



## B³RetroTool - pre-assessment webtool

### Explanatory sheet (types 6a & 6b)

### Between- wars apartment building

#### Preamble

Two attempts were required to establish the apartment building for the Brussels lower middle classes. The first attempt took place in the 1870s following the channelling of the Senne. Some sixty apartment buildings are then built along the grand boulevards of the centre. But they prove difficult to acquire - the Brussels lower middle classes consider the fact of cohabiting under the same roof as a situation of poverty and promiscuity. Consequently, up to the First World War, multiple dwellings remain principally for workers, and the single-family house remains the most common form of dwelling in Brussels.

According to the analysis of the residential stock carried out as part of the B³RetroTool project, based on the land registry table No. 212AM (situation at 01.01.2012), apartment buildings represent around 3% of the pre-1945 Brussels property stock, and 12% of the housing. Note that currently, following the numerous conversions of middle-class houses and private mansions, 42% of the pre-1945 Brussels residential stock is constituted of multi-family dwellings. Finally, while many apartment buildings are built between the two wars, middle-class houses and private mansions continue until the Second World War to dominate the Brussels landscape.

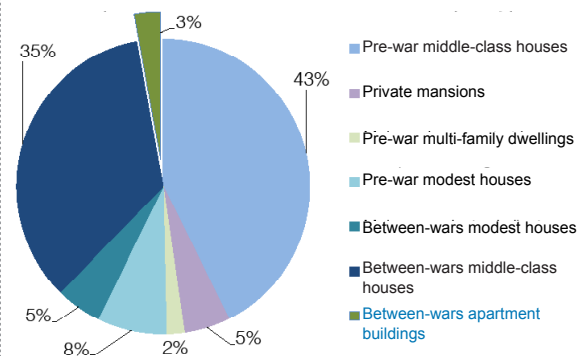


Figure 1a: Representation of between-wars apartment buildings in the Brussels dwellings stock before 1945

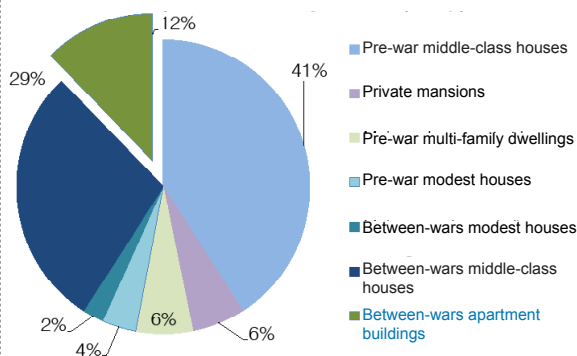


Figure 1b: Distribution of dwellings, by type, in the Brussels dwellings stock before 1945

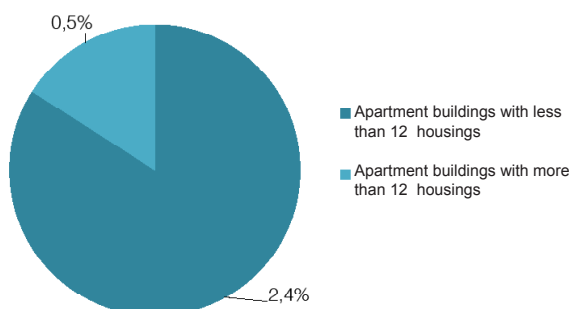


Figure 1c: Distribution of between-wars apartment buildings, by type

#### Historic background

The first apartment buildings built in Brussels are mainly dedicated either to collective social housing or to upper and aristocratic class housing.

The first major collective social housing projects appear at the start of the 20th century. These social apartments are simple and functional. They comprise a set of rooms dedicated to the kitchen, to sleeping and toilets.

After the First World War, in Belgium there is a serious lack of housing, which is for all social categories. The constitution of the SBI (Société Belge Immobilière) in October 1922 provides a first response to this housing problem. Between 1922 and 1925, very many buildings intended for sale are built on the initiative of the SBI in Brussels. However, the middle classes are hardly enthusiastic about community living – still associated with social housing – and having to share common areas.

The law on co-ownership of 1924 modifies thinking at this time.

The SBI, from 1924, launches the construction of a series of buildings on Boulevard de Dixmude, Place de l'Yser and Place Saintelette. These buildings are built on the model of the Haussmann building, then in the Beaux Arts and Art Deco styles. The SBI also launches a series of building projects on Avenue Molière and in quarters near the Université Libre de Bruxelles. The spatial organisation of these buildings is still strongly inspired by that of the middle-class home or private mansion. The plans of the apartments are designed so that the different functions are well separated one from another. They include separate stair wells and lifts for the occupants



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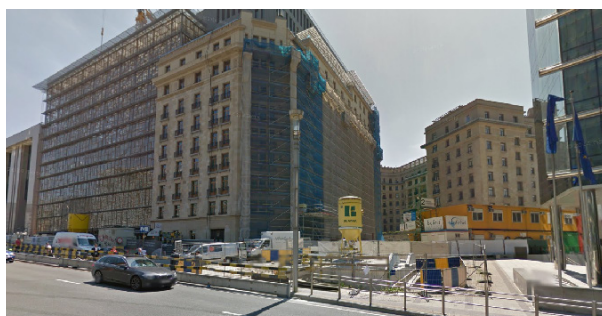


Figure 2a: Residence Palace (1927)  
(source: Google Maps, novembre 2015)

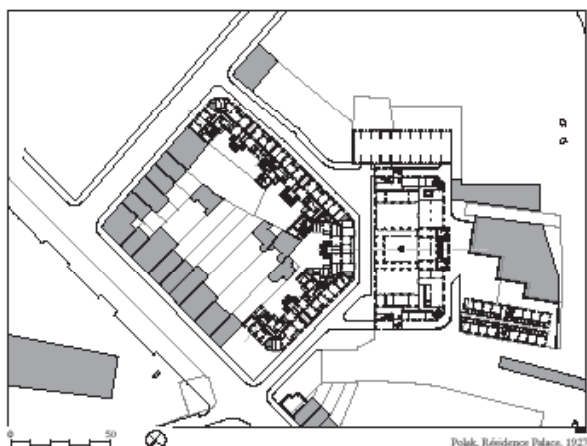


Figure 2b: Residence Palace (1927), frontage and plan  
(source: G.Ledent, Phd thesis, UCL, 2014)

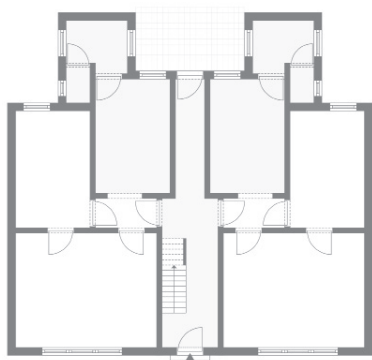


Figure 3:  
Investment house, schematic plan



Figure 4:  
Investment house, Avenue Lepoutre in Ixelles (1937)  
(source: Iris Monument)

and for staff.

The success of the Residence Palace, built in 1923 by M. Polak and the growing interest of the middle classes for SBI buildings at the end of the 1920s encourage the construction of several luxury Art Deco apartment buildings intended for the upper classes.

After the 1929 financial crisis and the return of the middle classes to the centre of Brussels, certain developers turn to the construction of less luxury apartments intended for the lower middle classes. The accent is placed on the quality of the apartment properly speaking and on the advantages of modern technologies.

The apartments have every comfort required but there is no longer the luxury equipment and commodities of the Residence Palace. Certain common equipment appears. This is a system for routing mail, a waste evacuation system or again ground floor reception rooms.

Thanks to their comfortable arrangements – without being excessive – these apartments attract a wide public of buyers. This clear success is emulated and the 1930s see the realisation of a great many apartment buildings, for all the middle classes. It's the real breakthrough for the apartment building.

Note that investment houses and apartment buildings with four to five storeys (a scale similar to middle-class houses and private mansions) continue to be built. They are less luxurious than those built pre-war along the grand boulevards of the centre, while being comfortable. And sometimes they still have a bedroom for staff.

### General description

The first aim of the spatial design of the standard between-wars building is to provide every modern comfort and new construction techniques while lightening domestic work as far as possible and eliminating all vertical circulation.

The living and service spaces, lit and ventilated naturally, are arranged around a central hall which eliminates any dark useless corridor.

The construction of these buildings is also the opportunity to push technological inventions, both for collective spaces (door phones, silent lifts, etc.) and in living spaces (well equipped kitchen, central gas heating, with coal, fuel oil or mixed, separate hot water production, double glazing, heat meter, etc.).

Far from the succession of the middle-class house, the apartment building is characterised by two large spaces (day and night) arranged around a central hall and opening onto a very wide façade (10m average).

### Urban situation

The standard between- wars building is located in the second



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**Figure 5:**  
Standard apartment building, Avenue de la Toison d'Or (1936)  
(source: Iris Monument)



**Figure 6:**  
Apartment building in Modernist style, Boulevard Brand Witlock 142,  
built by JF Collin (1935)  
(source: Iris Monument)

crowd around Brussels and in the east and south-east communes of Brussels, mainly in the communes of Ixelles, Uccle and Boitfort, on tree-lined avenues like Avenue Churchill, Avenue Louise, Avenue de Broqueville, Avenue des Nations, Avenue de Tervueren, Boulevard Witlock and the Rond-Point de l'Etoile, near the ULB, the Etangs d'Ixelles, the Jardin du Roi and the Bois de la Cambre.

These buildings generally benefit from a pleasant city situation.

They are located close to green spaces and public transport lines, in the street alignment, either directly fronting the street, or after a setback area including a small garden. Some buildings are also installed on the corner plots of the islands.

### Scale

The scale of the plot of the standard building is much larger than that of the middle-class house while the building groups many dwellings (between 14 and 20 apartments). In general, the plot with average width 20m between party walls has:

- a setback area with average depth 5 to 6m;
- a building with depth 12 to 15m;
- a back court to the building whose area varies strongly according to the location

In general the standard building is installed on a width around 20m and on a depth of 12 to 15m. It rises 8 to 10 storeys generally with 2 apartments per floor. The last or last two floors are slightly set back from the alignment (compliance with permitted volume – roof slope 45°).

The scale of the standard building is quite different from the investment house (type 3a) or the social building:

- façade width: around 20m;
- total height: between 22 and 30m, according to the number of floors;
- height per floor: 3.15m average;
- ground floor height: 2.55m average;
- basement height: 2.50m average;
- depth: between 12 and 15m according to the depth of the main rooms (between 4.5 and 5.00m)

The ground floor is usually raised above street level with one or two steps.

### Spatial organisation

The building entrance, on the ground floor, is usually placed in the centre of the building (symmetric composition).

The lift and monumental staircase are set in the centre of the building. The staircase is mostly lit and ventilated naturally. On the ground floor, either side of the hall, there are also some private garages (fronting the street), private boxes, bicycle or pram room and the concierge's lodge.



## B<sup>3</sup>RetroTool - pre-assessment webtool

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**Figure 6:**  
Apartment building in Modernist style, Chaussée de  
Boondael 119, built by Adrien Blomme (1933)  
(source: Iris Monument)

By the lift and/or staircase, a small hall is reached which serves two apartments.

The plan of the apartment is simple, functional and easy to use. It uses as rationally as possible the built area. All the rooms are lit and ventilated naturally and arranged around a central hall.

The living room (day quarter) is set on the street side, mostly with an interesting view (trees, lakes, etc.). With rectangular shape in standard plans, the living room can enjoy a rounded or rotunda shape when the building is set on a corner. The bedrooms (night quarter, preferably oriented to the east) are set on the court side. The bathroom, lit and ventilated naturally, is set close to the main bedroom; the other bedrooms having a toilet cubicle.

The kitchen preferably located to the north (to avoid overheating) is set close to the stairwell and service lift if any. The kitchen also has a small terrace with waste chute.

In general, the main rooms are spacious (living room and bedrooms) with average depth 4.5 to 5m. The services rooms are also comfortable.

Some interior partitions can be dismantled and enable the space to be altered according to the needs of the occupant, especially to expand or reduce the salon by adding an office or bedroom.

Most rooms have built-in cupboards. False ceilings are installed in the services rooms and the entrance hall.

The standard building has a basement floor semi or fully buried and accessible by stairs or service lift. Here are the privative cellars (one cellar per apartment) and various technical rooms (coal cellars, boiler room, meter room, etc.)

### Circulation and stairs

From the street, the building's entrance hall is accessed by a porch with one or two steps.

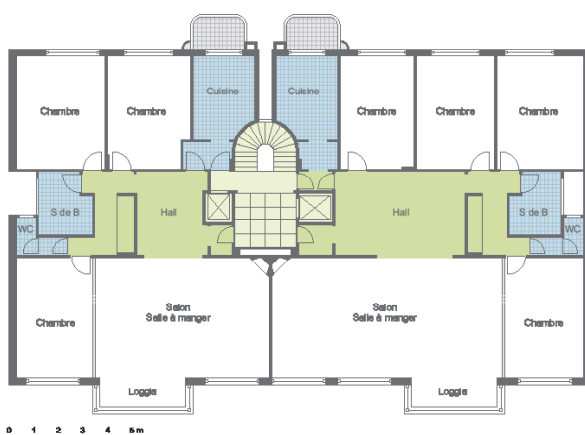
The entrance hall is considered as the anteroom where, sheltered from the weather, visitors can announce their arrival on the door phone.

This entrance hall is richly decorated: marble floor, wrought iron, panelling and plate glass or mirrors.

From the entrance hall, a second hall is accessed, still richly decorated, which leads to the monumental staircase and lifts.

Mostly, there are two lifts with one reserved for suppliers. This is directly linked to the kitchens and is not directly visible from the hall.

The concierge's lodge is directly connected to the second hall. In this way, they can monitor the comings and goings. The monumental staircase and lift lead to the upper halls. These are marble and serve two apartments.



**Figure 6:** Between-wars apartment building, schematic plan



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#### Construction system

The standard building is built on a reinforced concrete frame (columns-beams): a series of columns and beams in the façades and in the centre of the building takes the loads and supports the floor blocks.

The interior and façade walls are brick masonry. The layout of some partitions, especially in the living room, can be modified.

The foundations are also reinforced concrete. Use of FRANKI piles according to the type of soil.

The façades wall have average thickness of 21cm (excluding ext. finishing), the interior partitions are 9cm thick, the party walls are 14cm thick and the wall separating two apartments is 21cm thick.

#### Façades and materials

The party walls are blind.

The two façades, street façade and back façade are largely pierced with bays. However, the difference in composition between the street façade and the back façade is still retained. Not intended to be seen, the back façade is the subject of very little research and care.

The street façade is organised around a central axis of symmetry, with in the axis the building's entrance door on the ground floor.

The façade is composed as follows:

- the building entrance at the centre of the composition, glazed door protected by wrought iron grill. The entrance is topped by vertical glazed bays and in some cases vertical bracing with steel crown
- in the case of corner buildings, the axis of symmetry is marked by a corner rotunda;
- the rest of the façade (either side of the entrance) is comprised of horizontal bands of bricks or white stone and window bays. When the façade is stone, the stone is pinned to the masonry.
- some bays of round windows or with rounded shape are present on the ground or upper floors.

The ground floor is completely faced with stone, usually bluestone.

The windows are mostly equipped with drop down shutters. The frames are metal and double glazed. The thresholds are bluestone. The interior shelves are in marble.

The materials used, both for the façades and interior finishes, are high quality. In particular there is mahogany panelling and cladding, marble (collective spaces) and oak (private spaces) floor coverings. The walls of the kitchens and bathrooms are tiled. There is a considerable use of plate glass, mirrors, chrome and wrought iron.



**Figure 7:** Residence de la Cambre, boulevard Général Jacques, the first one scratches sky that knocks by his(her) 18-storeyed height (1939)  
(source: Google Maps, novembre 2015)



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#### **Equipment and technologies**

The purpose of standard buildings is to provide their occupants every «modern» comfort, new construction techniques and new technologies.

Thus each apartment is equipped with:

- a kitchen fitted with built-in and wall cabinets, a stainless steel sink included in a work top, a fridge cabinet, hot water distribution, waste chute and in some cases a dish washer;
- individual heating by gas, fuel oil or mixed coal/fuel oil;
- hot water production by separate boiler.

The collective spaces, richly decorated, are equipped with silent lifts, door phone and storage spaces (bicycle room, pram room, etc.).



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#### Example No. 1 – a standard building

This apartment building, intended for the Brussels middle class, was built by the property promotion company Etrimo, especially known for its post-wars apartment buildings.

Address: Avenue Churchill, 120 - 1180 Uccle

Year of construction: 1937

Architect: Jean-Florian Collin (Etrimo)

Classified building: no

Considerable renovation since construction: no

#### Location:

- between adjoining buildings
- residential quarter
- just beyond the second crown

#### Scale:

- 8 storeys (~20m high, 2 apartments of 100m<sup>2</sup> per floor, 15 dwellings),
- the top two floors (6 & 7) are set back from the rest of the façade
- setback area from the street
- flat roof
- terraces on court side, no garden

#### Street façade:

- oriented south-south-west
- symmetric composition
- well glazed façade
- light rendering on solid bricks
- bluestone plinth
- 4 painted wooden garage doors with small windows and ironwork
- 1 building entrance, in the centre of the façade, marked by two bluestone columns

#### Construction system:

- columns-beams
- reinforced concrete slabs

#### Composition:

**Basement:** 15 private cellars (1 per apartment + 1 for concierge), technical rooms (former coal cellar, boiler room (central heating with cast iron radiators), water/gas/electricity meters, bins room), 2 technical shafts leading to the bathrooms and toilets of each apartment

**Ground floor:** luxurious entrance hall (marble, ironwork, mirrors), door phone, letter boxes, 4 garages, 1 concierge lodge, 5 servants bedrooms, 1 bike/pram room, private boxes, 2 lifts (1 for suppliers/domestic staff and 1 for inhabitants/visitors) and 1 monumental staircase (lit and ventilated naturally) in the extension of the entrance hall and accessing, at each floor, a marble hall serving two apartments

**From 1st to 5th floor:** 2 apartments with 2 bedrooms

**On 6th floor:** 2 apartments of 2 bedrooms, 1 small terrace

**On 7th floor:** 2 apartments of 1 bedroom, 1 large terrace



Figure 8: Etrimo apartment building located Avenue Winston Churchill 120, Uccle. Situation in Brussels



Figure 9: Etrimo apartment building located Avenue Winston Churchill 120, Uccle. Implantation



Figure 10: Etrimo apartment building located Avenue Winston Churchill 120, Uccle. Frontage



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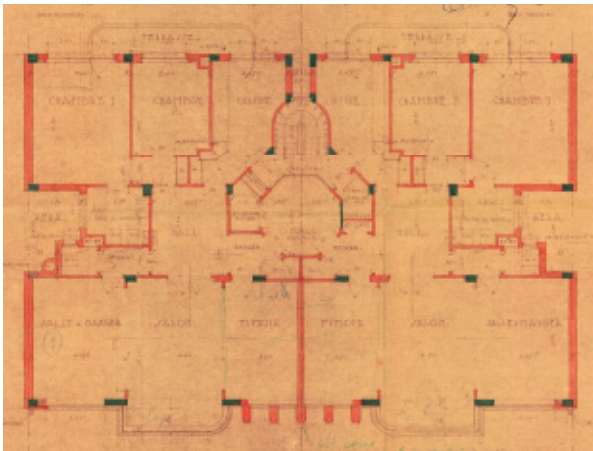


Figure 11: Plan of typical floor/storey

#### Description of typical floor:

- 2 apartments per floor
- 1 landing common to the two apartments
- all the apartment rooms are lit and ventilated naturally

#### Hallway and circulations:

- oak parquet floor
- false ceiling painted with washable distemper

#### Bathroom:

- directly connected to the main bedroom (the second bedroom is fitted with basin/mirror unit)
- originally, fitted with built-in bath 1.55m, basin (70 x 40cm), bidet, WC, towel rail, shelves on brackets and radiator.
- walls tiled to 1.30m high
- enamel paint on all walls, ceilings, doors and windows
- tilt wooden window frame and glazed with white printed glass
- ventilated naturally through technical shaft

#### Toilets:

- beside the bathroom
- ventilated naturally through technical shaft

#### Kitchen:

- directly connected to the entrance hall (via glazed door) and service lift
- very light, leads (via wooden balcony door) onto small terrace on court side (north-north-east)
- originally, equipped with kitchen furniture with stainless steel sink built-in, two wall cupboards and a mural element
- enamel paint on panelling, walls and ceilings
- tiled wall (sink and cooker)
- original equipment: 1 Electrolux fridge 45l, 1 cooker 3 burners and 1 oven, running hot and cold water, 1 gas boiler (50l for kitchen, bathroom and bedroom basins), 1 dish washer and 1 waste chute

#### Bedrooms:

- at back façade, oriented north-north-east
- parquet
- metal frames, glazing with semi-double glass (somewhat thicker than single glazing), marble window shelves

#### Living room:

- accessible from the entrance hall by glazed door
- very light
- set on street façade (orientation south-south-west)
- three rooms juxtaposed: 1 dining room, 1 salon and 1 smoking room (sometimes converted into bedroom)
- oak parquet floor
- metal window frames, glazing with semi-double glass (somewhat thicker than single glazing), marble window shelves

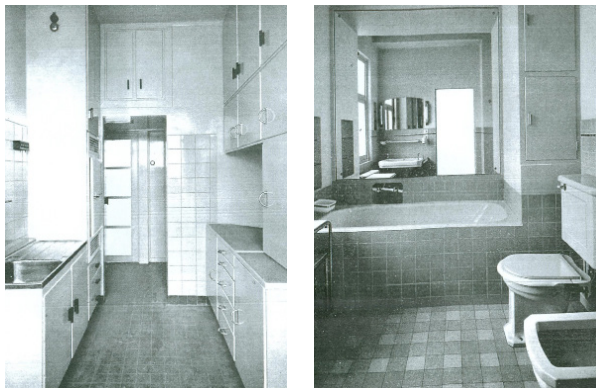


Figure 12: a) View of the kitchen b) View of the bathroom



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Figure 13: Social housing building located Rue Comte de Flandre 45, Molenbeek-Saint-Jean. Situation in Brussels.



Figure 14: Social housing building located Rue Comte de Flandre 45, Molenbeek-Saint-Jean. Implantation



Figure 15: Social housing building located Rue Comte de Flandre 45, Molenbeek-Saint-Jean. Frontage and entrance

#### Example No. 2 – a social housing building

Address: Rue du Comte de Flandre 45, - 1080 Molenbeek-Saint-Jean

Year of construction: 1931

Architect: -

Classified building: no, but located in protection area of communal house of Molenbeek-Saint-Jean

Considerable renovation since construction: yes, in 2007

#### Location:

- between adjoining buildings
- residential quarter
- within the second crown

#### Scale:

- 6 storeys (~20m high, 3 apartments of 65 to 75m<sup>2</sup> per floor, 15 dwellings), with the top two storeys set back
- façade fronting street
- flat roof
- garden and terraces on court side

#### Street façade:

- oriented north-west
- symmetric composition
- relatively glazed façade
- red facing bricks and white stone, on the ground floor, pink marble finishes
- bluestone plinth
- shops on ground floor
- 1 building entrance at the centre of the façade

#### Construction system:

- bearing façades and shear walls
- hollow concrete blocks on ground floor
- wooden floor on joists on upper floors

#### Composition:

##### Basement:

20 cellars, water/gas/electricity meter, 2 common cellars

##### Ground floor:

2 shops (1 shop with 4 rooms + 1 bathroom + 1 outhouse and 1 shop with 3 rooms + 1 bathroom + 1 court), building entrance, 1 common staircase, 1 lift in centre of stairwell

##### From 1st to 5th floor:

3 apartments (65 or 75m<sup>2</sup>) with 2 bedrooms served by a common landing accessible via the stairs or lift



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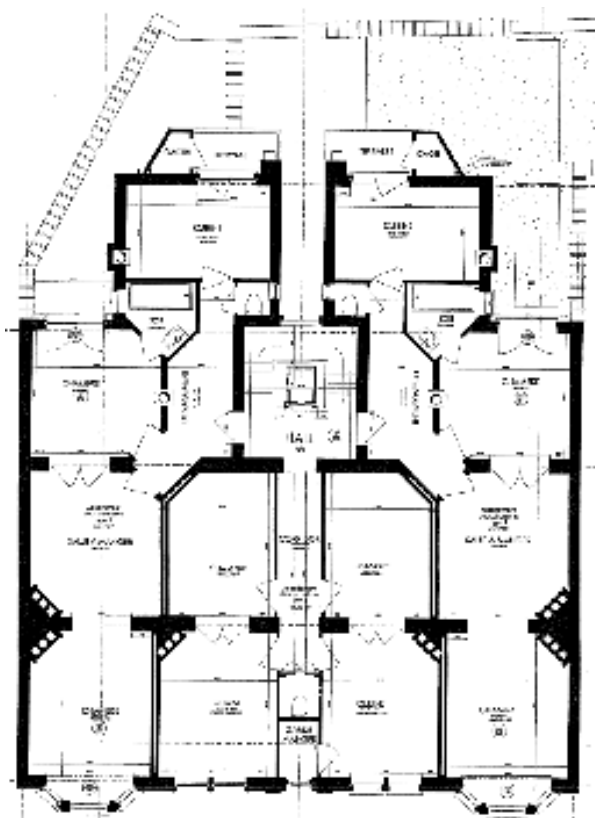


Figure 16: Plan of typical floor/storey - before renovation works

#### Description of typical floor (before renovations):

- 3 apartments per floor
- 1 landing common to the three apartments
- following renovations, PVC frames and double glazing

#### Entrance hall:

- leads to most apartment rooms (bathroom and one bedroom sometimes accessible from the dining room)
- granitic floor

#### Bathroom:

- associated with the kitchen, in 65m² apartments
- equipped with bath and basin
- adjoining one of the bedrooms

#### Toilets:

- insulated
- ceramic tiling

#### Kitchen:

- associated with the bathroom, in 65m² apartments
- terrace adjoining and cubbyhole accessible from it, in 75m² apartments
- adjoining larder, in 65m² apartments
- in front façade, in 65m² apartments
- in back façade, in 75m² apartments
- ceramic tiling

#### Bedrooms:

- 2 bedrooms per apartment
- wooden floor on joists

#### Living room:

- serving as both dining room and salon
- close to the kitchen
- wooden floor on joists

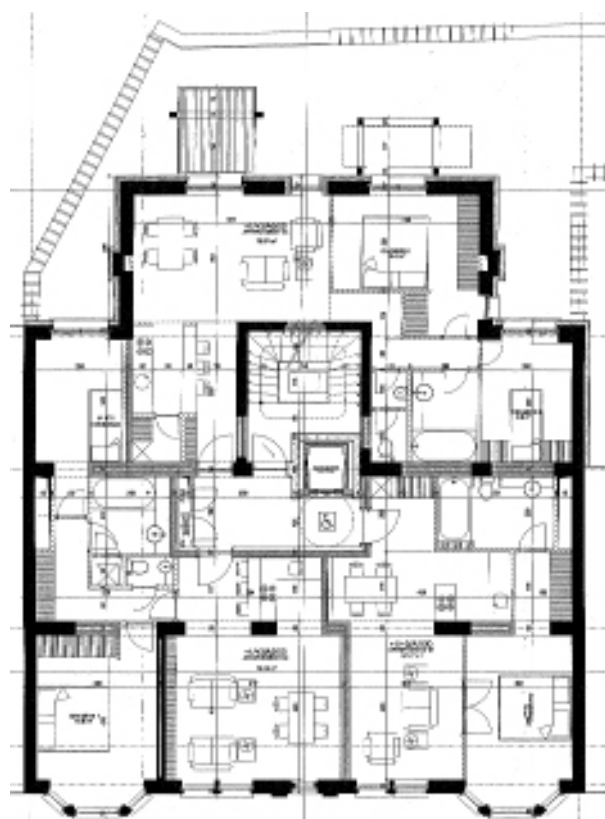


Figure 17: Plan of typical floor/storey - after renovation works