

ANDRÉ RODRIGUES

Engenheiro Estrutural

SUMÁRIO:

- 1 - Locação das Sapatas
- 2 - Plantas de Formas: Térreo / Térreo Chalé
- 3 - Plantas de Formas: Laje Superior (1/2)
- 4 - Plantas de Formas: Laje Superior (2/2)
- 5 - Plantas de Formas: 1º Andar / Laje Chalé / Laje Caixa D'água / Cobertura
- 6 - Plantas de Formas: Piscina
- 7 - Fachadas
- 8 - Detalhamento de Sapatas - Casa
- 9 - Detalhamento de Sapatas - Piscina
- 10 - Detalhamento de Pilares - Casa (1/4)
- 11 - Detalhamento de Pilares - Casa (2/4)
- 12 - Detalhamento de Pilares - Casa (3/4)
- 13 - Detalhamento de Pilares - Casa (4/4)
- 14 - Detalhamento de Pilares - Piscina
- 15 - Detalhamento de Vigas - Térreo (1/3)
- 16 - Detalhamento de Vigas - Térreo (2/3)
- 17 - Detalhamento de Vigas - Térreo (3/3)
- 18 - Detalhamento de Vigas - Térreo Chalé
- 19 - Detalhamento de Vigas - Laje Superior (1/4)
- 20 - Detalhamento de Vigas - Laje Superior (2/4)
- 21 - Detalhamento de Vigas - Laje Superior (3/4)
- 22 - Detalhamento de Vigas - Laje Superior (4/4)
- 23 - Detalhamento de Vigas - 1º Andar (1/2)
- 24 - Detalhamento de Vigas - 1º Andar (2/2)
- 25 - Detalhamento de Vigas - Laje Chalé / Laje Caixa D'água / Cobertura
- 26 - Detalhamento de Vigas - Piscina (1/2)
- 27 - Detalhamento de Vigas - Piscina (1/2)
- 28 - Detalhamento de Lajes - Térreo (1/2)
- 29 - Detalhamento de Lajes - Térreo (2/2)
- 30 - Detalhamento de Lajes - Laje Superior (1/4)
- 31 - Detalhamento de Lajes - Laje Superior (2/4)
- 32 - Detalhamento de Lajes - Laje Superior (3/4)
- 33 - Detalhamento de Lajes - Laje Superior (4/4)
- 34 - Detalhamento de Lajes - 1º Andar (1/2)
- 35 - Detalhamento de Lajes - 1º Andar (2/2)
- 36 - Detalhamento de Lajes - Laje Caixa D'água
- 37 - Detalhamento de Lajes - Piscina

PROJETO ESTRUTURAL

CASA PN

NOTAS ESPECÍFICAS

ABNT NBR 6118:2014 - PROJETO DE ESTRUTURAS DE CONCRETO - PROCEDIMENTO

ABNT NBR 6120:1980 VERSÃO CORRIGIDA:2000 - CARGAS PARA O CÁLCULO DE ESTRUTURAS DE EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 6122:2010 - PROJETO E EXECUÇÃO DE FUNDAÇÕES - PROCEDIMENTO

ABNT NBR 6123:1988 VERSÃO CORRIGIDA 2:2013 - FORÇAS DEVIDAS AO VENTO EM EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 8681:2003 VERSÃO CORRIGIDA:2004 - AÇÕES E SEGURANÇA NAS ESTRUTURAS - PROCEDIMENTO

ABNT NBR 8953:2015 - CONCRETO PARA FINS ESTRUTURAIS - CLASSIFICAÇÃO POR GRUPOS DE RESISTÊNCIA E CONSISTÊNCIA

ABNT NBR 12655:2015 VERSÃO CORRIGIDA:2015 - CONCRETO DE CIMENTO PORTLAND - PREPARO, CONTROLE, RECEBIMENTO E ACEITAÇÃO - PROCEDIMENTO

CONSIDERAÇÕES GERAIS

1. CONFERIR MEDIDAS DO PROJETO ARQUITETÔNICO. QUALQUER ALTERAÇÃO DEVE SER NOTIFICADA AOS AUTORES;
2. A EXECUÇÃO DEVERÁ SER FEITA POR PROFISSIONAL HABILITADO E O MESMO DEVERÁ TOMAR CONHECIMENTO DE TODAS AS FOLHAS REFERENTES À OBRA;
3. A RESPONSABILIDADE PELA FISCALIZAÇÃO DA OBRA É DO ENGENHEIRO RESPONSÁVEL TÉCNICO;
4. TODA E QUALQUER ALTERAÇÃO NO RESPECTIVO PROJETO, DEVERÁ PRIMEIRAMENTE, SER CONSULTADO O ENGENHEIRO RESPONSÁVEL TÉCNICO PELO PROJETO E O MESMO DEVERÁ EMITIR PARACER SOBRE A POSSÍVEL ALTERAÇÃO;
5. TODOS OS DIREITOS DE REPRODUÇÃO ESTÃO RESERVADOS AOS AUTORES DOS PROJETOS SENDO QUE A CÓPIA NÃO AUTORIZADA SERÁ ENQUADRA COMO VIOLAÇÃO DE DIREITOS AUTORIAIS.
6. OBSERVAR OS NÍVEIS DAS LAJES E VIGAS E VERIFICAR INDICAÇÃO DE DESNÍVEL E CORTES;
7. NAS PEÇAS EM CONTATO COM O SOLO, UTILIZAR 5 cm DE CONCRETO MAGRO.

COBRIMENTO MÍNIMO DAS ARMADURAS

LAJES	2,0 cm
VIGAS E PILARES	2,5 cm
ELEMENTOS EM CONTATO COM O SOLO	4,0 cm

OBSERVAÇÕES

CONCRETO CLASSE Eci FATOR A/C	VIGAS E PILARES C25 (25 MPa) 28000 MPa < 0,60	FUNDAÇÕES C25 (25 MPa) 28000 MPa < 0,60	LAJES C25 (25 MPa) 28000 MPa < 0,60
-------------------------------	---	---	-------------------------------------

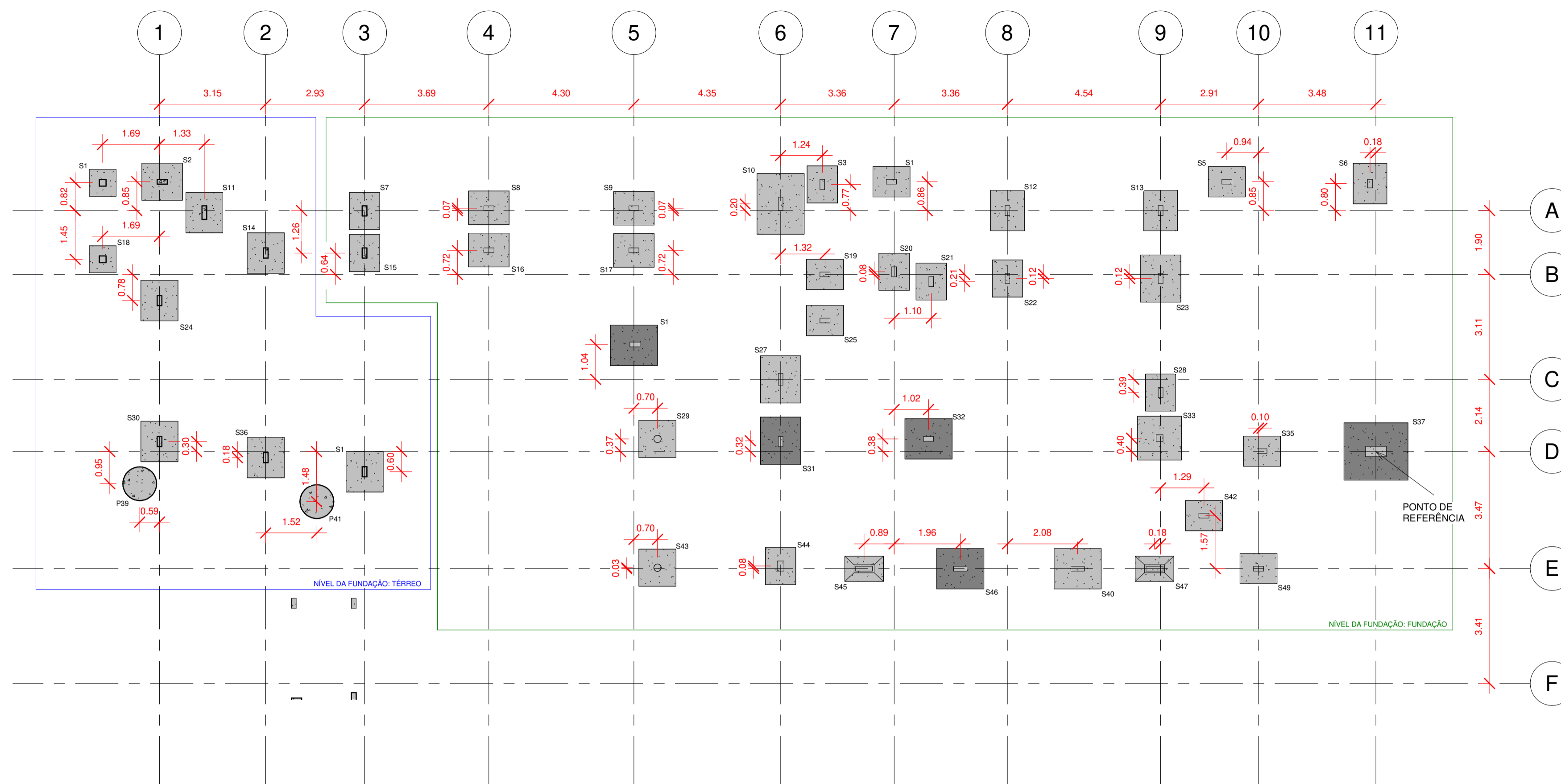


Acesse o site pela sua câmera

ANDRÉ RODRIGUES
Engenheiro Estrutural

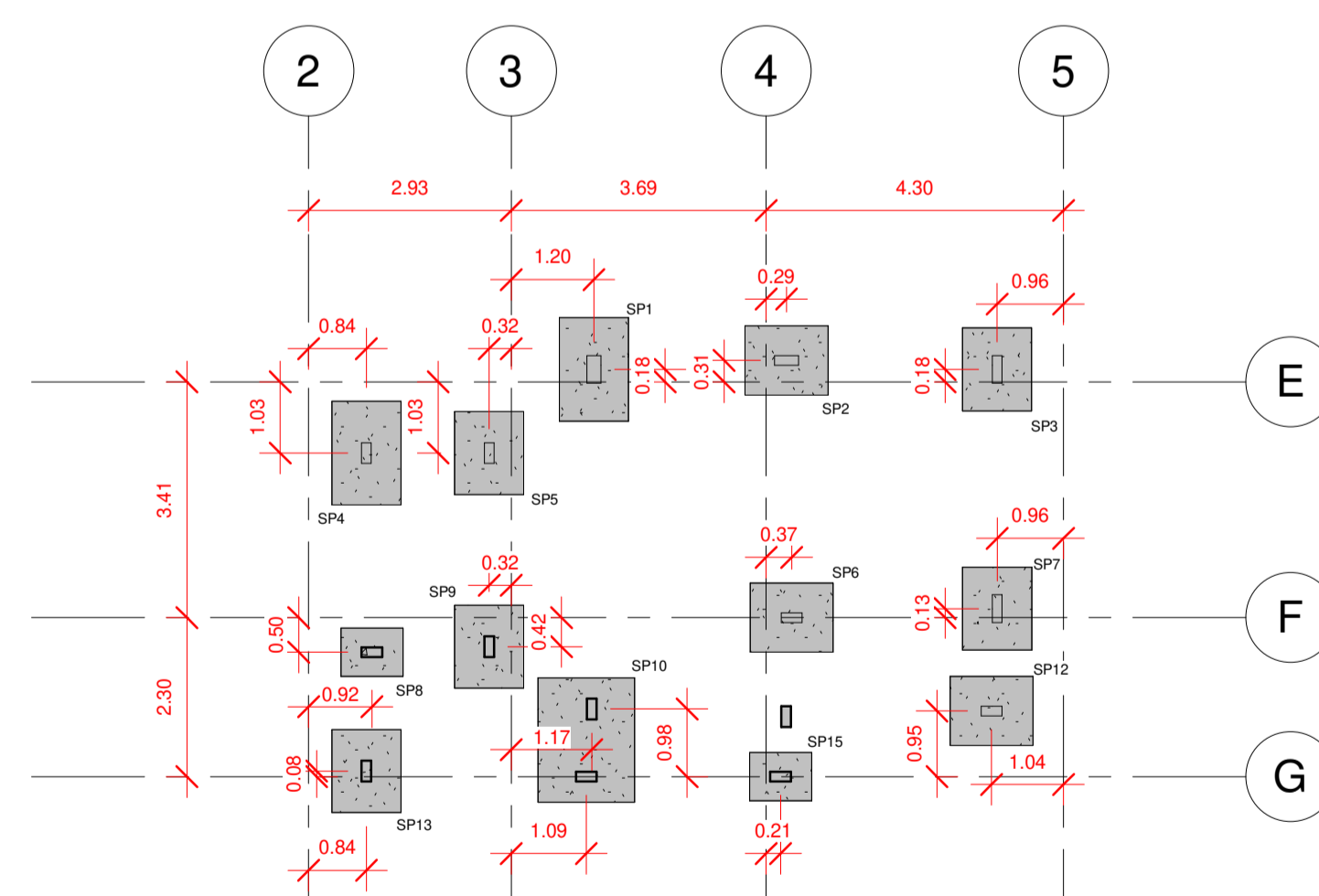
Modelos 3D - Arquivos de obra - Todos os Documentos
(83) 9 9644 2240
@andrerodrigueseng contato@anderodrigues.eng.br

Ciente: Paulo George Dantas da Nobrega	Francha nº: 01/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: LOCAÇÃO DAS SAPATAS		
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



LOCAÇÃO SAPATAS

1 : 100



LOCAÇÃO SAPATAS PISCINA

1 : 100

Resumo de Concreto - Fundações				
Sapata	X (m)	Y (m)	Altura (m)	Volume

S1	0,80	0,80	0,40	0,26 m³
S2	1,10	1,20	0,40	0,53 m³
S3	0,90	1,10	0,40	0,40 m³
S4	0,90	1,10	0,40	0,40 m³
S5	0,90	1,10	0,40	0,40 m³
S6	1,00	1,20	0,40	0,48 m³
S7	0,90	1,10	0,40	0,40 m³
S8	1,00	1,20	0,40	0,48 m³
S9	1,00	1,20	0,40	0,48 m³
S10	1,25	1,30	0,50	1,01 m³
S10	1,40	1,80	0,40	1,01 m³
S11	1,10	1,20	0,40	0,53 m³
S12	1,00	1,20	0,40	0,48 m³
S13	1,00	1,20	0,40	0,48 m³
S14	1,10	1,20	0,40	0,53 m³
S15	0,90	1,10	0,40	0,40 m³
S16	1,00	1,20	0,40	0,48 m³
S17	1,00	1,20	0,40	0,48 m³
S18	0,80	0,80	0,40	0,26 m³
S19	0,90	1,10	0,40	0,40 m³
S20	0,90	1,10	0,40	0,40 m³
S21	0,90	1,10	0,40	0,40 m³
S22	0,90	1,10	0,40	0,40 m³
S23	1,20	1,40	0,40	0,67 m³
S24	1,10	1,20	0,40	0,53 m³
S25	0,90	1,10	0,40	0,40 m³
S26	1,20	1,40	0,40	0,67 m³
S27	1,20	1,40	0,40	0,67 m³
S28	0,90	1,10	0,40	0,40 m³
S29	1,10	1,10	0,40	0,48 m³

Resumo de Concreto - Fundações				
Sapata	X (m)	Y (m)	Altura (m)	Volume

S30	1,10	1,20	0,40	0,53 m³
S31	1,20	1,40	0,40	0,67 m³
S32	1,20	1,40	0,40	0,67 m³
S33	1,30	1,30	0,40	0,68 m³
S35	0,90	1,10	0,40	0,40 m³
S36	1,10	1,20	0,40	0,53 m³
S37	1,70	1,90	0,50	1,62 m³
S38	1,10	1,20	0,40	0,53 m³
S42	0,90	1,10	0,40	0,40 m³
S43	1,10	1,10	0,40	0,48 m³
S44	0,90	1,10	0,40	0,40 m³
S45	0,75	1,15	0,25	0,20 m³
S46	1,20	1,40	0,40	0,67 m³
S46	1,20	1,40	0,40	0,67 m³
S47	0,75	1,15	0,25	0,20 m³
S49	0,90	1,10	0,40	0,40 m³
SP1	1,00	1,50	0,40	0,60 m³
SP2	1,00	1,20	0,40	0,48 m³
SP3	1,00	1,20	0,40	0,48 m³
SP4	1,00	1,50	0,40	0,60 m³
SP5	1,00	1,20	0,40	0,48 m³
SP6	1,00	1,20	0,40	0,48 m³
SP7	1,00	1,20	0,40	0,48 m³
SP8	0,70	0,90	0,40	0,25 m³
SP9	1,00	1,20	0,40	0,48 m³
SP12	1,00	1,20	0,40	0,48 m³
SP13	1,00	1,20	0,40	0,48 m³
SP15	0,70	0,90	0,40	0,25 m³

29,46 m³

NOTAS ESPECÍFICAS

ABNT NBR 6118:2014 - PROJETO DE ESTRUTURAS DE CONCRETO - PROCEDIMENTO

ABNT NBR 6120:1980 VERSÃO CORRIGIDA:2000 - CARGAS PARA O CÁLCULO DE ESTRUTURAS DE EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 6122:2010 - PROJETO E EXECUÇÃO DE FUNDAÇÕES - PROCEDIMENTO

ABNT NBR 6123:1988 VERSÃO CORRIGIDA 2:2013 - FORÇAS DEVIDAS AO VENTO EM EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 8681:2003 VERSÃO CORRIGIDA:2004 - AÇÕES E SEGURANÇA NAS ESTRUTURAS - PROCEDIMENTO

ABNT NBR 8953:2015 - CONCRETO PARA FINS ESTRUTURAIS - CLASSIFICAÇÃO POR GRUPOS DE RESISTÊNCIA E CONSISTÊNCIA

ABNT NBR 12655:2015 VERSÃO CORRIGIDA:2015 - CONCRETO DE CIMENTO PORTLAND - PREPARO, CONTROLE, RECEBIMENTO E ACEITAÇÃO - PROCEDIMENTO

CONSIDERAÇÕES GERAIS

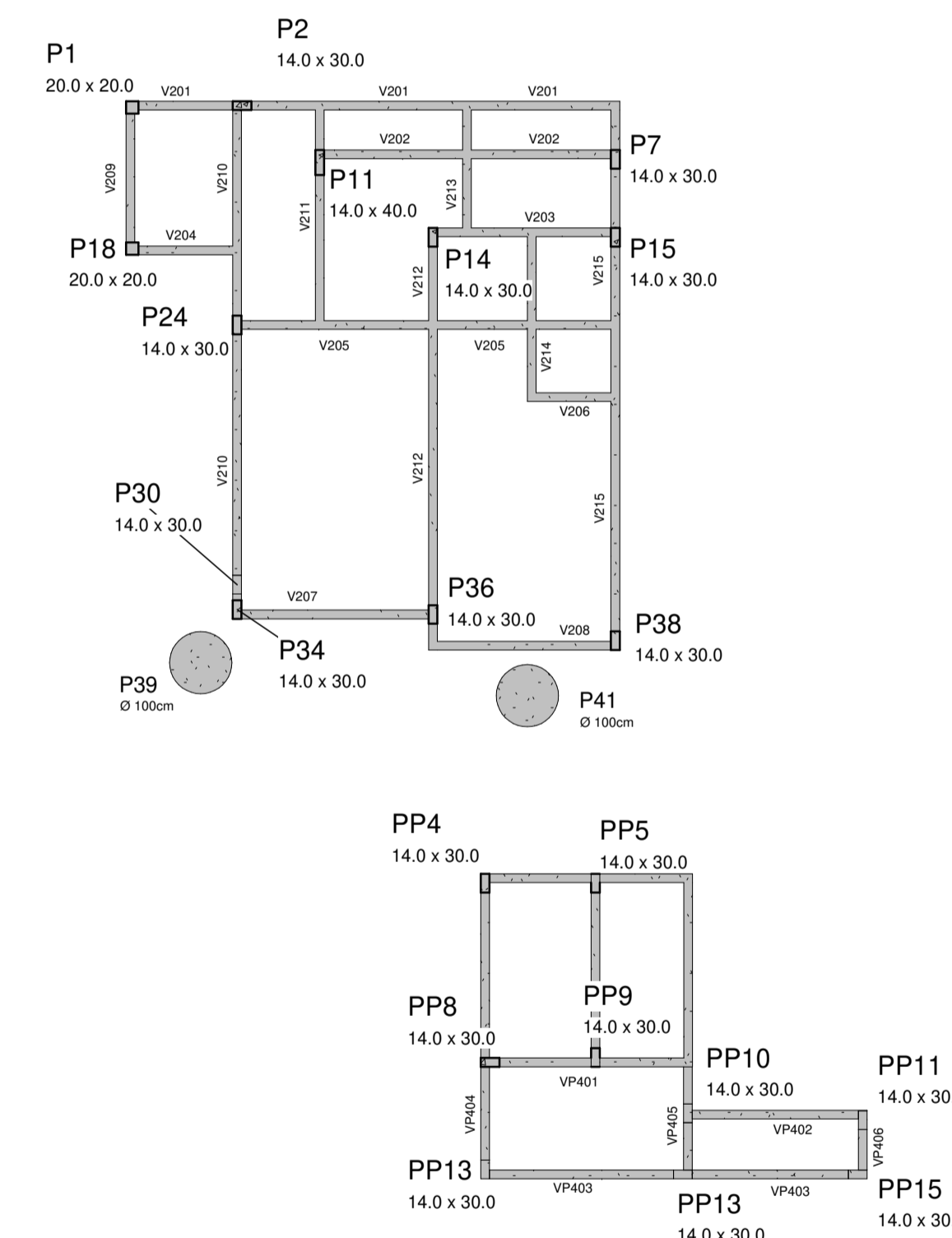
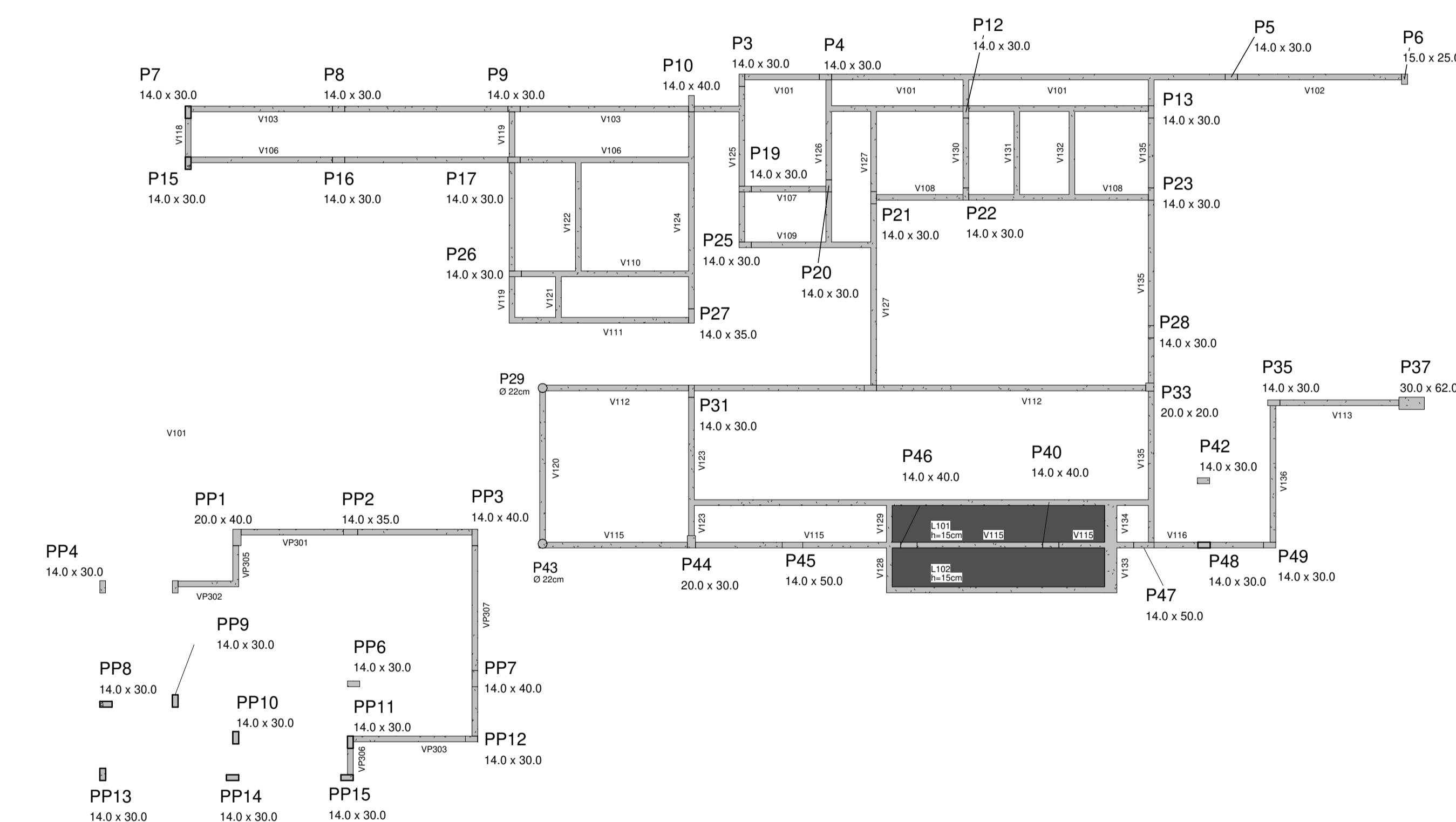
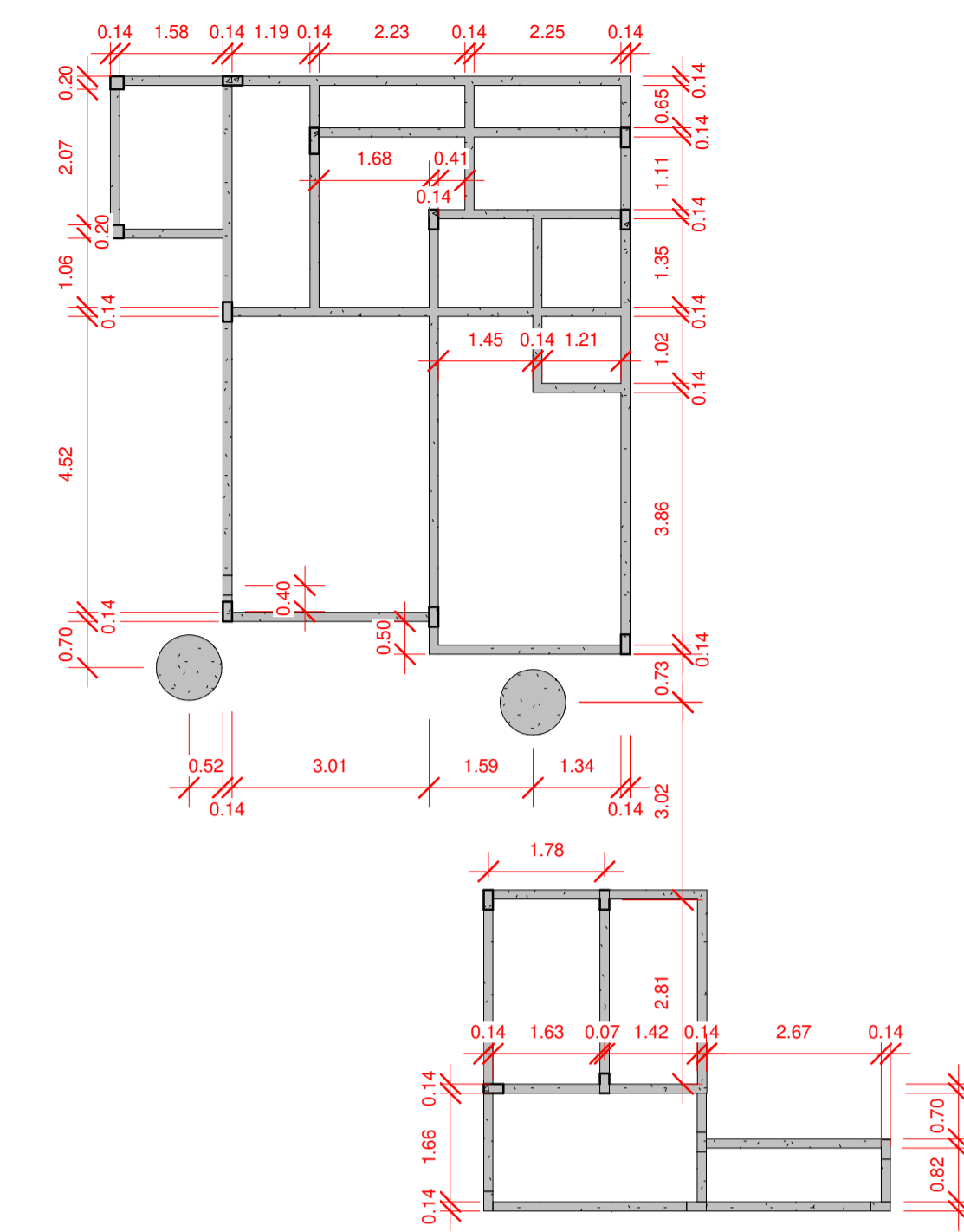
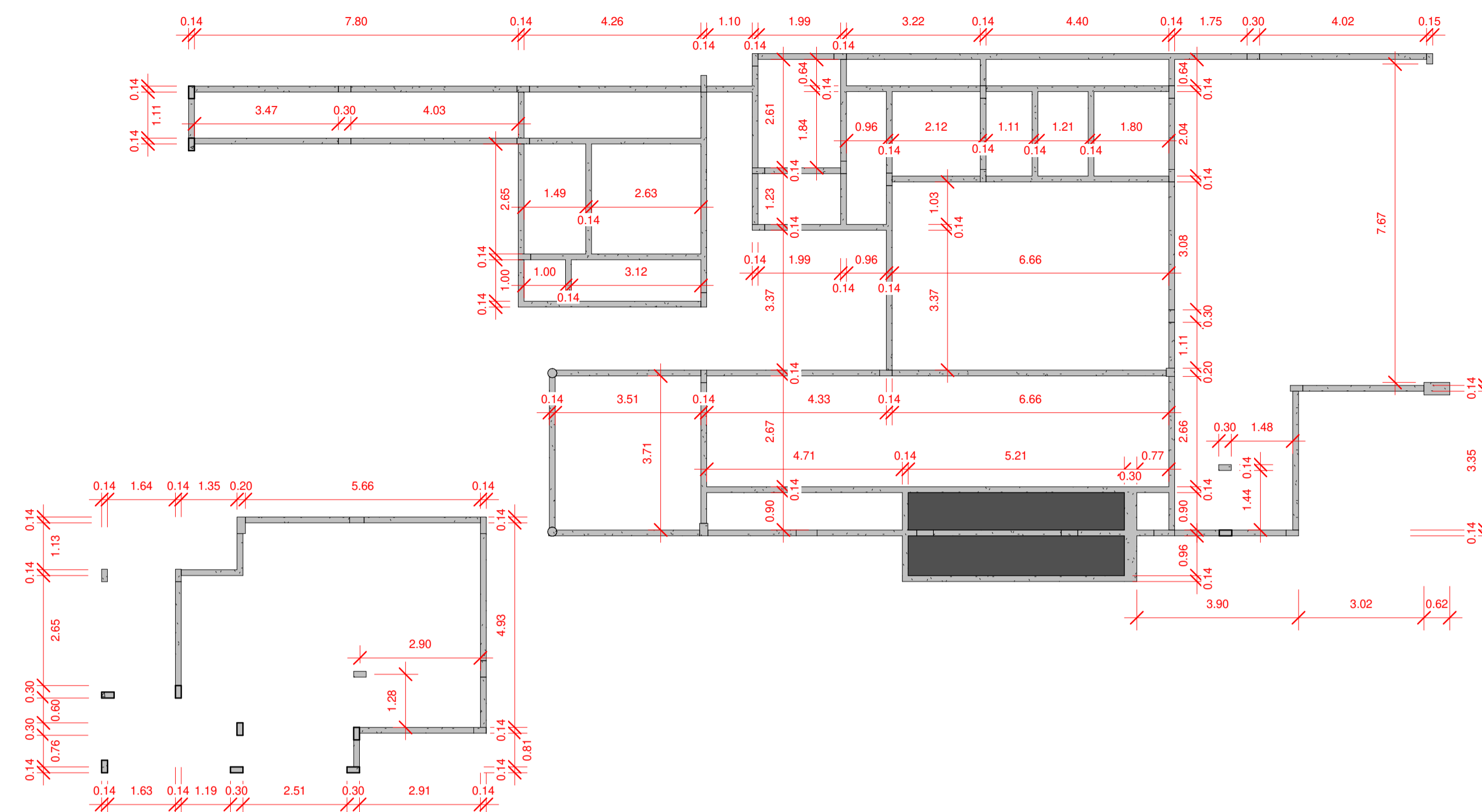
1. CONFERIR MEDIDAS DO PROJETO ARQUITETÔNICO. QUALQUER ALTERAÇÃO DEVE SER NOTIFICADA AOS AUTORES;
2. A EXECUÇÃO DEVERÁ SER FEITA POR PROFISSIONAL HABILITADO E O MESMO DEVERÁ TOMAR CONHECIMENTO DE TODAS AS FOLHAS REFERENTES À OBRA;
3. A RESPONSABILIDADE PELA FISCALIZAÇÃO DA OBRA É DO ENGENHEIRO RESPONSÁVEL TÉCNICO;
4. TODA E QUALQUER ALTERAÇÃO NO RESPECTIVO PROJETO, DEVERÁ PRIMEIRAMENTE, SER CONSULTADO O ENGENHEIRO RESPONSÁVEL TÉCNICO PELO PROJETO E O MESMO DEVERÁ EMITIR PARACER SOBRE A POSSÍVEL ALTERAÇÃO;
5. TODOS OS DIREITOS DE REPRODUÇÃO ESTÃO RESERVADOS AOS AUTORES DOS PROJETOS SENDO QUE A CÓPIA NÃO AUTORIZADA SERÁ ENQUADRA COMO VIOLAÇÃO DE DIREITOS AUTORIAIS.
6. OBSERVAR OS NÍVEIS DAS LAJES E VIGAS E VERIFICAR INDICAÇÃO DE DESNÍVEL E CORTES;
7. NAS PEÇAS EM CONTATO COM O SOLO, UTILIZAR 5 cm DE CONCRETO MAGRO.

COBRIMENTO MÍNIMO DAS ARMADURAS

LAJES	2,0 cm
VIGAS E PILARES	2,5 cm
ELEMENTOS EM CONTATO COM O SOLO	4,0 cm

OBSERVAÇÕES

CONCRETO CLASSE Eci FATOR A/C	VIGAS E PILARES C25 (25 MPa) 28000 MPa < 0,60	FUNDAÇÕES C25 (25 MPa) 28000 MPa < 0,60	LAJES C25 (25 MPa) 28000 MPa < 0,60
-------------------------------	---	---	-------------------------------------



FORMAS - TÉRREO
1 : 100

FORMAS - TÉRREO
CHALÉ
1 : 100

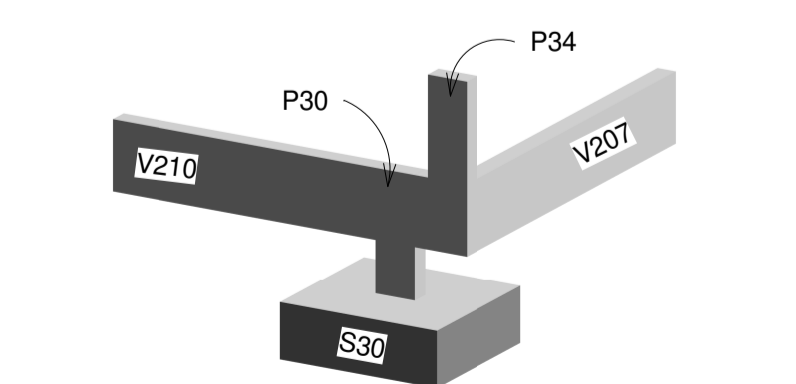
VIGAS - TÉRREO		
Título	Tipo	Volume
V101	14.0 x 30.0	0.48 m³
V102	14.0 x 30.0	0.17 m³
V103	14.0 x 30.0	0.49 m³
V104	14.0 x 30.0	0.05 m³
V105	14.0 x 30.0	0.32 m³
V106	14.0 x 30.0	0.49 m³
V107	14.0 x 30.0	0.08 m³
V108	14.0 x 30.0	0.27 m³
V109	14.0 x 30.0	0.12 m³
V110	14.0 x 30.0	0.17 m³
V111	14.0 x 30.0	0.18 m³
V112	14.0 x 30.0	0.60 m³
V113	14.0 x 30.0	0.12 m³

VIGAS - TÉRREO		
Título	Tipo	Volume
V114	14.0 x 30.0	0.47 m³
V115	14.0 x 50.0	0.90 m³
V116	14.0 x 50.0	0.17 m³
V117	14.0 x 30.0	0.22 m³
V118	14.0 x 30.0	0.04 m³
V119	14.0 x 30.0	0.20 m³
V120	14.0 x 30.0	0.15 m³
V121	14.0 x 30.0	0.04 m³
V122	14.0 x 30.0	0.11 m³
V123	14.0 x 30.0	0.14 m³
V124	14.0 x 50.0	0.34 m³
V125	14.0 x 30.0	0.15 m³

VIGAS - TÉRREO		
Título	Tipo	Volume
V126	14.0 x 30.0	0.15 m³
V127	14.0 x 30.0	0.27 m³
V128	14.0 x 30.0	0.04 m³
V129	14.0 x 30.0	0.04 m³
V130	14.0 x 50.0	0.17 m³
V131	14.0 x 30.0	0.09 m³
V132	14.0 x 30.0	0.09 m³
V133	30.0 x 30.0	0.10 m³
V134	30.0 x 30.0	0.08 m³
V135	14.0 x 30.0	0.43 m³
V136	14.0 x 30.0	0.14 m³
		8.07 m³

VIGAS - TÉRREO CHALÉ		
Título	Tipo	Volume
V201	14.0 x 30.0	0.31 m³
V202	14.0 x 30.0	0.19 m³
V203	14.0 x 30.0	0.12 m³
V204	14.0 x 30.0	0.06 m³
V205	14.0 x 30.0	0.24 m³
V206	14.0 x 20.0	0.03 m³
V207	14.0 x 50.0	0.21 m³
V208	14.0 x 30.0	0.12 m³
V209	14.0 x 50.0	0.14 m³
		2.86 m³


VIGAS - TÉRREO CHALÉ		
Título	Tipo	Volume
V210	14.0 x 50.0	0.51 m³
V211	14.0 x 30.0	0.13 m³
V212	14.0 x 40.0	0.35 m³
V213	14.0 x 20.0	0.05 m³
V214	14.0 x 20.0	0.03 m³
V215	14.0 x 20.0	0.04 m³
		0.33 m³



DETALHE CONSTRUTIVO



Acesse o site pela sua câmera
ANDRÉ RODRIGUES
 Engenheiro Estrutural
 (83) 9 9444 2240 andrerodrigues.eng.br
 @anderodrigueseng contato@anderodrigues.eng.br

Ciente: Paulo George Dantas da Nobrega	Francha nº: 02/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: PLANTA DE FORMAS: - Térreo - Térreo Chalé		
CREA-PB: 161890343-9		
Data: 16 / 02 / 2022	Escala: Indicada	

NOTAS ESPECÍFICAS

ABNT NBR 6118:2014 - PROJETO DE ESTRUTURAS DE CONCRETO - PROCEDIMENTO

ABNT NBR 6120:1980 VERSÃO CORRIGIDA:2000 - CARGAS PARA O CÁLCULO DE ESTRUTURAS DE EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 6122:2010 - PROJETO E EXECUÇÃO DE FUNDAÇÕES - PROCEDIMENTO

ABNT NBR 6123:1988 VERSÃO CORRIGIDA 2:2013 - FORÇAS DEVIDAS AO VENTO EM EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 8681:2003 VERSÃO CORRIGIDA:2004 - AÇÕES E SEGURANÇA NAS ESTRUTURAS - PROCEDIMENTO

ABNT NBR 8953:2015 - CONCRETO PARA FINS ESTRUTURAIS - CLASSIFICAÇÃO POR GRUPOS DE RESISTÊNCIA E CONSISTÊNCIA

ABNT NBR 12655:2015 VERSÃO CORRIGIDA:2015 - CONCRETO DE CIMENTO PORTLAND - PREPARO, CONTROLE, RECEBIMENTO E ACEITAÇÃO - PROCEDIMENTO

CONSIDERAÇÕES GERAIS

1. CONFERIR MEDIDAS DO PROJETO ARQUITETÔNICO. QUALQUER ALTERAÇÃO DEVE SER NOTIFICADA AOS AUTORES;
2. A EXECUÇÃO DEVERÁ SER FEITA POR PROFISSIONAL HABILITADO E O MESMO DEVERÁ TOMAR CONHECIMENTO DE TODAS AS FOLHAS REFERENTES À OBRA;
3. A RESPONSABILIDADE PELA FISCALIZAÇÃO DA OBRA É DO ENGENHEIRO RESPONSÁVEL TÉCNICO;
4. TODA E QUALQUER ALTERAÇÃO NO RESPECTIVO PROJETO, DEVERÁ PRIMEIRAMENTE, SER CONSULTADO O ENGENHEIRO RESPONSÁVEL TÉCNICO PELO PROJETO E O MESMO DEVERÁ EMITIR PARACER SOBRE A POSSÍVEL ALTERAÇÃO;
5. TODOS OS DIREITOS DE REPRODUÇÃO ESTÃO RESERVADOS AOS AUTORES DOS PROJETOS SENDO QUE A CÓPIA NÃO AUTORIZADA SERÁ ENQUADRA COMO VIOLAÇÃO DE DIREITOS AUTORIAIS.
6. OBSERVAR OS NÍVEIS DAS LAJES E VIGAS E VERIFICAR INDICAÇÃO DE DESNÍVEL E CORTES;
7. NAS PEÇAS EM CONTATO COM O SOLO, UTILIZAR 5 cm DE CONCRETO MAGRO.

COBRIMENTO MÍNIMO DAS ARMADURAS

LAJES	2,0 cm
VIGAS E PILARES	2,5 cm
ELEMENTOS EM CONTATO COM O SOLO	4,0 cm

OBSERVAÇÕES

CONCRETO CLASSE Eci FATOR A/C	VIGAS E PILARES C25 (25 MPa) 28000 MPa < 0,60	FUNDAÇÕES C25 (25 MPa) 28000 MPa < 0,60	LAJES C25 (25 MPa) 28000 MPa < 0,60
-------------------------------	---	---	-------------------------------------




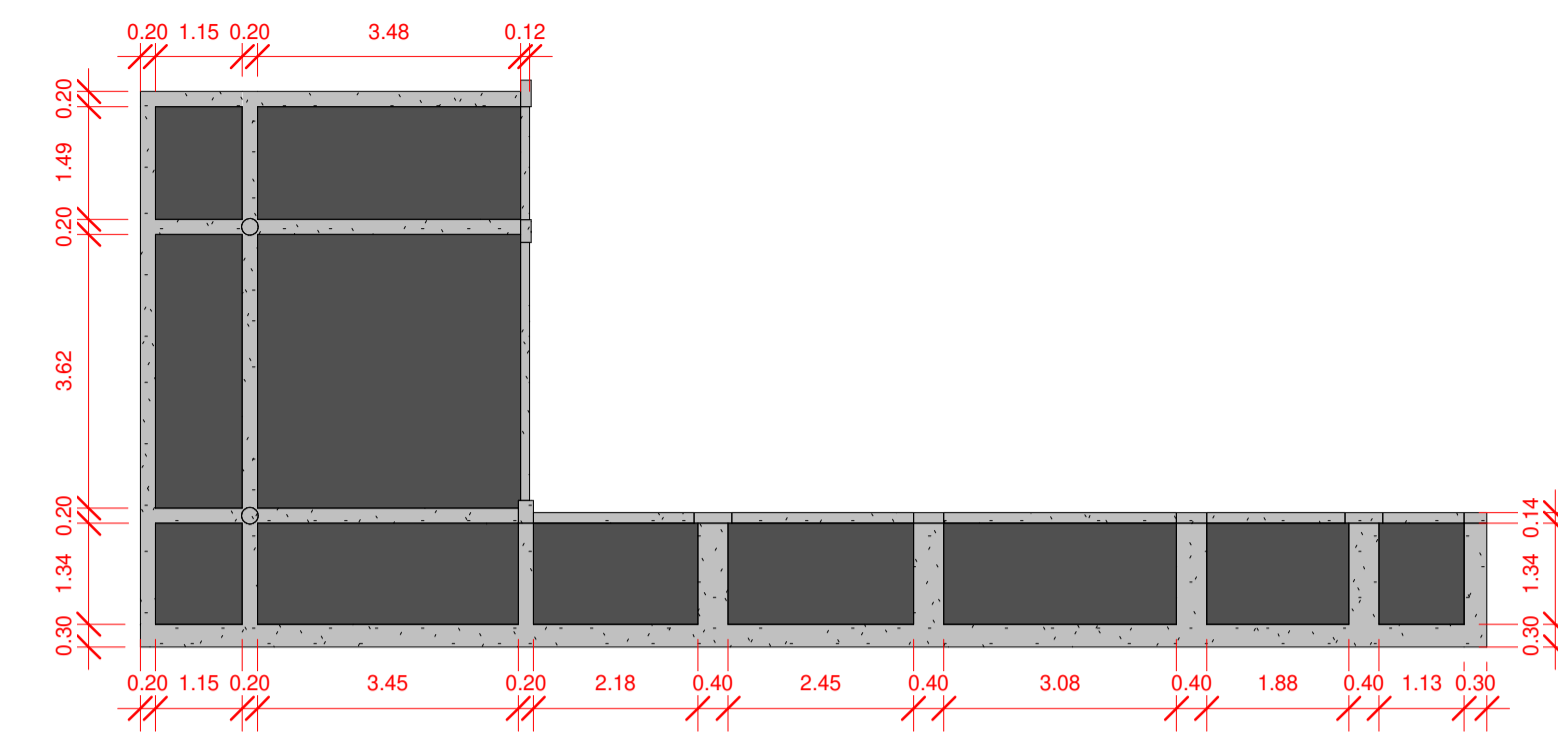
Acesse o site pela sua câmera

Modelos 3D
Arquivos de obra
Todos os Documentos

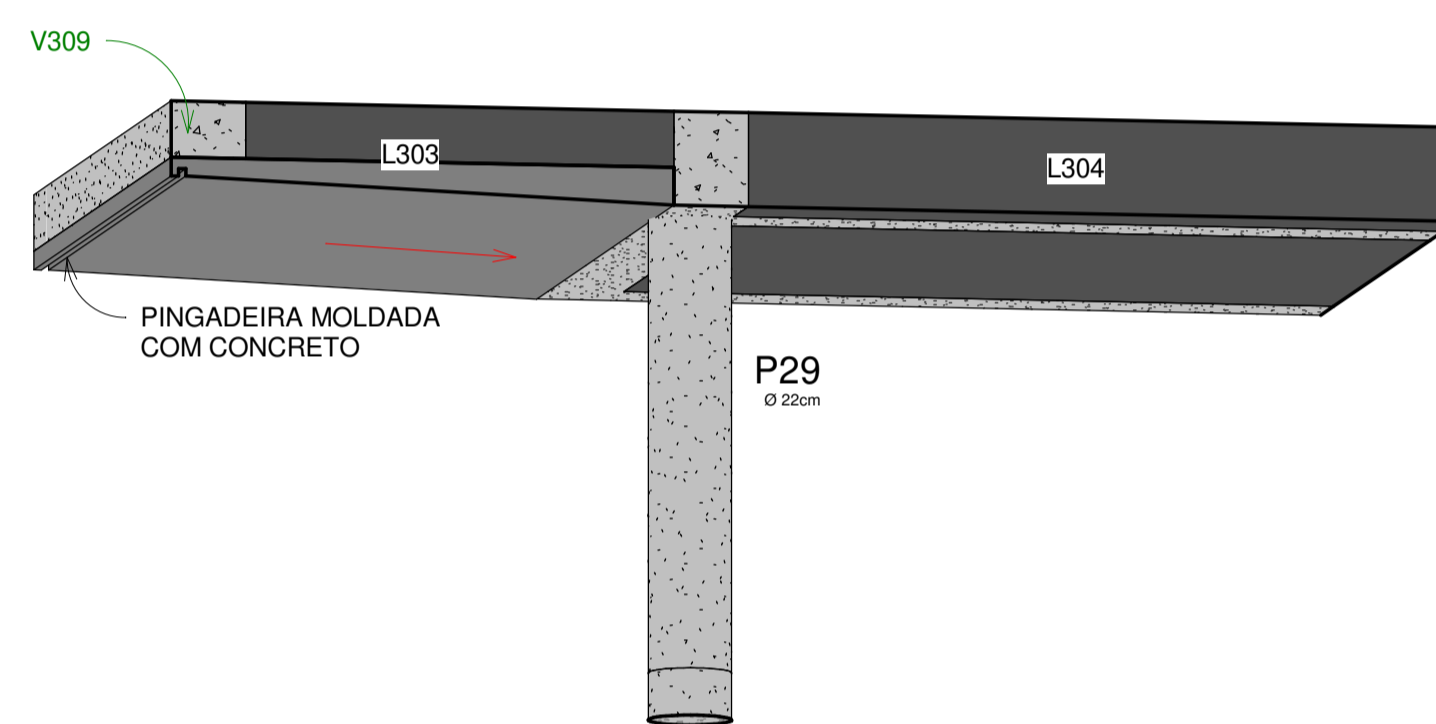
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9444 2240
@andrerodrigueseng
andrerodrigues.eng.br
contato@andrerodrigues.eng.br

Ciente: Paulo George Dantas da Nobrega	Prancha nº: 03/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: PLANTA DE FORMAS: - Laje Superior	1/2 	
CREA-PB: 161890343-9		
Data: 16 / 02 / 2022	Escala: Indicada	



FORMAS - LAJE SUPERIOR (-80cm) 1:100

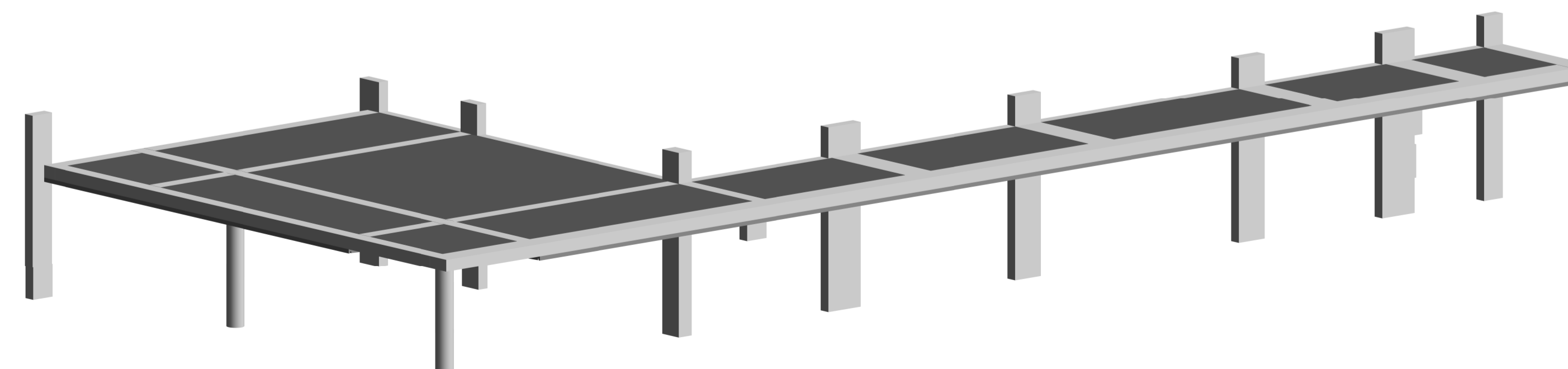
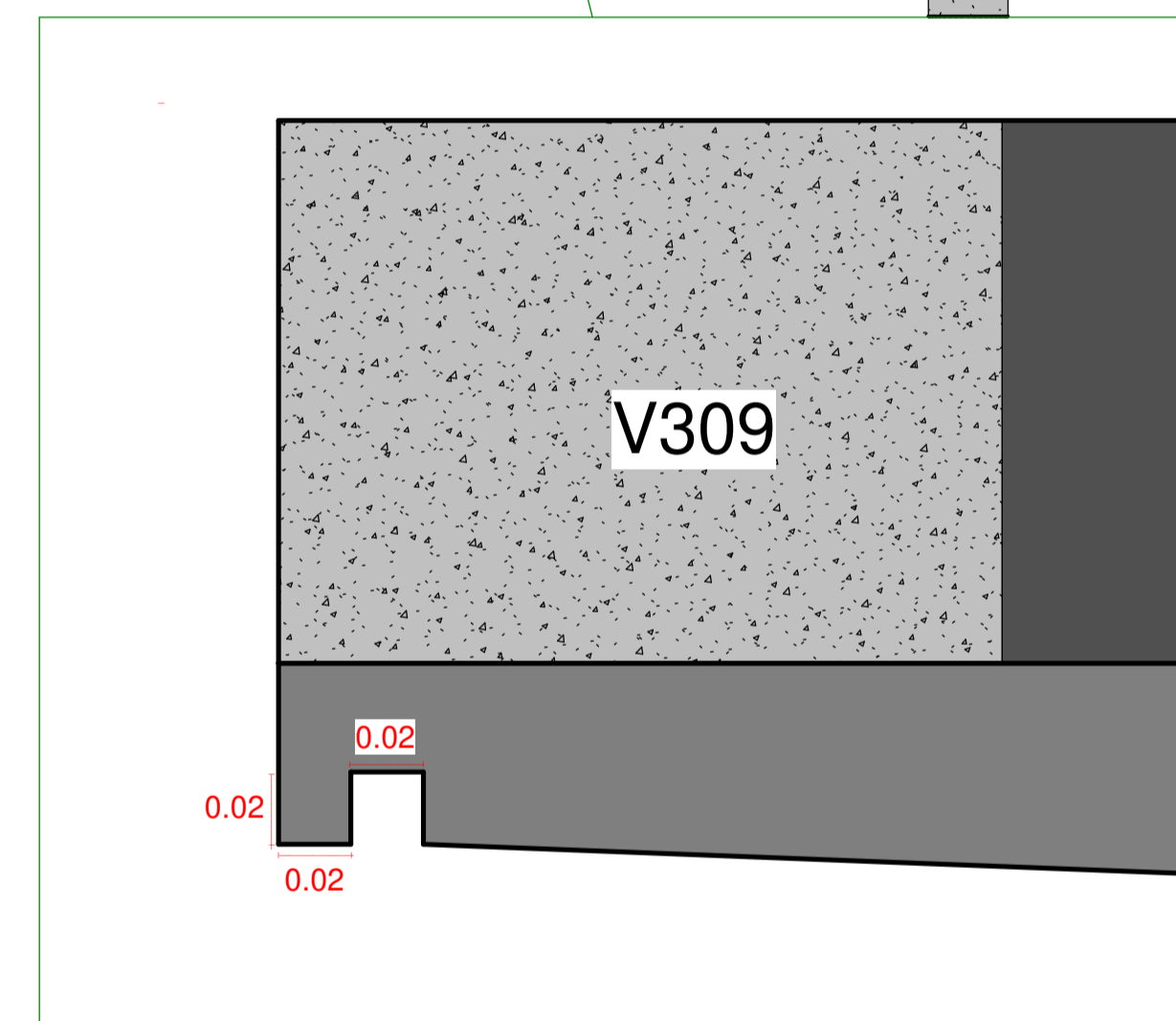
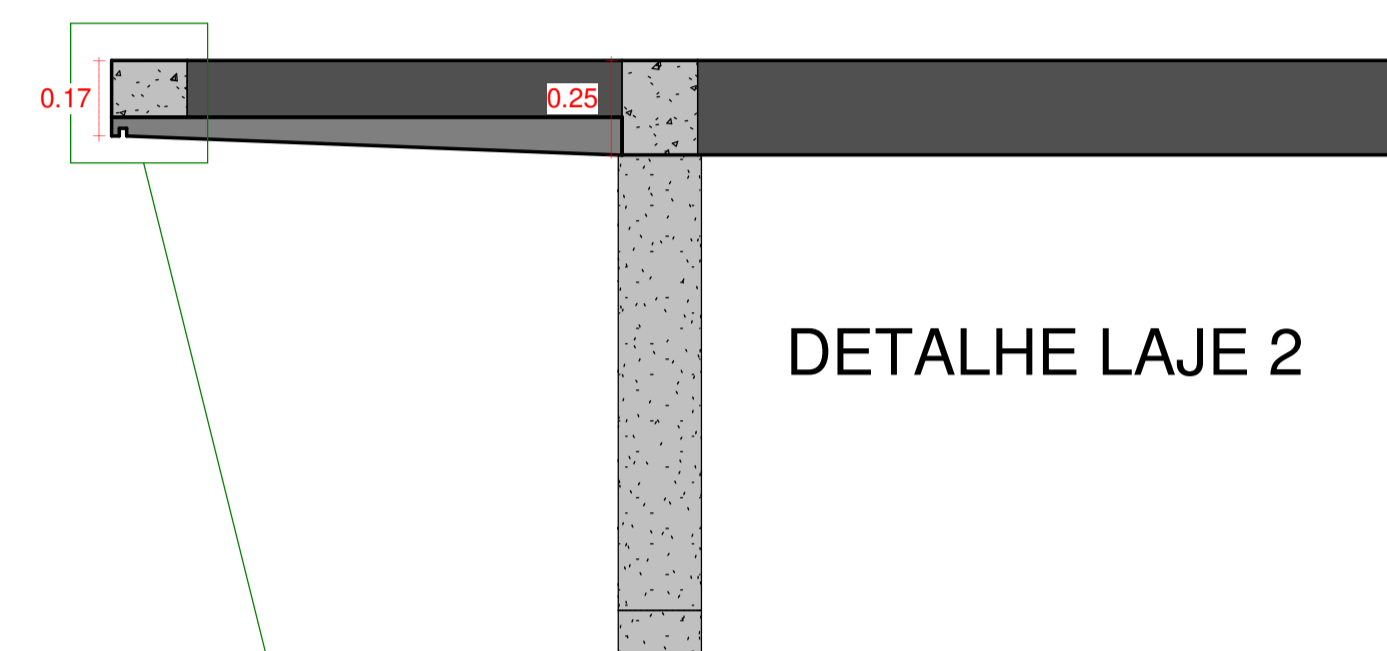
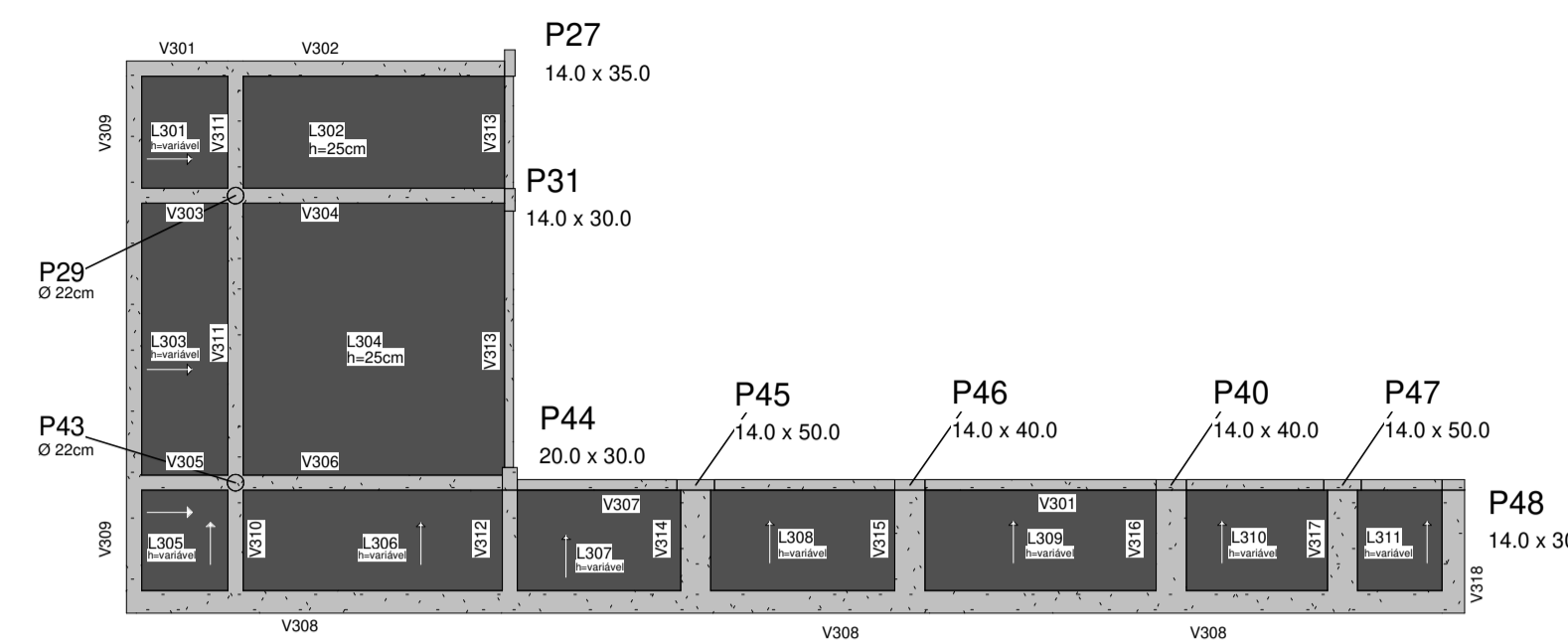


DETALHE LAJES

L301, L303, L305, L306, L307, L308, L309, L310, L311, L411 e L413

VIGAS - LAJE SUP. (-80cm)

Título	Tipo	Volume
V301	20.0 x 15.0	0.04 m³
V302	20.0 x 25.0	0.17 m³
V303	20.0 x 15.0	0.03 m³
V304	20.0 x 25.0	0.17 m³
V305	20.0 x 15.0	0.03 m³
V306	20.0 x 25.0	0.17 m³
V307	14.0 x 50.0	0.74 m³
V308	30.0 x 15.0	0.79 m³
V309	20.0 x 15.0	0.21 m³
V310	20.0 x 15.0	0.04 m³
V311	20.0 x 25.0	0.27 m³
V312	20.0 x 15.0	0.04 m³
V313	12.0 x 30.0	0.18 m³
V314	40.0 x 15.0	0.08 m³
V315	40.0 x 15.0	0.08 m³
V316	40.0 x 15.0	0.08 m³
V317	40.0 x 15.0	0.08 m³
V318	30.0 x 15.0	0.07 m³
		3.28 m³



Perspectiva Geral

NOTAS ESPECÍFICAS

ABNT NBR 6118:2014 - PROJETO DE ESTRUTURAS DE CONCRETO - PROCEDIMENTO

ABNT NBR 6120:1980 VERSÃO CORRIGIDA:2000 - CARGAS PARA O CÁLCULO DE ESTRUTURAS DE EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 6122:2010 - PROJETO E EXECUÇÃO DE FUNDAÇÕES - PROCEDIMENTO

ABNT NBR 6123:1988 VERSÃO CORRIGIDA 2:2013 - FORÇAS DEVIDAS AO VENTO EM EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 8681:2003 VERSÃO CORRIGIDA:2004 - AÇÕES E SEGURANÇA NAS ESTRUTURAS - PROCEDIMENTO

ABNT NBR 8953:2015 - CONCRETO PARA FINS ESTRUTURAIS - CLASSIFICAÇÃO POR GRUPOS DE RESISTÊNCIA E CONSISTÊNCIA

ABNT NBR 12655:2015 VERSÃO CORRIGIDA:2015 - CONCRETO DE CIMENTO PORTLAND - PREPARO, CONTROLE, RECEBIMENTO E ACEITAÇÃO - PROCEDIMENTO

CONSIDERAÇÕES GERAIS

1. CONFERIR MEDIDAS DO PROJETO ARQUITETÔNICO. QUALQUER ALTERAÇÃO DEVE SER NOTIFICADA AOS AUTORES;
2. A EXECUÇÃO DEVERÁ SER FEITA POR PROFISSIONAL HABILITADO E O MESMO DEVERÁ TOMAR CONHECIMENTO DE TODAS AS FOLHAS REFERENTES À OBRA;
3. A RESPONSABILIDADE PELA FISCALIZAÇÃO DA OBRA É DO ENGENHEIRO RESPONSÁVEL TÉCNICO;
4. TODA E QUALQUER ALTERAÇÃO NO RESPECTIVO PROJETO, DEVERÁ PRIMEIRAMENTE, SER CONSULTADO O ENGENHEIRO RESPONSÁVEL TÉCNICO PELO PROJETO E O MESMO DEVERÁ EMITIR PARACER SOBRE A POSSÍVEL ALTERAÇÃO;
5. TODOS OS DIREITOS DE REPRODUÇÃO ESTÃO RESERVADOS AOS AUTORES DOS PROJETOS SENDO QUE A CÓPIA NÃO AUTORIZADA SERÁ ENQUADRA COMO VIOLAÇÃO DE DIREITOS AUTORIAIS.
6. OBSERVAR OS NÍVEIS DAS LAJES E VIGAS E VERIFICAR INDICAÇÃO DE DESNÍVEL E CORTES;
7. NAS PEÇAS EM CONTATO COM O SOLO, UTILIZAR 5 cm DE CONCRETO MAGRO.

COBRIMENTO MÍNIMO DAS ARMADURAS

LAJES	2,0 cm
VIGAS E PILARES	2,5 cm
ELEMENTOS EM CONTATO COM O SOLO	4,0 cm

OBSERVAÇÕES

CONCRETO CLASSE Eci FATOR A/C	VIGAS E PILARES C25 (25 MPa) 28000 MPa < 0,60	FUNDAÇÕES C25 (25 MPa) 28000 MPa < 0,60	LAJES C25 (25 MPa) 28000 MPa < 0,60
-------------------------------	---	---	-------------------------------------

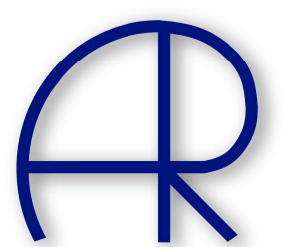


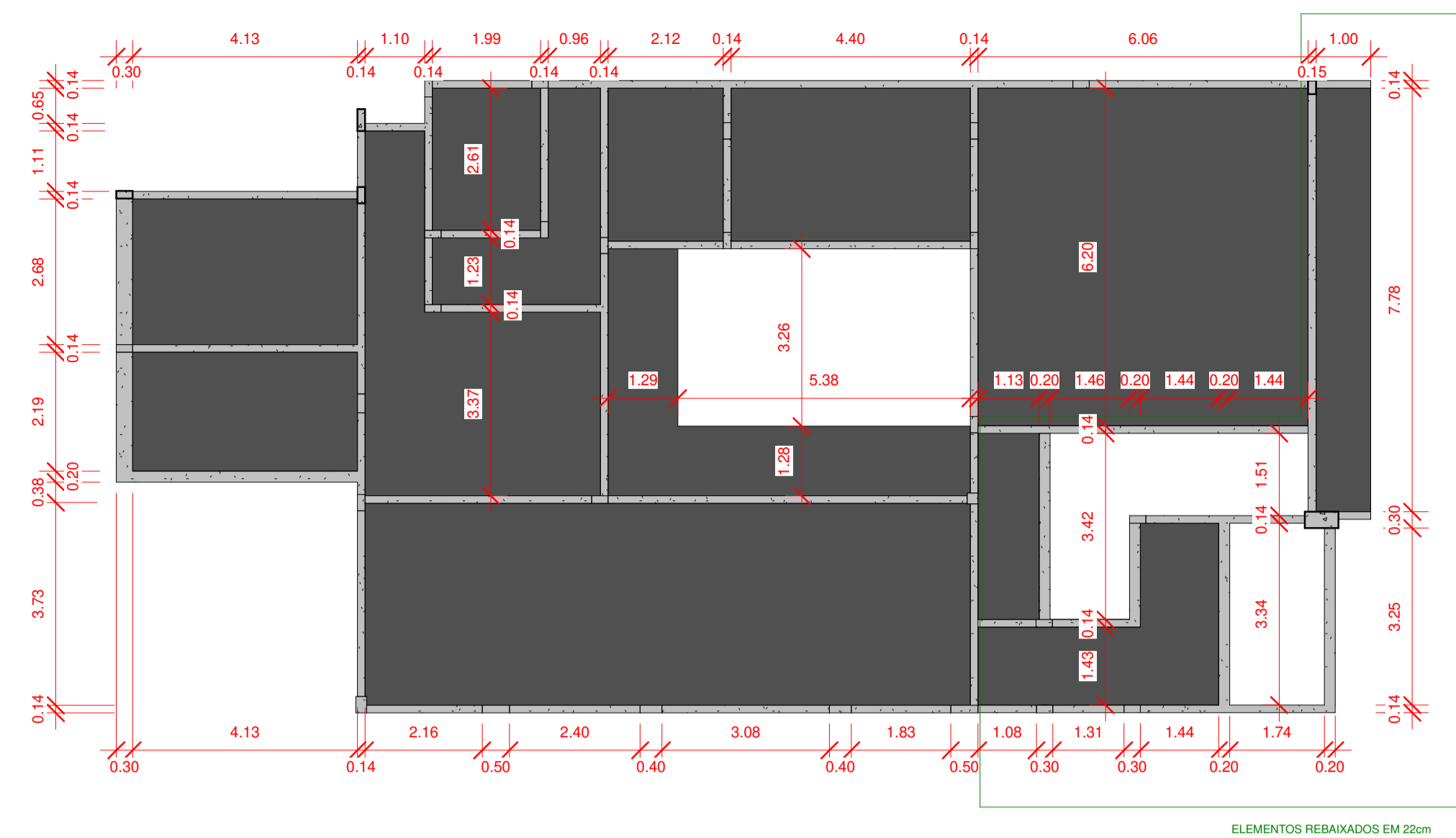
Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

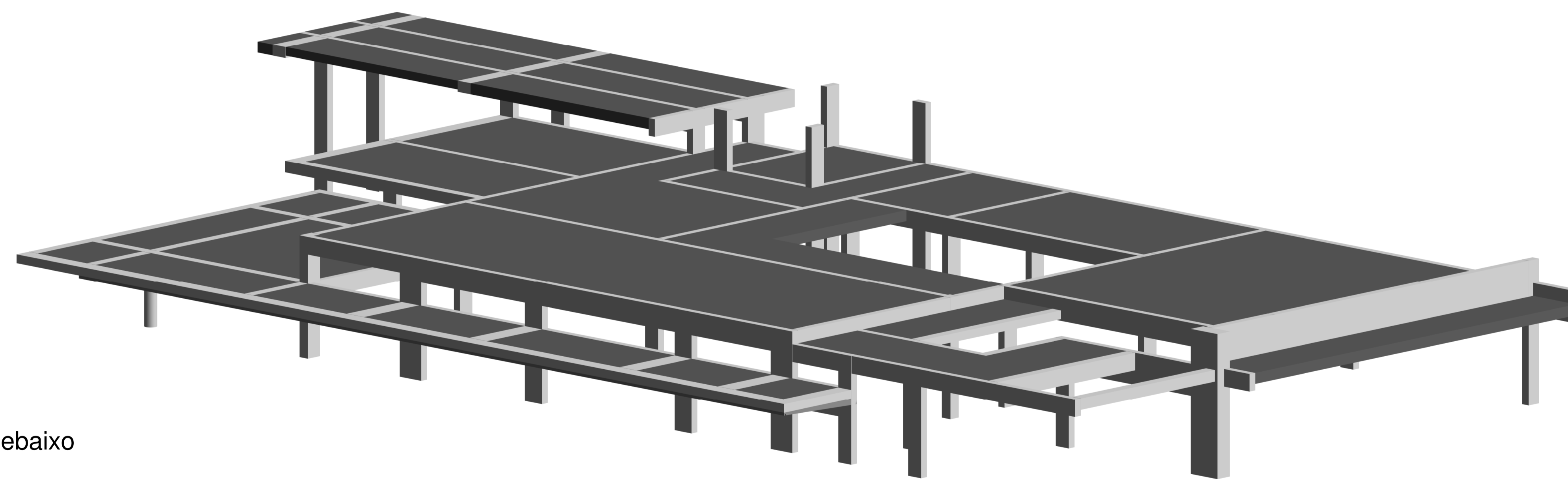
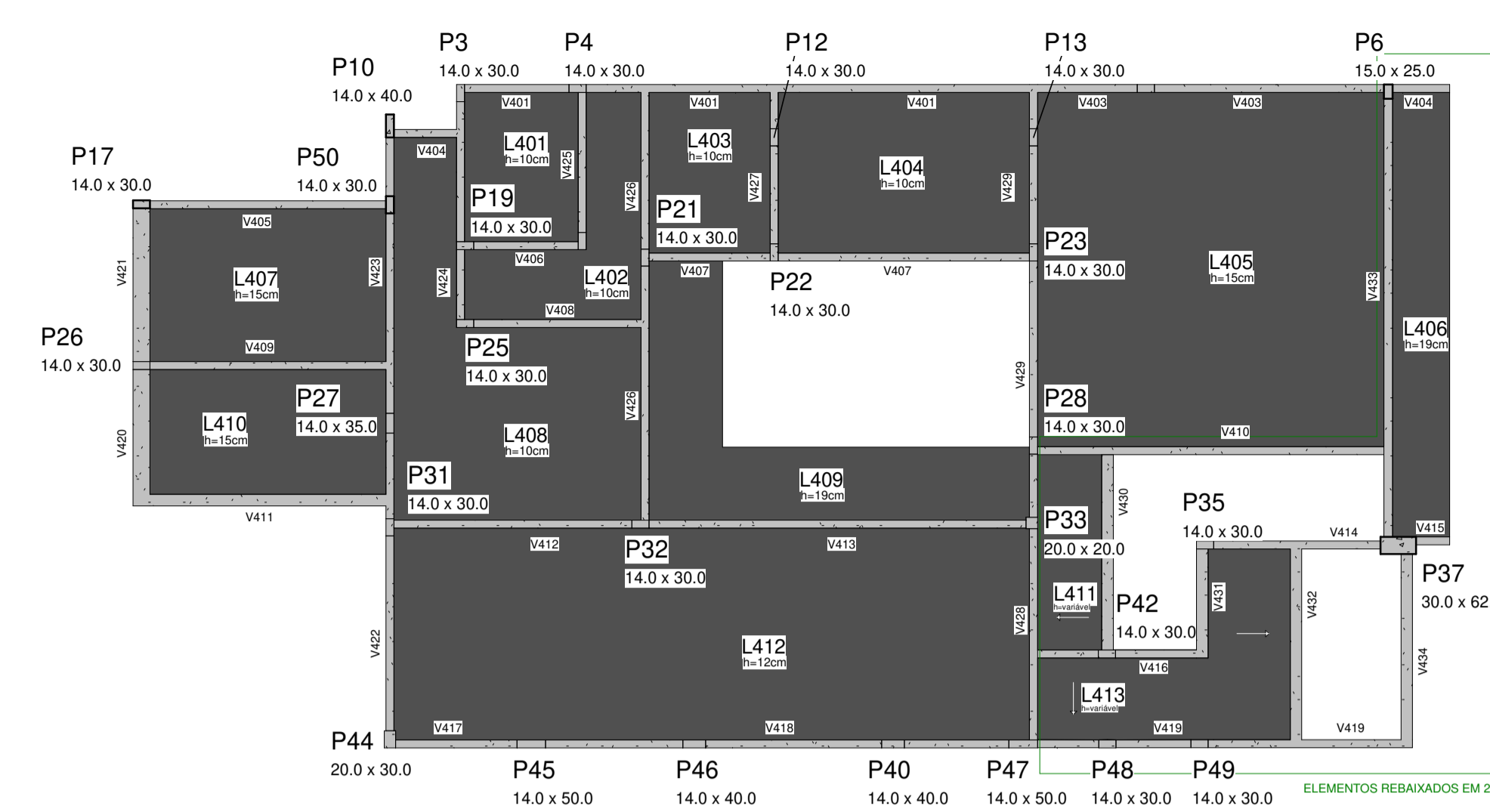
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9444 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Ciente: Paulo George Dantas da Nobrega	Prancha nº: 04/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: PLANTA DE FORMAS: - Laje Superior	2/2 	
CREA-PB: 161890343-9		
Data: 16 / 02 / 2022	Escala: Indicada	



FORMAS - LAJE SUPERIOR
1 : 100



3D Rebaixo

VIGAS - LAJE SUP.		
Título	Tipo	Volume
V401	14.0 x 30.0	0.40 m³
V402	14.0 x 30.0	0.07 m³
V403	14.0 x 55.0	0.39 m³
V404	14.0 x 30.0	0.05 m³
V405	14.0 x 30.0	0.17 m³
V406	14.0 x 30.0	0.08 m³
V407	14.0 x 30.0	0.27 m³
V408	14.0 x 30.0	0.12 m³
V409	14.0 x 30.0	0.17 m³
V410	14.0 x 40.0	0.34 m³
V411	20.0 x 20.0	0.17 m³
V412	14.0 x 30.0	0.17 m³
V413	14.0 x 50.0	0.46 m³
V414	14.0 x 55.0	0.22 m³
V415	14.0 x 30.0	0.02 m³
V416	14.0 x 15.0	0.02 m³
V416	14.0 x 15.0	0.03 m³
V417	14.0 x 30.0	0.09 m³
V418	14.0 x 40.0	0.41 m³

VIGAS - LAJE SUP.		
Título	Tipo	Volume
V419	14.0 x 30.0	0.25 m³
V420	30.0 x 20.0	0.14 m³
V421	30.0 x 20.0	0.16 m³
V422	14.0 x 30.0	0.21 m³
V423	14.0 x 50.0	0.34 m³
V424	14.0 x 40.0	0.21 m³
V425	14.0 x 30.0	0.10 m³
V426	14.0 x 50.0	0.51 m³
V427	14.0 x 30.0	0.10 m³
V428	14.0 x 30.0	0.20 m³
V429	14.0 x 50.0	0.39 m³
V430	20.0 x 15.0	0.10 m³
V431	20.0 x 15.0	0.06 m³
V432	20.0 x 30.0	0.20 m³
V433	15.0 x 70.0	0.16 m³
V433	15.0 x 70.0	0.65 m³
V434	20.0 x 20.0	0.13 m³
		7.57 m³

NOTAS ESPECÍFICAS

ABNT NBR 6118:2014 - PROJETO DE ESTRUTURAS DE CONCRETO - PROCEDIMENTO

ABNT NBR 6120:1980 VERSÃO CORRIGIDA:2000 - CARGAS PARA O CÁLCULO DE ESTRUTURAS DE EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 6122:2010 - PROJETO E EXECUÇÃO DE FUNDAÇÕES - PROCEDIMENTO

ABNT NBR 6123:1988 VERSÃO CORRIGIDA 2:2013 - FORÇAS DEVIDAS AO VENTO EM EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 8681:2003 VERSÃO CORRIGIDA:2004 - AÇÕES E SEGURANÇA NAS ESTRUTURAS - PROCEDIMENTO

ABNT NBR 8953:2015 - CONCRETO PARA FINS ESTRUTURAIS - CLASSIFICAÇÃO POR GRUPOS DE RESISTÊNCIA E CONSISTÊNCIA

ABNT NBR 12655:2015 VERSÃO CORRIGIDA:2015 - CONCRETO DE CIMENTO PORTLAND - PREPARO, CONTROLE, RECEBIMENTO E ACEITAÇÃO - PROCEDIMENTO

CONSIDERAÇÕES GERAIS

1. CONFERIR MEDIDAS DO PROJETO ARQUITETÔNICO. QUALQUER ALTERAÇÃO DEVE SER NOTIFICADA AOS AUTORES;
2. A EXECUÇÃO DEVERÁ SER FEITA POR PROFISSIONAL HABILITADO E O MESMO DEVERÁ TOMAR CONHECIMENTO DE TODAS AS FOLHAS REFERENTES À OBRA;
3. A RESPONSABILIDADE PELA FISCALIZAÇÃO DA OBRA É DO ENGENHEIRO RESPONSÁVEL TÉCNICO;
4. TODA E QUALQUER ALTERAÇÃO NO RESPECTIVO PROJETO, DEVERÁ PRIMEIRAMENTE, SER CONSULTADO O ENGENHEIRO RESPONSÁVEL TÉCNICO PELO PROJETO E O MESMO DEVERÁ EMITIR PARACER SOBRE A POSSÍVEL ALTERAÇÃO;
5. TODOS OS DIREITOS DE REPRODUÇÃO ESTÃO RESERVADOS AOS AUTORES DOS PROJETOS SENDO QUE A CÓPIA NÃO AUTORIZADA SERÁ ENQUADRA COMO VIOLAÇÃO DE DIREITOS AUTORIAIS.
6. OBSERVAR OS NÍVEIS DAS LAJES E VIGAS E VERIFICAR INDICAÇÃO DE DESNÍVEL E CORTES;
7. NAS PEÇAS EM CONTATO COM O SOLO, UTILIZAR 5 cm DE CONCRETO MAGRO.

COBRIMENTO MÍNIMO DAS ARMADURAS

LAJES	2,0 cm
VIGAS E PILARES	2,5 cm
ELEMENTOS EM CONTATO COM O SOLO	4,0 cm

OBSERVAÇÕES

CONCRETO CLASSE Eci FATOR A/C	VIGAS E PILARES C25 (25 MPa) 28000 MPa < 0,60	FUNDAÇÕES C25 (25 MPa) 28000 MPa < 0,60	LAJES C25 (25 MPa) 28000 MPa < 0,60
-------------------------------	---	---	-------------------------------------



Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

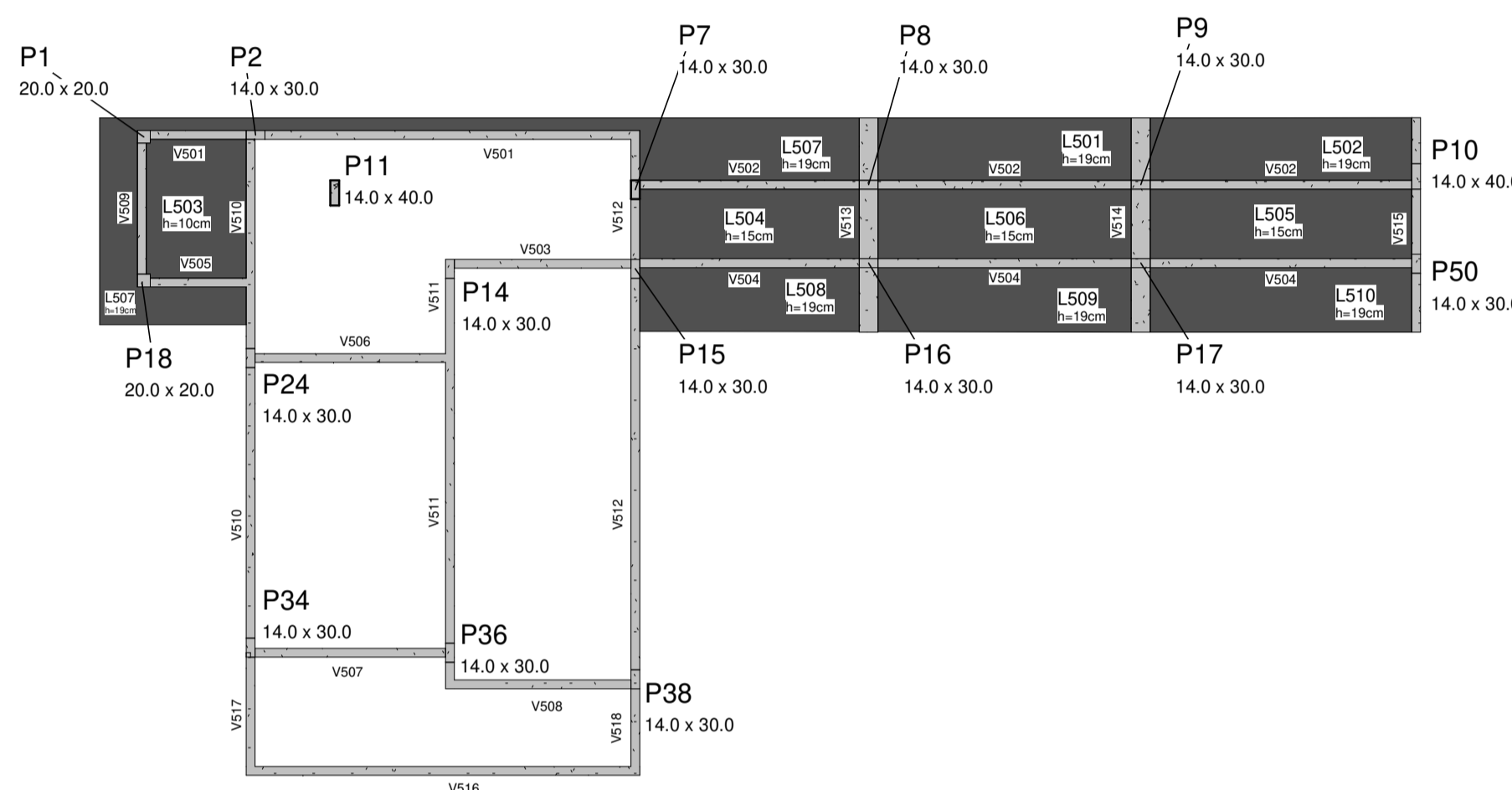
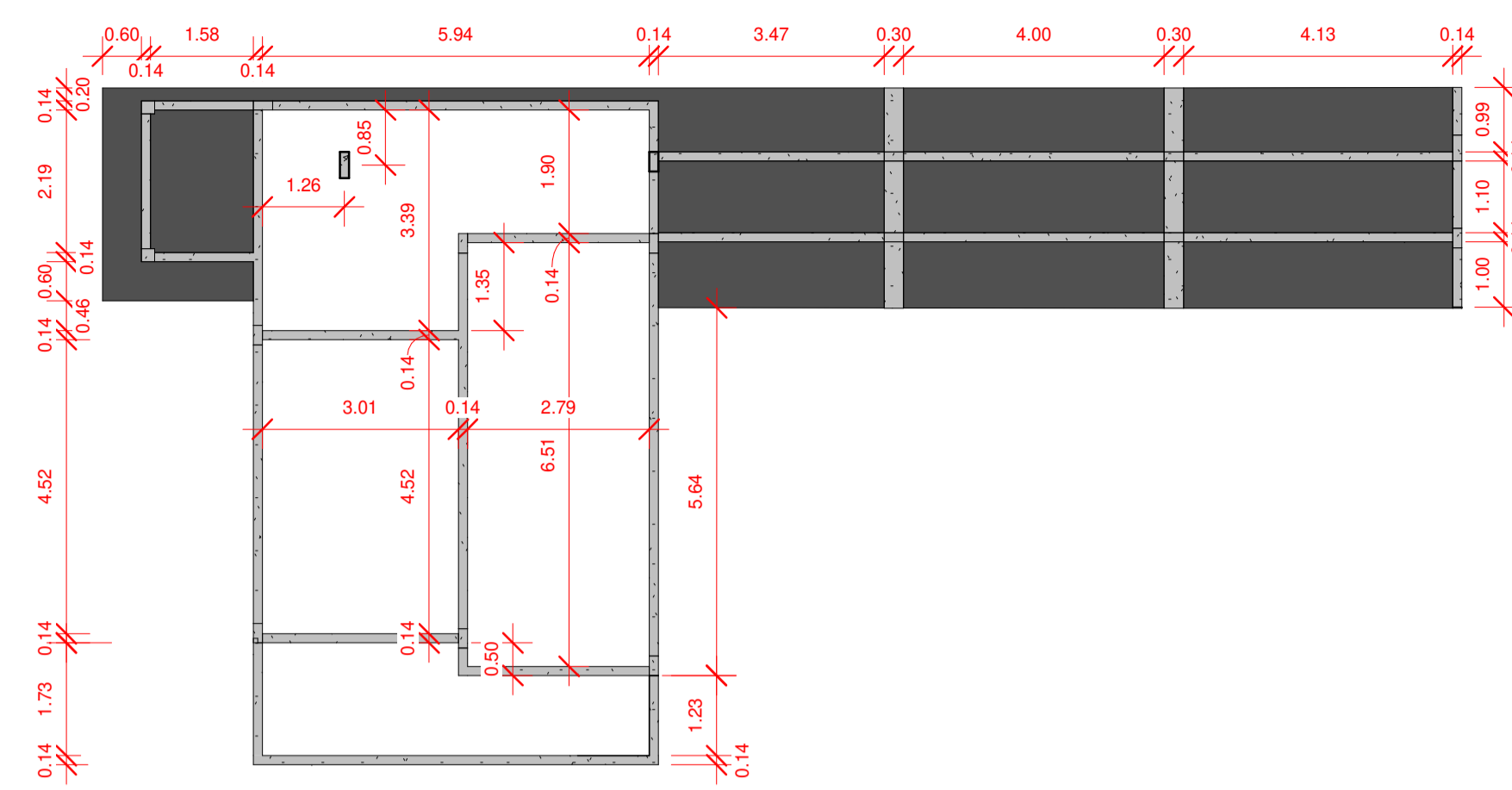
(83) 9 9444 2240

@andrerodrigueseng

andrerodrigues.eng.br

contato@andrerodrigues.eng.br

Ciente: Paulo George Dantas da Nobrega	Prancha nº: 05/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: PLANTA DE FORMAS: - 1º Andar - Laje Caixa D'água - Laje Chalé - Cobertura		
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



FORMAS - 1º ANDAR

1 : 100

VIGAS - 1º ANDAR		
Título	Tipo	Volume

V501	14.0 x 30.0	0.31 m³
V502	14.0 x 40.0	0.65 m³
V503	14.0 x 30.0	0.12 m³
V504	14.0 x 40.0	0.65 m³
V505	14.0 x 30.0	0.06 m³
V506	14.0 x 30.0	0.13 m³
V507	14.0 x 30.0	0.13 m³
V508	14.0 x 30.0	0.12 m³
V509	14.0 x 30.0	0.09 m³
V510	14.0 x 40.0	0.42 m³
V511	14.0 x 30.0	0.26 m³
V512	14.0 x 50.0	0.55 m³
V513	30.0 x 19.0	0.18 m³
V514	30.0 x 19.0	0.18 m³
V515	14.0 x 30.0	0.11 m³
V516	14.0 x 30.0	0.26 m³
V517	14.0 x 30.0	0.07 m³
V518	14.0 x 30.0	0.05 m³
		4.34 m³

VIGAS - LAJE CHALÉ E LAJE CAIXA...		
Título	Tipo	Volume

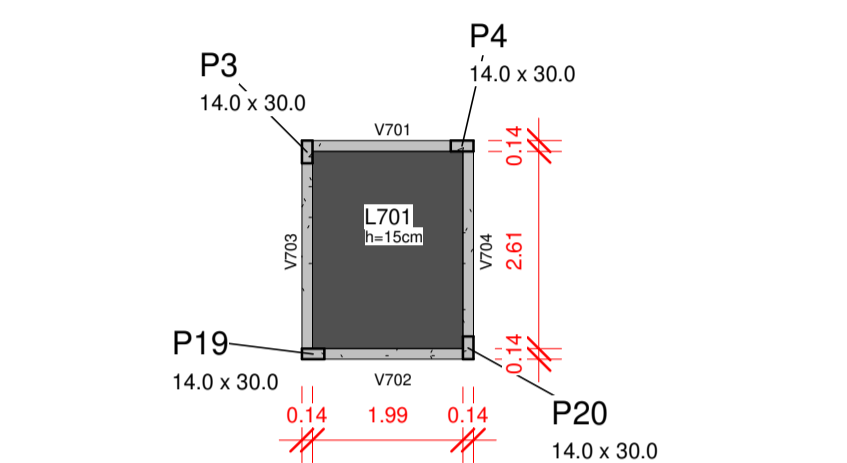
V601	14.0 x 50.0	0.32 m³
V701	14.0 x 30.0	0.08 m³
V702	14.0 x 30.0	0.08 m³
V703	14.0 x 30.0	0.10 m³
V704	14.0 x 30.0	0.10 m³
		0.68 m³

VIGAS - COBERTURA		
Título	Tipo	Volume

V801	14.0 x 30.0	0.08 m³
V802	14.0 x 30.0	0.08 m³
V803	14.0 x 30.0	0.10 m³
V804	14.0 x 30.0	0.10 m³
		0.36 m³

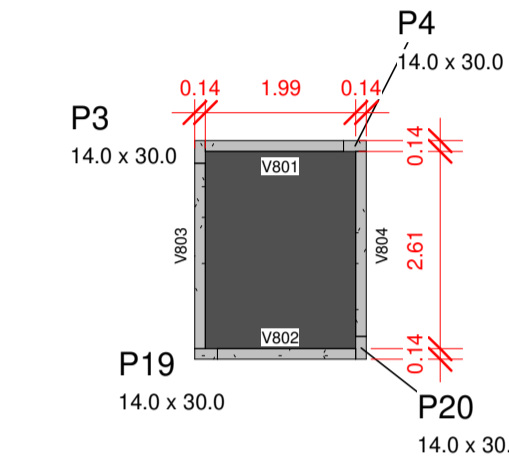
FORMAS - LAJE CHALÉ

1 : 100



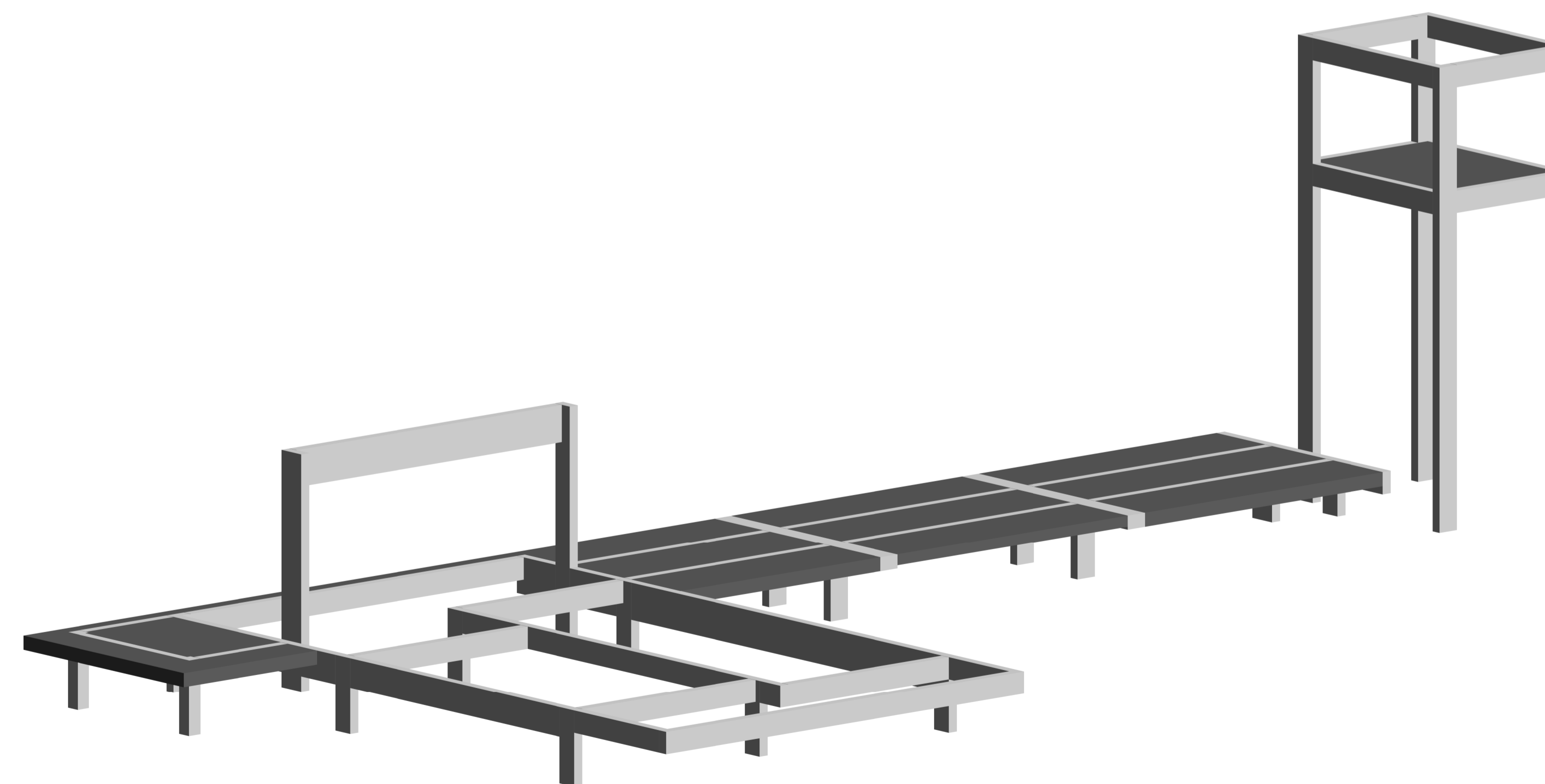
FORMAS - LAJE CAIXA D'ÁGUA

1 : 100



FORMAS - COBERTURA

1 : 100



PERSPECTIVA 1º ANDAR

NOTAS ESPECÍFICAS

ABNT NBR 6118:2014 - PROJETO DE ESTRUTURAS DE CONCRETO - PROCEDIMENTO

ABNT NBR 6120:1980 VERSÃO CORRIGIDA:2000 – CARGAS PARA O CÁLCULO DE ESTRUTURAS DE EDIFICAÇÕES – PROCEDIMENTO

ABNT NBR 6122:2010 – PROJETO E EXECUÇÃO DE FUNDAÇÕES – PROCEDIMENTO

ABNT NBR 6123:1988 VERSÃO CORRIGIDA 2:2013 – FORÇAS DEVIDAS AO VENTO EM EDIFICAÇÕES – PROCEDIMENTO

ABNT NBR 8681:2003 VERSÃO CORRIGIDA:2004 – AÇÕES E SEGURANÇA NAS ESTRUTURAS – PROCEDIMENTO

ABNT NBR 8953:2015 – CONCRETO PARA FINS ESTRUTURAIS – CLASSIFICAÇÃO POR GRUPOS DE RESISTÊNCIA E CONSISTÊNCIA

ABNT NBR 12655:2015 VERSÃO CORRIGIDA:2015 - CONCRETO DE CIMENTO PORTLAND - PREPARO, CONTROLE, RECEBIMENTO E ACEITAÇÃO - PROCEDIMENTO

CONSIDERAÇÕES GERAIS

1. CONFERIR MEDIDAS DO PROJETO ARQUITETÔNICO. QUALQUER ALTERAÇÃO DEVE SER NOTIFICADA AOS AUTORES;
2. A EXECUÇÃO DEVERÁ SER FEITA POR PROFISSIONAL HABILITADO E O MESMO DEVERÁ TOMAR CONHECIMENTO DE TODAS AS FOLHAS REFERENTES À OBRA;
3. A RESPONSABILIDADE PELA FISCALIZAÇÃO DA OBRA É DO ENGENHEIRO RESPONSÁVEL TÉCNICO;
4. TODA E QUALQUER ALTERAÇÃO NO RESPECTIVO PROJETO, DEVERÁ PRIMEIRAMENTE, SER CONSULTADO O ENGENHEIRO RESPONSÁVEL TÉCNICO PELO PROJETO E O MESMO DEVERÁ EMITIR PARACER SOBRE A POSSÍVEL ALTERAÇÃO;
5. TODOS OS DIREITOS DE REPRODUÇÃO ESTÃO RESERVADOS AOS AUTORES DOS PROJETOS SENDO QUE A CÓPIA NÃO AUTORIZADA SERÁ ENQUADRA COMO VIOLAÇÃO DE DIREITOS AUTORIAIS.
6. OBSERVAR OS NÍVEIS DAS LAJES E VIGAS E VERIFICAR INDICAÇÃO DE DESNÍVEL E CORTES;
7. NAS PEÇAS EM CONTATO COM O SOLO, UTILIZAR 5 cm DE CONCRETO MAGRO.

COBRIMENTO MÍNIMO DAS ARMADURAS

LAJES	2,0 cm
VIGAS E PILARES	2,5 cm
ELEMENTOS EM CONTATO COM O SOLO	4,0 cm

OBSERVAÇÕES

CONCRETO CLASSE Eci FATOR A/C	VIGAS E PILARES C25 (25 MPa) 28000 MPa < 0,60	FUNDAÇÕES C25 (25 MPa) 28000 MPa < 0,60	LAJES C25 (25 MPa) 28000 MPa < 0,60
-------------------------------	---	---	-------------------------------------



Acesse o site pela sua câmera

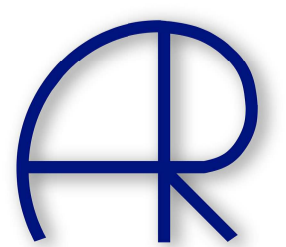
ANDRÉ RODRIGUES
Engenheiro Estrutural

Modelos 3D
Arquivos de obra
Todos os Documentos

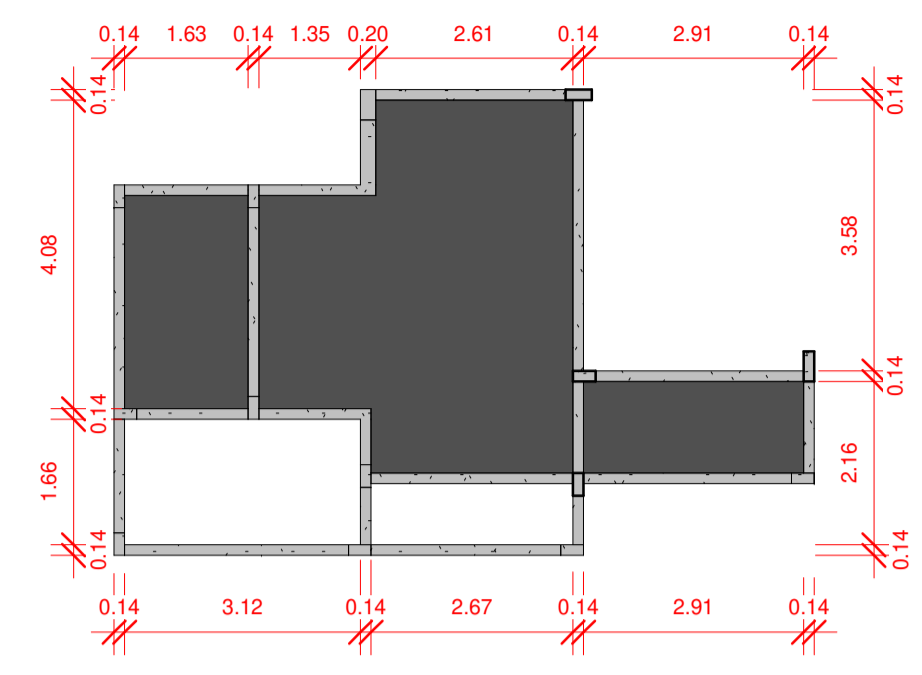
(83) 9 9444 2240
@andrerodrigueseng

andrerodrigues.eng.br
contato@andrerodrigues.eng.br

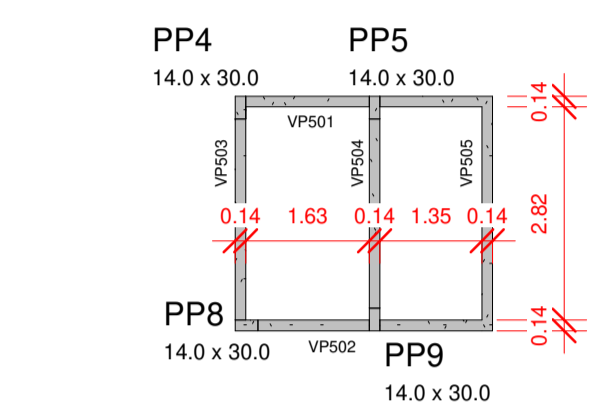
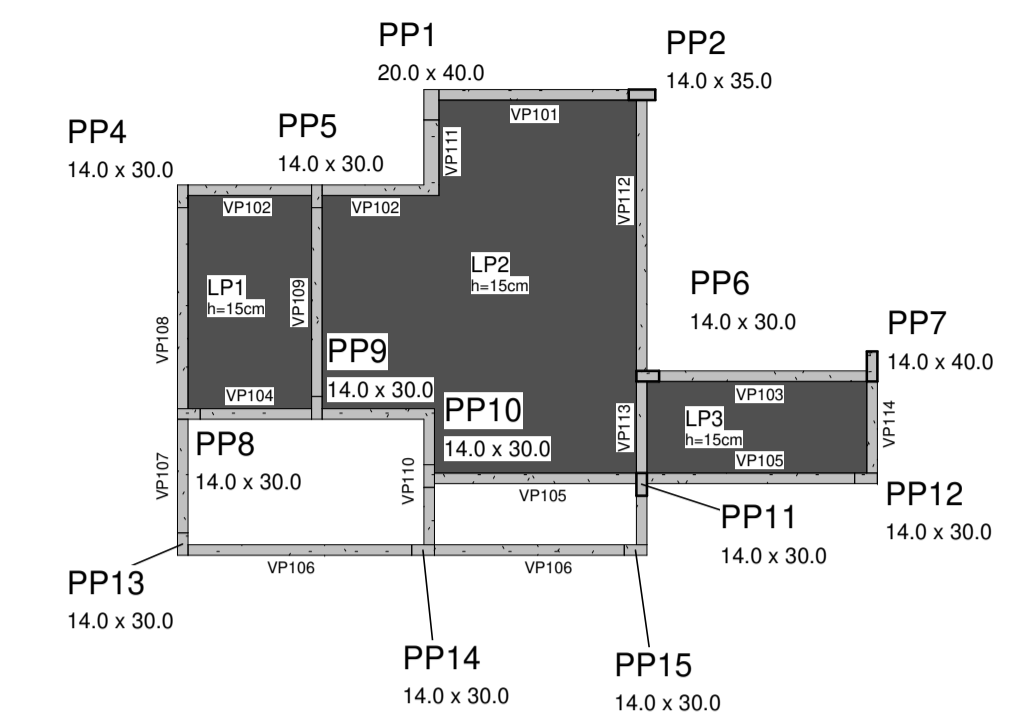
Ciente: Paulo George Dantas da Nobrega	Prancha nº: 06/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: PLANTA DE FORMAS: - Piscina		
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



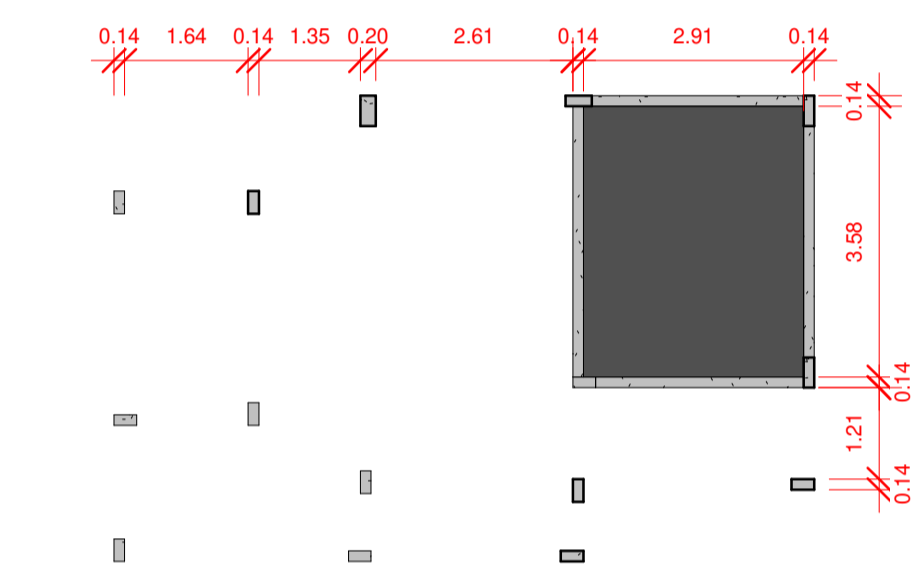
VIGAS PISCINA		
Título	Tipo	Volume
VP101	14.0 x 20.0	0.07 m³
VP102	14.0 x 35.0	0.16 m³
VP103	14.0 x 20.0	0.08 m³
VP104	14.0 x 30.0	0.12 m³
VP105	14.0 x 40.0	0.30 m³
VP106	14.0 x 20.0	0.15 m³
VP107	14.0 x 20.0	0.04 m³
VP108	14.0 x 35.0	0.13 m³
VP109	14.0 x 35.0	0.12 m³
VP110	14.0 x 30.0	0.06 m³
VP111	20.0 x 20.0	0.03 m³
VP112	14.0 x 30.0	0.15 m³
VP113	14.0 x 40.0	0.04 m³
VP113	14.0 x 40.0	0.07 m³
VP114	14.0 x 20.0	0.03 m³
VP201	14.0 x 30.0	0.12 m³
VP202	14.0 x 30.0	0.12 m³
VP203	14.0 x 30.0	0.15 m³
VP204	14.0 x 30.0	0.13 m³
VP301	14.0 x 30.0	0.22 m³
VP302	14.0 x 30.0	0.06 m³
VP303	14.0 x 30.0	0.12 m³
VP305	14.0 x 30.0	0.04 m³
VP306	14.0 x 30.0	0.03 m³
VP307	14.0 x 30.0	0.05 m³
VP307	14.0 x 30.0	0.13 m³
VP401	14.0 x 20.0	0.08 m³
VP402	14.0 x 20.0	0.08 m³
VP403	14.0 x 20.0	0.15 m³
VP404	14.0 x 20.0	0.04 m³
VP405	14.0 x 20.0	0.04 m³
VP406	14.0 x 20.0	0.02 m³
VP501	14.0 x 30.0	0.13 m³
VP502	14.0 x 30.0	0.12 m³
VP503	14.0 x 30.0	0.11 m³
VP504	14.0 x 30.0	0.11 m³
VP505	14.0 x 30.0	0.12 m³
		3.72 m³



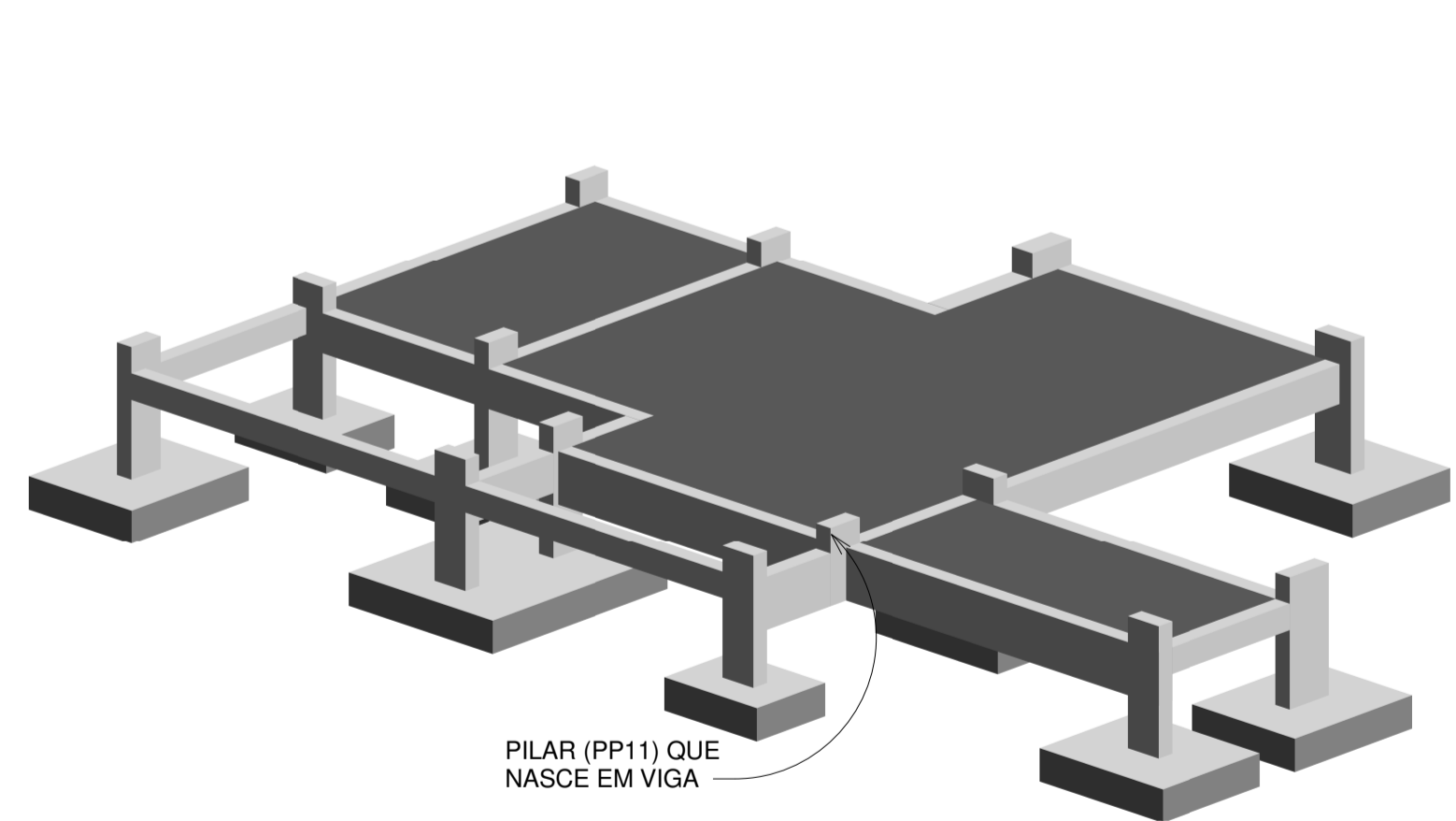
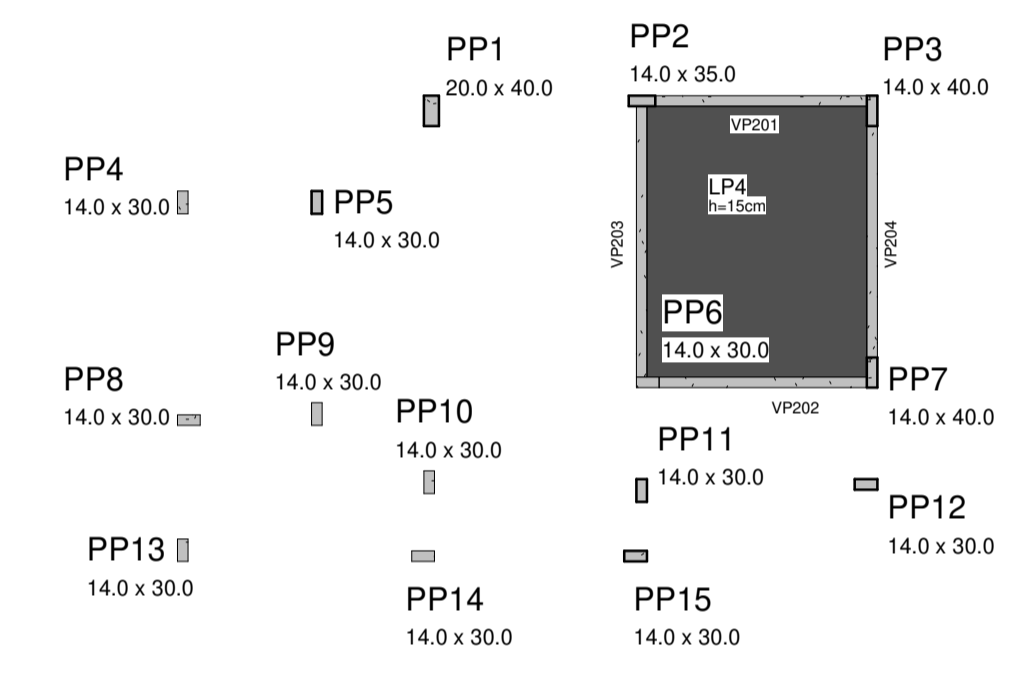
FORMAS - FUNDO PISCINA 1 : 100



FORMAS - TETO SAUNA 1 : 100

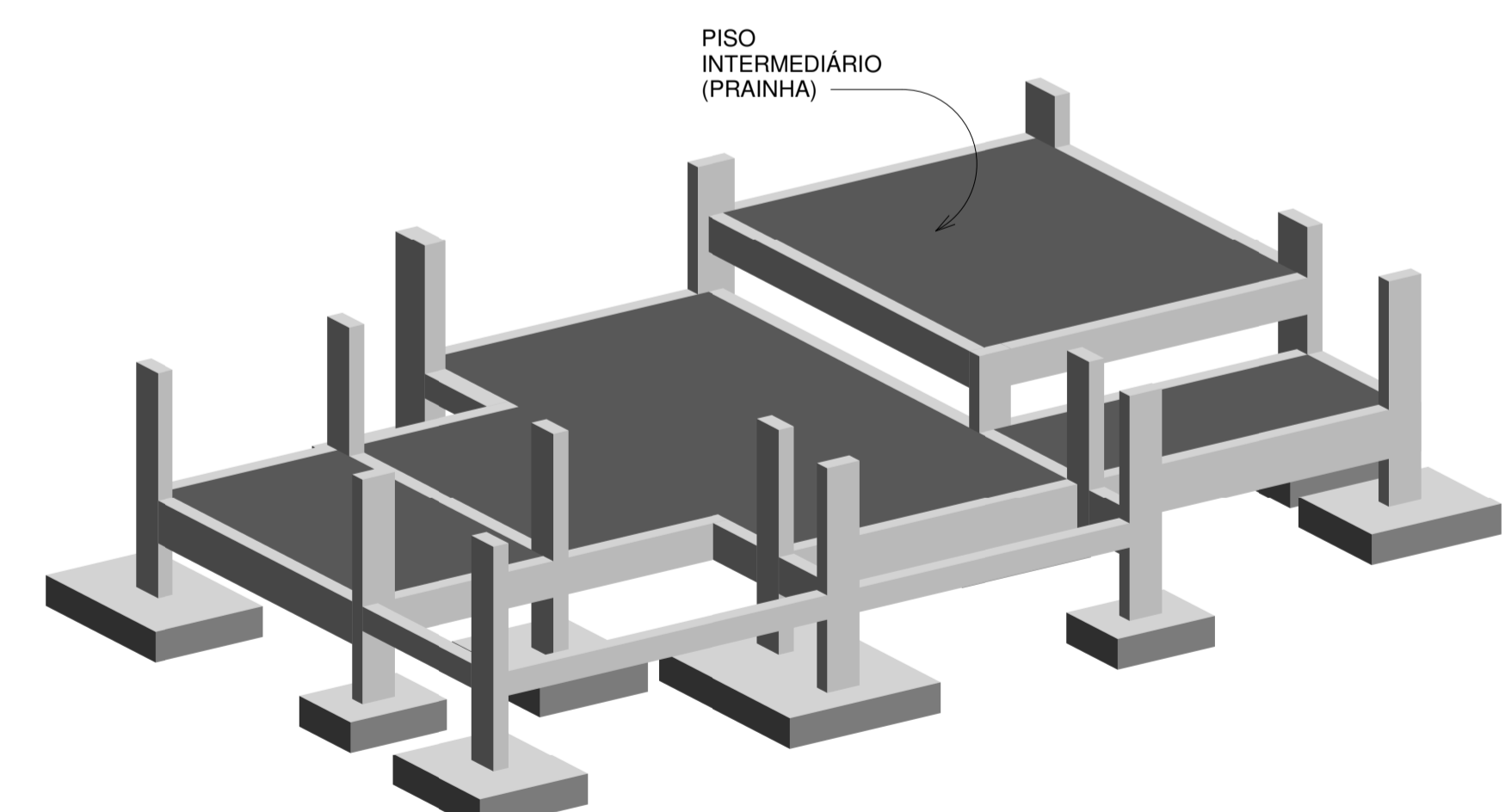


FORMAS - PRAINHA 1 : 100



PERSPECTIVA - FUNDO PISCINA

PILAR (PP11) QUE NASCE EM VIGA



PERSPECTIVA - PRAINHA

PISO INTERMEDIÁRIO (PRAINHA)

NOTAS ESPECÍFICAS

ABNT NBR 6118:2014 - PROJETO DE ESTRUTURAS DE CONCRETO - PROCEDIMENTO

ABNT NBR 6120:1980 VERSÃO CORRIGIDA:2000 - CARGAS PARA O CÁLCULO DE ESTRUTURAS DE EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 6122:2010 - PROJETO E EXECUÇÃO DE FUNDAÇÕES - PROCEDIMENTO

ABNT NBR 6123:1988 VERSÃO CORRIGIDA 2:2013 - FORÇAS DEVIDAS AO VENTO EM EDIFICAÇÕES - PROCEDIMENTO

ABNT NBR 8681:2003 VERSÃO CORRIGIDA:2004 - AÇÕES E SEGURANÇA NAS ESTRUTURAS - PROCEDIMENTO

ABNT NBR 8953:2015 - CONCRETO PARA FINS ESTRUTURAIS - CLASSIFICAÇÃO POR GRUPOS DE RESISTÊNCIA E CONSISTÊNCIA

ABNT NBR 12655:2015 VERSÃO CORRIGIDA:2015 - CONCRETO DE CIMENTO PORTLAND - PREPARO, CONTROLE, RECEBIMENTO E ACEITAÇÃO - PROCEDIMENTO

CONSIDERAÇÕES GERAIS

1. CONFERIR MEDIDAS DO PROJETO ARQUITETÔNICO. QUALQUER ALTERAÇÃO DEVE SER NOTIFICADA AOS AUTORES;
2. A EXECUÇÃO DEVERÁ SER FEITA POR PROFISSIONAL HABILITADO E O MESMO DEVERÁ TOMAR CONHECIMENTO DE TODAS AS FOLHAS REFERENTES À OBRA;
3. A RESPONSABILIDADE PELA FISCALIZAÇÃO DA OBRA É DO ENGENHEIRO RESPONSÁVEL TÉCNICO;
4. TODA E QUALQUER ALTERAÇÃO NO RESPECTIVO PROJETO, DEVERÁ PRIMEIRAMENTE, SER CONSULTADO O ENGENHEIRO RESPONSÁVEL TÉCNICO PELO PROJETO E O MESMO DEVERÁ EMITIR PARACER SOBRE A POSSÍVEL ALTERAÇÃO;
5. TODOS OS DIREITOS DE REPRODUÇÃO ESTÃO RESERVADOS AOS AUTORES DOS PROJETOS SENDO QUE A CÓPIA NÃO AUTORIZADA SERÁ ENQUADRA COMO VIOLAÇÃO DE DIREITOS AUTORIAIS.
6. OBSERVAR OS NÍVEIS DAS LAJES E VIGAS E VERIFICAR INDICAÇÃO DE DESNÍVEL E CORTES;
7. NAS PEÇAS EM CONTATO COM O SOLO, UTILIZAR 5 cm DE CONCRETO MAGRO.

COBRIMENTO MÍNIMO DAS ARMADURAS

LAJES	2,0 cm
VIGAS E PILARES	2,5 cm
ELEMENTOS EM CONTATO COM O SOLO	4,0 cm

OBSERVAÇÕES

CONCRETO CLASSE Eci FATOR A/C	VIGAS E PILARES C25 (25 MPa) 28000 MPa < 0,60	FUNDAÇÕES C25 (25 MPa) 28000 MPa < 0,60	LAJES C25 (25 MPa) 28000 MPa < 0,60
-------------------------------	---	---	-------------------------------------




Acesse o site pela sua câmera

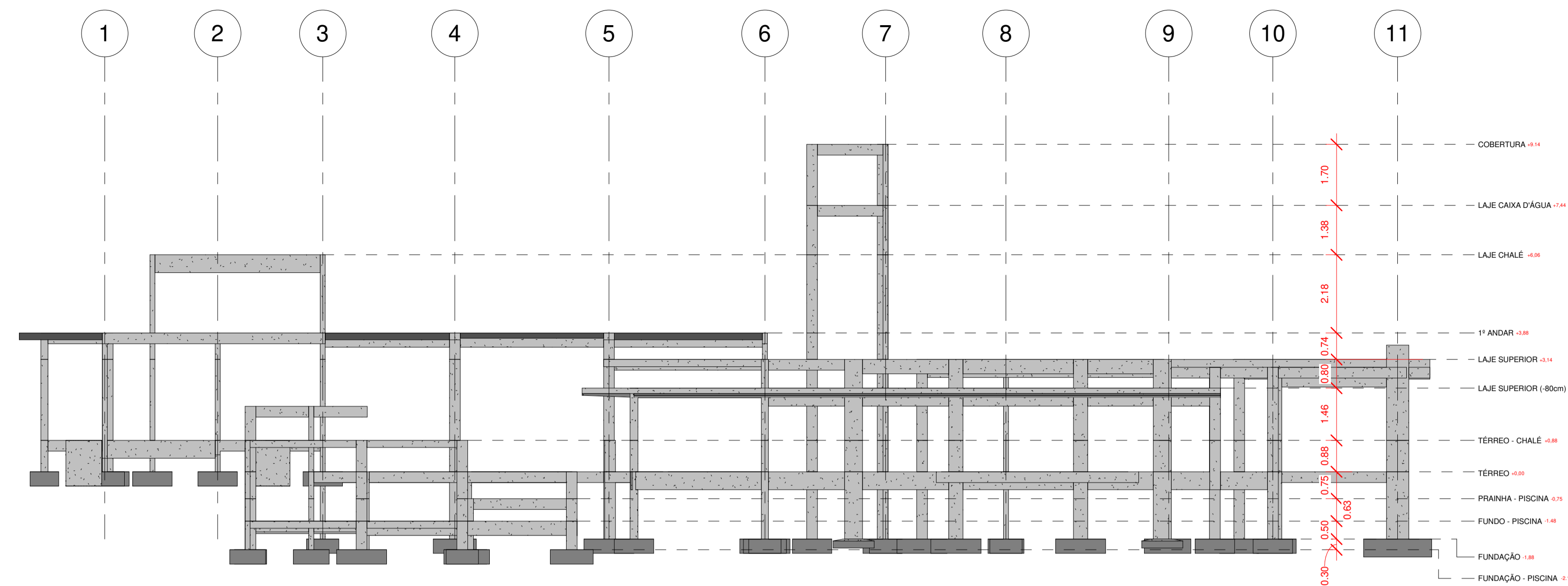
Modelos 3D
Arquivos de obra
Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240
@andrerodrigueseng

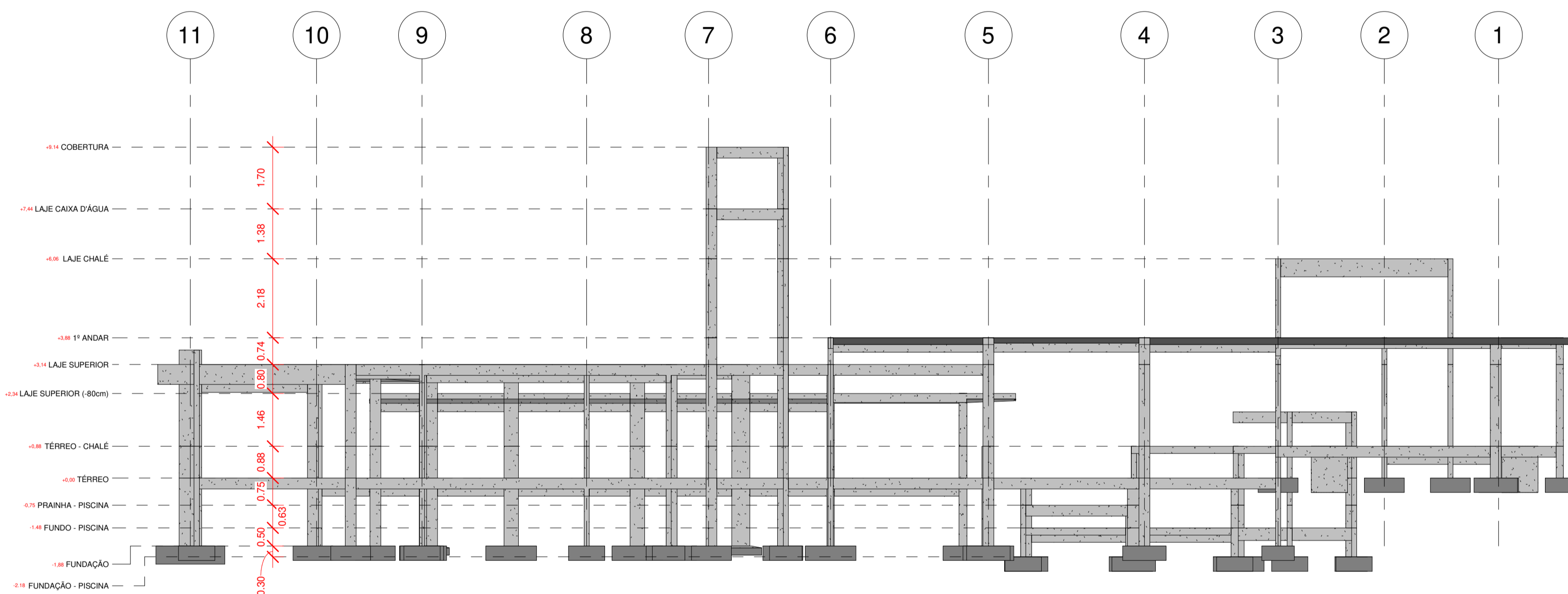
andrerodrigues.eng.br
contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha nº: 07/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: FACHADAS		
CREA-PB: 161890343-9		
Data: 16 / 02 / 2022	Escala: Indicada	



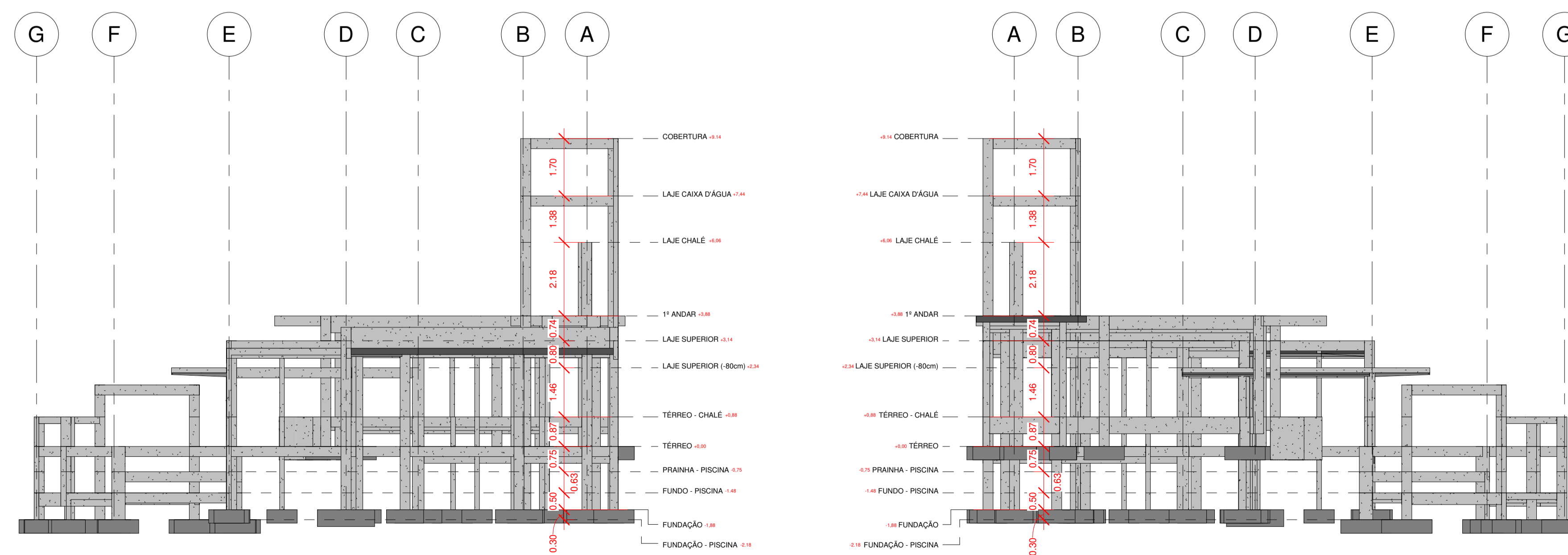
FACHADA LESTE

1 : 100



FACHADA OESTE

1 : 100

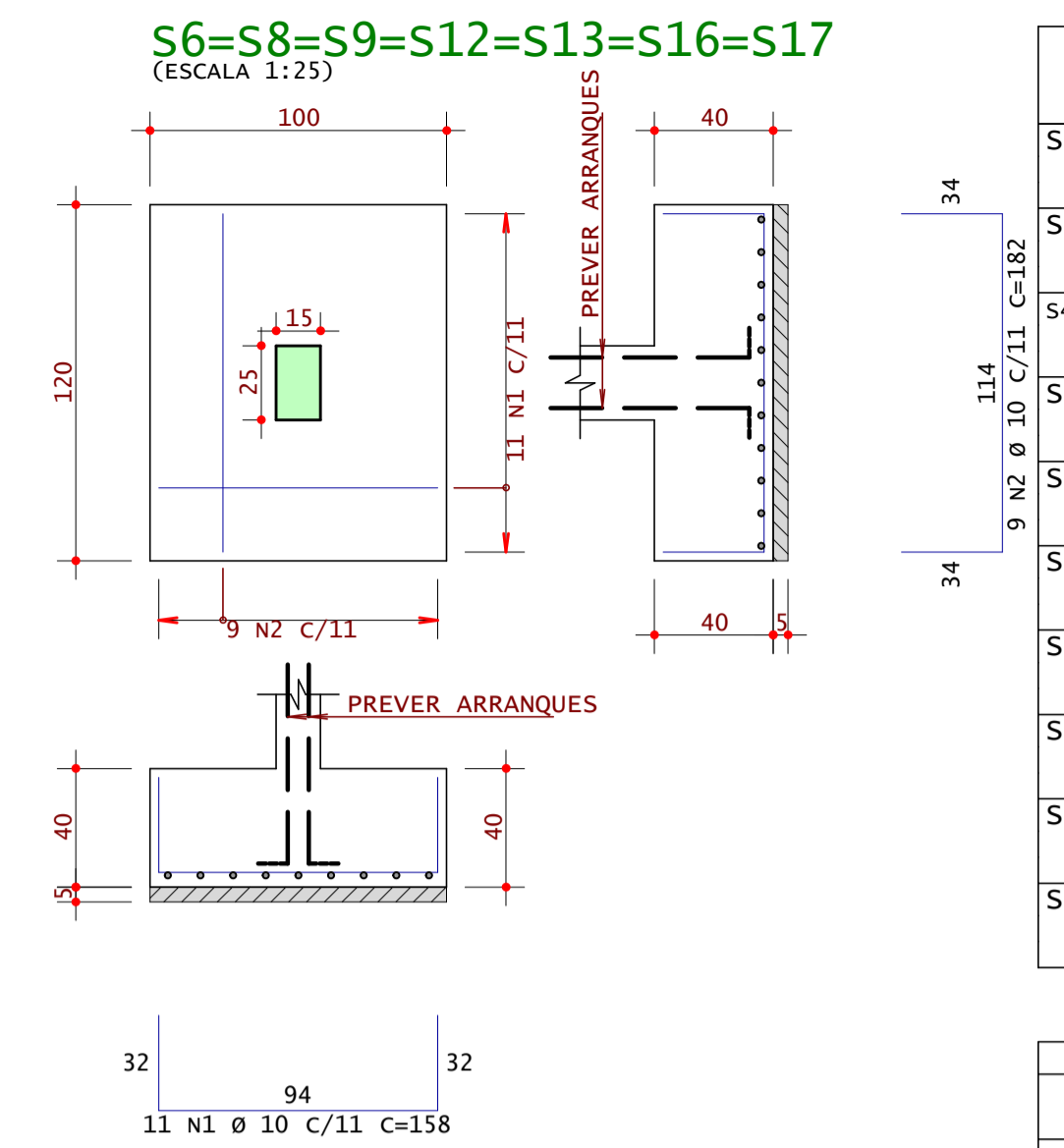
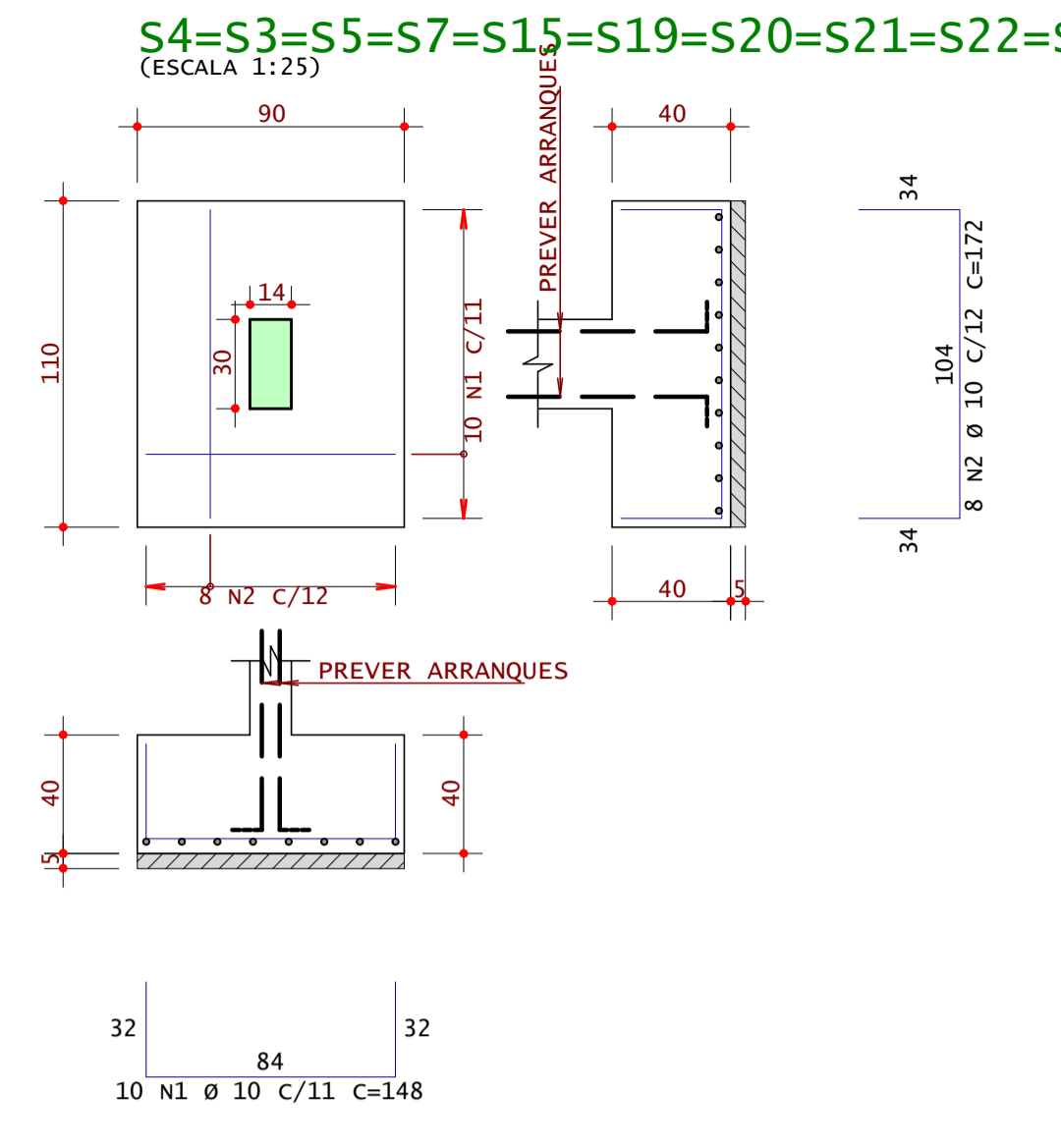
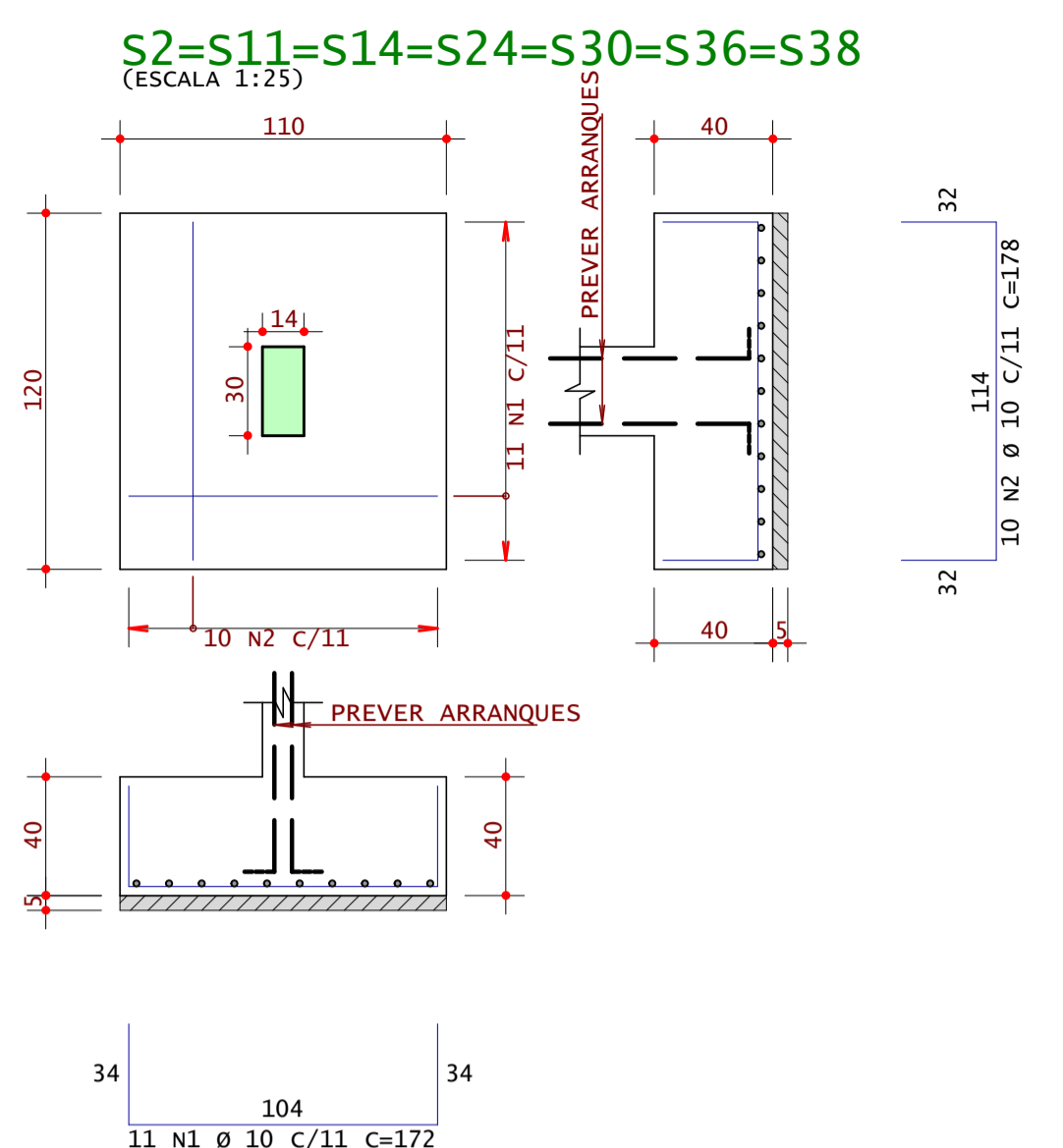
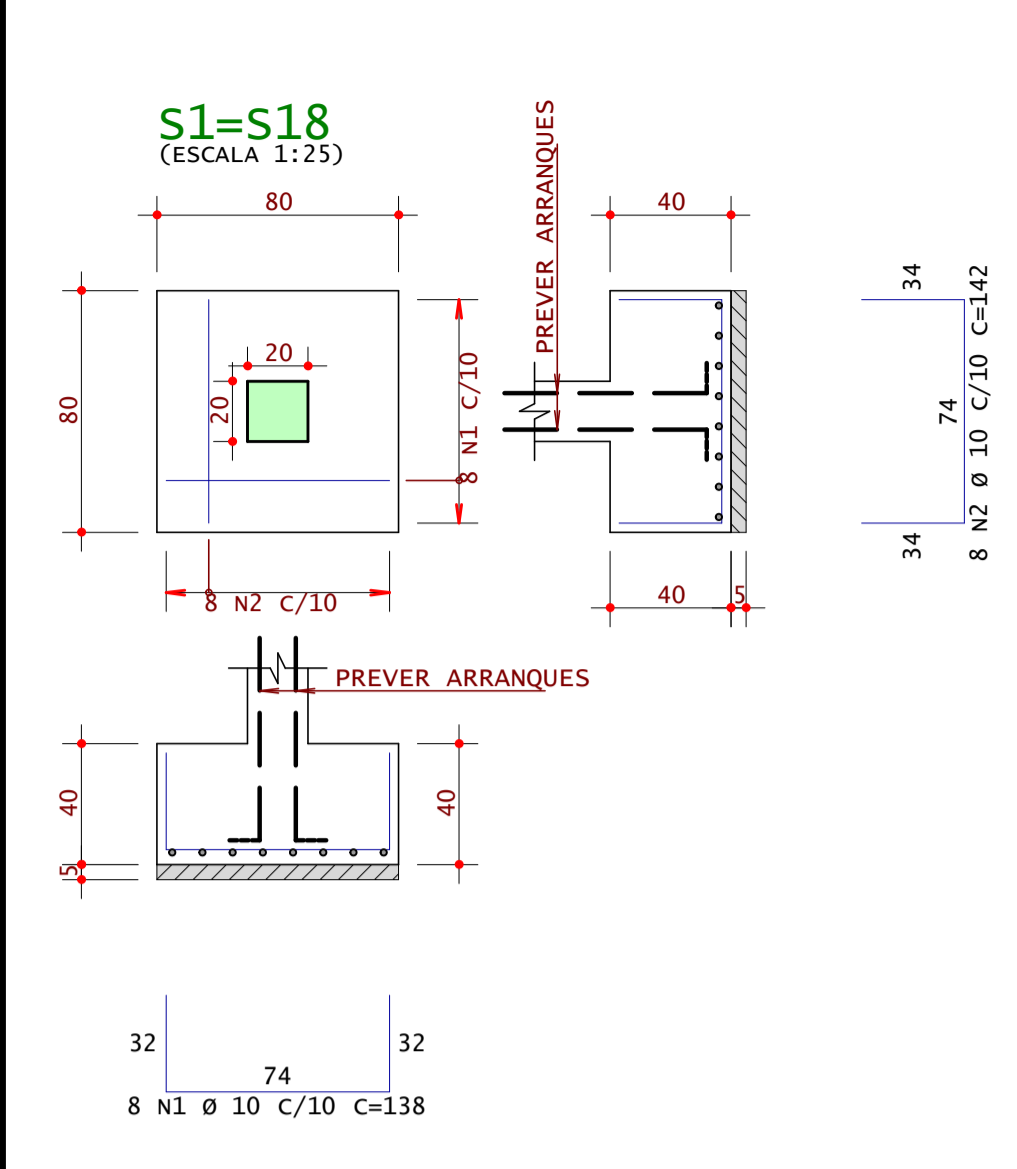


FACHADA NORTE

1 : 100

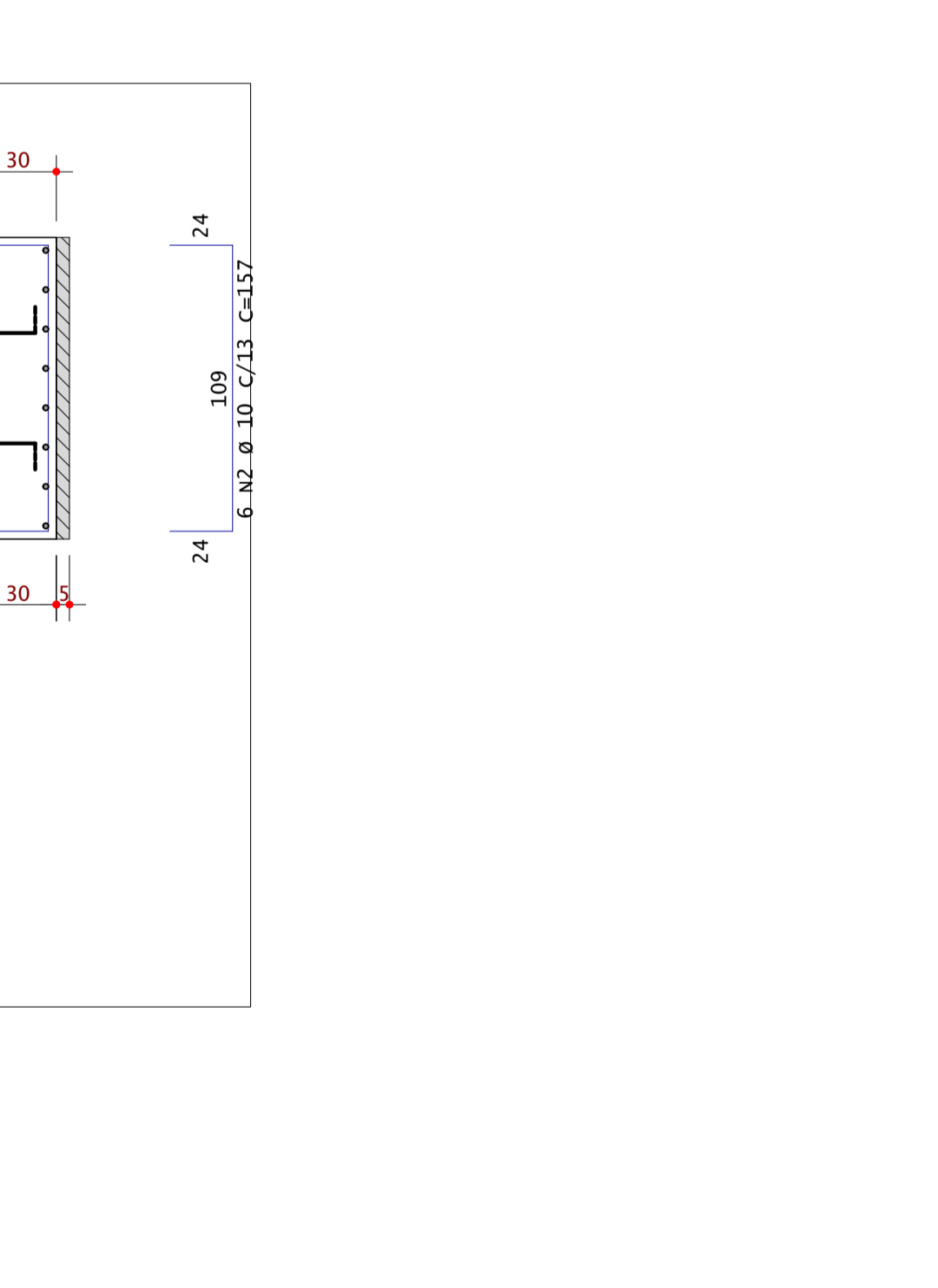
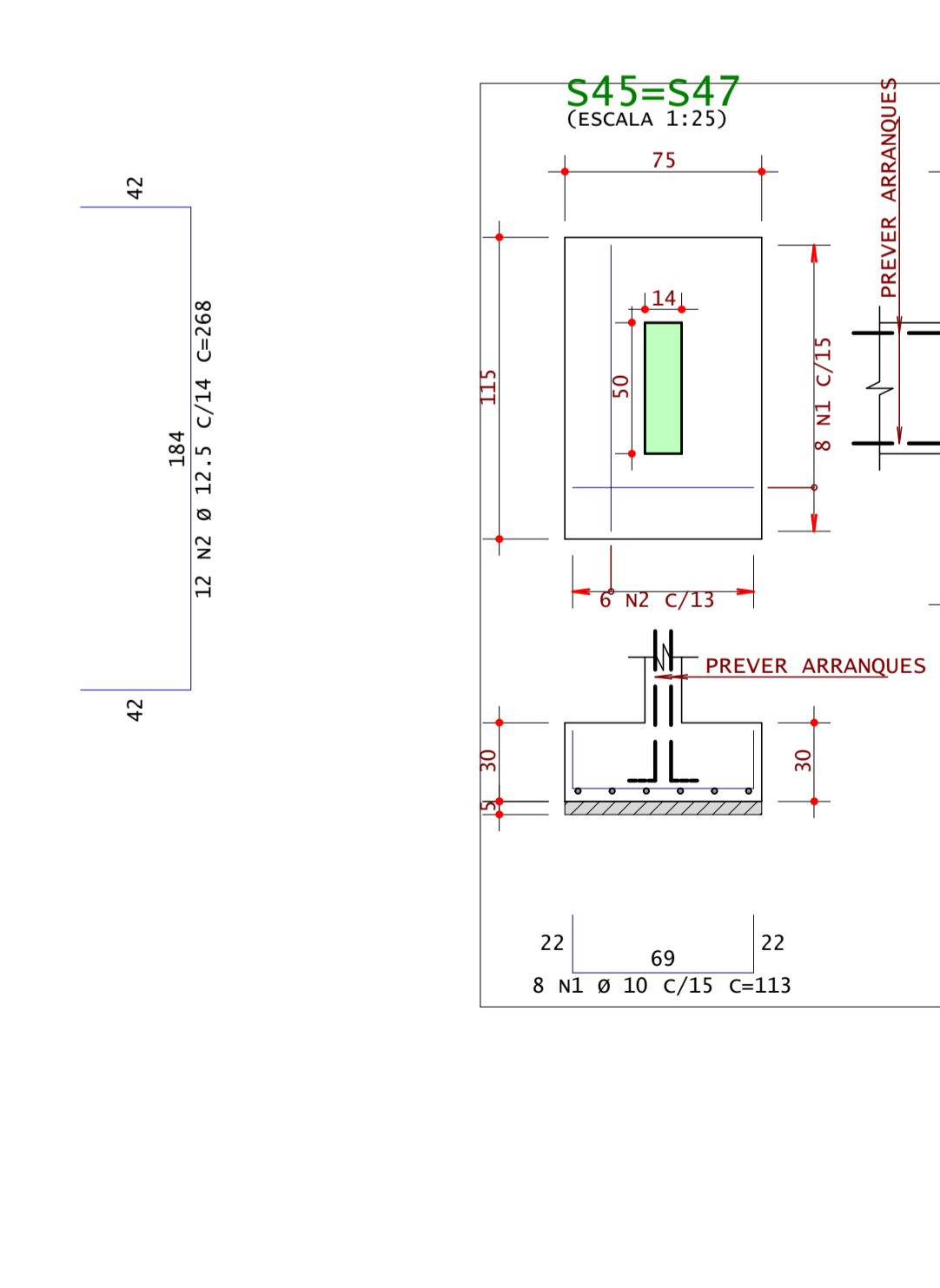
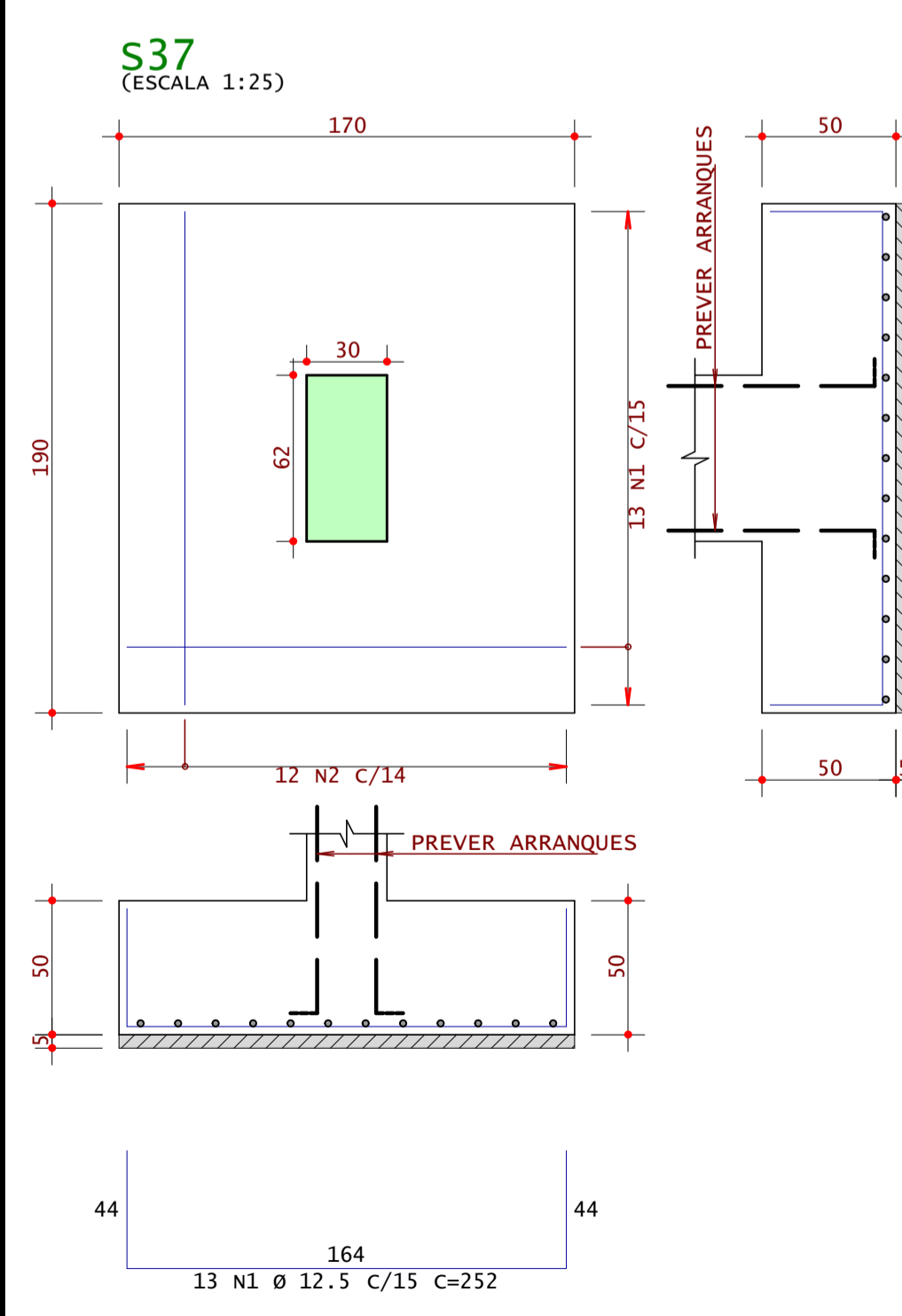
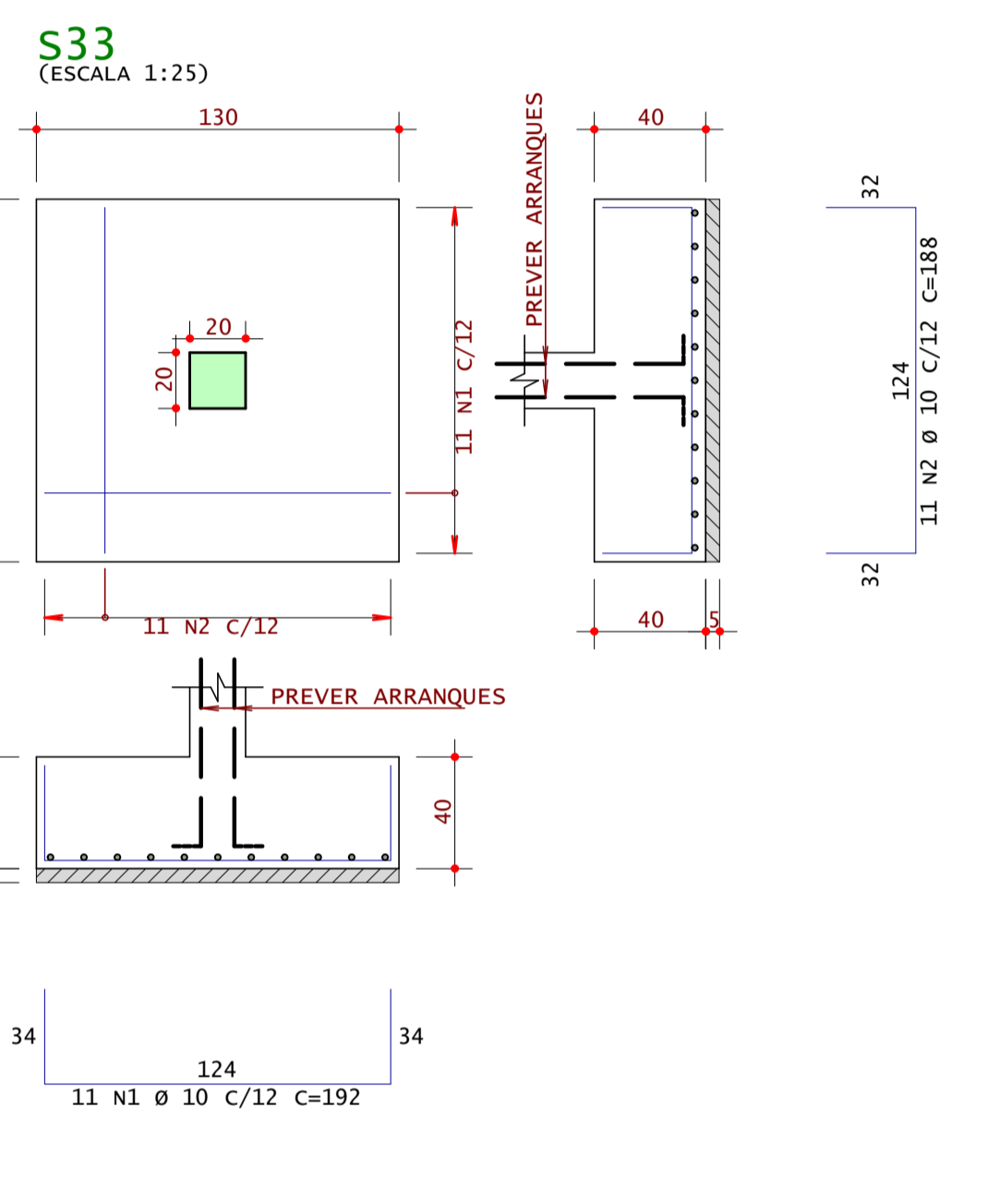
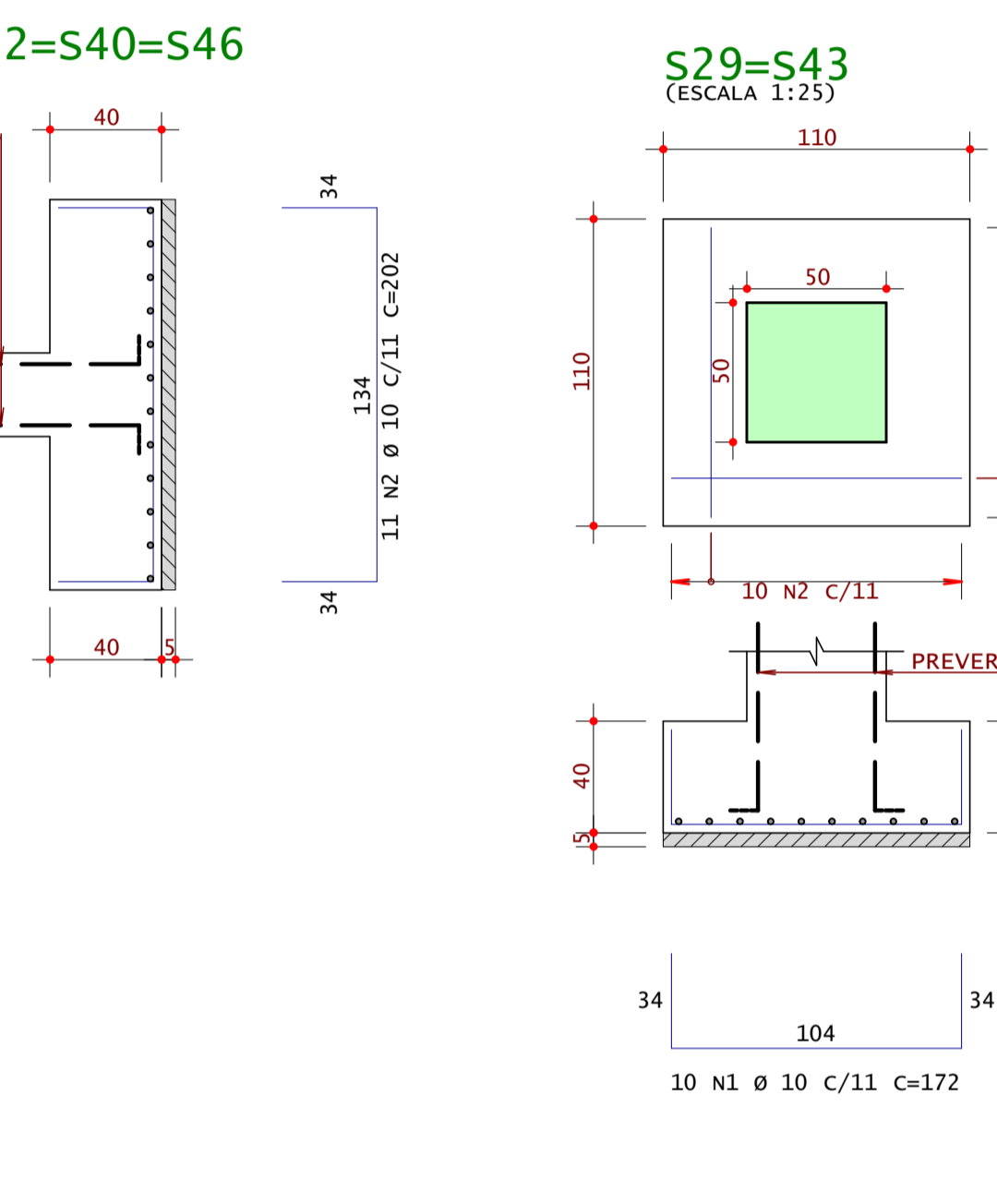
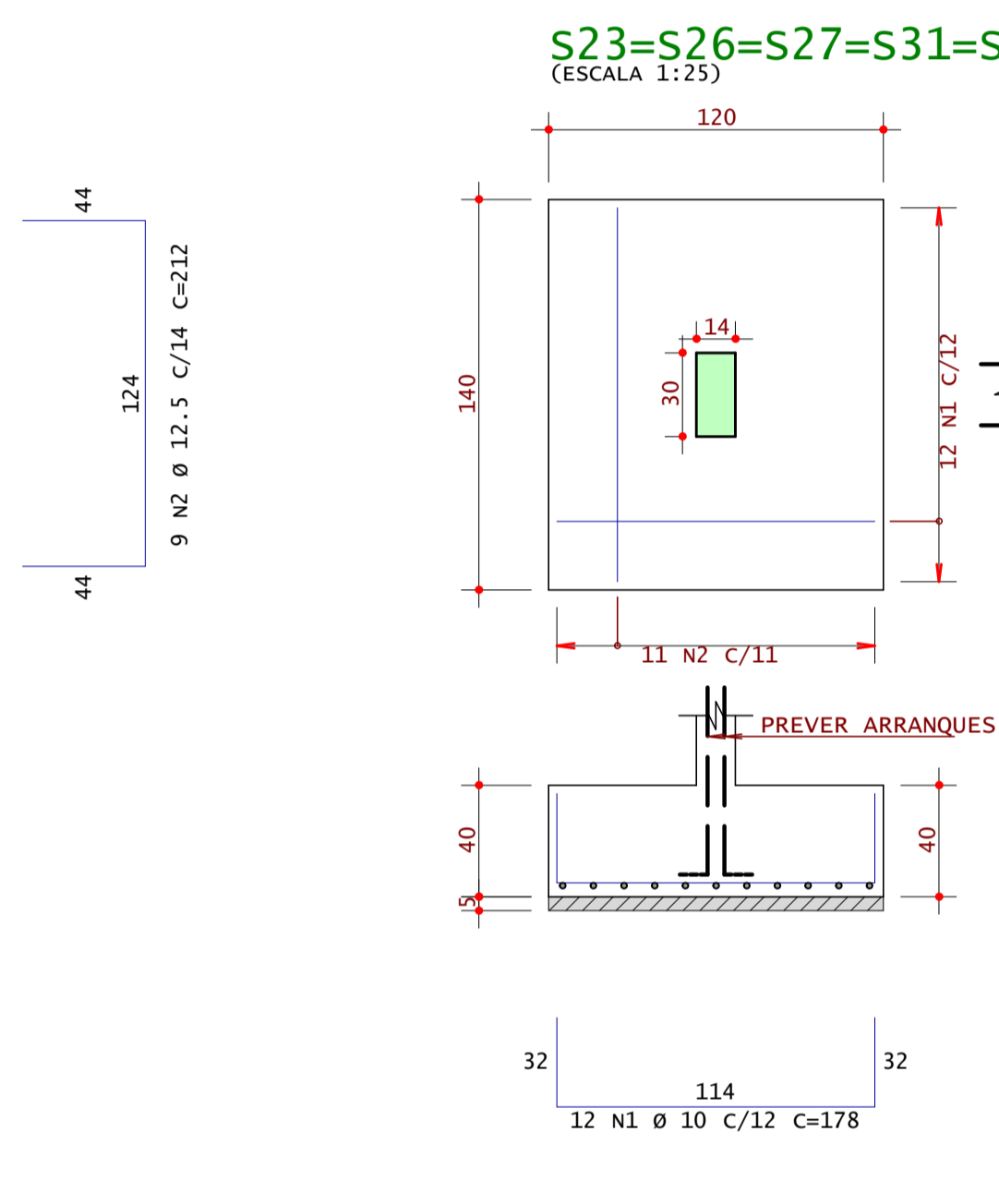
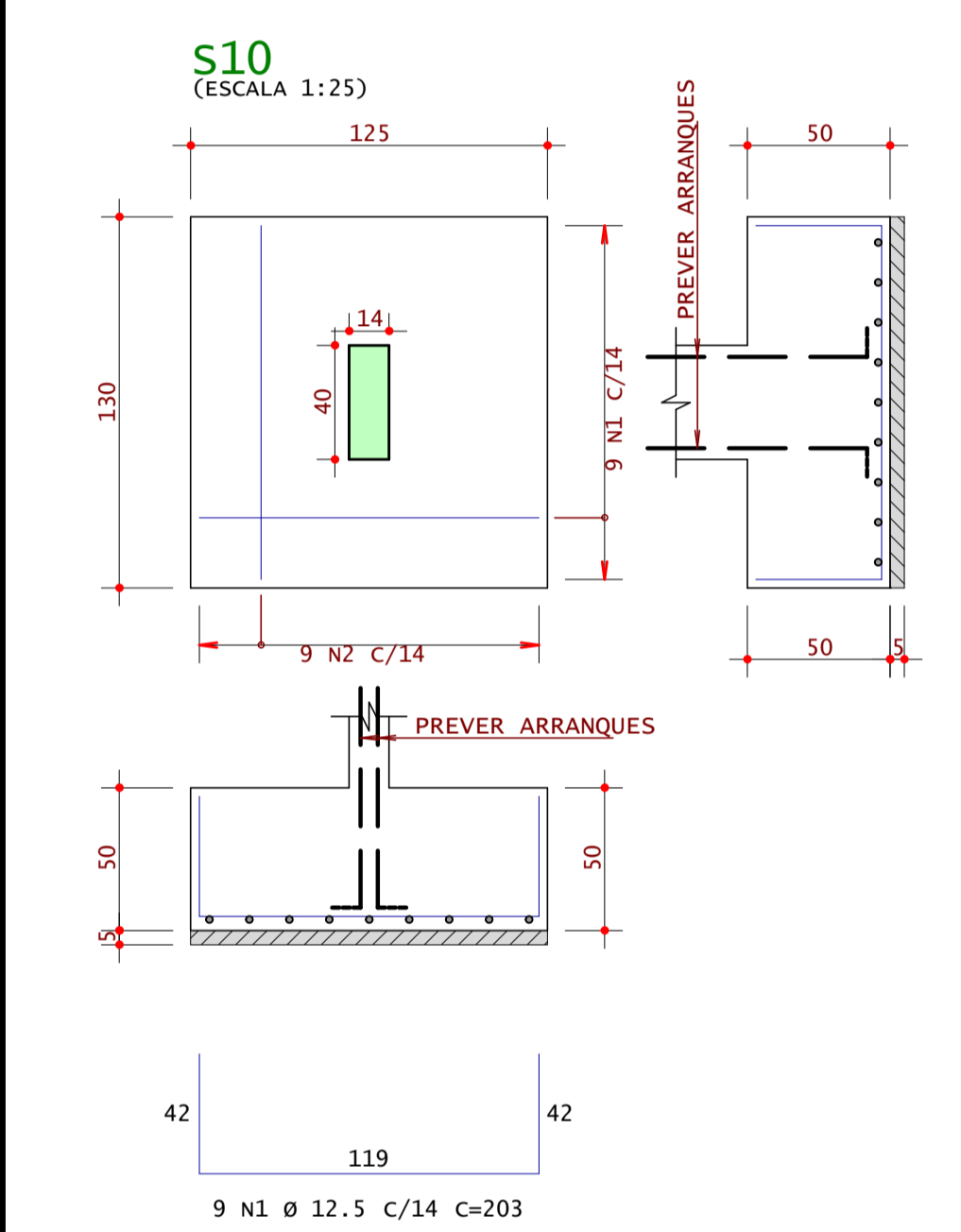
FACHADA SUL

1 : 100



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
S1=S18 (X2)					
50A	1	10	16	138	2208
50A	2	10	16	142	2272
S2=S11=S14=S24=S30=S36=S38 (X7)					
50A	1	10	77	172	13244
50A	2	10	70	178	12460
S4=S3=S5=S7=S15=S19=S20=S21=S22=S25=S28=S35=S42=S44=S49 (X15)					
50A	1	10	150	148	22200
50A	2	10	120	172	20640
S6=S8=S9=S12=S13=S16=S17 (X7)					
50A	1	10	77	158	12166
50A	2	10	63	182	11466
S10					
50A	1	12.5	9	203	1827
50A	2	12.5	9	212	1908
S23=S26=S27=S31=S32=S40=S46 (X7)					
50A	1	10	84	178	14952
50A	2	10	77	202	15554
S29=S43 (X2)					
50A	1	10	20	172	3440
50A	2	10	20	168	3360
S33					
50A	1	10	11	192	2112
50A	2	10	11	188	2068
S37					
50A	1	12.5	13	252	3276
50A	2	12.5	12	268	3216
S45=S47 (X2)					
50A	1	10	16	113	1808
50A	2	10	12	157	1884

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
50A	10	1418	875
50A	12.5	102	98
Peso Total	50A	=	974 kgf



Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240
@andrerodrigueseng

andrerodrigues.eng.br
contato@andrerodrigues.eng.br

Ciente: **Paulo George Dantas da Nobrega**

Prancha nº: **08/37** Revisão nº: **002**

Obra: **Residência Unifamiliar**

Observações:
Concreto: fck 25MPa
Eci: 28000 Mpa
Atente-se aos cobrimentos
Leia o Memorial Descritivo

CREA-PB: **161890343-9**

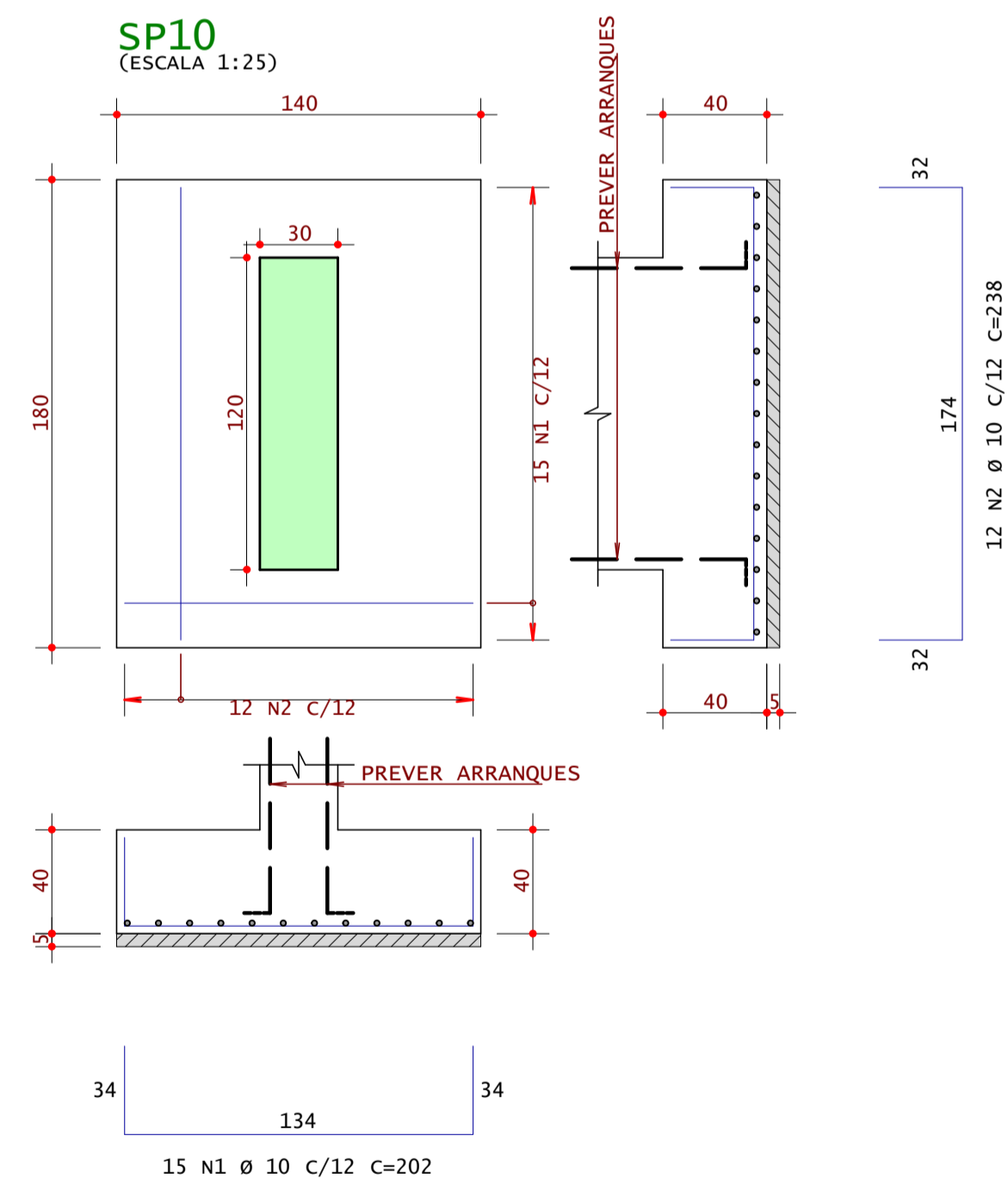
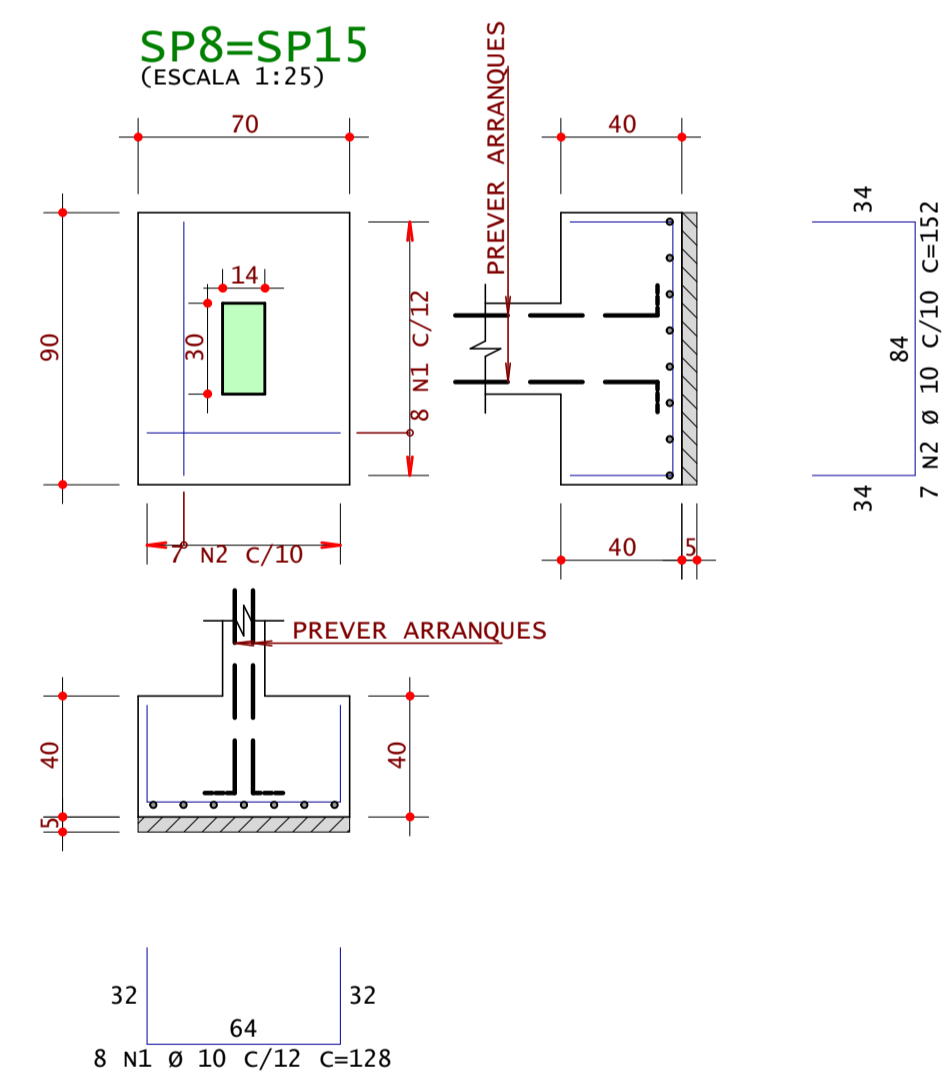
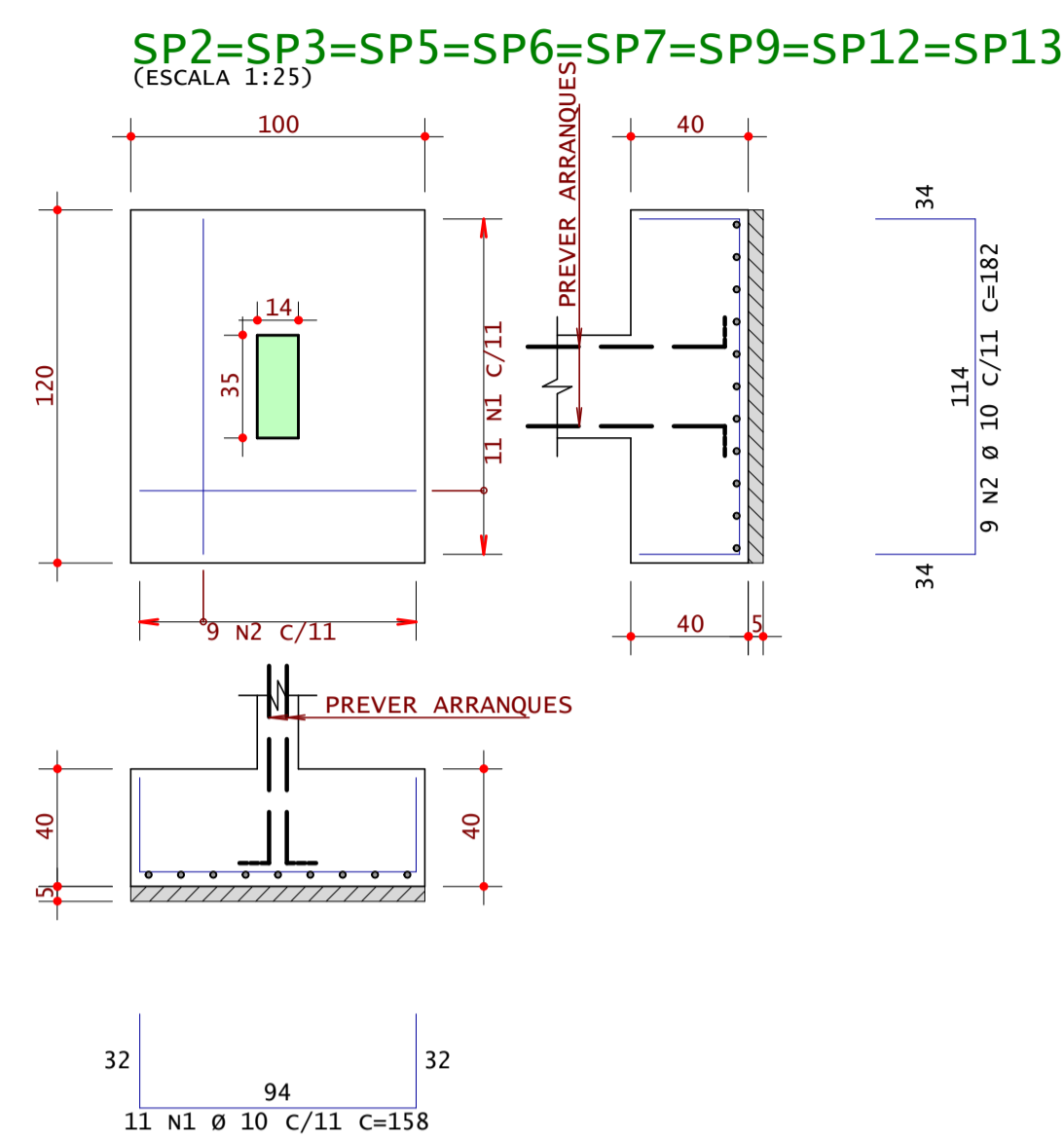
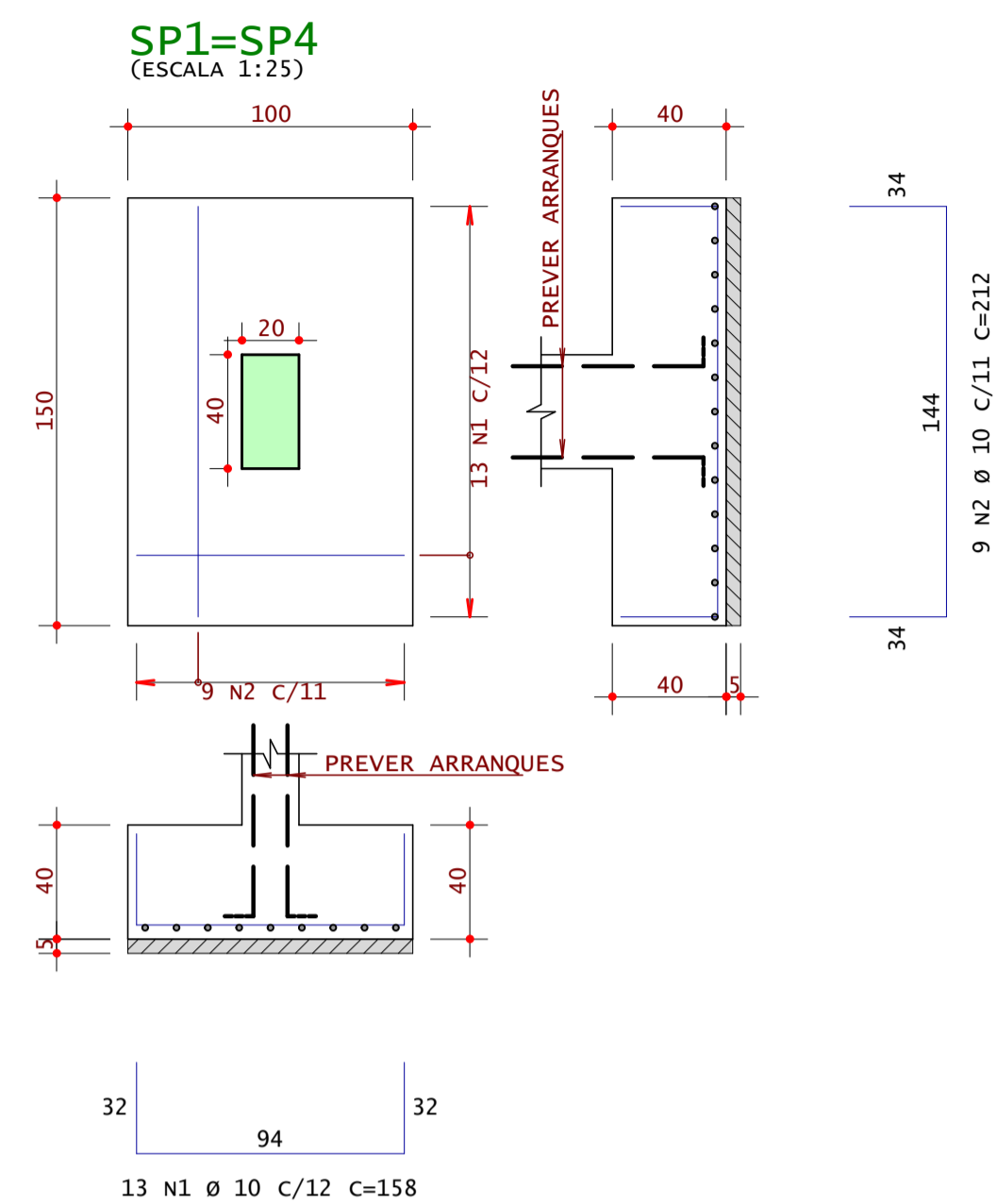
Data: **16 / 02 / 2022**

ART nº: **PB 20210418618**

Escala: **Indicada**

AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
SP1=SP4 (X2)					
50A	1	10	26	158	4108
50A	2	10	18	212	3816
SP2=SP3=SP5=SP6=SP7=SP9=SP12=SP13 (X8)					
50A	1	10	88	158	13904
50A	2	10	72	182	13104
SP8=SP15 (X2)					
50A	1	10	16	128	2048
50A	2	10	14	152	2128
SP10					
50A	1	10	15	202	3030
50A	2	10	12	238	2856

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
50A	10	450	278
Peso Total			50A = 278 kgf



Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240
@andrerodrigueseng contato@andrerodrigueseng.br

Ciente: **Paulo George Dantas da Nobrega**

Prancha nº: **09/37** Revisão nº: **002**

Obra: **Residência Unifamiliar**

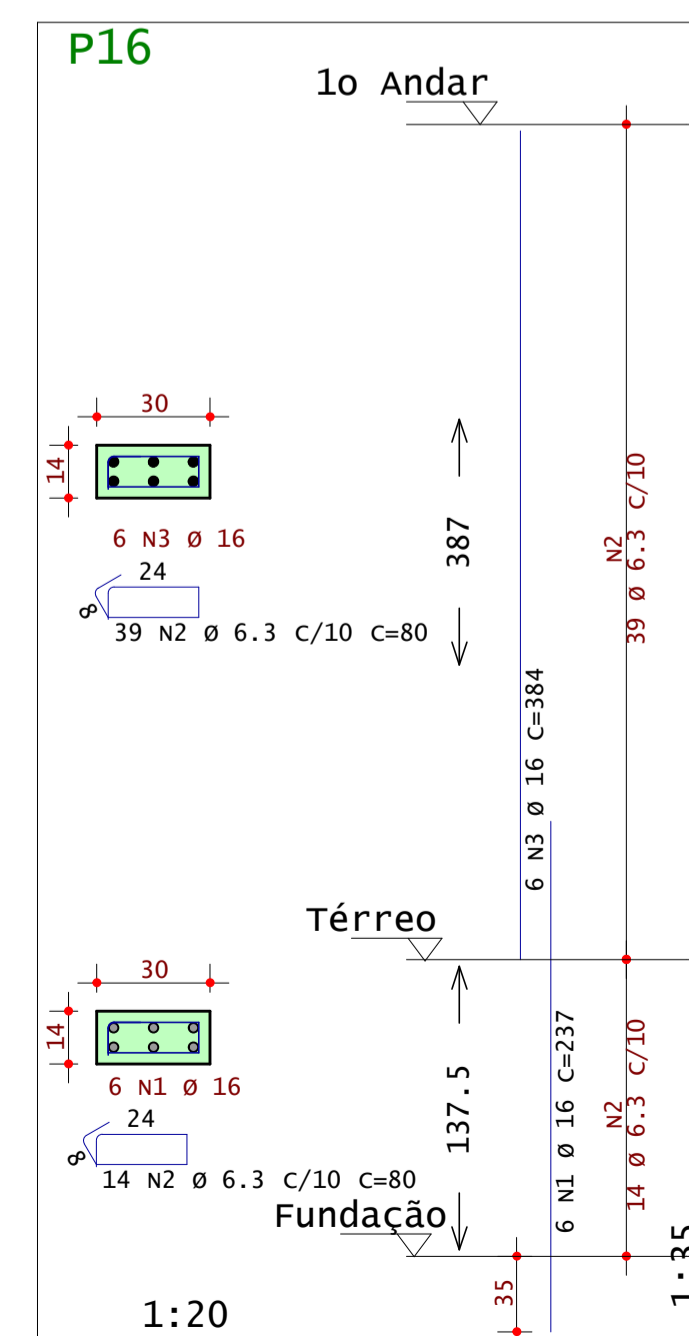
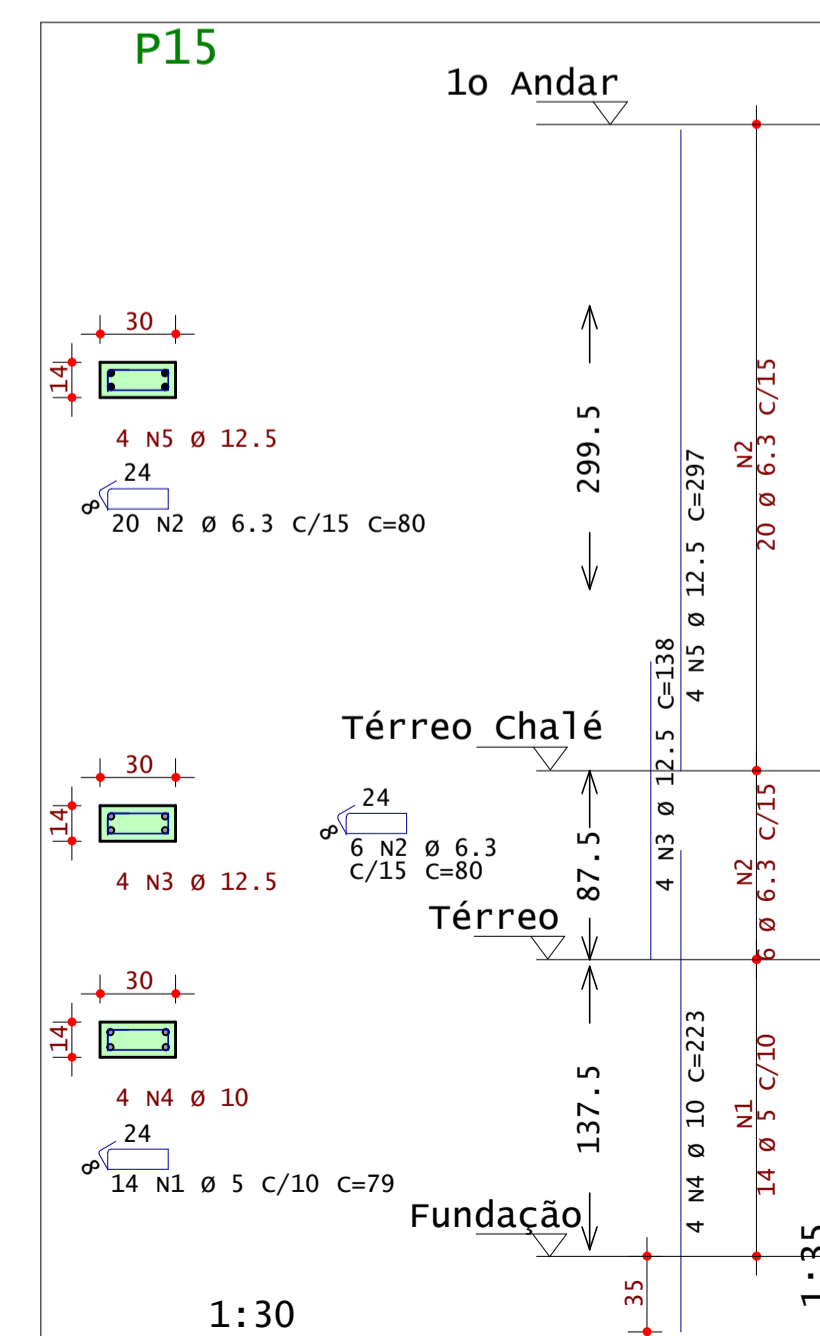
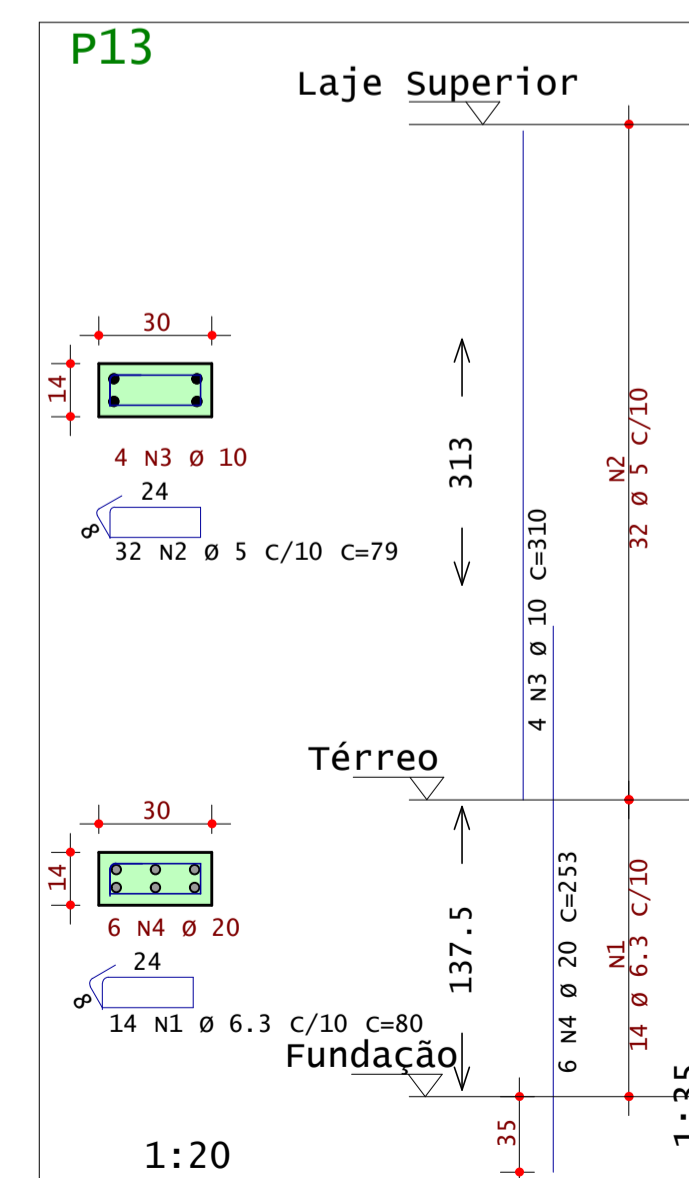
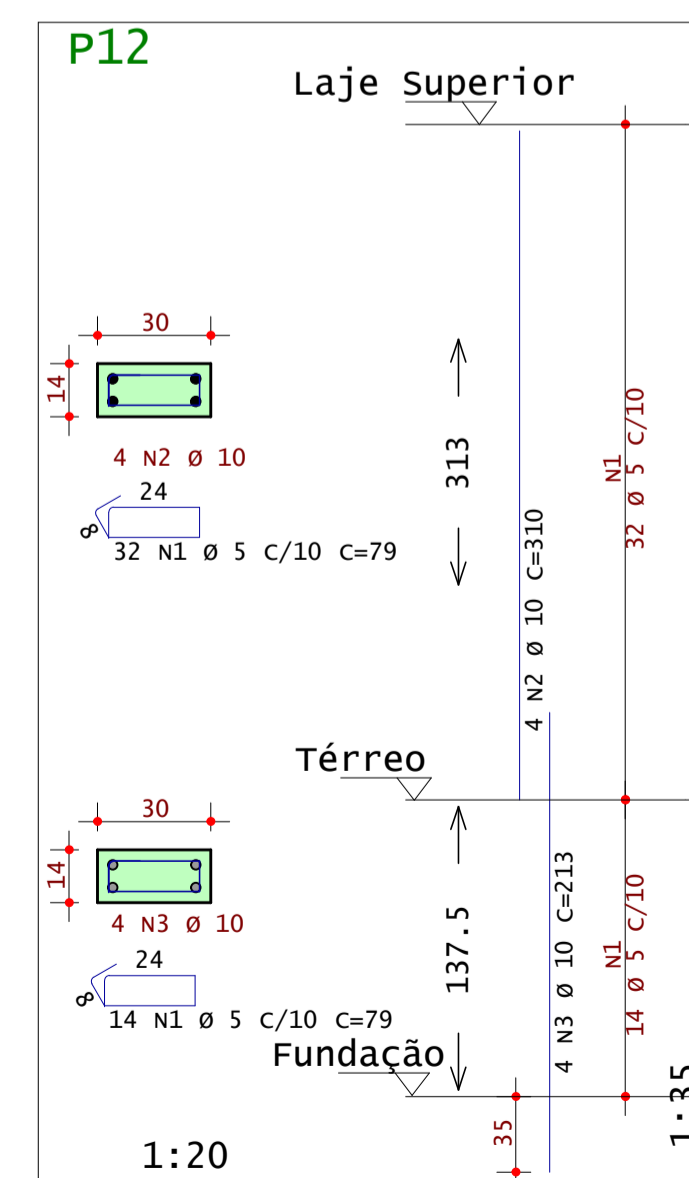
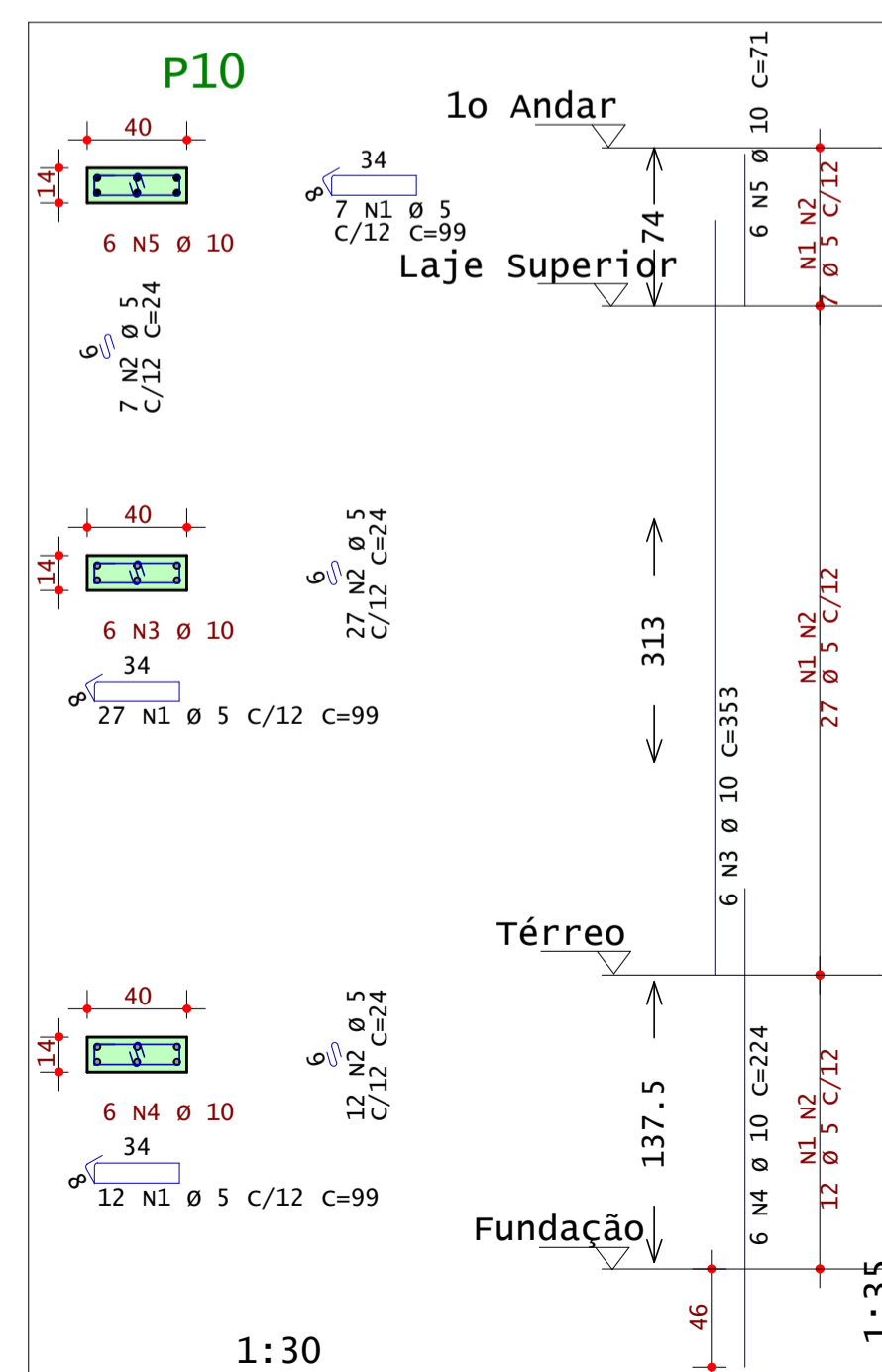
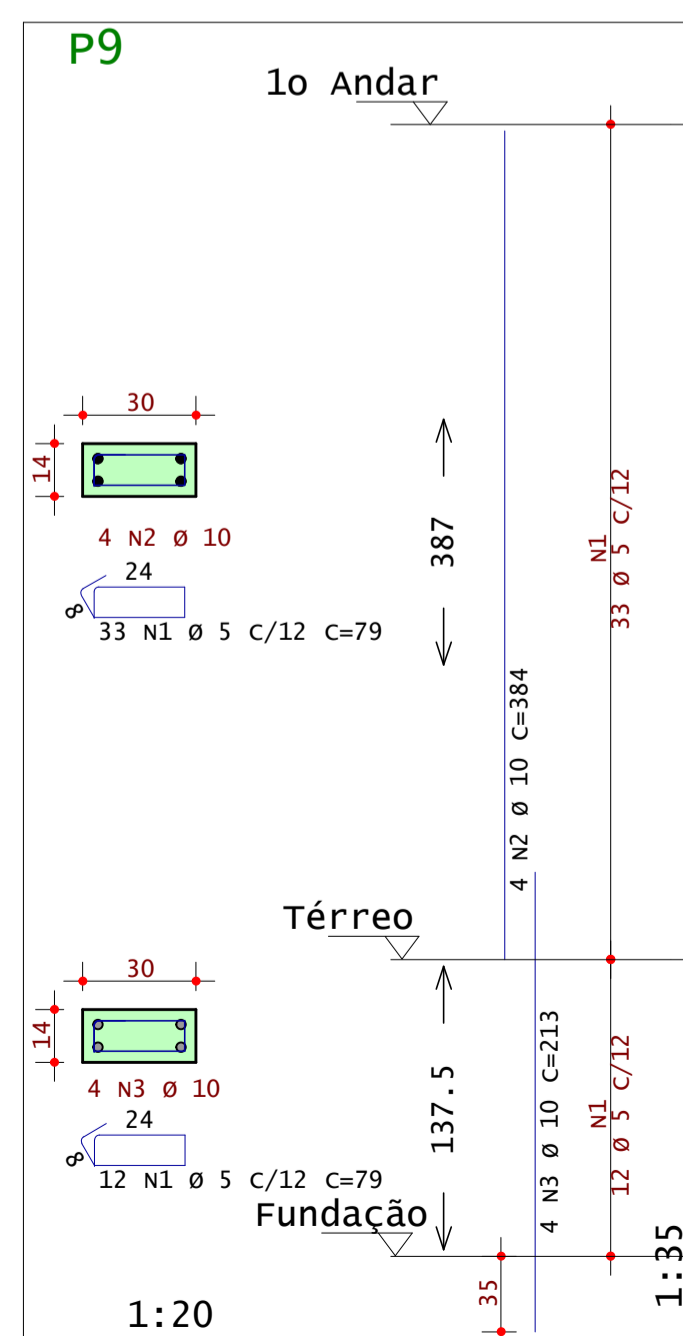
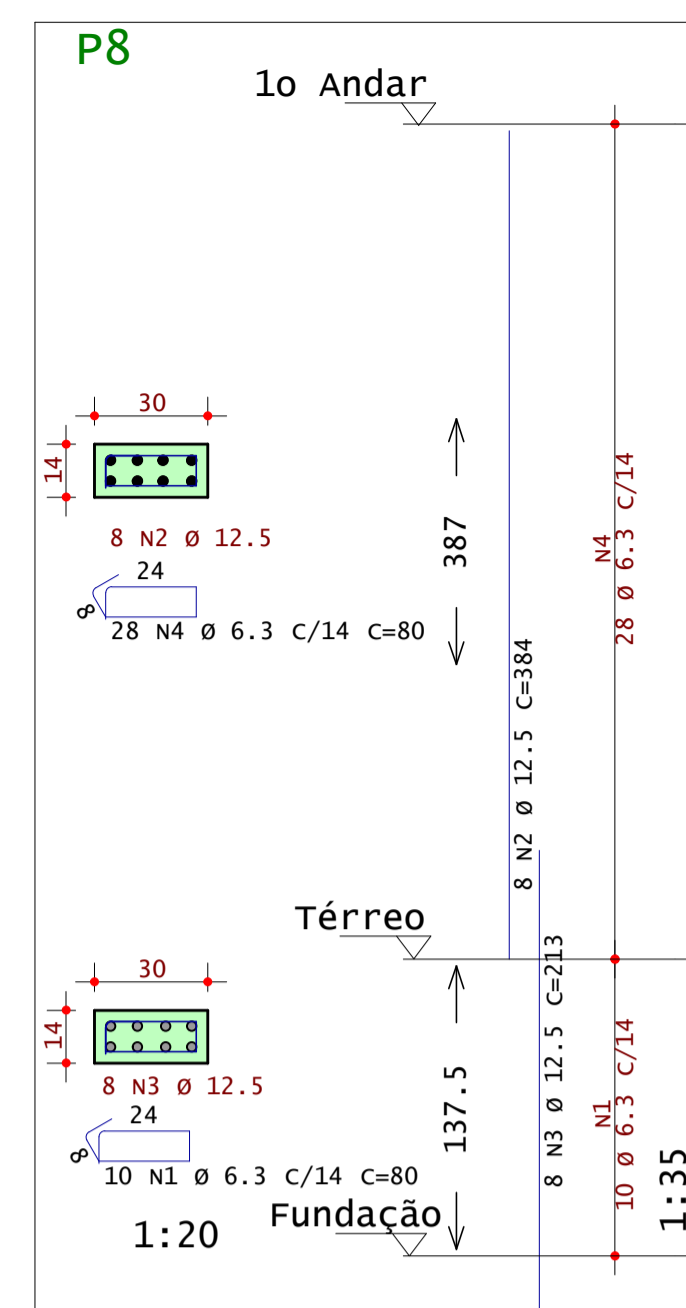
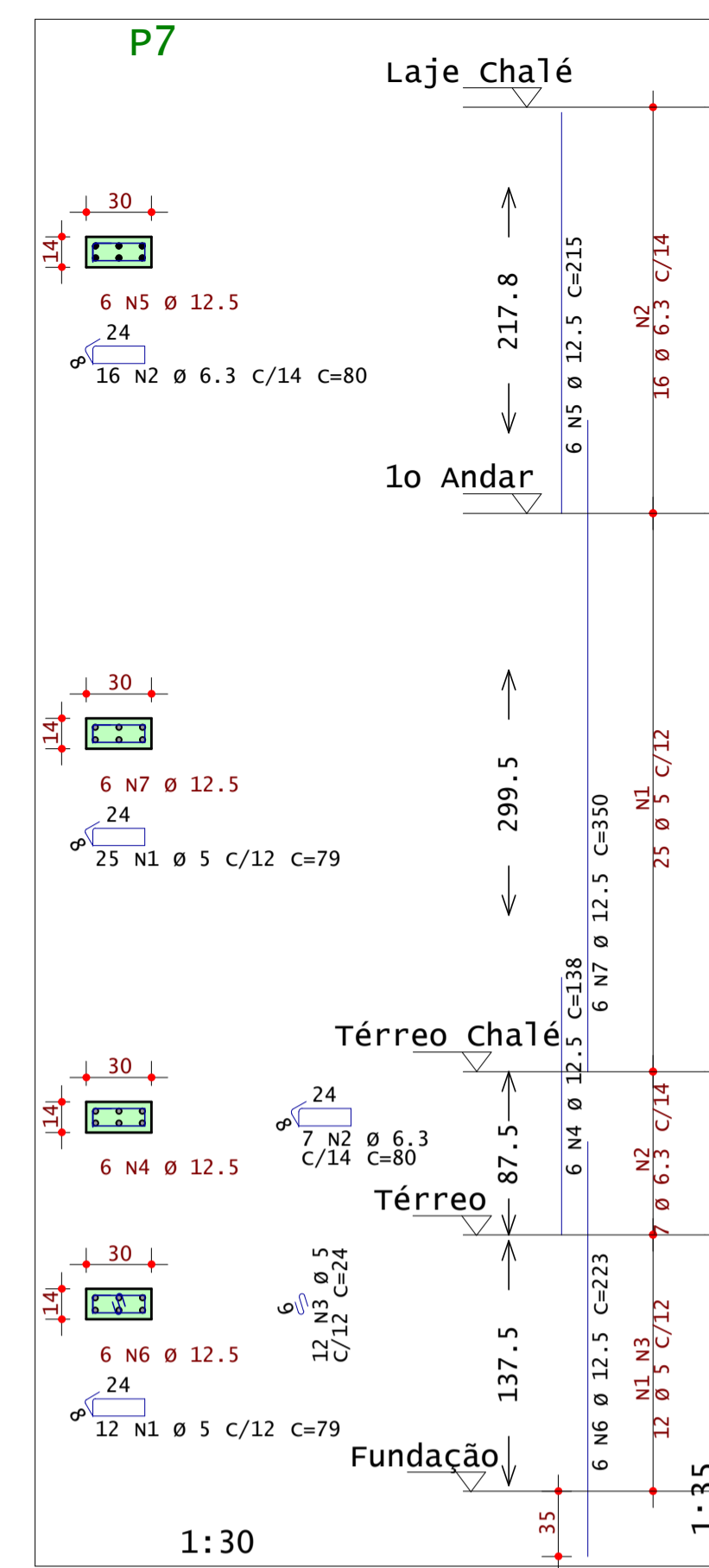
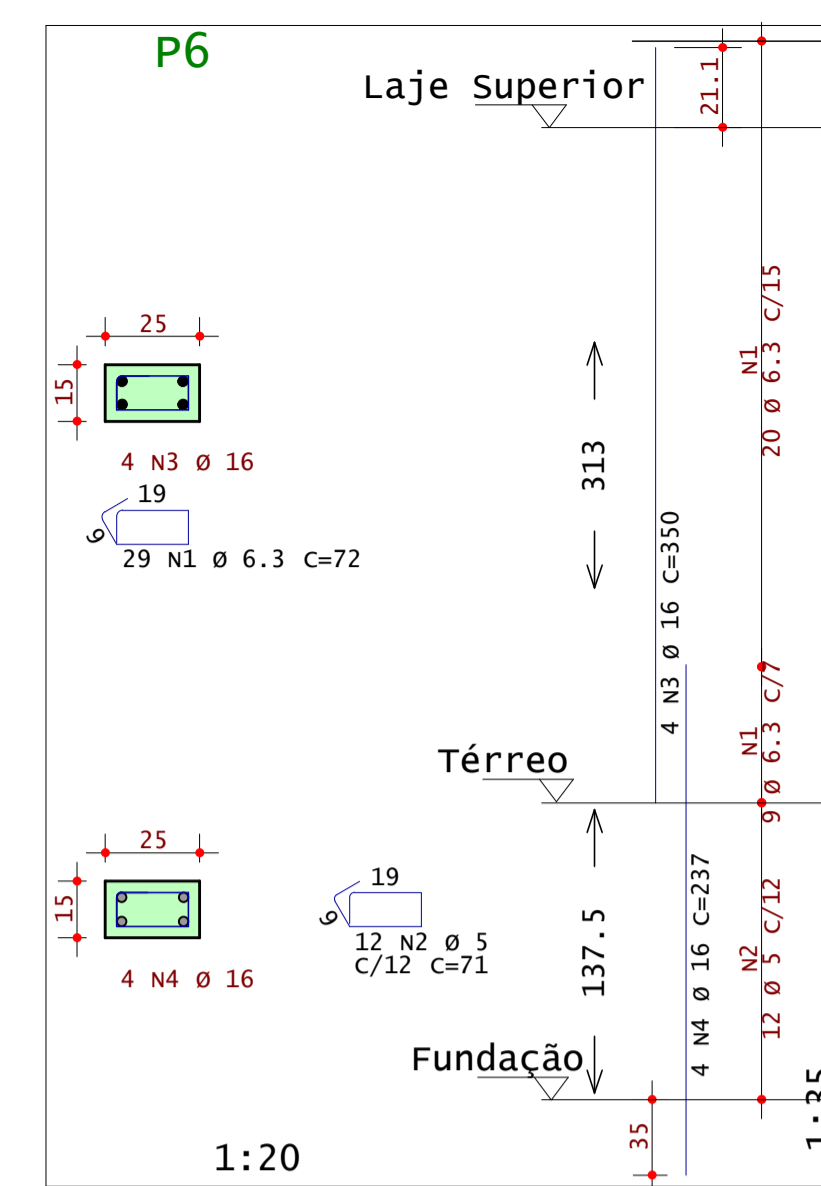
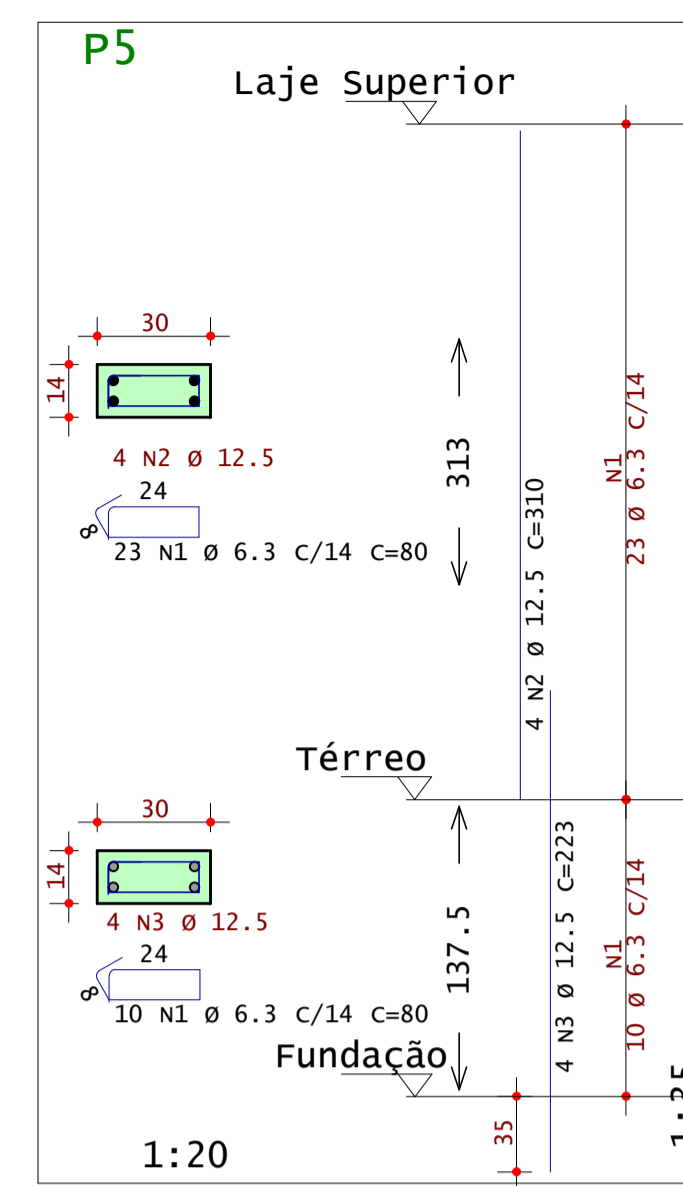
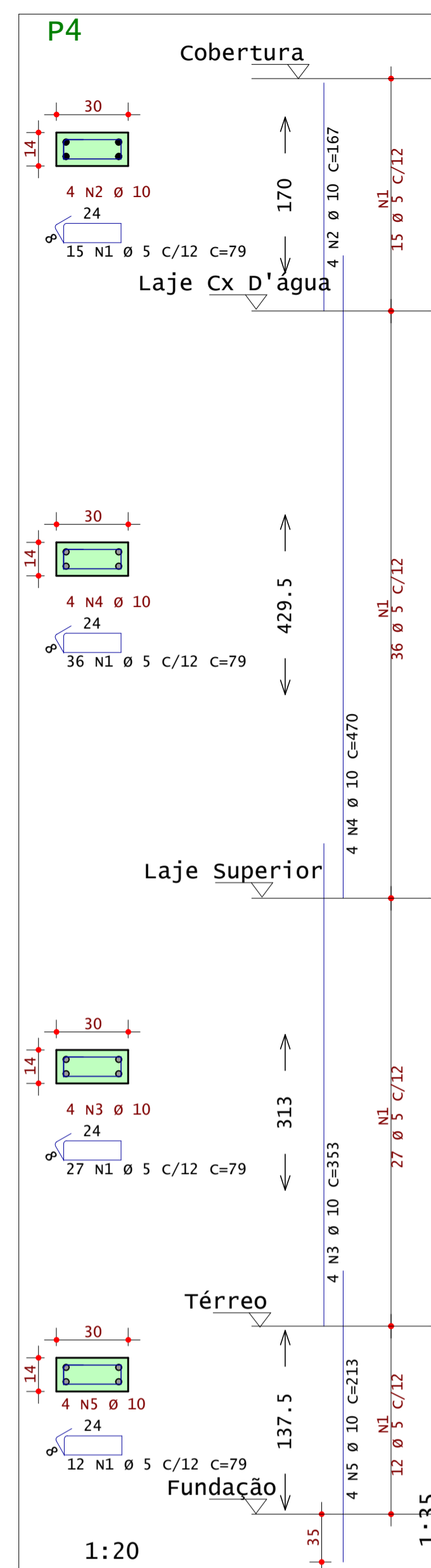
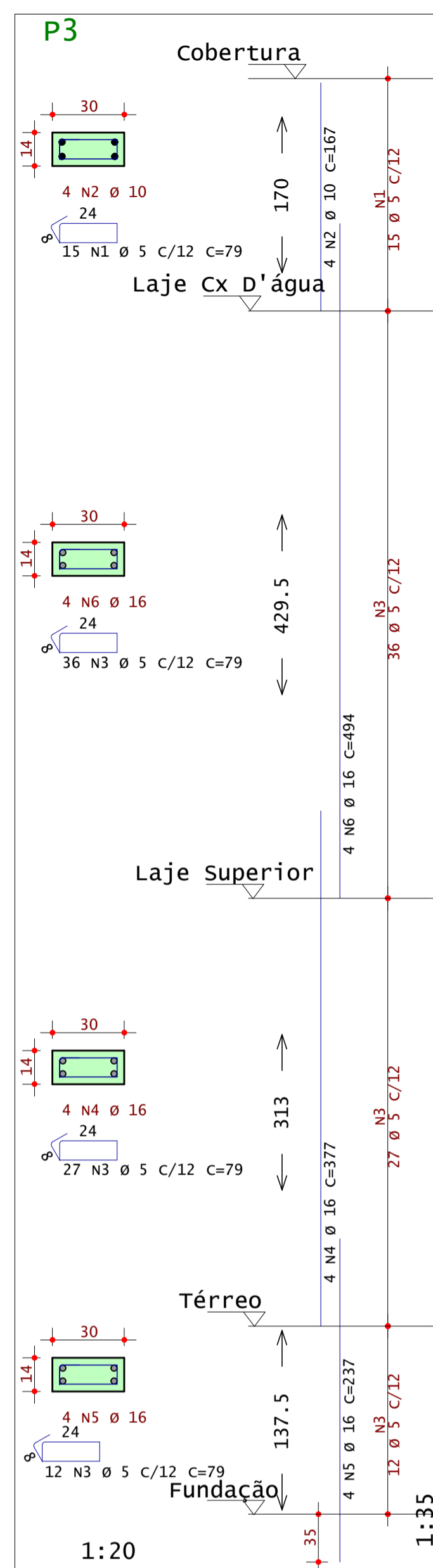
Observações:
Concreto: fck 25MPa
Eci: 28000 Mpa
Atente-se aos cobrimentos
Leia o Memorial Descritivo

Título:
DETALHAMENTO: SAPATAS - PISCINA

CREA-PB: **161890343-9** ART nº: **PB 20210418618**

Data: **16 / 02 / 2022** Escala: **Indicada**





AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
P3					
60A	1	5	15	79	1185
50A	2	10	4	167	668
60A	3	5	75	79	5925
50A	4	16	4	377	1508
50A	5	16	4	237	948
50A	6	16	4	494	1976
P4					
60A	1	5	90	79	7110
50A	2	10	4	167	668
50A	3	10	4	353	1412
50A	4	10	4	470	1880
50A	5	10	4	213	852
P5					
50A	1	6.3	33	80	2640
50A	2	12.5	4	310	1240
50A	3	12.5	4	223	892
P6					
50A	1	6.3	29	72	2088
60A	2	5	12	71	852
50A	3	16	4	350	1400
50A	4	16	4	237	948
P7					
60A	1	5	37	79	2923
50A	2	6.3	23	80	1840
60A	3	10	24	24	288
50A	4	12.5	12	138	828
50A	5	12.5	6	215	1290
50A	6	12.5	6	223	1338
50A	7	12.5	6	350	2100
P8					
50A	1	6.3	10	80	800
50A	2	12.5	8	384	3072
50A	3	12.5	8	213	1704
50A	4	6.3	28	80	2240
P9					
60A	1	5	45	79	3555
50A	2	10	4	384	1536
50A	3	10	4	213	852
P10					
60A	1	5	46	99	4554
50A	2	5	46	24	1104
50A	3	10	6	353	2118
50A	4	10	6	224	1344
50A	5	10	6	71	426
P12					
60A	1	5	46	79	3634
50A	2	10	4	310	1240
50A	3	10	4	213	852
P13					
50A	1	6.3	14	80	1120
60A	2	5	32	79	2528
50A	3	10	4	310	1240
50A	4	20	6	253	1518
P15					
60A	1	5	14	79	1106
50A	2	6.3	26	80	2080
50A	3	12.5	4	138	552
50A	4	10	4	223	892
50A	5	12.5	4	297	1188
P16					
50A	1	16	6	237	1422
50A	2	6.3	53	80	4240
50A	3	16	6	384	2304

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	348	54
50A	6.3	170	42
50A	10	160	99
50A	12.5	142	137
50A	16	105	166
50A	20	15	37
Peso Total		60A =	54 kgf
Peso Total		50A =	480 kgf



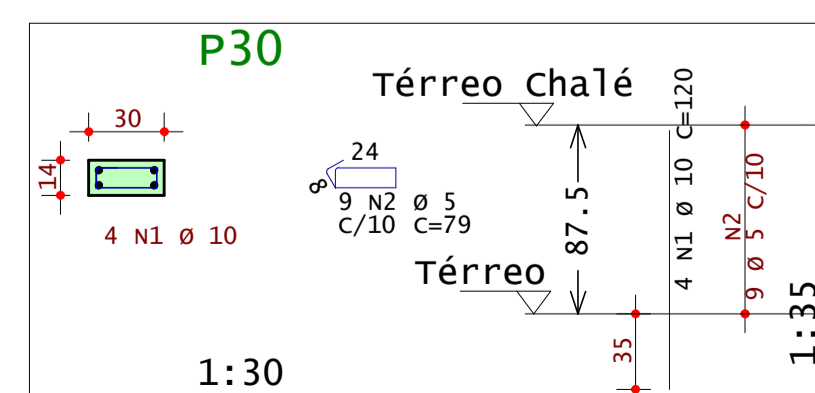
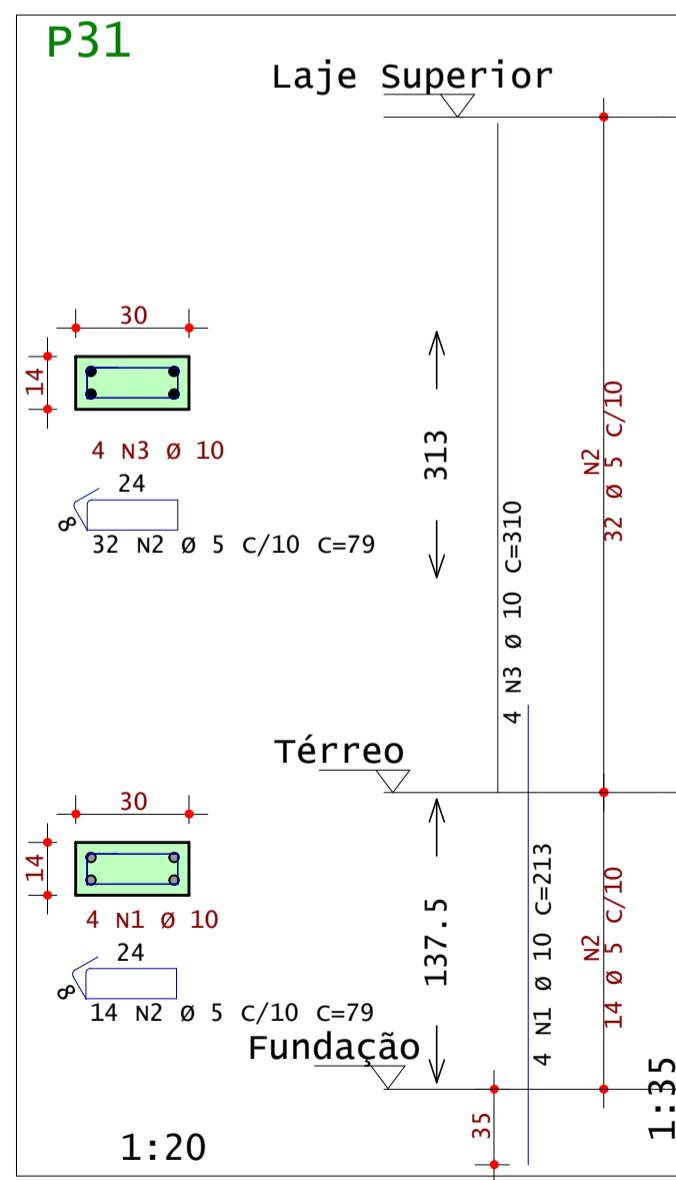
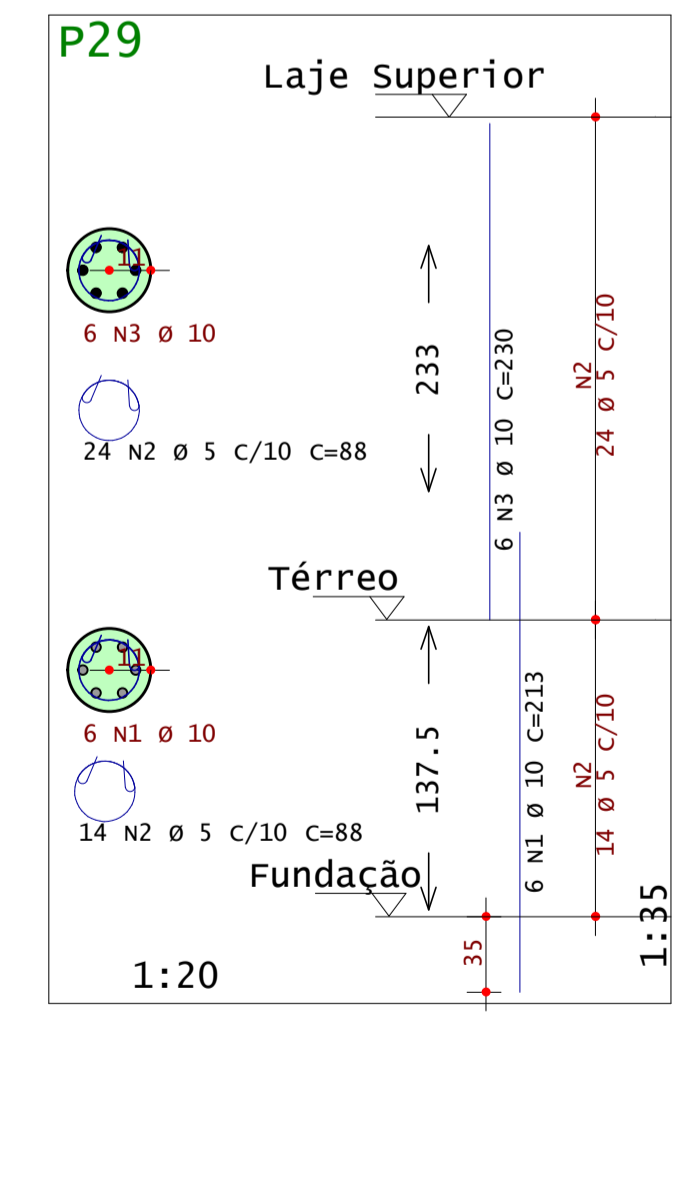
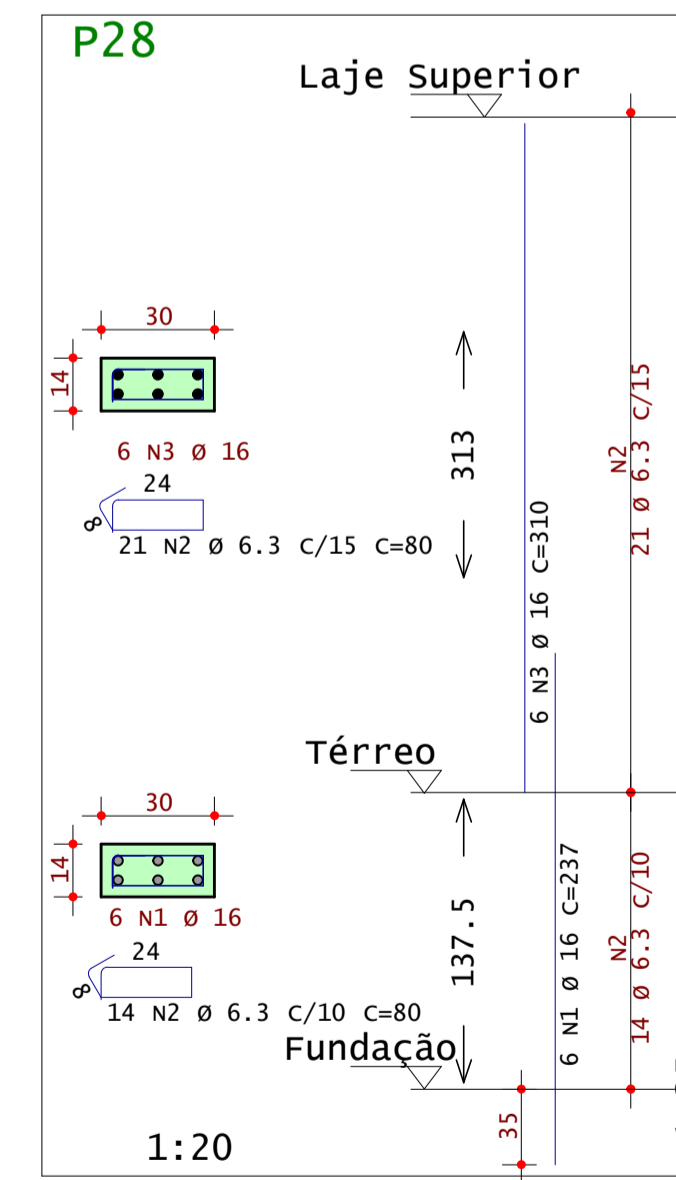
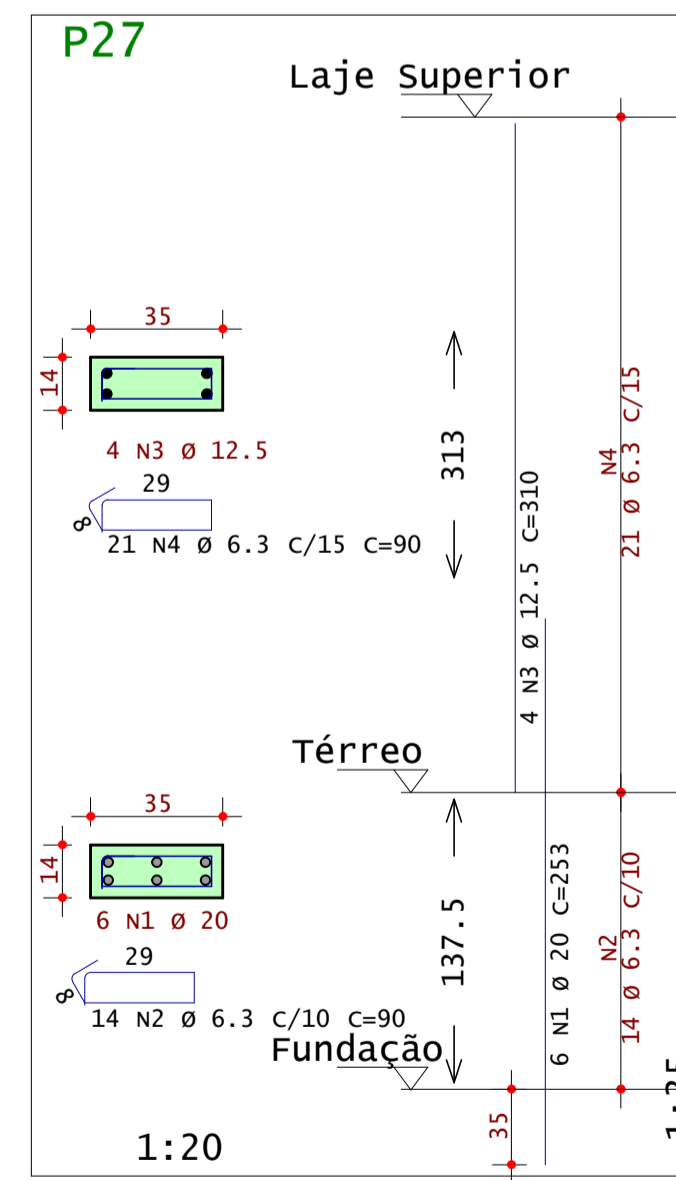
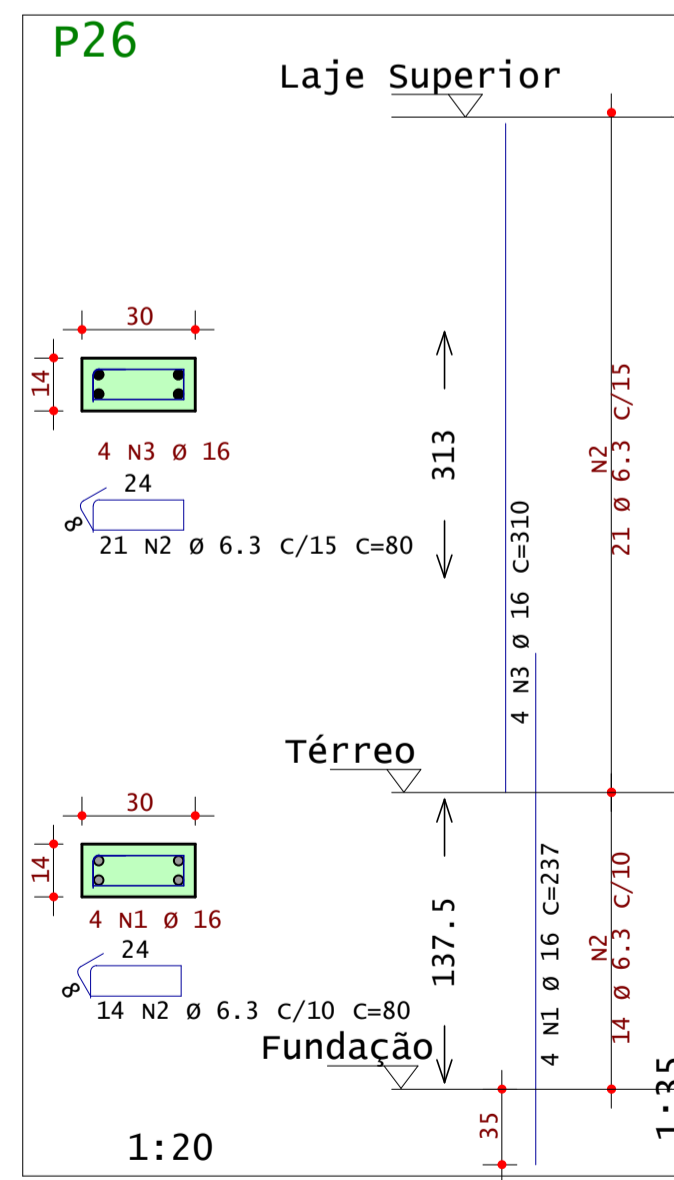
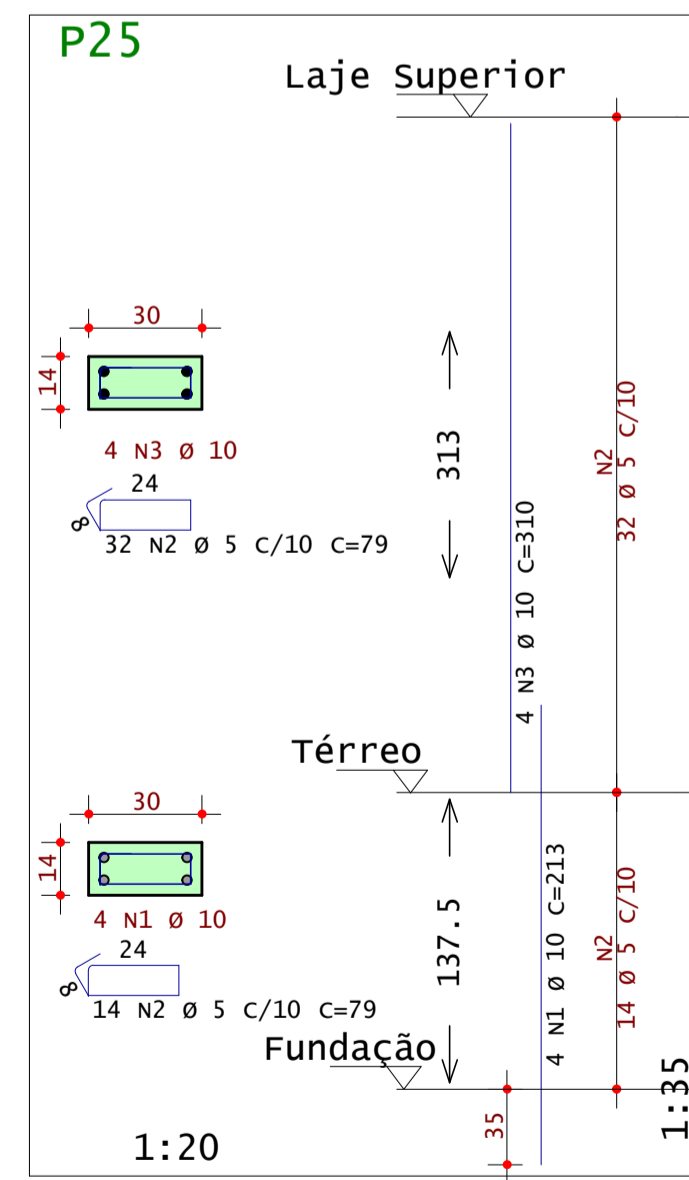
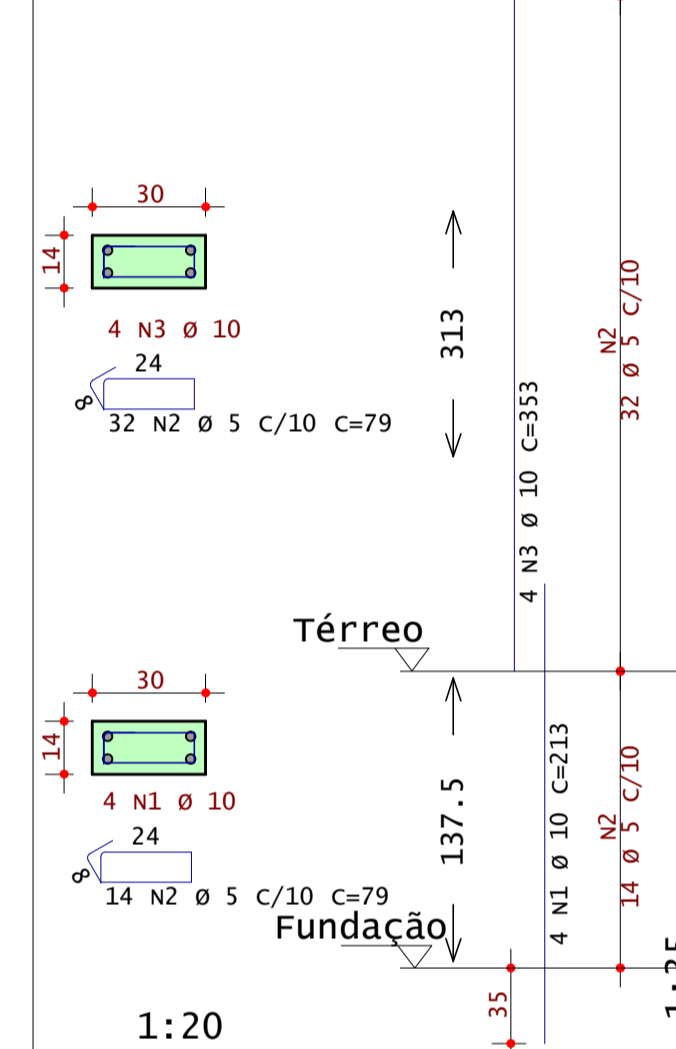
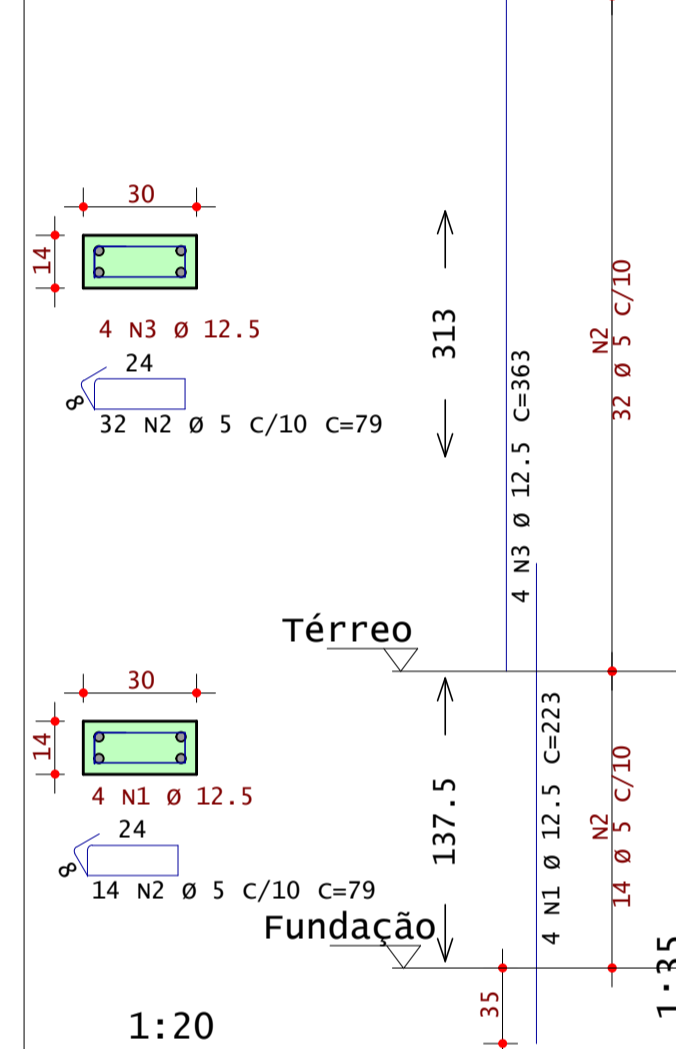
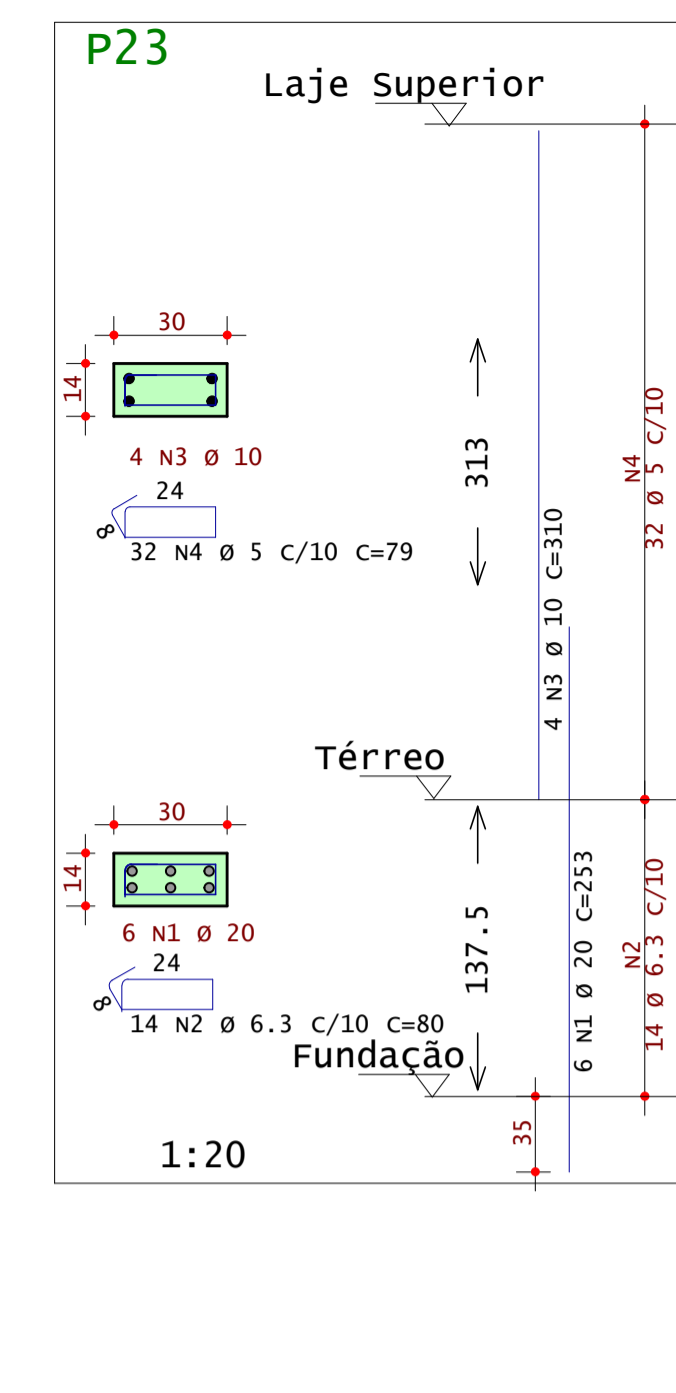
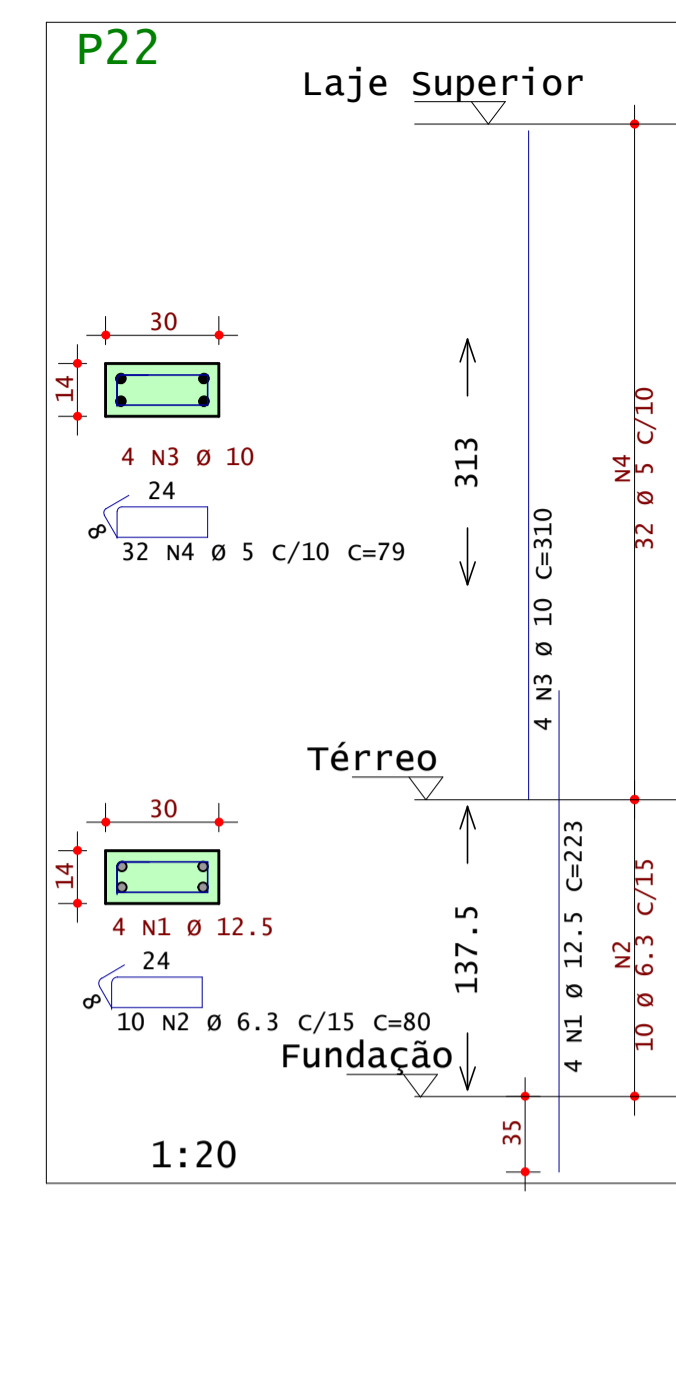
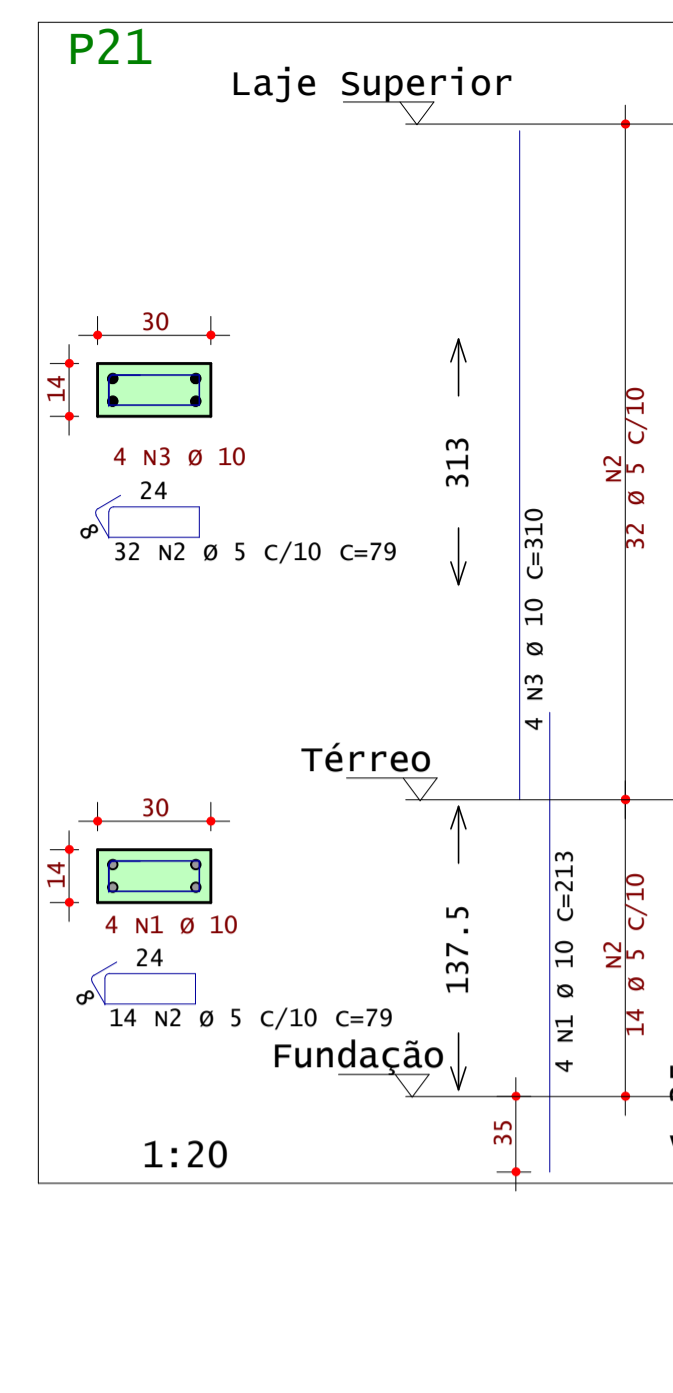
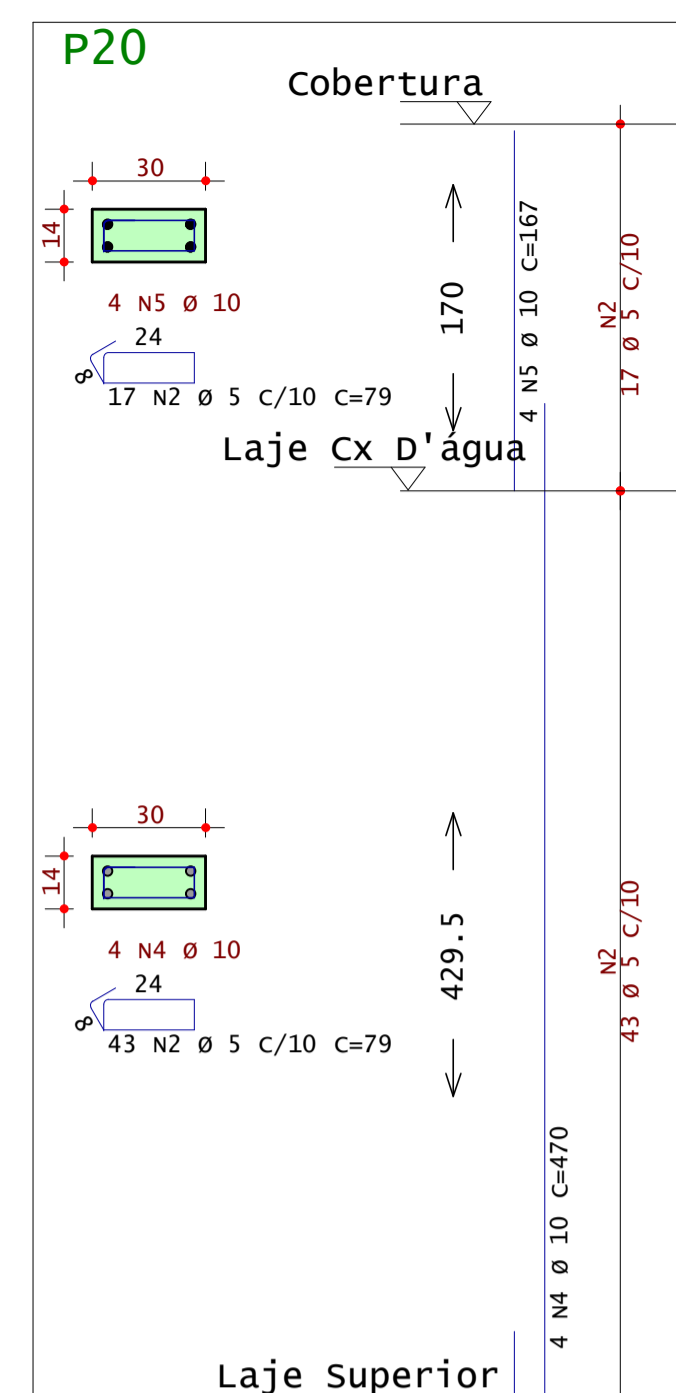
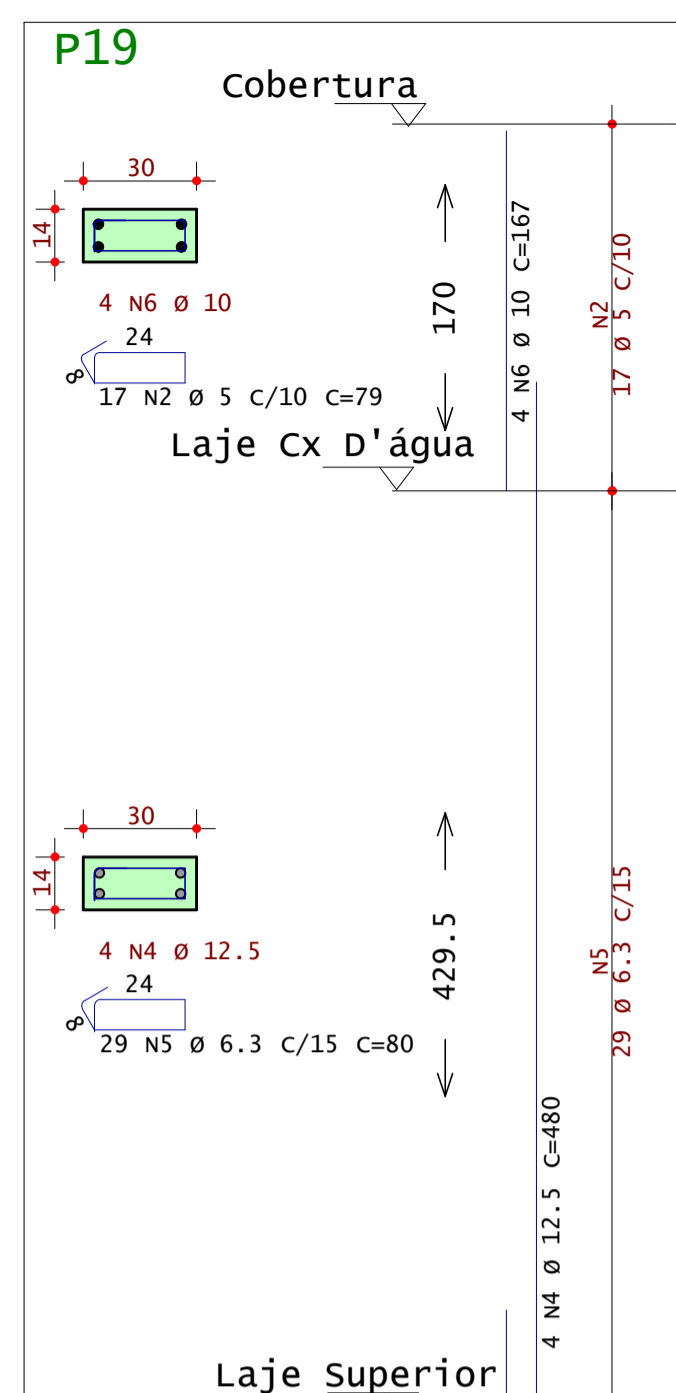
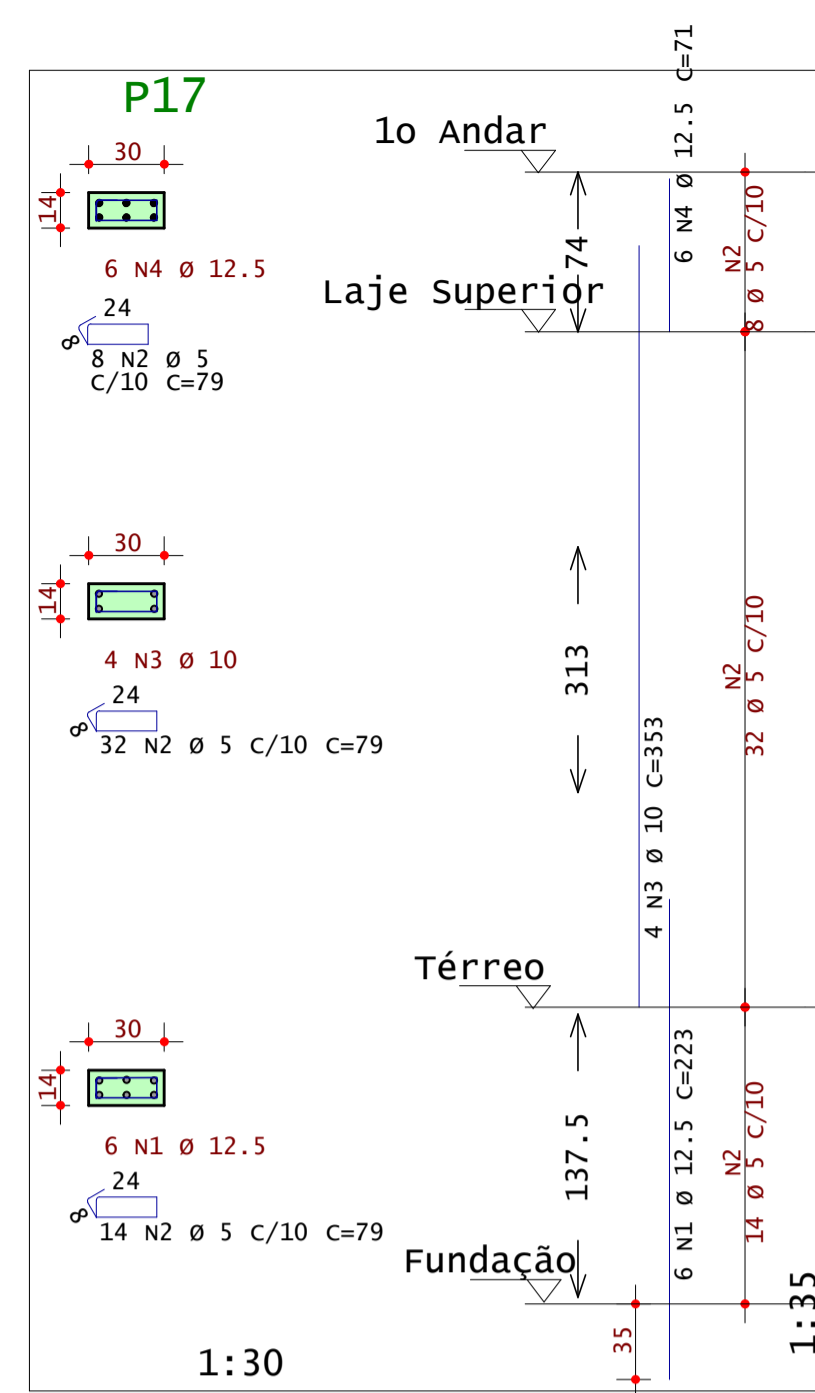
Acesse o site pela sua câmera

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha nº: 10/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: PILARES - CASA		
1/4		
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	





AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
P17	50A	1	12.5	6	223	1338
	60A	2	5	54	79	4266
	50A	3	10	4	353	1412
	50A	4	12.5	6	71	426
P19	50A	1	12.5	4	223	892
	60A	2	5	63	79	4977
	50A	3	12.5	4	363	1452
	50A	4	6.3	4	480	1920
	50A	5	6.3	29	80	2320
	50A	6	10	4	167	668
P20	50A	1	10	4	213	852
	60A	2	5	106	79	8374
	50A	3	10	4	353	1412
	50A	4	10	4	470	1880
	50A	5	10	4	167	668
P21	50A	1	10	4	213	852
	60A	2	5	46	79	3634
	50A	3	10	4	310	1240
P22	50A	1	12.5	4	223	892
	50A	2	6.3	10	80	800
	50A	3	10	4	310	1240
	60A	4	5	32	79	2528
P23	50A	1	20	6	253	1518
	50A	2	6.3	14	80	1120
	50A	3	10	4	310	1240
	60A	4	5	32	79	2528
P25	50A	1	10	4	213	852
	60A	2	5	46	79	3634
	50A	3	10	4	310	1240
P26	50A	1	16	4	237	948
	50A	2	6.3	35	80	2800
	50A	3	16	4	310	1240
P27	50A	1	20	6	253	1518
	50A	2	6.3	14	90	1260
	50A	3	12.5	4	310	1240
	50A	4	6.3	21	90	1890
P28	50A	1	16	6	237	1422
	50A	2	6.3	35	80	2800
	50A	3	16	6	310	1860
P29	50A	1	10	6	213	1278
	60A	2	5	38	88	3344
	50A	3	10	6	230	1380
P30	50A	1	10	4	120	480
	60A	2	5	9	79	711
P31	50A	1	10	4	213	852
	60A	2	5	46	79	3634
	50A	3	10	4	310	1240

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		mm	kgf
60A	5	376	58
50A	6.3	130	32
50A	10	188	116
50A	12.5	82	79
50A	16	55	86
50A	20	30	75
Peso Total	60A =		58 kgf
Peso Total	50A =		388 kgf

Acesse o site pela sua câmera

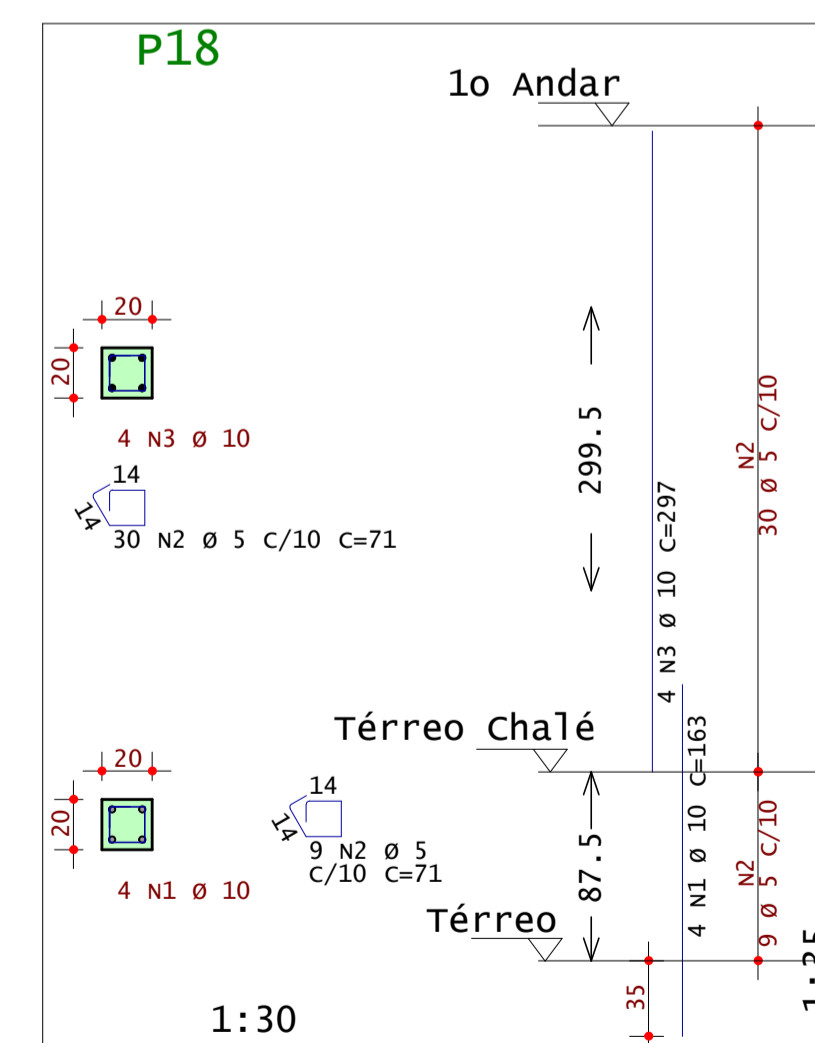
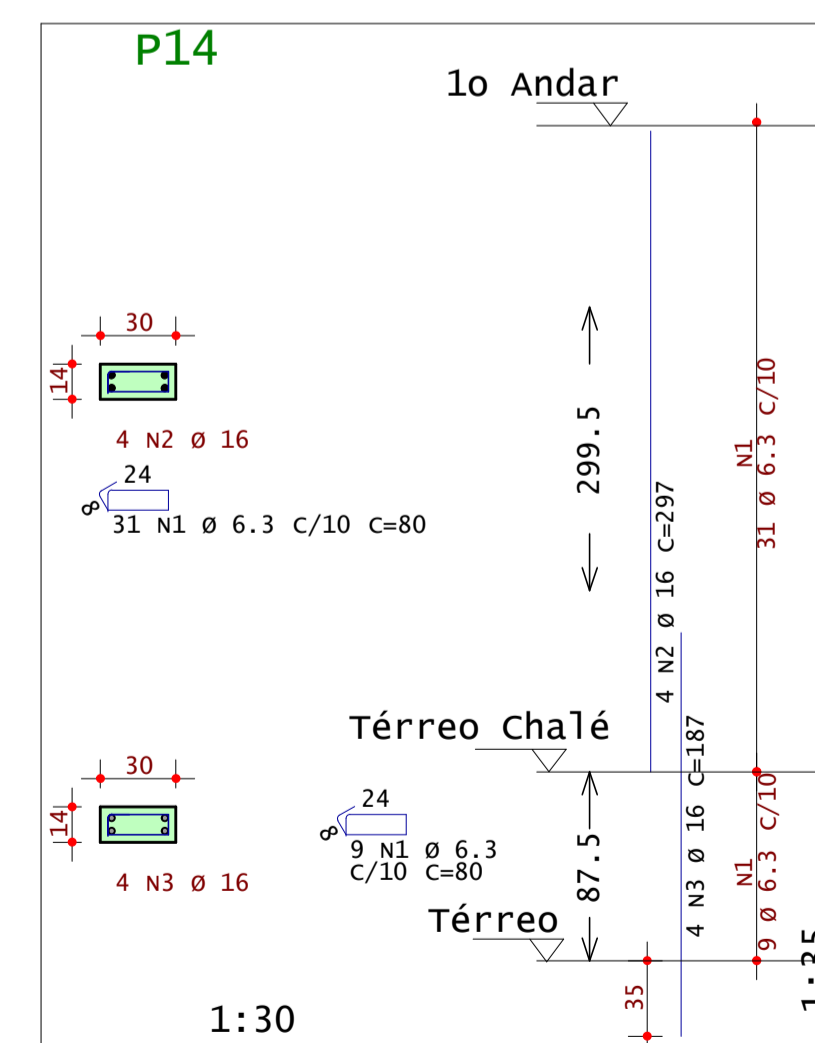
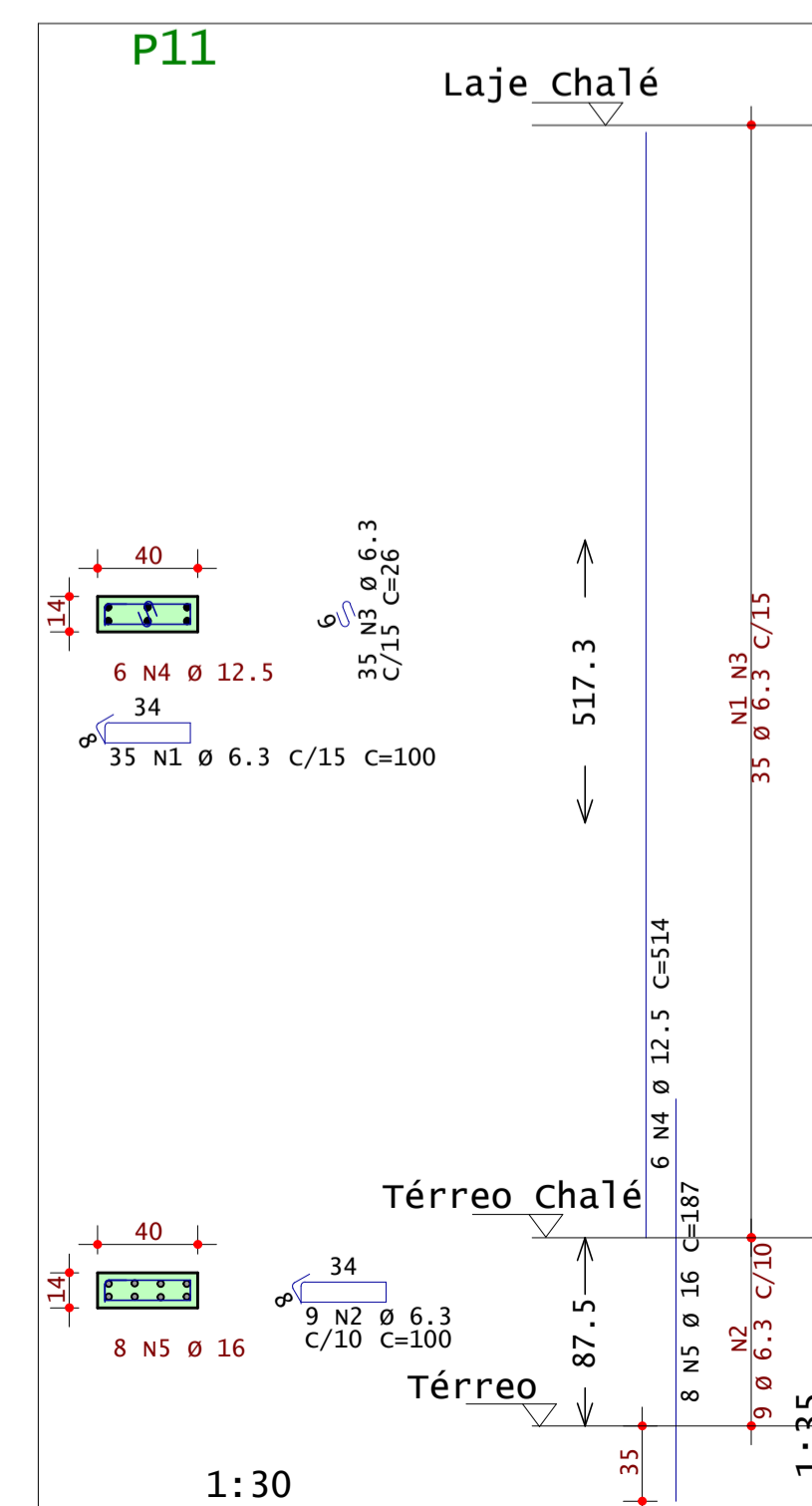
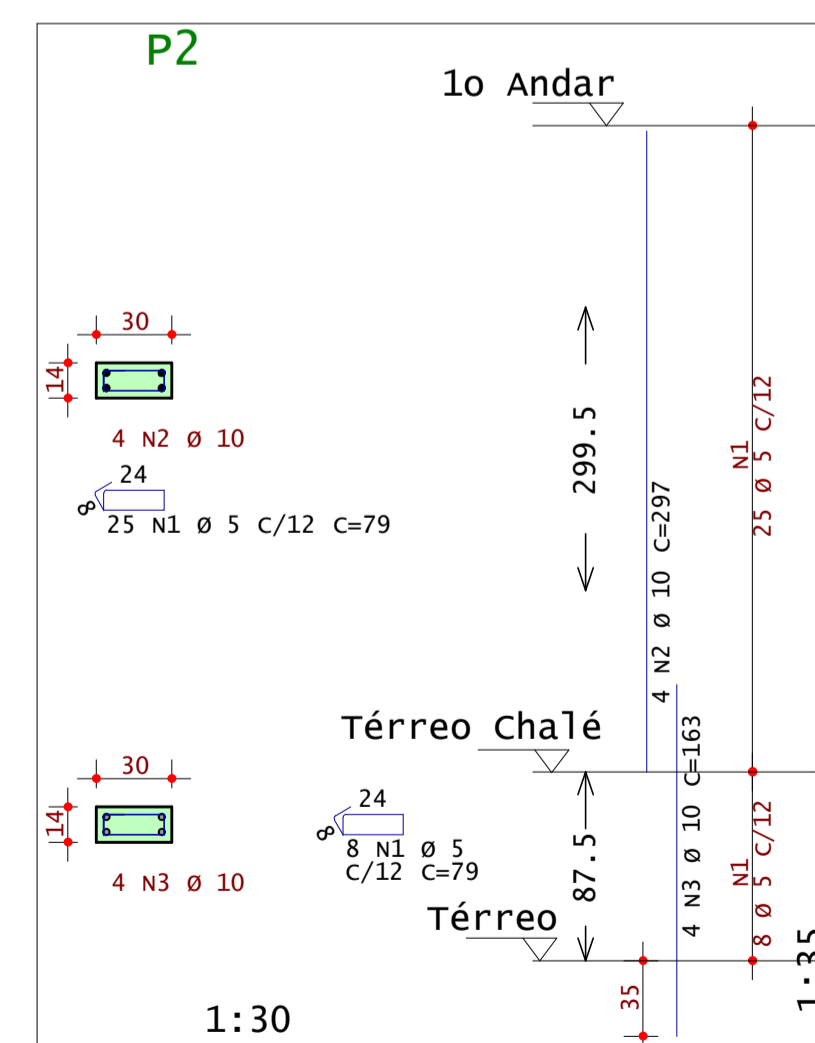
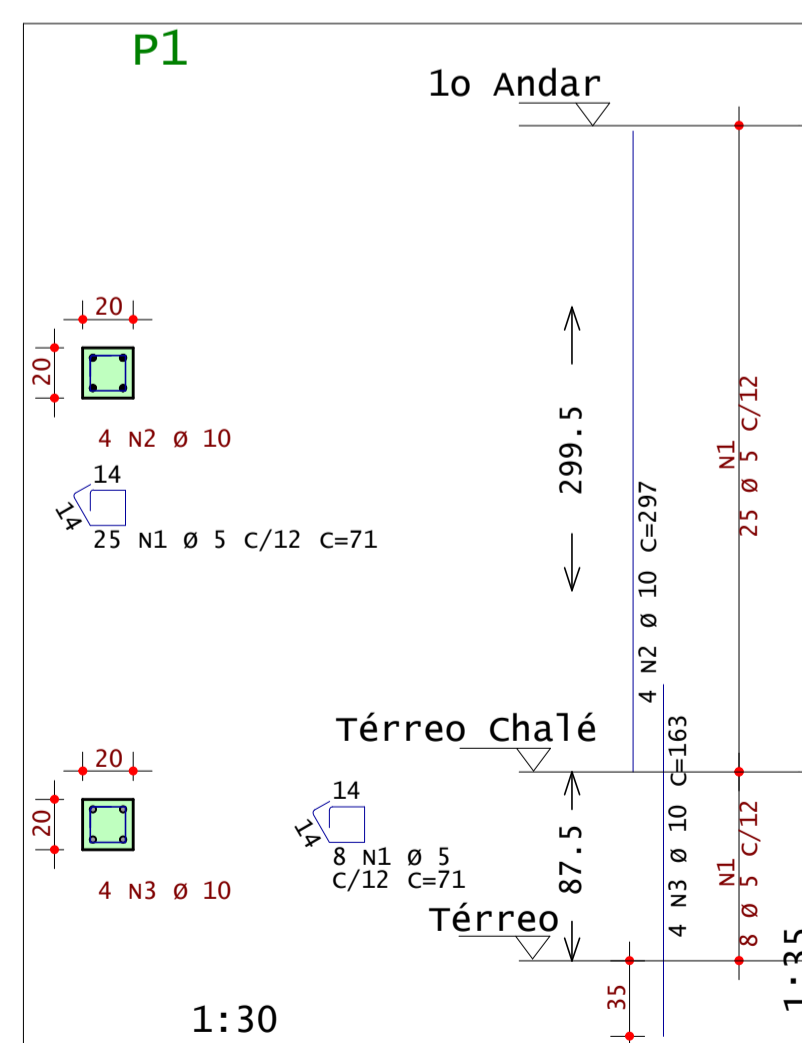
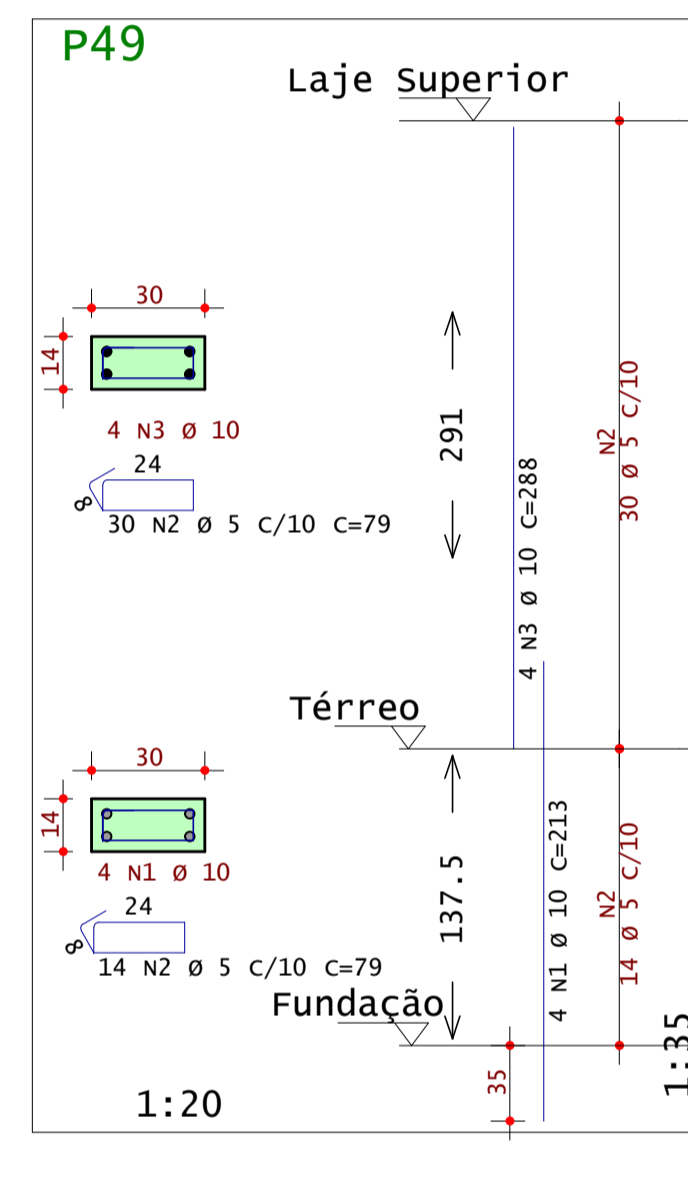
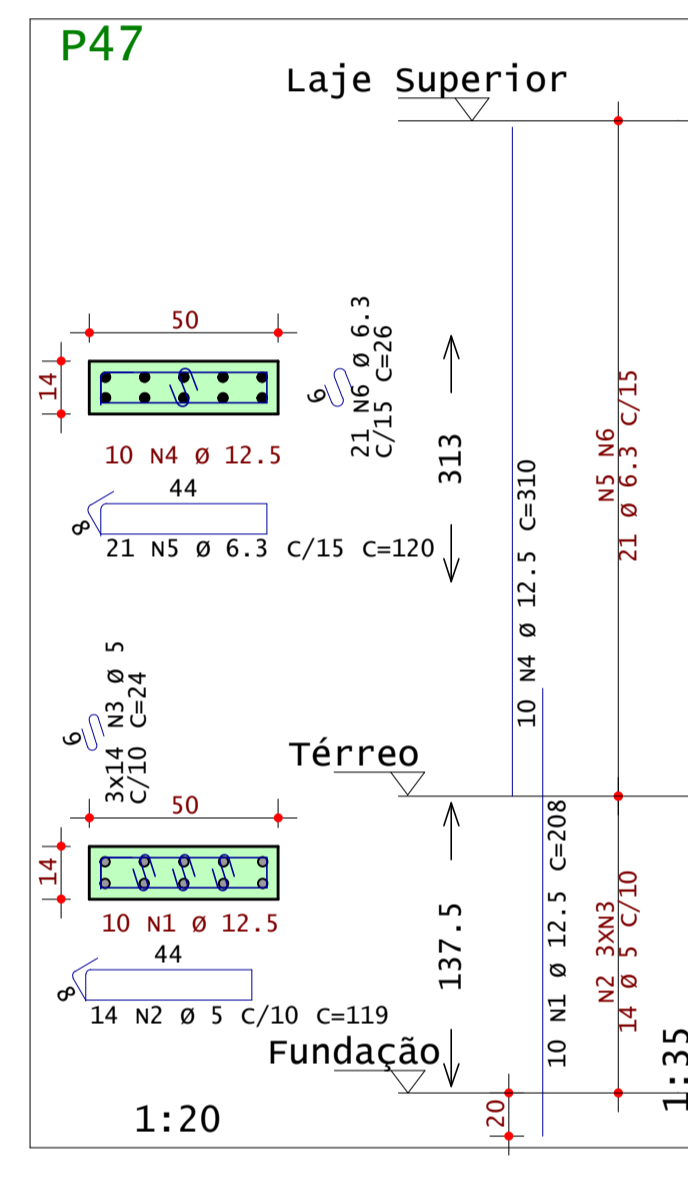
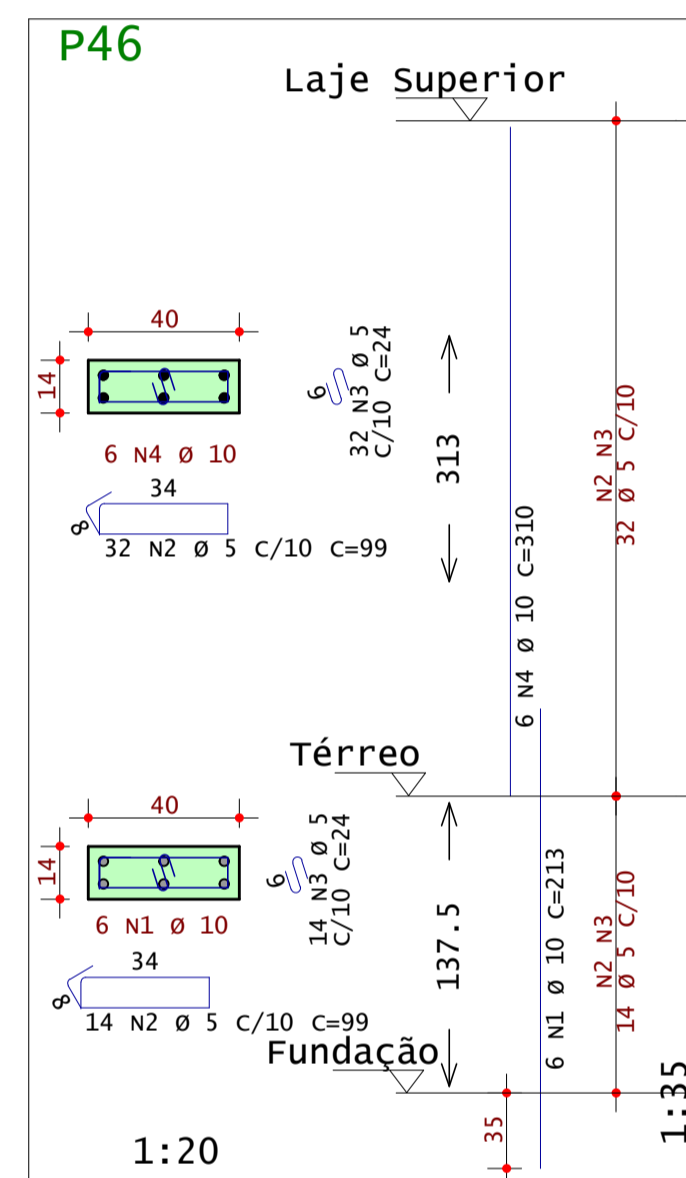
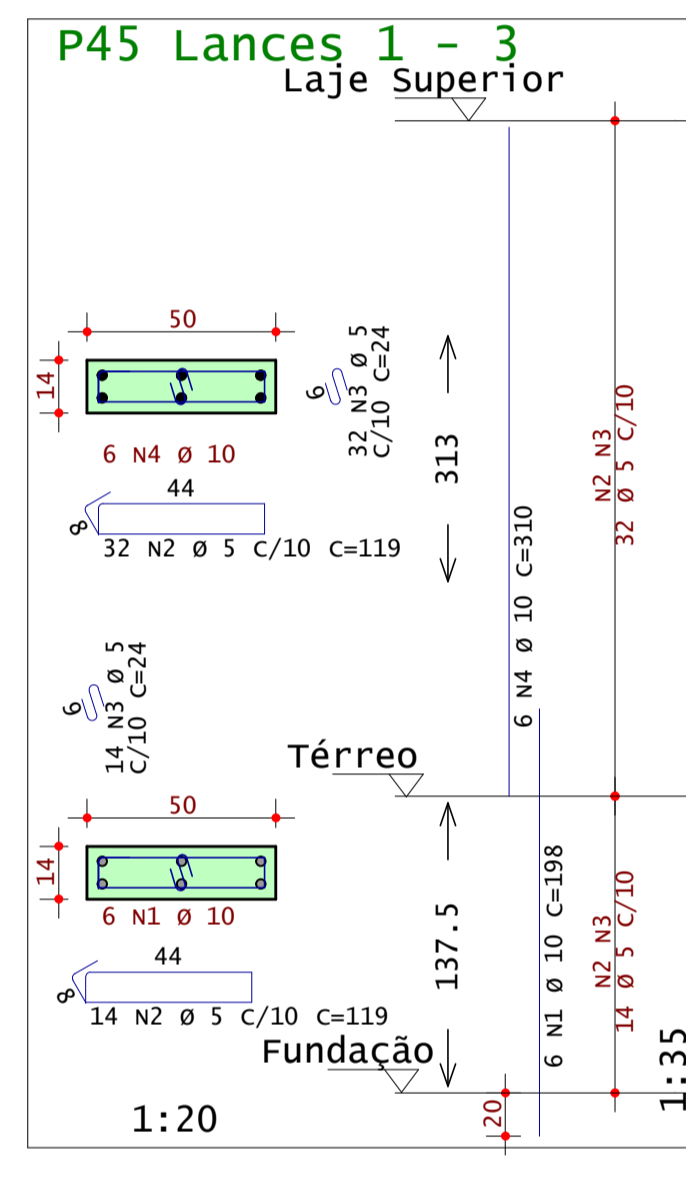
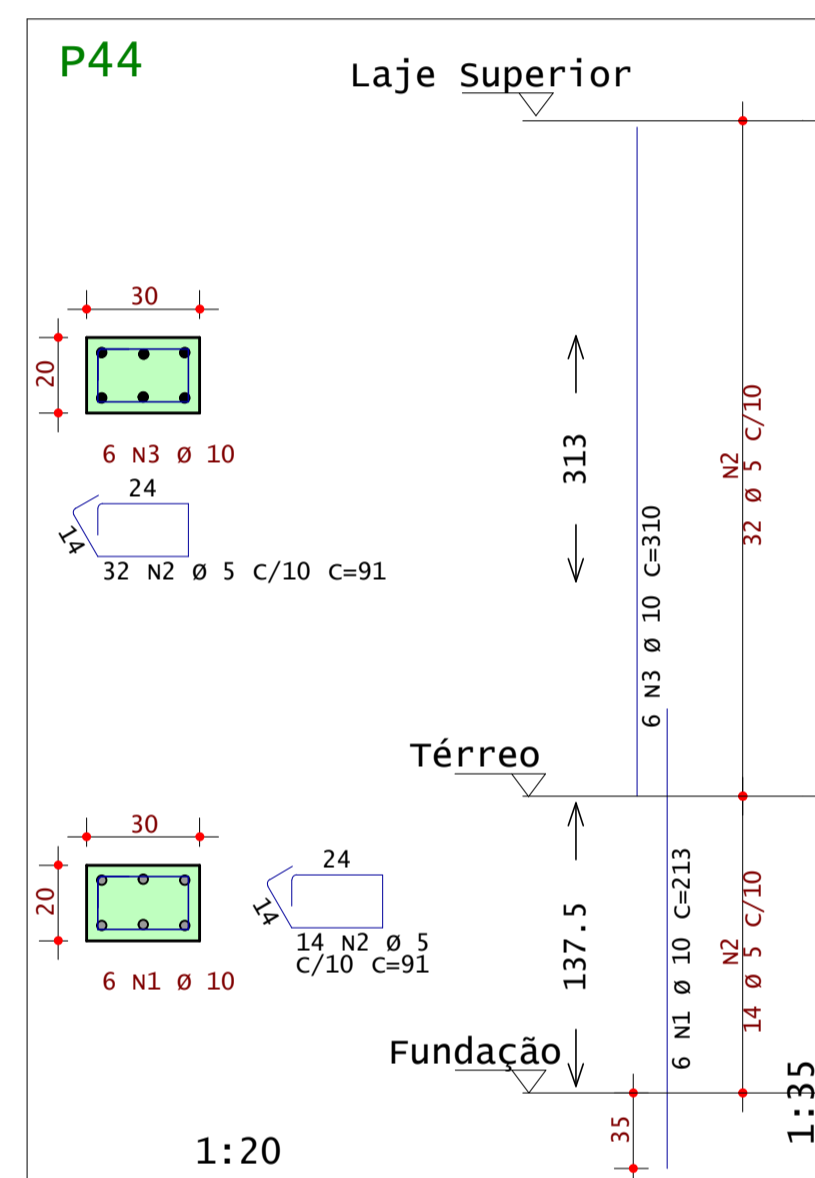
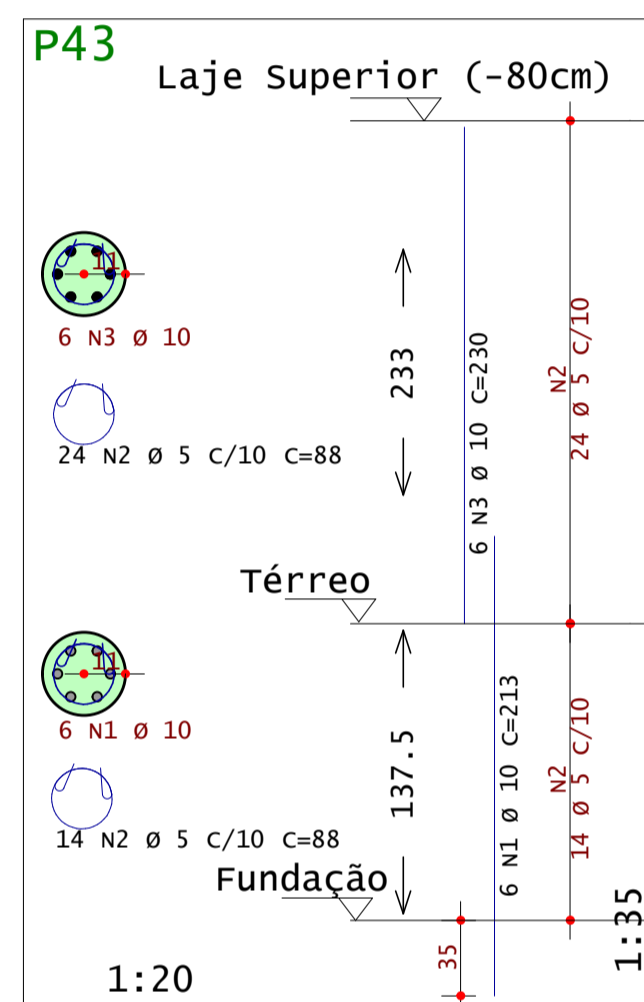
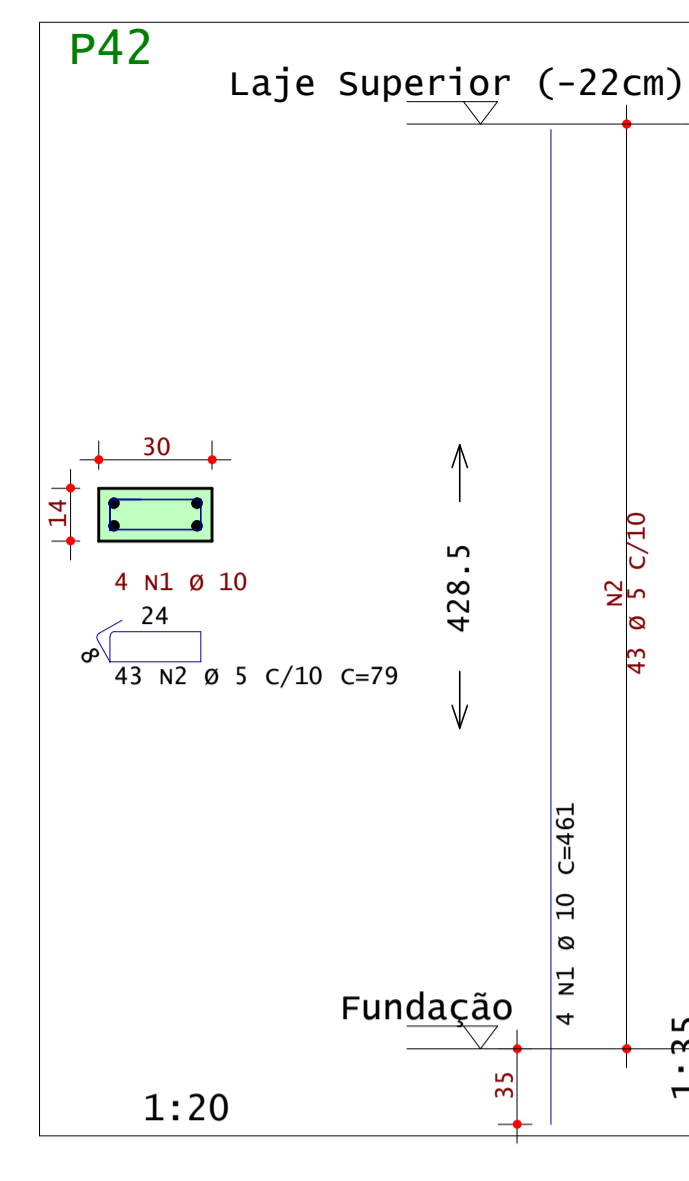
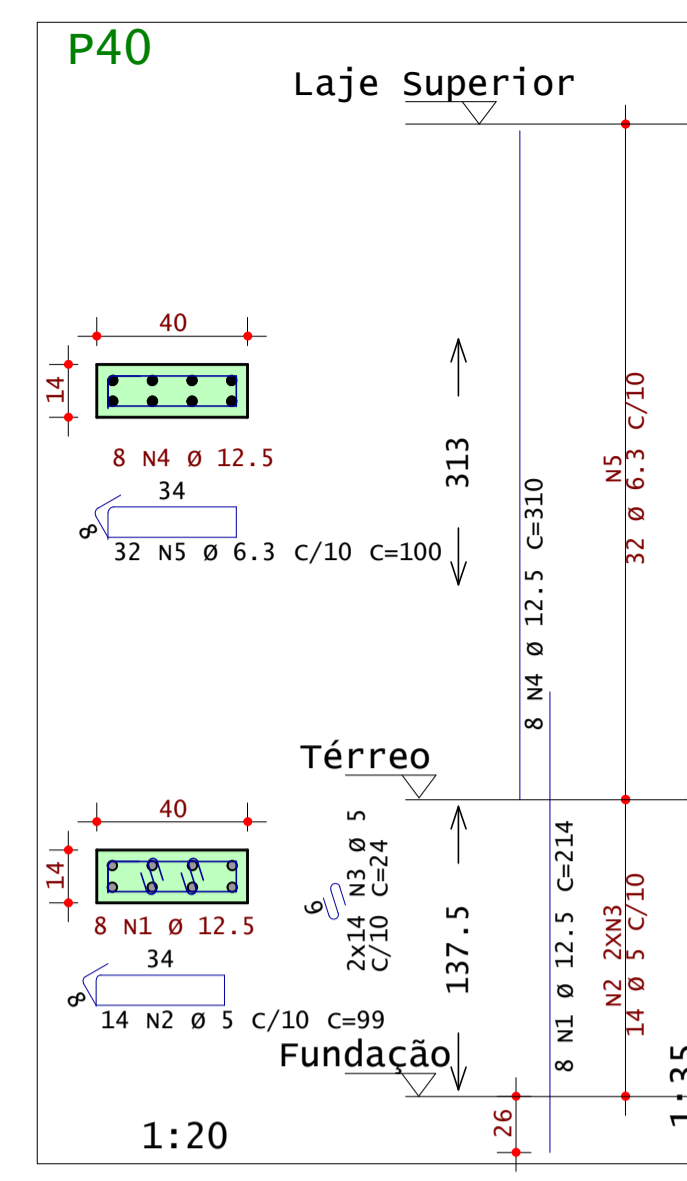
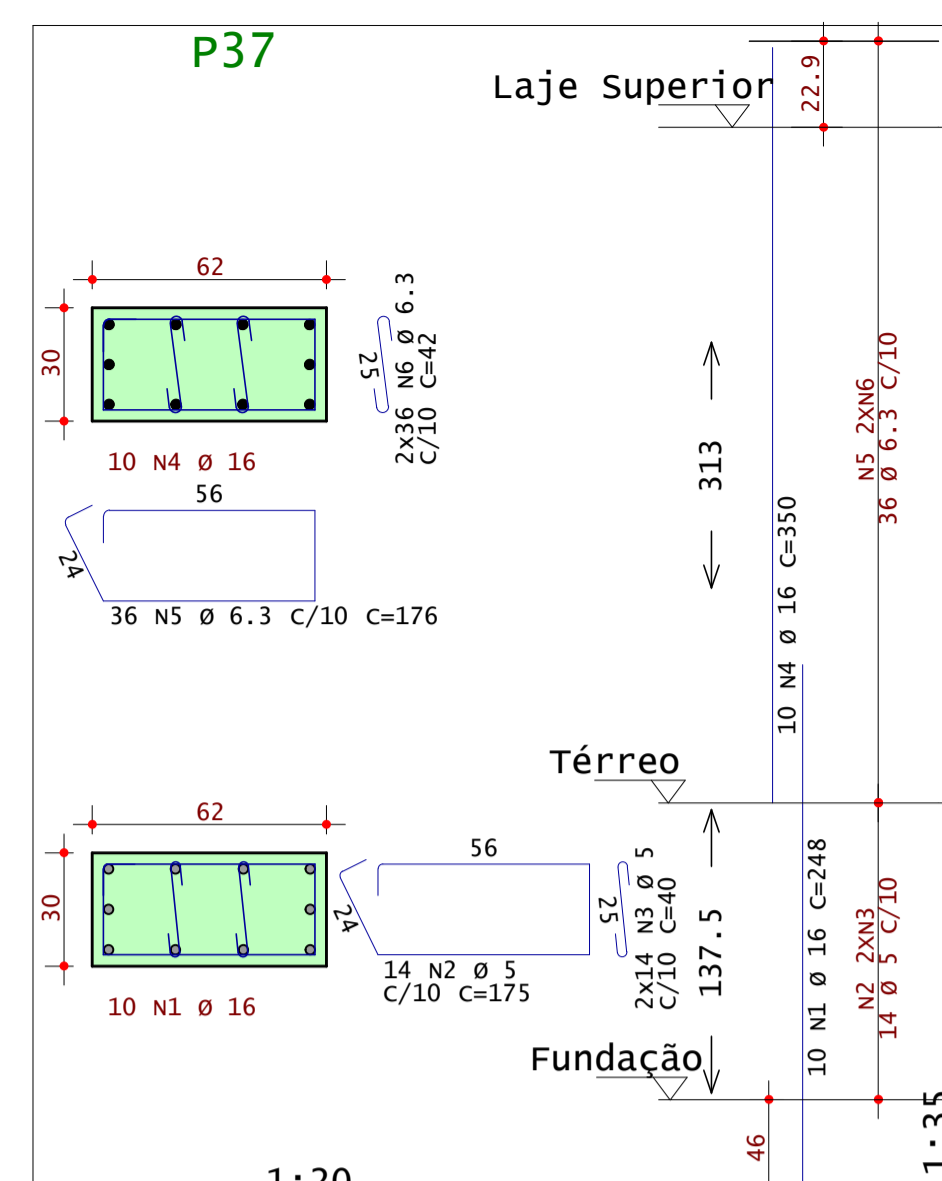
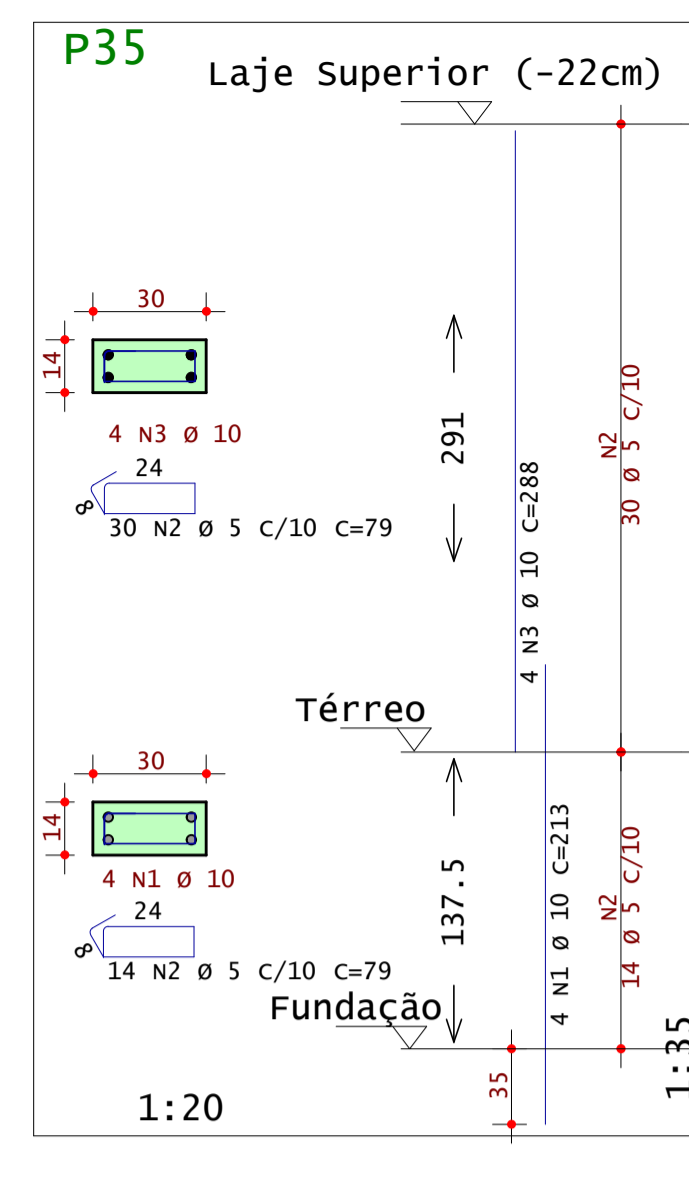
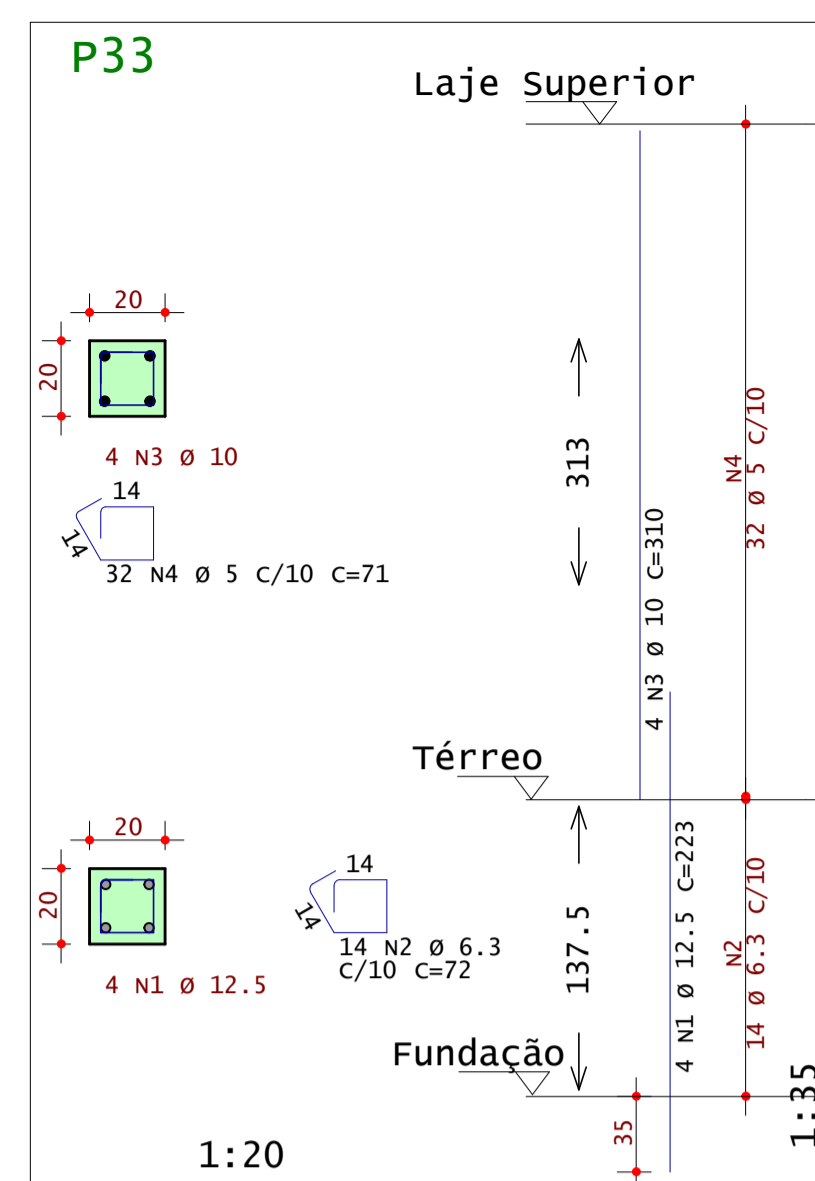
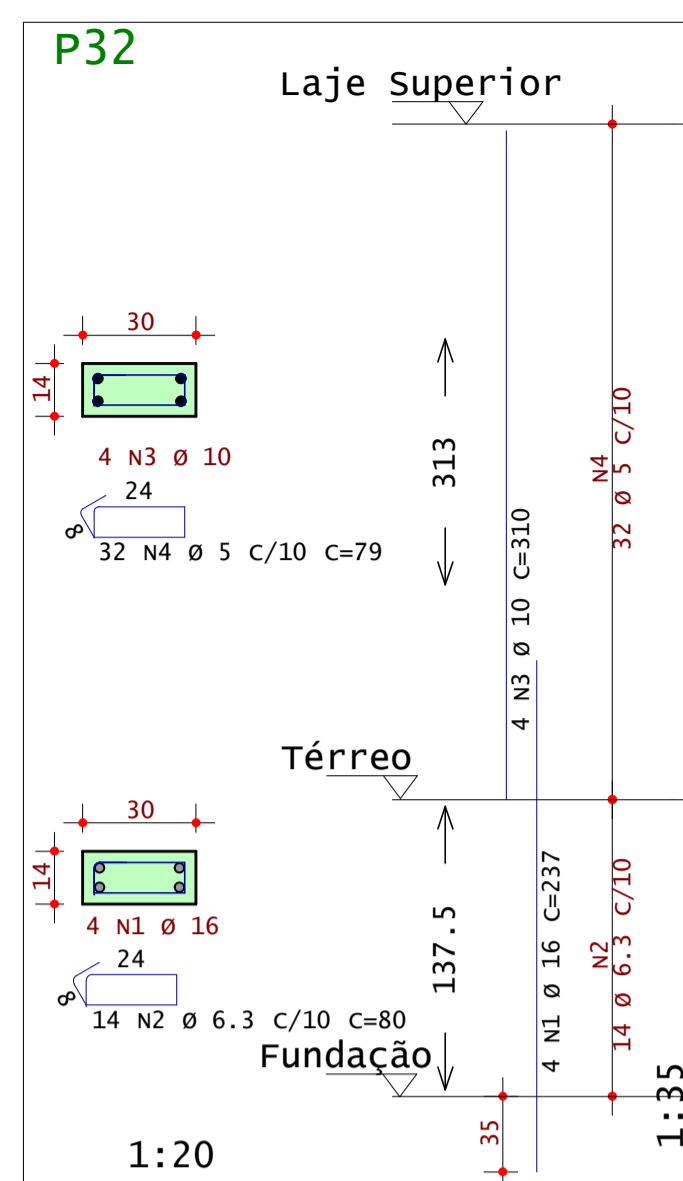
- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha nº: 11/37 Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo
Título: DETALHAMENTO: PILARES - CASA	2/4
CREA-PB: 161890343-9	ART nº: PB 20210418618
Data: 16 / 02 / 2022	Escala: Indicada

ANDRÉ RODRIGUES DE VASCONCELOS PL_CAS-PIL-PIL-023-FR00-PLT_16/02/2022_ZZ:35:06



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
P1	60A	1	5	33	71	2343
	50A	2	10	4	297	1188
	50A	3	10	4	163	652
P2	60A	1	5	33	79	2607
	50A	2	10	4	297	1188
	50A	3	10	4	163	652
P11	50A	1	6.3	35	100	3500
	50A	2	6.3	9	100	900
	50A	3	6.3	35	26	910
	50A	4	12.5	6	514	3084
	50A	5	16	8	187	1496
P14	50A	1	6.3	40	80	3200
	50A	2	16	4	297	1188
	50A	3	16	4	187	748
P18	50A	1	10	4	163	652
	60A	2	5	39	71	2769
	50A	3	10	4	297	1188
P32	50A	1	16	4	237	948
	50A	2	6.3	14	80	1120
	50A	3	10	4	310	1240
	60A	4	5	32	79	2528
P33	50A	1	12.5	4	223	892
	50A	2	6.3	14	72	1008
	50A	3	10	4	310	1240
	60A	4	5	32	71	2272
P35	50A	1	10	4	213	852
	60A	2	5	44	79	3476
	50A	3	10	4	288	1152
P37	50A	1	16	10	248	2480
	60A	2	5	14	175	2450
	60A	3	5	28	40	1120
	50A	4	16	10	350	3500
	50A	5	6.3	36	176	6336
	50A	6	6.3	72	42	3024
P40	50A	1	12.5	8	214	1712
	60A	2	5	14	99	1386
	60A	3	5	28	24	672
	50A	4	12.5	8	310	2480
	50A	5	6.3	32	100	3200
P42	50A	1	10	4	461	1844
	60A	2	5	43	79	3397
P43	50A	1	10	6	213	1278
	60A	2	5	38	88	3344
	50A	3	10	6	230	1380
P44	50A	1	10	6	213	1278
	60A	2	5	46	91	4186
	50A	3	10	6	310	1860
P45 Lances 1 - 3	50A	1	10	6	198	1188
	60A	2	5	46	119	5474
	60A	3	5	46	24	1104
	50A	4	10	6	310	1860
P46	50A	1	10	6	213	1278
	60A	2	5	46	99	4554
	60A	3	5	46	24	1104
	50A	4	10	6	310	1860
	P47	50A	1	12.5	10	208
60A		2	5	14	119	1666
60A		3	5	42	24	1008
50A		4	12.5	10	310	3100
50A		5	6.3	21	120	2520
50A		6	6.3	21	26	546
P49	50A	1	10	4	213	852
	60A	2	5	44	79	3476
	50A	3	10	4	288	1152

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	509	78
50A	6.3	263	64
50A	10	258	159
50A	12.5	133	129
50A	16	104	163
Peso Total		60A =	78 kgf
Peso Total		50A =	516 kgf



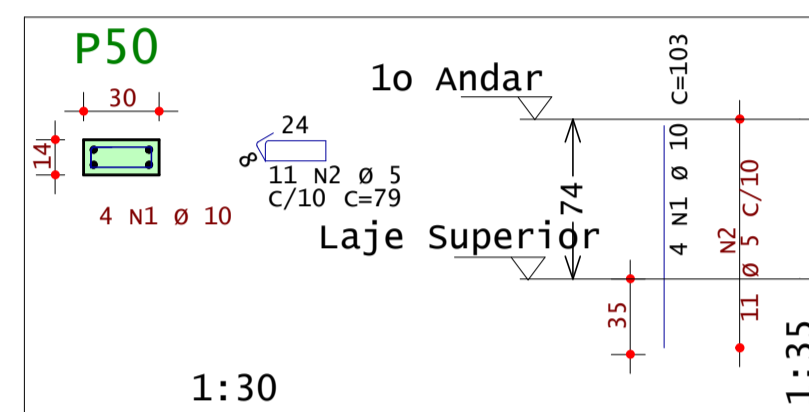
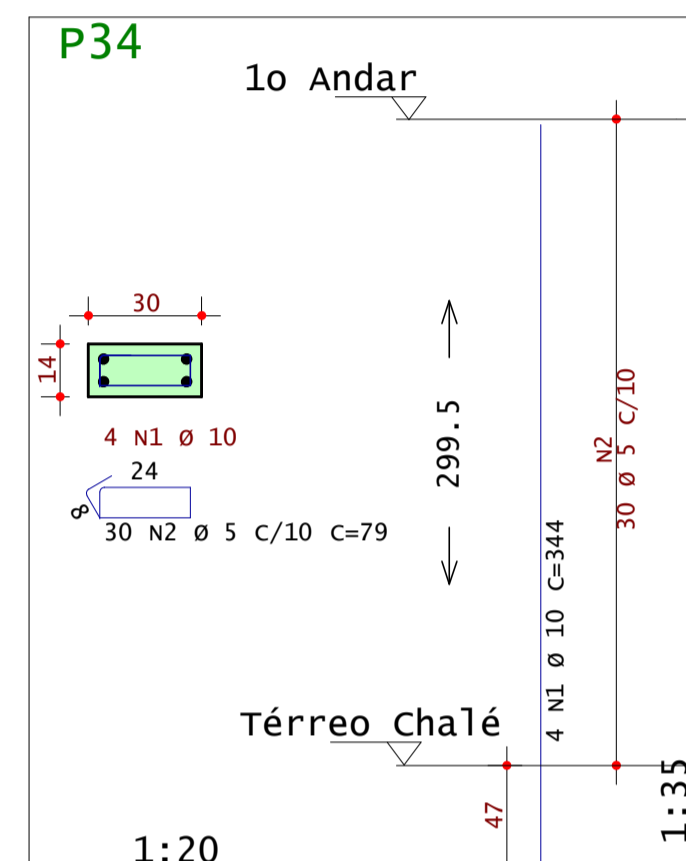
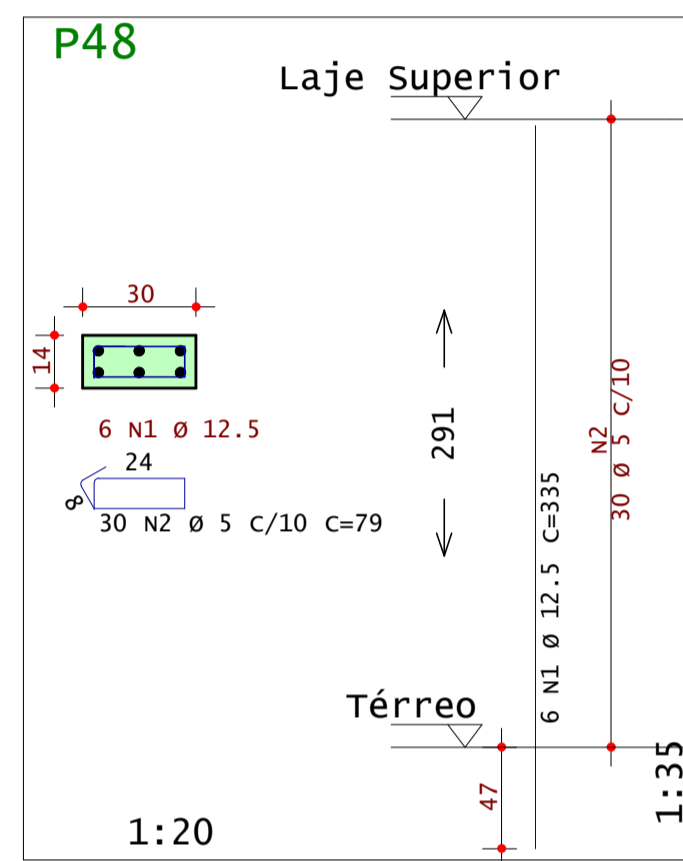
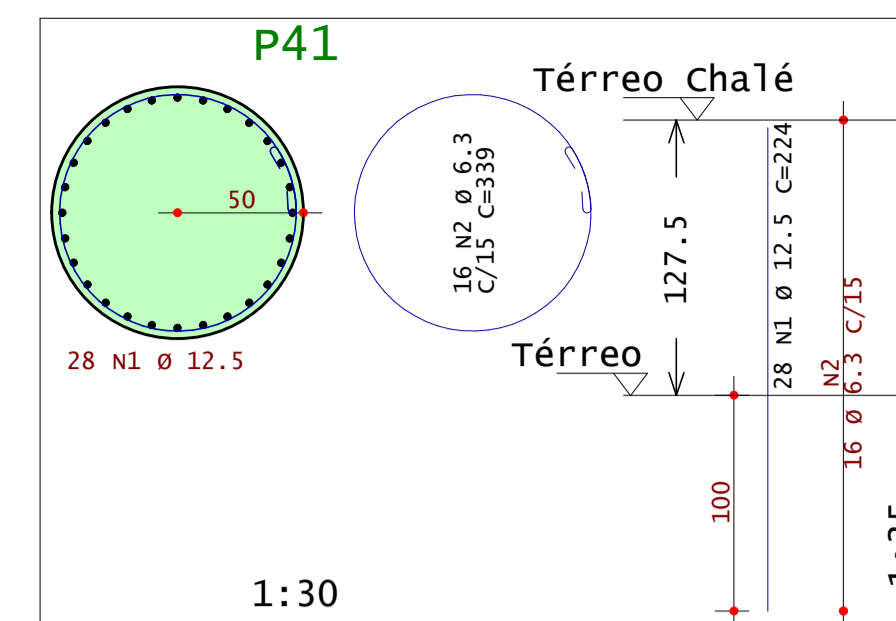
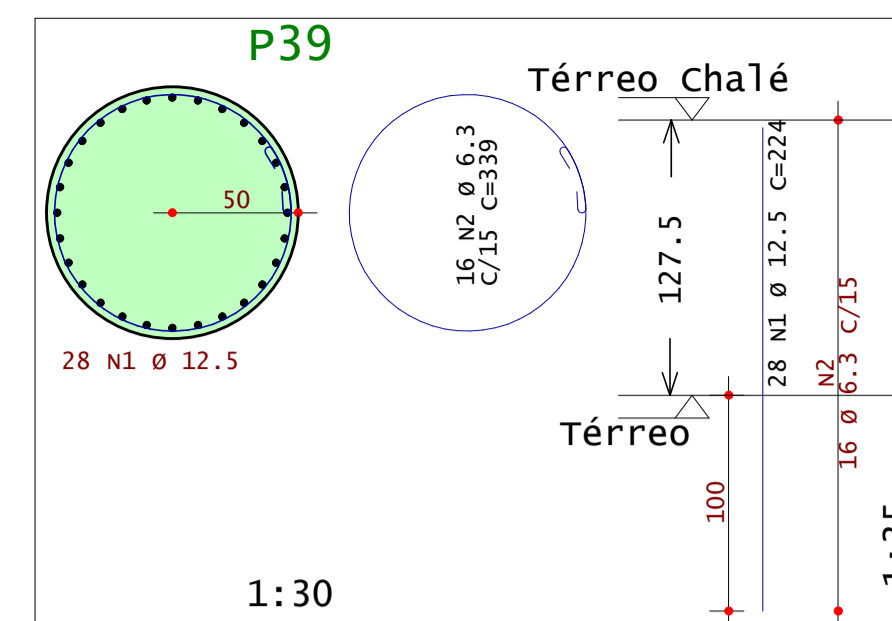
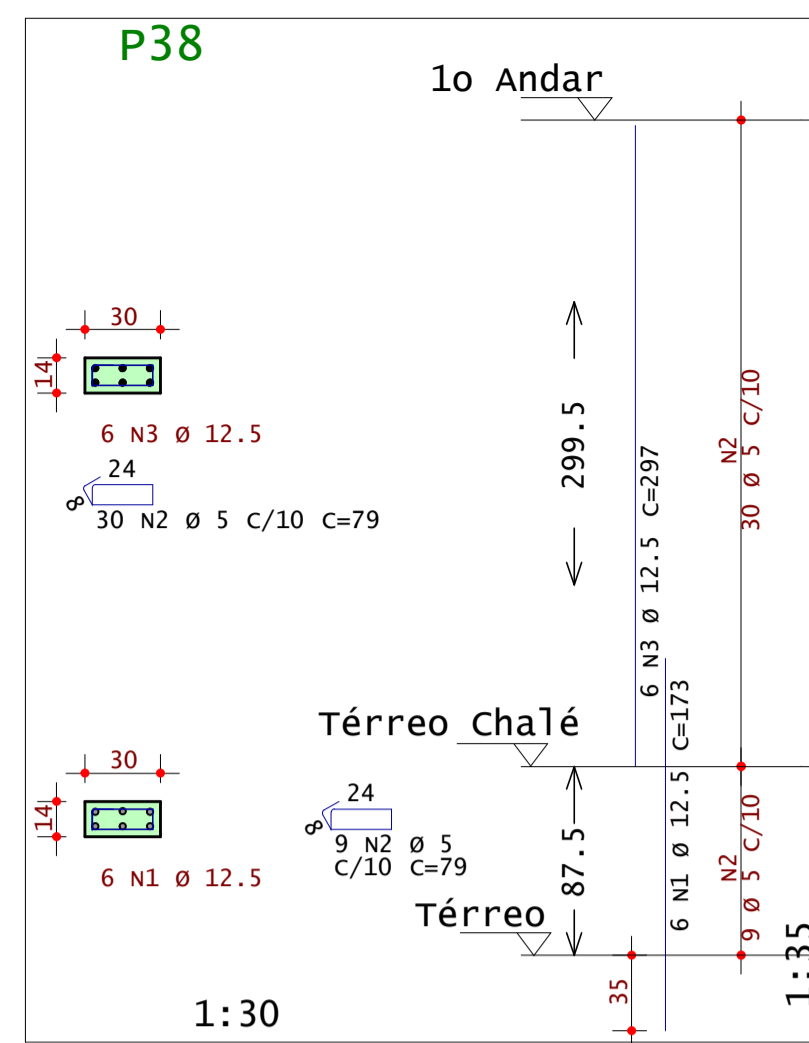
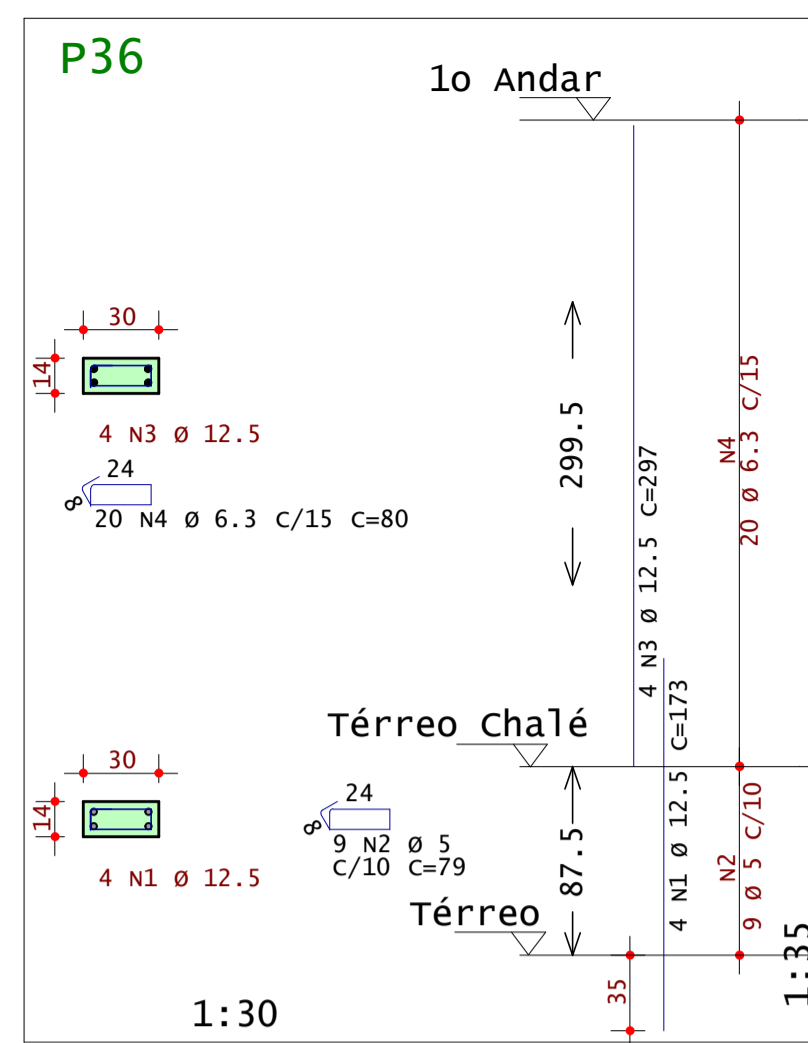
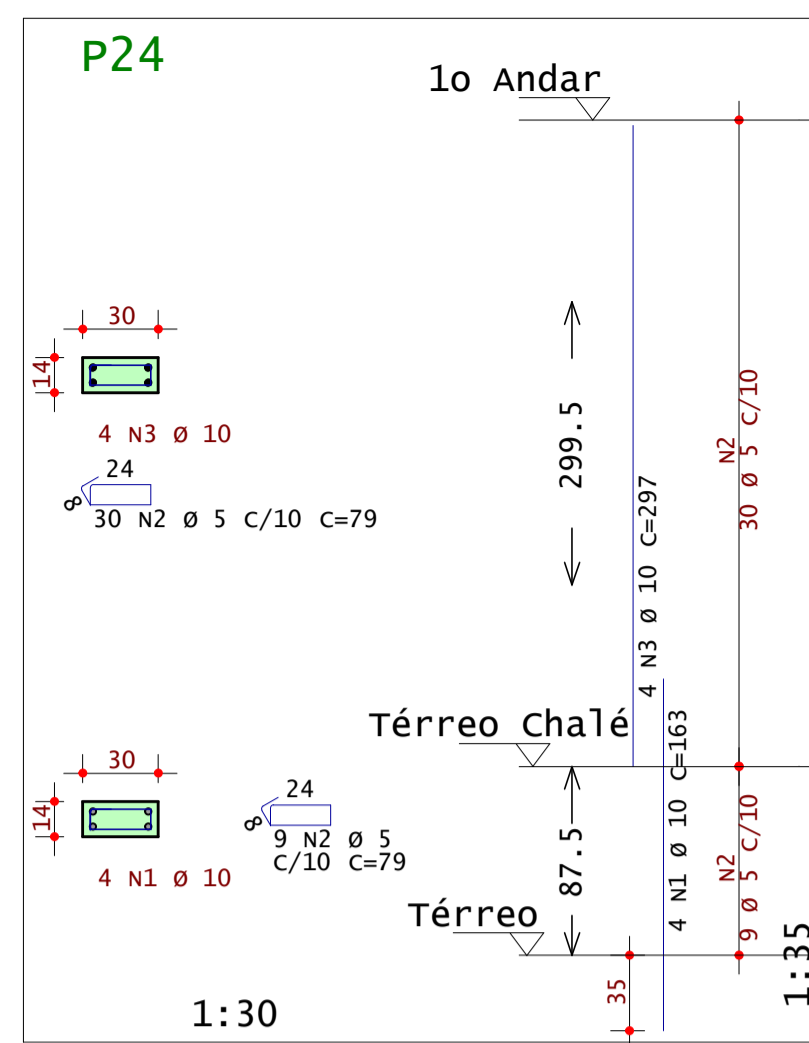
Acesse o site pela sua câmera

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente:	Paulo George Dantas da Nobrega	Prancha n°:	12/37	Revisão n°:	002
Obra:	Residência Unifamiliar	Observações:	Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo		
Título:	DETALHAMENTO: PILARES - CASA				
CREA-PB:	161890343-9	ART n°:	PB 20210418618		
Data:	16 / 02 / 2022	Escala:	Indicada		





AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
P24	50A	1	10	163	652
	60A	2	39	79	3081
	50A	3	10	297	1188
P34	50A	1	10	344	1376
	60A	2	5	79	2370
P36	50A	1	12.5	173	692
	60A	2	9	79	711
	50A	3	12.5	297	1188
	50A	4	6.3	80	1600
P38	50A	1	12.5	173	1038
	60A	2	39	79	3081
	50A	3	12.5	297	1782
P39	50A	1	12.5	224	6272
	50A	2	6.3	339	5424
P41	50A	1	12.5	224	6272
	50A	2	6.3	339	5424
P48	50A	1	12.5	335	2010
	60A	2	5	79	2370
P50	50A	1	10	103	412
	60A	2	5	79	869

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		mm	m
			kgf
60A	5	125	19
50A	6.3	124	30
50A	10	36	22
50A	12.5	193	185
Peso Total	60A =		19 kgf
Peso Total	50A =		238 kgf

Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

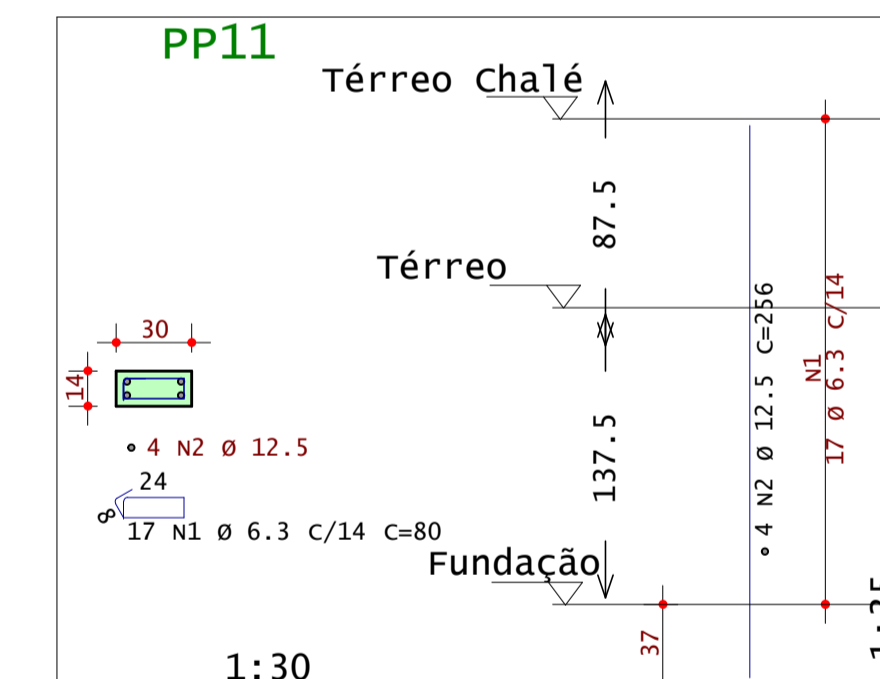
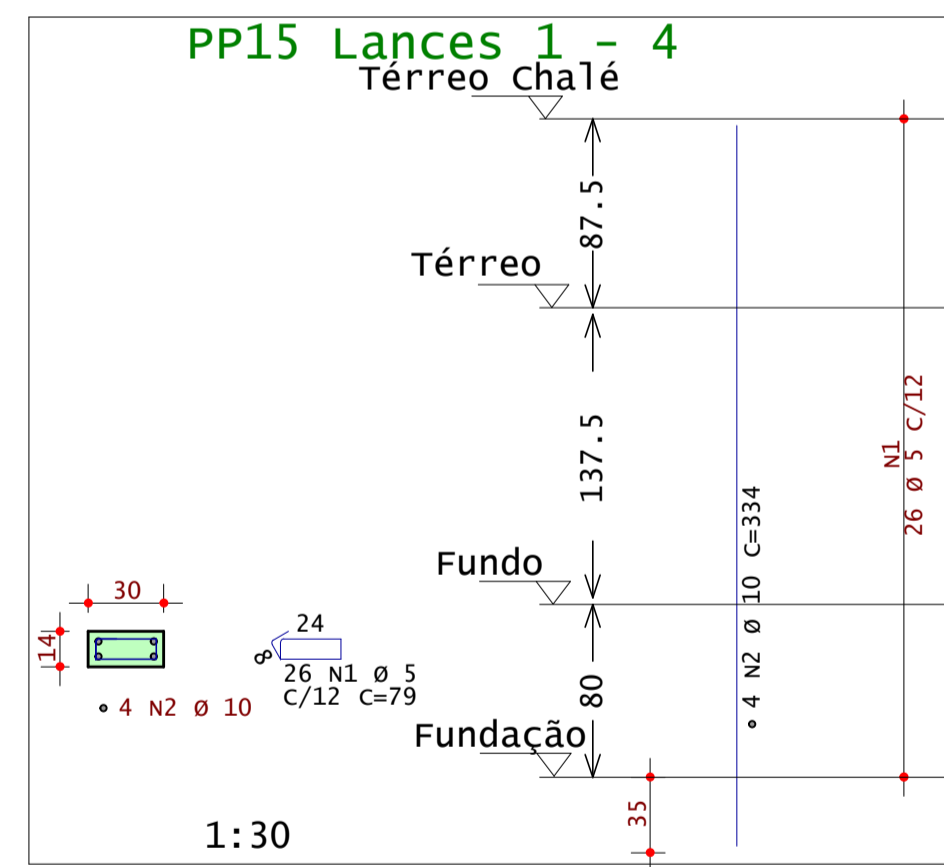
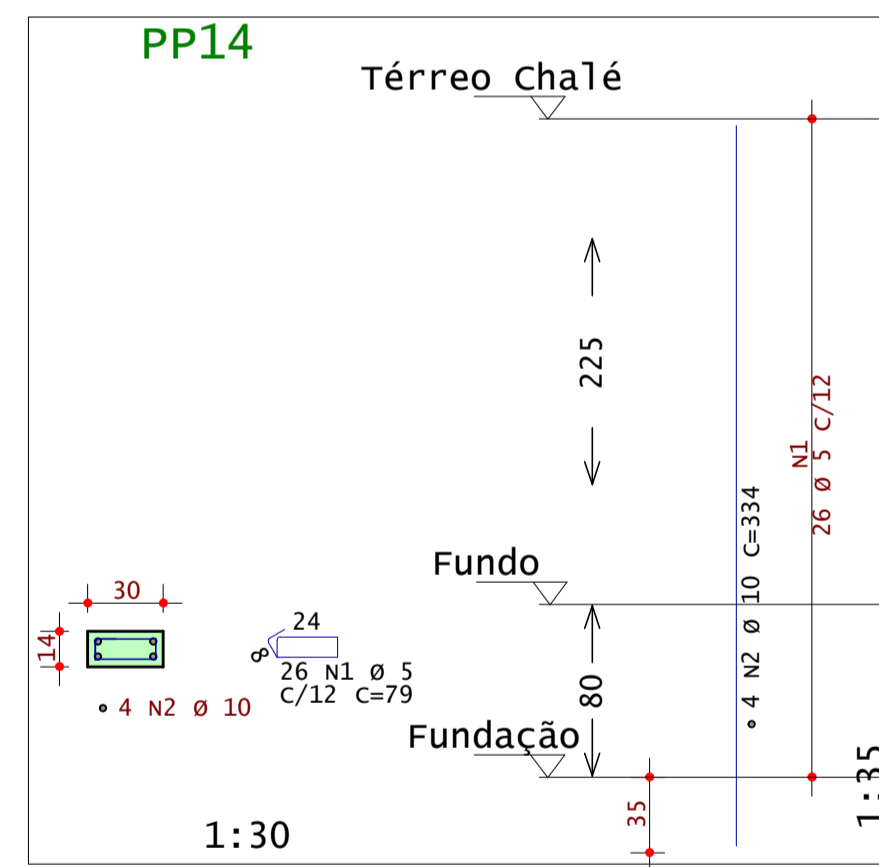
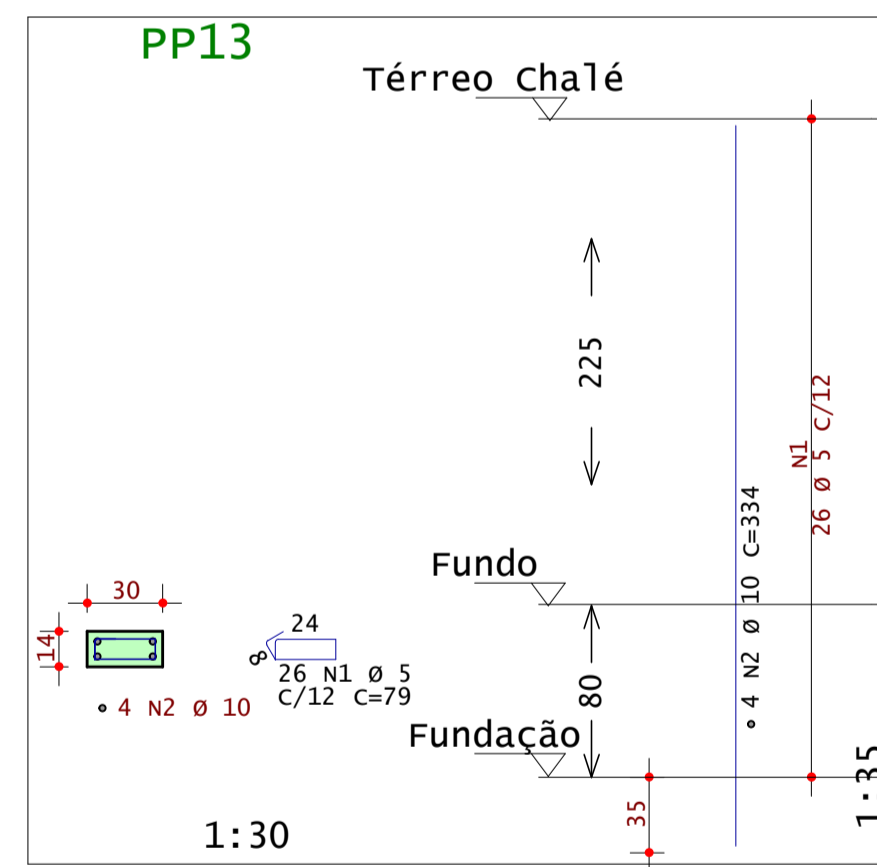
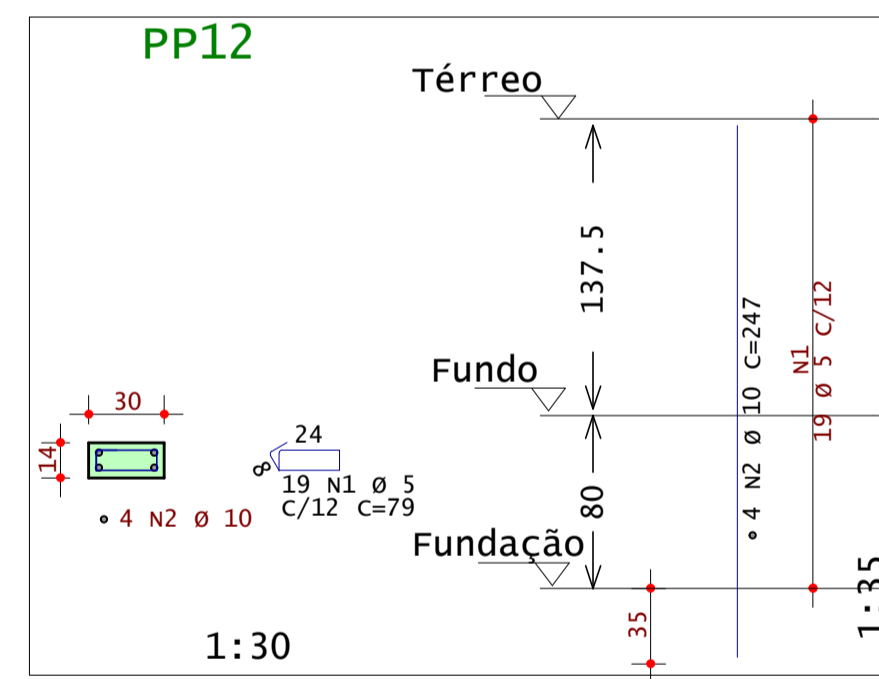
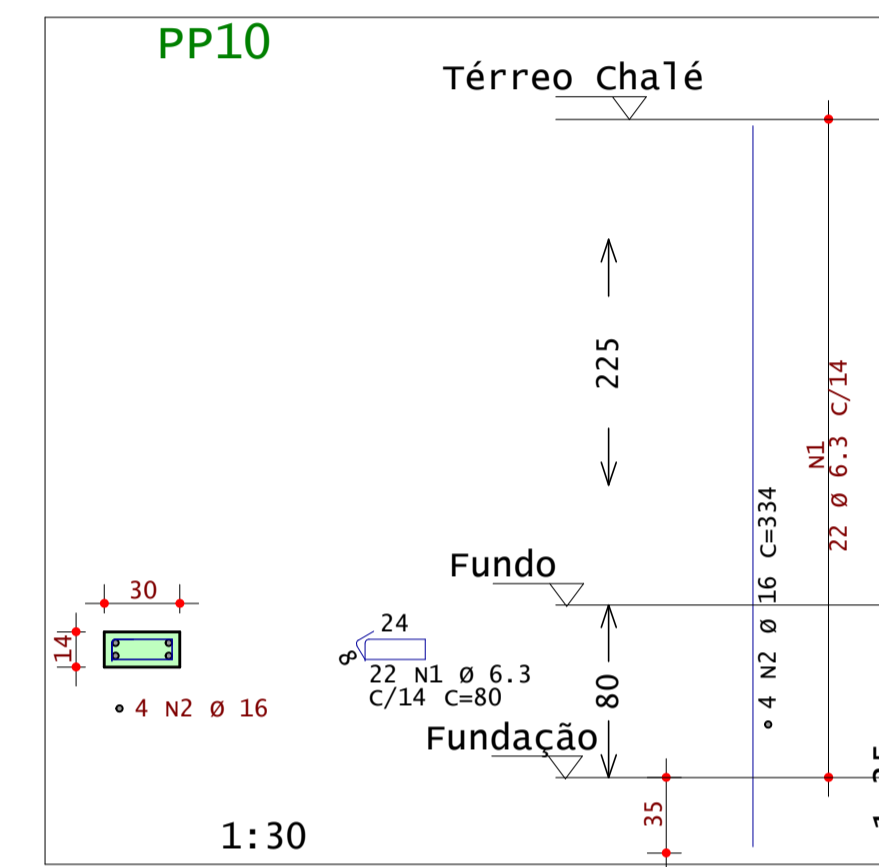
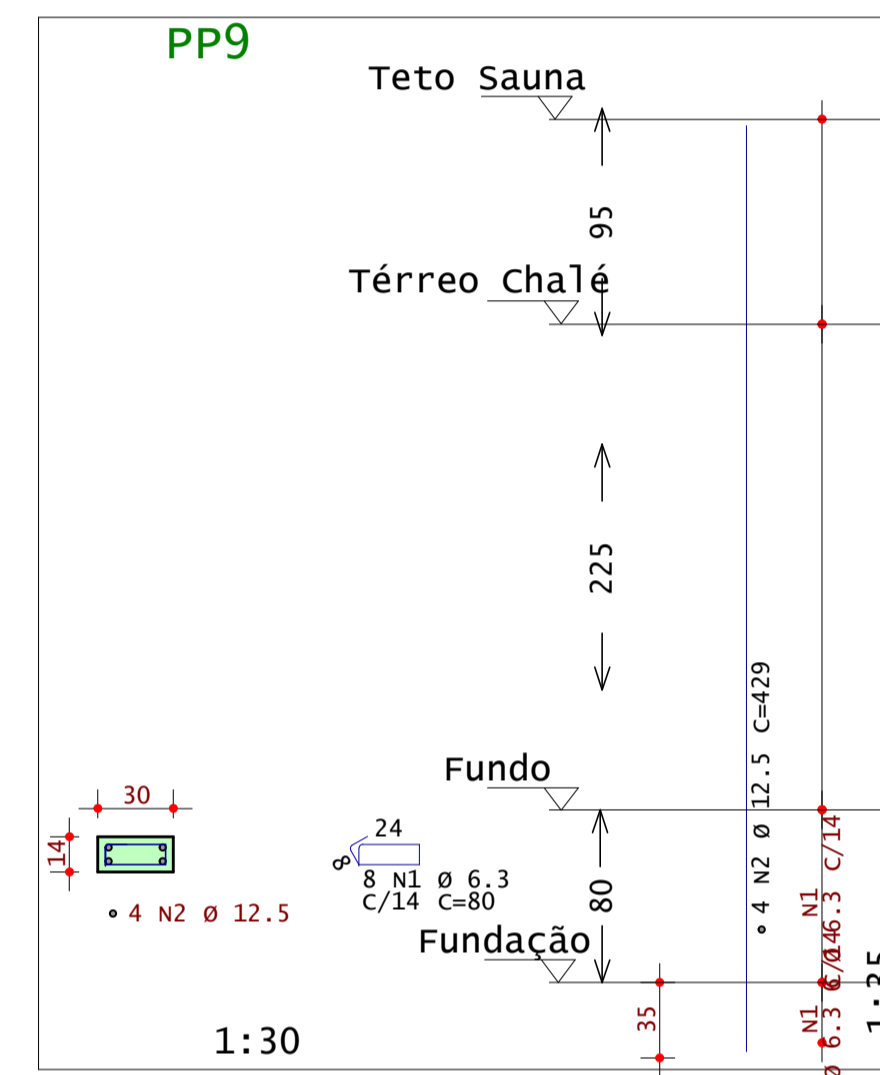
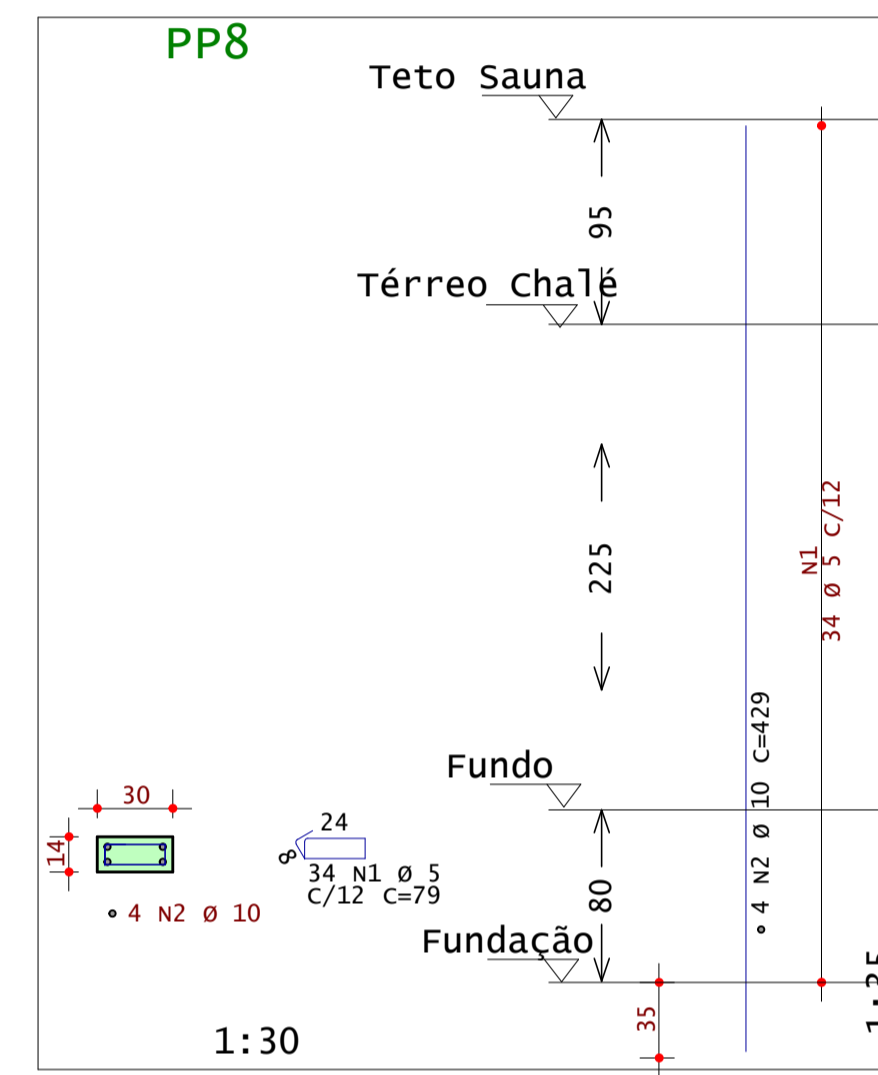
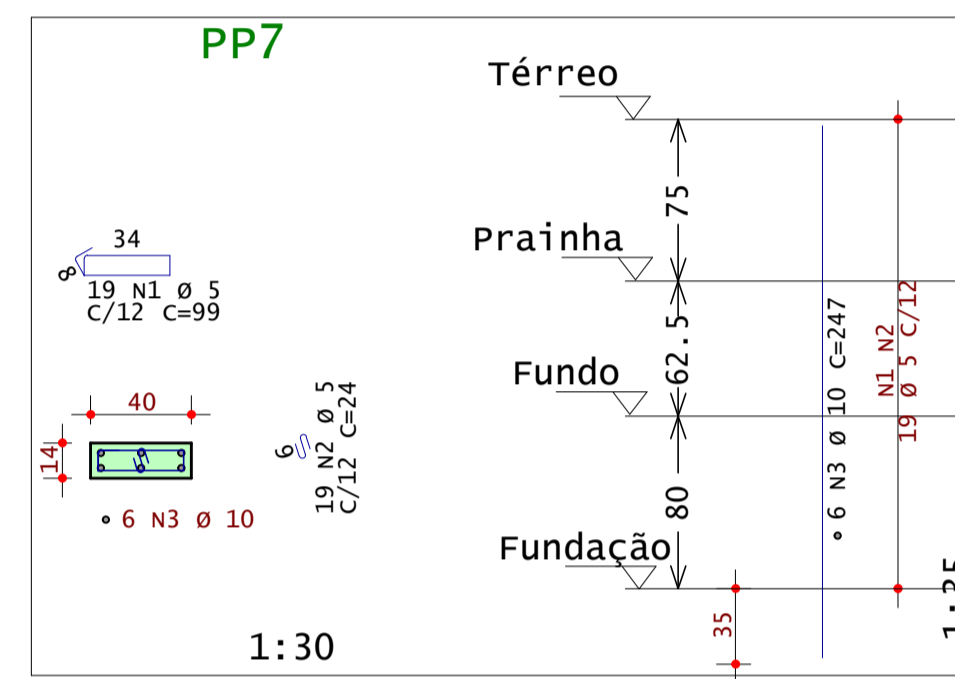
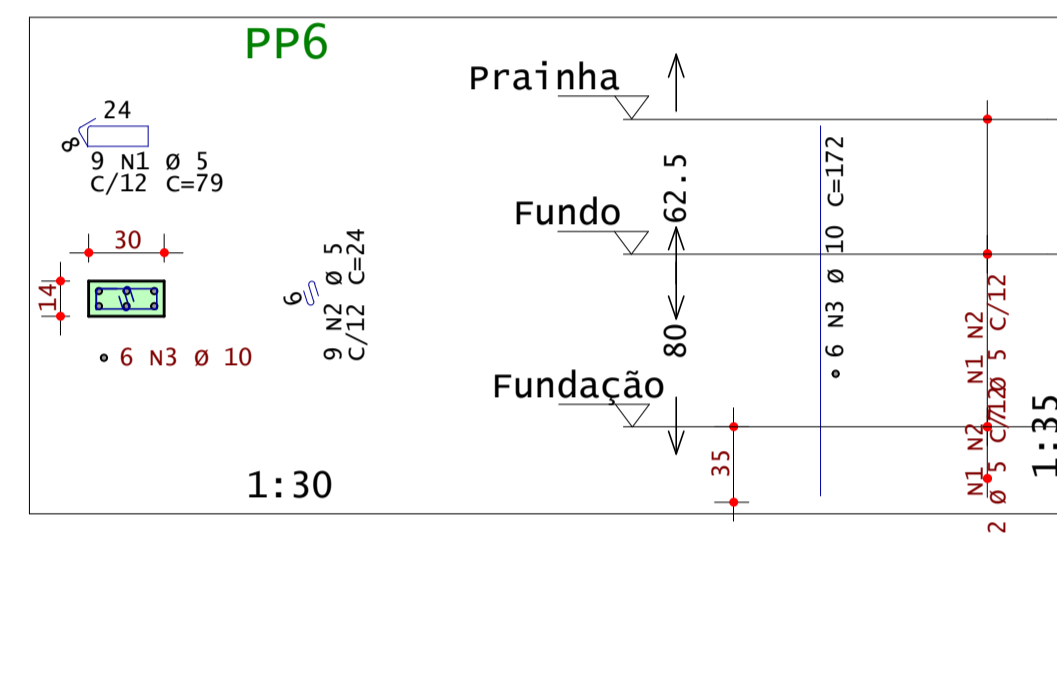
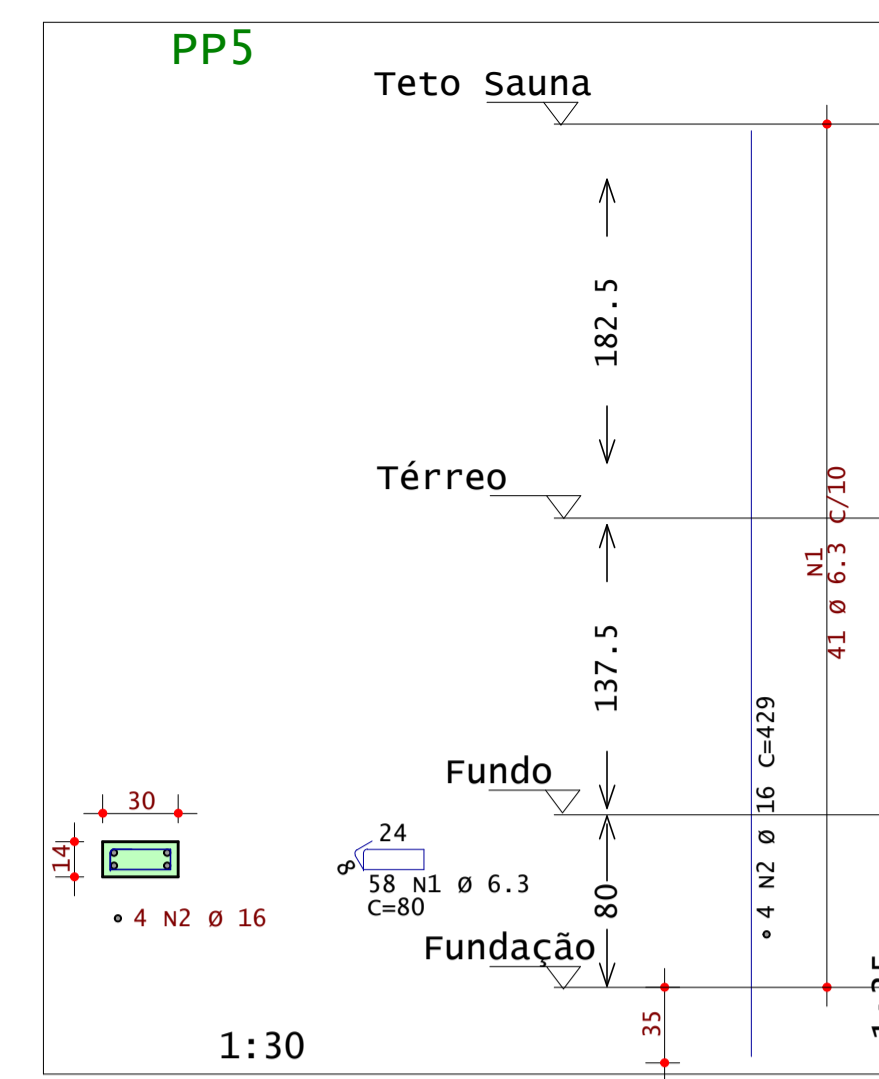
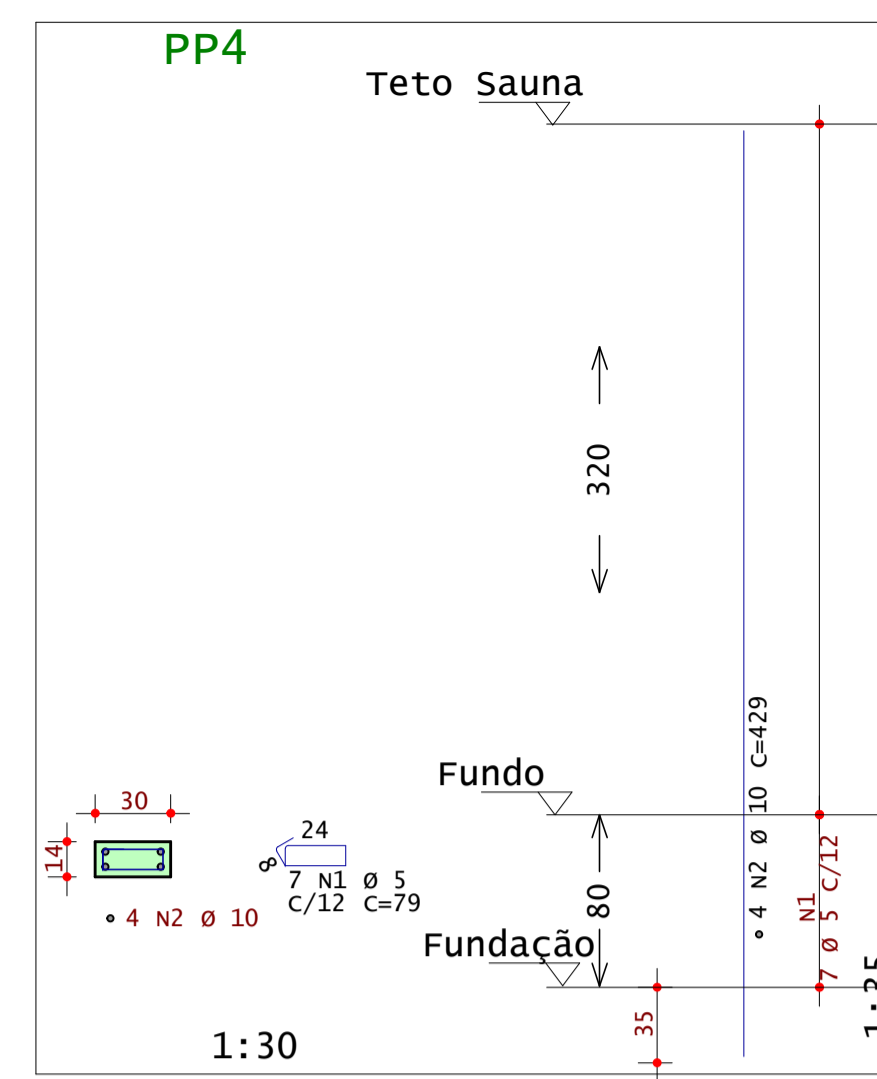
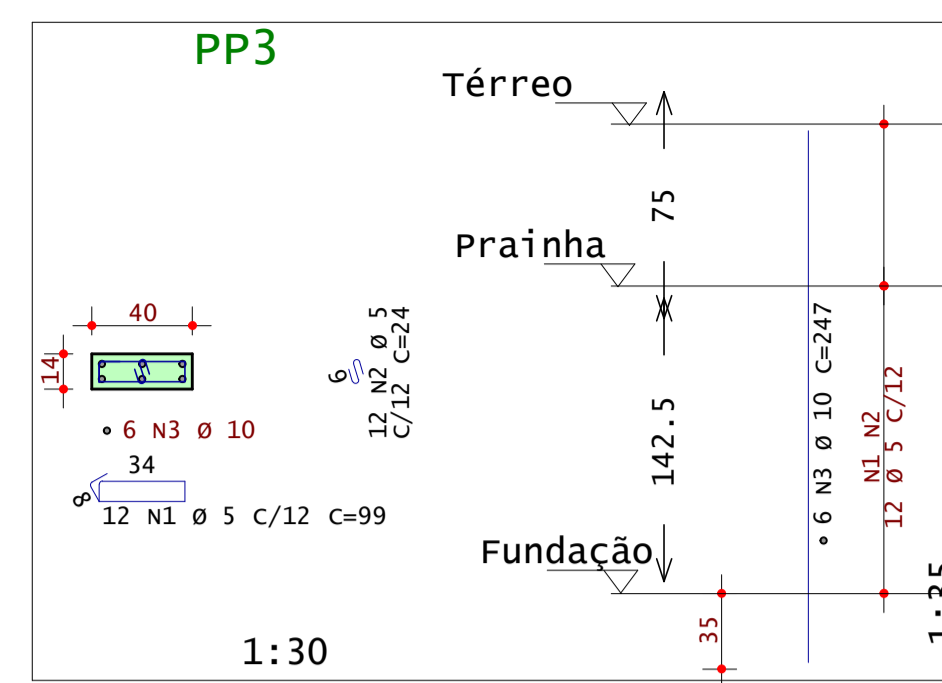
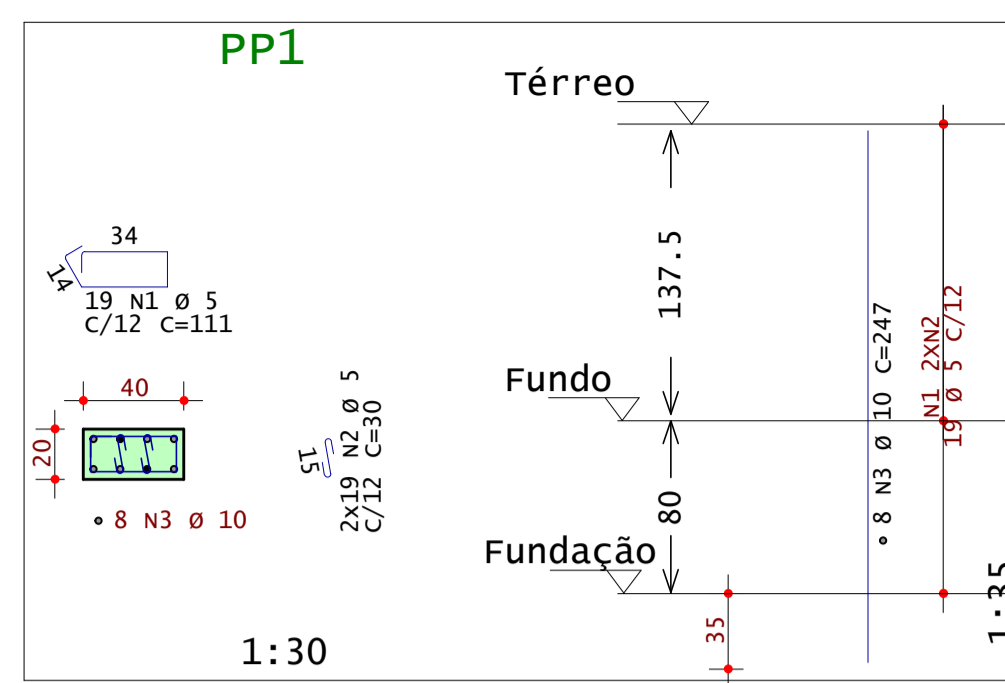
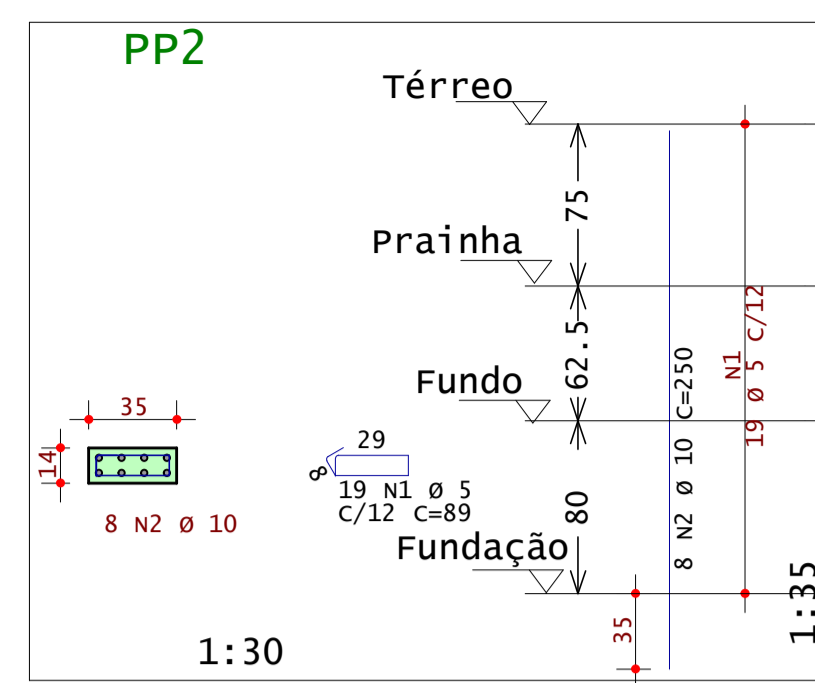
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br

@anderodrigueseng contato@anderodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha nº: 13/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: PILARES - CASA	4/4	
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	

ANDRÉ RODRIGUES DE VASCONCELOS PL CAS-PIL-PIL-025-R00-PLT 16/02/2022 22:35:17



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
PP1	60A	1	5	111	2109
	60A	2	38	30	1140
	50A	3	10	8	247
PP2	60A	1	5	89	1691
	50A	2	8	250	2000
PP3	60A	1	5	99	1188
	60A	2	5	24	288
	50A	3	10	6	247
PP4	60A	1	5	79	553
	50A	2	10	4	429
PP5	50A	1	6.3	58	4640
	50A	2	16	4	429
PP6	60A	1	5	79	711
	60A	2	5	24	216
	50A	3	10	6	1032
PP7	60A	1	5	98	1881
	60A	2	5	19	456
	50A	3	10	6	247
PP8	60A	1	5	79	2686
	50A	2	10	4	429
PP9	50A	1	6.3	8	640
	50A	2	12.5	4	429
PP10	50A	1	6.3	22	1760
	50A	2	16	4	334
PP11	50A	1	6.3	17	1360
	50A	2	12.5	4	256
PP12	60A	1	5	79	1501
	50A	2	10	4	247
PP13	60A	1	5	79	2054
	50A	2	10	4	334
PP14	60A	1	5	79	2054
	50A	2	10	4	334
PP15 Lances 1 - 4	60A	1	5	79	2054
	60A	2	10	4	334
	50A	3	10	4	334

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	206	32
50A	6.3	84	21
50A	10	164	101
50A	12.5	27	26
50A	16	31	48
Peso Total		60A =	32 kgf
Peso Total		50A =	196 kgf



Acesse o site pela sua câmera

ANDRÉ RODRIGUES
Engenheiro Estrutural

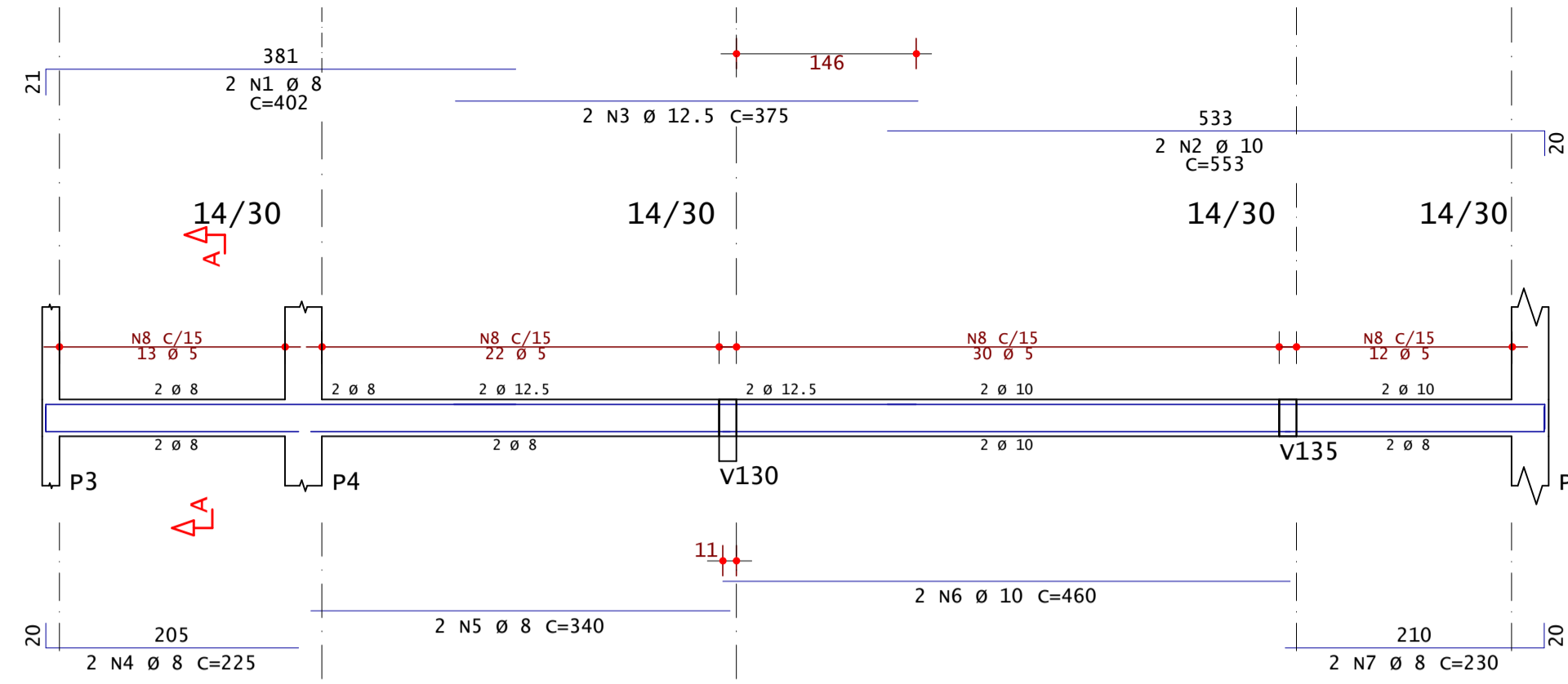
(83) 9 9644 2240
@andrerodrigueseng

andrerodrigues.eng.br
contato@andrerodrigues.eng.br

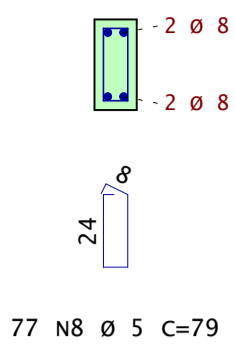
Ciente: Paulo George Dantas da Nobrega	Prancha n°: 14/37	Revisão n°: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa	
Título: DETALHAMENTO: PILARES - PISCINA	Eci: 28000 Mpa	
CREA-PB: 161890343-9	ART n°: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



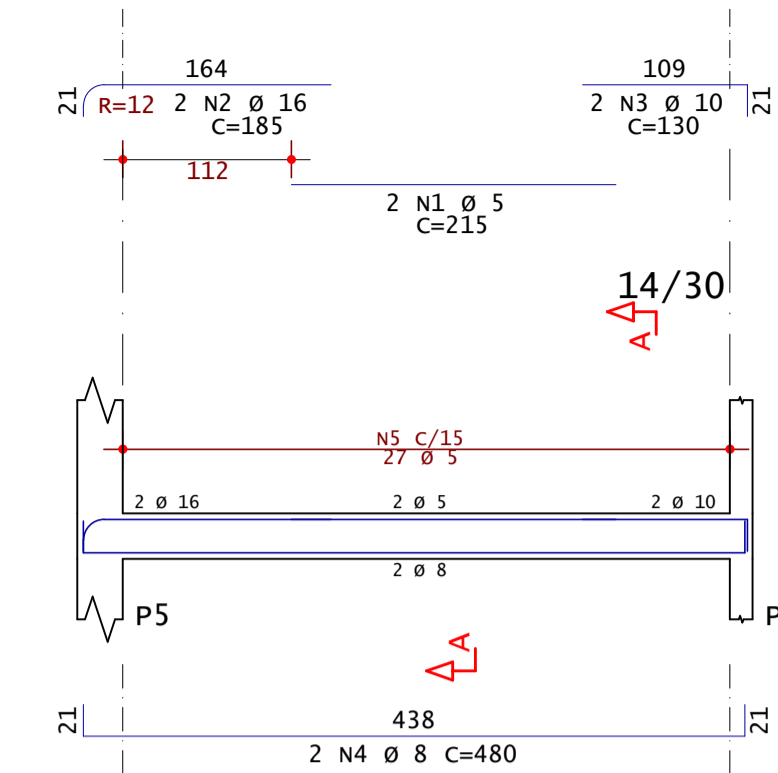
V101



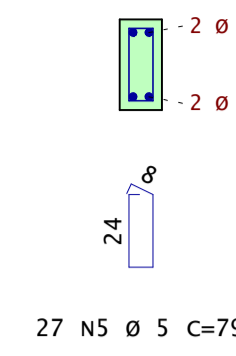
Corte A



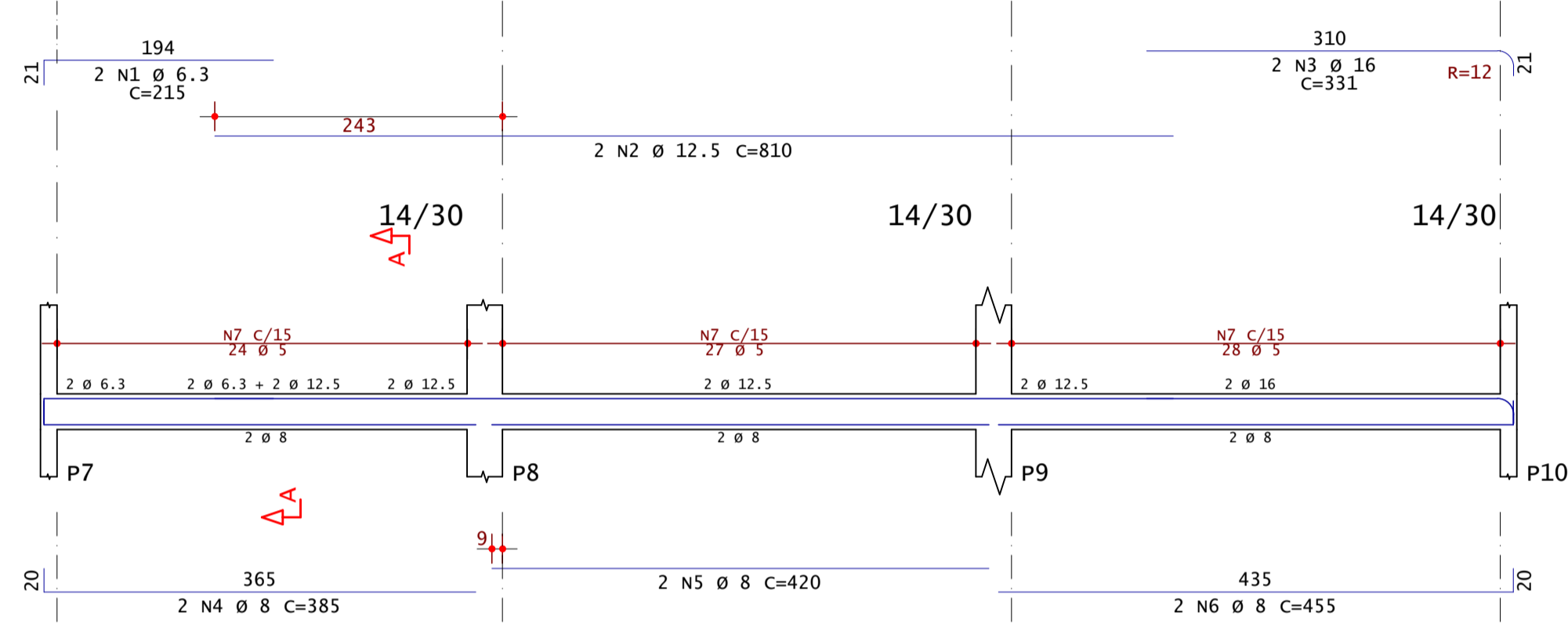
V102



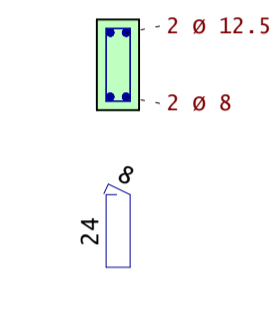
Corte A



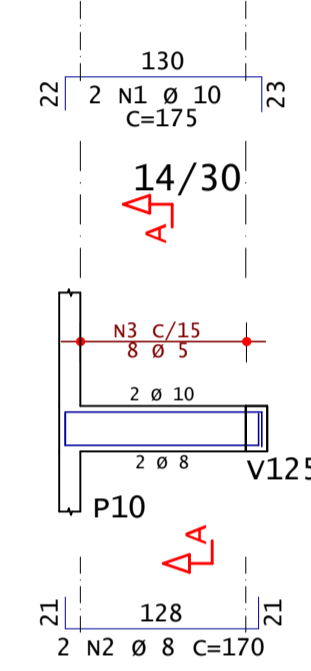
V103



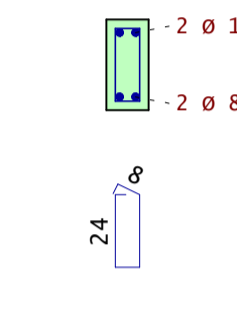
Corte A



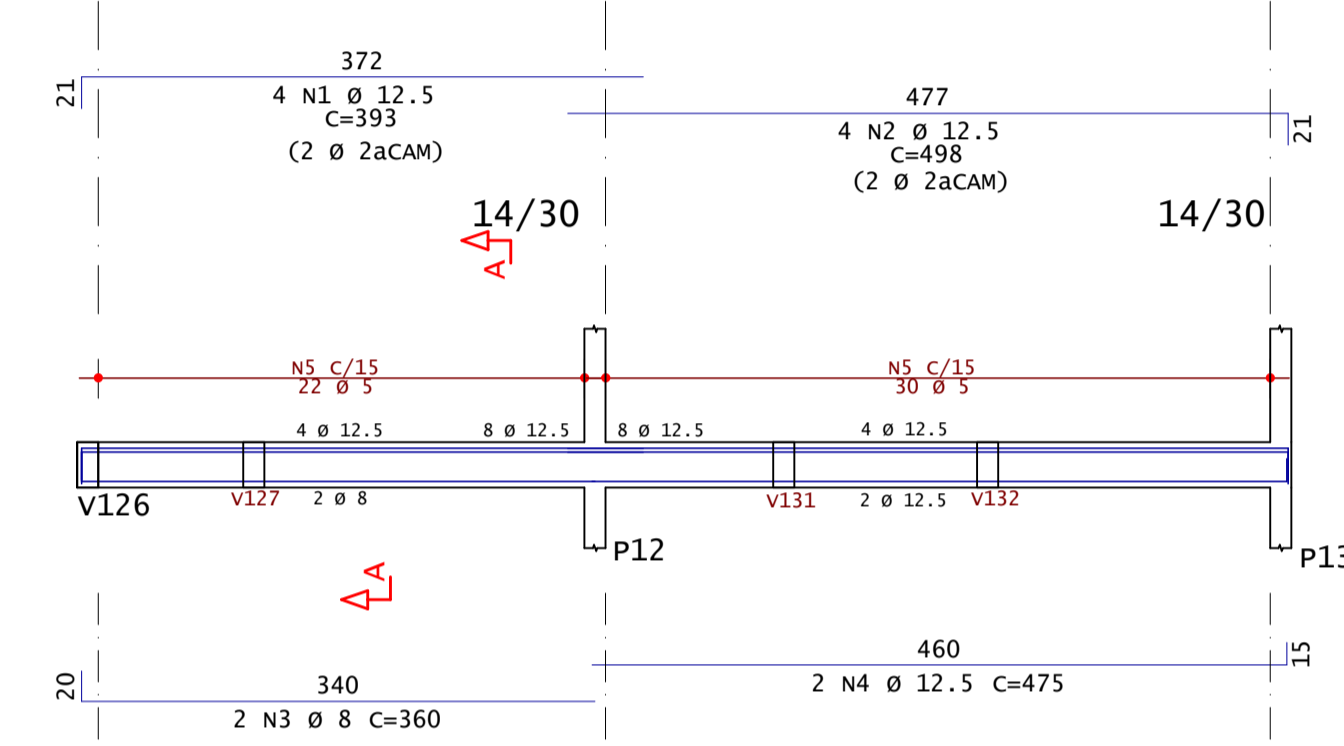
V104



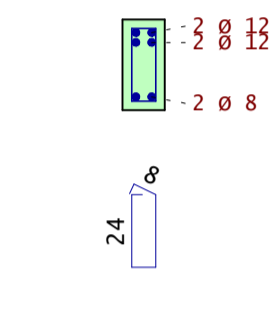
Corte A



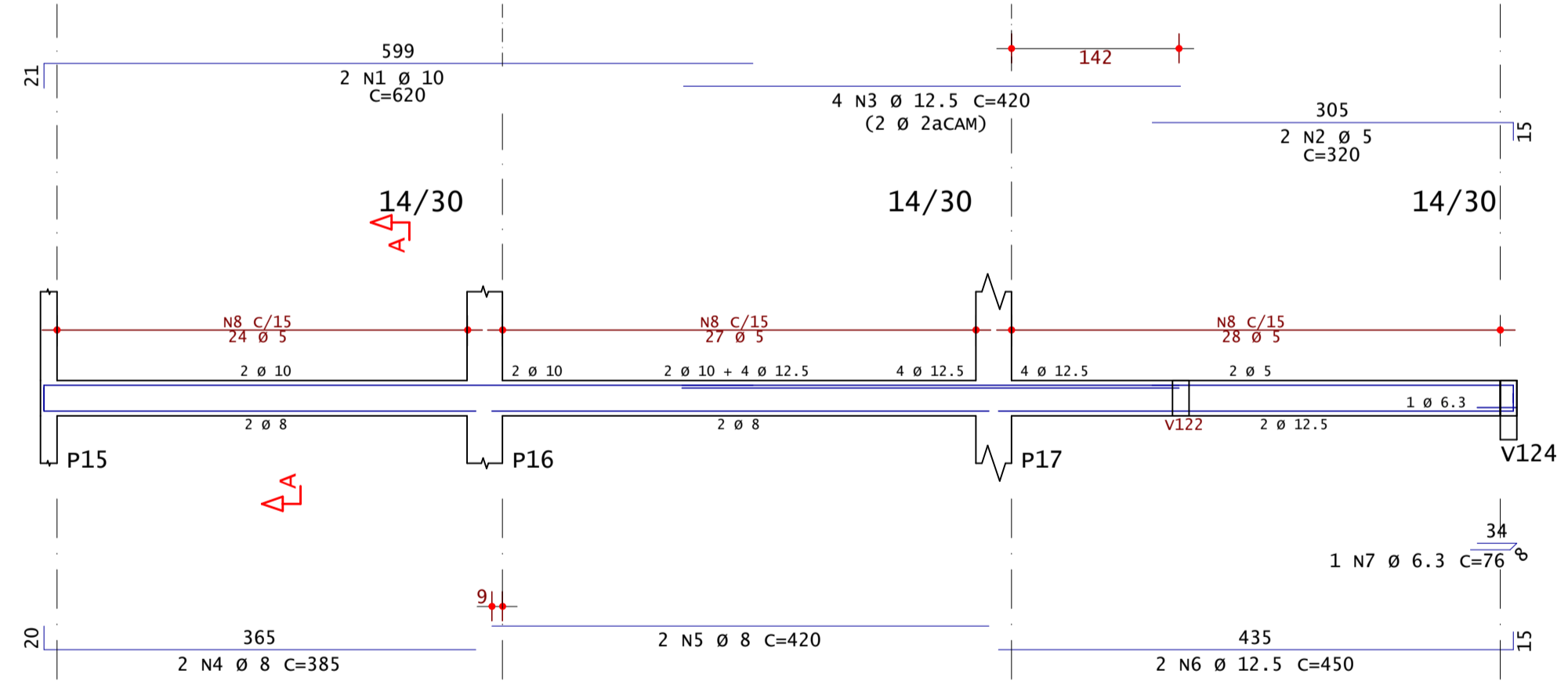
V105



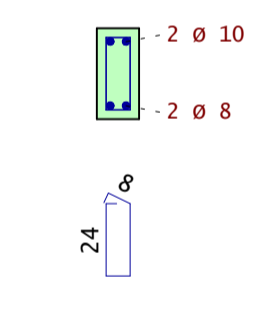
Corte A



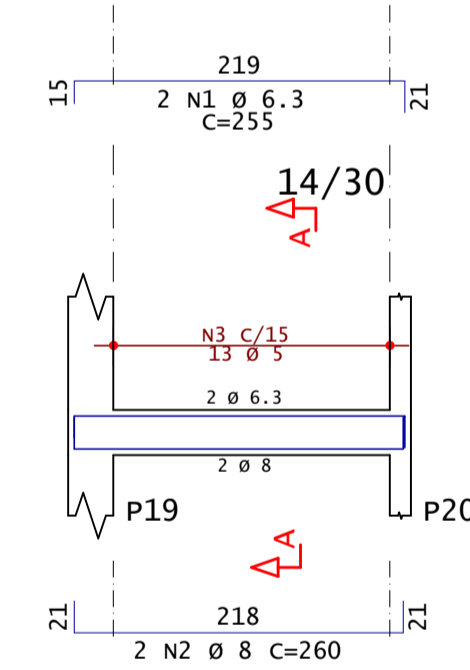
V106



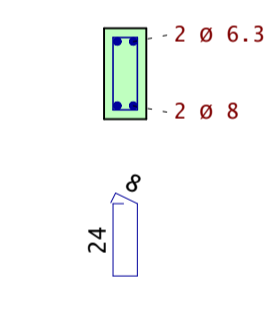
Corte A



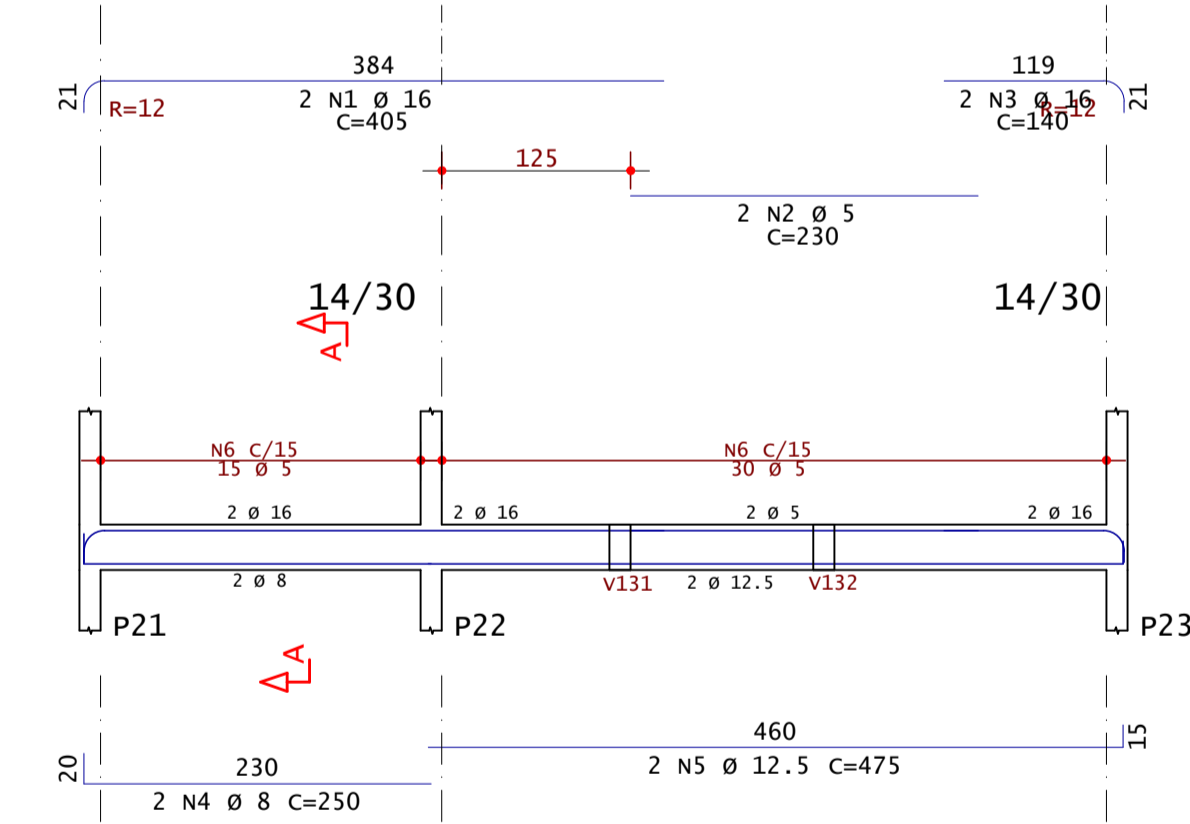
V107



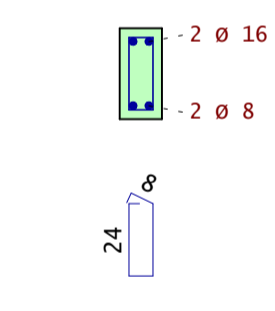
Corte A



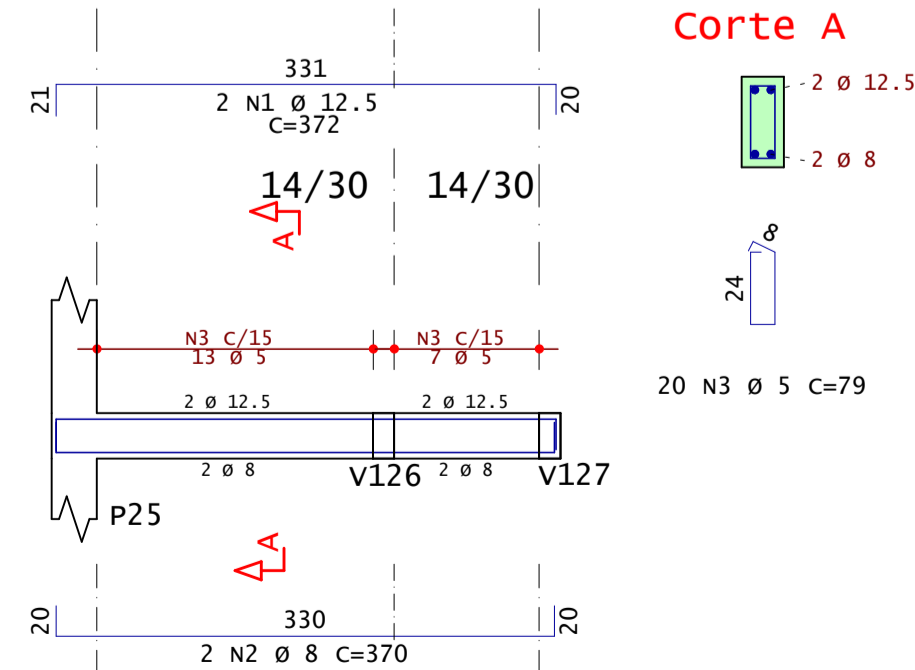
V108



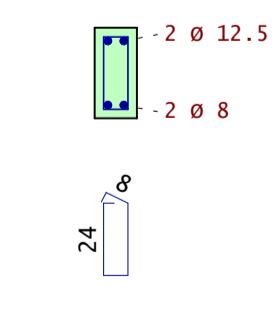
Corte A



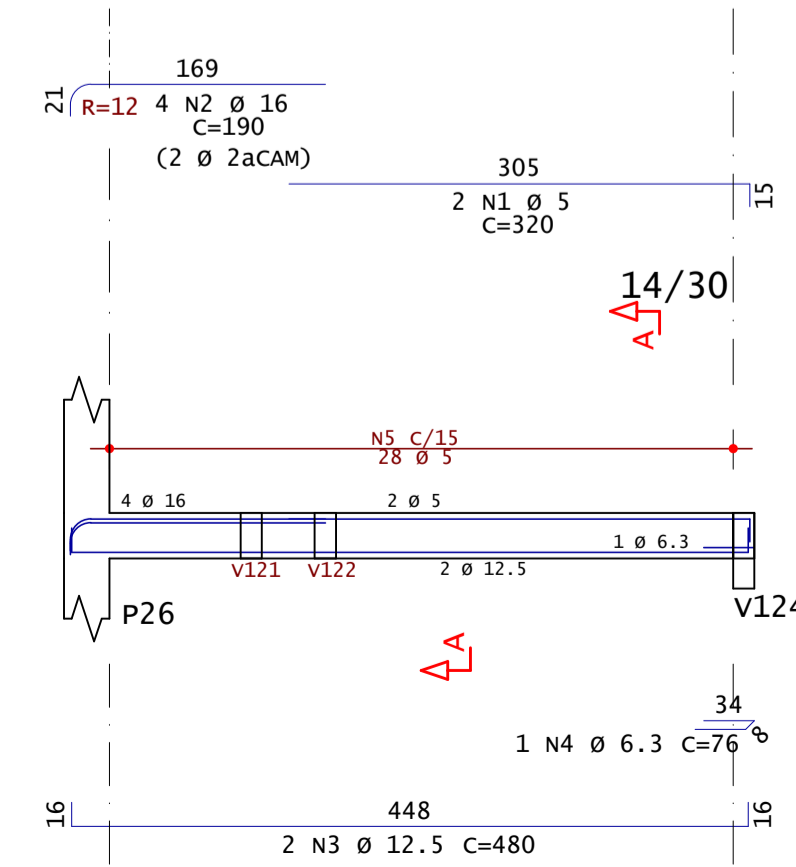
V109



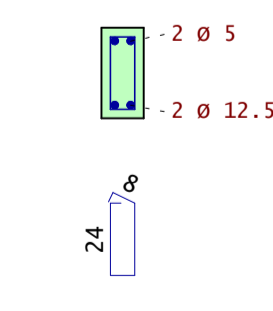
Corte A



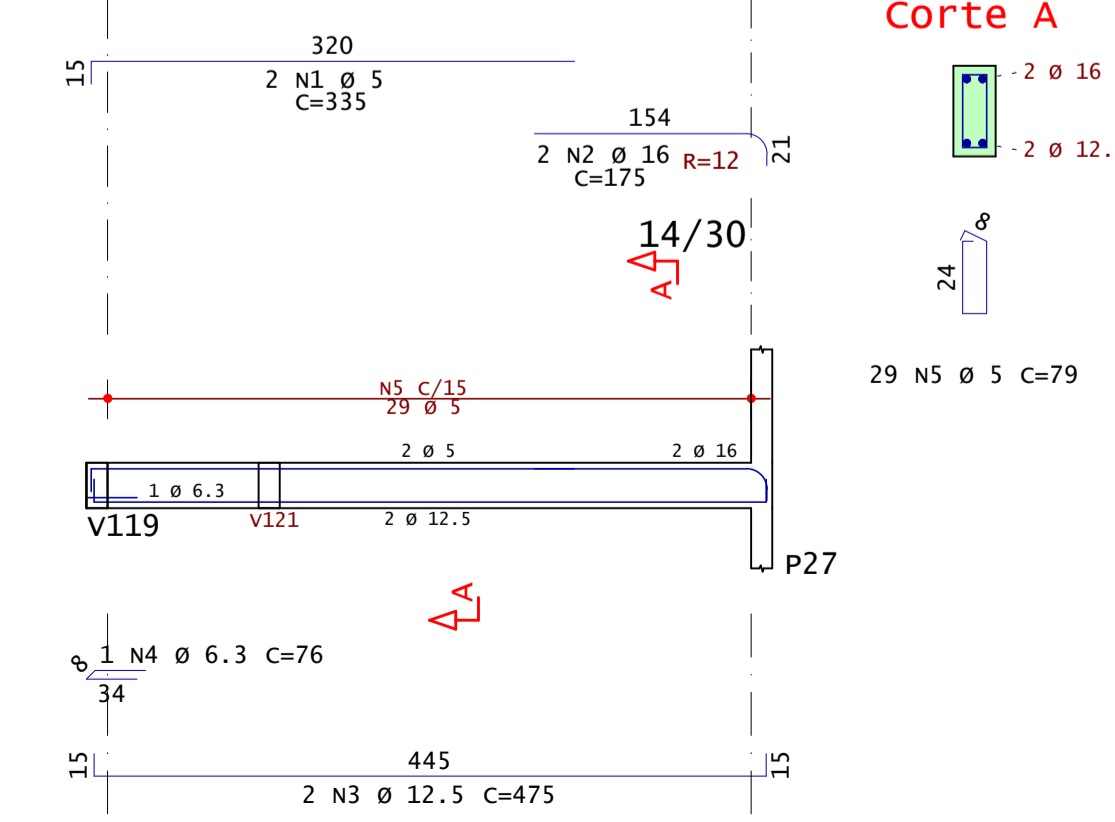
V110



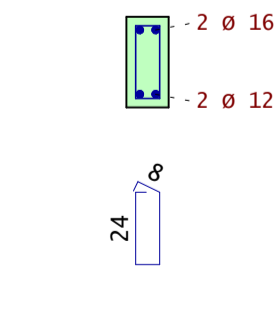
Corte A



V111



Corte A



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
V101	50A	1	8	2	402	804
	50A	2	10	2	553	1106
	50A	3	12.5	2	375	750
	50A	4	8	2	225	450
	50A	5	8	2	340	680
	50A	6	10	2	460	920
	50A	7	8	2	230	460
	60A	8	5	77	79	6083
V102	60A	1	5	2	215	430
	50A	2	16	2	185	370
	50A	3	10	2	130	260
	50A	4	8	2	480	960
	60A	5	5	27	79	2133
V103	50A	1	6.3	2	215	430
	50A	2	12.5	2	810	1620
	50A	3	16	2	331	662
	50A	4	8	2	385	770
	50A	5	8	2	420	840
	50A	6	8	2	455	910
	60A	7	5	79	79	6241
V104	50A	1	10	2	175	350
	50A	2	8	2	170	340
	60A	3	5	8	79	632
V105	50A	1	12.5	4	393	1572
	50A	2	12.5	4	498	1992
	50A	3	8	2	360	720
	50A	4	12.5	2	475	950
	60A	5	5	52	79	4108
V106	50A	1	10	2	620	1240
	60A	2	5	2	320	640
	50A	3	12.5	4	420	1680
	50A	4	8	2	385	770
	50A	5	8	2	420	840
	50A	6	12.5	2	450	900
	50A	7	6.3	1	76	76
	60A	8	5	79	79	6241
V107	50A	1	6.3	2	255	510
	50A	2	5	2	260	520
	60A	3	8	13	79	1027
V108	50A	1	16	2	405	810
	60A	2	5	2	230	460
	50A	3	16	2	140	280
	50A	4	8	2	250	500
	50A	5	12.5	2	475	950
	60A	6	5	45	79	3555
V109	50A	1	12.5	2	372	744
	50A	2	8	2	370	740
	60A	3	5	20	79	1580
V110	60A	1	5	2	320	640
	50A	2	16	4	190	760
	50A	3	12.5	2	480	960
	50A	4	6.3	1	76	76
	60A	5	5	28	79	2212
V111	60A	1	5	2	335	670
	50A	2	16	2	175	350
	50A	3	12.5	2	475	950
	50A	4	6.3	1	76	76
	60A	5	5	29	79	2291

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	389	60
50A	6.3	12	3
50A	8	103	41
50A	10	39	24
50A	12.5	131	126
50A	16	32	51
Peso Total		60A =	60 kgf
Peso Total		50A =	244 kgf



Acesse o site pela sua câmera

ANDRÉ RODRIGUES
Engenheiro Estrutural

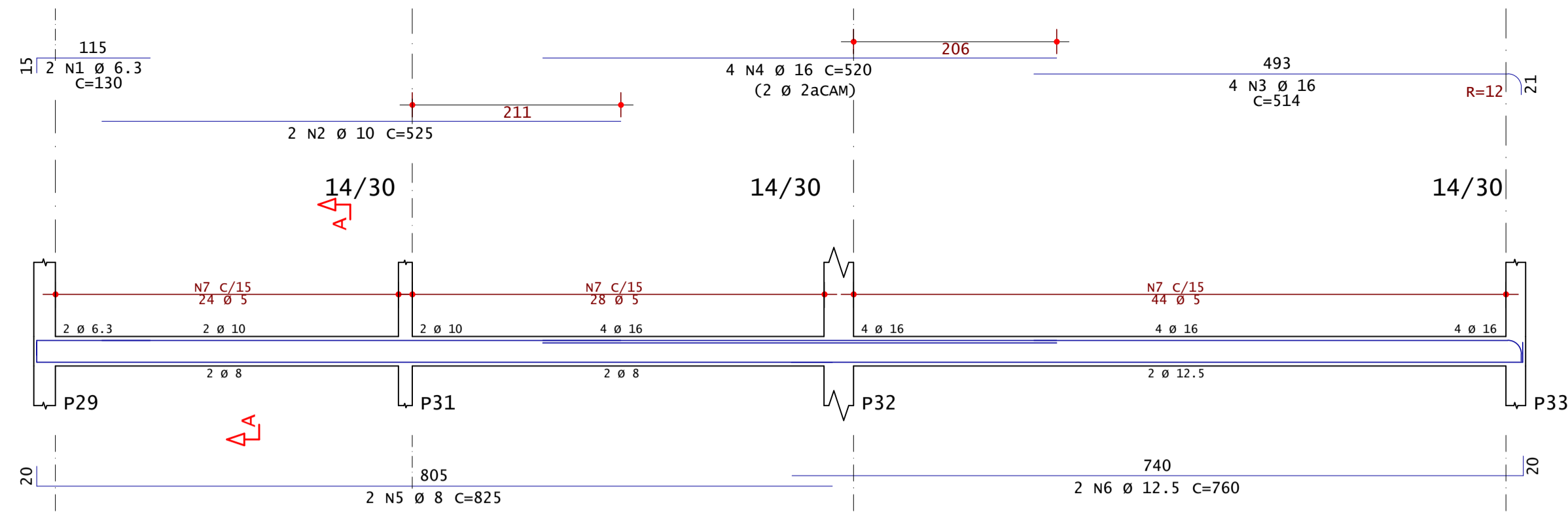
(83) 9 9644 2240
@andrerodrigueseng

andrerodrigues.eng.br
contato@andrerodrigues.eng.br

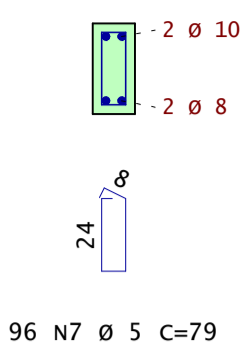
Cliente: Paulo George Dantas da Nobrega	Prancha n°: 15/37	Revisão n°: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - TÉRREO	1/3	
CREA-PB: 161890343-9	ART n°: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



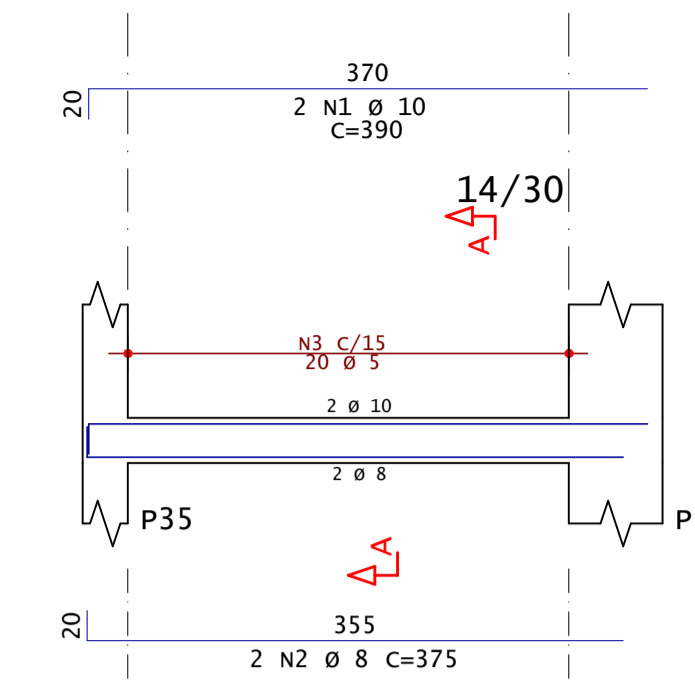
V112



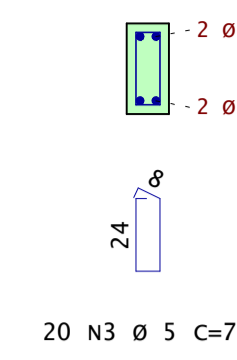
Corte A



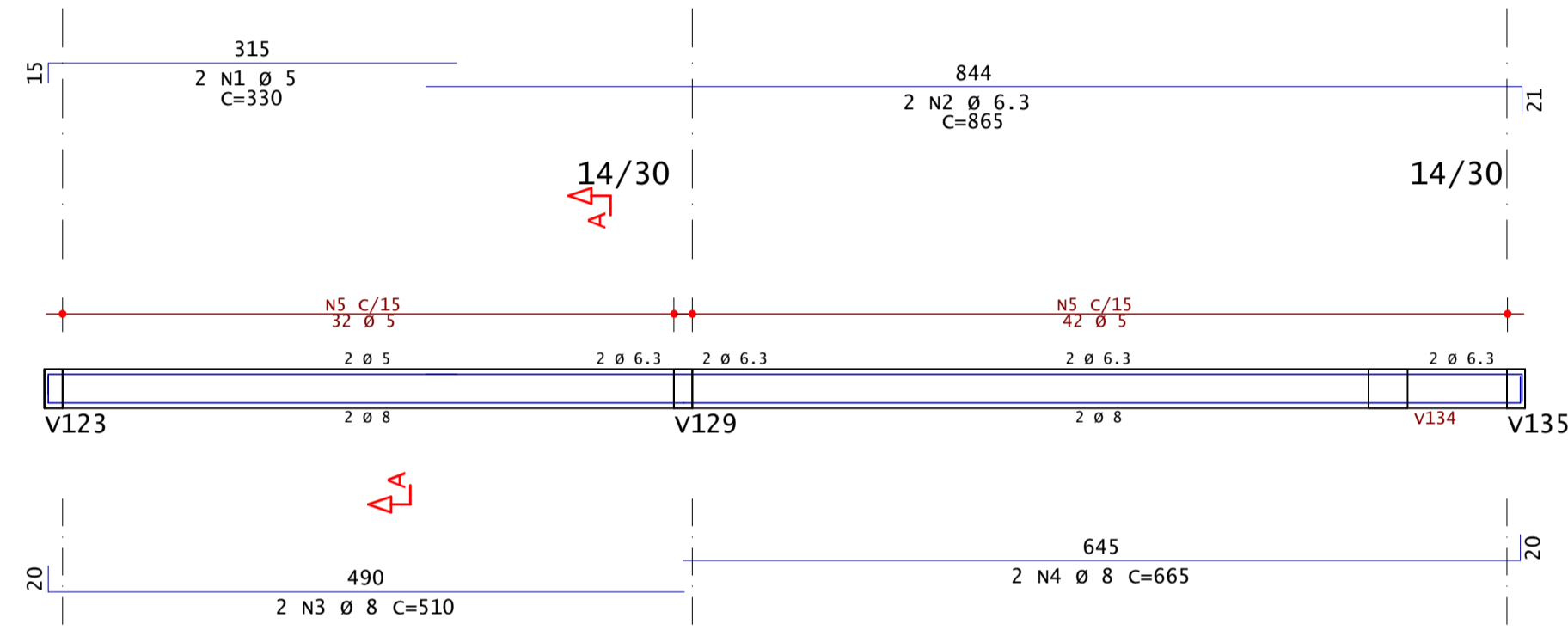
V113



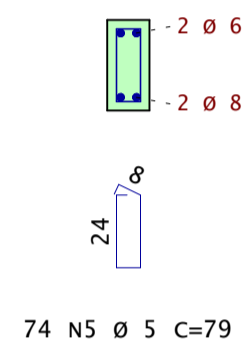
Corte A



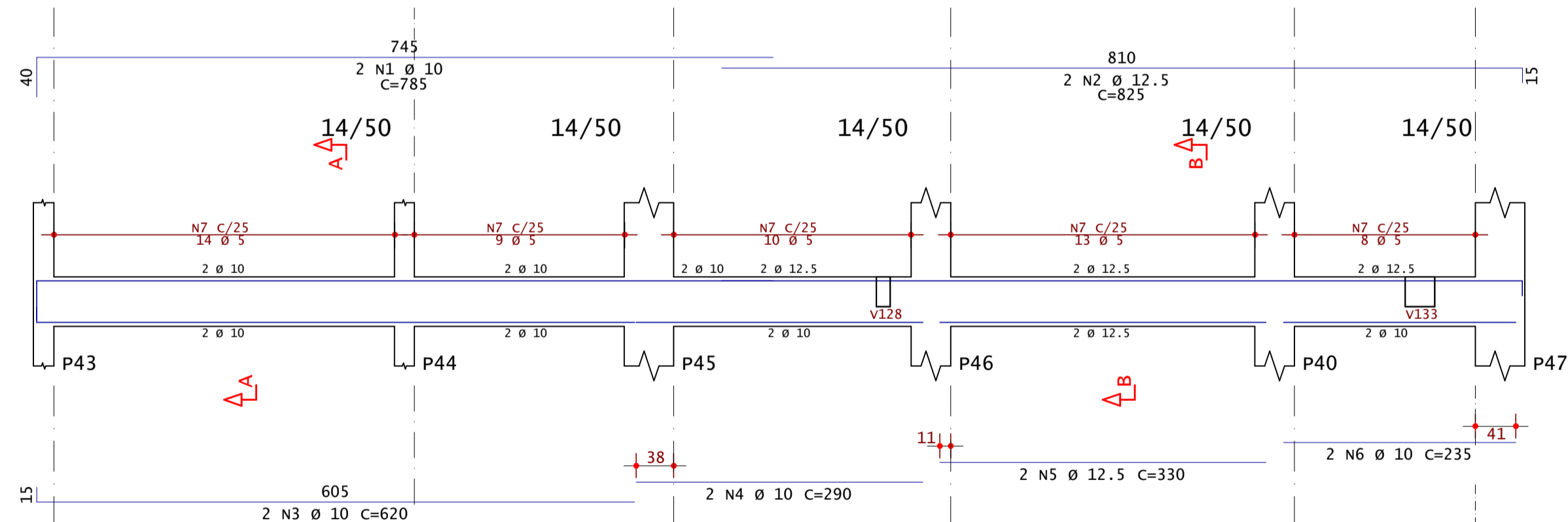
V114



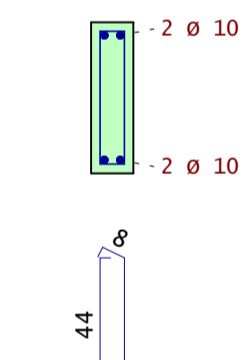
Corte A



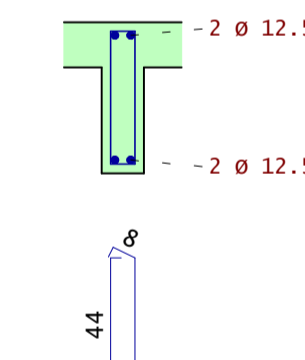
V115



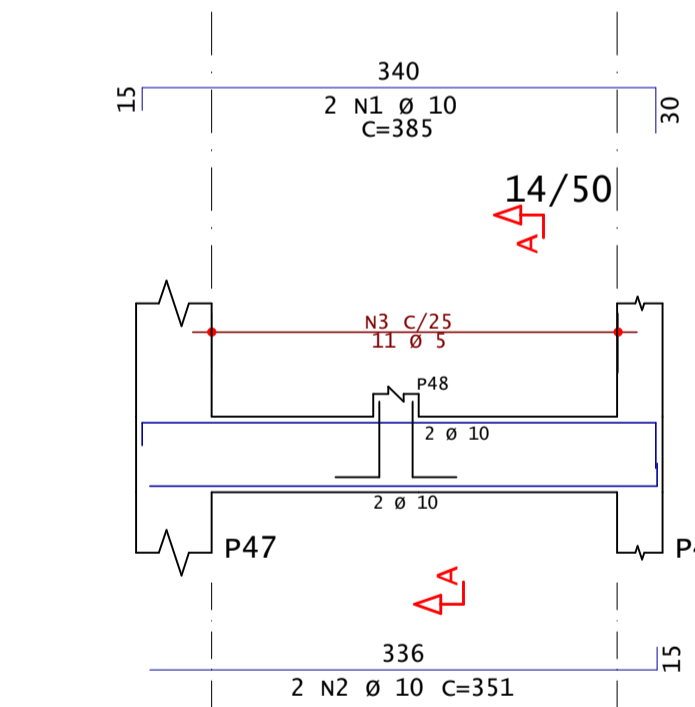
Corte A



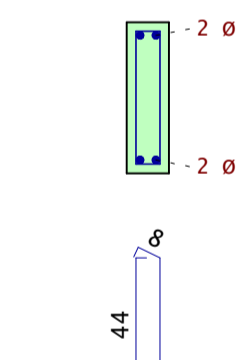
Corte B



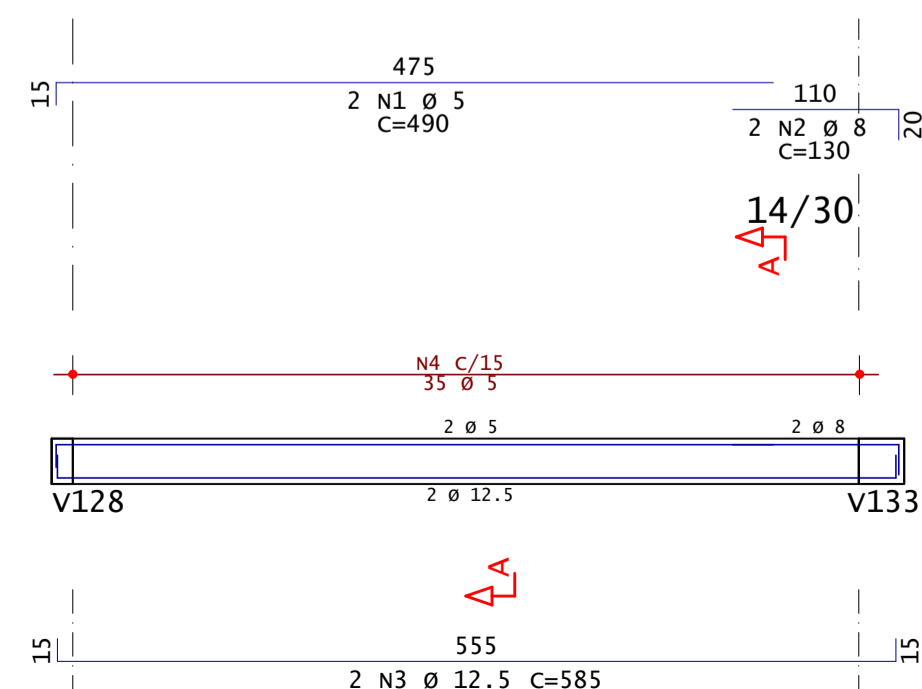
V116



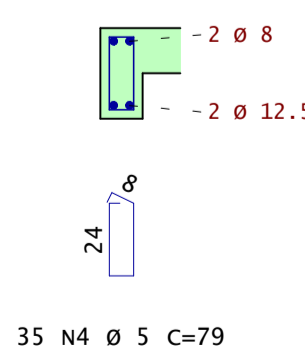
Corte A



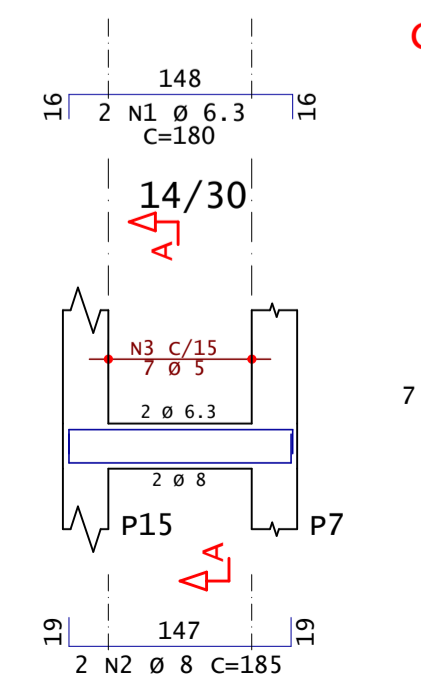
V117



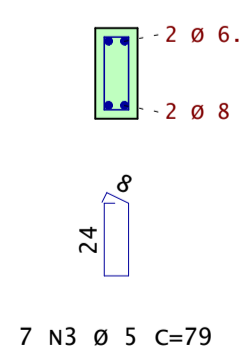
Corte A



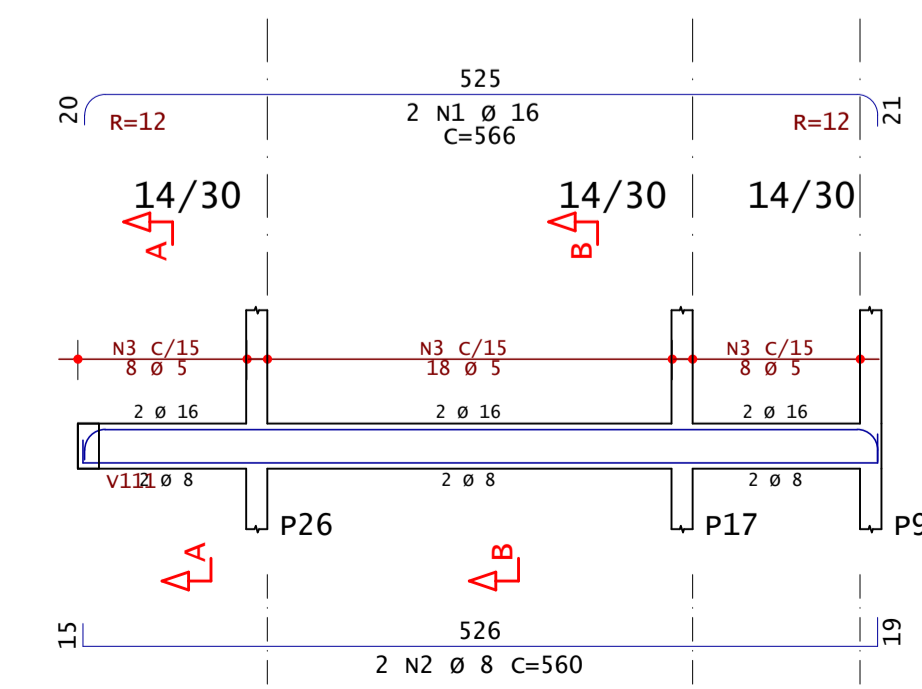
V118



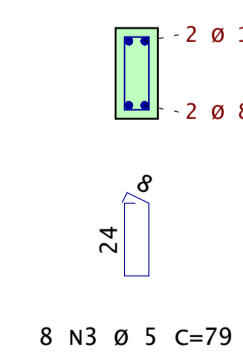
Corte A



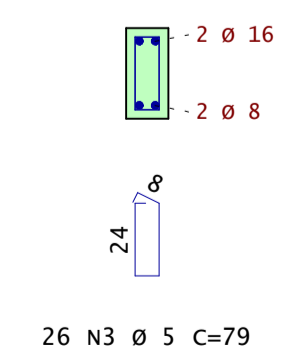
V119



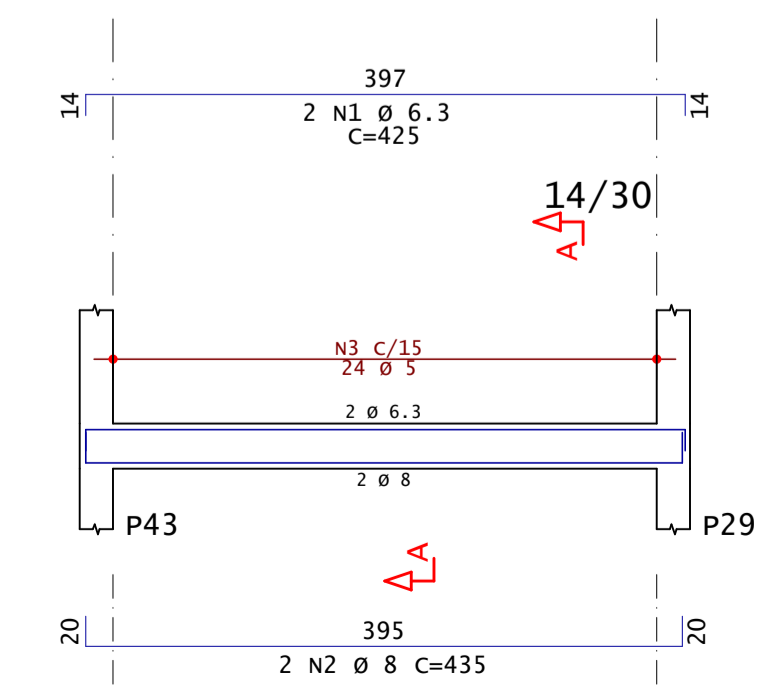
Corte A



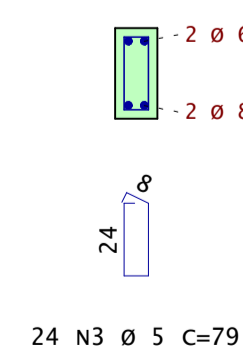
Corte B



V120



Corte A



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
V112					
50A	1	6.3	2	130	260
50A	2	10	2	525	1050
50A	3	16	4	514	2056
50A	4	16	4	520	2080
50A	5	8	2	825	1650
50A	6	12.5	2	760	1520
60A	7		96	79	7584
V113					
50A	1	10	2	390	780
50A	2	8	2	375	750
60A	3		20	79	1580
V114					
60A	1	5	2	330	660
50A	2	6.3	2	865	1730
50A	3	8	2	510	1020
50A	4	8	2	665	1330
60A	5	5	74	79	5846
V115					
50A	1	10	2	785	1570
50A	2	12.5	2	825	1650
50A	3	10	2	620	1240
50A	4	10	2	290	580
50A	5	12.5	2	330	660
50A	6	10	2	235	470
60A	7	5	54	119	6426
V116					
50A	1	10	2	385	770
50A	2	10	2	351	702
60A	3	5	11	119	1309
V117					
60A	1	5	2	490	980
50A	2	8	2	130	260
50A	3	12.5	2	585	1170
60A	4	5	35	79	2765
V118					
50A	1	6.3	2	180	360
50A	2	8	2	185	370
60A	3		7	79	553
V119					
50A	1	16	2	566	1132
50A	2	8	2	560	1120
60A	3	5	34	79	2686
V120					
50A	1	6.3	2	425	850
50A	2	8	2	435	870
60A	3	5	24	79	1896

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	323	50
50A	6.3	32	8
50A	8	74	29
50A	10	72	44
50A	12.5	50	48
50A	16	53	83
Peso Total		60A =	50 kgf
Peso Total		50A =	212 kgf



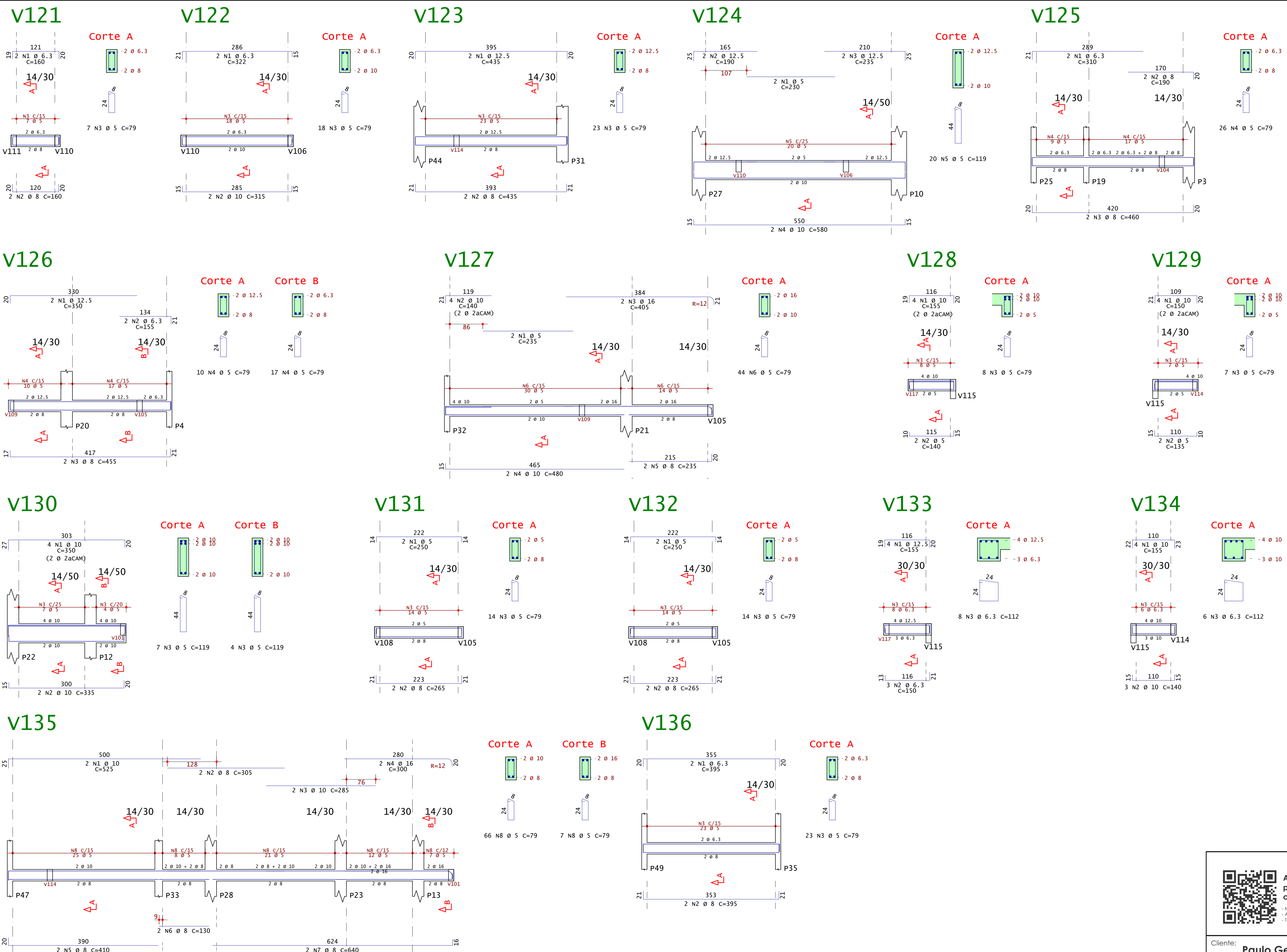
Acesse o site pela sua câmera
- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega		Francha nº: 16/37	Revisão nº: 002
Obra: Residência Unifamiliar		Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - TÉRREO		2/3	
CREA-PB: 161890343-9	ART nº: PB 20210418618		
Data: 16 / 02 / 2022	Escala: Indicada		





AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm	cm		cm	
V121	50A	1	6.3	2	160	320
	50A	2	8	2	160	320
	60A	3	5	7	79	553
V122	50A	1	6.3	2	322	644
	50A	2	10	2	315	630
	60A	3	5	18	79	1422
V123	50A	1	12.5	2	435	870
	50A	2	8	2	435	870
	60A	3	5	23	79	1817
V124	60A	1	5	2	230	460
	50A	2	12.5	2	190	380
	50A	3	12.5	2	235	470
	50A	4	10	2	580	1160
	60A	5	5	20	119	2380
V125	50A	1	6.3	2	310	620
	50A	2	8	2	435	870
	50A	3	5	2	460	920
	60A	4	5	26	79	2054
V126	50A	1	12.5	2	350	700
	50A	2	6.3	2	155	310
	50A	3	5	2	455	910
	60A	4	5	27	79	2133
V127	60A	1	5	2	235	470
	50A	2	10	4	140	560
	50A	3	16	2	405	810
	50A	4	10	2	480	960
	50A	5	8	2	235	470
	60A	6	5	44	79	3476
V128	50A	1	10	4	155	620
	60A	3	5	8	79	632
V129	50A	1	10	4	150	600
	60A	2	5	2	135	270
	60A	3	5	7	79	553
V130	50A	1	10	4	350	1400
	50A	2	10	2	335	670
	60A	3	5	11	119	1309
V131	60A	1	5	2	250	500
	50A	2	8	2	265	530
	60A	3	5	14	79	1106
V132	60A	1	5	2	250	500
	50A	2	8	2	265	530
	60A	3	5	14	79	1106
V133	50A	1	12.5	4	155	620
	50A	2	6.3	3	150	450
	50A	3	6.3	8	112	896
V134	50A	1	10	4	155	620
	50A	2	10	3	140	420
	60A	3	6.3	6	112	672
V135	50A	1	10	2	525	1050
	50A	2	8	2	305	610
	50A	3	10	2	285	570
	50A	4	16	2	300	600
	50A	5	8	2	410	820
	50A	6	8	2	130	260
	50A	7	8	2	640	1280
	60A	8	5	73	79	5767
V136	50A	1	6.3	2	395	790
	50A	2	8	2	395	790
	60A	3	5	23	79	1817

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		mm	kgf
60A	5	286	44
50A	6.3	47	12
50A	8	87	34
50A	10	93	57
50A	12.5	30	29
50A	16	14	22
Peso Total	60A =		44 kgf
Peso Total	50A =		155 kgf



Acesse o site pela sua câmera

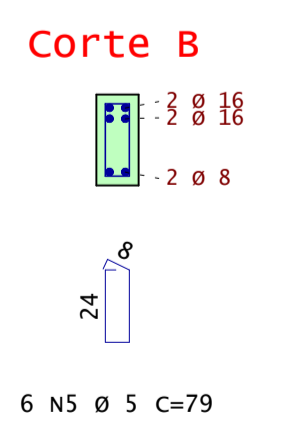
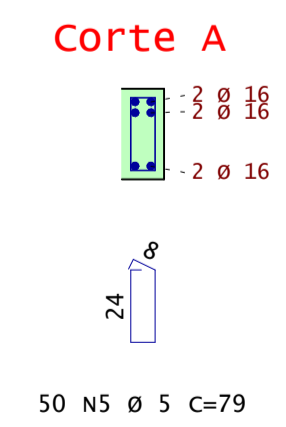
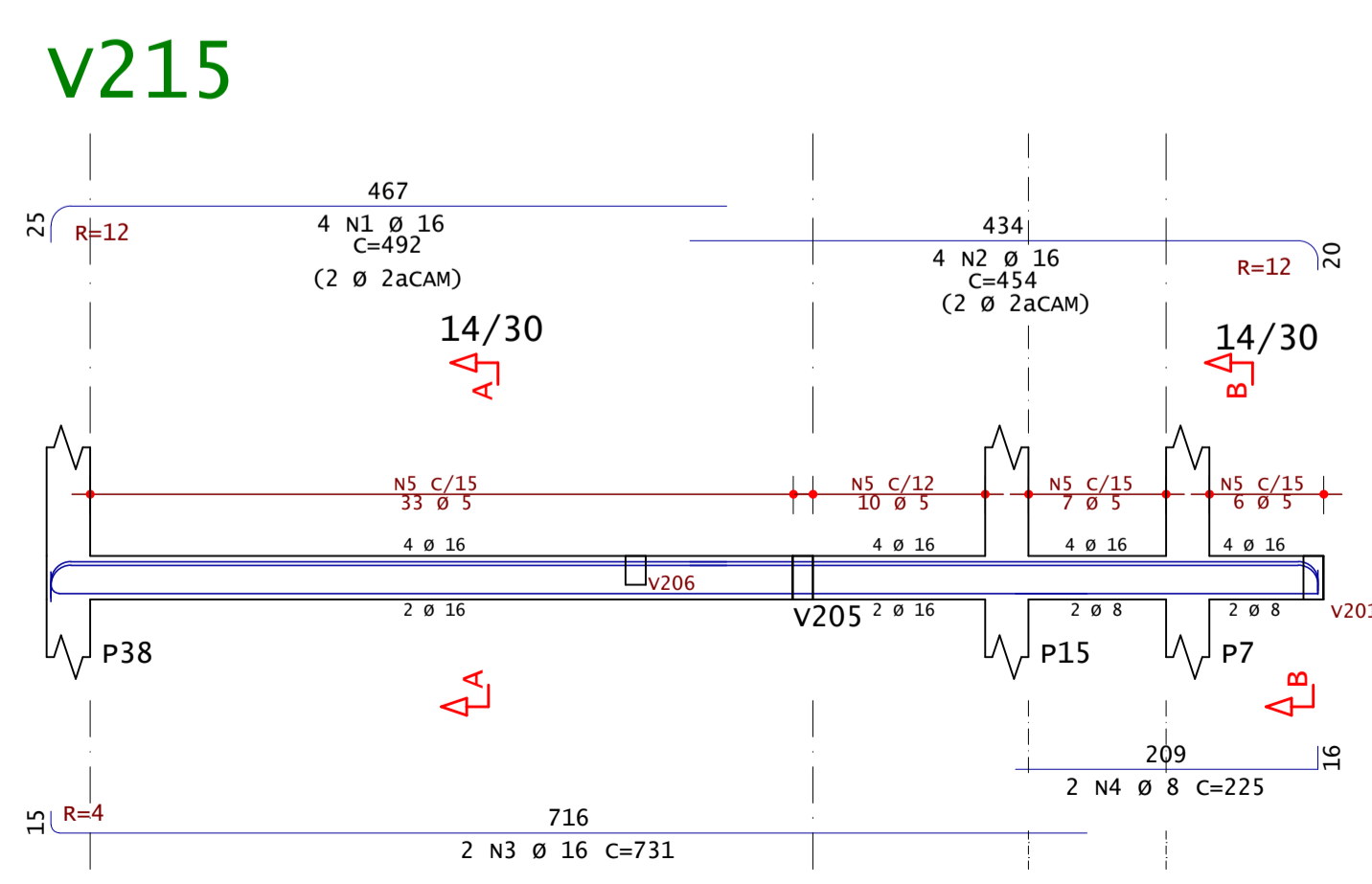
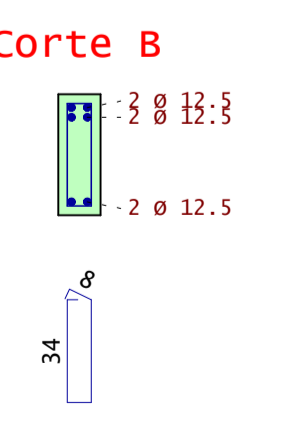
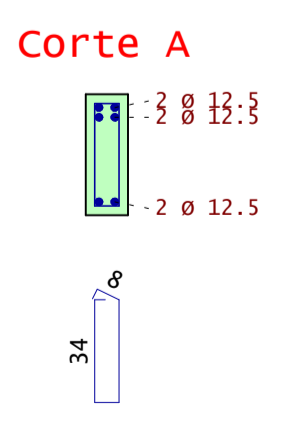
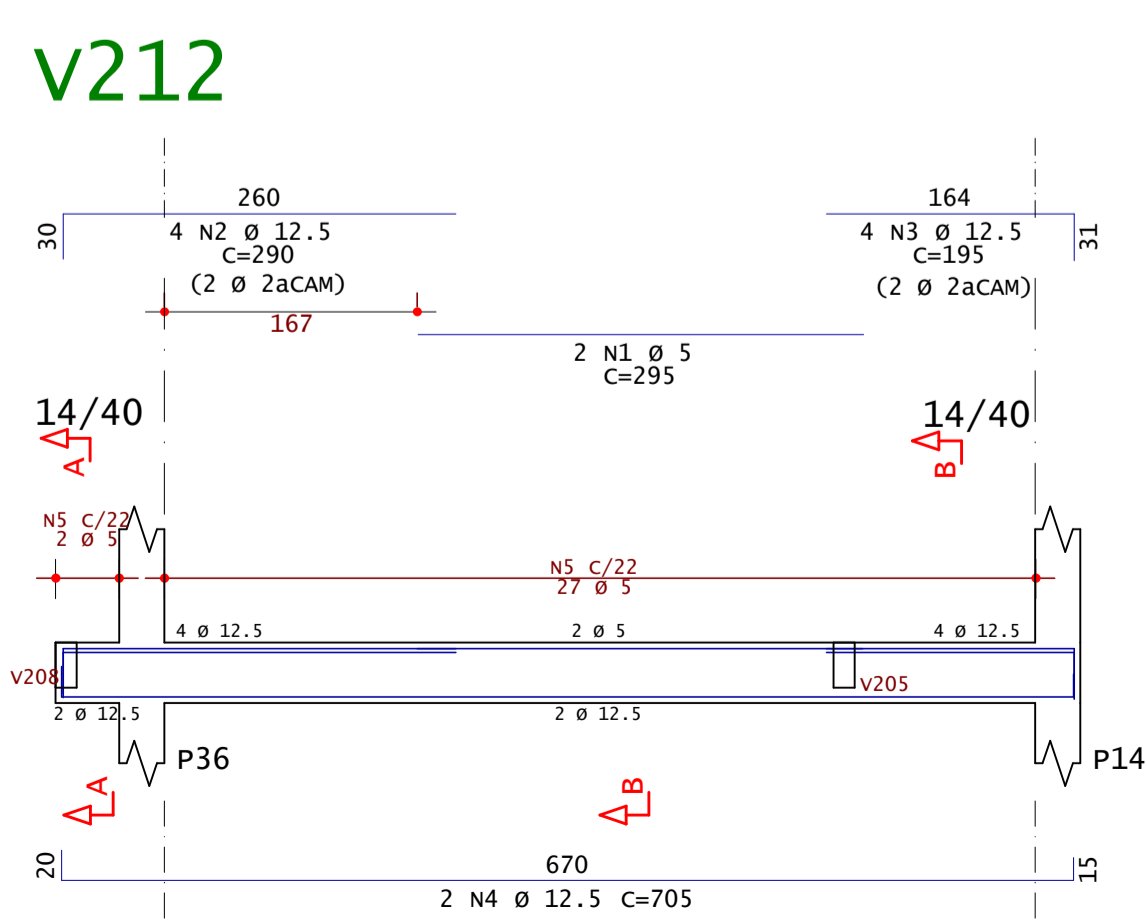
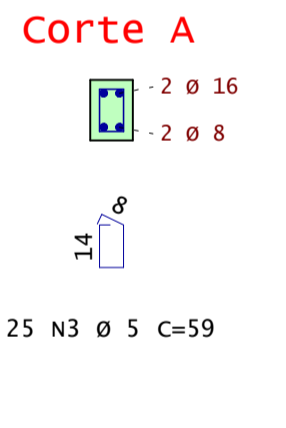
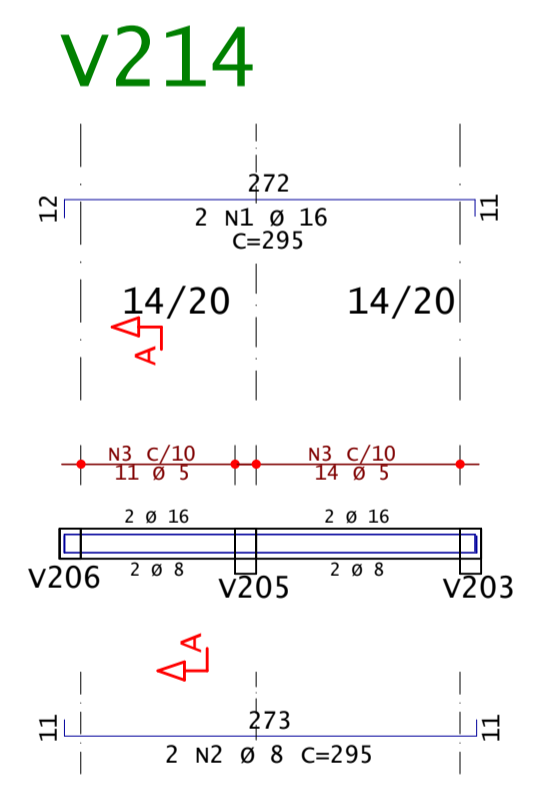
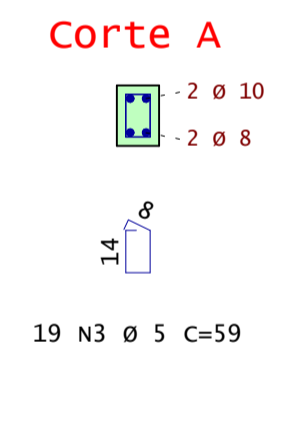
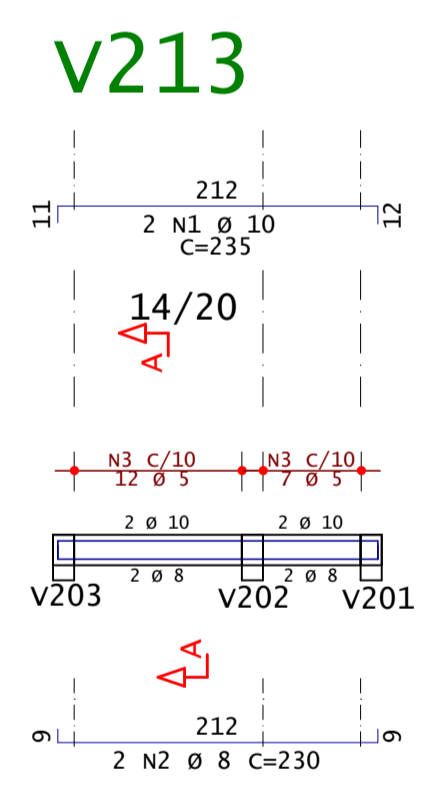
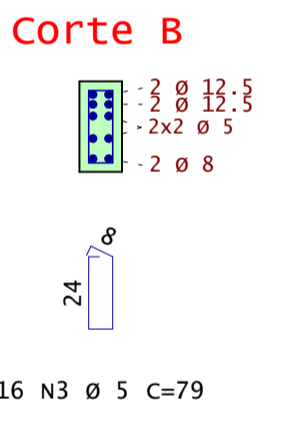
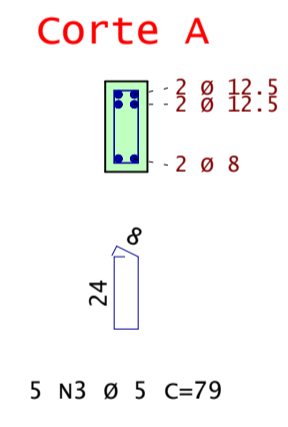
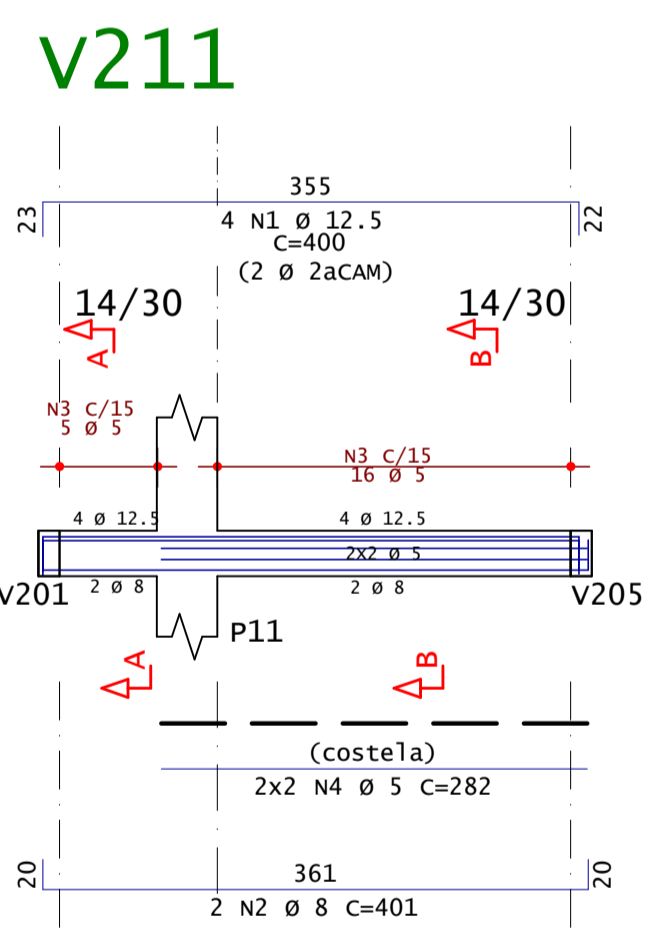
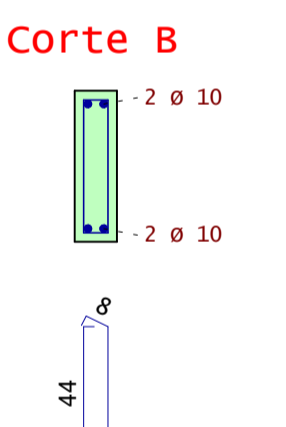
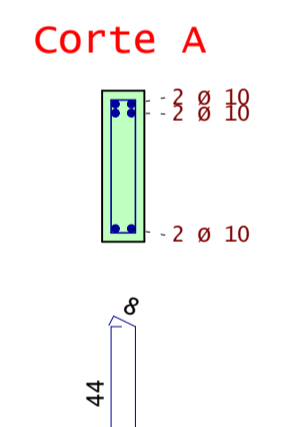
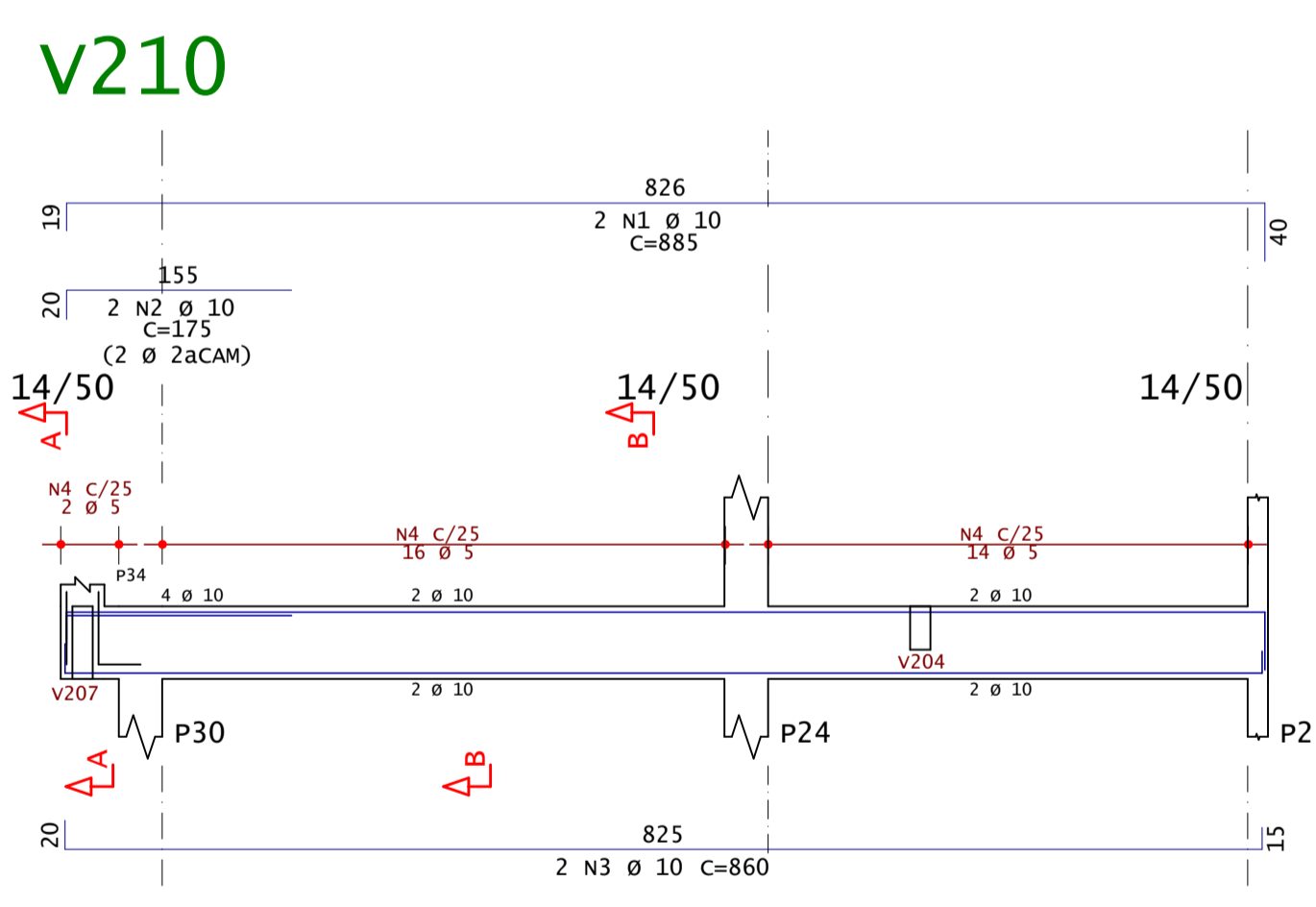
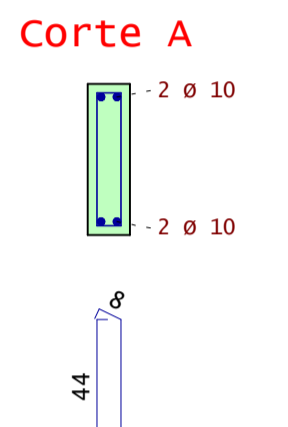
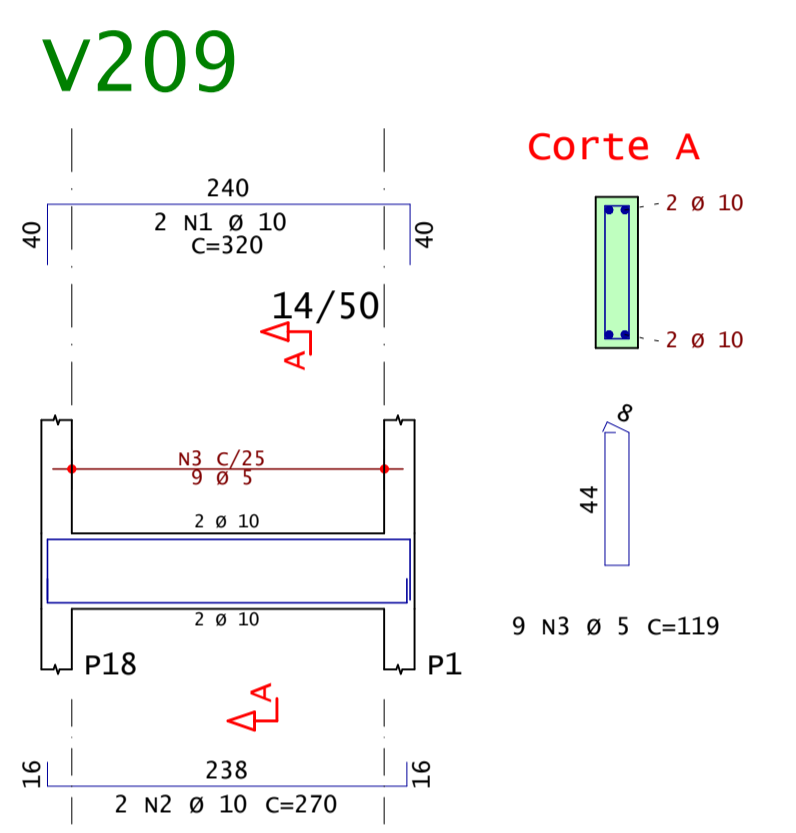
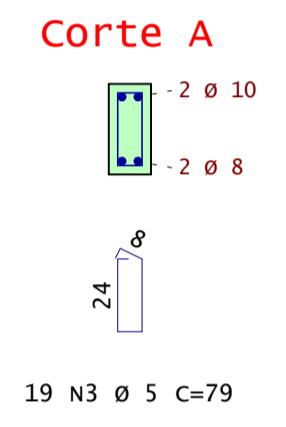
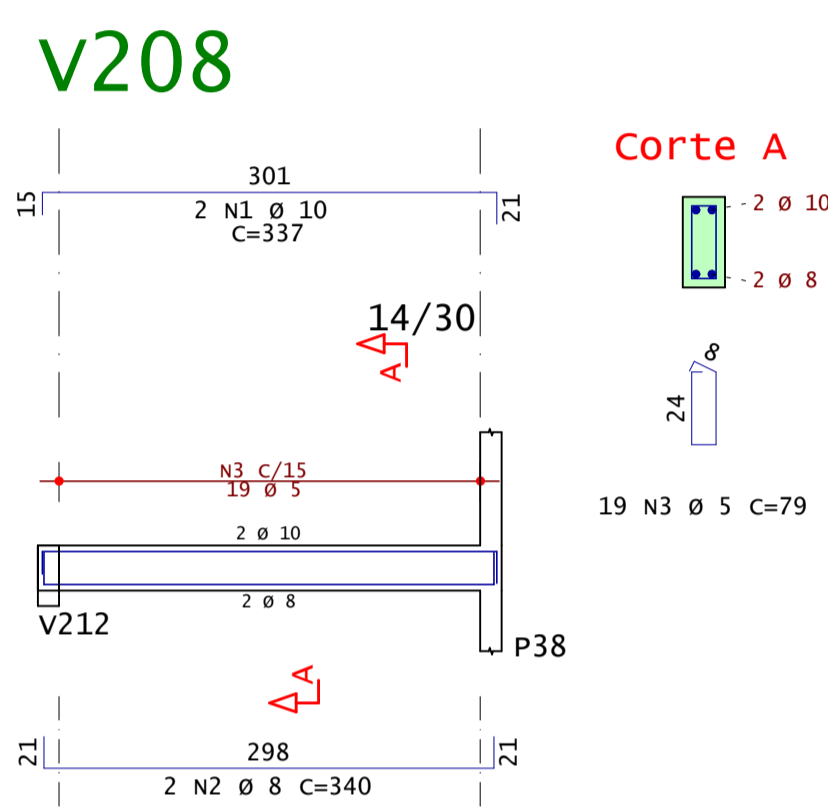
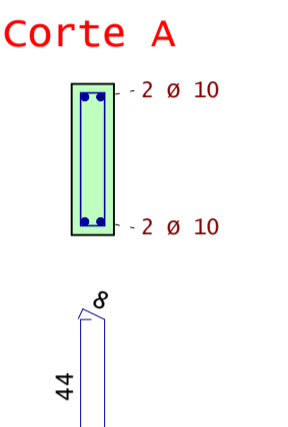
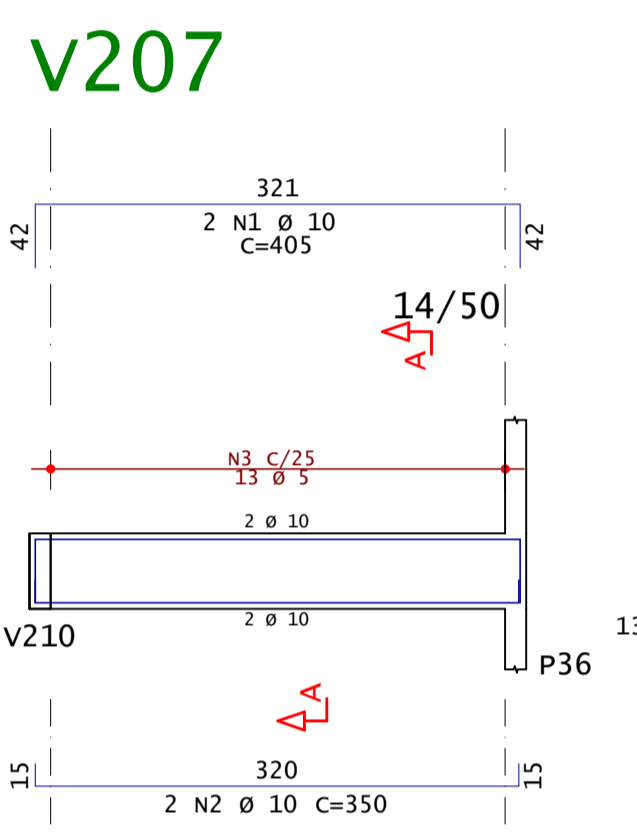
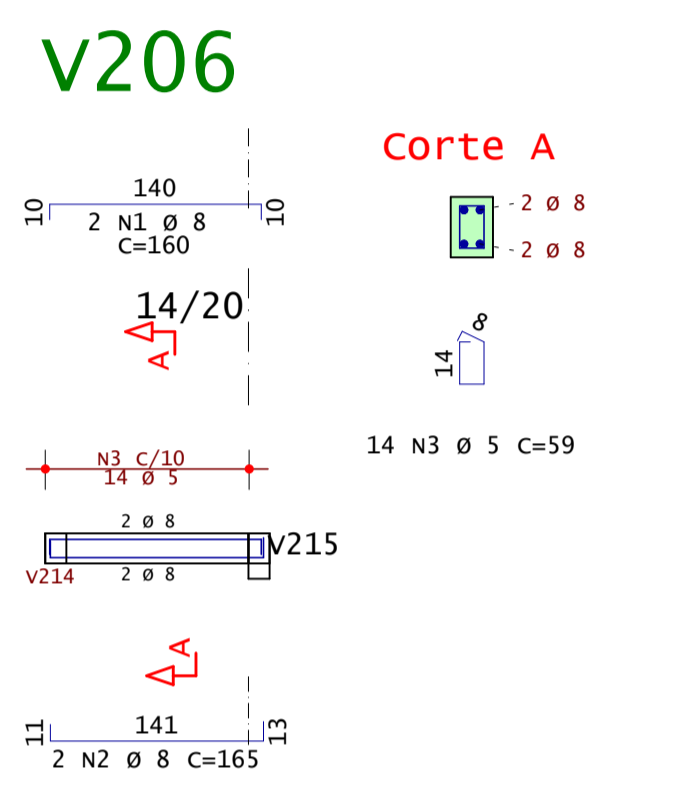
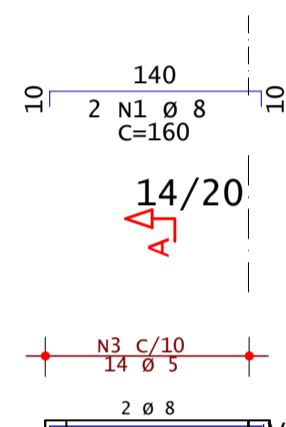
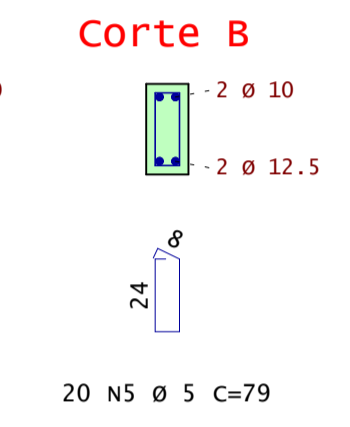
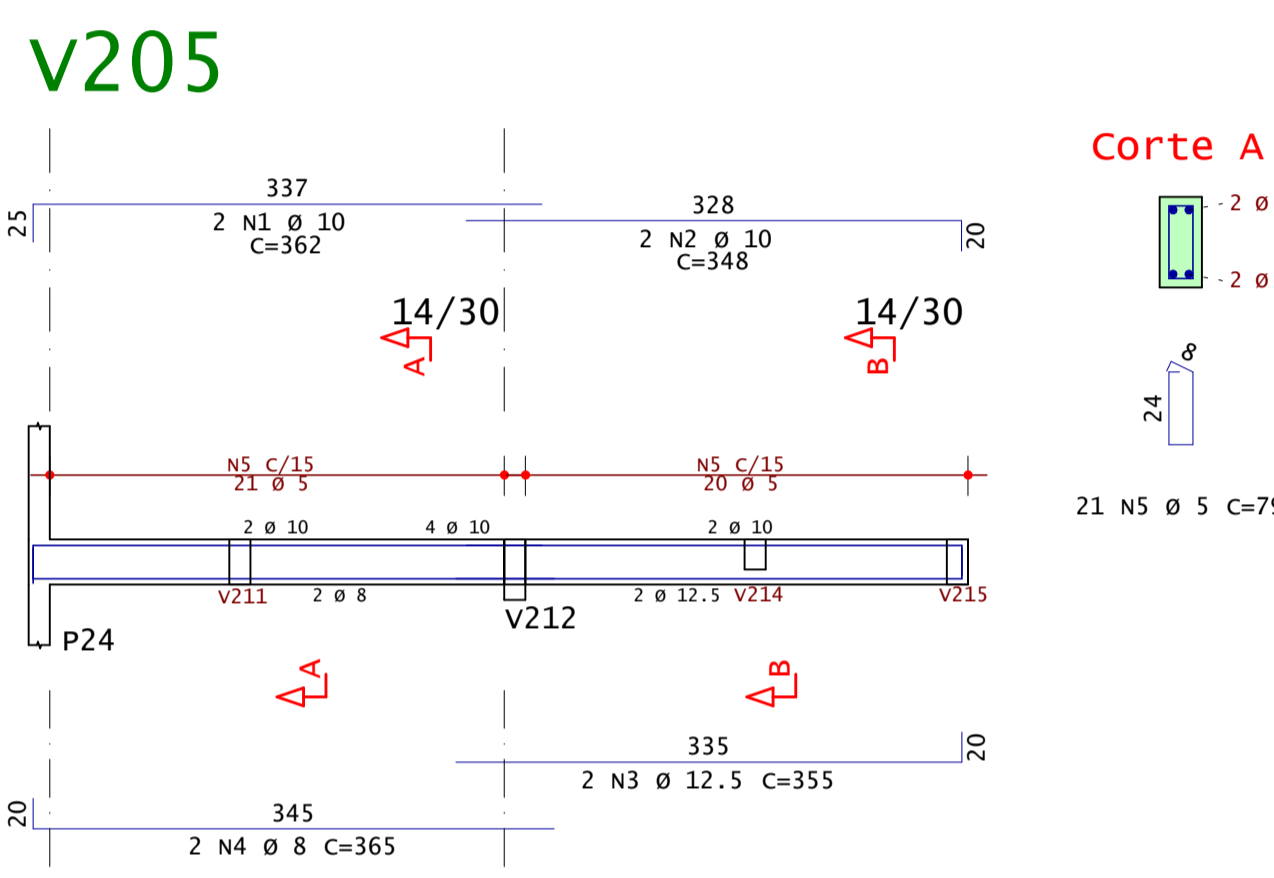
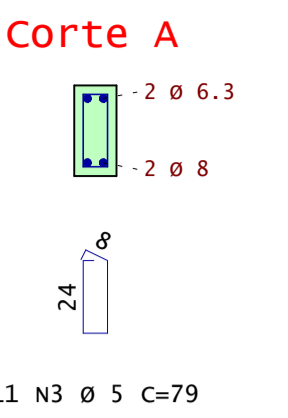
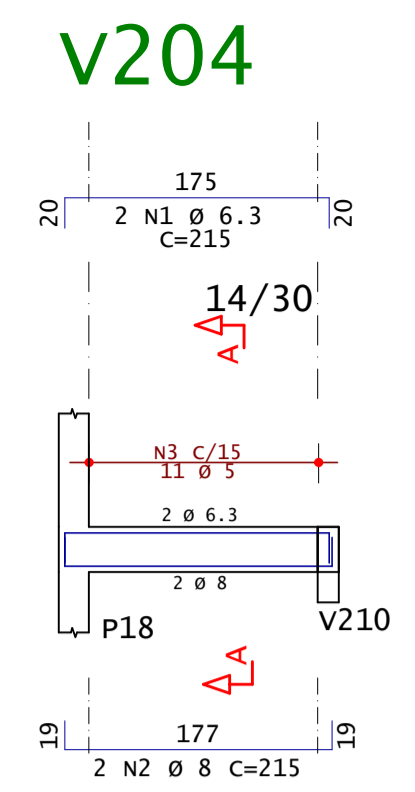
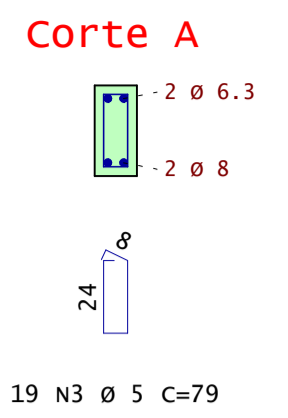
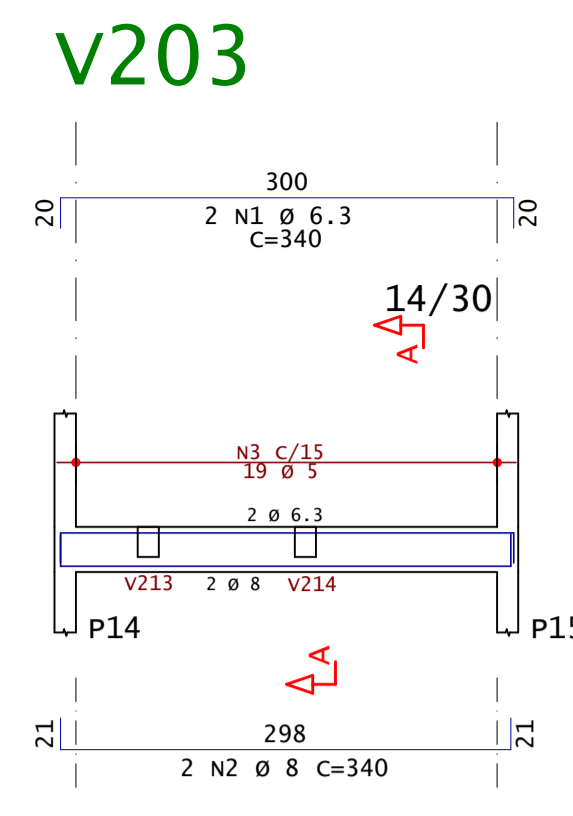
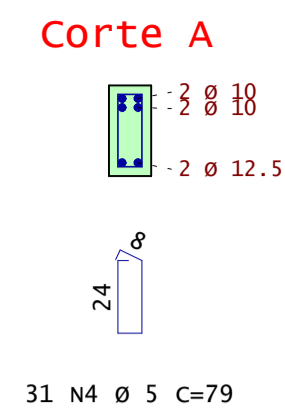
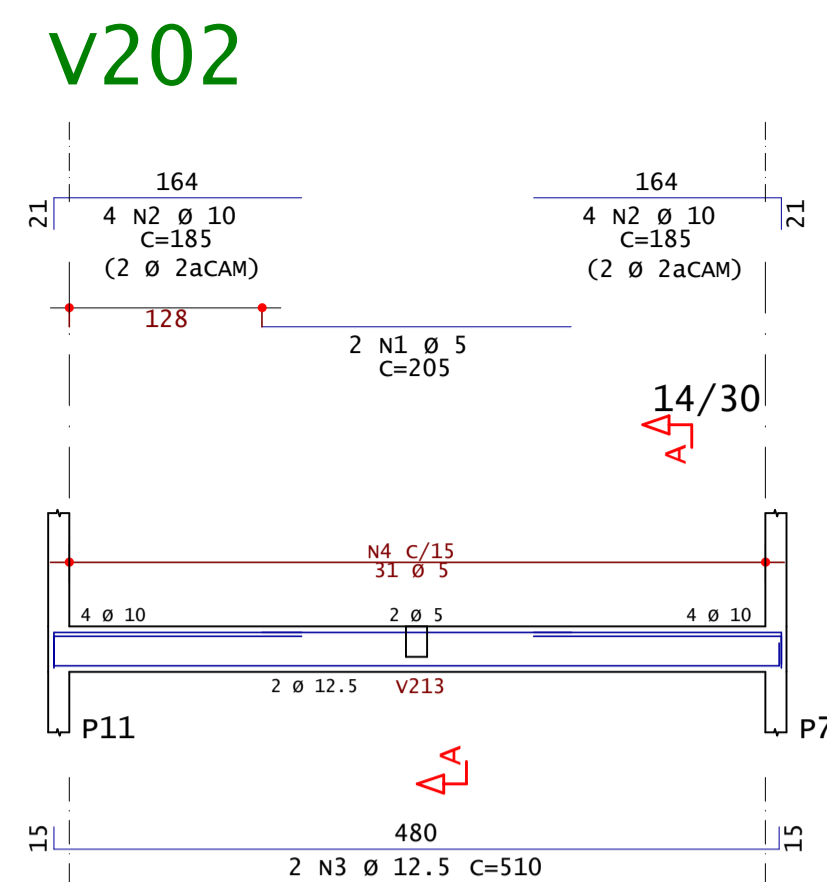
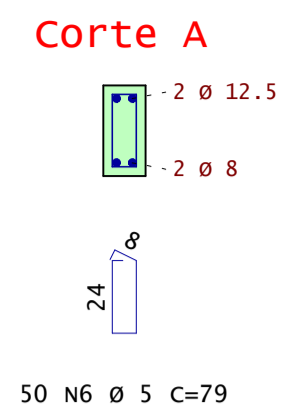
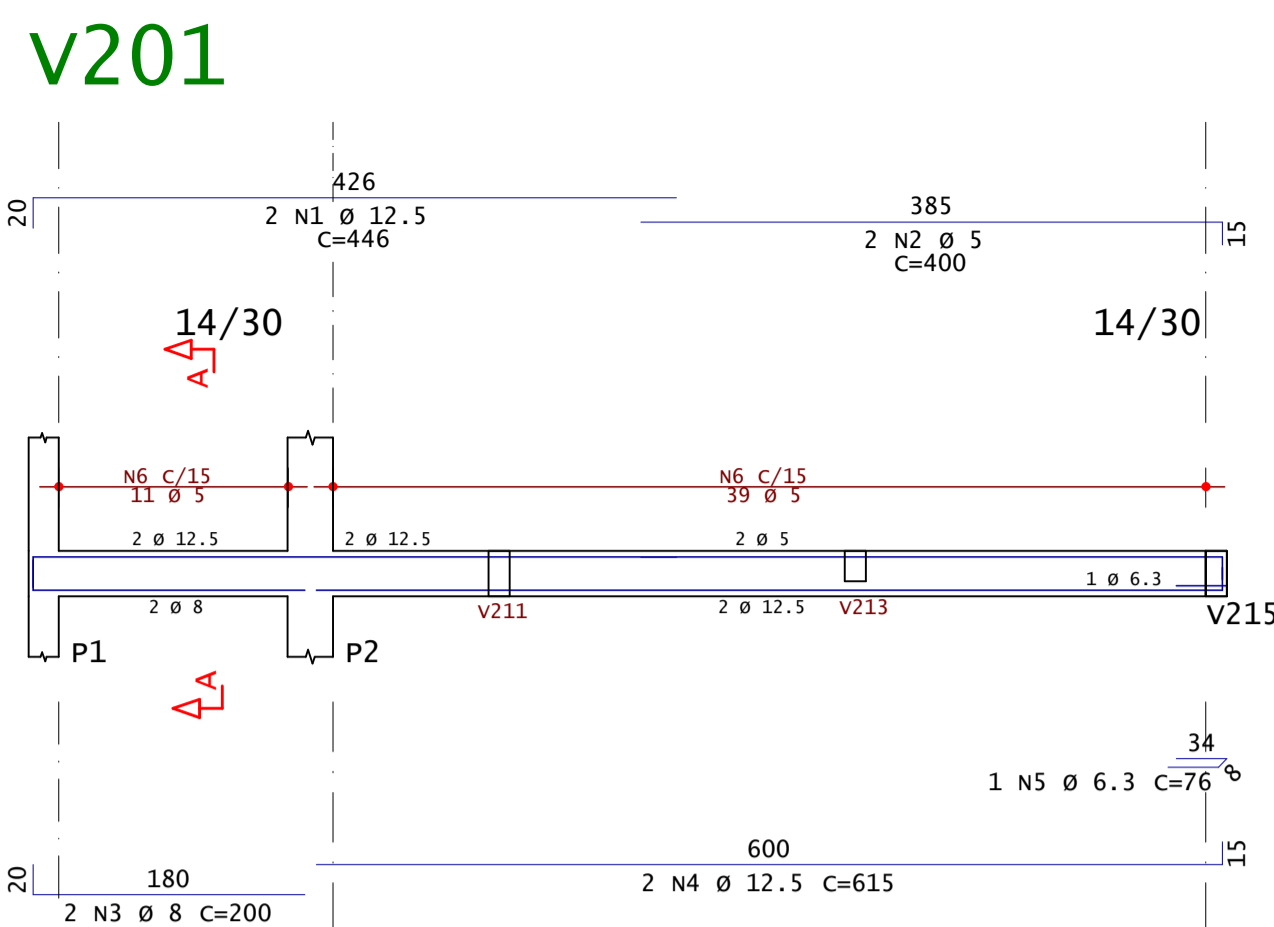
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha n°: 17/37	Revisão n°: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - TÉRREO	3/3	
CREA-PB: 161890343-9	ART n°: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



ANDRÉ RODRIGUES DE VASCONCELOS PL CAS-TER-VIG-004-R00-PLT 16/02/2022 22:44:51



VIGAS	AÇO	POS	BIT	QUANT	COMPRIMENTO	
					UNIT	TOTAL
			mm		cm	cm
V201	50A	1	12.5	2	446	892
V201	60A	2	5	2	400	800
V201	50A	3	8	2	200	400
V201	50A	4	12.5	2	615	1230
V201	50A	5	6.3	1	76	76
V201	60A	6	5	50	79	3950
V202	60A	1	5	2	205	410
V202	50A	2	10	9	185	1480
V202	50A	3	12.5	5	510	1020
V202	60A	4	5	31	79	2449
V203	50A	1	6.3	2	340	680
V203	50A	2	8	5	340	680
V203	60A	3	5	19	79	1501
V204	50A	1	6.3	2	215	430
V204	50A	2	8	2	215	430
V204	60A	3	5	11	79	869
V205	50A	1	10	2	362	724
V205	50A	2	10	2	348	696
V205	50A	3	12.5	2	355	710
V205	50A	4	8	2	365	730
V205	60A	5	5	41	79	3239
V206	50A	1	8	2	160	320
V206	50A	2	8	2	165	330
V206	60A	3	5	14	59	826
V207	50A	1	10	2	405	810
V207	50A	2	10	2	350	700
V207	60A	3	5	13	119	1547
V208	50A	1	10	2	337	674
V208	50A	2	8	2	340	680
V208	60A	3	5	19	79	1501
V209	50A	1	10	2	320	640
V209	50A	2	10	2	270	540
V209	60A	3	5	9	119	1071
V210	50A	1	10	2	885	1770
V210	50A	2	10	2	175	350
V210	50A	3	10	2	860	1720
V210	60A	4	5	32	119	3808
V211	50A	1	12.5	4	401	1602
V211	50A	2	5	4	401	802
V211	60A	3	5	21	79	1659
V211	60A	4	5	4	282	1128
V212	60A	1	12.5	2	295	590
V212	50A	2	12.5	4	290	1160
V212	50A	3	12.5	4	195	780
V212	50A	4	12.5	2	705	1410
V212	60A	5	5	29	99	2871
V213	50A	1	10	2	235	470
V213	50A	2	8	2	230	460
V213	60A	3	5	19	59	1121
V214	50A	1	16	2	295	590
V214	50A	2	8	2	295	590
V214	60A	3	5	25	59	1475
V215	50A	1	16	4	492	1968
V215	50A	2	16	4	454	1816
V215	50A	3	16	2	731	1462
V215	50A	4	8	2	225	450
V215	60A	5	5	56	79	4424

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	352	54
50A	6.3	12	3
50A	8	59	23
50A	10	106	65
50A	12.5	88	85
50A	16	58	92
Peso Total	60A =		54 kgf
Peso Total	50A =		268 kgf

Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

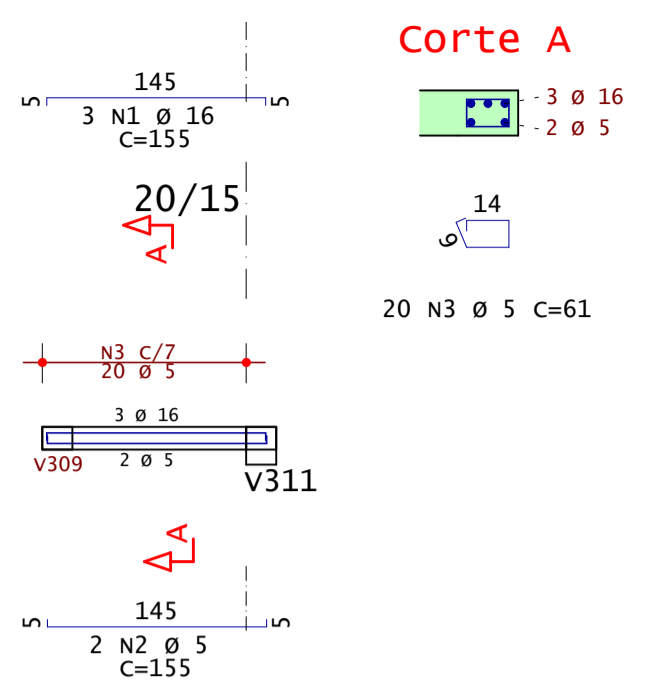
ANDRÉ RODRIGUES

Engenheiro Estrutural

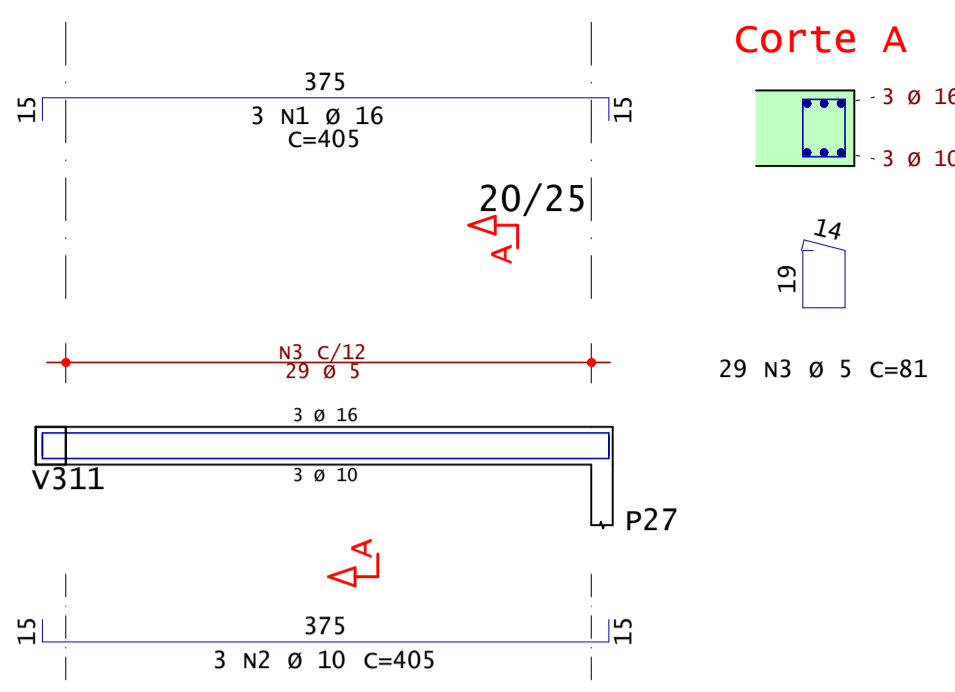
(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Francha nº: 18/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - TÉRREO CHALÉ	CREA-PB: 161890343-9	ART nº: PB 20210418618
Data: 16 / 02 / 2022	Escala: Indicada	

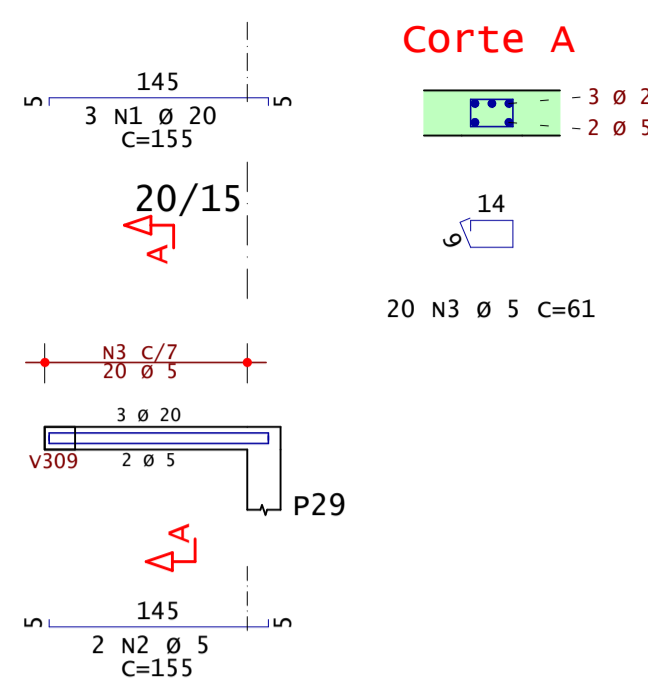
V301



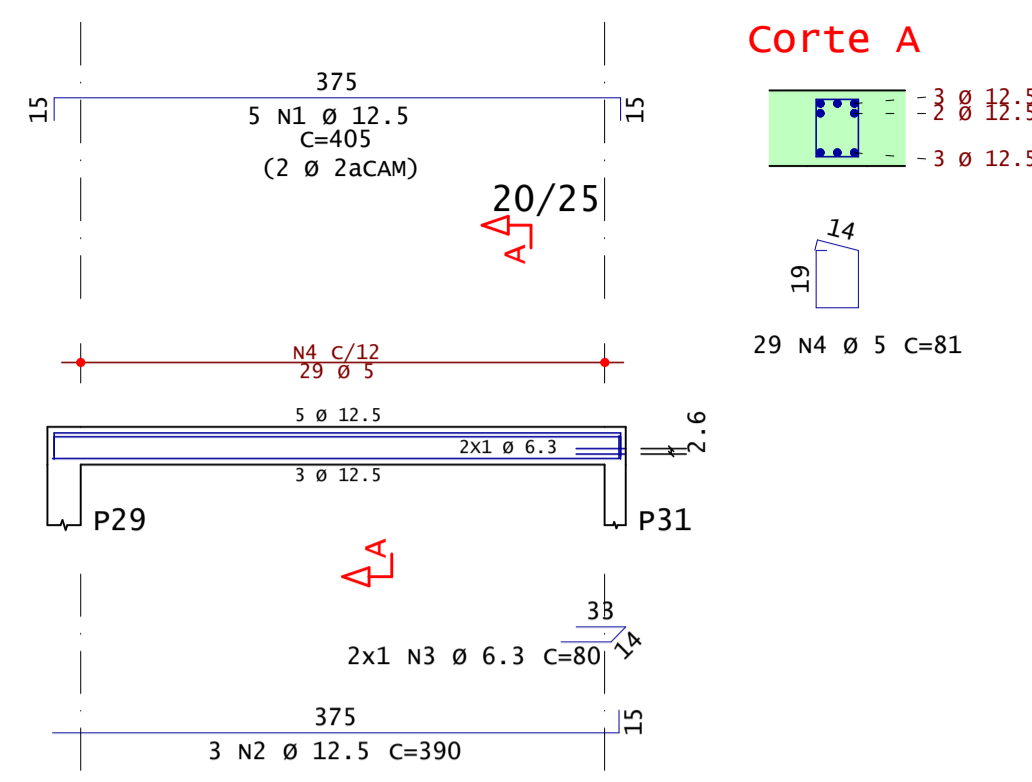
V302



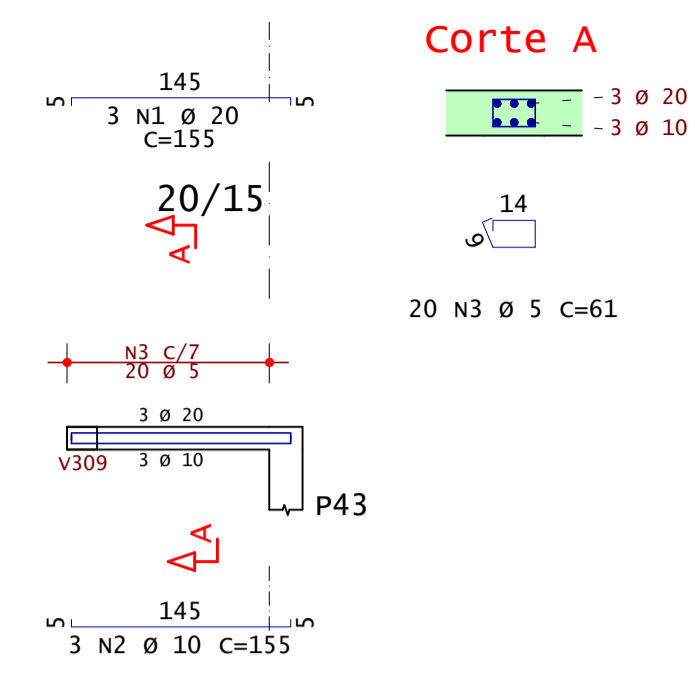
V303



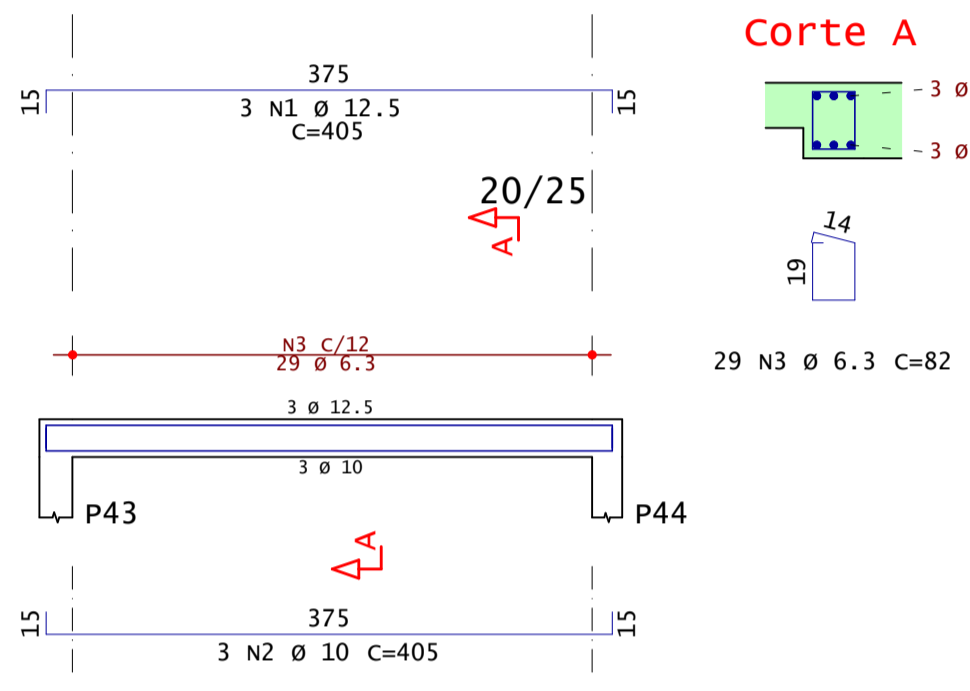
V304



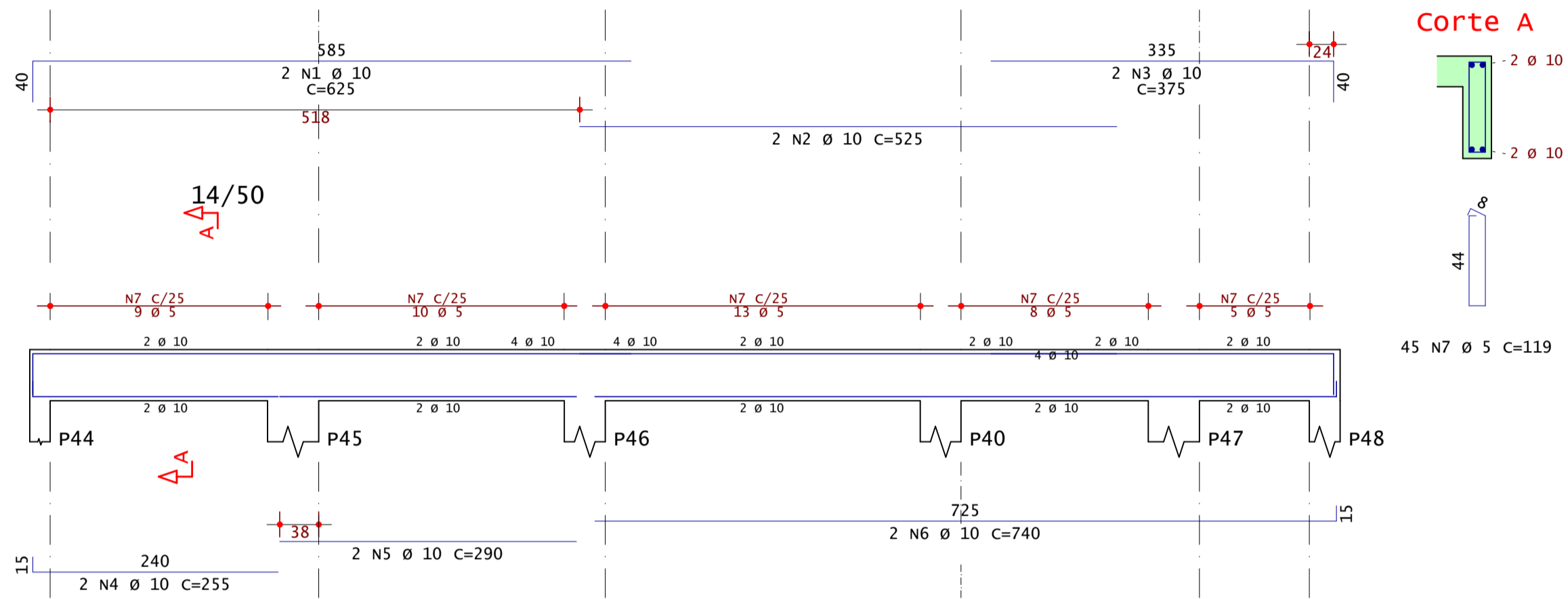
V305



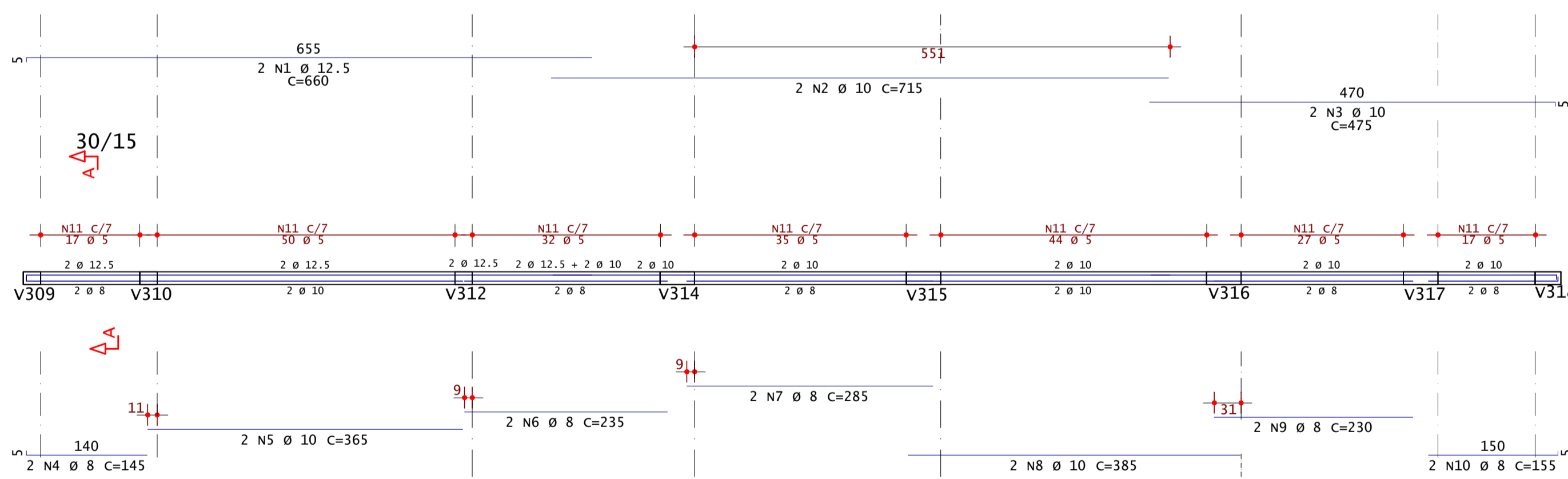
V306



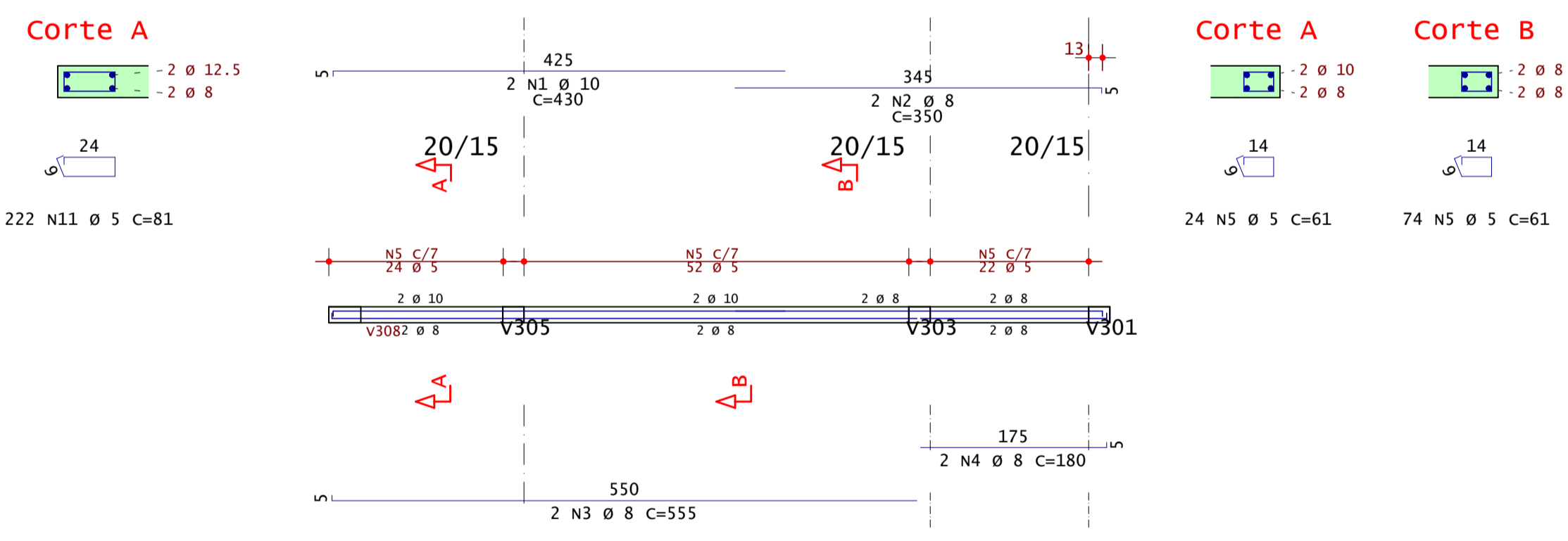
V307



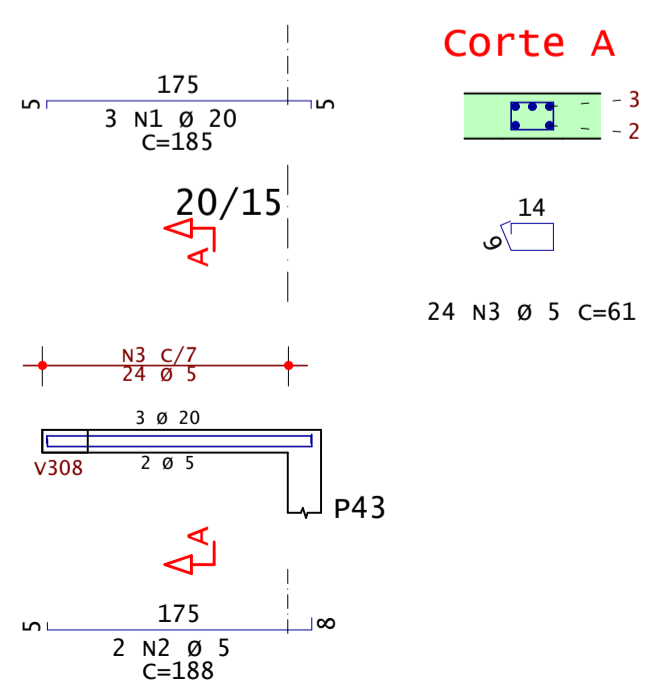
V308



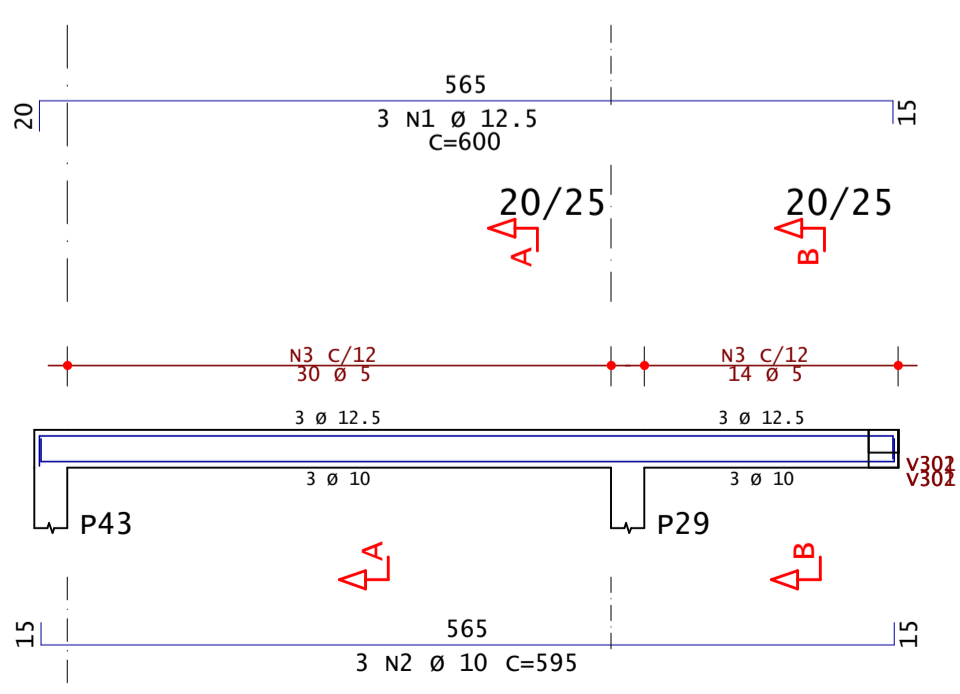
V309



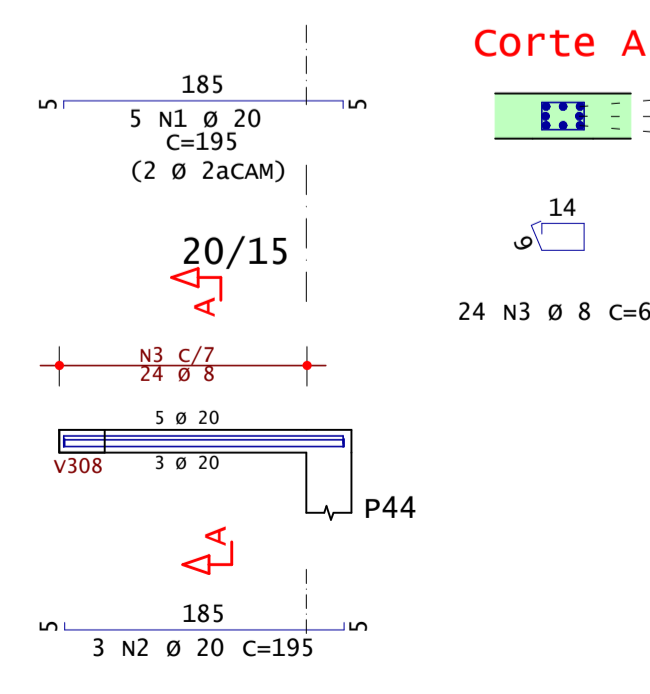
V310



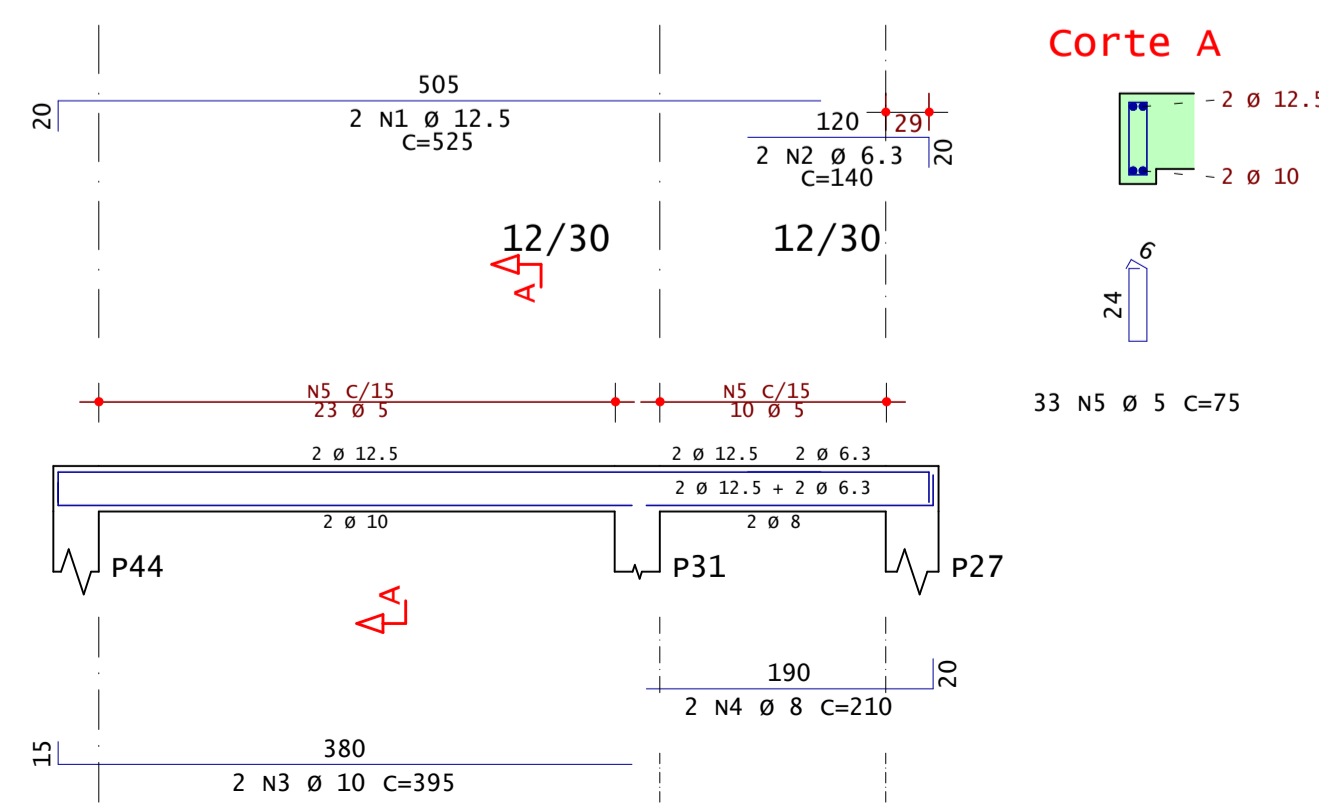
V311



V312



V313



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
V301	50A	1	16	3	155	465
	60A	2	5	2	155	310
	60A	3	5	20	61	1220
V302	50A	1	16	3	405	1215
	50A	2	10	3	405	1215
	60A	3	5	29	81	2349
V303	50A	1	20	3	155	465
	60A	2	5	20	61	1220
V304	50A	1	12.5	5	405	2025
	50A	2	12.5	3	390	1170
	50A	3	6.3	80	80	160
	60A	4	5	29	81	2349
V305	50A	1	20	3	155	465
	50A	2	10	3	155	465
	60A	3	5	20	61	1220
V306	50A	1	12.5	3	405	1215
	50A	2	10	3	405	1215
	50A	3	6.3	29	82	2378
V307	50A	1	10	2	625	1250
	50A	2	10	2	525	1050
	50A	3	10	2	375	750
	50A	4	8	2	145	290
	50A	5	10	2	365	730
	50A	6	8	2	235	470
	50A	7	8	2	285	570
	50A	8	10	2	385	770
	50A	9	8	2	230	460
	50A	10	8	2	155	310
	60A	11	5	222	81	17982
V309	50A	1	10	2	430	860
	50A	2	8	2	350	700
	50A	3	8	2	555	1110
	50A	4	8	2	180	360
	60A	5	5	98	61	5978
V310	50A	1	20	3	185	555
	60A	2	5	2	188	376
	60A	3	5	24	61	1464
V311	50A	1	12.5	3	600	1800
	50A	2	10	3	595	1785
	60A	3	5	44	81	3564
V312	50A	1	20	5	195	975
	50A	2	20	3	195	585
	50A	3	8	24	64	1536
V313	50A	1	12.5	2	525	1050
	50A	2	6.3	2	140	280
	50A	3	10	2	395	790
	50A	4	8	2	210	420
	60A	5	5	33	75	2475

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	462	71
50A	6.3	28	7
50A	8	62	25
50A	10	158	98
50A	12.5	86	83
50A	16	17	27
50A	20	30	75
Peso Total	60A =		71 kgf
Peso Total	50A =		313 kgf



Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES

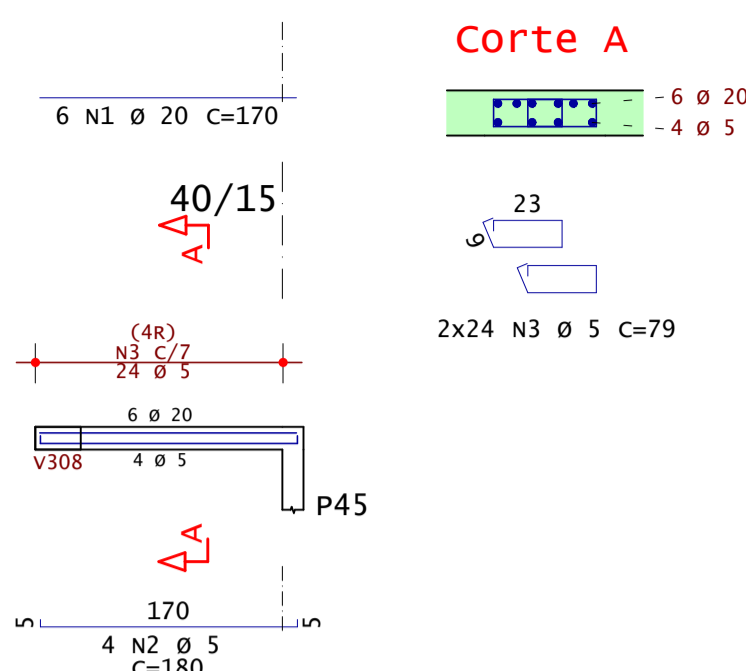
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

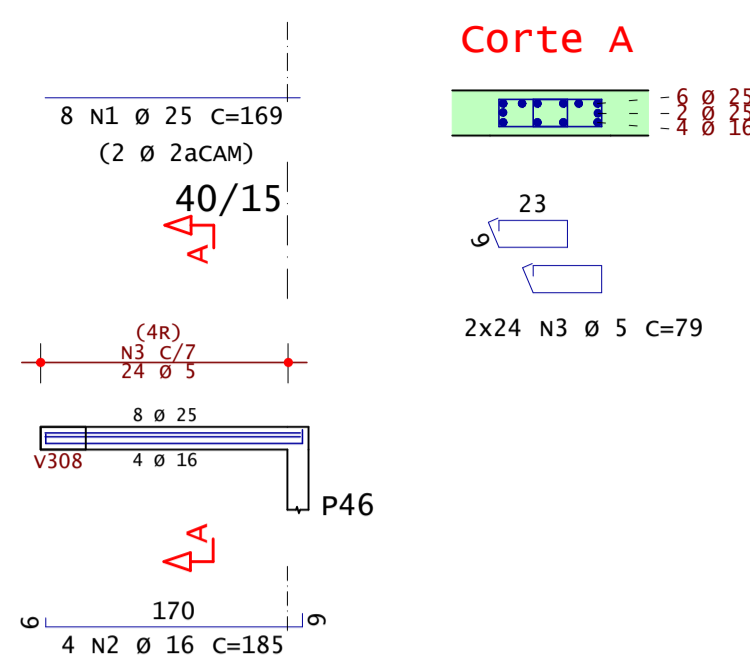
Cliente: Paulo George Dantas da Nobrega	Francha nº: 19/37
Revisão nº: 002	Observações:
Obra: Residência Unifamiliar	Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo
Título: DETALHAMENTO: VIGAS - LAJE SUPERIOR	1/4
CREA-PB: 161890343-9	ART nº: PB 20210418618
Data: 16 / 02 / 2022	Escala: Indicada



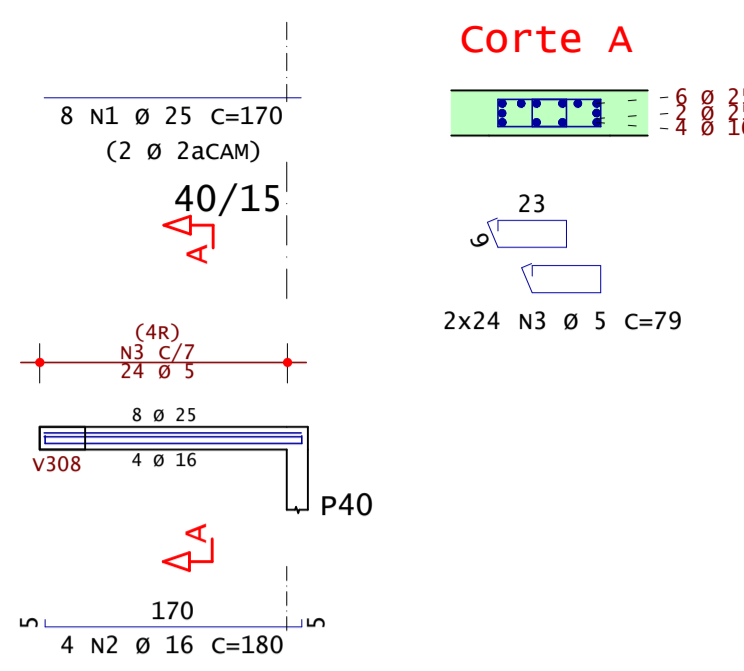
V314



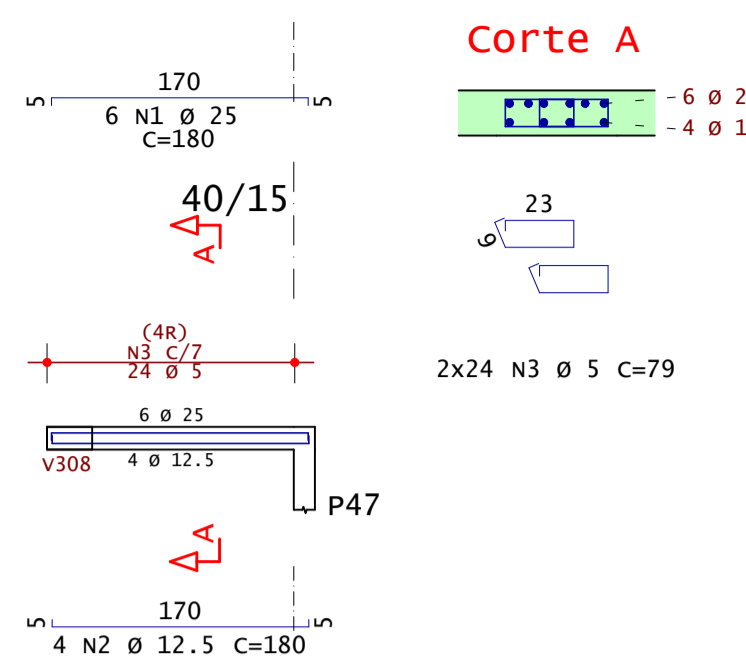
V315



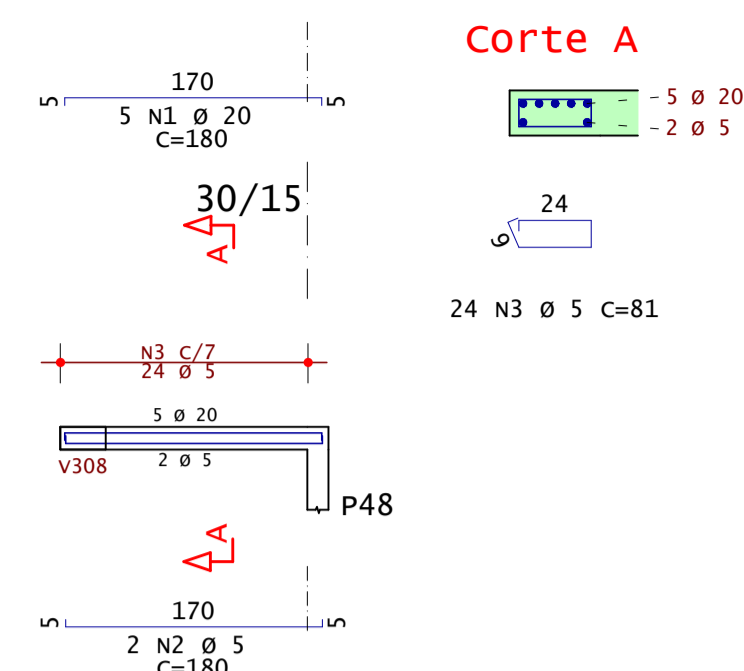
V316



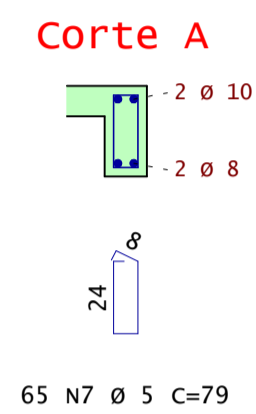
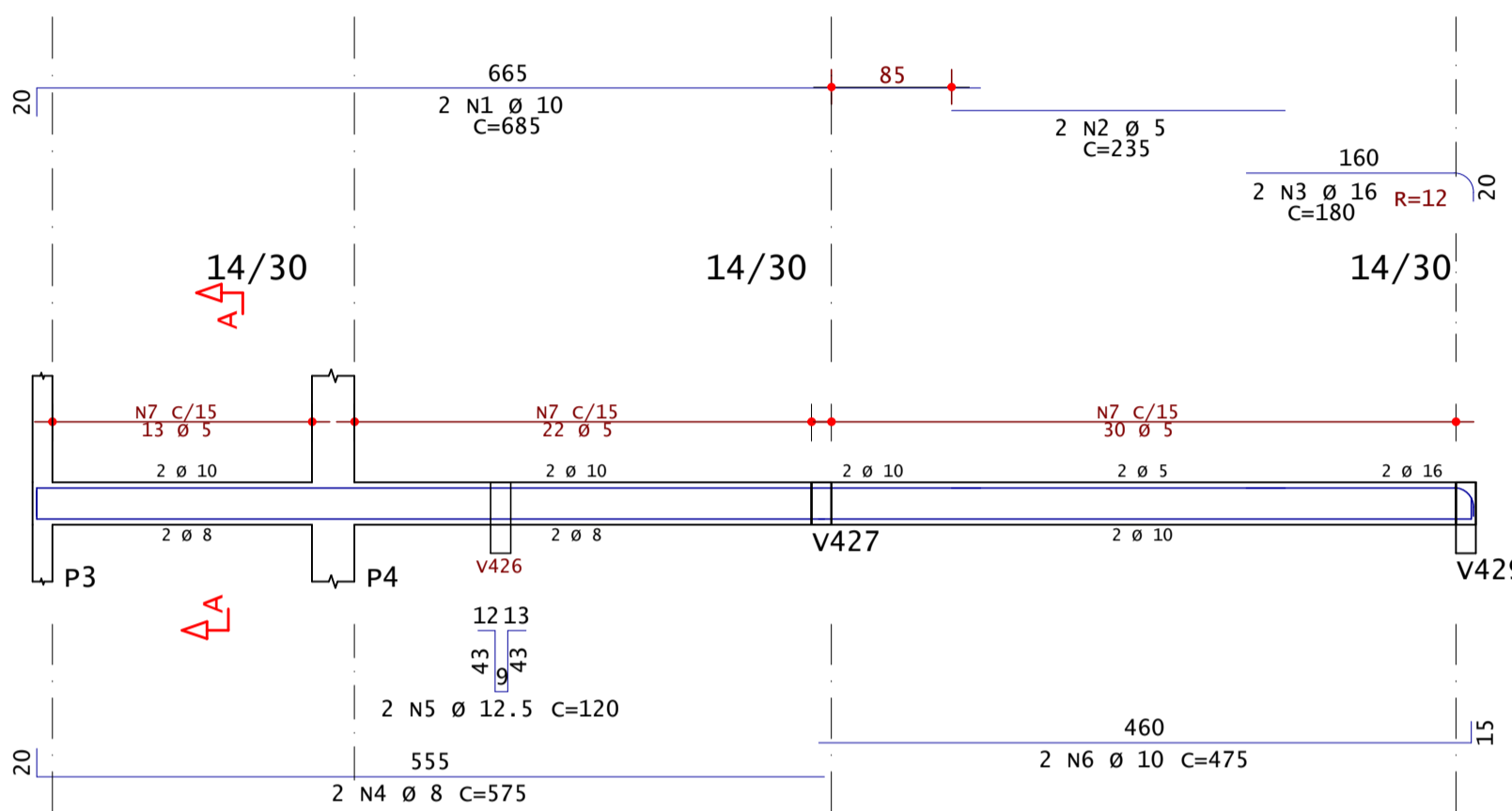
V317



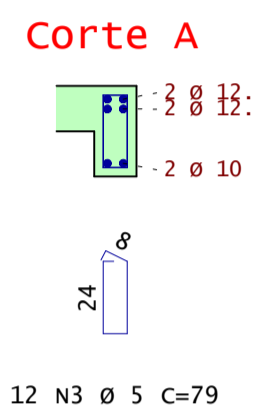
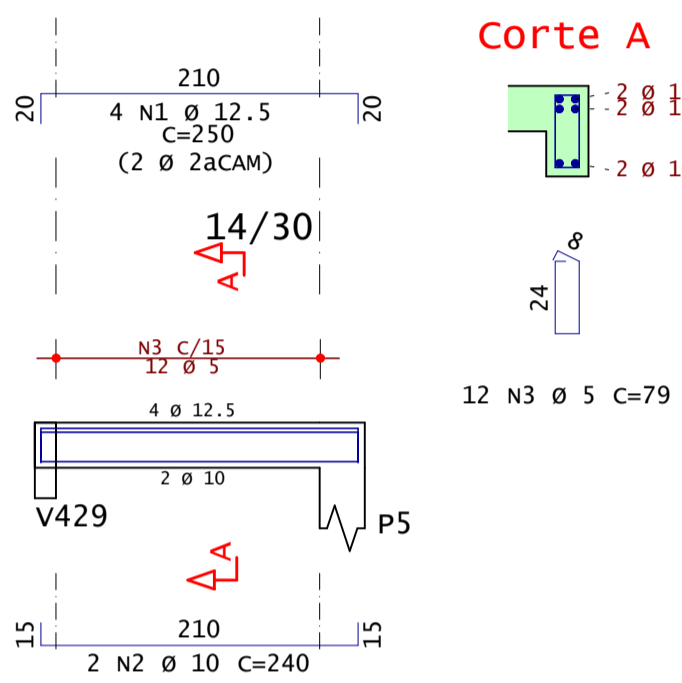
V318



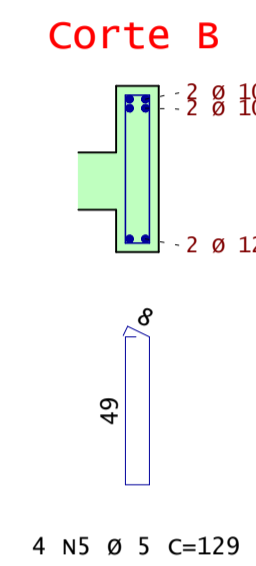
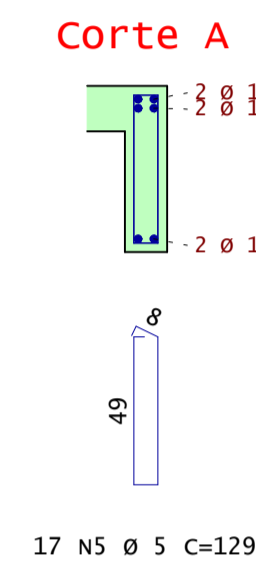
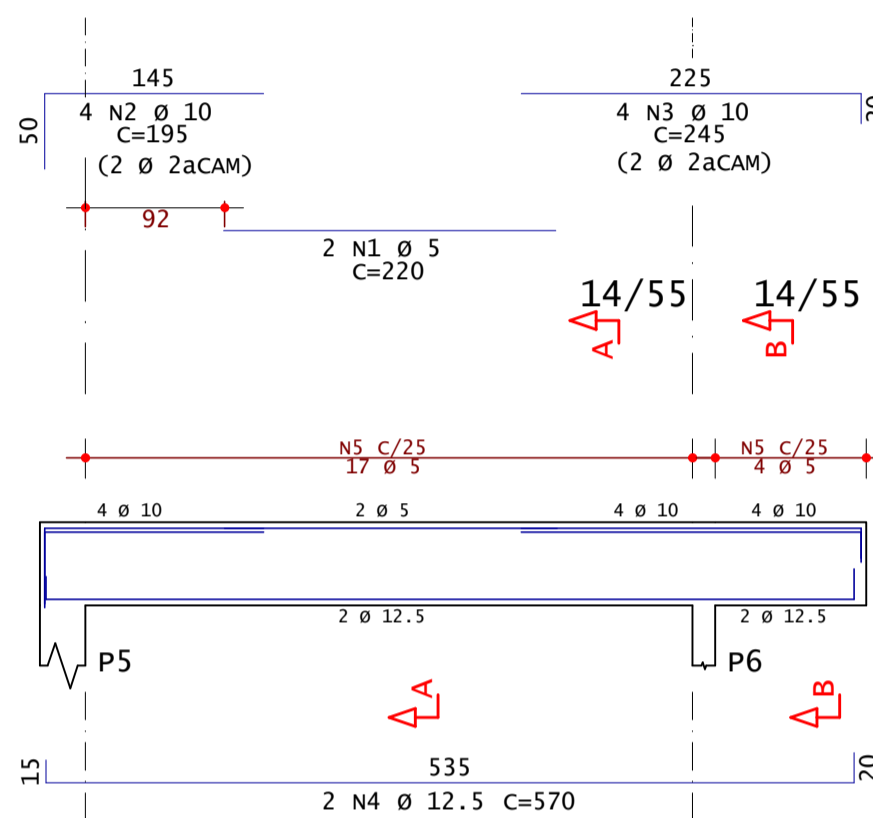
V401



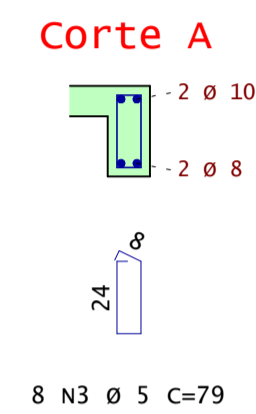
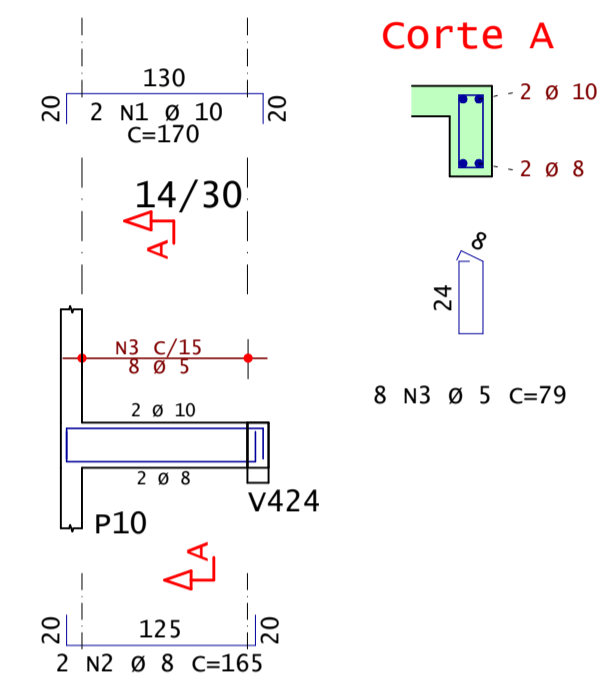
V402



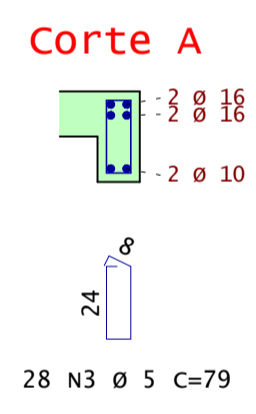
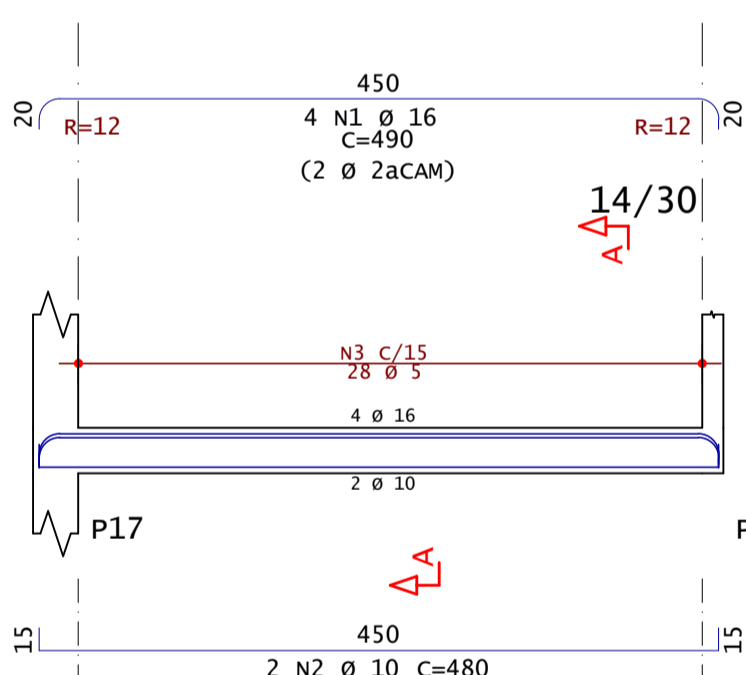
V403



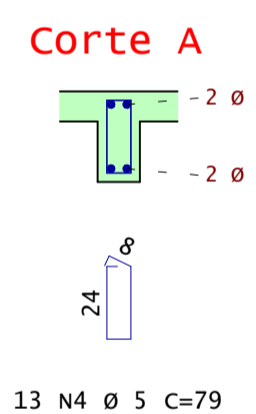
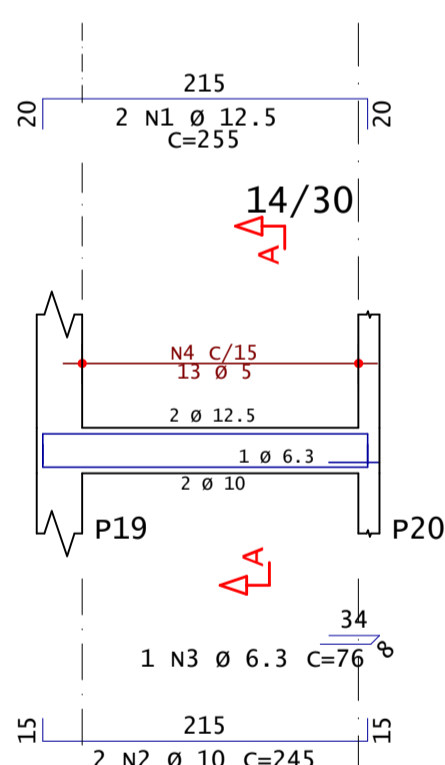
V404



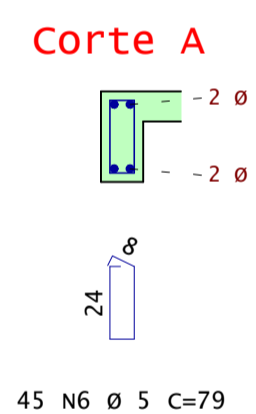
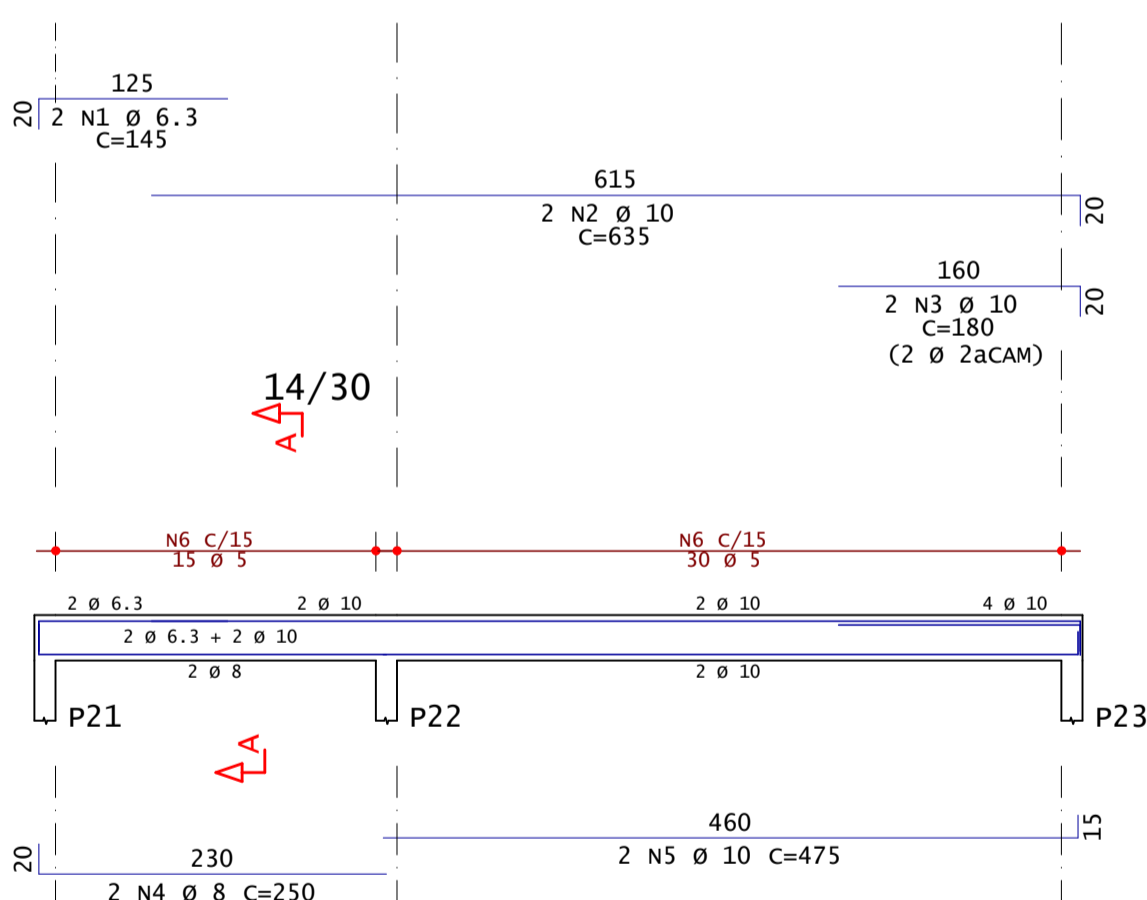
V405



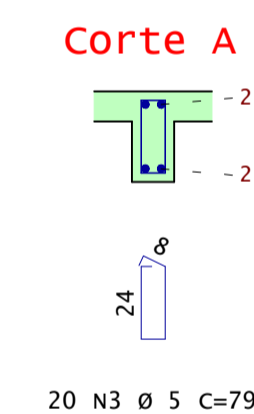
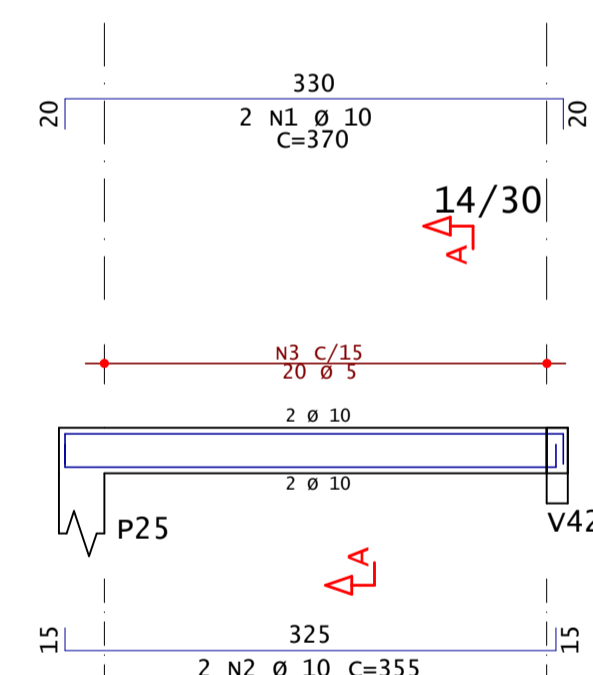
V406



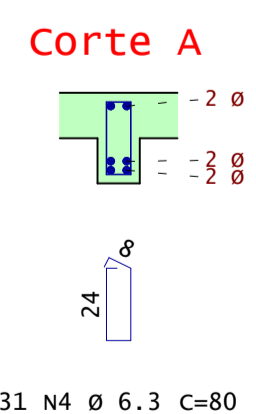
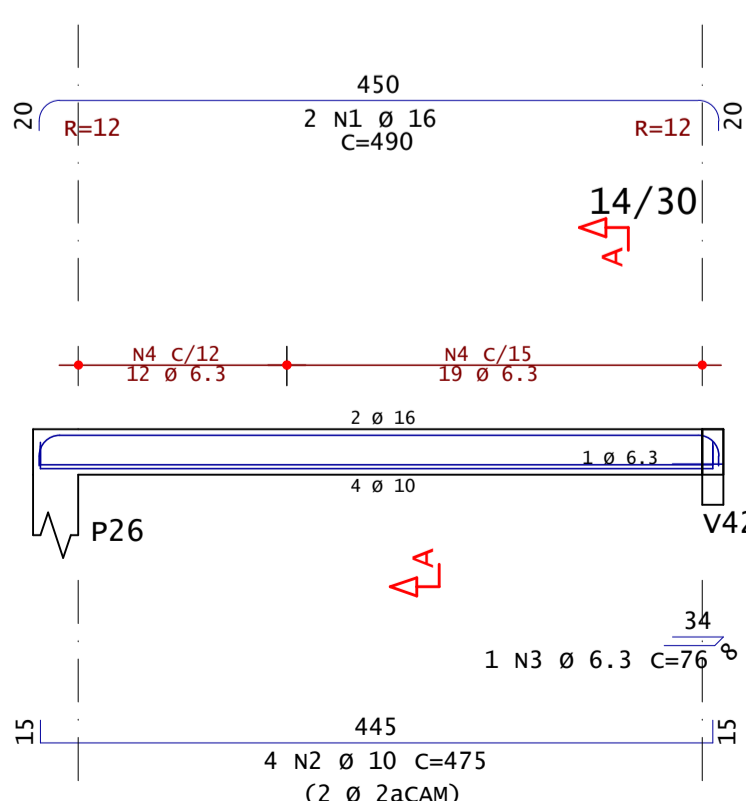
V407



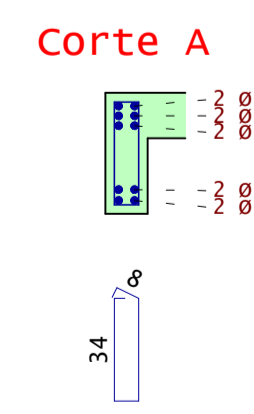
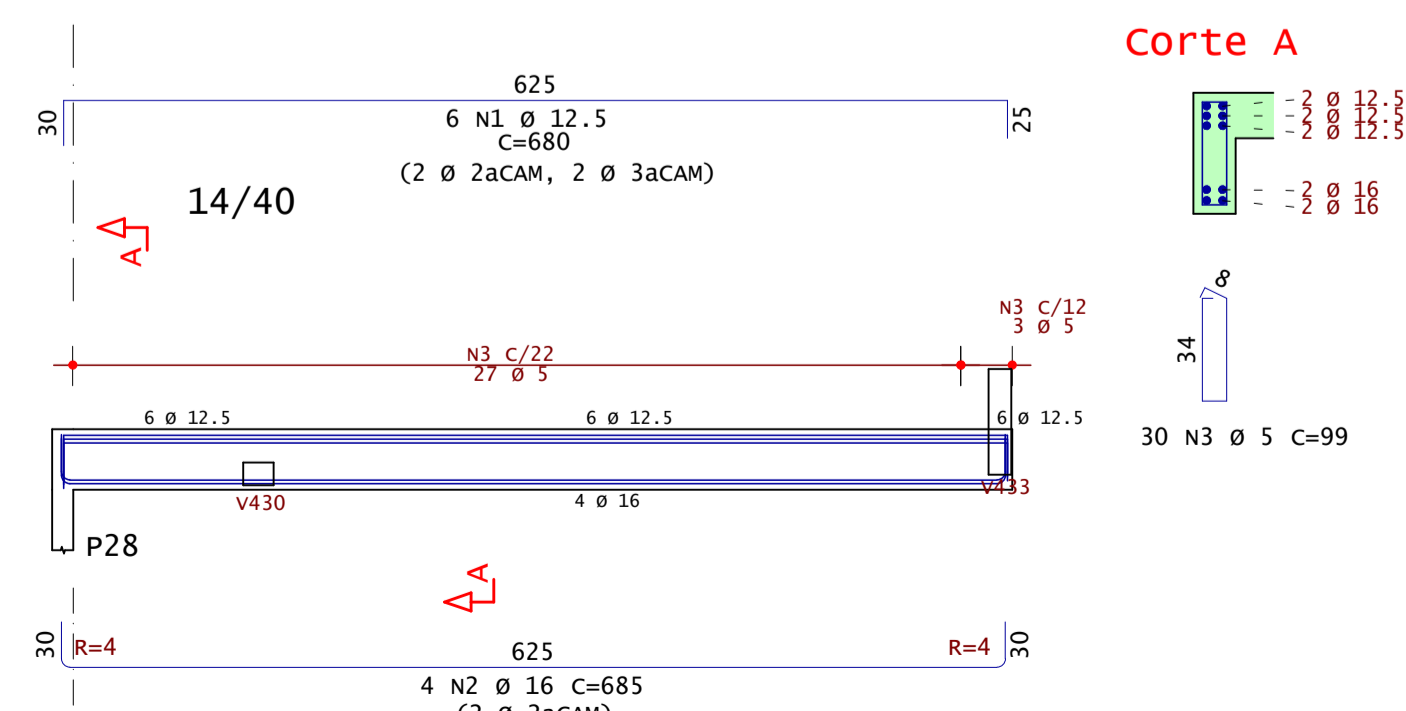
V408



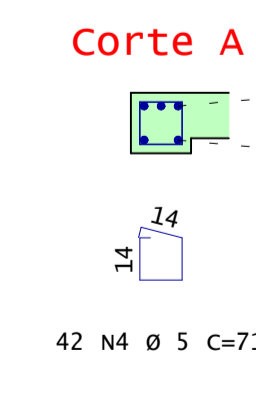
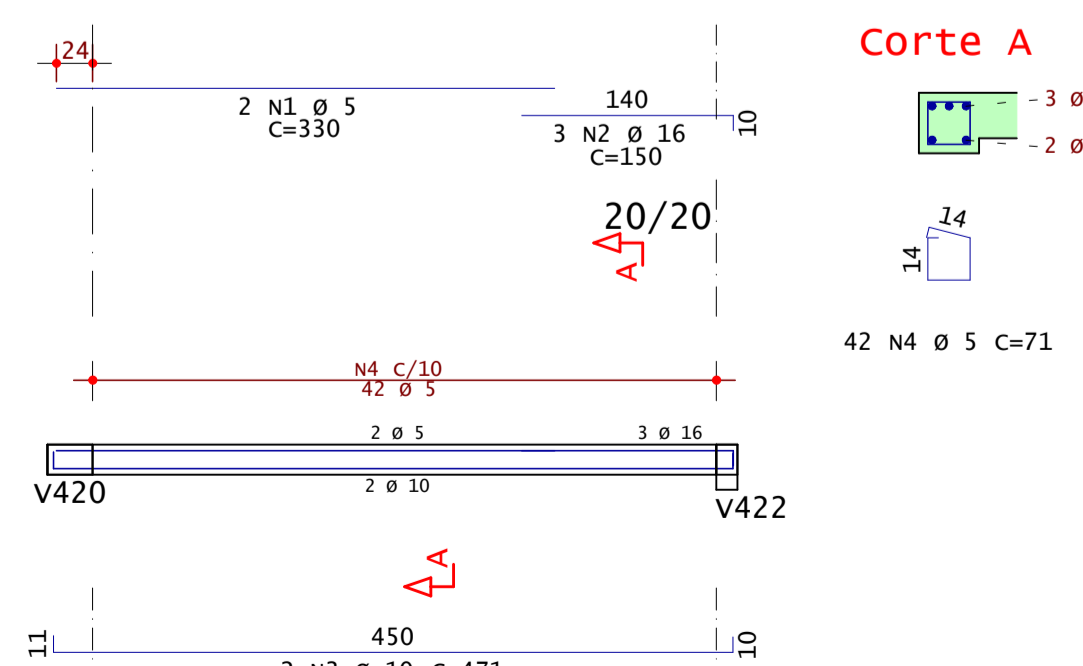
V409



V410



V411



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
V314	50A	1	20	6	1020
	60A	2	5	4	720
	60A	3	5	48	3792
V315	50A	1	25	8	1352
	50A	2	16	4	740
	60A	3	5	48	3792
V316	50A	1	25	8	1360
	50A	2	16	4	720
	60A	3	5	48	3792
V317	50A	1	25	6	1080
	50A	2	12.5	4	720
	60A	3	5	48	3792
V318	50A	1	20	5	900
	60A	2	5	2	360
	60A	3	5	24	1944
V401	50A	1	10	2	685
	60A	2	5	2	235
	50A	3	16	2	180
	50A	4	8	2	575
	50A	5	12.5	2	120
	50A	6	10	2	475
	60A	7	5	65	3135
V402	50A	1	12.5	4	250
	50A	2	10	2	240
	60A	3	5	12	948
V403	60A	1	5	2	440
	50A	2	10	4	780
	50A	3	10	4	980
	50A	4	12.5	2	1140
	60A	5	5	21	2709
V404	50A	1	10	2	340
	50A	2	8	2	330
	60A	3	5	8	632
V405	50A	1	16	4	1960
	50A	2	10	2	960
	60A	3	5	28	2212
V406	50A	1	12.5	2	510
	50A	2	10	2	490
	50A	3	6.3	1	76
	60A	4	5	13	1027
V407	50A	1	6.3	2	290
	50A	2	10	2	1270
	50A	3	10	2	360
	50A	4	8	2	500
	50A	5	10	2	950
	60A	6	5	45	3555
V408	50A	1	10	2	740
	50A	2	10	2	710
	60A	3	5	20	1580
V409	50A	1	16	2	980
	50A	2	10	4	1900
	50A	3	6.3	1	76
	50A	4	6.3	31	2480
V410	50A	1	12.5	6	4080
	50A	2	16	4	685
	60A	3	30	99	2970
V411	60A	1	5	2	660
	50A	2	16	3	450
	50A	3	10	2	942
	60A	4	5	42	2982

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	435	67
50A	6.3	29	7
50A	8	20	8
50A	10	132	82
50A	12.5	77	74
50A	16	80	125
50A	20	19	47
50A	25	38	146
Peso Total		60A =	67 kgf
Peso Total		50A =	490 kgf

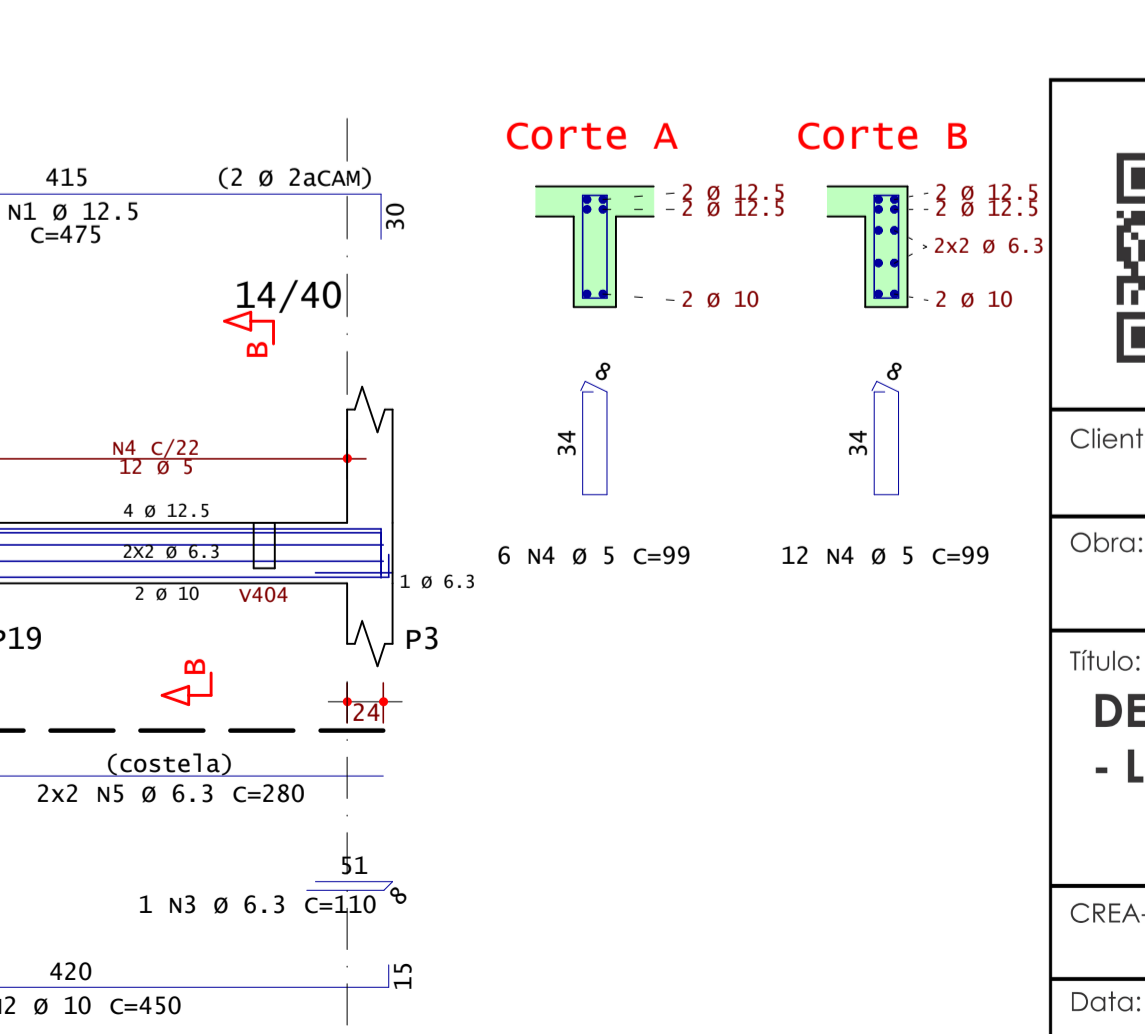
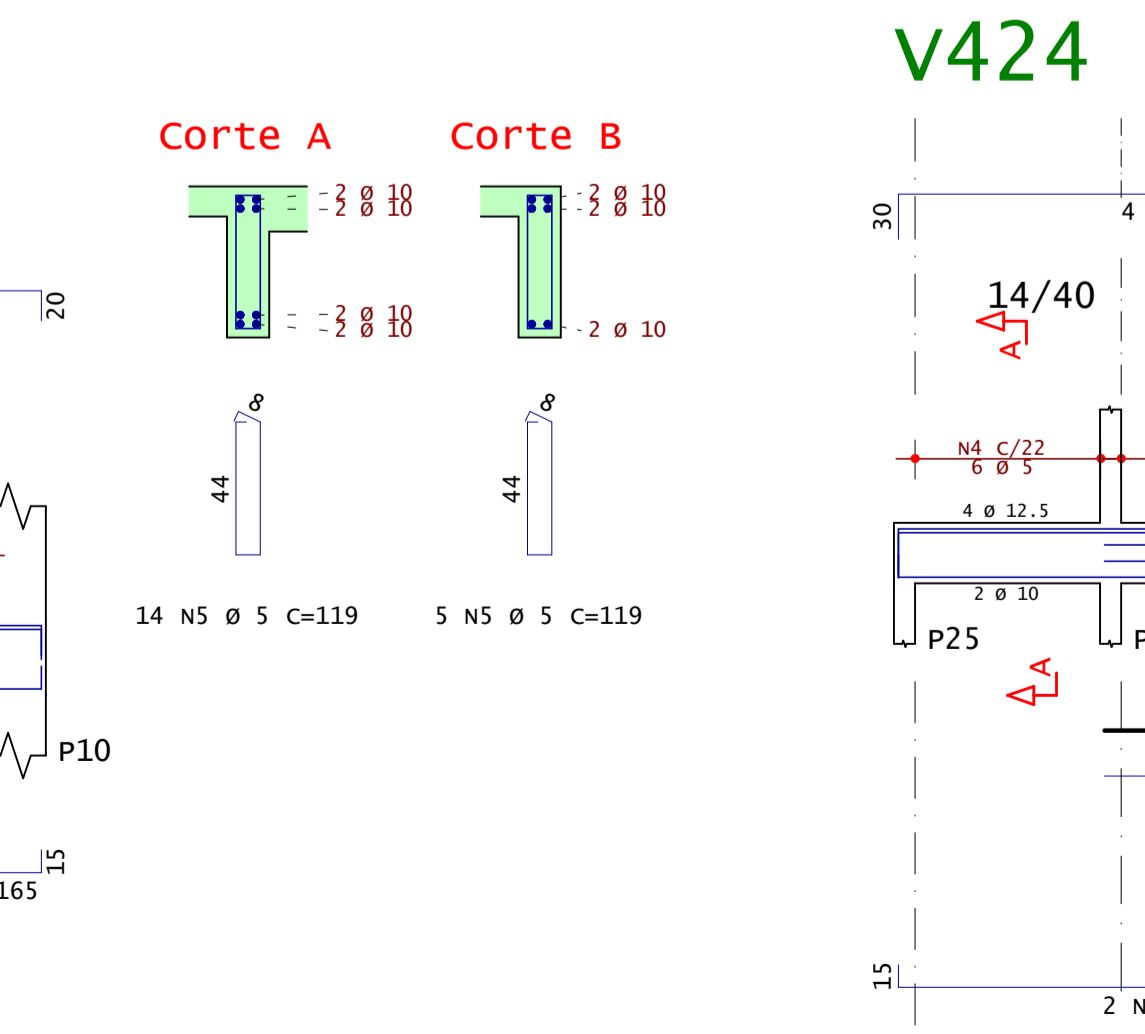
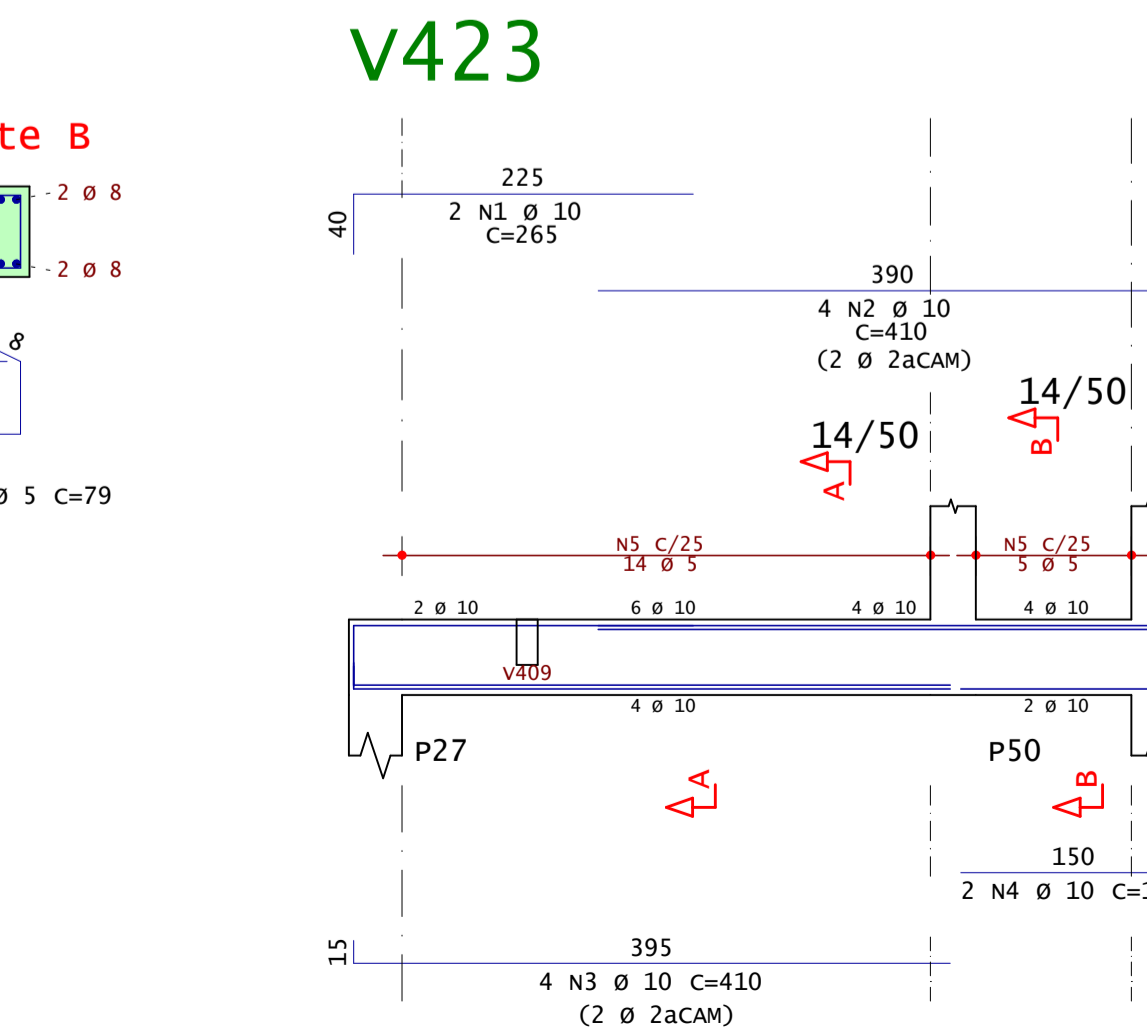
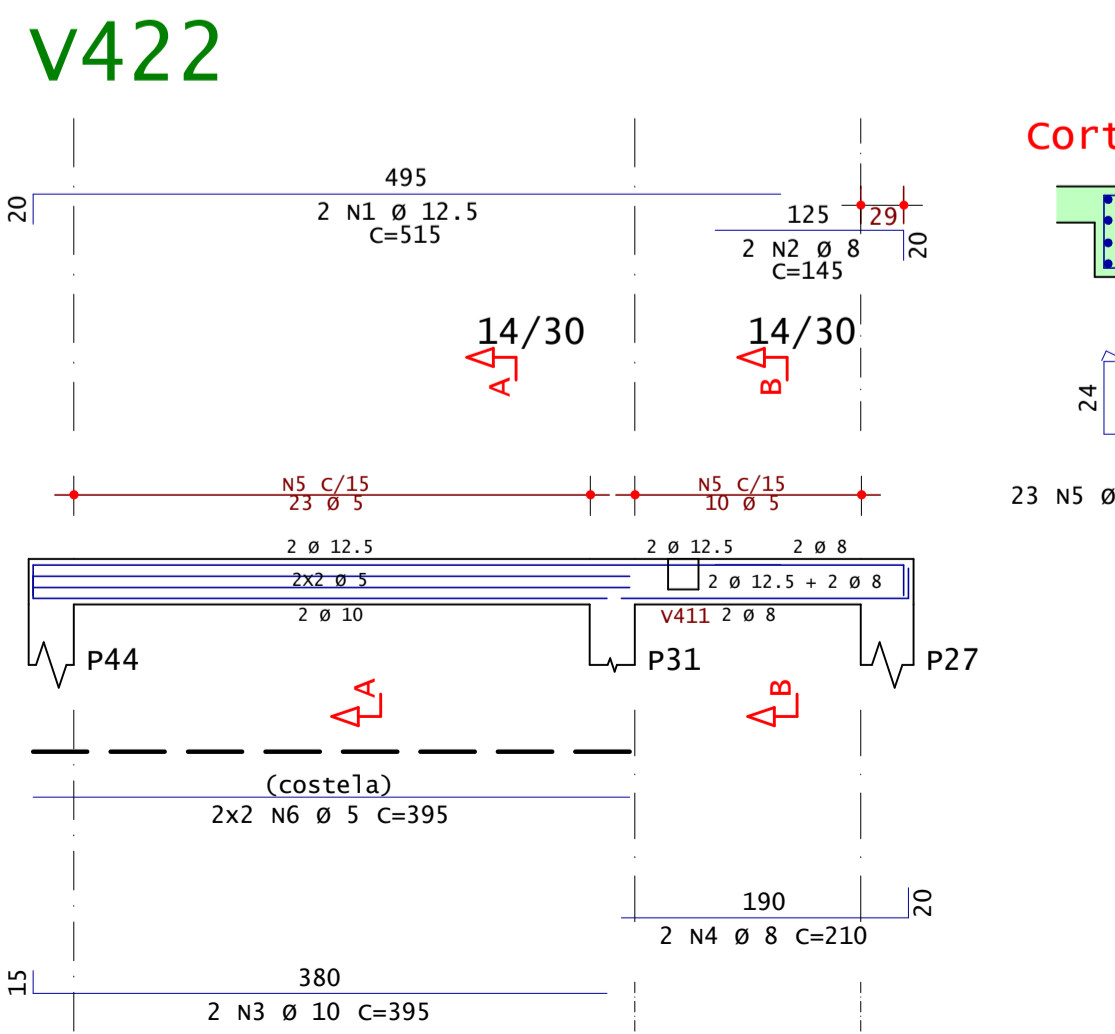
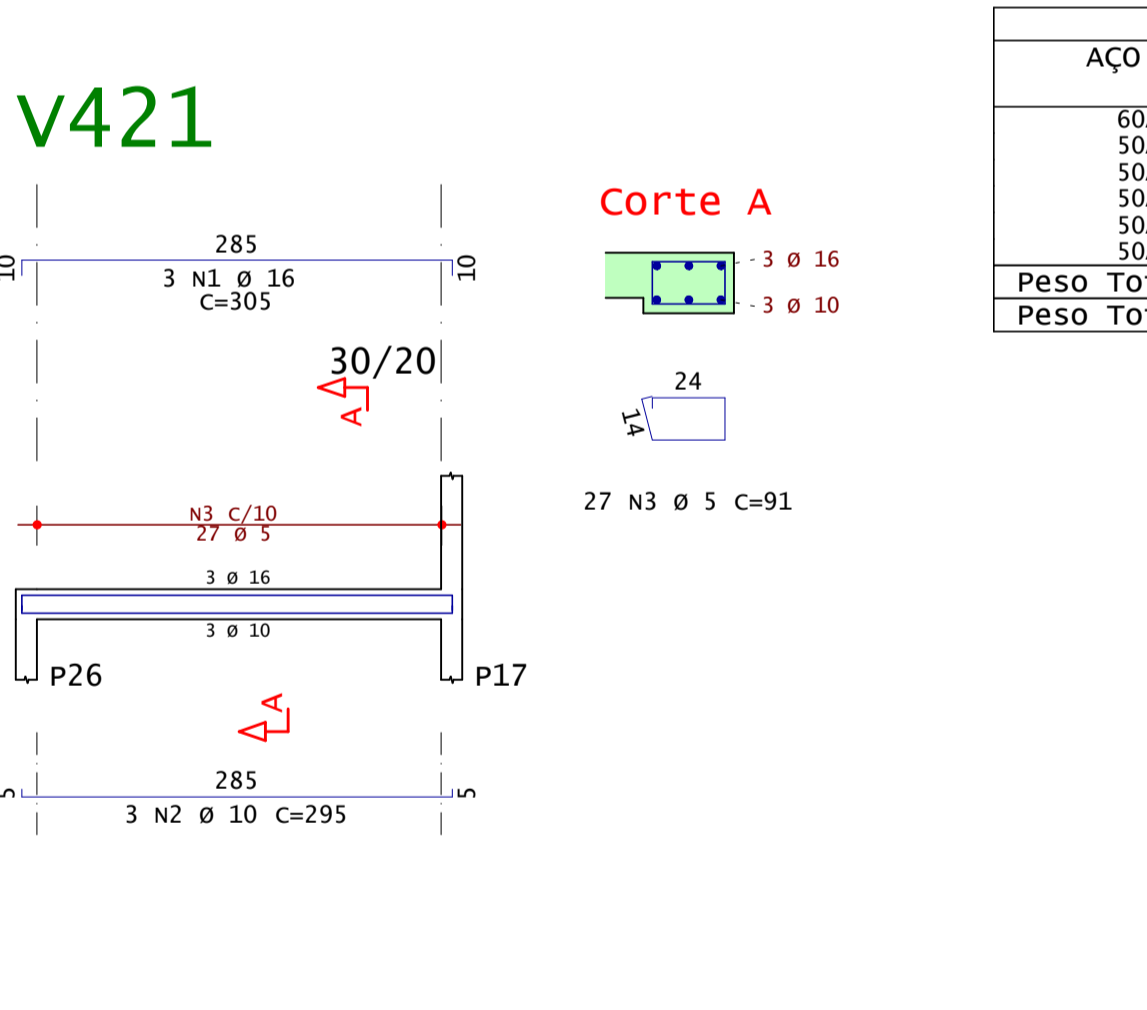
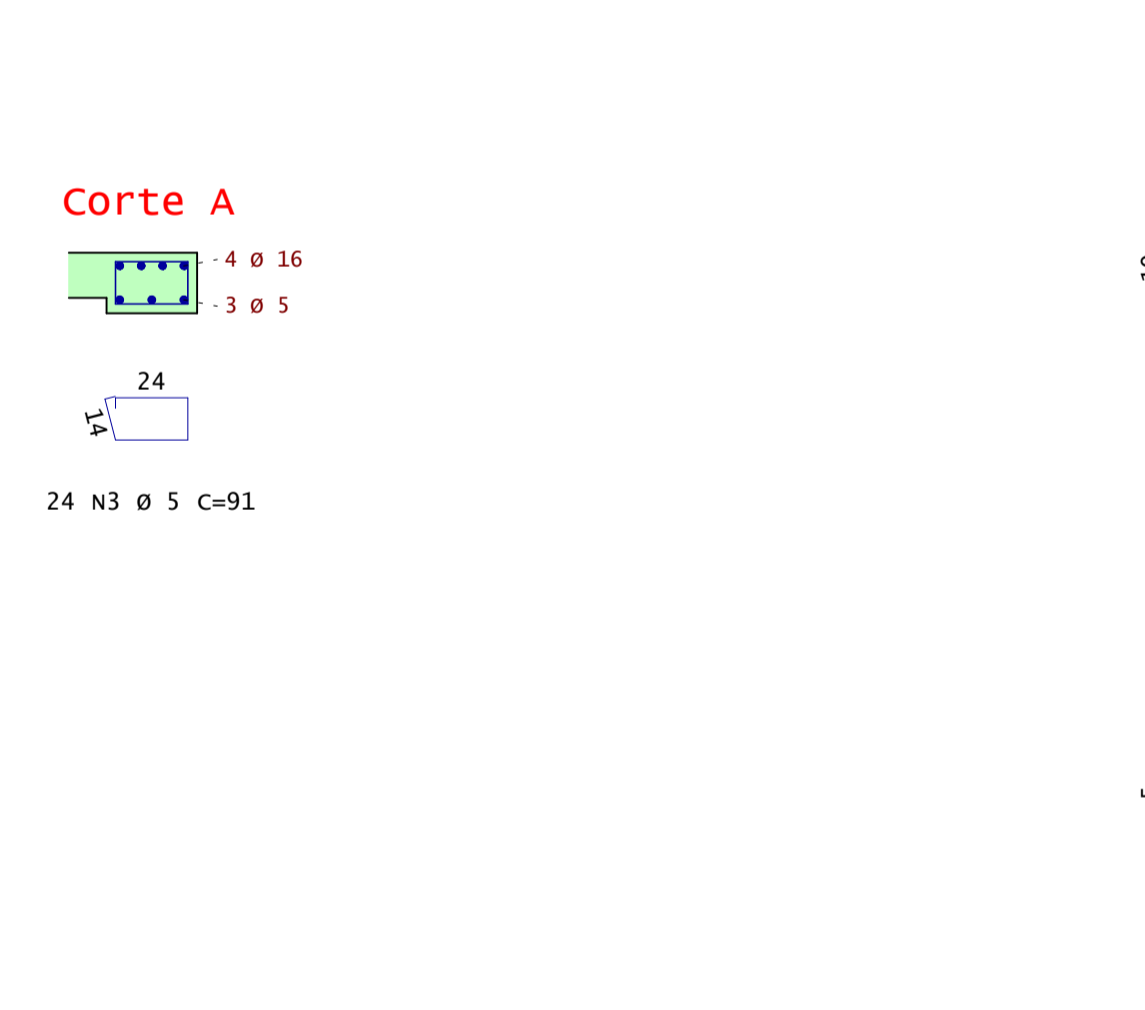
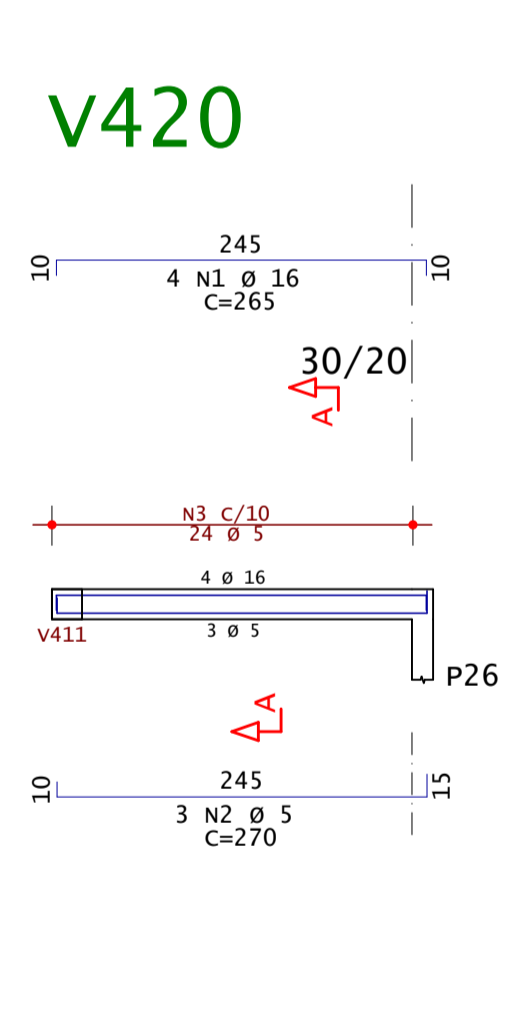
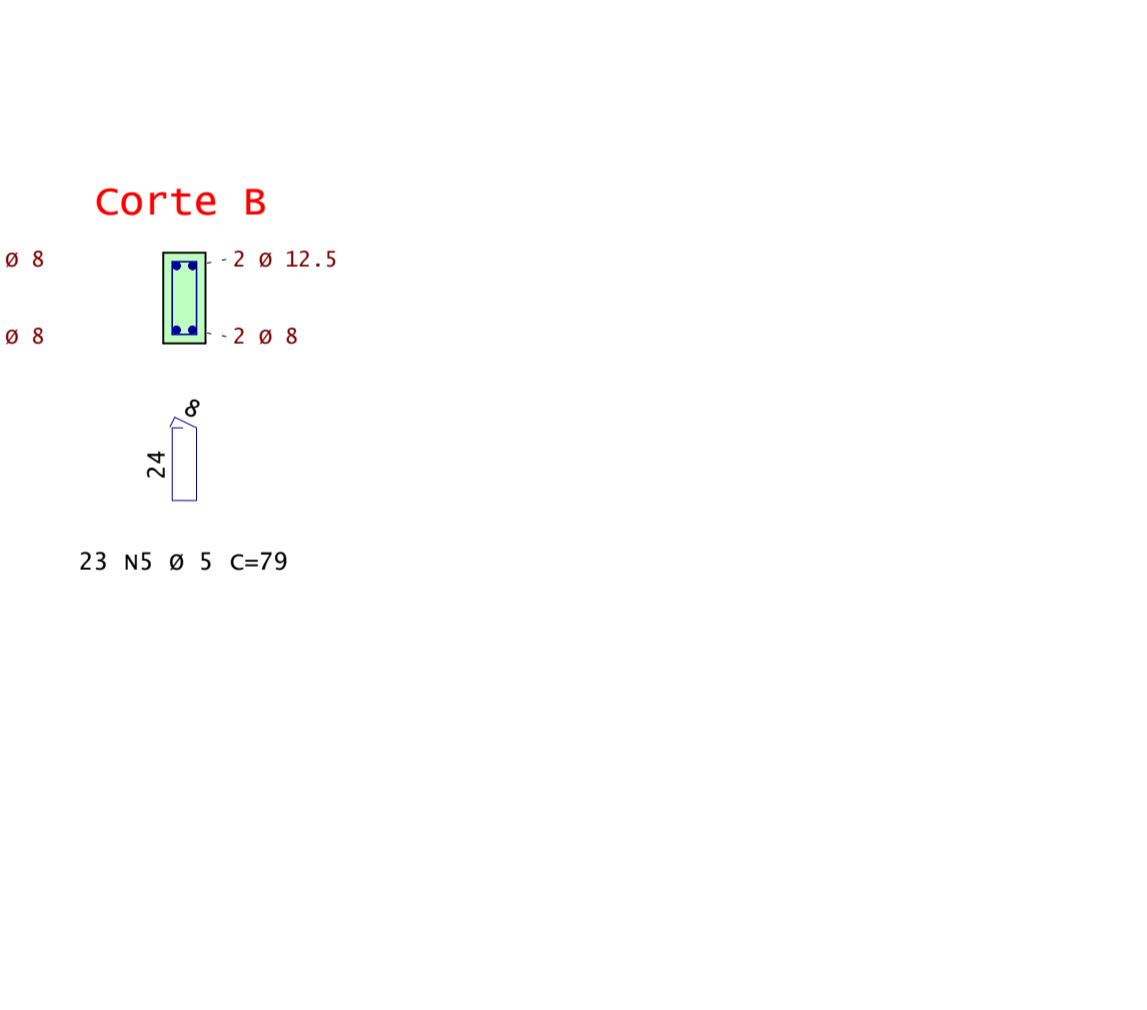
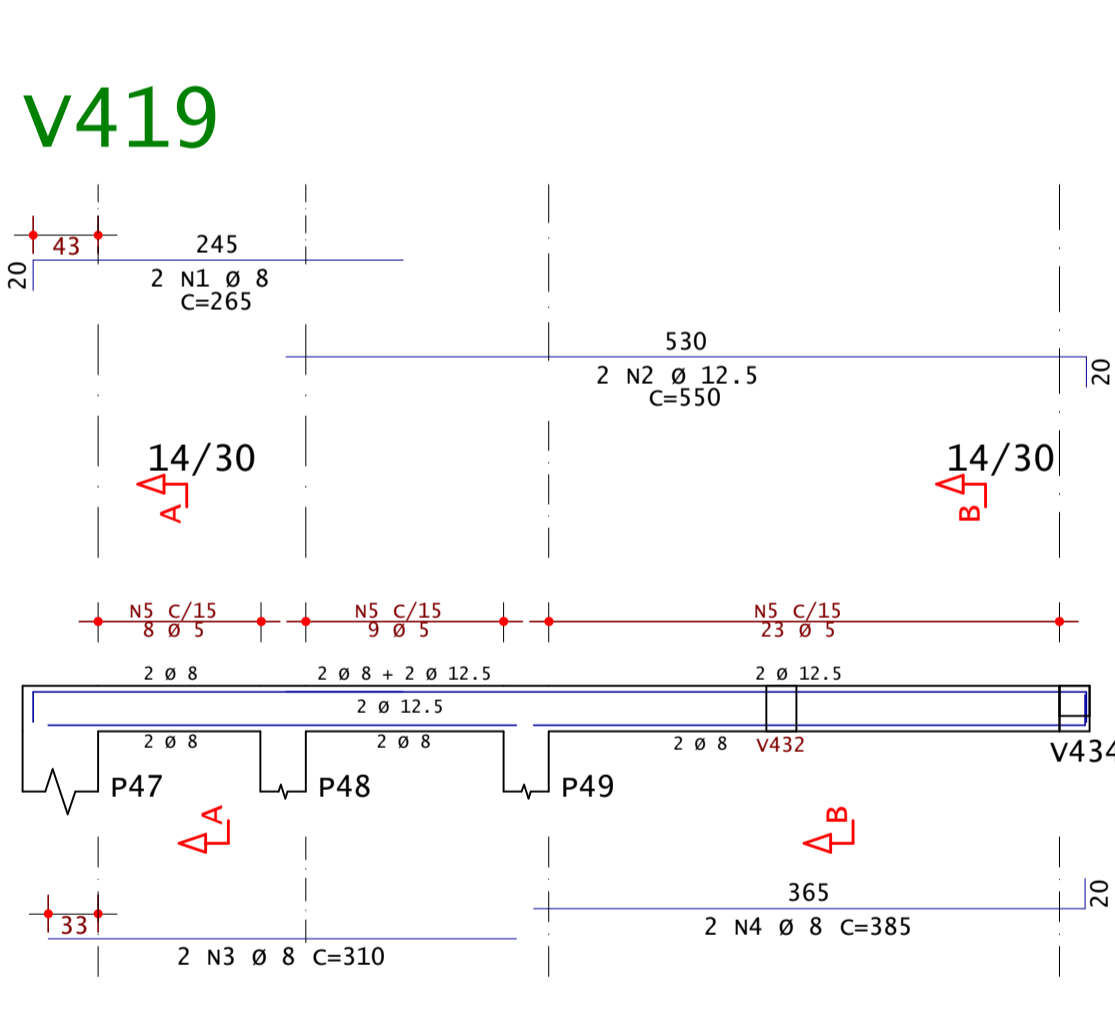
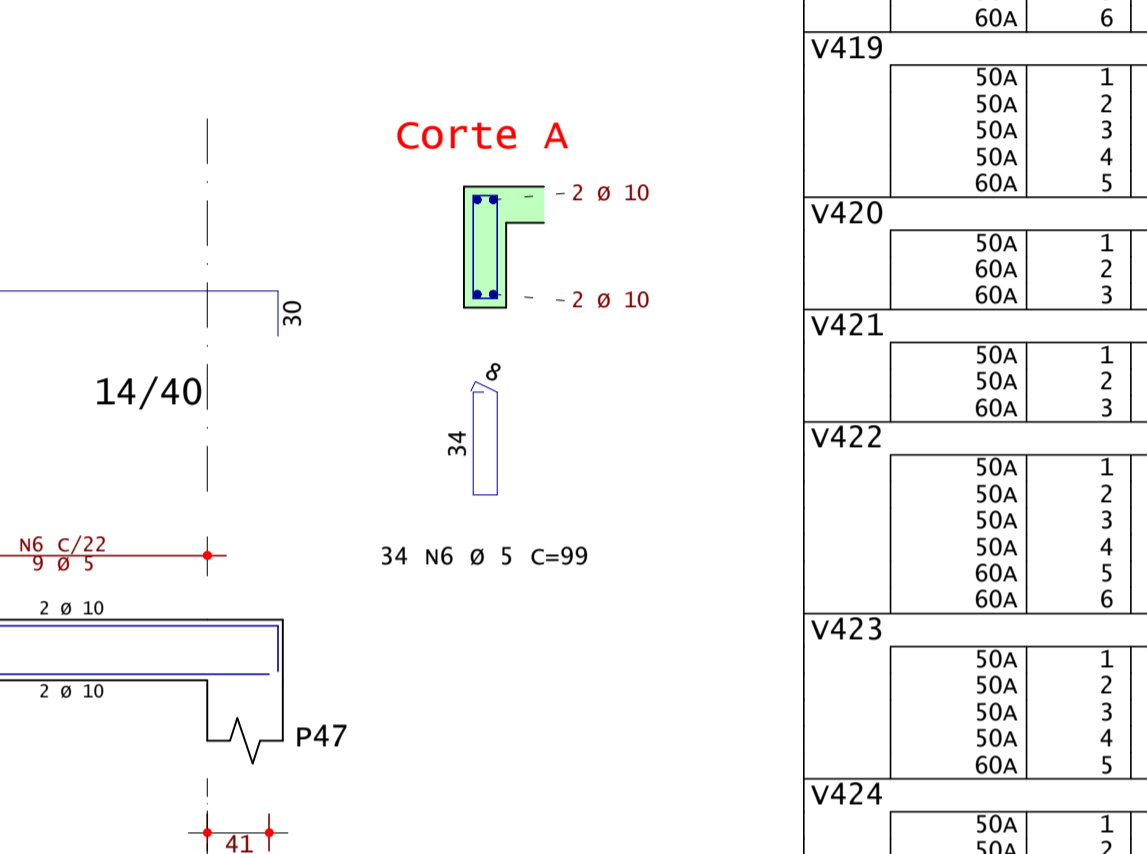
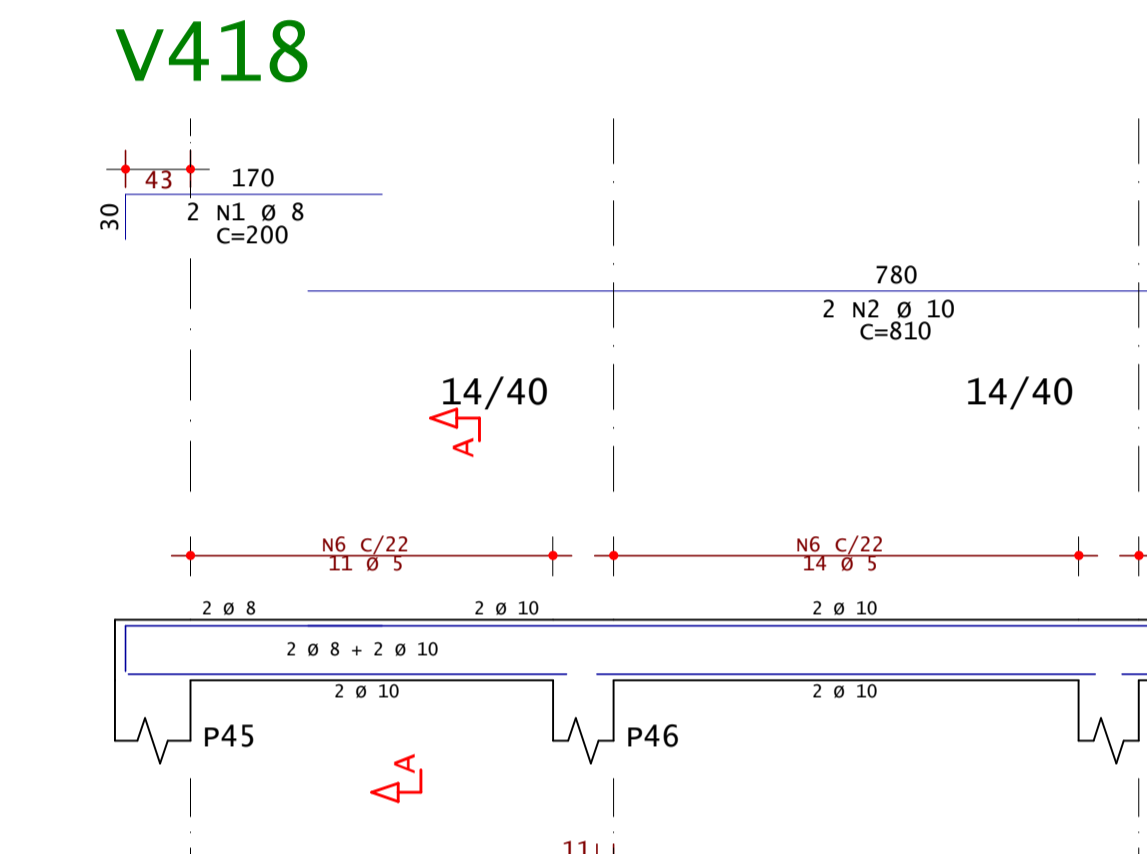
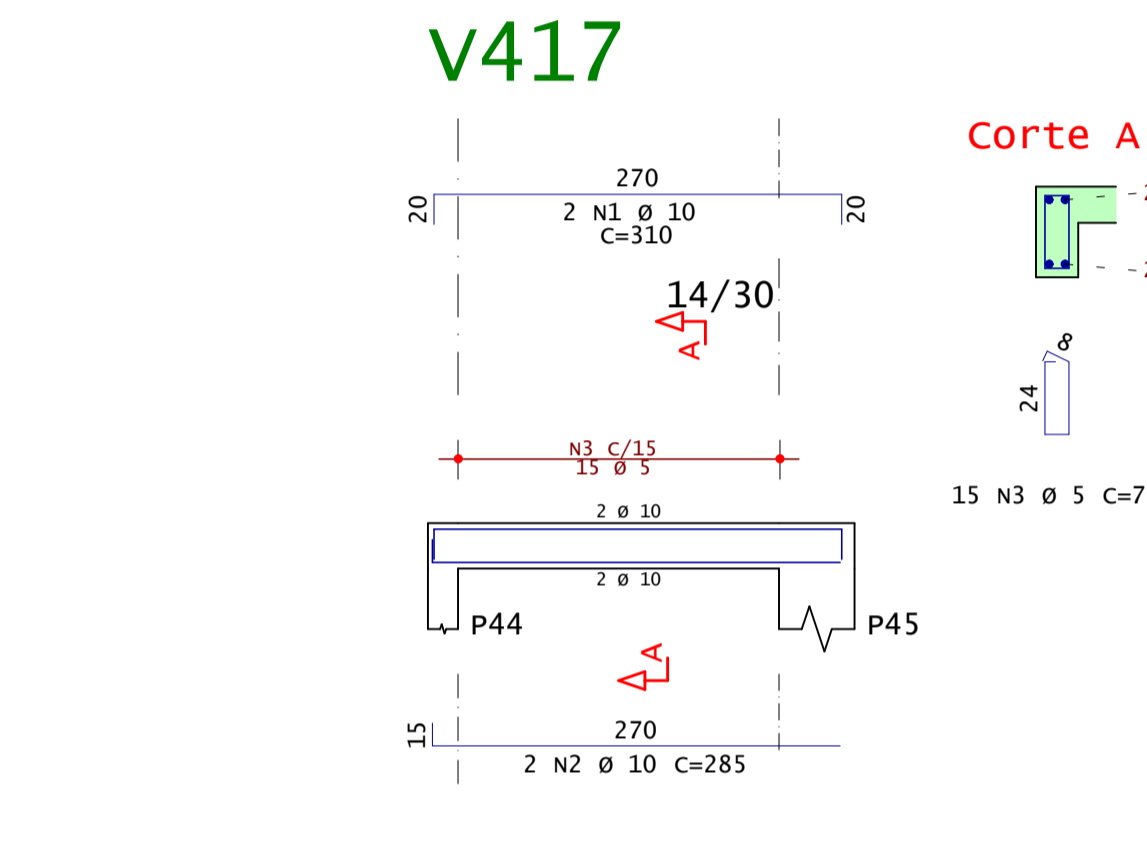
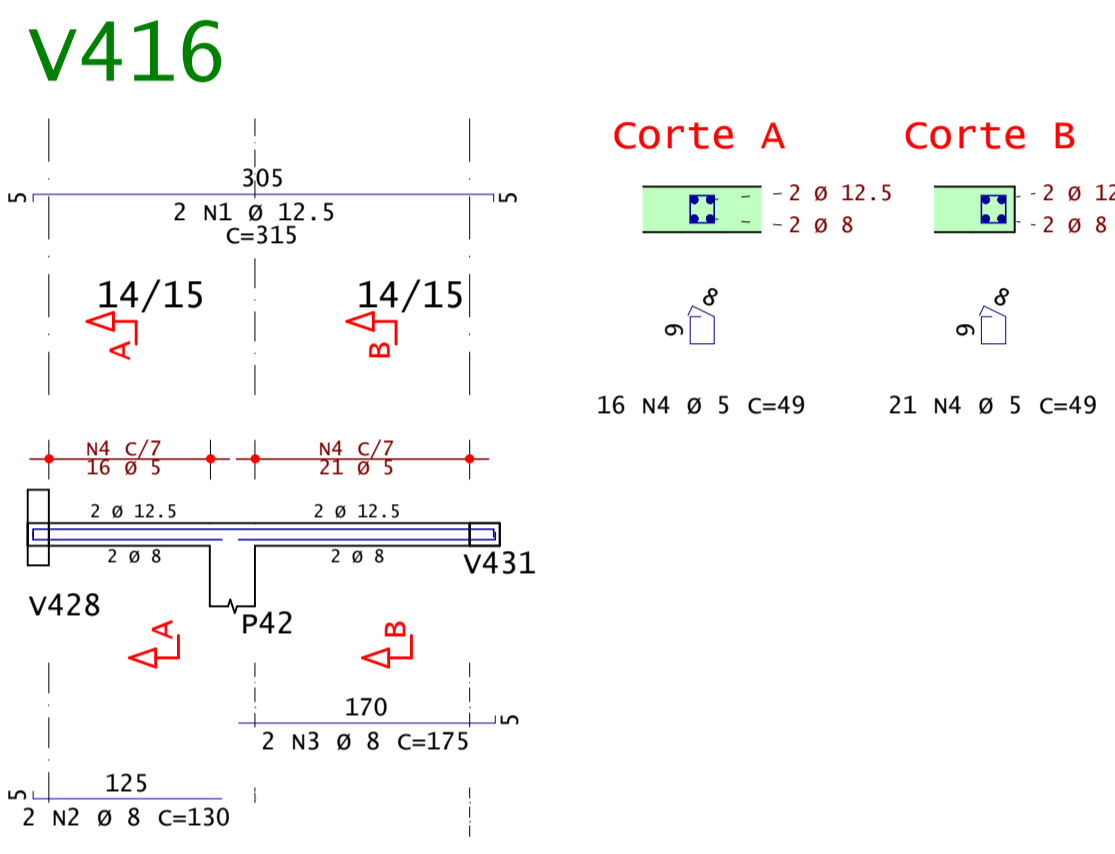
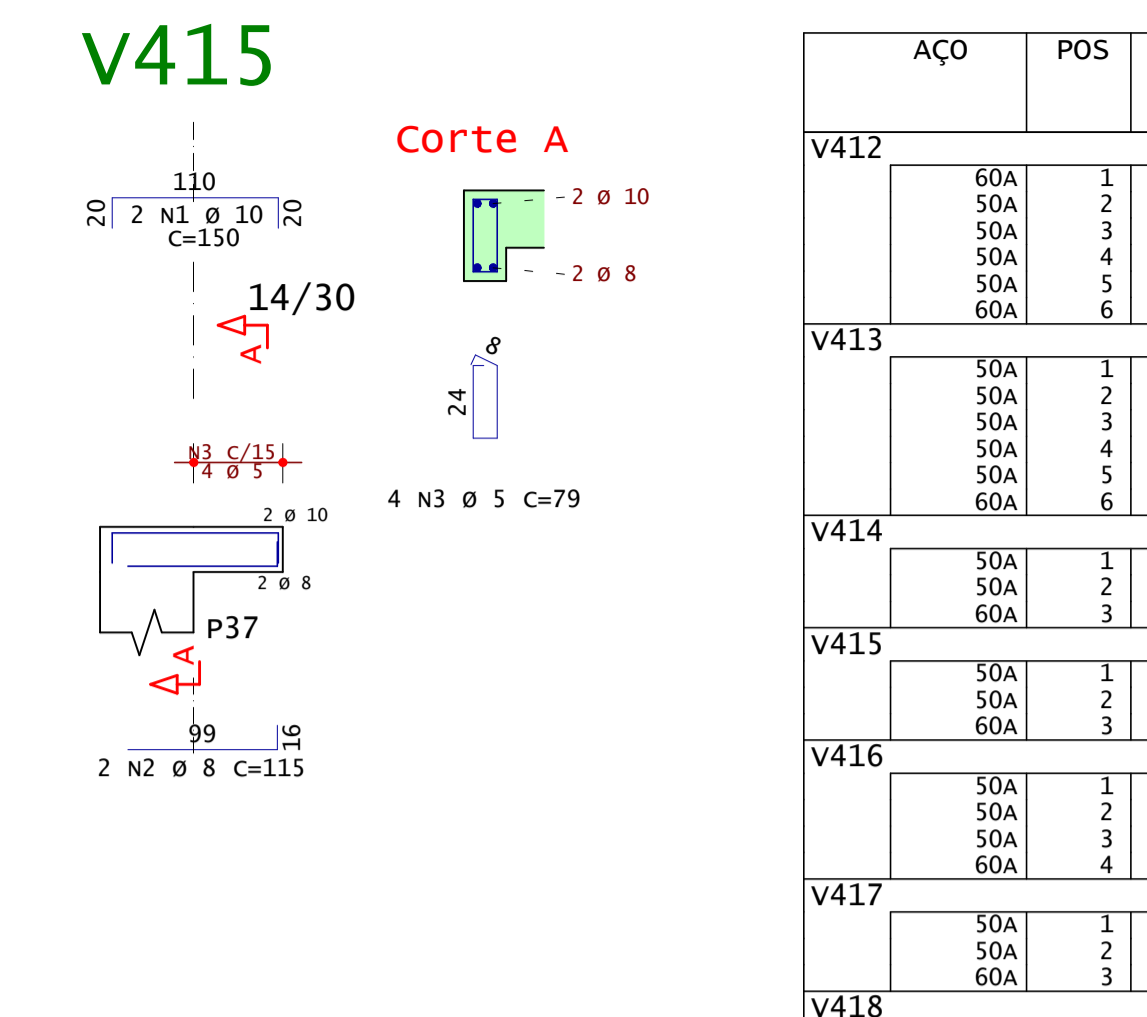
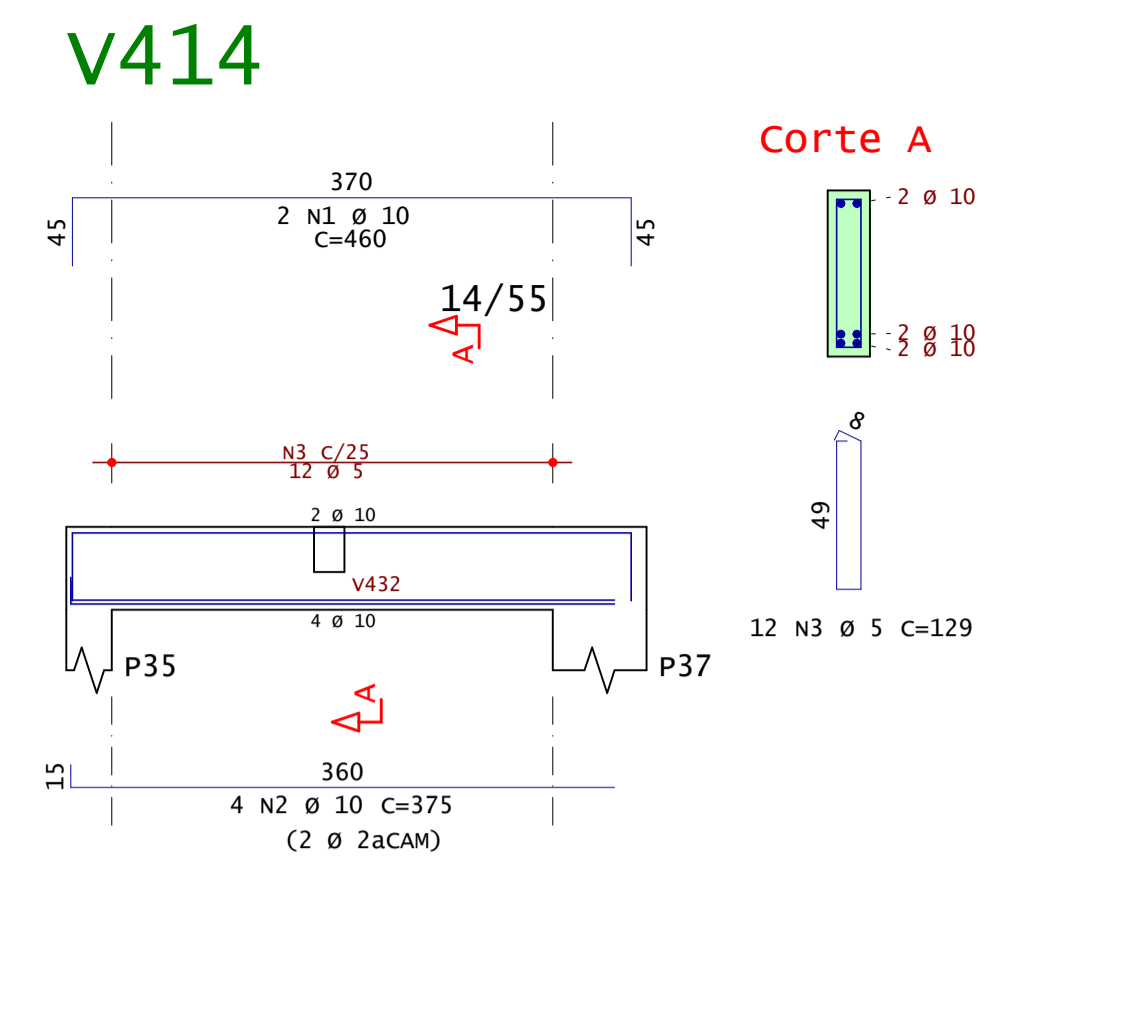
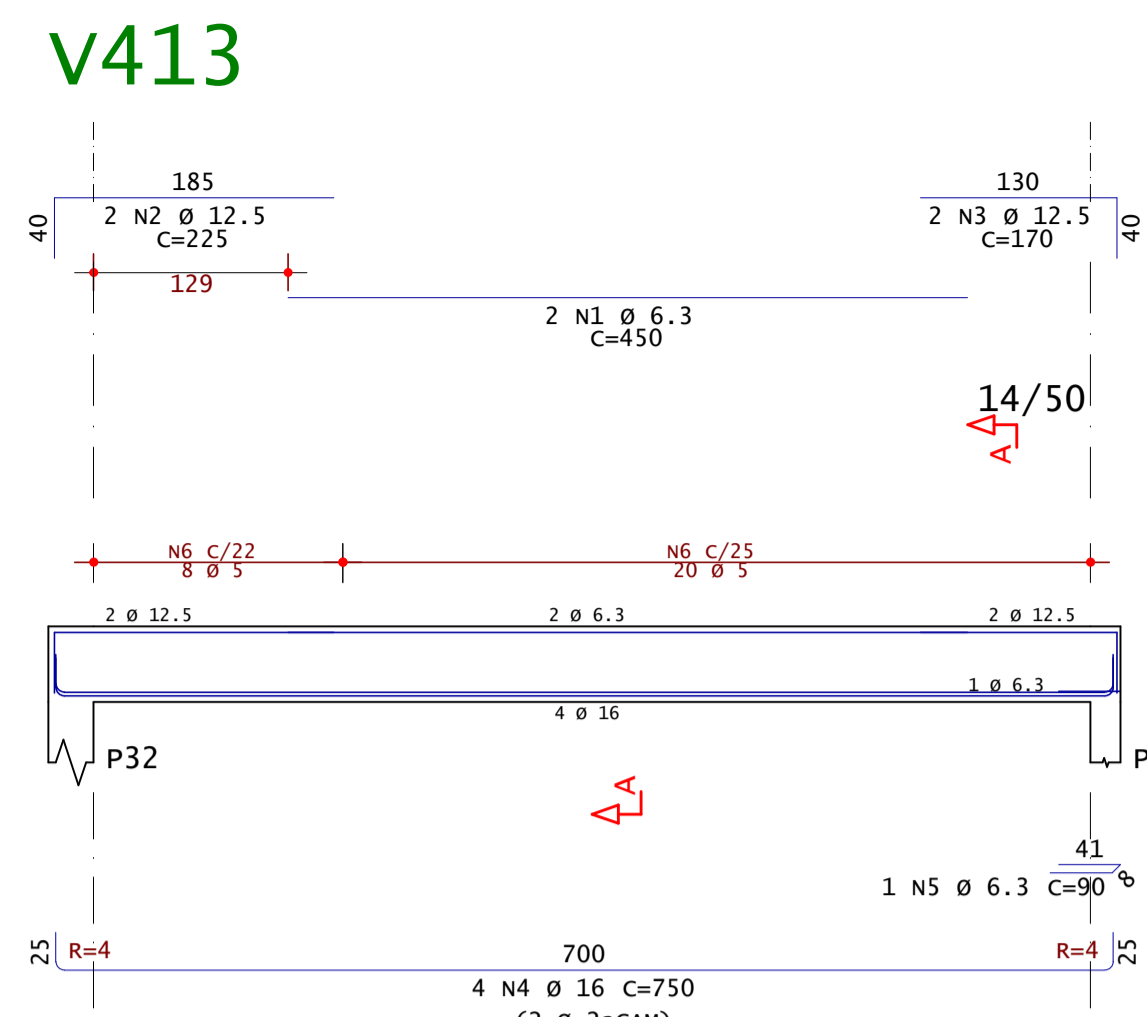
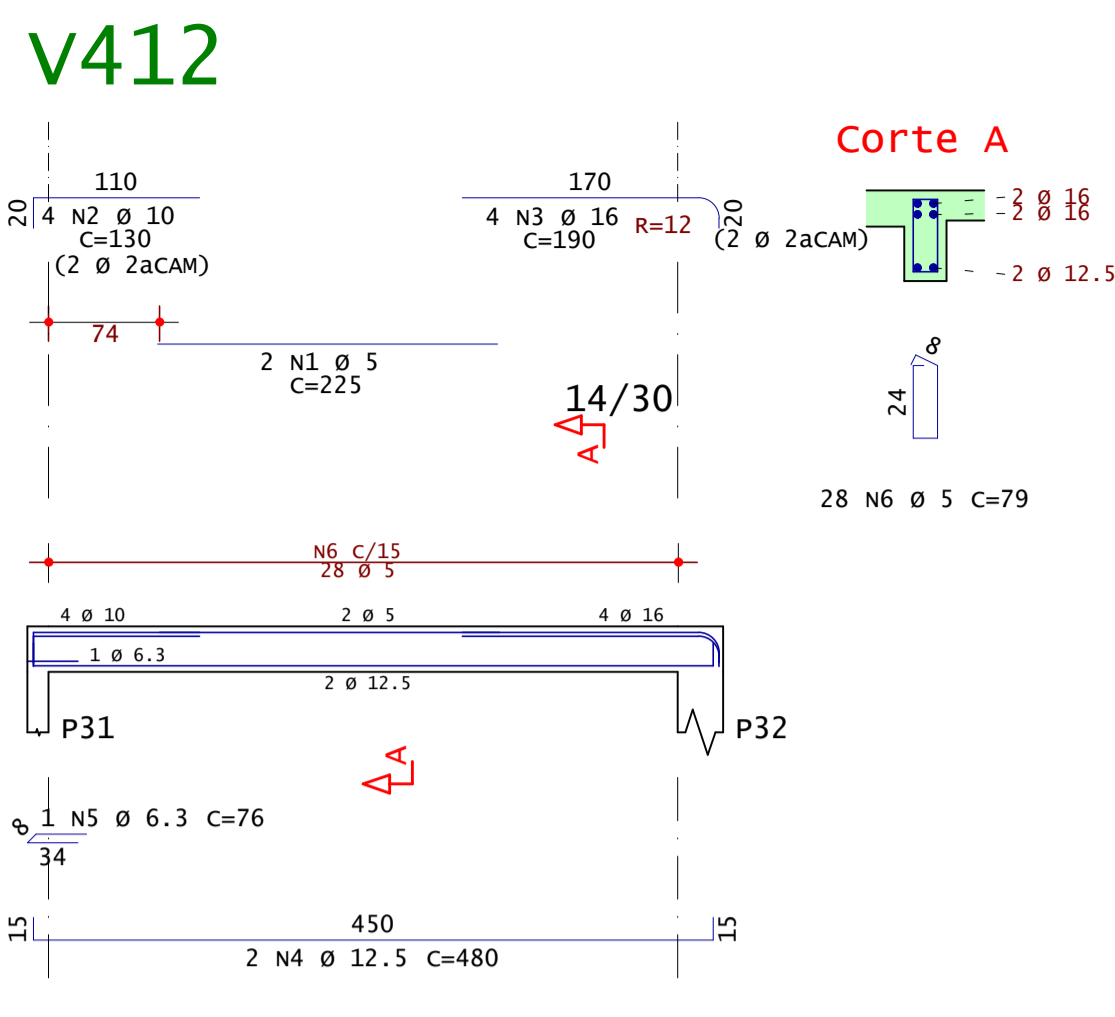

 Acesse o site pela sua câmera
 - Modelos 3D
 - Arquivos de obra
 - Todos os Documentos

ANDRÉ RODRIGUES
 Engenheiro Estrutural
 (83) 9 9644 2240
 @andrerodrigueseng

andrerodrigues.eng.br
 contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Francha nº: 20/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - LAJE SUPERIOR	2/4	
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	





AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
V412	60A	1	5	225	450
	50A	2	4	130	520
	50A	3	4	190	760
	50A	4	2	480	960
	50A	5	1	76	76
	60A	6	5	79	2212
V413	50A	1	2	450	900
	50A	2	2	225	450
	50A	3	2	170	340
	50A	4	2	750	3000
	50A	5	1	90	90
	60A	6	5	119	3332
V414	50A	1	2	460	920
	50A	2	4	375	1500
	60A	3	5	129	1548
V415	50A	1	2	150	300
	50A	2	2	115	230
	60A	3	4	79	316
V416	50A	1	2	315	630
	50A	2	2	130	260
	50A	3	2	175	350
	60A	4	5	49	1813
V417	50A	1	2	310	620
	50A	2	2	285	570
	60A	3	5	79	1185
V418	50A	1	2	200	400
	50A	2	2	810	1620
	50A	3	2	290	580
	50A	4	2	330	660
	50A	5	2	235	470
	60A	6	5	99	3366
V419	50A	1	2	265	530
	50A	2	2	550	1100
	50A	3	2	310	620
	50A	4	2	385	770
	60A	5	4	79	3160
V420	50A	1	4	265	1060
	60A	2	3	270	810
	60A	3	24	91	2184
V421	50A	1	3	305	915
	50A	2	3	295	885
	60A	3	27	91	2457
V422	50A	1	2	515	1030
	50A	2	2	145	290
	50A	3	2	395	790
	50A	4	2	210	420
	60A	5	33	79	2607
	60A	6	4	395	1580
V423	50A	1	2	265	530
	50A	2	4	410	1640
	50A	3	4	410	1640
	50A	4	2	165	330
	60A	5	19	119	2261
V424	50A	1	4	475	1900
	50A	2	2	110	220
	50A	3	1	110	110
	60A	4	18	99	1782
	50A	5	6.3	4	280

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	311	48
50A	6.3	23	6
50A	8	39	15
50A	10	145	89
50A	12.5	64	62
50A	16	57	90
Peso Total		60A =	48 kgf
Peso Total		50A =	262 kgf



Acesse o site pela sua câmera

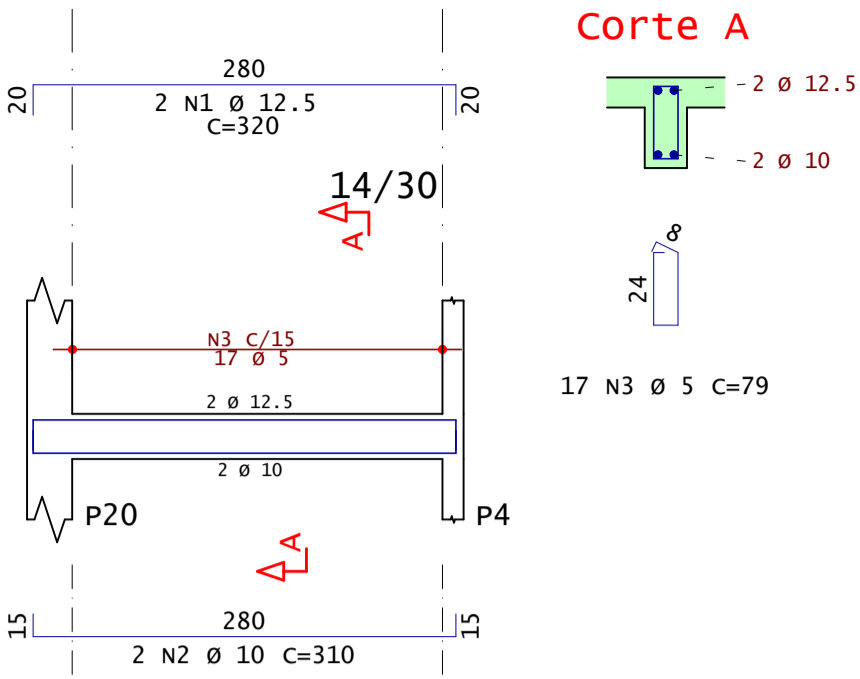
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

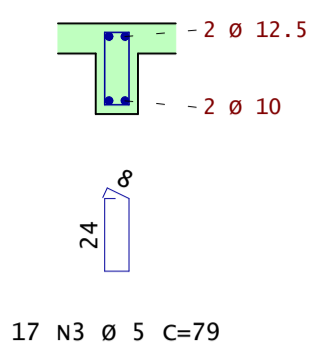
Cliente: Paulo George Dantas da Nobrega	Prancha nº: 21/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
3/4		
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



V425

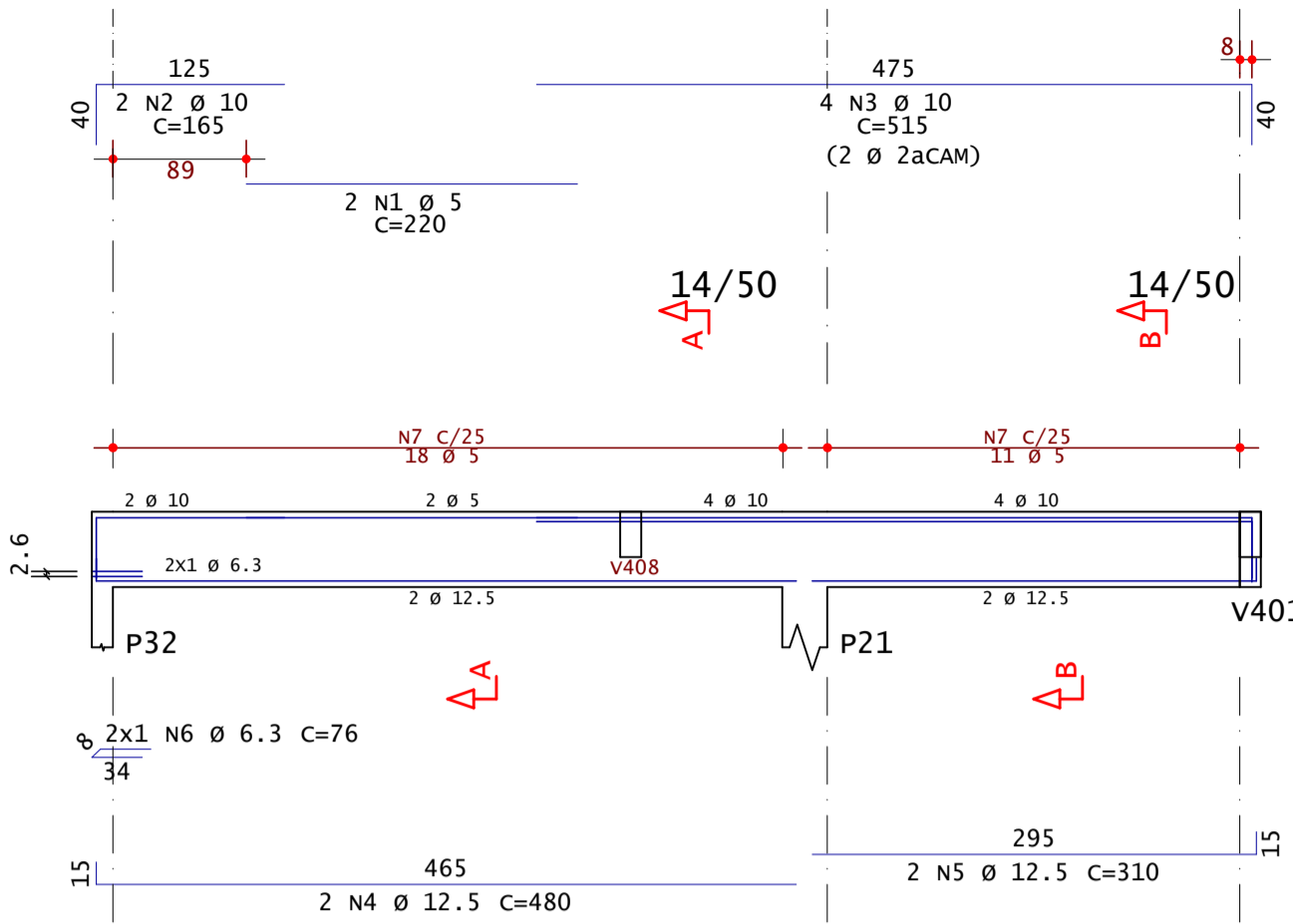


Corte A

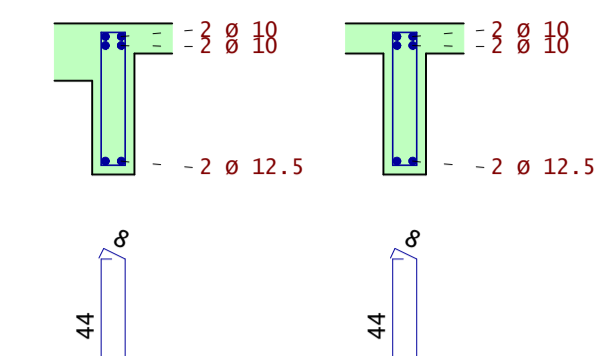


17 N3 Ø 5 C=79

V426

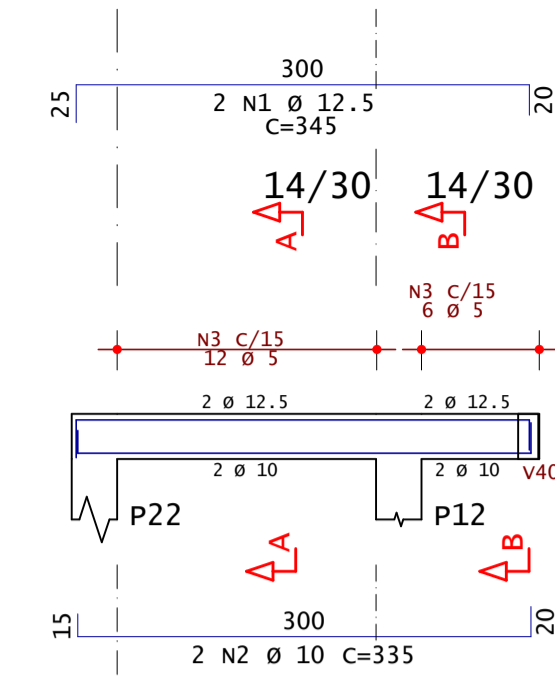


Corte A Corte B

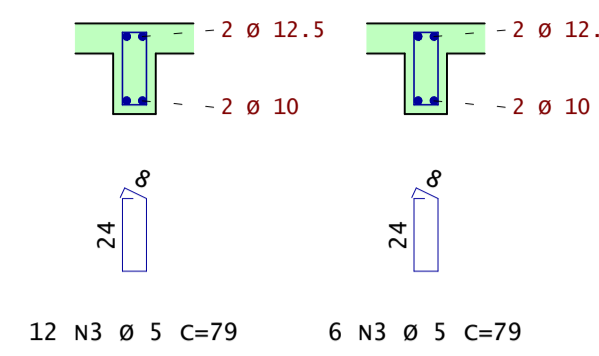


18 N7 Ø 5 C=119 11 N7 Ø 5 C=119

V427

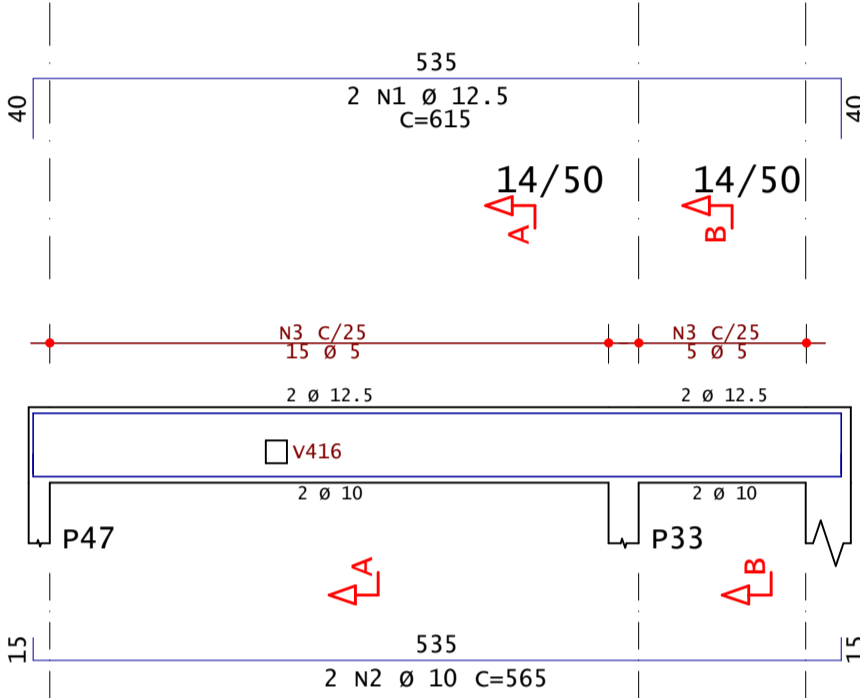


Corte A Corte B

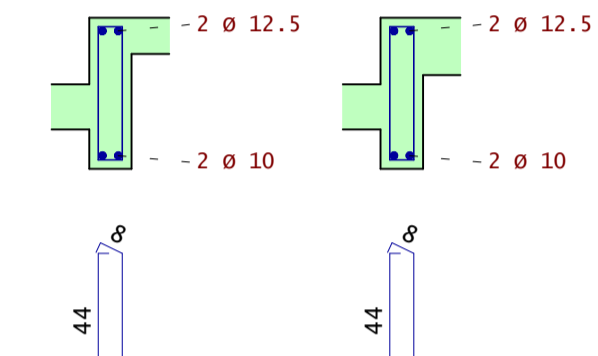


12 N3 Ø 5 C=79 6 N3 Ø 5 C=79

V428

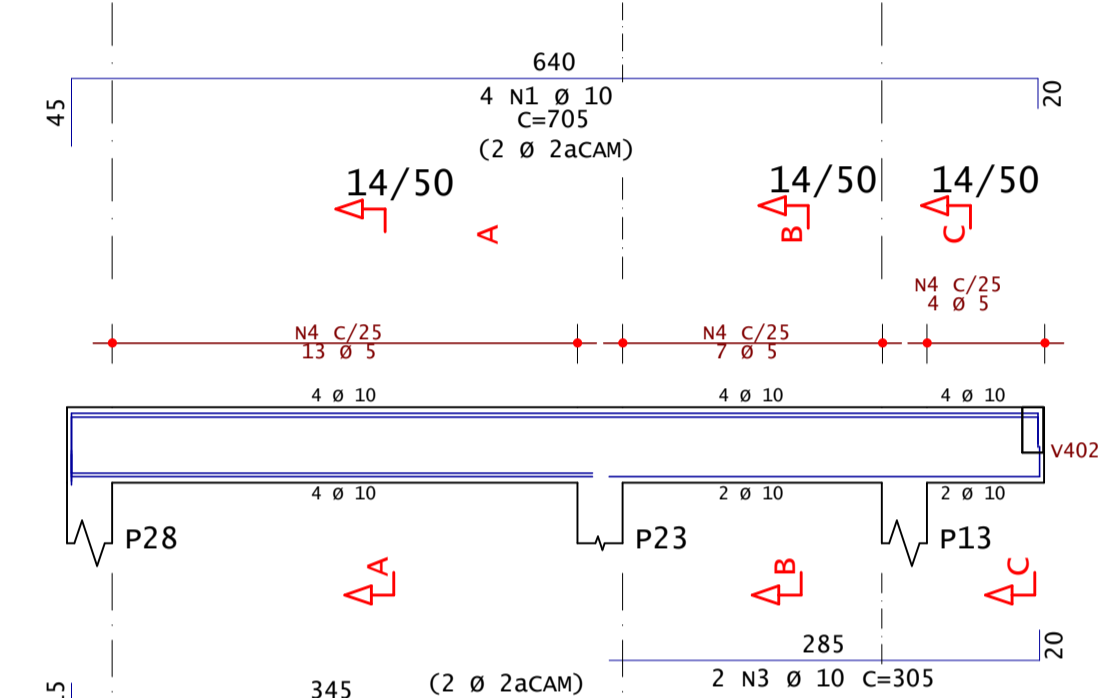


Corte A Corte B

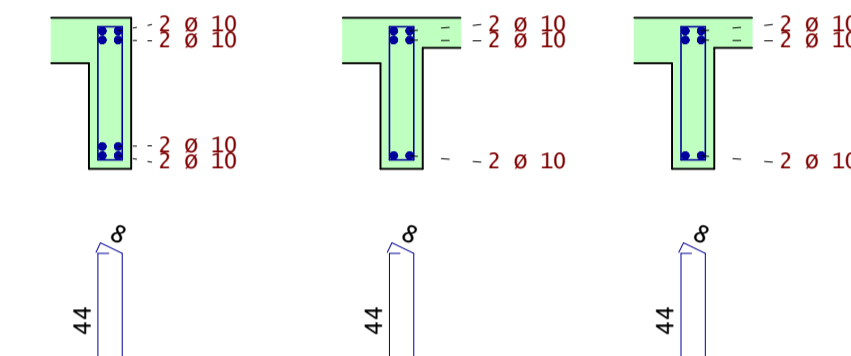


15 N3 Ø 5 C=119 5 N3 Ø 5 C=119

V429

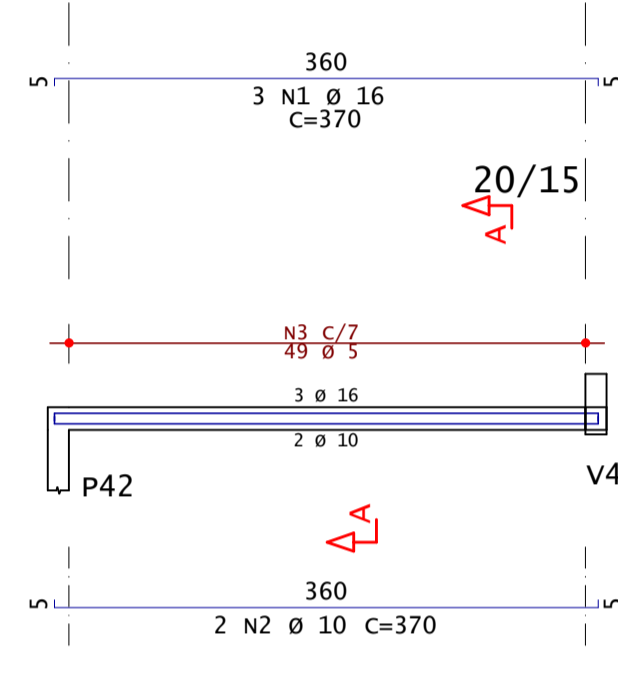


Corte A Corte B Corte C

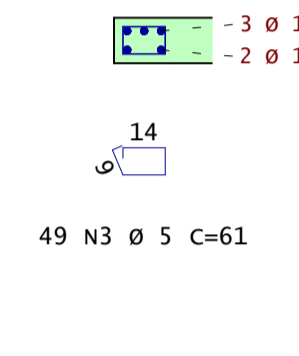


13 N4 Ø 5 C=119 7 N4 Ø 5 C=119 4 N4 Ø 5 C=119

V430

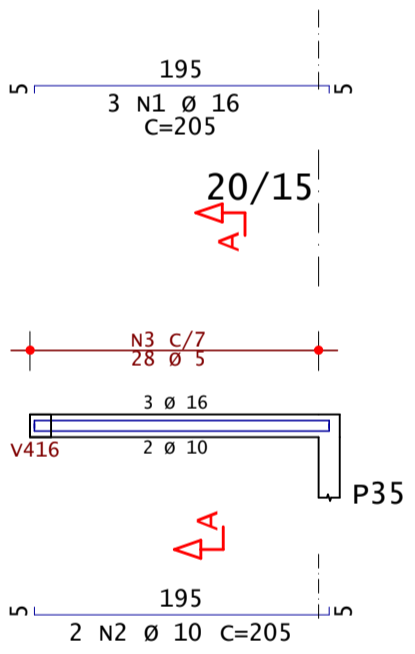


Corte A

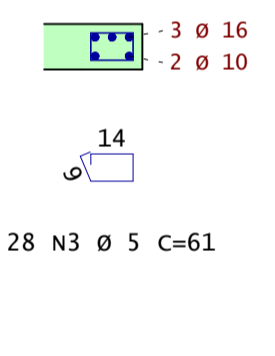


49 N3 Ø 5 C=61

V431

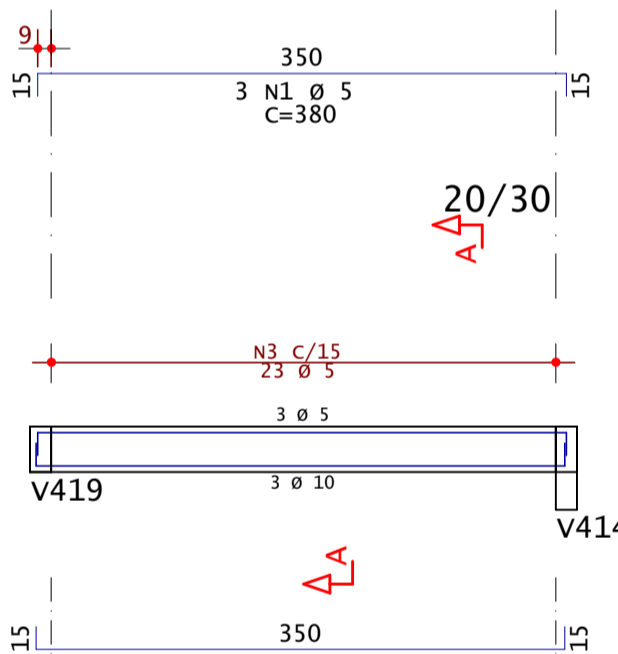


Corte A

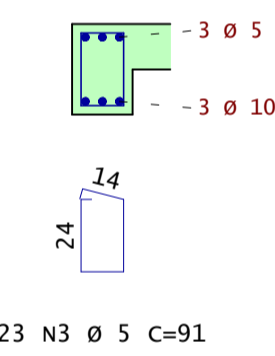


28 N3 Ø 5 C=61

V432

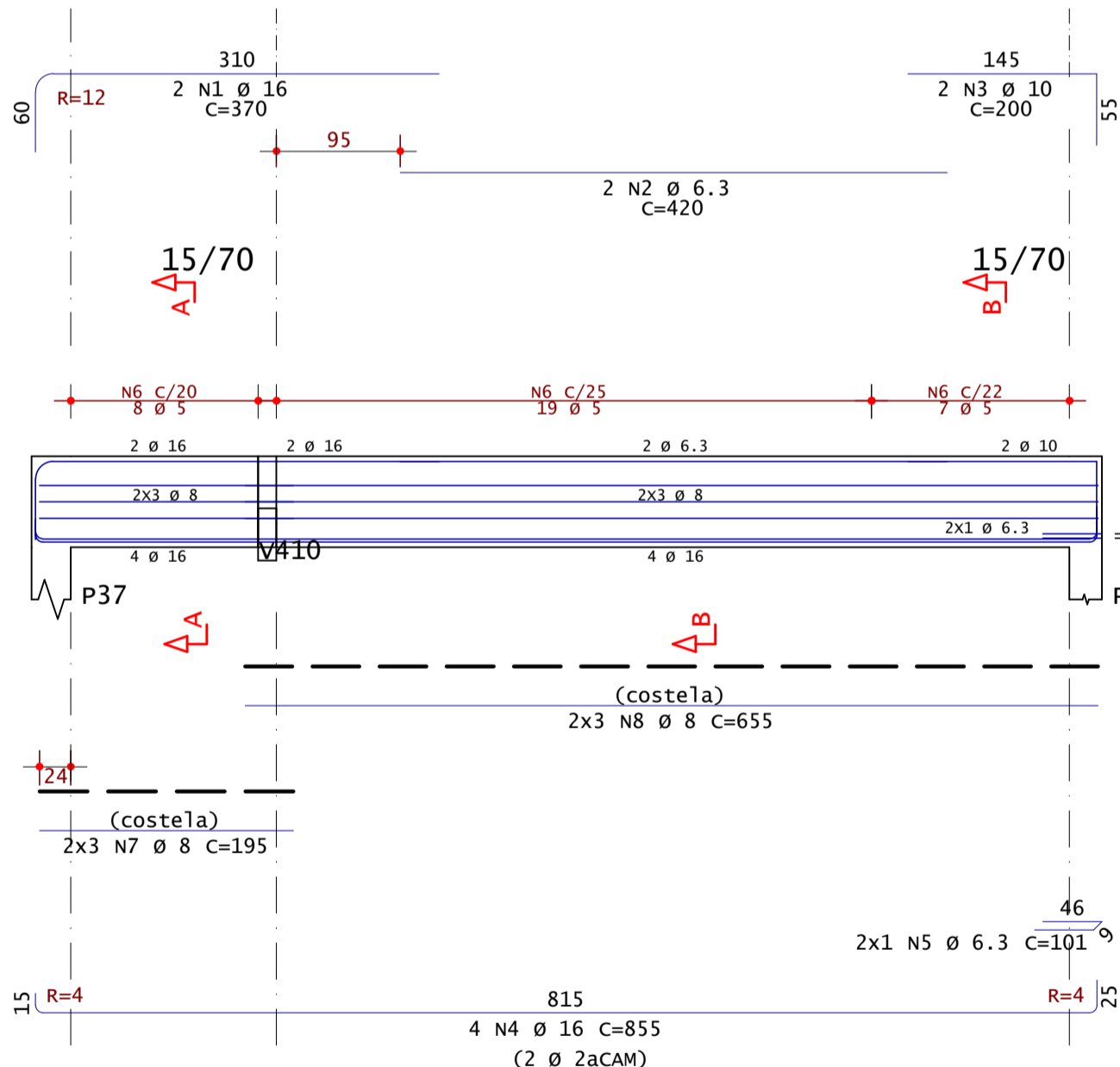


Corte A

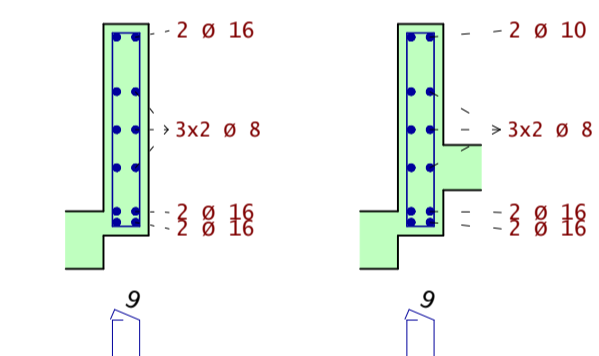


23 N3 Ø 5 C=91

V433

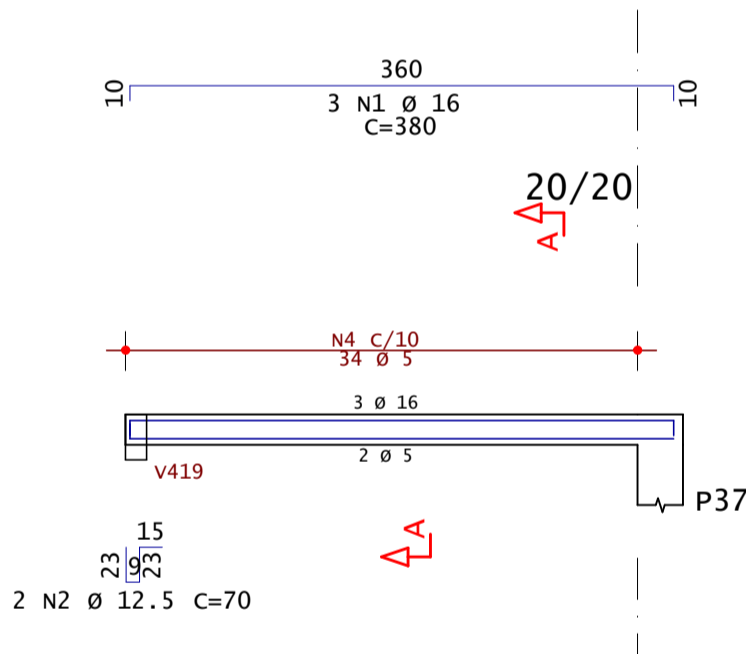


Corte A Corte B

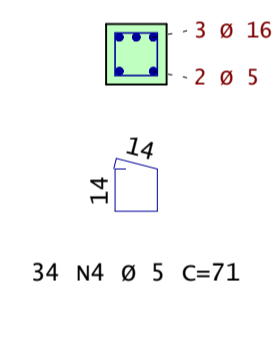


8 N6 Ø 5 C=161 26 N6 Ø 5 C=161

V434



Corte A



34 N4 Ø 5 C=71

AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
V425	50A	1	12.5	2	640
	50A	2	10	2	620
	60A	3	17	17	1343
V426	60A	1	5	2	440
	50A	2	10	2	330
	50A	3	10	4	2060
	50A	4	12.5	2	960
	50A	5	12.5	2	620
	60A	6	6.3	2	152
	60A	7	5	29	3451
V427	50A	1	12.5	2	690
	50A	2	10	2	670
	60A	3	18	18	1422
V428	50A	1	12.5	2	1230
	50A	2	10	2	1130
	60A	3	20	119	2380
V429	50A	1	10	4	2820
	50A	2	10	4	1440
	50A	3	10	2	610
	60A	4	5	24	2856
V430	50A	1	16	3	1110
	50A	2	10	2	740
	60A	3	5	49	2989
V431	50A	1	16	3	615
	50A	2	10	2	410
	60A	3	28	61	1708
V432	60A	1	5	3	1140
	50A	2	10	3	380
	60A	3	5	23	2093
V433	50A	1	16	2	740
	50A	2	6.3	2	840
	50A	3	10	2	400
	50A	4	16	4	3420
	50A	5	6.3	2	202
	60A	6	5	34	5474
	50A	7	8	6	1170
	50A	8	8	6	3930
V434	50A	1	16	3	1140
	50A	2	12.5	2	140
	60A	3	5	2	740
	60A	4	5	34	2414

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	285	44
50A	6.3	12	3
50A	8	51	20
50A	10	124	76
50A	12.5	43	41
50A	16	70	111
Peso Total	60A =		44 kgf
Peso Total	50A =		251 kgf



Acesse o site pela sua câmera

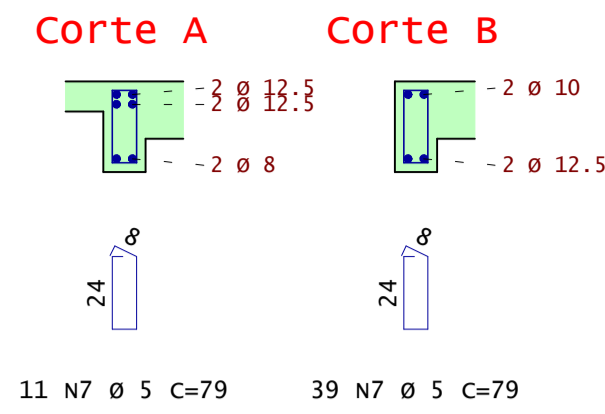
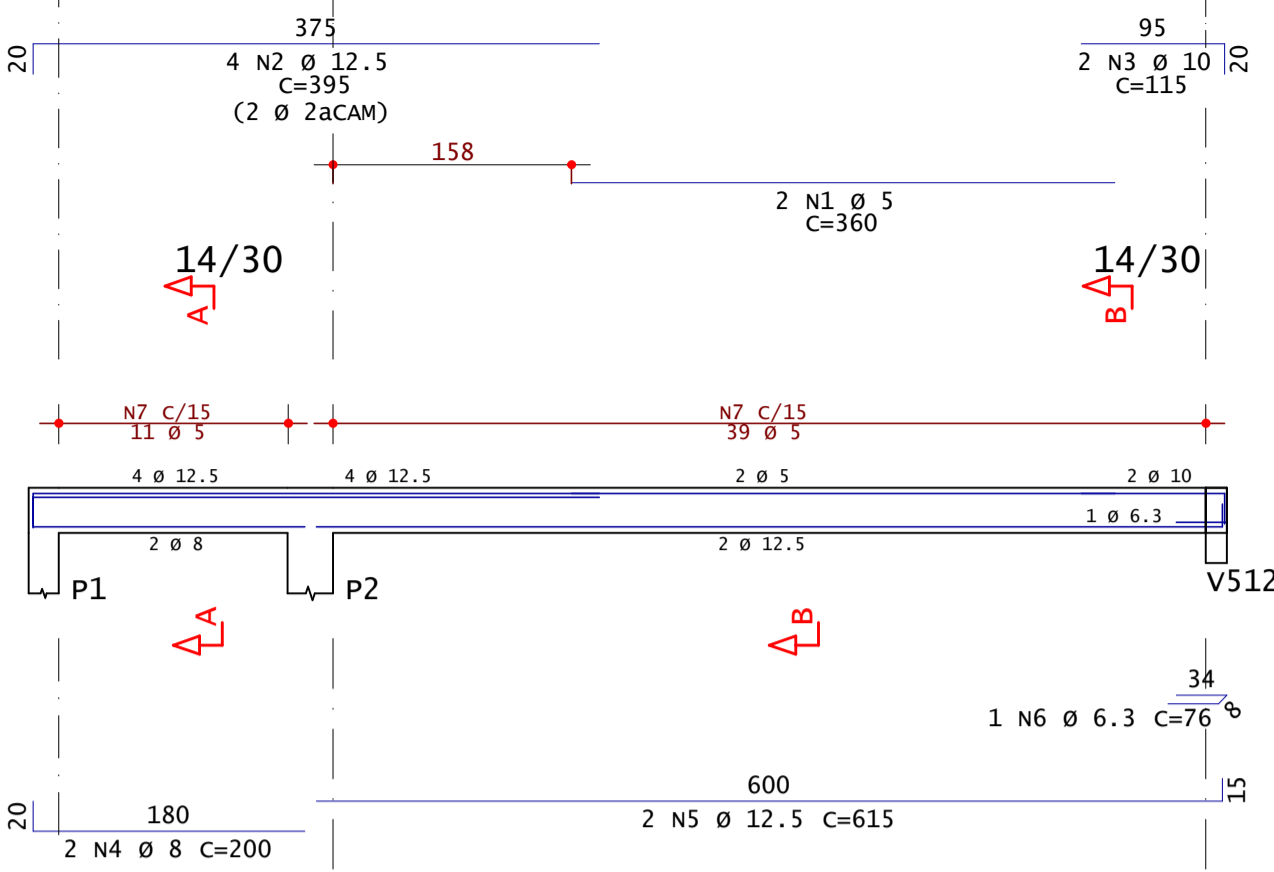
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

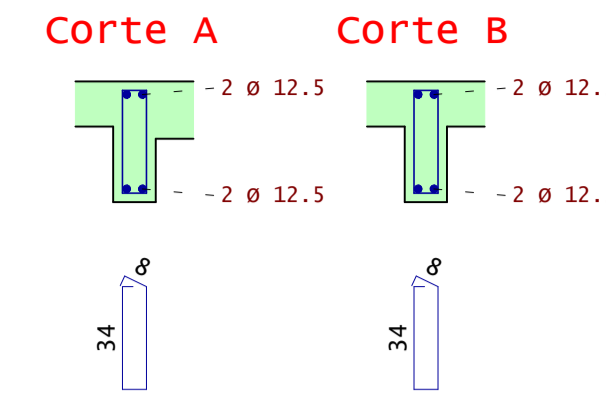
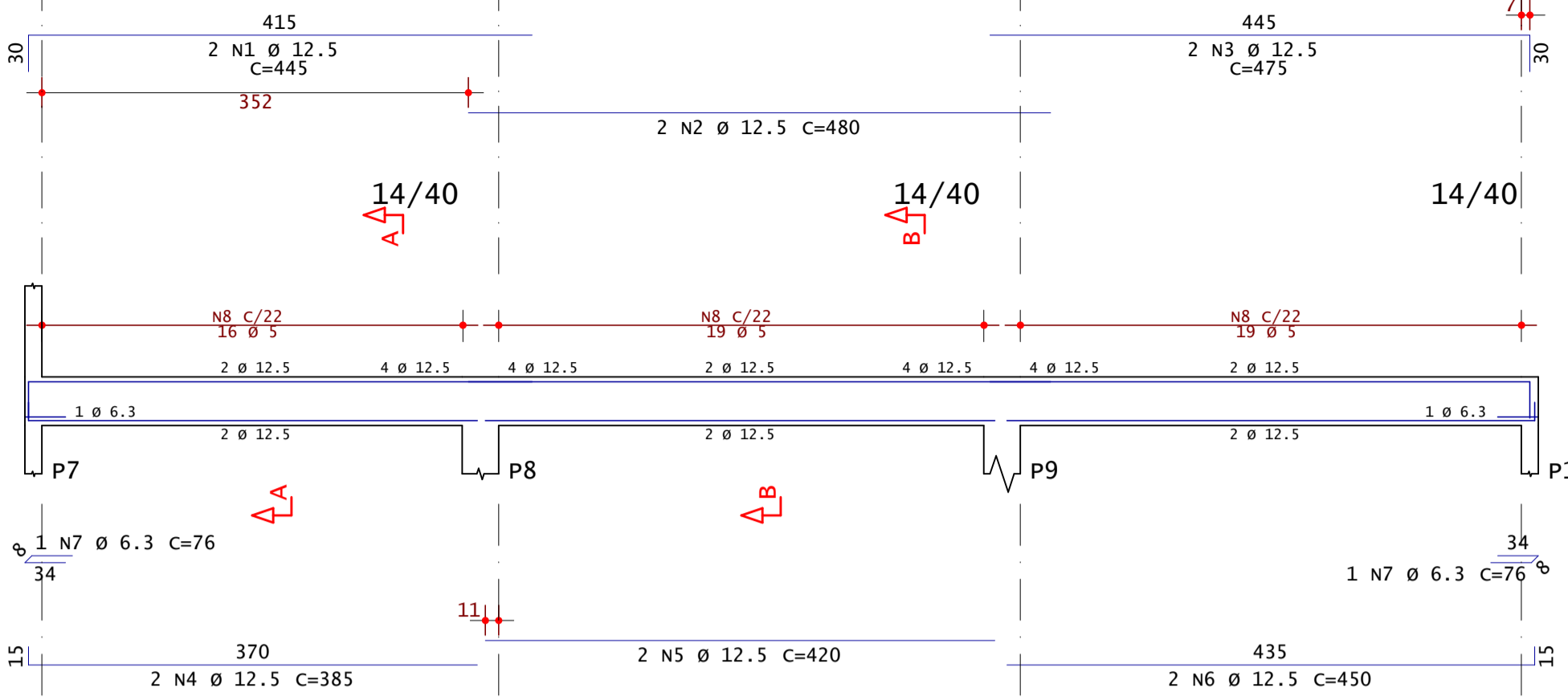
Ciente:	Paulo George Dantas da Nobrega	Prancha n°:	22/37	Revisão n°:	002
Obra:	Residência Unifamiliar	Observações:	Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo		
Título:	DETALHAMENTO: VIGAS - LAJE SUPERIOR		4/4		
CREA-PB:	161890343-9	ART n°:	PB 20210418618		
Data:	16 / 02 / 2022	Escala:	Indicada		



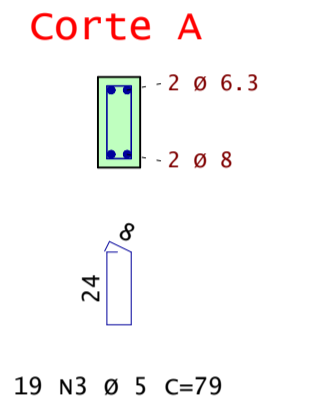
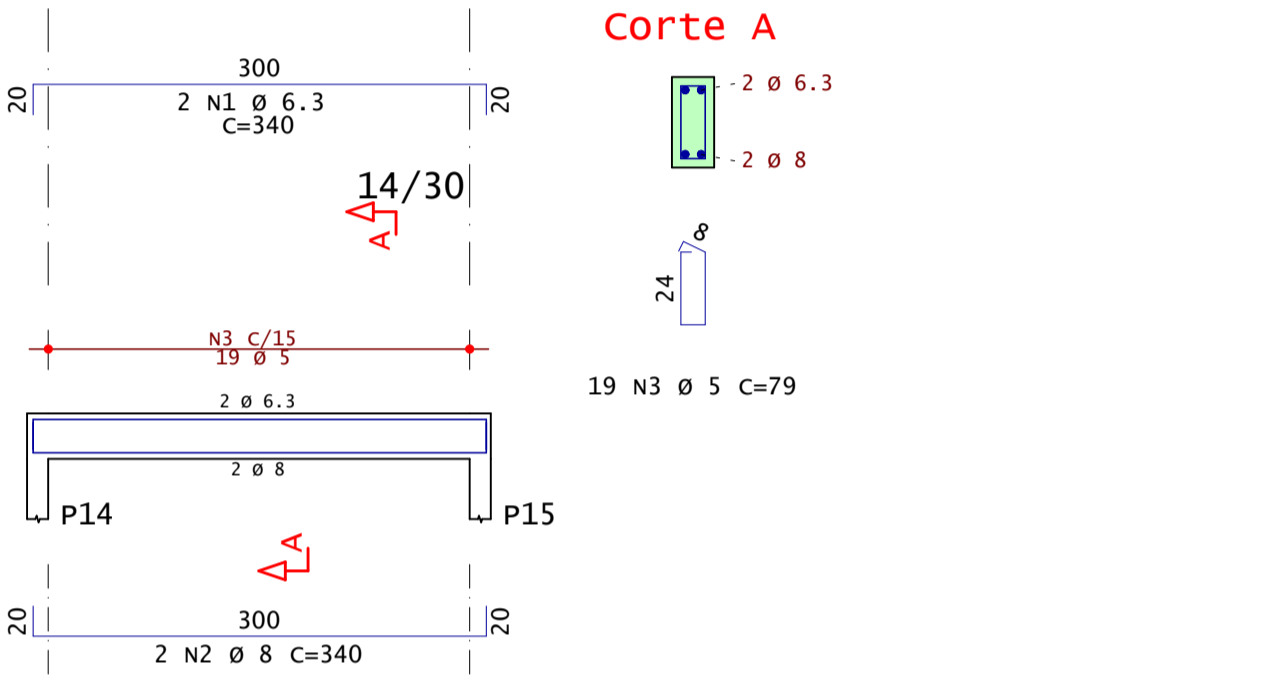
V501



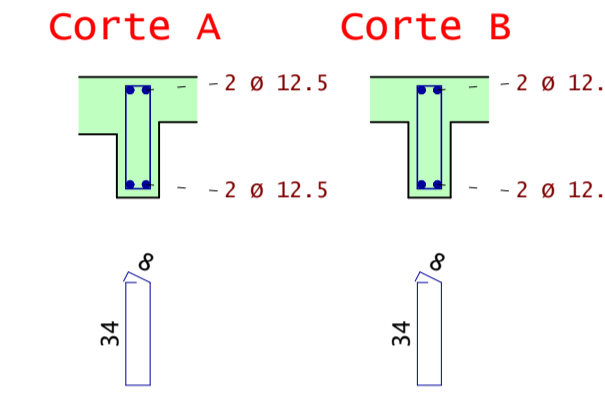
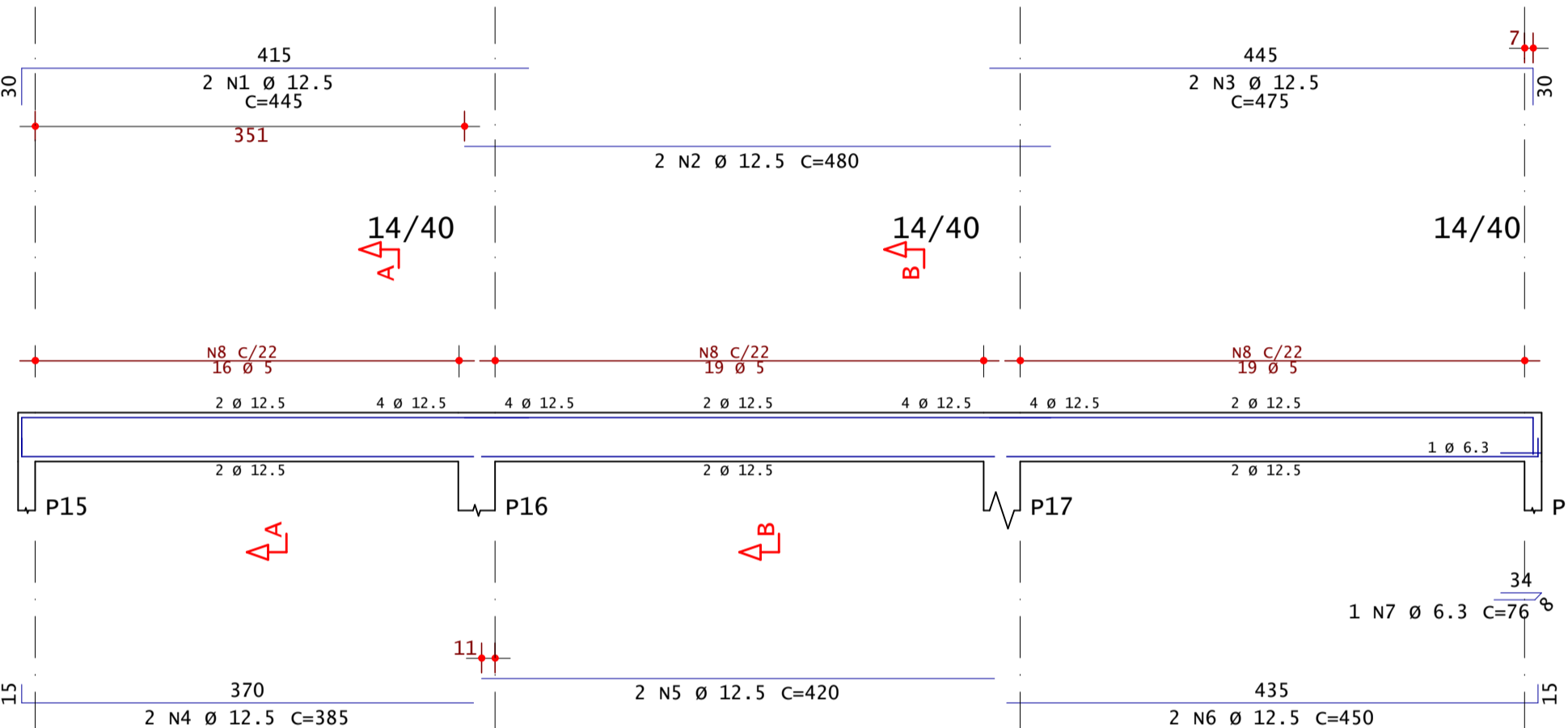
V502



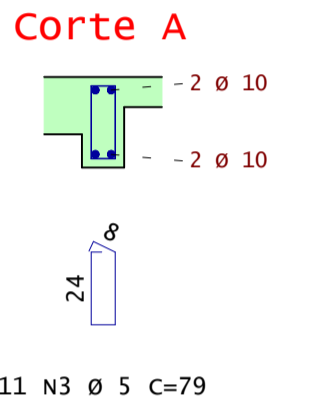
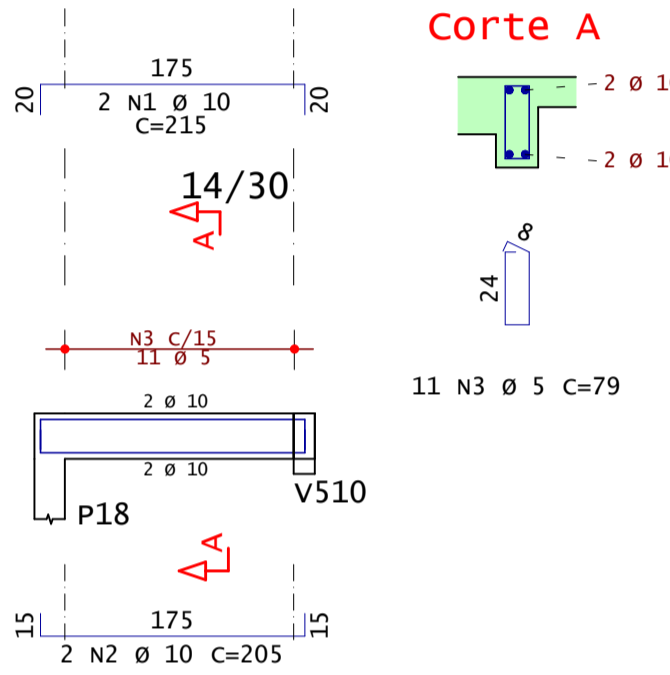
V503



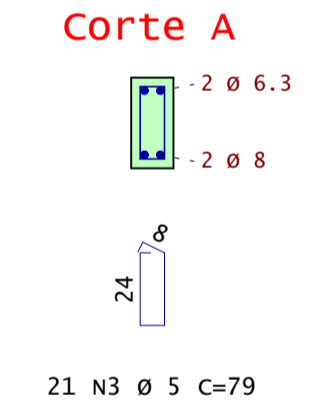
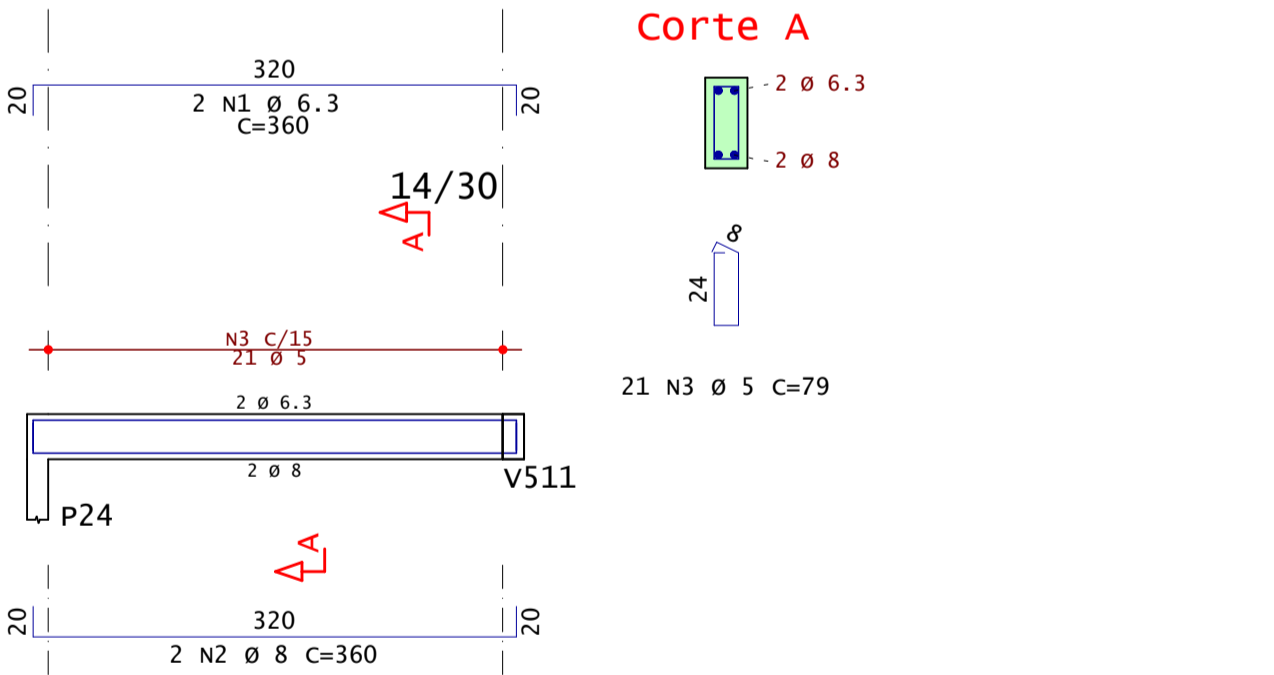
V504



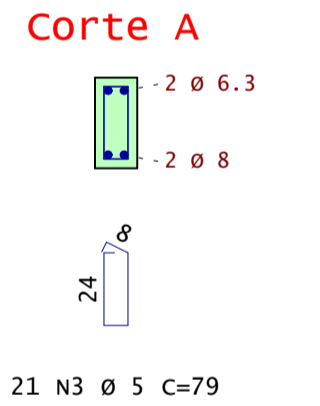
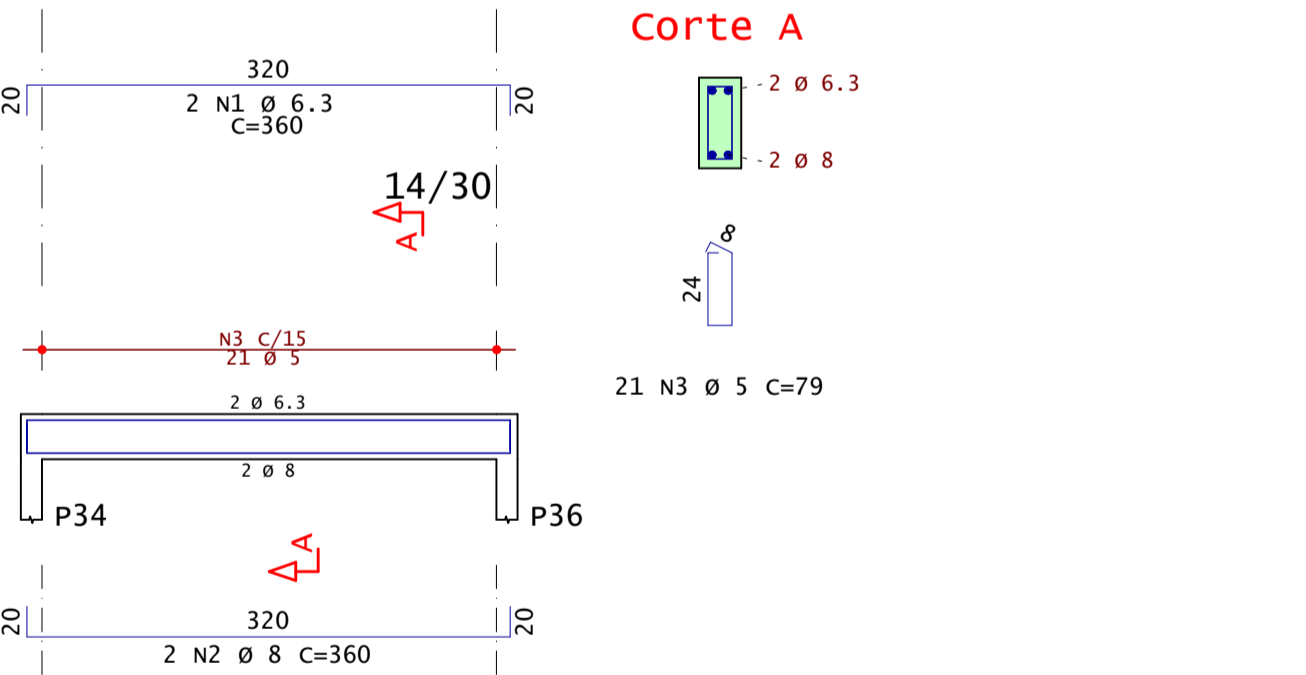
V505



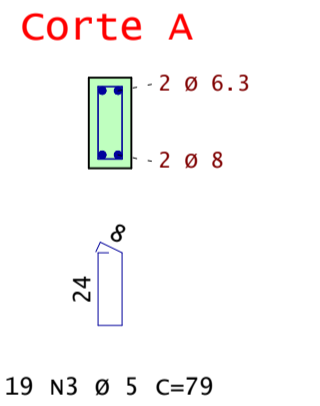
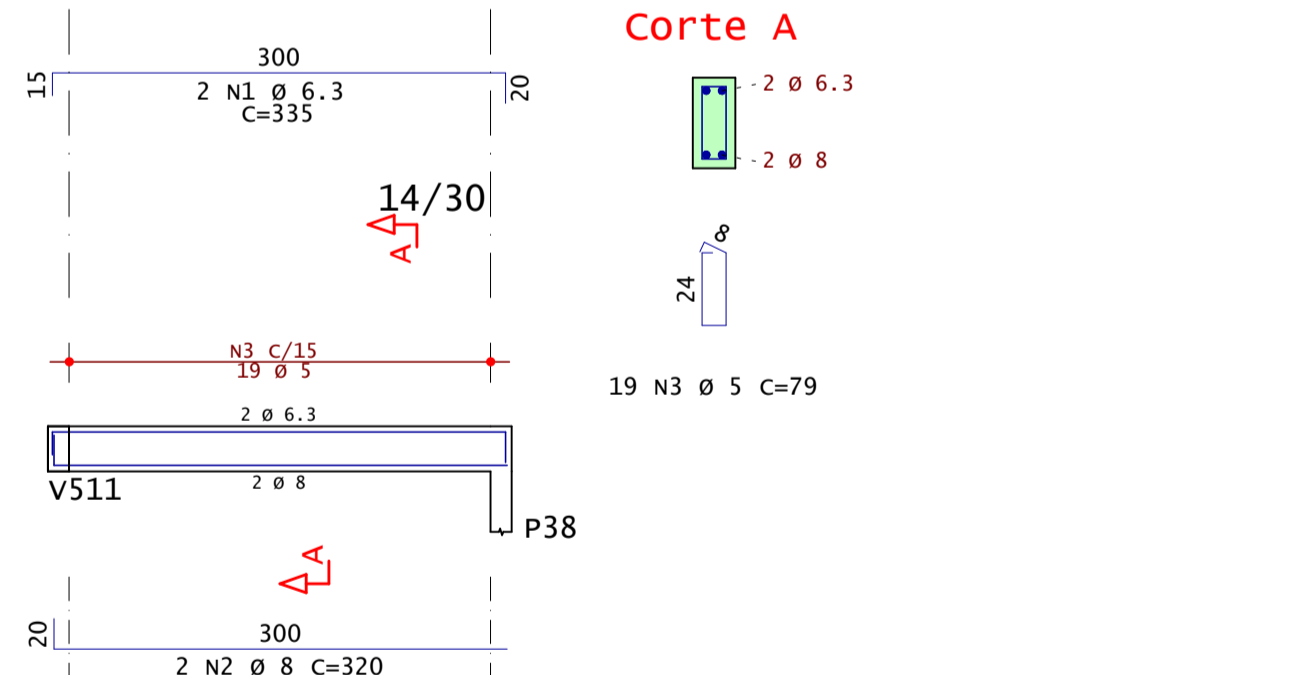
V506



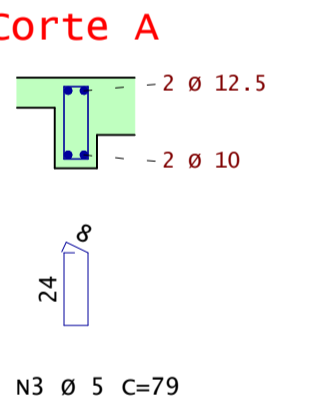
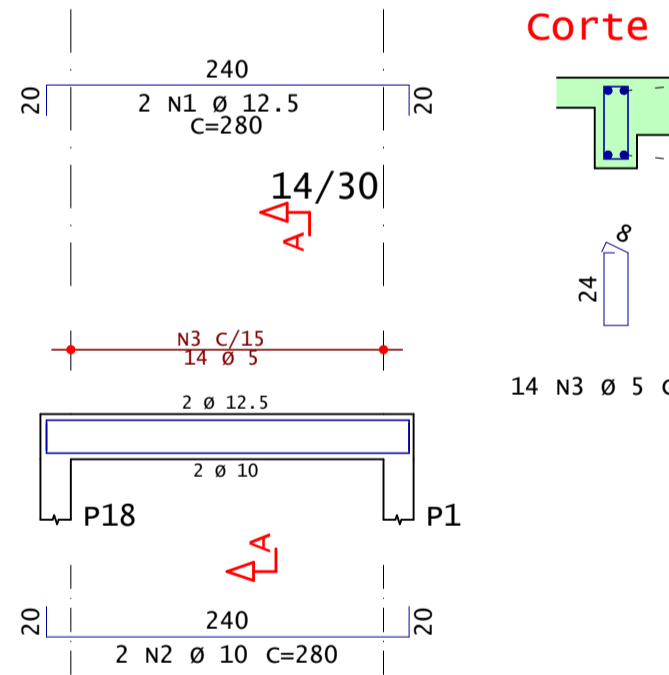
V507



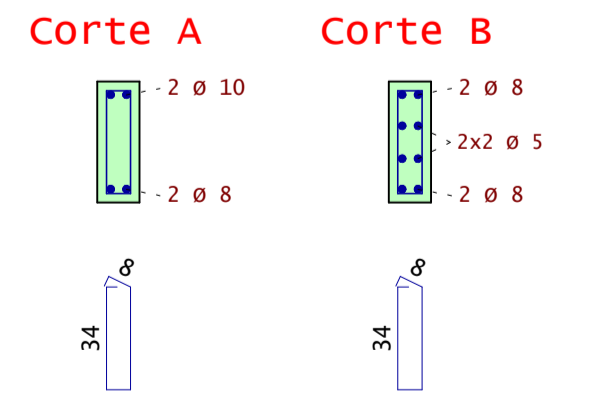
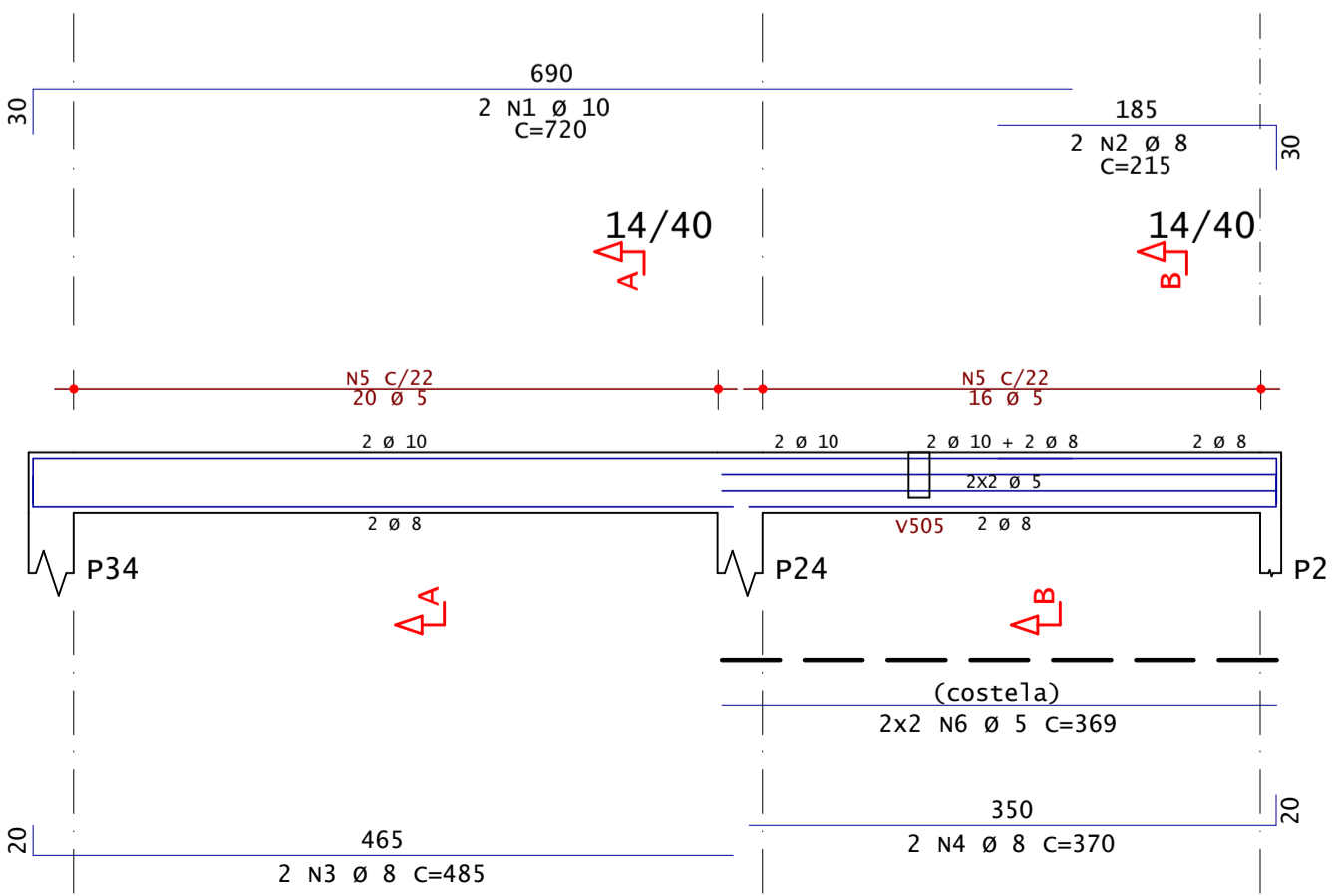
V508



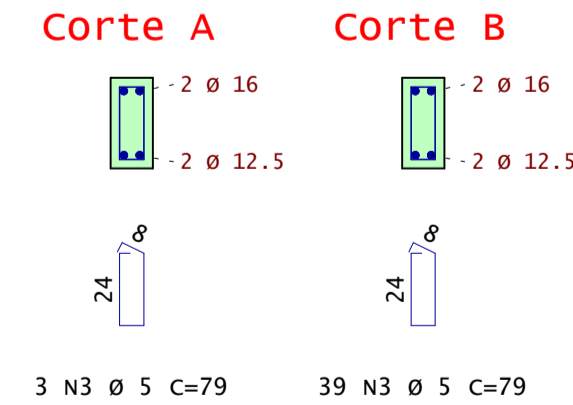
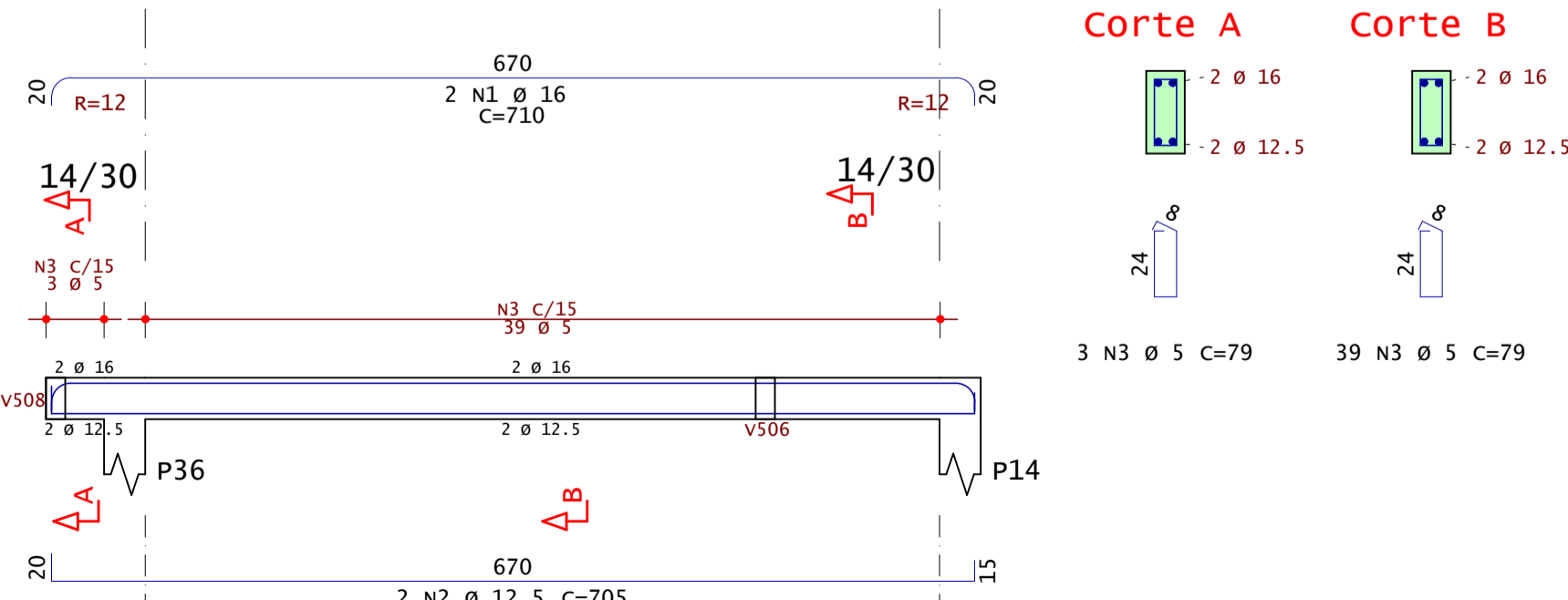
V509



V510



V511



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
V501	60A	1	5	2	360	720
	50A	2	12.5	4	395	1580
	50A	3	10	2	115	230
	50A	4	8	2	200	400
	50A	5	12.5	2	615	1230
	50A	6	6.3	1	76	76
	60A	7	5	50	79	3950
V502	50A	1	12.5	2	445	890
	50A	2	12.5	2	480	960
	50A	3	12.5	2	475	950
	50A	4	12.5	2	385	770
	50A	5	12.5	2	420	840
	50A	6	12.5	2	450	900
	50A	7	6.3	1	76	76
	60A	8	5	54	99	5346
V503	50A	1	6.3	2	340	680
	50A	2	8	2	340	680
	60A	3	5	19	79	1501
V504	50A	1	12.5	2	445	890
	50A	2	12.5	2	480	960
	50A	3	12.5	2	475	950
	50A	4	12.5	2	385	770
	50A	5	12.5	2	420	840
	50A	6	12.5	2	450	900
	50A	7	6.3	1	76	76
	60A	8	5	54	99	5346
V505	50A	1	10	2	215	430
	50A	2	10	2	205	410
	60A	3	5	11	79	869
V506	50A	1	6.3	2	360	720
	50A	2	8	2	360	720
	60A	3	5	21	79	1659
V507	50A	1	6.3	2	360	720
	50A	2	8	2	360	720
	60A	3	5	21	79	1659
V508	50A	1	6.3	2	335	670
	50A	2	8	2	320	640
	60A	3	5	19	79	1501
V509	50A	1	12.5	2	280	560
	50A	2	10	2	280	560
	60A	3	5	14	79	1106
V510	50A	1	10	2	720	1440
	50A	2	8	2	215	430
	50A	3	8	2	485	970
	50A	4	8	2	370	740
	60A	5	5	36	99	3564
	60A	6	5	4	369	1476
V511	50A	1	16	2	710	1420
	50A	2	12.5	2	705	1410
	60A	3	5	42	79	3318

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	320	49
50A	6.3	31	8
50A	8	53	21
50A	10	31	19
50A	12.5	154	148
50A	16	14	22
Peso Total	60A =		49 kgf
Peso Total	50A =		218 kgf

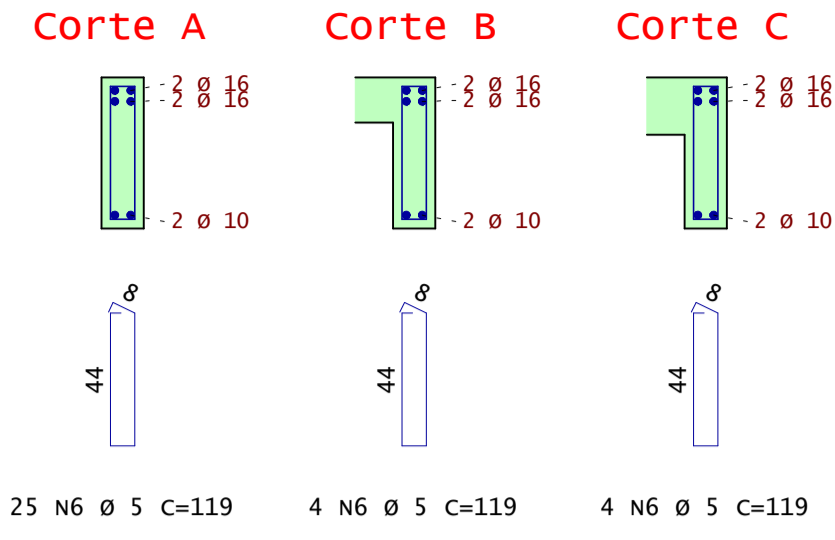
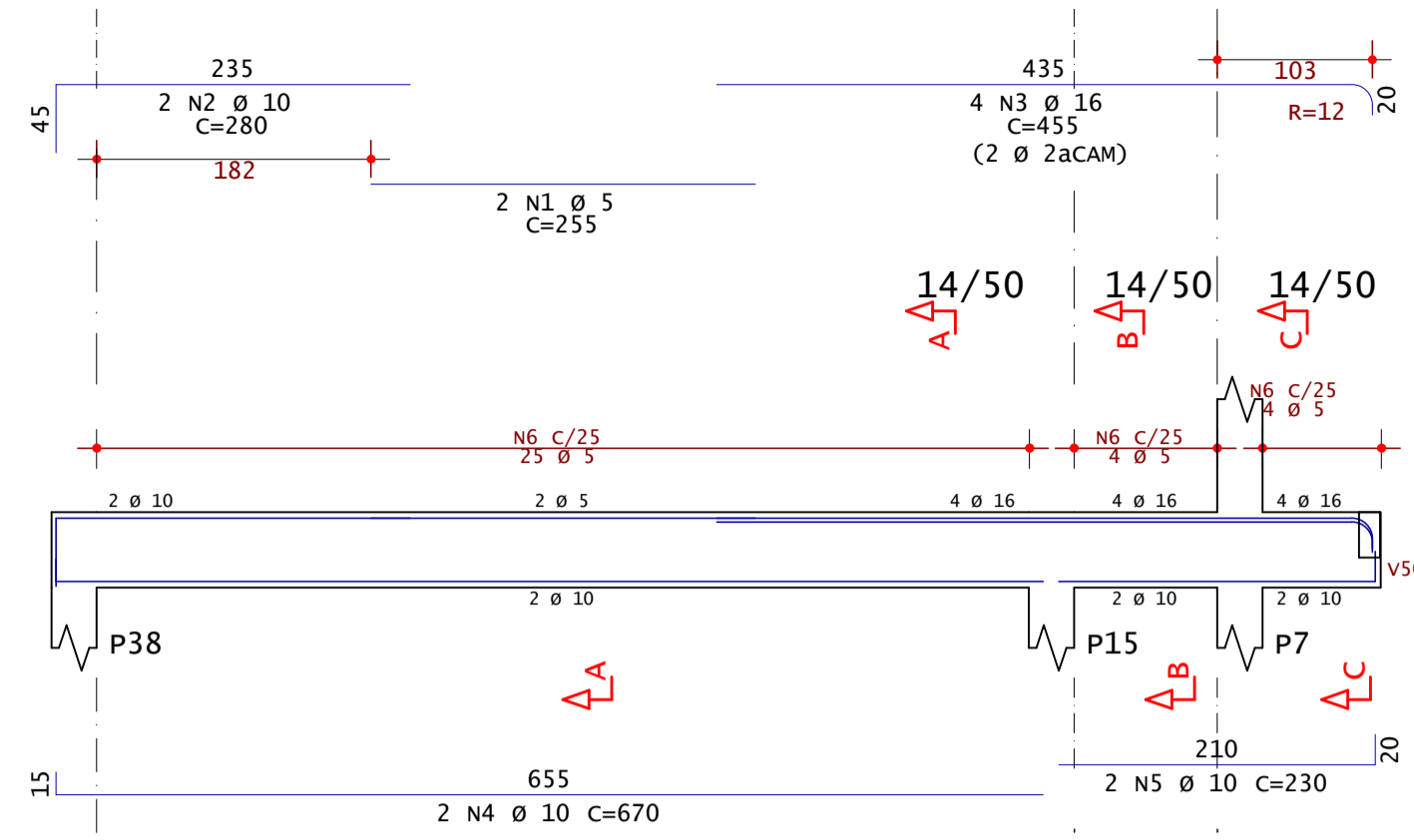


Acesse o site pela sua câmera
ANDRÉ RODRIGUES
 Engenheiro Estrutural
 (83) 9 9644 2240 andrerodrigues.eng.br
 @andrerodrigueseng contato@andrerodrigues.eng.br

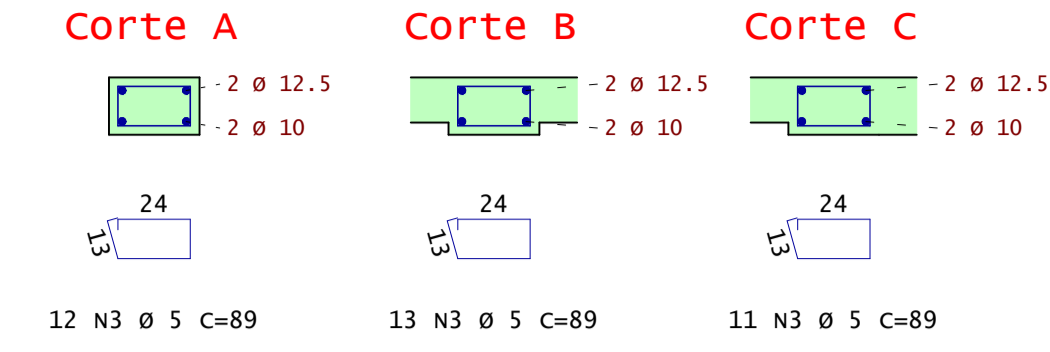
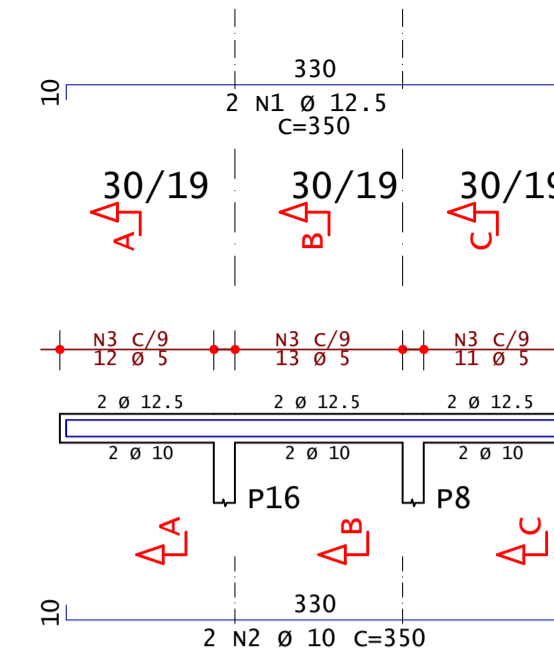
Cliente: Paulo George Dantas da Nobrega	Prancha nº: 23/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - 1º ANDAR	1/2	
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	



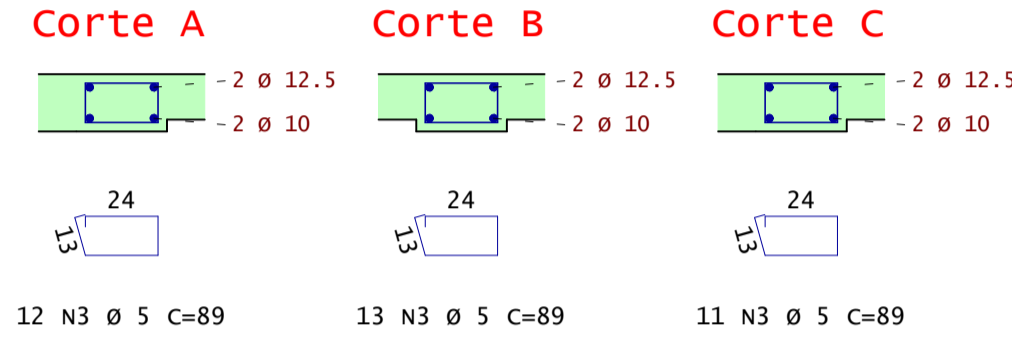
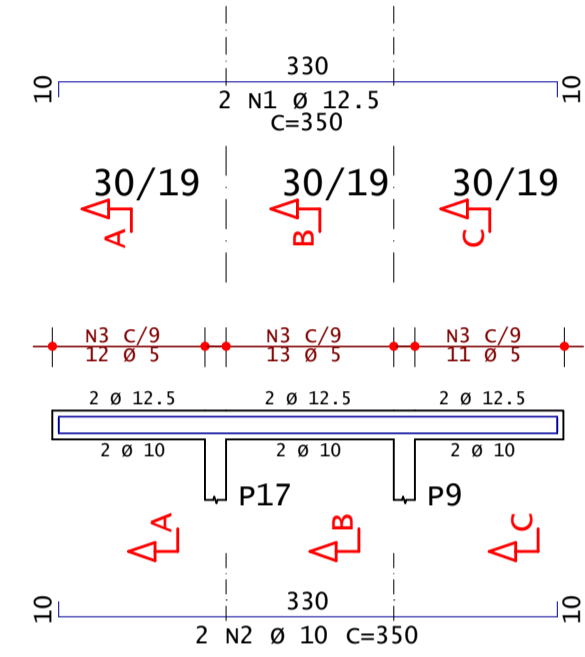
V512



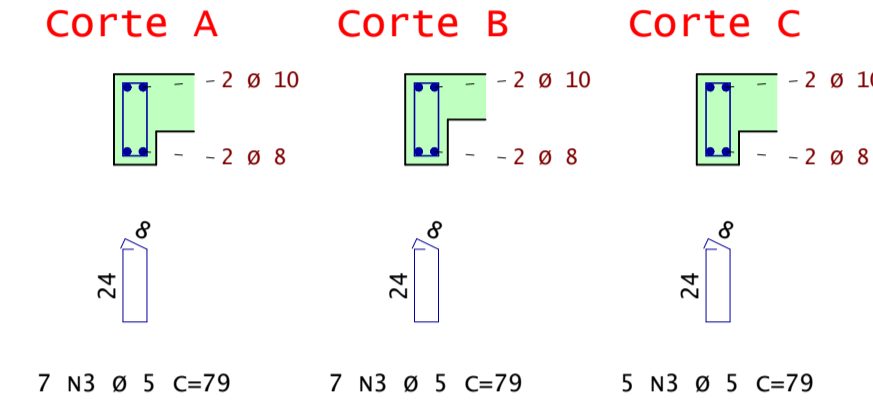
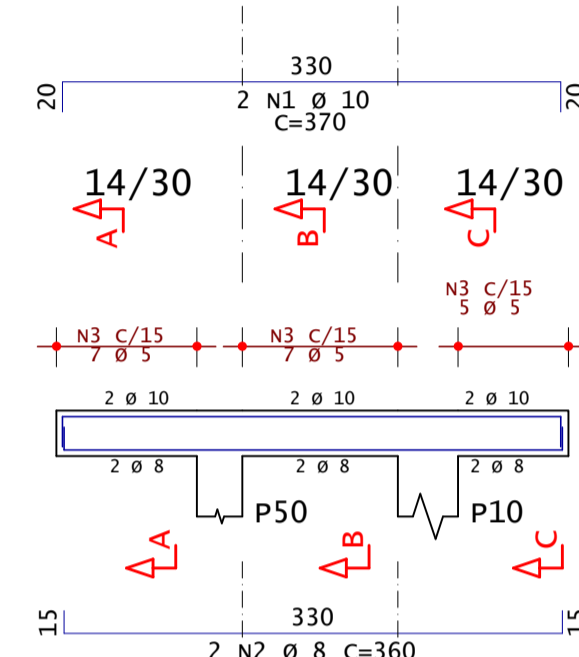
V513



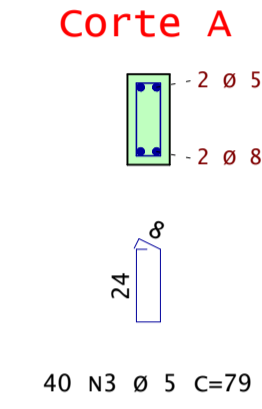
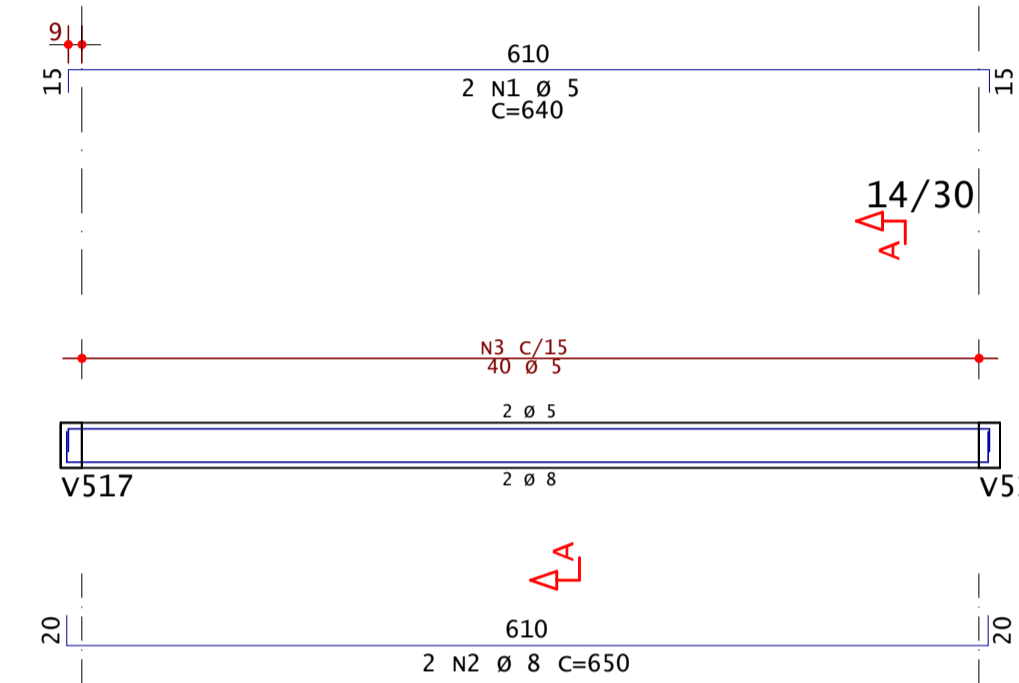
V514



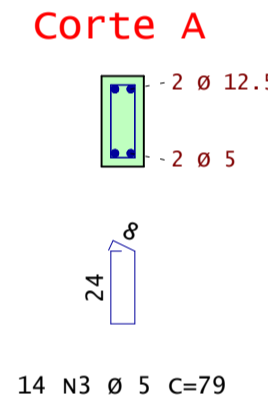
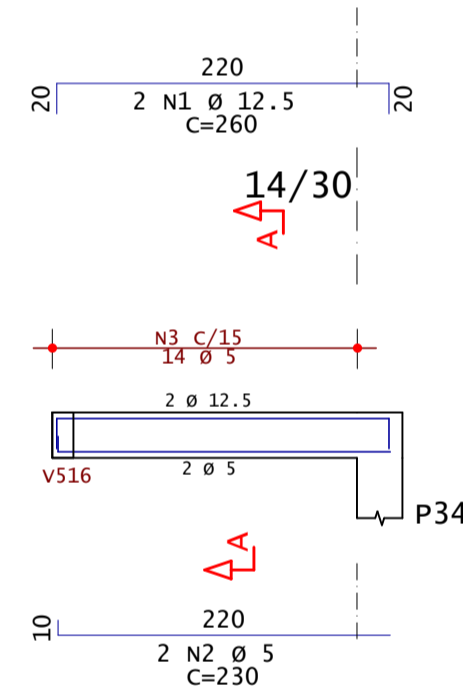
V515



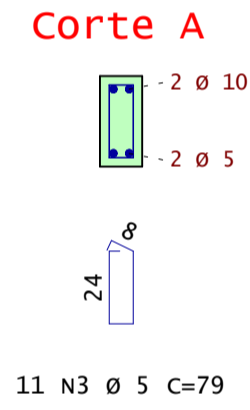
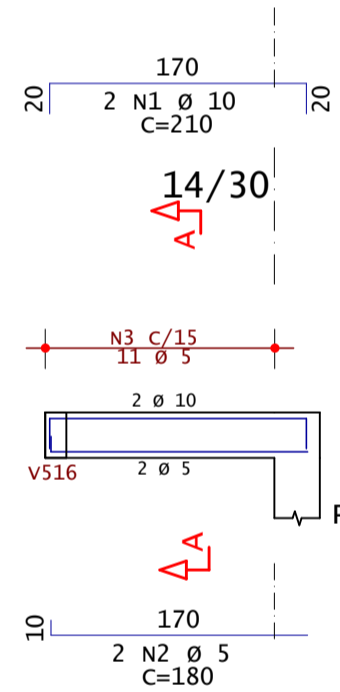
V516



V517



V518



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
V512					
60A	1	5	2	255	510
50A	2	10	2	280	560
50A	3	16	4	455	1820
50A	4	10	2	670	1340
50A	5	10	2	230	460
60A	6	5	33	119	3927
V513					
50A	1	12.5	2	350	700
50A	2	10	2	350	700
60A	3	5	36	89	3204
V514					
50A	1	12.5	2	350	700
50A	2	10	2	350	700
60A	3	5	36	89	3204
V515					
50A	1	10	2	370	740
50A	2	8	2	360	720
60A	3	5	19	79	1501
V516					
60A	1	5	2	640	1280
50A	2	8	2	650	1300
60A	3	5	40	79	3160
V517					
50A	1	12.5	2	260	520
60A	2	5	2	230	460
60A	3	5	14	79	1106
V518					
50A	1	10	2	210	420
60A	2	5	2	180	360
60A	3	5	11	79	869

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		mm	m
60A	5	196	30
50A	8	20	8
50A	10	49	30
50A	12.5	19	18
50A	16	18	29
Peso Total		60A =	30 kgf
Peso Total		50A =	86 kgf

ANDRÉ RODRIGUES DE VASCONCELOS PL CAS-20 -VIG-011-R00-PLT 16/02/2022 22:35:31

Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES

Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br

@andrerodrigueseng contato@andrerodrigues.eng.br

Ciente: **Paulo George Dantas da Nobrega**

Obra: **Residência Unifamiliar**

Título: **DETALHAMENTO: VIGAS - 1º ANDAR**

CREA-PB: **161890343-9**

Data: **16 / 02 / 2022**

Francha nº: **24/37**

Revisão nº: **002**

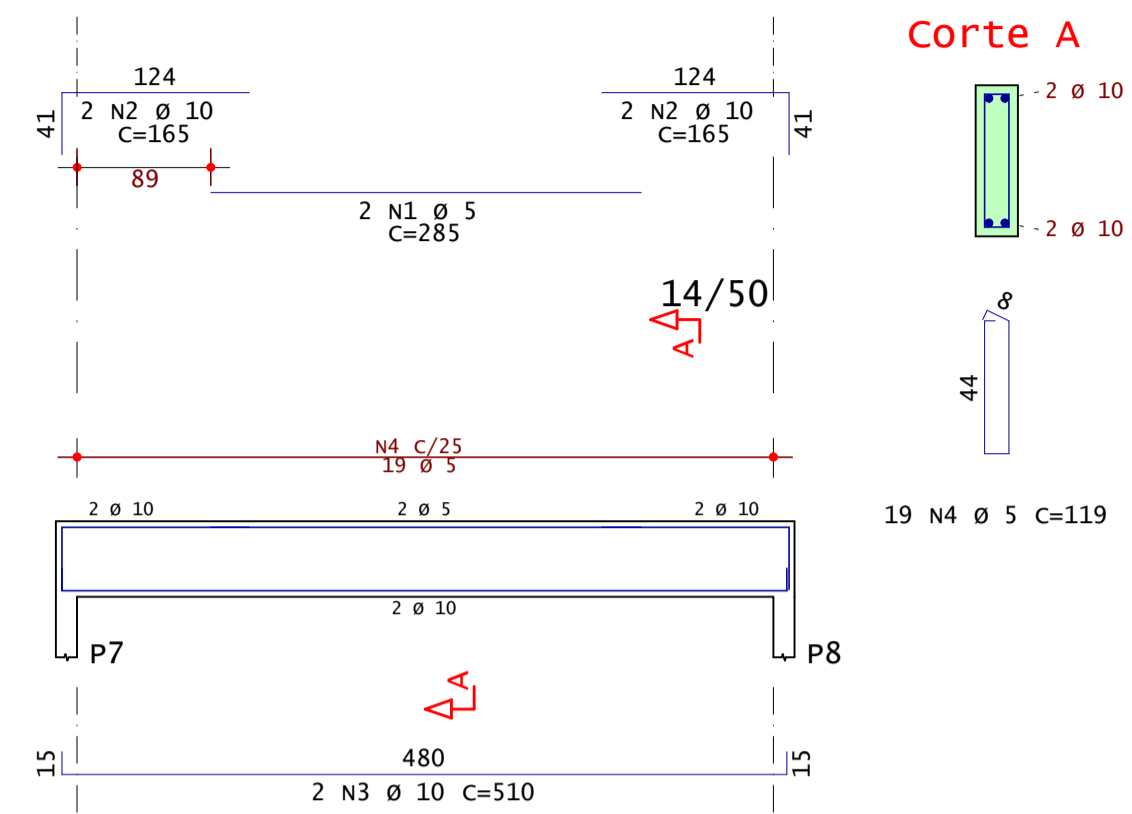
Observações:
**Concreto: fck 25MPa
Eci: 28000 Mpa
Atente-se aos cobrimentos
Leia o Memorial Descritivo**

2/2

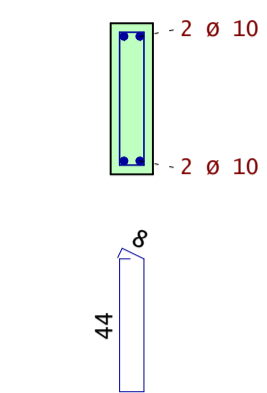
ART nº: **PB 20210418618**

Escala: **Indicada**

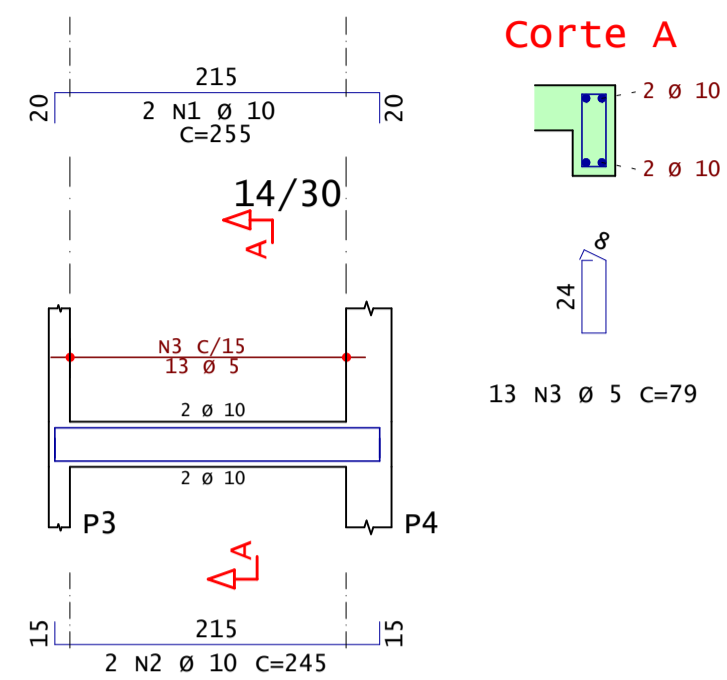
V601



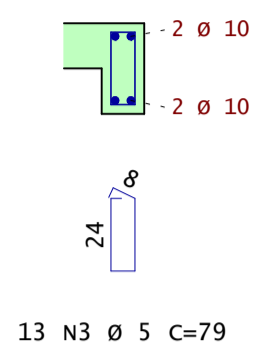
Corte A



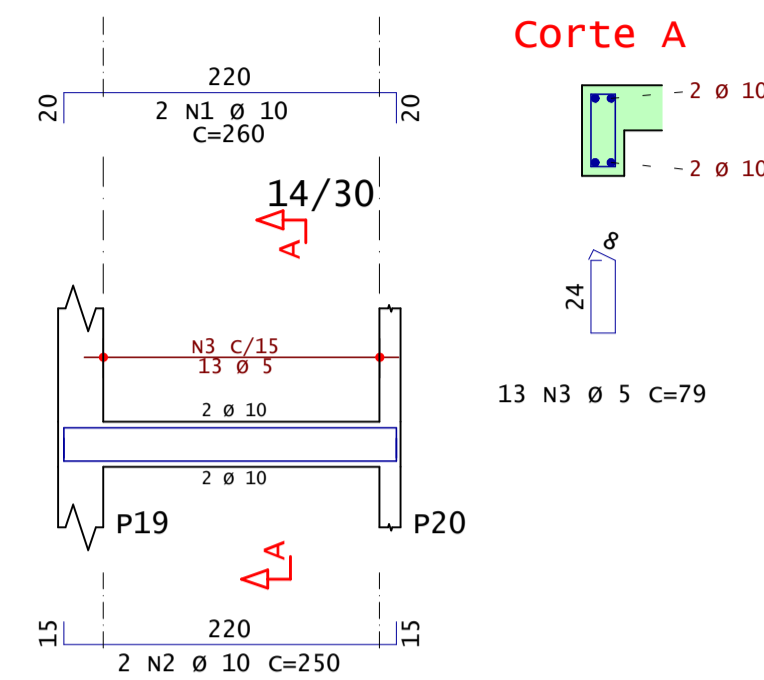
V701



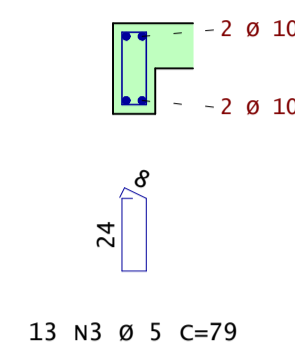
Corte A



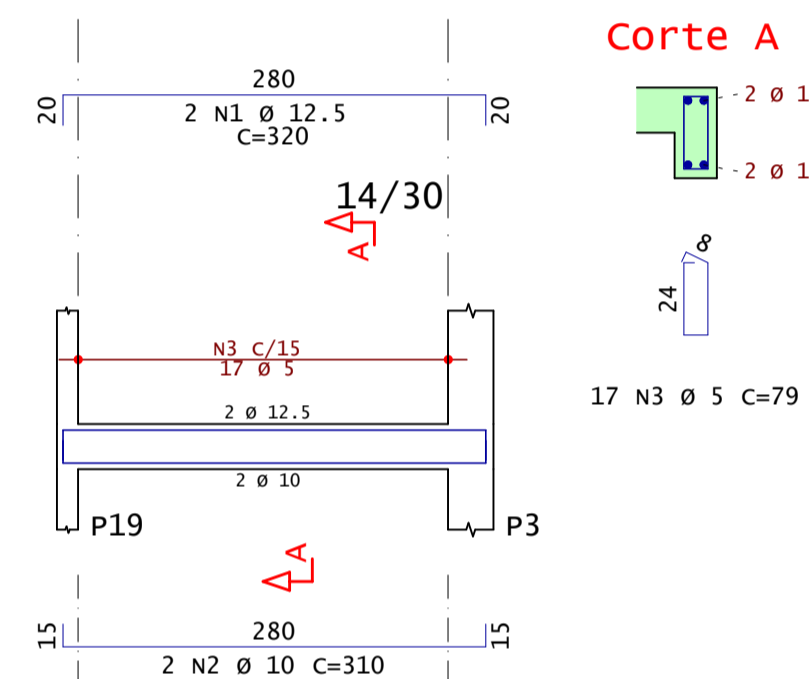
V702



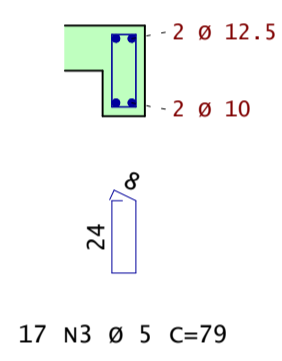
Corte A



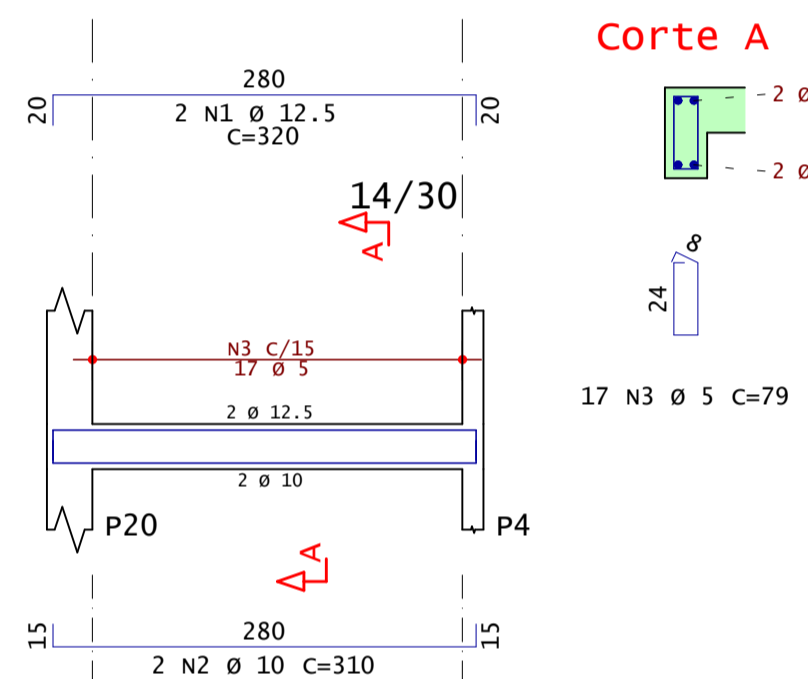
V703



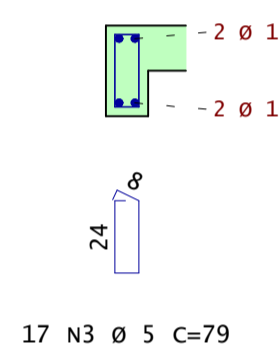
Corte A



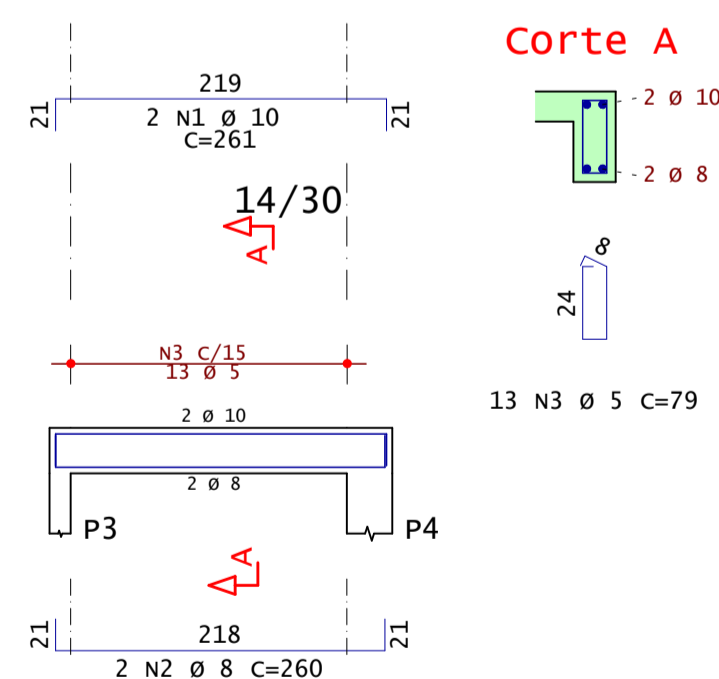
V704



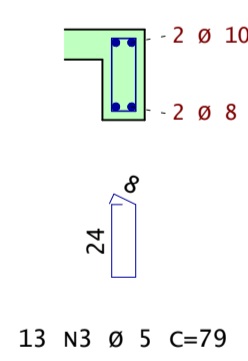
Corte A



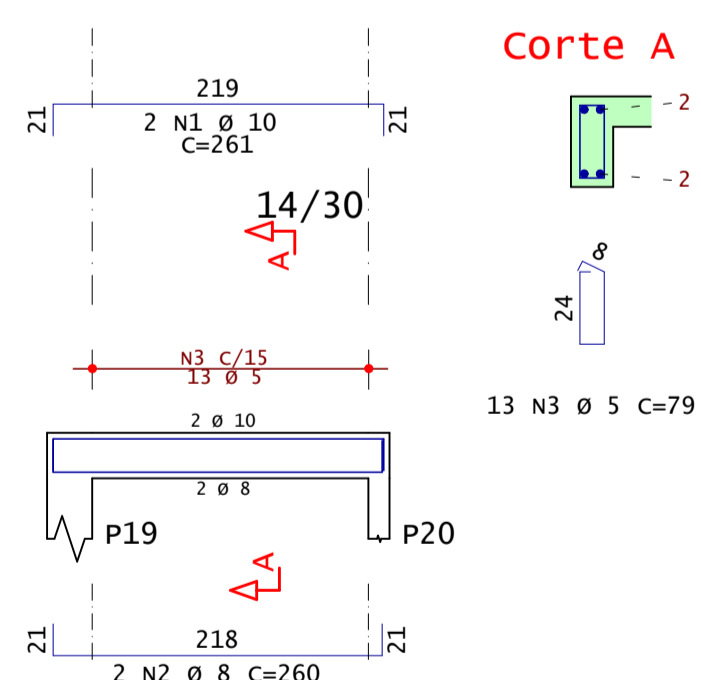
V801



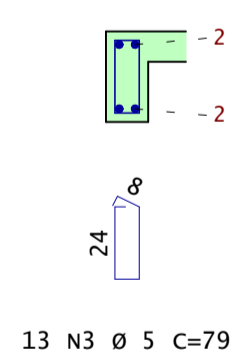
Corte A



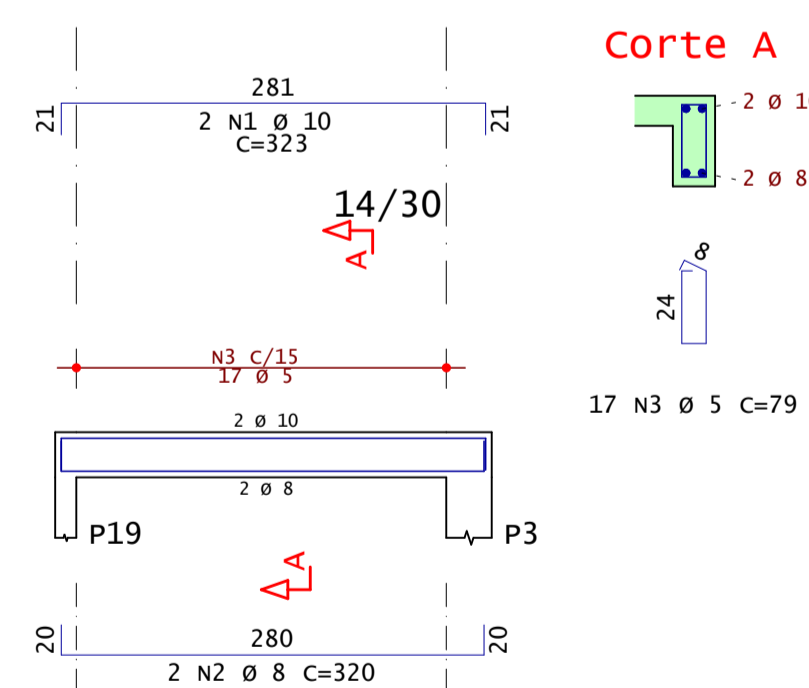
V802



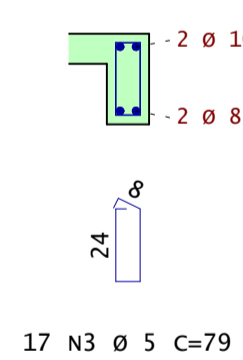
Corte A



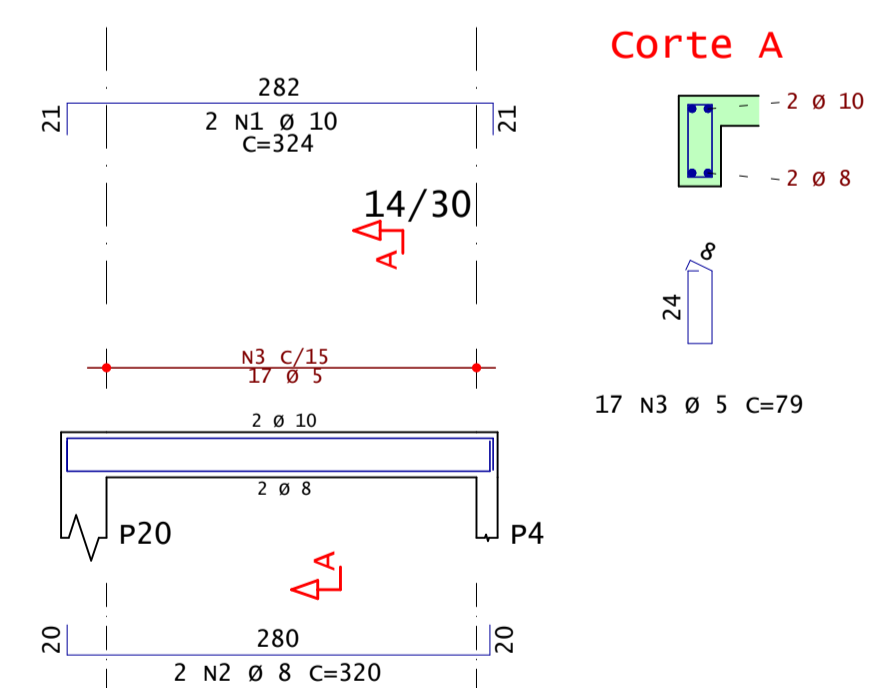
V803



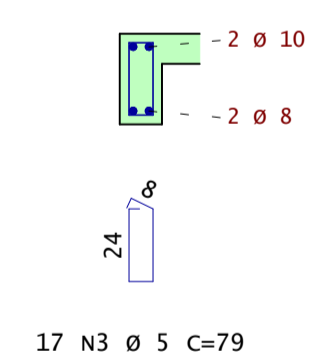
Corte A



V804



Corte A



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
V601	60A	1	5	285	570
	50A	2	4	165	660
	50A	3	10	510	1020
	60A	4	5	119	2261
V701	50A	1	10	255	510
	50A	2	10	245	490
	60A	3	5	79	1027
V702	50A	1	10	260	520
	50A	2	10	250	500
	60A	3	5	79	1027
V703	50A	1	12.5	320	640
	50A	2	10	310	620
	60A	3	5	79	1343
V704	50A	1	12.5	320	640
	50A	2	10	310	620
	60A	3	5	79	1343
V801	50A	1	10	261	522
	50A	2	8	260	520
	60A	3	5	79	1027
V802	50A	1	10	261	522
	50A	2	8	260	520
	60A	3	5	79	1027
V803	50A	1	10	323	646
	50A	2	8	320	640
	60A	3	5	79	1343
V804	50A	1	10	324	648
	50A	2	8	320	640
	60A	3	5	79	1343

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		mm	kgf
60A	5	123	19
50A	8	23	9
50A	10	73	45
50A	12.5	13	12
Peso Total	60A =		19 kgf
Peso Total	50A =		66 kgf




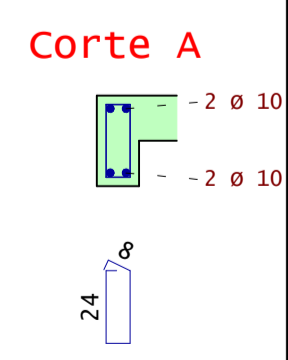
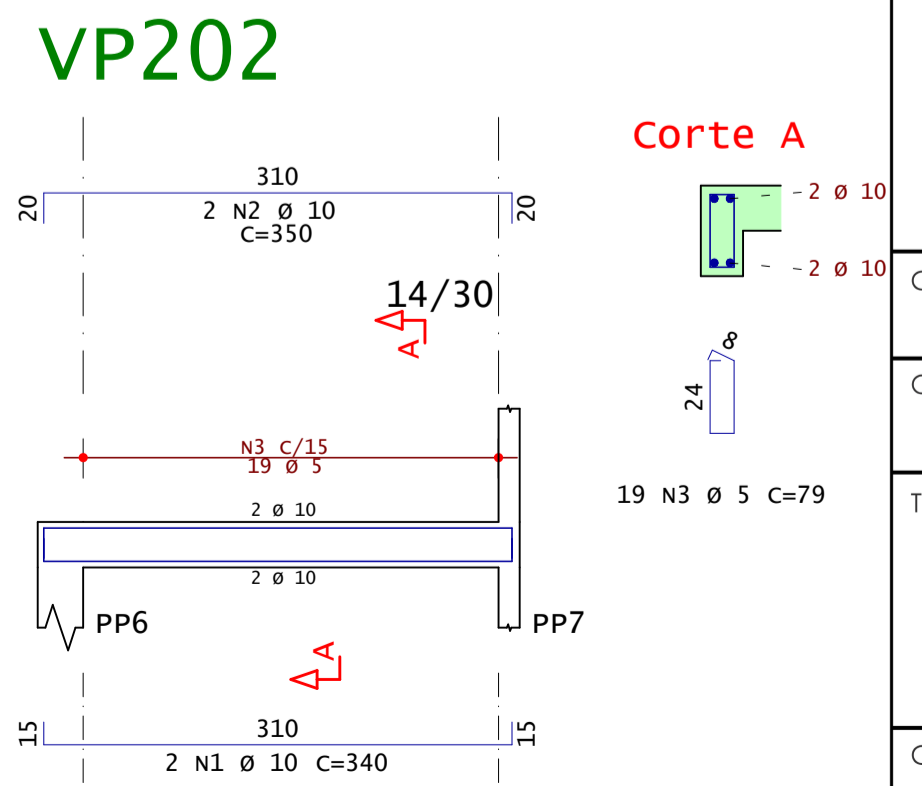
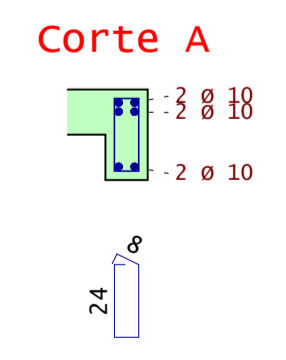
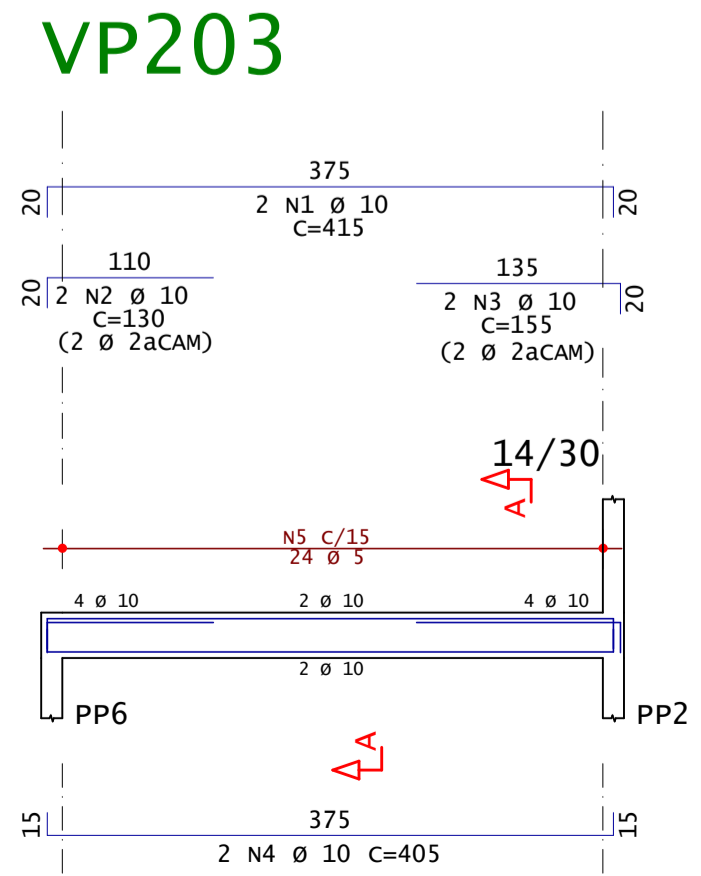
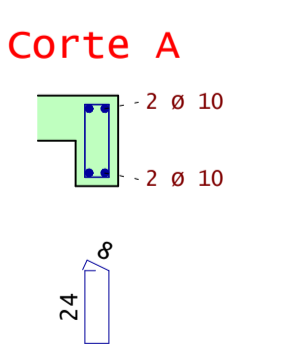
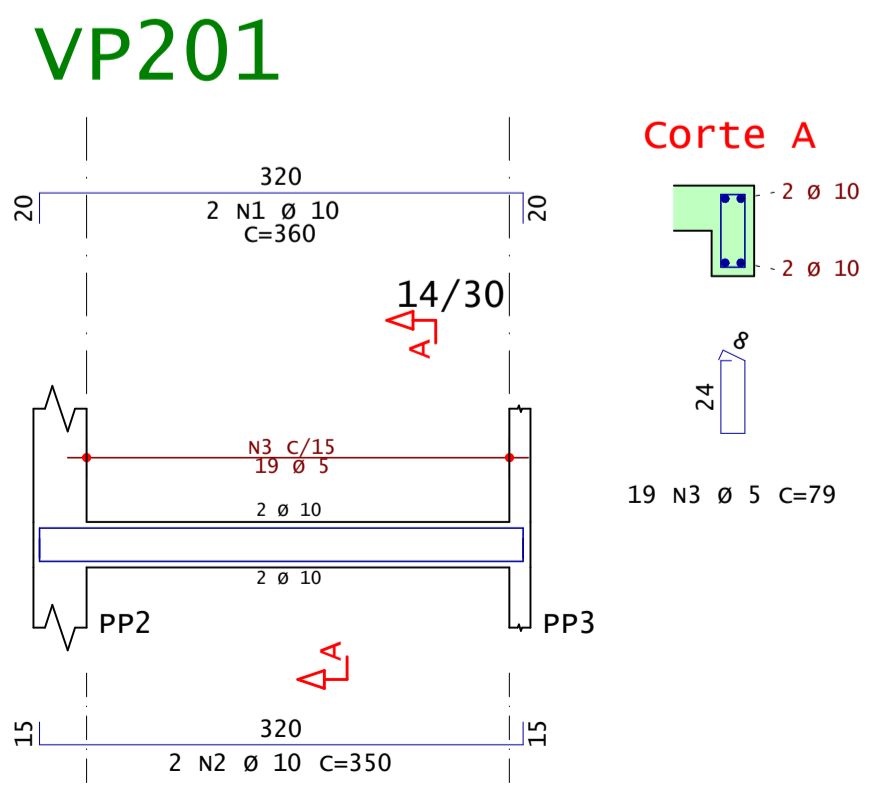
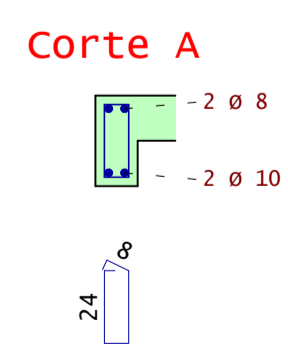
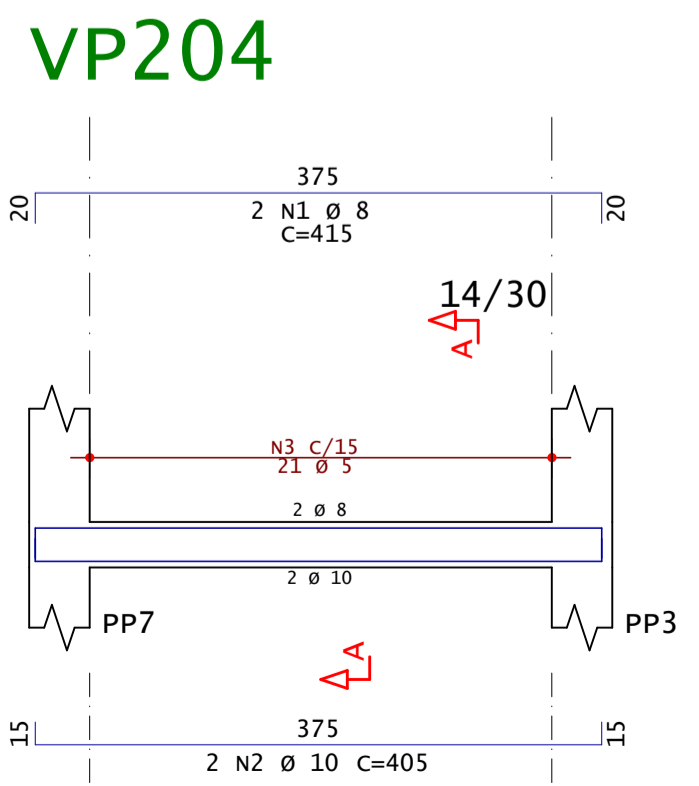
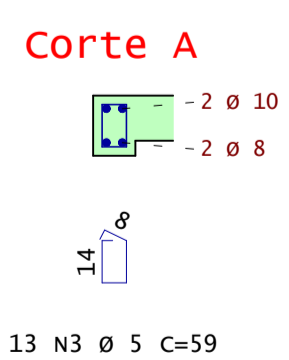
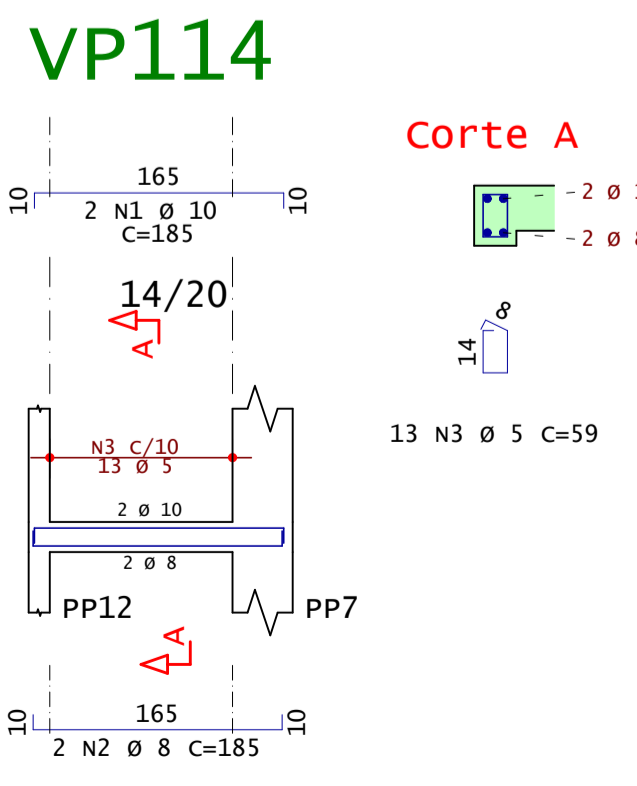
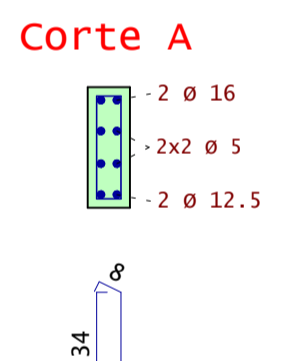
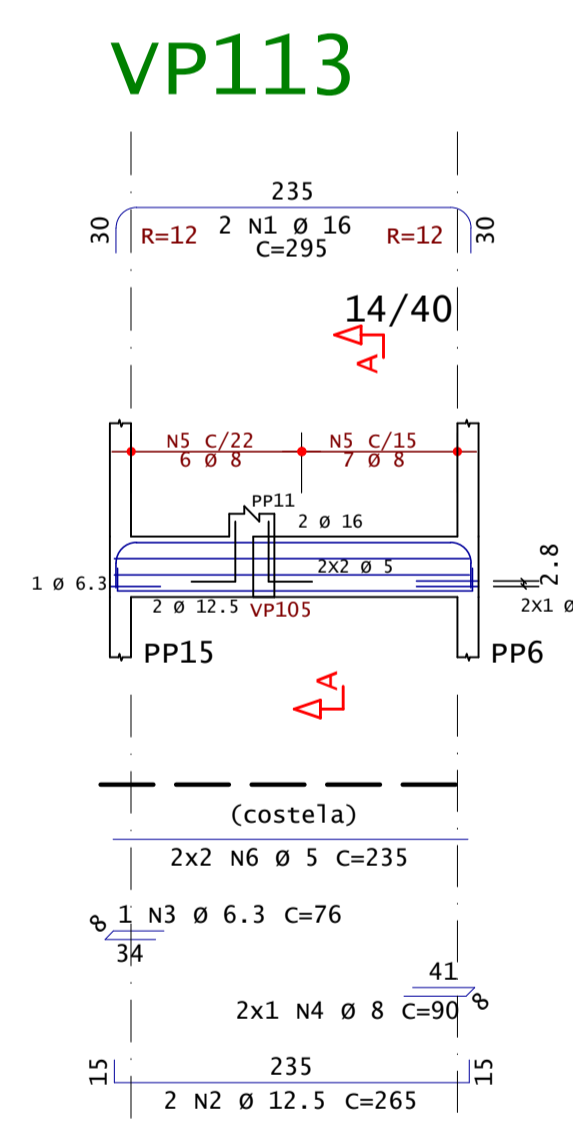
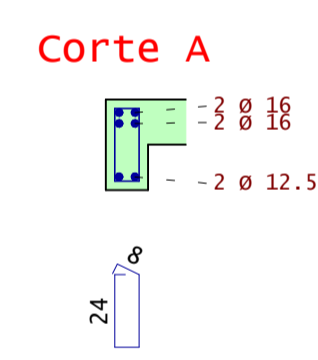
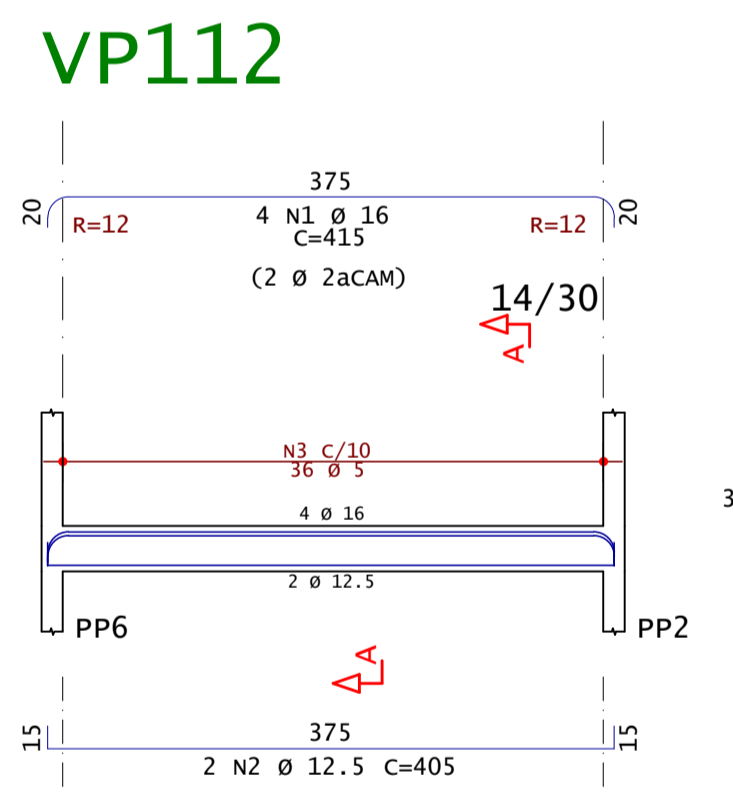
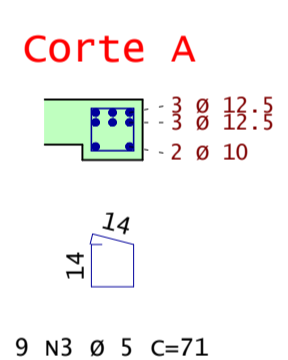
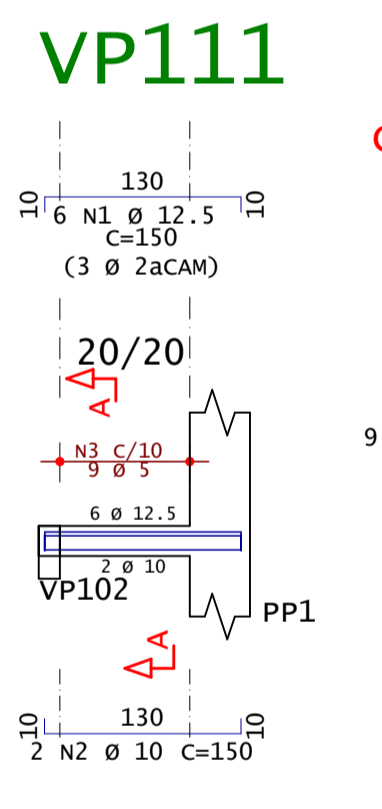
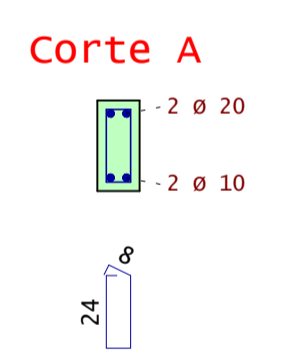
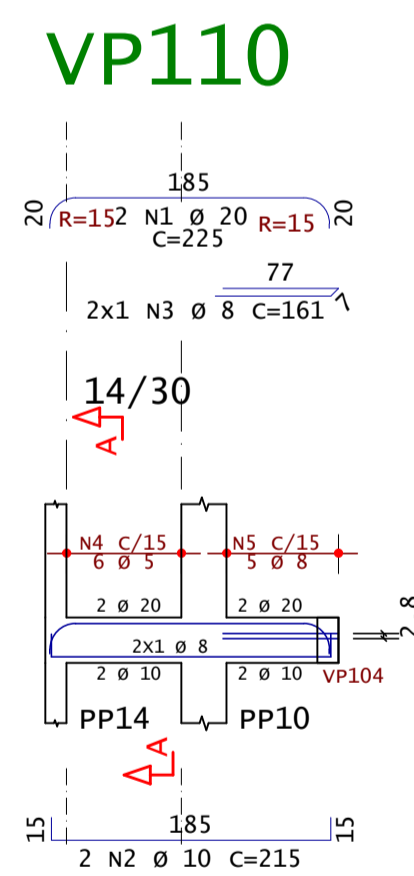
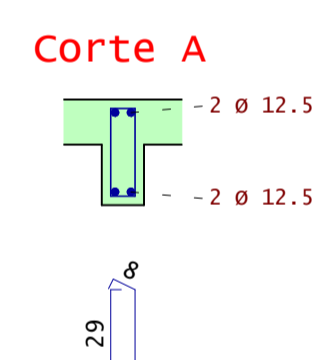
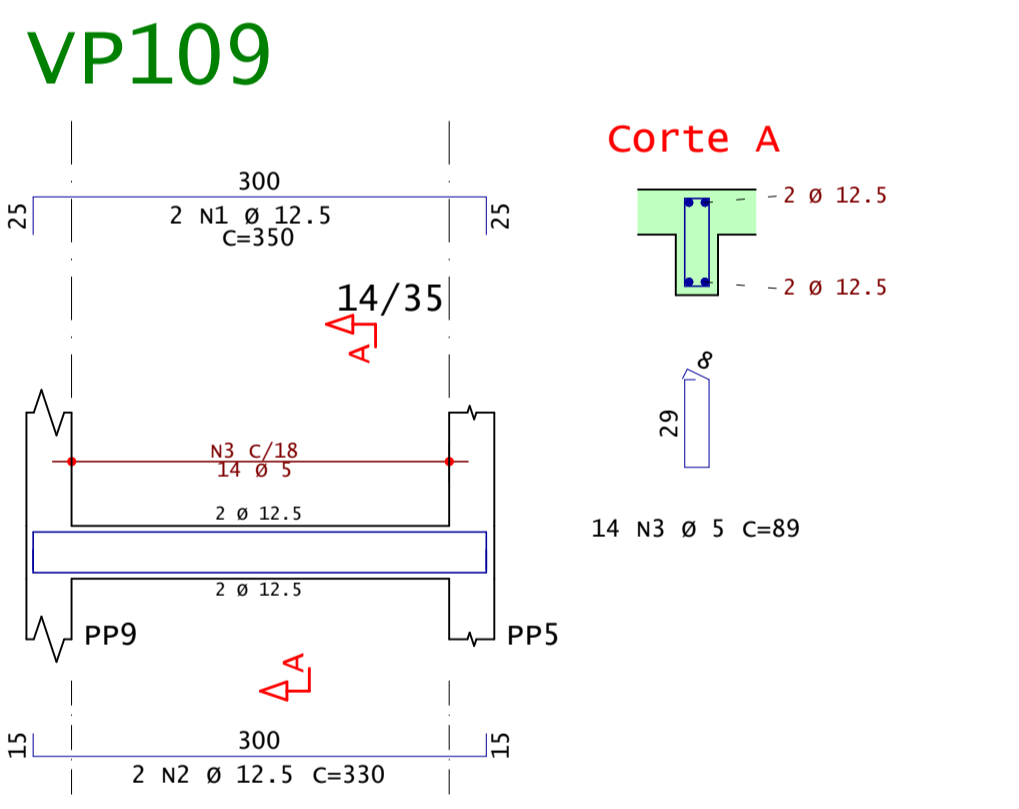
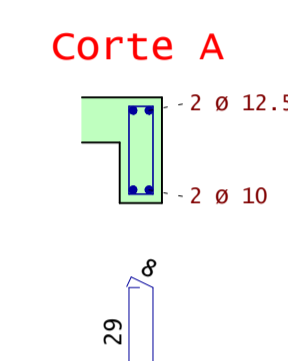
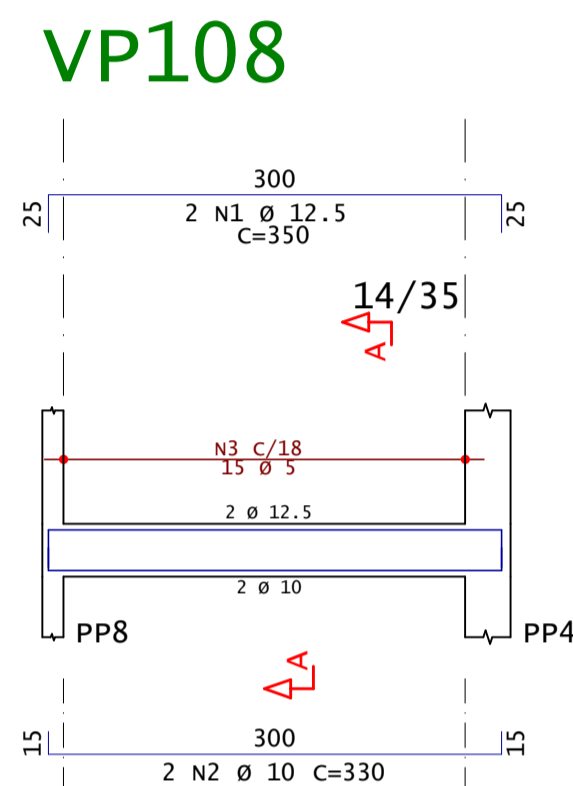
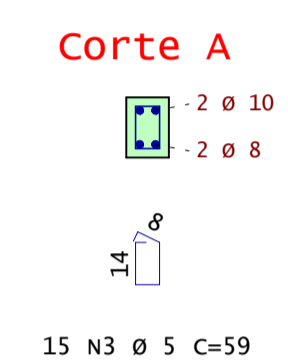
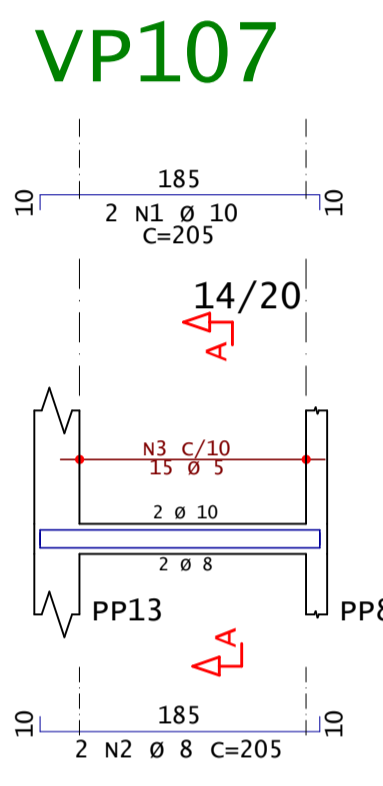
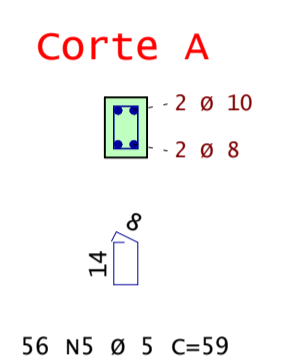
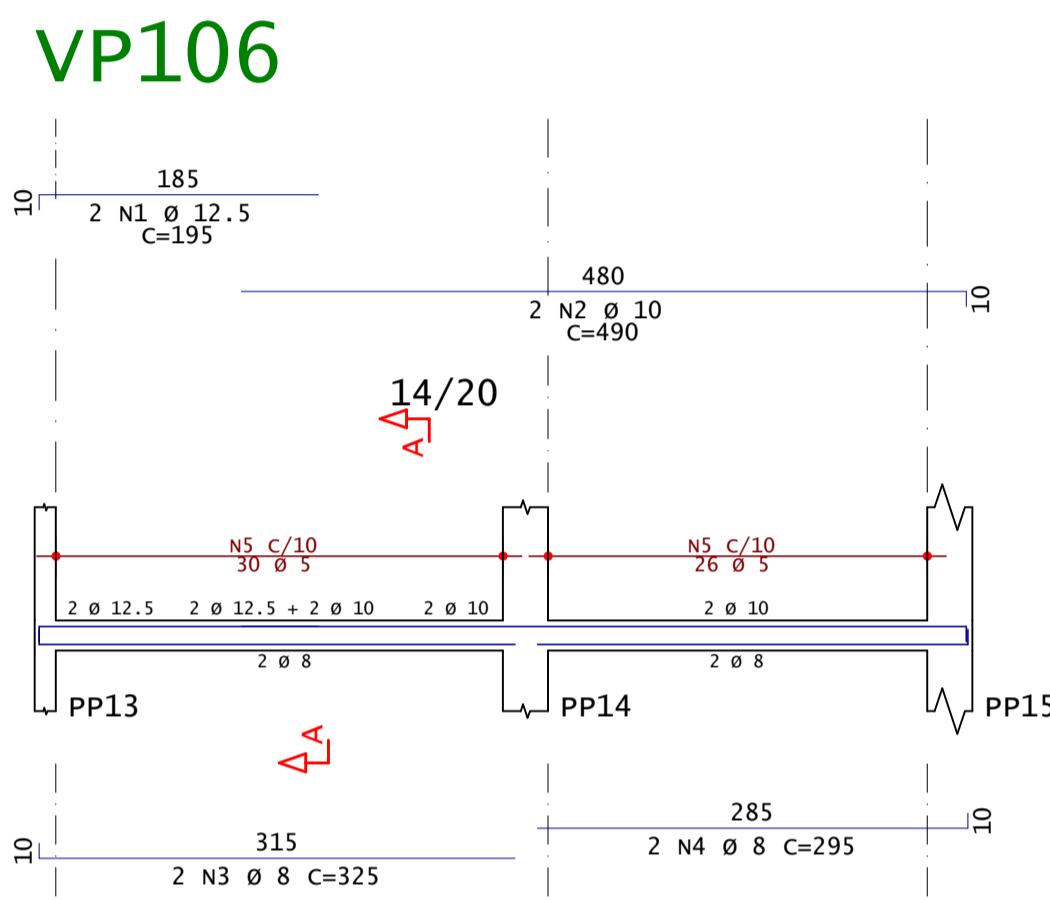
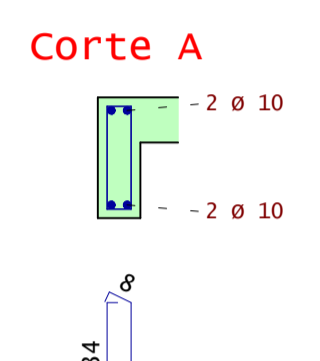
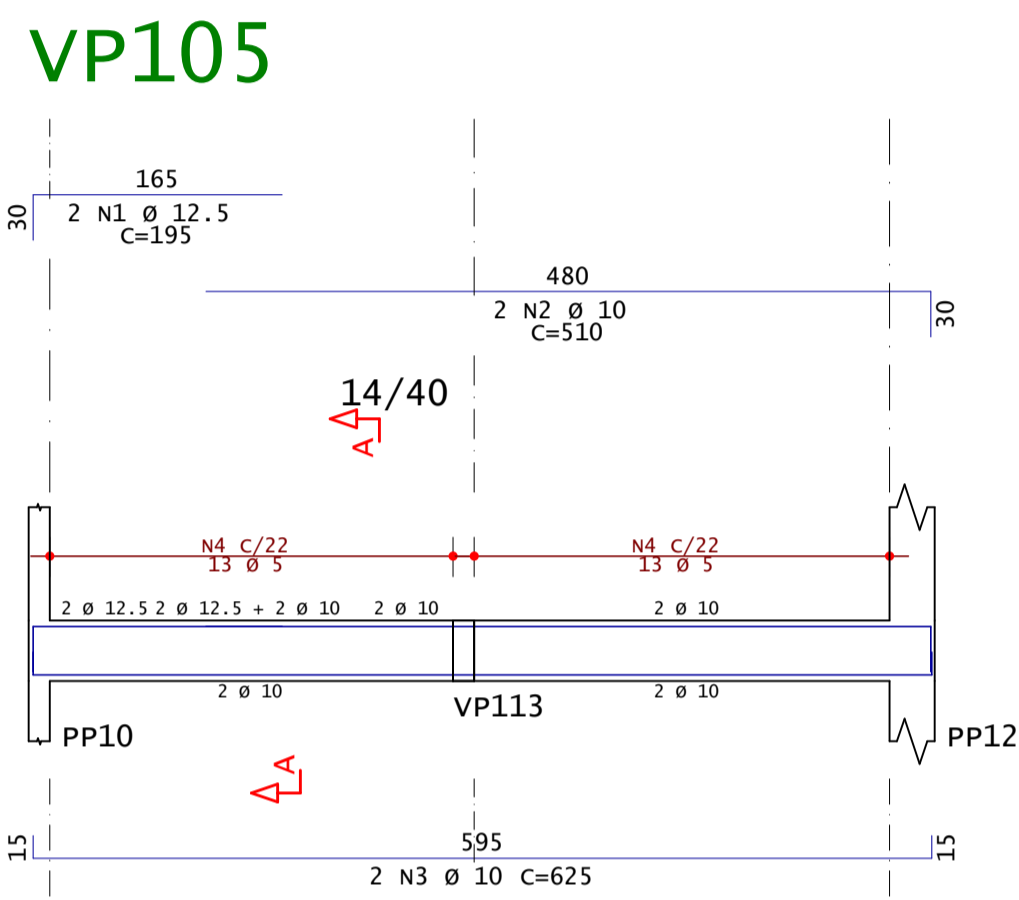
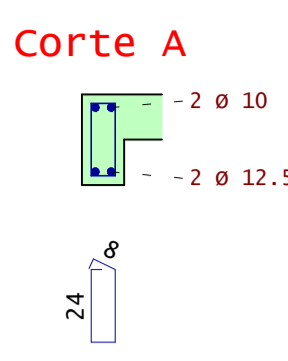
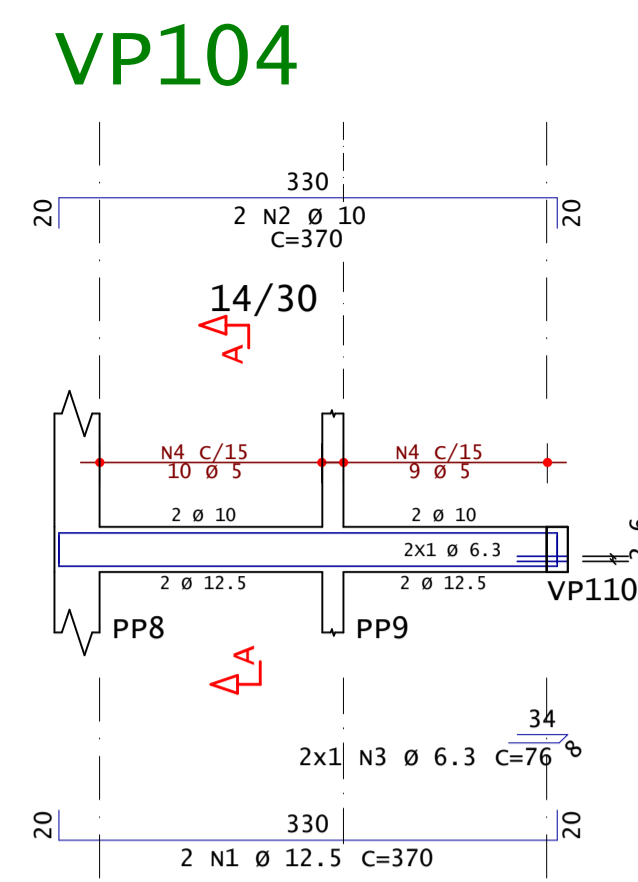
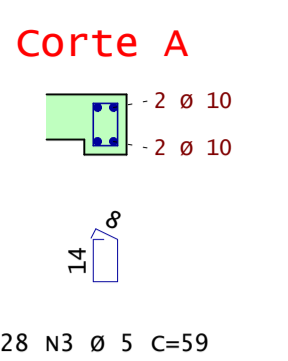
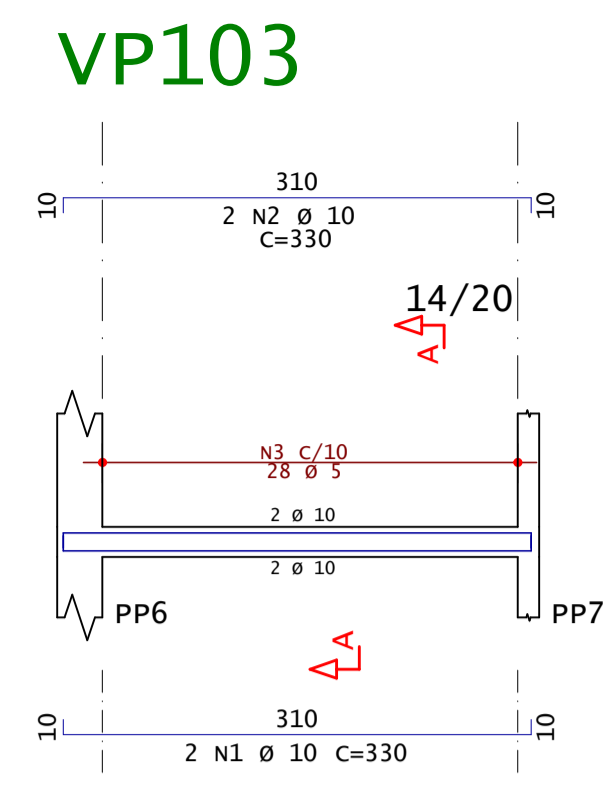
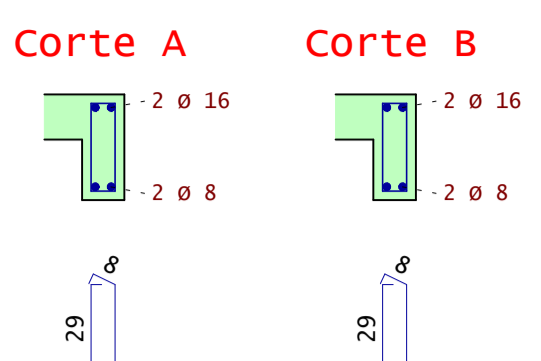
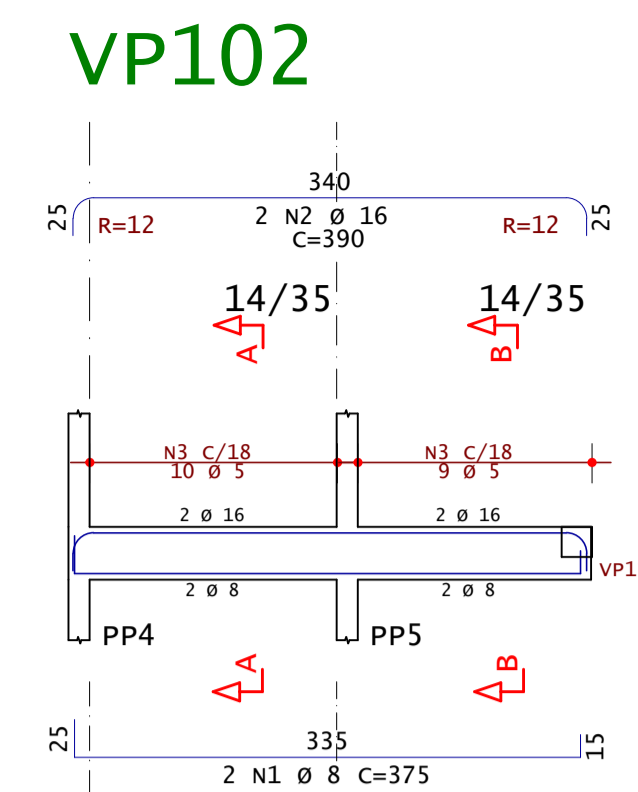
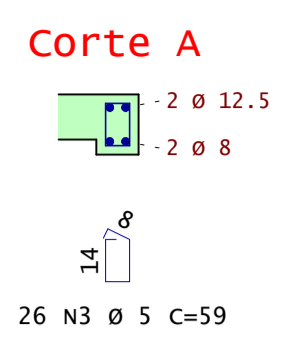
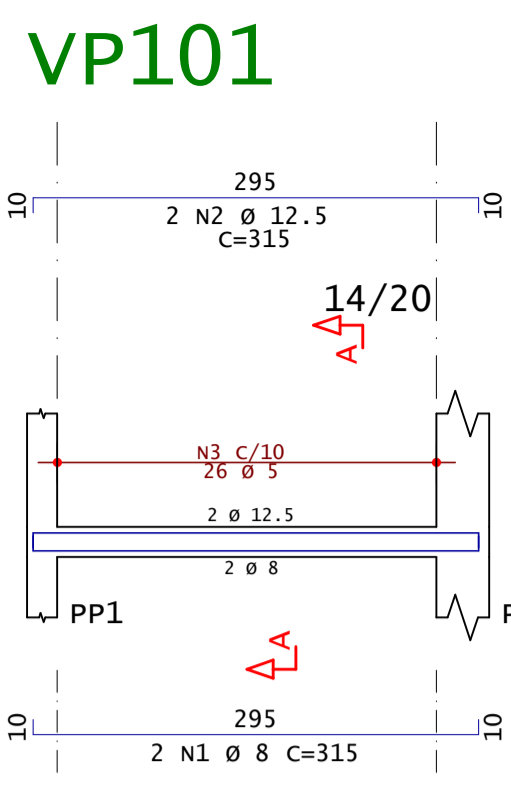
Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente:	Paulo George Dantas da Nobrega	Prancha n°:	25/37	Revisão n°:	002
Obra:	Residência Unifamiliar	Observações:	Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo		
Título:	DETALHAMENTO: VIGAS - LAJE CHALÉ - LAJE CAIXA D'ÁGUA - COBERTURA				
CREA-PB:	161890343-9				
Data:	16 / 02 / 2022	Escala:	Indicada		



AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
VP101	50A	1	12.5	2	321	642
	50A	2	8	2	320	640
	60A	3	26	2	59	1534
VP102	50A	1	12.5	4	390	1560
	50A	2	8	2	380	760
	60A	3	19	89	1691	
VP103	50A	1	12.5	2	333	666
	50A	2	10	2	330	660
	60A	3	5	28	59	1652
VP104	50A	1	10	2	376	752
	50A	2	10	2	375	750
	50A	3	6.3	2	76	152
	60A	4	19	79	1501	
VP105	50A	1	10	3	195	585
	50A	2	10	2	510	1020
	50A	3	10	2	625	1250
	60A	4	5	26	99	2574
VP106	50A	1	12.5	2	390	780
	50A	2	10	2	493	986
	50A	3	8	2	325	650
	50A	4	8	2	295	590
	60A	5	5	56	59	3304
VP107	50A	1	8	2	209	418
	50A	2	8	2	205	410
	60A	3	15	59	885	
VP108	50A	1	10	4	355	1420
	50A	2	10	2	330	660
	60A	3	15	89	1335	
VP109	50A	1	10	4	355	1420
	50A	2	12.5	14	330	660
	60A	3	5	89	1246	
VP110	50A	1	16	4	230	920
	50A	2	12.5	2	222	444
	50A	3	8	2	161	322
	60A	4	5	6	79	474
	60A	5	5	5	82	410
VP111	50A	1	12.5	5	155	775
	50A	2	10	2	150	300
	60A	3	5	9	71	639
VP112	50A	1	16	2	420	840
	50A	2	12.5	2	410	820
	60A	3	26	79	2054	
VP113	50A	1	16	2	299	598
	50A	2	16	2	265	530
	50A	3	6.3	1	76	76
	50A	4	8	2	90	180
	50A	5	8	13	102	1326
	60A	6	5	4	238	952
VP114	50A	1	10	2	178	356
	50A	2	8	2	176	352
	60A	3	13	59	767	
VP201	50A	1	10	2	364	728
	50A	2	10	2	350	700
	60A	3	19	79	1501	
VP202	50A	1	10	2	354	708
	50A	2	10	2	340	680
	60A	3	19	79	1501	
VP203	50A	1	10	2	410	820
	50A	2	10	2	420	840
	60A	4	5	24	79	1896
VP204	50A	1	8	2	420	840
	50A	2	10	2	410	820
	60A	3	5	21	79	1639

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	272	42
50A	6.3	2	1
50A	8	69	27
50A	10	163	101
50A	12.5	60	57
50A	16	29	46
Peso Total		60A =	42 kgf
Peso Total		50A =	231 kgf

Accesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

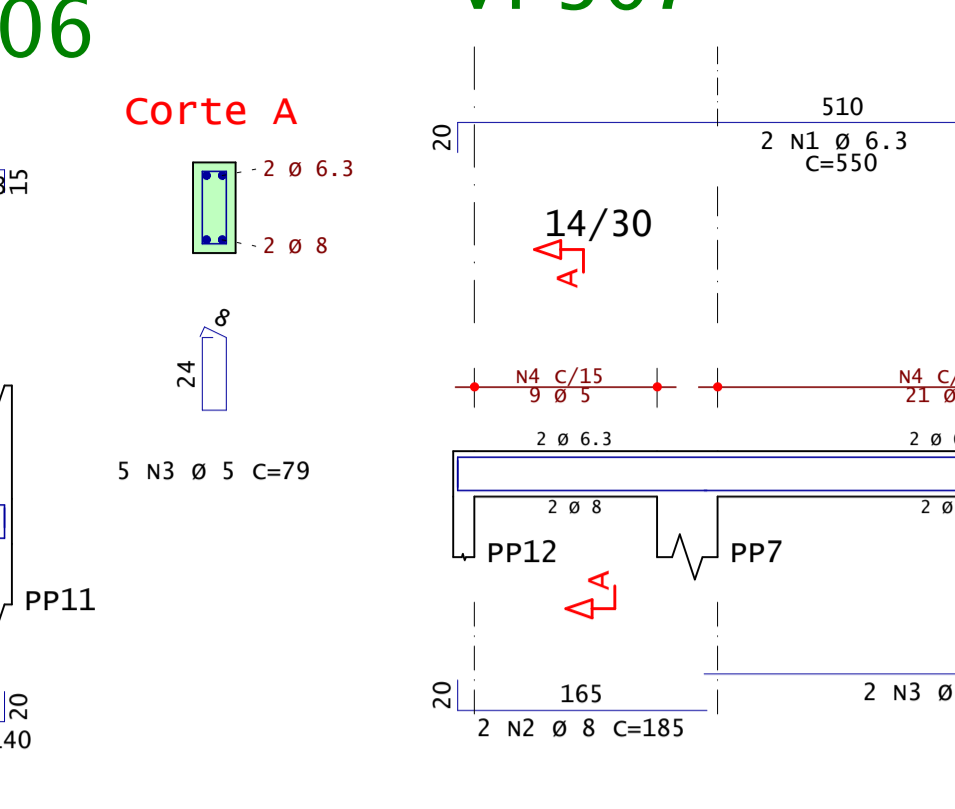
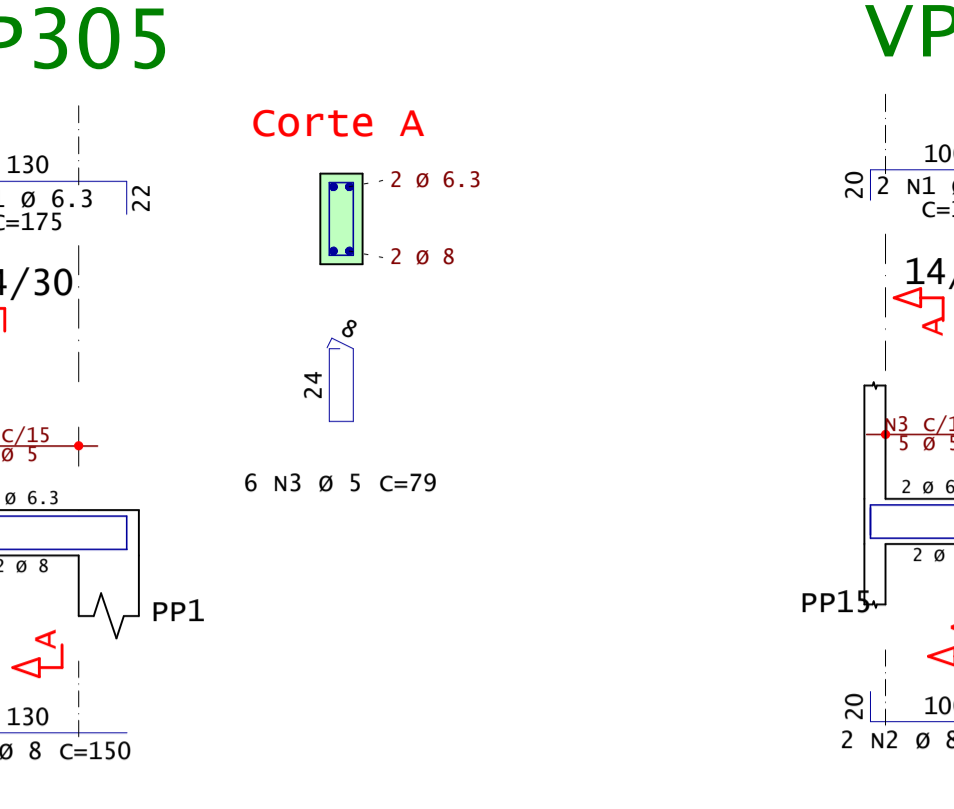
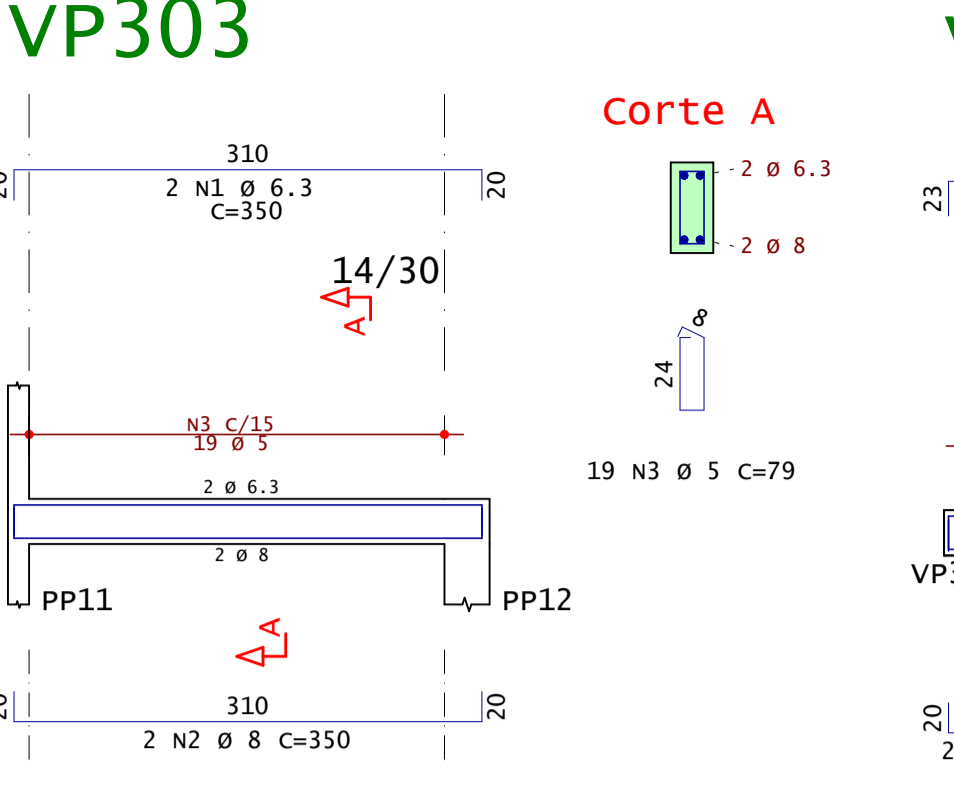
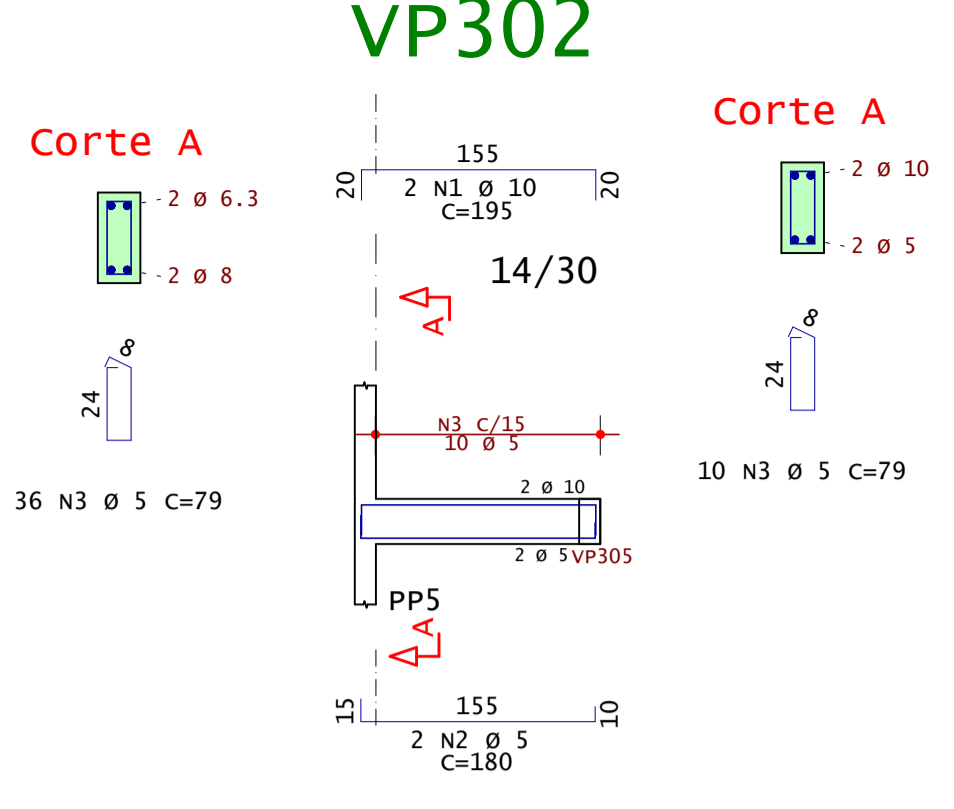
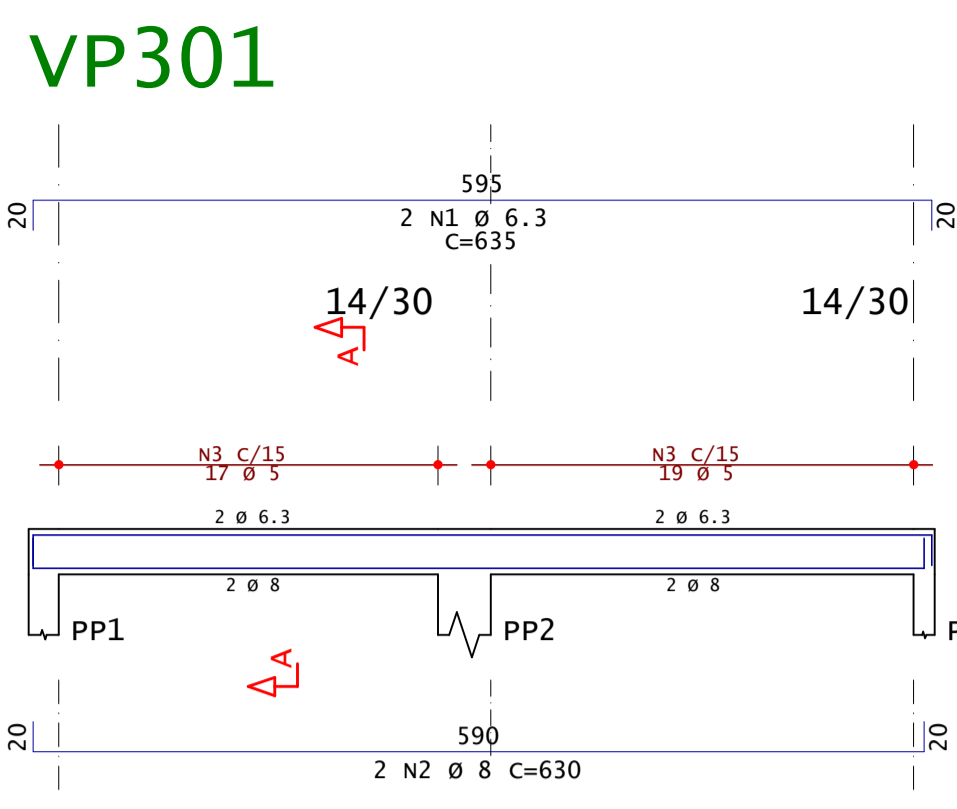
ANDRÉ RODRIGUES

Engenheiro Estrutural

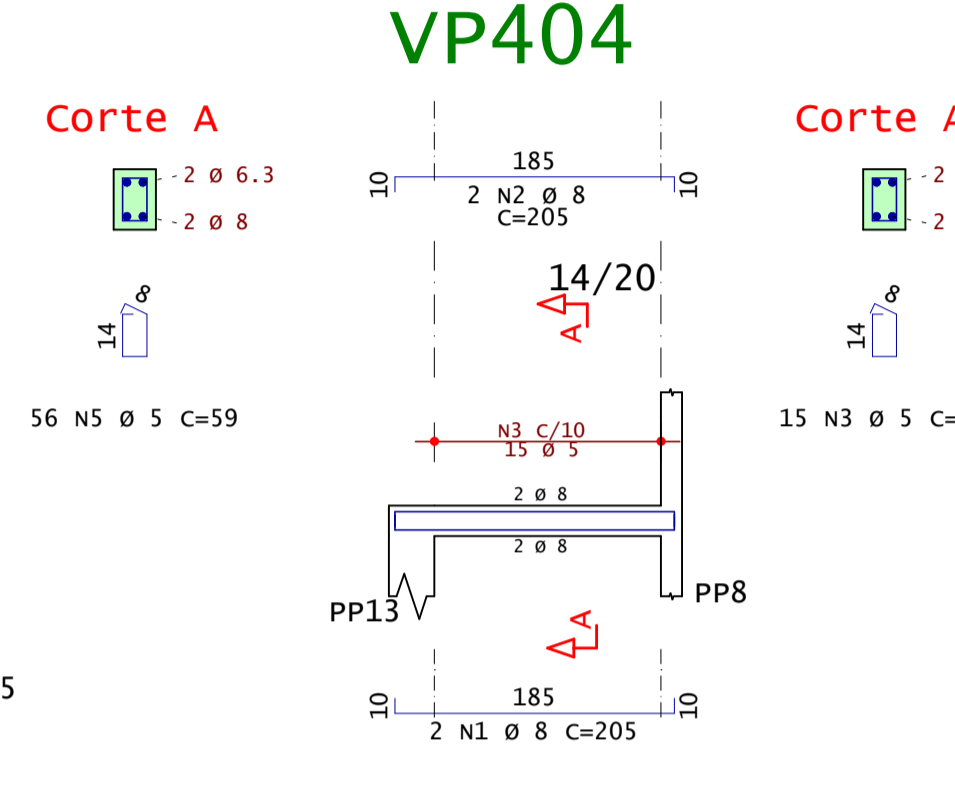
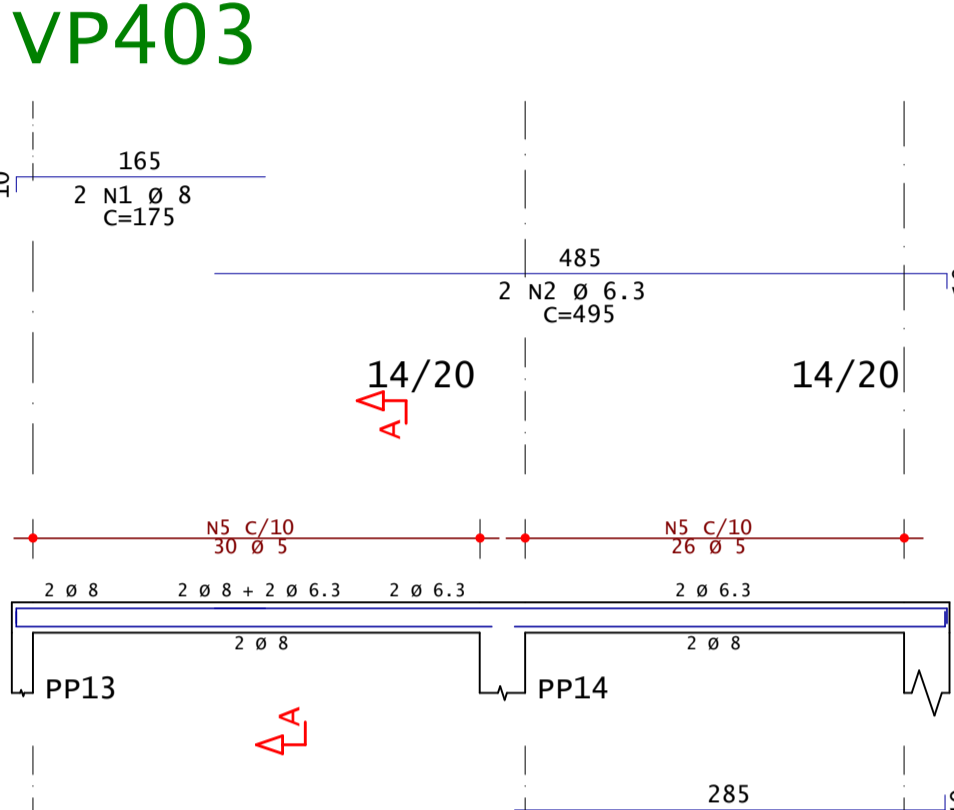
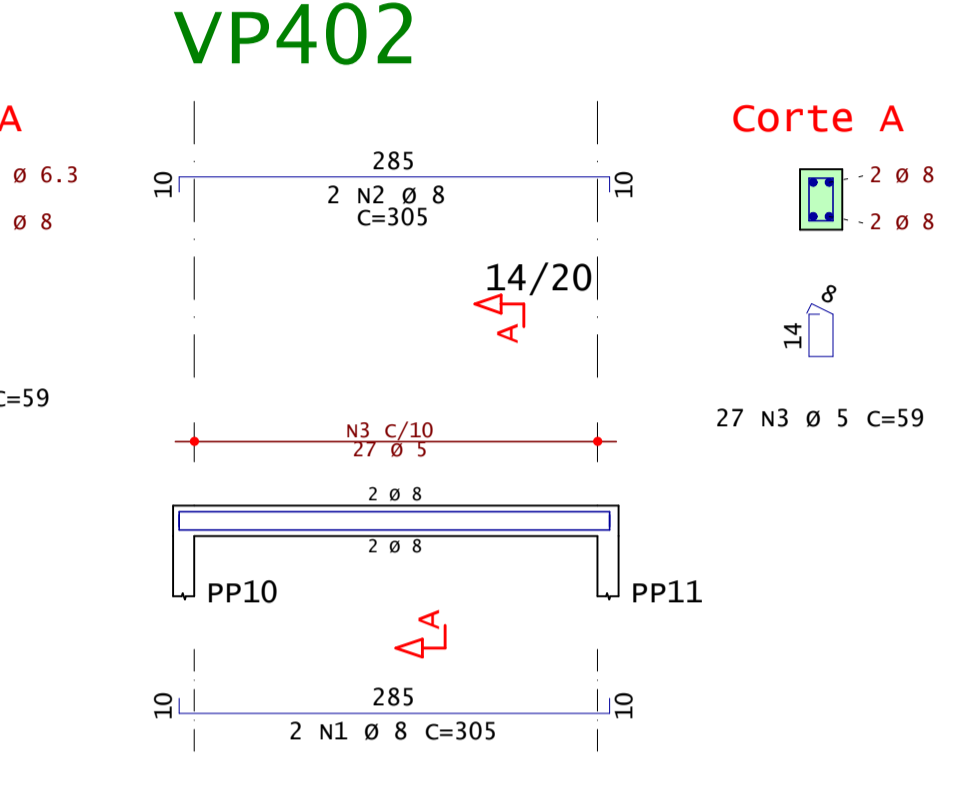
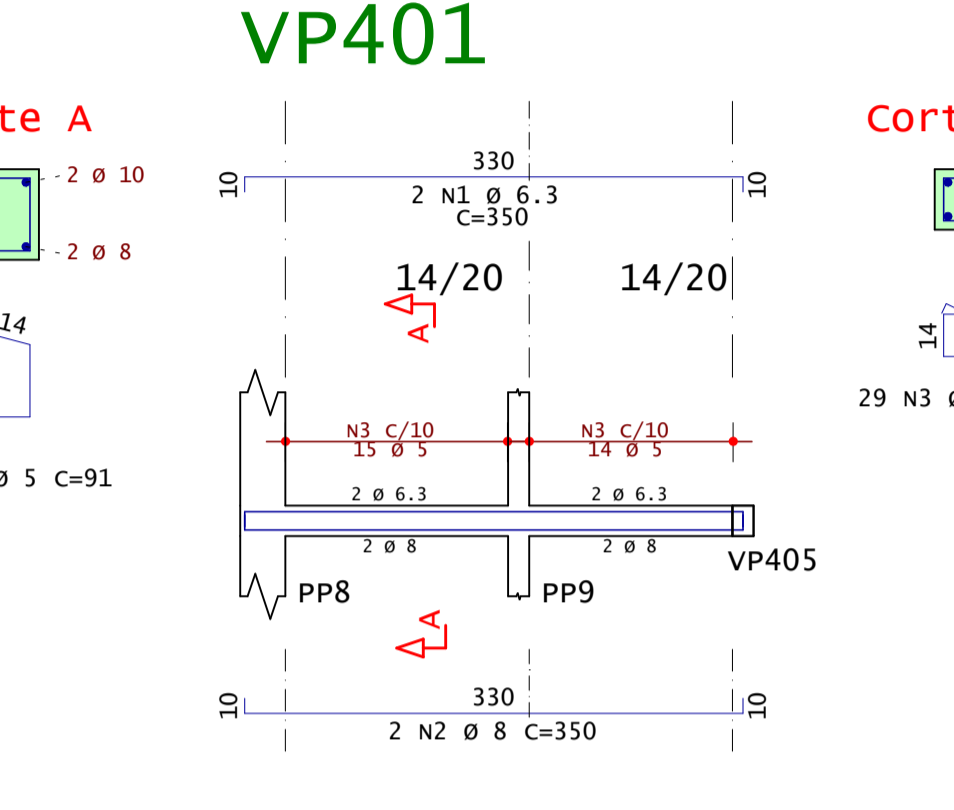
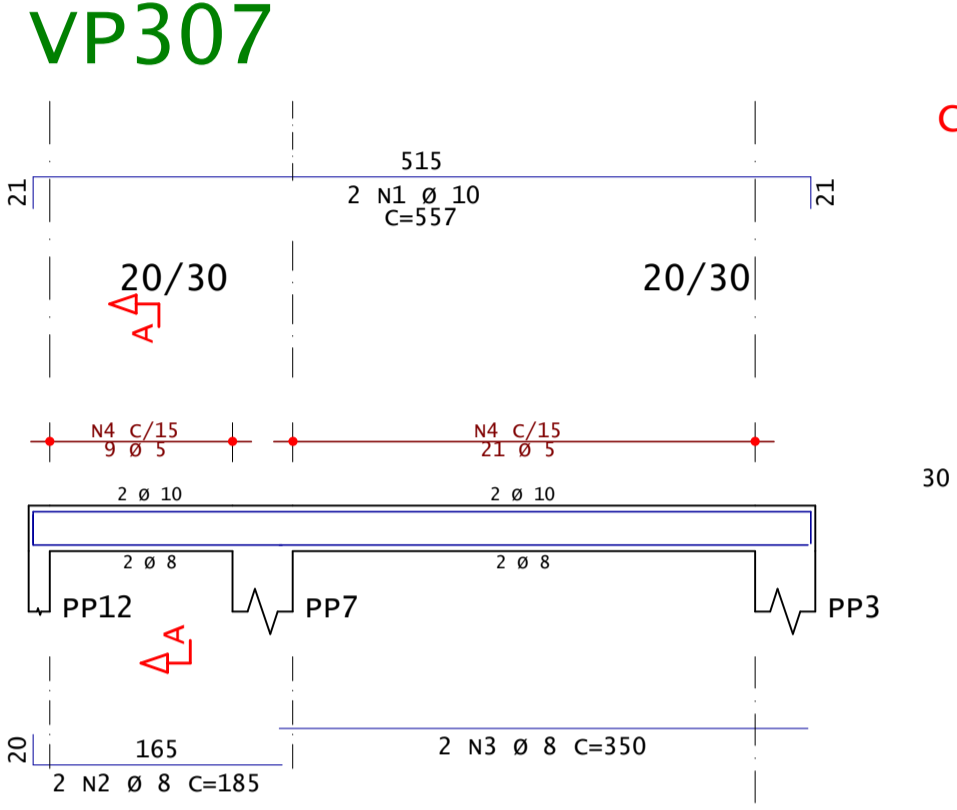
(83) 9 9644 2240 andrerodrigues.eng.br

@andrerodrigueseng contato@andrerodrigues.eng.br

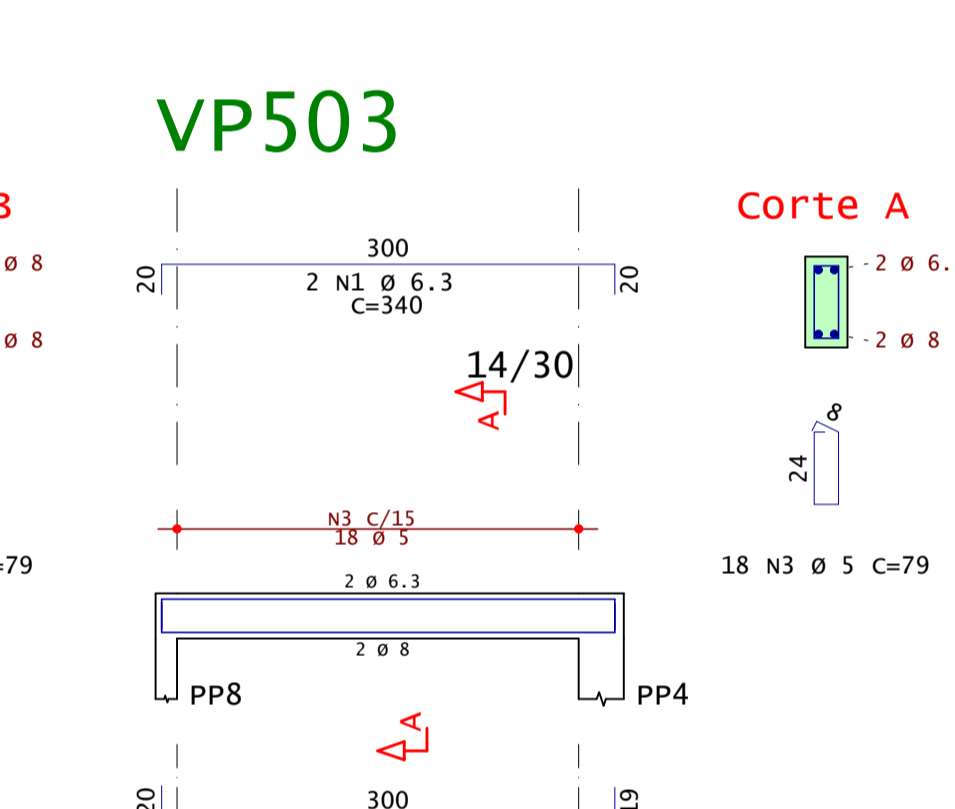
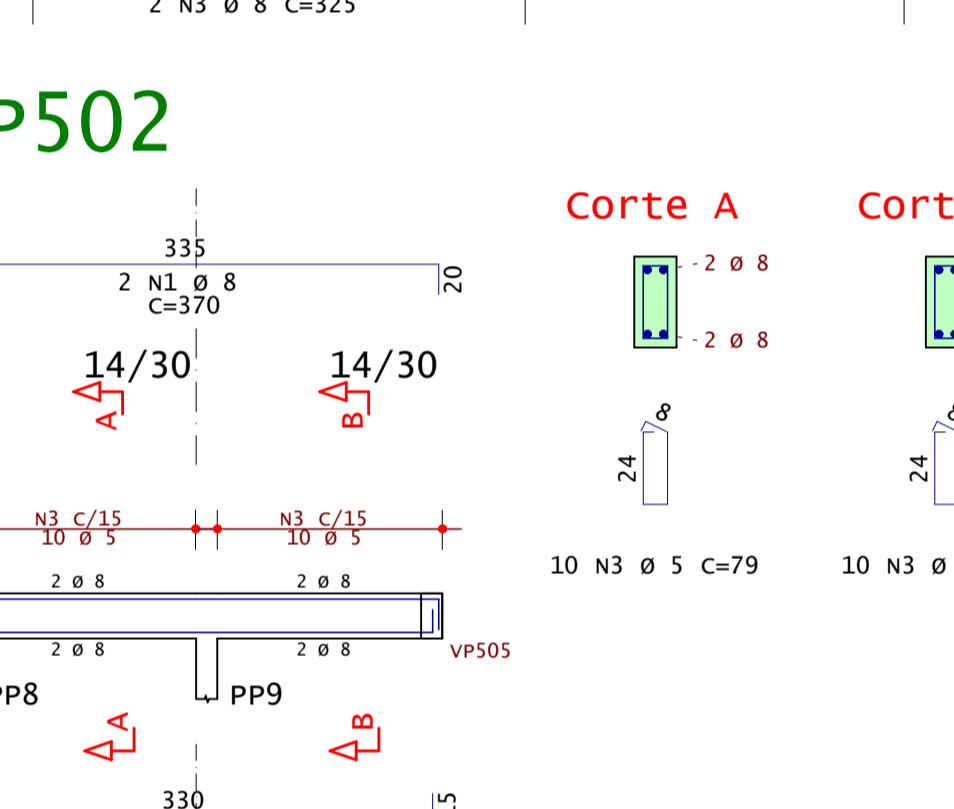
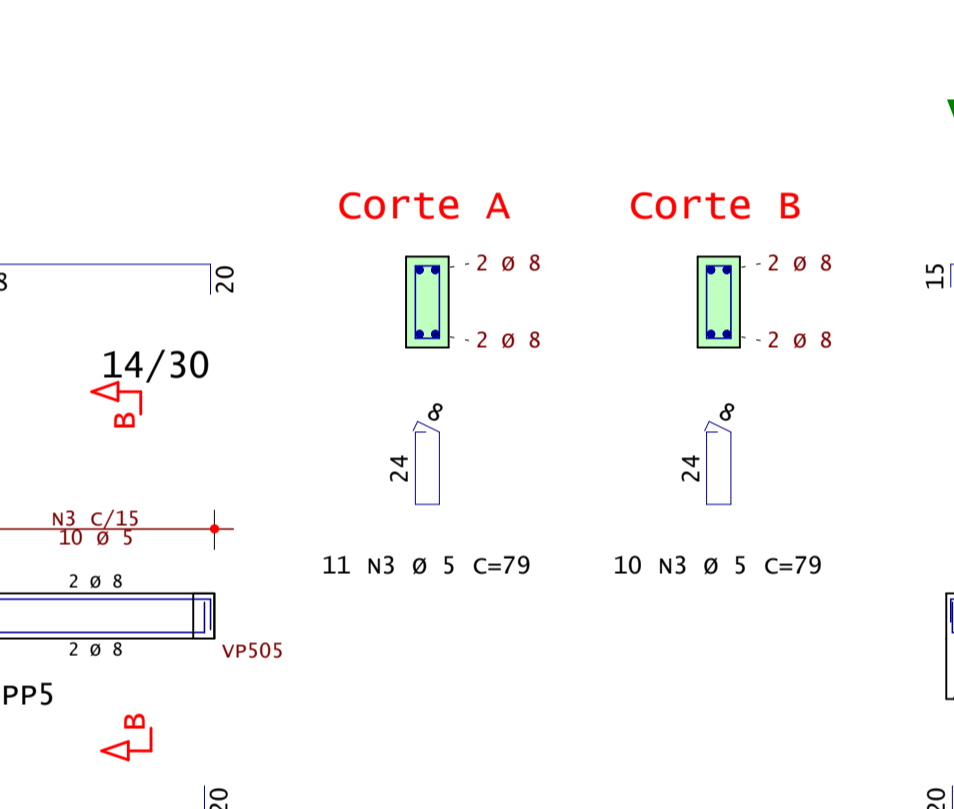
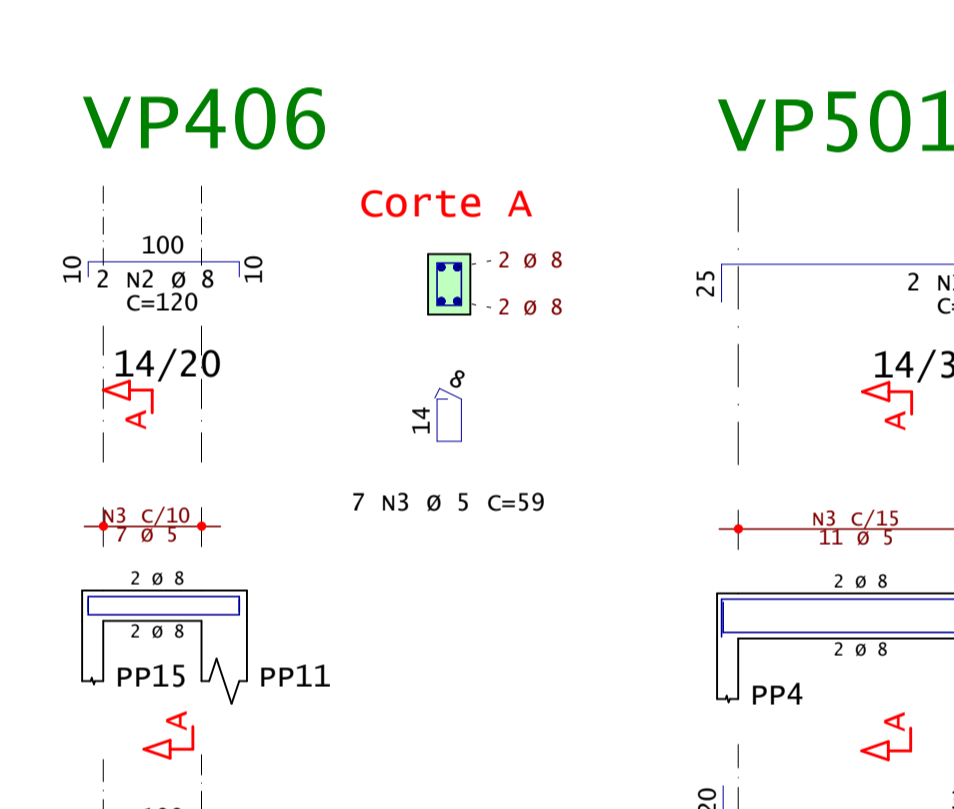
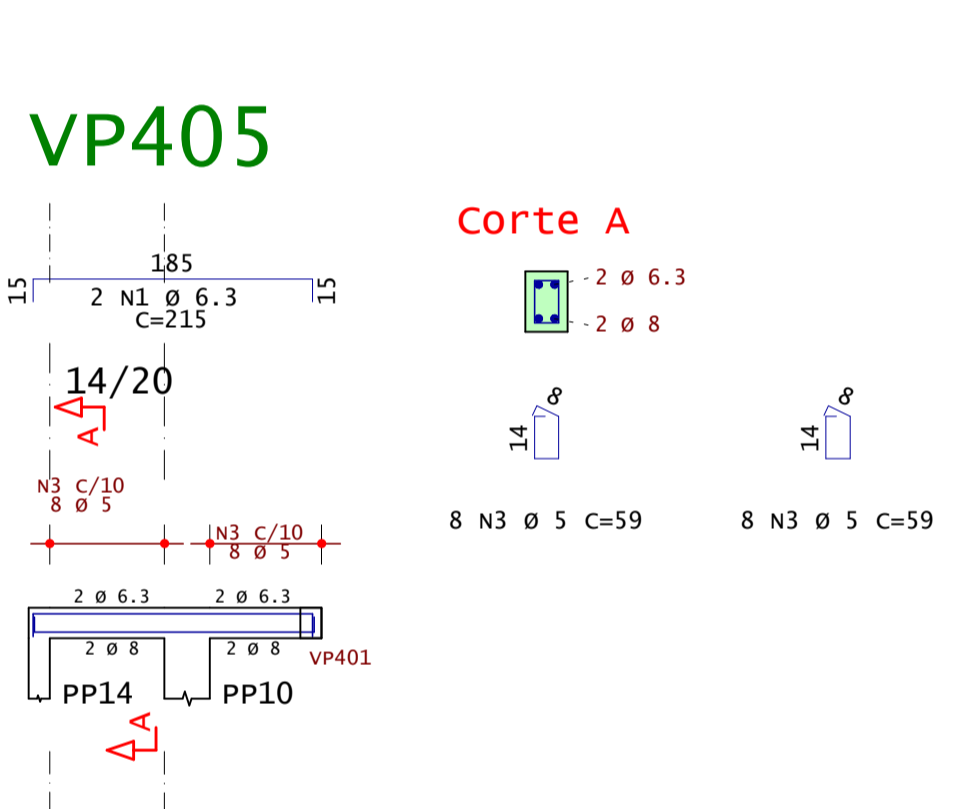
Cliente: Paulo George Dantas da Nobrega		Prancha nº: 26/37	Revisão nº: 002
Obra: Residência Unifamiliar		Observações: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - PISCINA		1/2	
CREA-PB: 161890343-9	ART nº: PB 20210418618		
Data: 16 / 02 / 2022	Escala: Indicada		



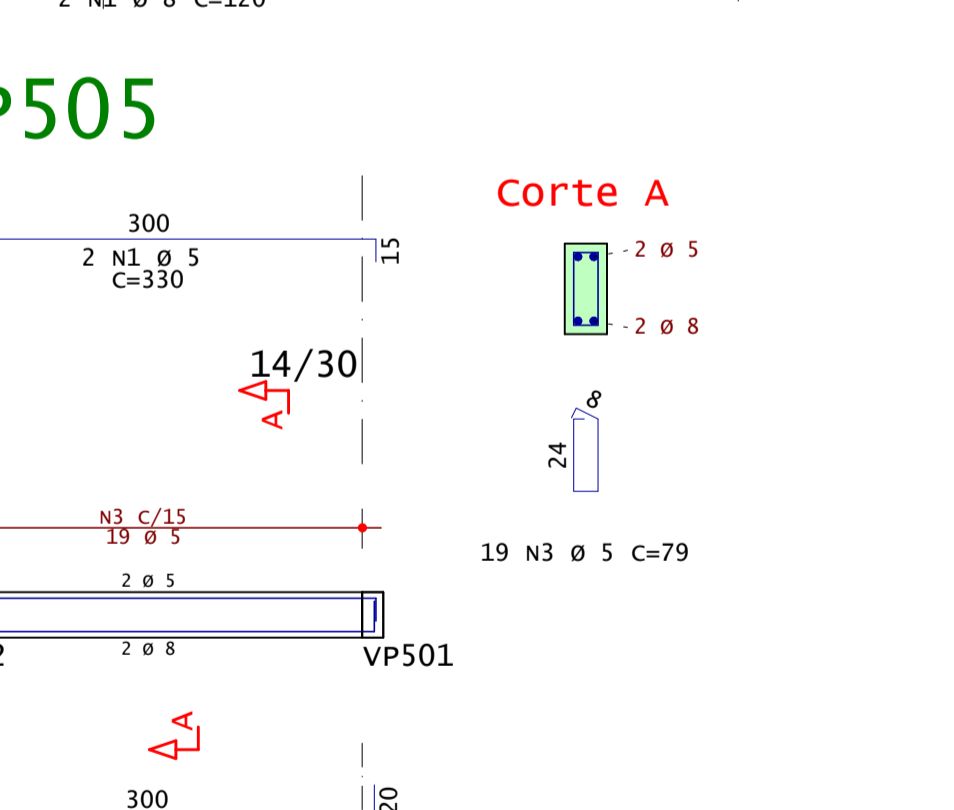
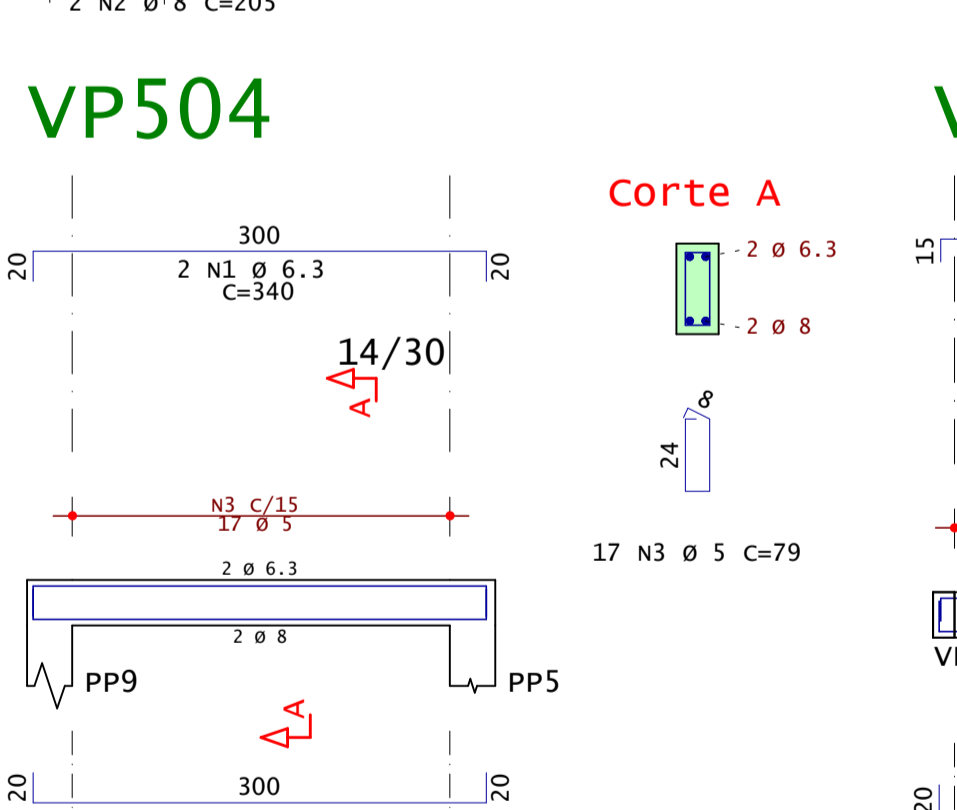
VP	AÇO	POS	BIT	QUANT	COMPRIMENTO UNIT	TOTAL
VP301	50A		6.3	2	635	1270
	50A		8	2	295	590
	50A		8	2	320	640
	60A		4	36	79	2844
VP302	50A		10	2	195	390
	60A		5	2	180	360
	60A		5	10	79	790
VP303	50A		6.3	2	355	710
	50A		10	2	350	700
	60A		3	19	79	1501
VP304	50A		6.3	2	335	670
	60A		3	17	79	1343
VP305	50A		6.3	2	175	350
	60A		2	6	152	304
VP306	50A		6.3	2	140	280
	50A		8	2	140	280
	60A		3	5	79	395
VP307	50A		10	2	557	1114
	50A		8	2	185	370
	50A		8	2	350	700
	60A		4	30	91	2730



VP401	50A		6.3	2	355	710
	50A		8	2	355	710
	60A		3	29	59	1711
	60A		4	5	30	91
VP402	50A		8	2	310	620
	50A		2	8	305	610
	60A		3	5	27	59
VP403	50A		8	2	175	350
	50A		2	8	2	495
	50A		3	8	2	325
	50A		4	8	2	295
	60A		5	56	59	3304
VP404	50A		10	2	208	416
	50A		2	8	2	205
	60A		3	5	15	59
VP405	50A		6.3	2	215	430
	50A		2	8	2	210
	60A		3	5	16	59
VP406	50A		12.5	2	124	248
	50A		8	2	120	240
	60A		3	7	59	413
VP501	50A		8	2	375	750
	50A		2	8	2	370
	60A		3	5	20	79
VP502	50A		6.3	2	345	690
	50A		2	8	2	340
	60A		3	5	18	79
VP503	50A		6.3	2	345	690
	50A		2	8	2	340
	60A		3	5	17	79
VP504	60A		5	2	330	660
	50A		2	8	2	340
	60A		3	5	19	79




RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	275	42
50A	6.3	58	14
50A	8	149	59
50A	10	19	12
50A	12.5	2	2
Peso Total			60A = 42 kgf
Peso Total			50A = 87 kgf



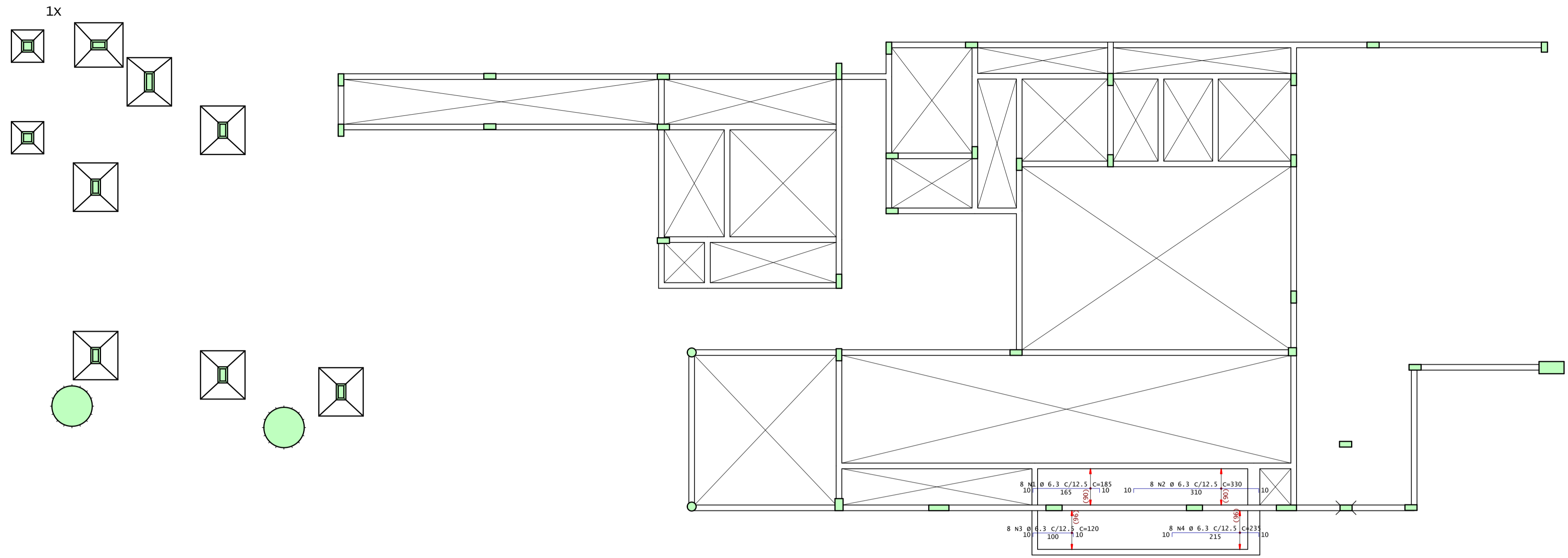

 Acesse o site pela sua câmera
 - Modelos 3D
 - Arquivos de obra
 - Todos os Documentos

ANDRÉ RODRIGUES
 Engenheiro Estrutural
 (83) 9 9644 2240 andrerodrigues.eng.br
 @andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Francha n°: 27/37	Revisão n°: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: VIGAS - PISCINA	2/2	
CREA-PB: 161890343-9	ART n°: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	

ANDRÉ RODRIGUES DE VASCONCELOS PL CAS-FUN-VIG-004-R00-PLT 16/02/2022 Z:1:31:30

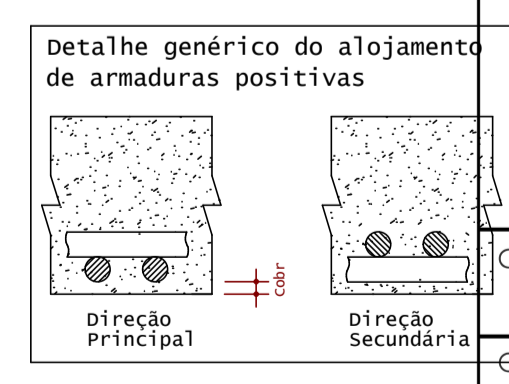
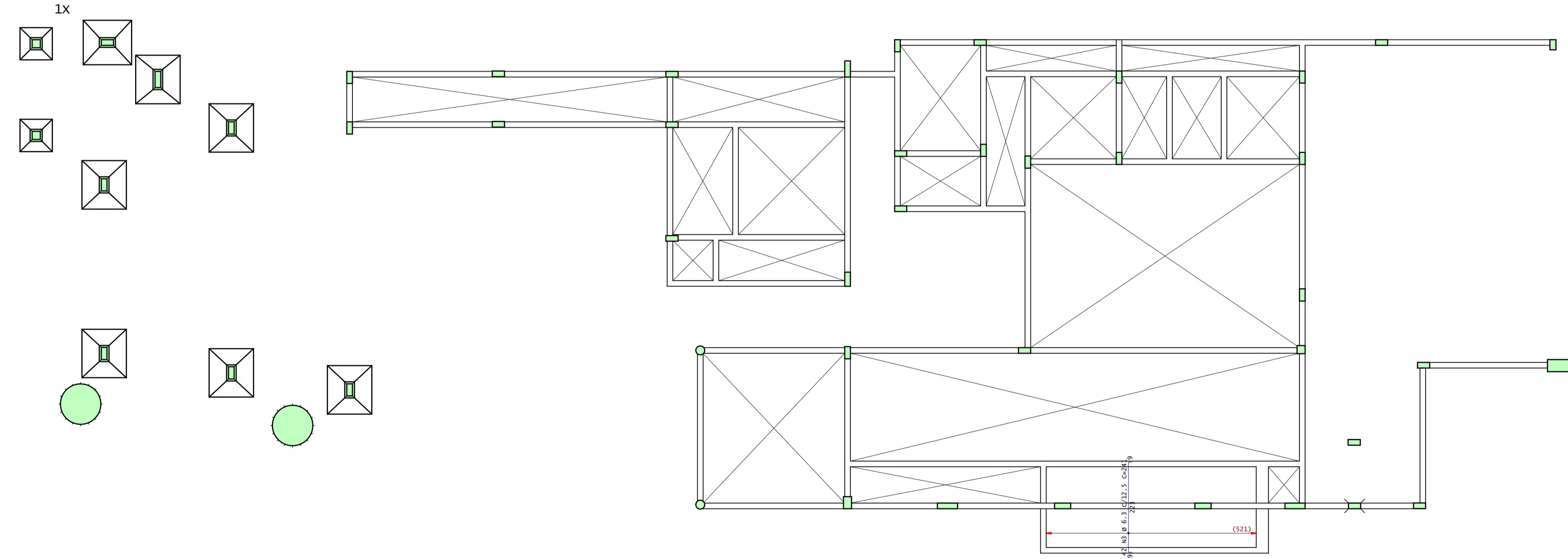
Térreo - Armadura negativa principal



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
cm					
Térreo - Armadura negativa principal					
50A	1	6.3	8	185	1480
50A	2	6.3	8	330	2640
50A	3	6.3	8	120	960
50A	4	6.3	8	235	1880
Térreo - Armadura negativa secundaria					
50A	3	6.3	42	241	10122

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
mm			kgf
50A	6.3	171	42
Peso Total			50A = 42 kgf

Térreo - Armadura negativa secundaria



Acesse o site pela sua câmera

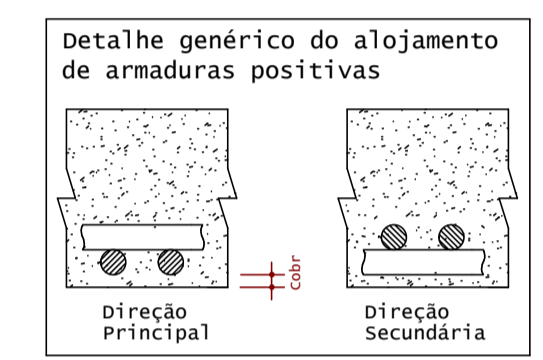
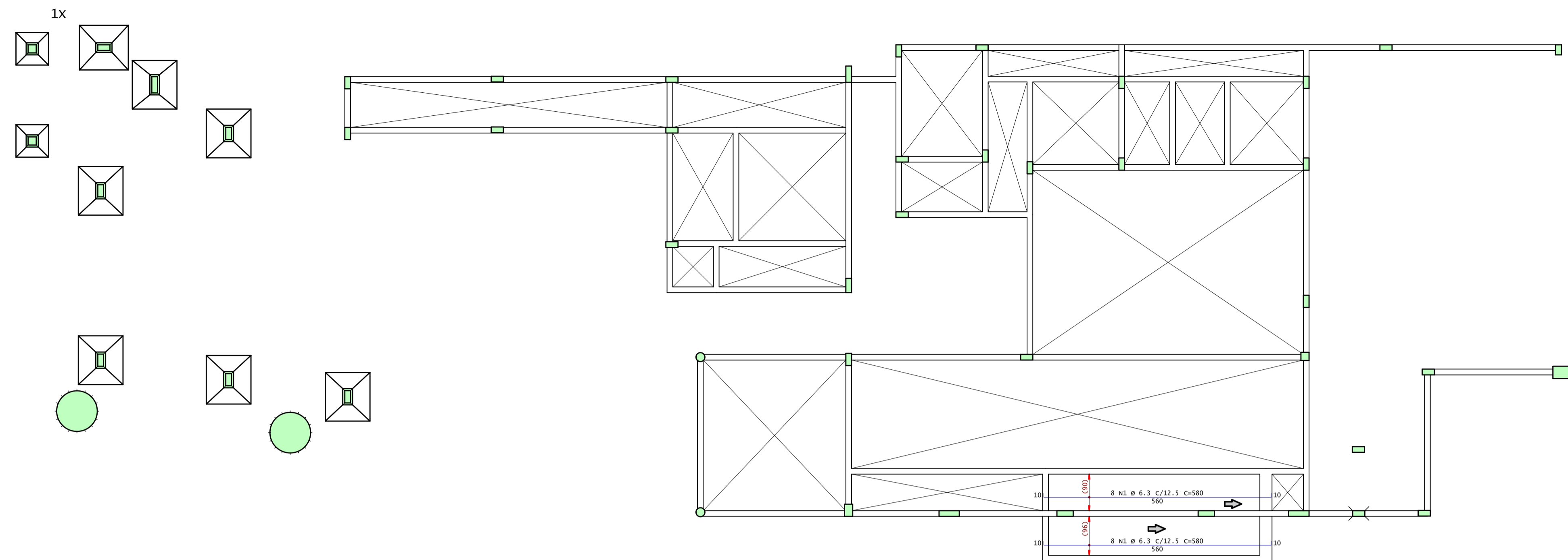
- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@anderodrigueseng contato@anderodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Franca n°: 28/37	Revisão n°: 002
Obra: Residência Unifamiliar		
Título: DETALHAMENTO: LAJES - TÉRREO		
1/2		
CREA-PB: 161890343-9	ART n°: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	

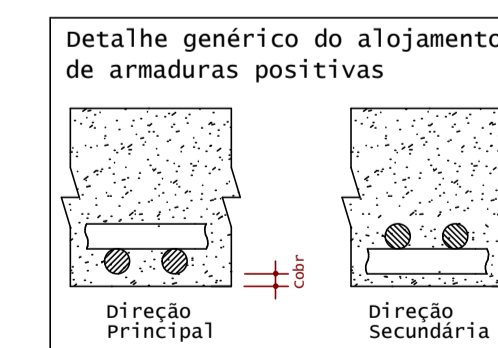
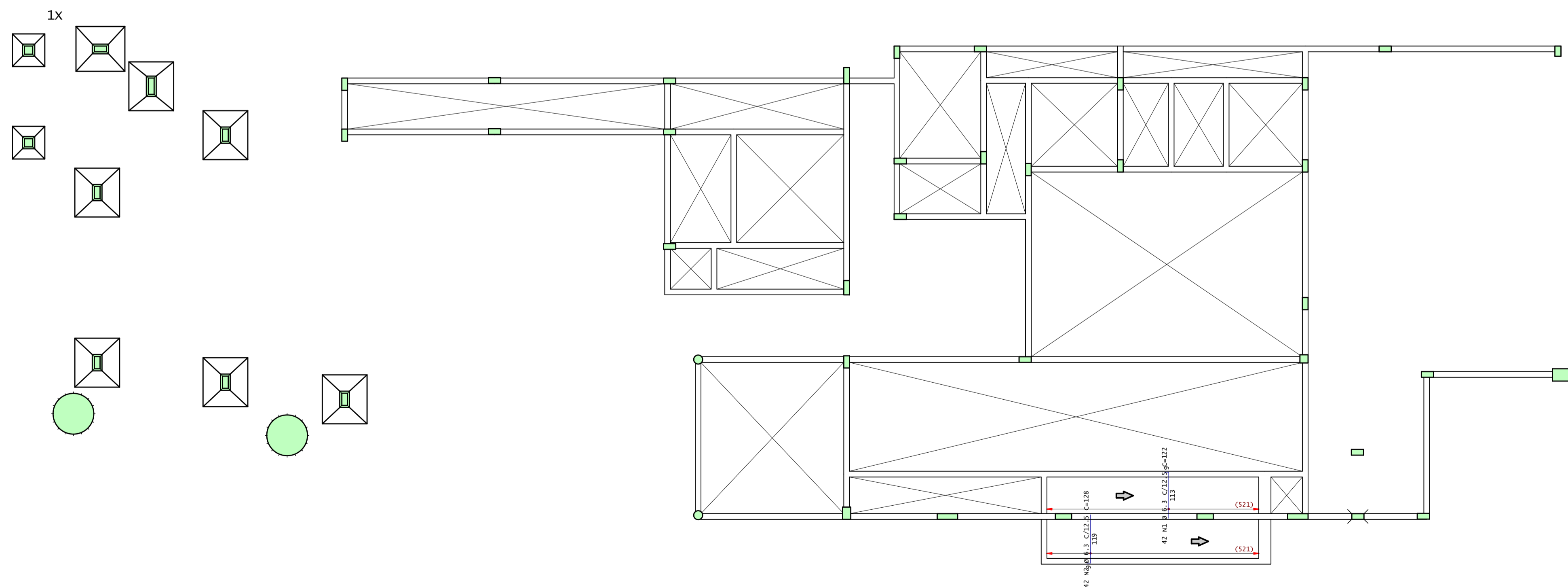
Térreo - Armadura positiva principal



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
cm					
Térreo - Armadura positiva principal					
50A	1	6.3	16	580	9280
Térreo - Armadura positiva secundaria					
50A	1	6.3	42	122	5124
50A	2	6.3	42	128	5376

RESUMO DE AÇO				
AÇO	BIT	COMPR	PESO	
mm			m	kgf
50A	6.3	198		48
Peso Total			50A =	48 kgf

Térreo - Armadura positiva secundaria



Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

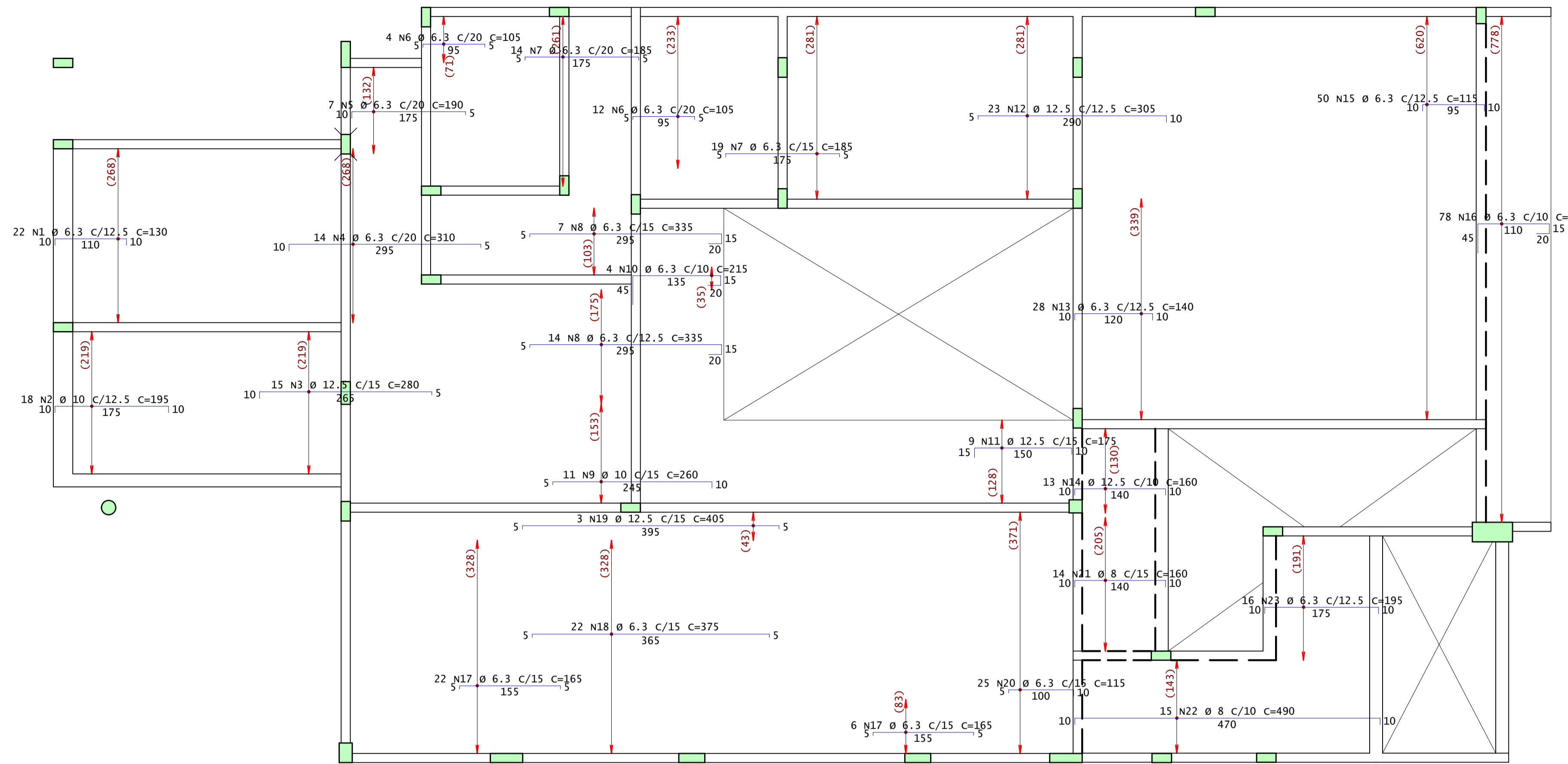
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br
@anderodrigueseng contato@anderodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega		Francha nº: 29/37	Revisão nº: 002
Obra: Residência Unifamiliar		Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: LAJES - TÉRREO		2/2	
CREA-PB: 161890343-9	ART nº: PB 20210418618		
Data: 16 / 02 / 2022	Escala: Indicada		

Laje Superior - Armadura negativa principal

1x

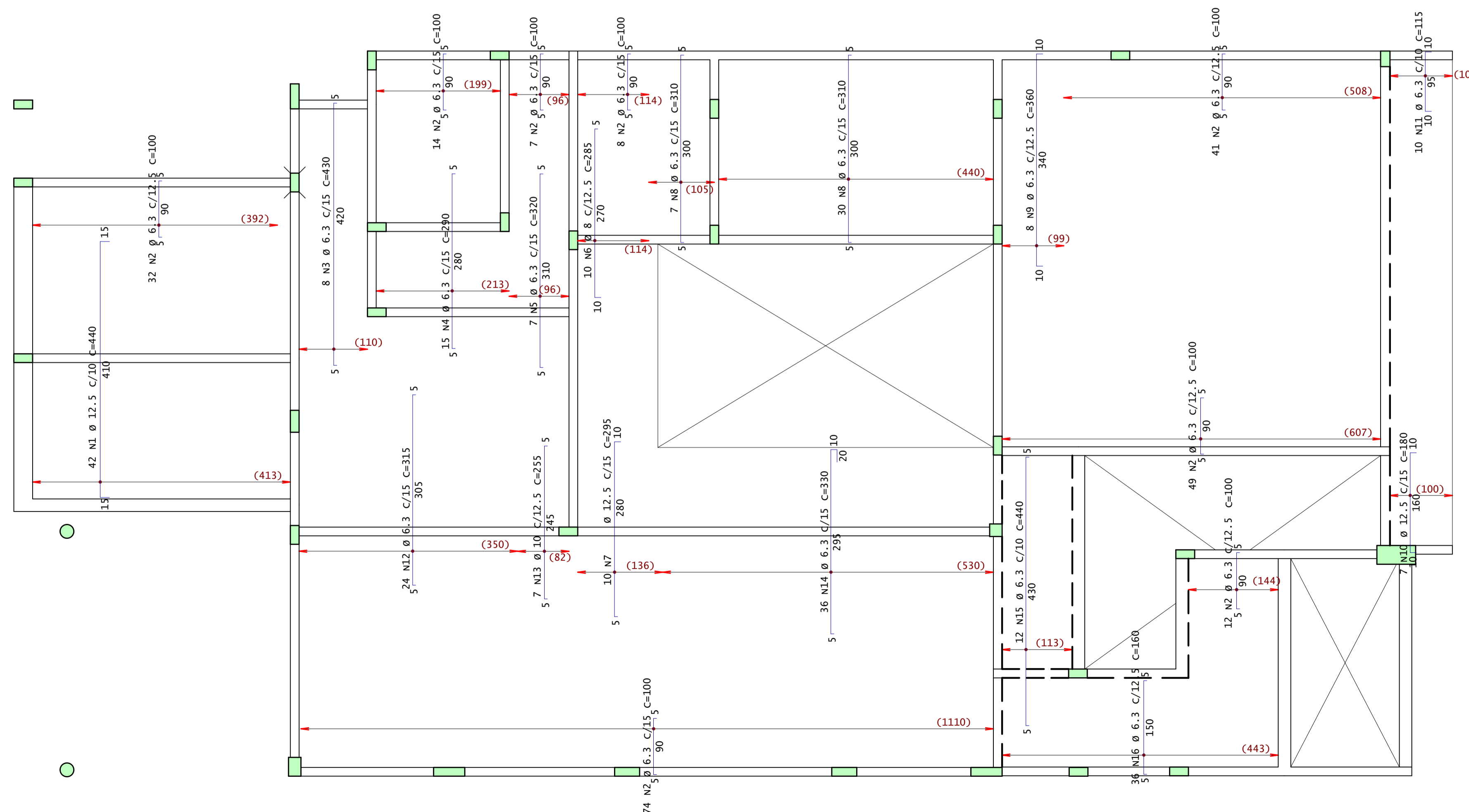


AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
Laje Superior - Armadura negativa principal					
50A	1	6.3	22	130	2860
50A	2	10	18	195	3510
50A	3	12.5	15	280	4200
50A	4	6.3	14	310	4340
50A	5	6.3	7	190	1330
50A	6	6.3	16	105	1680
50A	7	6.3	33	185	6105
50A	8	6.3	11	335	7035
50A	9	10	11	280	2860
50A	10	6.3	4	215	860
50A	11	12.5	9	175	1575
50A	12	12.5	23	305	7015
50A	13	6.3	28	140	3920
50A	14	12.5	13	160	2080
50A	15	6.3	50	115	5750
50A	16	6.3	78	190	14820
50A	17	6.3	28	165	4620
50A	18	6.3	22	375	8250
50A	19	12.5	3	405	1215
50A	20	6.3	25	115	2875
50A	21	8	14	160	2240
50A	22	8	15	490	7350
50A	23	6.3	16	195	3120
Laje Superior - Armadura negativa secundaria					
50A	1	12.5	42	440	18480
50A	2	6.3	237	100	23700
50A	3	6.3	8	430	3440
50A	4	6.3	15	290	4350
50A	5	6.3	7	320	2240
50A	6	8	10	285	2850
50A	7	12.5	10	295	2950
50A	8	6.3	37	310	11470
50A	9	6.3	8	360	2880
50A	10	12.5	7	180	1260
50A	11	6.3	10	115	1150
50A	12	6.3	24	315	7560
50A	13	10	7	255	1785
50A	14	6.3	36	330	11880
50A	15	6.3	12	440	5280
50A	16	6.3	36	160	5760

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
50A	6.3	1473	361
50A	8	124	49
50A	10	82	50
50A	12.5	388	373
Peso Total		50A =	834 kgf

Laje Superior - Armadura negativa secundaria

1x





Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES

Engenheiro Estrutural

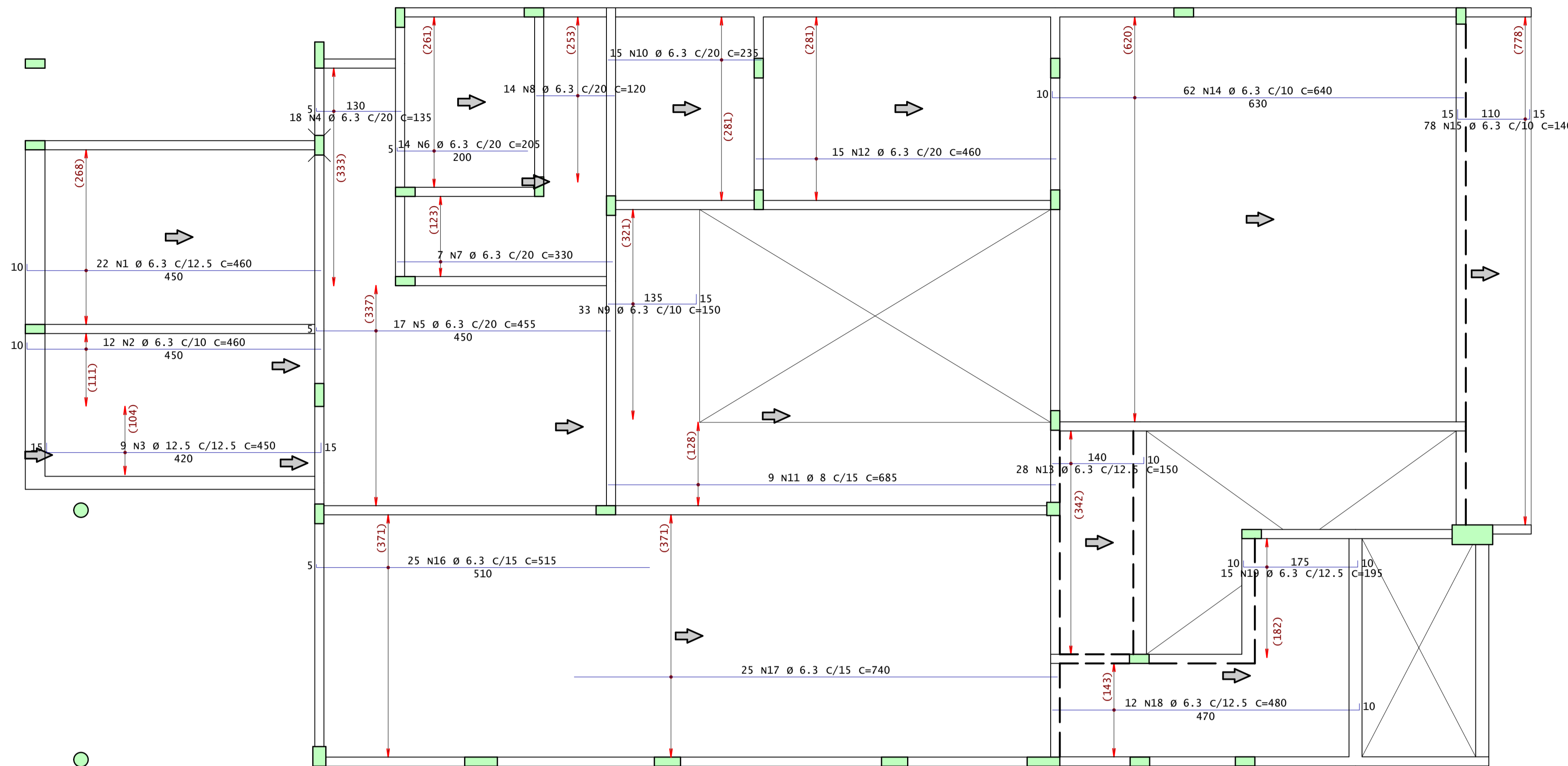
(83) 9 9644 2240
@andrerodrigueseng

andrerodrigues.eng.br
contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha nº: 30/37	Revisão nº: 002
Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	1/4	
CREA-PB: 161890343-9 Data: 16 / 02 / 2022	ART nº: PB 20210418618 Escala: Indicada	

Laje Superior - Armadura positiva principal

1X

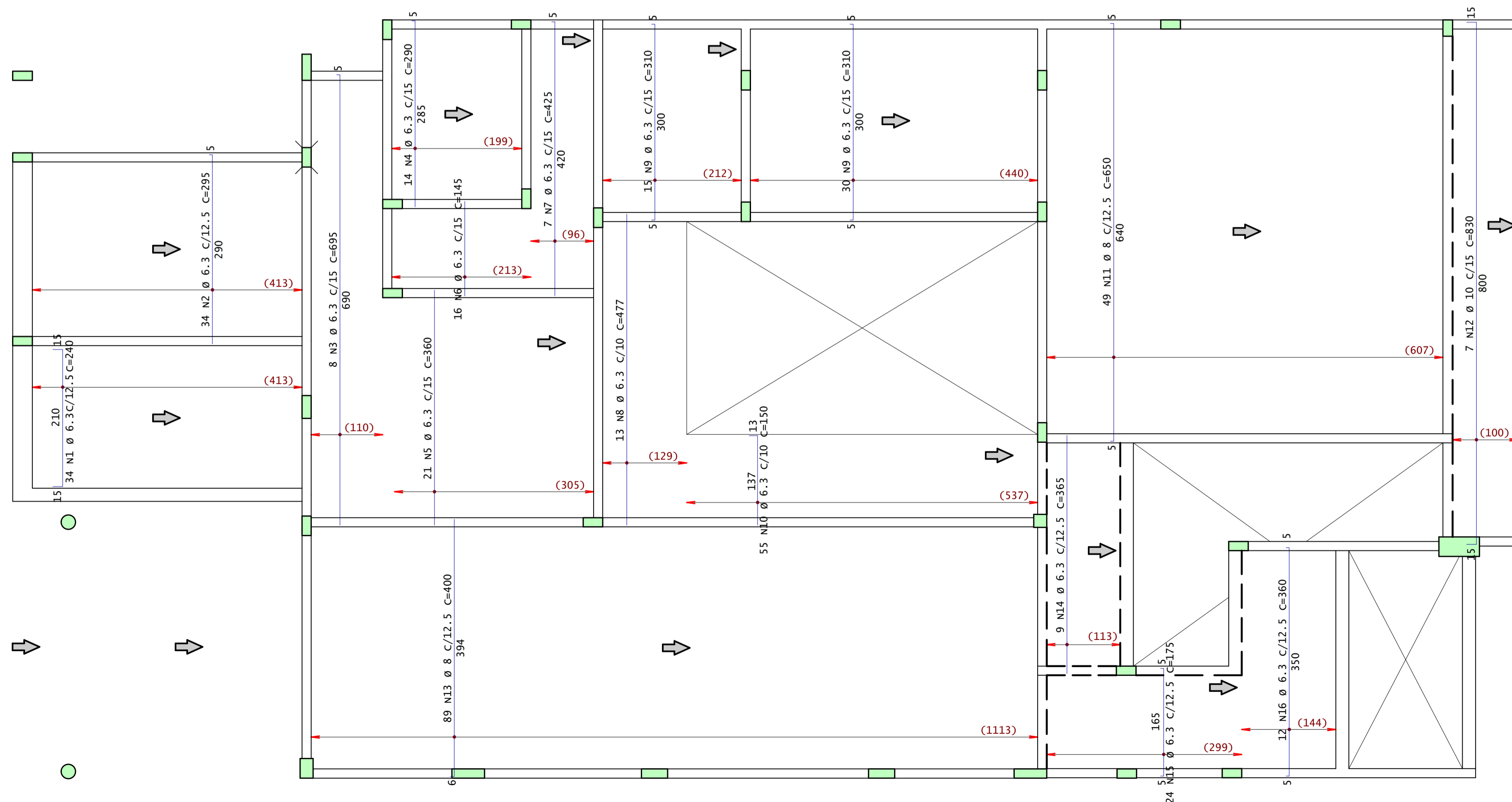


AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
Laje Superior - Armadura positiva principal					
50A	1	6.3	22	460	10120
50A	2	6.3	12	460	5520
50A	3	12.5	9	450	4050
50A	4	6.3	18	135	2430
50A	5	6.3	17	455	7735
50A	6	6.3	14	205	2870
50A	7	6.3	7	330	2310
50A	8	6.3	14	120	1680
50A	9	6.3	33	150	4950
50A	10	6.3	15	235	3525
50A	11	8	9	685	6165
50A	12	6.3	15	460	6900
50A	13	6.3	28	150	4200
50A	14	6.3	62	640	39680
50A	15	6.3	78	140	10920
50A	16	6.3	25	515	12875
50A	17	6.3	25	740	18500
50A	18	6.3	12	480	5760
50A	19	6.3	15	195	2925
Laje Superior - Armadura positiva secundaria					
50A	1	6.3	34	240	8160
50A	2	6.3	34	295	10030
50A	3	6.3	8	695	5560
50A	4	6.3	14	290	4060
50A	5	6.3	21	360	7560
50A	6	6.3	16	145	2320
50A	7	6.3	7	425	2975
50A	8	6.3	13	477	6201
50A	9	6.3	45	310	13950
50A	10	6.3	55	150	8250
50A	11	8	49	650	31850
50A	12	10	7	830	5810
50A	13	8	89	400	35600
50A	14	6.3	9	365	3285
50A	15	6.3	24	175	4200
50A	16	6.3	12	360	4320

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
50A	6.3	2238	548
50A	8	736	291
50A	10	58	36
50A	12.5	41	39
Peso Total		50A =	914 kgf

Laje Superior - Armadura positiva secundaria

1X





Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES

Engenheiro Estrutural

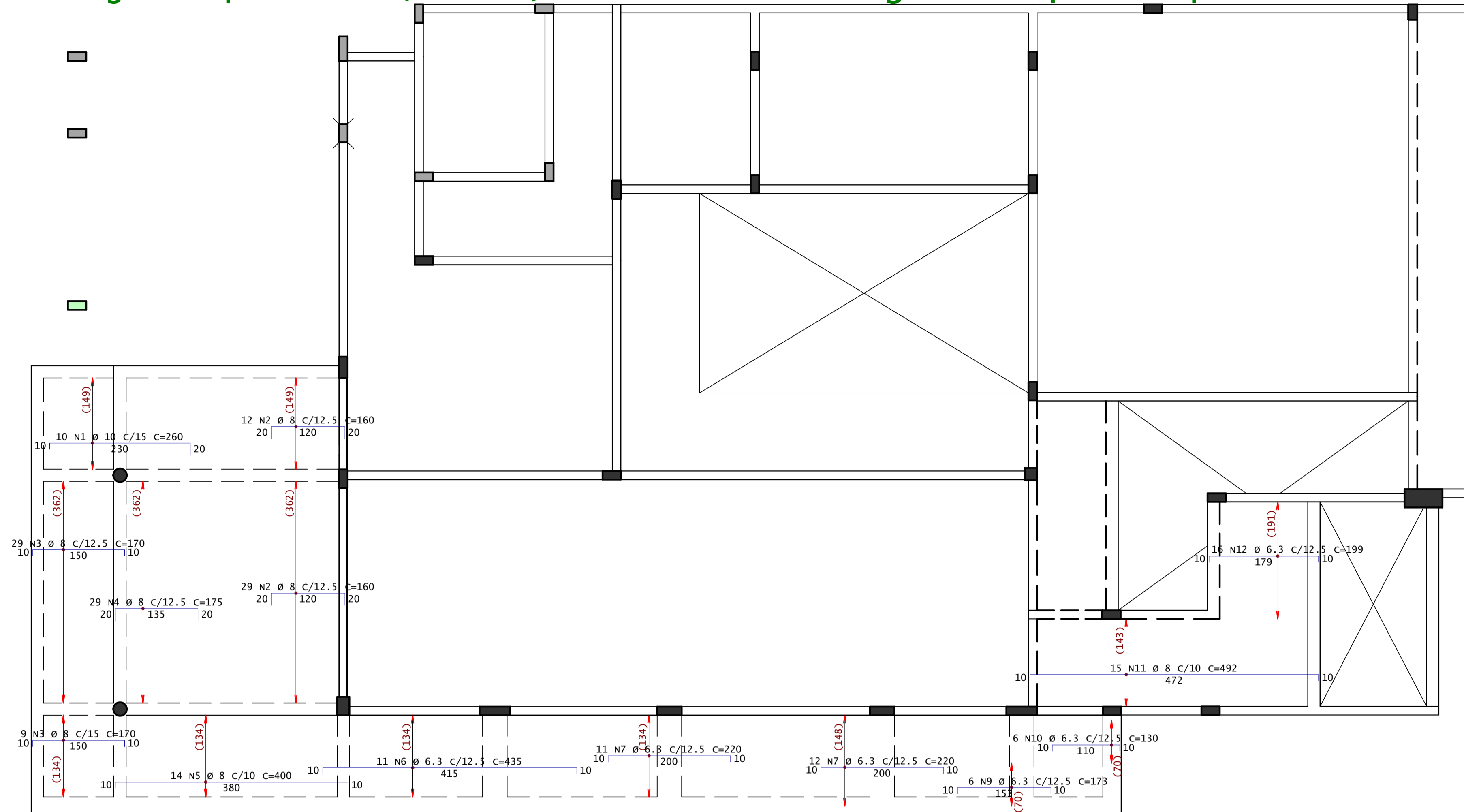
(83) 9 9644 2240 andrerodrigues.eng.br

@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha nº: 31/37 Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo
Título: DETALHAMENTO: LAJES - LAJE SUPERIOR	2/4
CREA-PB: 161890343-9	ART nº: PB 20210418618
Data: 16 / 02 / 2022	Escala: Indicada



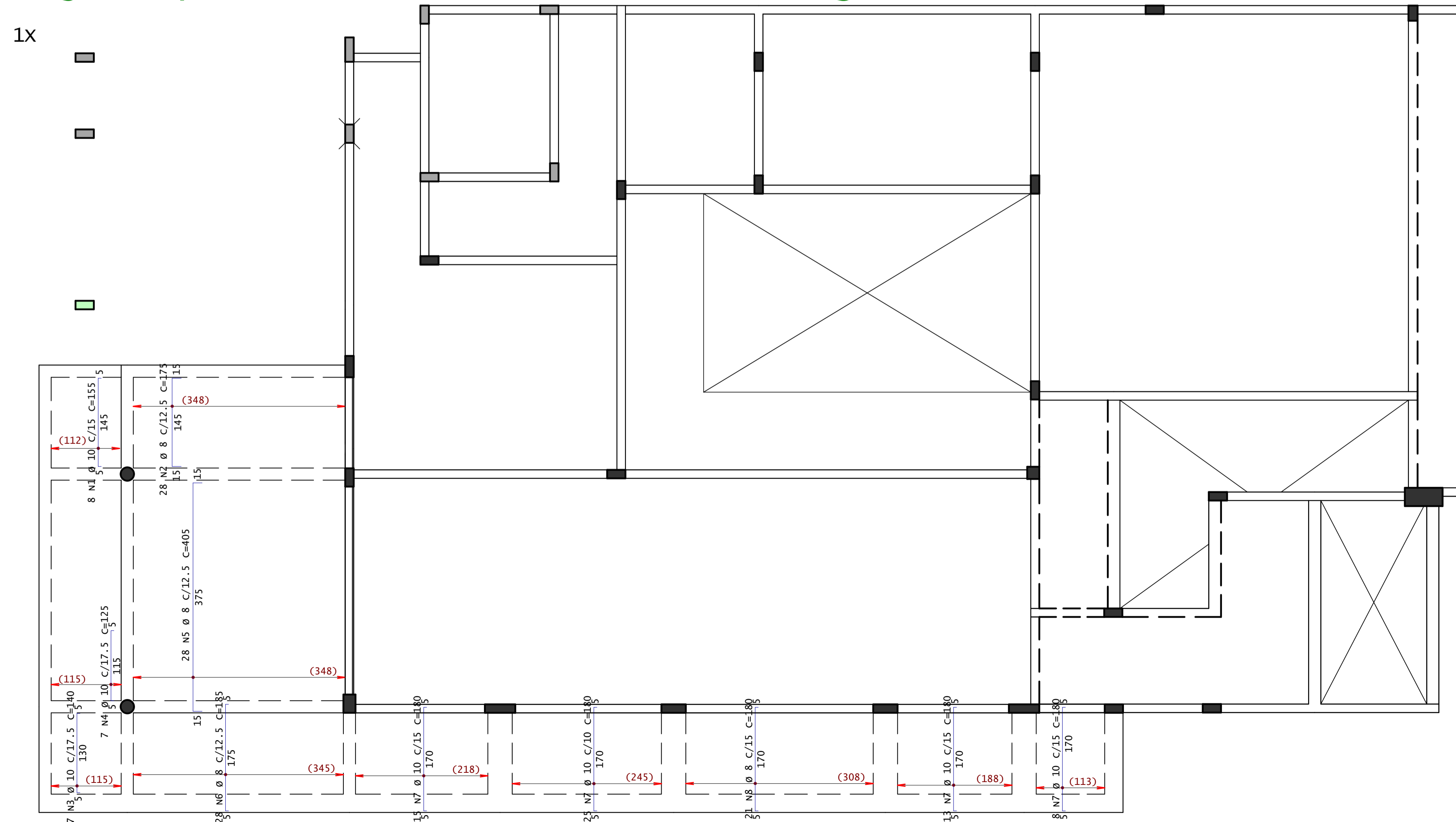
Laje Superior (-80cm) - Armadura negativa principal



AÇO	POS	BIT mm	QUANT	COMPRIMENTO		
				UNIT cm	TOTAL cm	
Laje Superior (-80cm) - Armadura negativa principal						
50A	1	10	10	260	2600	
50A	2	8	41	160	6560	
50A	3	8	38	170	6460	
50A	4	8	29	175	5075	
50A	5	8	14	400	5600	
50A	6	6.3	11	435	4785	
50A	7	6.3	23	220	5060	
50A	8	6.3	6	173	1038	
50A	9	6.3	6	130	780	
50A	10	6.3	8	15	492	7380
50A	11	6.3	16	199	3184	
50A	12	6.3	16	199	3184	
Laje Superior (-80cm) - Armadura negativa secundaria						
50A	1	10	8	155	1240	
50A	2	8	28	175	4900	
50A	3	10	7	140	980	
50A	4	10	7	125	875	
50A	5	8	28	405	11340	
50A	6	8	28	185	5180	
50A	7	10	61	180	10980	
50A	8	8	21	180	3780	

RESUMO DE AÇO			
AÇO	BIT mm	COMPR m	PESO kgf
50A	6.3	148	36
50A	8	563	222
50A	10	167	103
Peso Total		50A =	362 kgf

Laje Superior (-80cm) - Armadura negativa secundaria





Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

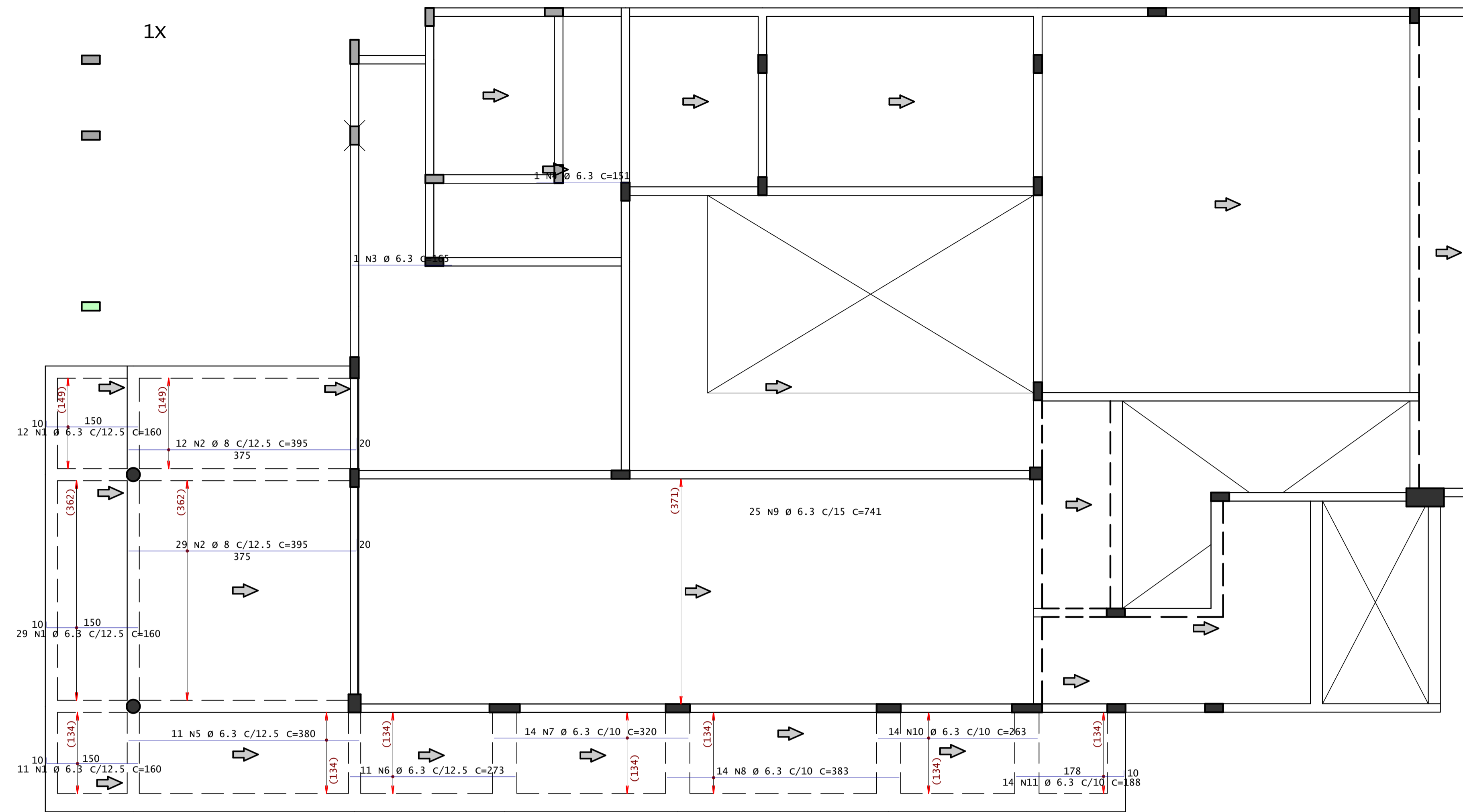
ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240
@andrerodrigueseng

andrerodrigues.eng.br
contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega		Prancha nº: 32/37	Revisão nº: 002
Obra: Residência Unifamiliar		Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: LAJES - LAJE SUPERIOR		3/4	
CREA-PB: 161890343-9	ART nº: PB 20210418618		
Data: 16 / 02 / 2022	Escala: Indicada		

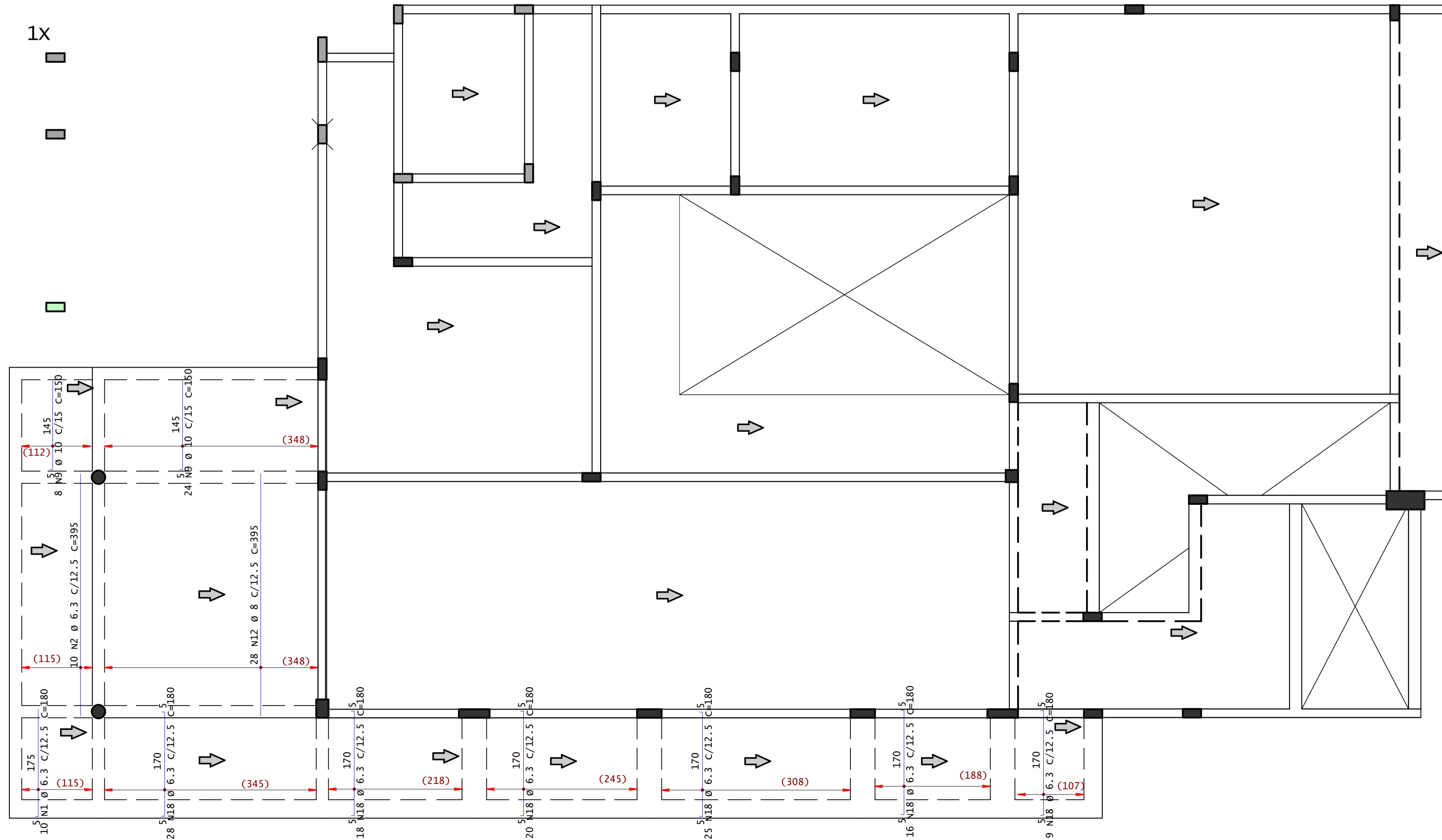
Laje Superior (-80cm) - Armadura positiva principal



AÇO	POS	BIT mm	QUANT	COMPRIMENTO	
				UNIT cm	TOTAL cm
Laje Superior (-80cm) - Armadura positiva principal					
50A	1	6.3	52	160	8320
50A	2	8	41	395	16195
50A	3	6.3	1	165	165
50A	4	6.3	1	151	151
50A	5	6.3	11	380	4180
50A	6	6.3	11	273	3003
50A	7	6.3	14	320	4480
50A	8	6.3	14	383	5362
50A	9	6.3	25	741	18525
50A	10	6.3	14	263	3682
50A	11	6.3	14	188	2632
Laje Superior (-80cm) - Armadura positiva secundaria					
50A	1	6.3	10	180	1800
50A	2	6.3	10	395	3950
50A	9	10	32	150	4800
50A	12	8	28	395	11060
50A	18	6.3	116	180	20880

RESUMO DE AÇO			
AÇO	BIT mm	COMPR m	PESO kgf
50A	6.3	771	189
50A	8	273	108
50A	10	48	30
Peso Total		50A =	326 kgf

Laje Superior (-80cm) - Armadura positiva secundaria





Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES

Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br

@anderodrigueseng contato@anderodrigues.eng.br

Ciente: Paulo George Dantas da Nobrega

Obra: Residência Unifamiliar

Título: DETALHAMENTO: LAJES - LAJE SUPERIOR

CREA-PB: 161890343-9

Data: 16 / 02 / 2022

Francha n°: 33/37

Revisão n°: 002

Observações: Concreto: fck 25MPa
Eci: 28000 Mpa
Atente-se aos cobrimentos
Leia o Memorial Descritivo

4/4

ART n°: PB 20210418618

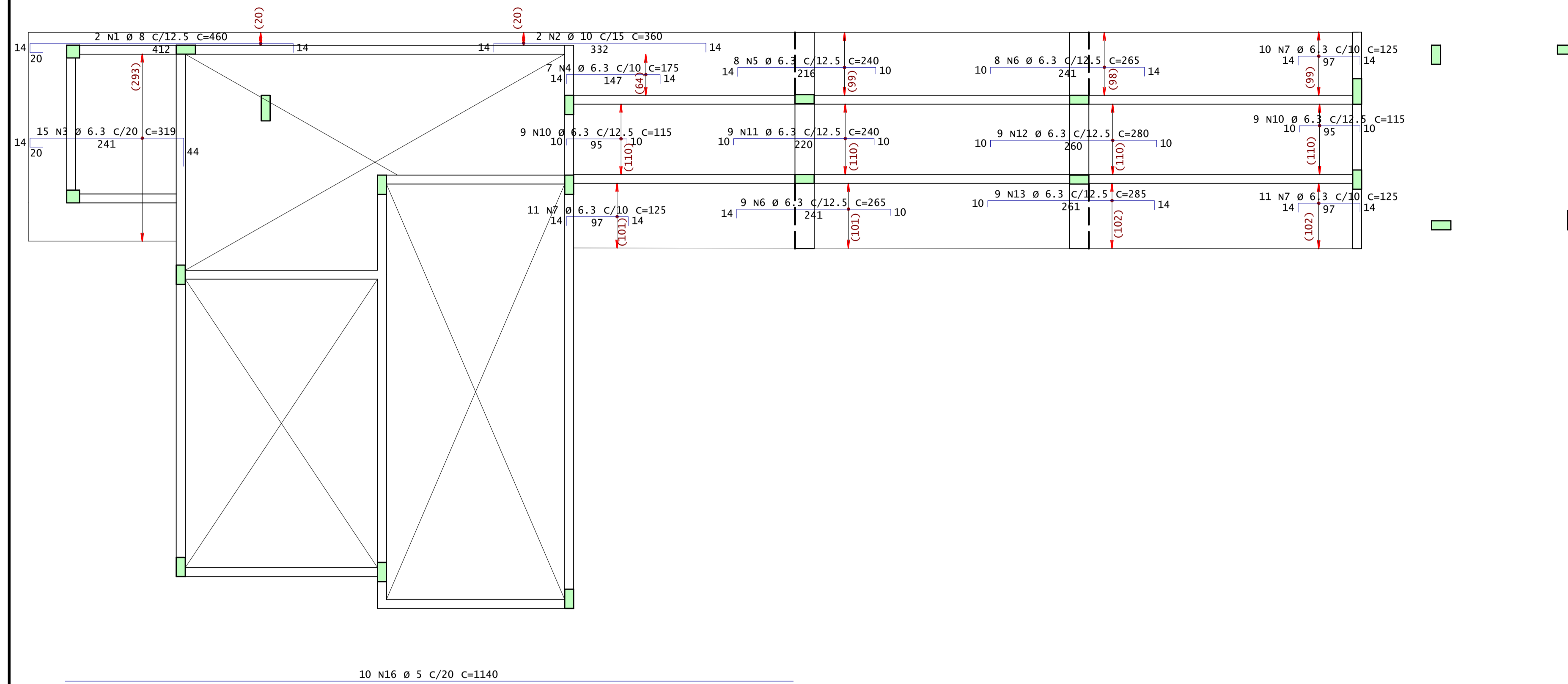
Escala: Indicada



ANDRÉ RODRIGUES DE VASCONCELOS PL CAS-PP - LAJ-DIB-R00-PLT 16/02/2022 23:10:51

1º Andar - Armadura negativa principal

1x

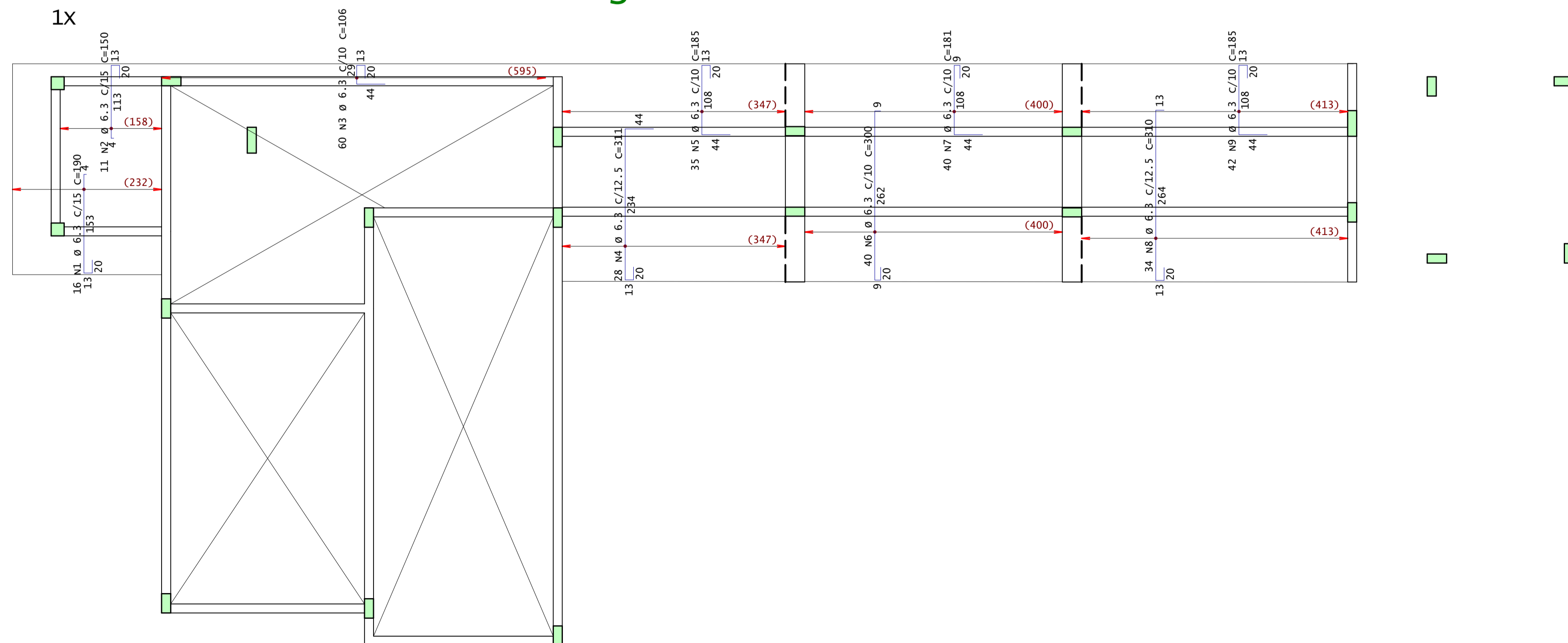


AÇO	POS	BIT mm	QUANT	COMPRIMENTO	
				UNIT cm	TOTAL cm
1º Andar - Armadura negativa principal					
50A	1	8	2	460	920
50A	2	10	2	360	720
50A	3	6.3	15	319	4785
50A	4	6.3	7	175	1225
50A	5	6.3	8	240	1920
50A	6	6.3	17	265	4505
50A	7	6.3	32	125	4000
50A	10	6.3	18	115	2070
50A	11	6.3	9	240	2160
50A	12	6.3	9	280	2520
50A	13	6.3	9	285	2565
60A	16	5	10	1140	11400
1º Andar - Armadura negativa secundaria					
50A	1	6.3	16	190	3040
50A	2	6.3	11	150	1650
50A	3	6.3	60	106	6360
50A	4	6.3	28	311	8708
50A	5	6.3	35	185	6475
50A	6	6.3	40	300	12000
50A	7	6.3	40	181	7240
50A	8	6.3	34	310	10540
50A	9	6.3	42	185	7770

RESUMO DE AÇO			
AÇO	BIT mm	COMPR m	PESO kgf
60A	5	114	18
50A	6.3	895	219
50A	8	9	4
50A	10	7	4
Peso Total		60A =	18 kgf
Peso Total		50A =	227 kgf

1º Andar - Armadura negativa secundaria

1x





Acesse o site
pela sua
câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES

Engenheiro Estrutural

(83) 9 9644 2240 andrerodrigues.eng.br

@andrerodrigueseng contato@andrerodrigues.eng.br

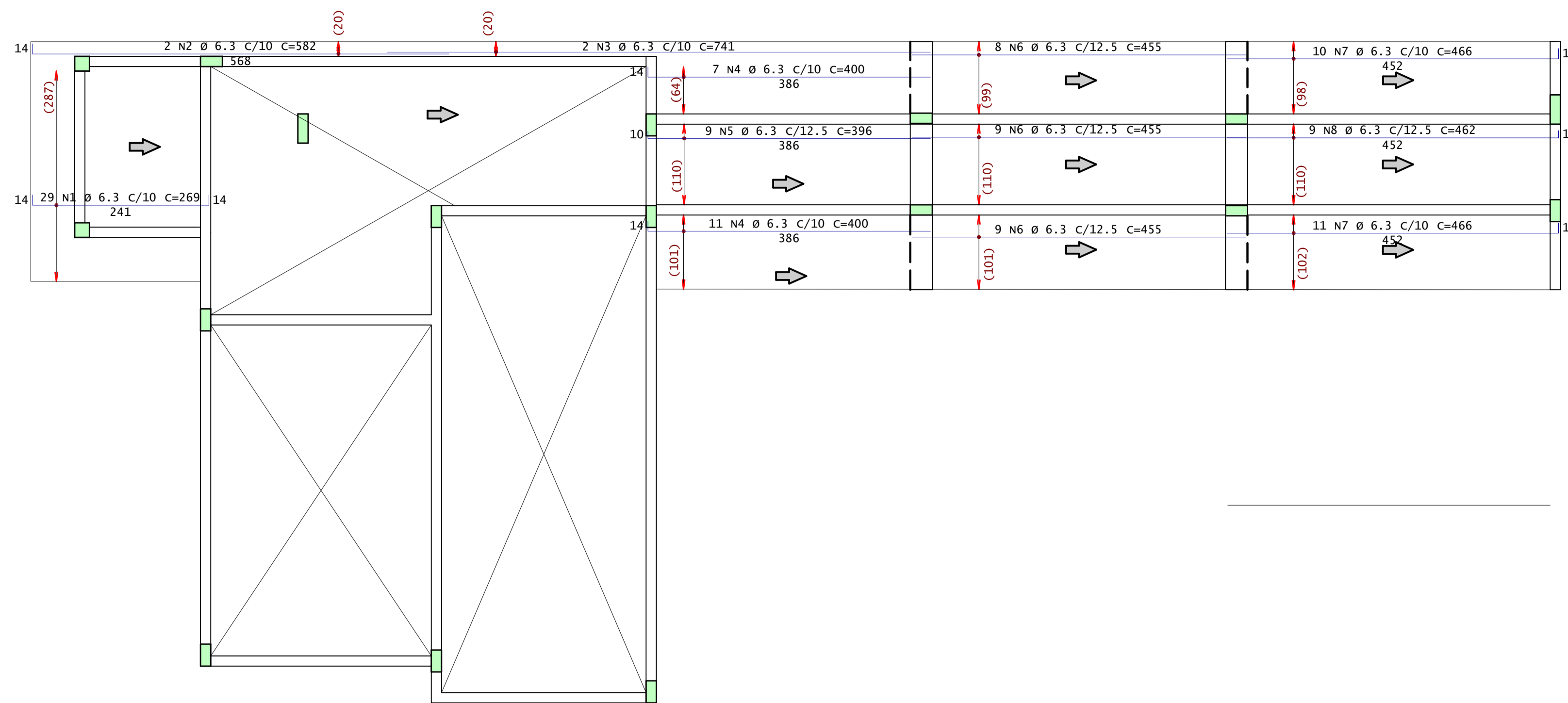
Cliente: Paulo George Dantas da Nobrega	Prancha nº: 34/37 Revisão nº: 002
Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	1/2
CREA-PB: 161890343-9 Data: 16 / 02 / 2022	ART nº: PB 20210418618 Escala: Indicada



ANDRÉ RODRIGUES DE VASCONCELOS PL CAS-20 - LAJ-01B-F00-PLT 16/02/2022 23:17:00

1º Andar - Armadura positiva principal

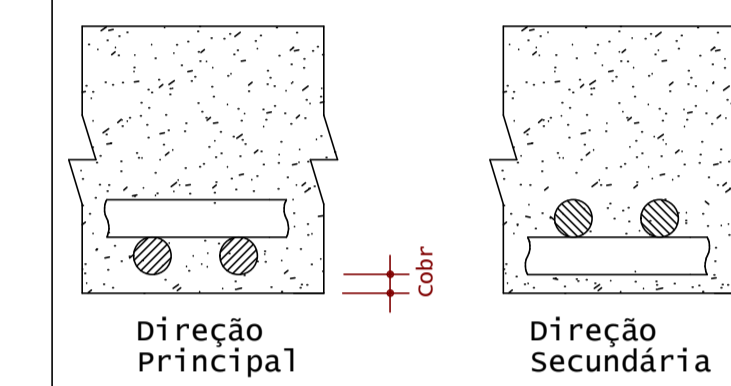
1x



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
cm					
1º Andar - Armadura positiva principal					
50A	1	6.3	29	269	7801
50A	2	6.3	2	582	1164
50A	3	6.3	2	741	1482
50A	4	6.3	18	400	7200
50A	5	6.3	9	396	3564
50A	6	6.3	26	455	11830
50A	7	6.3	21	466	9786
50A	8	6.3	9	462	4158
2o Pavimento - Armadura positiva secundária					
50A	1	6.3	6	348	2088
50A	2	6.3	16	301	4816
50A	3	6.3	75	55	4125
50A	4	6.3	35	123	4305
50A	5	6.3	35	121	4235
50A	6	6.3	94	133	12502
50A	7	6.3	40	119	4760
50A	8	6.3	40	117	4680
50A	9	6.3	42	121	5082
50A	10	6.3	42	124	5208

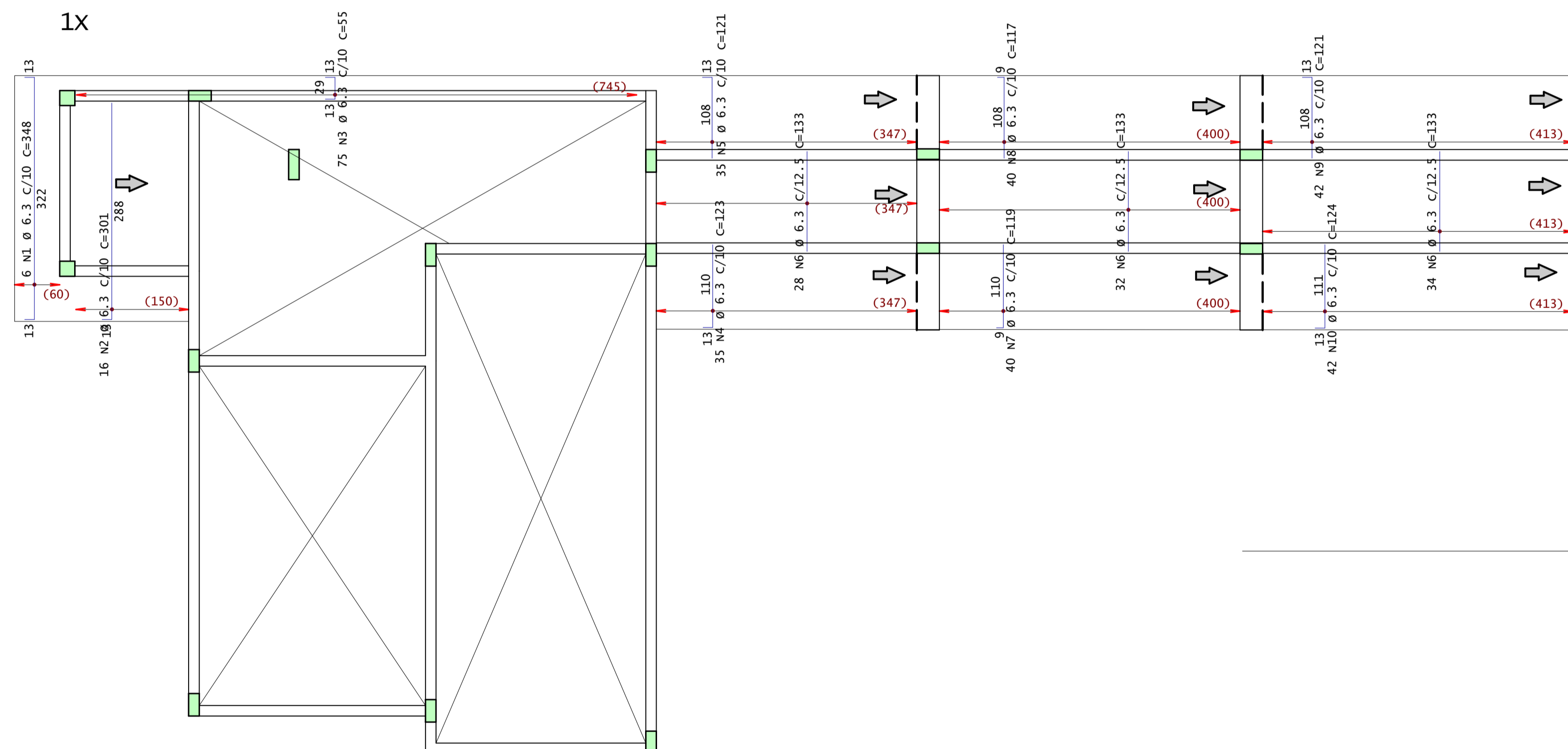
RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
50A	6.3	988	242
Peso Total			50A = 242 kgf

Detalhe genérico do alojamento de armaduras positivas

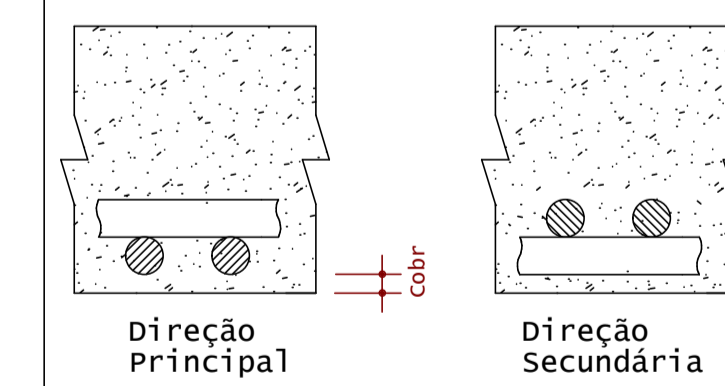


2o Pavimento - Armadura positiva secundária

1x



Detalhe genérico do alojamento de armaduras positivas



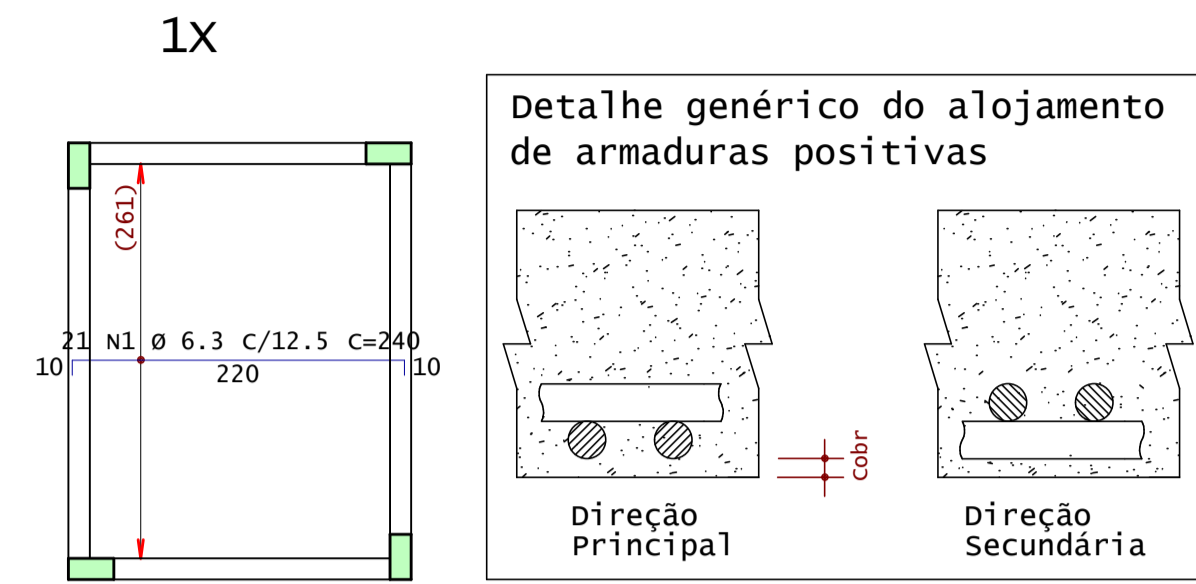
Acesse o site pela sua câmera
- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

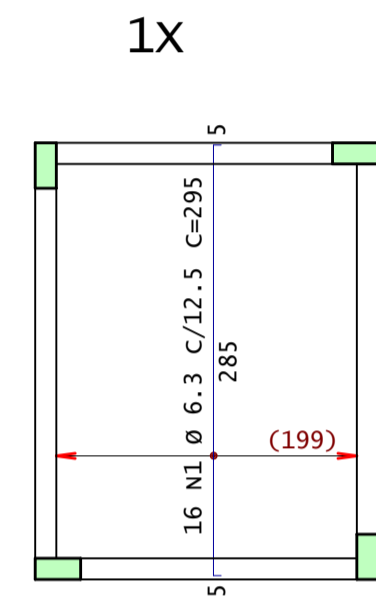
(83) 9 9644 2240 andrerodrigues.eng.br
@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha n°: 35/37	Revisão n°: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: LAJES - 1º ANDAR	2/2	
CREA-PB: 161890343-9	ART n°: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	

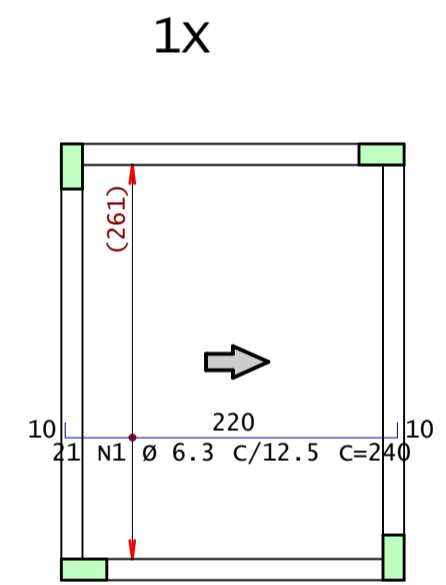
Laje Superior - Armadura negativa principal



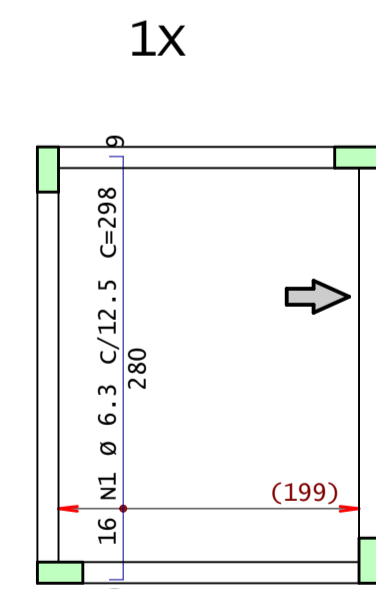
Laje Caixa D'água - Armadura negativa secundaria



Laje Caixa D'água - Armadura positiva principal



Laje Caixa D'água - Armadura positiva secundaria



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
				mm	cm
Laje Superior - Armadura negativa principal					
50A	1	6.3	21	240	5040
Laje Caixa D'água - Armadura negativa secundaria					
50A	1	6.3	16	295	4720
Laje Caixa D'água - Armadura positiva principal					
50A	1	6.3	21	240	5040
Laje Caixa D'água - Armadura positiva secundaria					
50A	1	6.3	16	298	4768

RESUMO DE AÇO			
AÇO	RESUMO DE BIT	COMPR	PESO
			m
			kgf
50A	6.3	196	48
Peso Total			50A = 48 kgf

Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

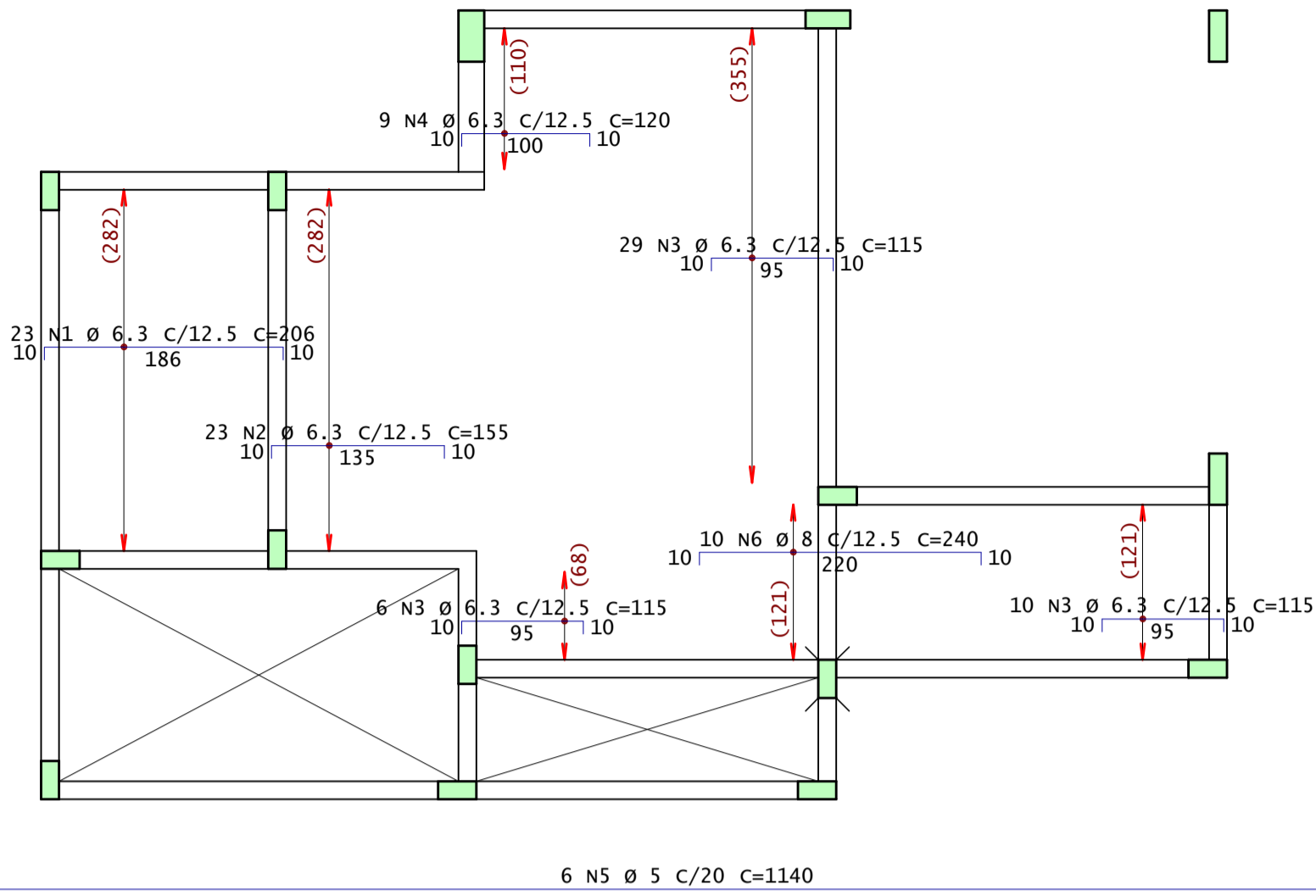
(83) 9 9644 2240 andrerodrigues.eng.br

@andrerodrigueseng contato@andrerodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha n°: 36/37	Revisão n°: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: LAJES - LAJE CAIXA D'ÁGUA		
CREA-PB: 161890343-9	ART n°: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	

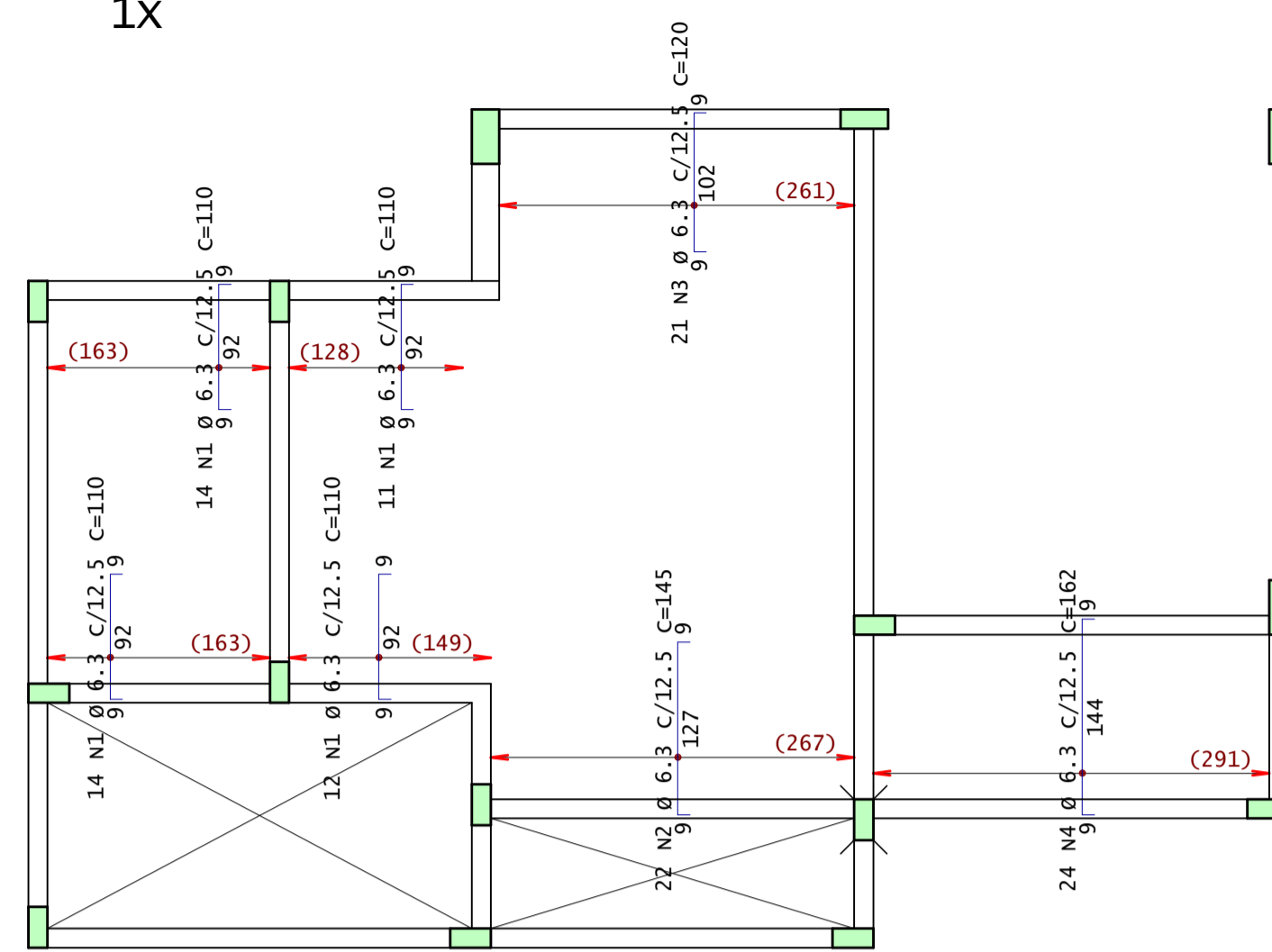
FUNDO - Armadura negativa principal

1X



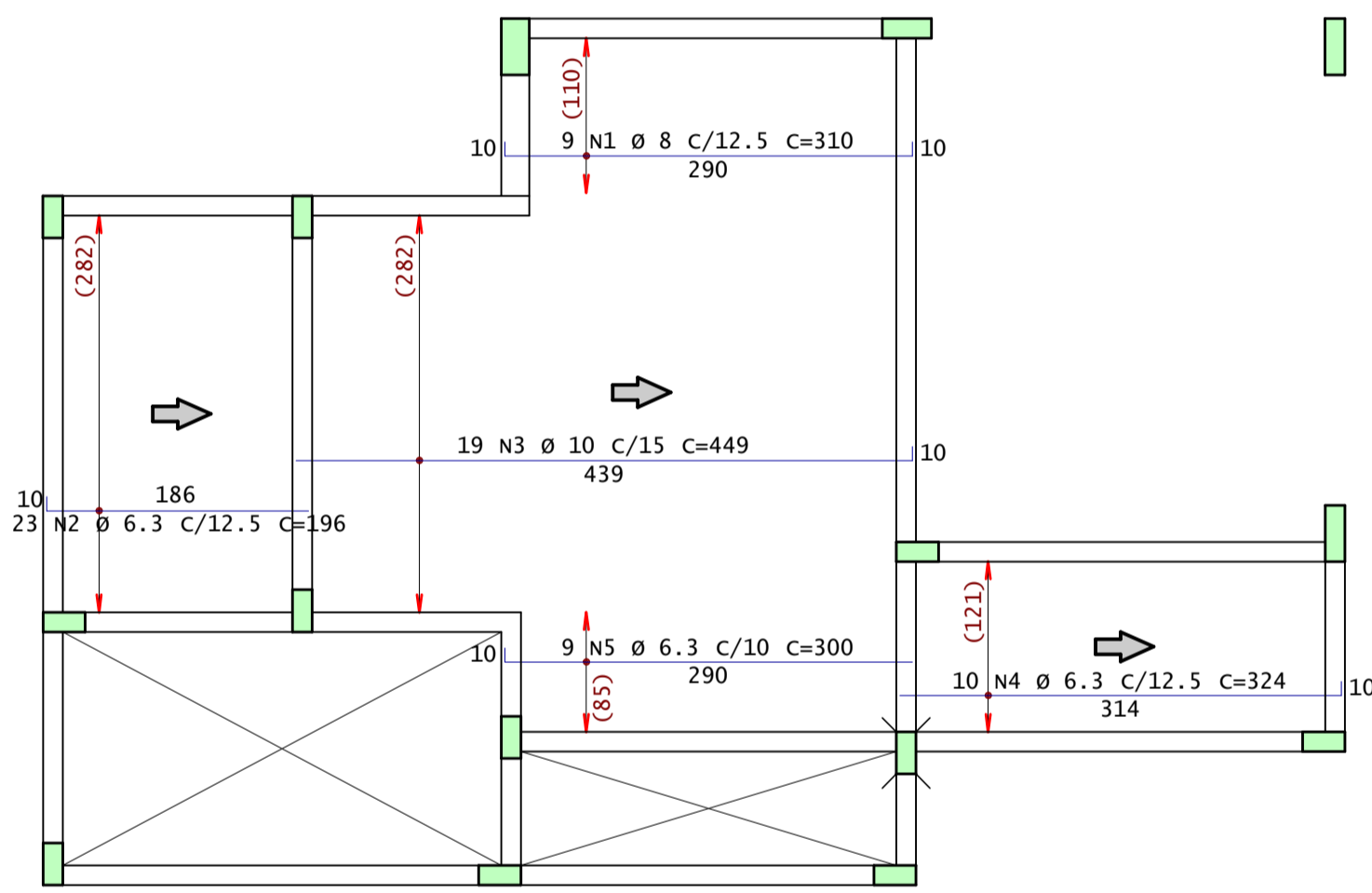
FUNDO - Armadura negativa secundaria

1X



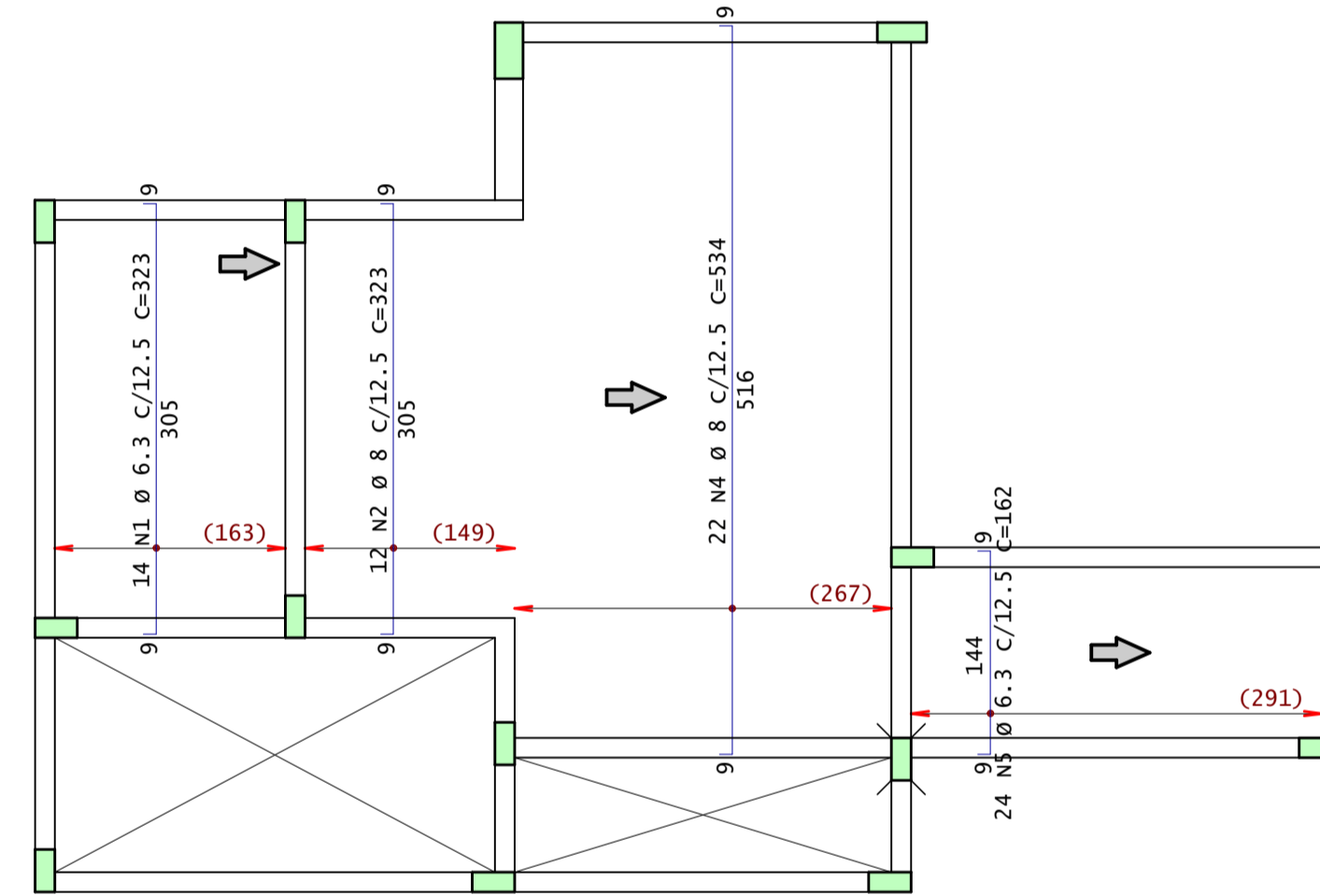
FUNDO - Armadura positiva principal

1X



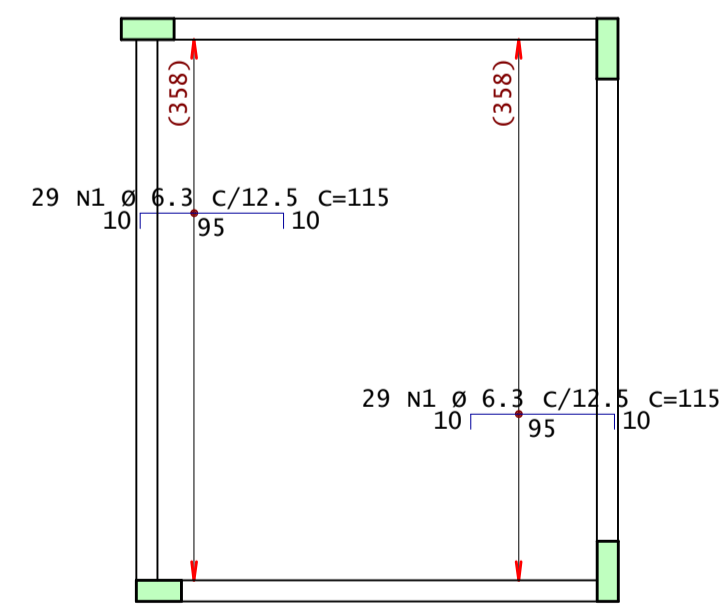
FUNDO - Armadura positiva secundaria

1X



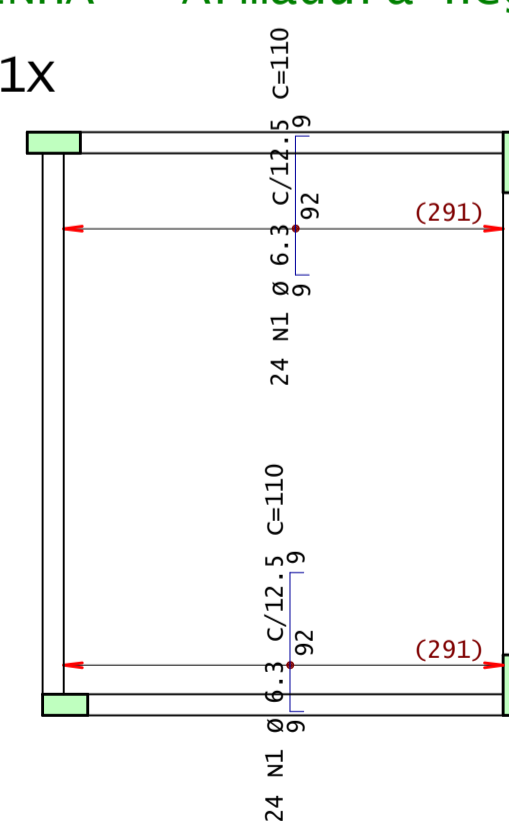
PRAINHA - Armadura negativa principal

1X



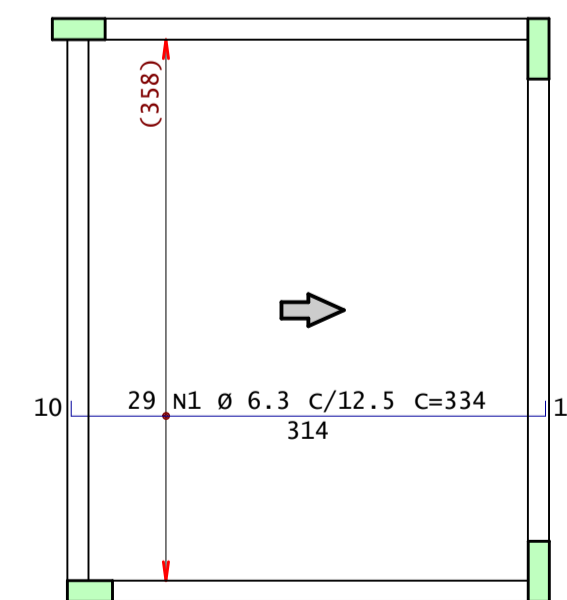
PRAINHA - Armadura negativa secundaria

1X



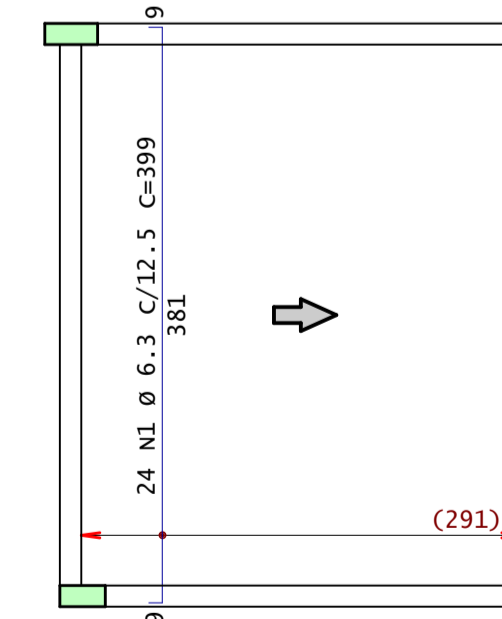
PRAINHA - Armadura positiva principal

1X



PRAINHA - Armadura positiva secundaria

1X



AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
cm					
FUNDO - Armadura negativa principal					
50A	1	6.3	23	206	4738
50A	2	6.3	23	155	3565
50A	3	6.3	45	115	5175
50A	4	6.3	9	120	1080
60A	5	5	6	1140	6840
50A	6	8	10	240	2400
FUNDO - Armadura negativa secundaria					
50A	1	6.3	51	110	5610
50A	2	6.3	22	145	3190
50A	3	6.3	21	120	2520
50A	4	6.3	24	162	3888
PRAINHA - Armadura negativa principal					
50A	1	6.3	58	115	6670
PRAINHA - Armadura negativa secundaria					
50A	1	6.3	48	110	5280
FUNDO - Armadura positiva principal					
50A	1	8	9	310	2790
50A	2	6.3	23	196	4508
50A	3	10	19	449	8531
50A	4	6.3	10	324	3240
50A	5	6.3	9	300	2700
FUNDO - Armadura positiva secundaria					
50A	1	6.3	14	323	4522
50A	2	8	12	323	3876
50A	4	8	22	534	11748
50A	5	6.3	24	162	3888
PRAINHA - Armadura positiva principal					
50A	1	6.3	29	334	9686
PRAINHA - Armadura positiva secundaria					
50A	1	6.3	24	399	9576

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
			kgf
60A	5	68	11
50A	6.3	798	196
50A	8	208	82
50A	10	85	53
Peso Total			60A = 11 kgf
Peso Total			50A = 330 kgf



Acesse o site pela sua câmera

- Modelos 3D
- Arquivos de obra
- Todos os Documentos

ANDRÉ RODRIGUES
Engenheiro Estrutural

(83) 9 9644 2240
@andrerodrigueseng

anderodrigues.eng.br
contato@anderodrigues.eng.br

Cliente: Paulo George Dantas da Nobrega	Prancha nº: 37/37	Revisão nº: 002
Obra: Residência Unifamiliar	Observações: Concreto: fck 25MPa Eci: 28000 Mpa Atente-se aos cobrimentos Leia o Memorial Descritivo	
Título: DETALHAMENTO: LAJES - PISCINA		
CREA-PB: 161890343-9	ART nº: PB 20210418618	
Data: 16 / 02 / 2022	Escala: Indicada	