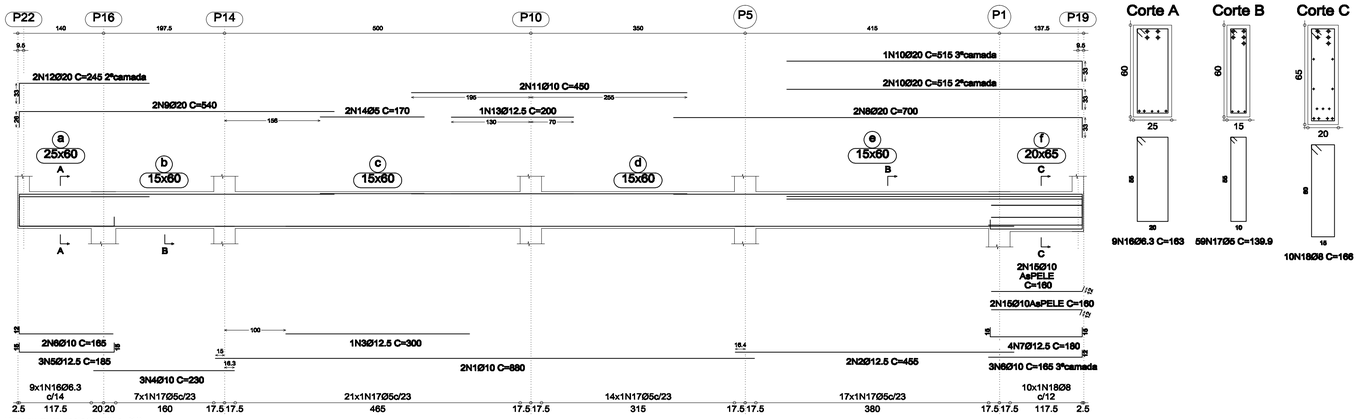
1 Pavto
Desenho de vigas
Concreto: C30, usina.rigor
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

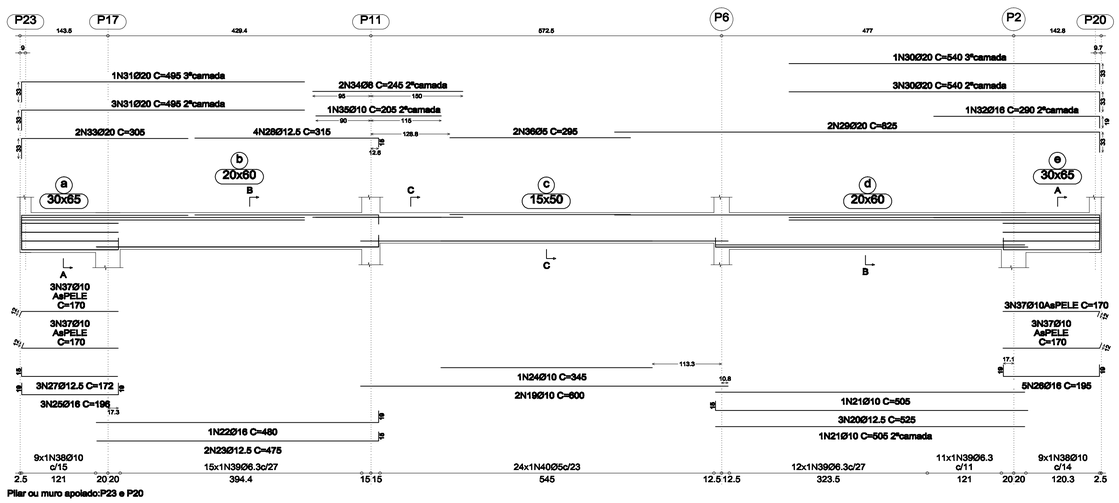
V 9

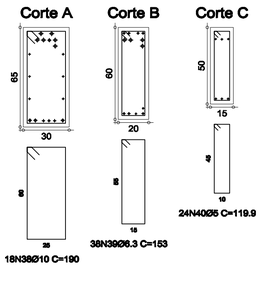


Pilar ou muro apoiado:P22 e P19

Ver esperas no detalhamento de pilares ou vista de muros

V 10

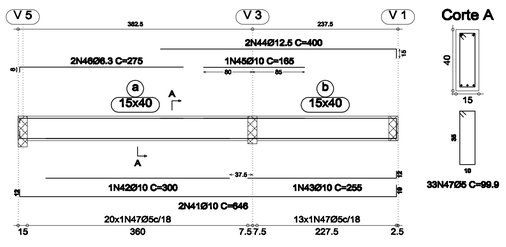




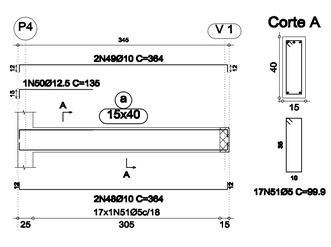
Pilar ou muro apoiado:P23 e P20

Ver esperas no detalhamento de pilares ou vista de muros

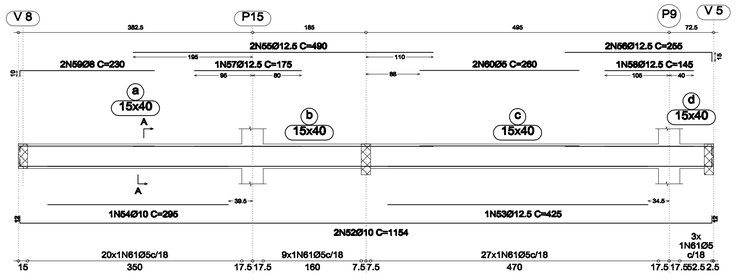
V 11

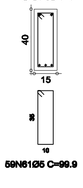


V 12



V 13





Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 9	1	Ø10	2		880		880	1760	11.1	
	2	Ø12.5	2		455		455	910	8.9	
	3	Ø12.5	1		300		300	300	2.9	
	4	Ø10	3		230		230	690	4.3	
	5	Ø12.5	3	15	155	15	185	555	5.4	
	6	Ø10	5	12	153		165	825	5.2	
	7	Ø12.5	4	15	150	15	180	720	7.1	
	8	Ø20	2		667	33	700	1400	34.6	
	9	Ø20	2	26	514		540	1080	26.7	
	10	Ø20	3		482	33	515	1545	38.2	
	11	Ø10	2		450		450	900	5.7	
	12	Ø20	2	33	212		245	490	12.1	
	13	Ø12.5	1		200		200	200	2.0	
	14	Ø5	2		170		170	340		0.5
	15	Ø10	4		148	12	160	640	4.0	
	16	Ø6.3	9				163	1467	3.6	
	17	Ø5	59				140	8260		13.0
	18	Ø8	10				166	1660	6.5	
							Total+10%:		196.1	14.9
V 10	19	Ø10	2		600		600	1200	7.5	
	20	Ø12.5	3	15	510		525	1575	15.5	
	21	Ø10	2		505		505	1010	8.3	
	22	Ø16	1		461	19	480	480	7.5	
	23	Ø12.5	2		460	15	475	950	9.3	
	24	Ø10	1		345		345	345	2.2	
	25	Ø16	3	19	158	19	196	588	9.2	
	26	Ø16	5	19	157	19	195	975	15.3	
	27	Ø12.5	3	15	157		172	516	5.1	
	28	Ø12.5	4		300	15	315	1260	12.4	
	29	Ø20	2		792	33	825	1650	40.8	
	30	Ø20	4		507	33	540	2160	53.4	
	31	Ø20	4	33	462		495	1980	49.0	
	32	Ø16	1		271	19	290	290	4.6	
	33	Ø20	2	33	272		305	610	15.1	
	34	Ø8	2		245		245	490	1.9	
	35	Ø10	1		205		205	205	1.3	
	36	Ø5	2		295		295	590		0.9
	37	Ø10	12	12	158		170	2040	12.8	
	38	Ø10	18				190	3420	21.5	
	39	Ø6.3	38				153	5814	14.4	
	40	Ø5	24				120	2880		4.5
							Total+10%:		335.6	5.9
V 11	41	Ø10	2	12	615	19	646	1292	8.1	
	42	Ø10	1		300		300	300	1.9	
	43	Ø10	1		243	12	255	255	1.6	
	44	Ø12.5	2		385	15	400	800	7.9	
	45	Ø10	1		165		165	165	1.0	
	46	Ø6.3	2	8	267		275	550	1.4	
	47	Ø5	33				100	3300		5.2
							Total+10%:		24.1	5.7
V 12	48	Ø10	2	12	340	12	364	728	4.6	
	49	Ø10	2	12	340	12	364	728	4.6	
	50	Ø12.5	1	15	120		135	135	1.3	
	51	Ø5	17				100	1700		2.7
							Total+10%:		11.6	3.0
V 13	52	Ø10	2	12	1130	12	1154	2308	14.5	
	53	Ø12.5	1		425		425	425	4.2	
	54	Ø10	1		295		295	295	1.9	
	55	Ø12.5	2		490		490	980	9.6	
	56	Ø12.5	2		240	15	255	510	5.0	
	57	Ø12.5	1		175		175	175	1.7	
	58	Ø12.5	1		145		145	145	1.4	
	59	Ø8	2	10	220		230	460	1.8	
	60	Ø5	2		260		260	520		0.8
	61	Ø5	59				100	5900		9.3
							Total+10%:		44.1	11.1
							Ø5:		0.0	40.6
							Ø6.3:		21.3	0.0
							Ø8:		11.2	0.0
							Ø10:		132.1	0.0
							Ø12.5:		109.8	0.0
							Ø16:		40.3	0.0
							Ø20:		296.8	0.0
							Total:		611.5	40.6

Meta
ENGENHARIA E PLANEJAMENTO
15 ANOS

PROJETO ESTRUTURAL

OBRA 8º BATALHÃO DE BOMBEIROS MILITAR - CONV. PMT
AV. PATRÍCIO LIMA, 804 - HUMAITÁ - TUBARÃO - S.C.

ASSUNTO
VIGAS I° PAVIMENTO

ÁREA: 610,43 M²
ESC.: INDICADA
DATA : MARÇO / 2018
PROJ.: 18-003

PRANCHA C7 24

EQUIPE TÉCNICA — CHARLES MENDES DE SOUZA — CREA/SC 41.411-4

REVISÃO Nº	DATA	COMENTÁRIO	COLABORADOR
00	19/02/2018	EMISSÃO PARCIAL	ENG. CHARLES
01	19/03/2018	EMISSÃO FINAL	ENG. CHARLES

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(48) 3622-2534 - projetos@metaengenharia.eng.br