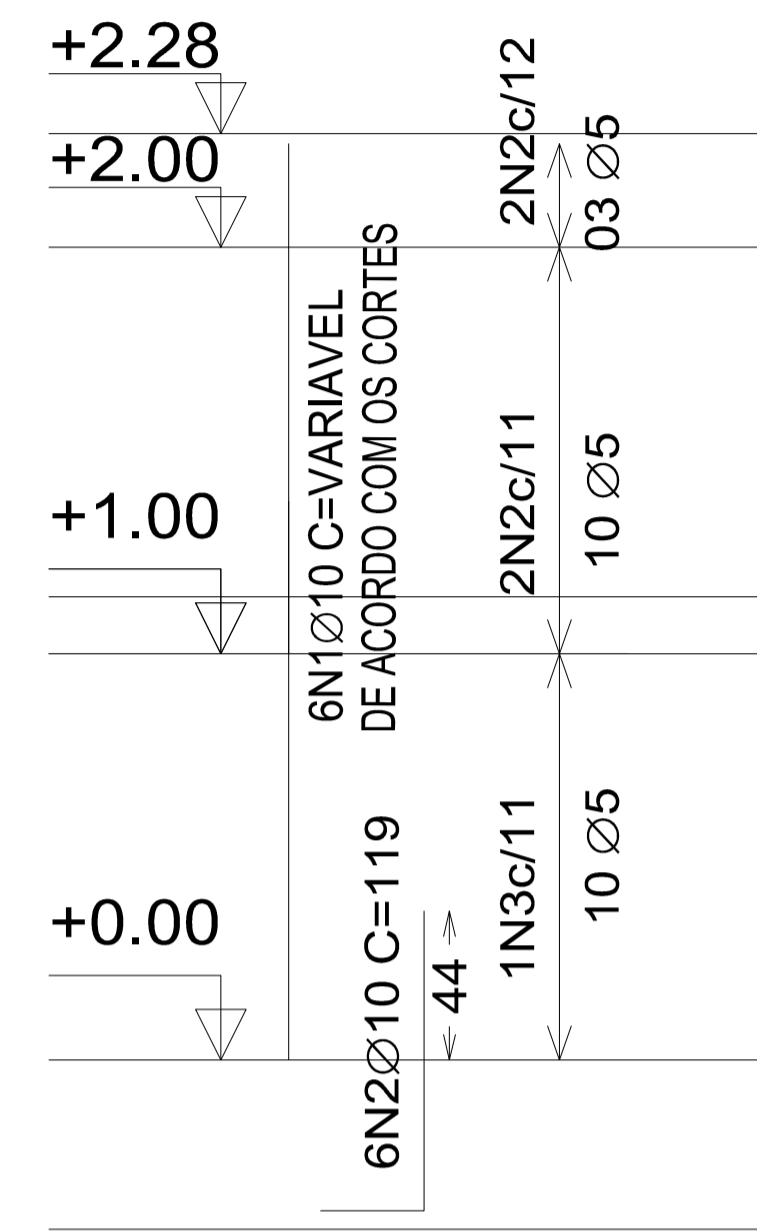
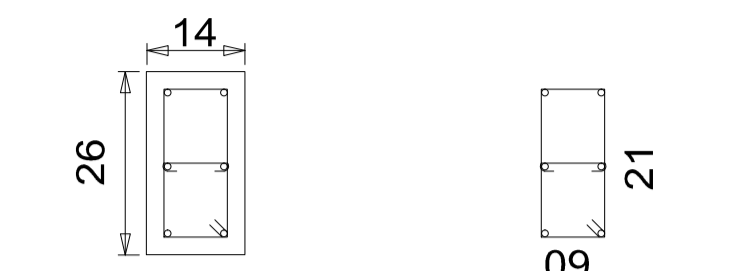


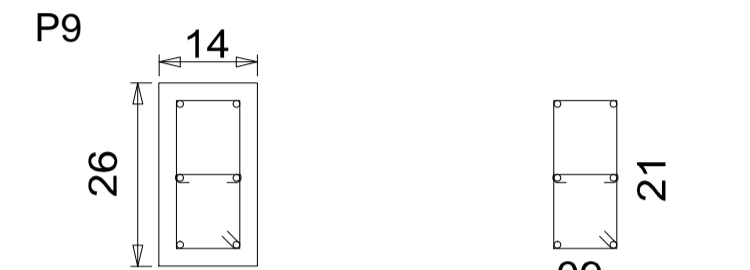
Detalhamento dos pilares ( 13 x )  
escala 1:50



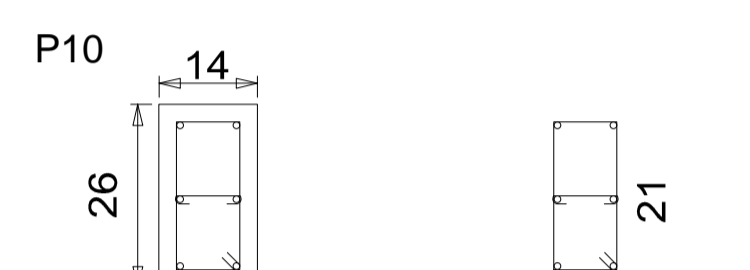
P1 e P2  
P3 ao P8  
P14 ao P18



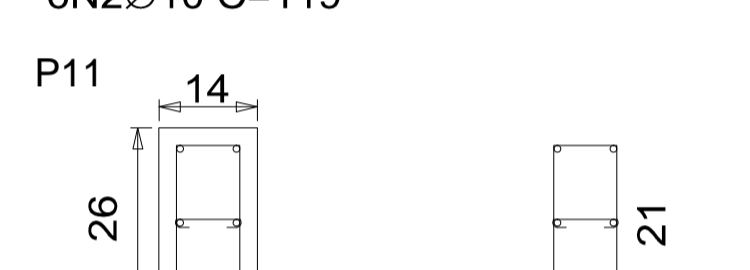
6N1Ø10 C=225  
6N2Ø10 C=119  
23N3Ø5 C=80



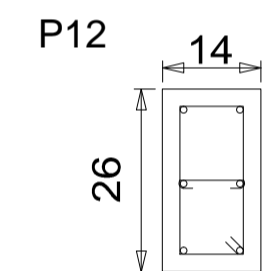
6N1Ø10 C=210  
6N2Ø10 C=119  
21N3Ø5 C=80



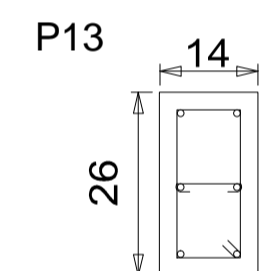
6N1Ø10 C=193  
6N2Ø10 C=119  
19N3Ø5 C=80



6N1Ø10 C=176  
6N2Ø10 C=119  
17N3Ø5 C=80



6N1Ø10 C=160  
6N2Ø10 C=119  
16N3Ø5 C=80



6N1Ø10 C=143  
6N2Ø10 C=119  
15N3Ø5 C=80

P1 e P2  
P3 ao P8  
P14 ao P18

Relação de aço / Pilares

AÇO	POS.	BIT. (mm)	Q.	COMP. (cm)	TOTAL (cm)	x 13 (cm)	CA 50 (kg)
CA50	1	Ø10.0	6	225	1350	17550	112
CA50	2	Ø10.0	6	119	714	9282	59
CA50	3	Ø5.0	23	80	1840	23920	39
TOTAL							210

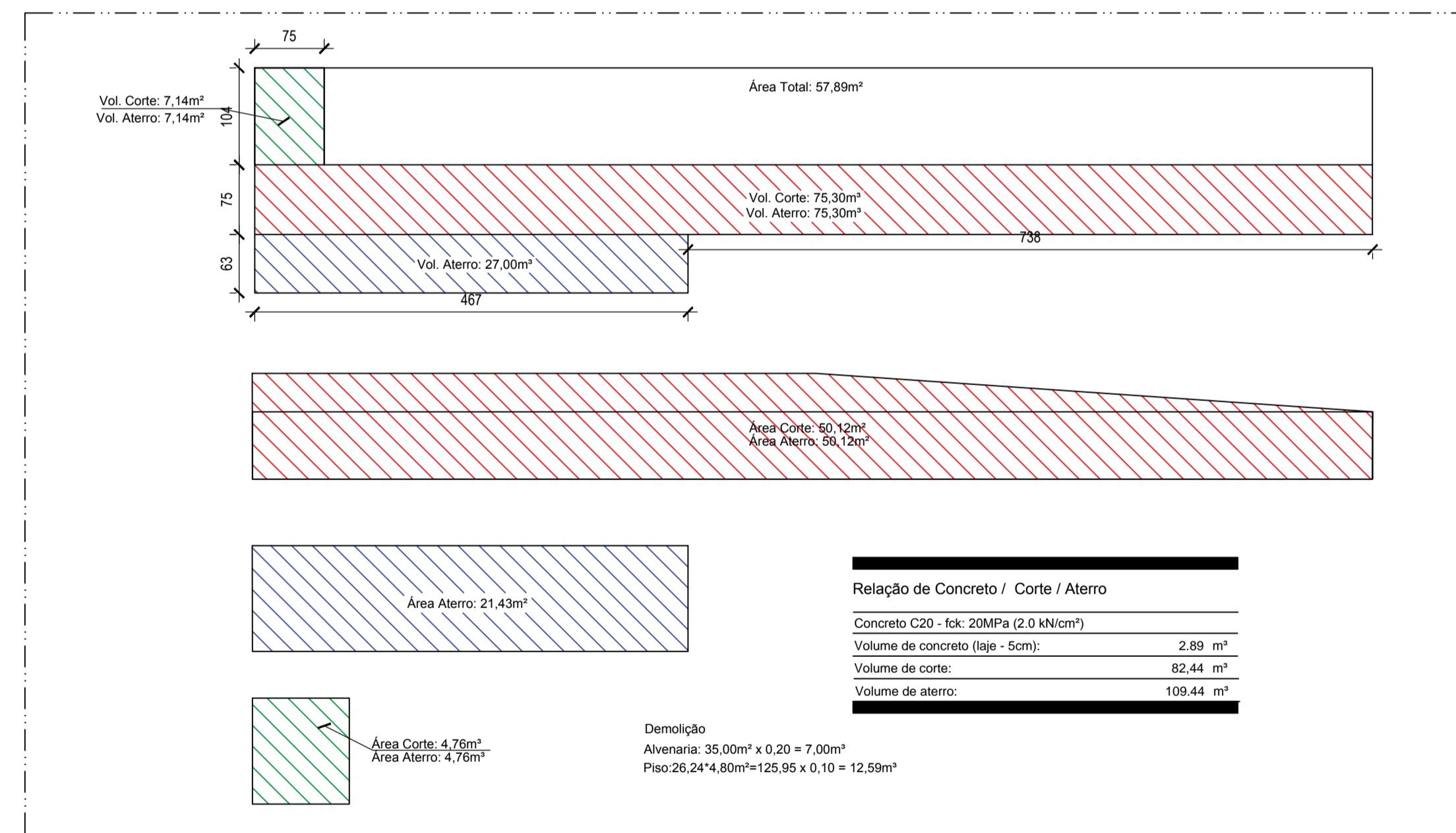
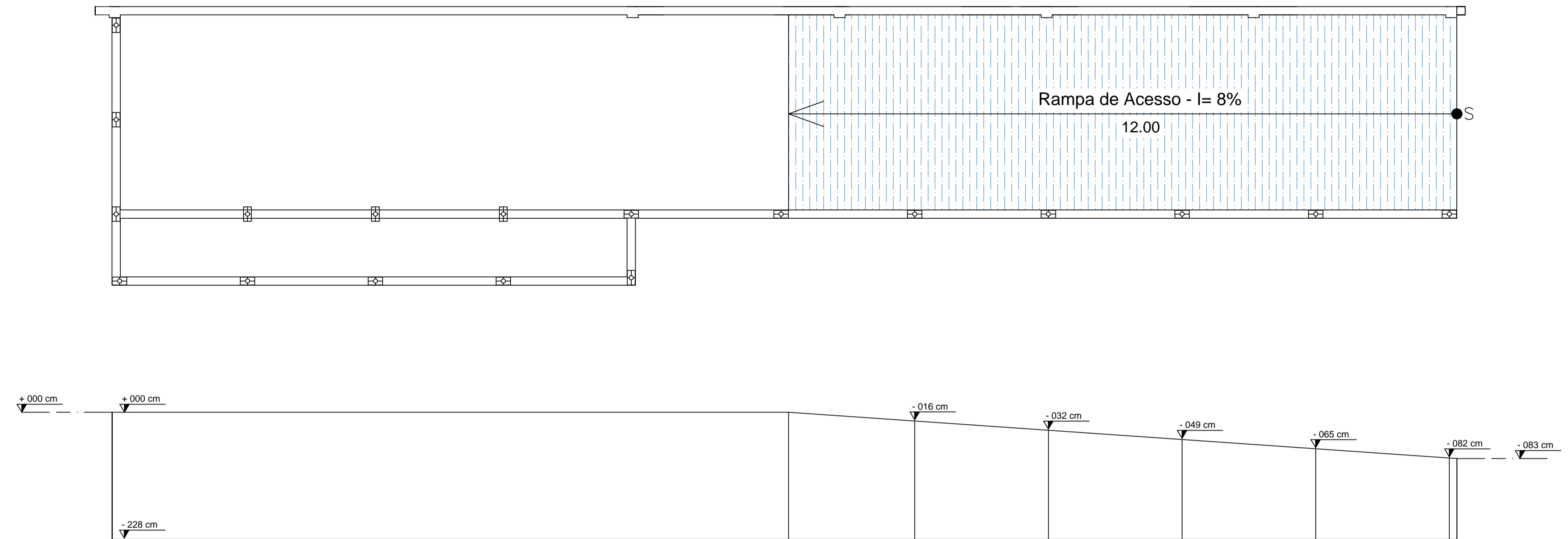
Concreto C20 - fck: 20MPa (2.0 kN/cm²)  
Formas de madeira (pilares): 23.71 m²  
Volume de concreto (pilares): 1.09 m³

P9, P10, P11, P12 e P13

Relação de aço / Pilares

AÇO	POS.	BIT. (mm)	Q.	COMP. (cm)	TOTAL (cm)	x 1 (cm)	CA 50 (kg)
CA50	1	Ø10.0	6	882	5292	5292	34
CA50	2	Ø10.0	6	595	3570	3570	23
CA50	3	Ø5.0	88	80	7040	7040	12
TOTAL							69

Concreto C20 - fck: 20MPa (2.0 kN/cm²)  
Formas de madeira (pilares): 7.17 m²  
Volume de concreto (pilares): 0.33 m³



Relação de Concreto / Corte / Aterro

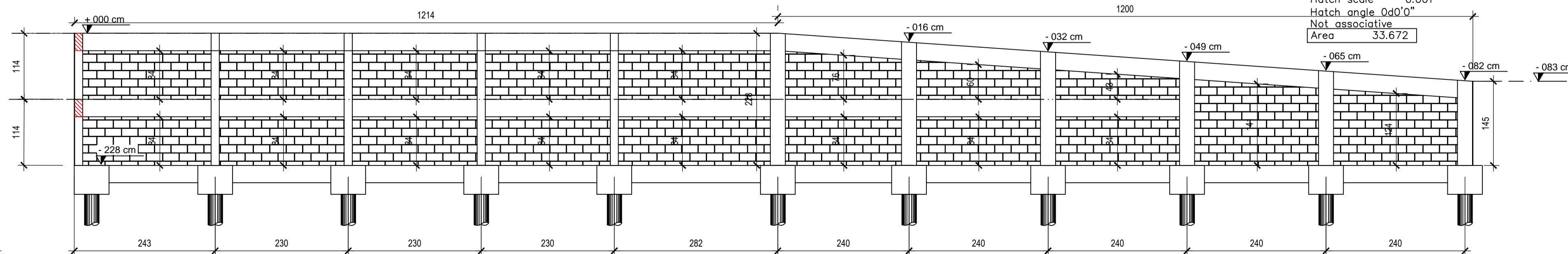
Concreto C20 - fck: 20MPa (2.0 kN/cm²)	2.89 m³
Volume de concreto (laje - 5cm):	82.44 m³
Volume de corte:	109.44 m³
Volume de aterro:	109.44 m³

Demolição  
Alvenaria: 35,00m² x 0,20 = 7,00m³  
Piso: 26,24\*4,80m²=125,95 x 0,10 = 12,59m³

ALVENARIA/REVESTIMENTO - PINTURA

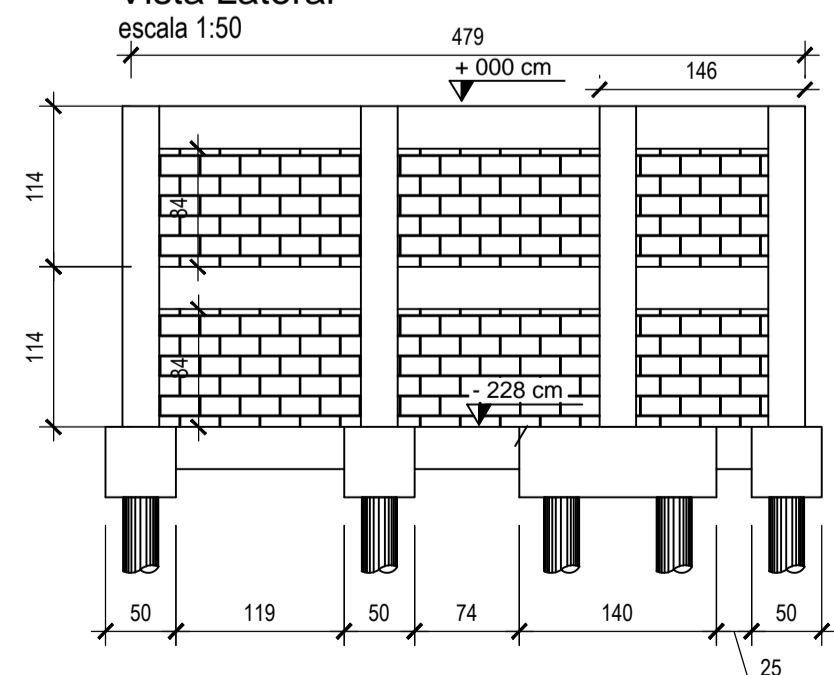
Alvenaria - Blocos 20cm	33,67*(3,68x2)	41,03 m²
Revestimento		99,68 m²
Pintura		49,84 m²

Vista Frontal  
escala 1:50



Revestimento = (12,14\*2,2)+(2,28+1,45)/2\*12,00\*2)+(1,46\*2,28\*2)+(4,79\*2,25\*2) = 99,68m2

Vista Lateral  
escala 1:50



PREFEITURA DE BALSAMO

RUA RIO DE JANEIRO, 695 - CENTRO  
CEP: 15-140-000 - TEL: (17) 3264-1209  
CNPJ - Nº 45.142.353/0001-64

FUNDAÇÃO -1

P-5

REVITALIZAÇÃO DO GINÁSIO DE ESPORTE  
TÍTULO

ÁREA DE LAZER - VILA DO LAZER - BALSAMO/SP  
LOCAL

DATA

AGOSTO DE 2019

ESCALA

INDICADA

LOCALIZAÇÃO

INDICADA NA P1

CARLOS EDUARDO CARMONA LOURENÇO  
PREFEITO MUNICIPAL

JOSÉ CÂNDIDO SOLER LOURENÇO  
ENGENHEIRO CIVIL CREA/SP 060.085.386-8  
ART Nº: 28027230190319651