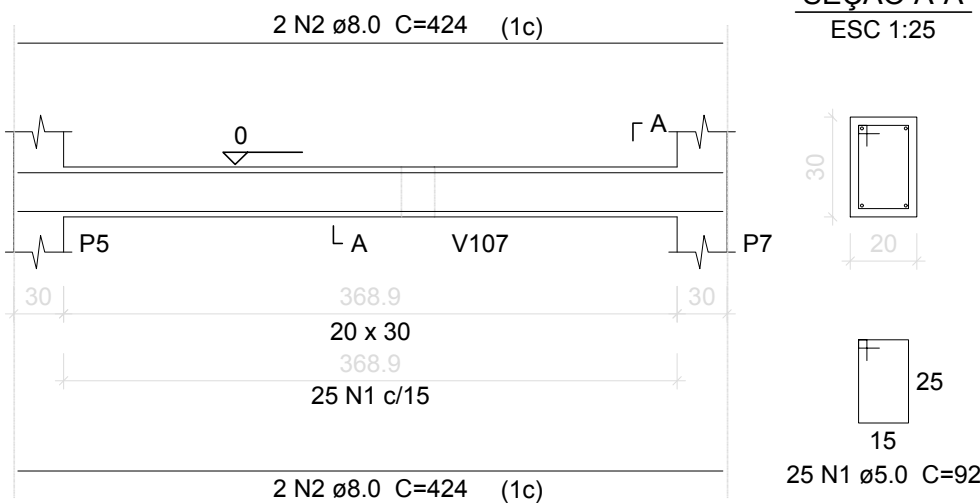


VIGAS BALDRAMES

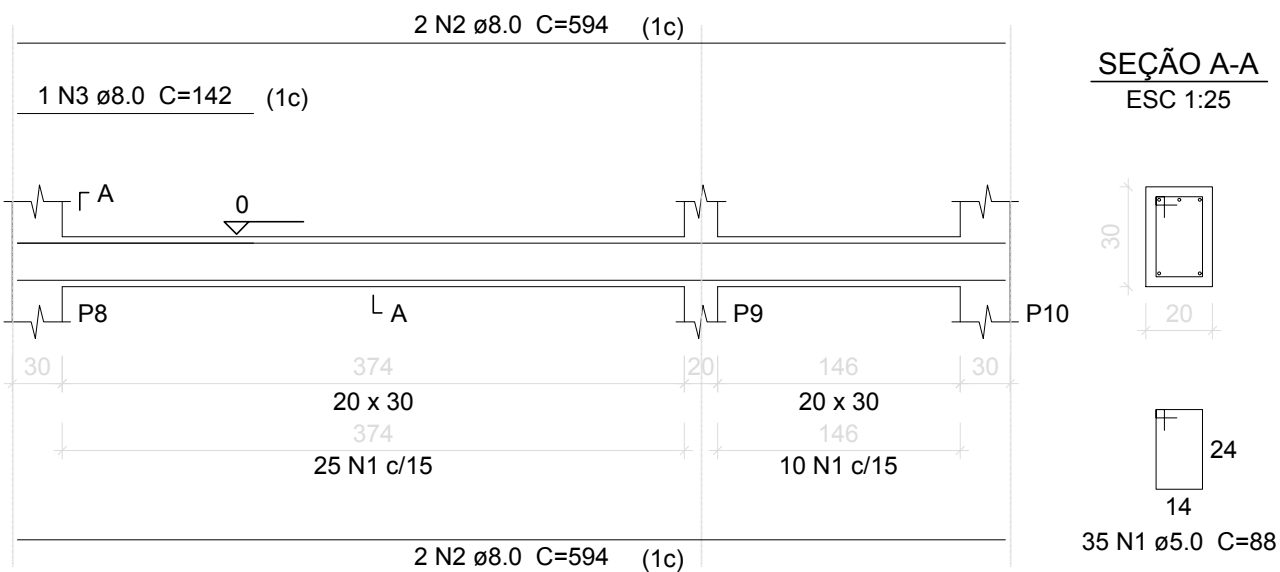
V101

ESC 1:50



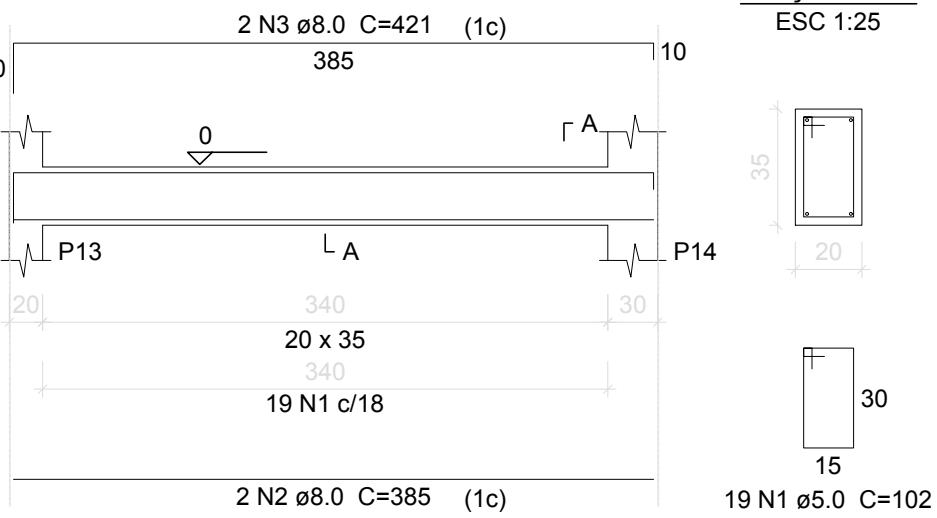
V102

ESC 1:50



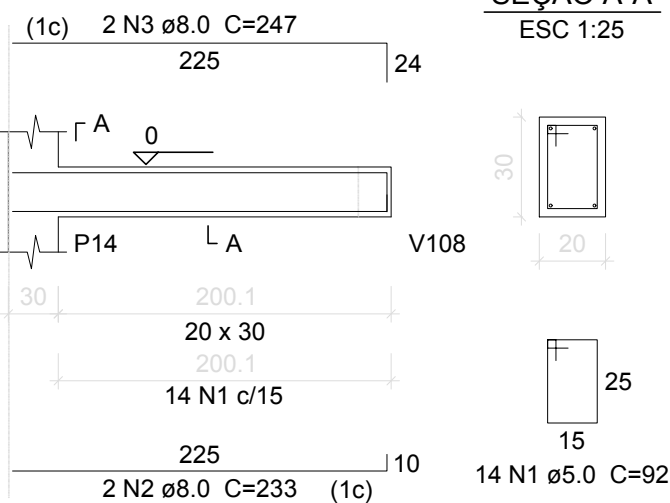
V103

ESC 1:50



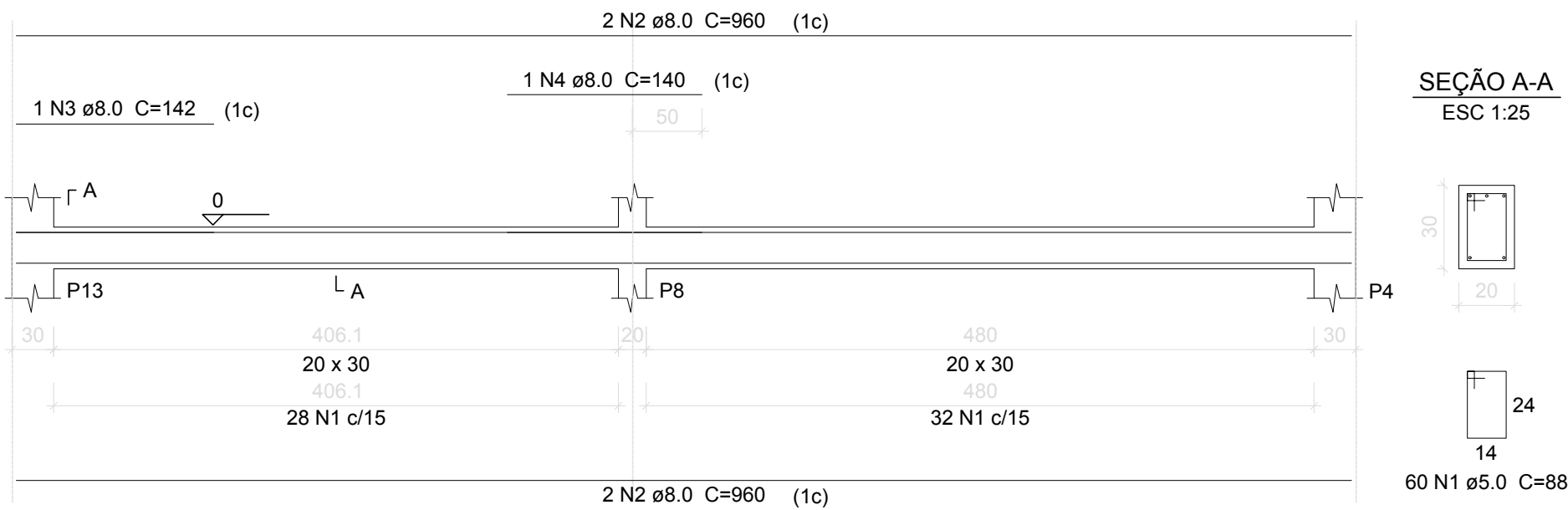
V104

ESC 1:50



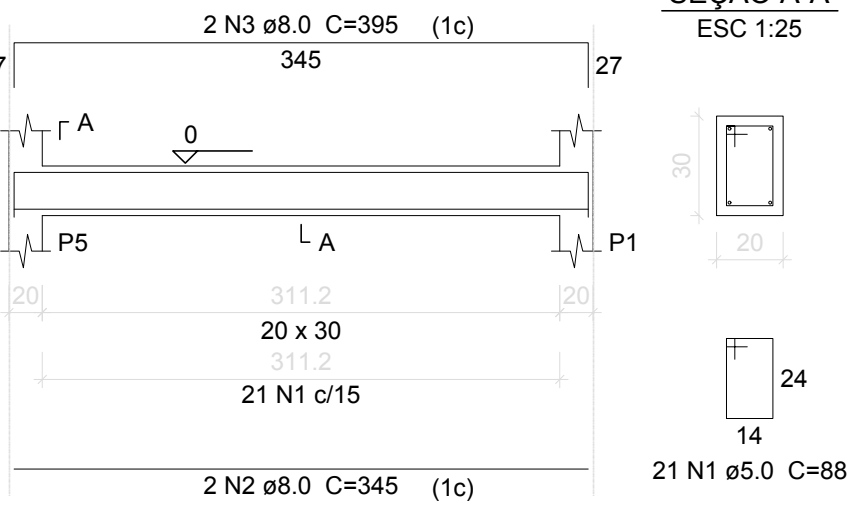
V105

ESC 1:50



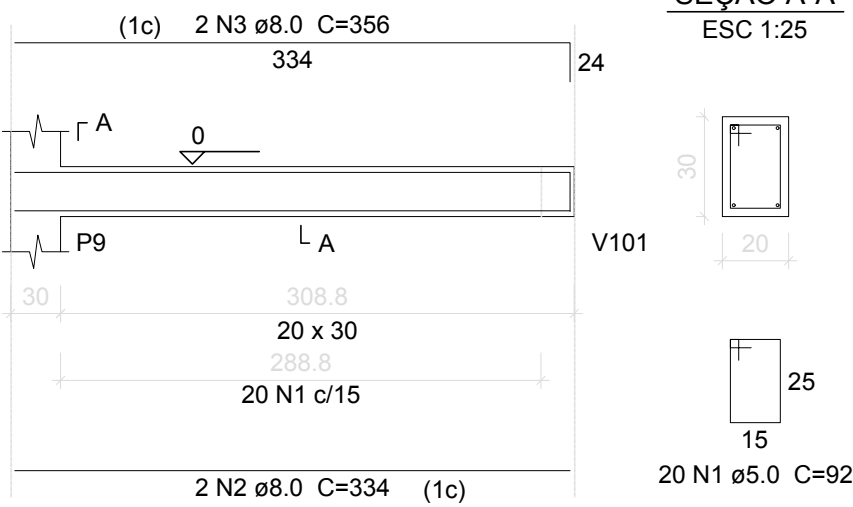
V106

ESC 1:50



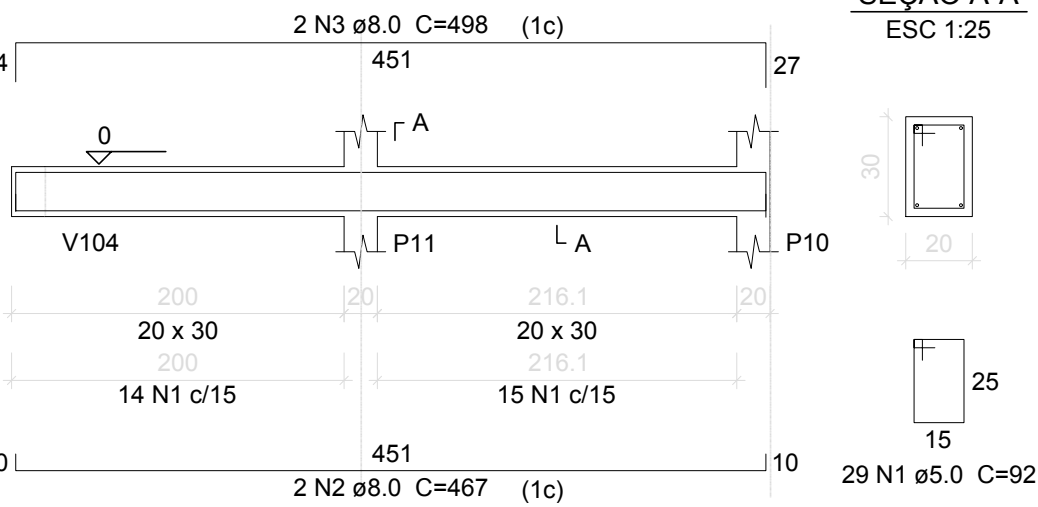
V107

ESC 1:50



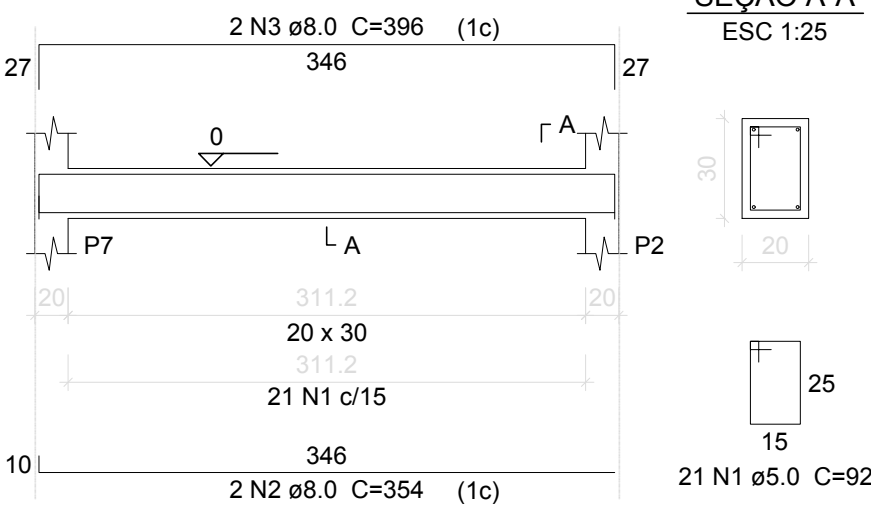
V108

ESC 1:50



V109

ESC 1:50



Relação do aço

ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
V101	CA60	1	5.0	25	92	2300
	CA50	2	8.0	4	424	1696
	CA60	1	5.0	35	88	3080
V102	CA50	2	8.0	4	594	2376
	CA60	3	8.0	1	142	142
	CA60	1	5.0	19	102	1938
V103	CA50	2	8.0	2	385	770
	CA60	3	8.0	2	421	842
	CA60	1	5.0	14	92	1288
V104	CA50	2	8.0	2	233	466
	CA50	3	8.0	2	247	494
	CA60	1	5.0	60	88	5280
V105	CA50	2	8.0	4	960	3840
	CA50	3	8.0	1	142	142
	CA50	4	8.0	1	140	140
V106	CA60	1	5.0	21	88	1848
	CA50	2	8.0	2	345	690
	CA50	3	8.0	2	395	790
V107	CA60	1	5.0	20	92	1840
	CA50	2	8.0	2	334	668
	CA50	3	8.0	2	356	712
V108	CA60	1	5.0	29	92	2668
	CA50	2	8.0	2	467	934
	CA50	3	8.0	2	498	996
V109	CA60	1	5.0	21	92	1932
	CA50	2	8.0	2	354	708
	CA50	3	8.0	2	396	792

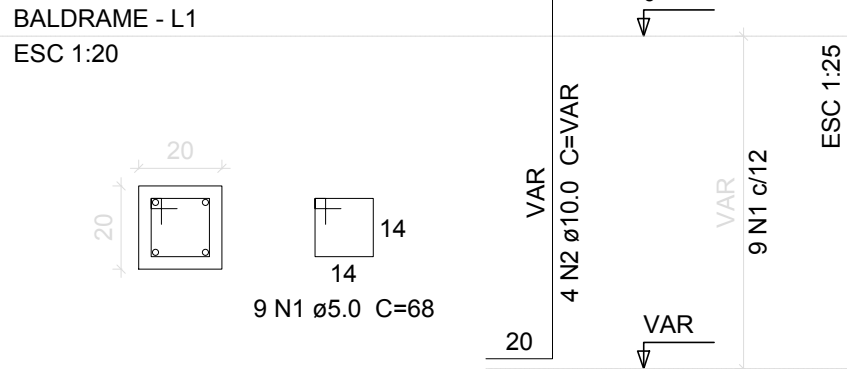
Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	8.0	172	67.9
CA60	5.0	221.8	34.2
PESO TOTAL			

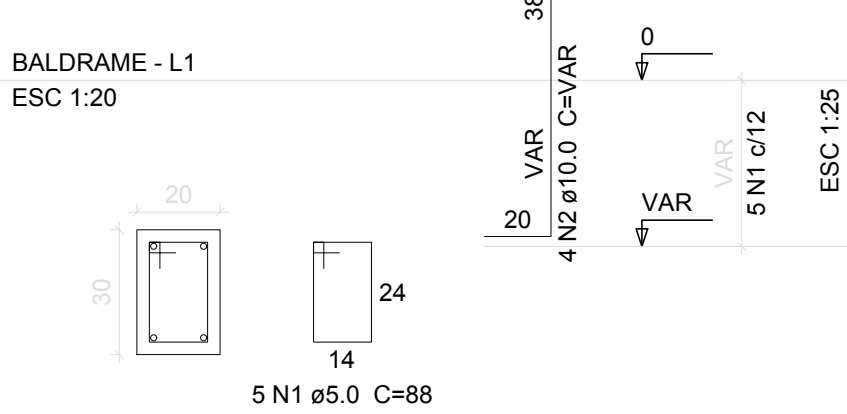
Vol. de concreto total (C-25) = 2.51 m³
Área de forma total = 33.29 m²

PILARES

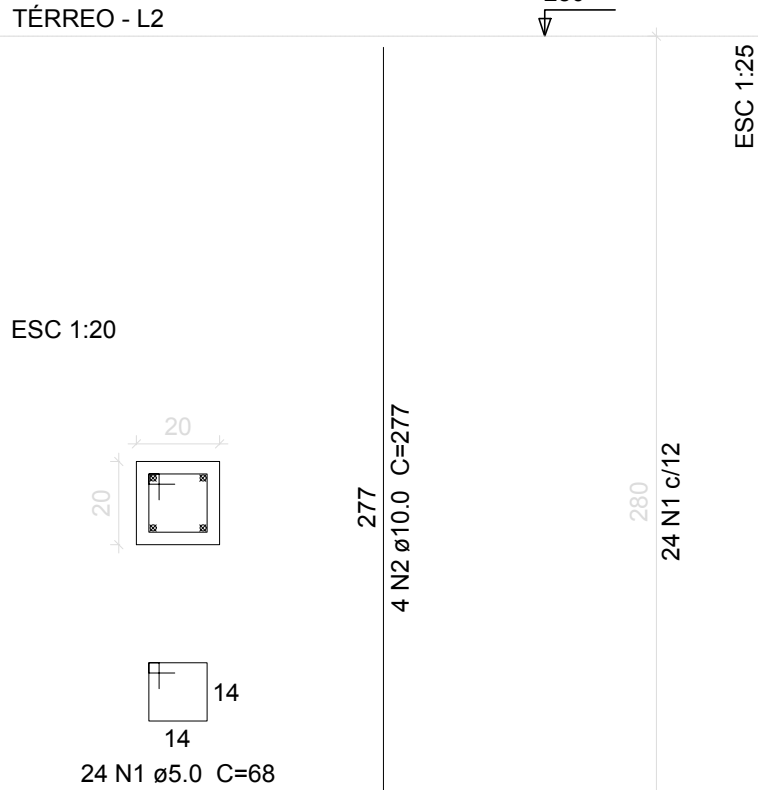
P1



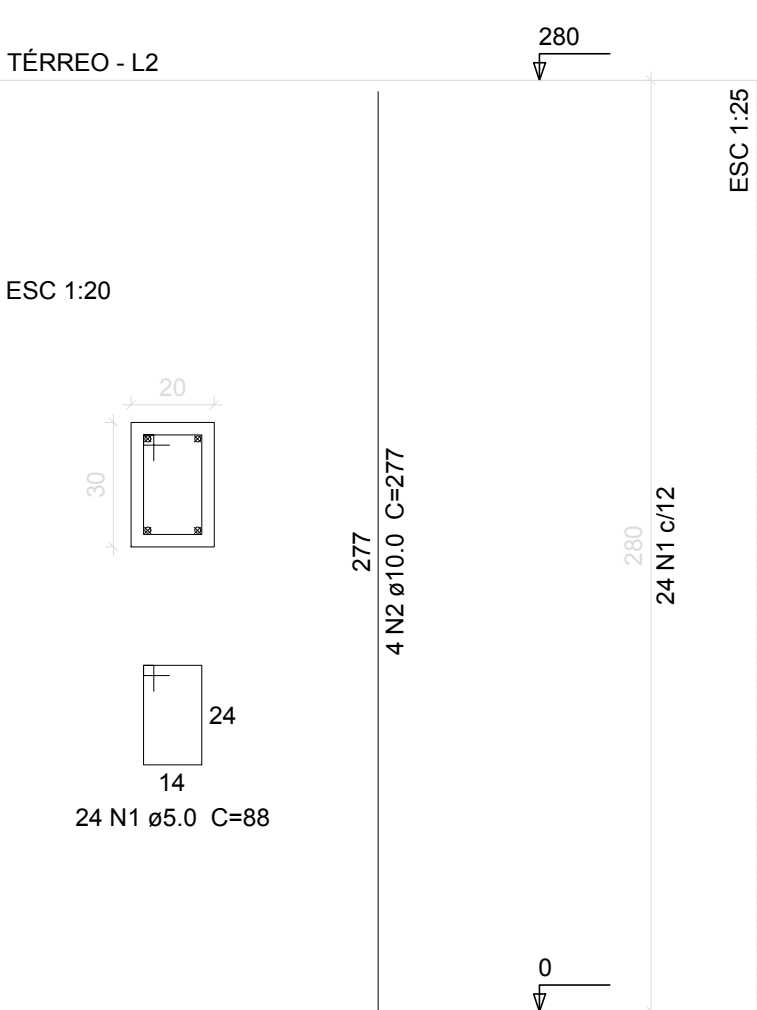
P2=P3=P4=P5=P7=P8=P9=P10=P11=P12=P13
=P14



P1



P2=P3=P4=P5=P7=P8=P9=P10=P11=P12=P13
=P14



Relação do aço

ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
Baldrame P1	CA60	1	5.0	9	68	612
	CA50	2	10.0	4	VAR	VAR
	CA60	1	5.0	60	88	5280
Térreo P1	CA60	1	5.0	24	68	1632
	CA50	2	10.0	4	277	1108
	CA60	1	5.0	288	88	25344
PESO TOTAL						

Resumo do aço

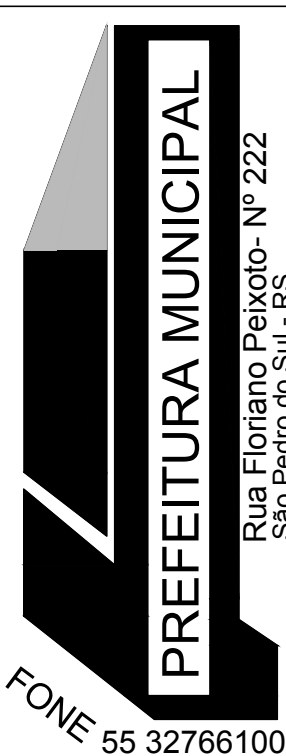
AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	10.0	201.2	124
CA60	5.0	328.7	50.7
PESO TOTAL			

Vol. de concreto total (C-25) = 2.53 m³
Área de forma total = 42.64 m²

Observações

Plancha

ES-02



Reforma e Ampliação E.M.E.F. Naurelino Souto

Administração	Resp. Técnico
ZIANIA MARIA BOLZAN PREFEITA MUNICIPAL	ARQUITETA CRISTIANE JARDIM FERNANDES CAU RS A 101071-9
	ENGENHEIRO CIVIL FELIPE BASSOTTO SKREBSKY CREA RS 237.125

PROJETO ESTRUTURAL

DETALHAMENTO FERRAGENS PILARES E VIGAS BALDRAMES

Local	Distrito do Xiniquã, N° 6005, São Pedro do Sul - RS
Data	Julho/2021
Escala	Indicada
Área	
Desenho	Felipe Bassotto