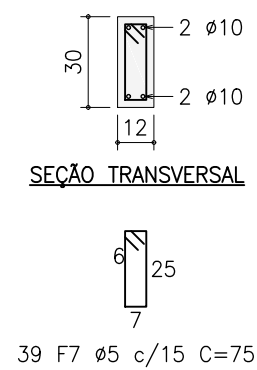
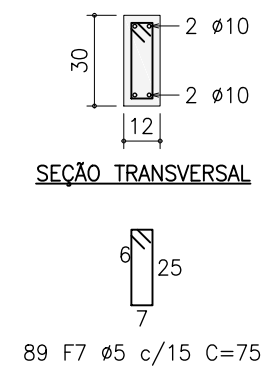
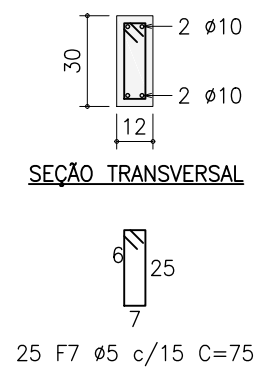


Technical drawing of a reinforced concrete slab cross-section. The slab is 603 mm wide and 100 mm high. It features 2 F5 ø10 C=100 top bars and 2 F6 ø10 C=613 bottom bars. The bottom reinforcement is divided into two zones: 21 F7 ø5 c/15 (300 mm) and 18 F7 ø5 c/15 (266.4 mm). A 20 mm gap is shown between the reinforcement zones. Vertical dimensions include 20 mm for the top bar height, 25 mm for the bottom bar height, and 10 mm for the bottom bar height.



Technical drawing of a beam cross-section showing reinforcement details. The drawing includes dimensions for the overall width (590 mm), reinforcement spacing (20 mm), and reinforcement quantities (2 F8 Ø10 C=600, 2 F9 Ø10 C=300, 2 F10 Ø10 C=665). The beam is shown in a longitudinal section with reinforcement bars and stirrups.

[illegible]

VOLUME DE CONCRETO DAS VIGAS (f_{ck} de 25 MPa) = 2,39 m³
 ÁREA DE FORMAS DAS VIGAS = 47,84 m²

TOPO DA VIGA DA PLATIBANDA

TOPO DA VIGA DE AMARRAÇÃO

SEÇÃO TRANSVERSAL

28 F4 Ø5 c/14 C=55

TOPO DA VIGA INFERIOR

TOPO DA VIGA DO 2º PAVTO

ARRANQUES FIXADOS NA VIGA EXISTENTE COM ADESIVO EPÓXI

4 Ø12,5 C=247

4 F3 Ø12,5 C=80

4 F2 Ø12,5 C=180

4 F1 Ø12,5 C=80

30

60

30

130

390

28 F4 Ø5 c/14

40

40

60

VOLUME DE CONCRETO DOS PILARES (f_{ck} de 25 MPa) = 0,84 m³
ÁREA DE FORMAS DOS PILARES = 22,46 m²

(**)=CA-60; CA-50 para demais

RESUMO GERAL			
AÇO	Ø(mm)	COMP.(m)	PESO(kg)
CA-60	5	482.85	85
CA-50	10	328.98	228
CA-50	12.5	182.52	202
TOTAL:			515

Eng. civil André Lübeck
 SIAPE: 1692336 / CREARS: 140441

Eng. civil Almir Barros da S. Santos Neto
 SIAPE: 2300182 / CREARS: 092776

RESISTÊNCIA À COMPRESSÃO DO CONCRETO, f_{ck} de 28 dias = 25 MPa.
MÓDULO DE ELASTICIDADE INICIAL DO CONCRETO, E_{ci} = 28 GPa.
TAMANHO MÁXIMO DO AGREGADO GRAÚDO = 19 mm
CLASSE DE AGRESSIVIDADE AMBIENTAL II (CAA II).
RELAÇÃO ÁGUA/CIMENTO (a/c) MÁXIMA = 0,60.
AÇOS DAS ARMADURAS, CA50 E CA60.

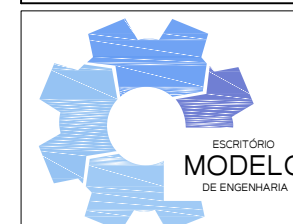
RESPONSÁVEIS TÉCNICOS:

PROJETO:

PROJETO ESTRUTURAL - CONCRETO

Cobertura do terraço do prédio 44J

ENDEREÇO:
Campus Universitário, Av. Roraima, 1000, Santa Maria, RS.



PRANCHA:

Detalhamento dos pilares
Detalhamento das vigas

visão:

0

a:

29/06/2025

cala:

Indicada

ANCHAS N°:

EST
01/01