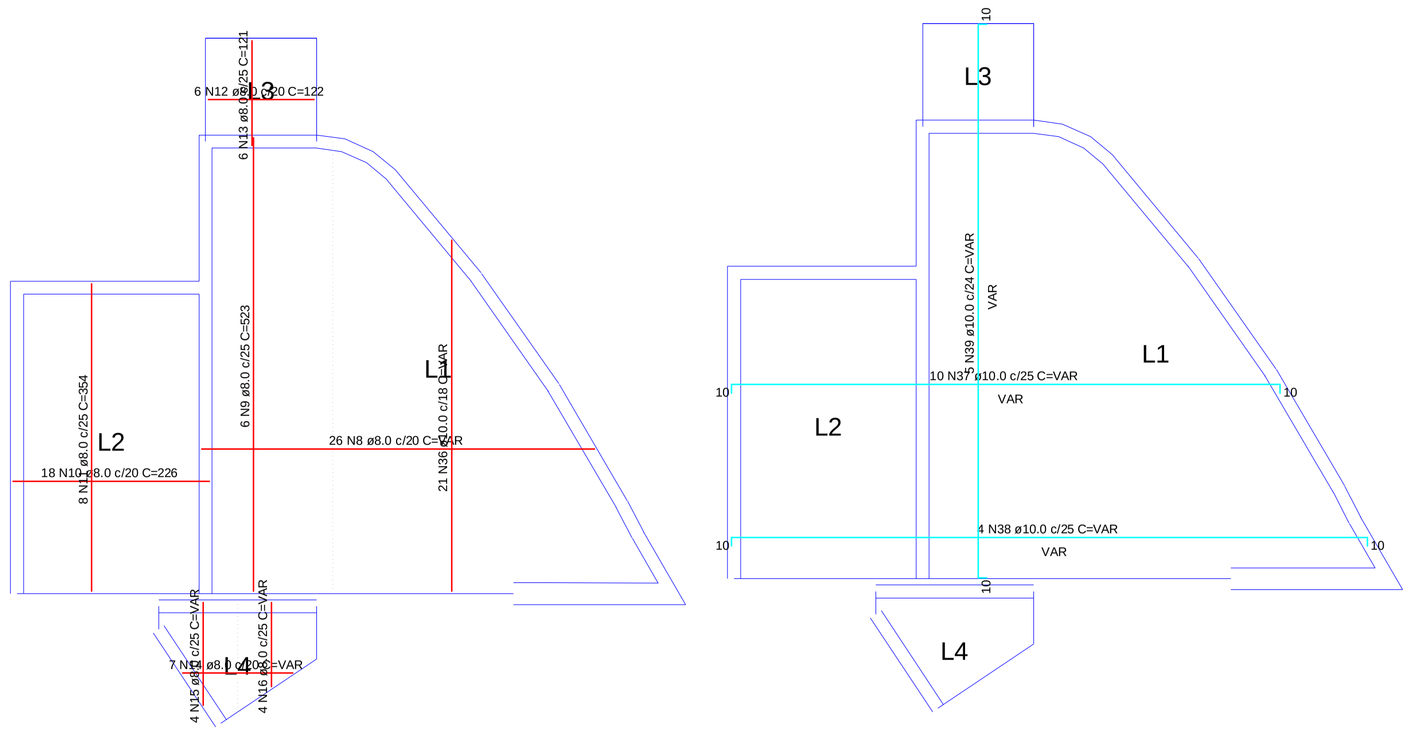
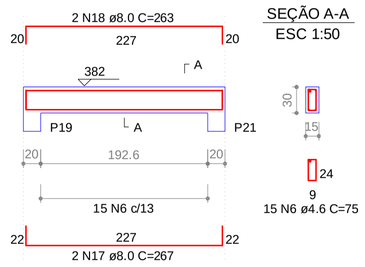


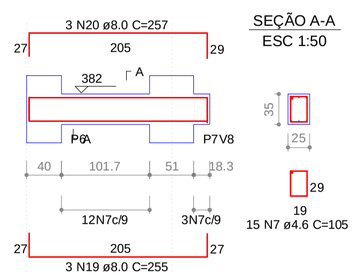
V1 (15 x 30)

1:50



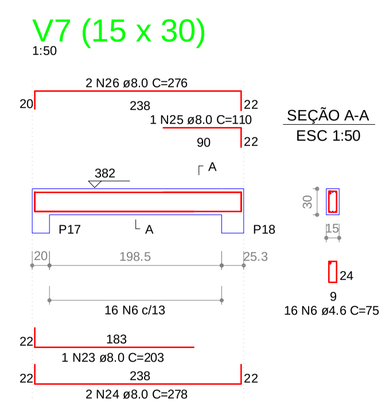
V2 (25 x 35)

1:50



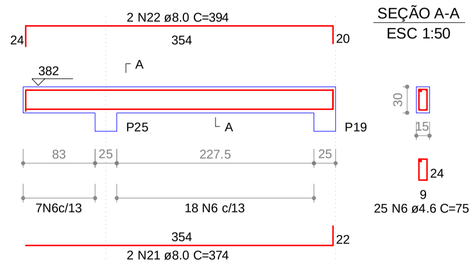
V7 (15 x 30)

1:50



V4 (15 x 30)

1:50



RELAÇÃO DO AÇO

L1	L2	L3
L4	Negativos	P1
4xP2	P7	P9
P13	4xP17	3xP21
P28	2xP29	V1
V2	V4	V7
V8	V9	V10
V11		

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
60	1	4.2	5	39	195
	2	4.2	25	49	1225
	3	4.2	8	137	1096
	4	4.2	26	59	1534
	5	4.2	10	29	290
	6	4.6	171	75	12825
	7	4.6	15	105	1575
50	8	8.0	26	VAR	VAR
	9	8.0	6	523	3138
	10	8.0	18	226	4068
	11	8.0	8	354	2832
	12	8.0	6	122	732
	13	8.0	6	121	726
	14	8.0	7	VAR	VAR
	15	8.0	4	VAR	VAR
	16	8.0	4	VAR	VAR
	17	8.0	2	267	534
	18	8.0	2	263	526
	19	8.0	3	255	765
	20	8.0	3	257	771
	21	8.0	2	374	748
	22	8.0	2	394	788
	23	8.0	1	203	203
	24	8.0	2	278	556
	25	8.0	1	110	110
	26	8.0	2	276	552
	27	8.0	2	645	1290
	28	8.0	1	426	426
	29	8.0	2	645	1290
	30	8.0	2	229	458
	31	8.0	2	225	450
	32	8.0	1	238	238
	33	8.0	2	543	1086
	34	8.0	2	375	750
	35	8.0	2	371	742
	36	10.0	21	VAR	VAR
	37	10.0	10	VAR	VAR
	38	10.0	4	VAR	VAR
	39	10.0	5	VAR	VAR
	40	10.0	20	100	2000
	41	10.0	28	57	1596
	42	10.0	12	5	60
	43	10.0	1	209	209
	44	10.0	2	558	1116
	45	16.0	12	123	1476
	46	16.0	6	71	426

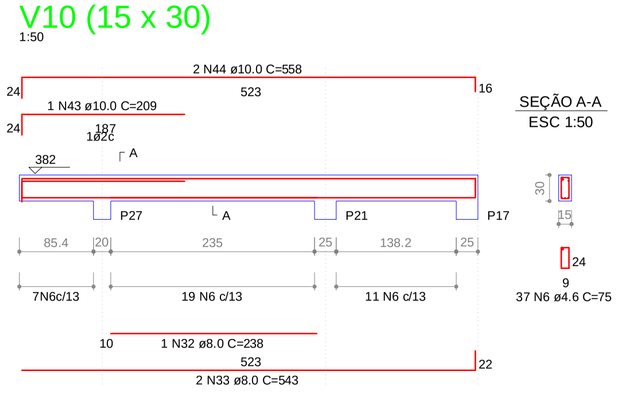
RESUMO DO AÇO

AÇO	DIAM	C.TOTAL (m)	PESO+10% (kg)
CA50	8.0	373.2	162.2
	10.0	262.3	177.9
	16.0	19.0	33.1
CA60	4.2	43.1	5.2
	4.6	143.3	20.6
PESO TOTAL			
CA50	373.2		
CA60	25.7		

Volume de concreto total = 5.28 m³
Área de forma total = 58.78 m²
fck = 250.00 kgf/cm²

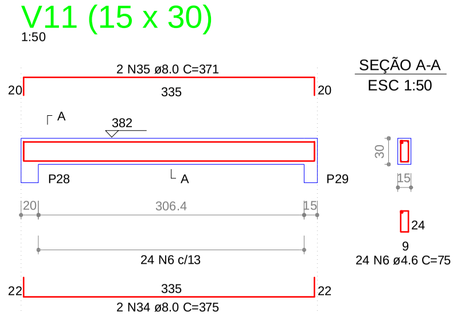
V10 (15 x 30)

1:50



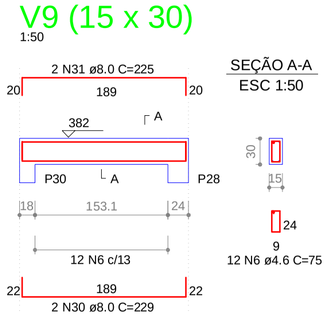
V11 (15 x 30)

1:50



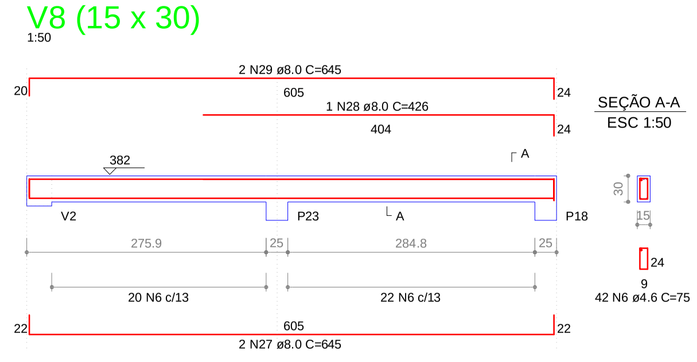
V9 (15 x 30)

1:50

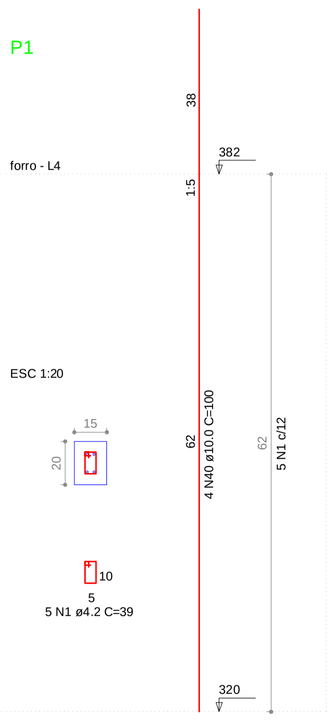


V8 (15 x 30)

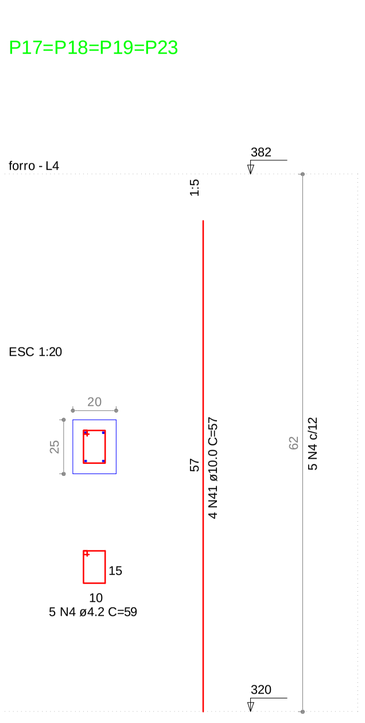
1:50



P1



P17=P18=P19=P23



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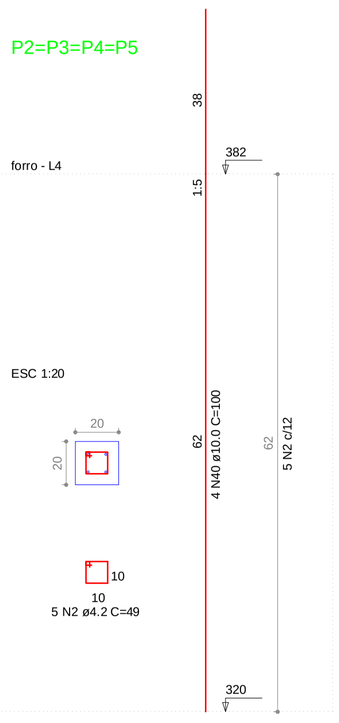
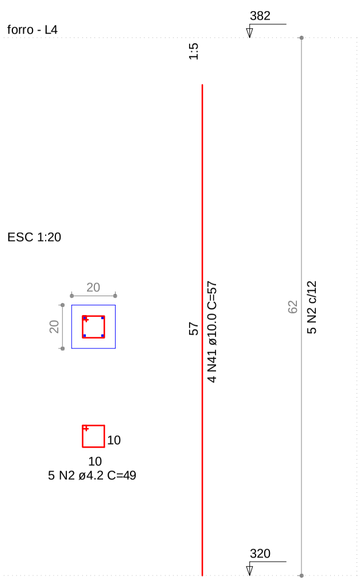
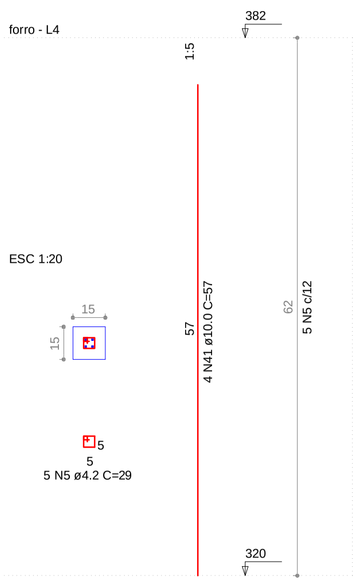


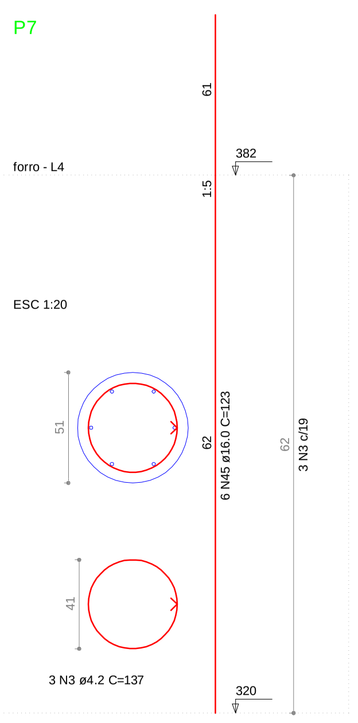
P28



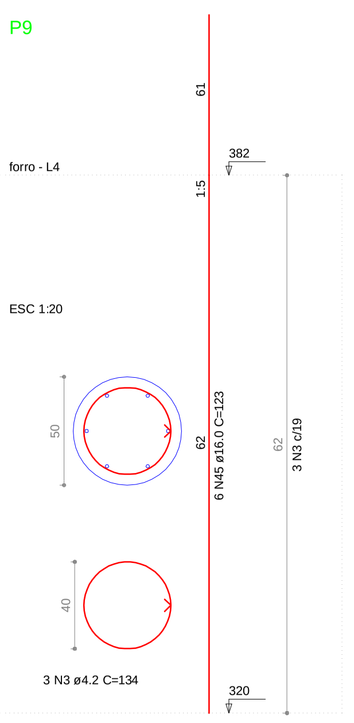
P29=P30



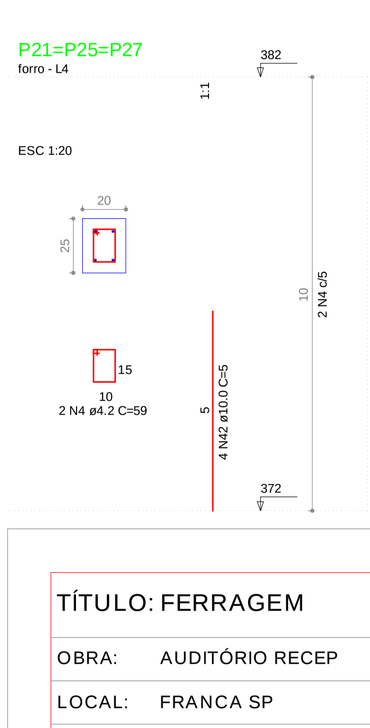
P7



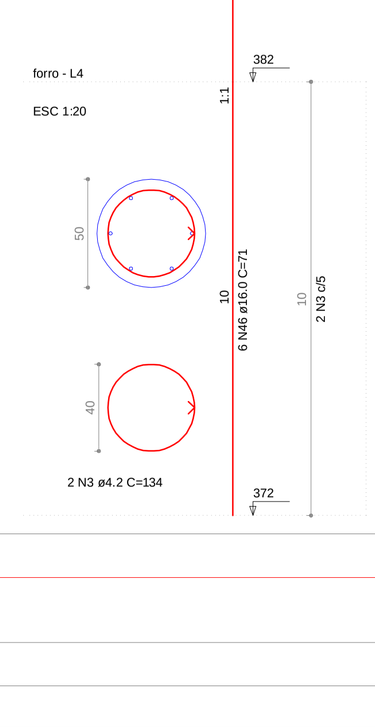
P9



P21=P25=P27



P13



BLUE = PENA 0,05
9 = PENA 0,09
VIOLET = PENA 0,20
RED = PENA 0,30
DENSO = PENA 0,35

TÍTULO:	FERRAGEM
OBRA:	AUDITÓRIO RECEP
LOCAL:	FRANCA SP
CLIENTE:	UNIFACEF
ENG. CREA:	VIRGÍNIO H. V. REIS 0600706662
ESCALA: INDICADA	OBS:
DATA NOV 2012	

6/8