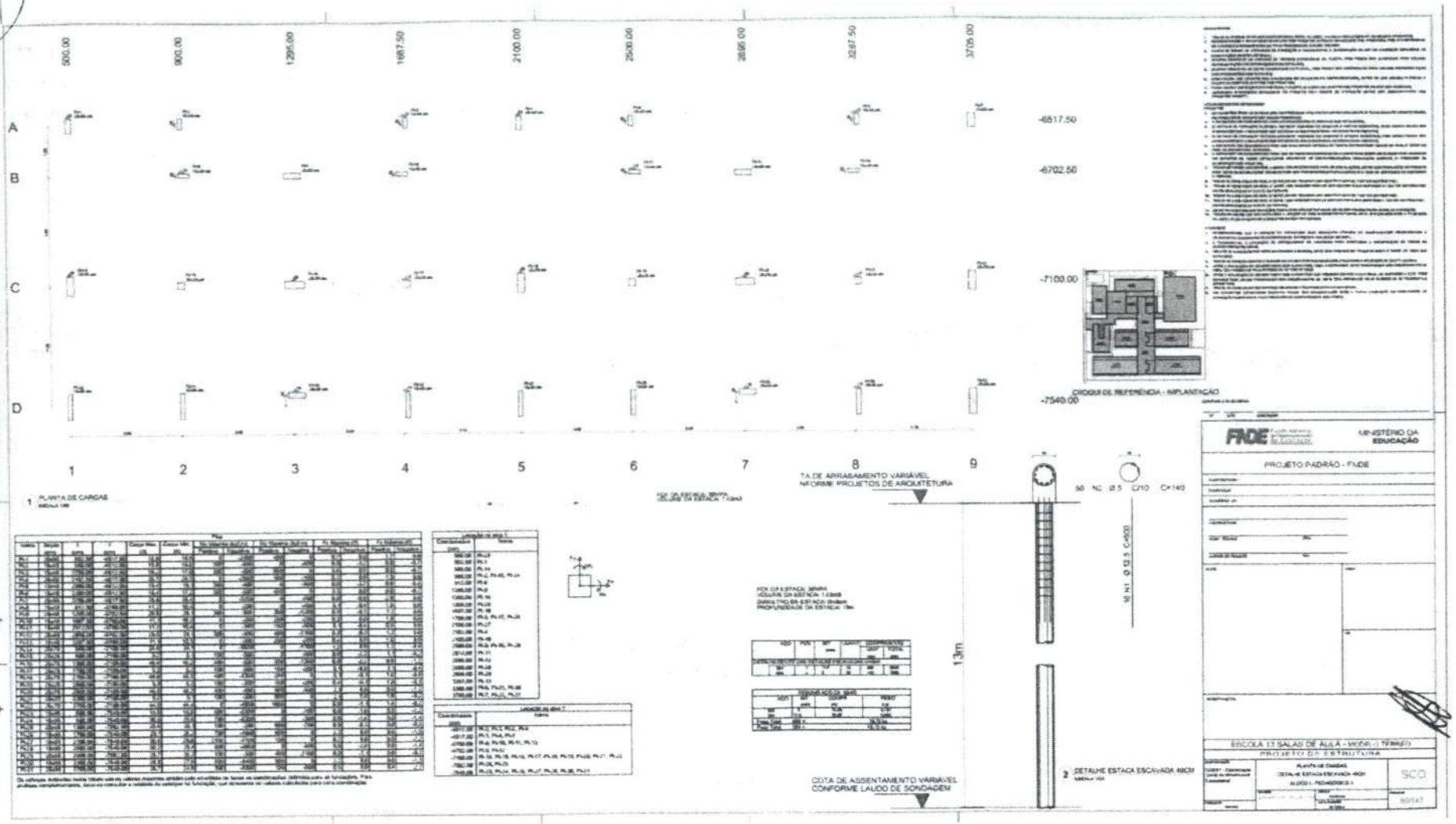
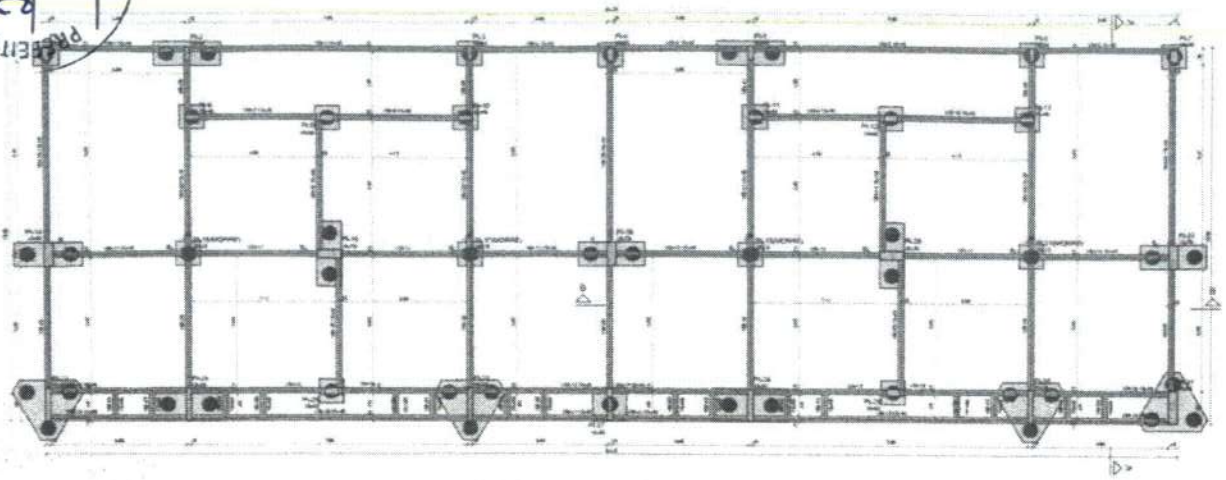
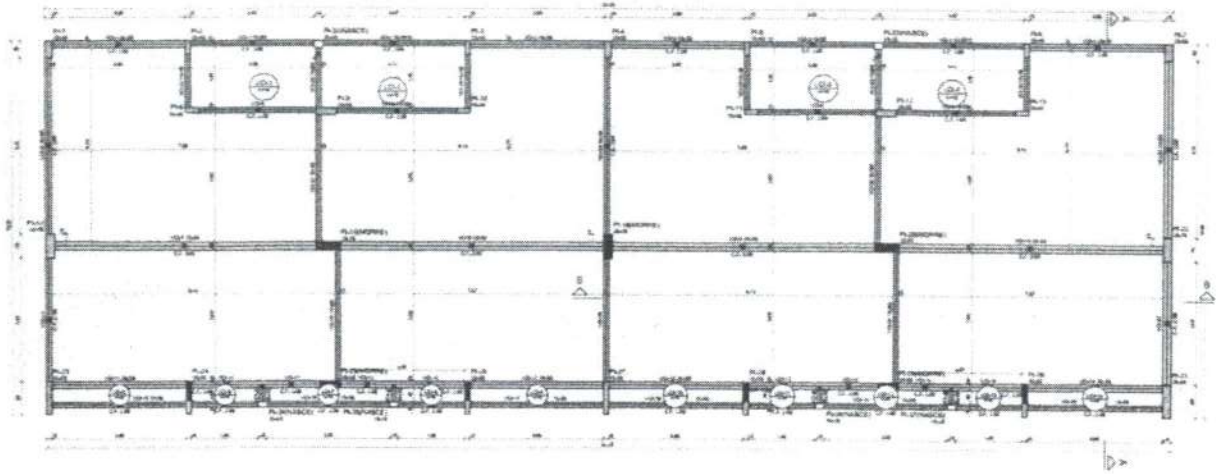
PREFEITURA MUNICIPAL DE HORIZONTE
2531
FLS



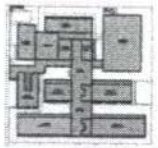
PREFEITURA MUNICIPAL DE HORIZONTE
2532
FLS



1 PLANTA DE FORMA FUNDAÇÃO



2 PLANTA DE FORMA TERREO



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE — MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TERREO

PROJETO DE ESTRUTURA

PLANTA DE FORMA DE FUNDAÇÃO E TERREO

SCF

01/147

PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 2533

1 PLANTA DE FORMA COBERTURA

2 CORTE A-A

3 CORTE B-B

CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE

MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TÉRREO

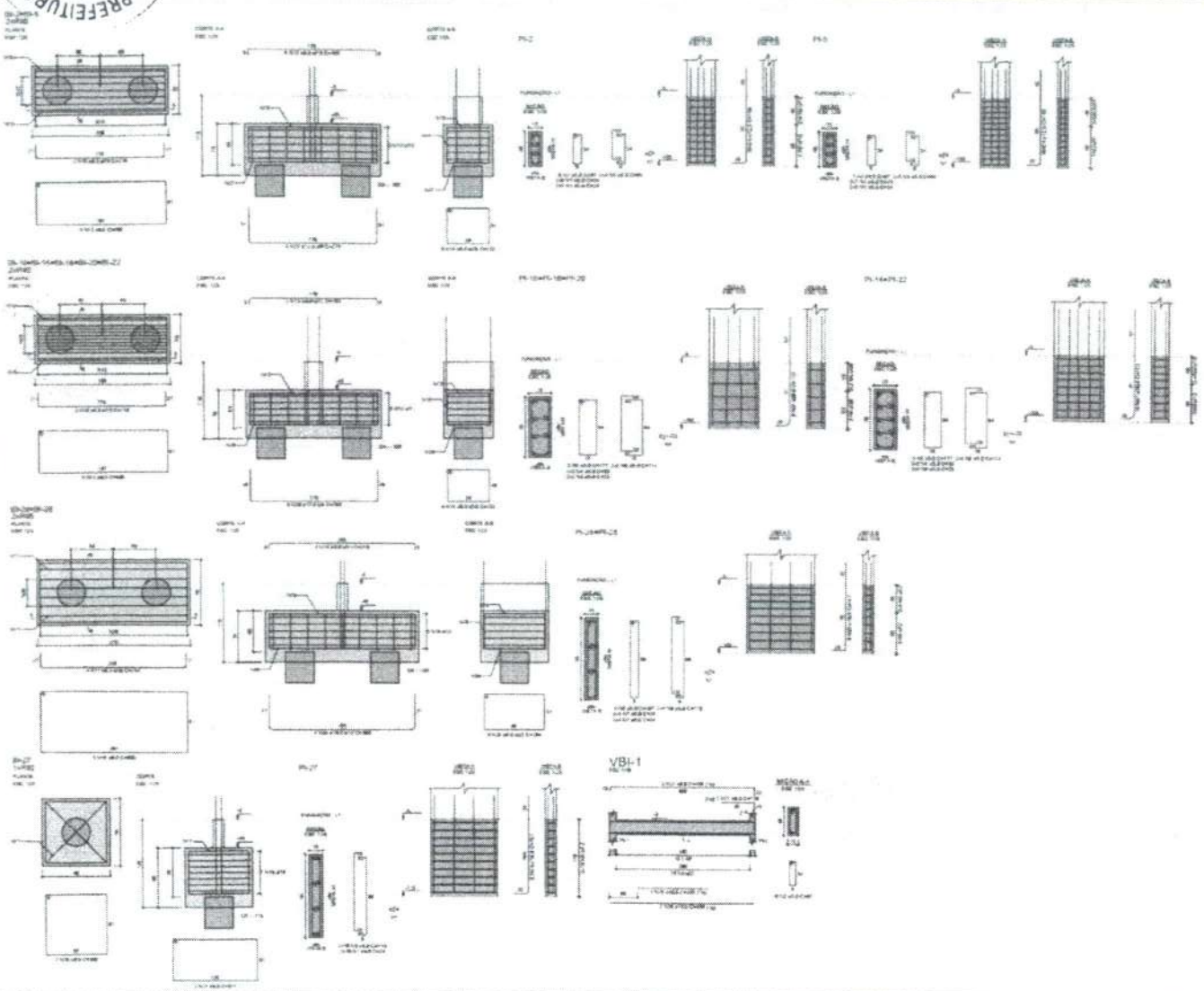
PROJETO DE ESTRUTURA

PLANTA DE FORMA COBERTURA
CORTE A-A, B-B
BLOCO I - PEDAGÓGICO I

SCO

B2/147

PREFEITURA MUNICIPAL DE HORIZONTE
2534
FLS



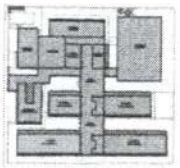
RELAÇÃO DO AÇO

AÇO	Tc	Comp. (mm)	Quant.	C.Unit. (m)	C.Total (m)
CA60	7	6.0	23	24	1064
	8	6.0	16	32	2104
	9	6.0	24	44	1152
	10	6.0	36	73	2772
	11	6.0	19	117	2223
	12	6.0	16	114	1824
	13	6.0	16	84	1344
	14	6.0	16	207	3312
	15	6.0	20	116	2320
	16	6.0	14	218	3052
	17	6.0	8	244	1952
	18	6.0	35	492	17220
	19	6.0	33	393	12969
	20	6.0	13	230	2990
	21	6.0	45	223	10035
	22	6.0	7	300	2100
	23	6.0	3	274	822
	24	6.0	15	636	9540
	25	6.0	3	275	825
	26	6.0	19	586	11134
	27	6.0	1	116	116
	28	6.0	1	158	158
	29	6.0	4	147	588
	30	6.0	8	167	1336
	31	6.0	1	203	203
	32	6.0	1	499	499
	33	6.0	45	273	12285
	34	6.0	45	273	12285
	35	6.0	11	180	1980
	36	6.0	3	300	1800
	37	6.0	3	175	525

RESUMO DO AÇO

AÇO	Comp. (mm)	C.TOTAL (m)	PESO - TOTAL (kg)
CA60	5.0	146	73.0
	6.0	336.5	135
	10.0	46.8	31.3
	12.5	71.3	111.8
	16.0	4.0	6.7
	20.0	75.7	188.3
CA50	5.0	23.4	37.5
PESO TOTAL (kg)			
CA60	1570.1		
CA50	37.5		

Volume de concreto (C-20) = 11.80 m³
Área de forma = 98.61 m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE — MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

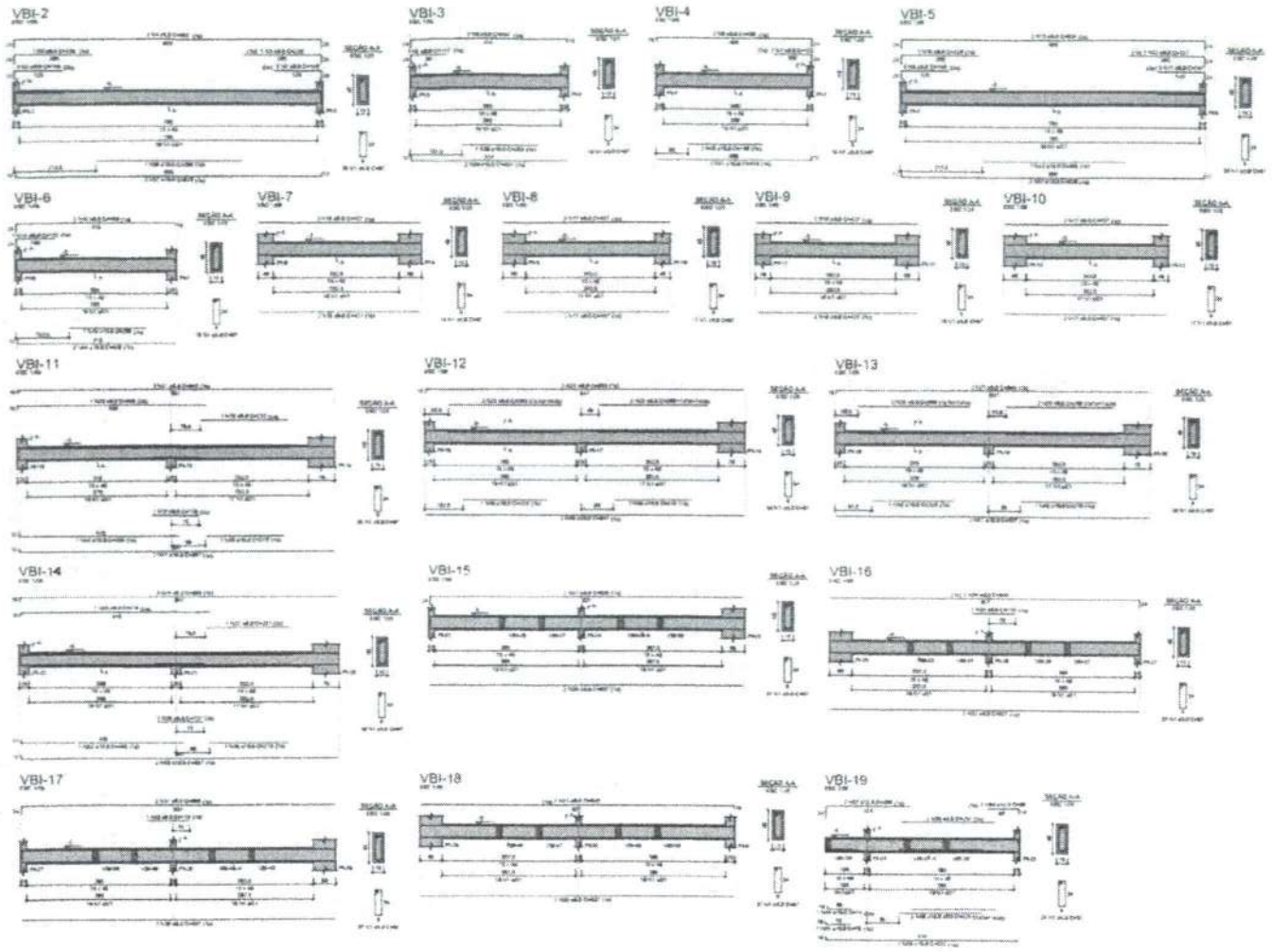
ESCOLA 12 SALAS DE AULA - MODELO TÉRREO
PROJETO DE ESTRUTURA

FUNDAÇÕES
BLOCO I - FISIOTERAPIA

SFN

83/147

PREFEITURA MUNICIPAL DE HORIZONTE
2535
FLS



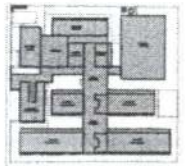
RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	BIT/MT	C.UNIT (m)	C.TOTAL (m)
CA50	1	5.0	5/3	47	47.0
CA60	2	6.0	6	148	296
	3	6.0	7	229	458
	4	6.0	7	853	1706
	5	6.0	2	117	234
	6	6.0	2	94	188
	7	6.0	1	122	122
	8	6.0	2	438	876
	9	6.0	3	148	444
	10	6.0	1	229	229
	11	6.0	1	147	147
	12	6.0	1	341	341
	13	6.0	1	127	127
	14	6.0	1	894	1788
	15	6.0	1	122	122
	16	6.0	1	448	896
	17	6.0	6	5.7	34.0
	18	6.0	1	147	147
	19	6.0	1	230	230
	20	6.0	1	148	148
	21	6.0	1	448	448
	22	6.0	1	8475	8475
	23	6.0	1	229	229
	24	6.0	1	383	383
	25	6.0	1	895	895
	26	6.0	1	2.70	2.70
	27	6.0	1	480	480
	28	6.0	1	258	258
	29	6.0	1	231	231
	30	6.0	1	117	117
	31	6.0	1	178	178
	32	6.0	1	827	827
	33	6.0	1	894	894
	34	6.0	1	117	117
	35	6.0	1	178	178
	36	6.0	1	827	827
	37	6.0	1	894	894
	38	6.0	1	117	117
	39	6.0	1	178	178
	40	6.0	1	827	827
	41	6.0	1	894	894
	42	6.0	1	117	117
	43	6.0	1	178	178
	44	6.0	1	827	827
	45	6.4	1	201	201
	46	10.0	1	298	298
	47	10.0	1	618	618
	48	10.0	1	225	225
	49	10.0	1	448	448
	50	10.0	1	194	194
	51	10.0	1	804	804
	52	10.0	1	383	383
	53	10.0	1	895	895
	54	10.0	1	480	480
	55	10.0	1	258	258
	56	10.0	1	231	231
	57	10.0	1	117	117
	58	10.0	1	178	178
	59	10.0	1	827	827
	60	10.0	1	2400	2400
	61	10.0	1	117	117
	62	10.0	1	178	178
	63	10.0	1	827	827
	64	10.0	1	894	894
	65	10.0	1	117	117
	66	10.0	1	178	178
	67	10.0	1	827	827
	68	10.0	1	894	894
	69	10.0	1	117	117
	70	10.0	1	178	178
	71	10.0	1	827	827
	72	10.0	1	74	74
	73	10.0	1	78	78
	74	10.0	1	52	52
	75	12.5	1	256	512
	76	12.5	1	381	762

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	5.0	47.0	10.1
	10.0	178.2	109.9
	12.5	7.5	7.5
CA60	5.0	4915	804.2
PESO TOTAL (kg)			
CA50	2.4 a 6		
CA60	Sa a 9		

Volume no reservatório (0,30h x 7,15) m³
Área de lastro = 11,15 m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

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Nº	DATA	DESCRIÇÃO

FNDE Fundo Nacional de Desenvolvimento da Educação

MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

PROPRIETÁRIO:
ENDEREÇO:
PREFEITURA: UF:
RESPONSÁVEL:
ÁREA TERRENO: CPU:
ÁREA CONSTRUÍDA: UF:

ESCOLA 13 SALAS DE AULA - MODELO TERREO

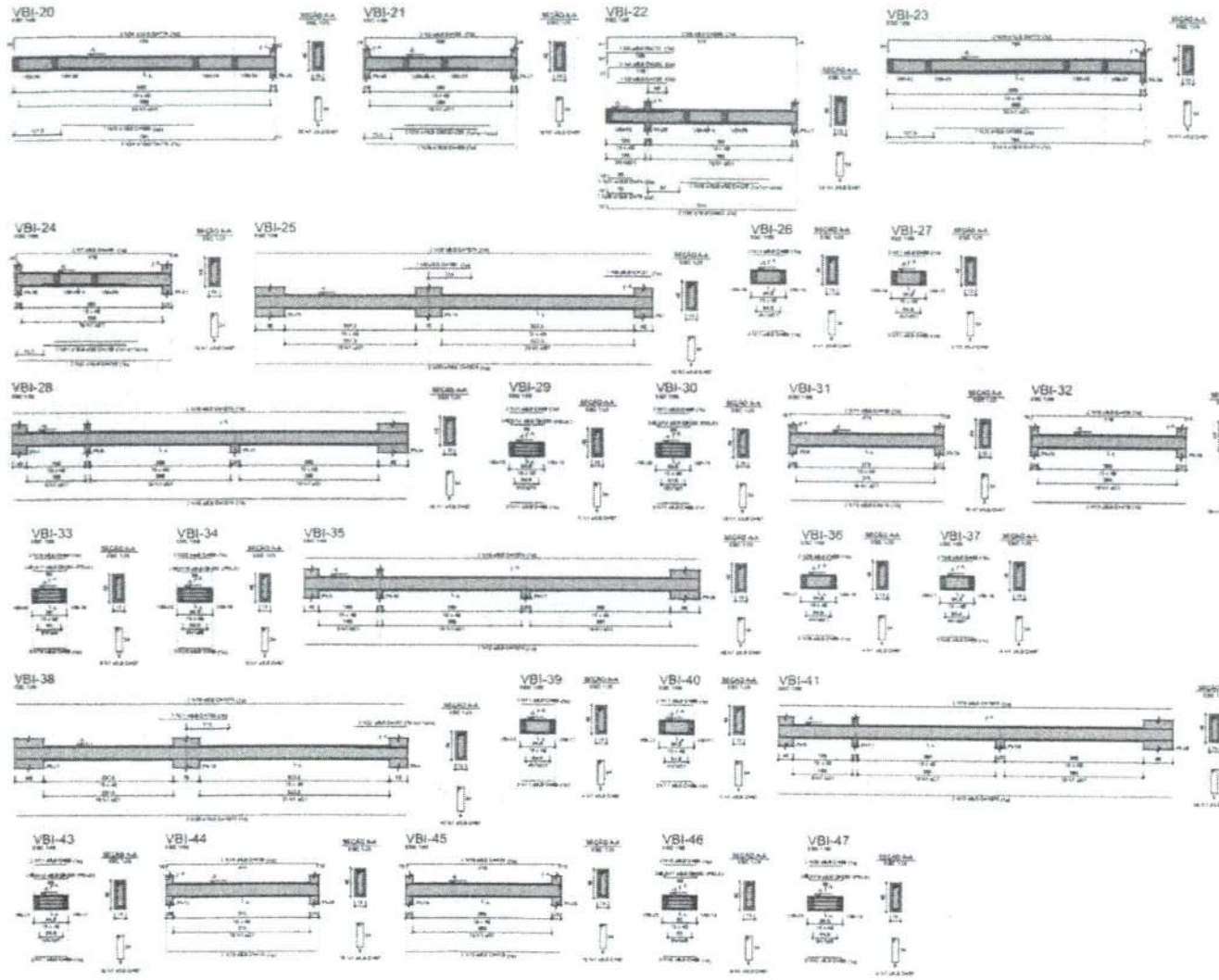
PROJETO DE ESTRUTURA

FUNDAÇÕES E ALVENARIA
PLANTA DE FUNDAÇÕES

SFN

84/147

PREFEITURA MUNICIPAL DE HORIZONTE
FLS 236



RELAÇÃO DO AÇO

AÇO	N	COMP. (cm)	QUANT.	C.UNIT. (cm)	C.TOTAL (cm)
CA50	1	5.0	510	22	11220
CA60	2	6.0	4	410	1640
	3	6.0	1	130	130
	4	6.0	1	235	235
	5	6.0	1	272	272
	6	6.0	1	1078	1078
	7	6.0	1	448	448
	8	6.0	1	86	86
	9	6.0	1	127	127
	10	6.0	16	1091	17456
	11	6.0	14	84	1176
	12	6.0	16	160	1152
	13	6.0	1	114	114
	14	6.0	1	438	1314
	15	6.0	1	418	1672
	16	6.0	1	436	1744
	17	6.0	8	192	1536
	18	6.0	12	84	1008
	19	6.0	8	160	1280
	20	6.0	20	84	1680
	21	6.0	1	148	148
	22	6.0	1	142	852
	23	6.0	1	287	1722
	24	10.0	1	214	1284
	25	10.0	1	238	1428
	26	10.0	1	286	1716
	27	10.0	1	78	78
	28	10.0	1	78	78
	29	10.0	1	275	1650
	30	10.0	1	112	1344
	31	10.0	1	280	2800
	32	10.0	1	410	1230
	33	10.0	4	1434	5736
	34	12.5	1	214	1284
	35	12.5	1	273	1365

RESUMO DO AÇO

AÇO	DIÂM. (mm)	C.TOTAL (m)	PESO (kgf)
CA50	6.3	1778.5	174.7
	10.0	1251.2	91.3
	12.5	30.0	3.0
CA60	5.0	1665.5	64.4
PESO TOTAL (kg)			
CA50	266.1		
CA60	64.4		

Volume de concreto (0.08) = 6.72 m³
Área de forma = 106.36 m²

CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE — MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 12 SALAS DE AULA - MODELO TÉRREO
PROJETO DE ESTRUTURA

FUNDAÇÕES
BLOCO - PROHDOSO 2

SFN

85/147

PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 237

VBI-48

VBI-49

VBI-50

VBI-51

CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

RELAÇÃO DO AÇO

RESUMO DO AÇO

RELAÇÃO DO AÇO

RESUMO DO AÇO

FNDE

MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TÉRREO

PROJETO DE ESTRUTURA

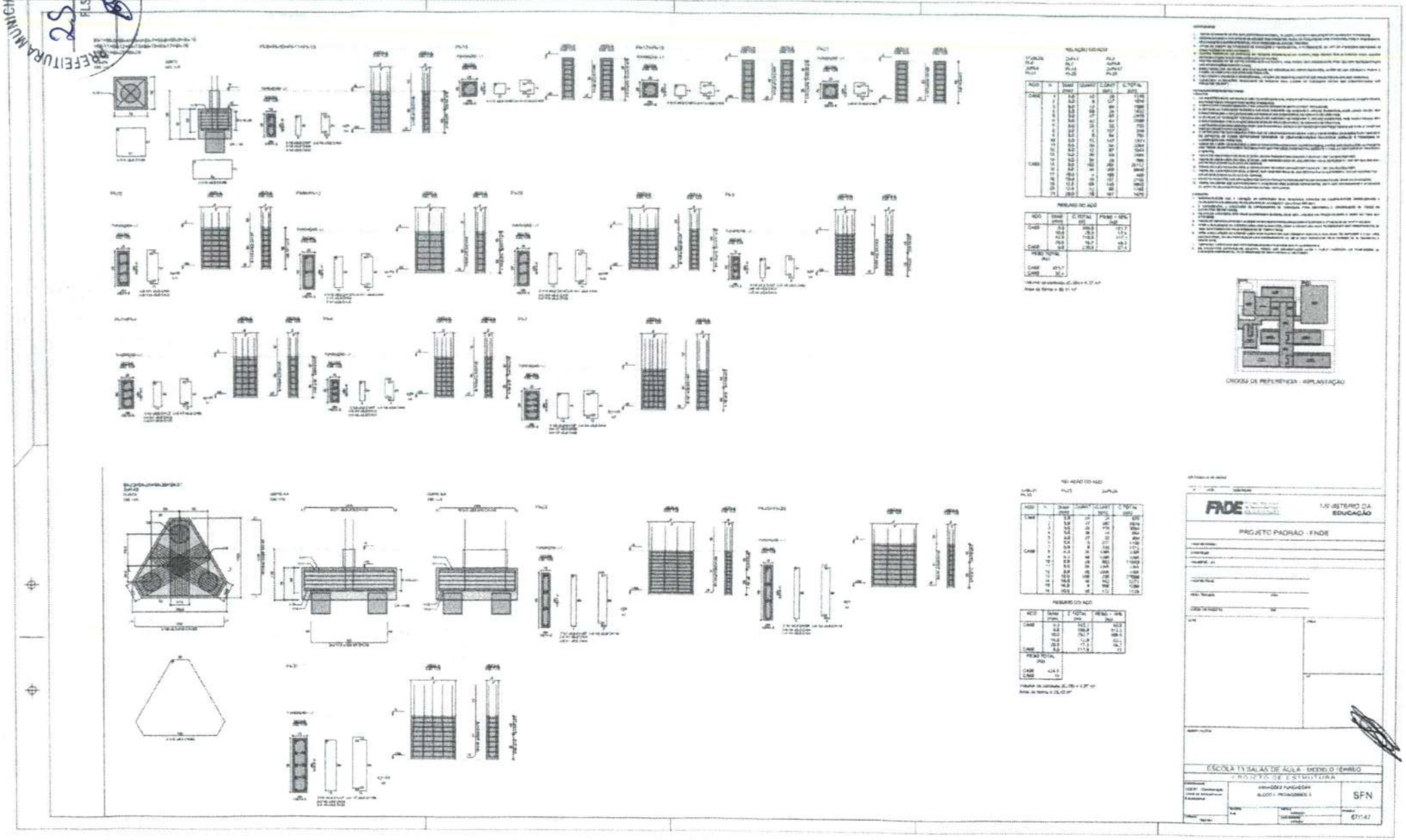
FUNDAÇÕES

BLOCO 1 - PILHAGEM 2

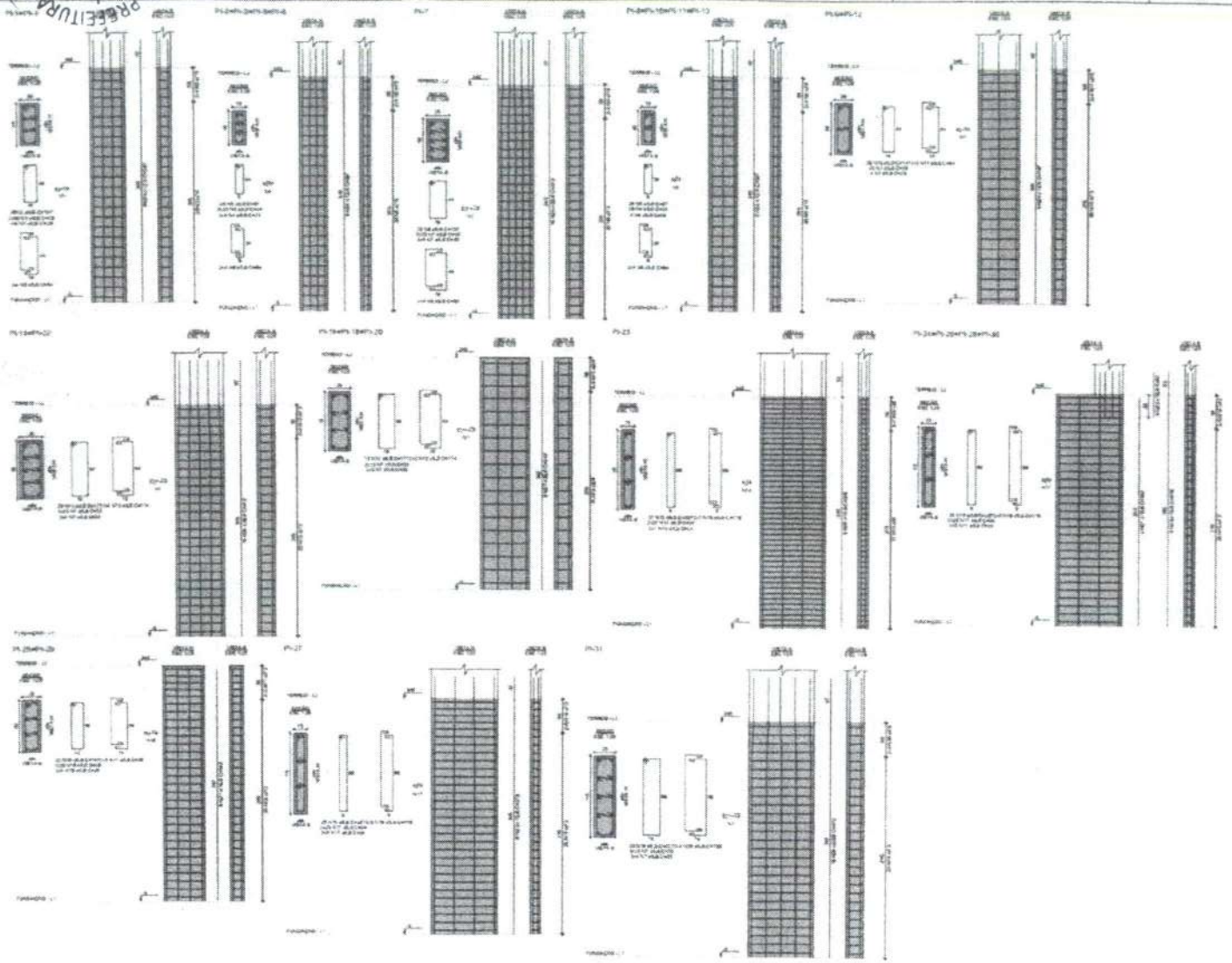
SFN

06/147

PREFEITURA MUNICIPAL DE HORIZONTE
FLS 2338



PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 2559



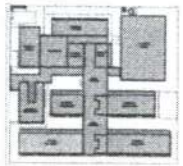
RELAÇÃO DO AÇO

AÇO	Φ	COMP. (mm)	QUANT.	C. UNIT. (cm)	C. TOTAL (cm)
CA50	6	5.0	144	20	4170
	8	5.0	40	127	5080
	6	5.0	16	84	1344
	6	5.0	288	31	8928
	6	5.0	48	97	4656
	6	5.0	64	64	4096
	6	5.0	420	33	14256
	6	5.0	23	137	3151
	6	5.0	4	94	376
	6	5.0	96	147	14136
	6	5.0	56	94	5264
	6	5.0	91	172	15652
	6	5.0	84	114	9576
	6	5.0	2	94	188
	6	5.0	192	260	49920
	6	5.0	84	170	14280
	6	5.0	288	34	9792
	6	5.0	128	38	9728
	6	5.0	4	138	552
	6	10.0	30	300	90000
	6	10.0	16	81	1296
	6	10.0	24	378	9072
	6	12.0	64	381	24384
	6	16.0	4	398	2384
	6	20.0	48	412	19776
	6	20.0	24	542	13008
CA60	5	5.0	1440	20	28800
	5	5.0	1440	20	28800

RESUMO DO AÇO

AÇO	COMP. (mm)	C. TOTAL (m)	PESO + 10% (kg)
CA50	6.0	278.8	110
	8.0	508.1	344.5
	10.0	37.8	58.1
	16.0	398.8	976.1
CA60	5.0	1577.6	436
PESO TOTAL (kg)			
CA50		1912.5	
CA60		436	

VOLUME DE CONCRETO (C-25) = 11,22 m³
ÁREA DE FORMA = 153,87 m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE — MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TERREO

PROJETO DE ESTRUTURA

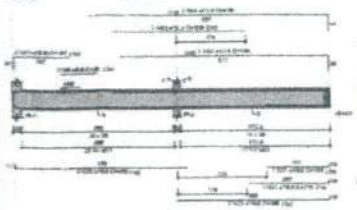
ALVENARIA TERREO
BLOCO I - PEDAGÓGICO 2

SCA

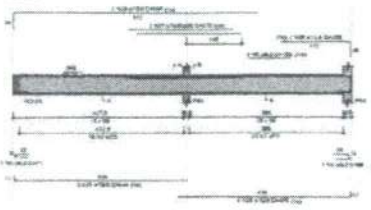
SE/147

PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 0540

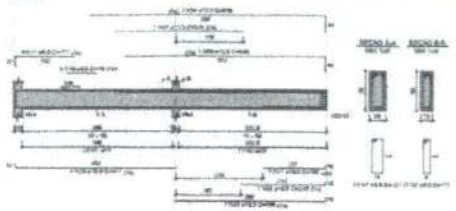
VCI-1



VCI-2



VCI-3



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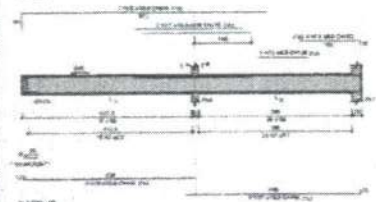

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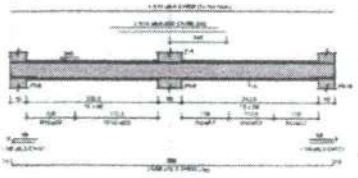

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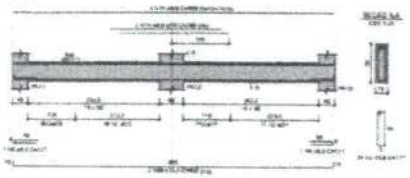
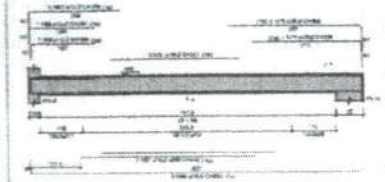
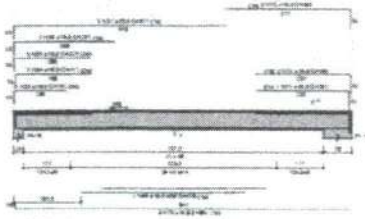


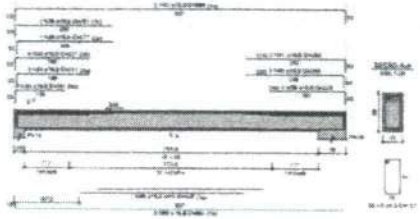
VCI-7



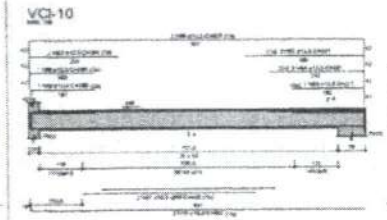
VCI-8



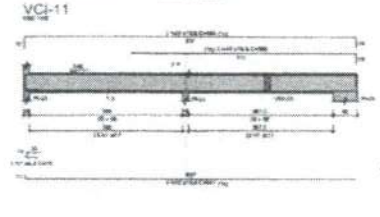
VCI-9



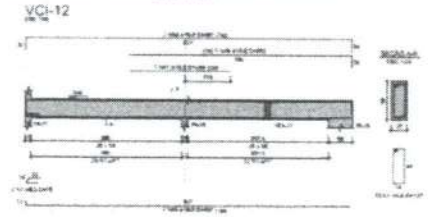
VCI-10



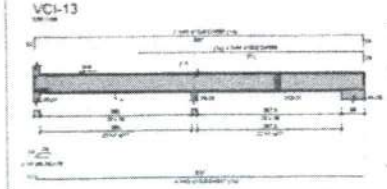
VCI-11



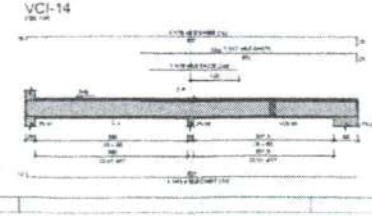
VCI-12



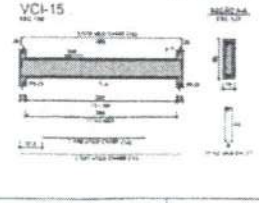
VCI-13



VCI-14



VCI-15



RELAÇÃO DO AÇO

VCI-1	VCI-6	VCI-8	
VCI-2	VCI-7	VCI-9	
VCI-3	VCI-8	VCI-10	
VCI-4	VCI-9	VCI-11	
VCI-5	VCI-10	VCI-12	
VCI-6	VCI-11	VCI-13	
VCI-7	VCI-12	VCI-14	
VCI-8	VCI-13	VCI-15	
VCI-9	VCI-14		

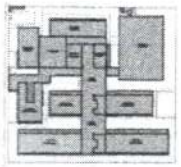
AÇO	Nº	CABO (mm)	CABOT (m)	C.UNIT (m)	C.TOTAL (m)
CA50	1	6.3	272	1.07	34984
	2	8.0	194	1.11	19214
	3	8.0	253	1.07	34951
CA60	4	4.2	1	1	110
	5	4.2	1	1	87
	6	4.2	4	1.01	464
	7	4.2	3	1.01	350
	8	4.2	3	1.01	276
	9	4.2	3	1.01	384
	10	4.2	3	1.01	234
	11	4.2	4	1.01	708
	12	4.2	4	1.01	578
	13	4.2	4	1.01	1102
	14	4.2	4	1.01	1130
	15	4.2	8	1.01	6472
	16	4.2	1	1.01	291
	17	4.2	1	1.01	273
	18	4.2	4	1.01	1127
	19	4.2	4	1.01	726
	20	4.2	4	1.01	1162
	21	4.2	1	1.01	395
	22	4.2	1	1.01	113
	23	4.2	1	1.01	751
	24	4.2	1	1.01	97
	25	4.2	4	1.01	2384
	26	4.2	4	1.01	1789
	27	4.2	4	1.01	1980
	28	4.2	1	1.01	2115
	29	4.2	1	1.01	1422
	30	4.2	1	1.01	232
	31	4.2	1	1.01	1162
	32	4.2	3	1.01	1811
	33	4.2	3	1.01	1384
	34	4.2	3	1.01	1174
	35	4.2	1	1.01	1490
	36	4.2	1	1.01	364
	37	4.2	4	1.01	2384
	38	4.2	4	1.01	1854
	39	4.2	4	1.01	2384
	40	4.2	1	1.01	1348
	41	4.2	1	1.01	1162
	42	4.2	4	1.01	2384
	43	4.2	4	1.01	1854
	44	4.2	4	1.01	2384
	45	4.2	4	1.01	1571
	46	4.2	1	1.01	1348
	47	4.2	1	1.01	1162
	48	4.2	1	1.01	345
	49	4.2	2	1.01	773
	50	4.2	1	1.01	275
	51	4.2	1	1.01	618
	52	4.2	1	1.01	354
	53	4.2	1	1.01	280
	54	4.2	1	1.01	1348
	55	4.2	1	1.01	1162
	56	4.2	1	1.01	518
	57	4.2	1	1.01	280
	58	4.2	1	1.01	518
	59	4.2	1	1.01	280
	60	4.2	1	1.01	1162
	61	4.2	1	1.01	1348
	62	4.2	1	1.01	354
	63	4.2	1	1.01	280
	64	4.2	1	1.01	1348
	65	4.2	1	1.01	1162
	66	4.2	1	1.01	518
	67	4.2	1	1.01	280
	68	4.2	1	1.01	518
	69	4.2	1	1.01	280
	70	4.2	1	1.01	1162
	71	4.2	1	1.01	280
	72	4.2	1	1.01	518
	73	4.2	1	1.01	280
	74	4.2	1	1.01	1162
	75	4.2	1	1.01	776

RESUMO DO AÇO

AÇO	CABO (mm)	C.TOTAL (m)	PESO - TON (kg)
CA50	6.3	16.9	1.0
	8.0	19.7	1.9
	10.0	3.96	2.4
	12.5	1.8	1.5
	16.0	1.8	2.7
	20.0	1.4	3.3
CA60	5.0	87.1	1.0
PESO TOTAL (kg)			
CA50	90.3 %		
CA60	9.7 %		

Volume de concreto: (C=30) = 12.28 m³

Área de forma = 144.21 m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

Nº	DATA	DESCRIÇÃO

FNDE — MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TÉRREO

PROJETO DE ESTRUTURA

FUNDAÇÕES TÉRREO

BLOCO I - PEDAGÓGICO 2

SCA

85/147

PREFEITURA MUNICIPAL DE HORIZONTE
FLS.

VCI-16

VCI-17

VCI-18

VCI-19

VCI-20

VCI-21

VCI-22

VCI-23

VCI-24

VCI-25

VCI-26

VCI-27

VCI-28

VCI-29

VCI-30

VCI-31

VCI-32

VCI-33

VCI-34

VCI-35

VCI-36

VCI-37

CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE

MINISTÉRIO DA EDUCAÇÃO

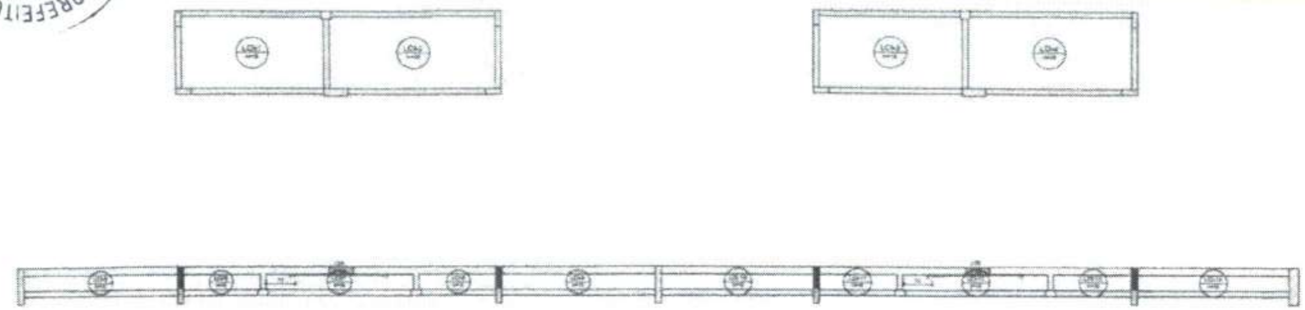
PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TÉRREO

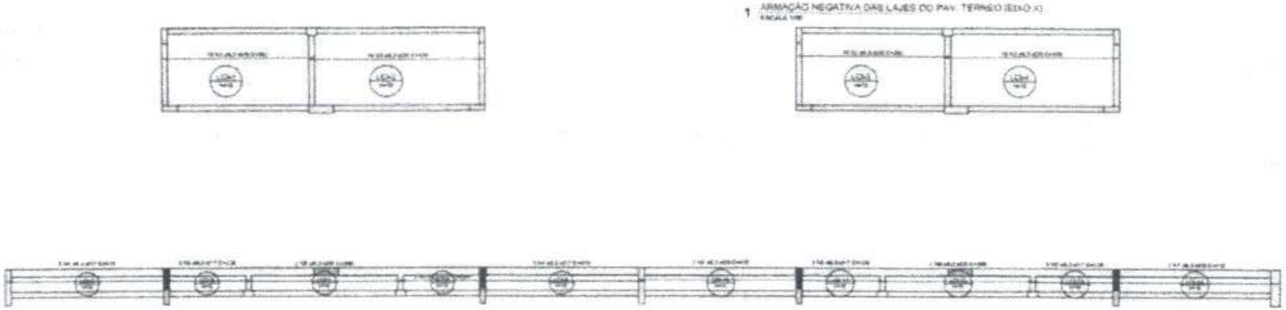
PROJETO DE ESTRUTURA

SCA

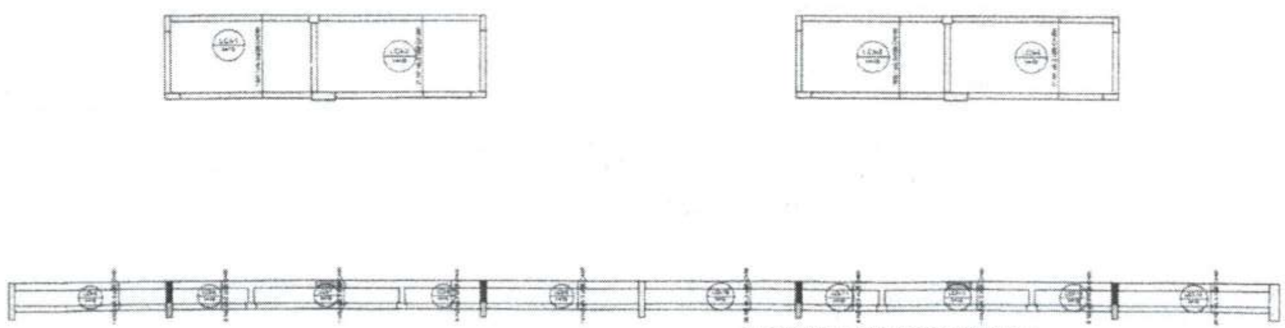
90/147



1 ARMAÇÃO NEGATIVA DAS LAJES DO PAV. TÉRREO (EIXO X)
ESCALA 1/50



2 ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO X)
ESCALA 1/50



2 ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO Y)
ESCALA 1/50

RELAÇÃO DO AÇO

Negativos X Positivos X

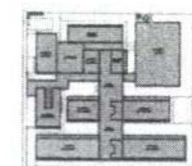
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	2	427	854
	2	6.3	30	382	[illegible]
	3	6.3	30	405	[illegible]
	4	[illegible]	8	[illegible]	[illegible]
	5	[illegible]	[illegible]	[illegible]	[illegible]
	6	[illegible]	4	388	[illegible]
	7	[illegible]	2	419	[illegible]

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	[illegible]	[illegible]	[illegible]

PESO TOTAL (kg)	
CA50	[illegible]

Volume de concreto (C-30) = [illegible] m³
Área de forma = [illegible] m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

RELAÇÃO DO AÇO

Positivos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	78	[illegible]	[illegible]
	2	6.3	[illegible]	[illegible]	[illegible]

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	[illegible]	[illegible]

PESO TOTAL (kg)	
CA50	[illegible]

Volume de concreto (C-30) = [illegible] m³
Área de forma = [illegible] m²

FNDE

MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TÉRREO

PROJETO DE ESTRUTURA

ARMAÇÕES TÉRREO

BLOCO I - PEDAGÓGICO 2

SCA

917/47

PREFEITURA MUNICIPAL DE HORIZONTE
FLS 2543

VPI-1

VPI-2

VPI-3

VPI-4

VPI-5

VPI-6

VPI-7

VPI-8

VPI-9

VPI-10

VPI-11

VPI-12

VPI-13

VPI-14

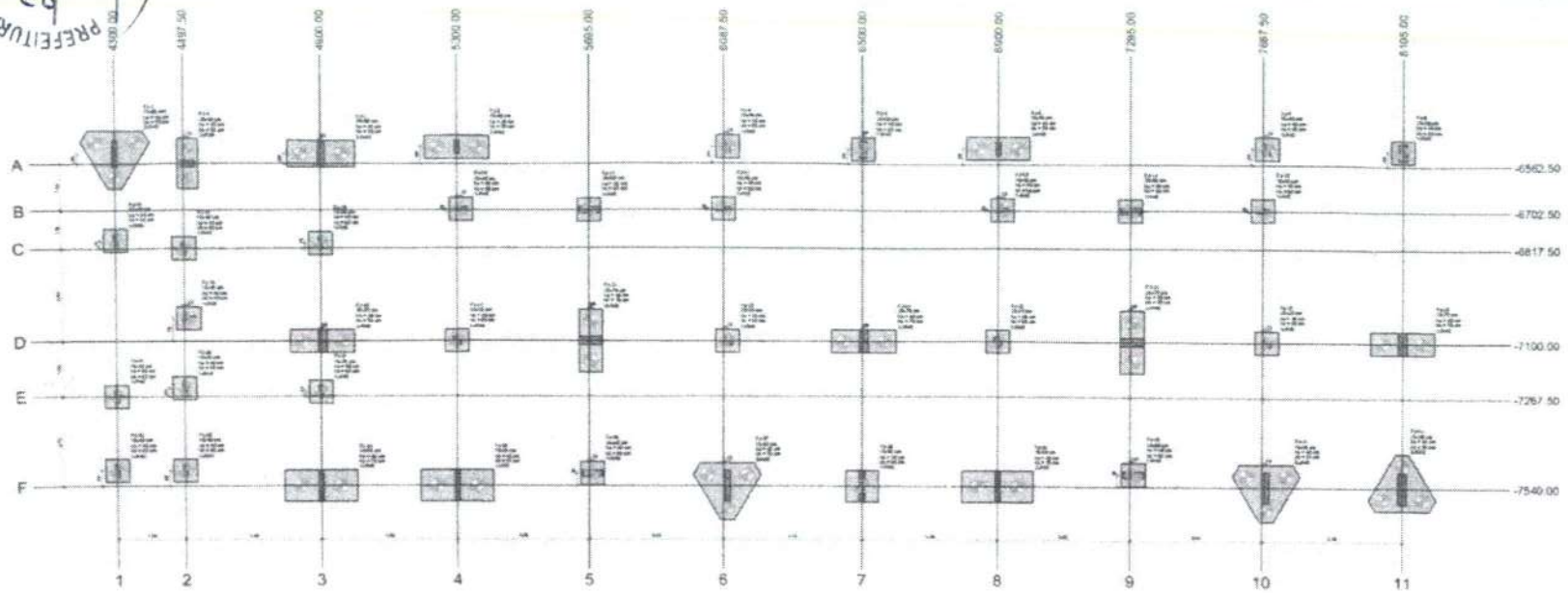
VPI-15

VPI-16

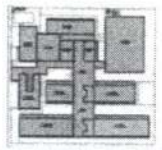
RELAÇÃO DO AÇO

AÇO	Nº	BITOLA (mm)	COMPRIMENTO (cm)	C.TOTAL (m)	C.TOTAL (kg)
CA50	1	8.0	10	10	6.4
	2	8.0	4	8	5.1
	3	8.0	4	12	7.6
	4	8.0	4	12	7.6
	5	8.0	4	12	7.6

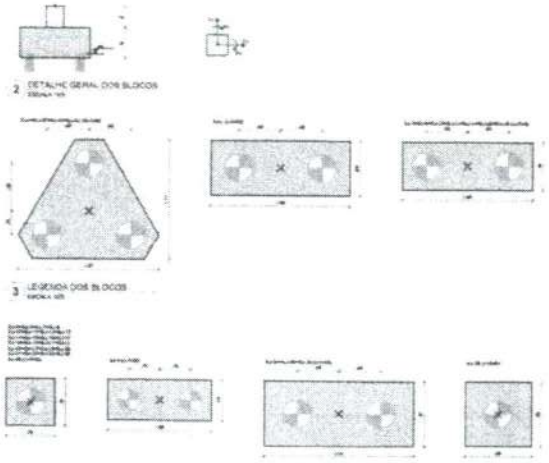
PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 2544



1 PLANTA DE LOCAÇÃO
ESCALA 1/50



CROQUIS DE REFERÊNCIA - IMPLANTAÇÃO



2 DETALHE GERAL DOS BLOCOS
ESCALA 1/25

3 LEGENDA DOS BLOCOS
ESCALA 1/25

4 LEGENDA DOS BLOCOS
ESCALA 1/25

FNDE
MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

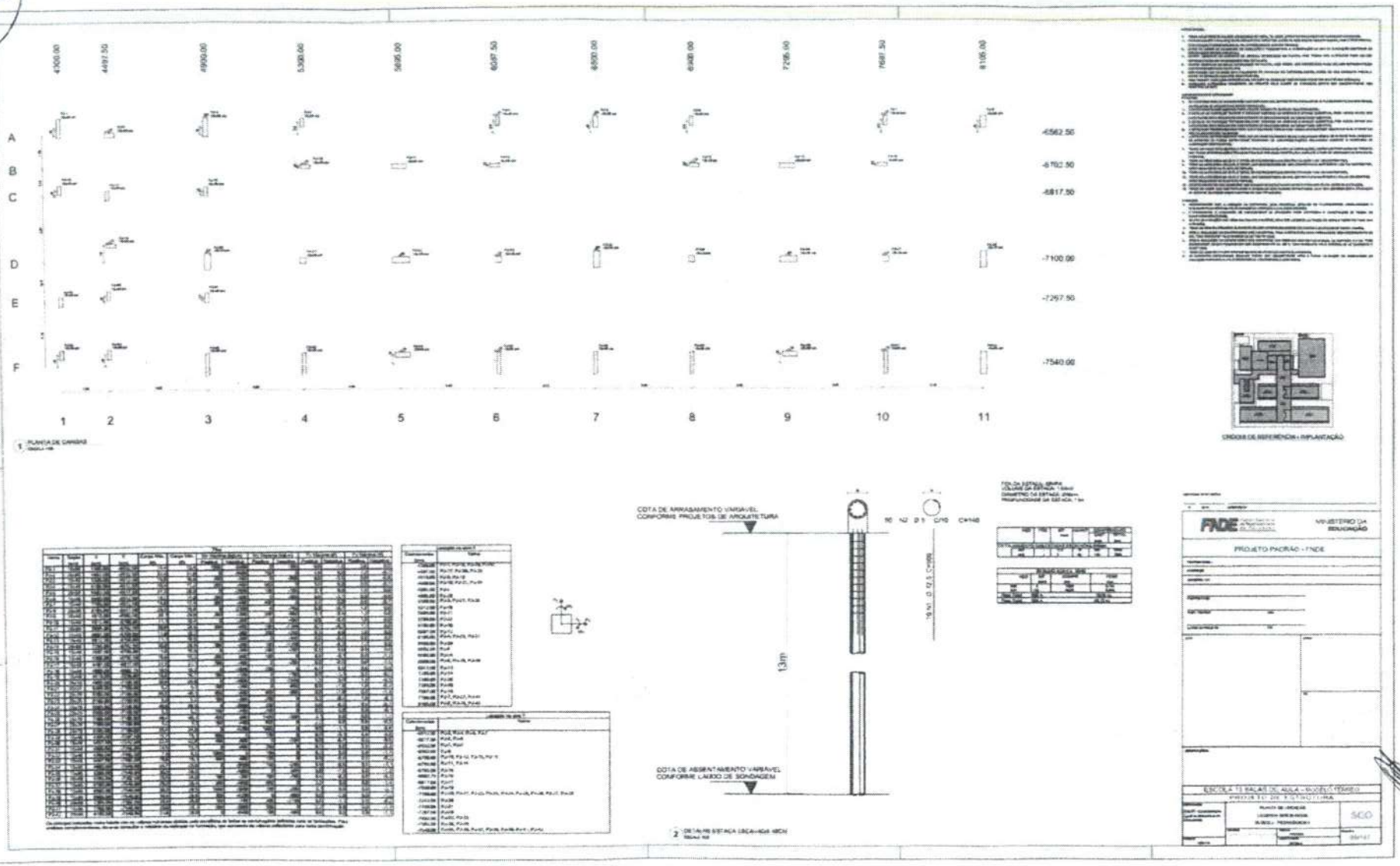
ESCOLA 13 SALAS DE AULA - MODELO FERNEC
PROJETO DE ESTRUTURA

PLANTA DE LOCAÇÃO
LEGENDA DOS BLOCOS
BLOCO 1 - PRÉ-MOLDADO 1

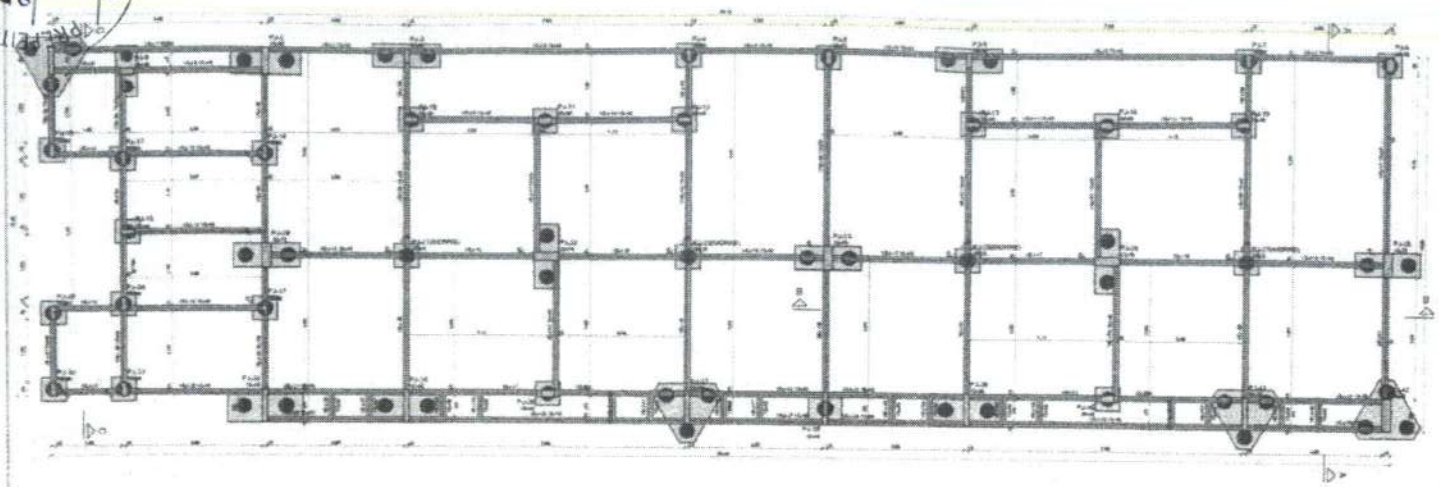
SCO

93/147

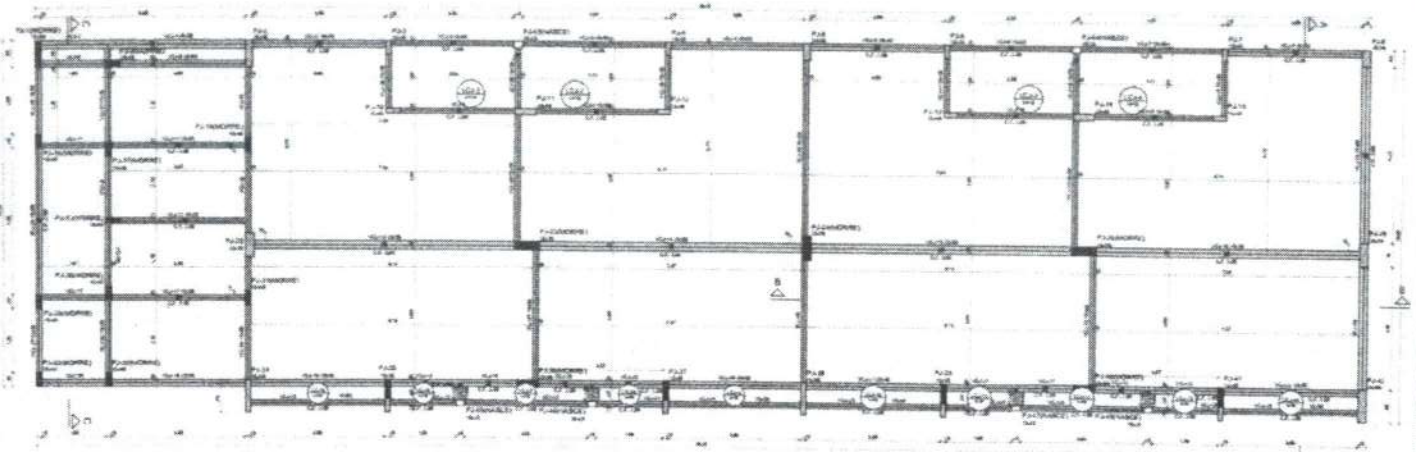
PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 2545



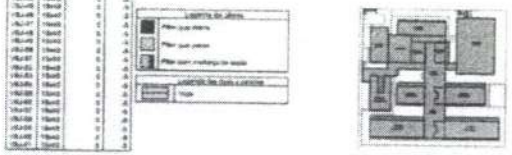
PREFEITURA MUNICIPAL DE HORIZONTE
2546
FLS



1 PLANTA DE FORMA FUNDAÇÃO



2 PLANTA DE FORMA TERREO



ORDAM DE REFERÊNCIA - IMPLANTAÇÃO

FNDE — MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TERREO

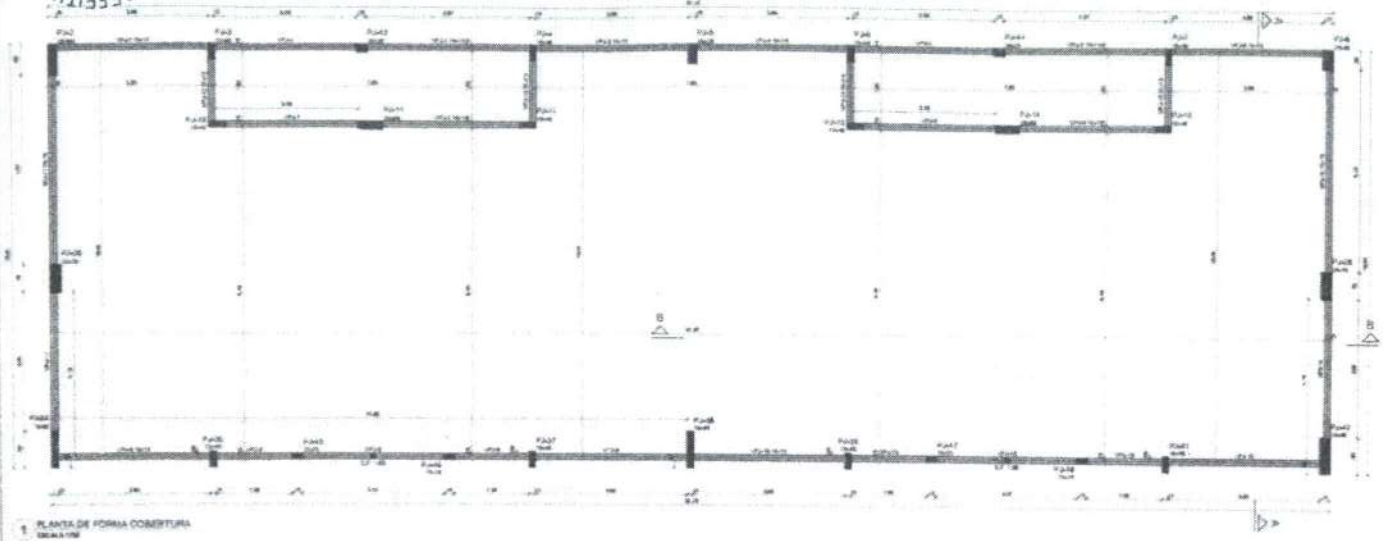
PROJETO DE ESTRUTURA

PLANTA DE FORMA DE FUNDAÇÃO E TERREO

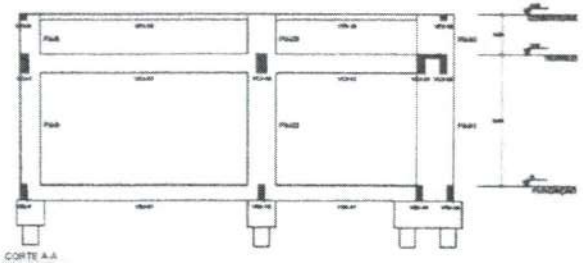
SCF

95147

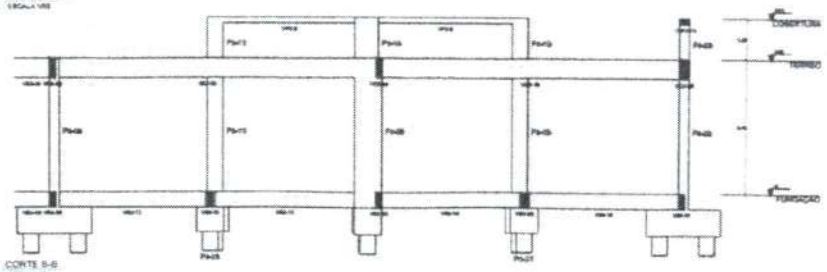
PREFEITURA MUNICIPAL DE HORIZONTE
FLS 4752



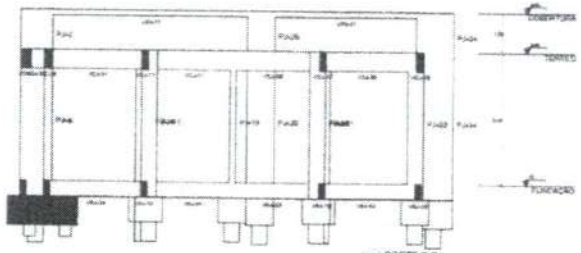
1 PLANTA DE FORMA COBERTURA
ESCALA 1/50



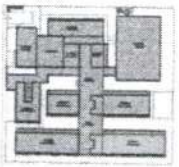
2 CORTE A-A
ESCALA 1/50



3 CORTE B-B
ESCALA 1/50



4 CORTE C-C
ESCALA 1/50



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE
MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

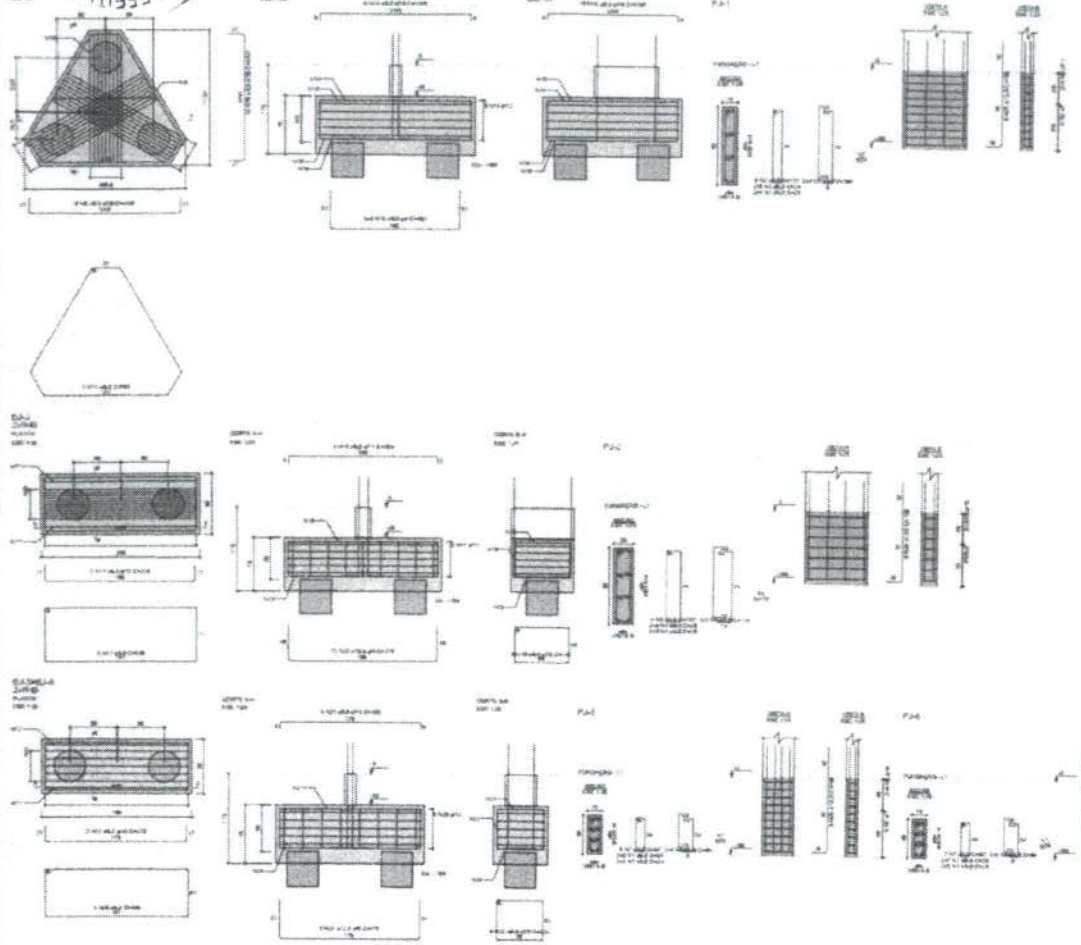
ESCOLA 13 SALAS DE AULA - MODELO TERREO
PROJETO DE ESTRUTURA

PLANTA DE FORMA COBERTURA
CORTE A-A, B-B, C-C
BLOCO A - PROGRAMA 4

SCO

90/147

PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 2548



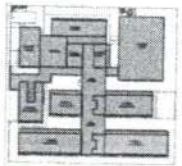
RESUMO DO AÇO

AÇO	N	CMAX (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	0.0	6	24	1392
	2	0.0	6	127	7362
	3	5.0	6	154	8932
	4	5.0	14	20	1160
	5	5.0	4	187	7480
	6	5.0	4	112	1680
	7	5.0	12	87	1392
	8	5.0	12	84	1344
CA60	9	5.0	6	1064	6384
	10	5.0	12	1064	12768
	11	4.5	2	238	476
	12	5.0	4	238	952
	13	5.0	3	560	1680
	14	5.0	4	1064	4256
	15	5.0	10	1064	10640
	16	5.0	22	261	5742
	17	5.0	5	536	2680
	18	5.0	3	203	609
	19	5.0	3	242	726
	20	5.0	10	436	4360
	21	5.0	8	123	1344
	22	5.0	10	232	3712
	23	15.0	1	276	2856
	24	12.5	16	273	4368
	25	12.5	24	153	3672
	26	12.5	8	156	1248

RESUMO DO AÇO

AÇO	QUANT (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	5.0	341.1	1.42
	6.0	284.5	1.07
	16.0	30.1	28.5
	12.5	76.7	87.1
CA60	5.0	76.8	1.2
PESO TOTAL (kg)			
CA50	244.3		
CA60	1.2		

Volume de concreto (C/30) = 1.37 m³
Área de forma = 12.23 m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE Fundo Nacional de Desenvolvimento da Educação

MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

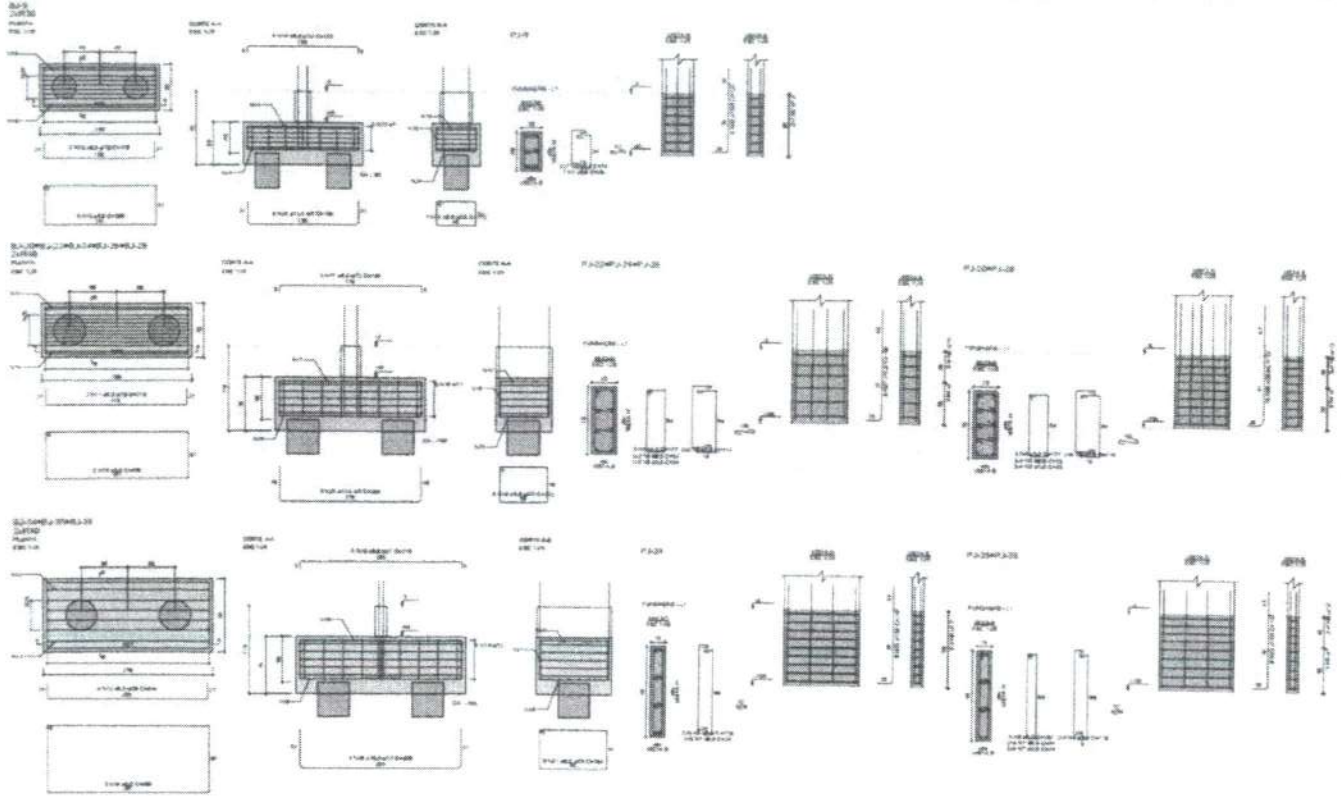
ESCOLA 13 SALAS DE AULA - MODELO TÉRREO

PROJETO DE ESTRUTURA

SFN

1/75 1/47

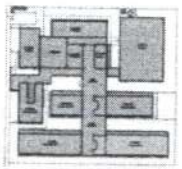
PREFEITURA MUNICIPAL DE HORIZONTE
FLS. 2549



AÇO	N	DIAM (mm)	COMPRIMT	C UNIT (cm)	C TOTAL (cm)
CA60	1	5,0	7	19	133
	2	5,0	14	74	1036
	3	5,0	50	53	1150
	4	5,0	18	117	2340
	5	5,0	39	113	4574
	6	5,0	36	34	1224
	7	5,0	54	24	1296
	8	5,0	54	113	6076
	9	5,0	14	137	1918
CA50	10	6,3	3	178	534
	11	6,3	18	218	3924
	12	6,3	12	241	2892
	13	6,3	1	88	88
	14	6,3	1	103	103
	15	6,3	1	172	172
	16	6,3	26	246	6396
	17	6,3	26	190	4940
	18	6,3	48	233	11184
	19	6,3	33	280	9240
	20	6,3	48	279	13392
	21	6,3	27	264	7128
	22	10,0	1	137	137
	23	10,0	27	137	3699
	24	12,5	1	110	110
	25	12,5	10	241	2410
	26	16,0	12	302	3624
	27	16,0	24	110	2640
	28	20,0	24	172	4128

AÇO	DIAM (mm)	C TOTAL (m)	PESO = 10% (kg)
CA60	5,0	94,2	14,7
	6,3	48,0	11,5
	10,0	12,4	3,1
	12,5	8,8	2,1
	16,0	21,4	8,4
	20,0	24,4	15,1
CA50	22	180	61
PESO TOTAL (kg)			
CA60	1484		
CA50	12		

Volume de concreto (C=30) = 10,82 m³
Área de fôrma = 57,14 m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE FUNDO NACIONAL DE DESENVOLVIMENTO DA EDUCAÇÃO

MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TERREO

PROJETO DE ESTRUTURA

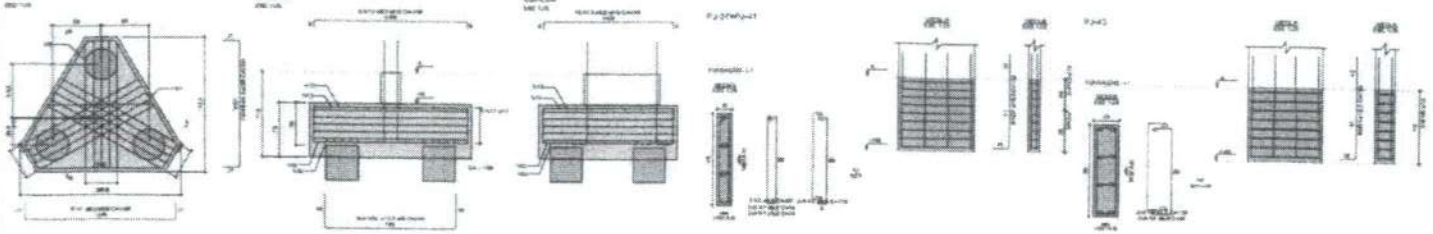
FUNDAÇÕES

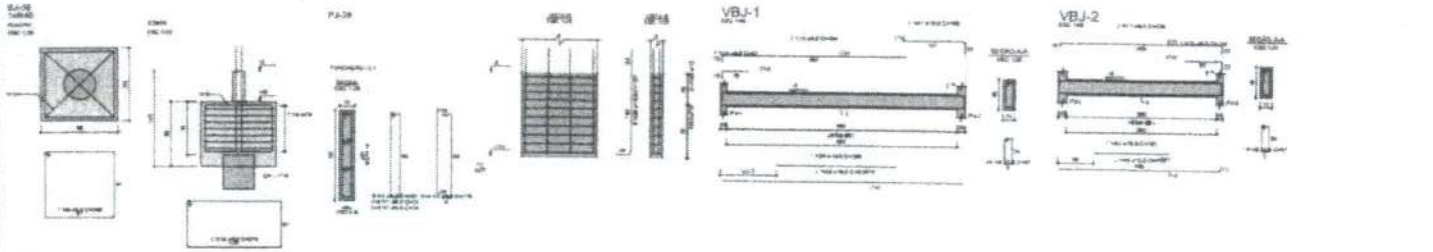
BLOCO 3 - PEDAGÓGICO 4

SFN

98/147

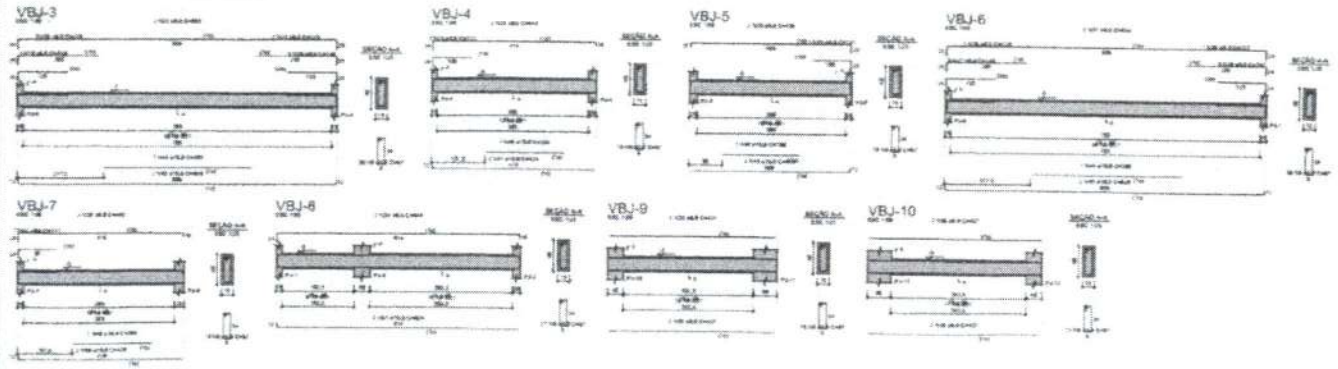
PREFEITURA MUNICIPAL DE HORIZONTE
FLS 2550





VBJ-1

VBJ-2



VBJ-3

VBJ-4

VBJ-5

VBJ-6

VBJ-7

VBJ-8

VBJ-9

VBJ-10

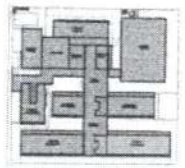
RELAÇÃO DO AÇO

AÇO	N	C.MAX (cm)	C.MIN (cm)	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	15	24	360
	2	5.0	15	207	3312
	3	5.0	15	119	1785
	4	5.0	15	34	510
	5	5.0	15	175	2625
CA50	6	5.0	15	240	3600
	7	5.0	15	147	2205
	8	5.0	15	143	2145
	9	5.0	15	154	2310
	10	5.0	15	350	5250
	11	5.0	15	74	1110
	12	5.0	15	582	8730
	13	5.0	15	124	1860
	14	5.0	15	143	2145
	15	5.0	15	87	87
	16	5.0	15	484	484
	17	5.0	15	116	116
	18	5.0	15	136	136
	19	5.0	15	148	148
	20	5.0	15	228	228
	21	5.0	15	228	228
	22	5.0	15	228	228
	23	5.0	15	855	1712
	24	5.0	15	121	121
	25	5.0	15	441	882
	26	5.0	15	121	121
	27	5.0	15	438	876
	28	5.0	15	121	121
	29	5.0	15	148	148
	30	5.0	15	228	228
	31	5.0	15	121	121
	32	5.0	15	864	1728
	33	5.0	15	172	172
	34	5.0	15	448	896
	35	5.0	15	144	288
	36	5.0	15	427	1708
	37	5.0	15	147	147
	38	10.0	15	40	200
	39	10.0	15	197	1970
	40	10.0	15	208	208
	41	10.0	15	216	216
	42	10.0	15	188	188
	43	10.0	15	188	188
	44	10.0	15	188	188
	45	10.0	15	188	188
	46	10.0	15	188	188
	47	10.0	15	144	288
	48	10.0	15	188	188
	49	10.0	15	225	225
	50	10.0	15	226	226
	51	10.0	15	188	188
	52	10.0	15	1125	1125
	53	10.0	8	188	188

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (cm)	PESO - TOTAL (kg)
CA60	5.0	361.4	33
	6.0	967.1	196.7
	10.0	149.3	161.4
	12.5	34	72.1
CA50	16	235.1	59.2
PESO TOTAL (kg)			
CA60	230		
CA50	261.5		

Volume de concreto (C-30) = 9.35 m³
Área de forma = 75.24 m²



CROQUI DE REFERÊNCIA - IMPLANTAÇÃO

FNDE — MINISTÉRIO DA EDUCAÇÃO

PROJETO PADRÃO - FNDE

ESCOLA 13 SALAS DE AULA - MODELO TERREO

PROJETO DE ESTRUTURA

FUNDAÇÕES E FUNDAÇÕES
BLOCO I - PEDAGÓGICO I

SFN

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