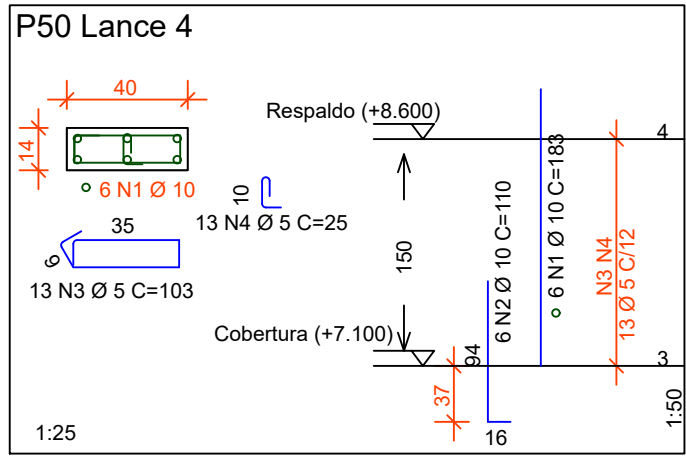
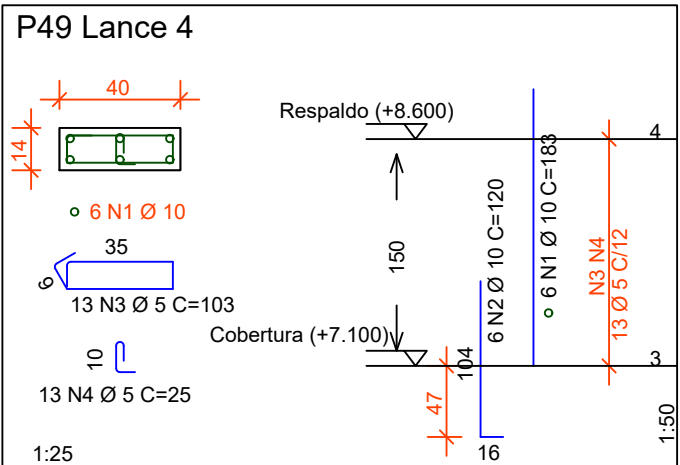
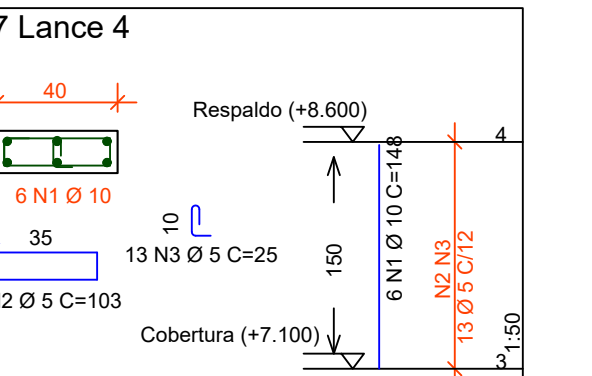
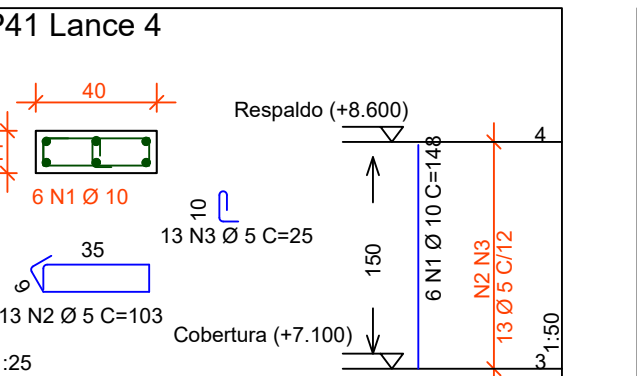
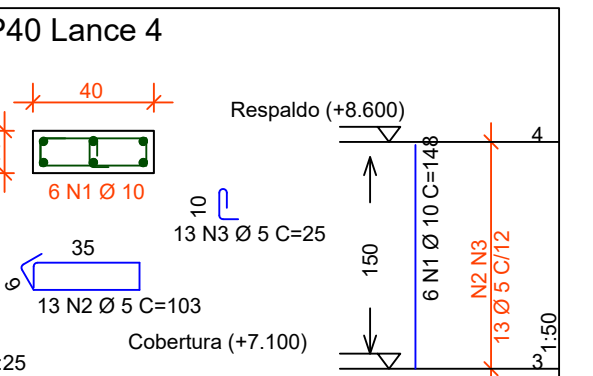
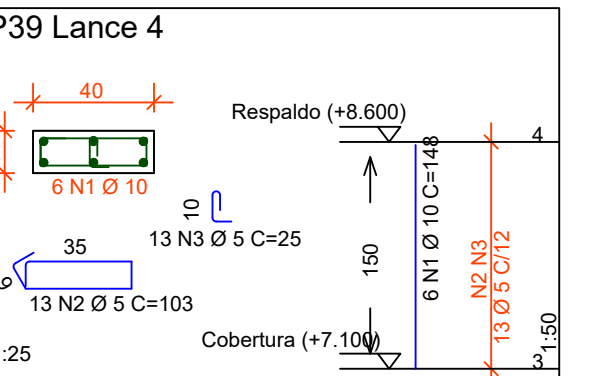
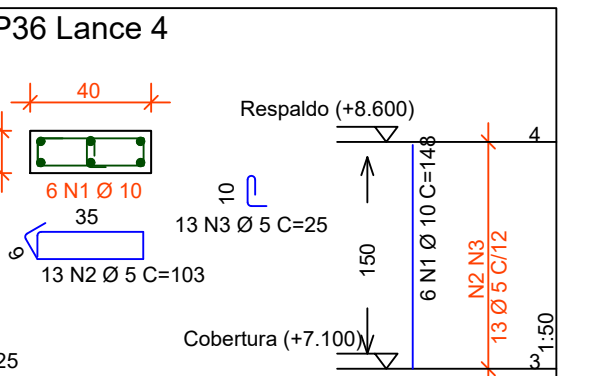
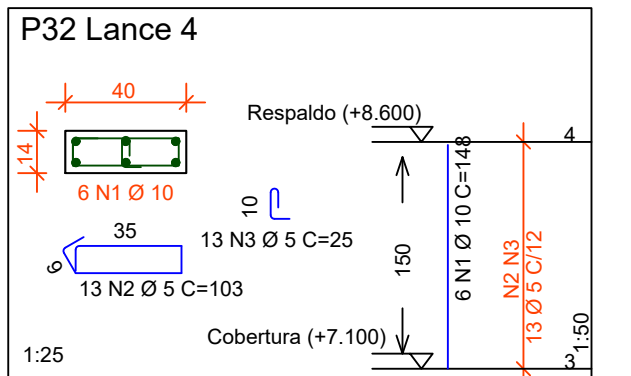
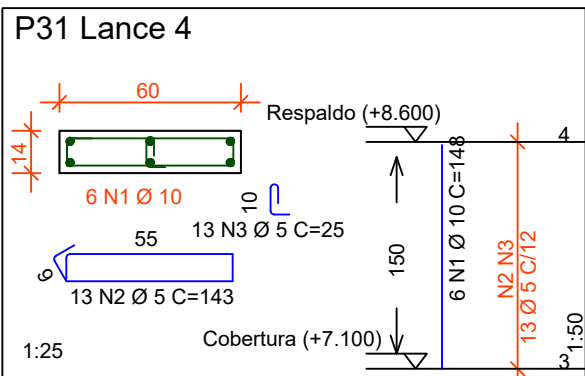
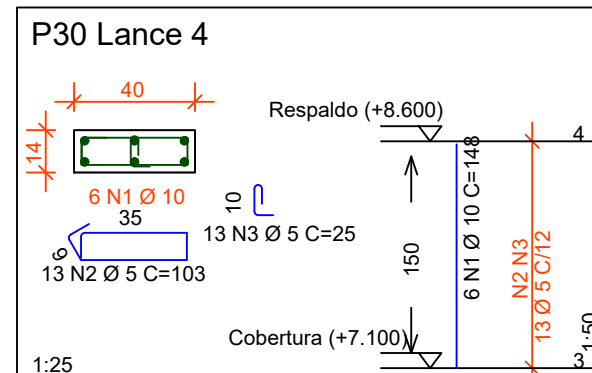
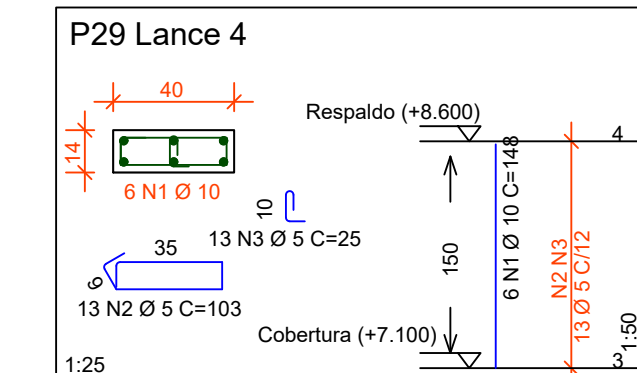
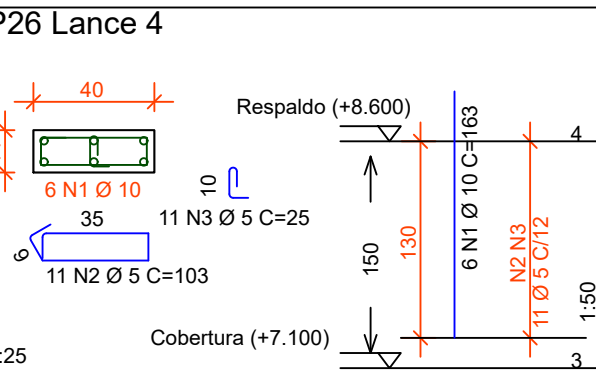
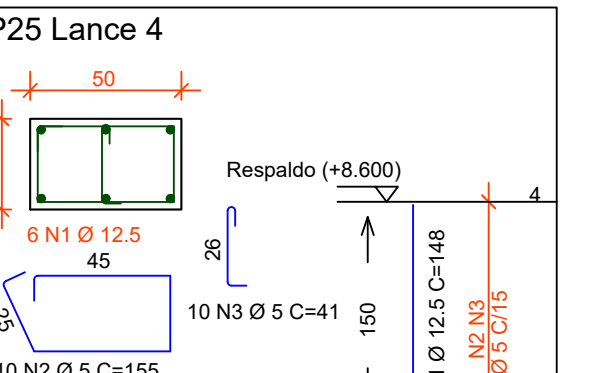
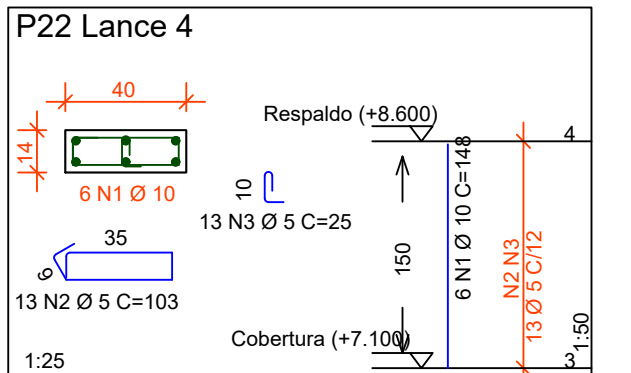
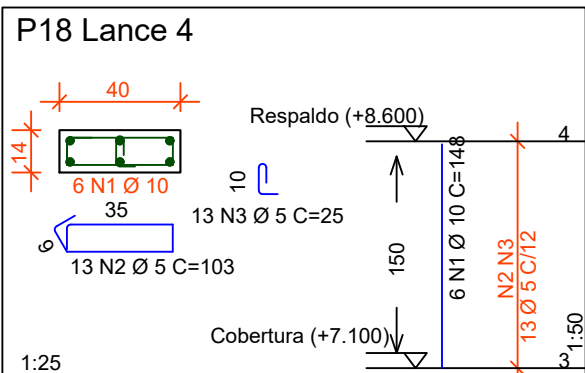
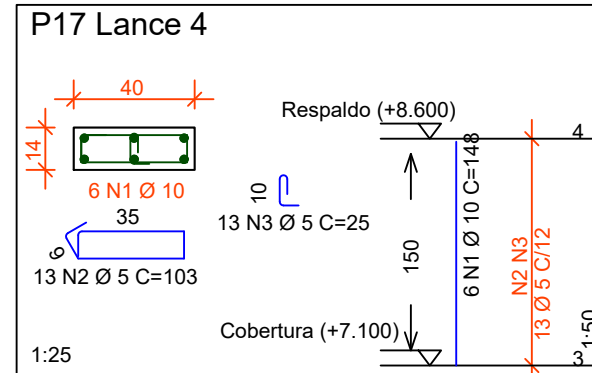
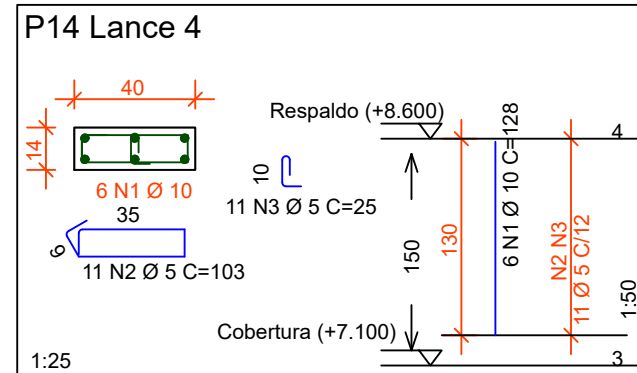
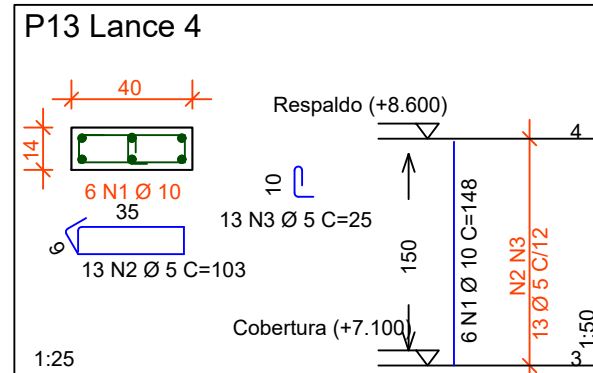
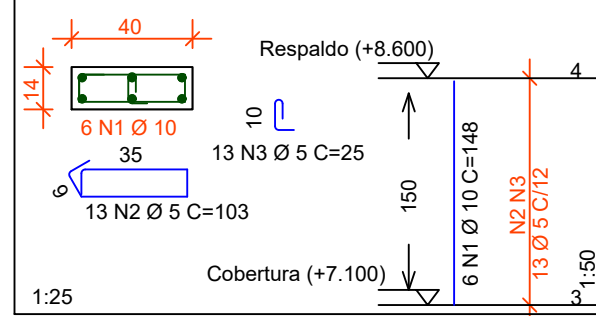
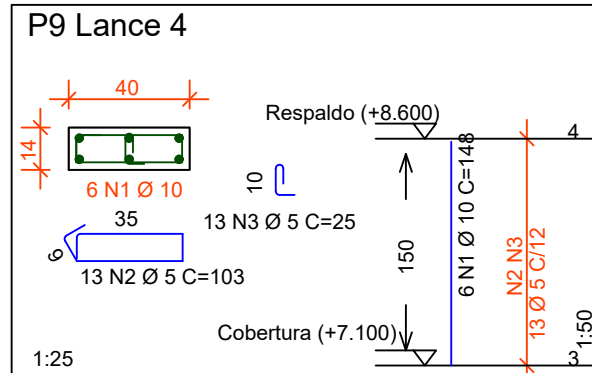
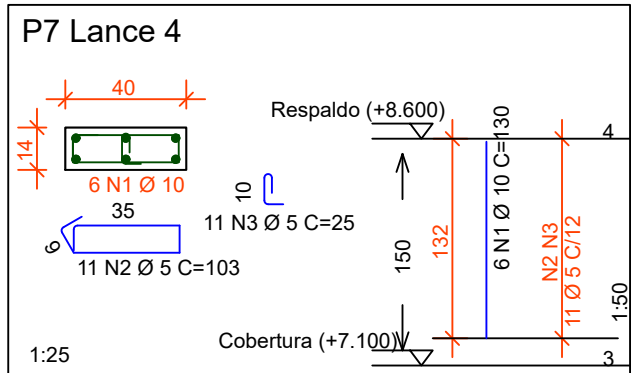
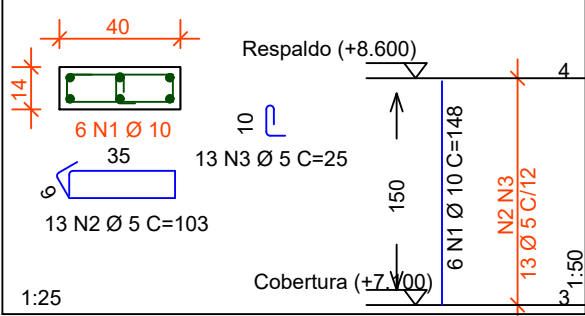
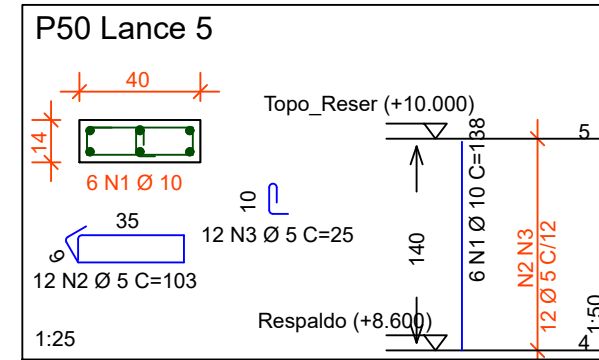
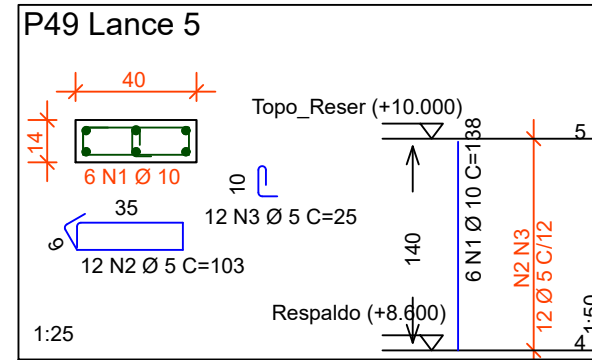
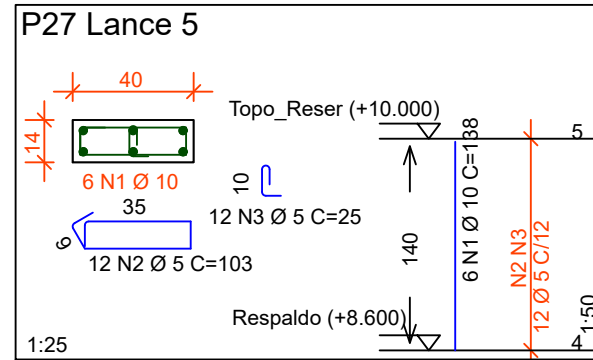
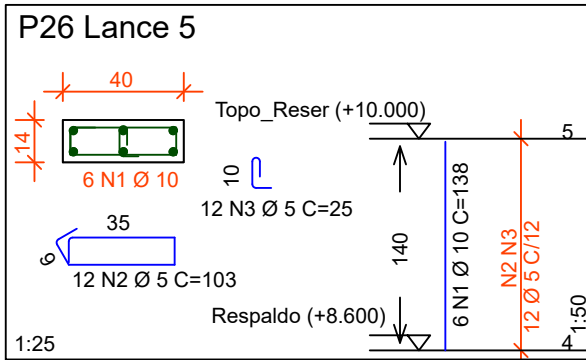


ÁÇO	POS	BIT (mm)	QUANT	COMPRIMENTO	
				UNIT (cm)	TOTAL (cm)
P4 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P7 Lance 4					
50	1	10	6	130	780
60	2	5	11	103	1133
60	3	5	11	25	275
P9 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P12 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P13 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P14 Lance 4					
50	1	10	6	128	768
60	2	5	11	103	1133
60	3	5	11	25	275
P17 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P18 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P22 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P25 Lance 4					
50	1	12,5	6	148	888
60	2	5	10	155	1550
60	3	5	10	41	410
P26 Lance 4					
50	1	10	6	163	978
60	2	5	11	103	1133
60	3	5	11	25	275
P27 Lance 4					
50	1	10	6	155	930
60	2	5	11	103	1133
60	3	5	11	25	275
P29 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P30 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P31 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P32 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P36 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P39 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P40 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P41 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P47 Lance 4					
50	1	10	6	148	888
60	2	5	13	103	1339
60	3	5	13	25	325
P49 Lance 4					
50	1	10	6	183	1098
60	2	10	6	120	720
60	3	5	13	103	1339
60	4	5	13	25	325
P50 Lance 4					
50	1	10	6	183	1098
60	2	10	6	110	660
60	3	5	13	103	1339
60	4	5	13	25	325



RESUMO AÇO CA 50-60			
ÁÇO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	381	59
50	10	212	131
50	12,5	9	9
Peso Total 60 =			59 kg
Peso Total 50 =			140 kg



ÁÇO	POS	BIT (mm)	QUANT	COMPRIMENTO	
				UNIT (cm)	TOTAL (cm)
P26 Lance 5					
50	1	10	6	138	828
60	2	5	12	103	1236
60	3	5	12	25	300
P27 Lance 5					
50	1	10	6	138	828
60	2	5	12	103	1236
60	3	5	12	25	300
P49 Lance 5					
50	1	10	6	138	828
60	2	5	12	103	1236
60	3	5	12	25	300
P50 Lance 5					
50	1	10	6	138	828
60	2	5	12	103	1236
60	3	5	12	25	300

RESUMO AÇO CA 50-60			
ÁÇO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	61	9
50	10	33	20
Peso Total 60 =			9 kg
Peso Total 50 =			20 kg

CONTROLE DAS REVISÕES:		
REVISÃO	DATA	DESCRIÇÃO

YUTAKA KOBAYASHI
Engenharia de Estruturas

Rua Antônio Felipe, 2360 - CENTRO - Paranavai - Paraná - CEP: 87704-030
(44) 9.8827-4040 - yk@ykengeharia.com.br - Visite nosso site! <http://www.ykengeharia.com.br>

PROJETO:

ESTRUTURAL EM CONCRETO ARMADO

CLIENTE:

VANESSA APARECIDA HENRIQUE BALAN

OBRA:

PARA CONSTRUÇÃO DE UMA EDIFICAÇÃO COMERCIAL EM CONCRETO ARMADO

LOCAL:

RUA MACHADO DE ASSIS, 173 / RUA SANTA JOAQUINA DE VEDRUNA, 141 ZONA 06 - MARINGÁ - PR

REFERÊNCIA(s):

Detalhes dos Pilares da Cobertura;
Detalhes dos Pilares do Respaldo;

REVISÃO:

R-00

PRANCHA:

14

RESPONSÁVEL TÉCNICO:

Yutaka Kobayashi
Eng.º Msc. Exp. Yutaka Mario Kobayashi Júnior
CREA PR-69.748/D

DATA CRIAÇÃO:

23/11/2020

FCK (MPa)

30 MPa

ART Nº:

1720205324537

PROJETO Nº:

P-489

ESCALA:

1:50