DOE

INDICE	DATE	MODIFICATIONS
	17-12-2009	PREMIERE DIFFUSION

LEGENDE

- Agglos creux
- Agglos pleins
- Voiles banchés
- Impact étage supérieur
- Existant

HYPOTHESES

BETON :
béton de rattrapage : C20/25
béton courant : C25/30

ACIERS :
HA & TS : Fe = 500 MPa
Rond lisse Adx : Fe = 235 MPa

SECURITE :
prévoir une protection des aciers en attente

DEGRE COUPE FEU :
général : 1/2 heure
locaux à risque : 1 heure

SURCHARGES :
G = 100 daN/m²
Q = 250 daN/m²
(sauf indications)

ENROBAGES :
intérieur : 2.5 cm
extérieur : 3 cm

UNIVERSITE DE NANTES

Faculté de lettres

Bâtiment IGARUN

Réhabilitation et restructuration

NANTES

Plancher documentation

Ferraillage

DOSSIER N° :
4308

PLAN :
03

PHASE

APS	APD	DCE	EXE	DOE
				X

Dessin : Gemon A.

Echelles : 1/50-1/20

PAYS DE LOIRE BRETAGNE INGENIERIE
298, route de Vannes - La Porte du Forum
44700 ORVAULT
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email : PLBI@wanadoo.fr

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3 rue Yves Boquien
44000 NANTES
Tél: 02 40 20 41 22 Fax: 02 40 12 41 46

Entreprise : Ets ANDRE
32, rue Lanoue Bras de Fer
44200 NANTES
Tél : 02.40.89.27.27 Fax : 02.40.89.25.42

Contrôle : APAVE
5, rue de la Johardière - BP 289
44803 SAINT-HERBLAIN Cedex
Tél : 02.40.38.80.00 Fax : 02.40.92.08.52

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Arche Poutre BAEL Version 17.1	T1	Béton=0.23 m3 Acier=17.3 kg d=82.6 kg/m3 Fi=9.4 mm Cof=2.3 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	1/2
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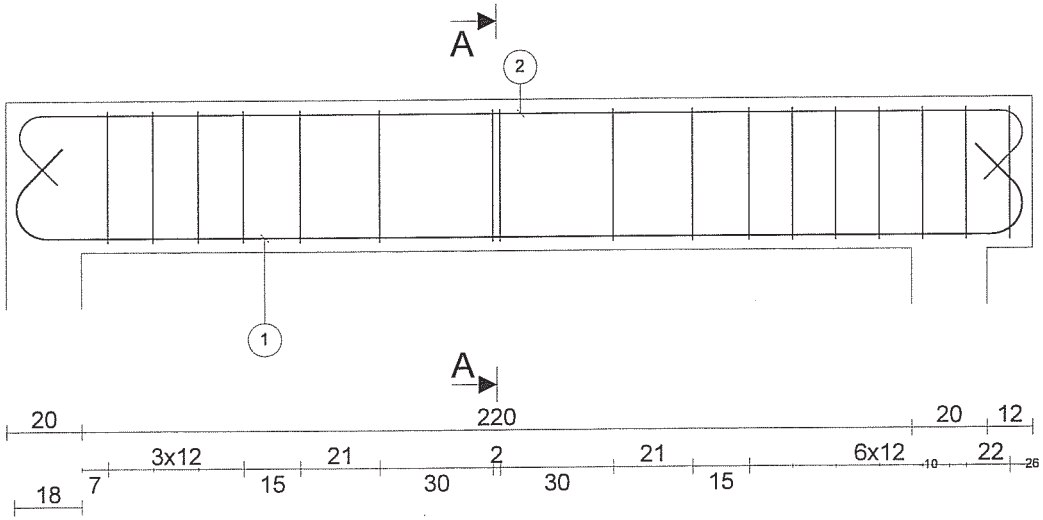
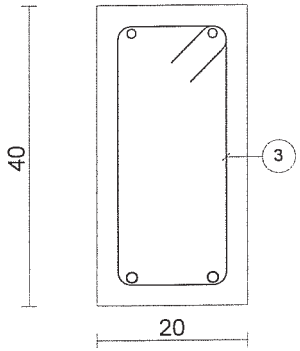
Elévation
Echelle=1/20



Coupe A-A
Echelle=1/10



	Barre	Lg	Forme
1	2HA14	317	23 23 135° 268 135°
2	2HA12	305	18 18 135° 267 135°
3	17HA6	112	35 15

Barre	Lg/Poids
HA6	19.1/4.2
HA12	6.1/5.4
HA14	6.3/7.7

Arche Poutre BAEL Version 17.1		T2	Béton=0.17 m3 Acier=10.3 kg d=61.0 kg/m3 Fi=7.8 mm Cof=1.8 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	1/7
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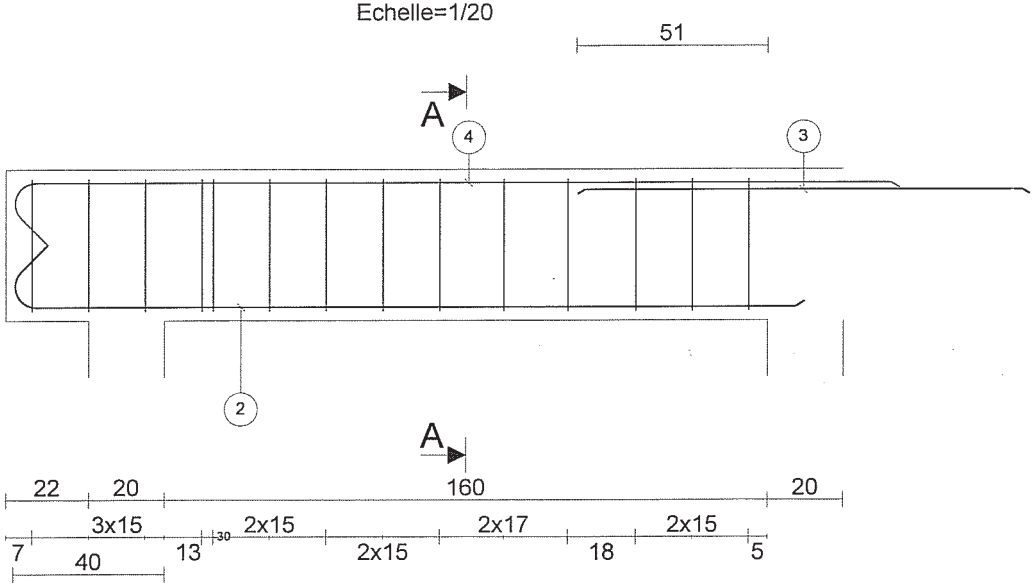
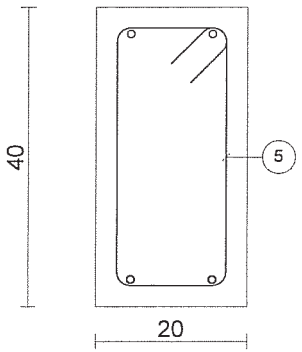
- 1 étages -

Elévation
Echelle=1/20



Coupe A-A
Echelle=1/10



	Barre	Lg	Forme
1	4HA6	112	35 / 15
2	2HA10	227	16 / 135° 210
3	2HA8	120	120
4	2HA10	252	16 / 235 135°
5	10HA6	112	35 / 15

Barre	Lg/Poids
HA6	15.7/3.5
HA8	2.4/1.0
HA10	9.6/5.9

Arche Poutre BAEL Version 17.1		T3	Béton=0.19 m3 Acier=9.4 kg d=51.1 kg/m3 Fi=7.5 mm Cof=2.1 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	3/7
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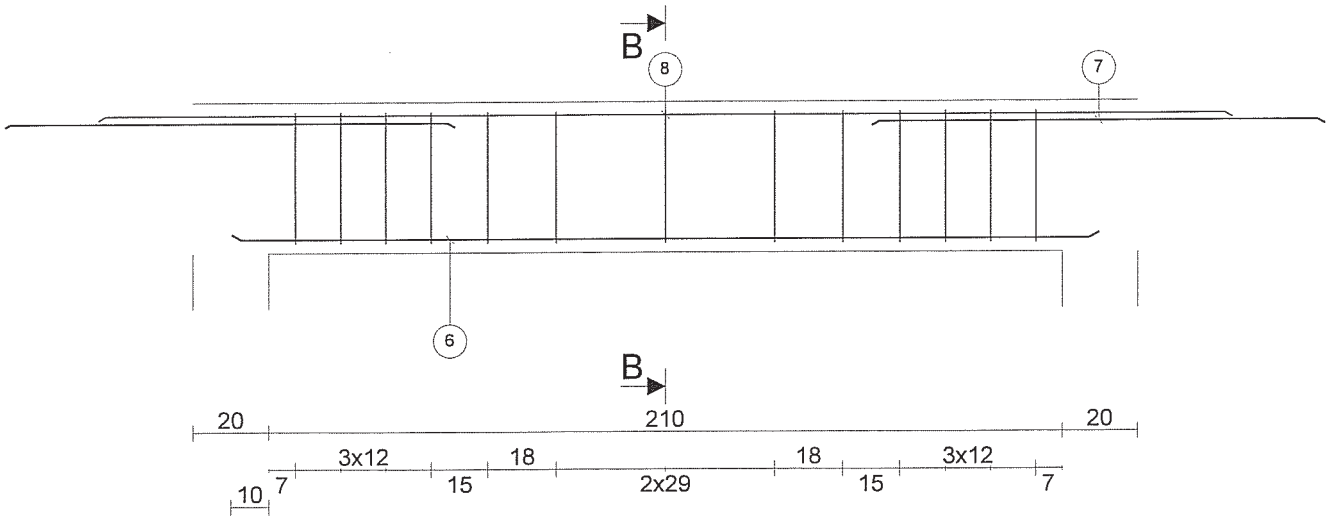
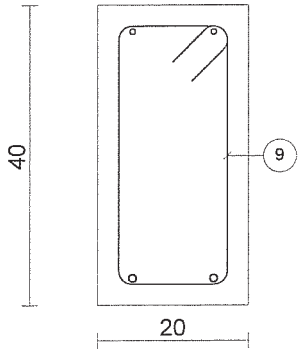
- 1 étages -

Elévation
Echelle=1/20



Coupe B-B
Echelle=1/10



	Barre	Lg	Forme
6	2HA10	230	230
7	2HA8	120	120
8	2HA8	301	301
9	13HA6	112	35 / 15

Barre	Lg/Poids
HA6 HA8 HA10	14.6/3.2 8.4/3.3 4.6/2.8

Arche Poutre BAEL Version 17.1		T4	Béton=0.17 m3 Acier=7.7 kg d=47.9 kg/m3 Fi=7.6 mm Cof=1.8 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	4/7
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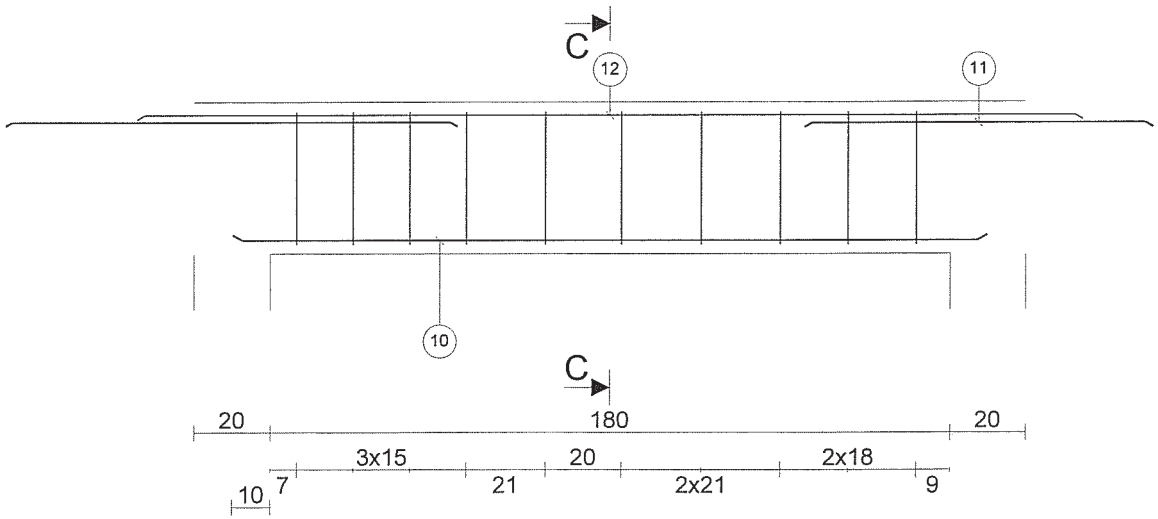
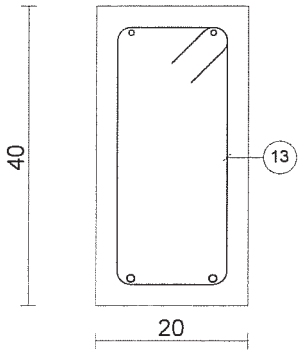
- 1 étages -

Elévation
Echelle=1/20



Coupe C-C
Echelle=1/10



	Barre	Lg	Forme
10	2HA10	200	200
11	2HA8	93	93
12	2HA8	251	251
13	10HA6	112	35 / 15

Barre	Lg/Poids
HA6	11.2/2.5
HA8	6.9/2.7
HA10	4.0/2.5

Arche Poutre BAEL Version 17.1		T5	Béton=0.15 m3 Acier=7.7 kg d=53.2 kg/m3 Fi=7.7 mm Cof=1.6 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	5/7
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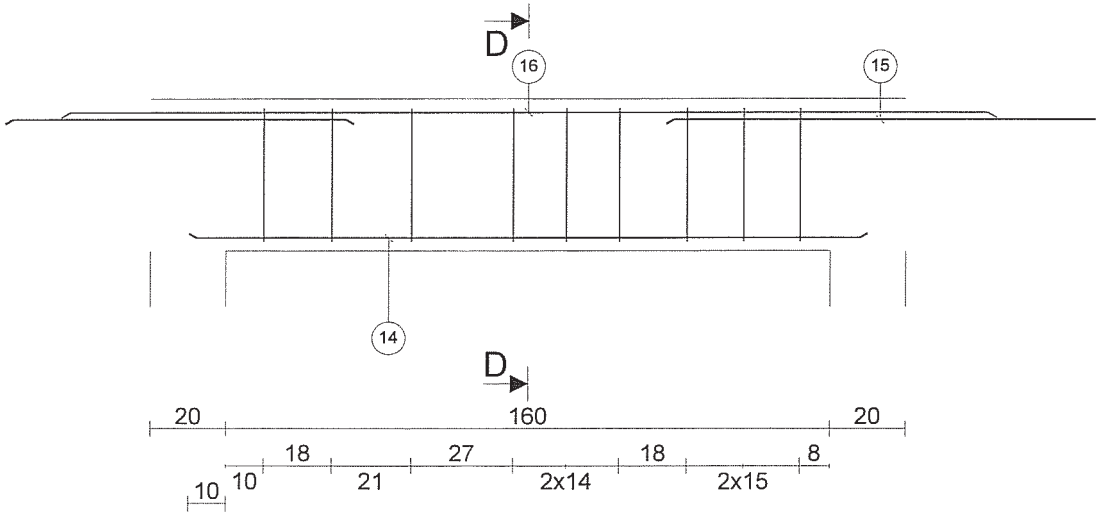
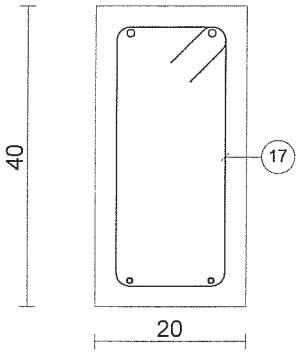
- 1 étages -

Elévation
Echelle=1/20



Coupe D-D
Echelle=1/10



	Barre	Lg	Forme
14	2HA8	180	180
15	2HA8	120	120
16	2HA10	248	248
17	9HA6	112	35 / 15

Barre	Lg/Poids
HA6 HA8 HA10	10.1/2.2 6.0/2.4 5.0/3.1

Arche Poutre BAEL Version 17.1	T6	Béton=0.22 m3 Acier=12.3 kg d=60.4 kg/m3 Fi=8.4 mm Cof=2.3 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	6/7

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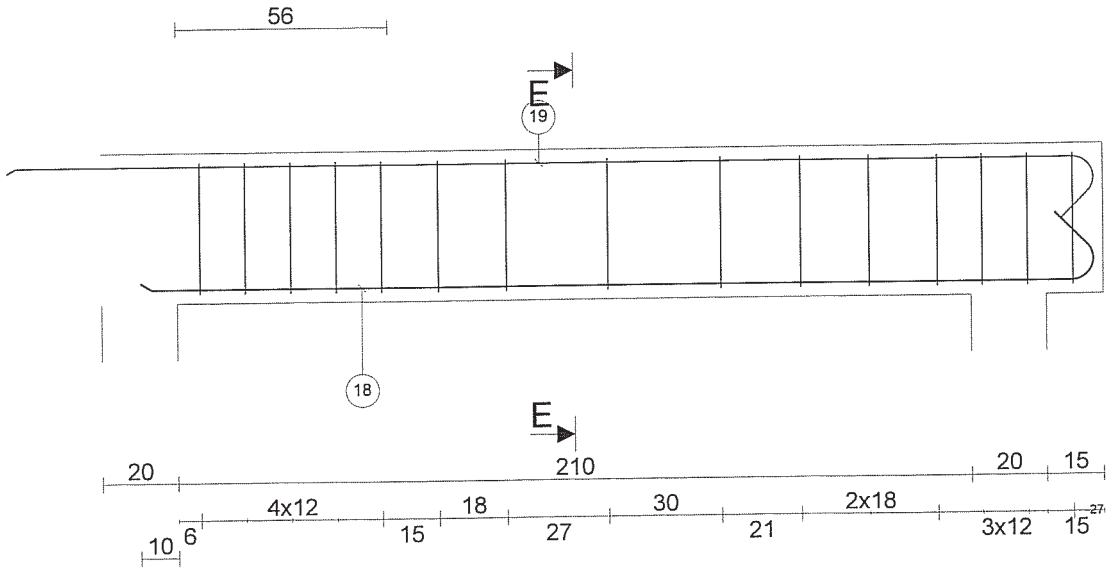
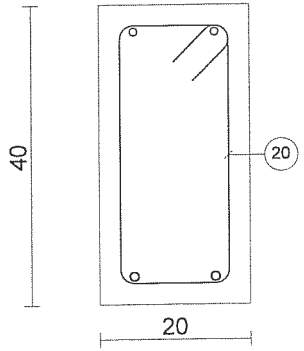
- 1 étages -

Elévation
Echelle=1/20



Coupe E-E
Echelle=1/10



	Barre	Lg	Forme
18	2HA12	272	18 253 135°
19	2HA10	305	16 135° 288
20	15HA6	112	35 15

Barre	Lg/Poids
HA6 HA10 HA12	16.8/3.7 6.1/3.8 5.4/4.8

Arche Poutre BAEL Version 17.1	T 7	Béton=0.17 m3 Acier=9.3 kg d=54.6 kg/m3 Fi=8.1 mm Cof=1.8 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	1/5

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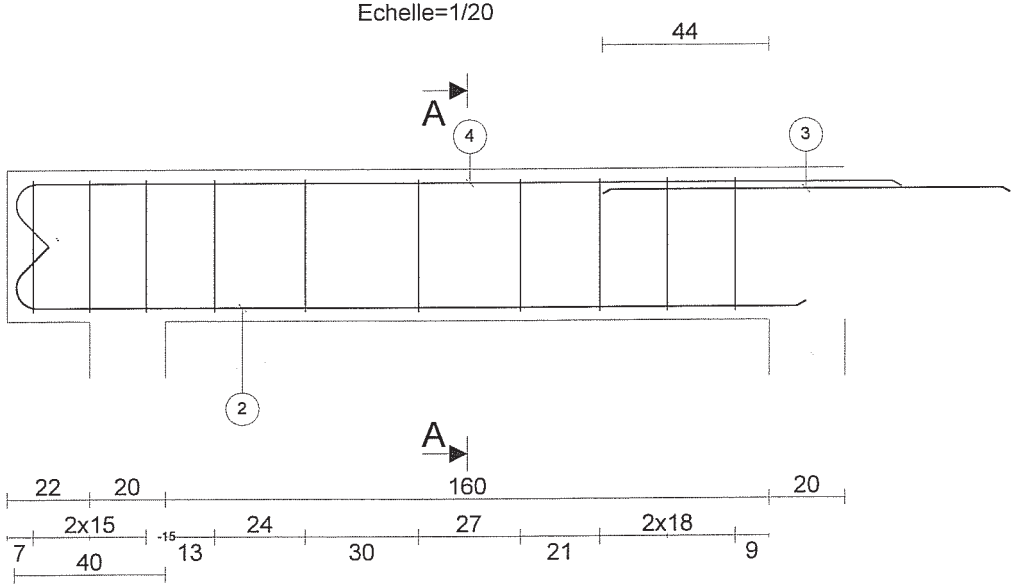
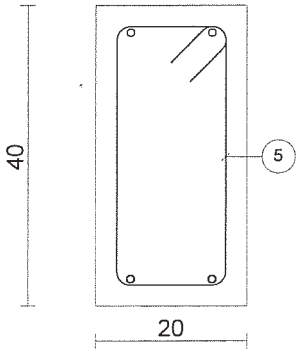
- 1 étages -

Elévation
Echelle=1/20



Coupe A-A
Echelle=1/10



	Barre	Lg	Forme
1	3HA6	112	35 / 15
2	2HA10	227	16 / 135° 210
3	2HA8	108	108
4	2HA10	252	16 / 235 135°
5	7HA6	112	35 / 15

Barre	Lg/Poids
HA6	11.2/2.5
HA8	2.2/0.9
HA10	9.6/5.9

Arche Poutre BAEL Version 17.1		T8	Béton=0.16 m3 Acier=6.2 kg d=41.8 kg/m3 Fi=7.2 mm Cof=1.6 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	3/5

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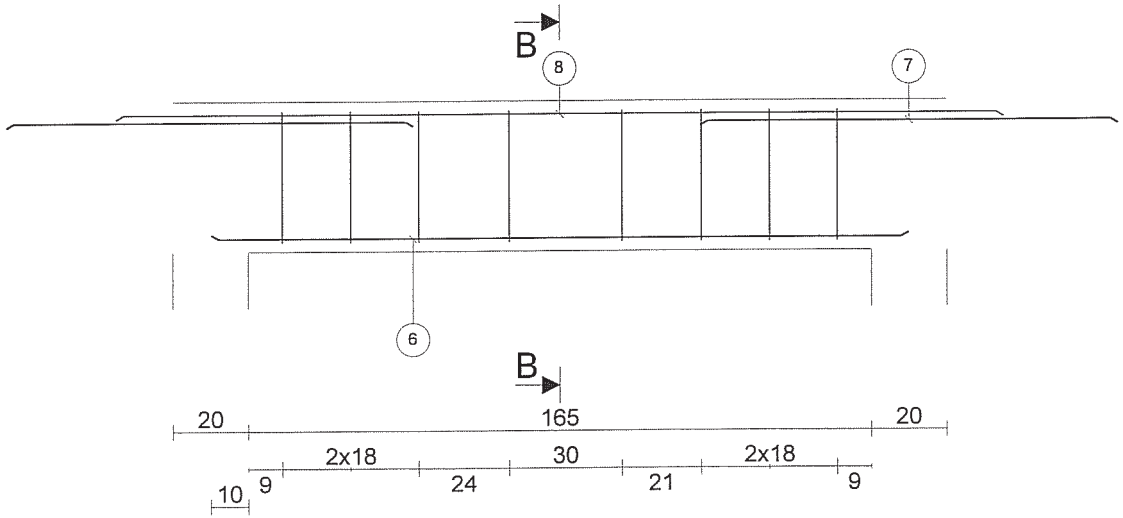
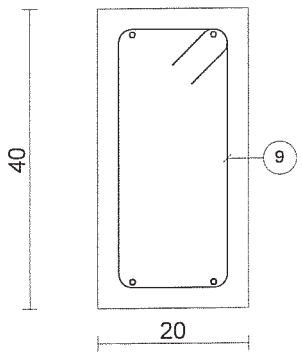
- 1 étages -

Elévation
Echelle=1/20



Coupe B-B
Echelle=1/10



	Barre	Lg	Forme
6	2HA8	185	185
7	2HA8	111	111
8	2HA8	236	236
9	8HA6	112	35 / 15

Barre	Lg/Poids
HA6 HA8	9.0/2.0 10.6/4.2

Arche Poutre BAEL Version 17.1		T9	Béton=0.19 m3 Acier=9.1 kg d=51.7 kg/m3 Fi=7.9 mm Cof=1.9 m²	Eb=2.5 cm Eh=2.5 cm El=2.5 cm	4/5

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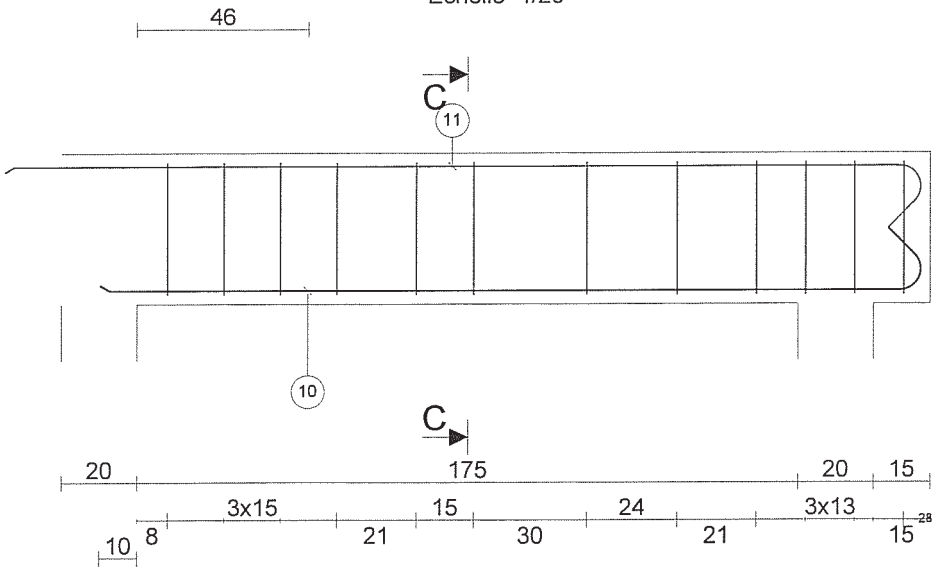
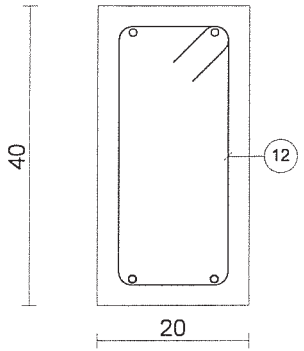
- 1 étages -

Elévation
Echelle=1/20



Coupe C-C
Echelle=1/10



	Barre	Lg	Forme
10	2HA10	235	16 218 135°
11	2HA10	260	16 135° 243
12	12HA6	112	35 15

Barre	Lg/Poids
HA6 HA10	13.5/3.0 9.9/6.1

Arche Semelle 3D BAEL Version 17.1		S 1 Nombre : 6	Béton=0.11 m3 Cof=0.6 m² Acier=4.0 kg d=35.2 kg/m3 Fi=8.7 mm	ESem=4.0 cm EFut=2.5 cm	1/1
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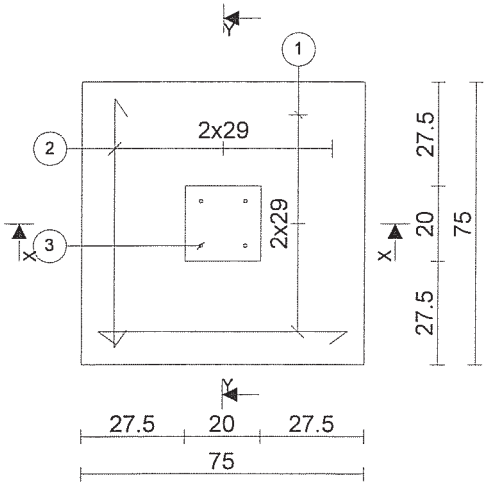
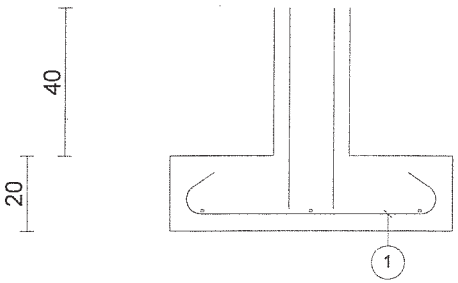
- 1 étages -

Elévation
Echelle=1/20



Coupe XX
Echelle=1/20



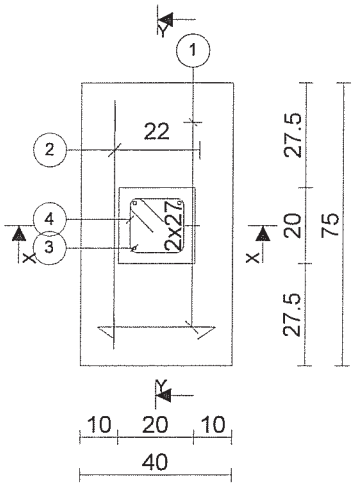
	Barre	Lg	Forme
1	3HA8	92	11 71 145° 67 145°
2	3HA8	92	11 71 145° 67 145°
3	4HA10	72	21 54 90°

Barre	Lg/Poids
HA8 HA10	5.5/2.2 2.9/1.8

Arche Semelle 3D BAEL Version 17.1		S 2 Nombre : 6	Béton=0.06 m3 Cof=0.5 m² Acier=4.6 kg d=76.2 kg/m3 Fi=9.2 mm	ESem=4.0 cm EFut=2.5 cm	1/1
IGARUN					

- 1 étages -

Elévation
Echelle=1/20



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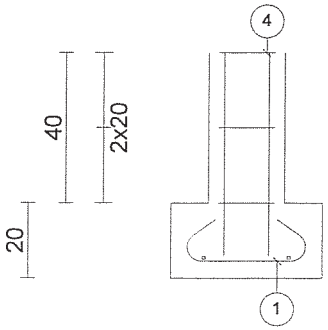


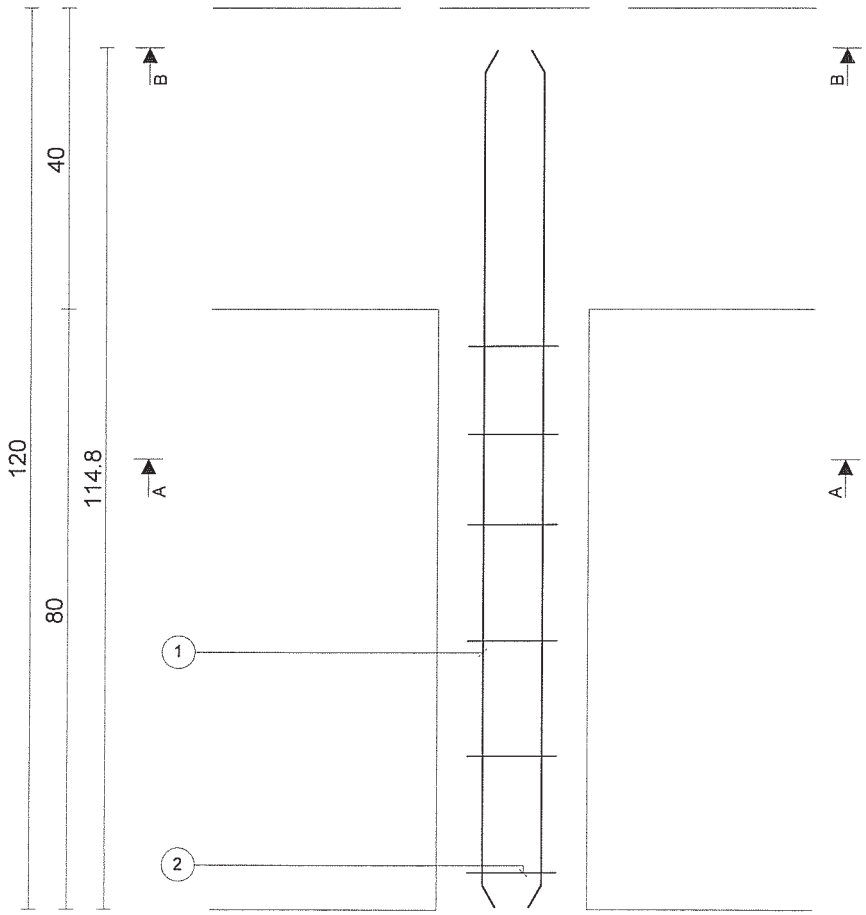
	Barre	Lg	Forme
1	3HA8	57	145° 32 145°
2	2HA10	100	179° 111 67 179°
3	4HA10	72	21 54 90°
4	3HA8	76	15 15

Barre	Lg/Poids
HA8 HA10	4.0/1.6 4.9/3.0

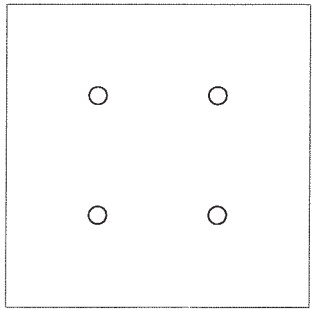
Arche Poteau BAEL Version 17.1		P 1 Nombre : 12	Béton=0.03 m3 Cof=0.6 m² Acier=4.9 kg d=152.4 kg/m3 Fi=9.8 mm	En=4.0 cm	1/1
IGARUN					

- 1 étages -

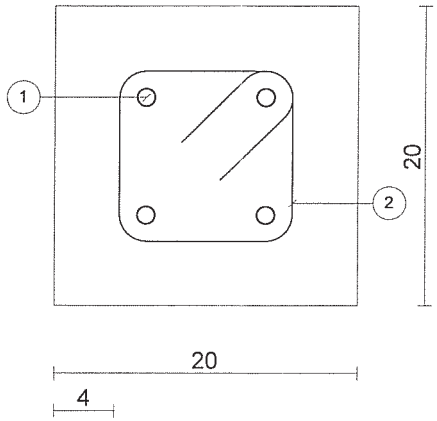
Elévation
Echelle=1/10



Coupe BB Attente sup
Echelle=1/5



Coupe AA Courante
Echelle=1/5



	Barre	Lg	Forme
1	4HA12	115	115
2	6HA6	60	12 / 12

Barre	Lg/Poids
HA6 HA12	3.6/0.8 4.6/4.1