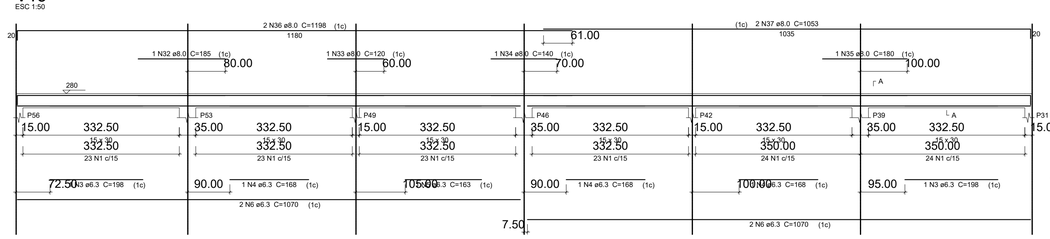
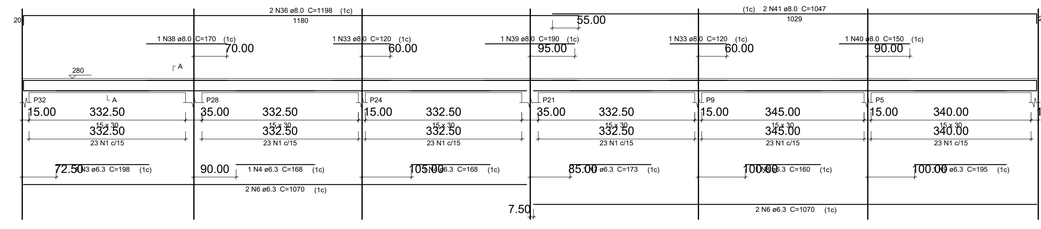
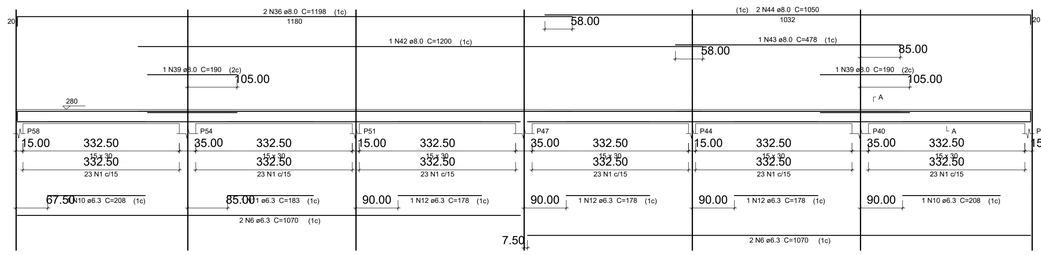
V15
ESC 1:50



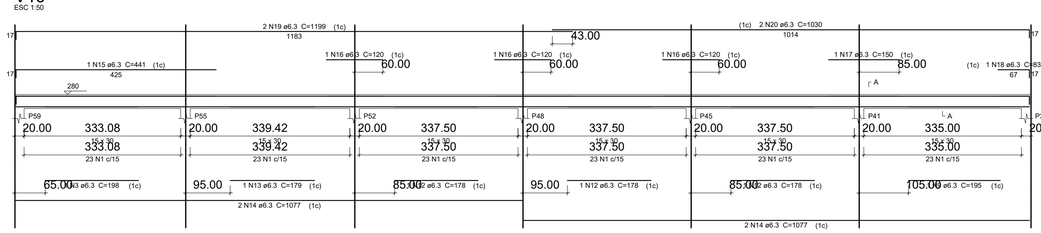
V16
ESC 1:50



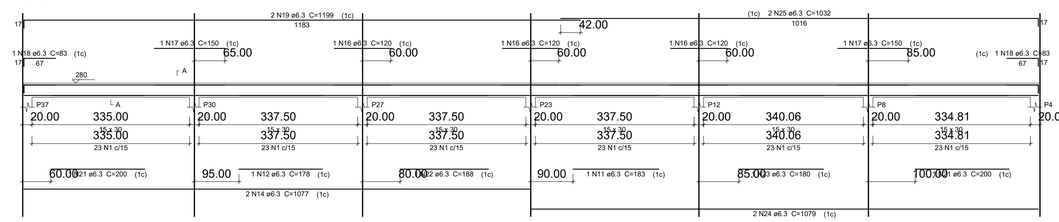
V17
ESC 1:50



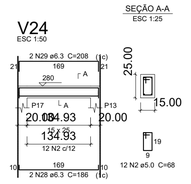
V19
ESC 1:50



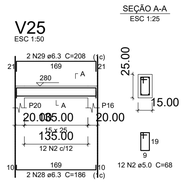
V20
ESC 1:50



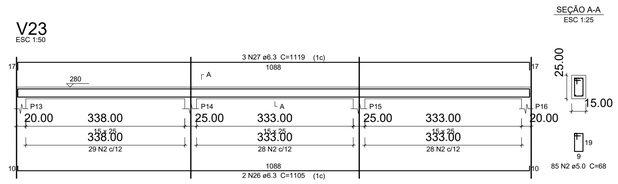
V24
ESC 1:50



V25
ESC 1:50



V23
ESC 1:50



V22
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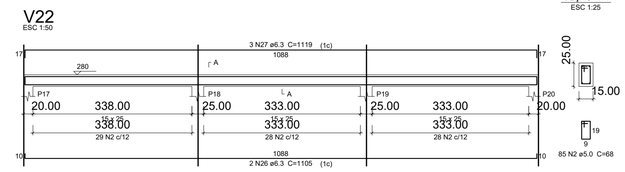

V21
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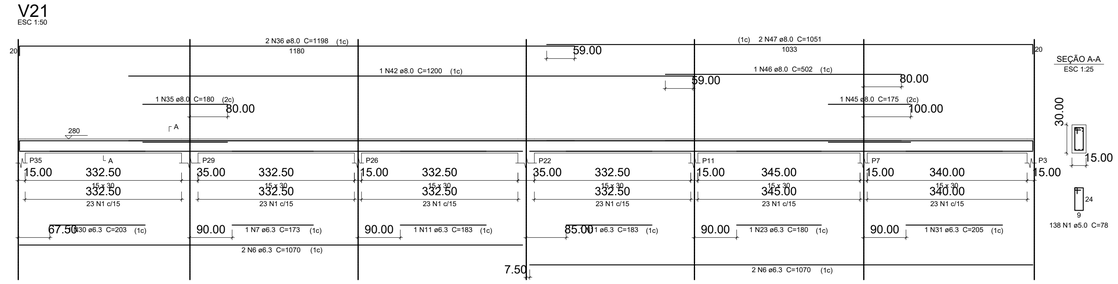

Relação do aço

V15	V16	V17
V19	V20	V21
V22	V23	V24
V25		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	830	78	64740
	2	5.0	194	68	13192
CA50	3	6.3	4	198	792
	4	6.3	5	168	840
	5	6.3	1	163	163
	6	6.3	16	1070	17120
	7	6.3	2	173	346
	8	6.3	1	160	160
	9	6.3	2	195	390
	10	6.3	2	208	416
	11	6.3	4	183	732
	12	6.3	7	178	1246
	13	6.3	1	179	179
	14	6.3	6	1077	6462
	15	6.3	1	441	441
	16	6.3	6	120	720
	17	6.3	3	150	450
	18	6.3	3	83	249
	19	6.3	4	1199	4796
	20	6.3	2	1030	2060
	21	6.3	2	200	400
	22	6.3	1	188	188
	23	6.3	2	180	360
	24	6.3	2	1079	2158
	25	6.3	2	1032	2064
	26	6.3	4	1105	4420
	27	6.3	6	1119	6714
	28	6.3	4	186	744
	29	6.3	4	208	832
	30	6.3	1	203	203
	31	6.3	1	205	205
	32	8.0	1	185	185
	33	8.0	3	120	360
	34	8.0	1	140	140
	35	8.0	2	180	360
	36	8.0	8	1198	9584
	37	8.0	2	1053	2106
	38	8.0	1	170	170
	39	8.0	3	190	570
	40	8.0	1	150	150
	41	8.0	2	1047	2094
	42	8.0	2	1200	2400
	43	8.0	1	478	478
	44	8.0	2	1050	2100
	45	8.0	1	175	175
	46	8.0	1	502	502
	47	8.0	2	1051	2102

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	558.5	150.3
	8.0	234.8	101.9
CA60	5.0	779.4	132.1

PESO TOTAL (kg)	
CA50	252.2
CA60	132.1

Volume de concreto (C-25) = 6.78 m³
Área de forma = 113.71 m²

Obra:	AMPLIAÇÃO DA ESCOLA XV DE OUTUBRO VIGAS COBERTURA.
	PREFEITURA MUNICIPAL DE CAMPOS DE JÚLIO CGC: 01.614.516/0001-99
	AVENIDA ZELINO AGOSTINHO LORENZETTI CAMPOS DE JÚLIO-MT CEP: 78307-000
Autor do Projeto:	Luiz Carlos Correia de Oliveira Eng. Civil - CREA 1202470122
Responsável Técnico p/obra:	

PROJETO ESTRUTURAL

DESENHO:		DATA:	ESCALA:
Luiz Carlos		20/06/2018	Luiz Carlos