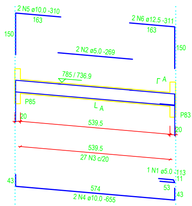
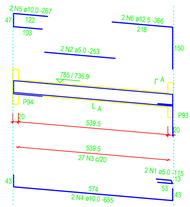
VR1 (18 x 50)

1:75



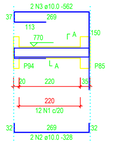
VR2 (20 x 50)

1:75



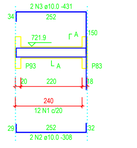
VR3 (20 x 40)

1:75



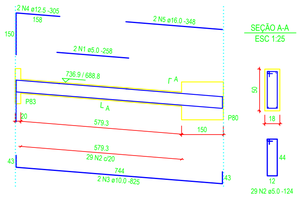
VR4 (20 x 40)

1:75



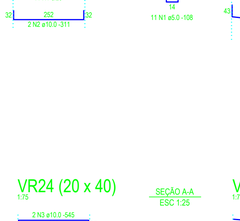
VR5 (18 x 50)

1:75



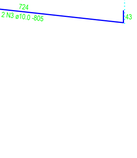
VR6 (20 x 50)

1:75



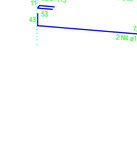
VR7 (15 x 40)

1:75



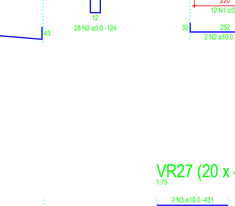
VR8 (15 x 40)

1:75



VR9 (18 x 50)

1:75

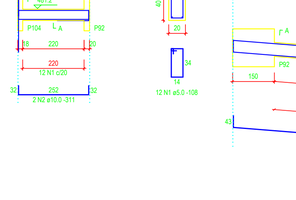


VR11 (20 x 40)

1:75

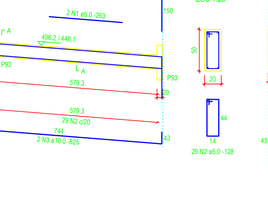
VR10 (20 x 50)

1:75



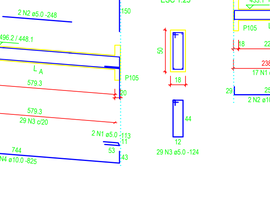
VR12 (18 x 50)

1:75



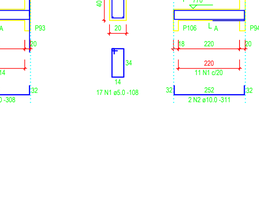
VR13 (20 x 50)

1:75



VR14 (15 x 50)

1:75



Relação do aço

ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
VR1	CA60	1	5.0	1	113	113
	CA60	2	5.0	2	269	538
	CA60	3	5.0	27	124	3348
	CA50	4	10.0	2	655	1310
	CA50	5	10.0	2	253	506
	CA50	6	12.5	2	1406	2812
	CA50	7	16.0	2	348	696
VR2	CA60	1	5.0	2	115	230
	CA60	2	5.0	2	253	506
	CA60	3	5.0	27	129	3416
	CA50	4	10.0	2	655	1310
	CA50	5	10.0	2	297	594
	CA50	6	12.5	2	366	732
	CA50	7	16.0	2	108	1296
VR3	CA50	2	10.0	2	328	656
	CA50	3	10.0	2	502	1004
VR4	CA60	1	5.0	12	108	1296
	CA50	2	10.0	2	308	616
	CA50	3	10.0	2	431	862
VR5	CA60	1	5.0	2	258	516
	CA60	2	5.0	29	124	3596
	CA50	3	10.0	2	825	1650
	CA50	4	12.5	2	305	610
	CA50	5	16.0	2	348	696
VR6	CA60	1	5.0	2	223	446
	CA60	2	5.0	29	128	3712
	CA50	3	10.0	2	825	1650
	CA50	4	12.5	2	320	640
	CA50	5	16.0	2	368	736
VR7	CA60	1	5.0	11	98	1078
	CA50	2	8.0	2	312	624
	CA50	3	10.0	2	545	1090
VR8	CA60	1	5.0	11	98	1078
	CA50	2	8.0	2	312	624
	CA50	3	10.0	2	545	1090
VR9	CA60	1	5.0	2	247	494
	CA60	2	5.0	29	124	3472
	CA50	3	10.0	2	803	1606
	CA50	4	12.5	2	301	602
	CA50	5	16.0	2	343	686
VR10	CA60	1	5.0	2	201	402
	CA60	2	5.0	29	128	3584
	CA50	3	10.0	2	803	1606
	CA50	4	10.0	2	321	642
	CA50	5	16.0	2	368	736
VR11	CA60	1	5.0	2	108	1296
	CA50	2	10.0	2	308	616
	CA50	3	10.0	2	431	862
VR12	CA60	1	5.0	2	258	516
	CA60	2	5.0	30	124	3720
	CA50	3	10.0	2	832	1664
	CA50	4	12.5	2	305	610
	CA50	5	16.0	2	356	712
VR13	CA60	1	5.0	1	115	115
	CA60	2	5.0	2	313	626
	CA60	3	5.0	29	126	3712
	CA50	4	10.0	2	691	1382
	CA50	5	12.5	2	305	610
	CA50	6	12.5	2	308	616
VR14	CA60	1	5.0	23	118	2714
	CA60	2	10.0	2	569	1138
	CA50	3	10.0	1	324	324
VR15	CA50	4	10.0	2	785	1570
	CA50	5	5.0	4	124	496
	CA50	2	10.0	2	293	586
VR16	CA60	1	5.0	2	266	532
	CA60	2	5.0	12	124	1488
	CA50	3	10.0	2	297	594
VR17	CA50	3	10.0	2	266	532
	CA60	1	5.0	2	492	984
	CA60	2	5.0	24	128	3072
	CA50	3	10.0	2	571	1142
VR18	CA60	1	5.0	2	318	636
	CA60	2	5.0	29	126	3712
	CA50	3	10.0	2	691	1382
	CA50	4	12.5	2	307	614
	CA50	5	12.5	2	300	600
VR19	CA60	1	5.0	1	113	113
	CA60	2	5.0	2	253	506
	CA60	3	5.0	30	124	3720
	CA50	4	10.0	2	832	1664
	CA50	5	12.5	2	306	612
	CA50	6	16.0	2	361	722
VR20	CA60	1	5.0	11	108	1188
	CA50	2	10.0	2	311	622
VR21	CA60	1	5.0	2	232	464
	CA60	2	5.0	28	128	3584
	CA50	3	10.0	2	805	1610
	CA50	4	10.0	2	315	630
	CA50	5	12.5	2	344	688
VR22	CA60	1	5.0	1	113	113
	CA60	2	5.0	2	232	464
	CA60	3	5.0	26	124	3472
	CA50	4	10.0	2	803	1606
	CA50	5	12.5	2	305	610
	CA50	6	16.0	2	353	706
VR23	CA60	1	5.0	12	108	1296
	CA50	2	10.0	2	311	622
	CA50	3	10.0	2	545	1090

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	8.0	12.5	4.9
	10.0	376.3	232
	12.5	74.8	72
	16.0	56.9	89.7
CA60	5.0	672.2	103.6
PESO TOTAL			
CA50	398.6		
CA60	103.6		

Vol. de concreto total (C-25) = 10.55 m³
Área de forma total = 134.1 m²

Relação do aço

ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
VR24	CA60	1	5.0	12	108	1296
	CA50	2	10.0	2	311	622
	CA50	3	10.0	2	545	1090
VR25	CA60	1	5.0	2	263	526
	CA60	2	5.0	29	128	3712
	CA50	3	10.0	2	825	1650
	CA50	4	12.5	2	300	600
	CA50	5	16.0	2	348	696
VR26	CA60	1	5.0	2	113	226
	CA60	2	5.0	2	248	496
	CA60	3	5.0	29	124	3596
	CA50	4	10.0	2	825	1650
	CA50	5	12.5	2	331	662
	CA50	6	16.0	2	333	666
VR27	CA60	1	5.0	17	108	1836
	CA50	2	10.0	2	308	616
	CA50	3	10.0	2	431	862
VR28	CA60	1	5.0	1	115	115
	CA60	2	5.0	2	258	516
	CA60	3	5.0	27	128	3456
	CA50	4	10.0	2	655	1310
	CA50	5	10.0	2	267	534
	CA50	6	12.5	2	360	720
VR29	CA60	1	5.0	3	113	339
	CA50	2	5.0	2	264	528
	CA60	3	5.0	27	124	3348
	CA50	4	10.0	2	655	1310
	CA50	5	10.0	2	283	566
	CA50	6	16.0	2	339	678
VR30	CA60	1	5.0	11	108	1188
	CA50	2	10.0	2	311	622
	CA50	3	10.0	2	424	848

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	10.0	116.8	72
	12.5	19.9	19.1
	16.0	20.4	32.2
CA60	5.0	211.8	32.6
PESO TOTAL			
CA50	123.3		
CA60	32.6		

Vol. de concreto total (C-25) = 3.15 m³
Área de forma total = 39.38 m²

VR15 (18 x 50)

1:75

VR16 (18 x 50)

1:75

VR17 (20 x 50)

1:75

VR18 (20 x 50)

1:75

VR19 (18 x 50)

1:75

VR20 (20 x 40)

1:75

VR21 (20 x 50)

1:75

VR22 (18 x 50)

1:75

VR23 (20 x 40)

1:75

VR28 (20 x 50)

1:75

VR24 (20 x 40)

1:75

VR25 (20 x 50)

1:75

VR26 (18 x 50)

1:75

VR27 (20 x 40)

1:75

VR30 (20 x 40)

1:75

VR29 (18 x 50)

1:75

OBSERVAÇÕES

- Medidas das cotas em cm (exceto onde indicado)
- Verificar medidas no obra
- Molhar as formas antes da concretagem
- Usar espaçadores para garantir recobrimento da aço
- Nas armações negativas das lajes – usar "caranguejos"
- Cura mínima = 7 dias
- Desenformante(formas) = mínimo de 28 dias
- Todas as peças de concreto em contato com o solo devem ser executadas sobre lastro de concreto magro c/ e=5cm
- Em caso de dúvidas, contactar o Calculista

Classe de Agressiv.:	C II	Ecs(5600 fck):	Agreg. Graúdo: Brita 01
CONCRETO(fck):	25 MPa	AÇO: CA 50	SLUMP. (mm): 100+-10
Fator A/C (máx):	< 0.60	FORMAS: O. Res.	ADITIVO:

Nº:	DATA:	DESCRIÇÃO:	VISTO:

QUADRO DE REVISÕES

ASS:

PROJETO EXECUTIVO DE ESTRUTURAL

PAVILHÃO DE SALAS DE AULA II

CAMPUS JK / DIAMANTINA

RODOVIA MG 367, KM 583, Nº 5000 – ALTO DA JACUBA – DIAMANTINA/MG

PROPRIETÁRIO: UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI — CNPJ: 18.668.313/0001-07

TÍTULO: VIGAS DA RAMPA – PARTE 02

AUTOR PROJETO ARQUITETÔNICO / ART:

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Nº. Mat. Prof. Autônomo: 31.144/D-4, CREA – MG, 072.473-6/D
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VERSÃO:	DATA:	AUTOCAD:	FOLHA:
VERSÃO 1	17.10.2012		39