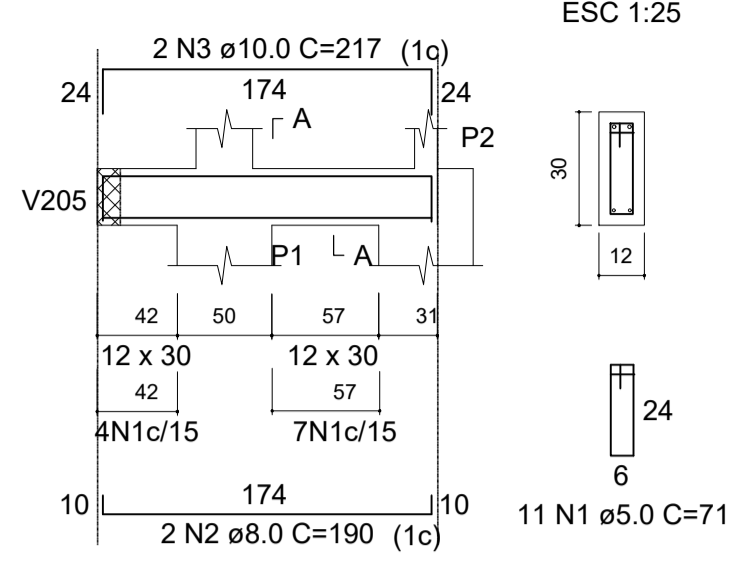
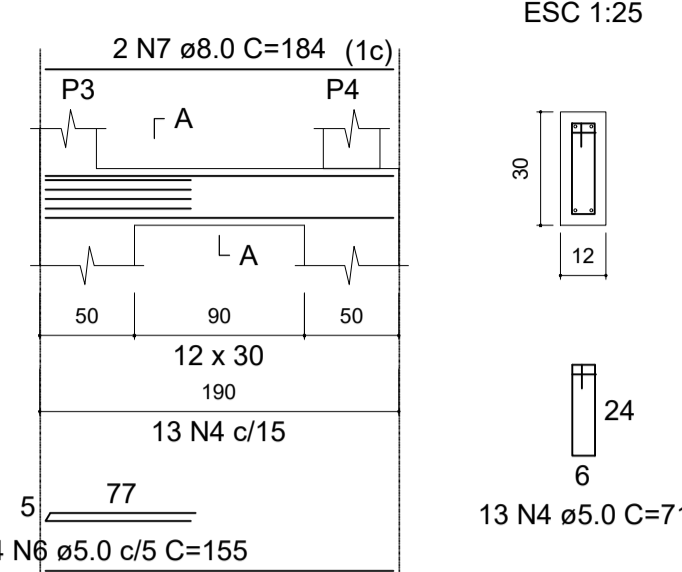


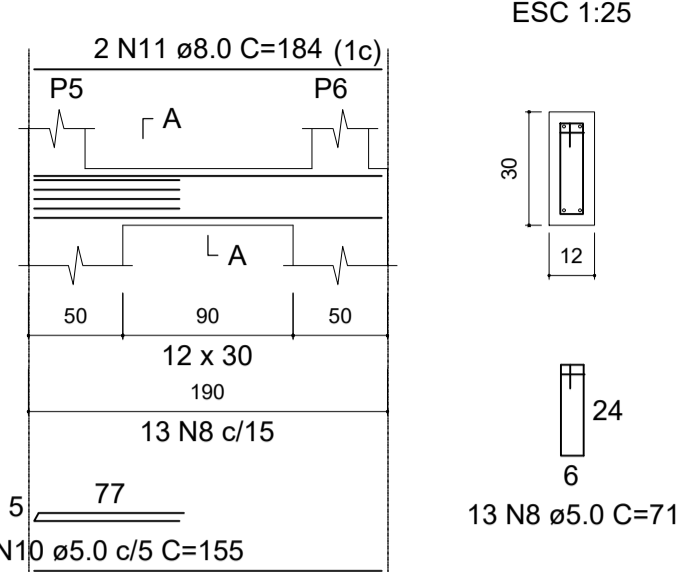
VB101
ESC 1:50



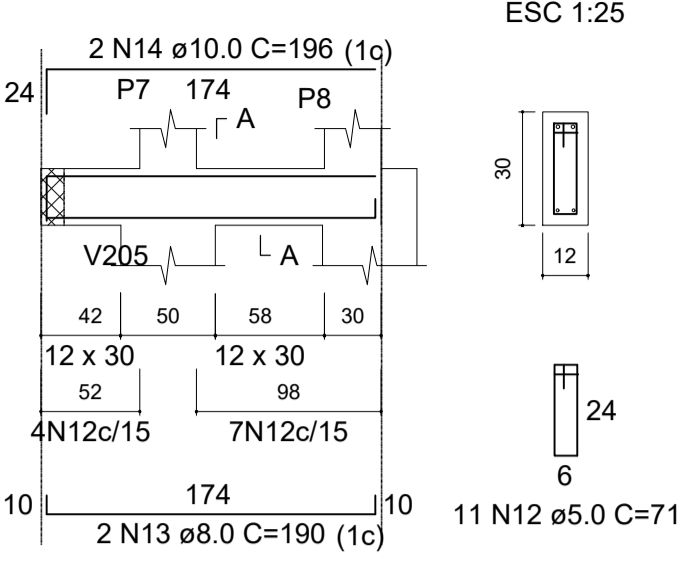
VB102
ESC 1:50



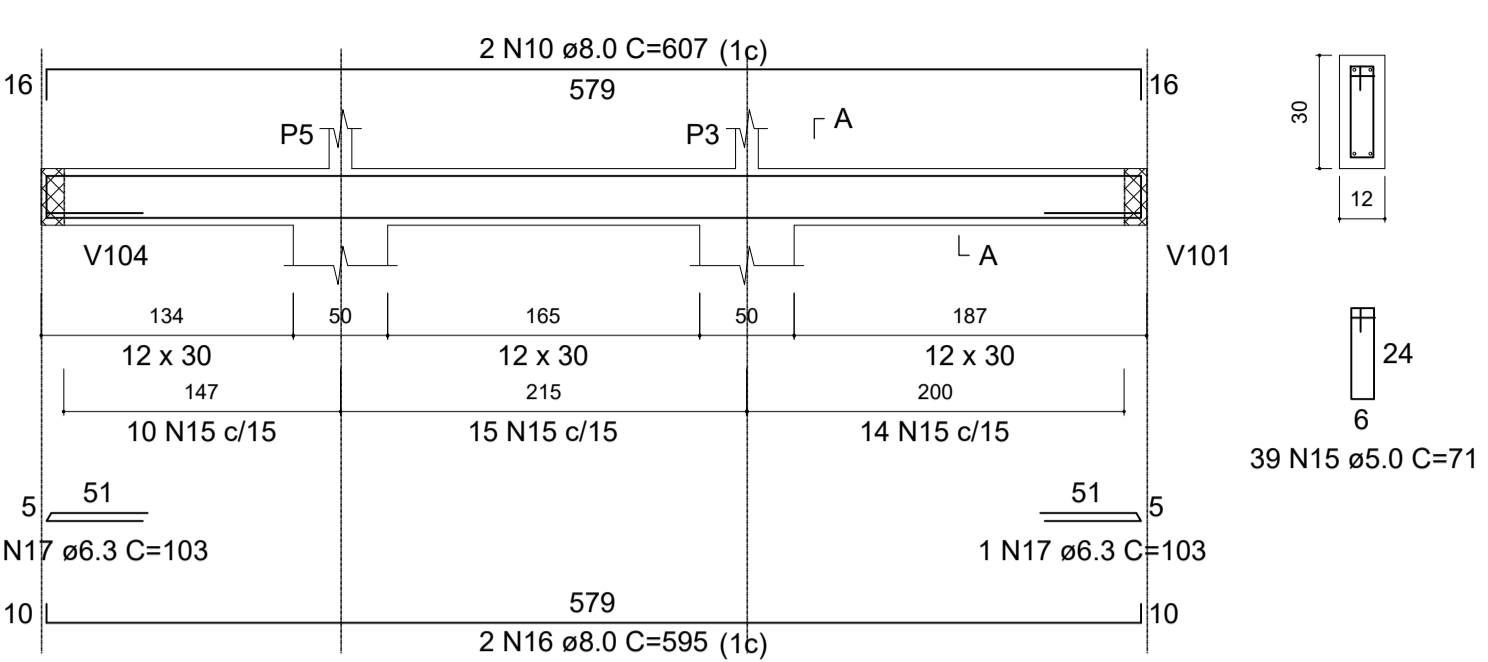
VB103
ESC 1:50



VB104
ESC 1:50



VB105
ESC 1:50



RELAÇÃO DO AÇO - VIGAS DE BALDRAME

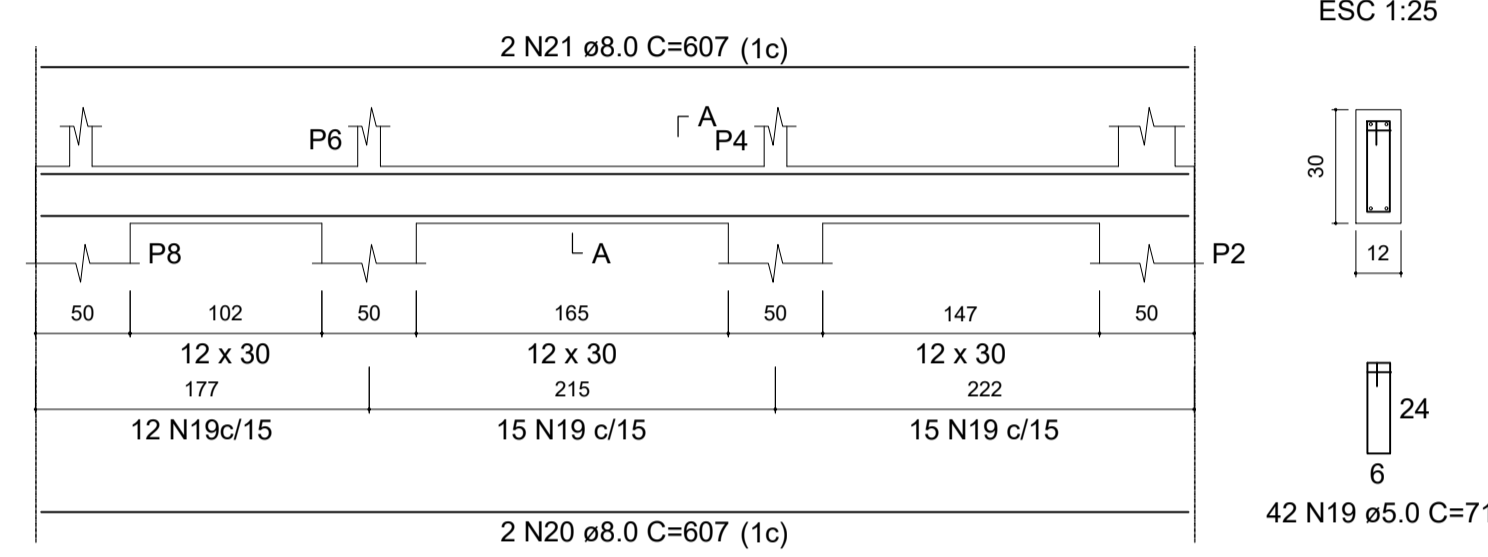
ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	TOTAL (cm)
VB101	CA60	1	5.0	11	71	781
	CA50	2	8.0	2	190	380
	CA50	3	10.0	2	217	434
VB102	CA60	4	5.0	13	71	923
	CA60	5	8.0	2	184	368
	CA50	6	5.0	4	155	620
VB103	CA60	7	8.0	2	184	368
	CA60	8	5.0	13	71	923
	CA50	9	8.0	2	184	368
VB104	CA60	10	5.0	4	155	620
	CA50	11	8.0	2	184	368
	CA60	12	5.0	11	71	781
VB105	CA60	13	8.0	2	190	380
	CA50	14	10.0	2	196	392
	CA60	15	5.0	39	71	2769
VB106	CA50	16	8.0	2	595	2975
	CA50	17	6.3	2	103	206
	CA50	18	8.0	2	607	1214
VB106	CA60	19	5.0	42	71	2982
	CA60	20	8.0	2	607	1214
	CA50	21	8.0	2	607	1214

RESUMO DO AÇO

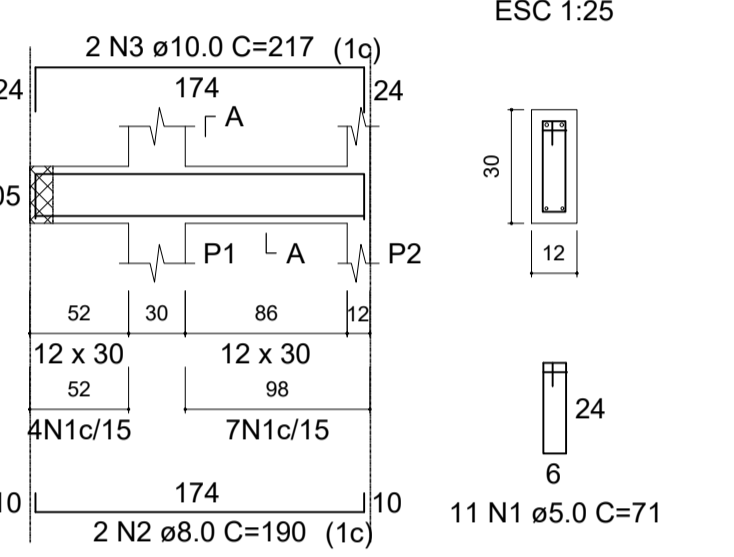
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	2.1	0.6
	8.0	88.5	38.5
	10.0	8.3	18.6
CA60	5.0	104	16
PESO TOTAL (kg)			
CA50	27.9		
CA60	15		

Volume de concreto (C-25) = 0.50 m³
Área de forma = 7.5 m²

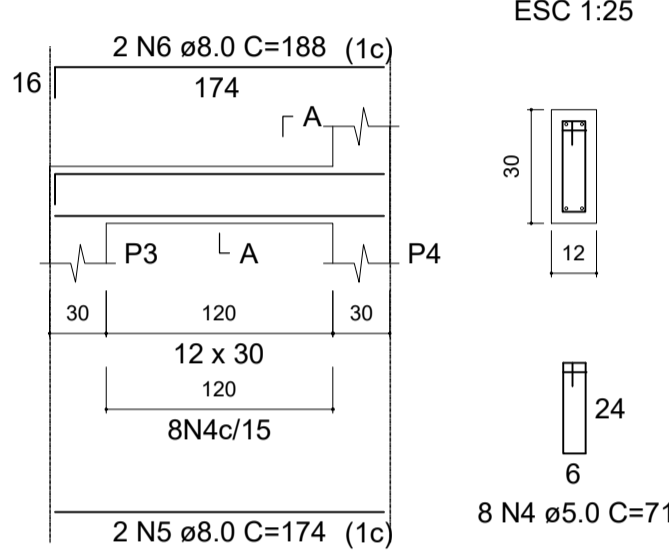
VB106
ESC 1:50



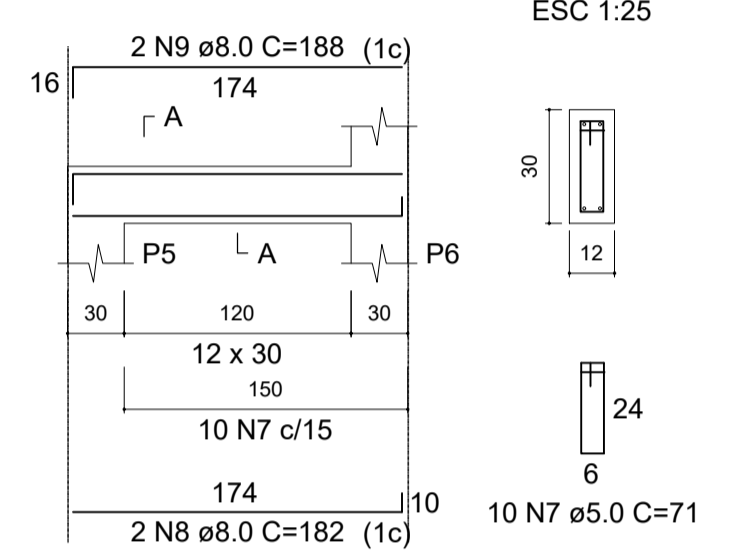
V201
ESC 1:50



V202
ESC 1:50



V203
ESC 1:50



RELAÇÃO DO AÇO - VIGAS DE COBERTURA

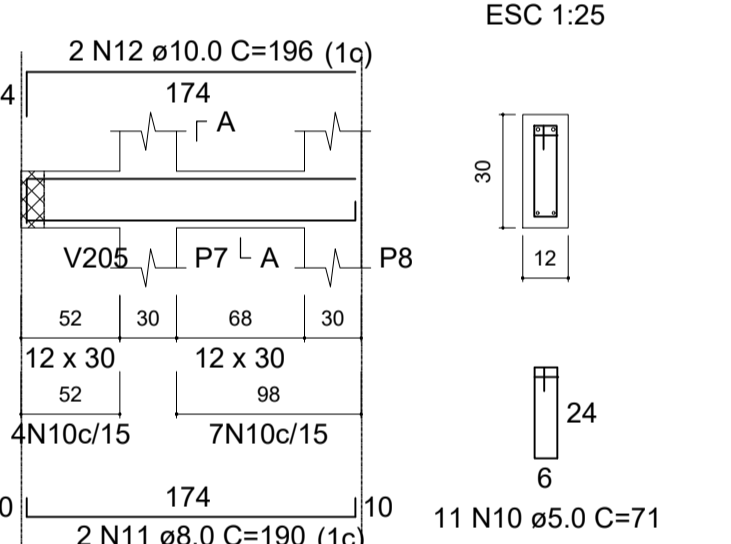
ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
V201	CA60	1	5.0	11	71	781
	CA50	2	8.0	2	190	380
	CA50	3	10.0	2	217	434
V202	CA60	4	5.0	8	71	568
	CA50	5	8.0	2	174	348
	CA60	6	8.0	2	188	376
V203	CA60	7	5.0	10	71	710
	CA50	8	8.0	2	182	364
	CA50	9	8.0	2	188	376
V204	CA60	10	5.0	11	71	781
	CA50	11	8.0	2	190	380
	CA50	12	10.0	2	196	392
V205	CA60	13	5.0	37	71	2627
	CA50	14	6.3	2	103	206
	CA50	15	8.0	2	595	1190
V206	CA50	16	8.0	2	607	1214
	CA50	17	5.0	36	71	2556
	CA60	18	6.3	1	103	103
	CA50	19	8.0	2	587	1174
	CA50	20	8.0	2	593	1186

RESUMO DO AÇO

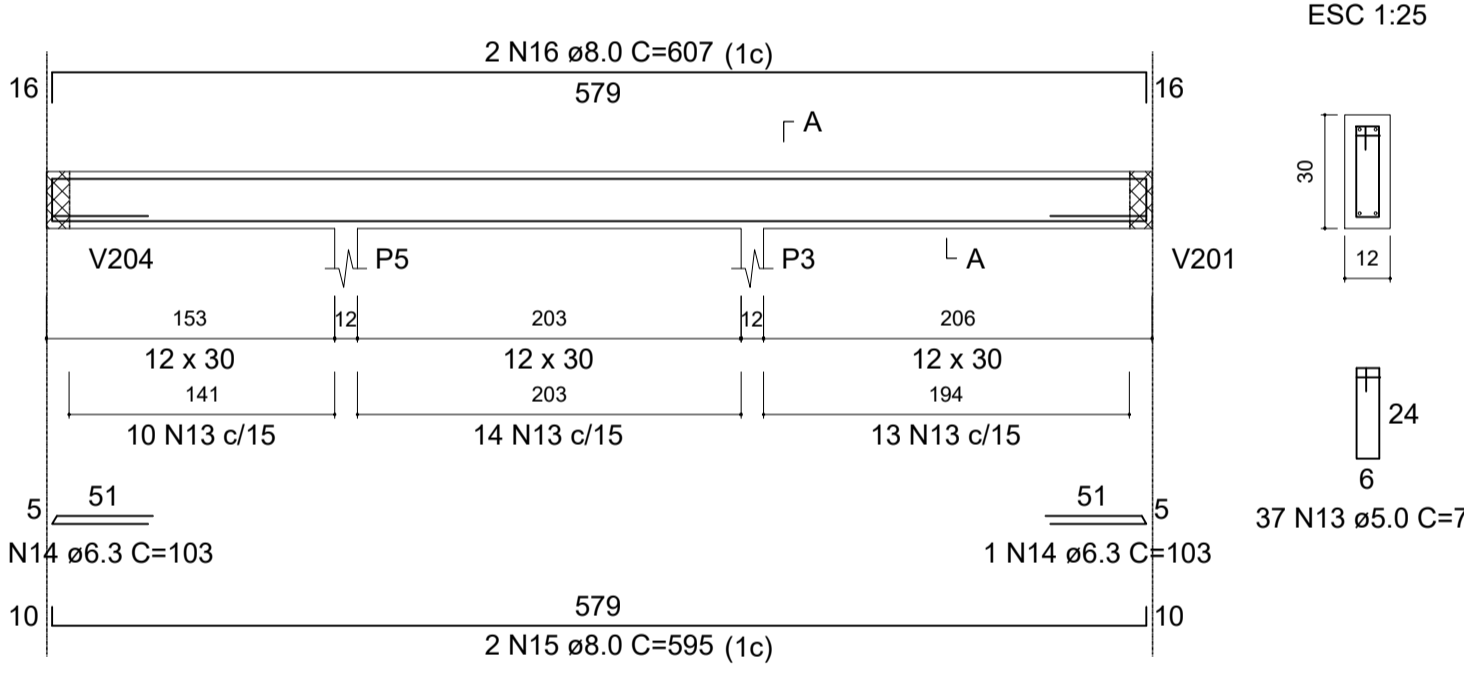
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	3.1	0.8
	8.0	69.9	30.3
	10.0	8.3	5.6
CA60	5.0	80.2	13.6
PESO TOTAL (kg)			
CA50	36.8		
CA60	13.6		

Volume de concreto (C-25) = 0.68 m³
Área de forma = 13.61 m²

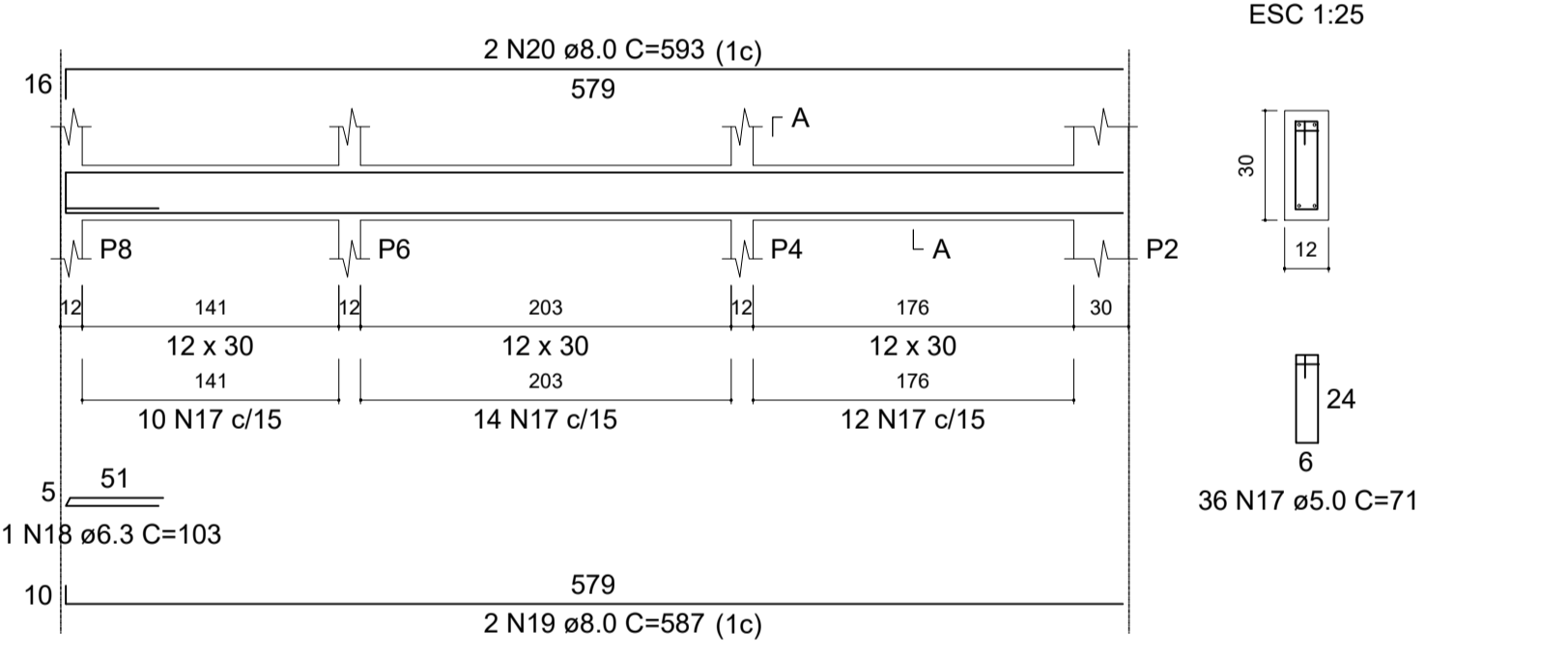
V204
ESC 1:50



V205
ESC 1:50



V206
ESC 1:50



RELAÇÃO DO AÇO - VIGAS DE RESPALDO

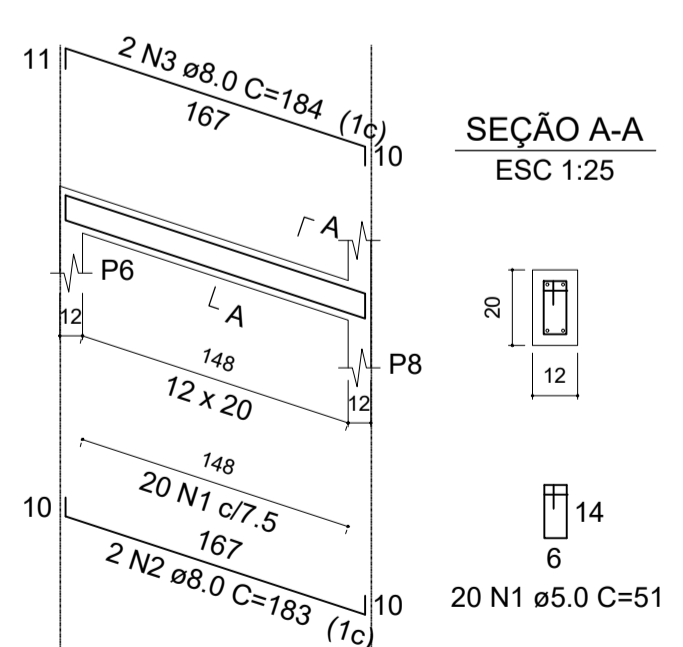
ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
V301	CA60	1	5.0	20	51	1020
	CA50	2	8.0	2	183	366
	CA50	3	8.0	2	184	368
V302	CA60	4	5.0	56	51	2856
	CA50	5	6.3	1	103	103
	CA50	6	8.0	2	464	928
V303	CA50	7	10.0	2	462	924
	CA60	8	5.0	21	51	1071
	CA50	9	8.0	2	182	364
V304	CA50	10	8.0	2	186	372
	CA60	11	5.0	21	51	1071
	CA50	12	8.0	2	182	364
	CA50	13	8.0	2	198	396

RESUMO DO AÇO

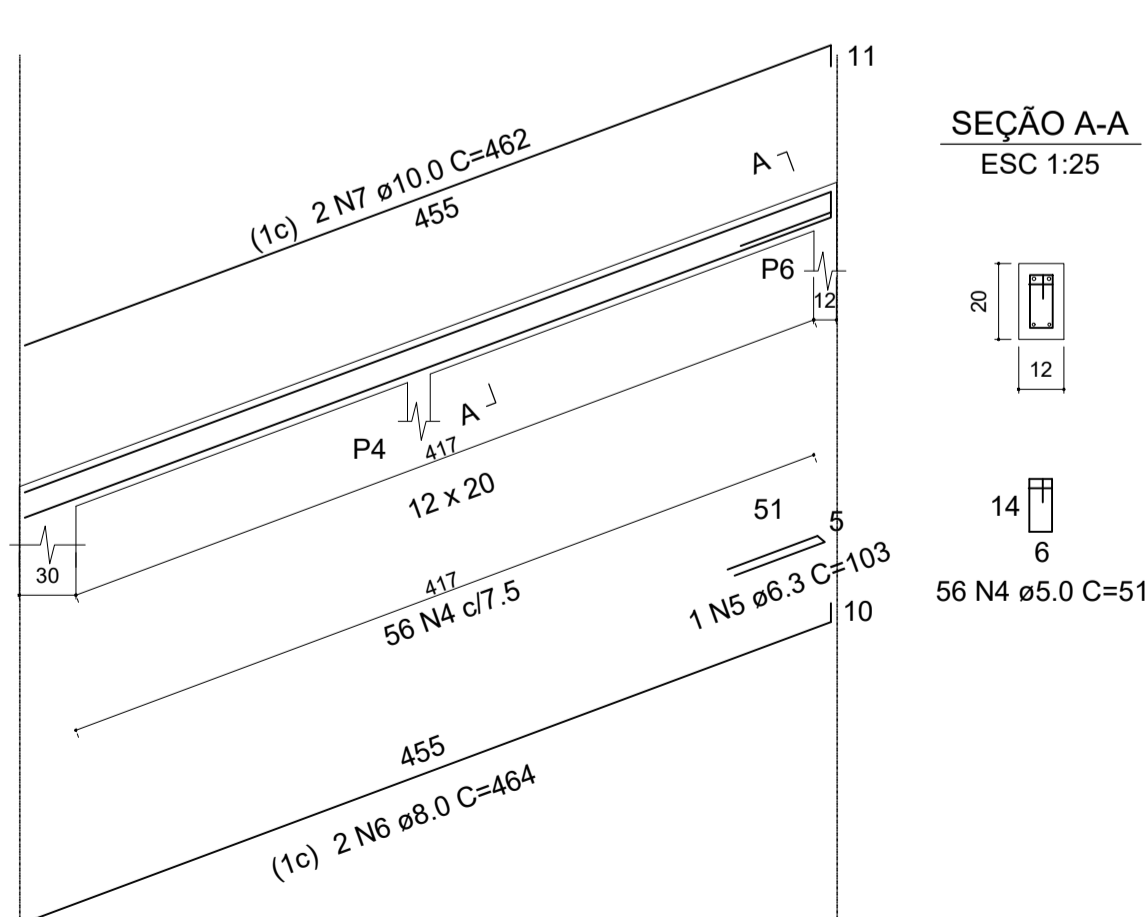
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	1	0.3
	8.0	31.6	13.7
	10.0	9.2	6.3
CA60	5.0	60.2	10.2
PESO TOTAL (kg)			
CA50	20.3		
CA60	10.2		

Volume de concreto (C-25) = 0.23 m³
Área de forma = 4.98 m²

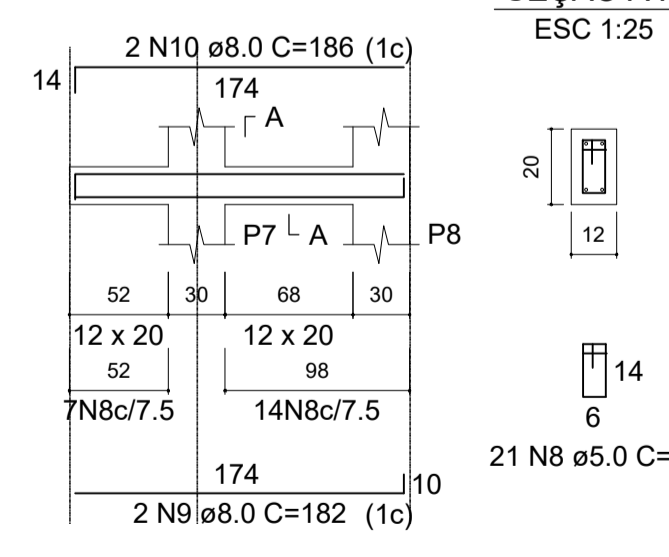
V301
ESC 1:50



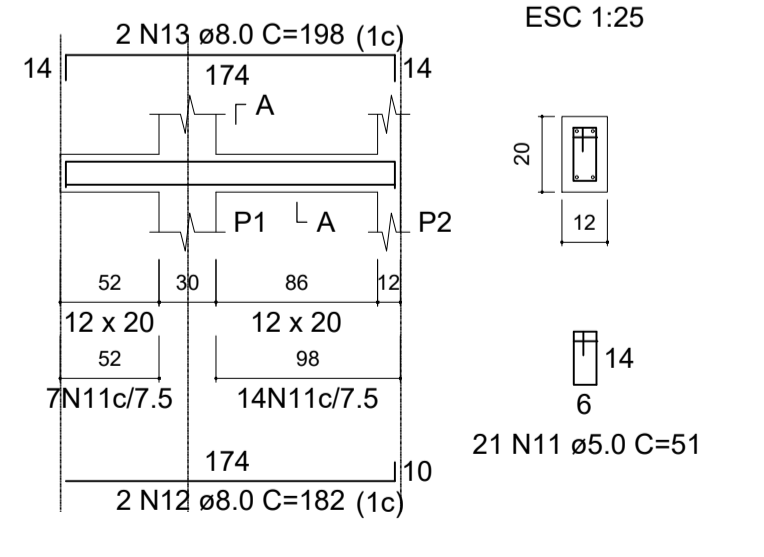
V302
ESC 1:50



V303
ESC 1:50



V304
ESC 1:50



DEPARTAMENTO ESTADUAL DE TRÂNSITO
RODOVIA MS 080, KM 10 - CEP 79114-901
Tel.: 67 3368.0100 - Campo Grande - MS
http://www.detran.ms.gov.br

DETRAN-MS DIEMI - DIVISÃO DE ENGENHARIA, MANUTENÇÃO E INFRAESTRUTURA

OBRA	ART / RRT	LOCAL
Ampliação da Agência do DETRAN de Camapuã - MS	0000000000000	Camapuã - MS
CONTEÚDO DA PRANCHA	DATA INICIAL	QUADRO DE ÁREAS
ARM. DE VIGAS BALD. COBERTURA E RESPALDO	27/07/2020	10,53 m²
AUTOR DO PROJETO		FOLHA
Eng. Bruno Oliveira Gonçalves CREA 16312 D/MS		03/03