



Secretaria de Recursos Hídricos do Estado do Ceará

Folha de Dados

IDGED:

0019/04

LOTE:

0177

AUTOR:

SECRETARIA DOS RECURSOS HÍDRICOS – AGUASOLOS

TÍTULO:

PLANO DE APROVEITAMENTO HIDROAGRÍCOLA DA CHAPADA DE IGUATU, ORÓS E
VÁRZEAS DE MONTANTE DO AÇUDE ORÓS

SUBTÍTULO:

VOLUME IV DESENHOS

JUNHO/1988



AGUASOLOS

CONSULTORA DE ENGENHARIA LTDA

0019/04

Lote: 00177 - Prep (X) Scan () Index ()

Projeto Nº 0019/04

Volume /

Qtd A4

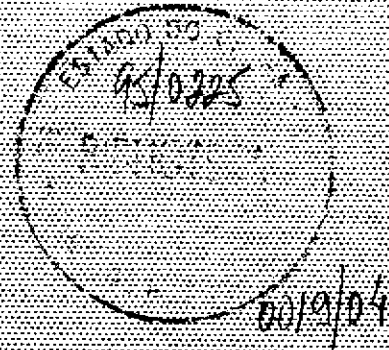
Qtd A3

Qtd A2

Qtd A1

Qtd A0

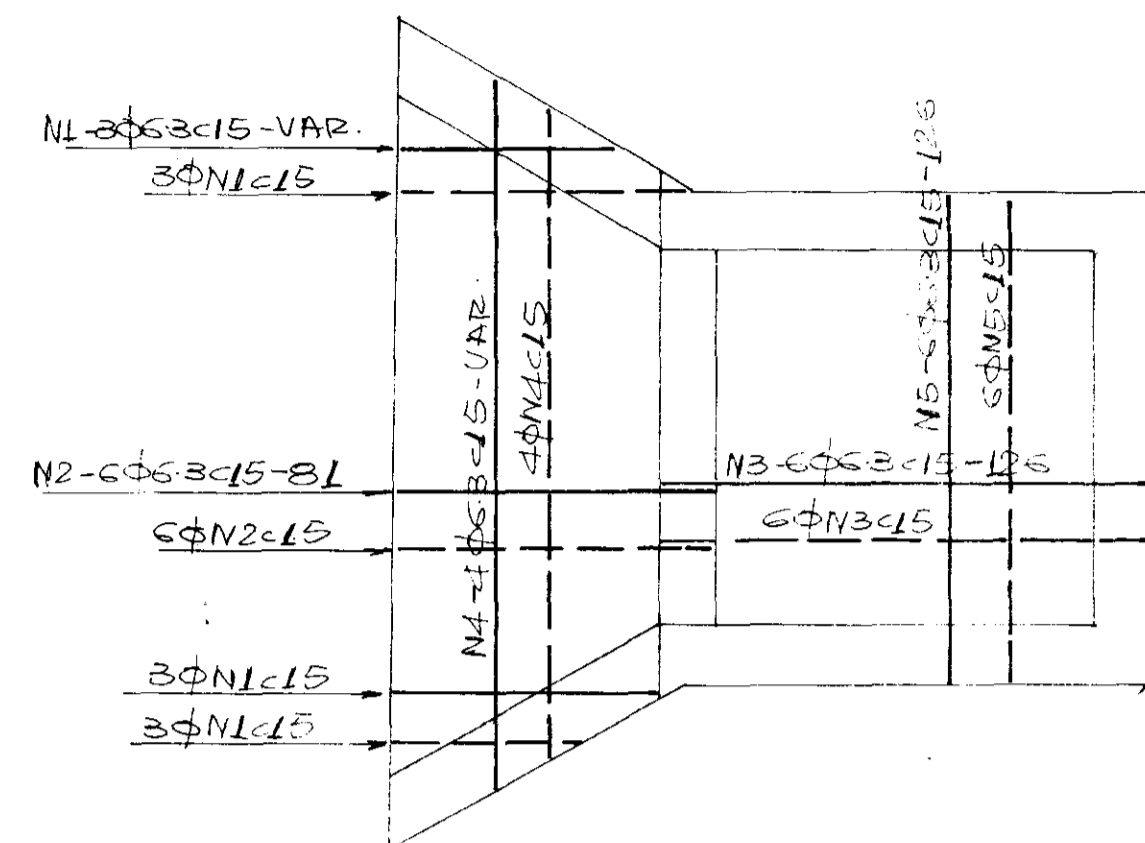
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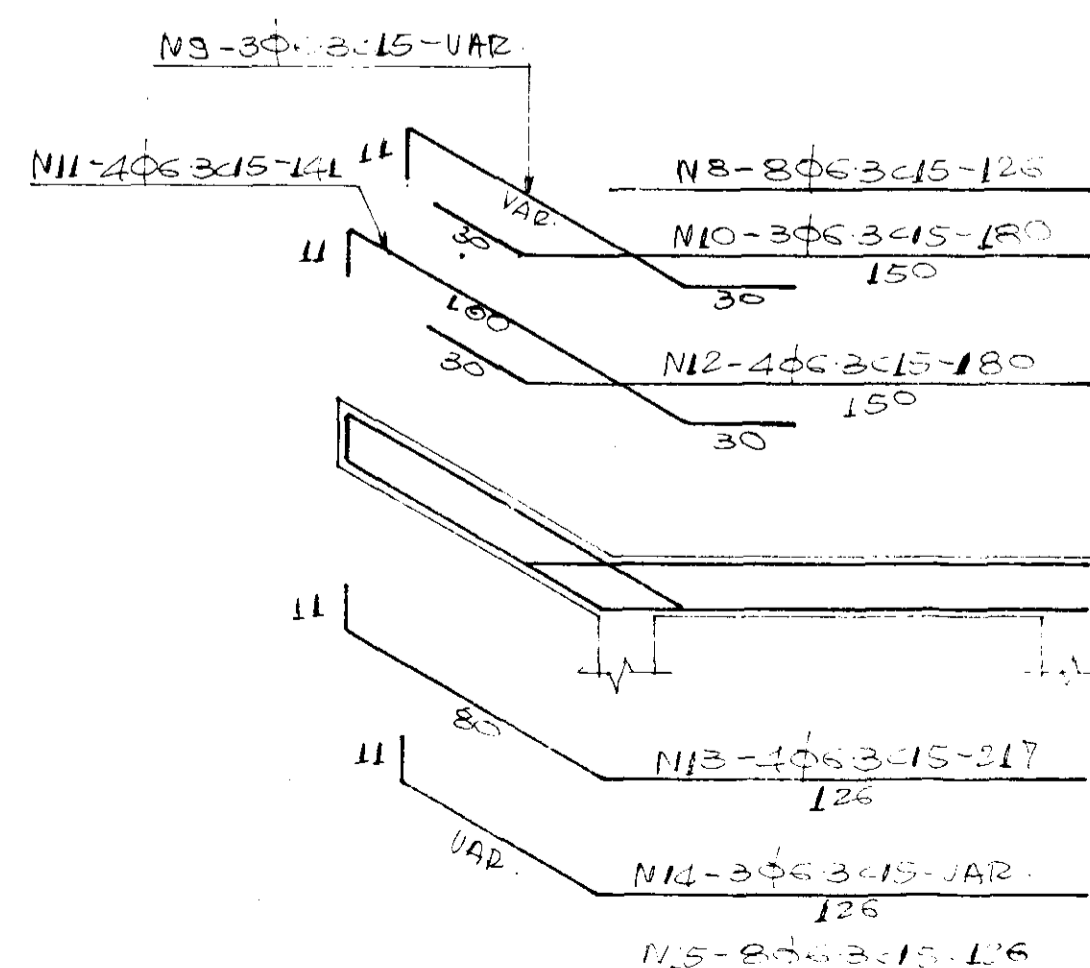
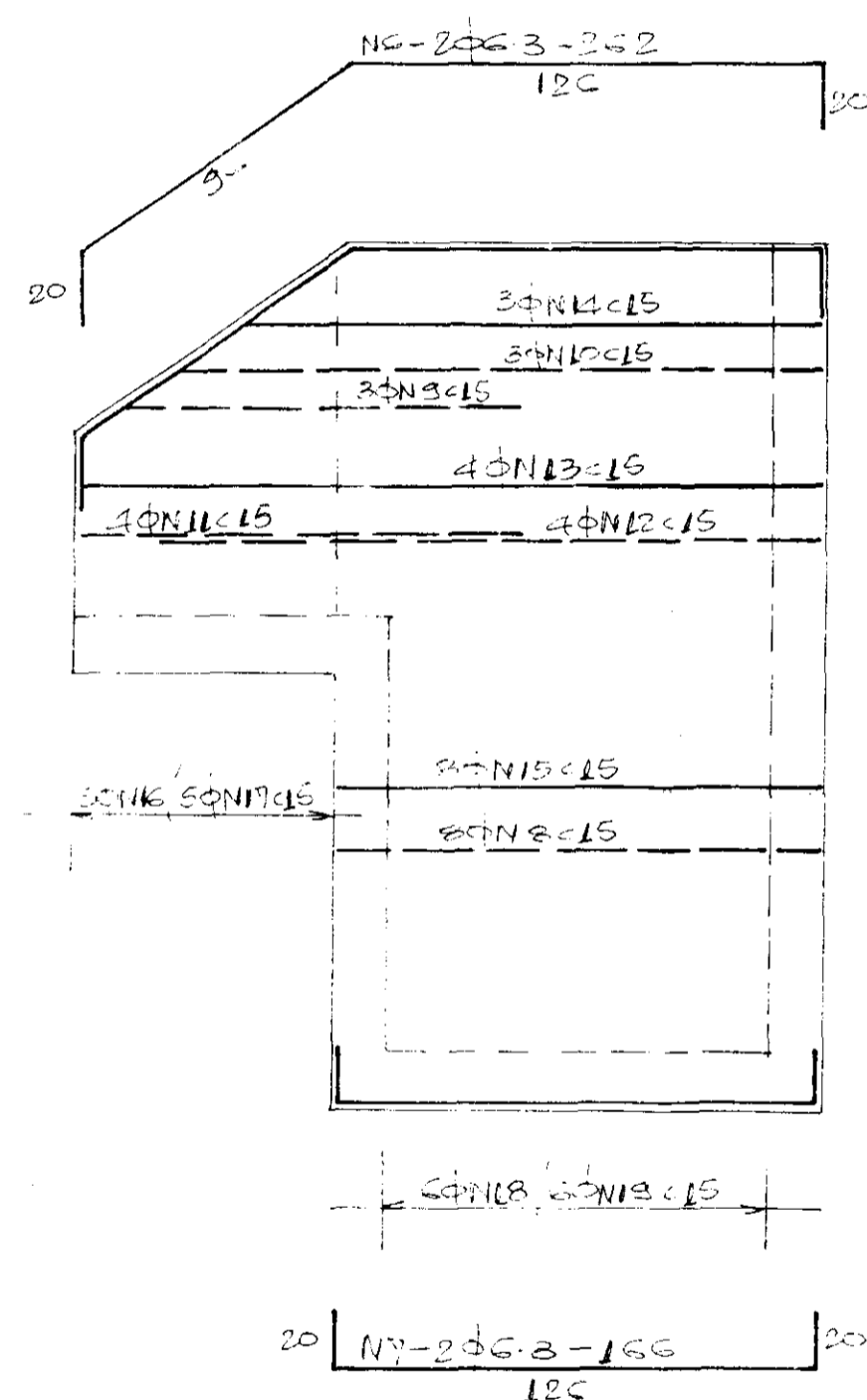
PLANO DE APROVEITAMENTO
HIDROAGRÍCOLA DA CHAPADA
DE IGUATU/ORÓS E VÁRZEAS
DE MONTANTE DO AÇUDE ORÓS
PLANTAS GERAIS
VOLUME IV
DESENHOS

000003

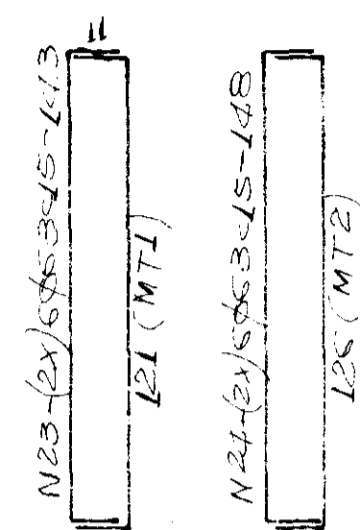
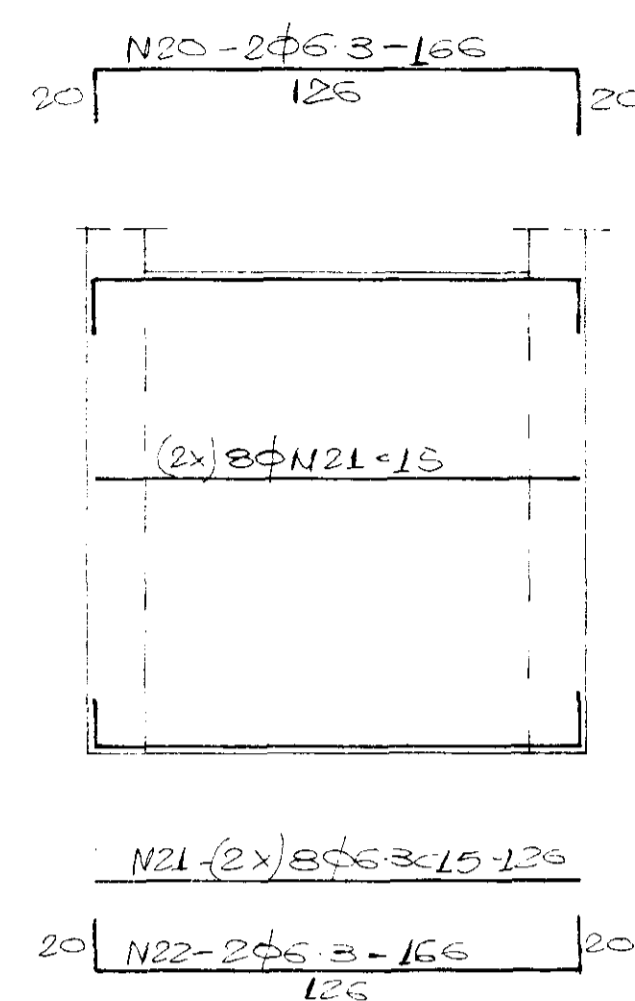
LAJE DO FUNDO



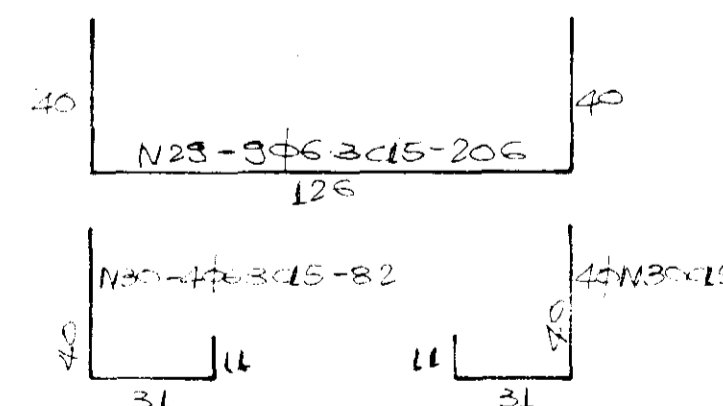
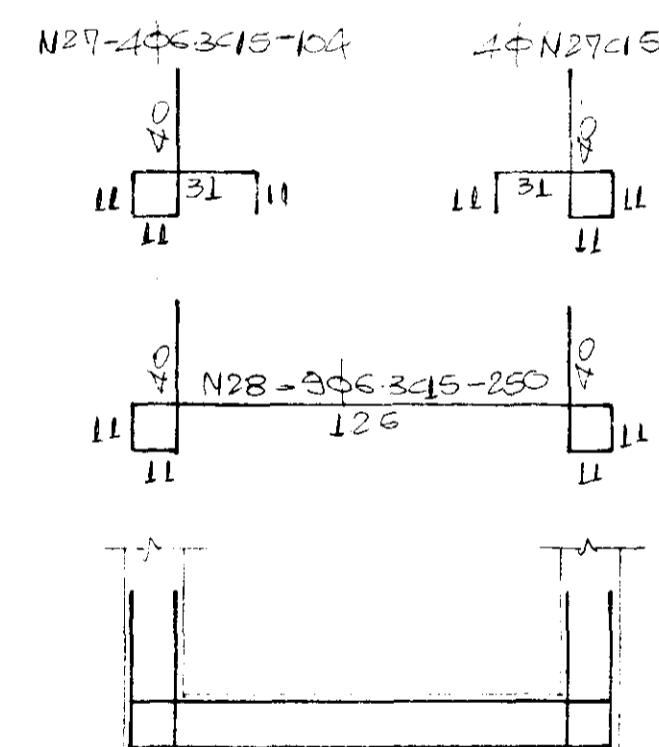
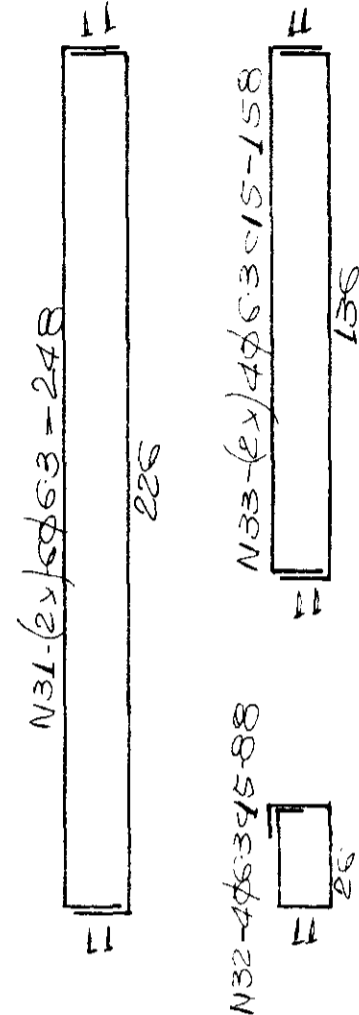
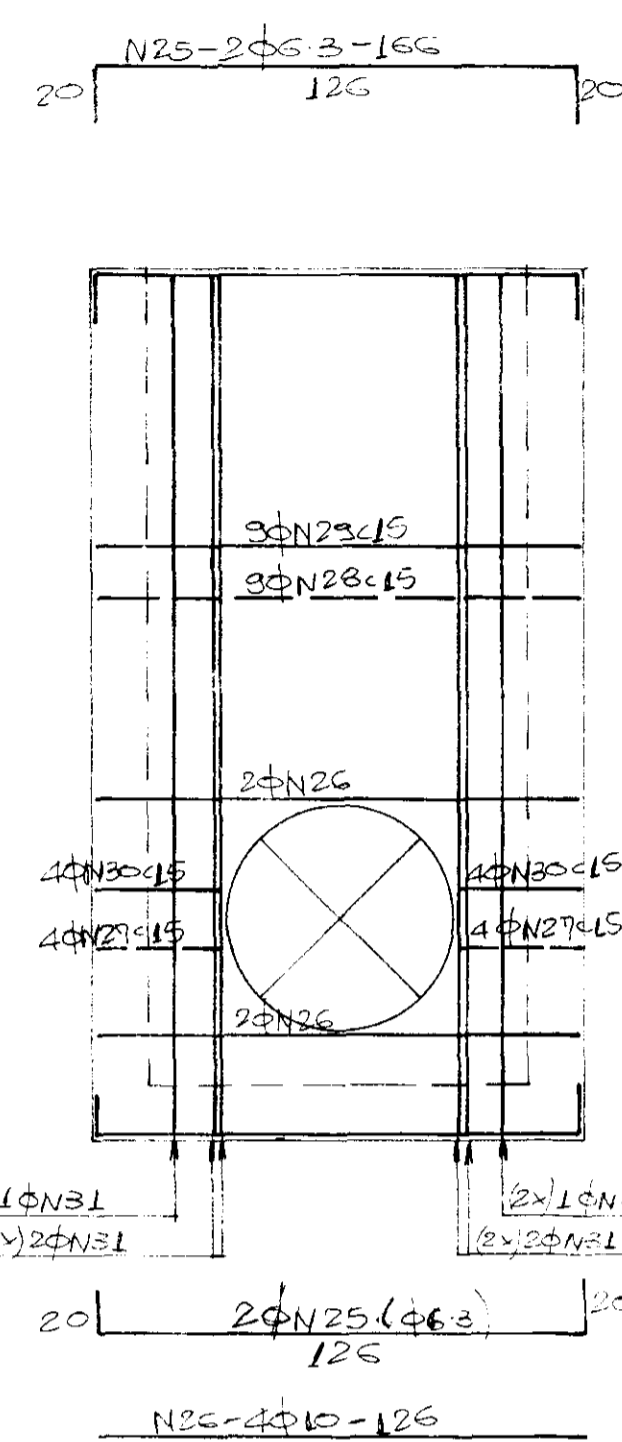
(4x) PAREDE 1



(2x) PAREDE 2



(2x) PAREDE 3



N	φ	QUANTIDADE	COMPRIMENTO UNITARIO
1	3	2x 12	VAR.
2	3	2x 12	81
3	3	2x 12	126
4	3	2x 12	126
5	3	2x 12	126
6	3	2x 12	126
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8	3	2x 12	126
9	3	2x 12	126
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28	3	2x 12	126
29	3	2x 12	126
30	3	2x 12	126
31	3	2x 12	126
32	3	2x 12	126
33	3	2x 12	126

RESUMO			
AÇO	φ	C.TOTAL	PESO
CA-50	63	89700	224 kg
	10	1008	6 //
PESO TOTAL			230 //

fck=15MPa

PRONI **DNOCS**
 PROGRAMA NACIONAL DE IRRIGAÇÃO DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS

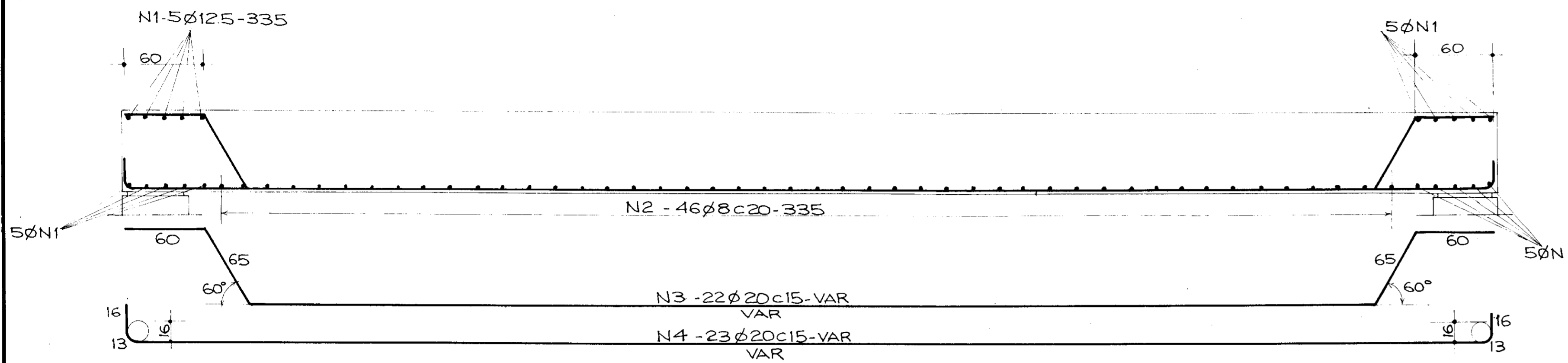
Projeto: _____ Visto: _____
 Cálculo: _____ Visto: _____

Essenho: _____
 Escala: _____

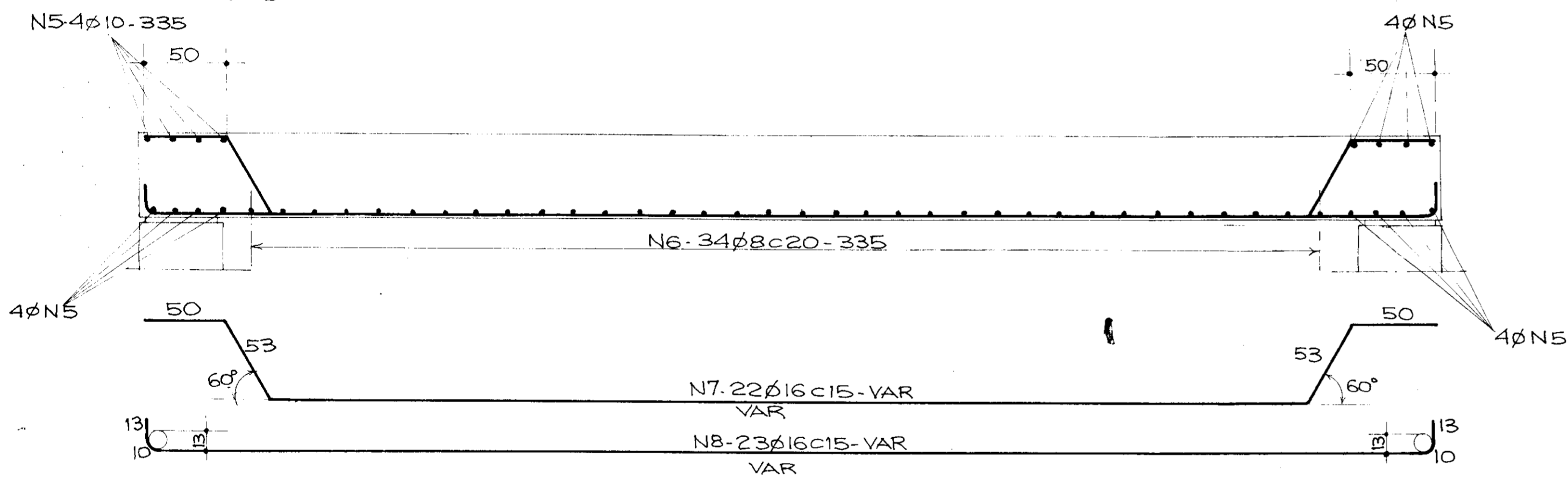
PLANO DE APROVEITAMENTO HIDROAGRICOLA DA CHAPADA DE IGUAU / OROS E VARZEAS DE MONTANTE DO AÇUDE OROS

MANCHA MOURA
 OBRAS HIDRAULICAS
 OBRA TIPO DE TRANSPOSIÇÃO-T
 TIPO 1 / ESTRUTURA

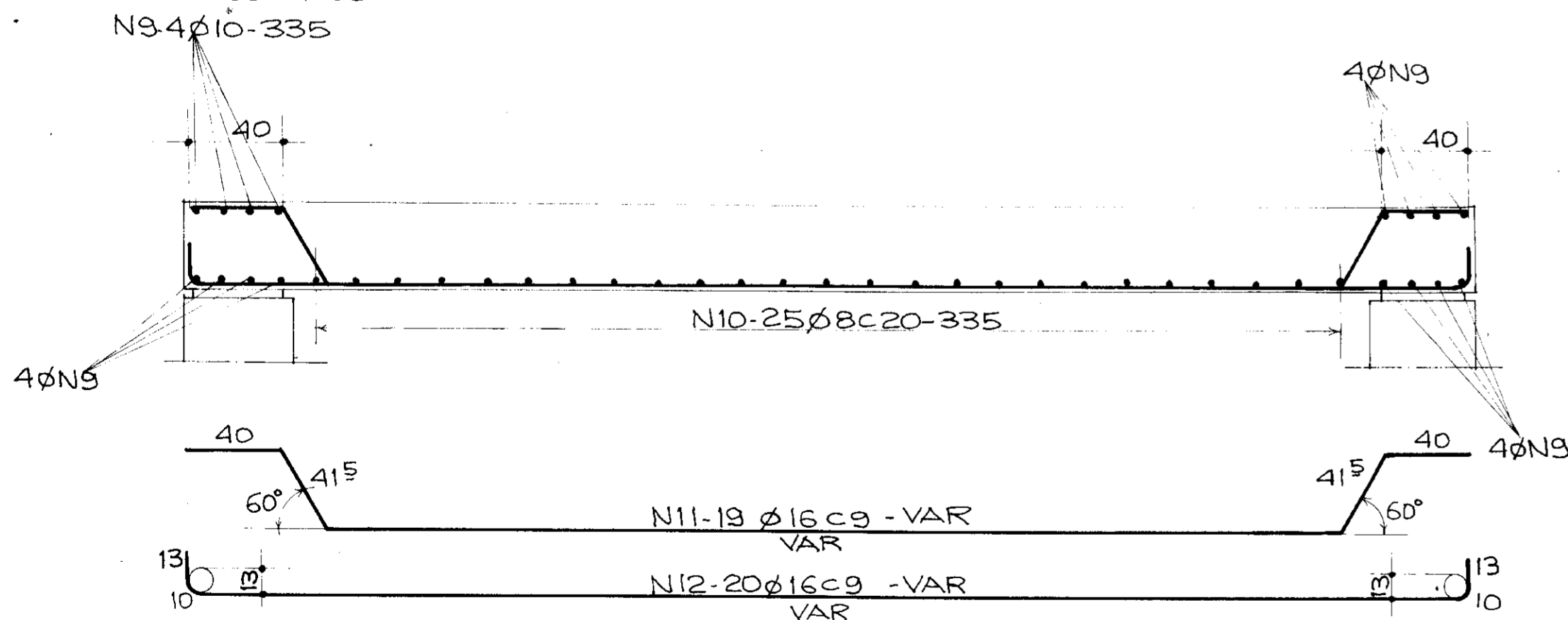
(4x) LAJE DO PONTILHÕES 1
ESC. 1:25



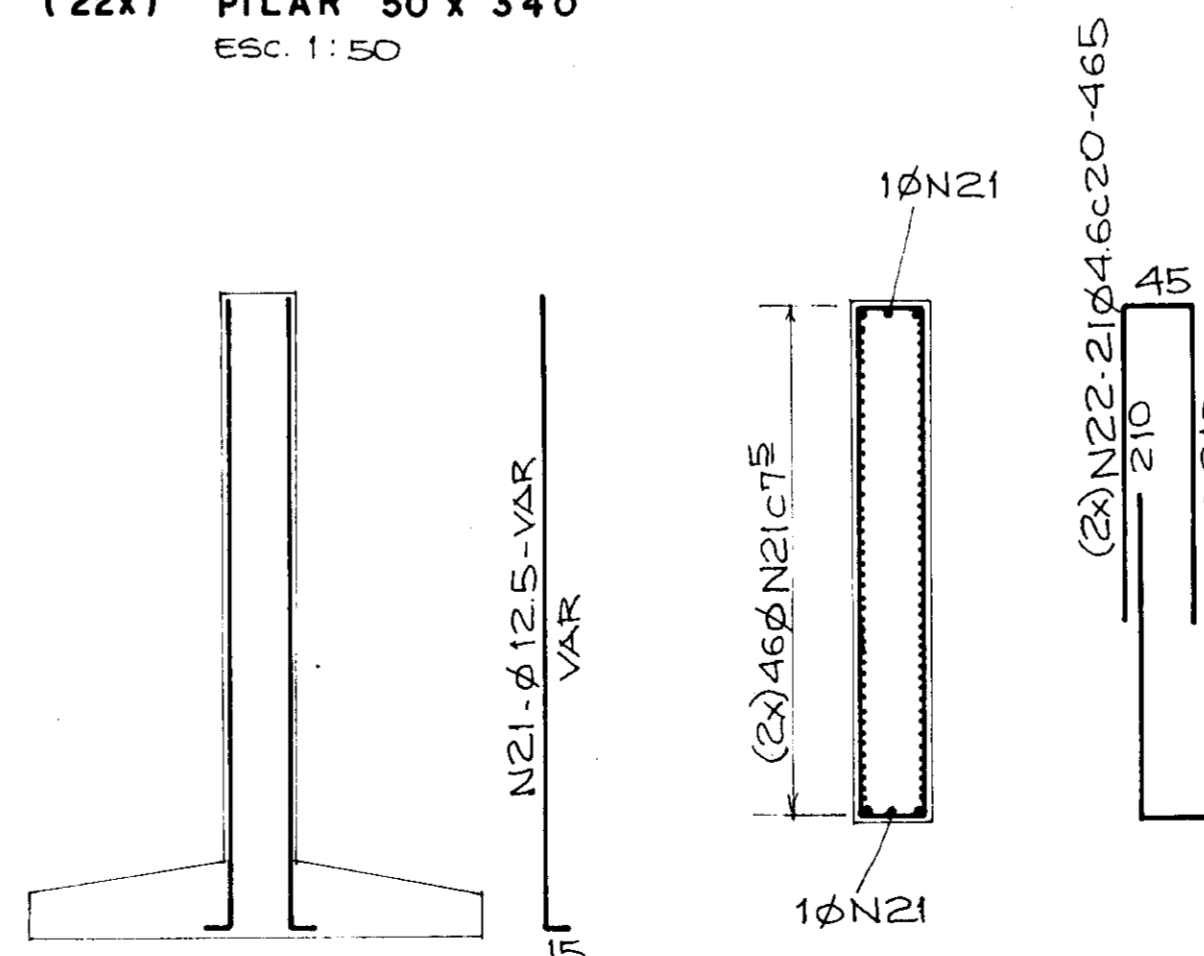
(6x) LAJE DO PONTILHÕES 2, 3 E 5
ESC. 1:25



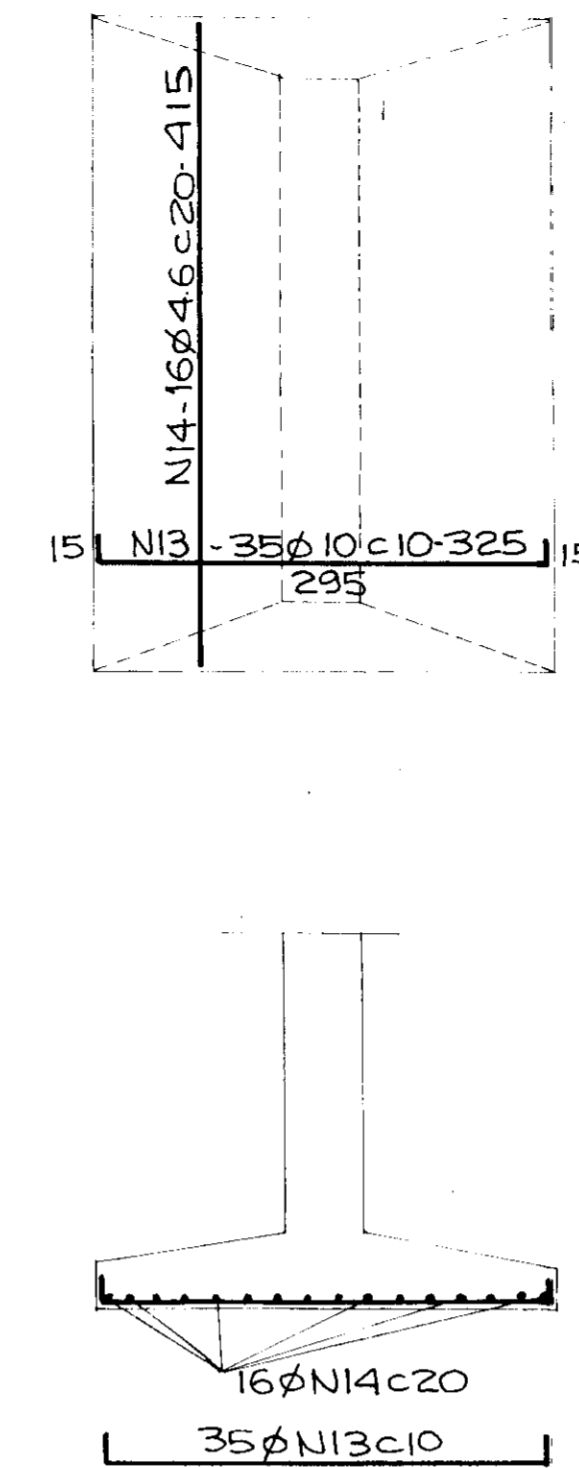
(1x) LAJE DO PONTILHÃO 4 E 6
ESC. 1:25



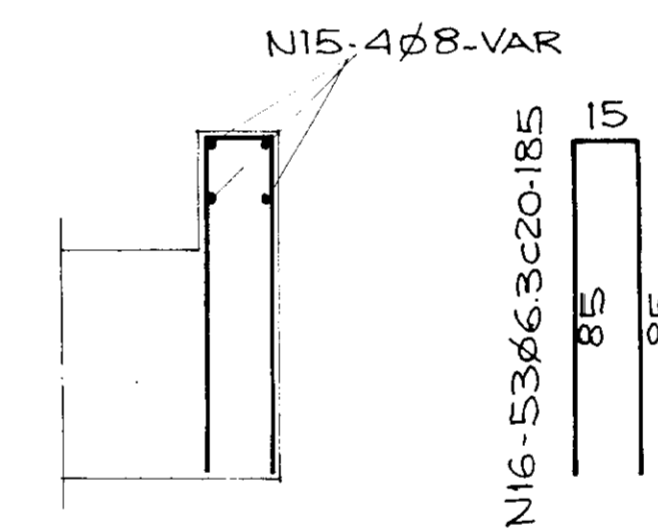
(22x) PILAR 50 x 340
ESC. 1:50



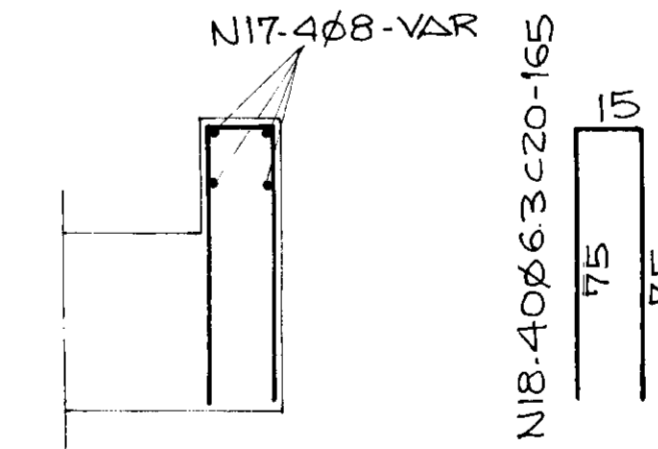
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ESC. 1:50



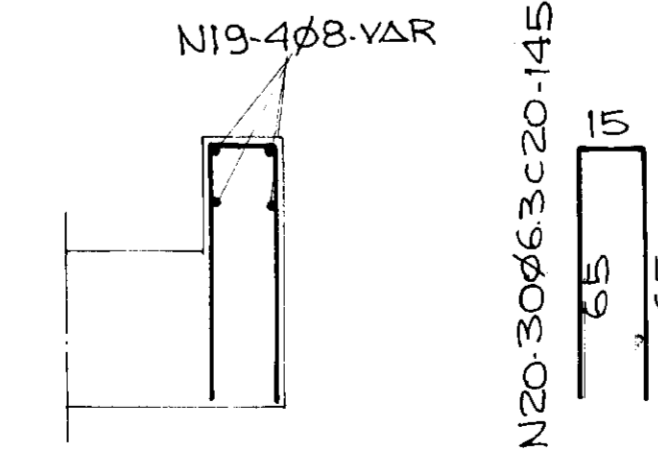
(8x) GUARDA RODA - PONTILHÕES 1
ESC. 1:20



(12x) GUARDA RODA - PONTILHÕES 2, 3 E 5
ESC. 1:20



(2x) GUARDA RODA - PONTILHÃO 4 E 6
ESC. 1:20



N	ϕ	QUANTIDADE	COMP	UNITÁRIO
1	12.5	80		335
2	8	184		335
3	20	88		VAR
4	20	92		VAR
5	10	96		335
6	8	204		335
7	16	132		VAR
8	16	138		VAR
9	10	16		335
10	8	25		335
11	16	19		VAR
12	16	20		VAR
13	10	770		325
14	4.6	352		415
15	8	32		VAR
16	6.3	424		185
17	8	48		VAR
18	6.3	480		165
19	8	8		VAR
20	6.3	60		145
21	12.5	2024		VAR
22	4.6	924		465

RESUMO

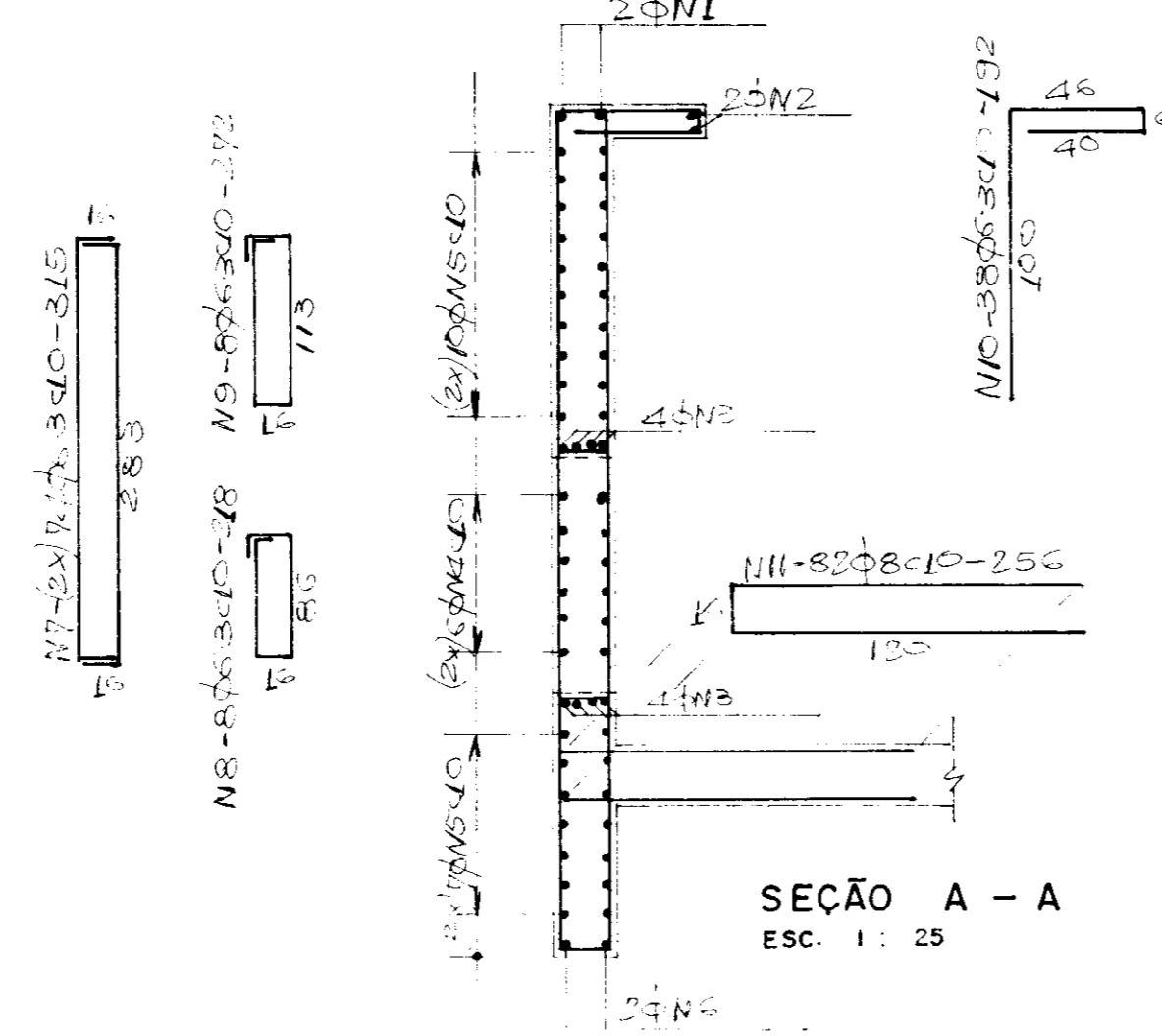
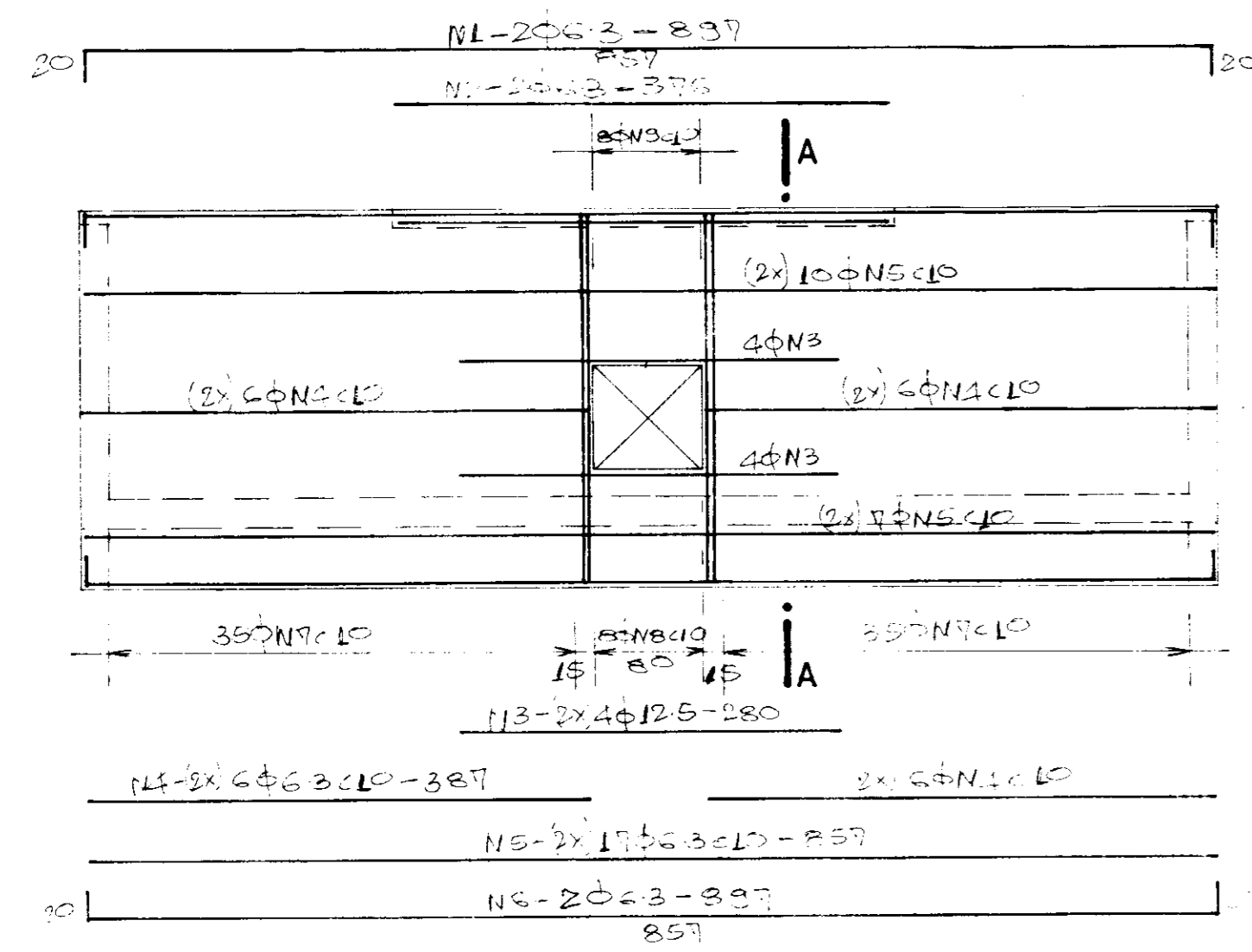
AÇO	ϕ	COMP TOTAL (m)	PESO (kg)
CA-60	46	5475,80	783
	6.3	1663,40	457
	8	2147,15	945
CA-50	10	2877,70	1934
	12.5	8667,60	9534
	16	2521,65	4438
	20	1986,96	5464
TOTAL			23615

fck = 15 MPa

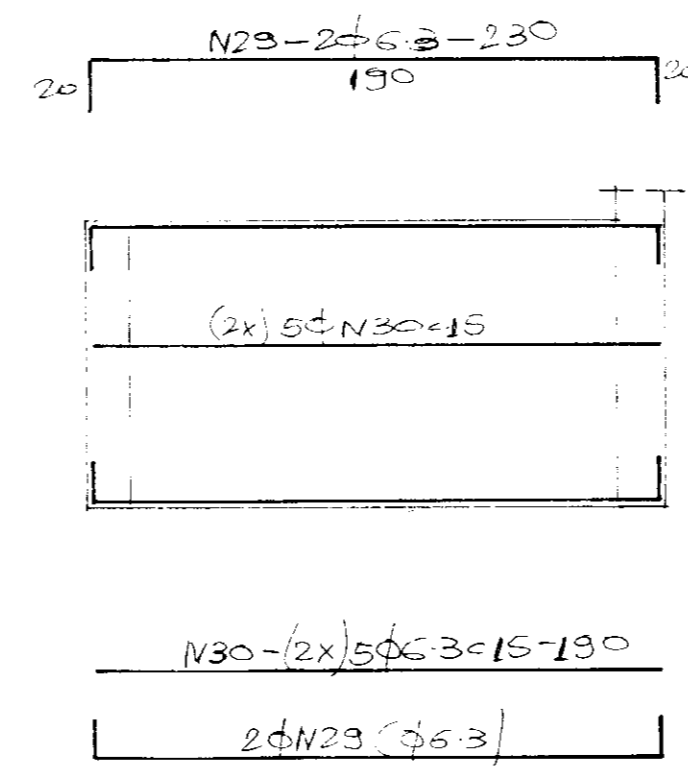
S 000005

PRONI		DNOCS	
PROGRAMA NACIONAL DE IRRIGAÇÃO		DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS	
Projeto	PLANO DE APROVEITAMENTO HIDROAGRICOLA DA CHAPADA DE IGUAU/ OROS E VARZEAS DE MONTANTE DO AÇUDE OROS	Visto	
Cálculo		Visto	
Desenho	MANCHA MOURA OBRAS HIDRÁULICAS	Visto	
Escola	OBRAS TIPO DE TRANSPOSIÇÃO - T	Aprova	
INDICADA	TIPO 3 - ESTRUTURA		
Nº	91/110	Data	MAIO/89
AGUASOLLOS CONSULTORA DE ENGENHARIA LTDA			

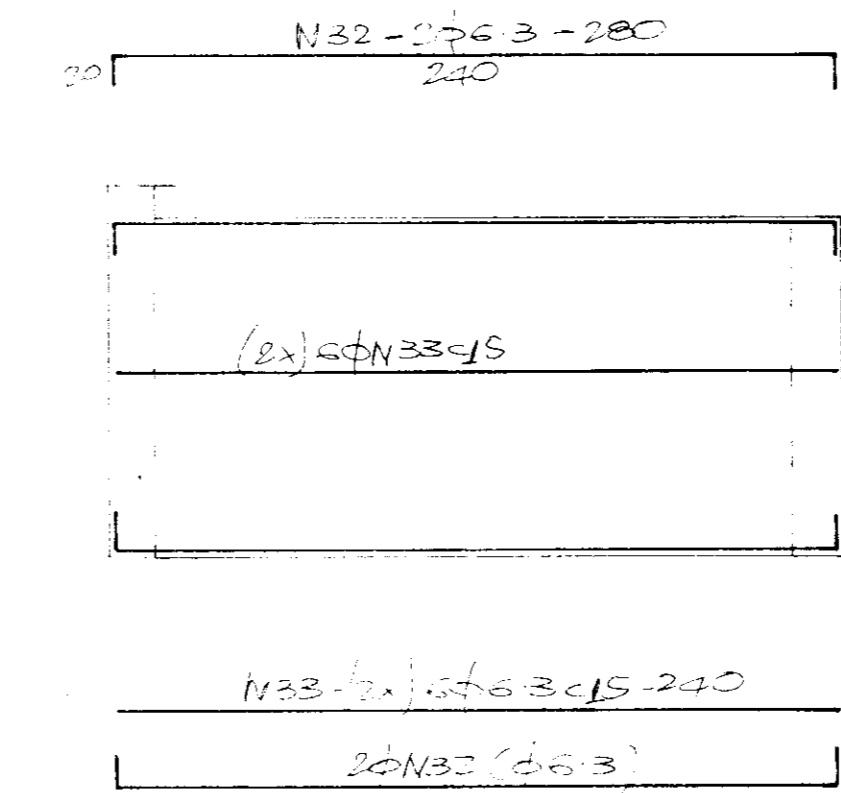
PAREDE 5
ESC. 1: 50



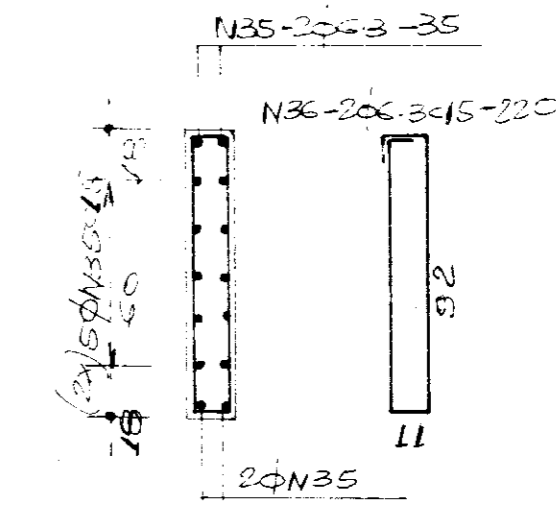
(2x) V1- 15 x 90
ESC. 1: 25



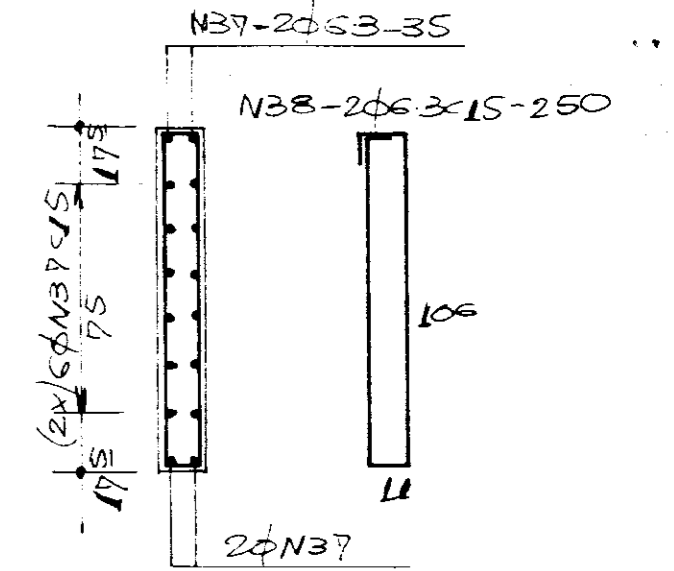
(2x) V2- 15 x 110
ESC. 1: 25



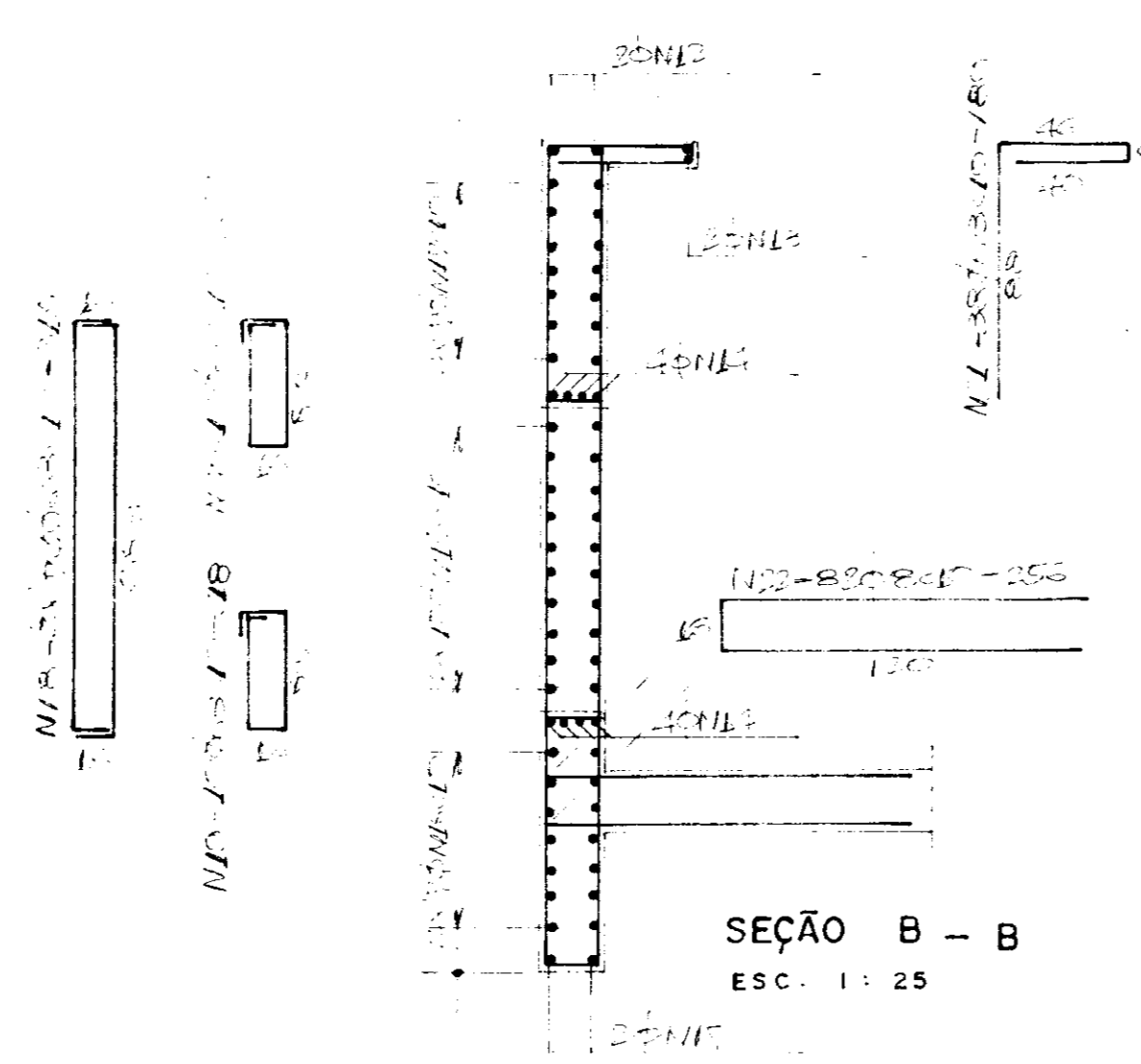
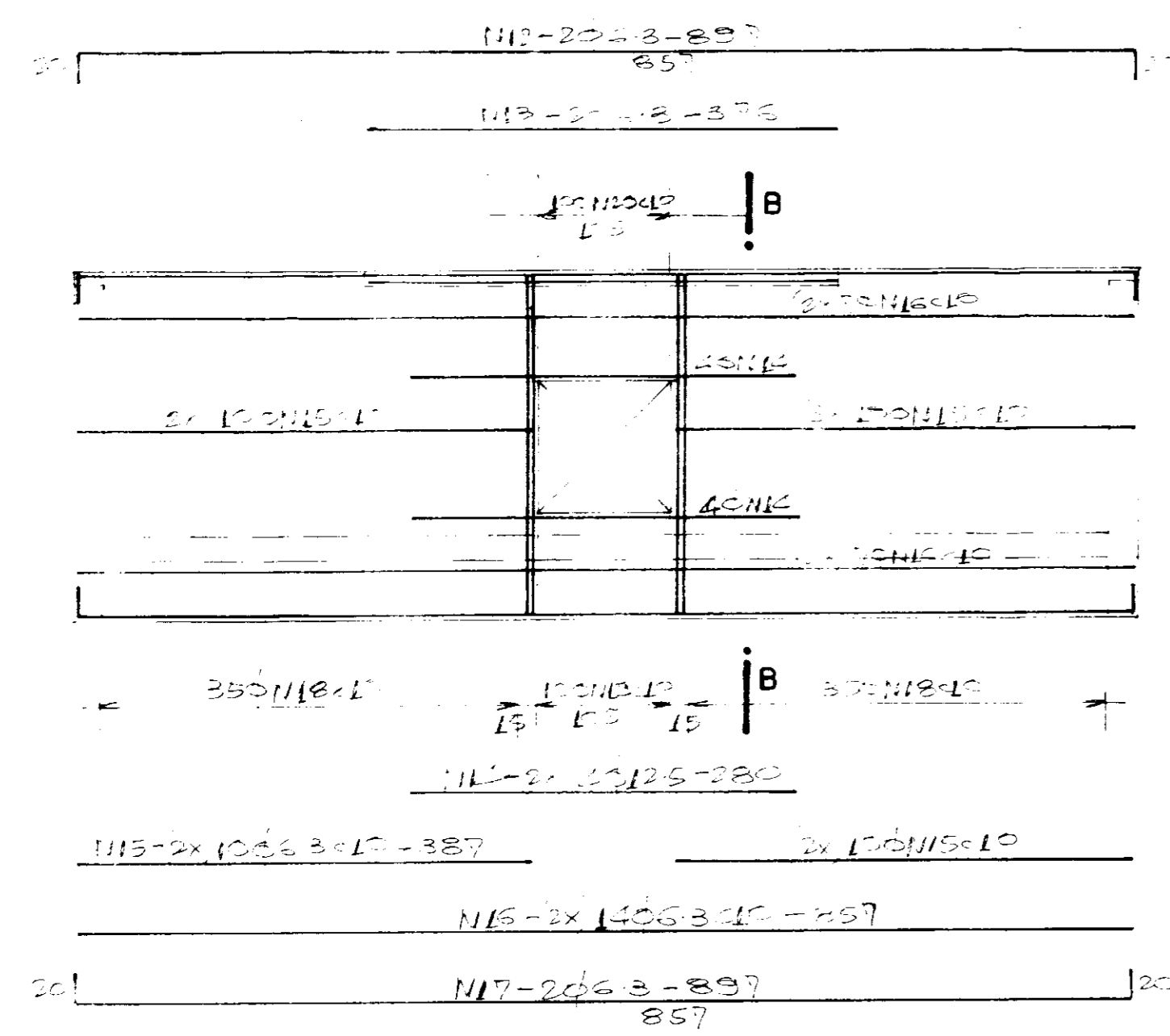
V4- 15 x 96
ESC. 1: 25



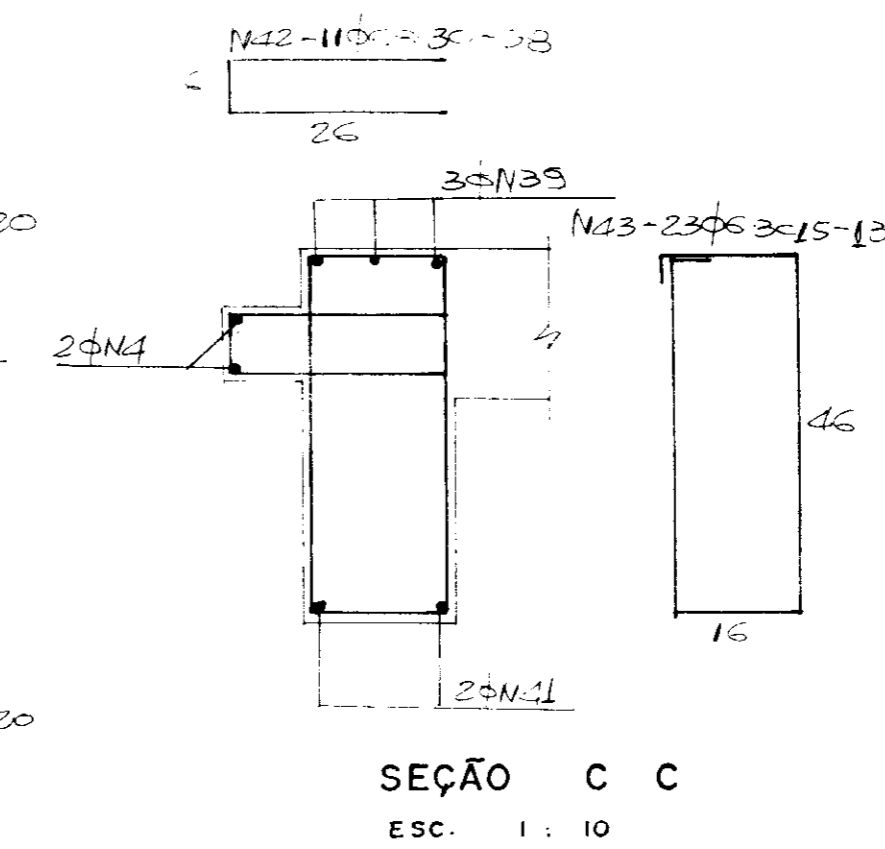
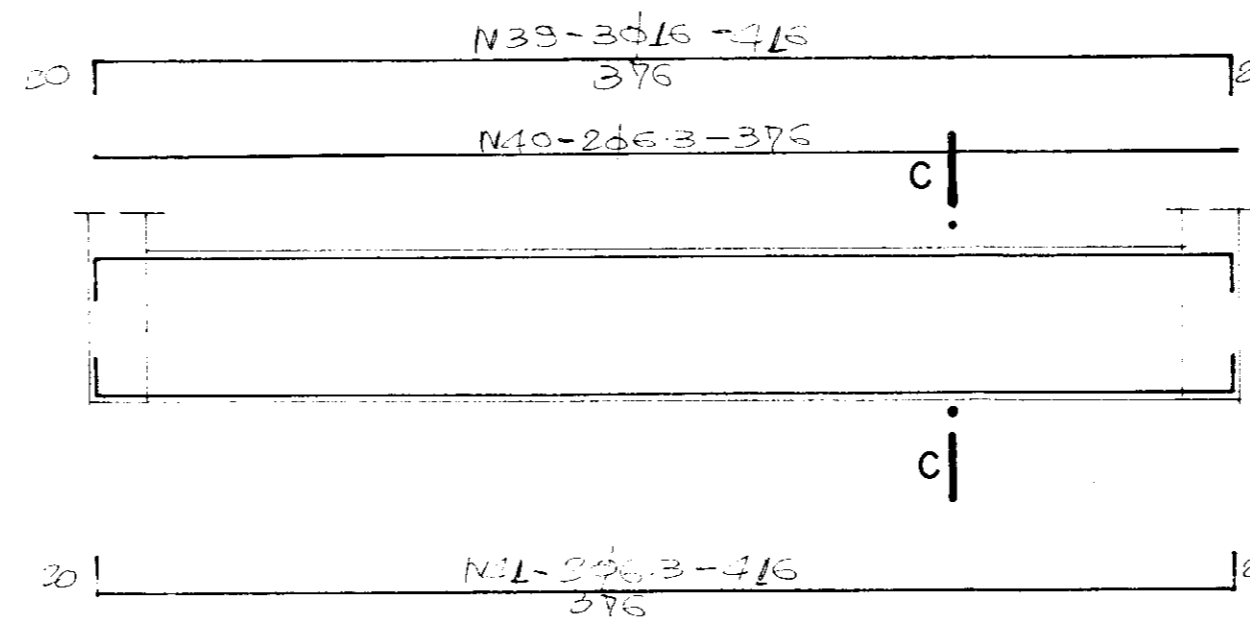
V5- 15 x 110
ESC. 1: 25



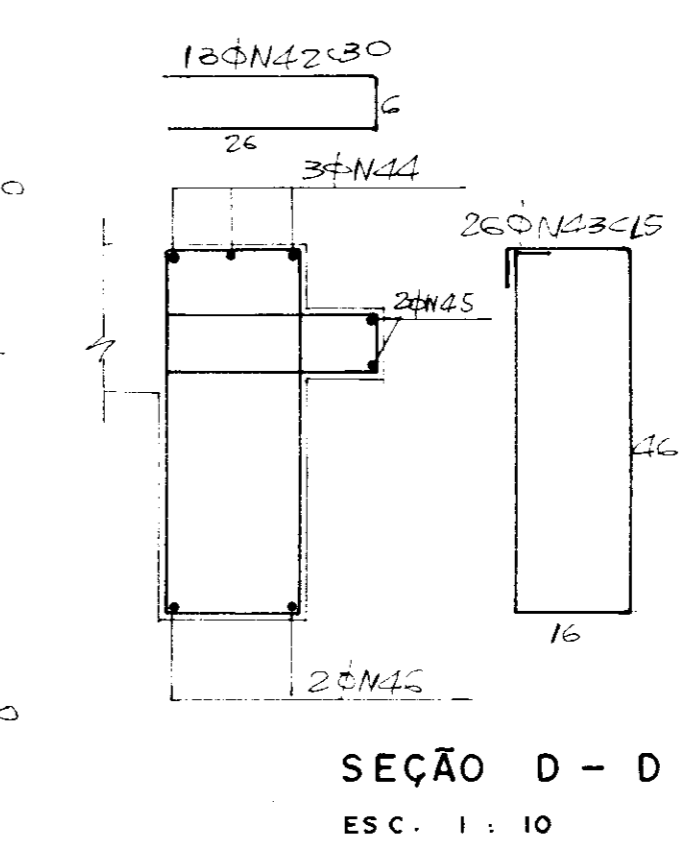
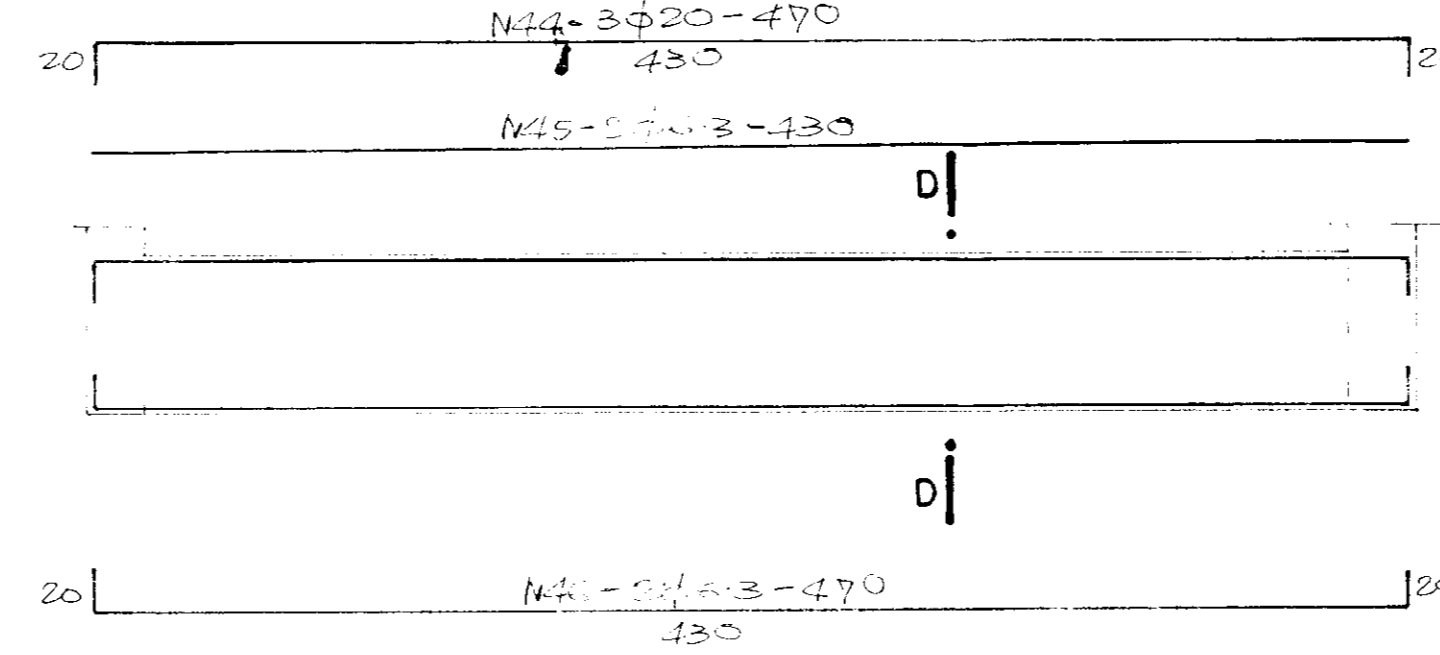
PAREDE 6
ESC. 1: 50



V3- 20 x 50
ESC. 1: 25



V6- 20 x 50
ESC. 1: 25



N	QUANTIDADE	COMPRIMENTO
1	2	897
2	2	376
3	8	280
4	24	387
5	34	897
6	2	897
7	148	315
8	8	218
9	8	272
10	8	132
11	8	132
12	2	897
13	2	376
14	40	387
15	2	897
16	2	897
17	2	897
18	12	315
19	10	118
20	10	222
21	30	180
22	8	250
23	12	314

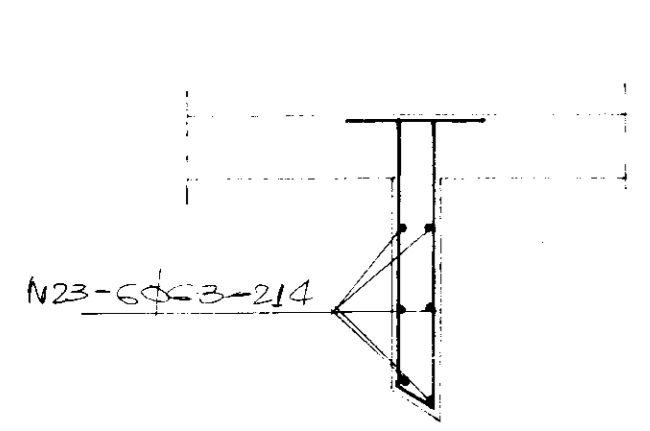
24	2	28	130
25	11	28	131
26	11	10	214
27	11	28	131
28	11	28	131
29	11	8	230
30	11	20	130
31	11	20	220
32	11	8	280
33	11	24	240
34	11	28	250
35	11	14	35
36	11	2	220
37	11	16	35
38	11	2	250
39	16	3	416
40	63	2	376
41	7	3	416
42	11	24	58
43	11	43	138
44	20	3	470
45	63	2	430
46	11	2	470

RESUMO

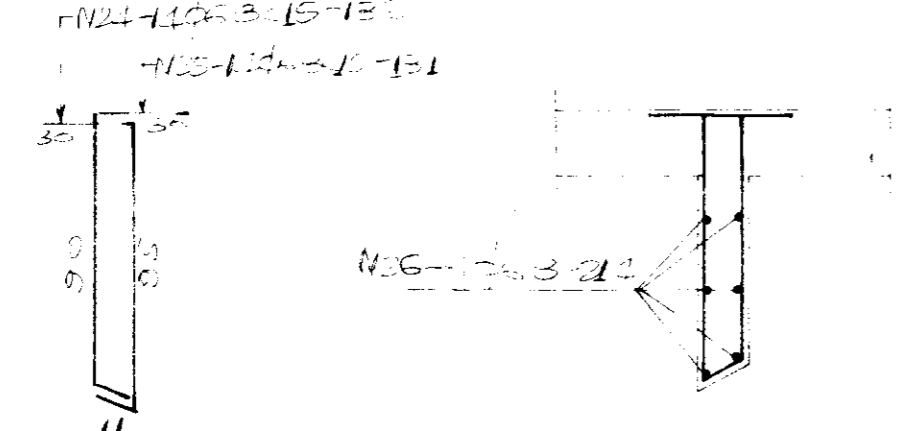
ACC	QTD TOTAL	PESO
63	20394	551.24
8	2198	168.77
123	2280	45.77
16	1228	35.77
30	1510	35.77
PESO TOTAL		837.31

fck = 15MPa

(2x) PAREDE 4
ESC. 1: 25



(2x) PAREDE 7
ESC. 1: 25



00006

PRONI **DNOCS**
PROGRAMA NACIONAL DE IRRIGAÇÃO DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS

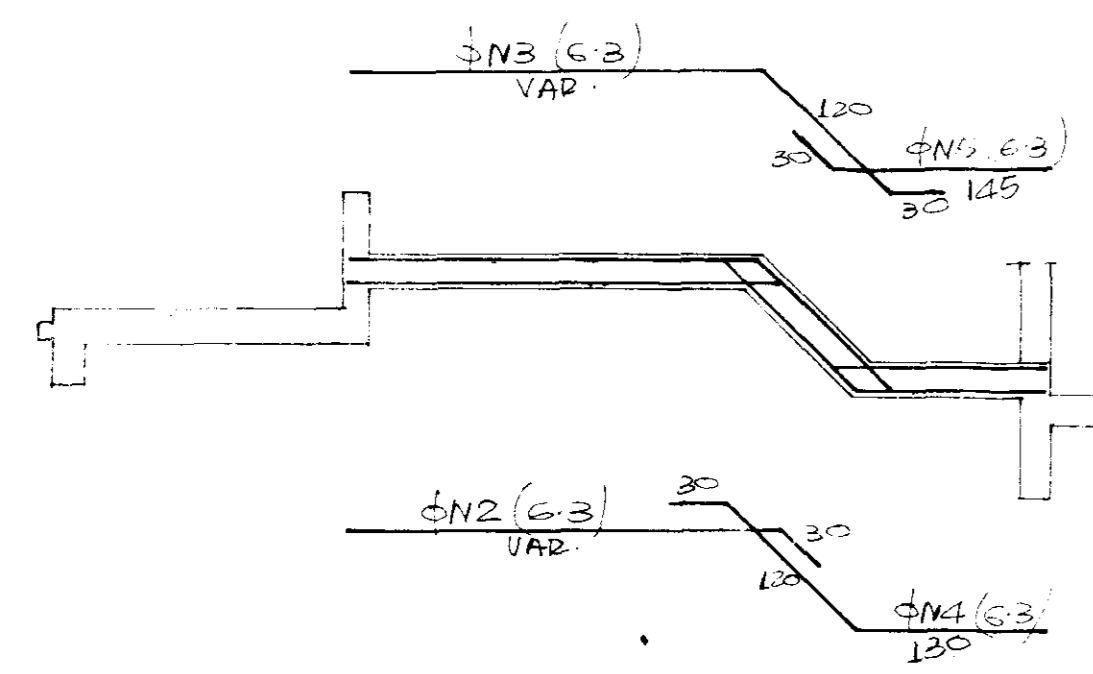
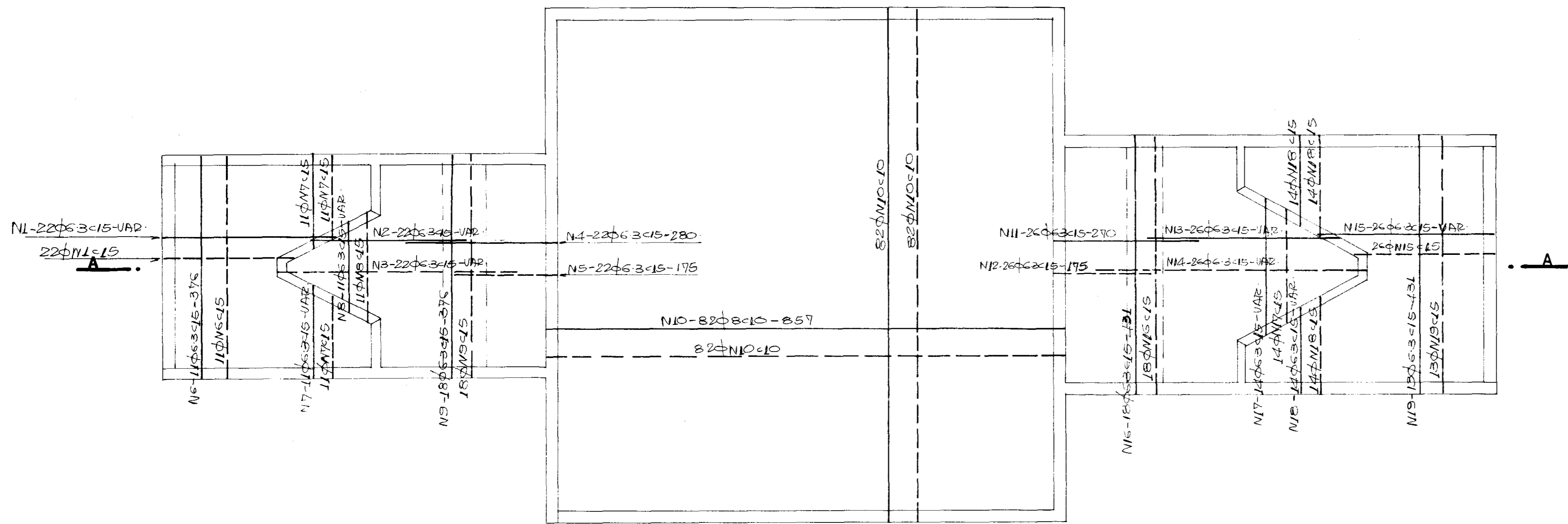
PLANO DE APROVEITAMENTO HIDROAGRÍCOLA DA CHAPADA DE IGUATU / ORÓS E VÁRZEAS DE MONTANTE DO AÇUDE ORÓS

MANCHA MOURA
OBRAS HIDRÁULICAS
OBRA ESPECIAL DE MEDIÇÃO-M-01
ESTRUTURA

Projeto: _____ Visto: _____
Cálculo: _____ Visto: _____
Desenho: _____ Visto: _____
Escala: INDICADA APROVO: _____
Nº 93/110 AQUASOL CONSULTORA DE ENGENHARIA LTDA. DATA: _____

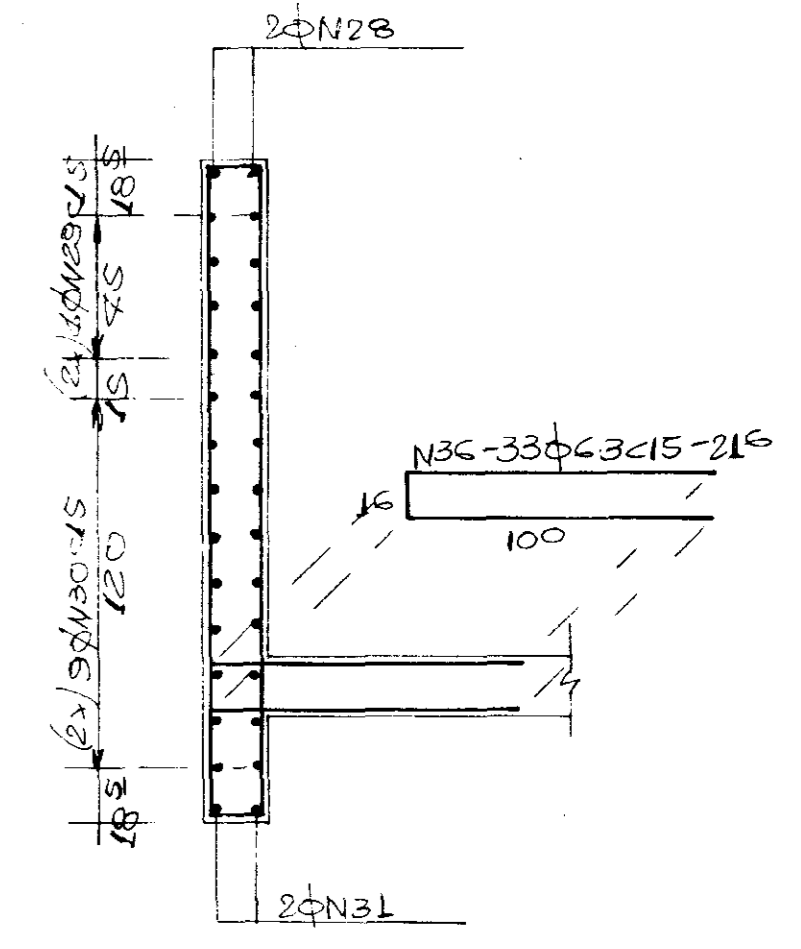
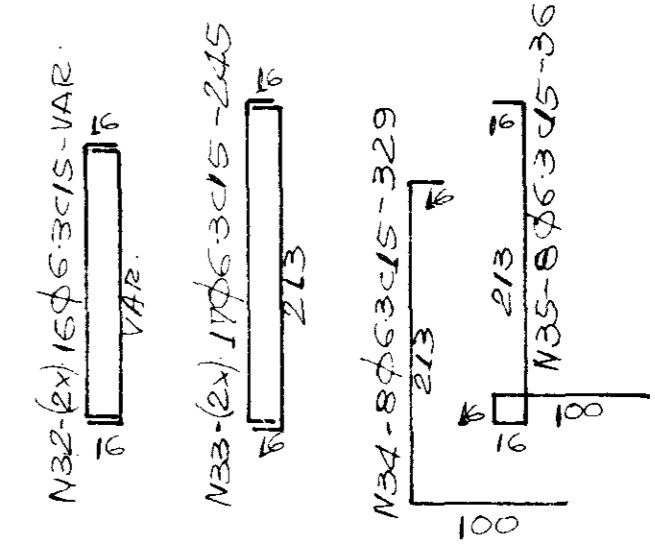
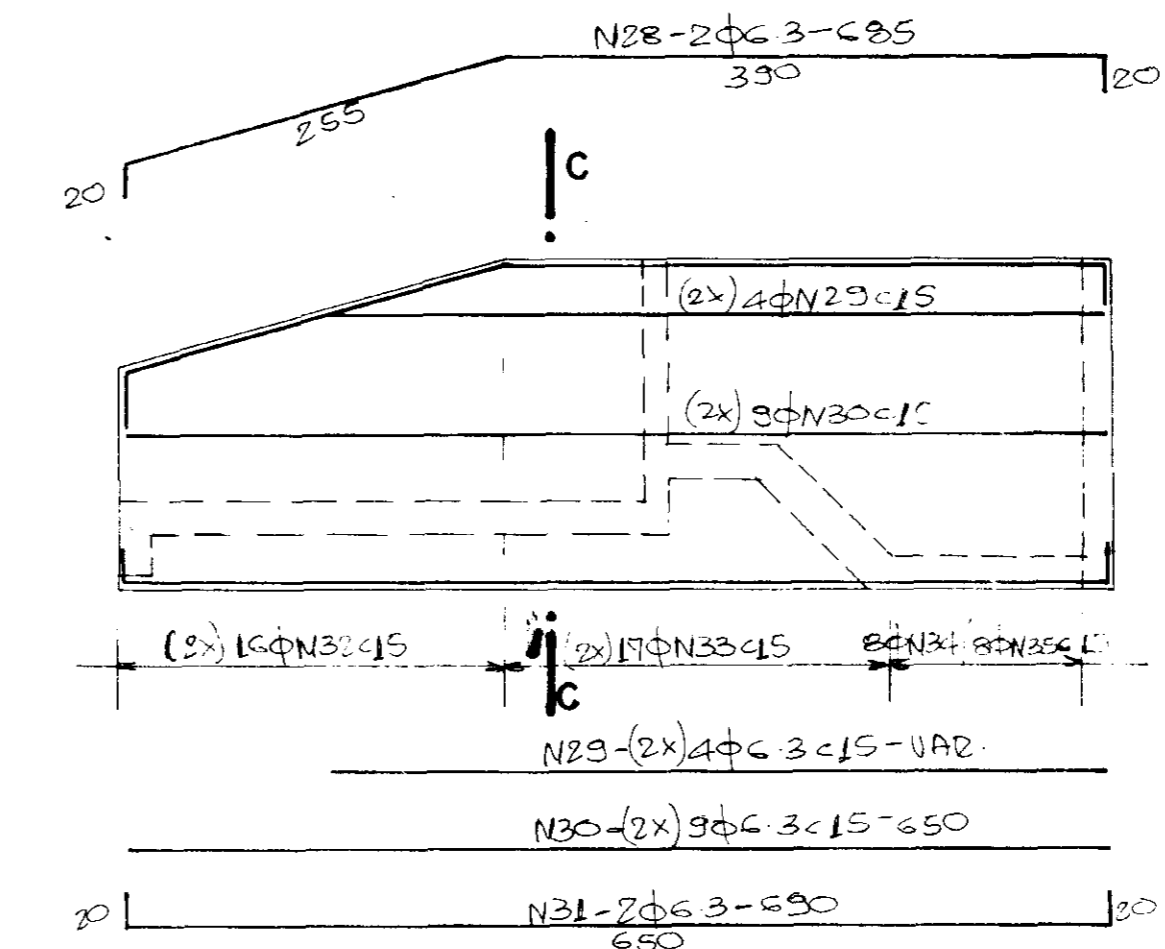
ARMADURA DA LAJE DO FUNDO

ESC. 1: 50



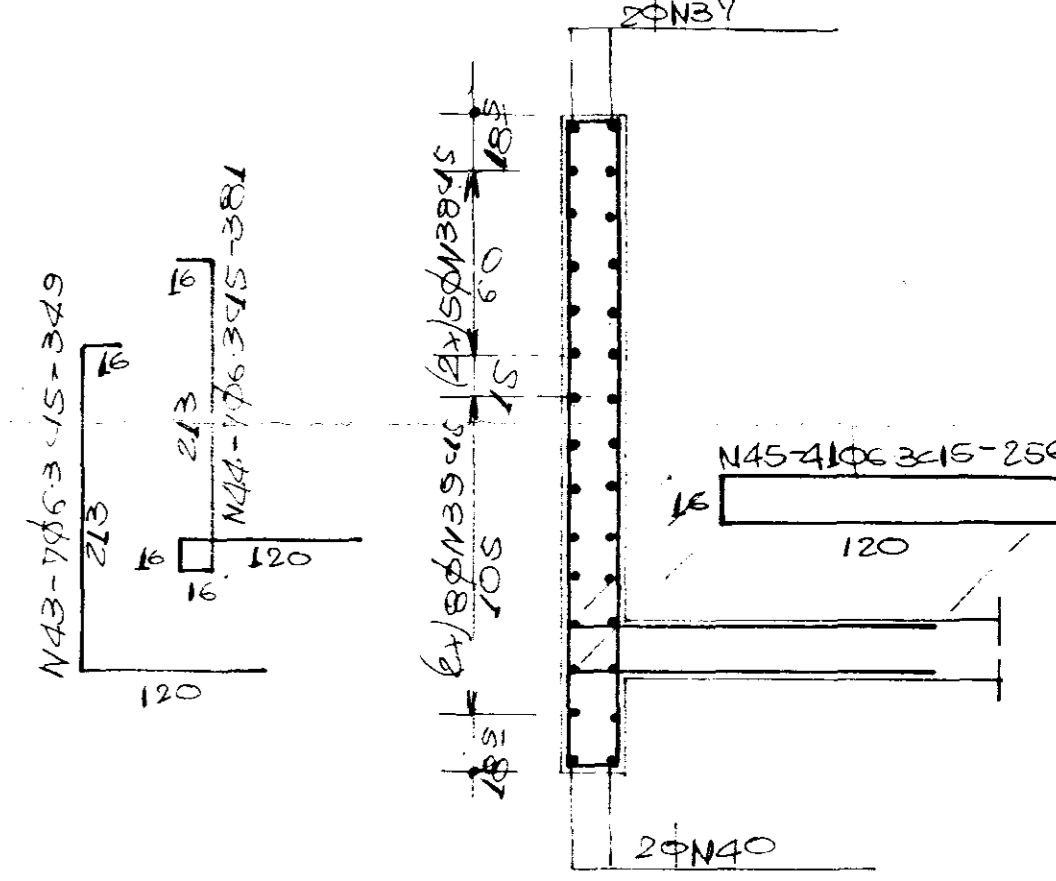
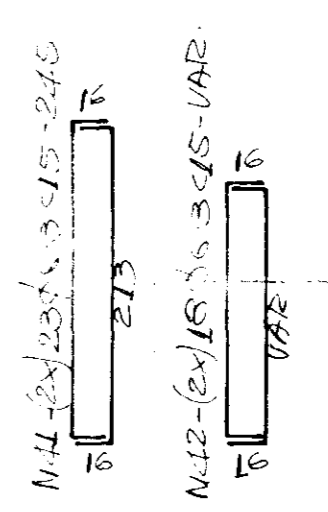
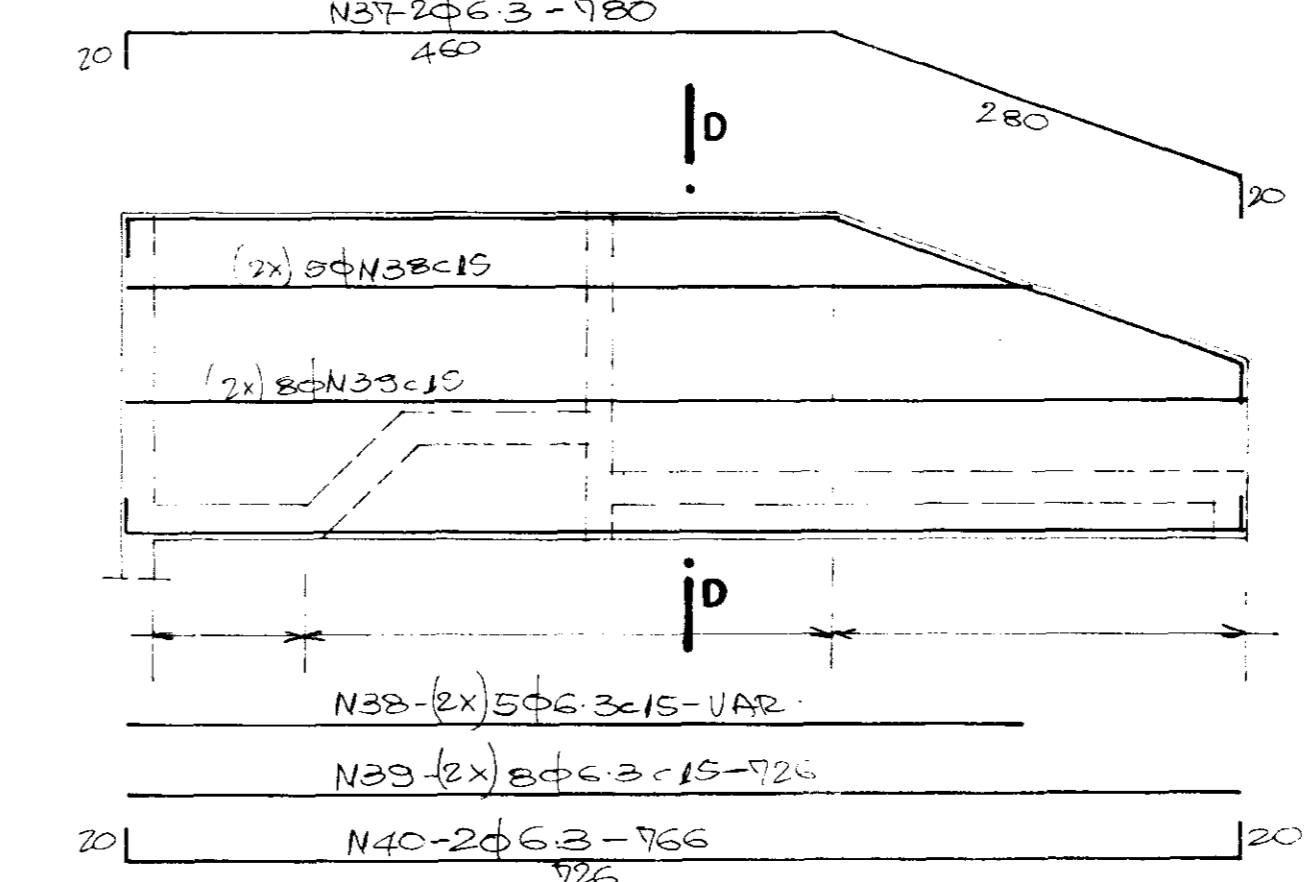
SEÇÃO A - A
ESC. 1: 50

(2x) PAREDE 2
ESC. 1: 50



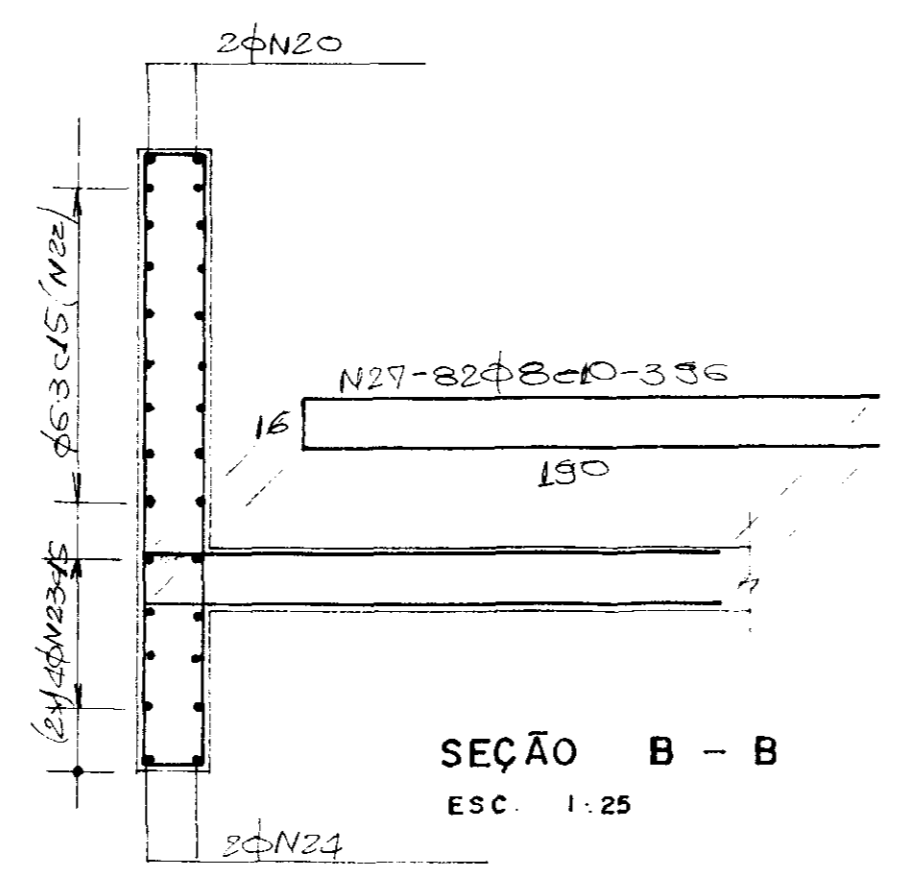
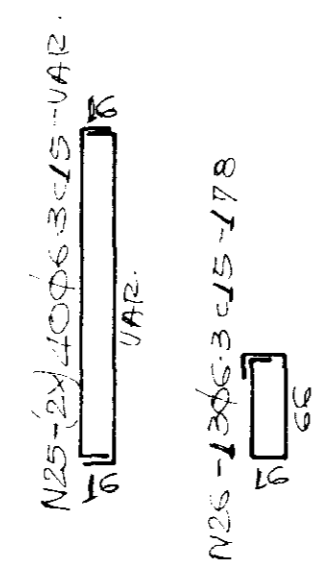
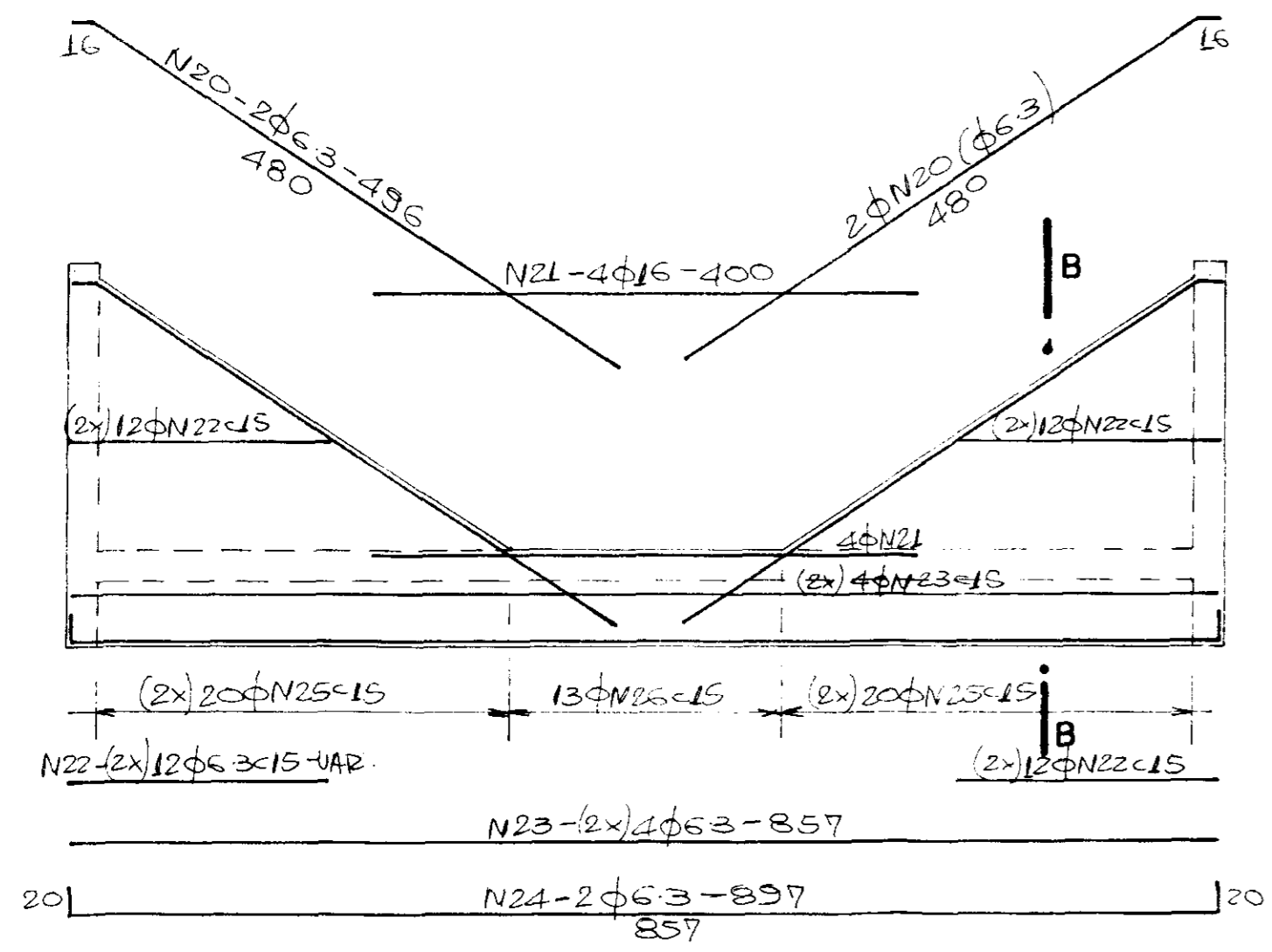
SEÇÃO C - C
ESC. 1: 25

(2x) PAREDE 3
ESC. 1: 50



SEÇÃO D - D
ESC. 1: 25

(2x) PAREDE 1
ESC. 1: 50



SEÇÃO B - B
ESC. 1: 25

N	C	QUANTIDADE	COMPARTIMENTO UNITARIO
1	63	44	VAR.
2	16	22	VAR.
3	16	22	VAR.
4	16	22	VAR.
5	16	22	VAR.
6	16	22	VAR.
7	16	22	VAR.
8	16	22	VAR.
9	16	22	VAR.
10	16	22	VAR.
11	16	22	VAR.
12	16	22	VAR.
13	16	22	VAR.
14	16	22	VAR.
15	16	22	VAR.
16	16	22	VAR.
17	16	22	VAR.
18	16	22	VAR.
19	16	22	VAR.
20	16	22	VAR.
21	16	22	VAR.
22	16	22	VAR.

23	63	16	857
24	16	4	897
25	16	160	VAR.
26	16	26	178
27	63	164	396
28	63	4	685
29	16	16	VAR.
30	16	18	650
31	16	2	690
32	16	44	VAR.
33	16	68	225
34	16	16	329
35	16	16	361
36	16	35	216
37	16	4	780
38	16	20	VAR.
39	16	32	726
40	16	4	766
41	16	92	235
42	16	72	VAR.
43	16	14	349
44	16	14	381
45	16	82	256

RESUMO

AÇO	φ	C-TOTAL	PESO
63		123682	1059 kg
16		34040	1384 kg
		3200	51 kg
PESO TOTAL			2494 kg

fck = 15 MPa

000007

PRONI DNOCS
PROGRAMA NACIONAL DE IRRIGAÇÃO DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS

Projeto: _____ Visto: _____
Cálculo: _____ Visto: _____
Desenho: _____ Visto: _____
Escala: _____ Visto: _____
Indicada: _____ Visto: _____

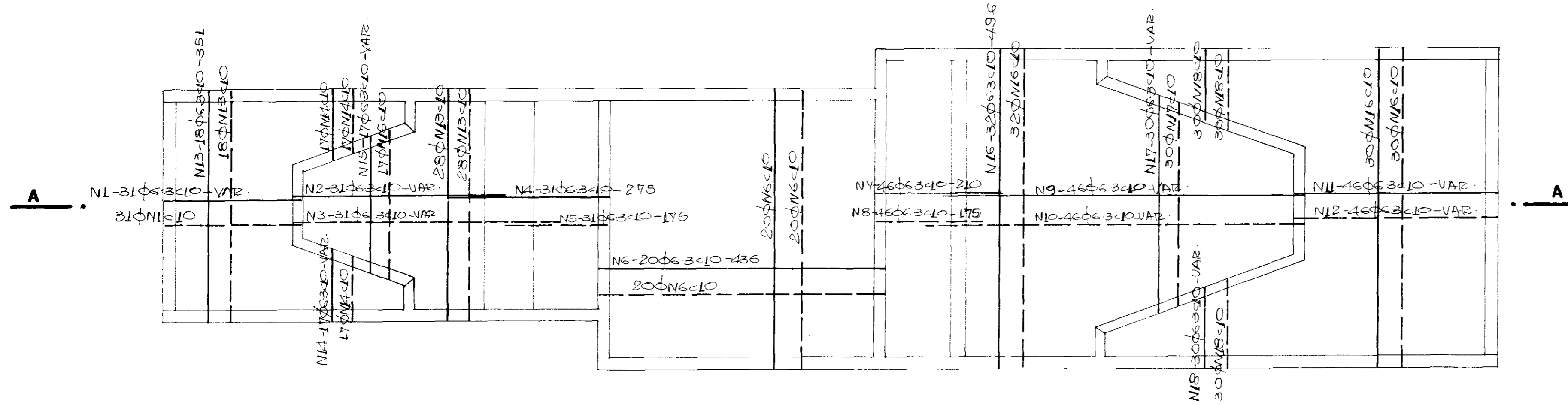
PLANO DE APROVEITAMENTO HIDROAGRICOLA DA CHAPADA DE IGATU / OROS E VARZEAS DE MONTANTE DO ACUDE OROS

MANCHA MOURA OBRAS HIDRAULICAS OBRA ESPECIAL DE MEDICAO-M-01 ESTRUTURA

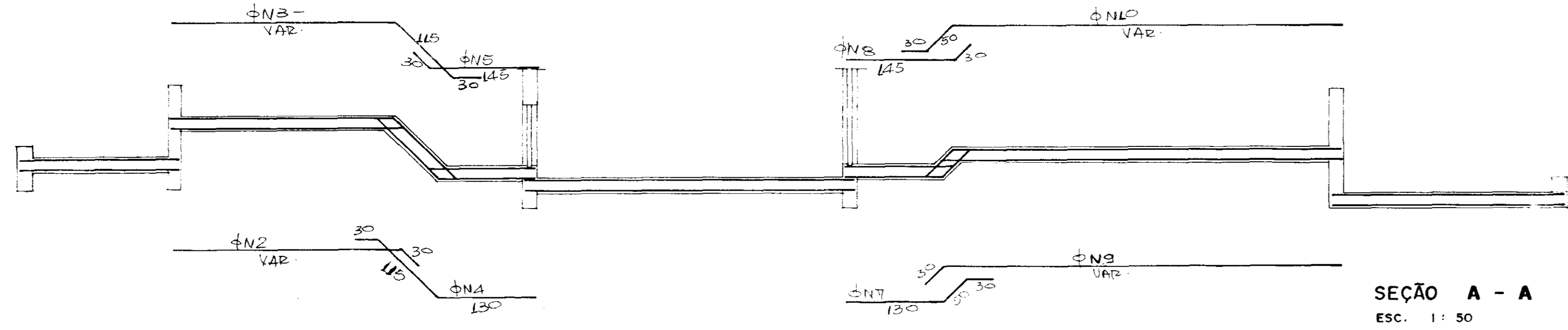
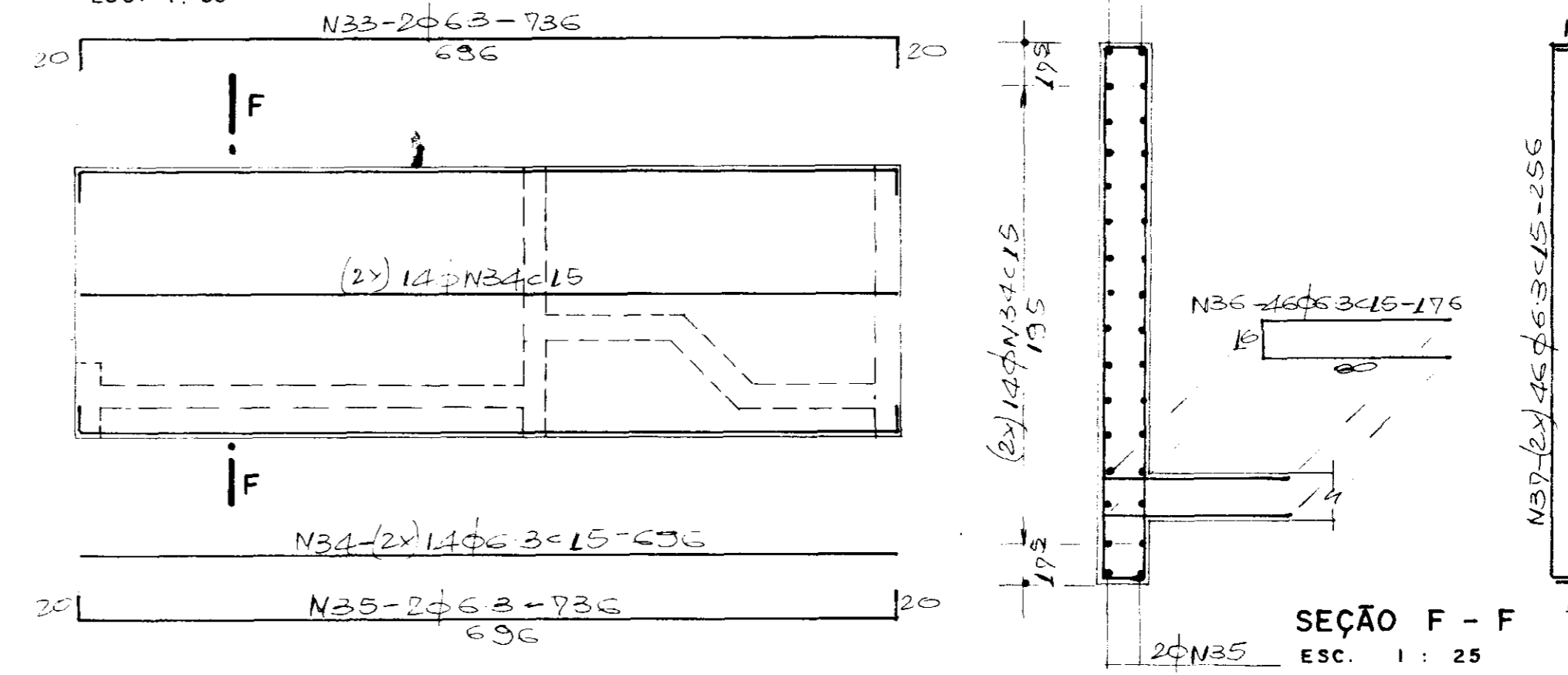
APROVADO: _____ DATA: _____

94/110 AGUASOLOS CONSULTORA DE ENGENHARIA LTDA

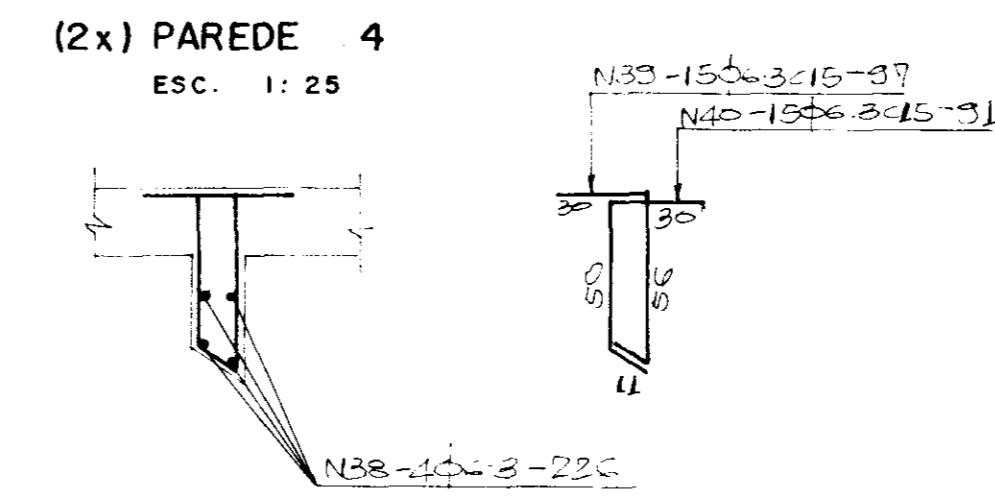
ARMADURA DA LAJE DO FUNDO
Esc. 1:50



PAREDE 3
Esc. 1:50



(2x) PAREDE 4
Esc. 1:25



N	φ	QUANTIDADE	COMPRIMENTOS UNITÁRIOS
1	3	42	VAR.
2	7	31	VAR.
3	7	32	VAR.
4	7	31	275
5	7	31	175
6	7	80	436
7	7	46	210
8	7	46	175
9	7	46	VAR.
10	7	46	VAR.
11	7	46	VAR.
12	7	46	VAR.
13	7	46	351
14	7	46	46
15	7	32	VAR.
16	7	122	436
17	7	20	VAR.
18	7	120	VAR.
19	7	4	1016
20	7	62	876
21	7	4	1016

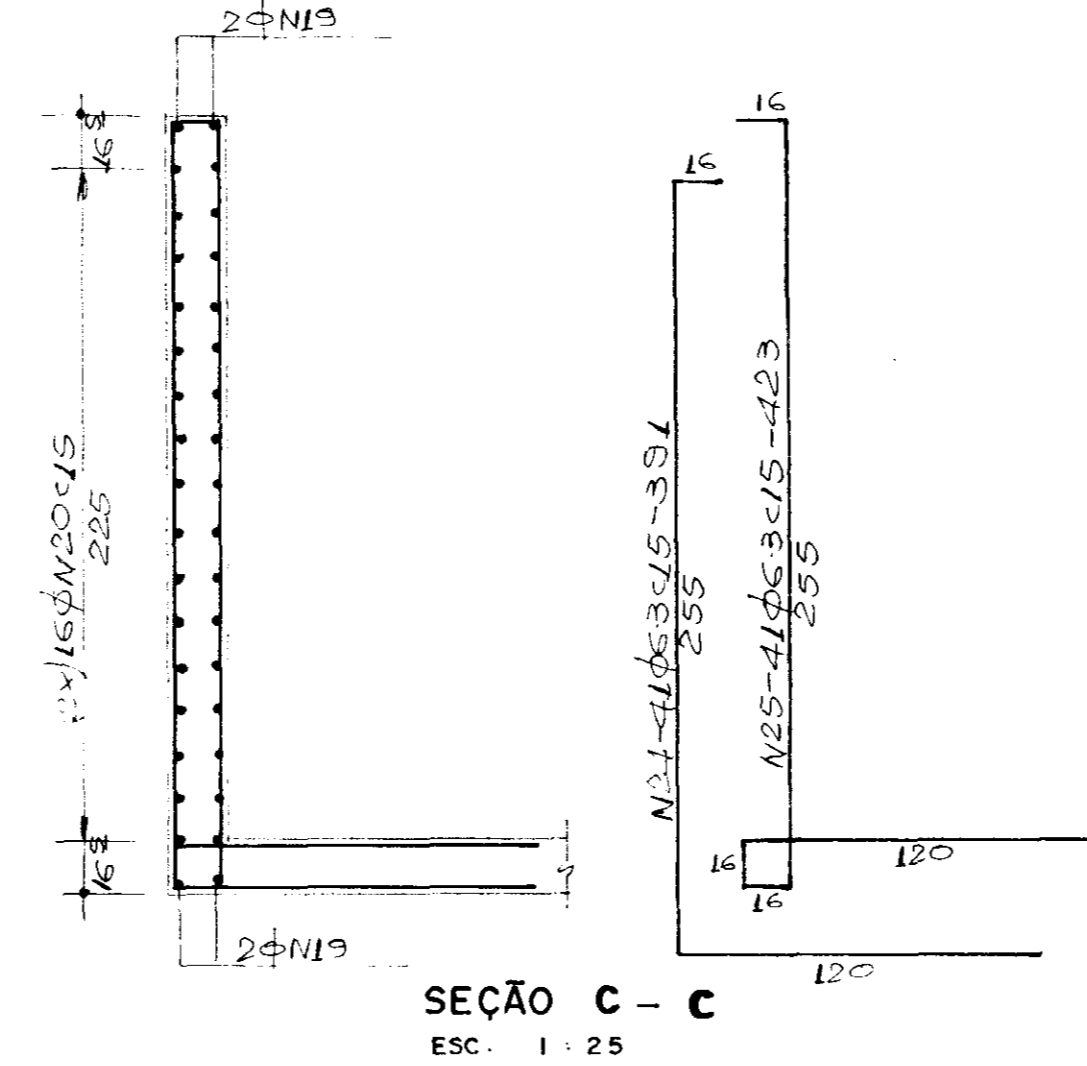
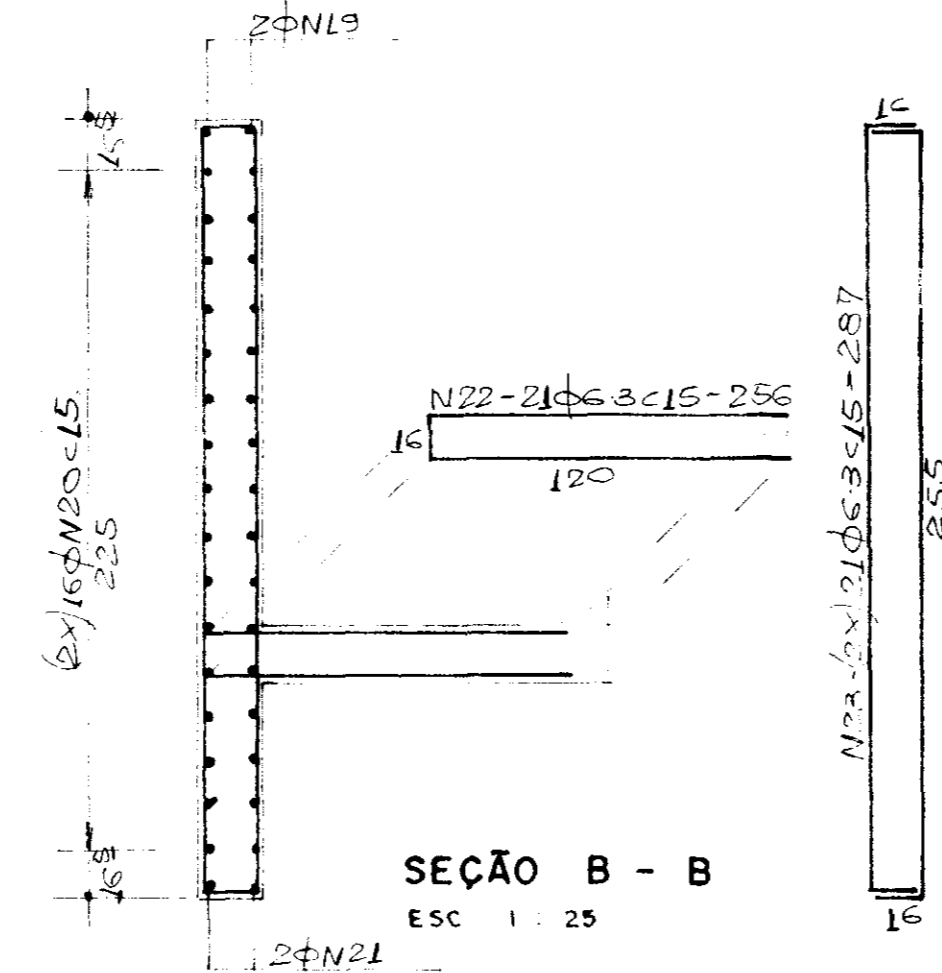
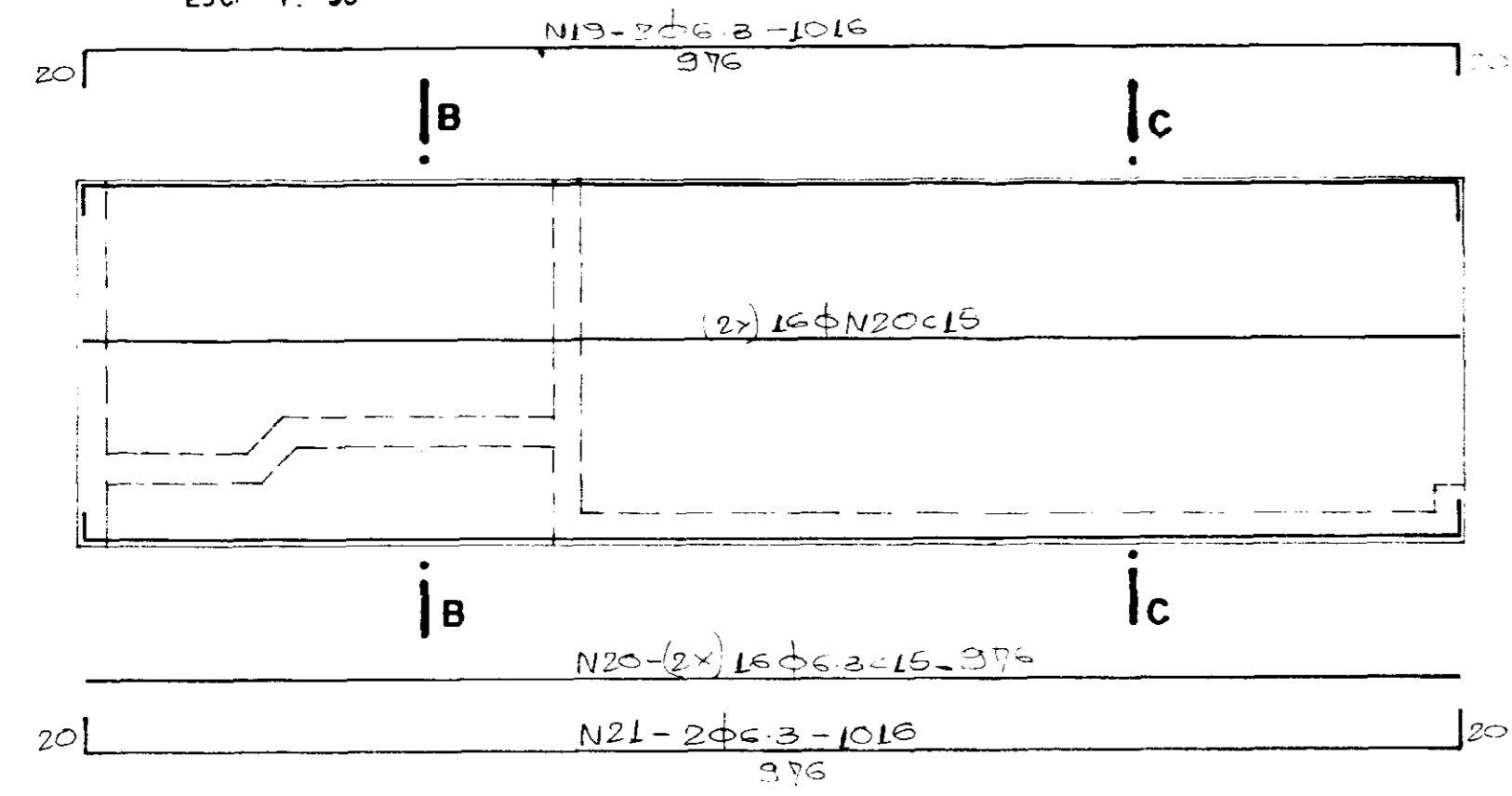
22	6.3	42	266
23	7	84	287
24	7	82	331
25	7	82	423
26	7	2	1156
27	7	28	1116
28	7	2	1156
29	7	46	176
30	7	32	258
31	7	27	322
32	7	28	354
33	7	2	736
34	7	28	636
35	7	2	736
36	7	46	176
37	7	3	236
38	7	8	226
39	7	30	37
40	7	30	37
41	7	8	255
42	7	34	31
43	7	34	37

RESUMO

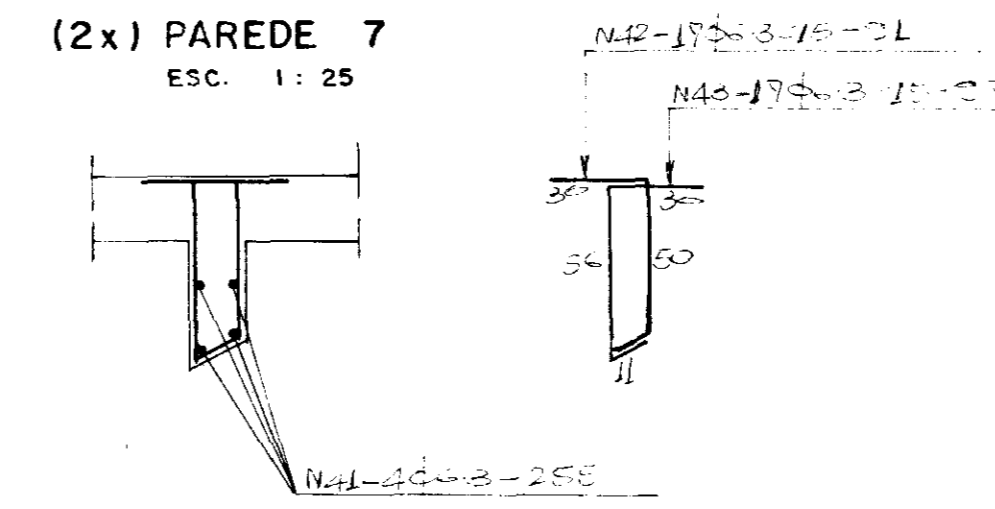
TIPO	QUANTIDADE	PESO
ARMADURA	165012	

fck = 15MPa

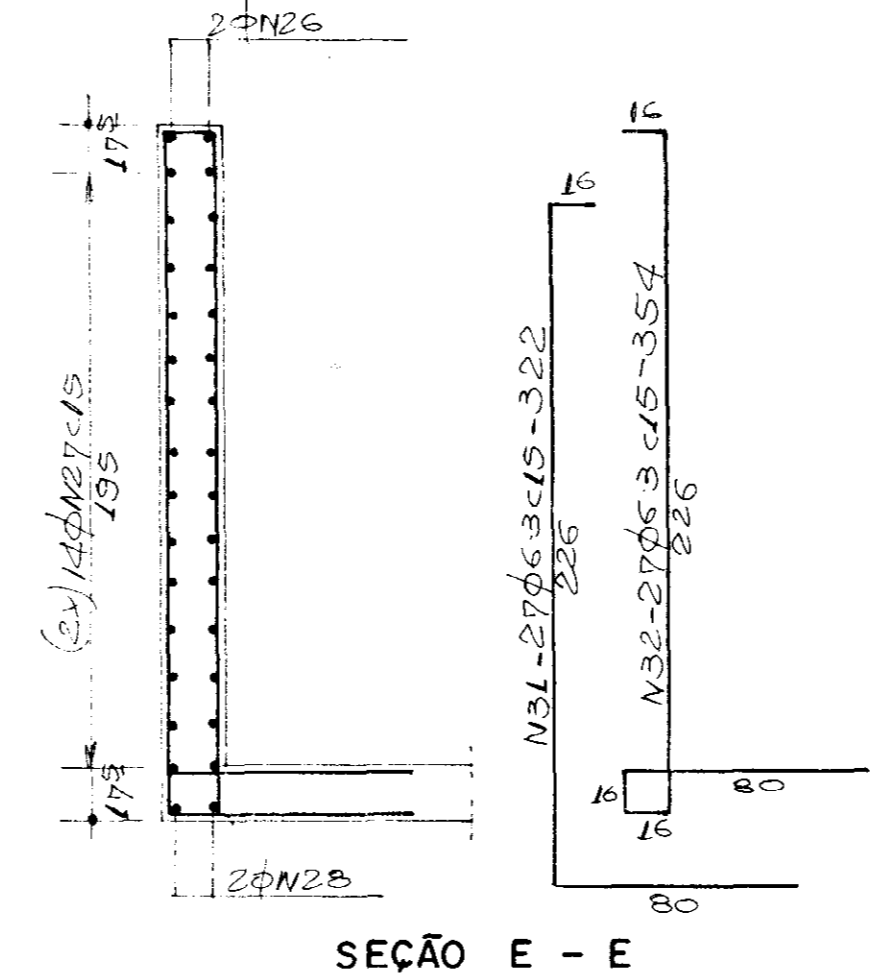
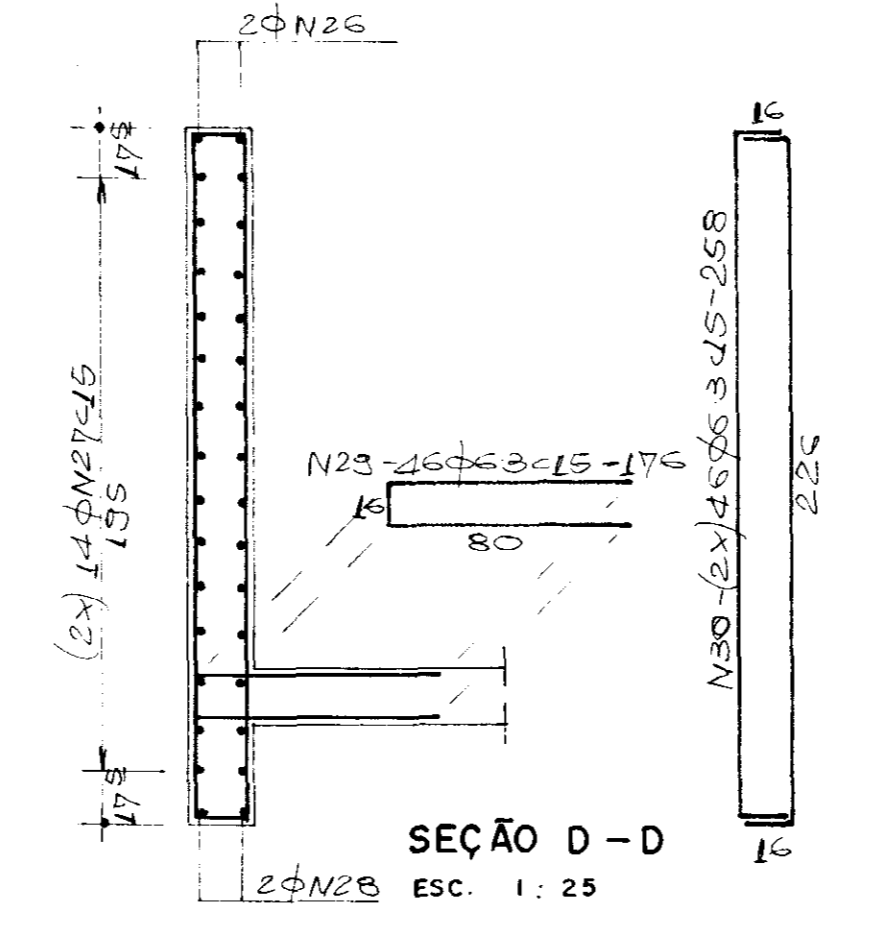
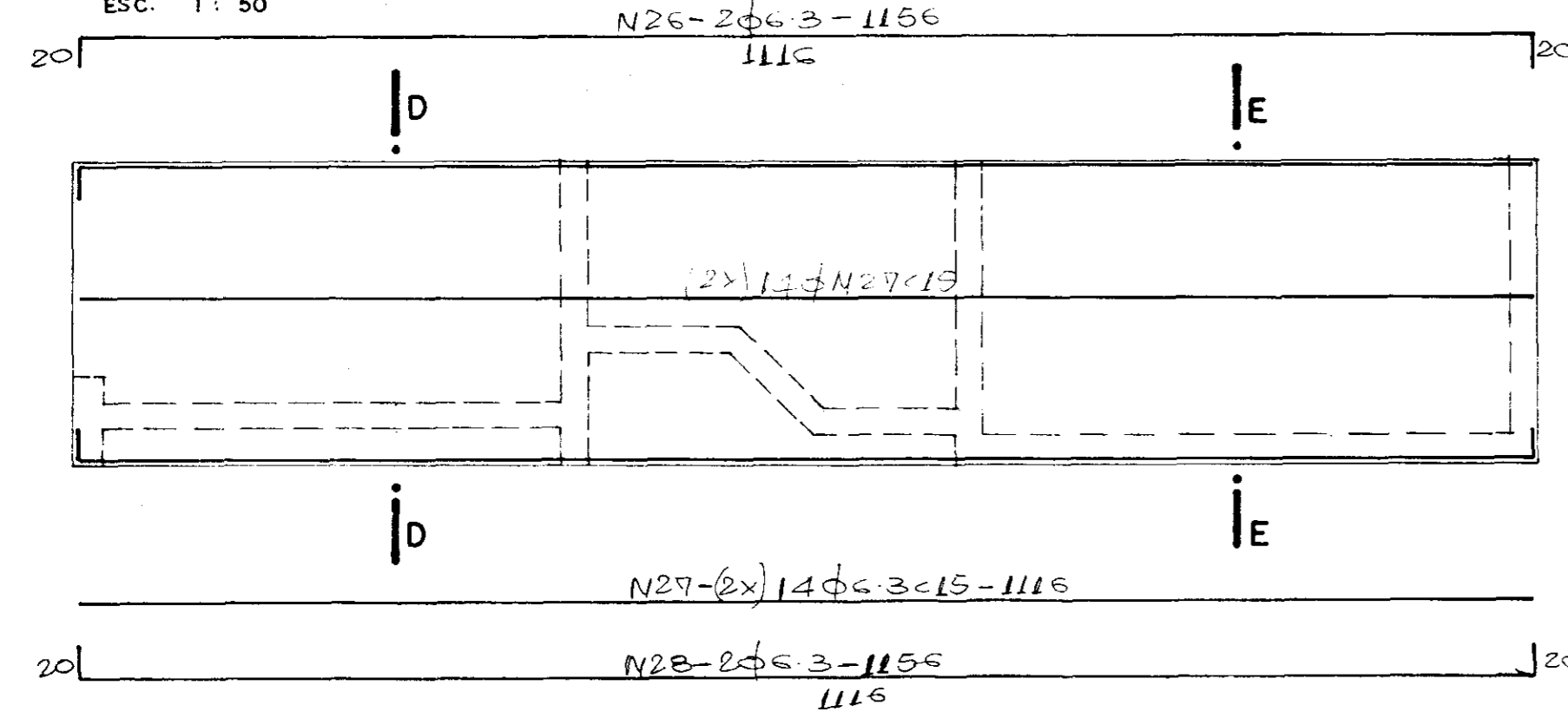
(2x) PAREDE 1
Esc. 1:50



(2x) PAREDE 7
Esc. 1:25



PAREDE 2
Esc. 1:50



000008

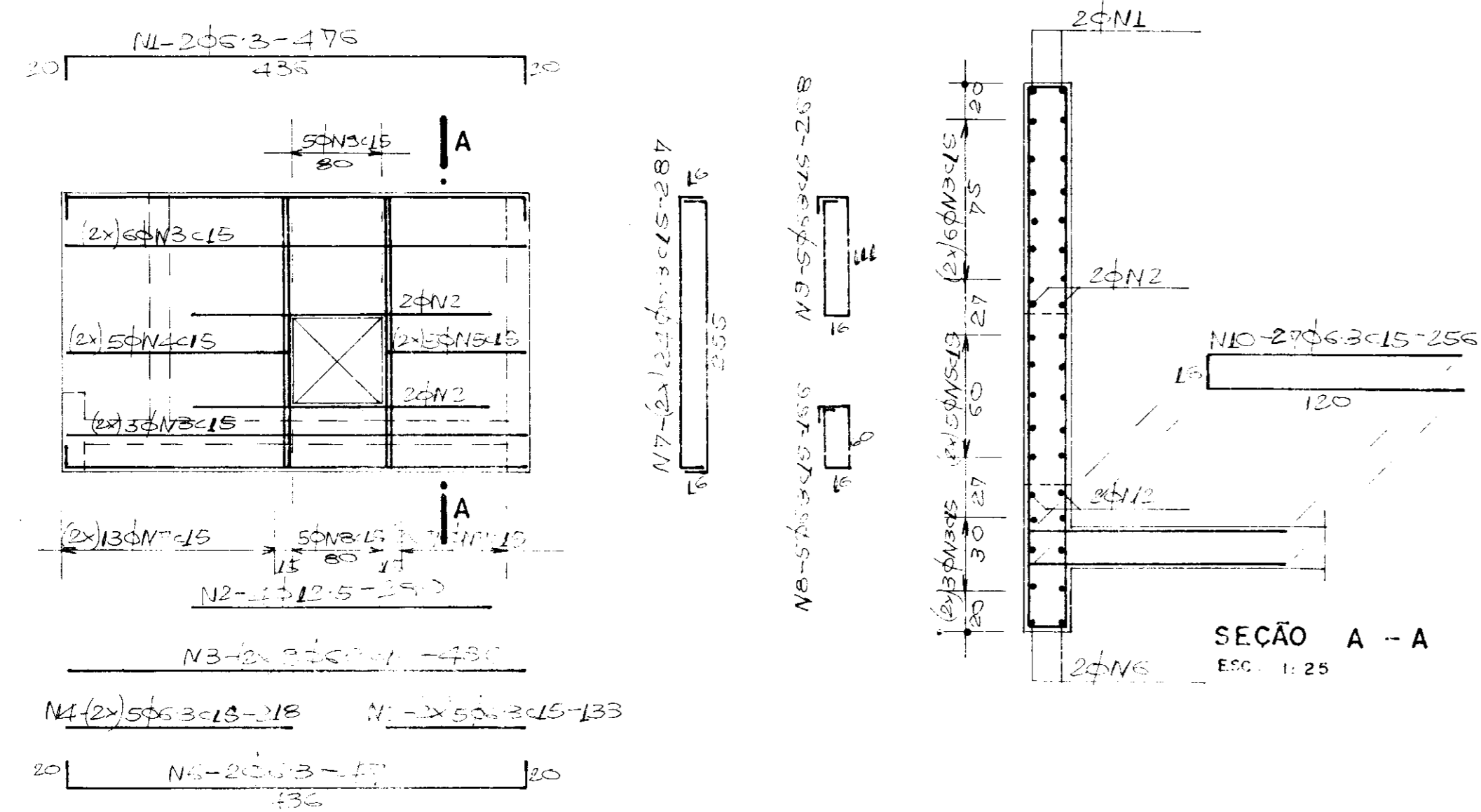
PRONI **DNOCS**
PROGRAMA NACIONAL DE IRRIGAÇÃO DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS

Projeto: Visto:
 Cálculo: Visto:
 Desenho: Visto:
 Escala INDICADA: Aprova:
 Nº 96/110 **AGUASOLOS** CONSULTORA DE ENGENHARIA LTDA. Data:

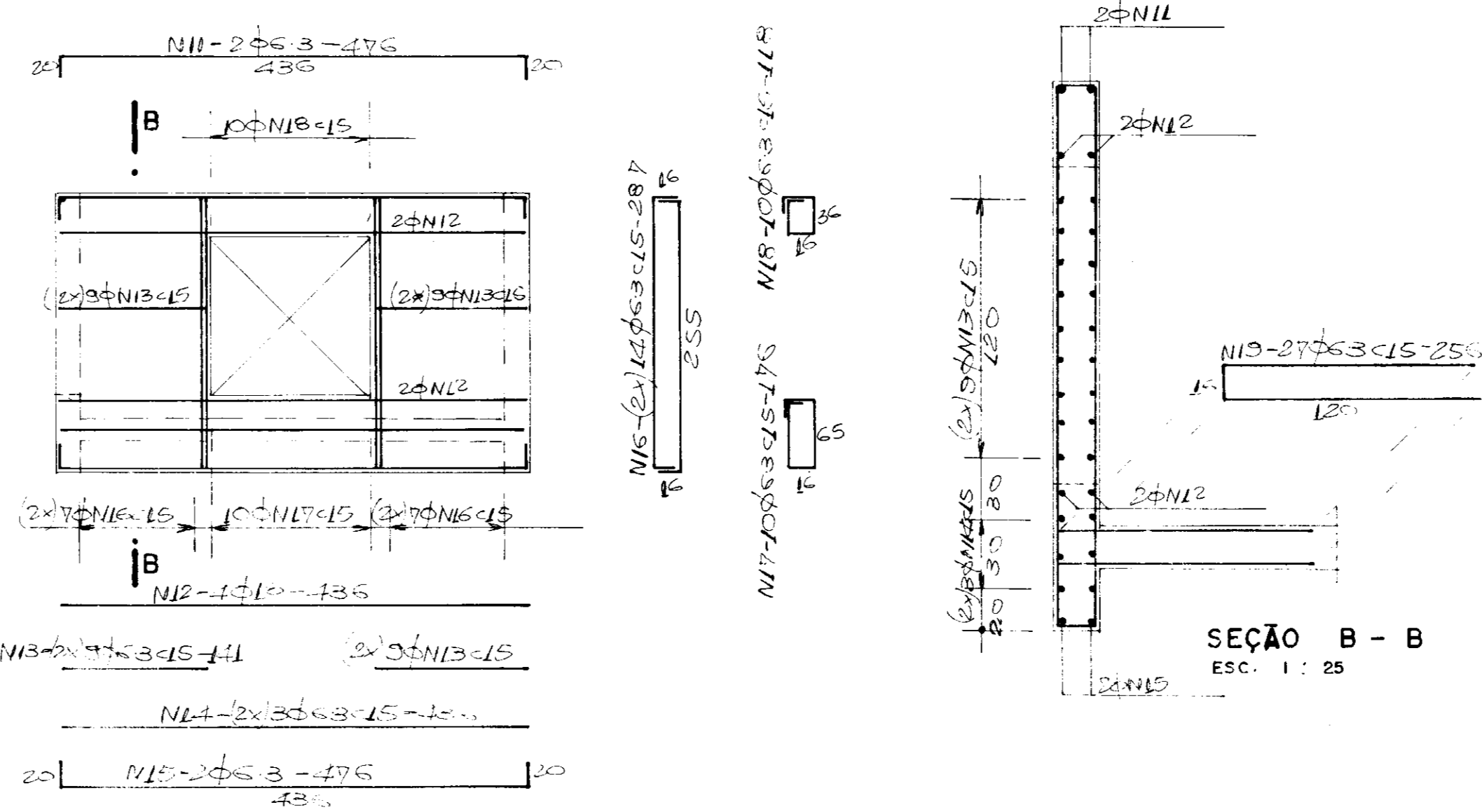
PLANO DE APROVEITAMENTO HIDROAGRÍCOLA DA CHAPADA DE IGUAU / ORÓS E VÁRZEAS DE MONTANTE DO AÇUDE ORÓS
MANCHA MOURA
OBRA ESPECIAL DE MEDIÇÃO-M-02
ESTRUTURA

00007

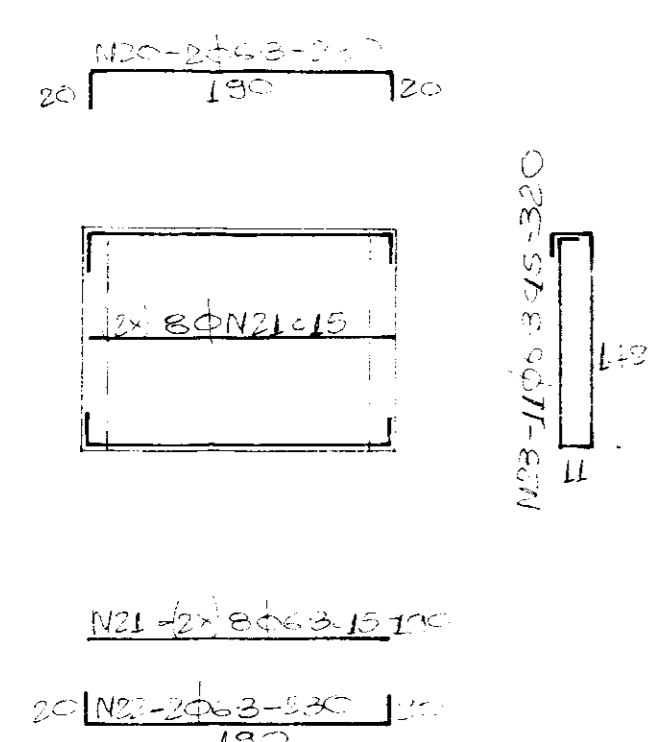
PAREDE 5



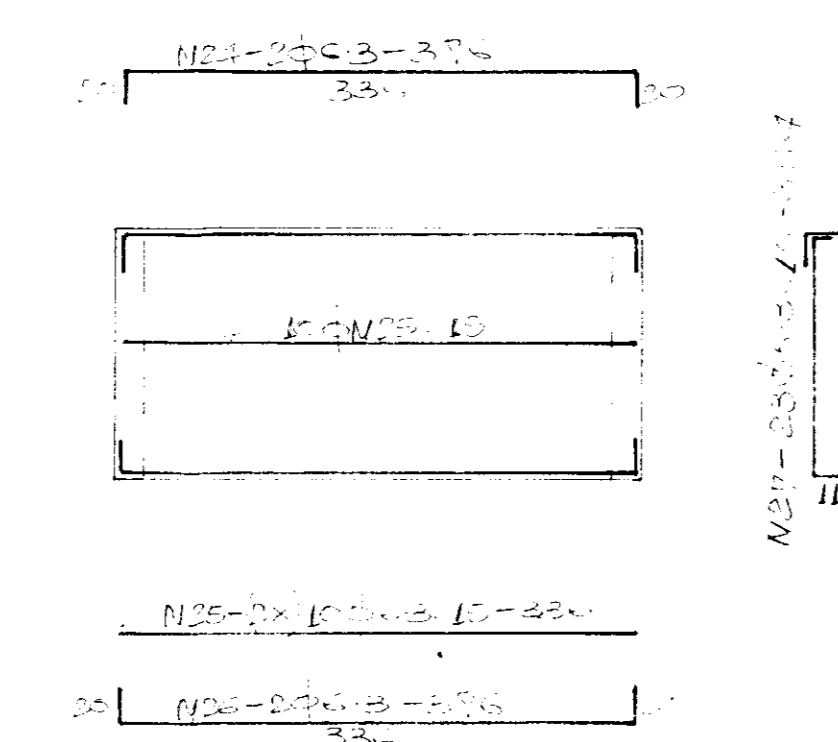
PAREDE 6



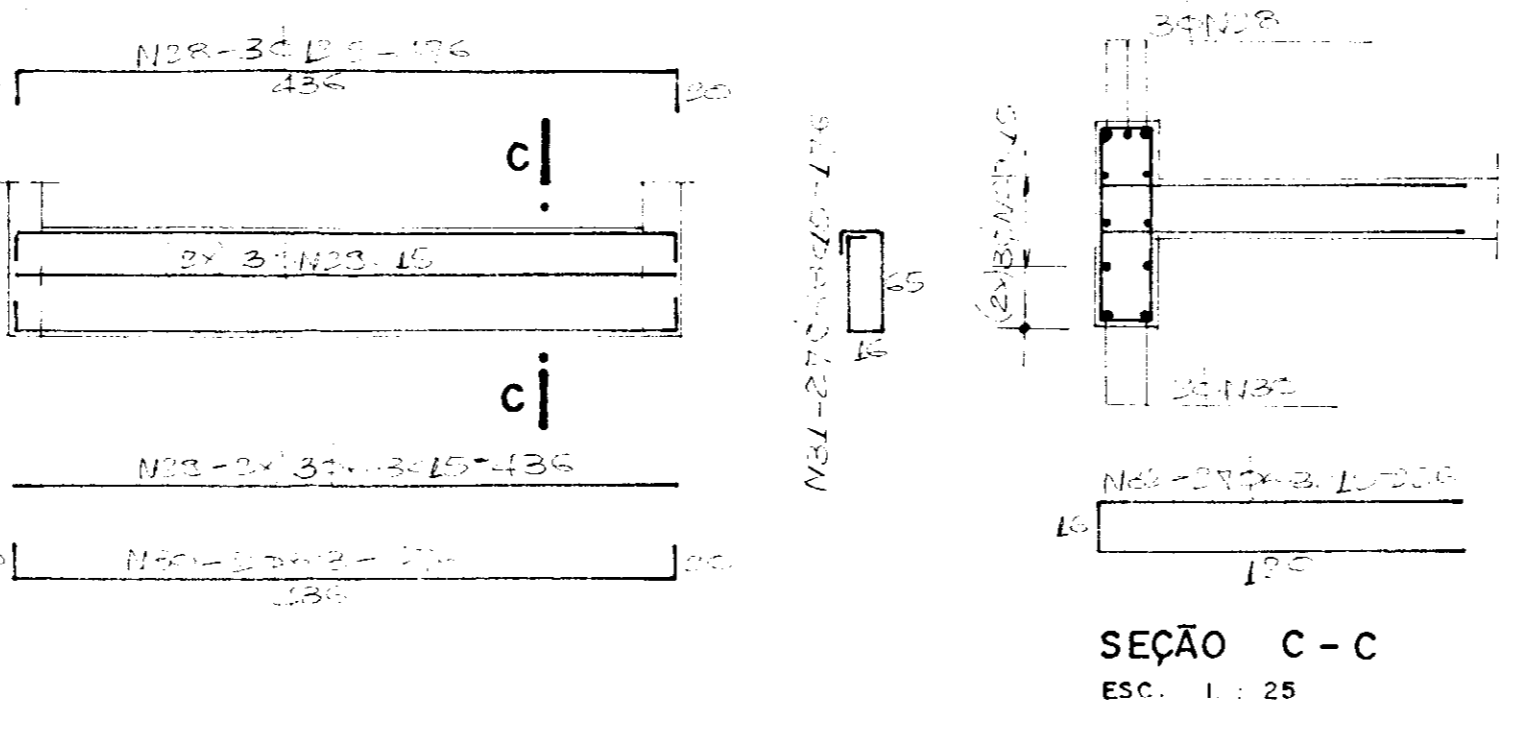
(2x) VI - 15x146



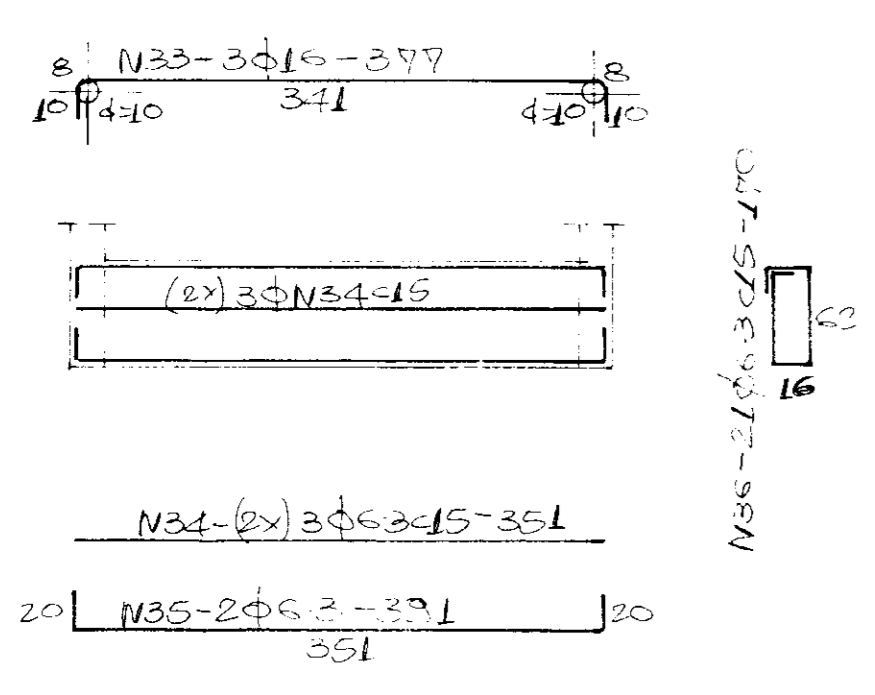
(2x) VII - 15x163



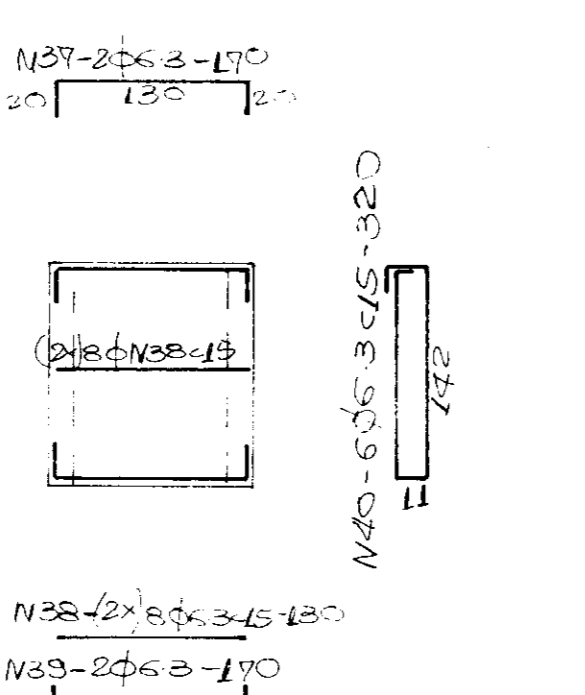
V III - 20x69



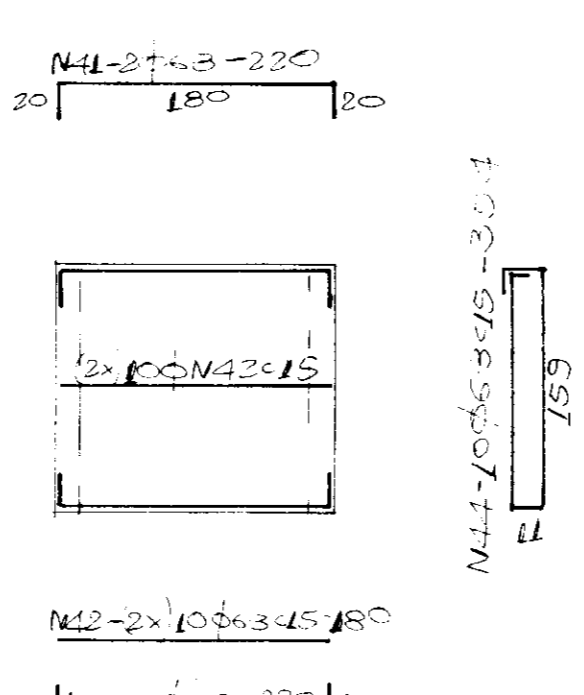
V IV - 20x66



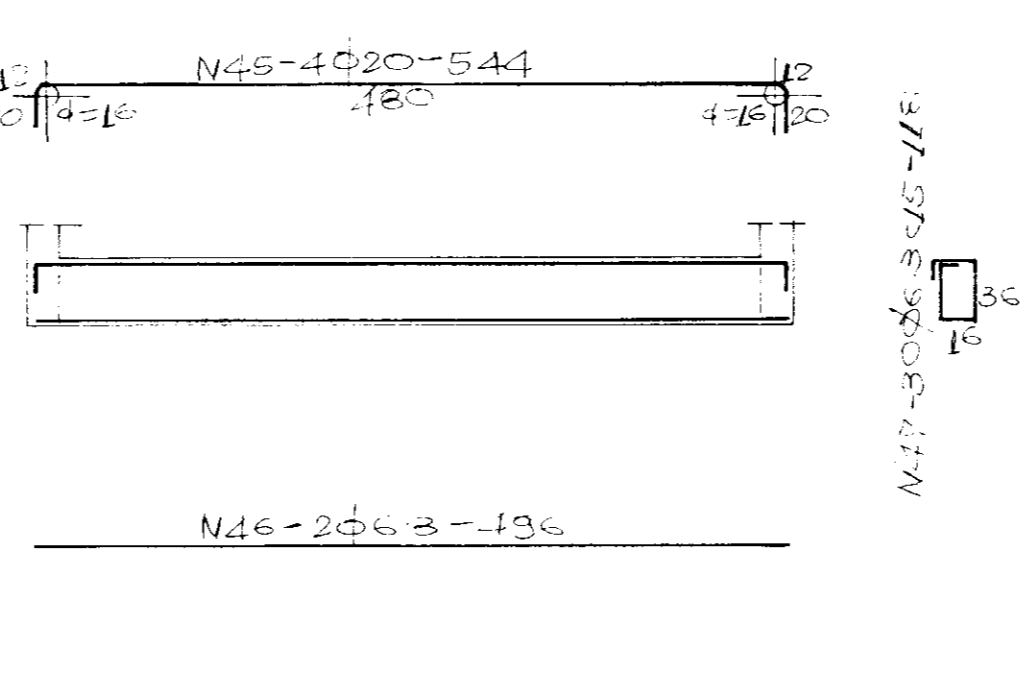
V V - 15x146



V VI - 15x163



V VII - 20x40



N	Φ	QUANTIDADE	COMPRIMENTO UNITARIO
1	63	2	476
2	125	4	280
3	63	18	436
4	//	10	218
5	//	10	133
6	//	2	476
7	//	48	287
8	//	5	166
9	//	5	288
10	//	27	256
11	//	2	476
12	16	4	436
13	63	36	141
14	//	6	436
15	//	2	476
16	//	28	287
17	//	10	176
18	//	10	118
19	//	27	256
20	//	4	230
21	//	32	130
22	//	4	230
23	//	22	320
24	//	4	376
25	//	40	336
26	//	4	376
27	//	46	354
28	125	3	476
29	63	2	436
30	//	2	476
31	//	27	176
32	//	27	256
33	16	3	377
34	63	6	351
35	//	2	391
36	//	21	170
37	//	2	170
38	//	16	130
39	//	2	170
40	//	6	320
41	//	2	220
42	//	20	180
43	//	7	220
44	//	10	354
45	20	4	544
46	63	2	476
47	//	30	118

RESUMO

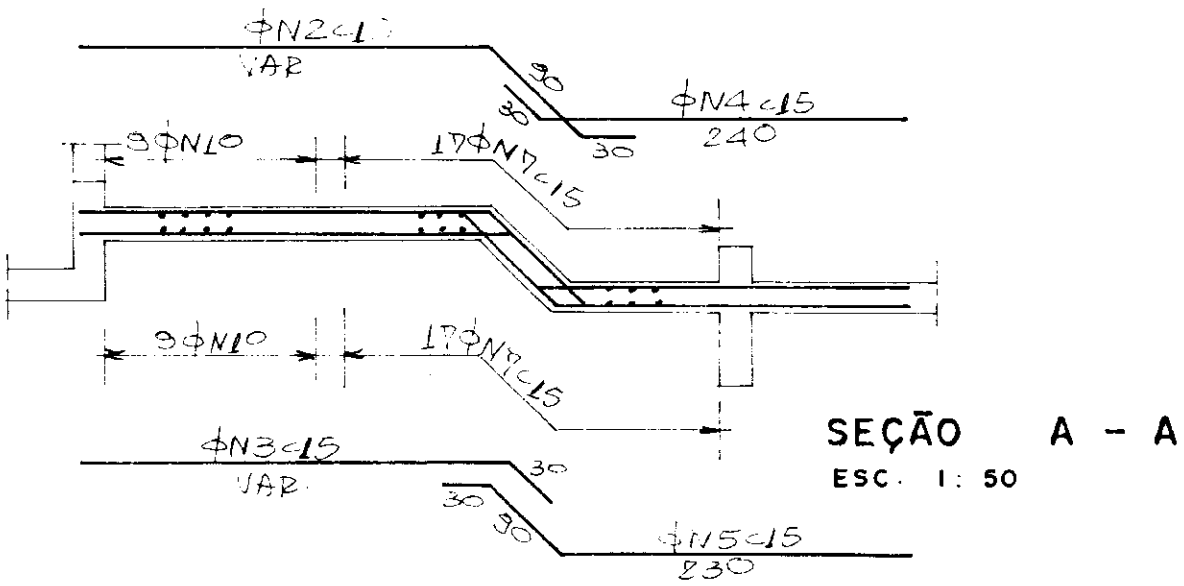
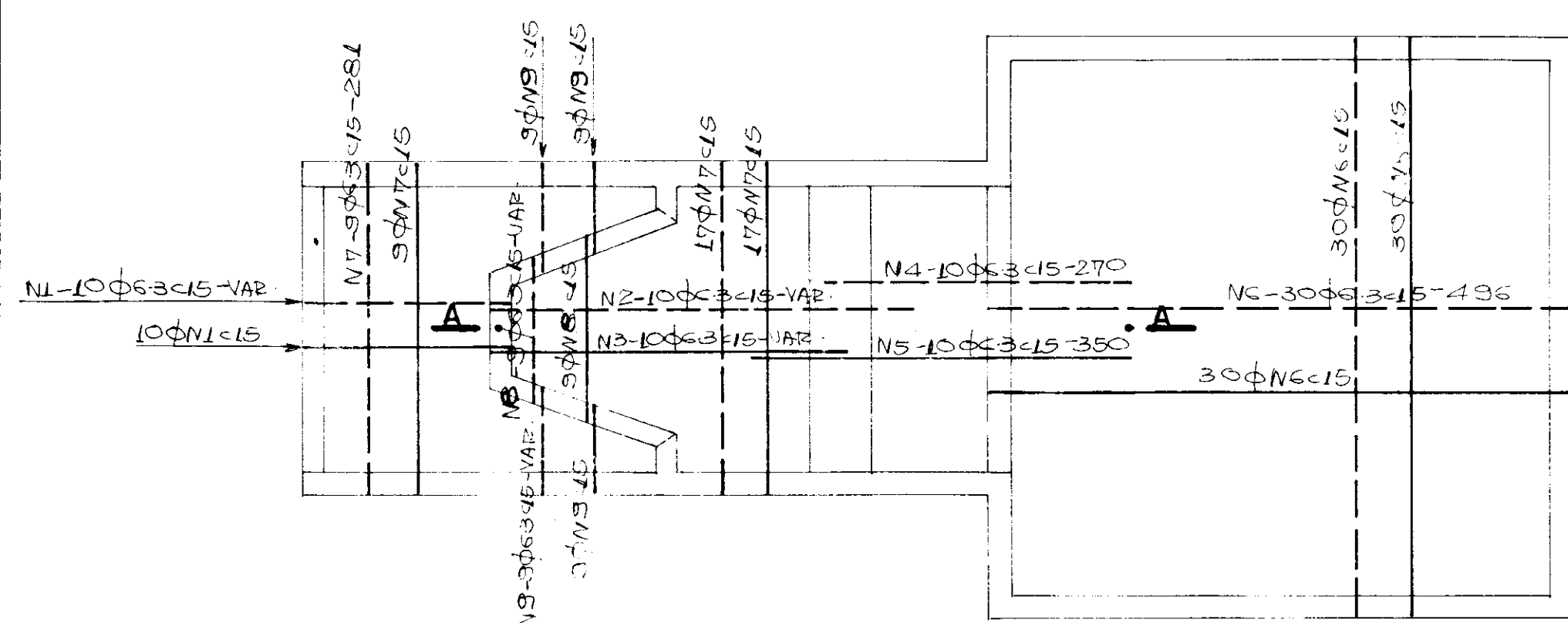
AÇO	Φ	C-TOTAL	PESO
63		150218	375 kg
125		2548	25 //
16		2875	46 //
20		2196	55 //
PESO TOTAL			501 //

fck=15MPa

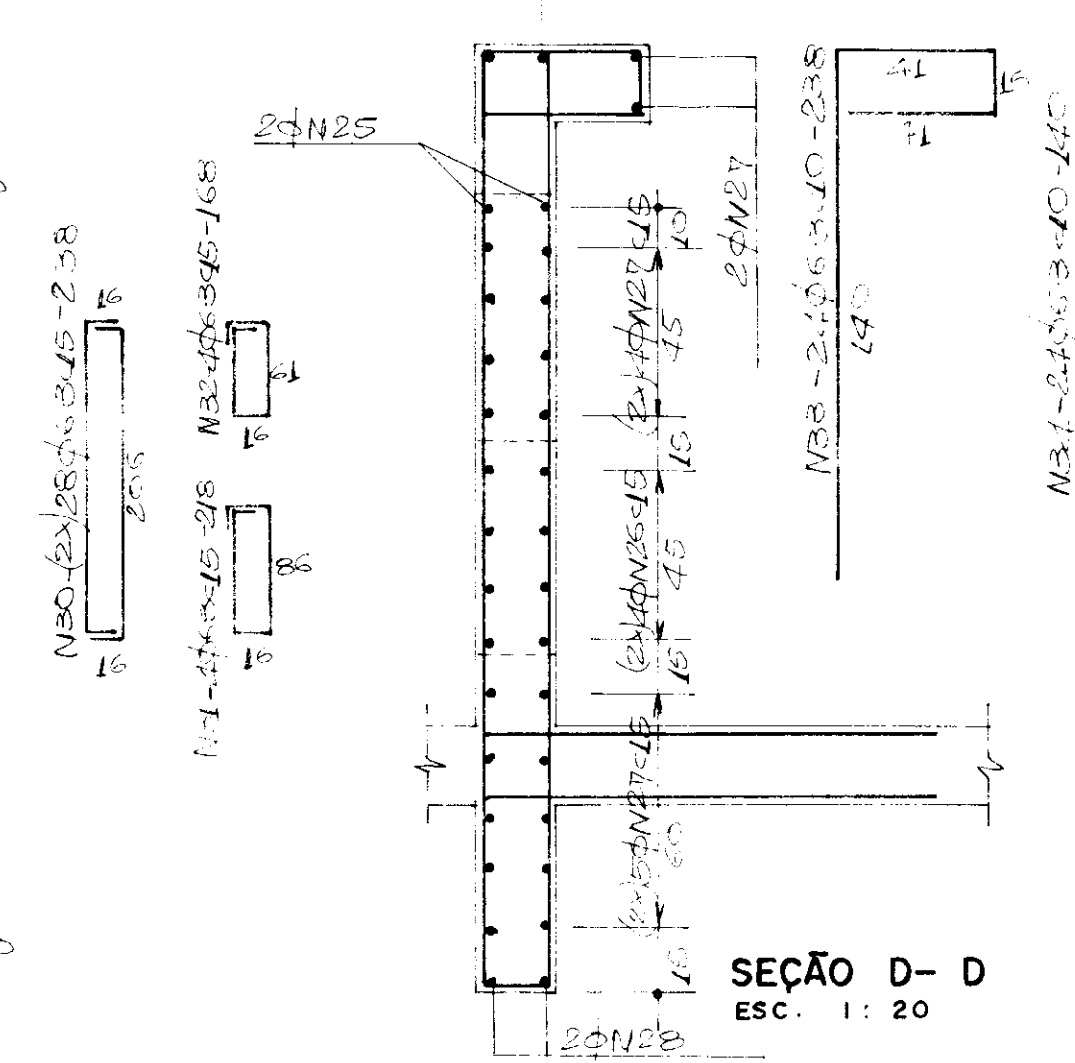
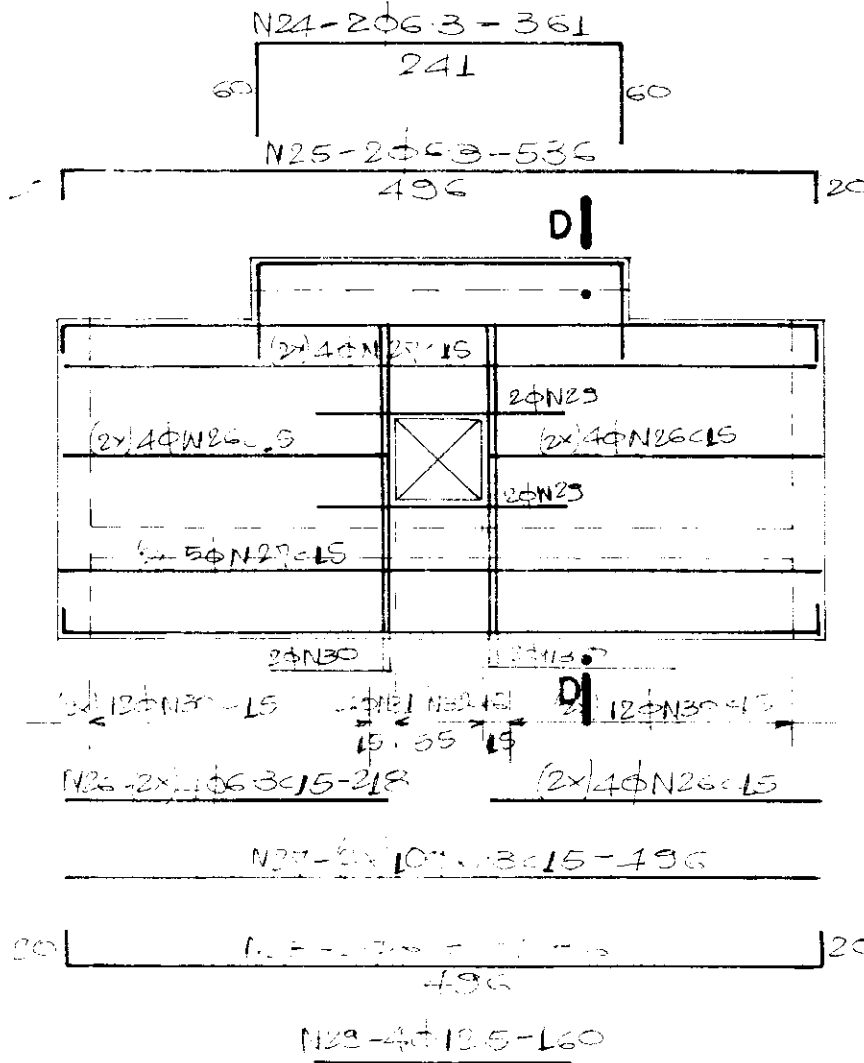
000009

PRONI		DNOCS	
PROGRAMA NACIONAL DE IRRIGAÇÃO		DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS	
Projeto	PLANO DE APROVEITAMENTO HIDROAGRI-COLA DA CHAPADA DE IGUAU / ORÓS E VARZEAS DE MONTANTE DO AGUDE ORÓS		Visto
Cálculo			Visto
Desenho	MANCHA MOURA OBRAS HIDRÁULICAS OBRA ESPECIAL DE MEDIÇÃO-M-02 ESTRUTURA		Visto
Escala INDICADA			Aprova
Nº 97/110	AGUASOLOS CONSULTORA DE ENGENHARIA LTDA		Data

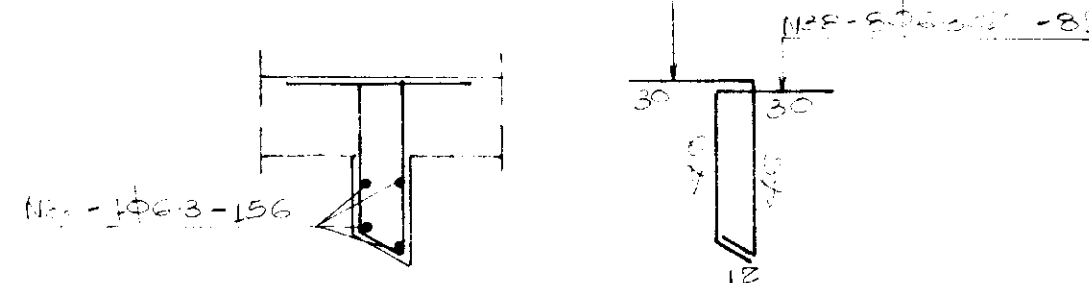
ARMADURA DA LAJE DE FUNDO
ESC. 1: 50



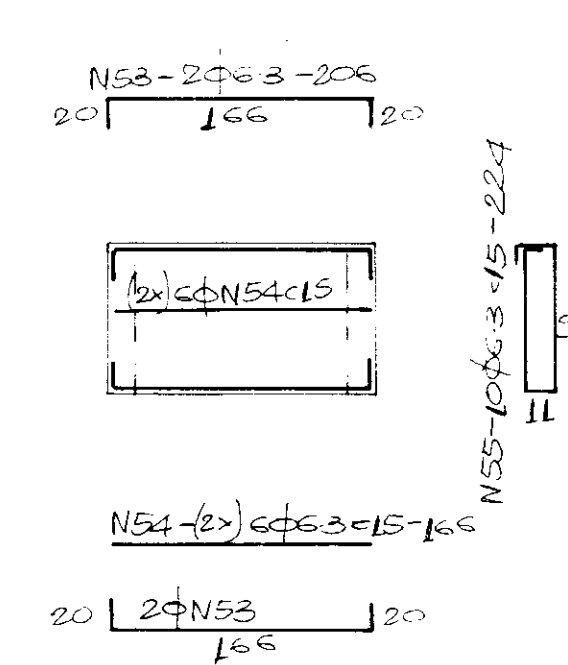
PAREDE 5
ESC. 1: 50



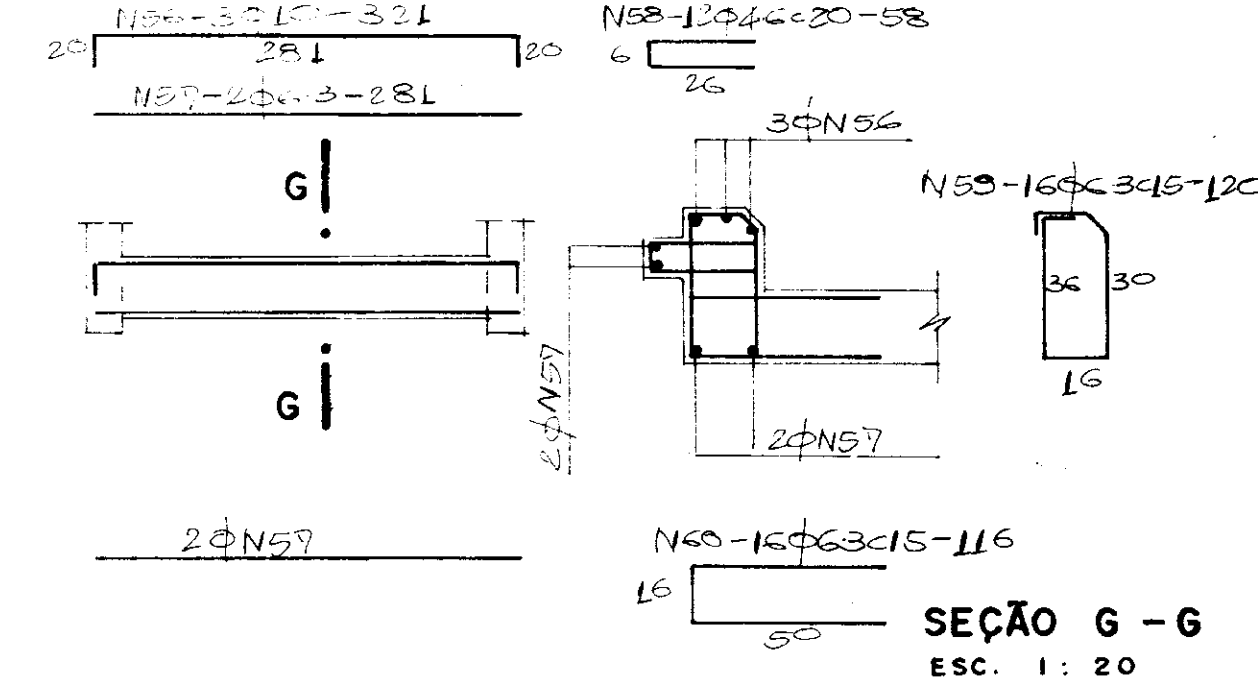
(2x) PAREDE 4
ESC. 1: 20



(2x) VI-15x98
ESC. 1: 50

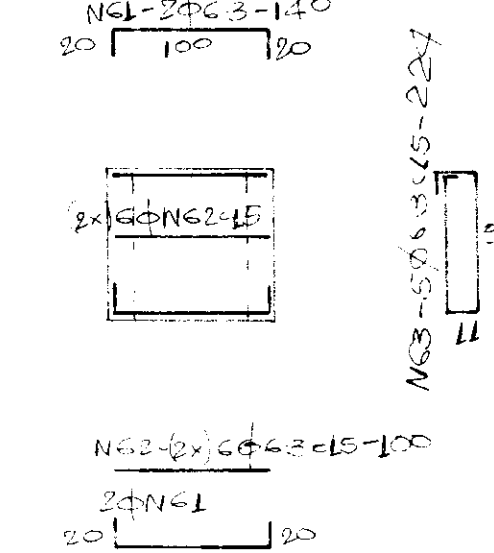


VII-20x40
ESC. 1: 50



SEÇÃO G-G
ESC. 1: 20

VIII-15x98
ESC. 1: 50



N	φ	QUANTIDADE	COMPRIMENTO UNITARIO
1	3	20	VAR
2	3	10	VAR
3	3	10	VAR
4	3	10	VAR
5	3	10	VAR
6	3	10	VAR
7	3	10	VAR
8	3	10	VAR
9	3	10	VAR
10	3	10	VAR
11	3	10	VAR
12	3	10	VAR
13	3	10	VAR
14	3	10	VAR
15	3	10	VAR
16	3	10	VAR
17	3	10	VAR
18	3	10	VAR
19	3	10	VAR
20	3	10	VAR
21	3	10	VAR
22	3	10	VAR
23	3	10	VAR
24	3	10	VAR
25	3	10	VAR
26	3	10	VAR
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28	3	10	VAR
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30	3	10	VAR
31	3	10	VAR
32	3	10	VAR
33	3	10	VAR
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35	3	10	VAR
36	3	10	VAR
37	3	10	VAR
38	3	10	VAR
39	3	10	VAR
40	3	10	VAR
41	3	10	VAR
42	3	10	VAR
43	3	10	VAR
44	3	10	VAR
45	3	10	VAR
46	3	10	VAR
47	3	10	VAR
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90	3	10	VAR
91	3	10	VAR
92	3	10	VAR
93	3	10	VAR
94	3	10	VAR
95	3	10	VAR
96	3	10	VAR
97	3	10	VAR
98	3	10	VAR
99	3	10	VAR
100	3	10	VAR

RESUMO

ALC	φ	TOTAL	PESO
3-0	16	3304	4 KG
3-0	16	324262	810 //
3-0	16	1840	18 //
		PESO TOTAL	832 //

fck = 15MPa

000010

PRONI PNOCS
PROGRAMA NACIONAL DE IRRIGAÇÃO DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS

Projeto: PLANO DE APROVEITAMENTO HIDROAGRÍCOLA DA CHAPADA DE IGUATU / ORÓS E VARZEAS DE MONTANTE DO AÇUDE ORÓS

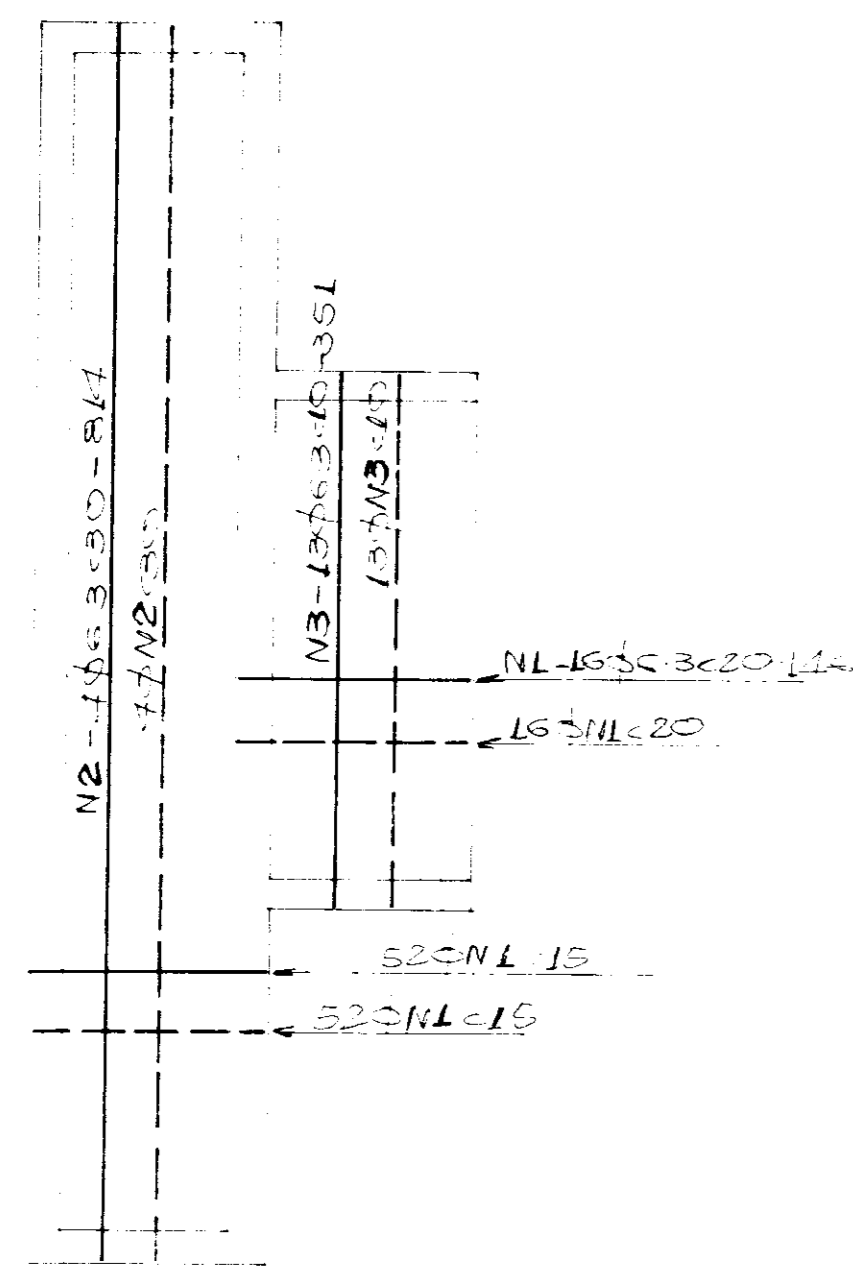
Cálculo: _____ Visto: _____

Desenho: _____ Visto: _____

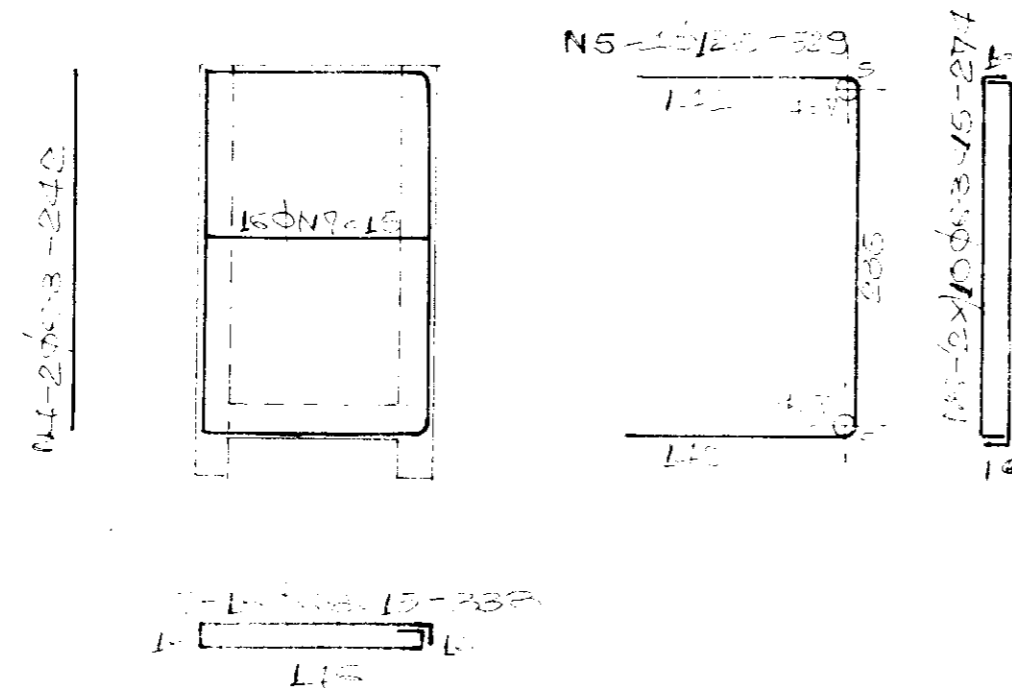
Escola INDICADA: _____ Aprova: _____

Nº 99/110 AGUASOLOS CONSULTORIA DE ENGENHARIA LTDA Data: _____

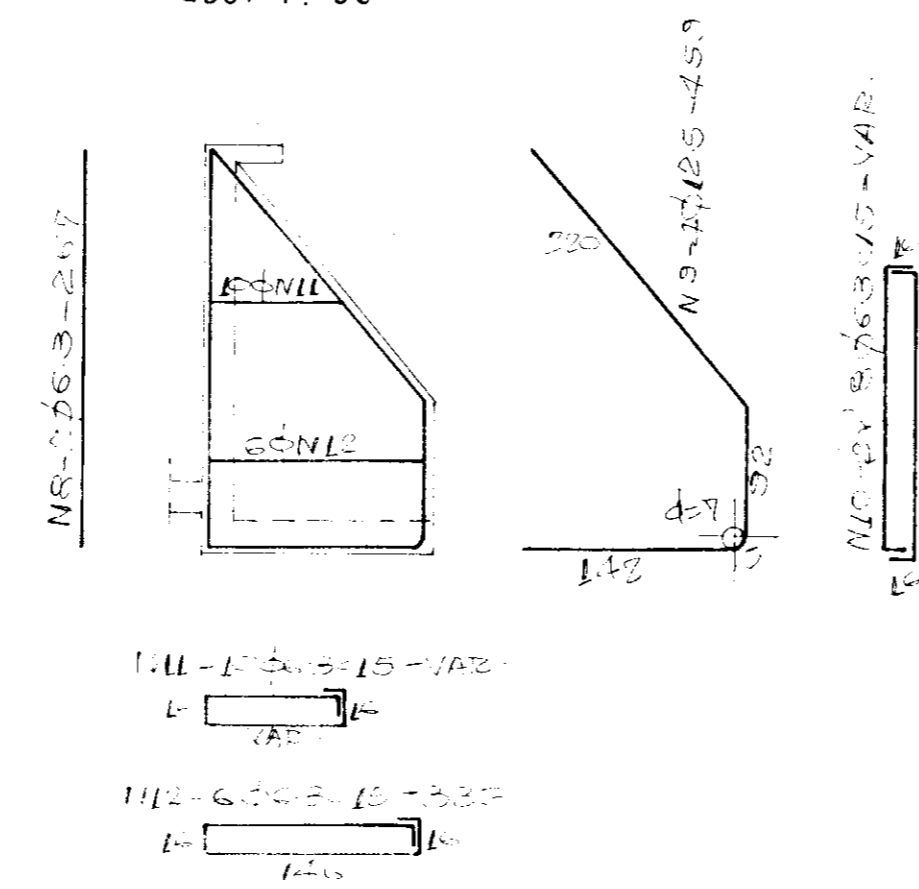
ARMADURA DA LAJE DO FUNDO
ESC. 1: 50



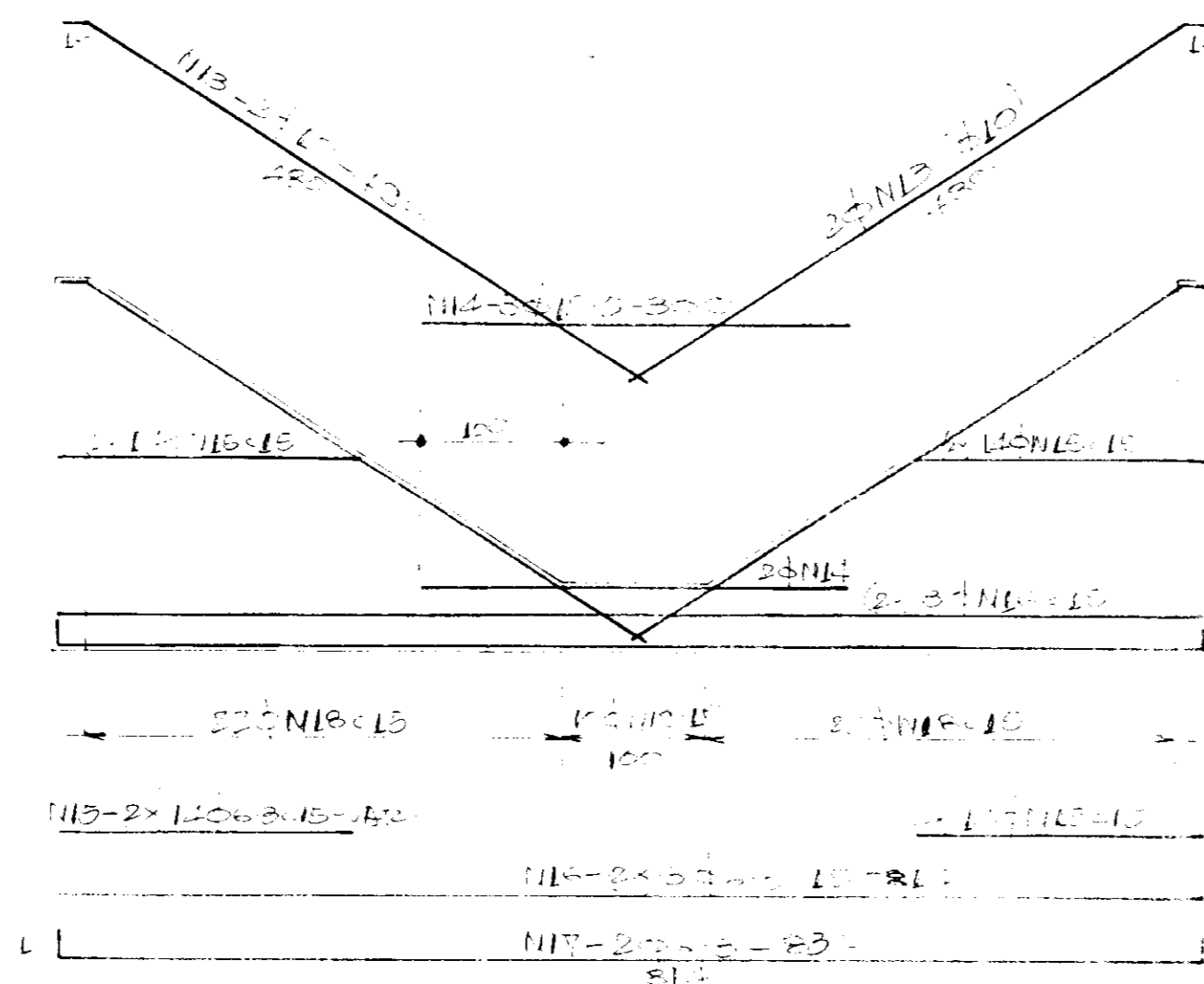
(2x) C1-20 x 246
ESC. 1: 50



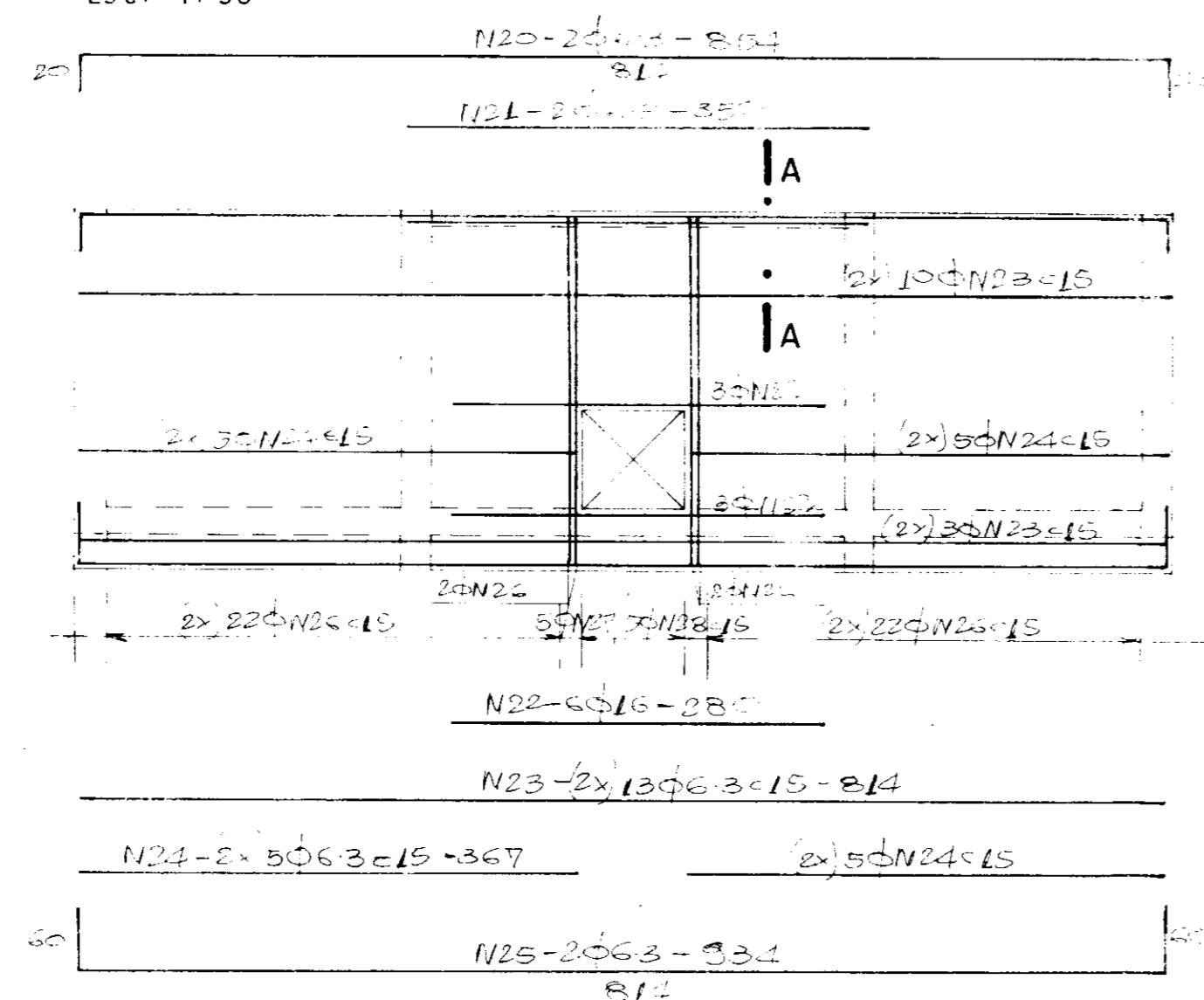
(2x) C2-20 x VAR
ESC. 1: 50



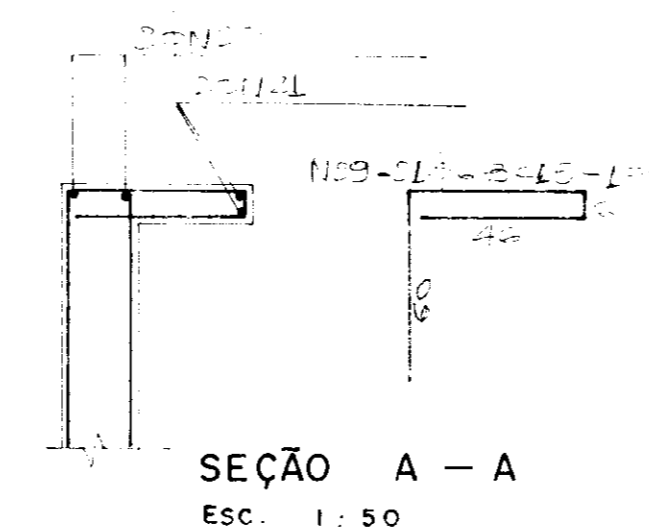
PAREDE 1
ESC. 1: 50



PAREDE 2
ESC. 1: 50



SEÇÃO A - A
ESC. 1: 50



N	Ø	QUANTIDADE	COMPRIMENTO UNITÁRIO
1	Ø3	136	140
2	Ø7	8	814
3	Ø7	26	351
4	Ø7	4	242
5	Ø3	8	523
6	Ø3	4	271
7	Ø7	32	338
8	Ø7	4	247
9	Ø3	4	453
10	Ø3	32	182
11	Ø7	20	182
12	Ø7	12	338
13	Ø3	4	420
14	Ø3	5	300
15	Ø3	5	182
16	Ø7	4	812
17	Ø7	2	832
18	Ø7	44	182
19	Ø7	10	128
20	Ø7	8	854
21	Ø7	2	350
22	Ø3	5	280
23	Ø3	2	812
24	Ø7	20	337
25	Ø7	2	232
26	Ø7	8	220
27	Ø7	9	128
28	Ø7	9	340
29	Ø7	8	188

RESUMO

ITEM	QUANTIDADE	PESO
1	136	140
2	8	814
3	26	351
4	4	242
5	8	523
6	4	271
7	32	338
8	4	247
9	4	453
10	32	182
11	20	182
12	12	338
13	4	420
14	5	300
15	5	182
16	4	812
17	2	832
18	44	182
19	10	128
20	8	854
21	2	350
22	5	280
23	2	812
24	20	337
25	2	232
26	8	220
27	9	128
28	9	340
29	8	188

000011

PRONI		DNOCS	
PROGRAMA NACIONAL DE IRRIGAÇÃO		DEPARTAMENTO NACIONAL DE OBRAS CONTRA AS SECAS	
Projeto	PLANO DE APROVEITAMENTO HIDROAGRI - COLA DA CHAPADA DE IGUAU / ORO'S E VÁZEAZ DE MONTANTE DO AÇUDE OROS	Visto	
Cálculo		Visto	
Desenho		Visto	
Escala		Aprova	
MANCHA MOURA OBRAS HIDRAULICAS OBRA ESPECIAL DE CONTROLE-M-04 ESTRUTURA			
Nº 101/110	AGUASOLOS CONSULTORA DE ENGENHARIA LTDA		