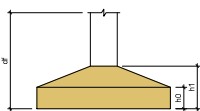
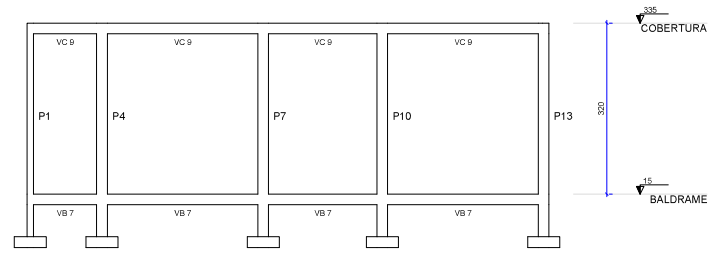


PLANTA DE LOCAÇÃO
Escala 1:50

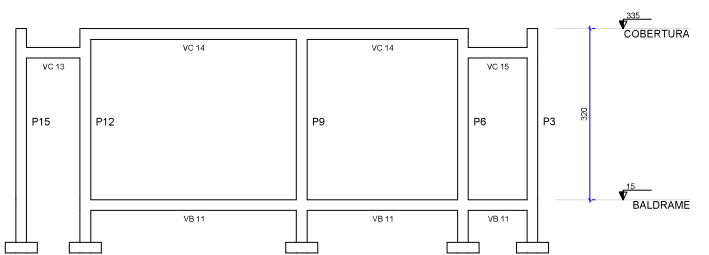
Pilar															Fundação									
Nome	Seção	X	Y	Carga Max. (t)	Carga Min. (t)	Mx Máximo (kgf.m)	My Máximo (kgf.m)	Fx Máximo (t)	Fy Máximo (t)	Lado B	Lado H	R0 / Ha	R1 / Hb	df										
						Positivo / Negativo	Positivo / Negativo	Positivo / Negativo	Positivo / Negativo			(cm)	(cm)											
P1	12x20	11.50	972.50	1.6	0.0	0.0	-300.0	0.0	-4.6	-0.1	0.0	60	20	20										
P2	12x20	326.00	972.50	1.6	0.0	0.0	200.0	0.0	0.5	0.1	0.0	60	20	20										
P3	12x20	652.50	968.50	0.8	0.0	0.0	0.0	0.0	0.1	0.0	0.1	60	20	20										
P4	12x20	7.50	838.50	2.7	0.0	-200.0	0.0	-100.0	0.0	-4.5	0.3	60	20	20										
P5	12x20	326.00	838.50	3.9	0.0	-100.0	100.0	0.0	0.1	0.0	0.0	60	20	20										
P6	12x20	652.50	838.50	2.8	0.0	-200.0	200.0	0.0	0.4	0.0	0.3	60	20	20										
P7	12x20	7.50	536.50	3.2	0.0	0.0	0.0	-200.0	0.0	-4.7	0.0	-4.1	60	20										
P8	12x20	326.00	536.50	2.8	0.0	200.0	0.0	0.0	0.6	0.0	-4.4	60	20	20										
P9	12x20	652.50	536.50	2.8	0.0	-100.0	0.0	0.0	0.0	0.0	0.4	60	20	20										
P10	12x20	7.50	313.50	3.2	0.0	-200.0	0.0	-200.0	0.0	-4.8	0.2	60	20	20										
P11	12x20	326.00	313.50	3.3	0.0	-200.0	200.0	0.0	0.6	0.0	0.0	60	20	20										
P12	12x20	652.50	313.50	2.8	0.0	-200.0	0.0	0.0	0.0	0.0	0.0	60	20	20										
P13	12x20	7.50	131.50	2.3	0.0	0.0	-300.0	0.0	-4.6	0.0	-0.3	60	20	20										
P14	12x20	326.00	131.50	3.1	0.0	100.0	0.0	0.0	0.4	0.0	0.0	60	20	20										
P15	12x20	652.50	131.50	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.1	60	20	20										



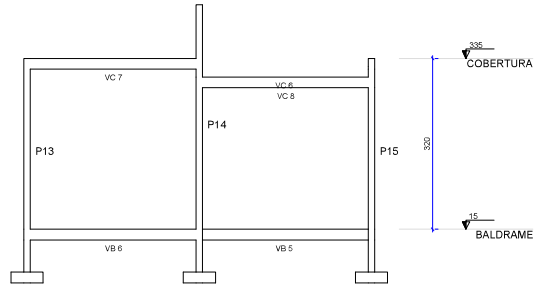
Localização no eixo X		Localização no eixo Y	
Coordenadas (cm)	Nome	Coordenadas (cm)	Nome
7.50	P4, P7, P10, P13	972.50	P1, P2
11.50	P1	968.50	P3
326.00	P2	838.50	P4, P5, P6
330.00	P5, P8, P11, P14	536.50	P7, P8, P9
652.50	P3, P6, P9, P12, P15	313.50	P10, P11
		131.50	P12
		11.50	P13, P14, P15



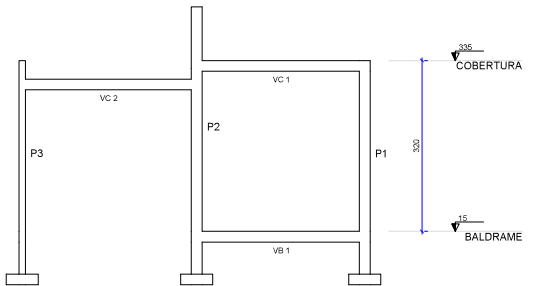
CORTE A-A
Escala 1:50



CORTE B-B
Escala 1:50



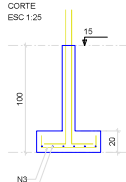
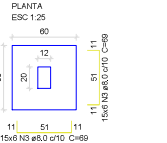
CORTE C-C
Escala 1:50



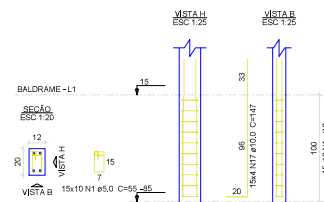
CORTE D-D
Escala 1:50

PREFEITURA	CREA
BOMBEIRO OU NATURALTINS	
PROJETO: PREOJETO ESTRUTURAL 1/3	
OBRA: CONSTRUÇÃO DE UNIDADE HABITACIONAL DE INTERESSE SOCIAL PROPRIETÁRIO: PREFEITURA MUNICIPAL DE SÃO BENTO DO TOCANTINS CPF: 32.316.500/0001-39 ENDEREÇO: MUNICÍPIO DE SÃO BENTO - TO	
QUADRO DE ÁREAS	ASSINATURA PROPRIETÁRIO PREFEITURA MUNICIPAL DE SÃO BENTO-TO
TERRENO 10x25250,00m² A. PERMEÁVEL.....168,00m² ÁREA CONSTRUÍDA POR UNIDADE: 64,68m²	AUTOR DO PROJETO CALUZO M273.379-0 ARQUITETO URBANISTA GUSTAVO SILVA VELOSO RESP. TÉCNICO
ESCALA: INDICADA	DESENHO: GUSTAVO SILVA VELOSO DATA: SETEMBRO DE 2025
CONTEÚDO: ESTRUTURAL E DETALHAMENTOS	

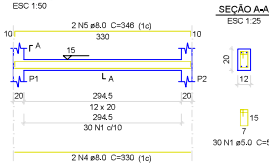
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=S13=S14=S15



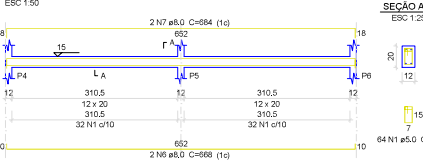
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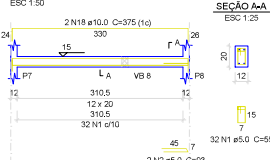
VB 1



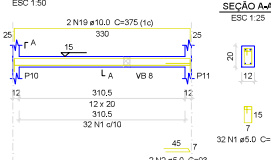
VB 2



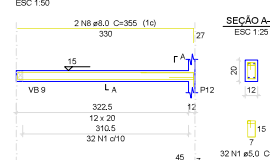
VB 3



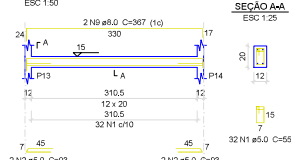
VB 4



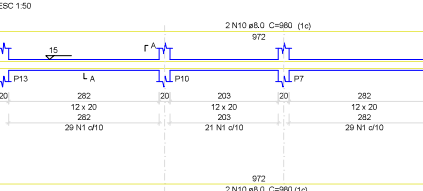
VB 5



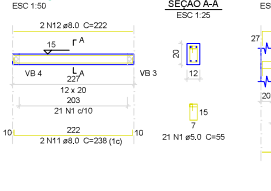
VB 6



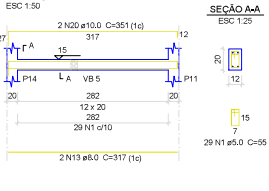
VB 7



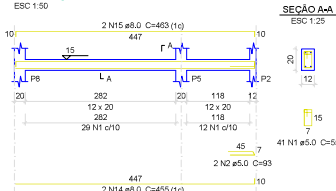
VB 8



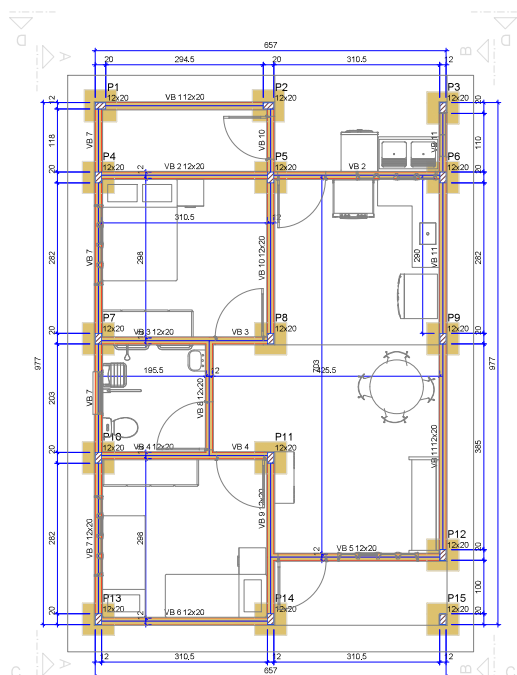
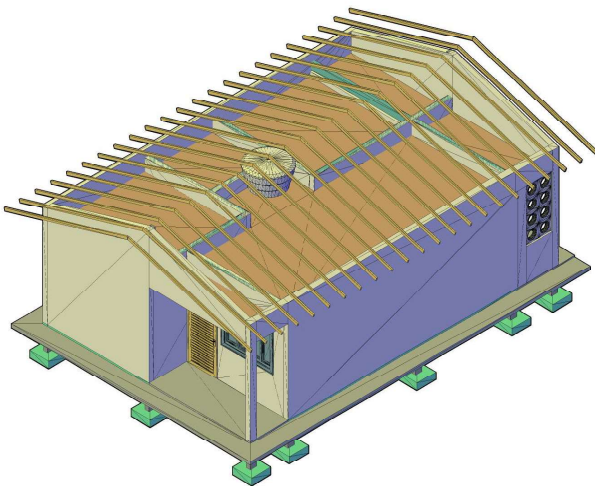
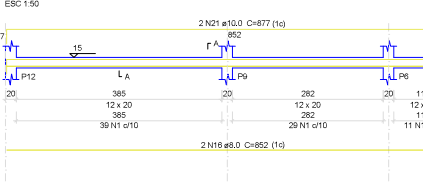
VB 9



VB 10



VB 11



FORMA DO PAVIMENTO BALDRAME (NÍVEL 15)

Escala 1:50

Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	5.0	633	55	34815
CA50	2	5.0	14	93	1302
CA50	3	8.0	180	69	12420
CA50	4	8.0	2	330	660
CA50	5	8.0	10	348	3480
CA50	6	8.0	2	668	1336
CA50	7	8.0	2	684	1368
CA50	8	8.0	2	355	710
CA50	9	8.0	2	367	734
CA50	10	8.0	4	680	2720
CA50	11	8.0	2	238	476
CA50	12	8.0	2	222	444
CA50	13	8.0	2	317	634
CA50	14	8.0	2	455	910
CA50	15	8.0	2	463	926
CA50	16	8.0	2	652	1304
CA50	17	10.0	60	147	8820
CA50	18	10.0	2	375	750
CA50	19	10.0	2	375	750
CA50	20	10.0	2	351	702
CA50	21	10.0	2	877	1754

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8.0	287.1	117.2
CA50	10.0	127.8	78.8
CA50	5.0	361.2	55.7
PESO TOTAL			
CA50	96		
CA50	55.7		

Volume de concreto (C=25) = 2.5 m³
Área de forma = 30.44 m²

Nome	Seção	Elevação (cm)	Nível (cm)
VB 1	12x20	0	15
VB 2	12x20	0	15
VB 3	12x20	0	15
VB 4	12x20	0	15
VB 5	12x20	0	15
VB 6	12x20	0	15
VB 7	12x20	0	15
VB 8	12x20	0	15
VB 9	12x20	0	15
VB 10	12x20	0	15
VB 11	12x20	0	15

Características dos materiais	Valor
f _{cd} (kgf/cm²)	250
f _{td} (kgf/cm²)	250

Nome	Seção	Elevação (cm)	Nível (cm)
P1	12x20	0	15
P2	12x20	0	15
P3	12x20	0	15
P4	12x20	0	15
P5	12x20	0	15
P6	12x20	0	15
P7	12x20	0	15
P8	12x20	0	15
P9	12x20	0	15
P10	12x20	0	15
P11	12x20	0	15
P12	12x20	0	15
P13	12x20	0	15
P14	12x20	0	15
P15	12x20	0	15

Legenda dos pilares	Legenda das vigas e paredes
Pilar que passa	Viga

PREFEITURA

CREA

PROJETO:

PREOJETO ESTRUTURAL

2/3

OBRA: CONSTRUÇÃO DE UNIDADE HABITACIONAL DE INTERESSE SOCIAL

PROPRIETÁRIO: PREFEITURA MUNICIPAL DE SÃO BENTO DO TOCANTINS

CNPJ: 32.316.800/0001-39

ENDEREÇO: MUNICÍPIO DE SÃO BENTO - TO

QUADRO DE ÁREAS

TERRENO 10x25.....250,00m²

A. PERMEÁVEL.....168,00m²

ÁREA CONSTRUÍDA POR UNIDADE: 64,68m²

ASSINATURA

PROPRIETÁRIO

PREFEITURA MUNICIPAL DE SÃO BENTO

AUTOR DO PROJETO

CAVALTO Nº273.379-6

ARQUITETO URBANISTA

GUSTAVO SILVA VELOSO

RESP. TÉCNICO

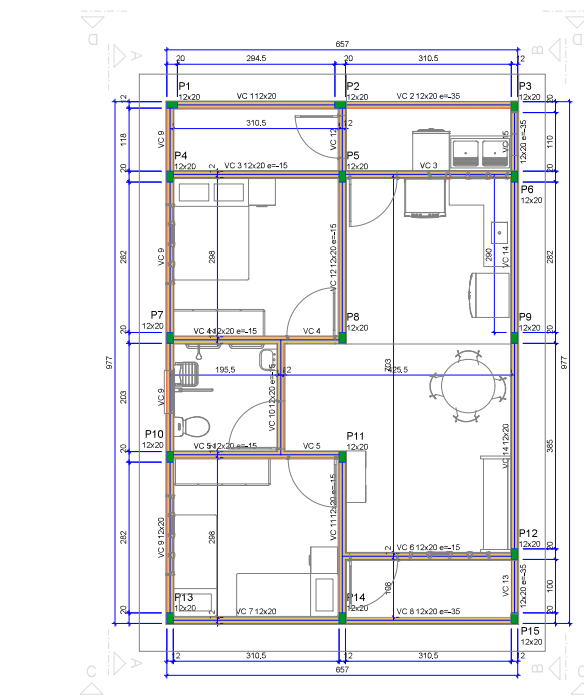
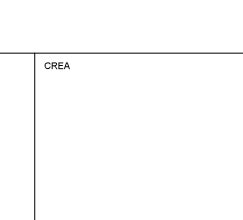
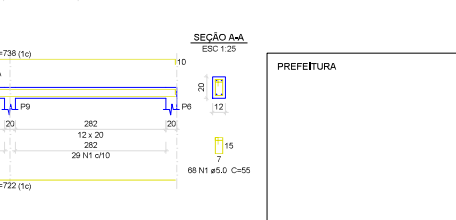
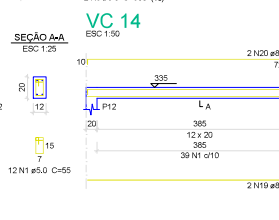
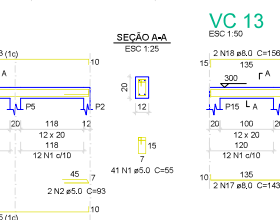
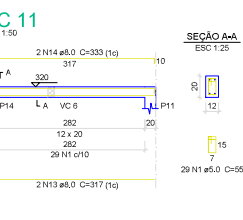
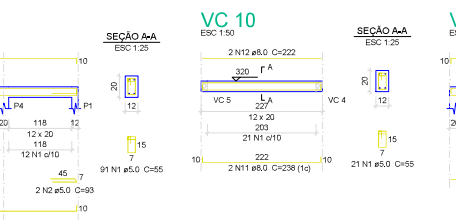
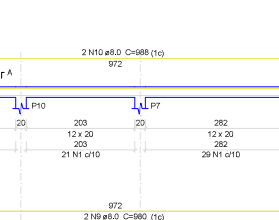
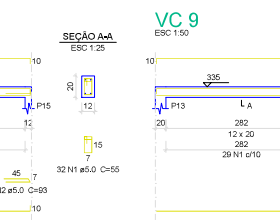
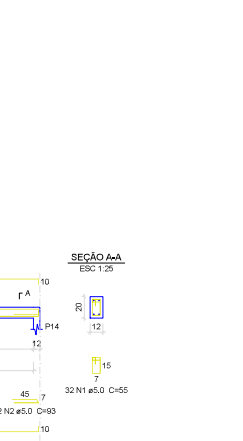
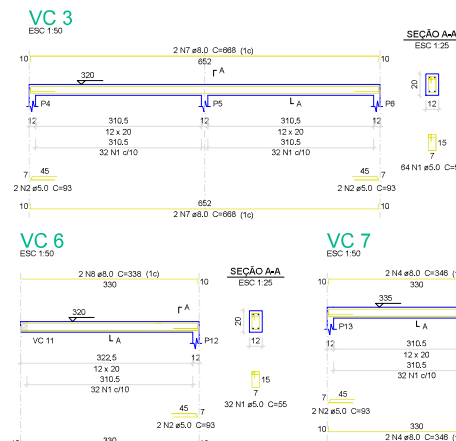
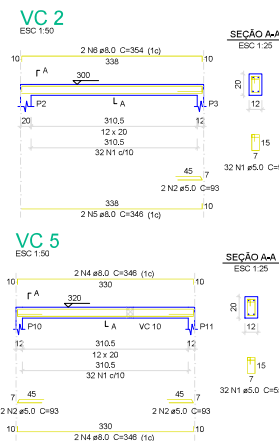
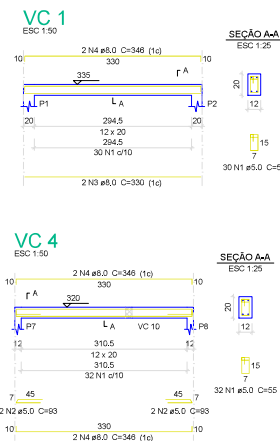
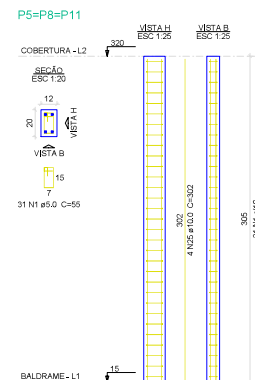
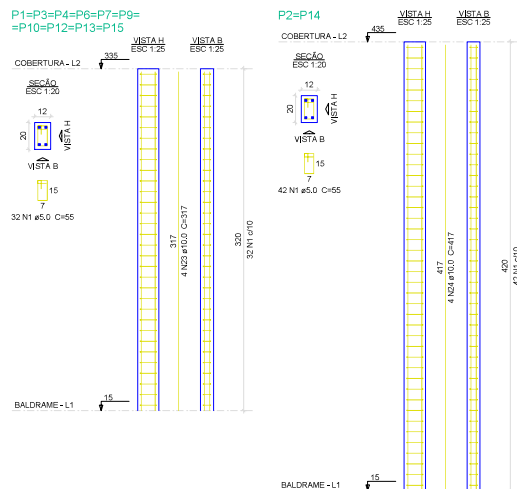
ESCALA: INDICADA

DESENHO: GUSTAVO SILVA VELOSO

DATA: SETEMBRO DE 2025

CONTEÚDO: ESTRUTURAL E DETALHAMENTOS

$$P_1=P_3=P_4=P_6=P_7=P_9=$$

$$=P_{10}=P_{12}=P_{13}=P_{15}$$


FORMA DO PAVIMENTO COBERTURA (NÍVEL 335)

Escala 1:50

Nome	Vigas		
	Seção (cm)	Elevação (cm)	Nível (cm)
VC 1	12x20	0	335
VC 2	12x20	-35	300
VC 3	12x20	-15	320
VC 4	12x20	-15	320
VC 5	12x20	-15	320
VC 6	12x20	-15	320
VC 7	12x20	0	335
VC 8	12x20	-35	300
VC 9	12x20	0	335
VC 10	12x20	-15	320
VC 11	12x20	-15	320
VC 12	12x20	-15	320
VC 13	12x20	-35	300
VC 14	12x20	0	335
VC 15	12x20	-35	300

Características dos materiais	
fck (kgf/cm ²)	Ecs (kgf/cm ²)
250	268384

Dimensão máxima do aprofundado = 19

Dimensão máxima do agregado = 19 m

Pijares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	12x20	0	335
P2	12x20	100	435
P3	12x20	0	335
P4	12x20	0	335
P5	12x20	-15	320
P6	12x20	0	335
P7	12x20	0	335
P8	12x20	-15	320
P9	12x20	0	335
P10	12x20	0	335
P11	12x20	-15	320
P12	12x20	0	335
P13	12x20	0	335
P14	12x20	100	435
P15	12x20	0	335

Legenda dos pilares	
	Pilar que morre

Relação do aço						
		2x/2		3x/3		
10M1		VC 2		VC 3		
VC 1		VC 2		VC 3		
VC 4		VC 5		VC 6		
VC 7		VC 8		VC 9		
VC 10		VC 11		VC 12		
VC 13		VC 14		VC 15		
ACO	N	DIAM	QUANT	CJUNT	com	ESTR
CASO	1	5,0	1056	58	5680	2604
	2	5,0	28	3	280	280
CASO	3	6,0	20	330	660	660
	4	6,0	20	330	660	660
	5	6,0	20	330	660	660
	6	6,0	20	354	708	708
	7	6,0	20	339	678	678
	8	6,0	20	330	660	660
	9	6,0	20	330	660	660
10	10	6,0	20	330	660	660
	11	6,0	20	338	676	676
	12	6,0	20	337	674	674
	13	6,0	20	337	674	674
	14	6,0	20	333	666	666
	15	6,0	20	333	666	666
	16	6,0	20	333	666	666
	17	6,0	20	343	686	686
	18	6,0	20	343	686	686
	19	6,0	20	343	686	686
	20	6,0	20	343	686	686
	21	6,0	20	722	1444	1444
	22	6,0	20	738	1476	1476
	23	6,0	20	745	1490	1490
	24	6,0	20	745	1490	1490
	25	6,0	20	745	1490	1490
	26	6,0	20	745	1490	1490
	27	6,0	20	745	1490	1490
	28	6,0	20	745	1490	1490
	29	6,0	20	745	1490	1490
	30	6,0	20	745	1490	1490
	31	6,0	20	745	1490	1490
	32	6,0	20	745	1490	1490
	33	6,0	20	745	1490	1490
	34	6,0	20	745	1490	1490
	35	6,0	20	745	1490	1490
	36	6,0	20	745	1490	1490
	37	6,0	20	745	1490	1490
	38	6,0	20	745	1490	1490
	39	6,0	20	745	1490	1490
	40	6,0	20	745	1490	1490
	41	6,0	20	745	1490	1490
	42	6,0	20	745	1490	1490
	43	6,0	20	745	1490	1490
	44	6,0	20	745	1490	1490
	45	6,0	20	745	1490	1490
	46	6,0	20	745	1490	1490
	47	6,0	20	745	1490	1490
	48	6,0	20	745	1490	1490
	49	6,0	20	745	1490	1490
	50	6,0	20	745	1490	1490
	51	6,0	20	745	1490	1490
	52	6,0	20	745	1490	1490
	53	6,0	20	745	1490	1490
	54	6,0	20	745	1490	1490
	55	6,0	20	745	1490	1490

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8,0	244,5	98,9
CA60	10,0	198,4	121,1
CA60	5,0	606,9	93,0
PESO TOTAL (kg)			
CA50	217,8		
CA60	93,5		

Volume de concreto (C-25) = 2,5 m³
 Área de forma = 90,02 m²

PREFEITURA		CREA	
		BOMBEIRO OU NATURATINS	
PROJETO:			
PREOJETO ESTRUTURAL			3/3
		OBRA: CONSTRUÇÃO DE UNIDADE HABITACIONAL DE INTERESSE SOCIAL PROPRIETÁRIO: PREFEITURA MUNICIPAL DE SÃO BENTO DO TOCANTINS CNPJ: 32,316,900/0001-39 ENDEREÇO: MUNICÍPIO DE SÃO BENTO - TO	
QUADRO DE ÁREAS			
TERRENO 10x25:250,00m² A. PERMEÁVEL:169,00m² ÁREA CONSTRUÍDA POR UNIDADE: 64,69m²	ASSINATURA PROPRIETÁRIO		_____ PREFEITURA MUNICIPAL DE SÃO BENTO-TO
	AUTOR DO PROJETO CÁLLATO VICTOR JOTA ARQUITETO URBANISTA		_____ GUSTAVO SILVA VELOSO
	RESP. TÉCNICO		_____
ESCALA: INDICADA			
DESENHO: GUSTAVO SILVA VELOSO		DATA: SETEMBRO DE 2025	
CONTEÚDO: ESTRUTURAL E DETALHAMENTOS			