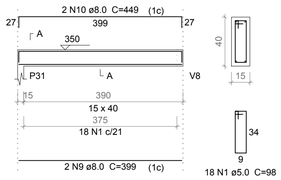
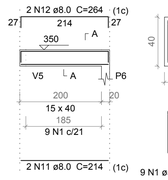
V37
ESC 1:75



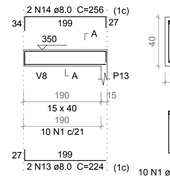
SEÇÃO A-A
ESC 1:25

V38
ESC 1:75



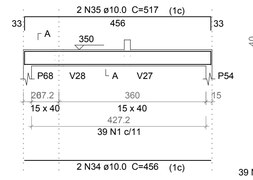
SEÇÃO A-A
ESC 1:25

V39
ESC 1:75



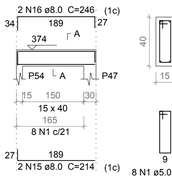
SEÇÃO A-A
ESC 1:25

V40
ESC 1:75



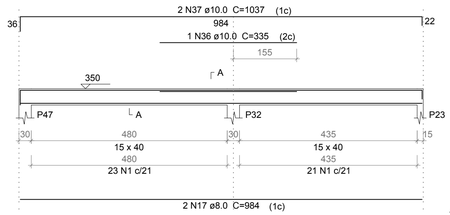
SEÇÃO A-A
ESC 1:25

V41
ESC 1:75

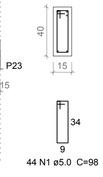


SEÇÃO A-A
ESC 1:25

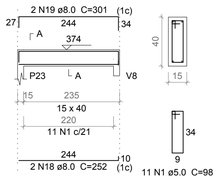
V42
ESC 1:75



SEÇÃO A-A
ESC 1:25

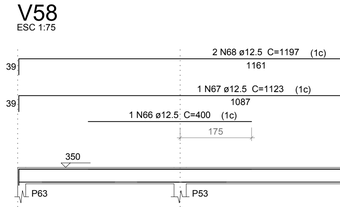


V43
ESC 1:75



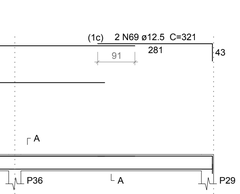
SEÇÃO A-A
ESC 1:25

V44
ESC 1:75



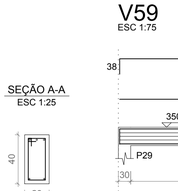
SEÇÃO A-A
ESC 1:25

V45
ESC 1:75



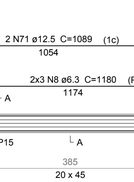
SEÇÃO A-A
ESC 1:25

V46
ESC 1:75



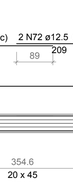
SEÇÃO A-A
ESC 1:25

V47
ESC 1:75



SEÇÃO A-A
ESC 1:25

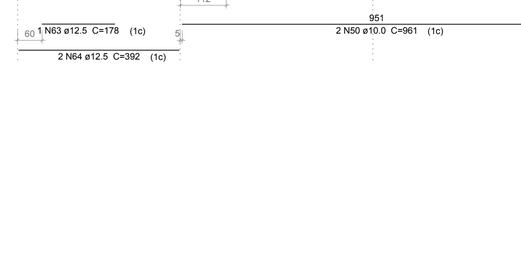
SUSPENSÃO V24
ESC 1:25



V48
ESC 1:75

SEÇÃO A-A
ESC 1:25

V49
ESC 1:75



SEÇÃO A-A
ESC 1:25

V50
ESC 1:75

SEÇÃO A-A
ESC 1:25

V51
ESC 1:75

SEÇÃO A-A
ESC 1:25

V52
ESC 1:75

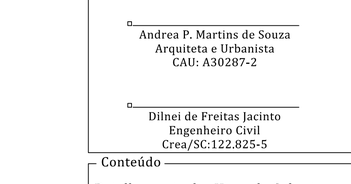
SEÇÃO A-A
ESC 1:25

V53
ESC 1:75

SEÇÃO A-A
ESC 1:25

SUSPENSÃO V12
ESC 1:25

V54
ESC 1:75



SEÇÃO A-A
ESC 1:25

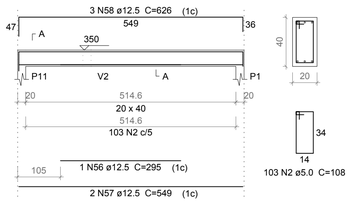
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	130.9	35.2
	8.0	196.3	85.2
	10.0	162.3	110.1
	12.5	236.7	250.8
CA60	5.0	1001.7	169.8

PESO TOTAL (kg)	
CA50	481.3
CA60	169.8

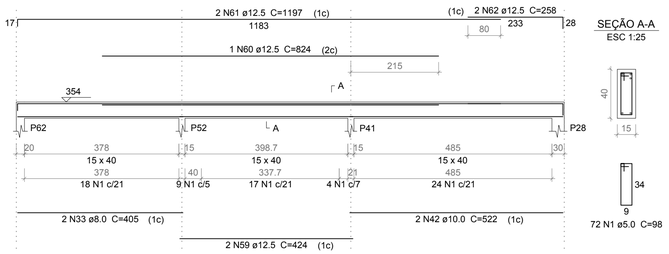
Volume de concreto (C-25) = 8.84 m³
Área de forma = 128.23 m²

V55
ESC 1:75



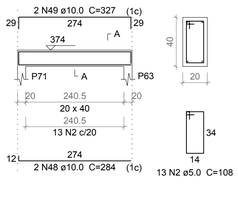
SEÇÃO A-A
ESC 1:25

V56
ESC 1:75

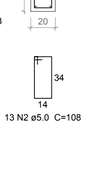


SEÇÃO A-A
ESC 1:25

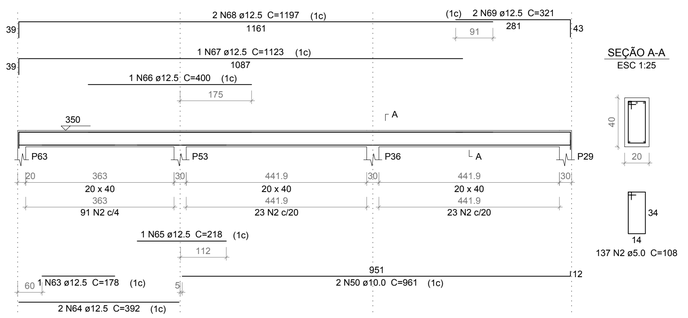
V57
ESC 1:75



SEÇÃO A-A
ESC 1:25

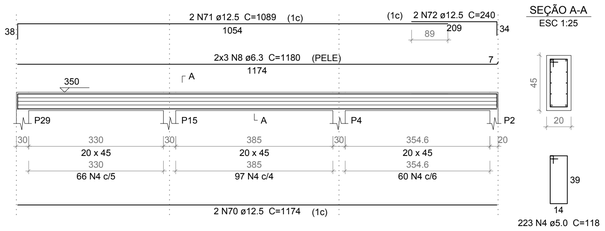


V58
ESC 1:75



SEÇÃO A-A
ESC 1:25

V59
ESC 1:75



SEÇÃO A-A
ESC 1:25

Relação do aço

V37	V38	V39
V40	V41	V42
V43	V44	V45
V46	V47	V48
V49	V50	V51
V52	V53	V54
V55	V56	V57
V58	V59	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	403	98	39494
	2	5.0	283	108	30564
	3	5.0	24	158	3792
	4	5.0	223	118	26314
CA50	5	6.3	2	327	654
	6	6.3	1	113	113
	7	6.3	8	655	5240
	8	6.3	6	1180	7080
	9	8.0	2	399	798
	10	8.0	2	449	898
	11	8.0	2	214	428
	12	8.0	2	264	528
	13	8.0	2	224	448
	14	8.0	2	256	512
	15	8.0	4	214	856
	16	8.0	2	246	492
	17	8.0	2	984	1968
	18	8.0	2	252	504
	19	8.0	2	301	602
	20	8.0	2	519	1038
	21	8.0	2	569	1138
	22	8.0	2	322	644
	23	8.0	2	314	628
	24	8.0	2	364	728
	25	8.0	2	517	1034
	26	8.0	1	160	160
	27	8.0	2	1037	2074
	28	8.0	2	637	1274
	29	8.0	2	127	254
	30	8.0	2	184	368
	31	8.0	2	216	432
	32	8.0	2	504	1008
	33	8.0	2	405	810
	34	10.0	2	456	912
	35	10.0	2	517	1034
	36	10.0	1	335	335
	37	10.0	2	1037	2074
	38	10.0	2	374	748
	39	10.0	2	247	494
	40	10.0	2	147	294
	41	10.0	2	472	944
	42	10.0	4	522	2088
	43	10.0	1	390	390
	44	10.0	2	771	1542
	45	10.0	2	336	672
	46	10.0	2	223	446
	47	10.0	2	555	1110
	48	10.0	2	284	568
	49	10.0	2	327	654
	50	10.0	2	961	1922
	51	12.5	2	281	562
	52	12.5	3	268	804
	53	12.5	3	673	2019
	54	12.5	1	273	273
	55	12.5	2	707	1414
	56	12.5	1	295	295
	57	12.5	2	549	1098
	58	12.5	3	626	1878
	59	12.5	2	424	848
	60	12.5	1	824	824
	61	12.5	2	1197	2394
	62	12.5	2	258	516
	63	12.5	1	178	178
	64	12.5	2	392	784
	65	12.5	1	218	218
	66	12.5	1	400	400
	67	12.5	1	1123	1123
	68	12.5	2	1197	2394
	69	12.5	2	321	642
	70	12.5	2	1174	2348
	71	12.5	2	1089	2178
	72	12.5	2	240	480

E + Plan Engenharia Ltda Me - CNPJ:15.018.870/0001-65
Registro no CREA/SC: 127.622-8
www.emais.eng.br - contato@emais.eng.br - (48)3093-9350
Rua Najla Carone Goedert, nº 1080 - Sala 411 - Ed. City Office
Pagani - Palhoça - SC

Equipe Técnica
Eng. Civil Dilnei de Freitas Jacinto
Eng. Civil Jacson Jeremias
Eng. Eletricista Edenir Vieira
Eng. Mecânico e Seg. do Trabalho Mario Cesar Osorio
Arq. Urbanista Andrea Patricia Martins de Souza
Eng. Civil Evair da Silva Borges
Acad. de Arq. e Urbanismo Vinicius Souza

Projeto
ESTRUTURAL

Obra
UBSF COMASA
Rua Albano Schmidt S/N - Bairro Comasa - Joinville/SC

Proprietário
Fundo Municipal de Saúde de Joinville
CNPJ:08184821/0001-37

Responsáveis Técnicos
Andrea P. Martins de Souza
Arquiteta e Urbanista
CAU: A30287-2

Edenir Vieira
Engenheiro Eletricista
Crea/SC:118.524-5

Dilnei de Freitas Jacinto
Engenheiro Civil
Crea/SC:122.825-5

Jacson Jeremias
Engenheiro Civil
Crea/SC:125.007-9

Conteúdo
Detalhamento das Vigas da Cobertura.

Ref. JOI-04 | Data MAI/2017 | Área 845,00 m² | Escala INDICADA | Folha 15/25

PROIBIDO CÓPIA OU REPRODUÇÃO DO PROJETO SEM PRÉVIA AUTORIZAÇÃO.
DIREITOS AUTORAIS RESERVADOS PELA LEI Nº 9.610-98