

Prefeitura Municipal de Benjamin Constant
Secretaria Municipal de Obras e Urbanismo

APROVADO

O projeto está em conformidade com as leis municipais e normas da ABNT.
Data: 12/06/2020

João Lúcio Carvalho Gonçalves
Engenheiro Civil Mecânico
CREA - 8765-D

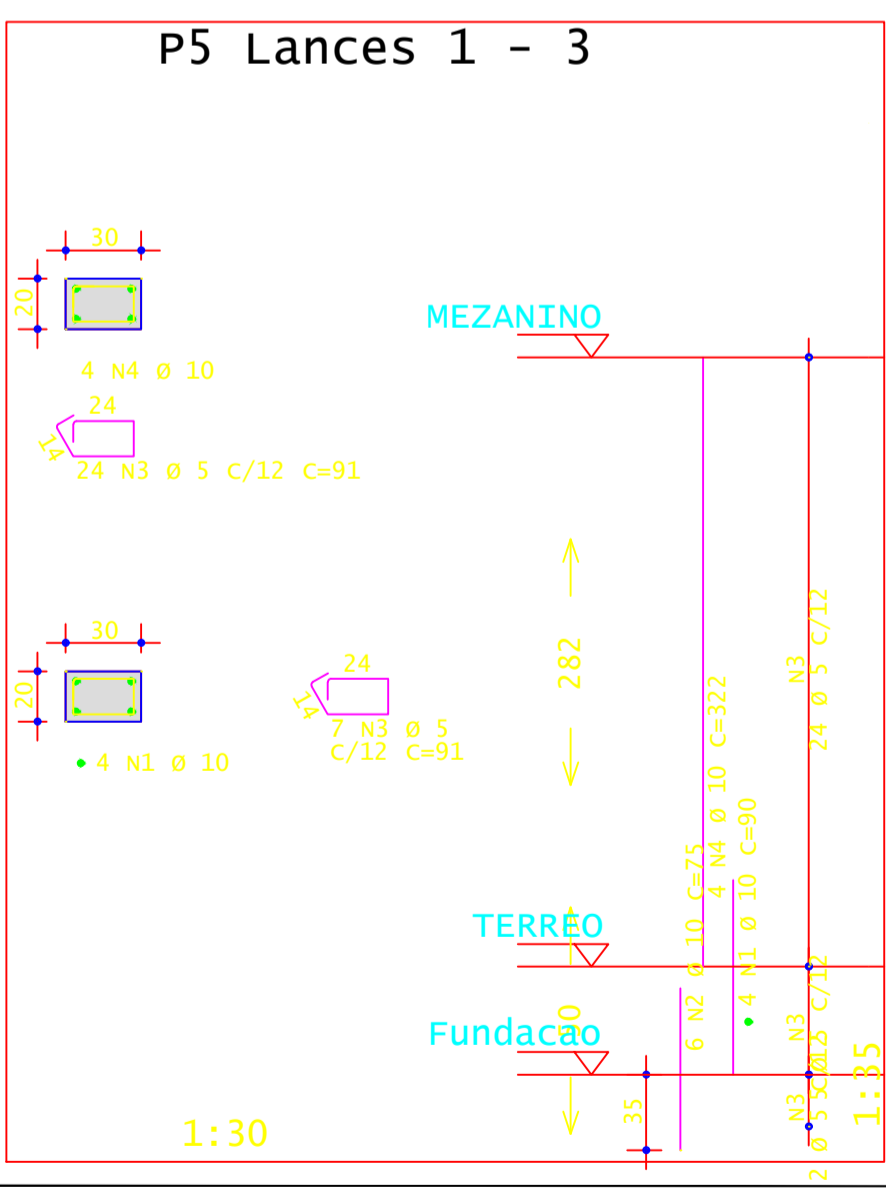
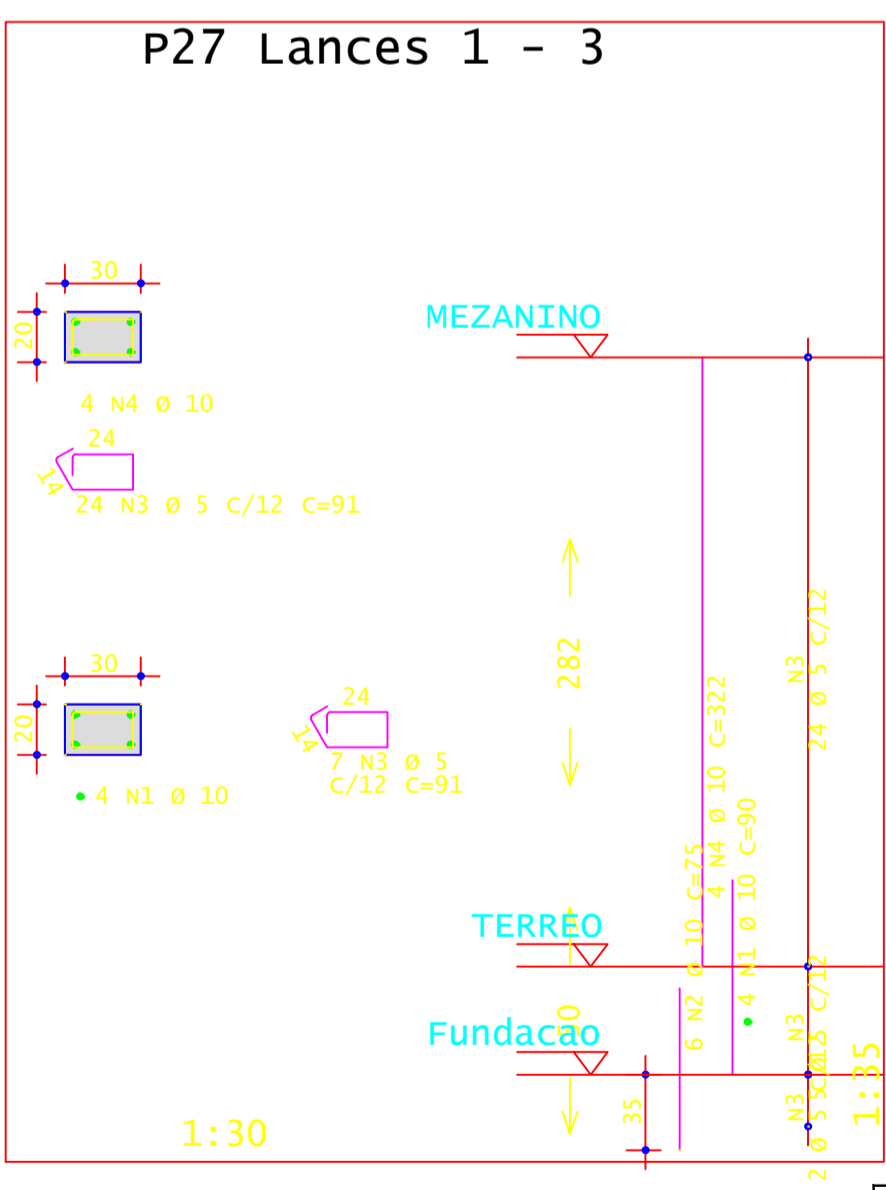
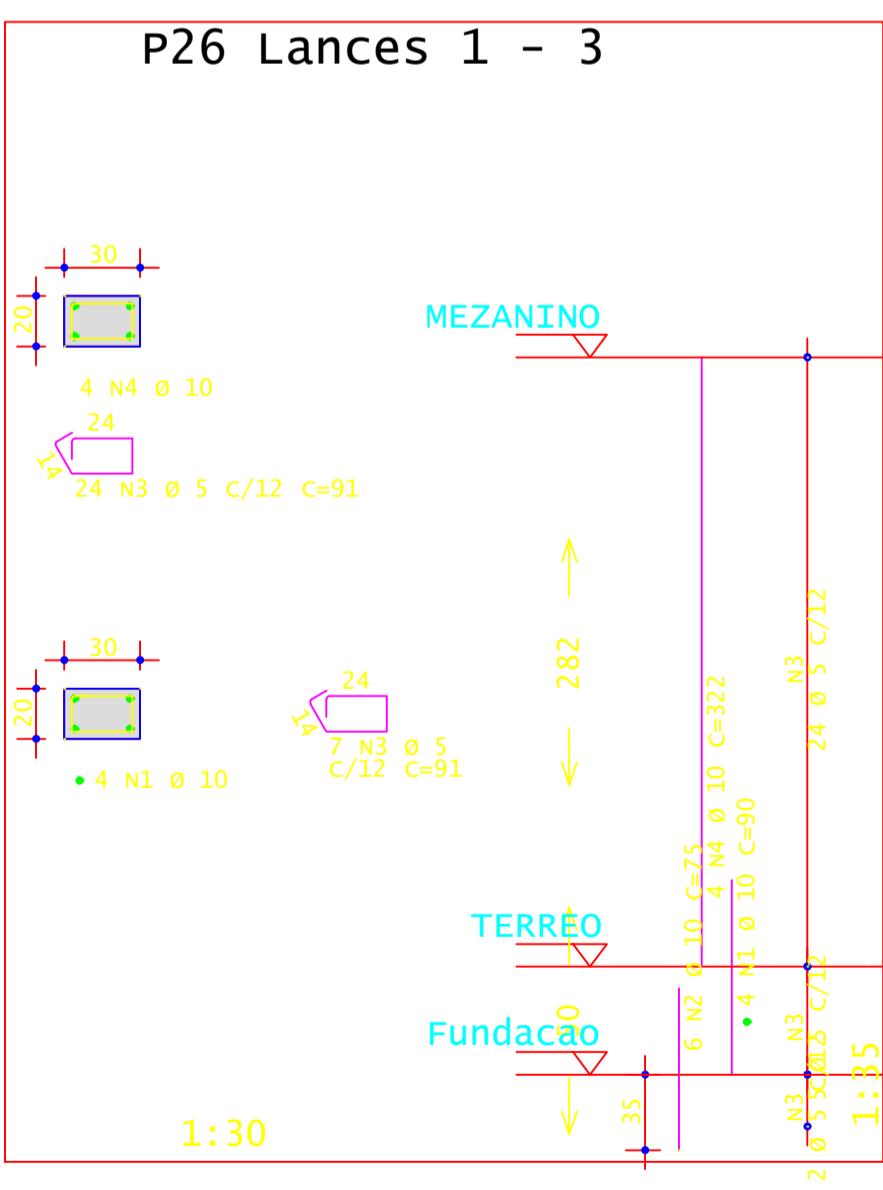
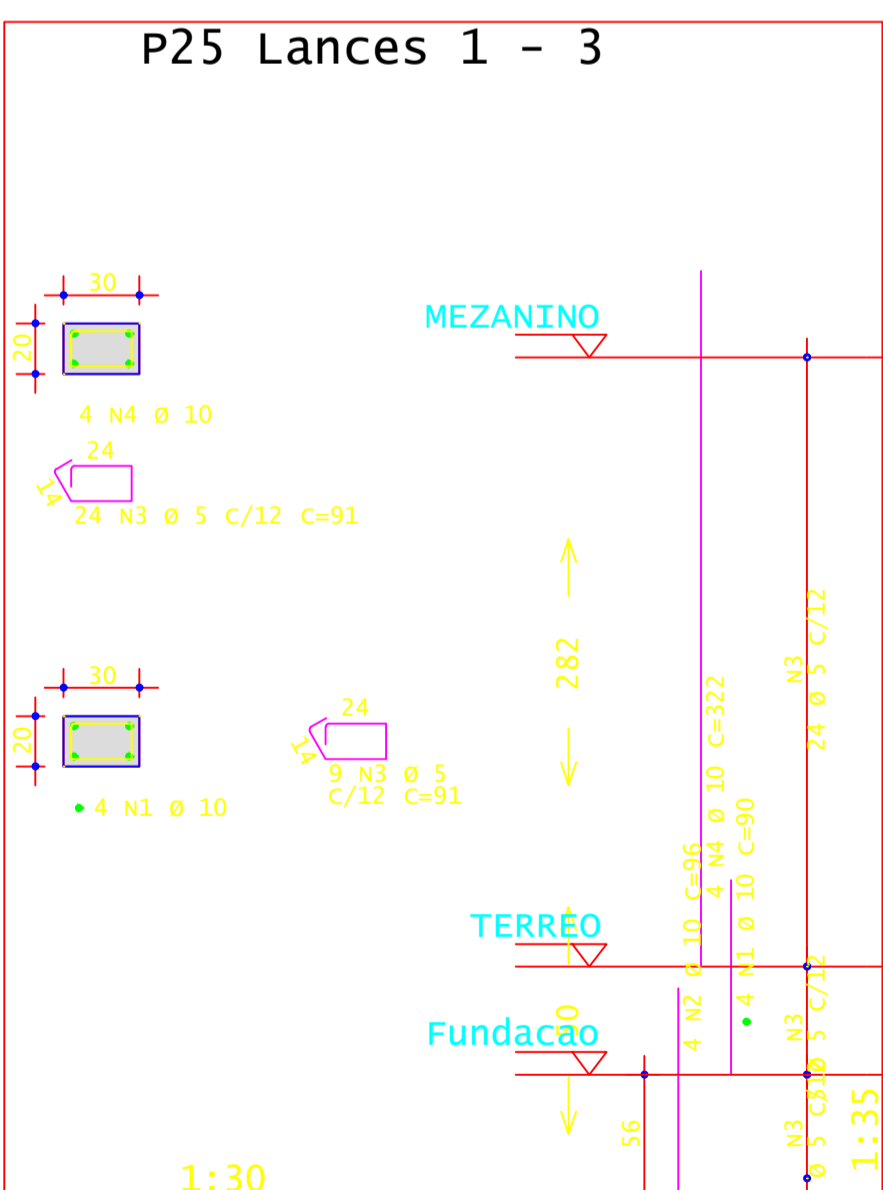
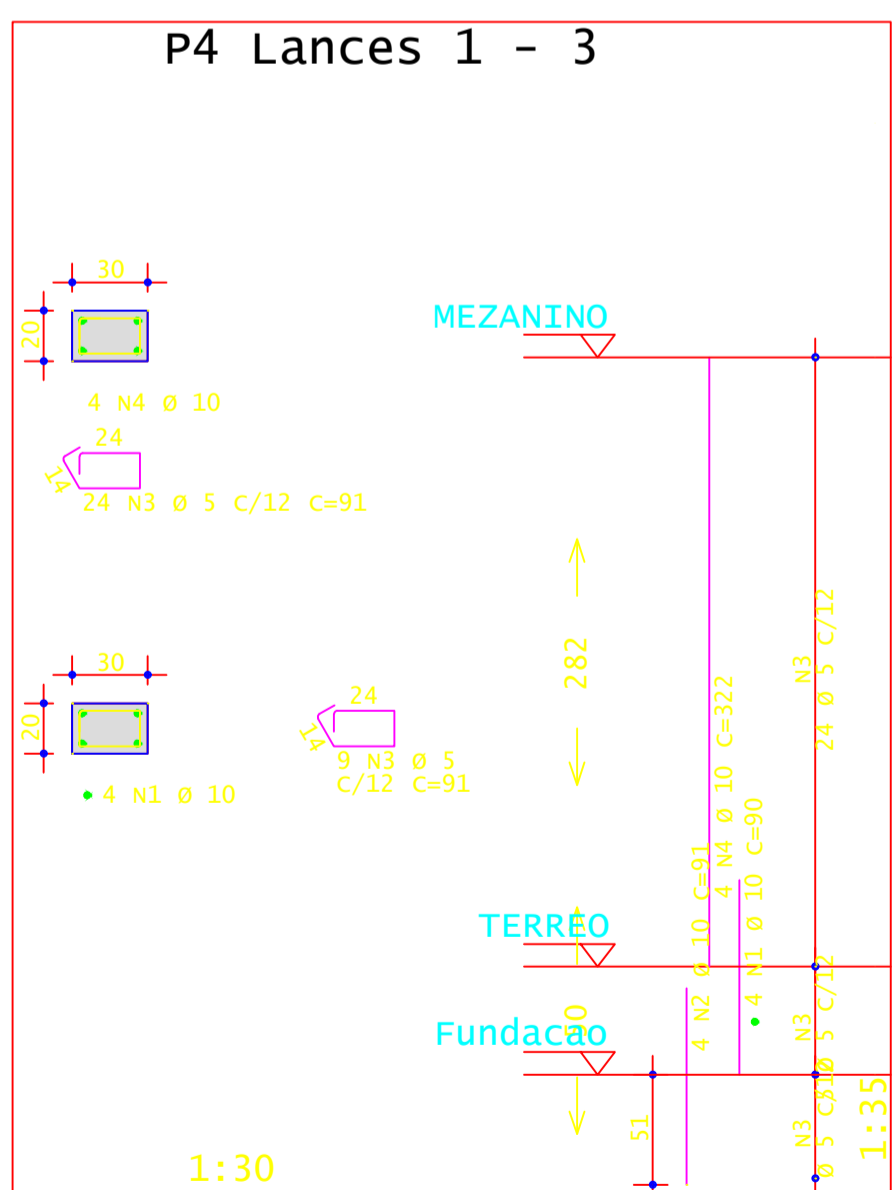
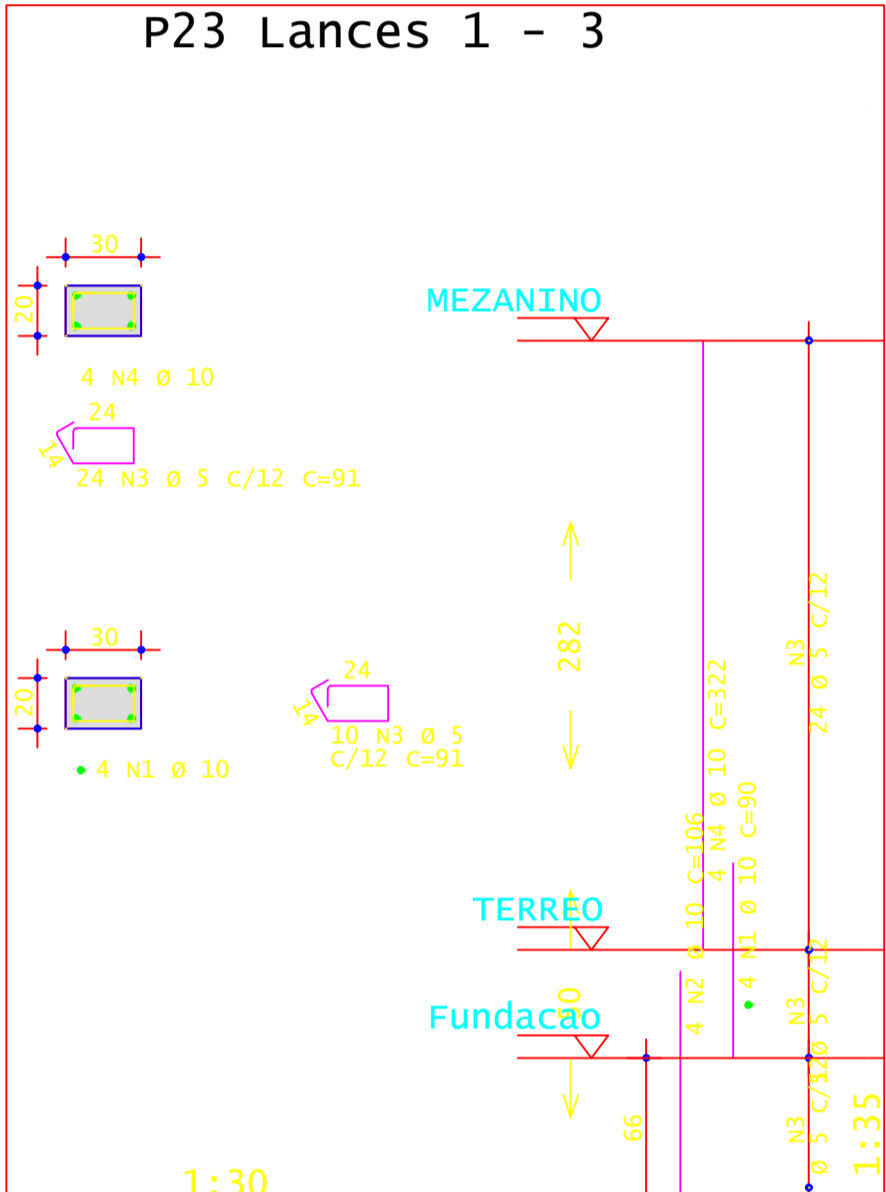
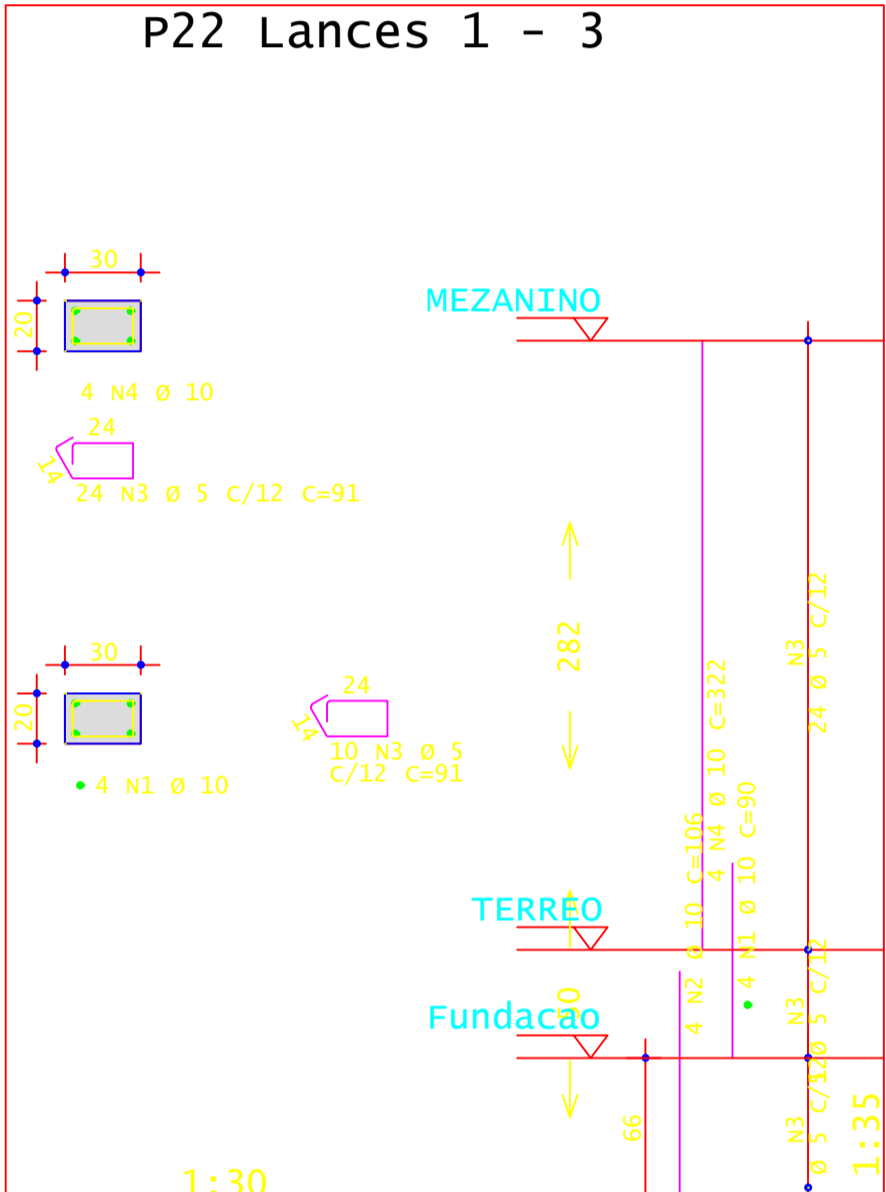
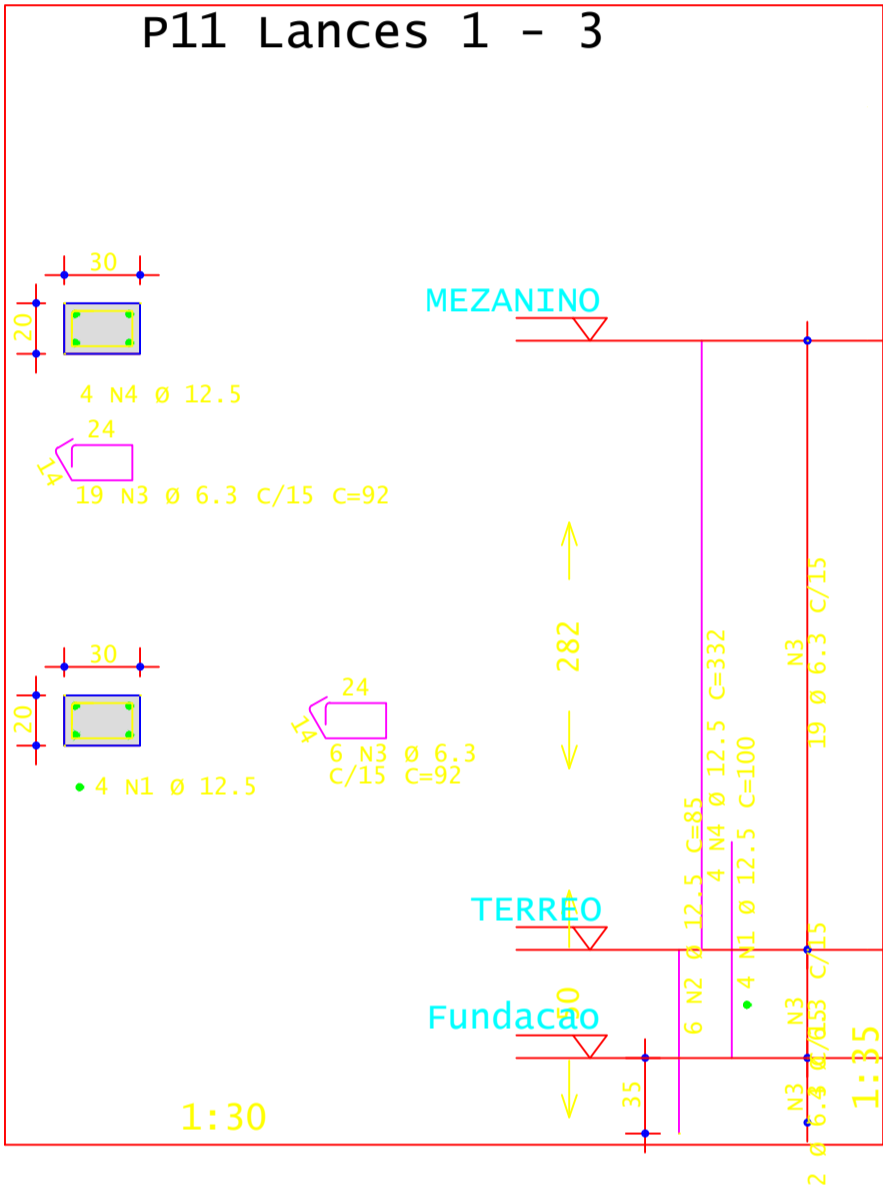
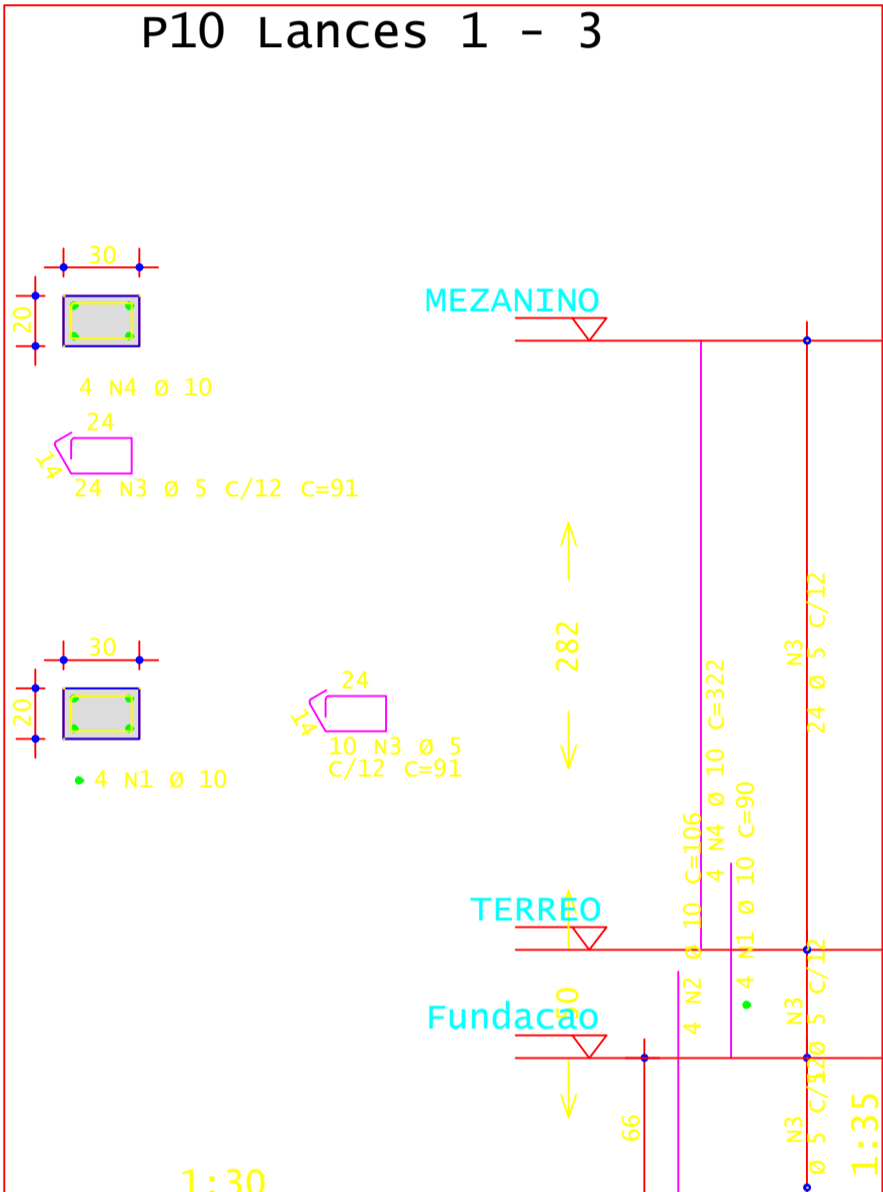
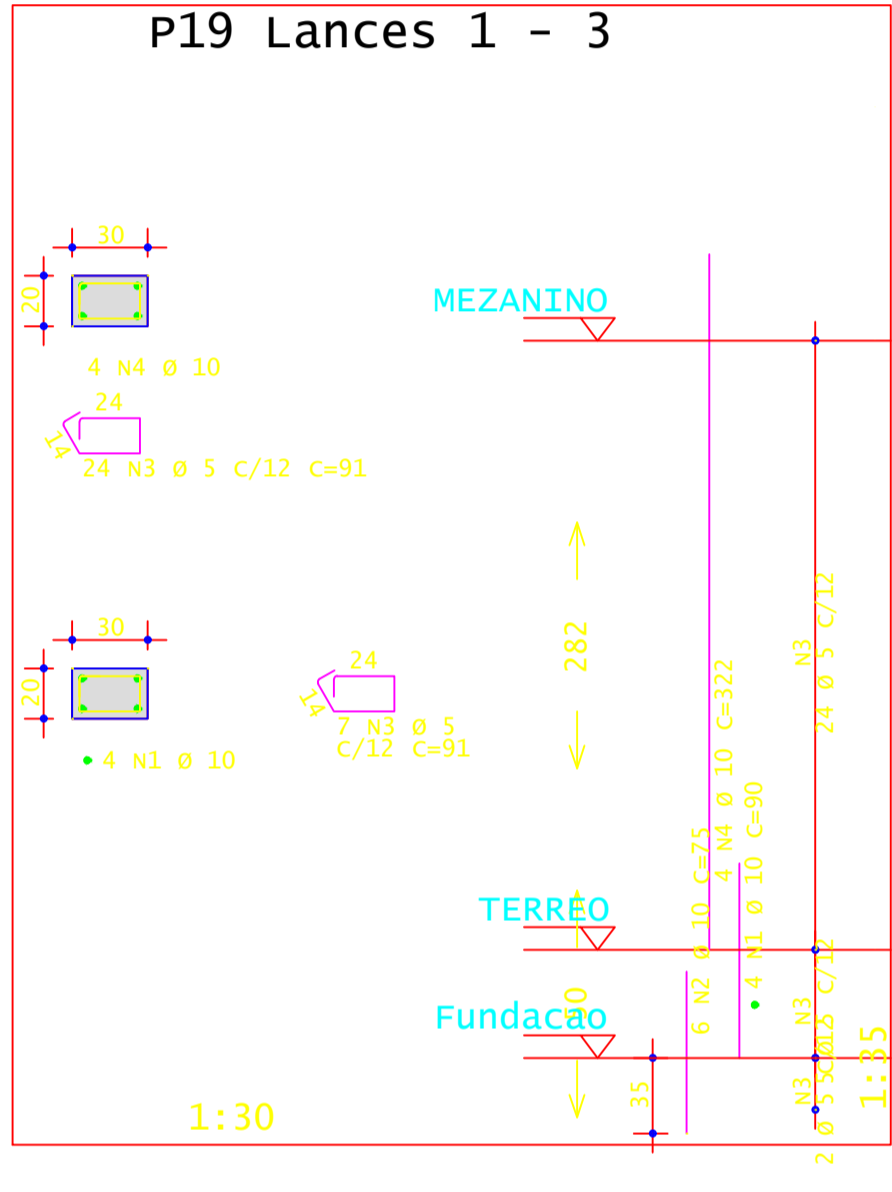
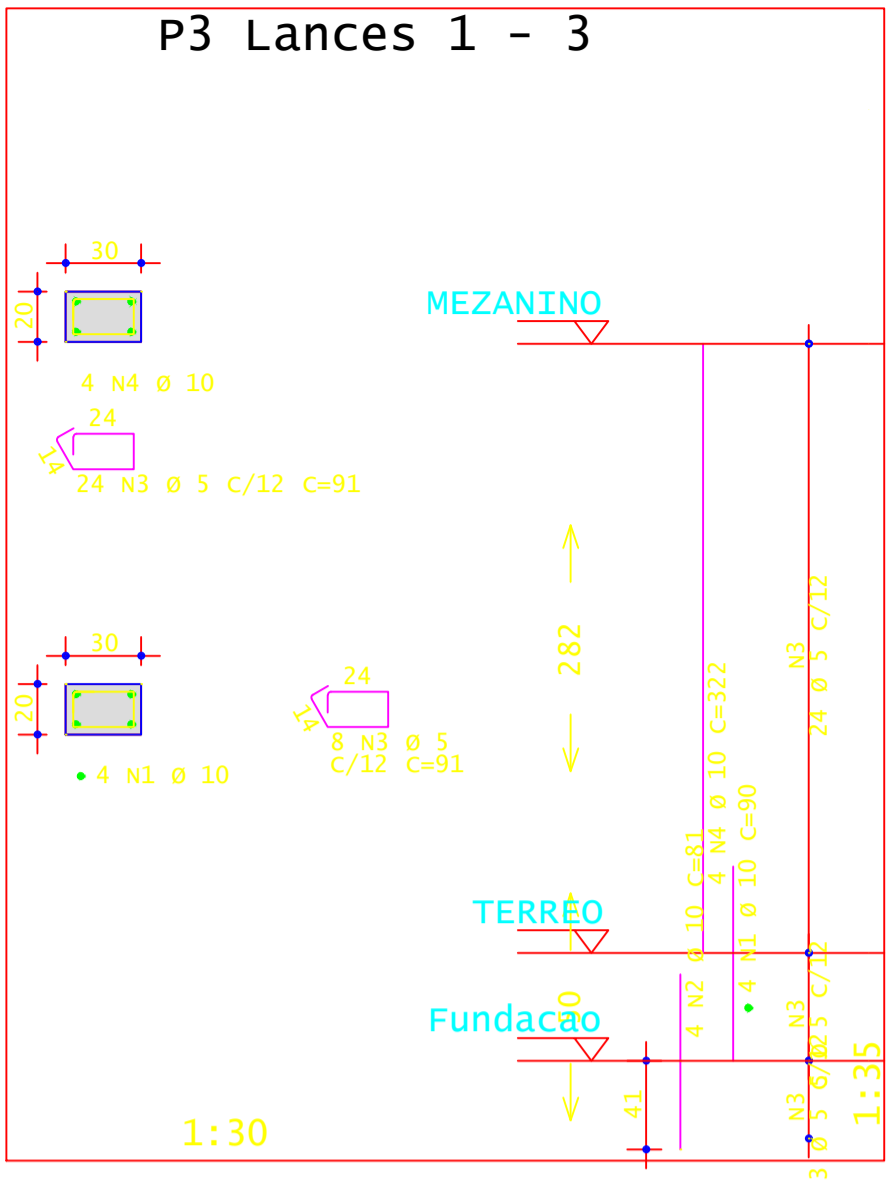
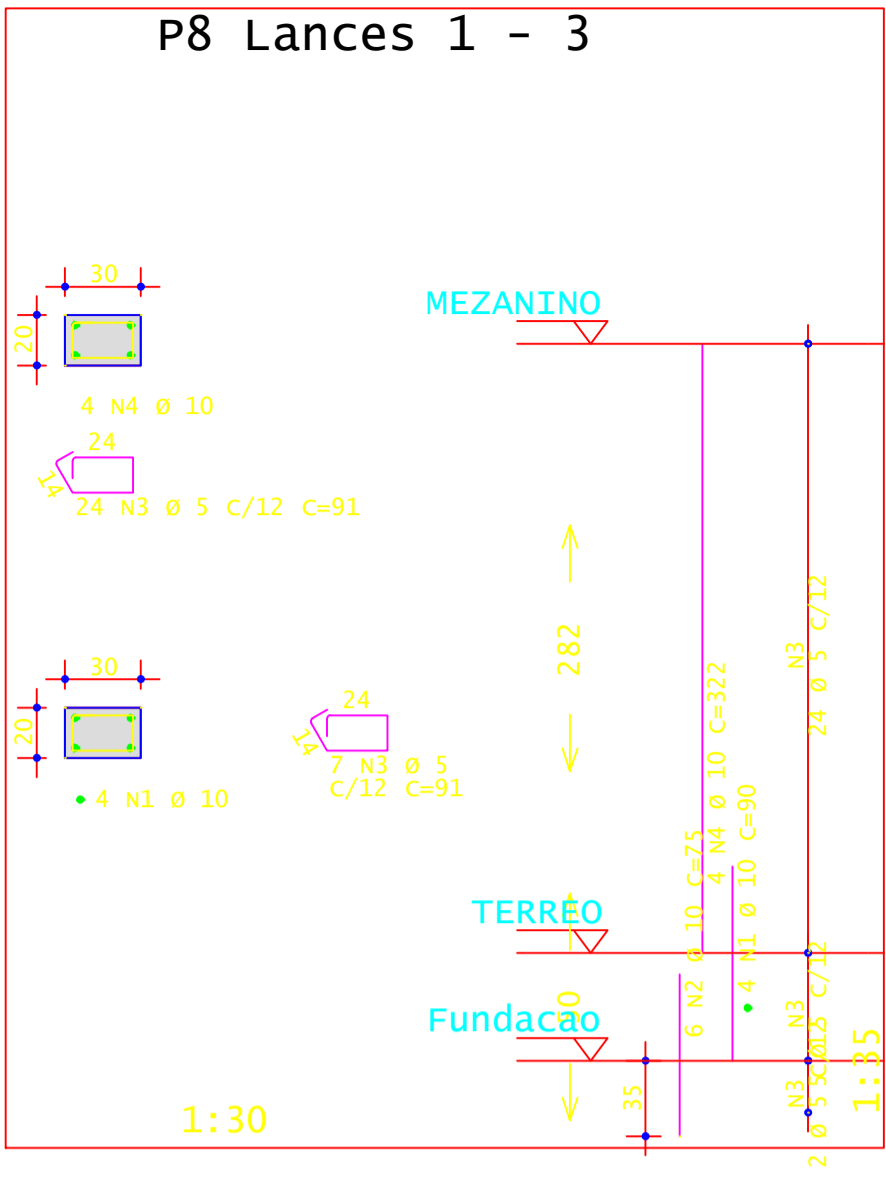
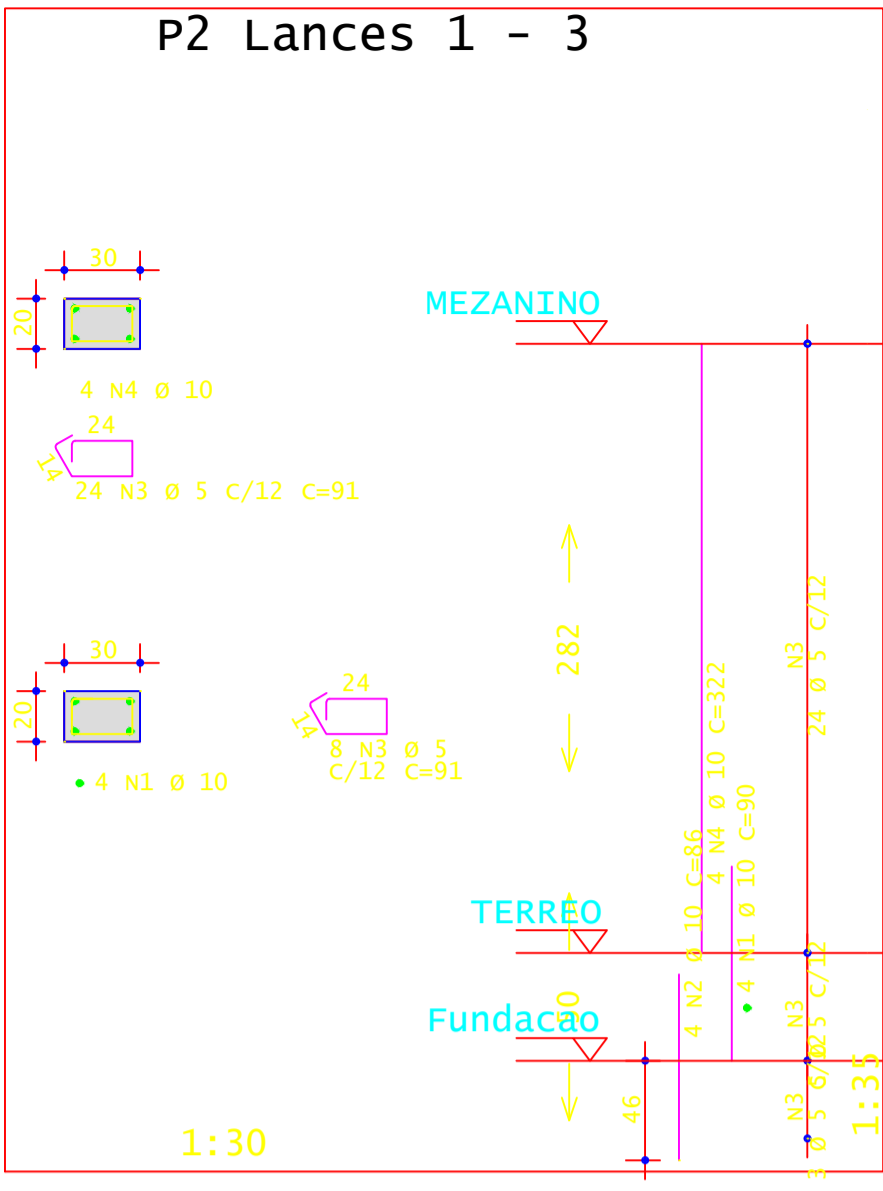
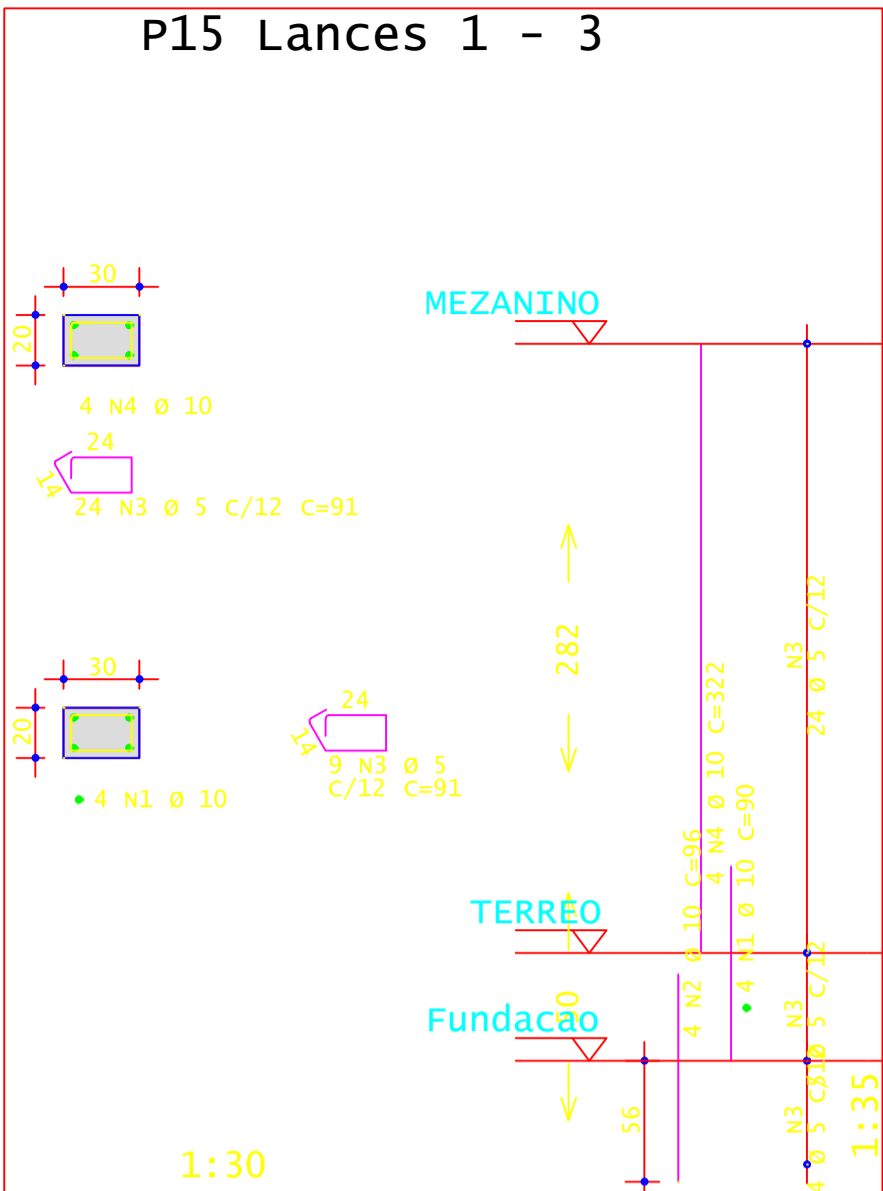
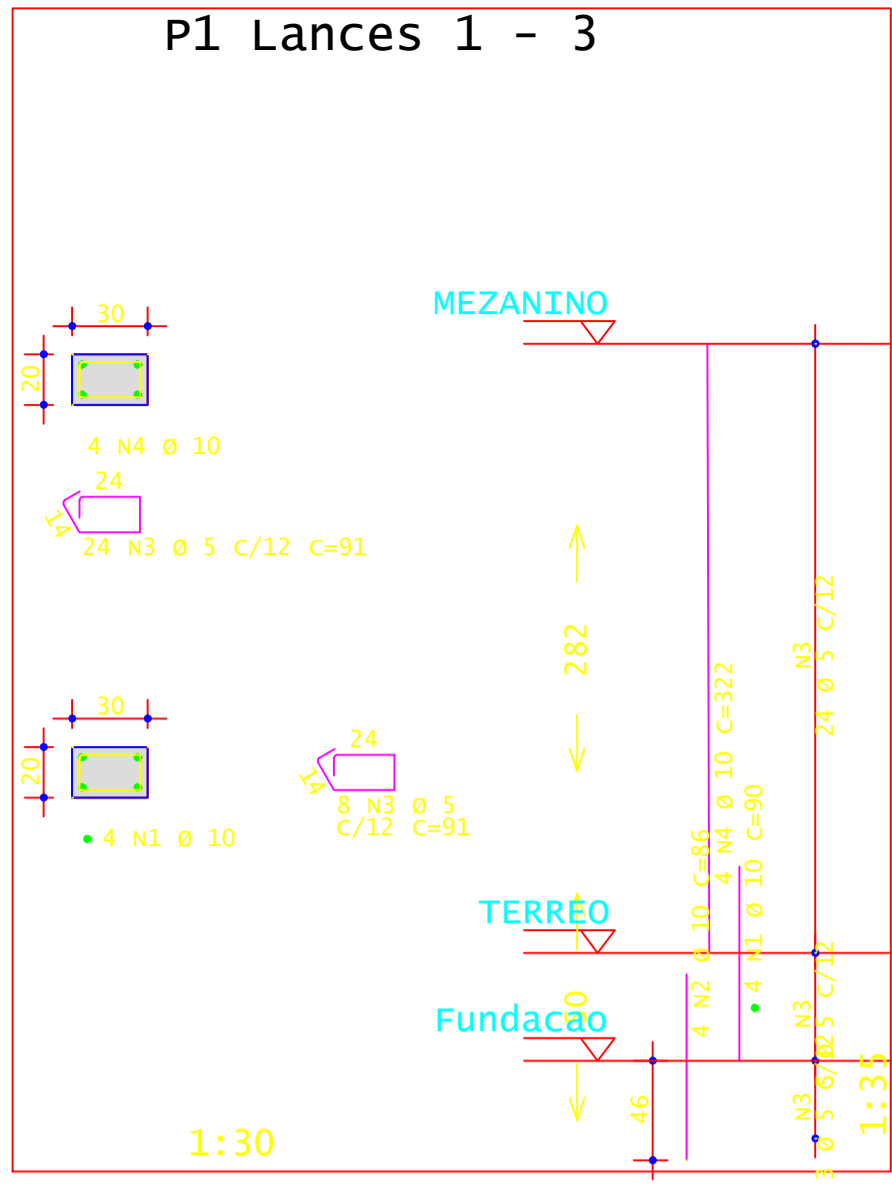
Elias James Araújo do Carmo
Secretário Municipal de Obras e Urbanismo

CONCRETO fck = 20 MPa		0001
CLIENTE		DES. N.º
ORÇ.		003
TÍTULO ARMAÇÃO PILARES P6 Lances 1 - 2 P7 Lances 1 - 2 P9 Lances 1 - 2 P12 Lances 1 - 2 P13 Lances 1 - 4 P14 Lances 1 - 4 P16 Lances 1 - 2 P17 Lances 1 - 4 P18 Lances 1 - 4 P20 Lances 1 - 2 P21 Lances 1 - 2 P24 Lances 1 - 2		REV. N.º 01
DATA: 03/05/2020	ESCALA: 1:30	ENG.º

RESUMO DE AÇO			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60A	5	508	78
50A	10	324	200
Peso Total			60A = 78 kg
Peso Total			50A = 200 kg

CONSUMO TOTAL DE CONCRETO	
VOLUME TOTAL	= 7.3 m³

CONSUMO TOTAL DE FÔRMAS	
ÁREA TOTAL	= 121.6 m²



AÇO	POS	BIT (mm)	QUANT	COMPRIMENTO	
				UNIT (cm)	TOTAL (cm)
P1 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	86	344
60A	3	5	41	91	3731
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P2 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	86	344
60A	3	5	41	91	3731
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P3 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	81	324
60A	3	5	41	91	3731
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P4 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	91	364
60A	3	5	42	91	3822
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P5 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	6	75	450
60A	3	5	40	91	3640
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P8 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	6	75	450
60A	3	5	40	91	3640
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P10 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	106	424
60A	3	5	43	91	3913
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P11 Lances 1 - 3					
50A	1	12.5	4	100	400
50A	2	12.5	6	85	510
50A	3	6.3	33	92	3036
50A	4	12.5	4	332	1328
50A	5	12.5	4	105	420
60A	6	5	2	94	188
P15 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	96	384
60A	3	5	42	91	3822
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P19 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	6	75	450
60A	3	5	40	91	3640
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P22 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	106	424
60A	3	5	43	91	3913
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P23 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	106	424
60A	3	5	43	91	3913
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P25 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	4	96	384
60A	3	5	42	91	3822
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P26 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	6	75	450
60A	3	5	40	91	3640
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188
P27 Lances 1 - 3					
50A	1	10	4	90	360
50A	2	10	6	75	450
60A	3	5	40	91	3640
50A	4	10	4	322	1288
50A	5	10	4	105	420
60A	6	5	2	94	188

RESUMO DE AÇO			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60A	5	554	85
50A	6.3	30	7
50A	10	346	214
50A	12.5	27	26
Peso Total			60A = 85 kg
Peso Total			50A = 247 kg

CONSUMO TOTAL DE CONCRETO	
Volume Total	= 7.3 m³

CONSUMO TOTAL DE FÔRMAS	
Área Total	= 121.6 m²

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Data: 12/06/2020

João Lúcio Gonçalves
Engenheiro Civil Mecânico
CREA-0550

Elias James Araújo do Carmo
Secretário Municipal de Obras e Urbanismo

CONCRETO fck = 20 MPa			0001	
CLIENTE			DES. N.º	
OBRA CREAS			004	
TÍTULO ARMAÇÃO PILARES			REV. N.º	
P1 Lances 1 - 3 P10 Lances 1 - 3			04	
P2 Lances 1 - 3				
P3 Lances 1 - 3				
P4 Lances 1 - 3				
P5 Lances 1 - 3				
P8 Lances 1 - 3				
DATA 03/05/2020	ESCALA 1:30	DESENHO CRE-PTL-PTL-004-001	COORD.	ENG.º