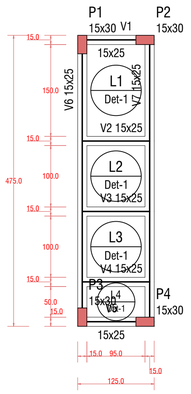
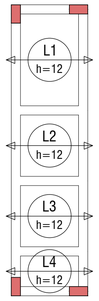


Blocos de enchimento						
Detalhe	Tipo	Nome	Dimensões(cm)			Quantidade
			hb	bx	by	
1	EPS Unidirecional	B8/30/125	8	30	125	11

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nivel (cm)
V1	15x25	0	160
V2	15x25	0	160
V3	15x25	0	160
V4	15x25	0	160
V5	15x25	0	160
V6	15x25	0	160
V7	15x25	0	160

Características dos materiais	
fck (kgf/cm²)	Ecs (kgf/cm²)
250	238000

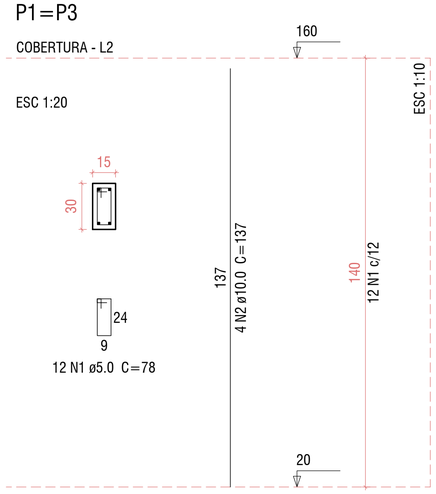
Forma do pavimento COBERTURA
escala 1:50



P1=P3

COBERTURA - L2

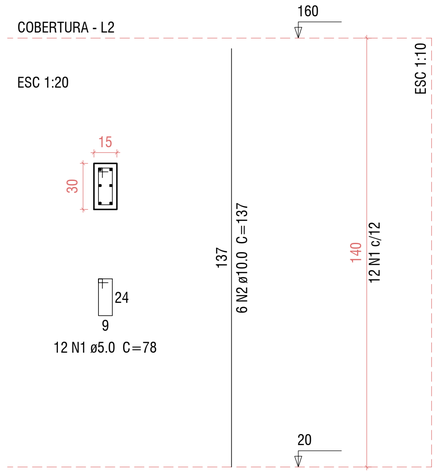
ESC 1:20



P2=P4

COBERTURA - L2

ESC 1:20



Relação do aço

2xP1 2xP2

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	48	78	3744
CA50	2	10.0	20	137	2740

Resumo do aço

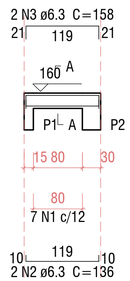
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 15 % (kg)
CA50	10.0	27.5	23.3
CA60	5.0	37.5	6.6

PESO TOTAL (kg)	
CA50	23.3
CA60	6.6

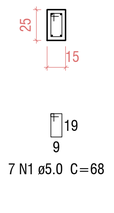
Volume de concreto (C-25) = 0.25 m³
Área de forma = 5.04 m²

V1

ESC 1:50

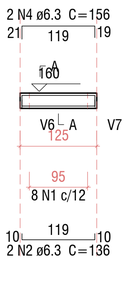


SEÇÃO A-A
ESC 1:25

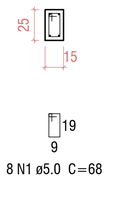


V2

ESC 1:50

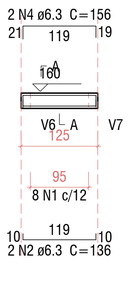


SEÇÃO A-A
ESC 1:25

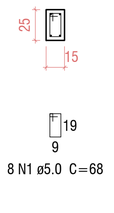


V3

ESC 1:50

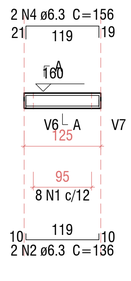


SEÇÃO A-A
ESC 1:25

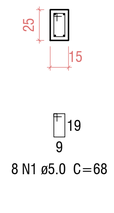


V4

ESC 1:50

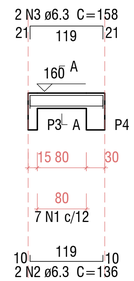


SEÇÃO A-A
ESC 1:25

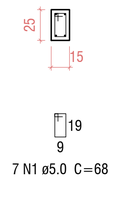


V5

ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1 V2 V3
V4 V5 V6
V7

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	111	68	7548
CA50	2	6.3	10	136	1360
	3	6.3	4	158	632
	4	6.3	6	156	936
	5	8.0	4	485	1940
	6	10.0	2	526	1052
	7	10.0	2	524	1048

Resumo do aço

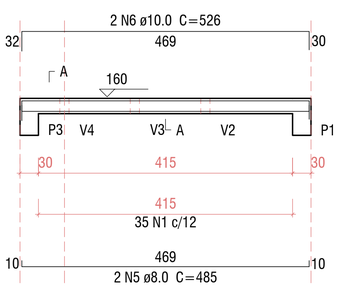
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 15 % (kg)
CA50	6.3	29.3	8.2
	8.0	19.4	8.8
	10.0	21	14.9
CA60	5.0	75.5	13.4

PESO TOTAL (kg)	
CA50	31.9
CA60	13.4

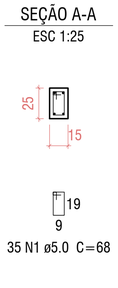
Volume de concreto (C-25) = 0.59 m³
Área de forma = 10.24 m²

V6

ESC 1:50

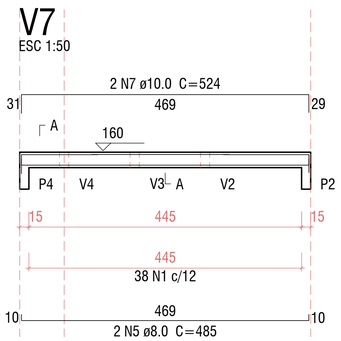


SEÇÃO A-A
ESC 1:25

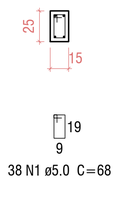


V7

ESC 1:50



SEÇÃO A-A
ESC 1:25



PREFEITURA MUNICIPAL DE PARANAGUÁ

TÍTULO	PROJETO ESTRUTURAL
OBRA	U.B.S. PRAIA DE ENCANTADAS - ILHA DO MEL
CONTEÚDO	PILARES - FORMA COBERTURA - VIGAS DE COBERTURA - LAJE DE COBERTURA
RESP. TÉCNICO PROJETO	RUY JOSÉ RIBEIRO CREA: 18.036-D
PROPRIETÁRIO	MUNICÍPIO DE PARANAGUÁ
DATA	JULHO/2017
ESCALA	INDICADA
DESENHO	RJR
ÁREA CONSTRUÍDA	405.95 m²
PRANCHA	11/12