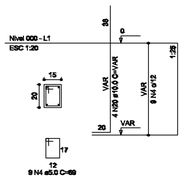
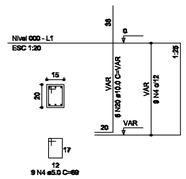
P15=P16=P17=P20=P21=P24

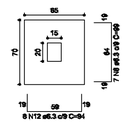


P22

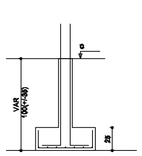


S15=S16=S17=S20=S21=S22=S24

Planta
ESC 1:25



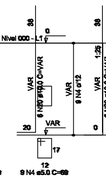
Corte
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P10

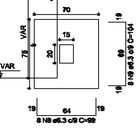
P10



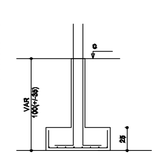
P8=P9=P11=P12=P14=P19

S8=S9=S10=S11=S12=S14=S19

Planta
ESC 1:25

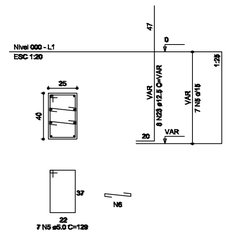


Corte
ESC 1:25



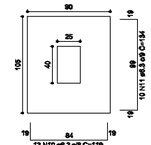
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P13=P18

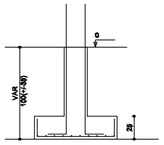


S13=S18

Planta
ESC 1:25



Corte
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

RELAÇÃO DO AÇO

P1	2xP2	8xP3
2xP7	8xP8	P10
2xP13	8xP15	P22
P23	S1	7xS11
2xS13	7xS15	S23
2xS25	8xS26	2xS30

AÇO	N	DIAM	Ql	UNIT (cm)	C.TOTAL (cm)
60	1	5.0	28	195	5460
	2	5.0	196	31	6076
	3	5.0	70	159	11130
	4	5.0	126	69	8694
	5	5.0	14	129	1806
	6	5.0	28	36	1008
	7	6.3	13	189	2457
	8	6.3	105	69	10395
	9	6.3	56	104	5824
50	10	6.3	28	119	3094
	11	6.3	20	134	2680
	12	6.3	56	84	5264
	13	6.3	12	179	2148
	14	6.3	16	164	2952
	15	6.3	72	154	11088
	16	6.3	20	159	3180
	17	6.3	26	108	2808
	18	8.0	88	113	9944
	19	8.0	26	118	3068
	20	10.0	60	VAR	VAR
	21	10.0	18	122	1980
	22	10.0	13	117	1521
	23	12.5	178	VAR	VAR
	24	12.5	12	VAR	VAR
	25	12.5	12	94	1128

RESUMO DO AÇO

AÇO	DIAM	C.TOTAL (m)	PESO+10% (kg)
CA50	6.3	491.3	132.5
	8.0	159.7	69.0
	10.0	197.1	86.2
	12.5	215.5	228.5
CA60	5.0	342.6	58.0
PESO TOTAL			
CA50		516.1	
CA60		58.0	

Vol. de concreto total =8.71 m³
Área de forma total = 62.84 m²

P2=P25

S2=S25

Planta
ESC 1:25

Corte
ESC 1:25

Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P3=P4=P5=P6=P26=P27=P28=P29

S3=S4=S5=S6=S26=S27=S28=S29

Planta
ESC 1:25

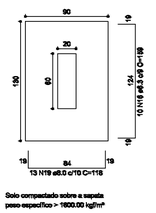
Corte
ESC 1:25

Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

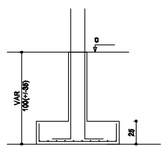
P7=P30

S7=S30

Planta
ESC 1:25

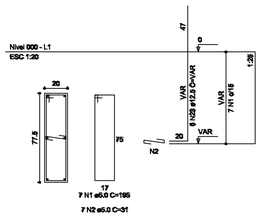


Corte
ESC 1:25



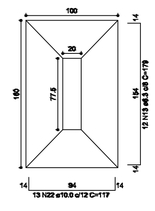
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P23

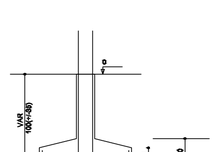


S23

Planta
ESC 1:25

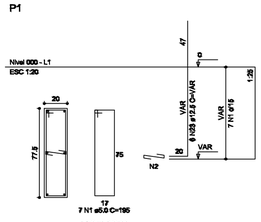


Corte
ESC 1:25



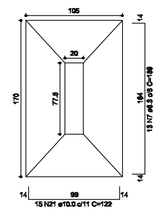
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P1

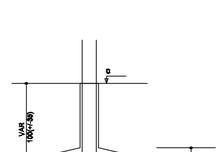


S1

Planta
ESC 1:25



Corte
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

DATA REVISÃO

PREFEITURA
Lorena

folha 09/11

obra: PROJETO QUADRA COBERTA COM VESTIÁRIO - ESCOLA APARECIDA GUEDES

proprietário: PREFEITURA MUNICIPAL DE LORENA

Fábio Marcondes
Prefeito Municipal

Marcos Aurélio Souza Anjos
Secretário de Obras e Planej. Urbano
Engº Civil - CREA: 506036110

Ana Carolina Sazo Tana
Engª Civil - CREA: 5069043325
Responsável Técnica

escala: 1/125

desenho: EST.

data: MAI/2015

descrição: ESTRUTURA DE CONCRETO SAPATAS

Secretaria Municipal de Obras e Planejamento Urbano
Rua Comendador Custódio Vieira, nº 333, Edifício Guaypacaré, 1º andar, Centro
CEP: 12.600-030 - e-mail: planejamento@lorena.sp.gov.br