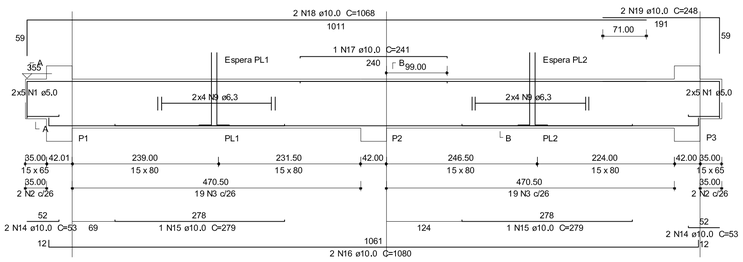
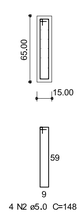
VC1 (var)

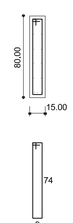
ESC 1:50



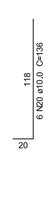
SEÇÃO A-A ESC 1:30



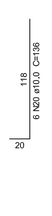
SEÇÃO B-B ESC 1:30



ESPERA PL1 ESC 1:30

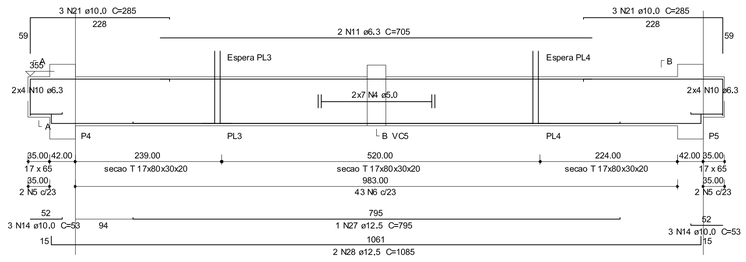


ESPERA PL2 ESC 1:30

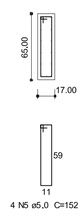


VC2 (var)

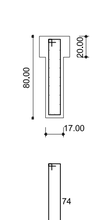
ESC 1:50



SEÇÃO A-A ESC 1:30

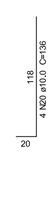


SEÇÃO B-B ESC 1:30

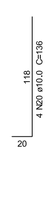


As costura 1.5 cm2/m

ESPERA PL3 ESC 1:30



ESPERA PL4 ESC 1:30



Relação do aço

VC1 VC2 VC3
VC4 VC5 VC6

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	40	CORR	1400
	2	5.0	8	148	1184
	3	5.0	76	178	13528
	4	5.0	14	CORR	13762
	5	5.0	4	152	608
	6	5.0	43	182	7826
	7	5.0	92	102	9384
	8	5.0	76	248	18848
CA50	9	6.3	32	CORR	15072
	10	6.3	16	CORR	560
	11	6.3	2	705	1410
	12	6.3	2	740	1480
	13	8.0	12	CORR	11796
	14	10.0	14	53	742
	15	10.0	3	279	837
	16	10.0	4	1080	4320
	17	10.0	2	241	482
	18	10.0	4	1068	4272
	19	10.0	4	248	992
	20	10.0	32	136	4352
	21	10.0	6	285	1710
	22	10.0	1	274	274
	23	10.0	4	1016	4064
	24	10.0	2	231	462
	25	10.0	2	1072	2144
	26	10.0	2	1073	2146
	27	12.5	1	795	795
	28	12.5	2	1085	2170
	29	12.5	8	195	1560
	30	16.0	3	734	2202
	31	16.0	2	1042	2084

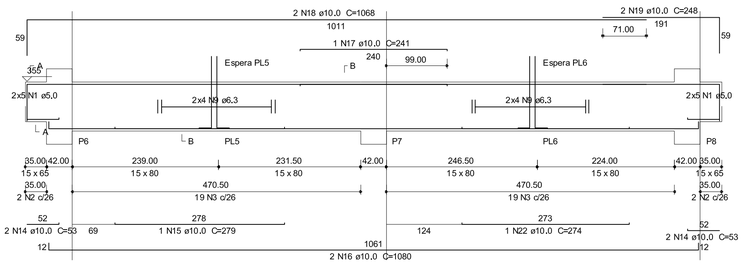
Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	185.3	49.9
	8.0	118	51.2
	10.0	268	181.7
	12.5	45.3	48
	16.0	42.9	74.4
CA60	5.0	665.4	112.8
PESO TOTAL			
CA50	405.2		
CA60	112.8		

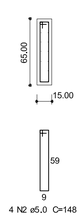
Vol. de concreto total (C-25) = 8,63 m³
Área de forma total = 93,86 m²

VC3 (var)

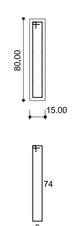
ESC 1:50



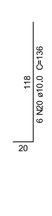
SEÇÃO A-A ESC 1:30



SEÇÃO B-B ESC 1:30



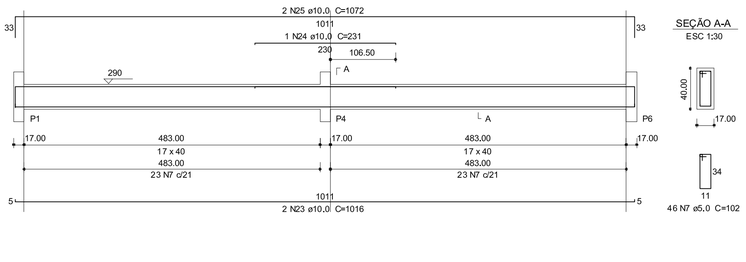
ESPERA PL5 ESC 1:30



ESPERA PL6 ESC 1:30

VC4 (17 x 40)

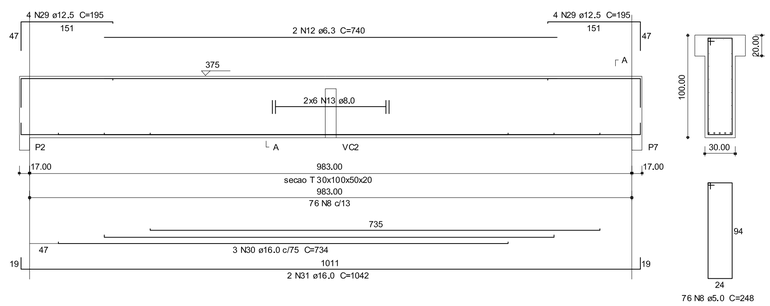
ESC 1:50



SEÇÃO A-A ESC 1:30

VC5 (secao T 30x100x50x20)

ESC 1:50

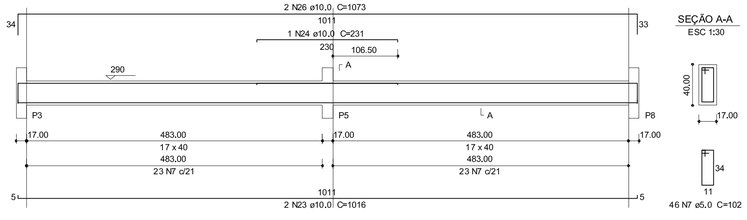


SEÇÃO A-A ESC 1:30

As costura 1.5 cm2/m

VC6 (17 x 40)

ESC 1:50



SEÇÃO A-A ESC 1:30

NOTAS:

-EM CASO DE DÚVIDAS, CONSULTAR O AUTOR DESTE PROJETO
-PARA A BOA EXECUÇÃO, COSULTAR O PROJETO ARQUITETÔNICO
-RESISTÊNCIA CARACTERÍSTICA DO CONCRETO Fck = 25 MPa
-AS COTAS PREVALECEM SOBRE A ESCALA
-VERIFICAR AS MEDIDAS NA OBRA
-TODAS AS MEDIDAS ESTÃO EM CENTÍMETROS
-O NÍVEL 0,00m EQUIVALE AO NÍVEL 0,00m DO PROJETO ARQUITETÔNICO
-DEIXAR PASSGENS PARA TUBULAÇÕES DE ÁGUA, ESGOTO, ELÉTRICA, INCÊNDIO, ETC
-ANTES DA CONCRETAGEM MOLHAR AS FORMAS
-MANTER ÚMIDAS AS PARTES CONCRETADAS DURANTE SETE DIAS NO MÍNIMO
-DIREITOS AUTORAIS RESERVADOS

REVISÃO	DISCRIMINAÇÃO	DATA	REVISOR	VISTO

PROJETO ESTRUTURAL CORNÉLIO PROCÓPIO - PR (43) - 3535-4985	OBRA: CONSTR. EM ALVEN. E CONCR. ARMADO - LABORATÓRIO DE ANATOMIA HUMANA PROPRIETÁRIO: UENP-UNIVERSIDADE ESTADUAL DO NORTE DO PARANÁ CAMPUS LUIZ MENEGHEL LOCAL DA OBRA: RODOVIA BR 369 - Km 54 BANDEIRANTES - PR	ARQUIVO	06 / 2012
		PRANCHA	08 / 12
		ESCALA	INDICADA
MANFRED PETER MÜLLER ENGENHEIRO CIVIL CREA - 11.179 - D / PR RESPONSÁVEL TÉCNICO PELO PROJETO	CONTEÚDO: FERRAGEM DAS VIGAS DA COBERTURA	DATA	12 / 11 / 2012
		DESENHO	MANFRED
		VISTO	MANFRED