgf

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:

RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:

Machado - MG

PROJETO:

REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: PILAR - BLOCO D

OBS: fck 25 mPa

CONTRATANTE:

INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

ESCALA:

1/50

Verif. A/C

Arquivo : WIN.PILAR.IFSULMG.ALOJ.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

FASE:

REVISÃO:

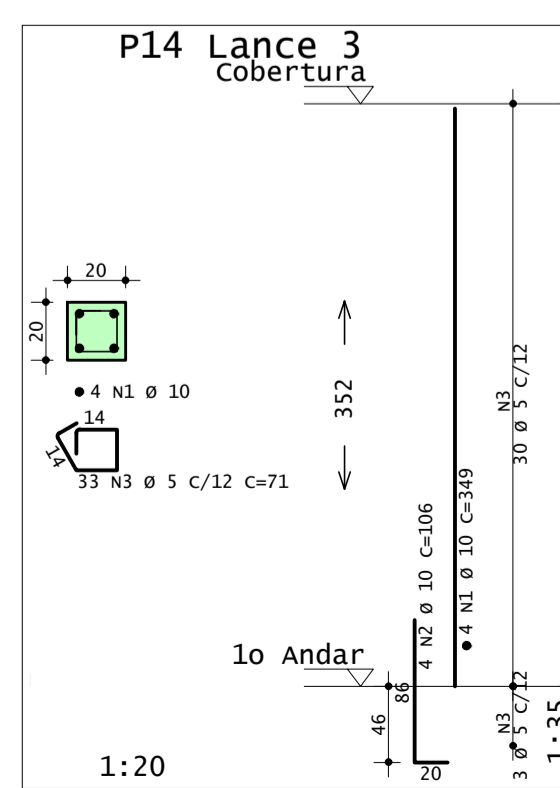
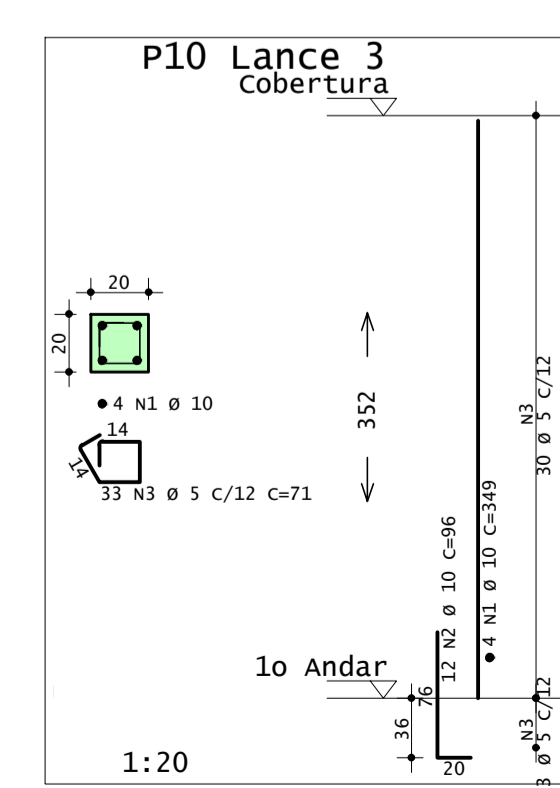
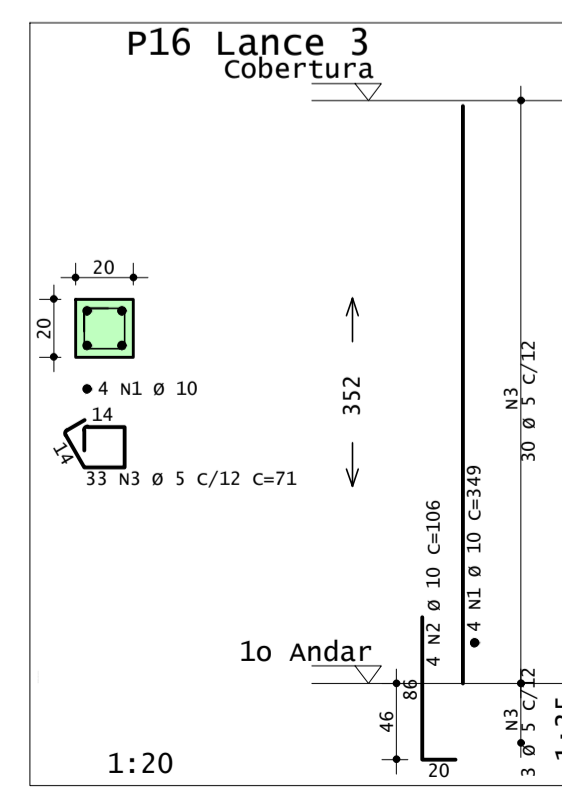
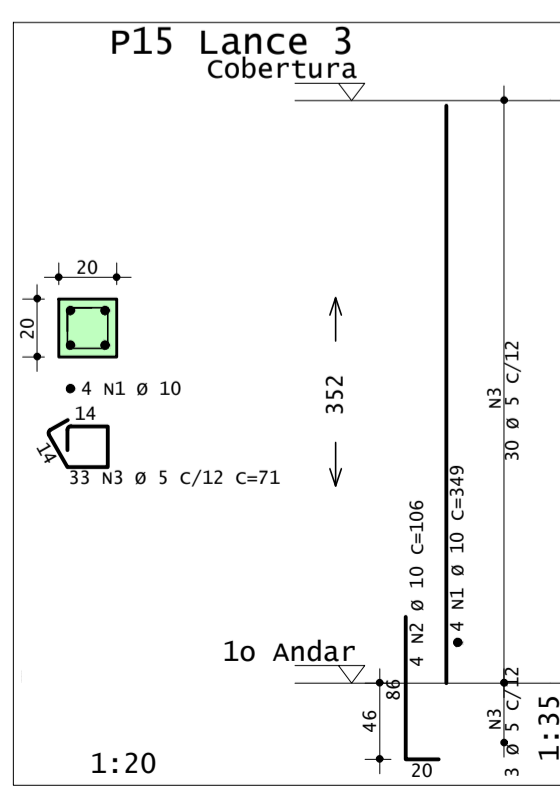
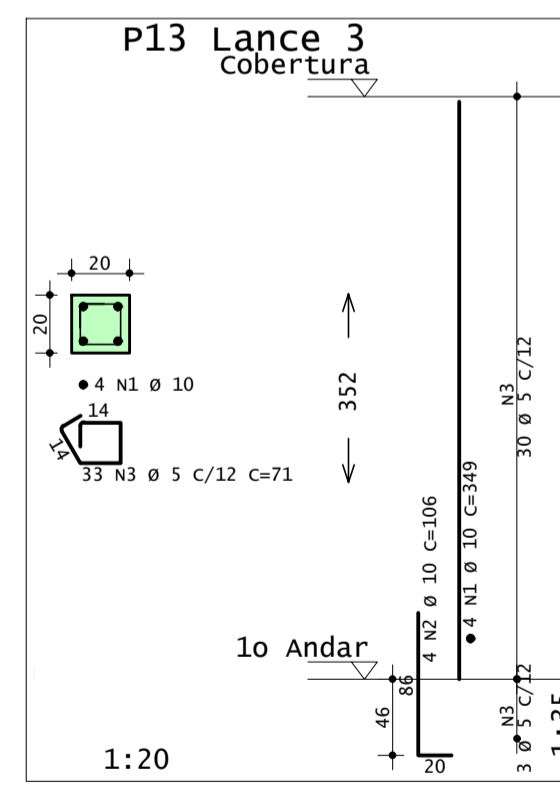
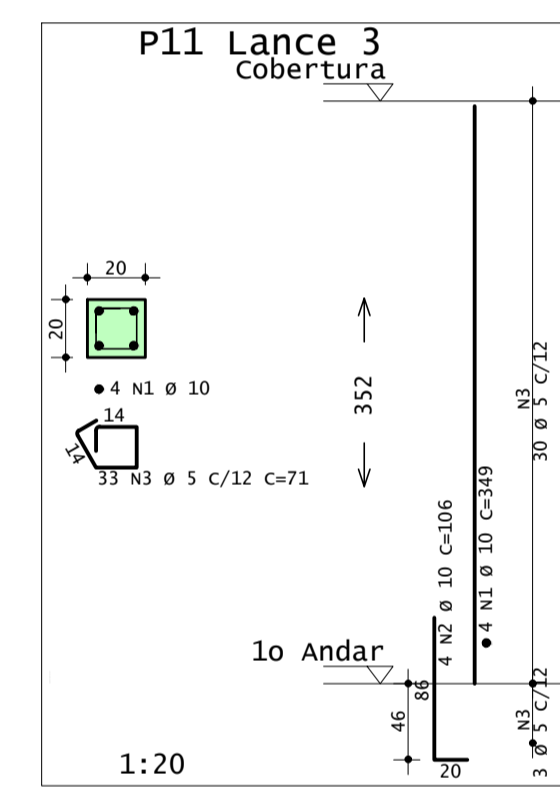
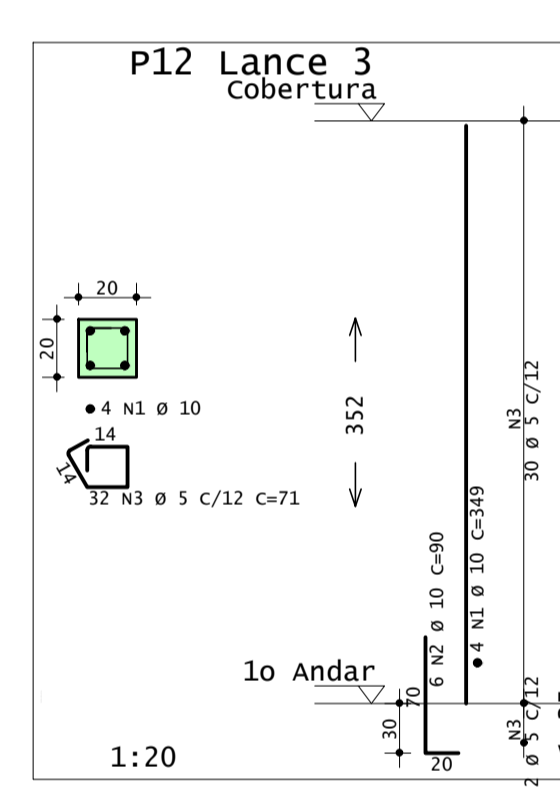
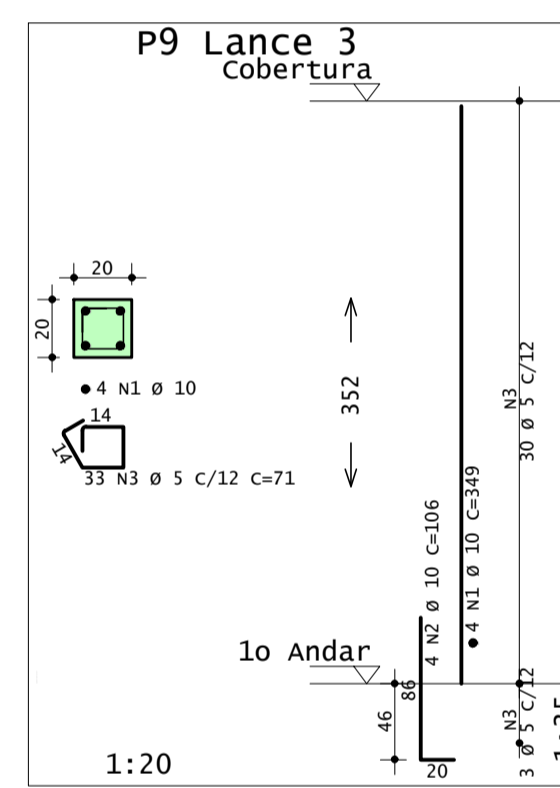
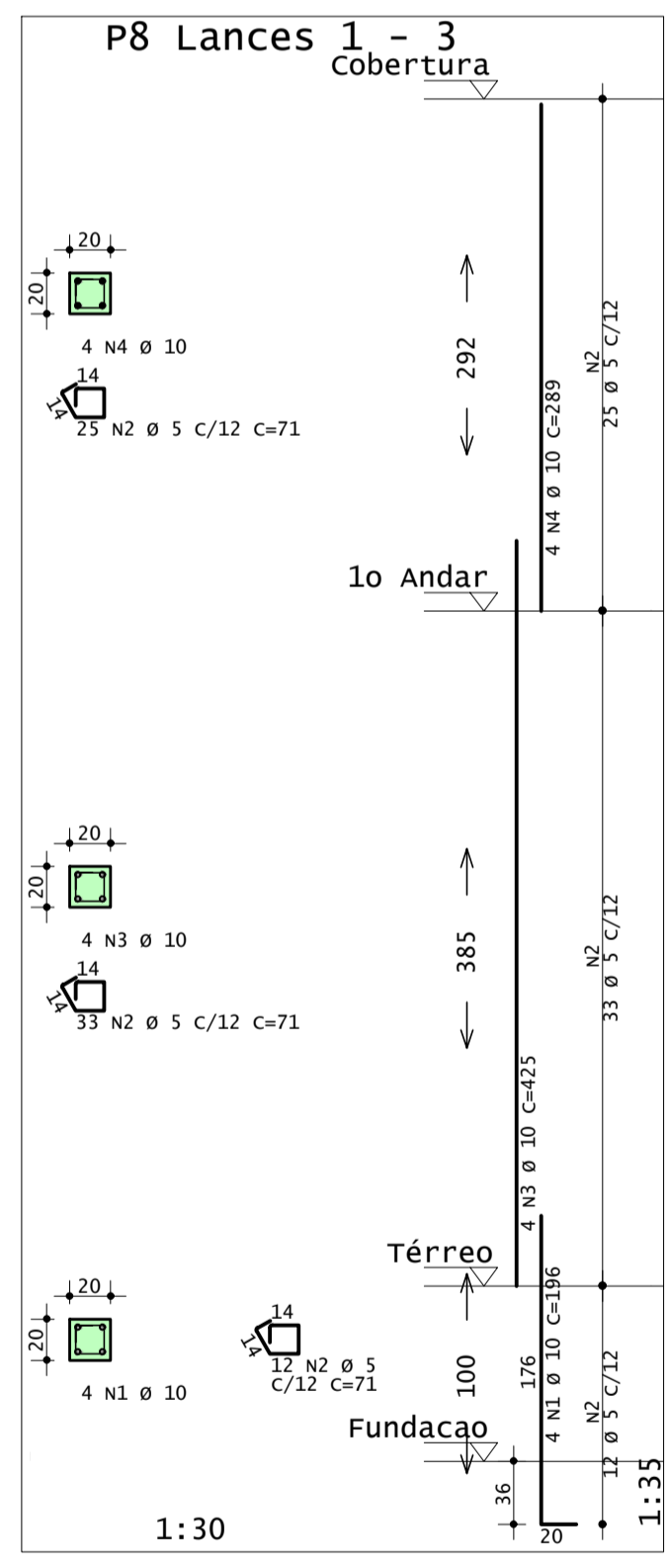
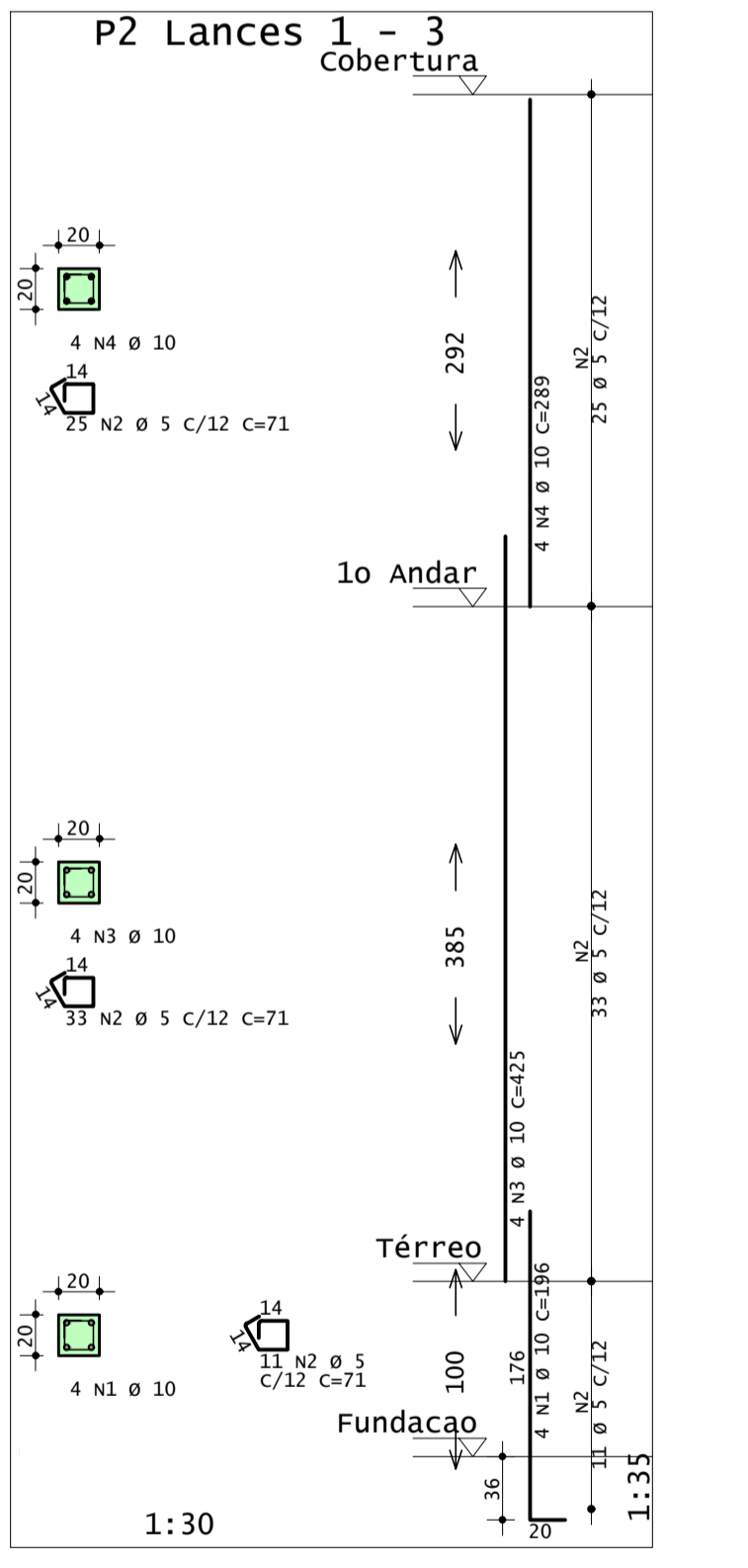
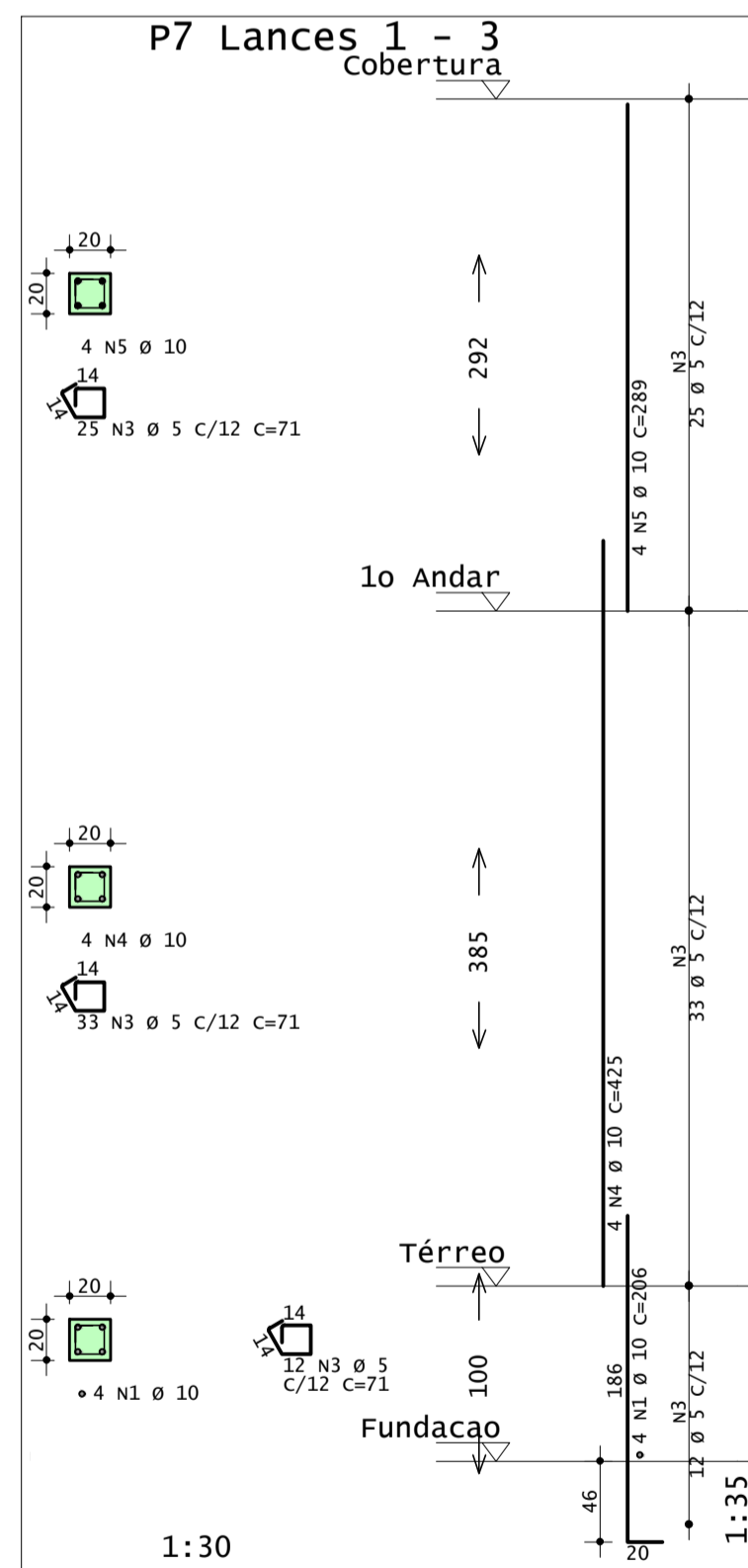
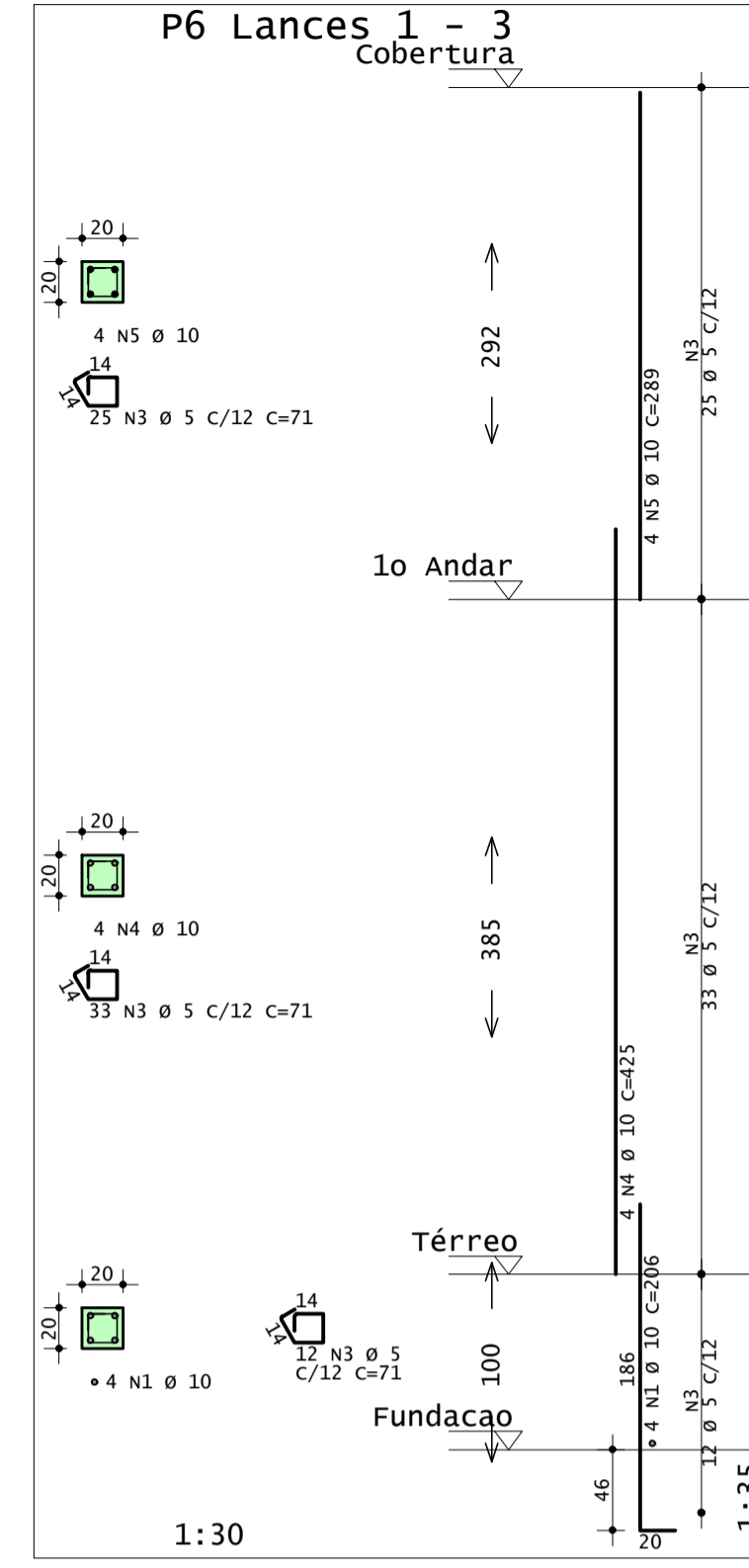
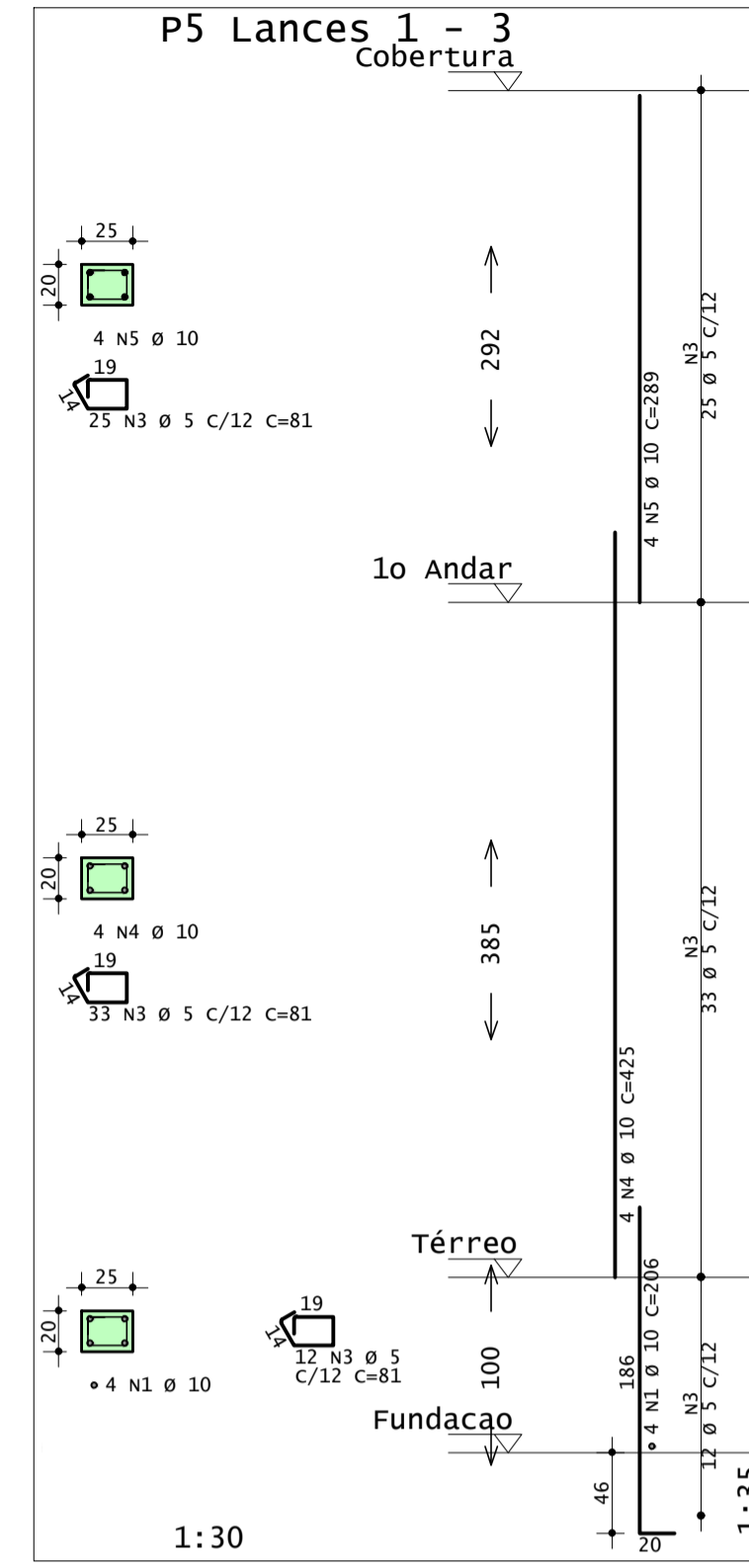
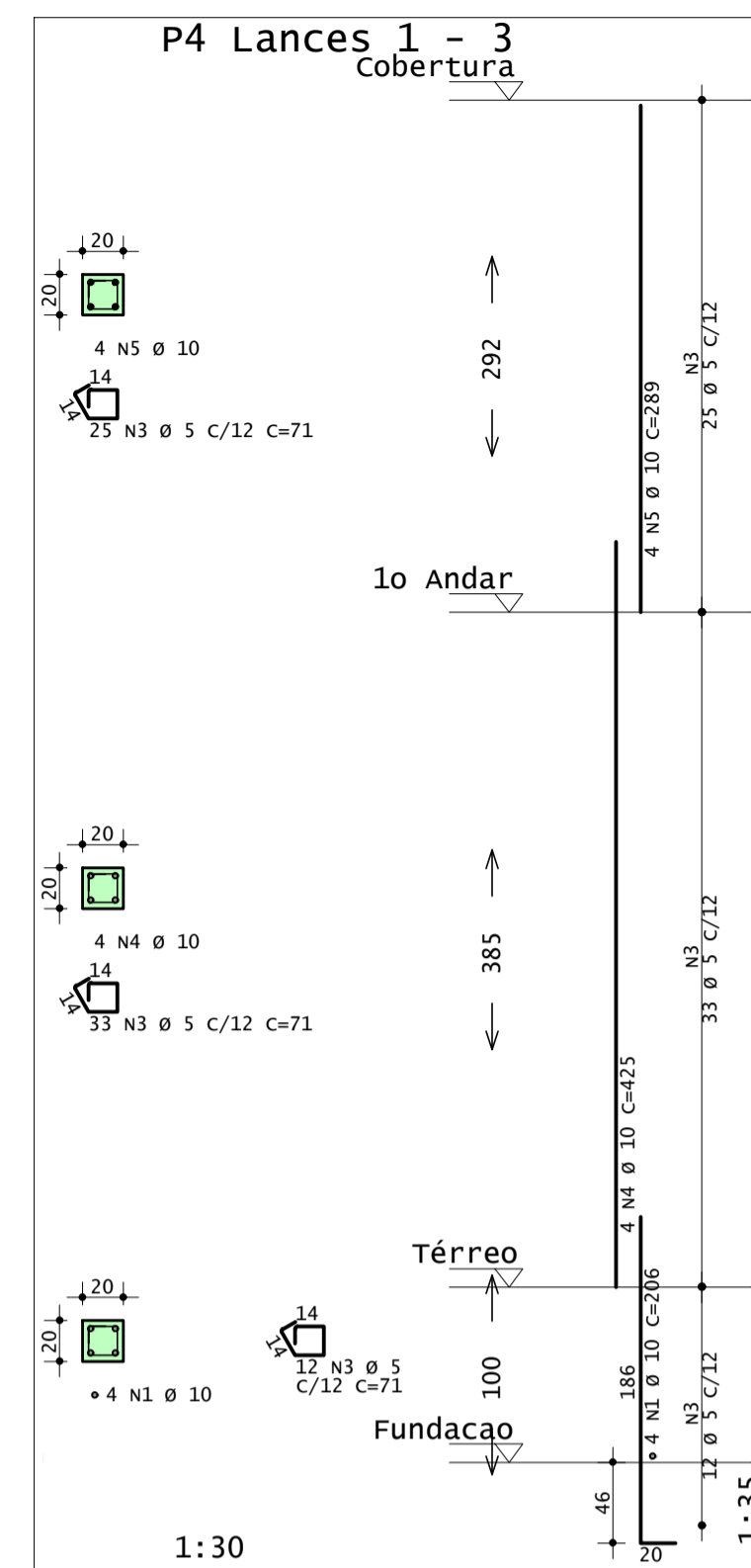
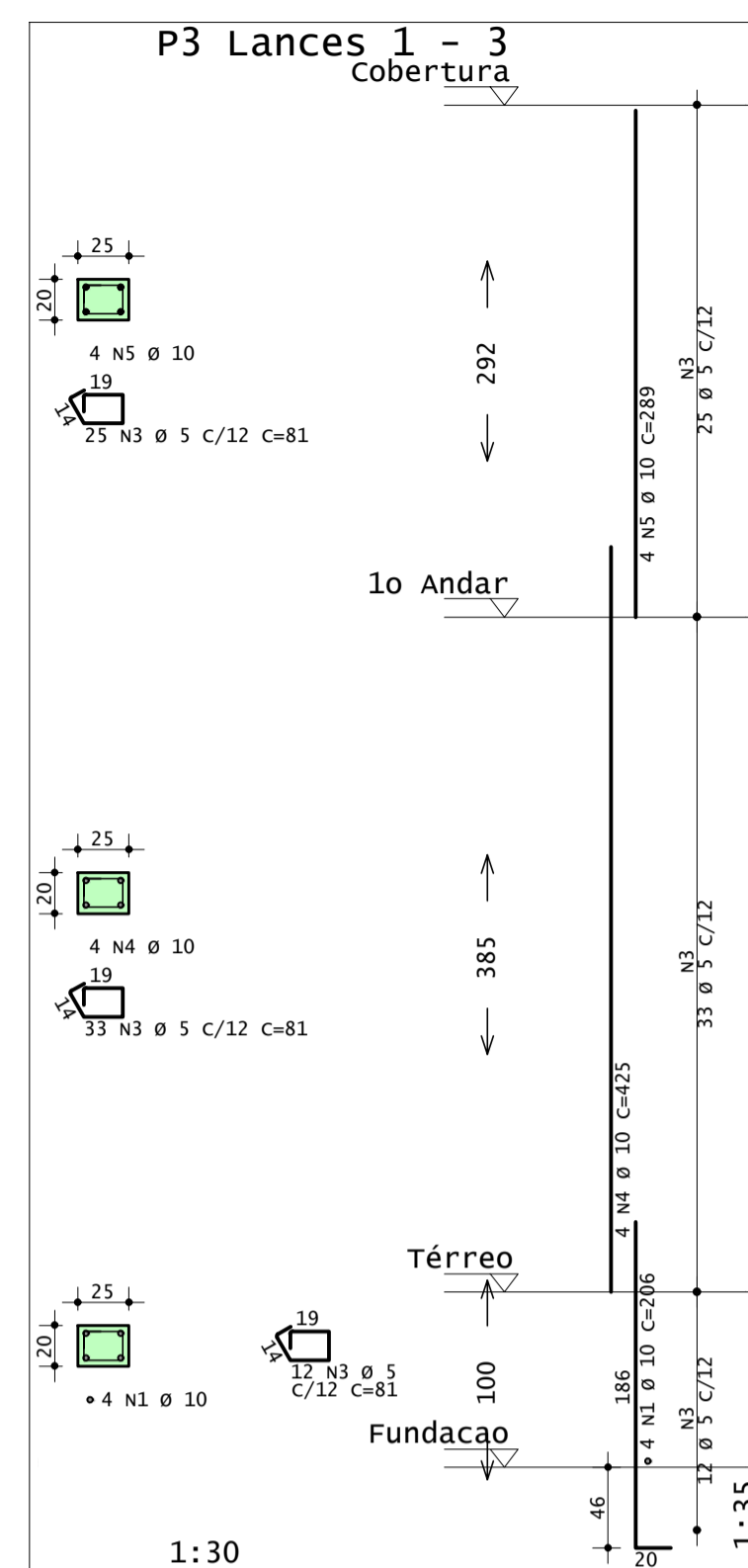
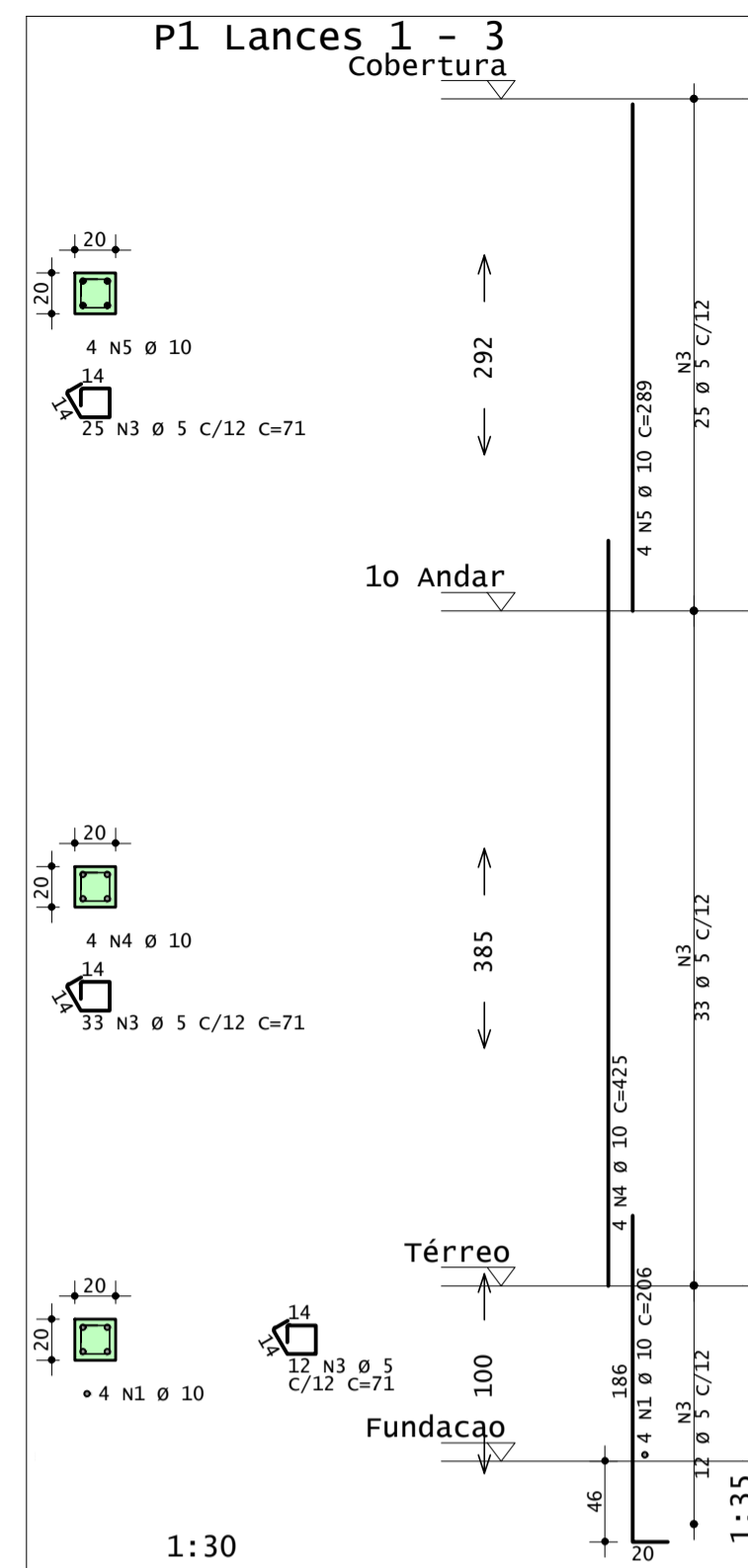
DATA: NOVEMBRO/2020

DESENHO:

PRANCHA: 1/2



AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
cm					
P1 Lances 1 - 3					
50A	1	10	4	206	824
60A	3	5	70	71	4970
50A	4	10	4	425	1700
50A	5	10	4	289	1156
P2 Lances 1 - 3					
50A	1	10	4	196	784
60A	2	5	69	71	4899
50A	3	10	4	425	1700
50A	4	10	4	289	1156
P3 Lances 1 - 3					
50A	1	10	4	206	824
60A	3	5	70	81	5670
50A	4	10	4	425	1700
50A	5	10	4	289	1156
P4 Lances 1 - 3					
50A	1	10	4	206	824
60A	3	5	70	71	4970
50A	4	10	4	425	1700
50A	5	10	4	289	1156
P5 Lances 1 - 3					
50A	1	10	4	206	824
60A	3	5	70	81	5670
50A	4	10	4	425	1700
50A	5	10	4	289	1156
P6 Lances 1 - 3					
50A	1	10	4	206	824
60A	3	5	70	71	4970
50A	4	10	4	425	1700
50A	5	10	4	289	1156
P7 Lances 1 - 3					
50A	1	10	4	206	824
60A	3	5	70	71	4970
50A	4	10	4	425	1700
50A	5	10	4	289	1156
P8 Lances 1 - 3					
50A	1	10	4	196	784
60A	2	5	70	71	4970
50A	3	10	4	425	1700
50A	4	10	4	289	1156
P9 Lance 3					
50A	1	10	4	349	1396
60A	2	10	4	106	424
60A	3	5	33	71	2343
P10 Lance 3					
50A	1	10	4	349	1396
60A	2	10	4	106	424
60A	3	5	33	71	2343
P11 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P12 Lance 3					
50A	1	10	4	349	1396
50A	2	10	6	90	540
60A	3	5	32	71	2272
P13 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P14 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P15 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343
P16 Lance 3					
50A	1	10	4	349	1396
50A	2	10	4	106	424
60A	3	5	33	71	2343

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
mm			kgf
60A	5	598	92
50A	10	448	276
Peso Total	60A =		92 kgf
Peso Total	50A =		276 kgf

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:

RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:

Machado - MG

PROJETO:

REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: PILAR - BLOCO E

OBS: fck 25 mPa

CONTRATANTE:

INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

ESCALA:

1/50

Verif. A/C

Arquivo : WIN.PILAR.IFSULMG.ALOJ.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

FASE:

REVISÃO:

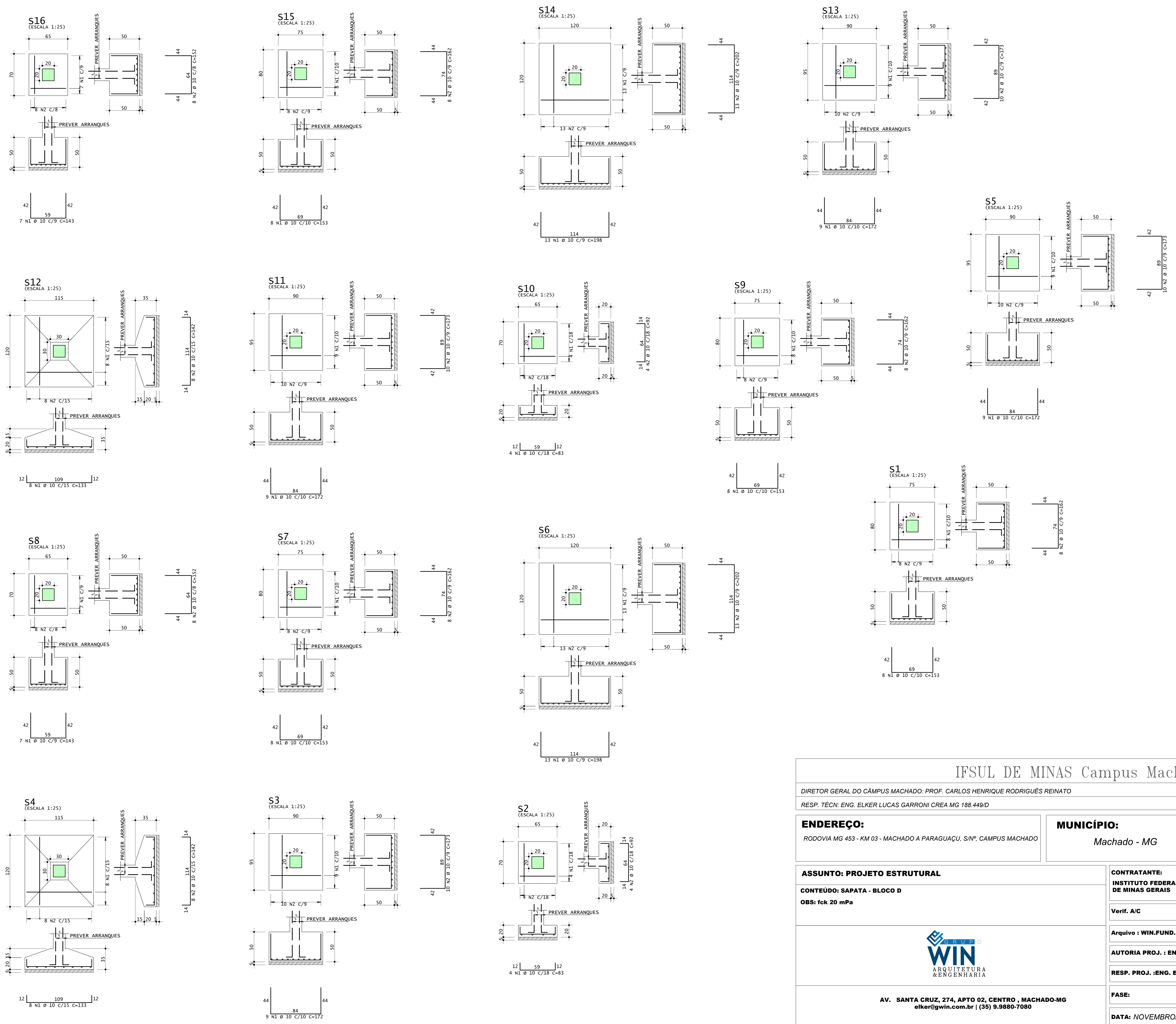
DATA: NOVEMBRO/2020

DESENHO:

PRANCHA: 2/2



AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
S1	50A	1	10	8	153	1224
	50A	2	10	8	162	1296
S2	50A	1	10	4	83	332
	50A	2	10	4	92	368
S3	50A	1	10	9	172	1548
	50A	2	10	10	173	1730
S4	50A	1	10	8	133	1064
	50A	2	10	8	142	1136
S5	50A	1	10	9	172	1548
	50A	2	10	10	173	1730
S6	50A	1	10	13	198	2574
	50A	2	10	13	202	2626
S7	50A	1	10	8	153	1224
	50A	2	10	8	162	1296
S8	50A	1	10	7	143	1001
	50A	2	10	8	152	1216

RESUMO DE AÇO				PESO
AÇO	BIT	COMPR		
		mm	m	kgf
50A	10		219	135
∅Aço=Total				135 kgf

AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
S9	50A	1	10	8	153	1224
	50A	2	10	8	162	1296
S10	50A	1	10	4	83	332
	50A	2	10	4	92	368
S11	50A	1	10	9	172	1548
	50A	2	10	10	173	1730
S12	50A	1	10	8	133	1064
	50A	2	10	8	142	1136
S13	50A	1	10	9	172	1548
	50A	2	10	10	173	1730
S14	50A	1	10	13	198	2574
	50A	2	10	13	202	2626
S15	50A	1	10	8	153	1224
	50A	2	10	8	162	1296
S16	50A	1	10	7	143	1001
	50A	2	10	8	152	1216

RESUMO DE AÇO				PESO
AÇO	BIT	COMPR		
		mm	m	kgf
50A	10		219	135
∅Aço=Total				135 kgf

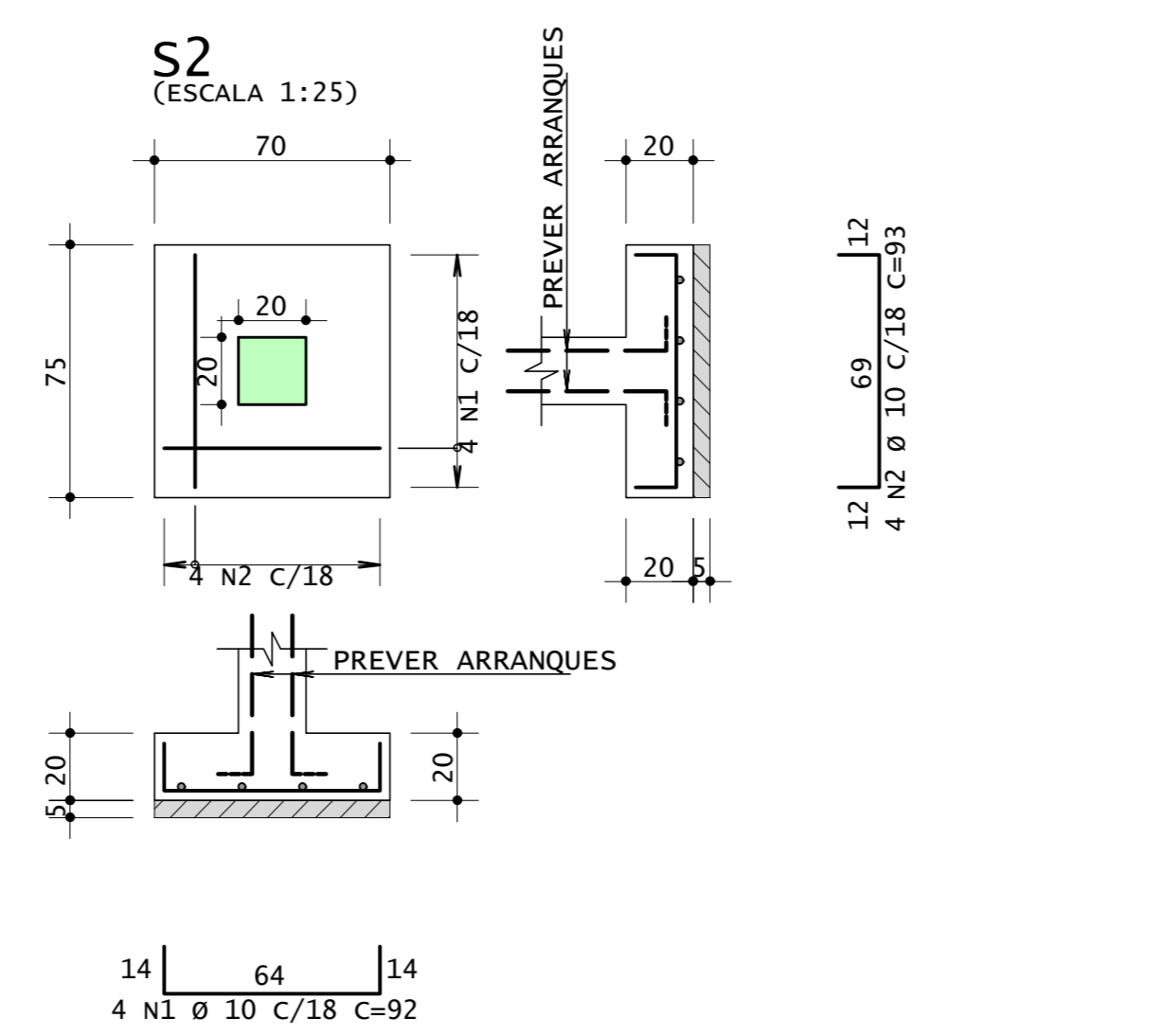
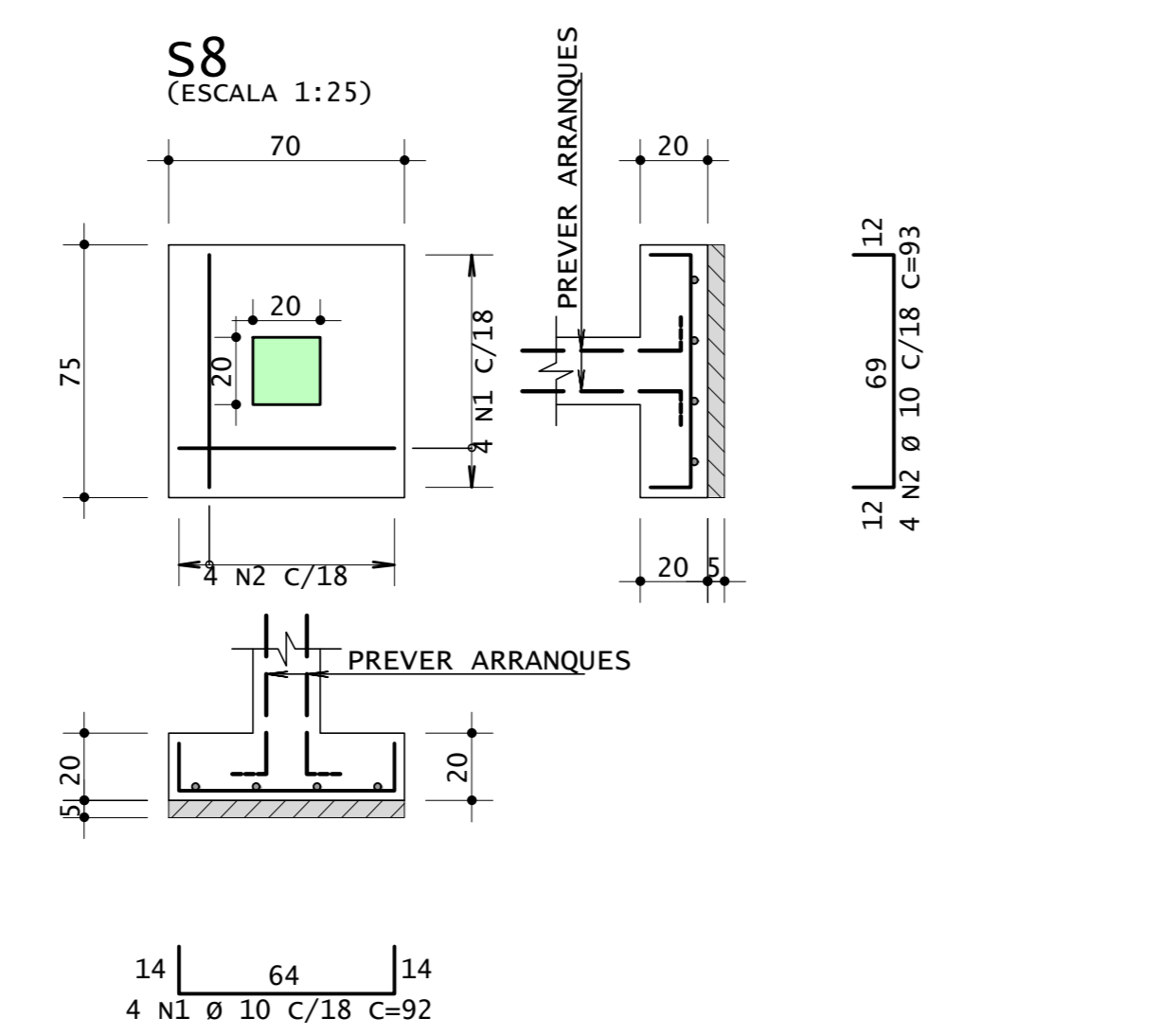
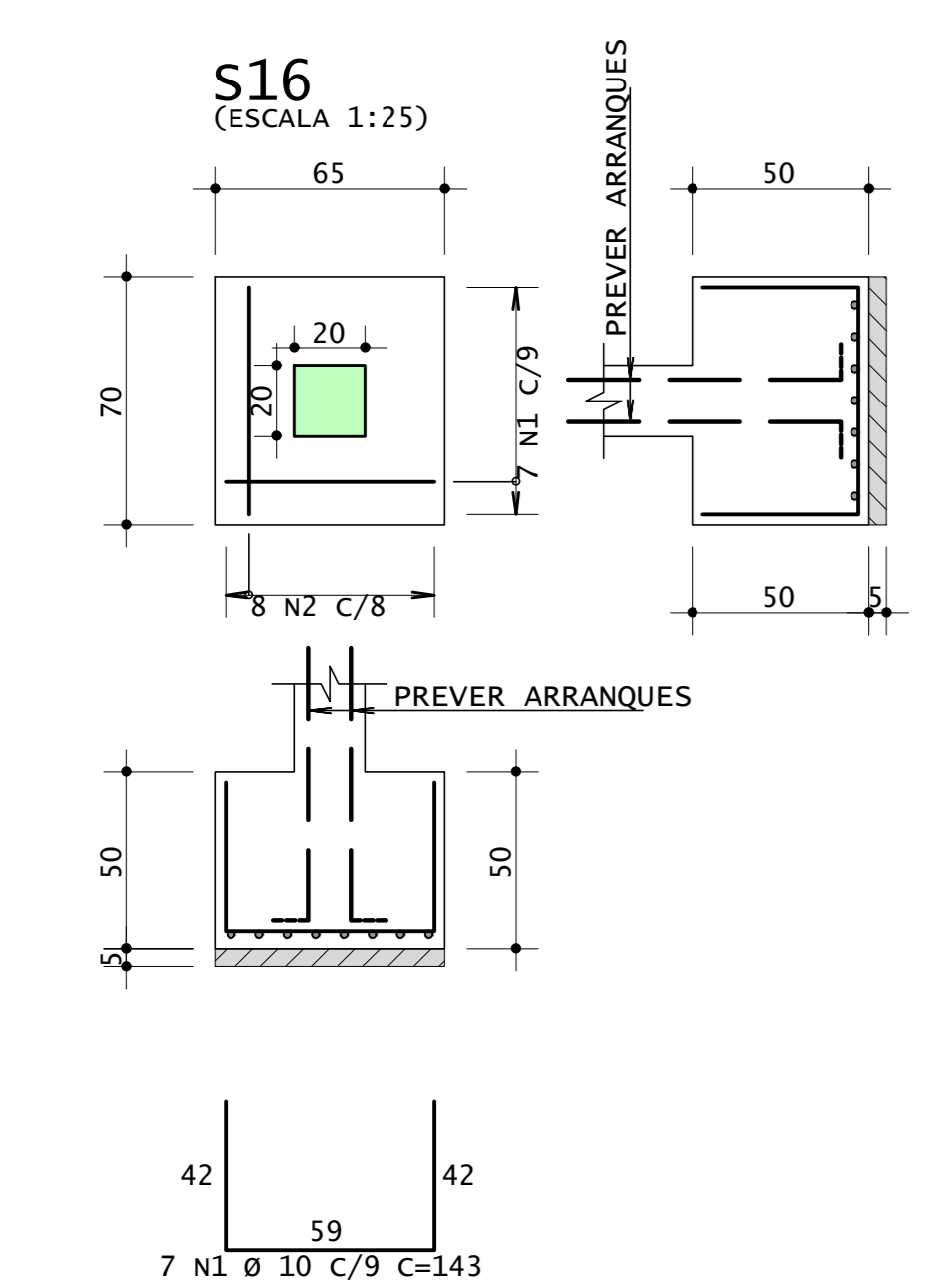
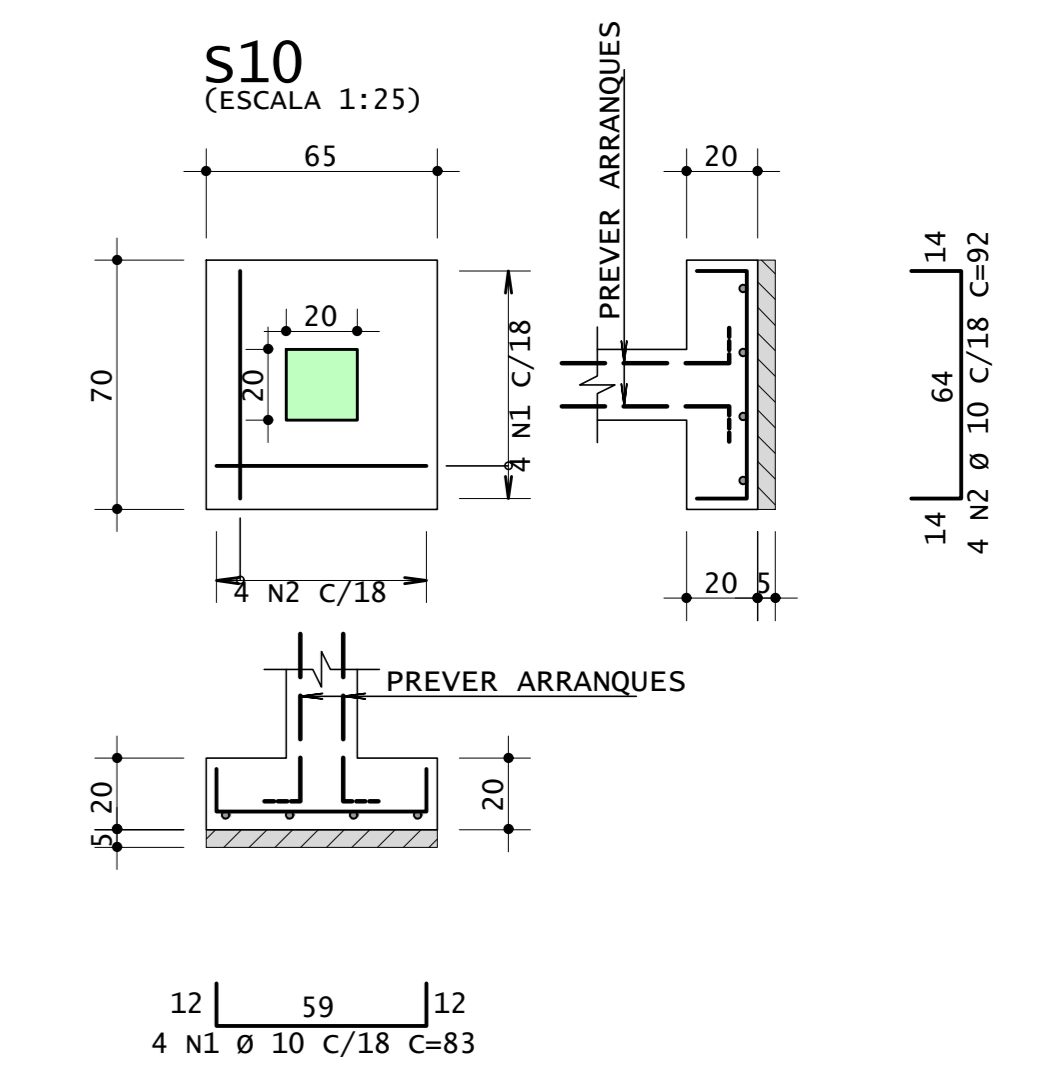
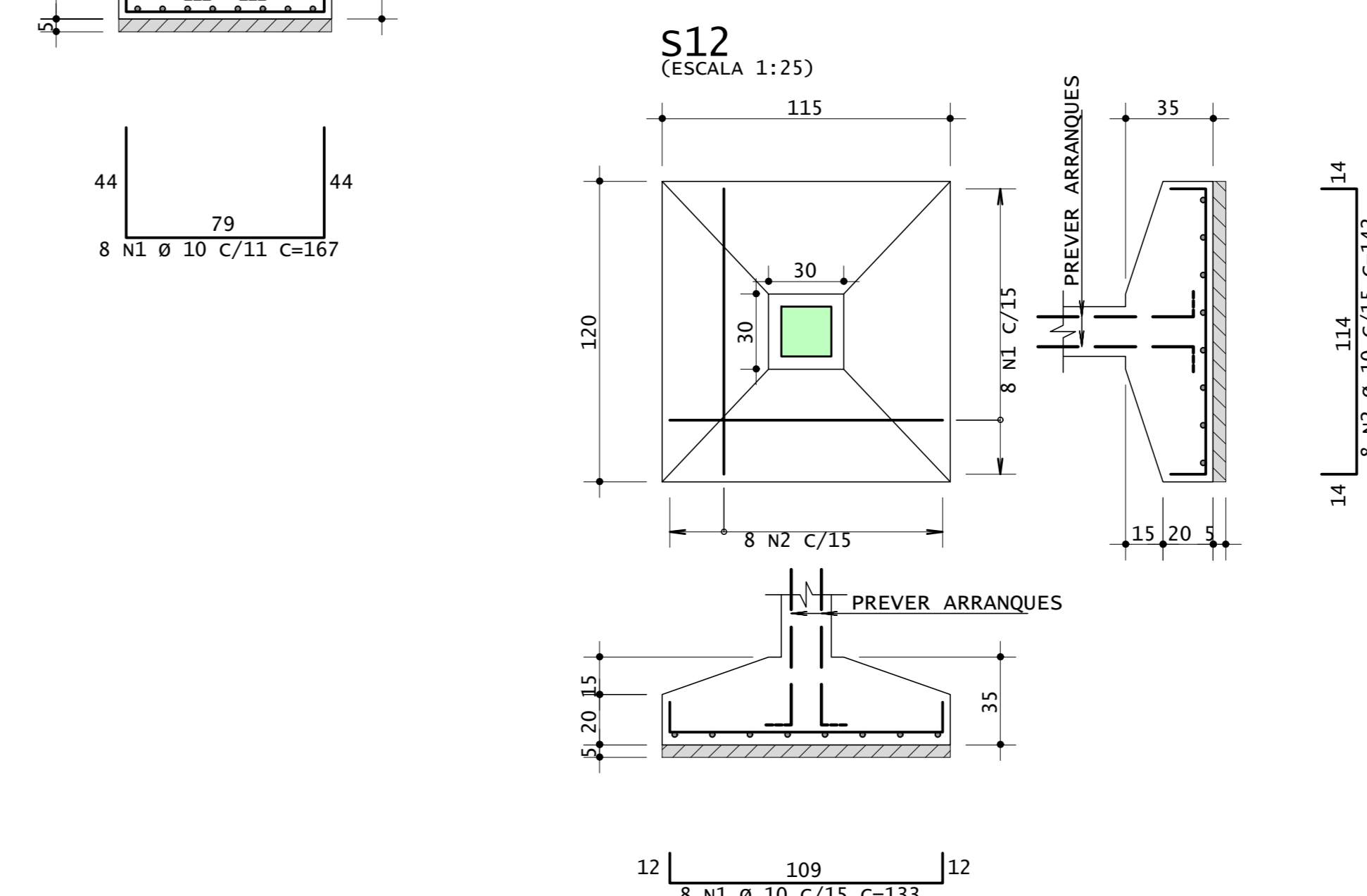
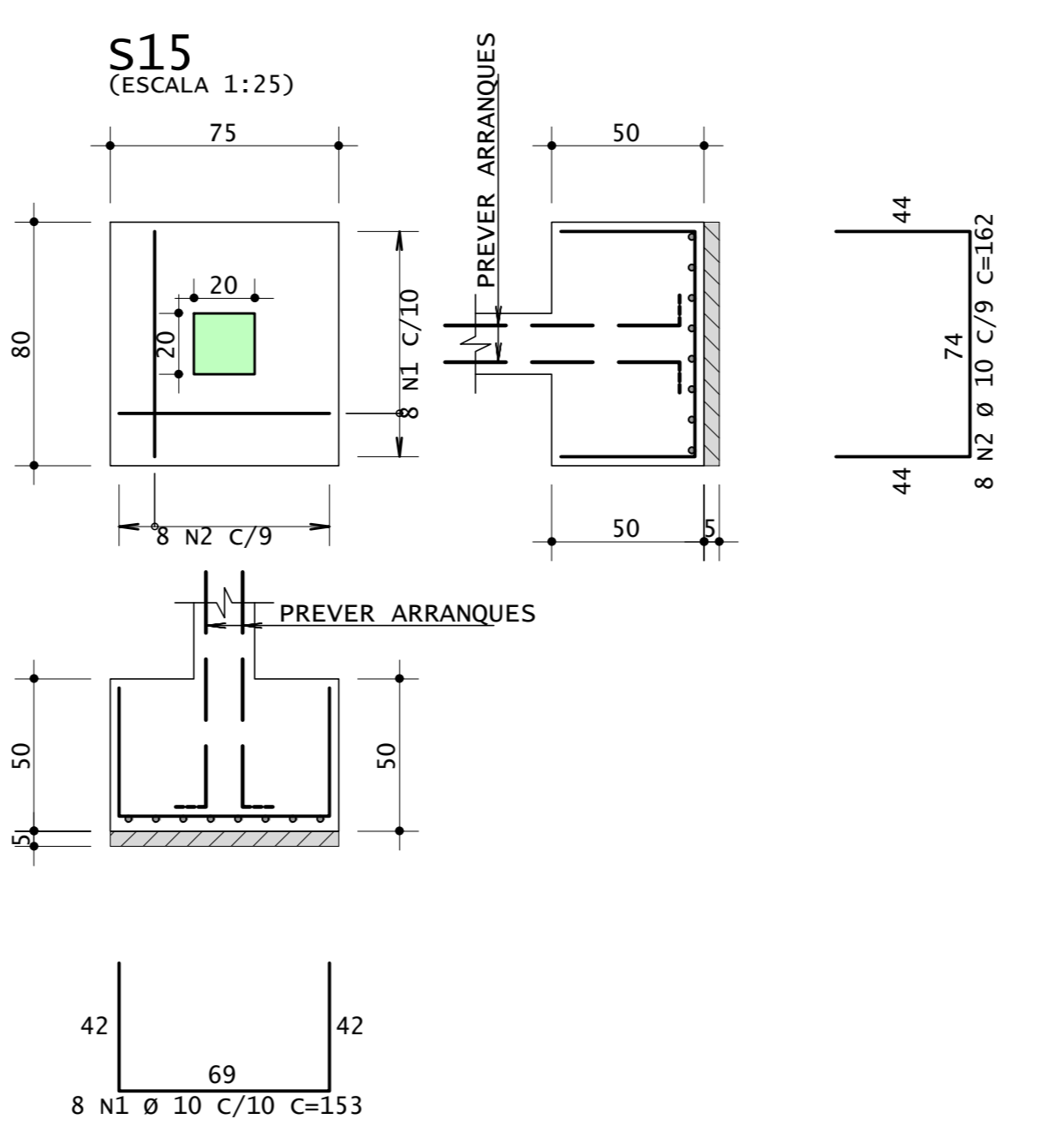
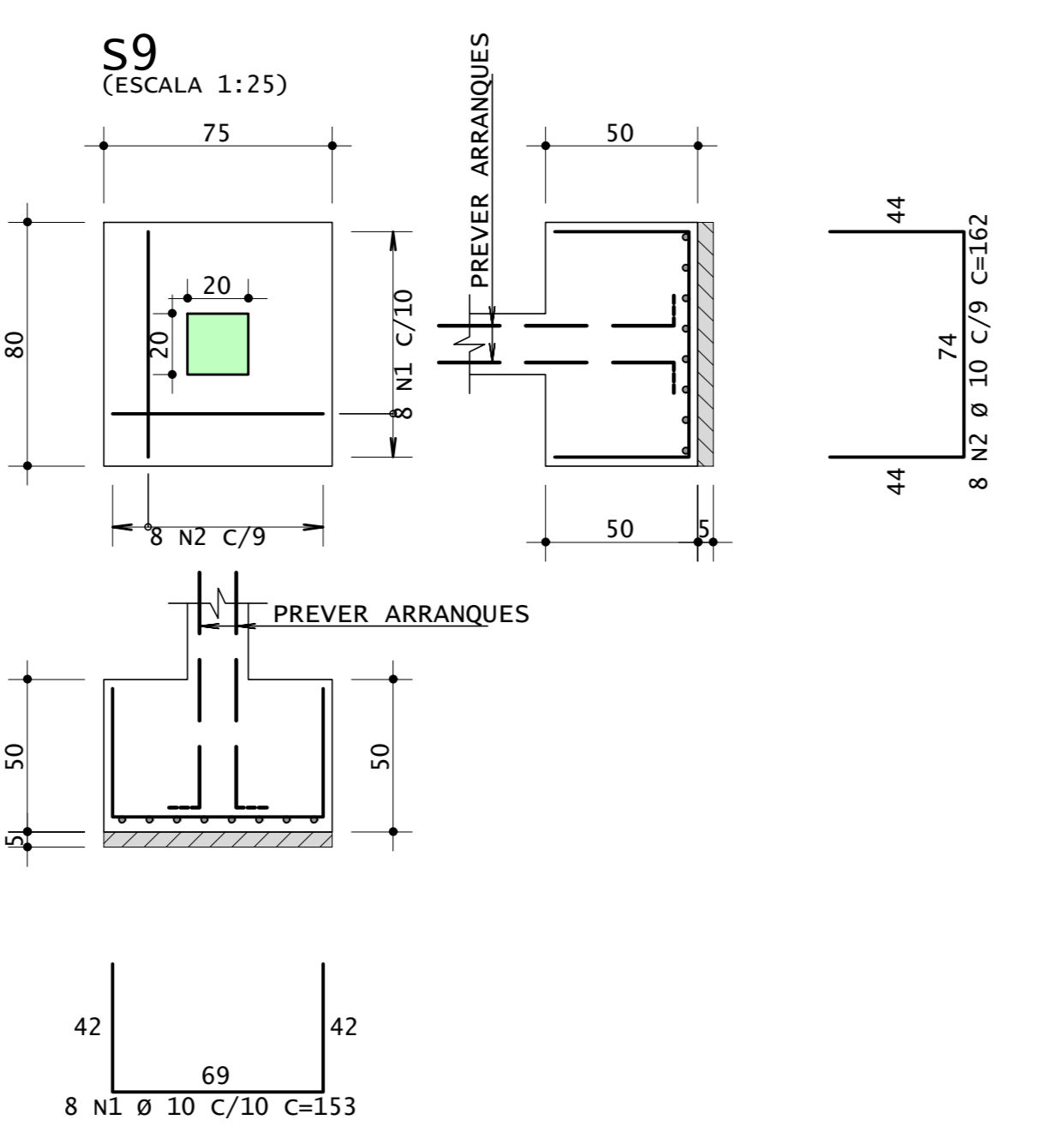
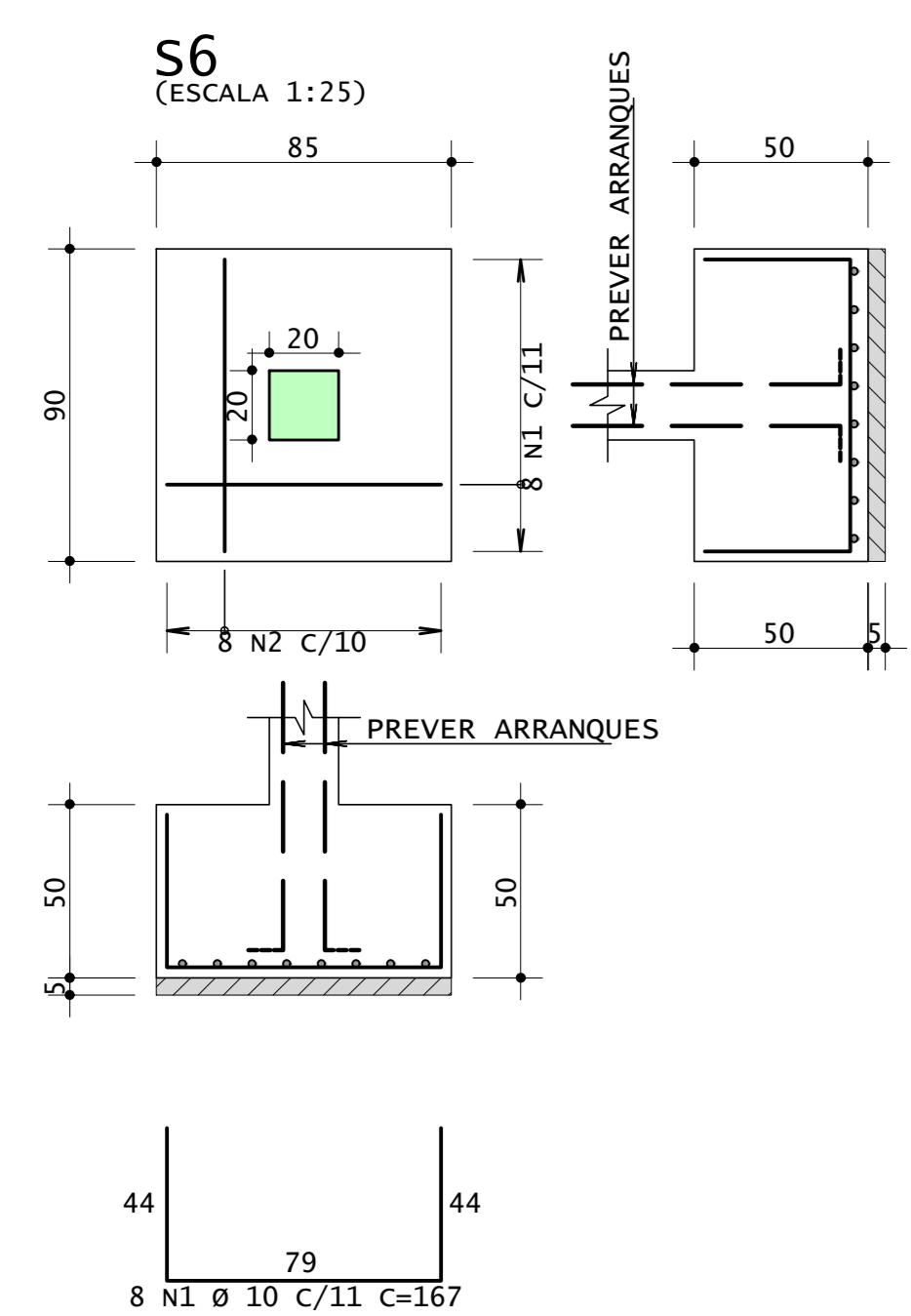
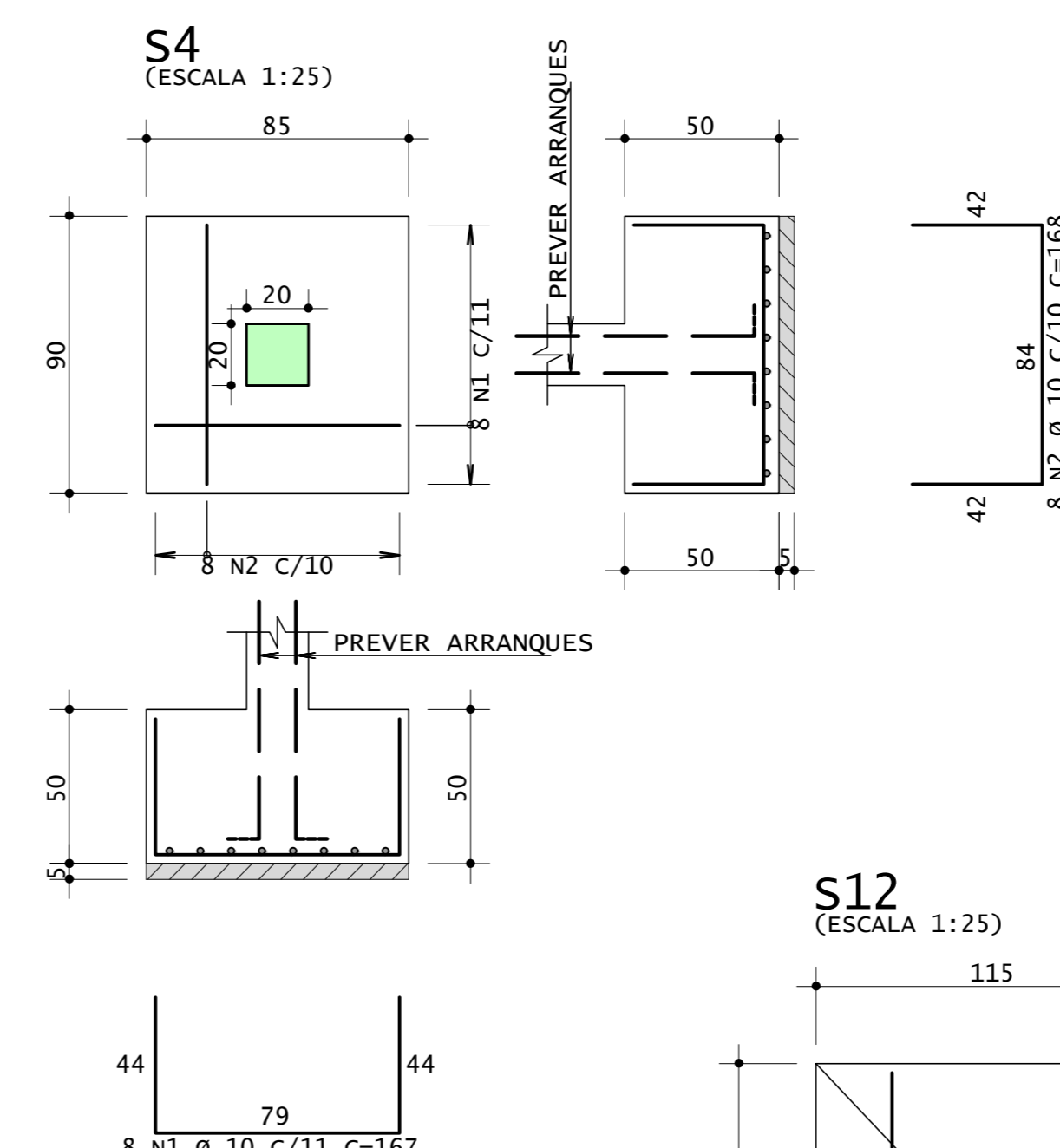
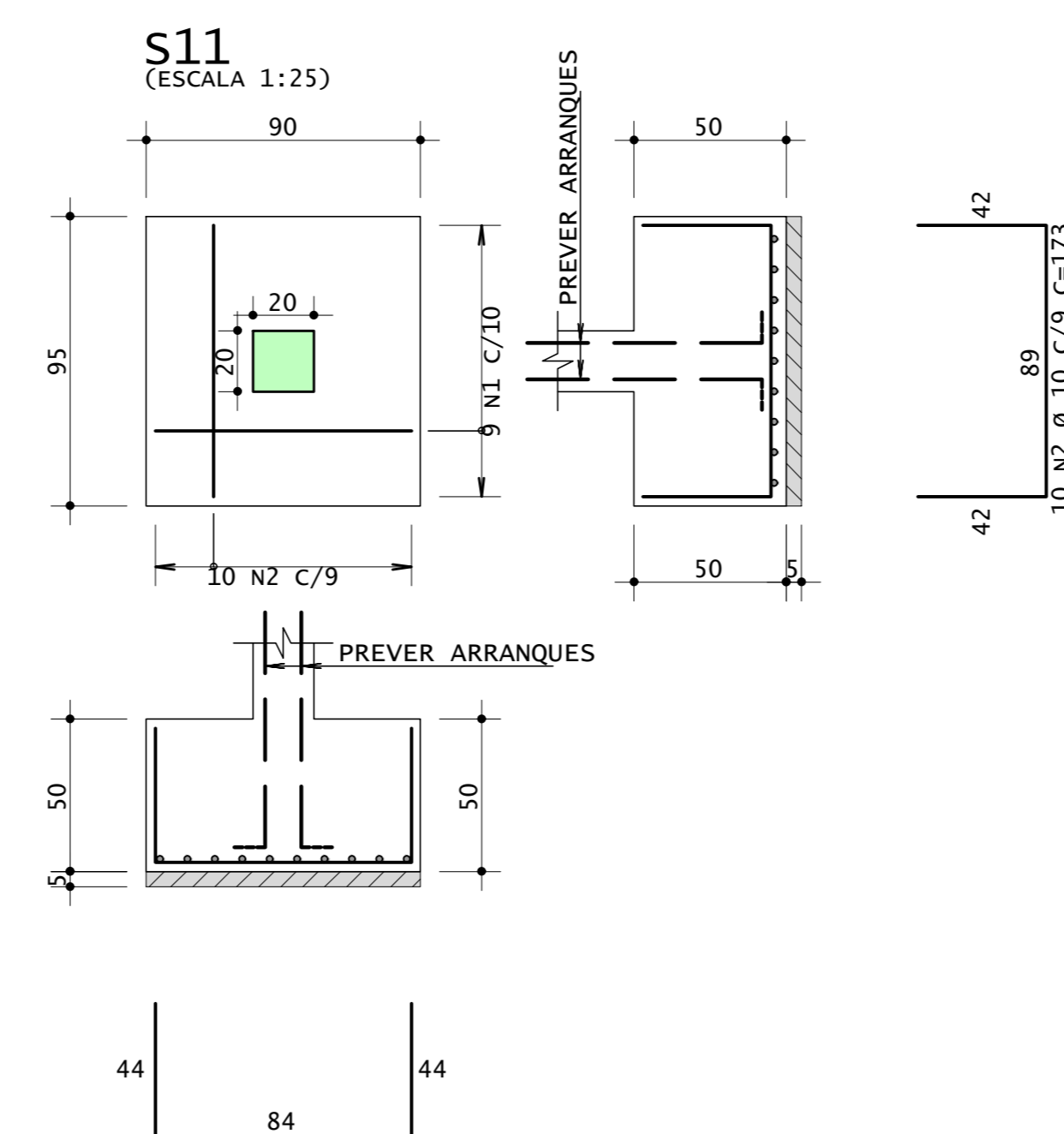
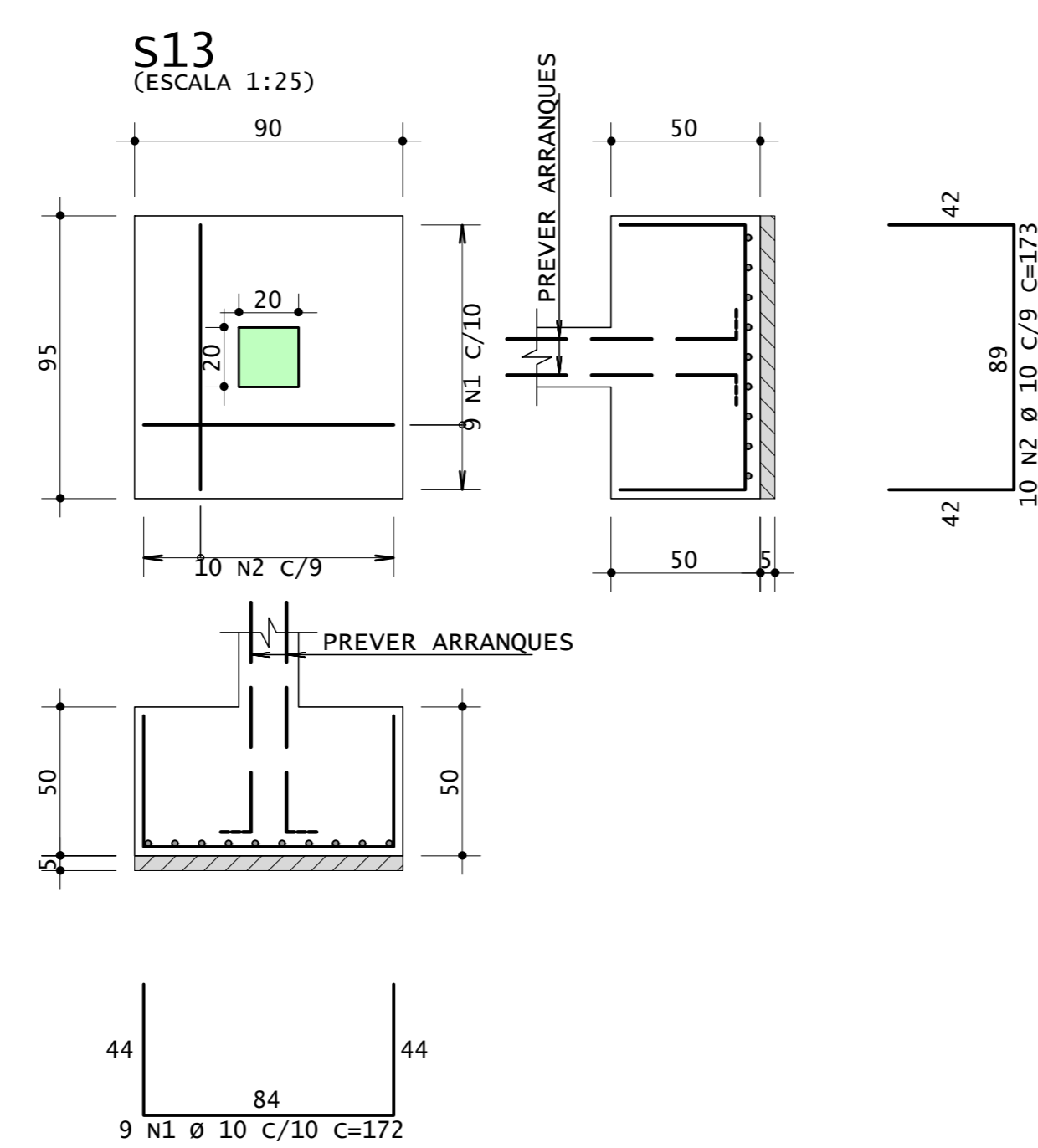
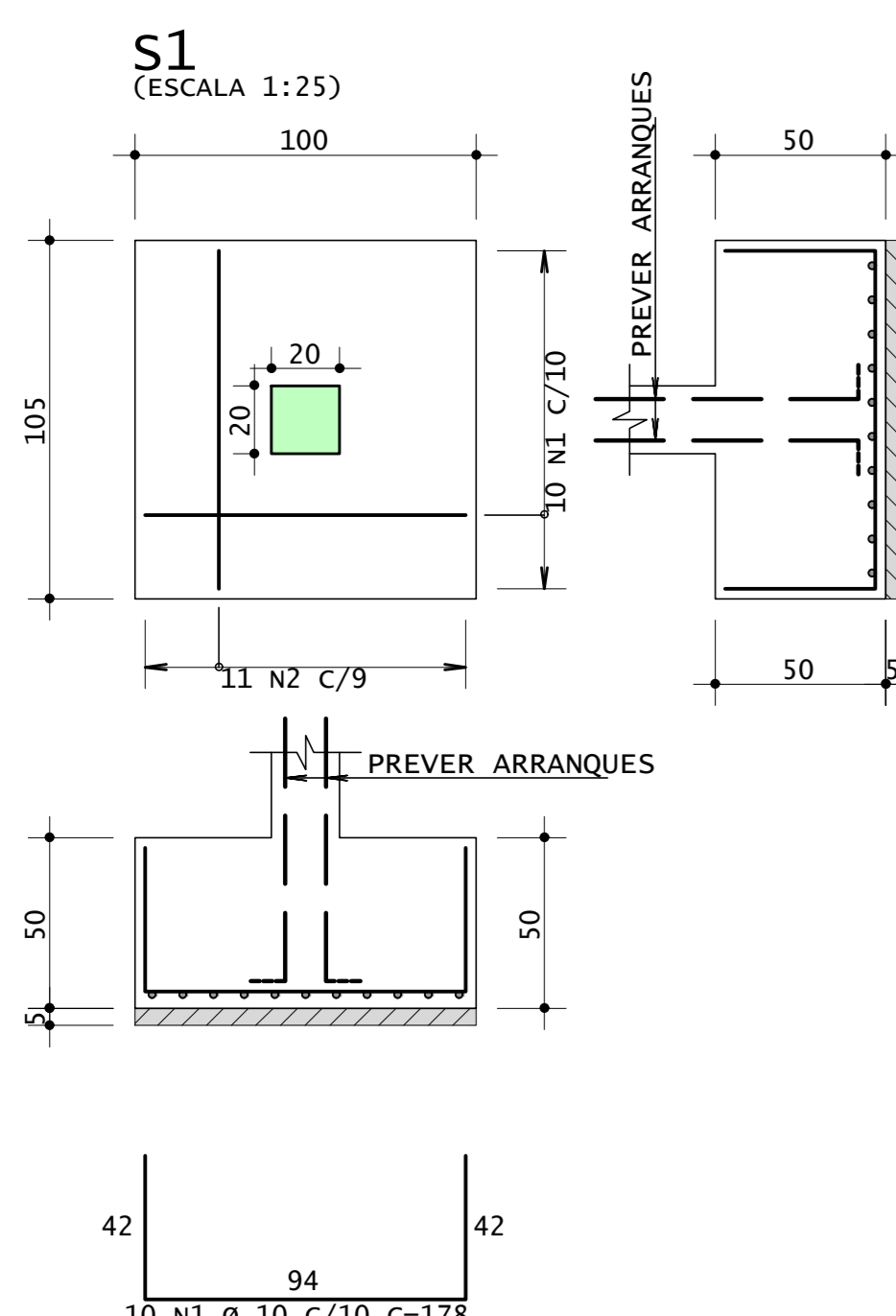
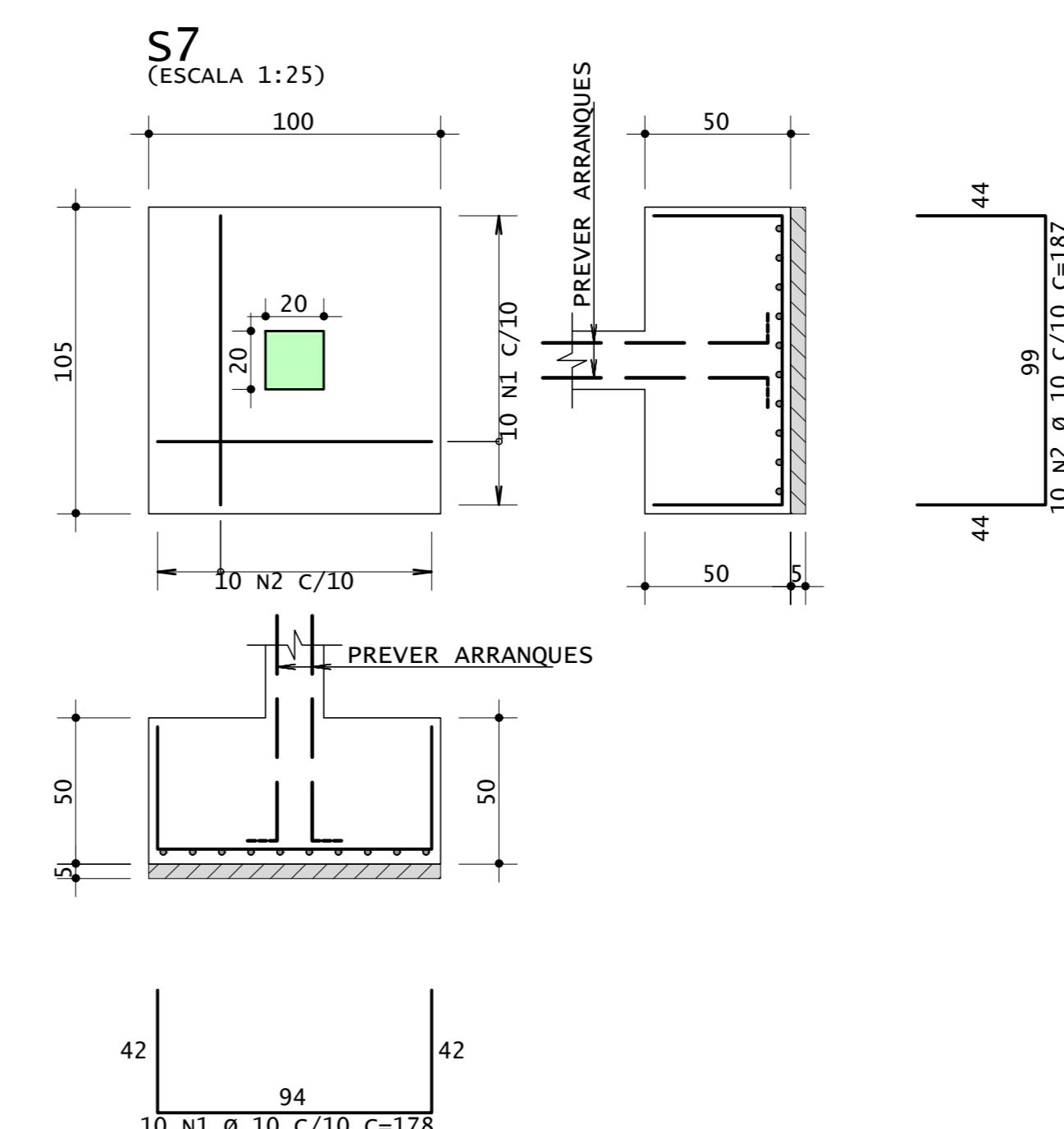
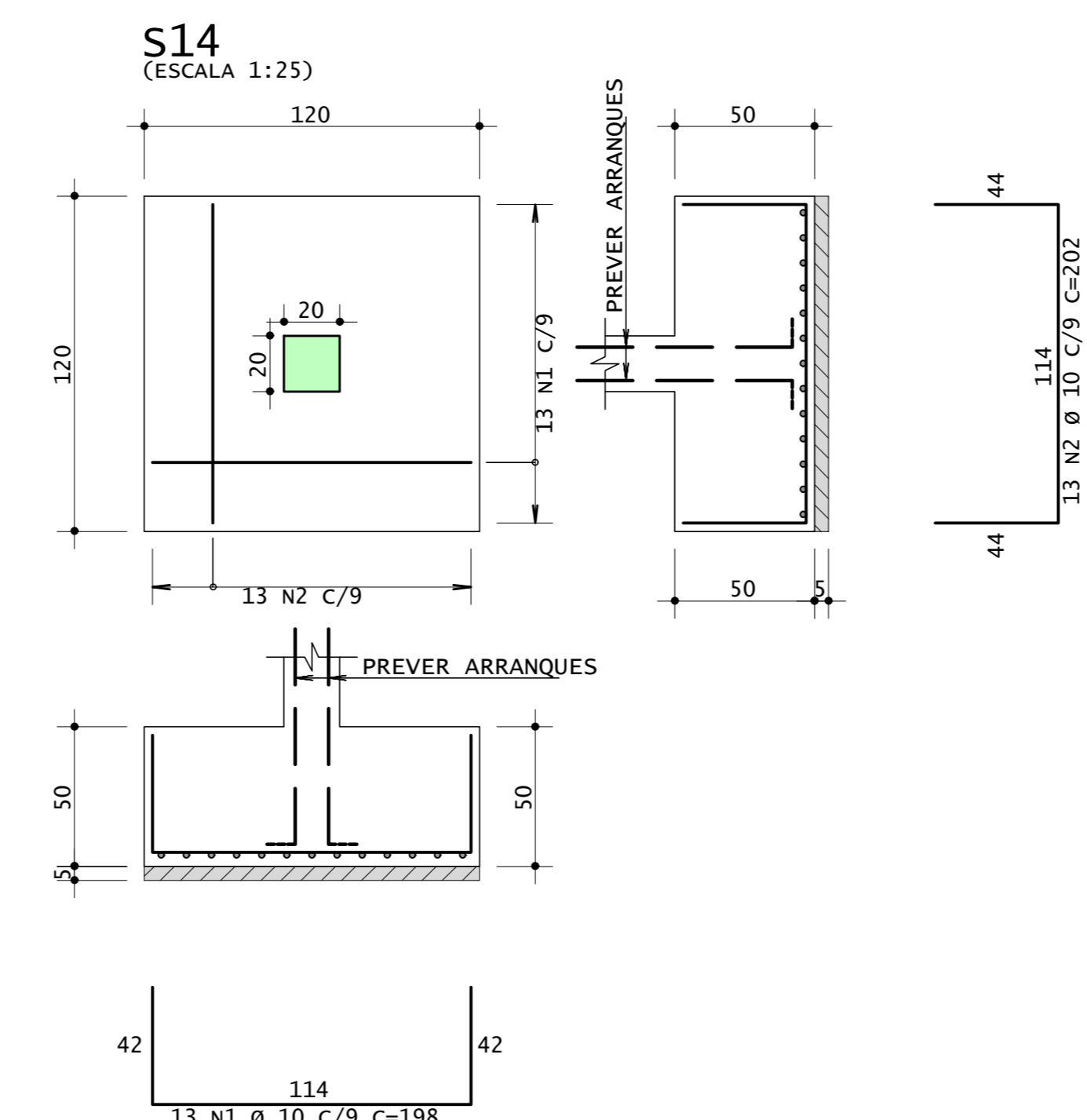
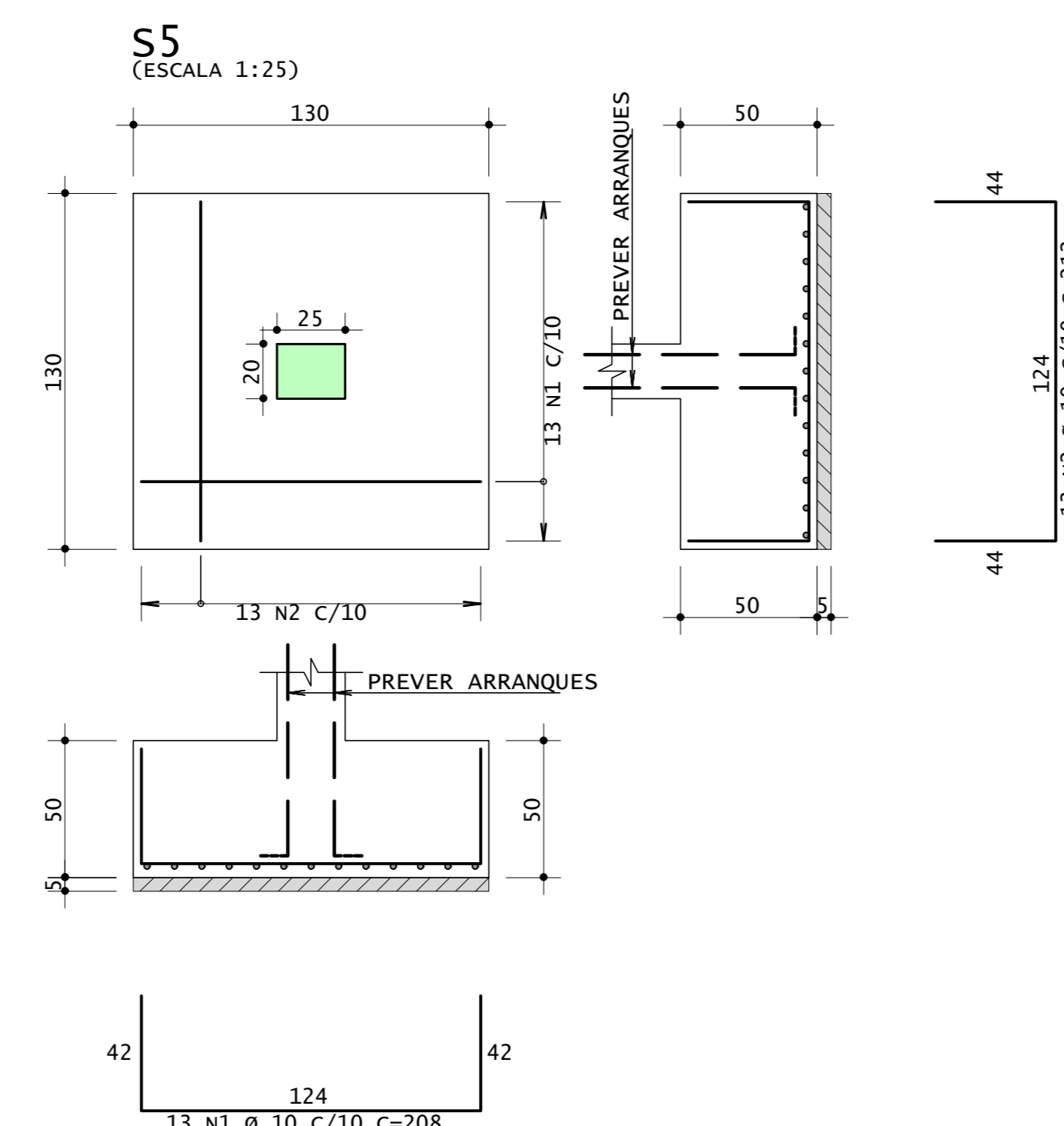
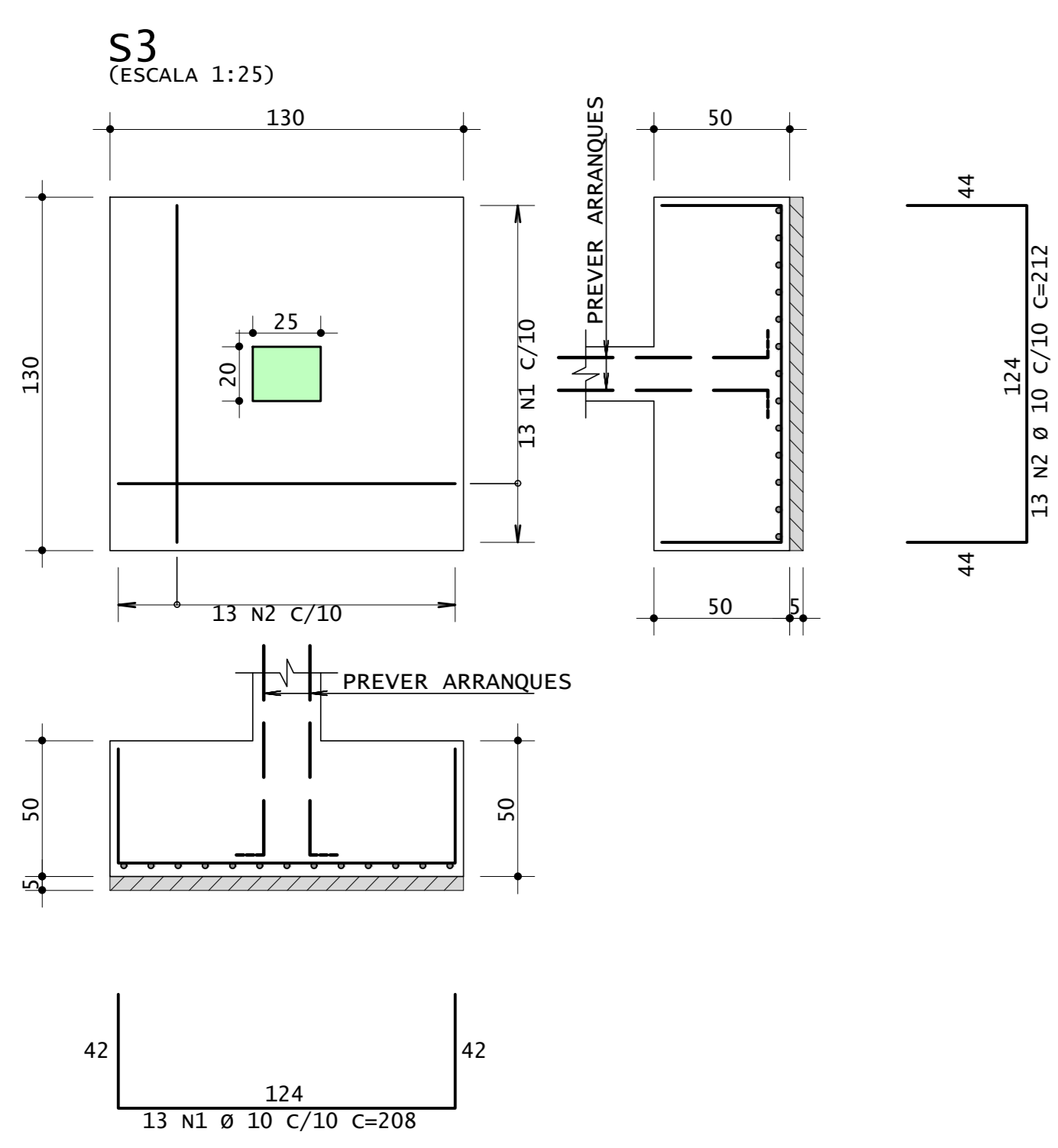
IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO
 RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO: RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO	MUNICÍPIO: Machado - MG	PROJETO: REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E
--	-----------------------------------	--

ASSUNTO: PROJETO ESTRUTURAL	CONTRATANTE: INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS	ESCALA: 1/50
CONTEÚDO: SAPATA - BLOCO D OBS: fck 20 mPa	Verif. A/C	
	Arquivo: WIN.FUND.IFSULMG.ALOJE.R00.dwg	
	AUTORIA PROJ.: ENG. ELKER LUCAS GARRONI CREA MG 209.623/D	
	RESP. PROJ.: ENG. ELKER LUCAS GARRONI CREA MG 209.623/D	
	FASE:	REVISÃO:
	DATA: NOVEMBRO/2020	PRANCHA: 1/2

AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
 elker@gwin.com.br | (35) 9.9880-7080



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
S1	50A	1	10	178	1780
	50A	2	10	187	2057
S2	50A	1	10	92	368
	50A	2	10	4	93
S3	50A	1	10	208	2704
	50A	2	10	212	2756
S4	50A	1	10	167	1336
	50A	2	10	168	1344
S5	50A	1	10	208	2704
	50A	2	10	212	2756
S6	50A	1	10	167	1336
	50A	2	10	168	1344
S7	50A	1	10	178	1780
	50A	2	10	187	1870
S8	50A	1	10	92	368
	50A	2	10	4	93
S9	50A	1	10	153	1224
	50A	2	10	162	1296
S10	50A	1	10	83	332
	50A	2	10	4	92
S11	50A	1	10	172	1548
	50A	2	10	173	1730
S12	50A	1	10	133	1064
	50A	2	10	142	1136
S13	50A	1	10	172	1548
	50A	2	10	173	1730
S14	50A	1	10	198	2574
	50A	2	10	202	2626
S15	50A	1	10	153	1224
	50A	2	10	162	1296
S16	50A	1	10	143	1001
	50A	2	10	152	1216

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
50A	10	472	291
ÞAço=Total			291 kgf

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:
RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:
Machado - MG

PROJETO:
REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: SAPATA - BLOCO E

OBS: fck 20 mPa

CONTRATANTE:
INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

ESCALA:

1/50

Verif. A/C

Arquivo : WIN.FUND.IFSULMG.ALOJE.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D



AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080

FASE:

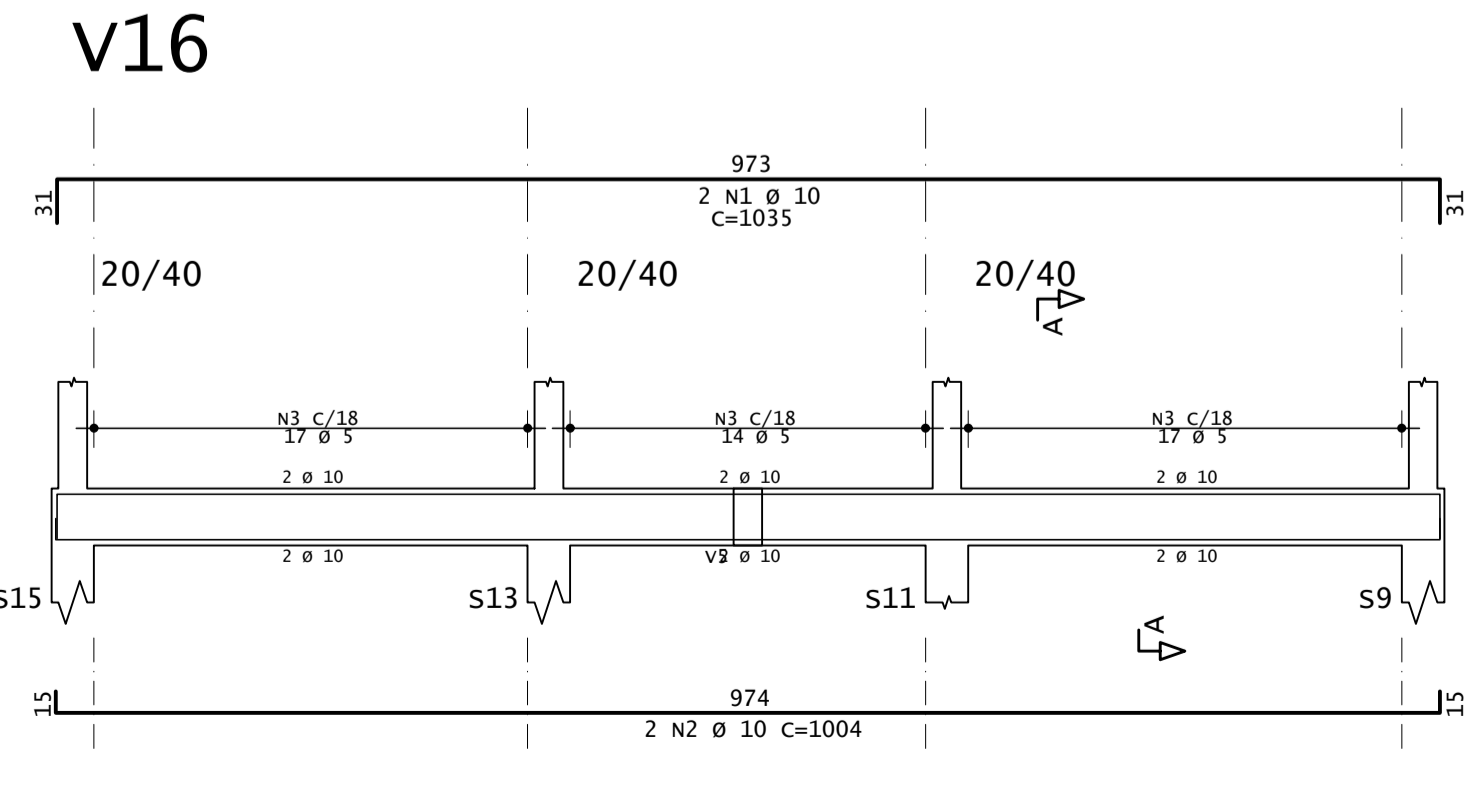
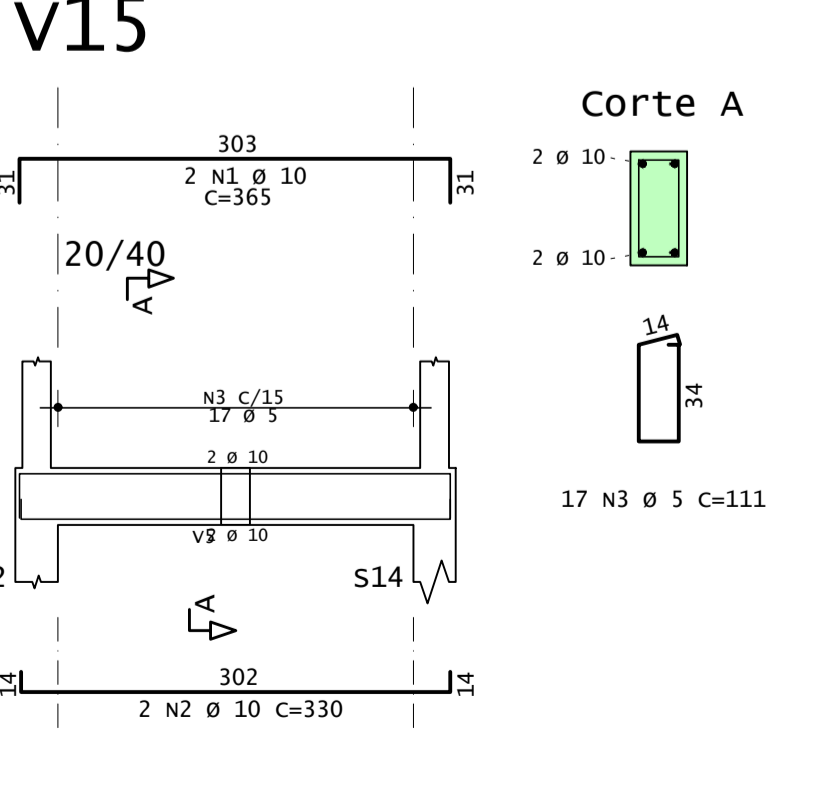
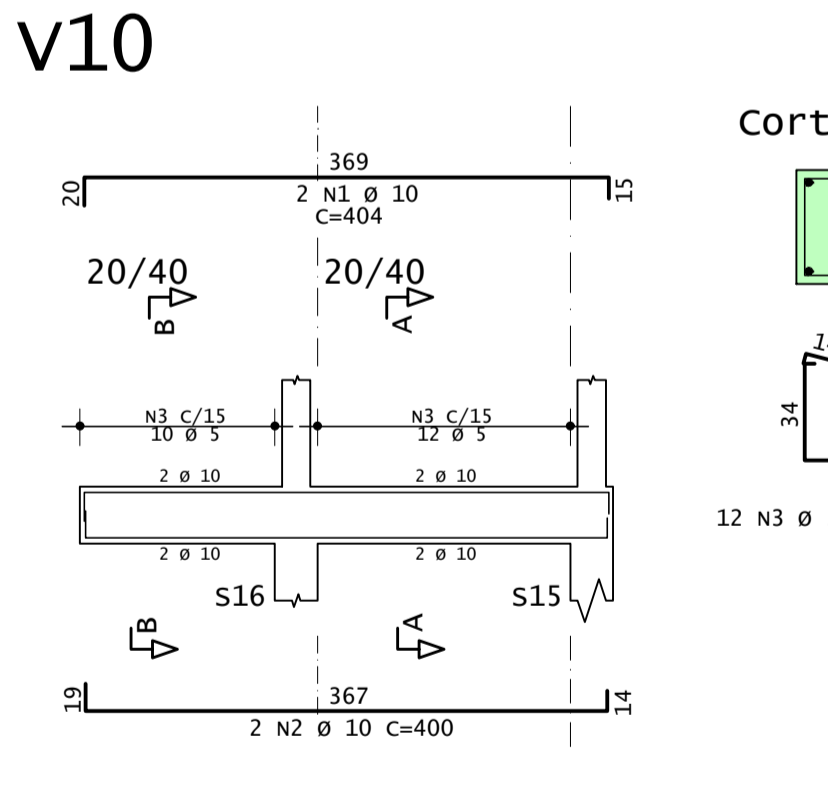
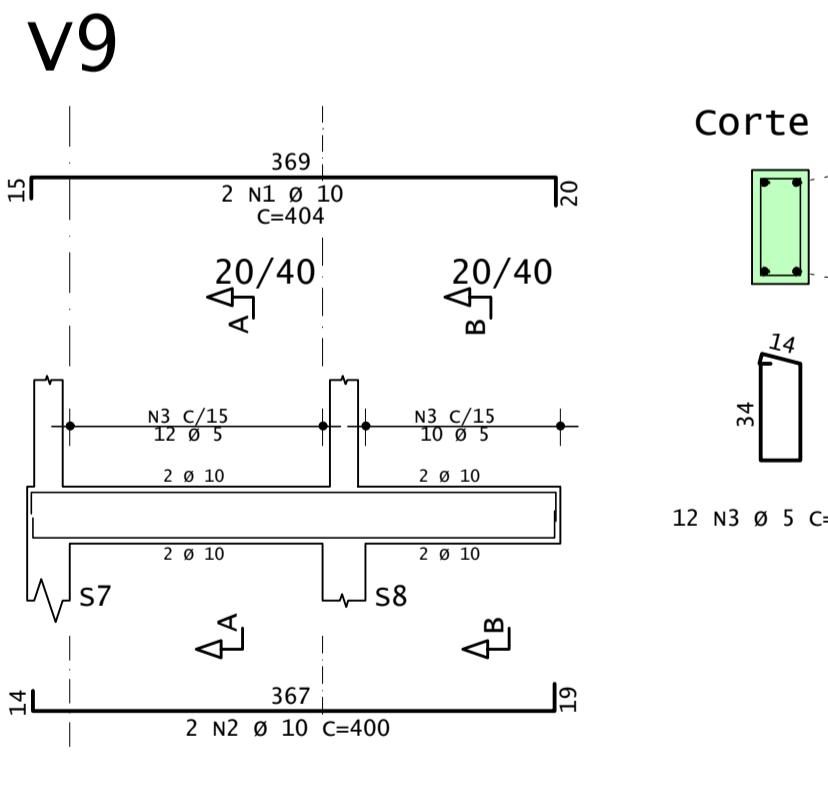
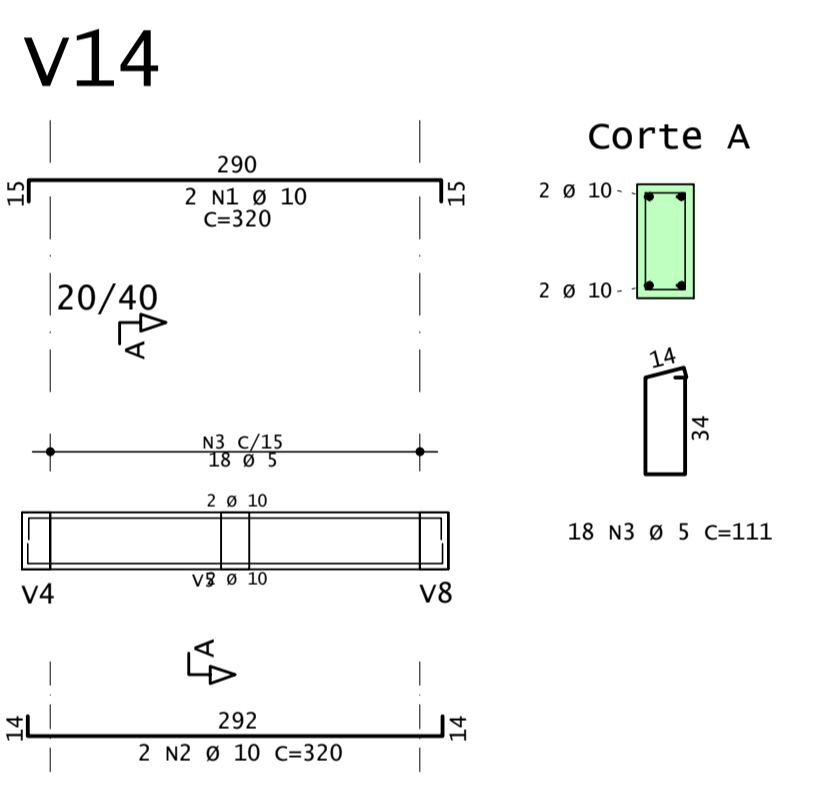
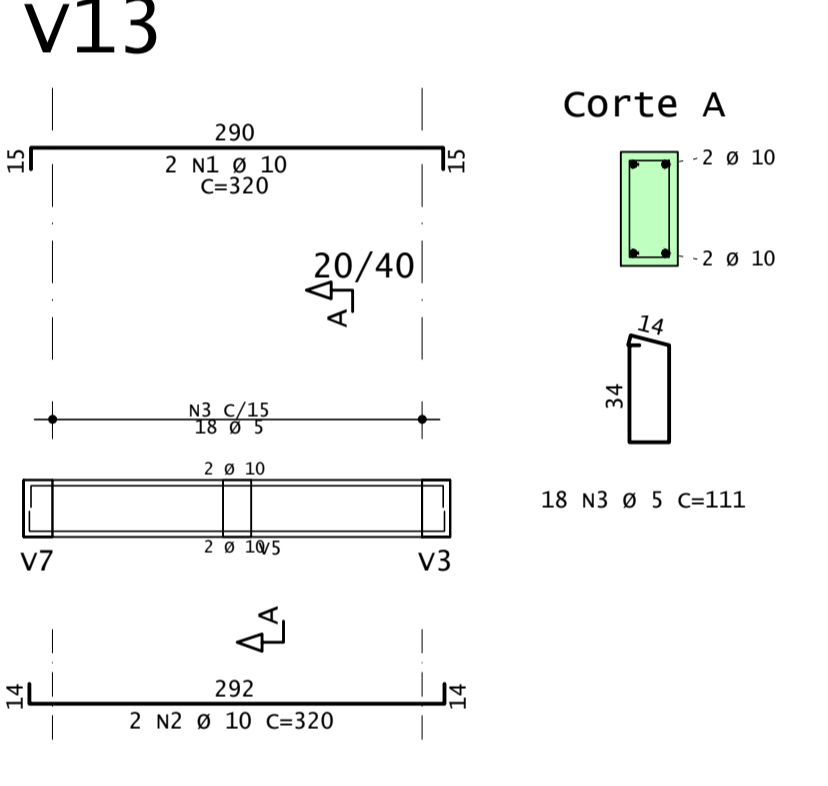
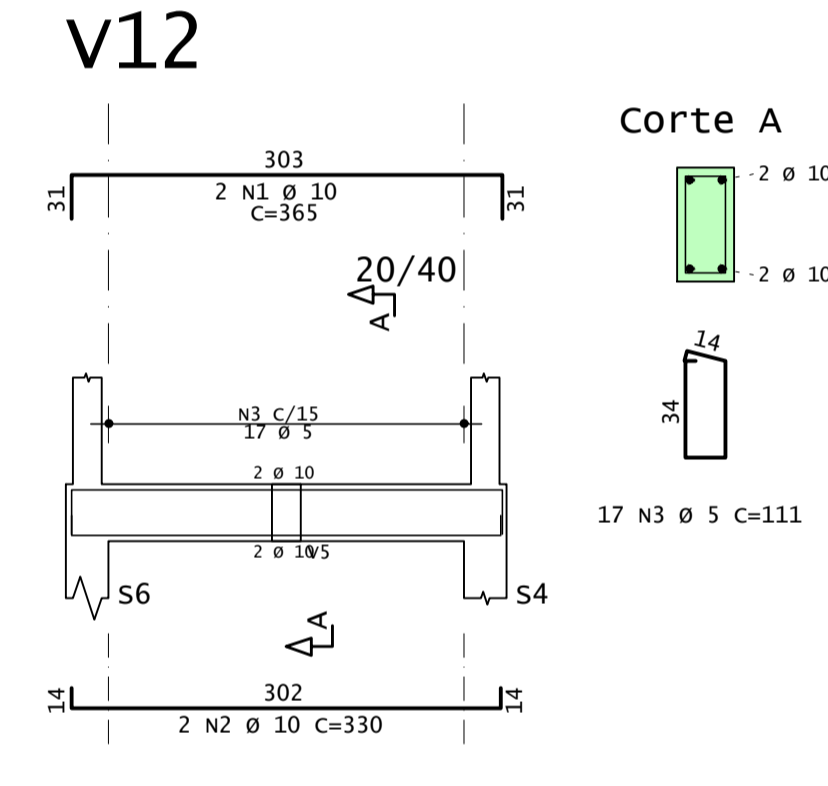
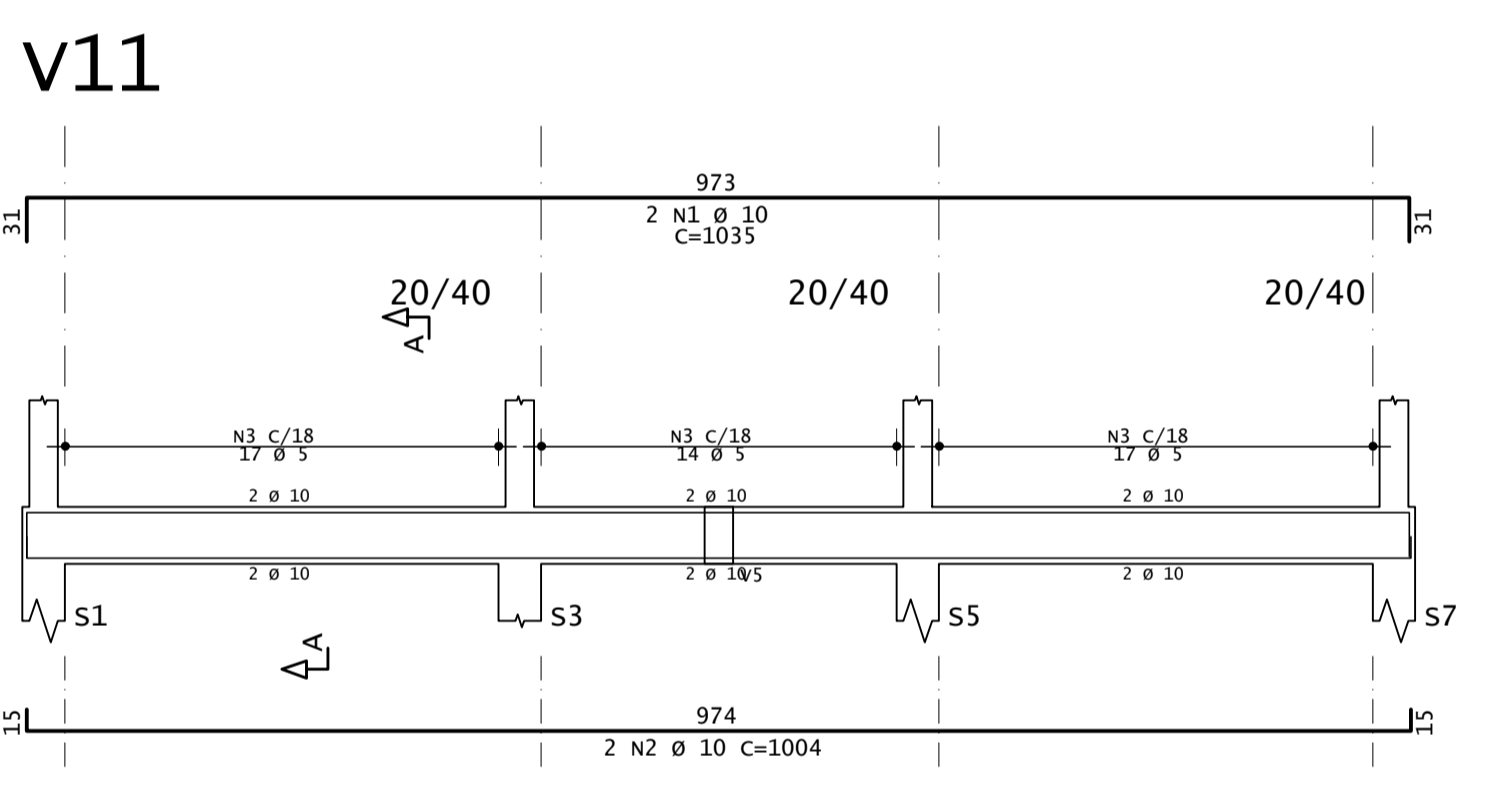
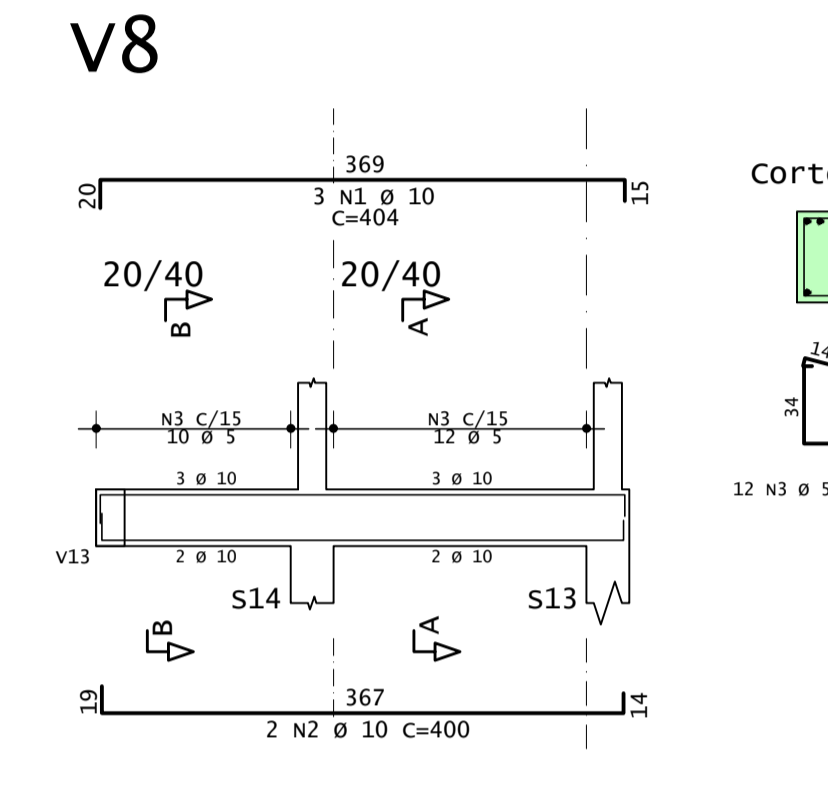
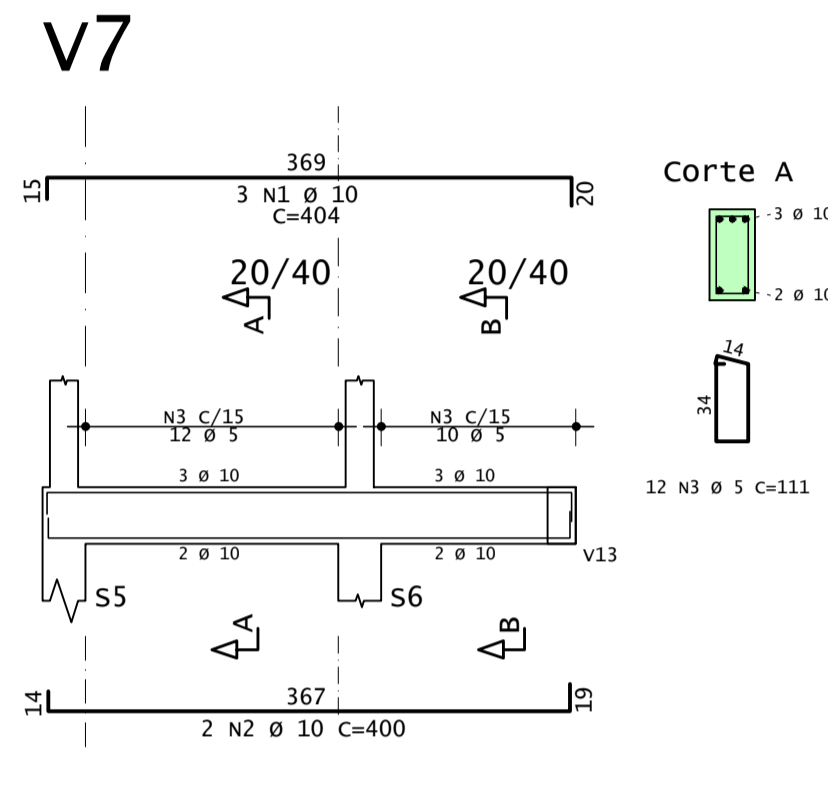
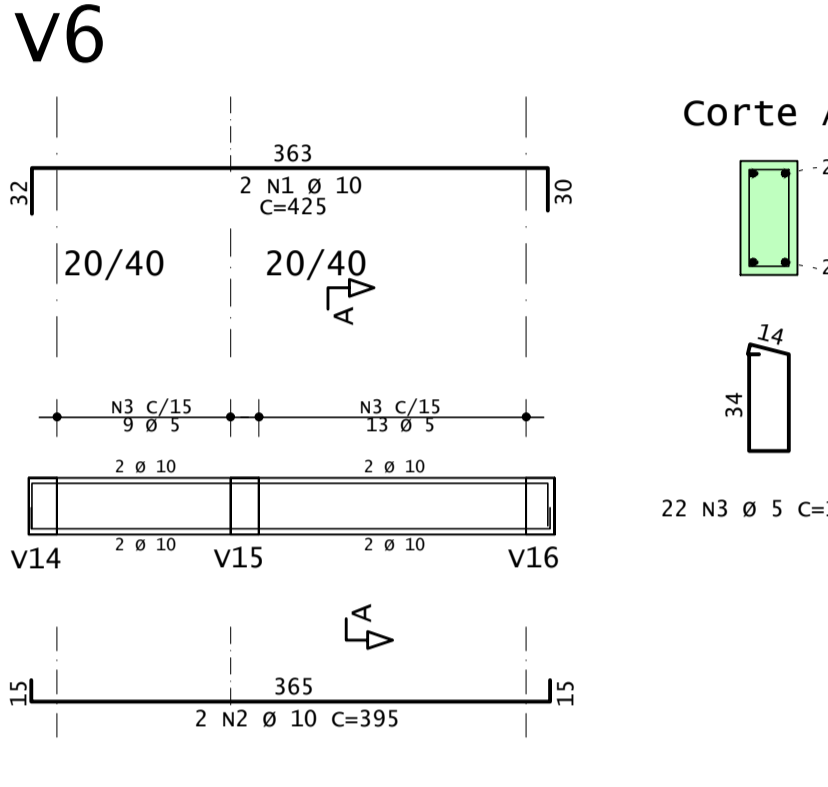
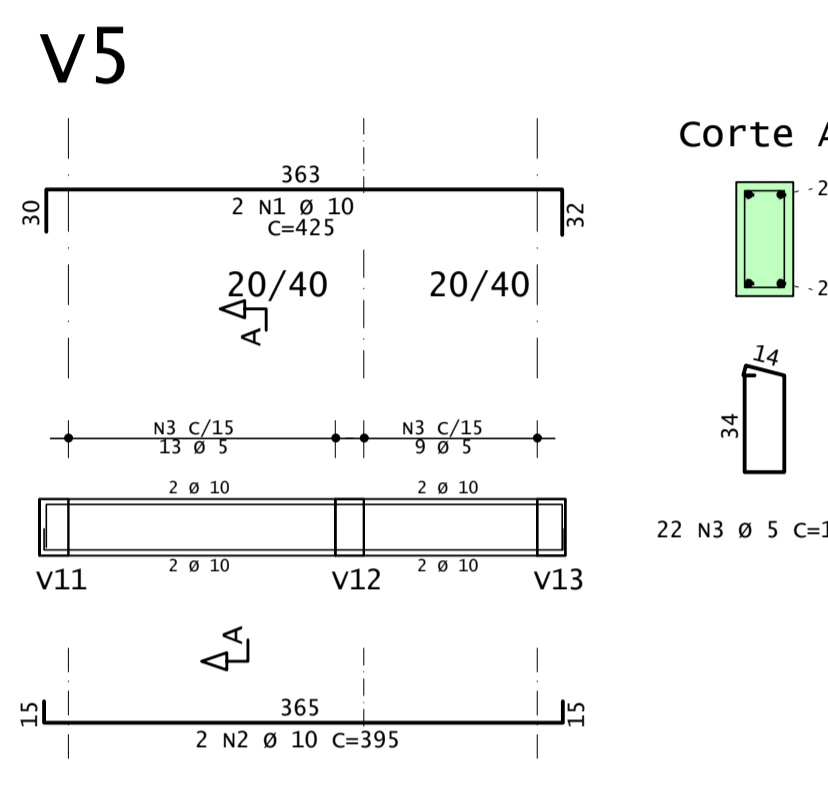
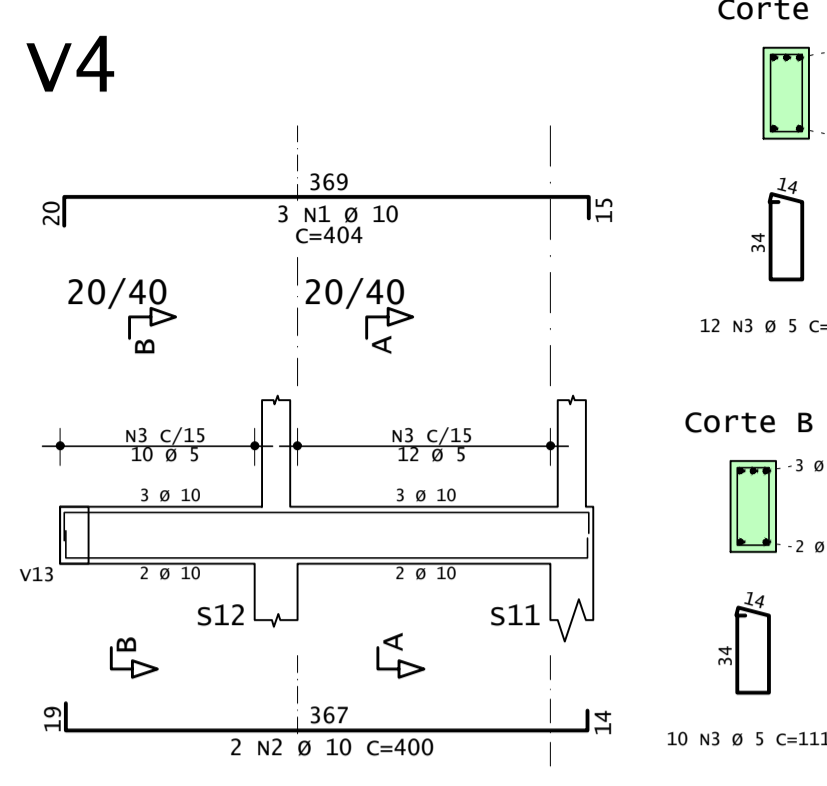
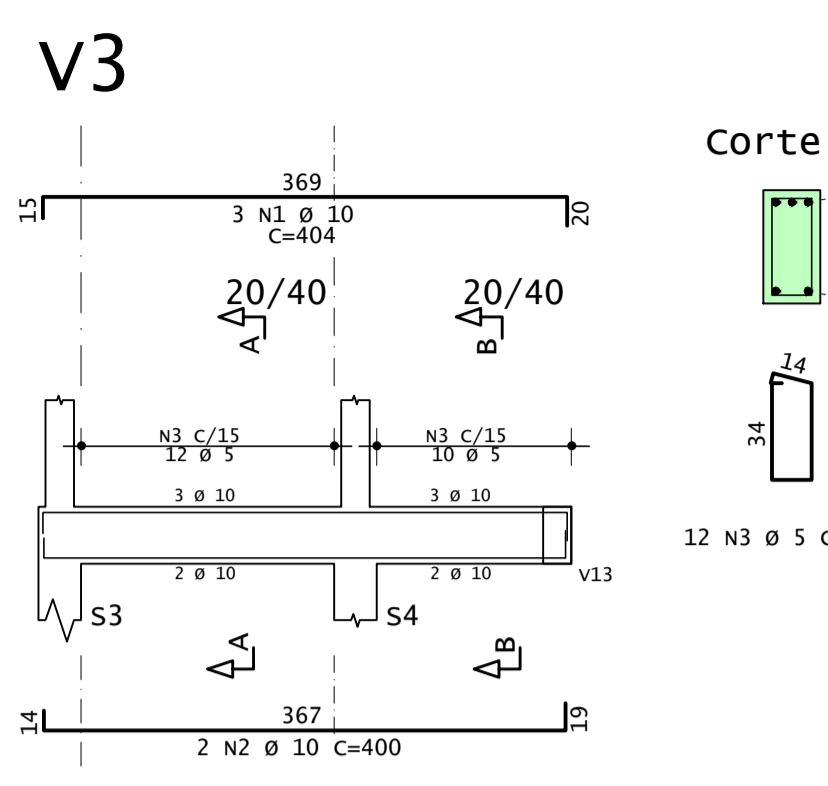
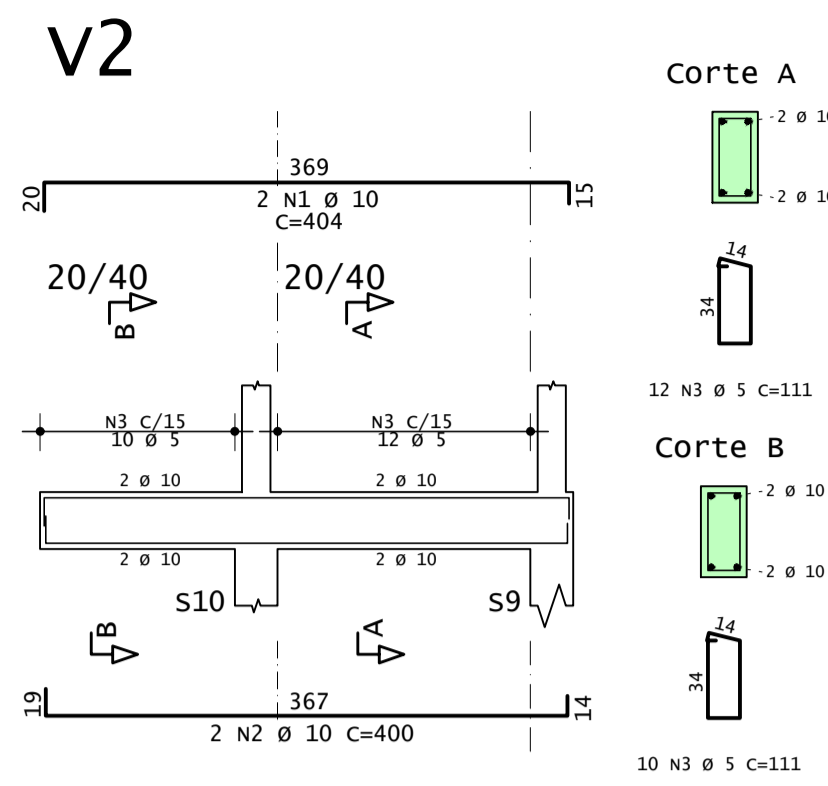
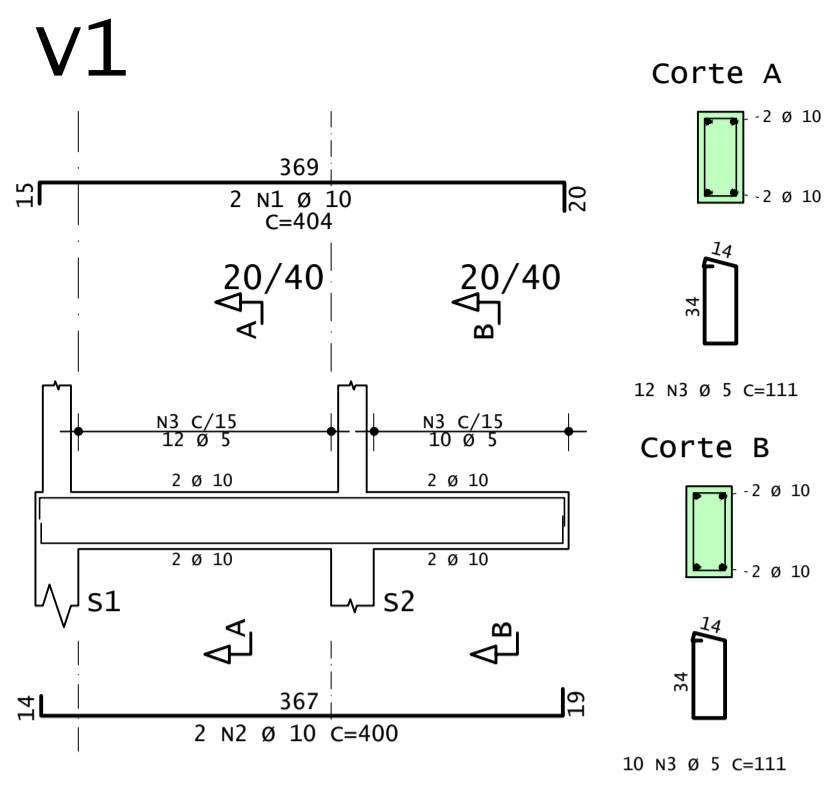
REVISÃO:

DATA: NOVEMBRO/2020

DESENHO:

PRANCHA:

1/2



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
V1	50A	1	10	2	404	808
	50A	2	10	2	400	800
	60A	3	5	22	111	2442
V2	50A	1	12.5	3	415	1245
	50A	2	10	2	395	790
	60A	3	5	23	111	2553
V3	50A	1	10	2	1035	2070
	50A	2	10	2	1004	2008
	60A	3	5	48	111	5328
V4	50A	1	10	2	365	730
	50A	2	10	2	330	660
	60A	3	5	17	111	1887
V5	50A	1	10	2	320	640
	50A	2	10	2	320	640
	60A	3	5	18	111	1998
V6	50A	1	10	2	994	1988
	50A	2	10	2	995	1990
	60A	3	5	60	111	6660
V7	50A	1	10	3	355	1065
	50A	2	10	4	320	1280
	60A	3	5	18	111	1998
V8	50A	1	10	2	220	440
	50A	2	10	2	1025	2050
	50A	3	10	2	995	1990
	60A	4	5	60	111	6660
V9	50A	1	10	2	404	808
	50A	2	10	2	400	800
	60A	3	5	22	111	2442
V10	50A	1	12.5	3	415	1245
	50A	2	10	2	395	790
	60A	3	5	23	111	2553
V11	50A	1	10	2	1035	2070
	50A	2	10	2	1004	2008
	60A	3	5	48	111	5328
V12	50A	1	10	2	365	730
	50A	2	10	2	330	660
	60A	3	5	17	111	1887
V13	50A	1	10	2	320	640
	50A	2	10	2	320	640
	60A	3	5	18	111	1998
V14	50A	1	10	2	994	1988
	50A	2	10	2	995	1990
	60A	3	5	60	111	6660
V15	50A	1	10	3	355	1065
	50A	2	10	4	320	1280
	60A	3	5	18	111	1998
V16	50A	1	10	2	220	440
	50A	2	10	2	1025	2050
	50A	3	10	2	995	1990
	60A	4	5	60	111	6660

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	590	90
50A	10	398	246
50A	12.5	24	24
Peso Total 60A =			90 kgf
Peso Total 50A =			270 kgf

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO
 RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:
 RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:
 Machado - MG

PROJETO:
 REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL
CONTEÚDO: VIGA BALDRAME - BLOCO D - TÉRREO
 OBS: fck 25 mPa

CONTRATANTE:
 INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

ESCALA:
 1/50



AV. SANTA CRUZ, 274, APTº 02, CENTRO, MACHADO-MG
 elker@gwin.com.br | (35) 9.9880-7080

Arquivo : WIN.VIGA.IFSULMG.ALOJD.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

FASE:

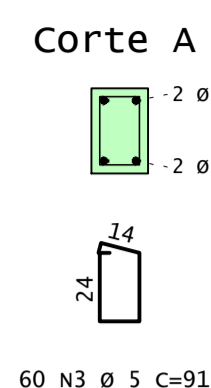
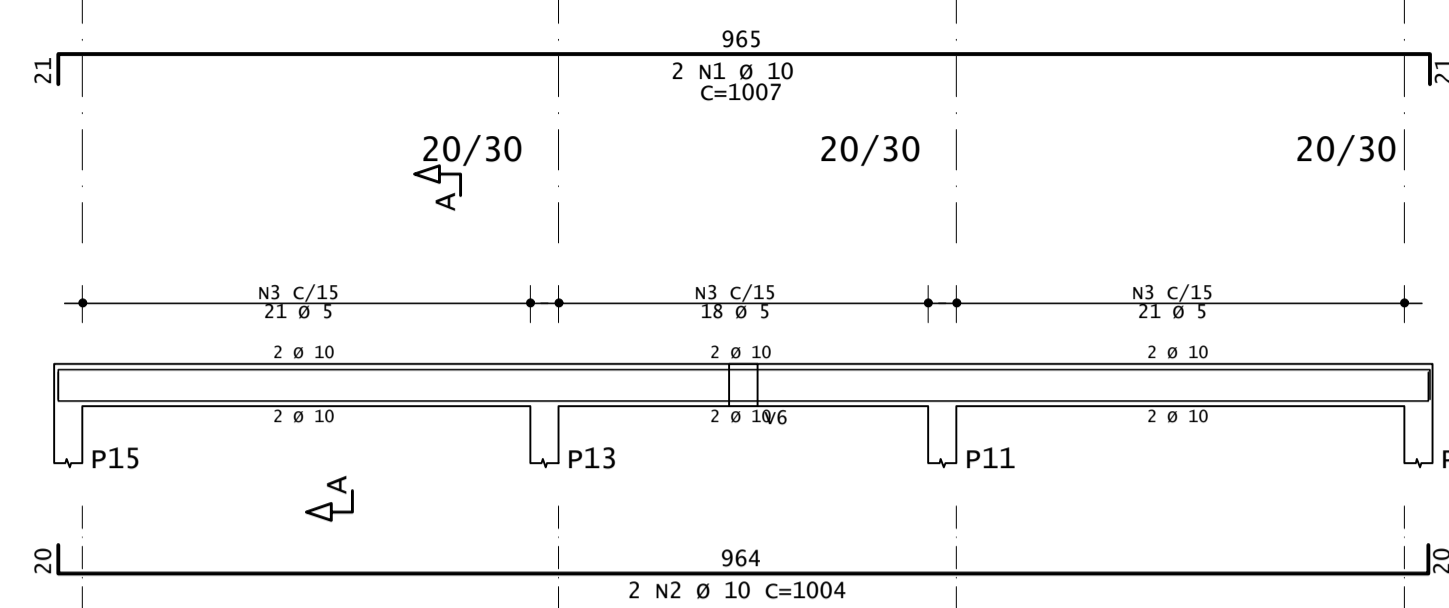
REVISÃO:

DATA: NOVEMBRO/2020

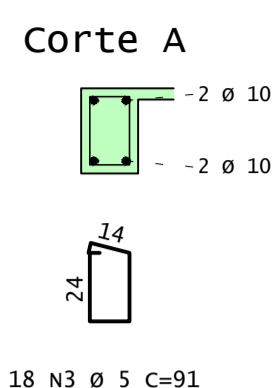
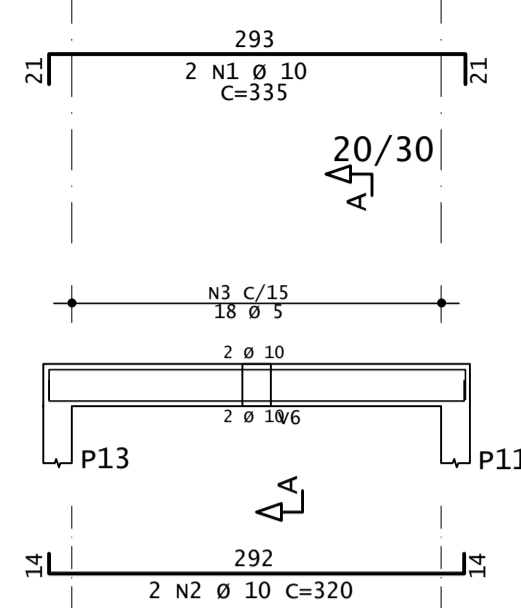
DESENHO:

PRANCHA: 1/2

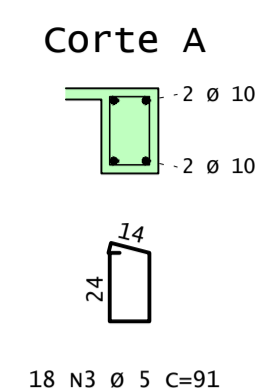
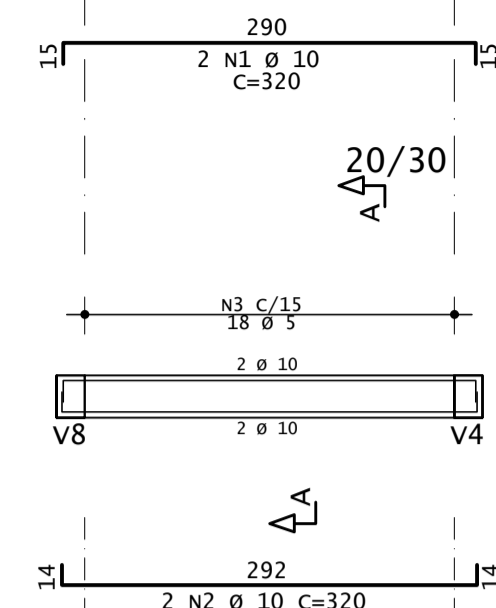
V16



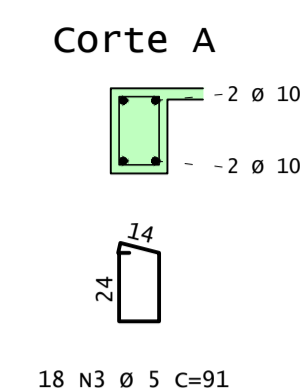
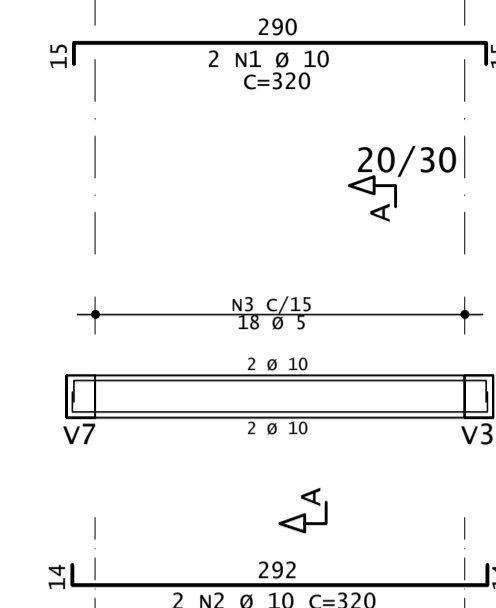
V15



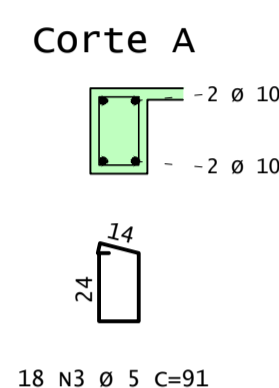
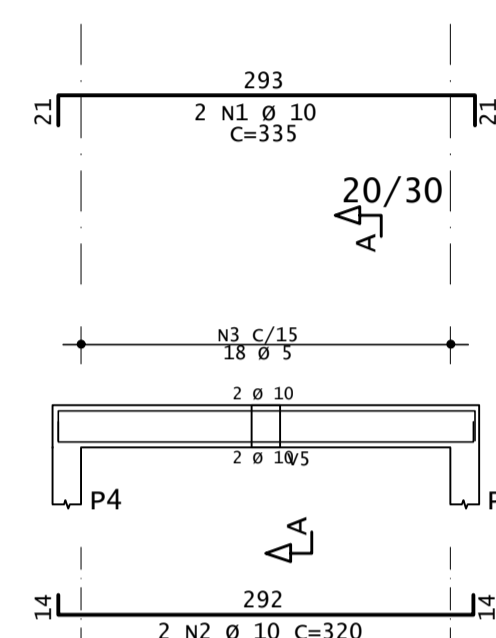
V14



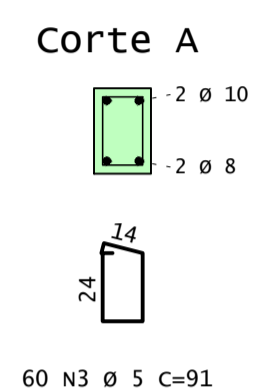
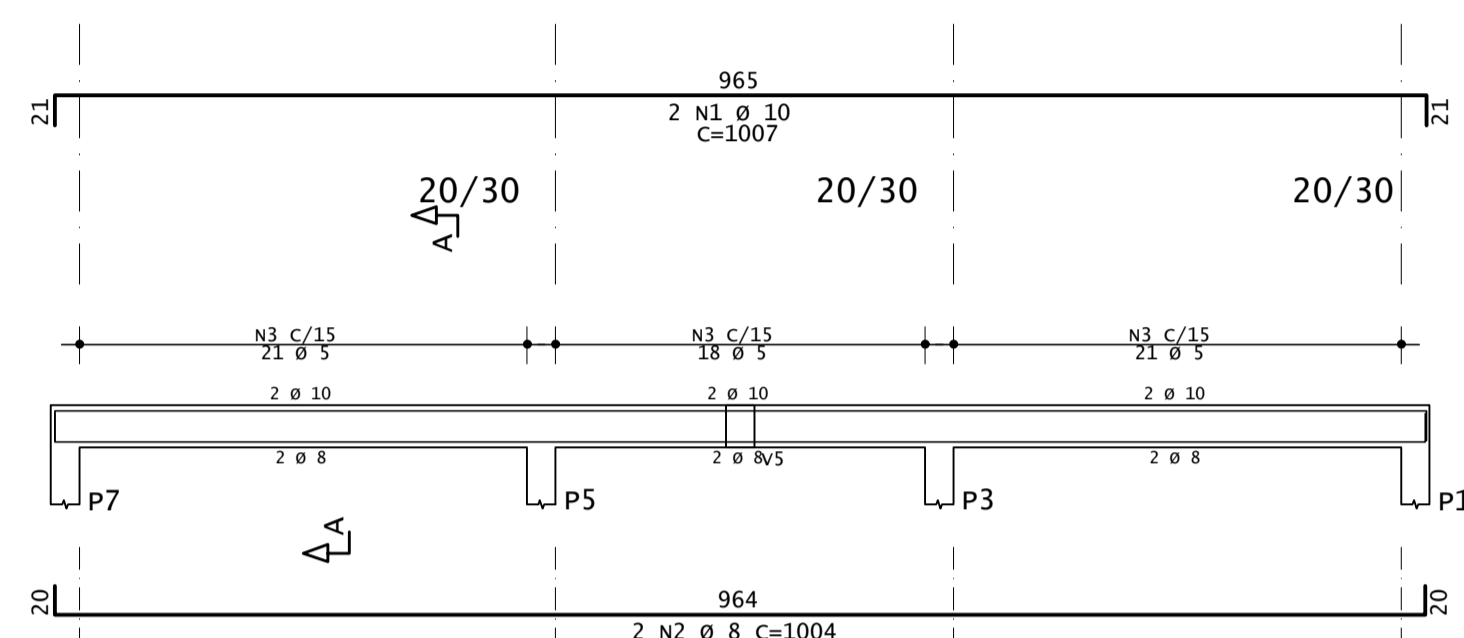
V13



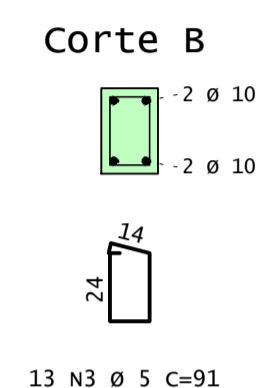
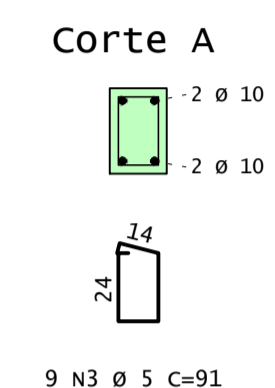
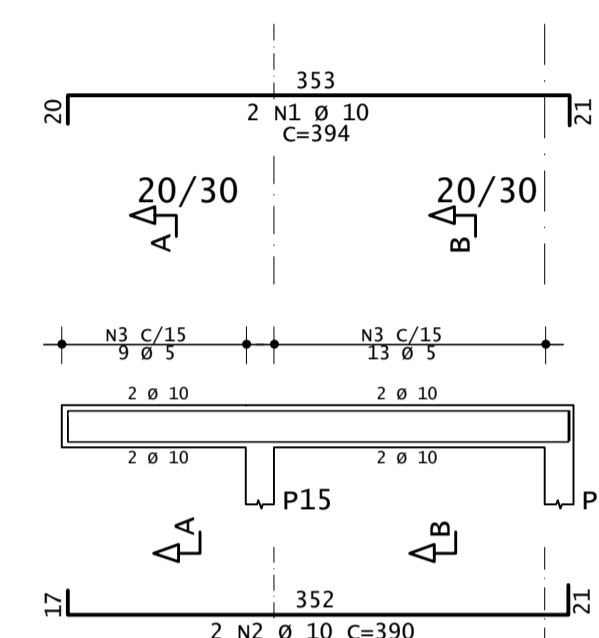
V12



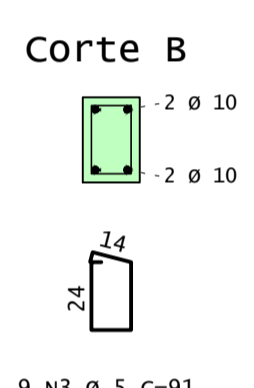
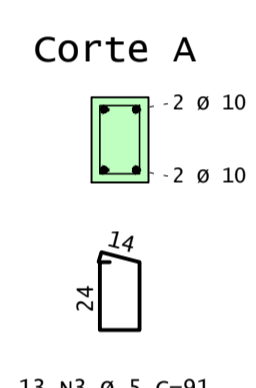
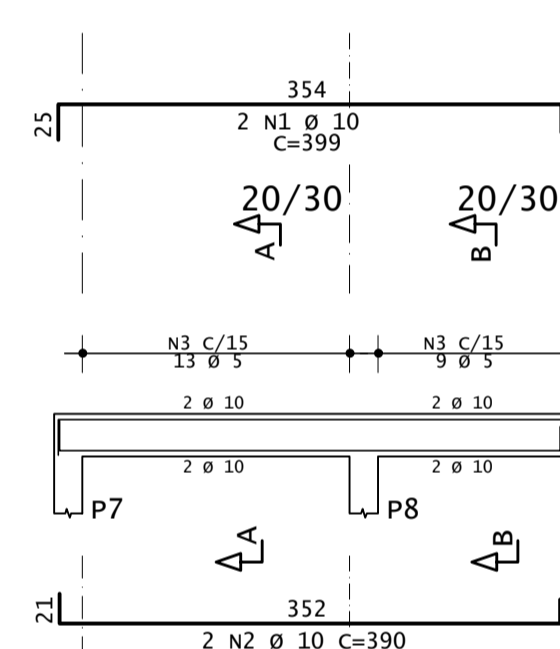
V11



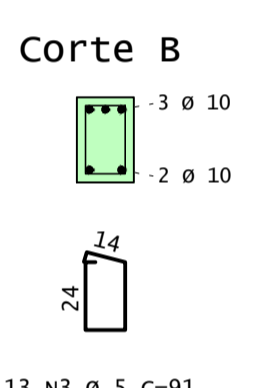
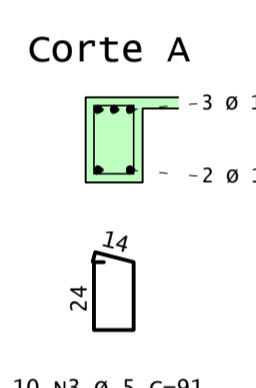
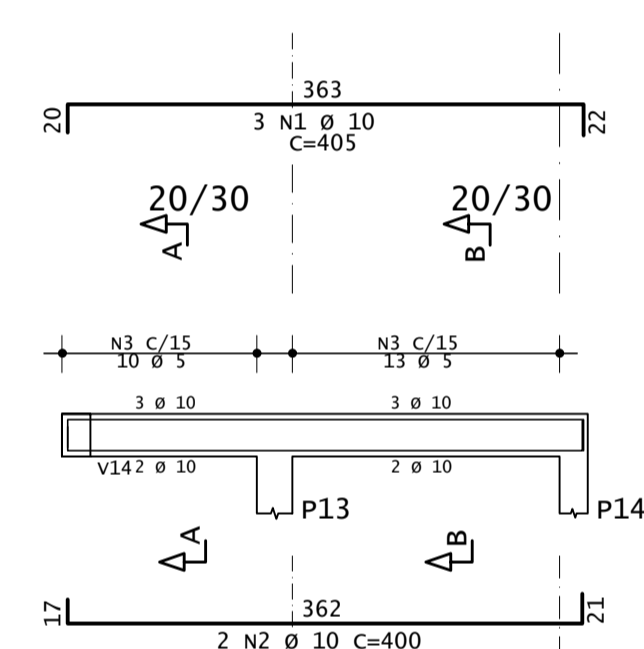
V10



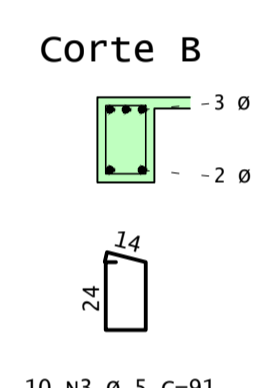
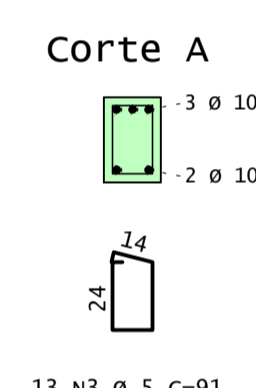
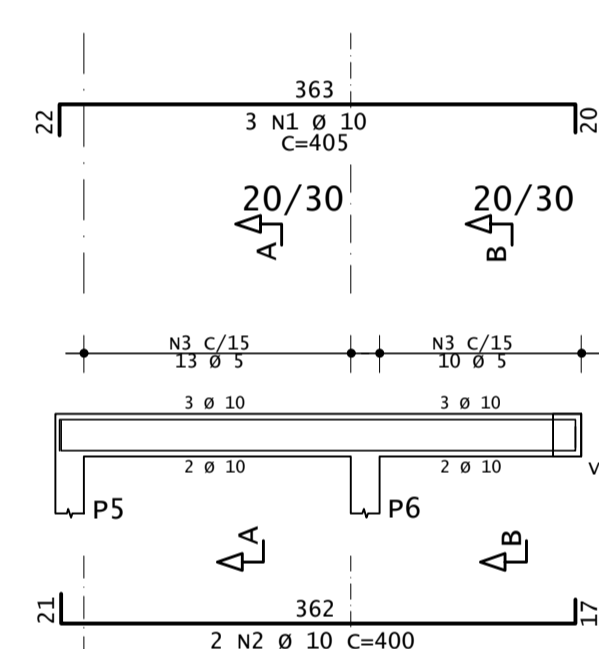
V9



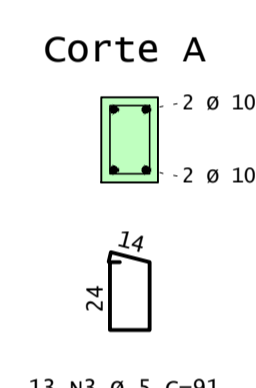
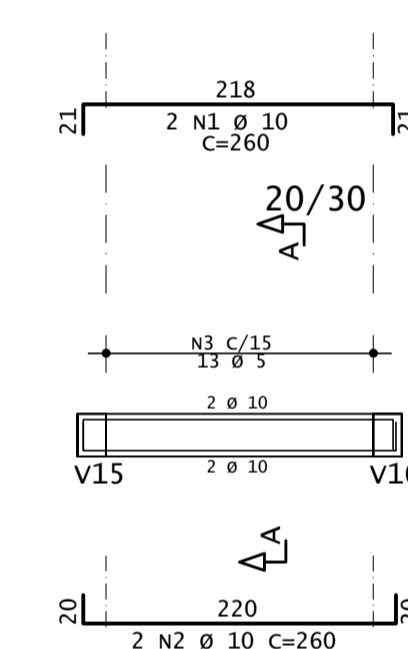
V8



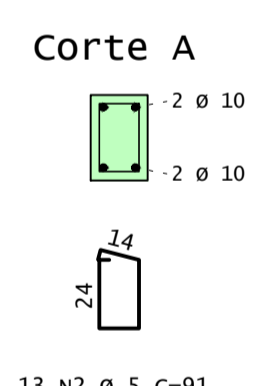
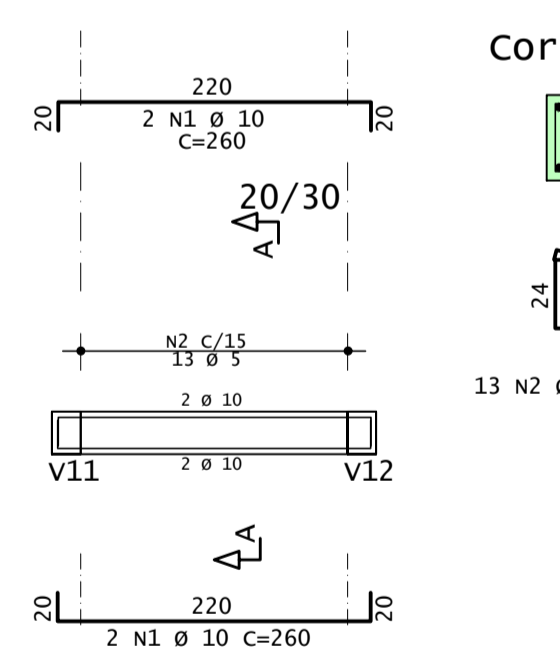
V7



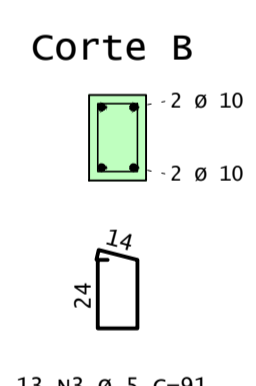
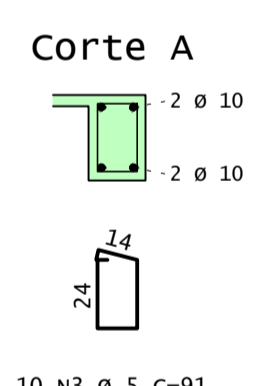
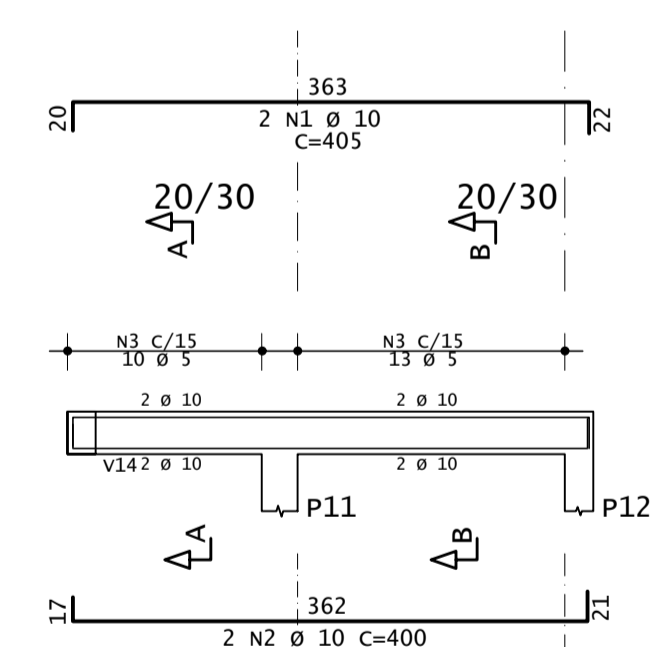
V6



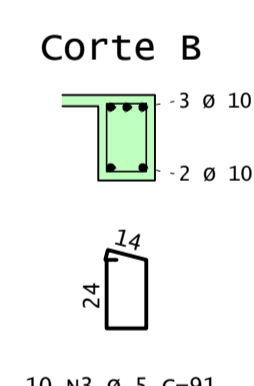
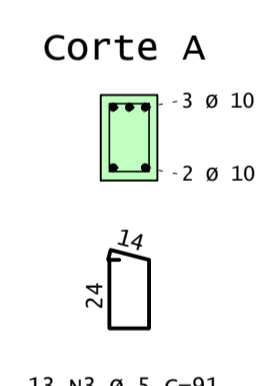
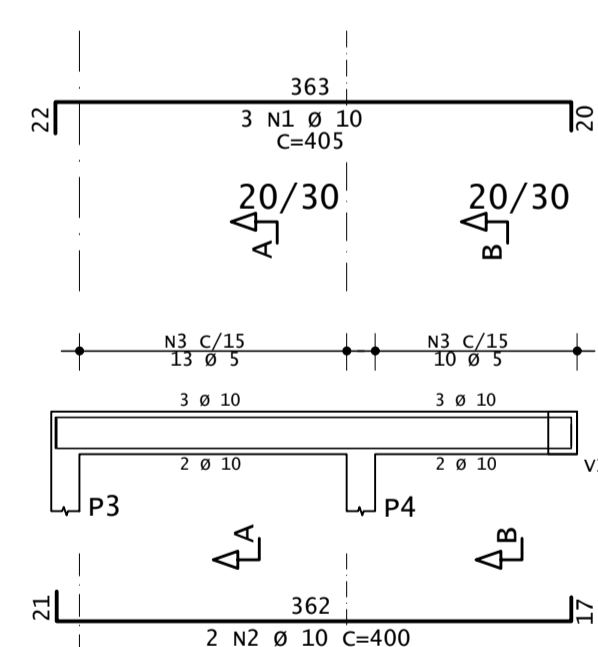
V5



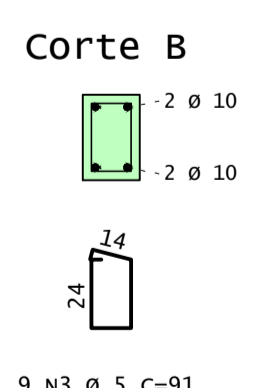
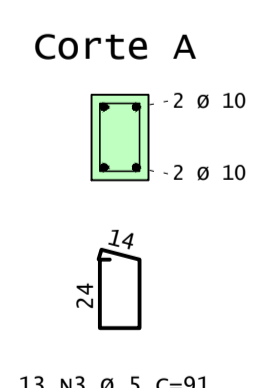
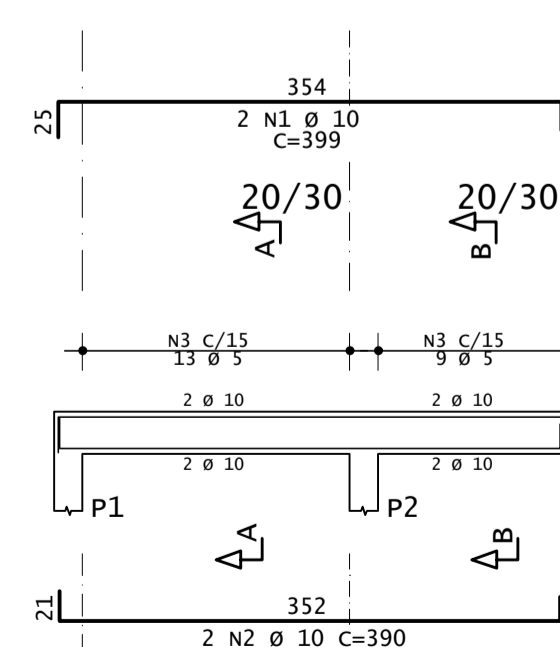
V4



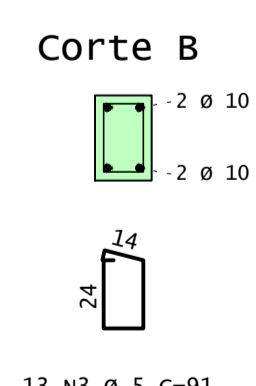
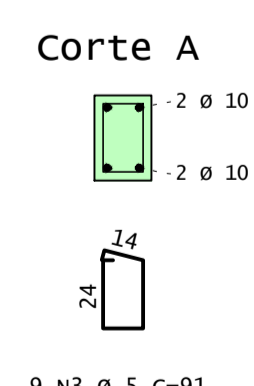
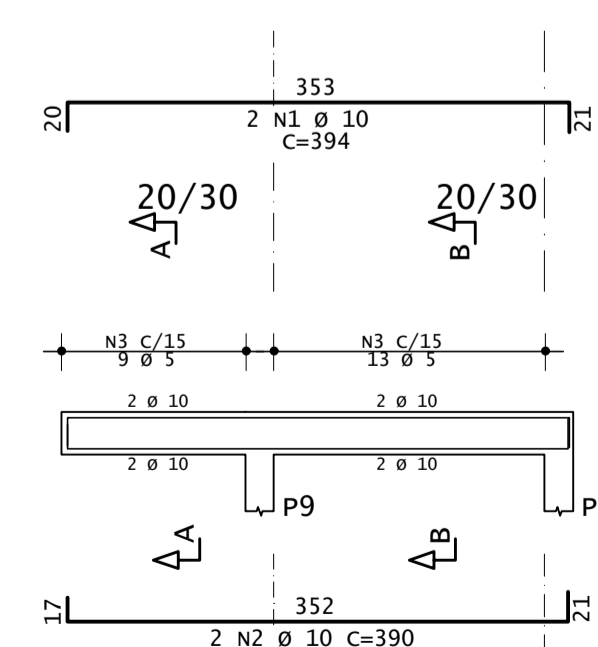
V3



V1



V2



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
V1	50A	1	10	2	399	798
	50A	2	10	2	390	780
	60A	3	5	22	91	2002
V2	50A	1	10	2	394	788
	50A	2	10	2	390	780
	60A	3	5	22	91	2002
V3	50A	1	10	3	405	1215
	50A	2	10	2	400	800
	60A	3	5	23	91	2093
V4	50A	1	10	2	405	810
	50A	2	10	2	400	800
	60A	3	5	23	91	2093
V5	50A	1	10	4	260	1040
	60A	2	5	13	91	1183
V6	50A	1	10	2	260	520
	50A	2	10	2	260	520
	60A	3	5	13	91	1183
V7	50A	1	10	3	405	1215
	50A	2	10	2	400	800
	60A	3	5	23	91	2093
V8	50A	1	10	3	405	1215
	50A	2	10	2	390	780
	60A	3	5	23	91	2093
V9	50A	1	10	2	399	798
	50A	2	10	2	390	780
	60A	3	5	22	91	2002
V10	50A	1	10	2	394	788
	50A	2	10	2	390	780
	60A	3	5	22	91	2002
V11	50A	1	10	2	1007	2014
	50A	2	8	2	1004	2008
	60A	3	5	60	91	5460
V12	50A	1	10	2	335	670
	50A	2	10	2	320	640
	60A	3	5	18	91	1638
V13	50A	1	10	2	320	640
	50A	2	10	2	320	640
	60A	3	5	18	91	1638
V14	50A	1	10	2	320	640
	50A	2	10	2	320	640
	60A	3	5	18	91	1638
V15	50A	1	10	2	335	670
	50A	2	10	2	320	640
	60A	3	5	18	91	1638
V16	50A	1	10	2	1007	2014
	50A	2	10	2	1004	2008
	60A	3	5	60	91	5460

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	362	56
50A	8	20	8
50A	10	272	168
Peso Total	60A =		56 kgf
Peso Total	50A =		176 kgf

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:

RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:

Machado - MG

PROJETO:

REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: VIGA COBERTURA - BLOCO D

OBS: fck 25 mPa

CONTRATANTE:

INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

ESCALA:

1/50

Verif. A/C

Arquivo : WIN.VIGA.IFSULMG.ALOJD.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D



AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080

FASE:

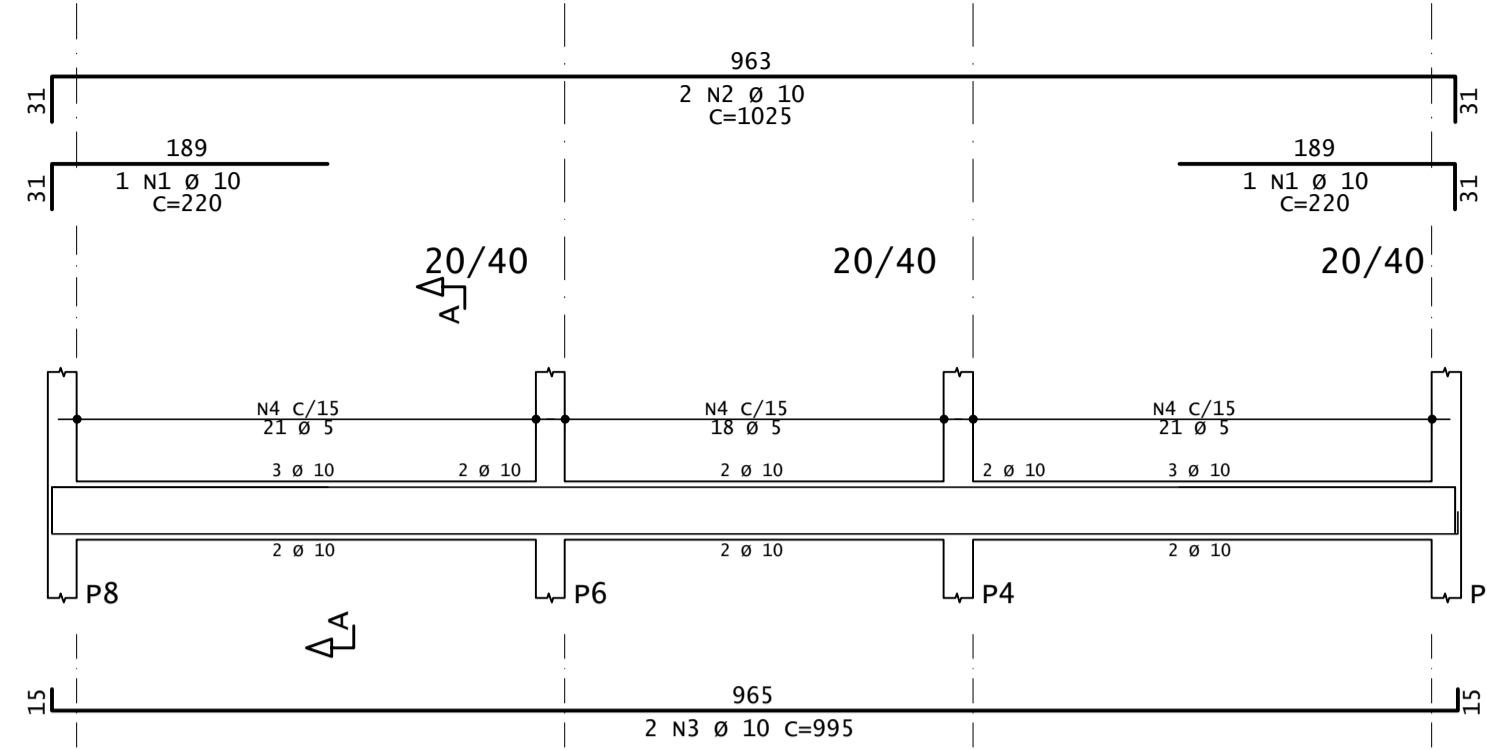
REVISÃO:

DATA: NOVEMBRO/2020

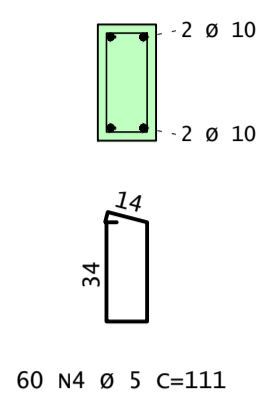
DESENHO:

PRANCHA: 2/2

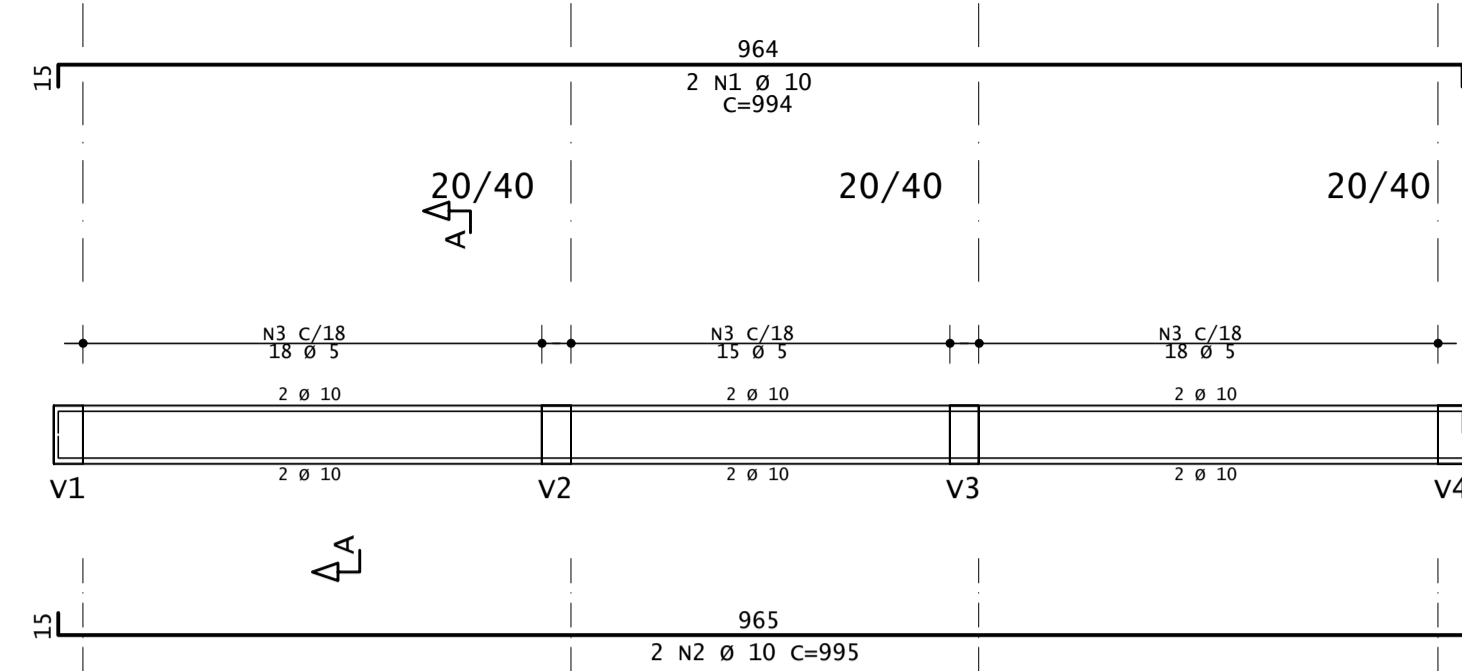
V6



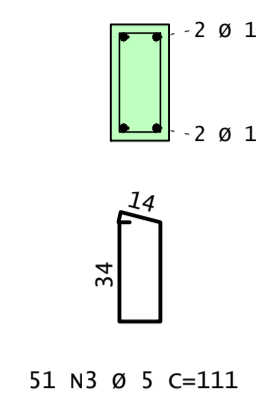
Corte A



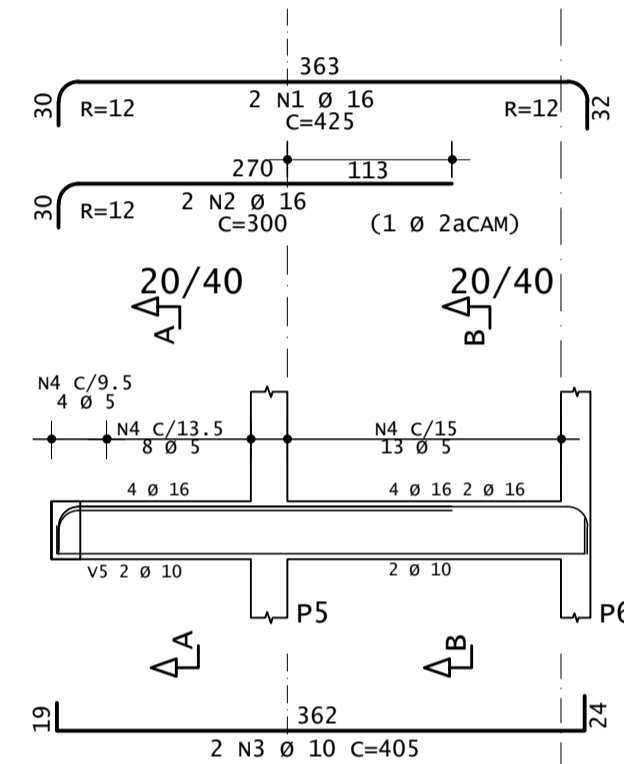
V5



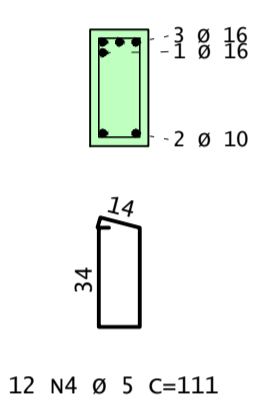
Corte A



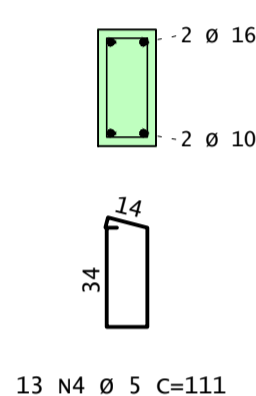
V3



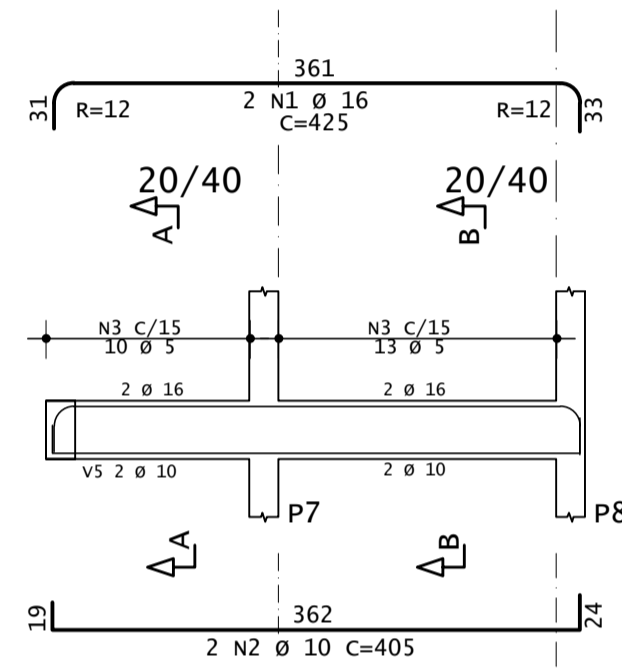
Corte A



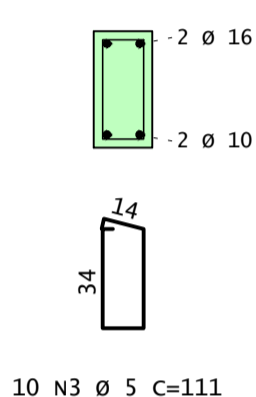
Corte B



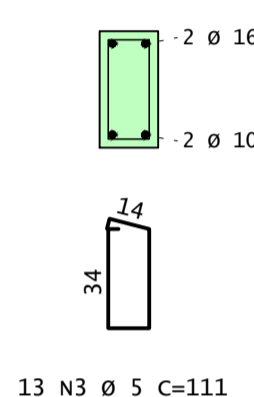
V4



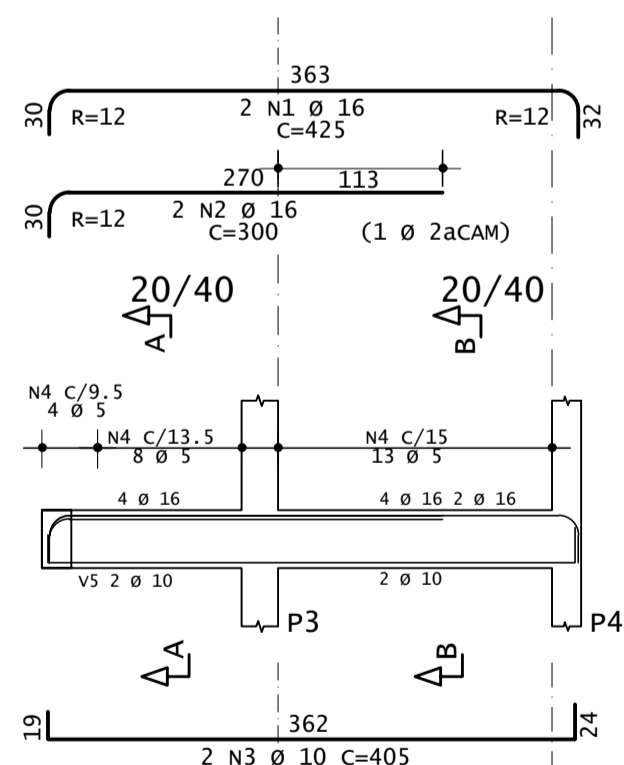
Corte A



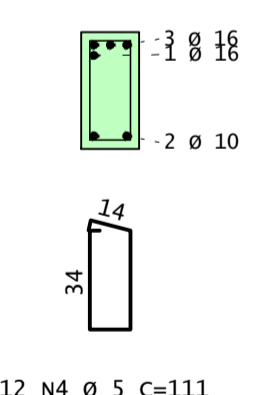
Corte B



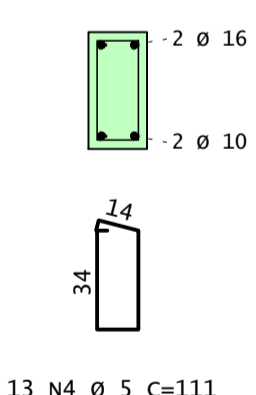
V2



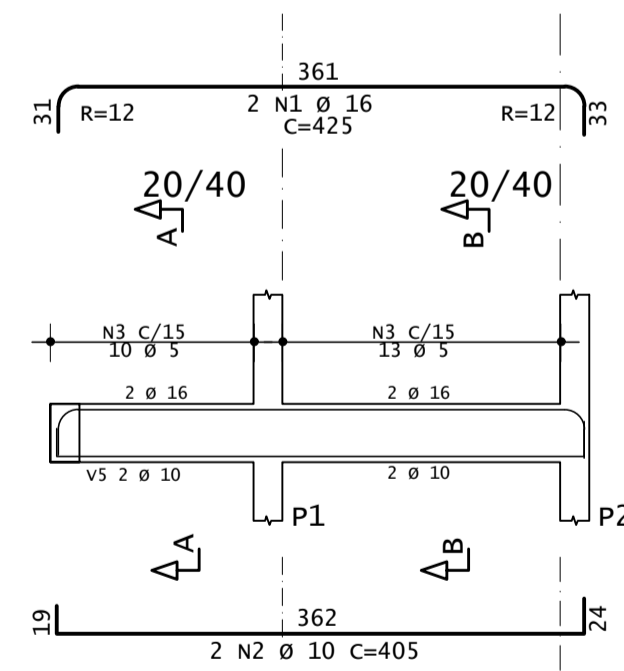
Corte A



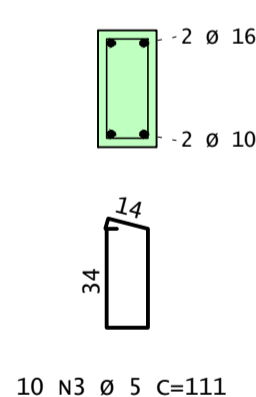
Corte B



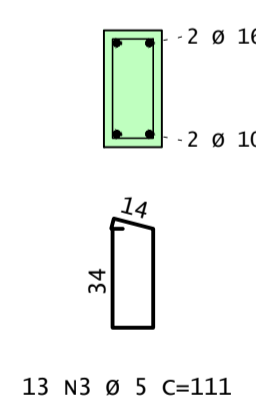
V1



Corte A



Corte B



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
V1	50A	1	16	2	425	850
	50A	2	10	2	405	810
	60A	3	5	23	111	2553
V2	50A	1	16	2	425	850
	50A	2	16	2	300	600
	60A	3	5	25	405	810
V3	50A	1	16	2	425	850
	50A	2	16	2	300	600
	60A	3	5	25	405	810
V4	50A	1	16	2	425	850
	50A	2	10	2	405	810
	60A	3	5	23	111	2553
V5	50A	1	10	2	994	1988
	50A	2	10	2	995	1990
	60A	3	5	51	111	5661
V6	50A	1	10	2	220	440
	50A	2	10	2	1025	2050
	50A	3	10	2	995	1990
	60A	4	5	60	111	6660

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		mm	m
60A	5	230	35
50A	10	117	72
50A	16	46	73
ØØaço=Total			35 kgf
ØØaço=Total			145 kgf

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:

RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:

Machado - MG

PROJETO:

REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: VIGA BALDRAME - BLOCO E - PAV INFERIOR

OBS: fck 25 mPa

CONTRATANTE:

INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

Verif. A/C

Arquivo : WIN.VIGA.IFSULMG.ALOJE.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. :ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

FASE:

REVISÃO:

DATA: NOVEMBRO/2020

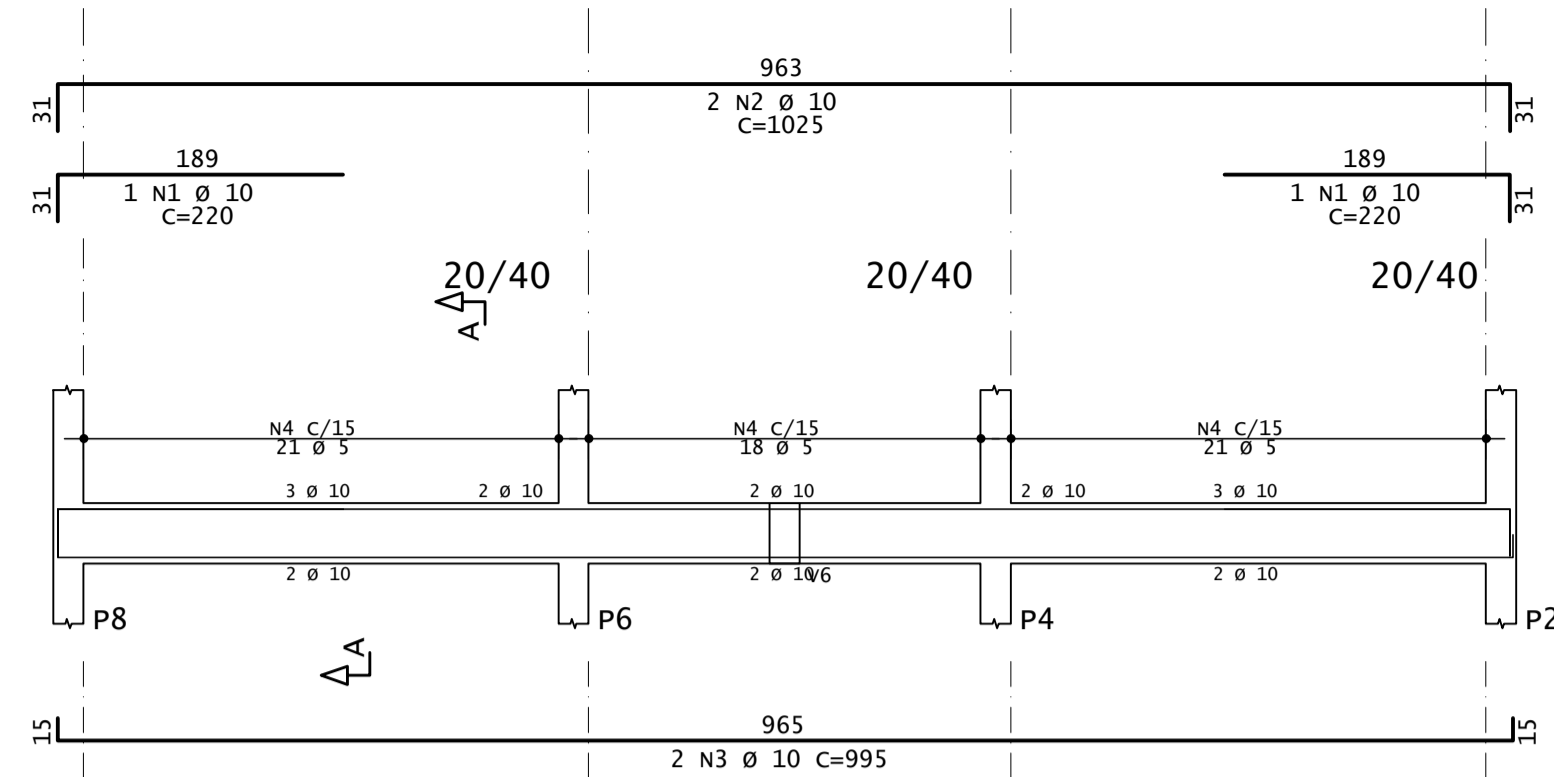
DESENHO:

PRANCHA: 1/3

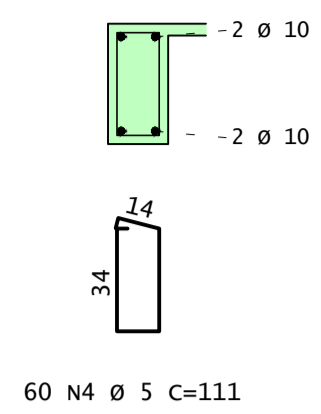


AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080

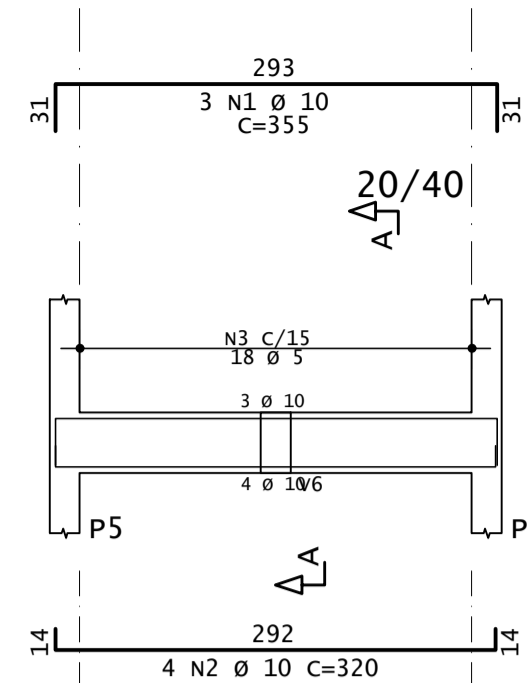
V16



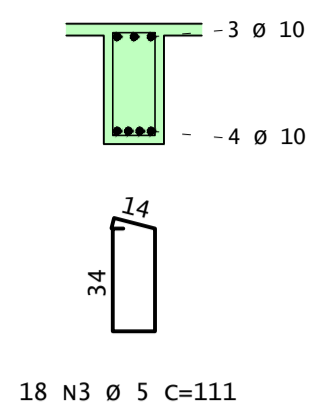
Corte A



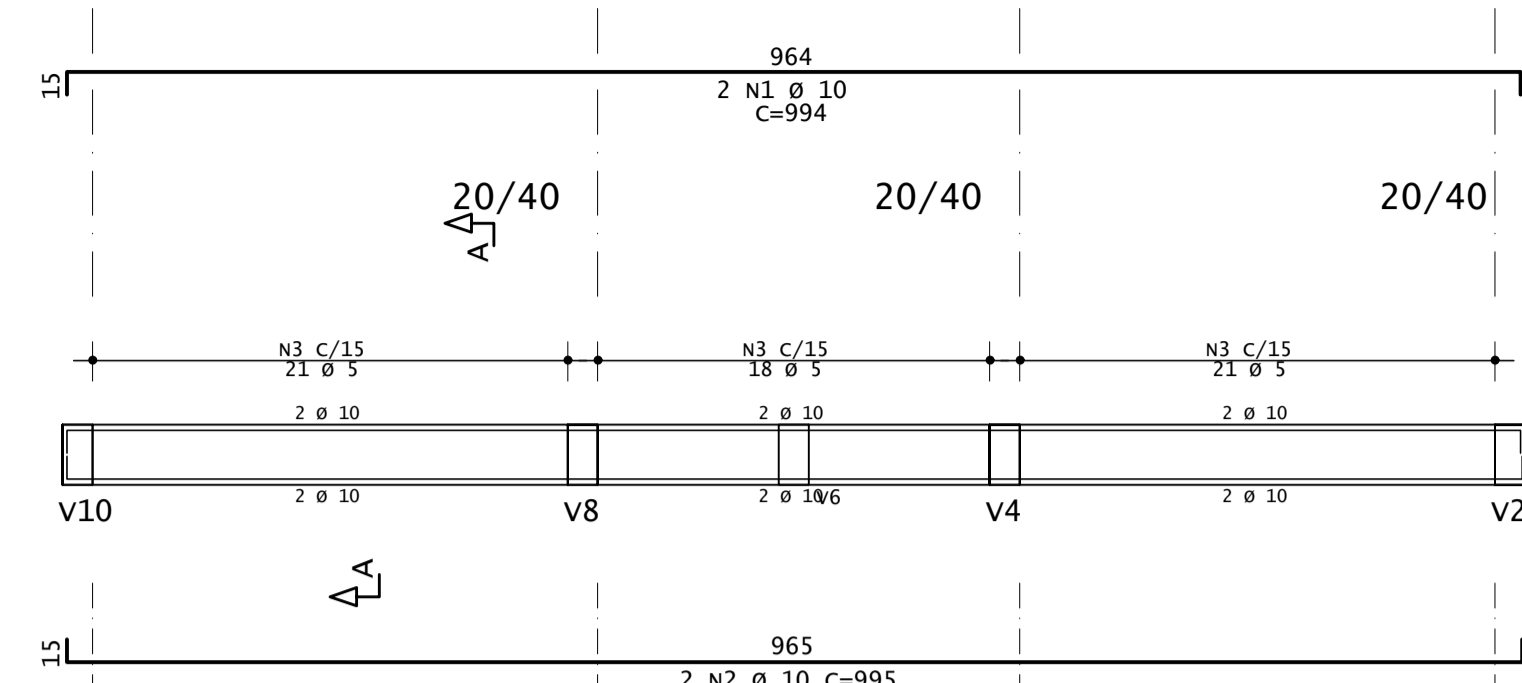
V15



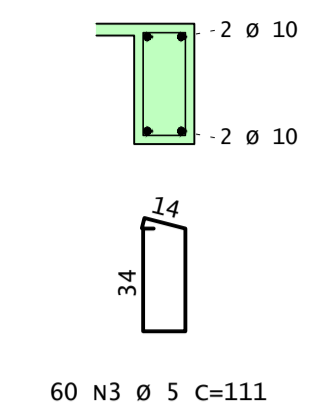
Corte A



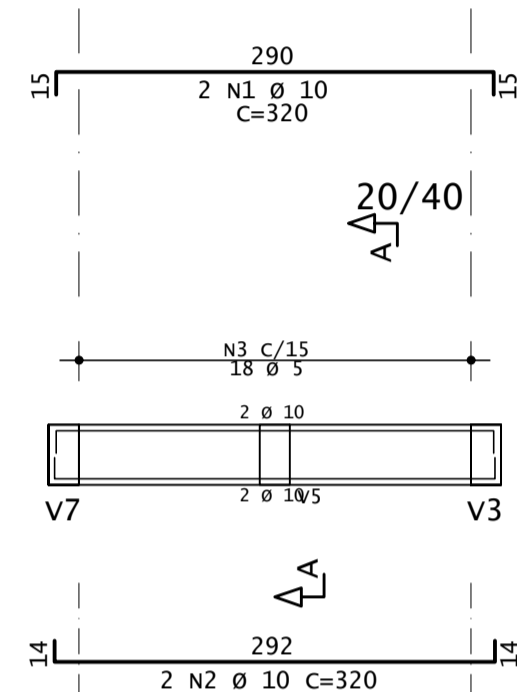
V14



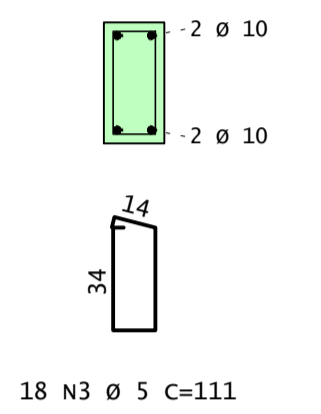
Corte A



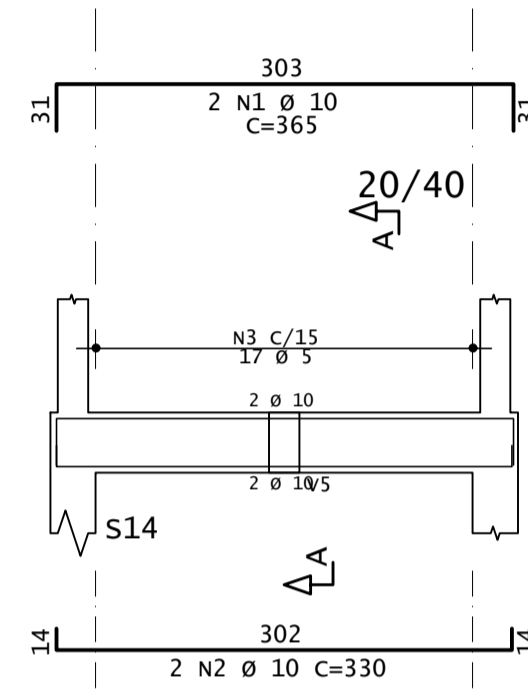
V13



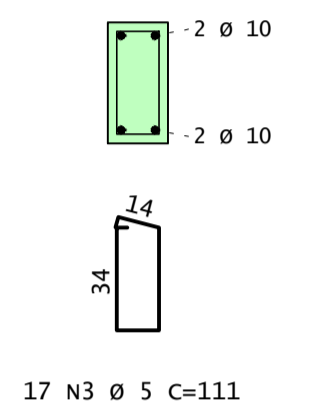
Corte A



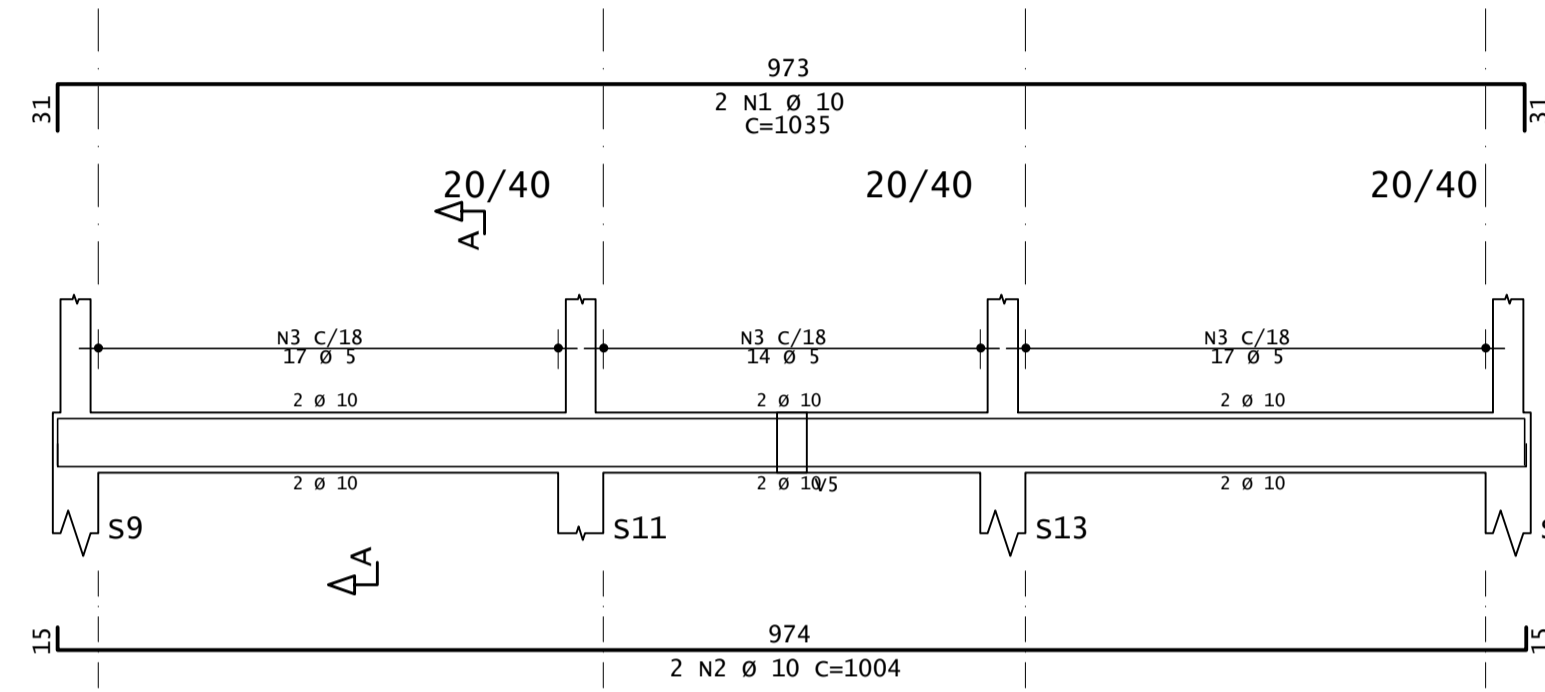
V12



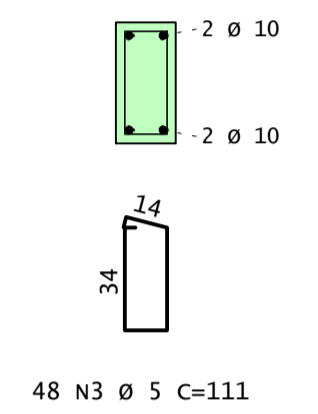
Corte A



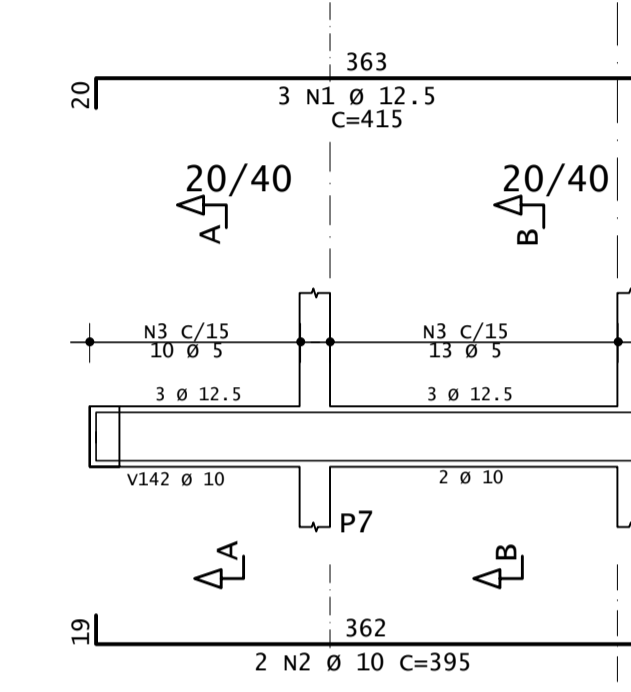
V11



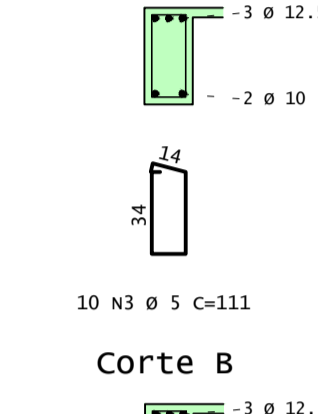
Corte A



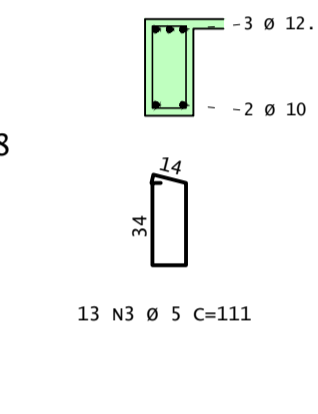
V10



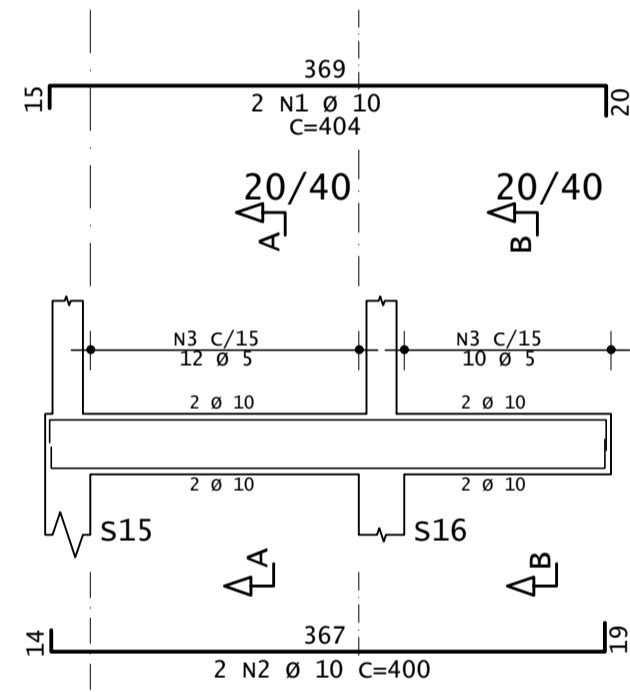
Corte A



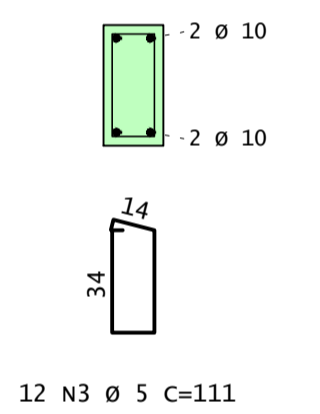
Corte B



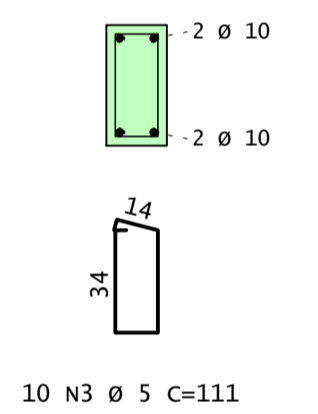
V9



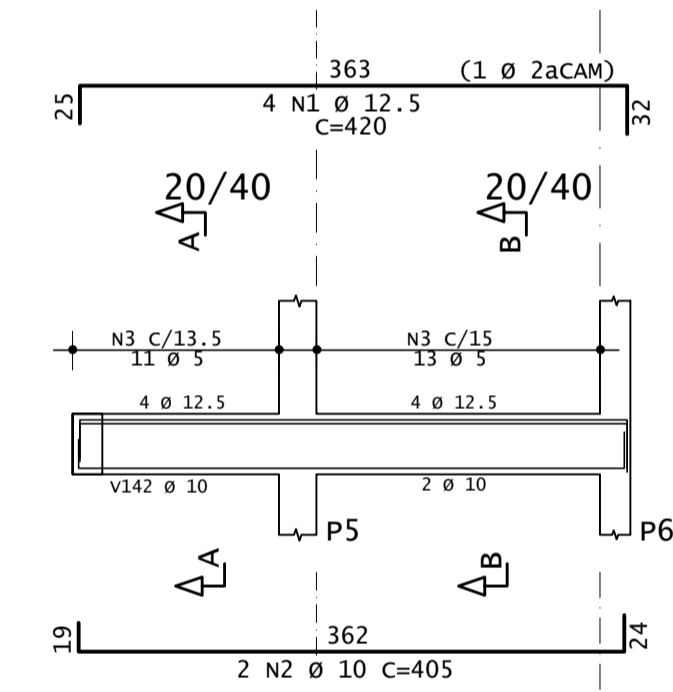
Corte A



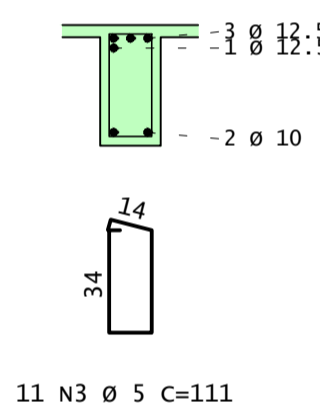
Corte B



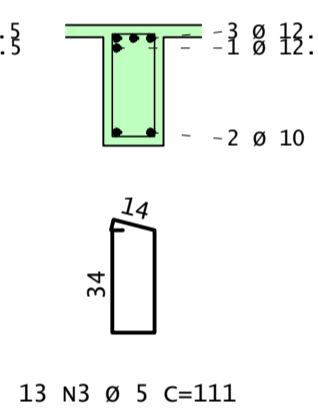
V8



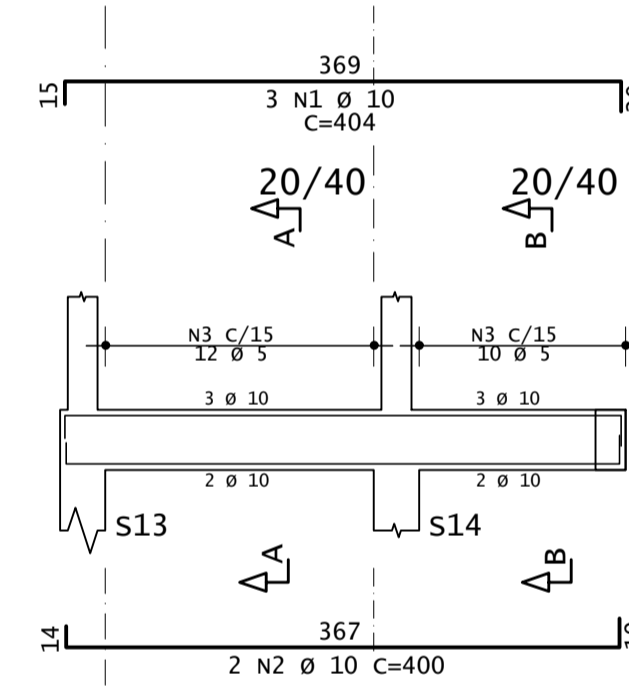
Corte A



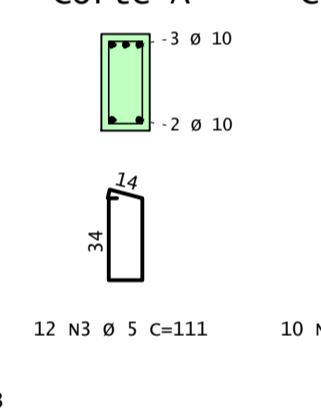
Corte B



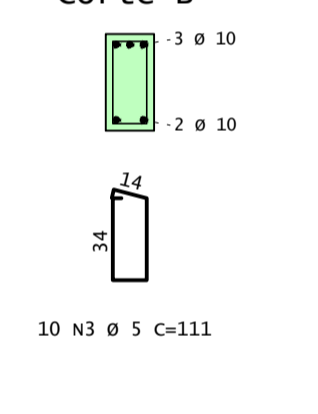
V7



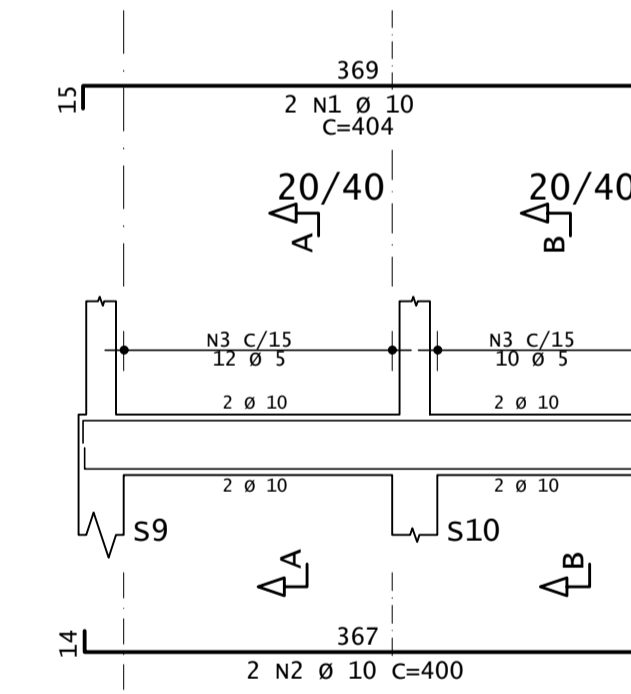
Corte A



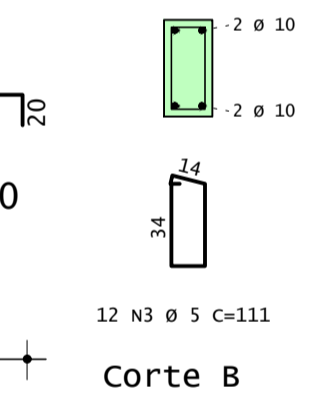
Corte B



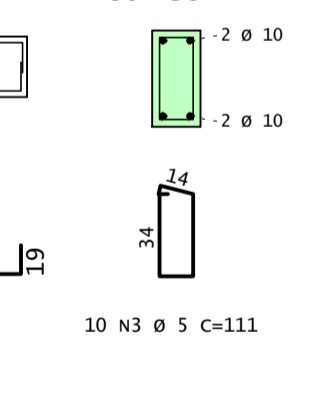
V1



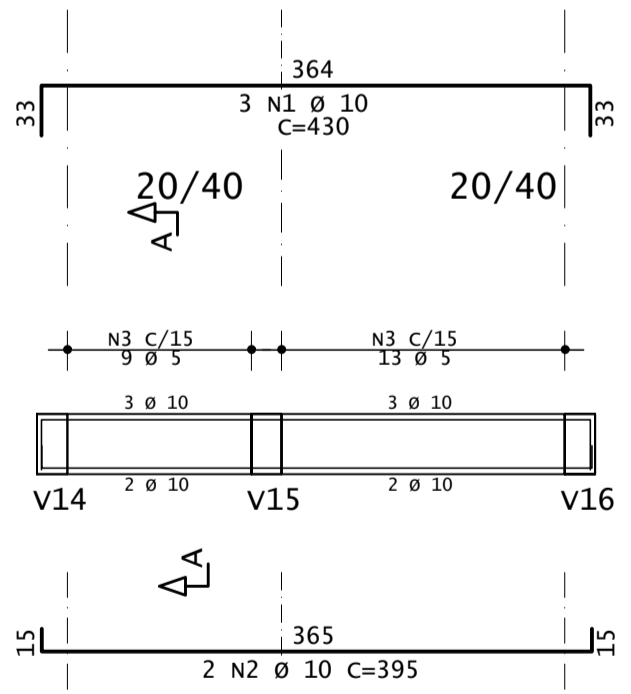
Corte A



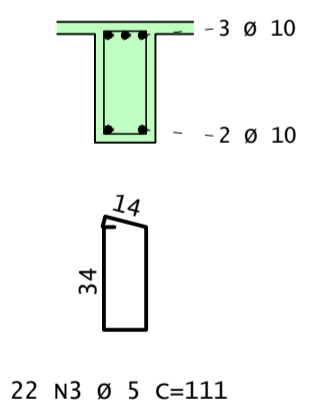
Corte B



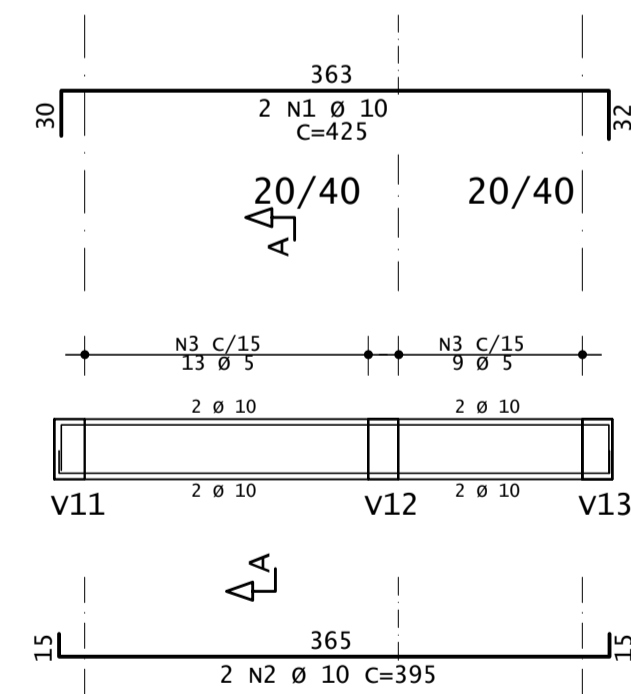
V6



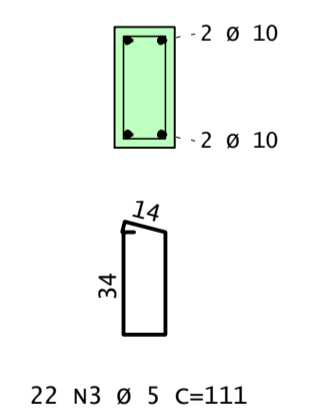
Corte A



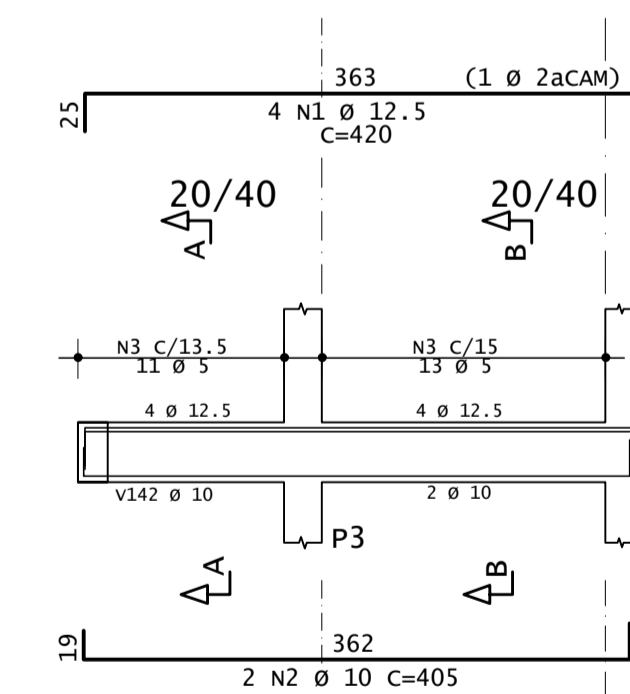
V5



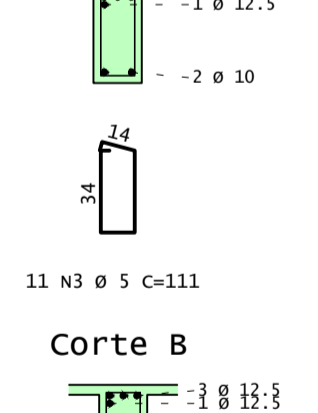
Corte A



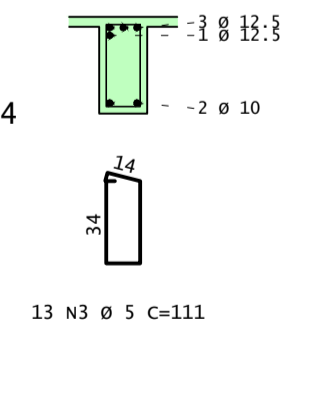
V4



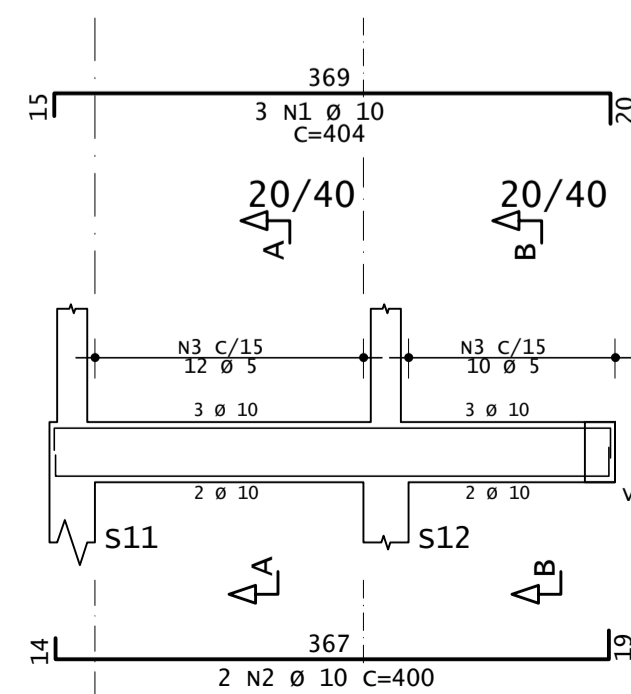
Corte A



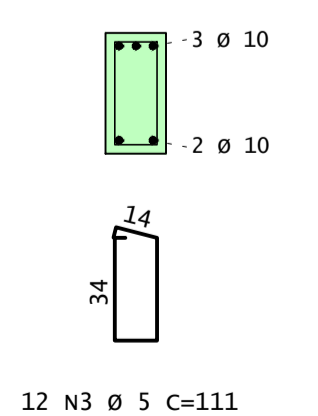
Corte B



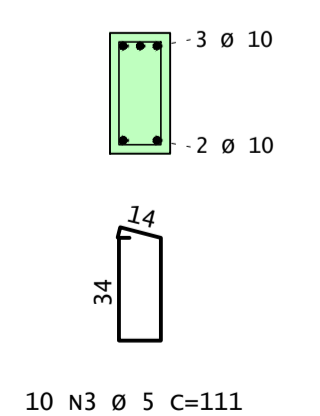
V3



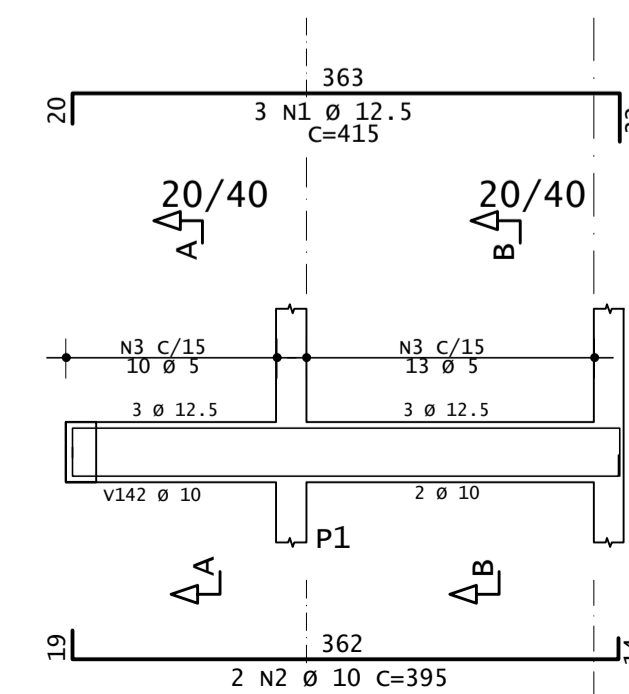
Corte A



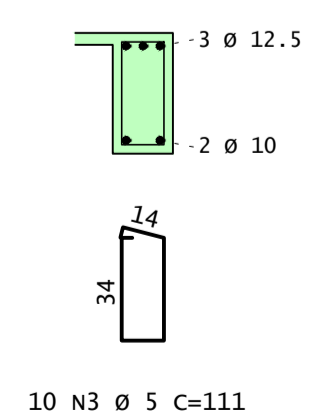
Corte B



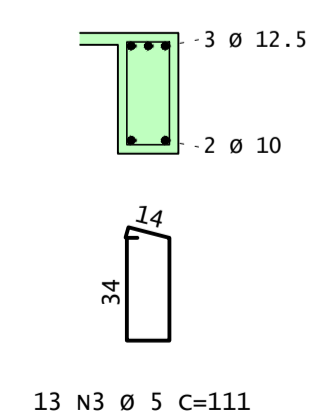
V2



Corte A



Corte B



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
V1	50A	1	10	2	404	808
	50A	2	10	2	400	800
	60A	3	5	22	111	2442
V2	50A	1	12.5	3	415	1245
	50A	2	10	2	395	790
	60A	3	5	23	111	2553
V3	50A	1	10	3	404	1212
	50A	2	10	2	400	800
	60A	3	5	22	111	2442
V4	50A	1	12.5	4	420	1680
	50A	2	10	2	405	810
	60A	3	5	24	111	2664
V5	50A	1	10	2	425	850
	50A	2	10	2	395	790
	60A	3	5	22	111	2442
V6	50A	1	10	3	430	1290
	50A	2	10	2	395	790
	60A	3	5	22	111	2442
V7	50A	1	10	3	404	1212
	50A	2	10	2	400	800
	60A	3	5	22	111	2442
V8	50A	1	12.5	4	420	1680
	50A	2	10	2	405	810
	60A	3	5	24	111	2664
V9	50A	1	10	2	404	808
	50A	2	10	2	400	800
	60A	3	5	22	111	2442
V10	50A	1	12.5	3	415	1245
	50A	2	10	2	395	790
	60A	3	5	23	111	2553
V11	50A	1	10	2	1035	2070
	50A	2	10	2	1004	2008
	60A	3	5	48	111	5328
V12	50A	1	10	2	365	730
	50A	2	10	2	330	660
	60A	3	5	17	111	1887
V13	50A	1	10	2	320	640
	50A	2	10	2	320	640
	60A	3	5	18	111	1998
V14	50A	1	10	2	994	1988
	50A	2	10	2	995	1990
	60A	3	5	60	111	6660
V15	50A	1	10	3	355	1065
	50A	2	10	4	320	1280
	60A	3	5	18	111	1998
V16	50A	1	10	2	220	440
	50A	2	10	2	1025	2050
	50A	3	10	2	995	1990
	60A	4	5	60	111	6660

AÇO	RESUMO DE AÇO		PESO
	BIT	COMPR	
		m	kgf
60A	5	496	76
50A	10	317	196
50A	12.5	59	56
B&B=Total			76 kgf
B&A=Total			252 kgf

IFSUL DE MINAS Campus Machado - MG

DIRETOR GERAL DO CÂMPUS MACHADO: PROF. CARLOS HENRIQUE RODRIGUES REINATO

RESP. TÉCN: ENG. ELKER LUCAS GARRONI CREA MG 188.449/D

ENDEREÇO:

RODOVIA MG 453 - KM 03 - MACHADO A PARAGUAÇU, S/Nº, CAMPUS MACHADO

MUNICÍPIO:

Machado - MG

PROJETO:

REFORMA E AMPLIAÇÃO DO ALOJAMENTO D e E

ASSUNTO: PROJETO ESTRUTURAL

CONTEÚDO: VIGA PAVIMENTO SUPERIOR - BLOCO E

OBS: fck 25 mPa

CONTRATANTE: INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DO SUL DE MINAS GERAIS

ESCALA:

1/50

Verif. A/C

Arquivo : WIN.VIGA.IFSULMG.ALOJE.R00.dwg

AUTORIA PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

RESP. PROJ. : ENG. ELKER LUCAS GARRONI | CREA MG 209.623/D

FASE:

REVISÃO:

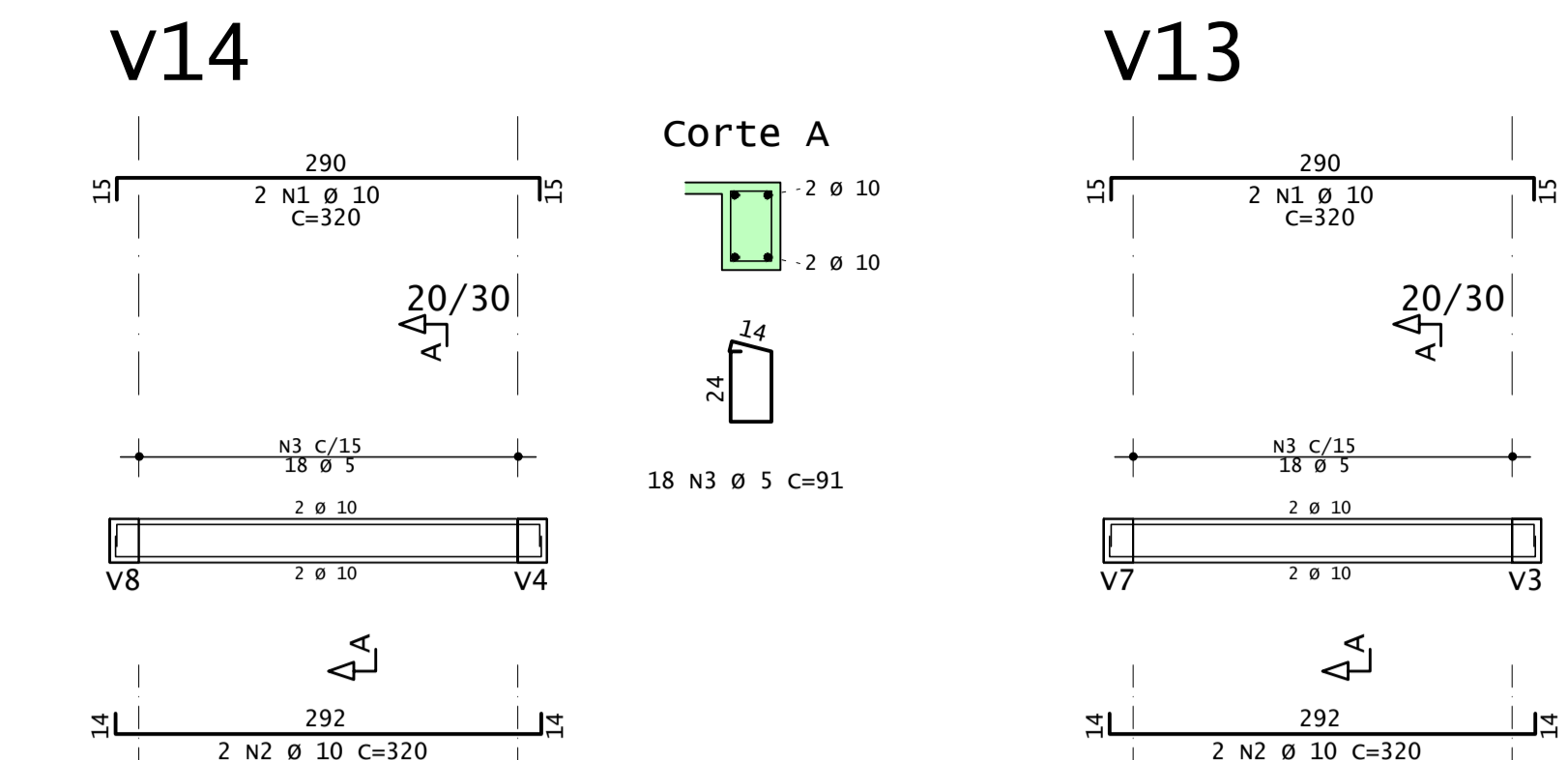
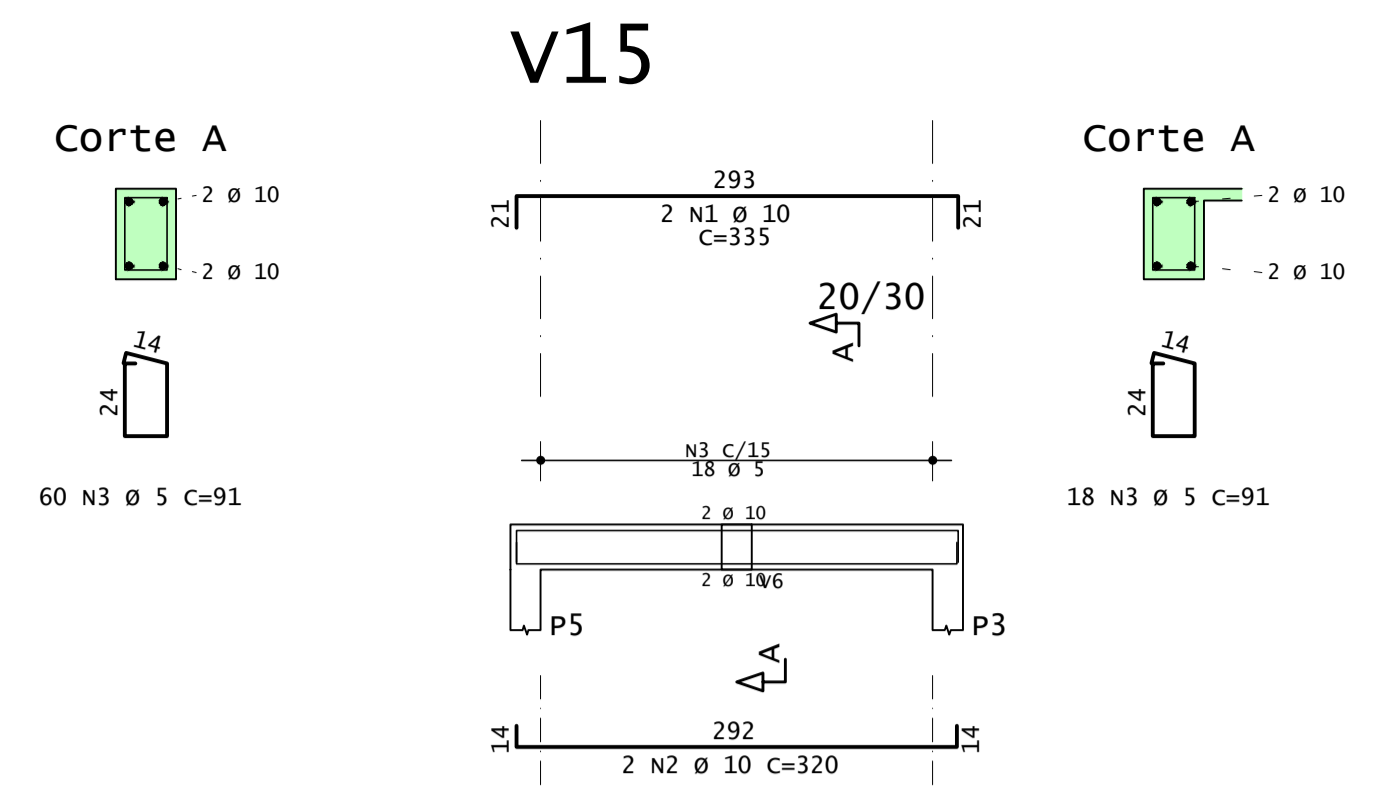
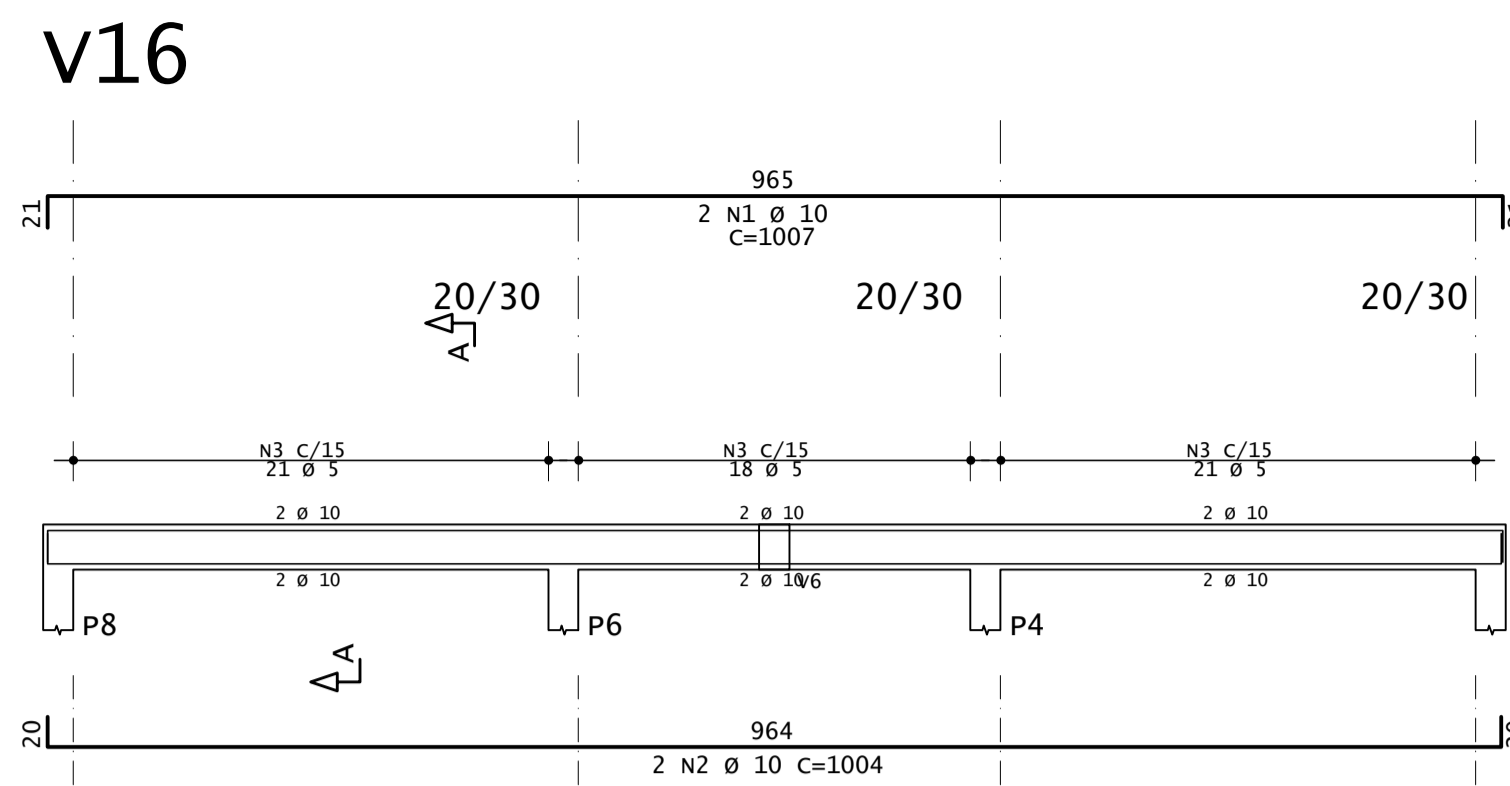
DATA: NOVEMBRO/2020

DESENHO:

PRANCHA: 2/3

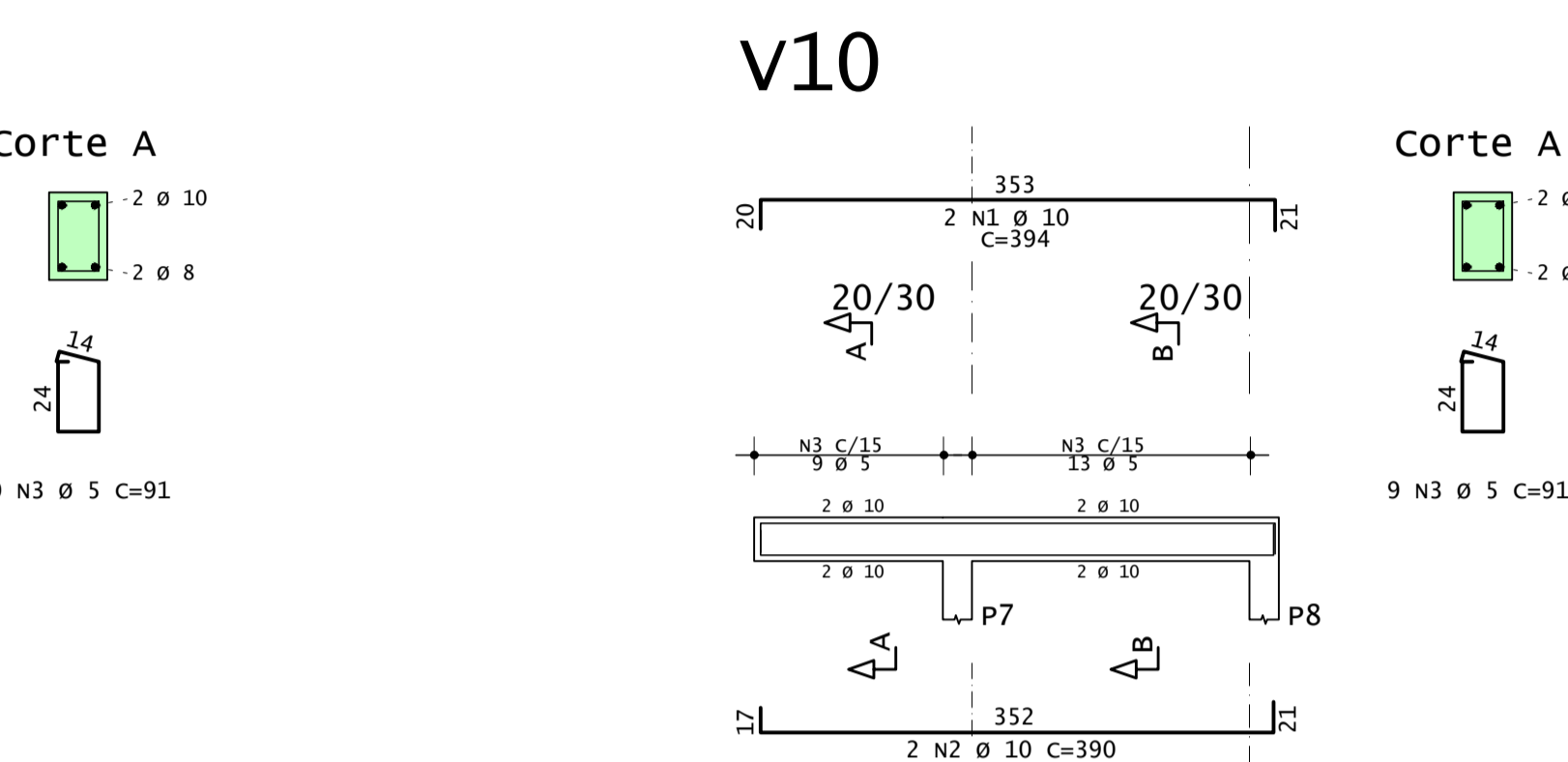
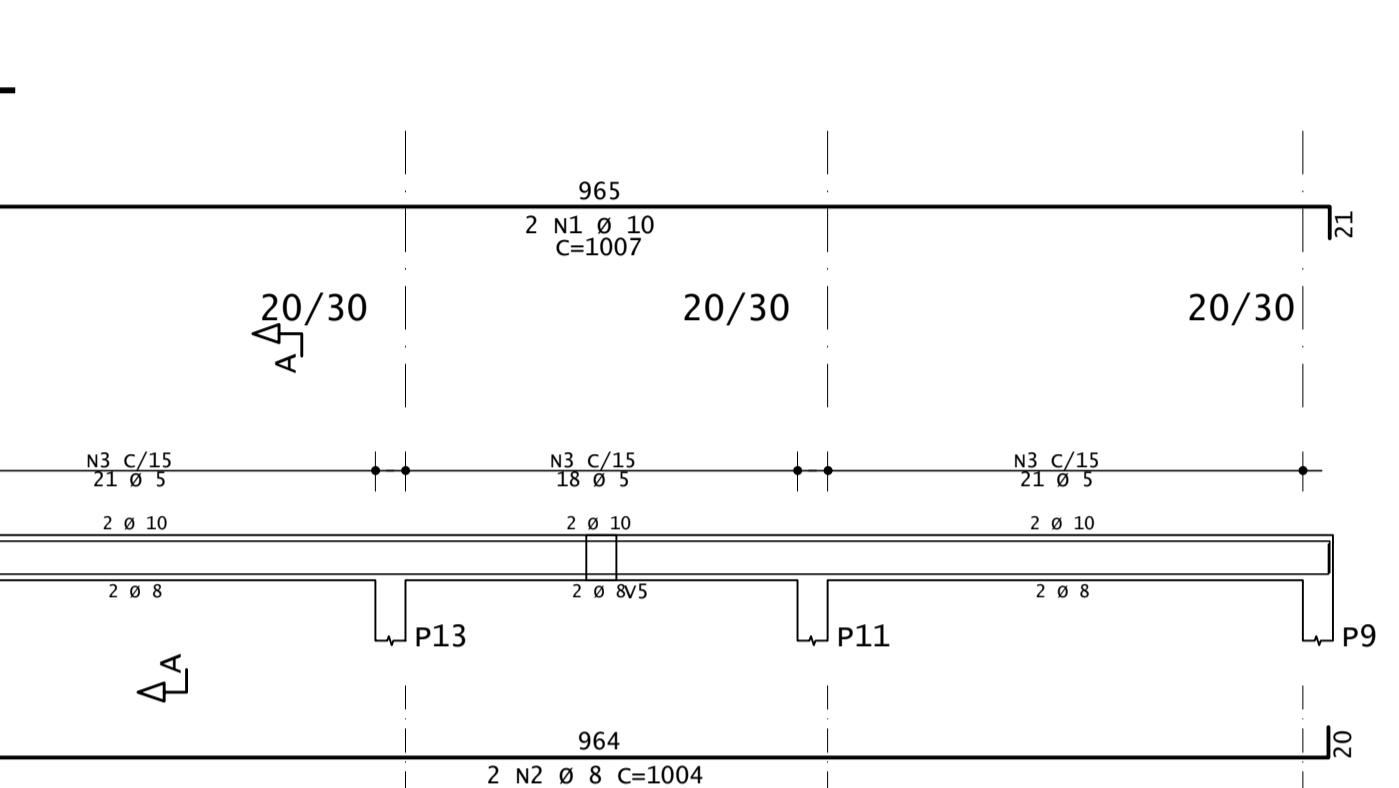
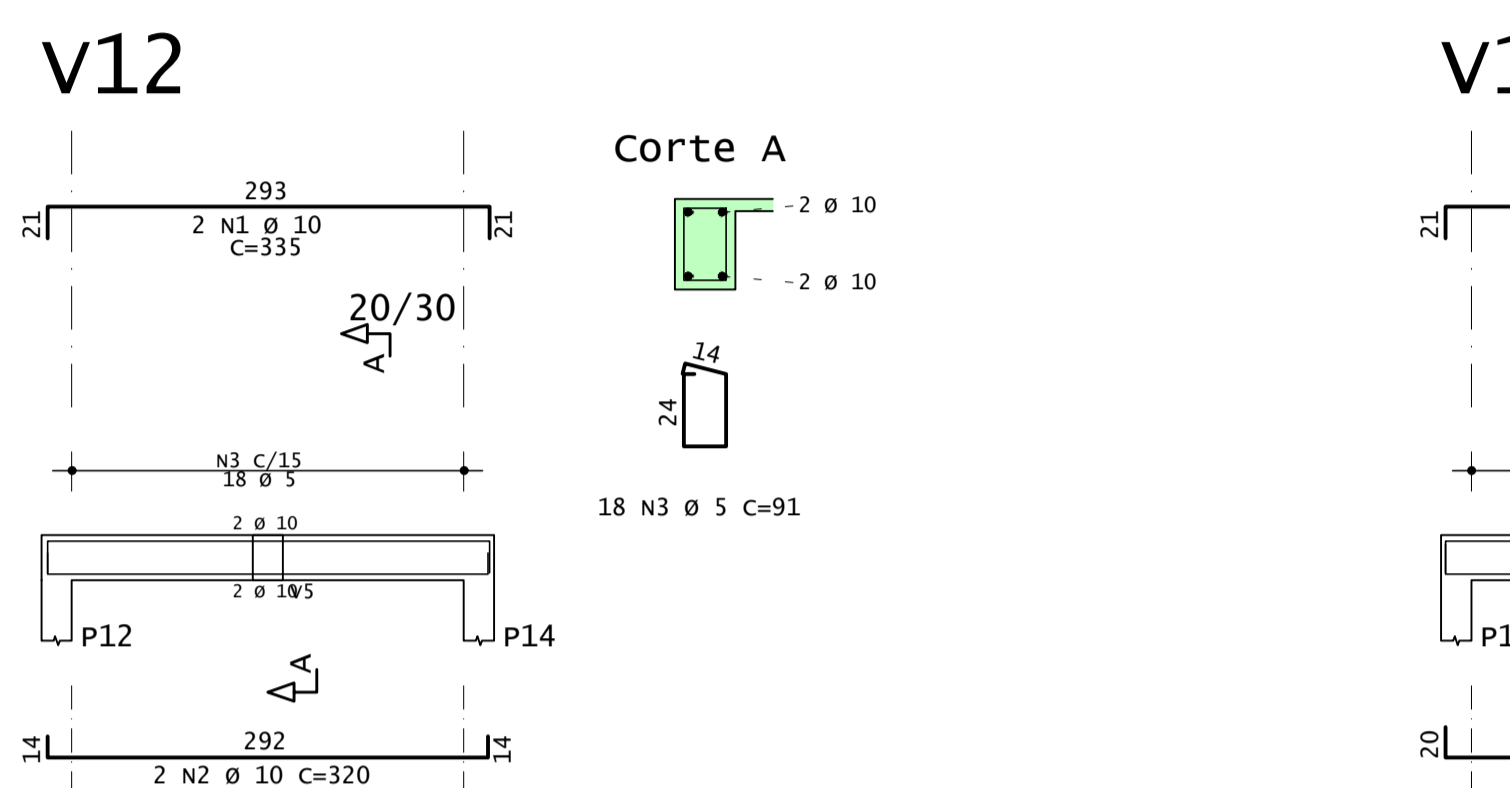


AV. SANTA CRUZ, 274, APTO 02, CENTRO, MACHADO-MG
elker@gwin.com.br | (35) 9.9880-7080



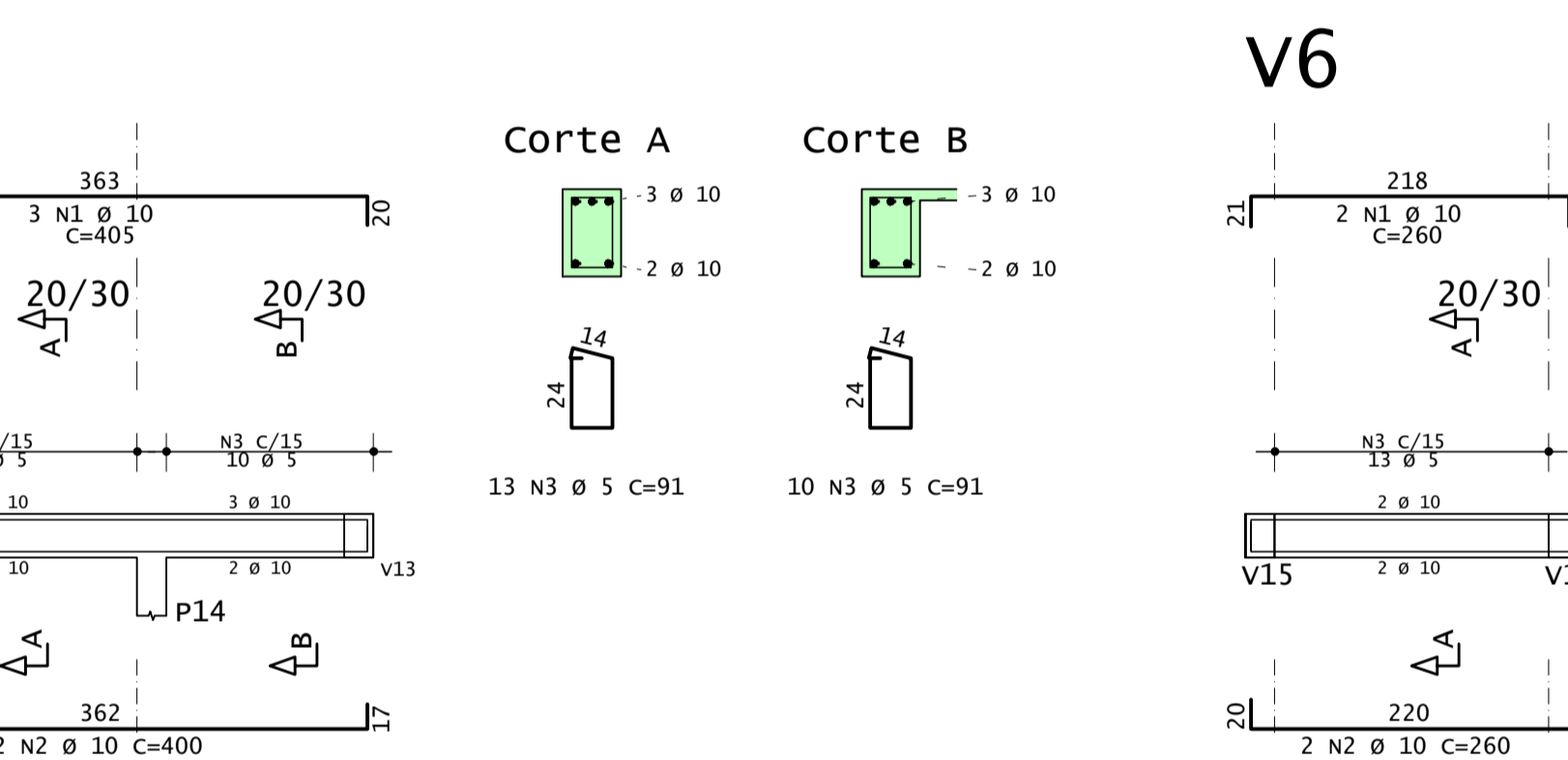
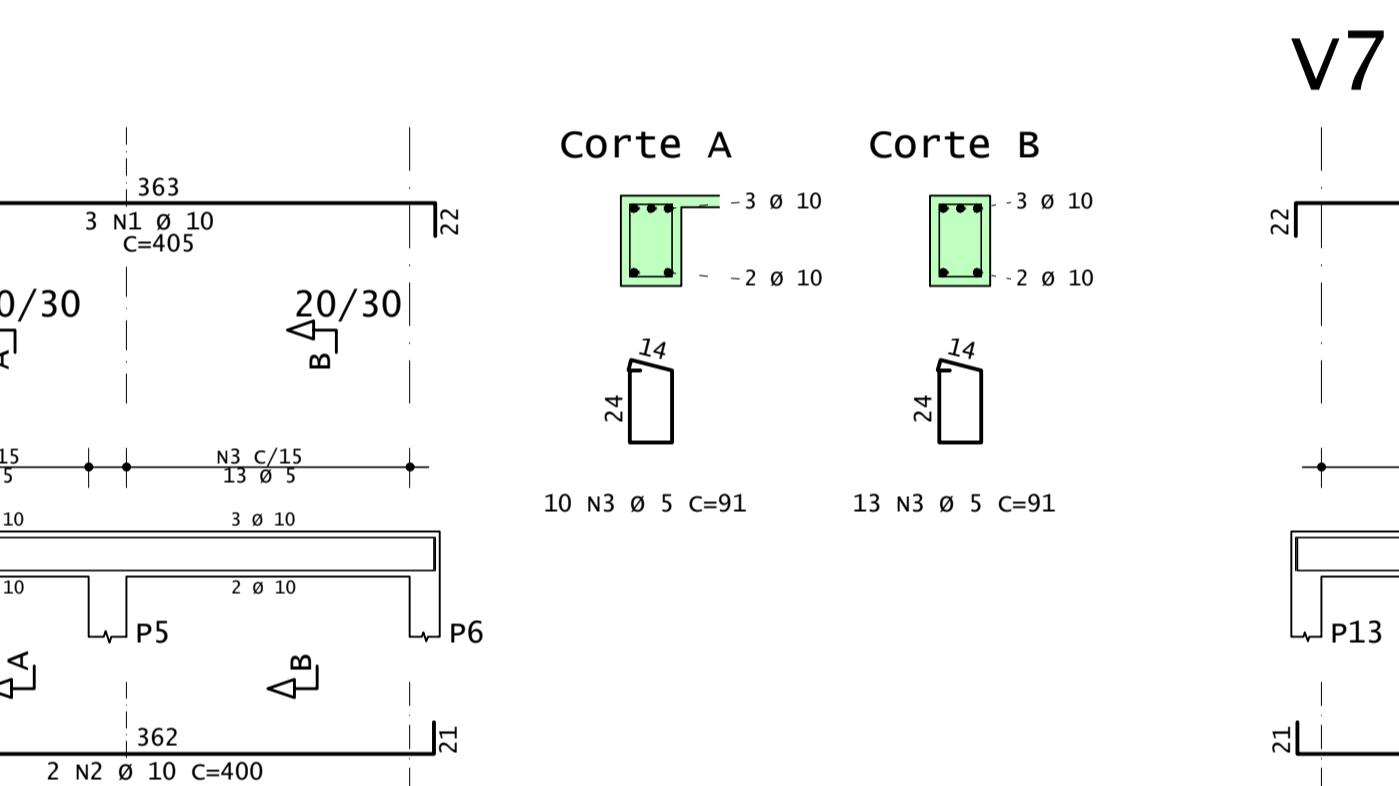
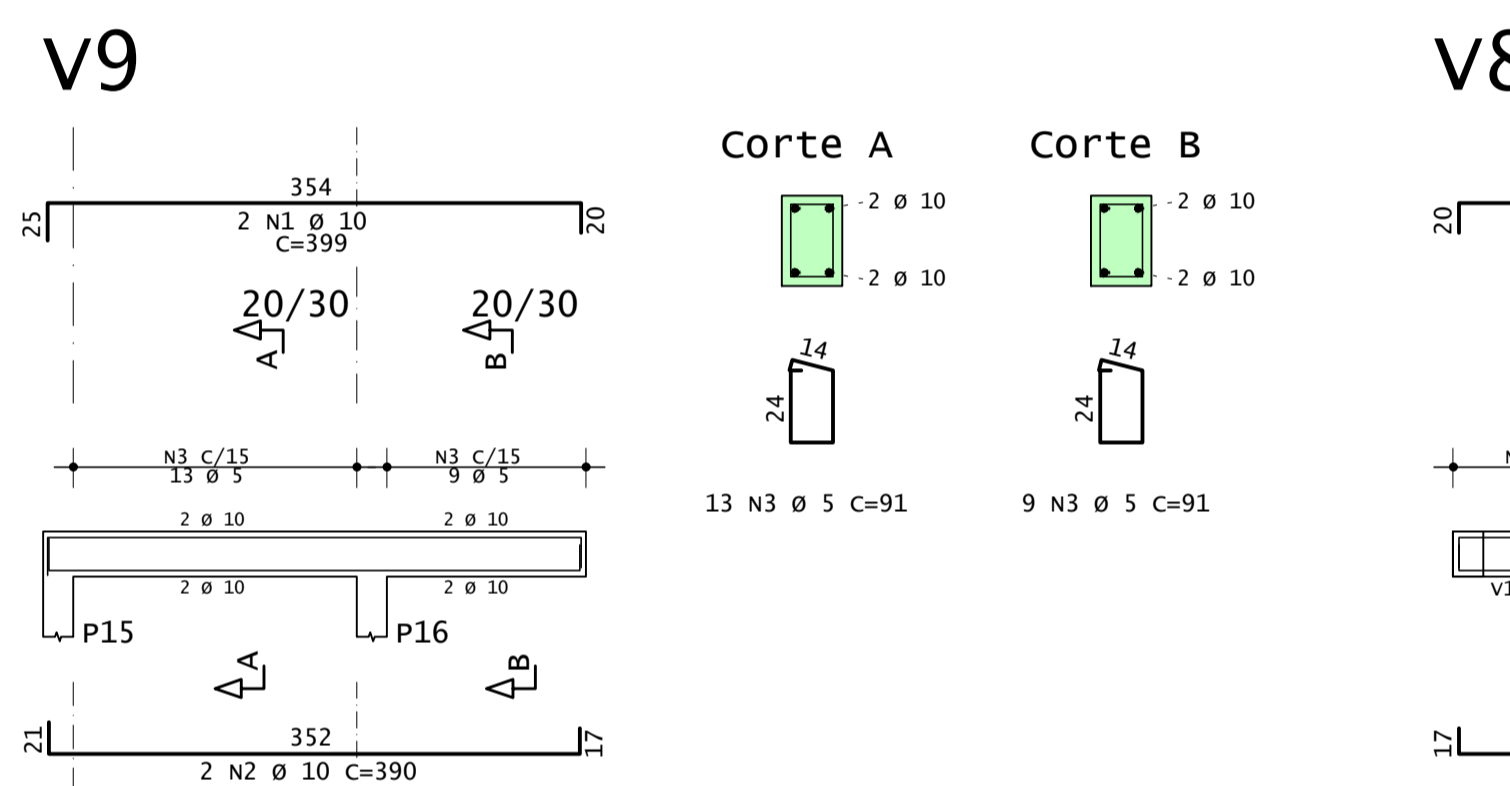
V13

AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
				cm	cm
50A	1	10	2	399	798
	2	10	2	390	780
	3	5	22	91	2002
60A	1	10	2	394	788
	2	10	2	390	780
	3	5	22	91	2002



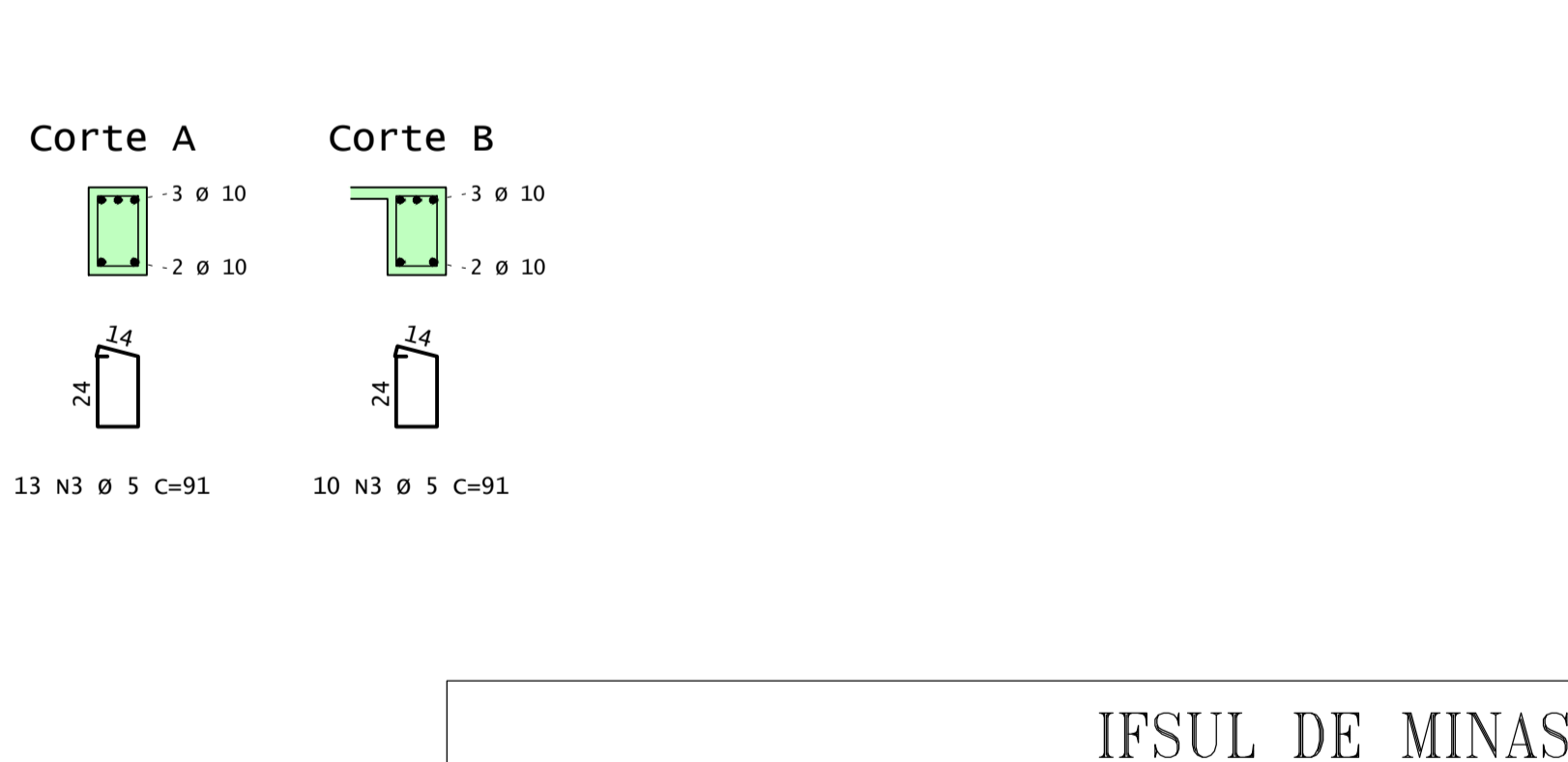
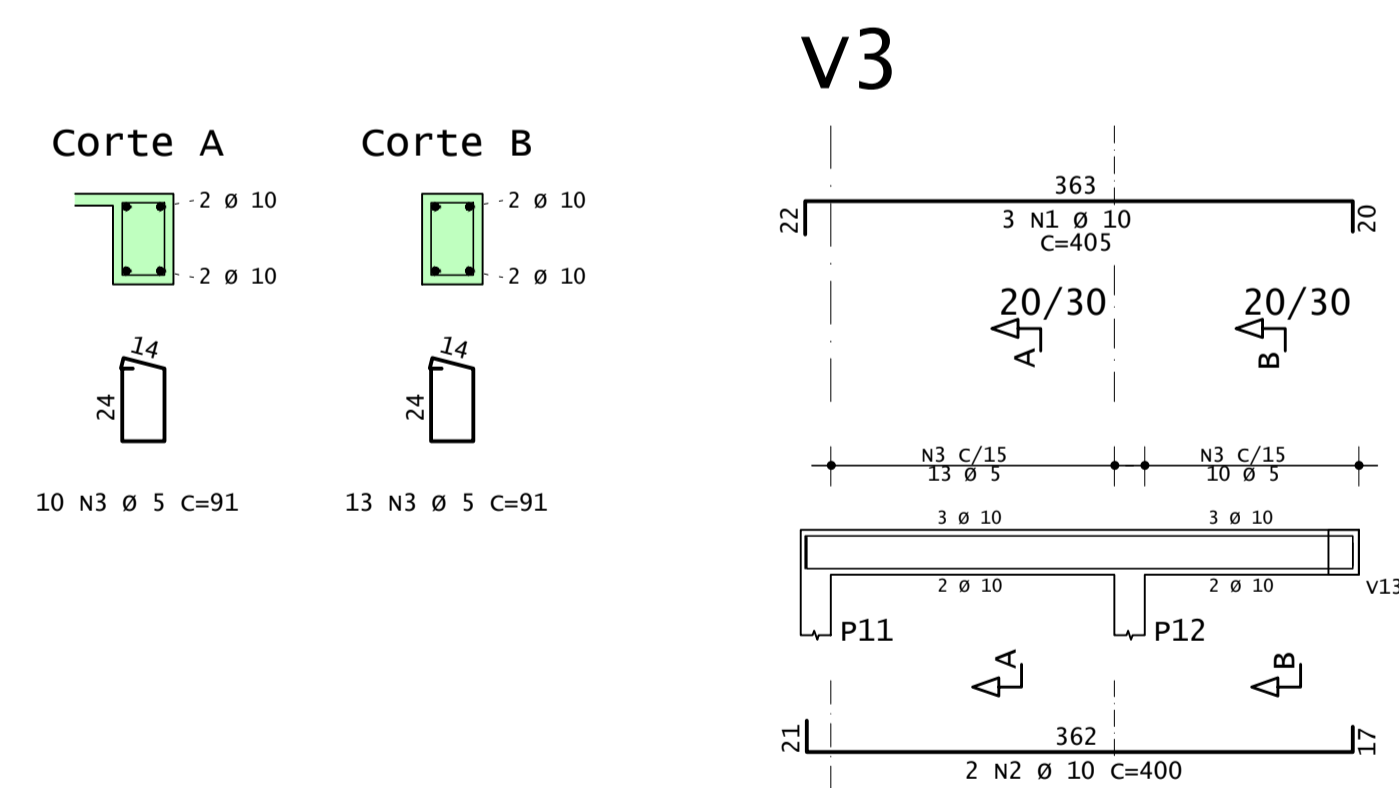
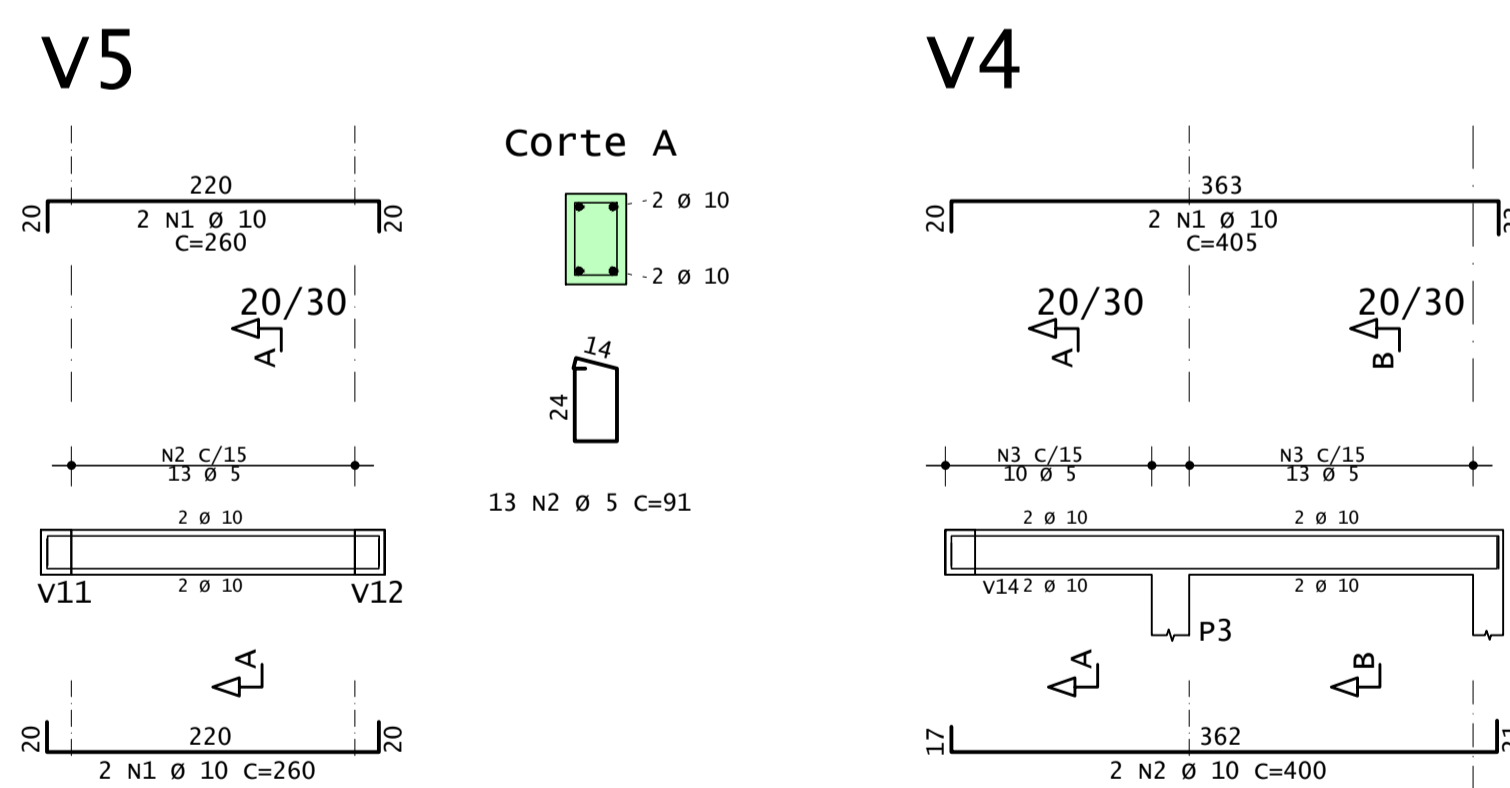
V9

AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
				cm	cm
50A	1	10	2	399	798
	2	10	2	390	780
	3	5	22	91	2002
60A	1	10	2	394	788
	2	10	2	390	780
	3	5	22	91	2002

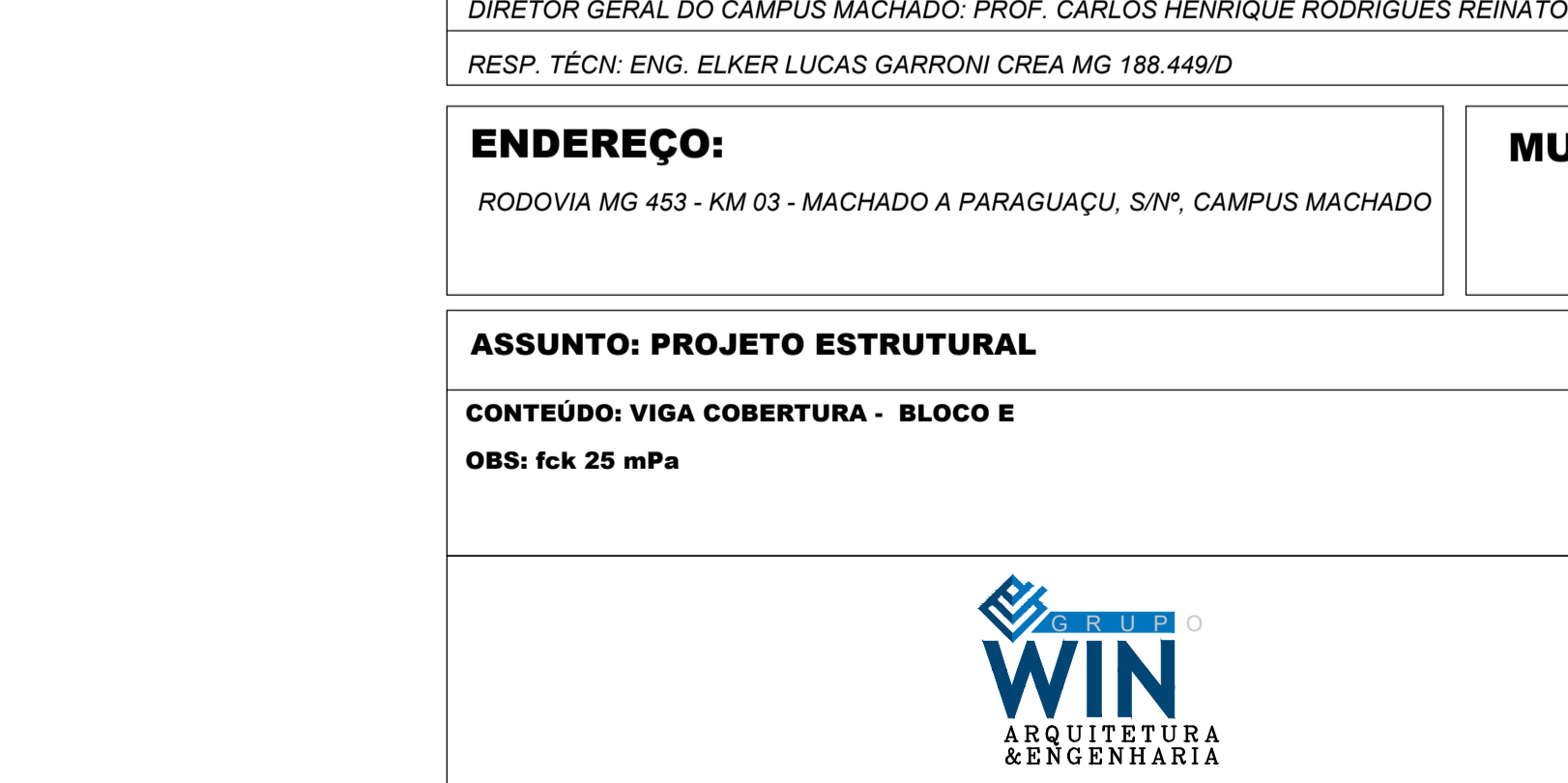
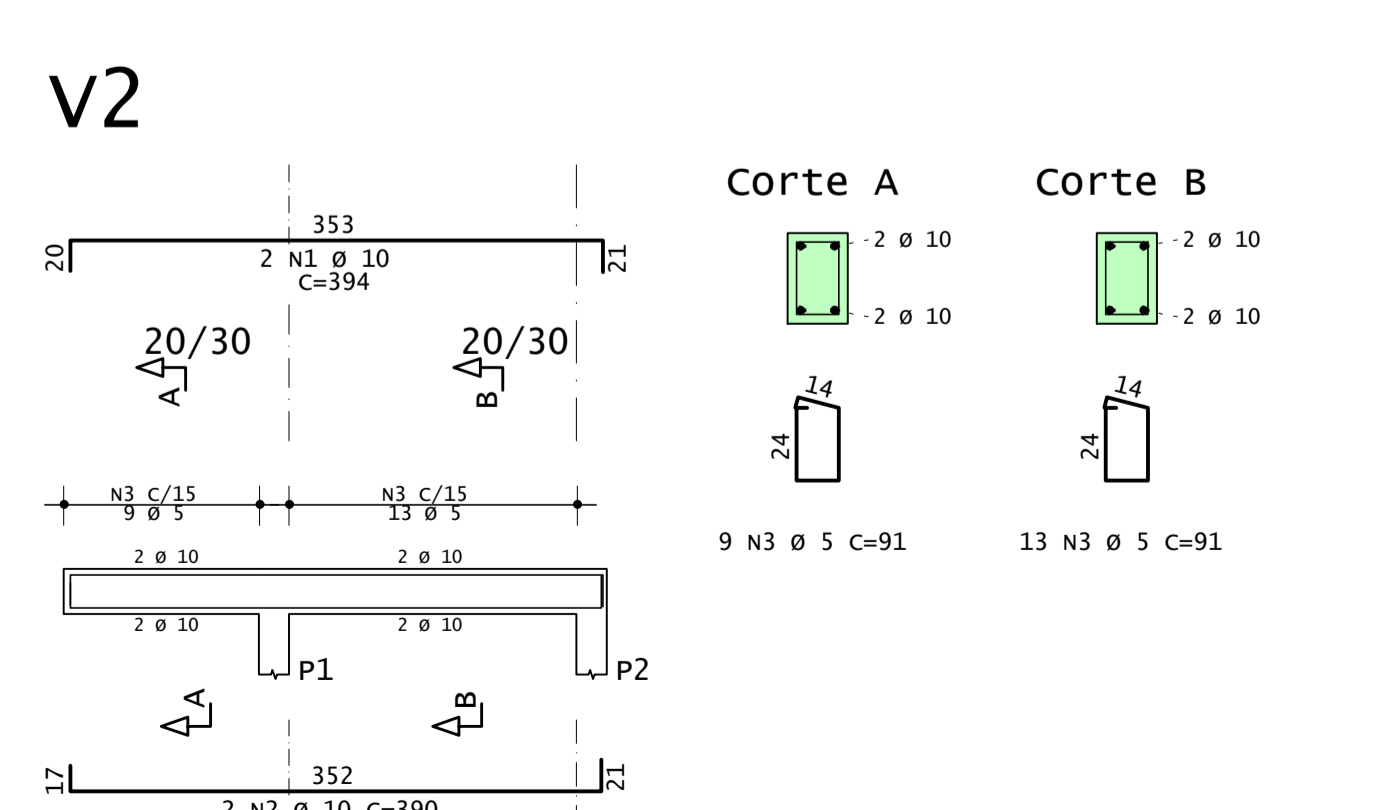
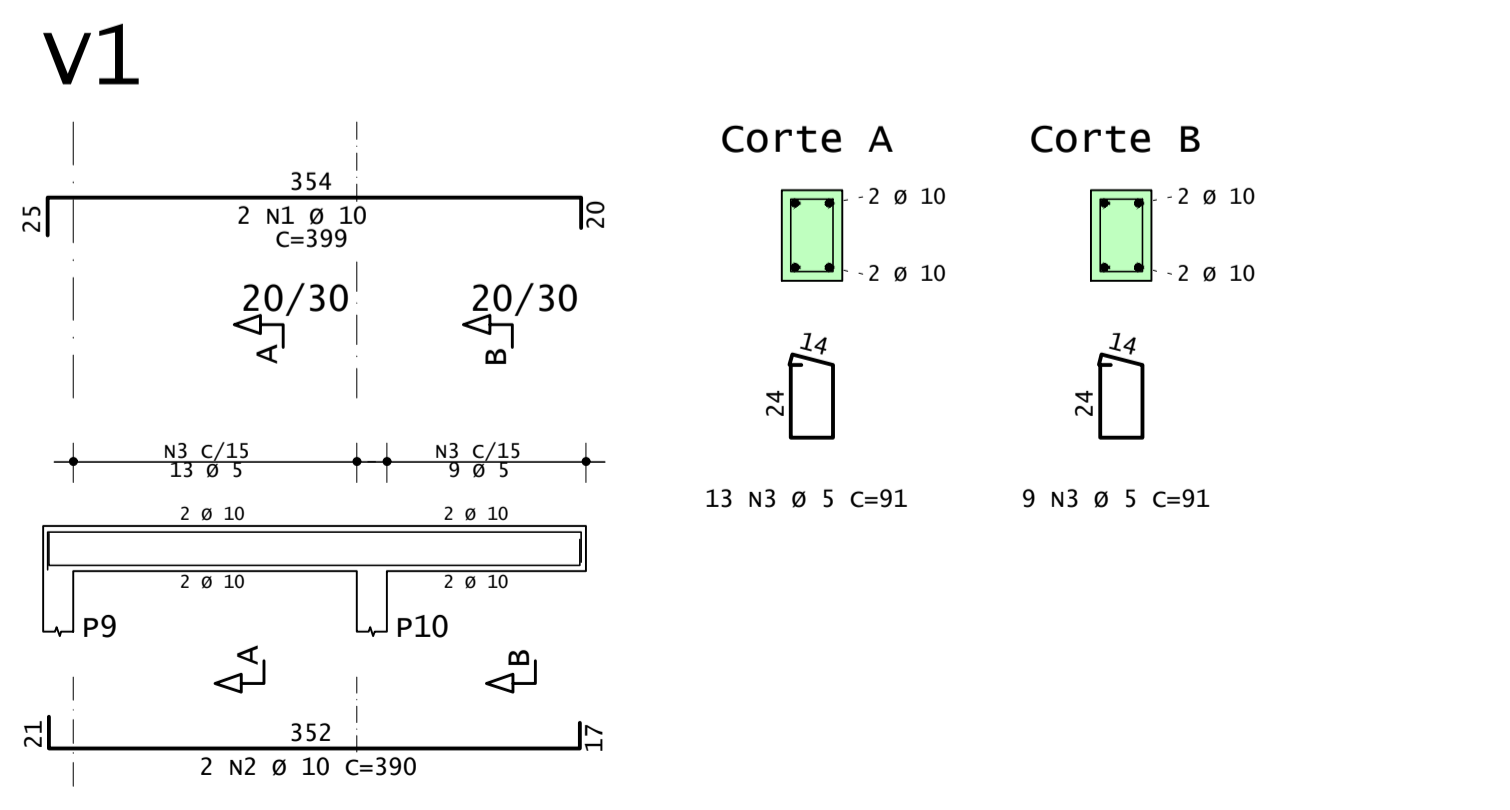


V5

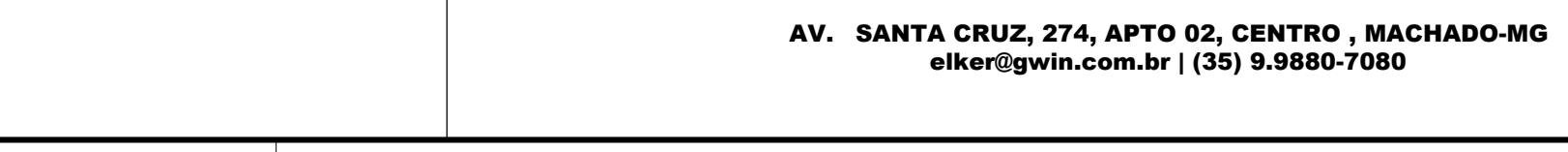
AÇO	BIT	m	PESO
60A	5	362	56
50A	8	20	8
50A	10	272	168
Peso Total	60A =		56 kgf
Peso Total	50A =		176 kgf



V1



V13



V9