

Brussels, May 2nd 2012

PRESS FILE

From Royal Cadet School to hypermodern 4th European school in Brussels

CONSTRUCTION SITE VISIT

MAY, 2nd 2012



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The Belgian Buildings Agency currently transforms the former Royal Cadet School in Laeken (Drève Saint-Anne 86) into a hypermodern European school. The construction activities in the Drève Sainte Anne are making good progress. Within a few months, in September 2012, the school will open its doors. The Buildings Agency acts as project developer and invests about 88 million Euro in the project. Around 2,500 to 3,000 pupils will attend the school.

1. Historical background

The first European school was built in Luxembourg in 1953. After the signing of the Treaty of Rome in 1958, the officials of the European Communities found their headquarters in Brussels. That very same year, the first European School of Brussels opened its doors in the Rue du Trône. During the school year '58-'59, the Belgian government bought a property in Uccle, so as to accommodate the increasing number of students in September '59. Thus the birth of the first European School in Belgium.

To cope with the continuous growth of school population, new buildings had to be erected.

On 12 October 1962, the President of the High Council of the European Schools and the Belgian Government signed an agreement in which Belgium made the commitment to provide the Schools with the required buildings.

In total, there are 14 European schools, 5 of which are situated in Belgium:

- 1958: European school I in Uccle (Avenue du Vert Chasseur, 3,131 students)
- 1960: European School in Mol (Europawijk, 767 students)
- 1974: European School II in Woluwe-Saint-Lambert (Avenue Oscar Jesper, 3,176 students)
- 1999: European School III in Ixelles (Boulevard du Triomphe, 2,919 students)
- 2007: European School IV (Berkendael & Laeken), 1,059 students in the buffer school in Forest (Rue Berkendael)

Each year, the number of students increases by 250 to 300.

2. Role of the Belgian Buildings Agency

On behalf of the Belgian State, the Buildings Agency carries out commitments with respect to the realization of European Schools on Belgian territory. These schools have their own specific character in terms of language and the students can attend class in several Member State languages.

Concretely, the Buildings Agency acts as project developer for the construction of new European schools or for the improvement or renovation of existing schools.

3. Need for a new school

The creation of a new school, the fourth in the Brussels Capital Region, is necessary because of the increased demand due to the accession of new Member States.

The Belgian Government initially proposed a temporary solution in Forest (Rue Berkendael). In addition, it was decided to realize a new European school on the former site of the Royal Cadet School in Laeken.

The new school will accommodate 2,500 to 3,000 students and will include a nursery and a primary and a secondary section.

In 2005, the Belgian Buildings Agency assigned the architectural study for the construction of the new school in Laeken to the "4A4" consortium (consisting of Archi 2000 sprl + Atelier d'Architecture du Sart Tilman sc + Conix Architects cvba + DMV Architecten bv + Marcq & Roba sa).

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In 2010, the construction and renovation works were entrusted to s.a. CFE and Louis De Waele s.a.

4. New European school in Laeken

a. The construction site

The school is being built on the site of the former Royal Cadet School along the Drève Sainte Anne 86 in Laeken. The original army facility dates back to the late 19th century and was designed by architect J.J. Van Ysendijck in Flemish neo-Renaissance style. The complex was built in the period 1899 to 1902. It was last used by the police of the city of Brussels.

The site (4,7 ha) is situated on a slope. In the early 20th century, vegetables were grown on the lower part of the site, whereas the Cadet School was built on the higher part of the site.

The buildings were erected around the majestic parade courtyard. On either side of the courtyard, classrooms were built and on the upper front, the general staff was housed in a very prestigious building.

The less important annexe buildings were situated behind the classroom buildings: 3 small buildings along the Drève Sainte Anne and 2 small buildings and a large horse stable along the Rue Medori. Near the Drève Sainte Anne there were two entrance portals and another entry was situated at Rue Medori. The connection between the main entrance at the Drève Sainte Anne and the portal at the Rue Medori also formed the frontier between the lower part of the site and the Cadet School. From this road you have a nice view over the whole site.

As this place is very important for the design of the new school on the site, it has been transformed the most.

The goal is to create an obvious landmark for the site itself and for the area and the city in general. Therefore, a monumental framework is being constructed with a view on the lower part of the site and the skyline of Brussels. In this way, a direct link has been established between the 4th European School and the capital of Europe.

The monumental stairs underneath the framework connect the lower part of the site with the upper part, making a unit of the site.



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b. Functions

The common functions of the school are located in the middle of the site:

- building D with the monumental staircase, the framework, the canteen and the gyms
- parade courtyard that will become a playground
- building G (former staff building) with offices and art studios
- building R with a multi purpose room and a library
- building E with large sports halls
- building P with underground car park and open-air bus parking that will be used as a sports field during the day.

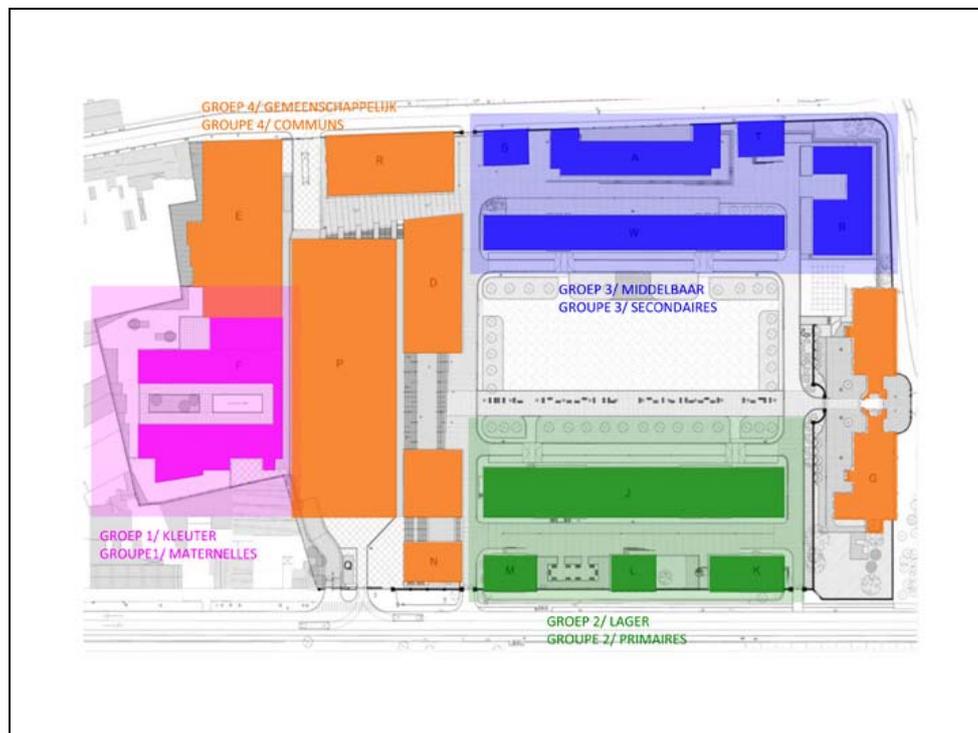
The 3 main clusters of the school – the nursery and the primary and secondary sections – are built around this centre. Each cluster is in its turn built around its own playground or patio. In this way, the school contains different poles that merge into one another without losing their own identity.

The primary and secondary sections are located at the upper part of the site, around the former parade courtyard.

The primary school is situated near the Drève Sainte Anne. Buildings J and K contain classrooms. The library is located in building L and building M contains the pre- and post-school childcare as well as the concierge accommodation.

The secondary section is housed in the buildings along the Rue Medori. Buildings A and W consist of classrooms, building B contains science laboratories and buildings S and T house classrooms and offices.

The nursery is located in the lower part of the site. The classes are built around a patio which is only accessible to infants.



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c. Accessibility and safety

The entire site is surrounded by the existing outer walls. The existing entrances are blocked by new gates that will only be opened in exceptional cases (e.g. when moving to another location).

The only access to the campus is located at the Drève Sainte Anne. This access is controlled by guards who are housed in building Q.

Most children are dropped off by the school bus at a special stop within school walls (room for 37 buses). The car park is accessible via the Drève Sainte Anne and its exit is located at Rue Medori.

The underground car park beneath the bus parking lot contains 163 places and is exclusively reserved for staff. However, it also contains a *Kiss and Ride* zone, a safe and convenient way for parents to drop off their children. The entry and exit of this parking is located at the Drève Sainte Anne.

Pedestrians and cyclists also have to take the entrance at the Drève Sainte Anne. Cyclists can use the bicycle shed.

When designing the complex, an overcapacity of 500 students had already been anticipated. This means that all escape routes are suited for a capacity of 3,000 pupils.

d. The buildings

Buildings which were of historical and architectural value have been renovated. Annexe buildings from later years without any particular architectural interest have been demolished and replaced by new buildings. For this purpose, the architect resolutely opted for an outspoken contemporary style giving the European School a strong visual identity.

Buildings G, J, K, L, M, W, R, S and T are being renovated. The façades have been carefully restored, i.e. cleaned under high pressure and / or sandblasted, depending on the nature and quality of the material. In case of damage, the stone and blue stone façade elements were repaired or replaced and the joints were repointed. The outer walls were treated in the same way (on the inside and the outside).

The **primary school** will be housed in the existing and renovated buildings along the Drève Sainte Anne (buildings J,K, L and M).

The original configuration of buildings J, K and M (floor structure, walls and stairs) has been entirely preserved. The metal building structure remains visible. The roof got new slates and was isolated. Energy-efficient double glazing was fitted in brand new wooden frames.

An additional emergency staircase and an elevator were constructed in the core of building J. Dormers were again erected, like it was the case before. Building K got a brand-new elevator as well. For optimal use of the library, building L got an additional level.

The **secondary section** is located along the Rue Medori, partly in renovated buildings (buildings W, S and T) and partly in new constructions (buildings A and B). The department has classrooms, laboratories, study rooms, a library and a sports complex.

Building W (120 meters long) originally contained the horse stables of the Royal Cadet School. The original windows at ground level were at 2.5 meters above the ground and the ceiling height was 6 meters. In order to create functional classrooms, the three old floors were completely removed and 5 new floors were constructed. Only the outer walls, the floor slab between the ground floor and the first floor and the supporting walls around the staircases were preserved. The ground level was lowered by half a floor.



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The substructure of the west façade was deepened out to give students access to the locker rooms. The brand new wooden frames got energy-efficient double glazing. Again, new dormers were placed.

Buildings S and T are two pavilions with a similar configuration: a central entrance featuring a circulation corridor, sanitary installations and classrooms at either side of the building. By means of a new concrete staircase, the floor levels could be subdivided in a more efficient way.

Building A is a new construction connecting the renovated buildings S and T along the Rue Medori. The building is located across building W. The building reinforces the internal street feeling and makes the entrance of buildings R and B stand out. The random placement of façade openings transcends the rigid and static military architecture and creates a strong dialogue with the renovated building W.

Building B is located on the highest point of the internal street. The new building is intended for physics, chemistry and biology classes. The laboratories are spread over three floors. The outer wall consists of profiled metal plates which are generally used for industrial buildings. Its purpose as well as its look are both in contrast with the other new buildings as with the other ones.



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The **nursery section** is located in the new building F that is constructed around a large central patio. There are 12 nursery classes, a dormitory, a kitchen, a specific administrative department and a multipurpose room. The building only has one floor and is tailored to the size of the children. All classrooms look out on the patio. By installing large windows, the patio has become a part of the classes. The nursery is accessible from the large esplanade and from the *Kiss and ride* zone in the underground car park. The entire nursery school is covered by a green rooftop.



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The **common functions** are situated in the **centre** and connect the lower with the upper part of the site. They are located in the new buildings D, P and E and in the renovated building R.

The new building D provides the European school with a strong identity. A large concrete framework encloses a spectacular panoramic terrace offering an exceptional view on the city of Brussels. This building functions as a pivot between the lower and the upper parts of the site and hosts common functions such as the refectory, gyms, central technical rooms (heating, high tension cabins, etc.) and the parking access.



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The large structural framework of the building is made of architectonic concrete that was moulded on the spot. The framework is 115 metres long and 10 metres high. It is supported by a structure of pillars with a cross-section of approx. 30 cm. The façade of this volume consists of a wall in thermo coated aluminium and double glazing with solar shading.

In the refectory, up to 1,800 meals can be served on a daily basis.

The lower and the higher part of the site are connected by a flight of stairs which offers a magnificent view on the capital.

The former horse riding school (building R) is located in the middle, between the upper and lower parts of the site. It will be used to host common functions. The multipurpose room (capacity of 500 persons) takes out about two thirds of the available space. In the existing volume, 2 new floors were created, offering enough space for a library and a study hall for students from secondary school. The secondary section will also have its own student canteen.

The new sports centre (building E) contains three gyms and is equipped with showers and locker rooms. The gyms are located below ground level, giving the impression that the building has only one floor. This creates harmony with the existing houses just outside the site. The building is covered by a green roof.

The prestigious building G was built in 1899 at the era of King Leopold II, in Flemish renaissance style. To preserve the building's exceptional character, the building was renovated in a smooth, well thought-out manner. The direction offices and the art classes are located on either side of the monumental entrance. New dormers were constructed in the roof, so that it looks exactly the same as before. Energy-efficient double glazing was fitted into the new wooden frames.

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5. Durable construction and sustainable energy management

The materials used throughout the demolition and construction process meet all standards for sustainable construction. The materials are durable and vandal-proof.

Places with high levels of sound nuisance are far enough from the nearest residential areas. The vehicles are guided to an underground car park (with a Kiss and Ride zone). School buses and supplier vehicles are guided to the lower part of the site, far enough from the classes. The open-air sports grounds are located in the lower part as well, in order not to disturb the nearby houses and classrooms.

The functions of the buildings are quite homogeneous. Noise-wise, the different activities are well attuned to each other, so that there is no noise disturbance whatsoever.

The entrance of natural light was crucial for the choice of the windows. The inside-to-outside view is guided to quiet places. The exterior lighting creates a feeling of safety.

A co-generation system has been installed for the production of warm heating water.

A fat-removing device has been added to the kitchen's evacuation system.

Superior thermal isolation has been used for the new and renovated buildings, so that the energy loss is reduced to a minimum. The renovated buildings have an average K-ratio (overall thermal isolation) of K49. For the new buildings, this value amounts to K27. Underground floors and walls used for activities (such as the gymnasiums in buildings D and E), façades, roofs and window openings are optimally isolated.

The glazing delivers a high thermal performance. The K-factor value of the thermal isolation has been kept to a minimum in order to prevent energy loss during cold periods. Whenever possible, natural daylight is used to keep the energy bill at a minimum level.

The roofs of buildings G, J, W, R, L and T have been entirely renovated. The new thermal isolation reduces energy loss during the winter period and keeps the buildings from heating up during the summer. The thermal isolation of the renovated buildings has been drastically improved.

The original glazing has been replaced everywhere by high-end glass in new wooden frames. In this way, energy loss through leaking window joints is reduced to a minimum. Rockwool isolation was placed in the substructure of the roof and the attic floors.

The flat rooftops of the new buildings A, B, D E and F are also equipped with thermal isolation in order to reduce energy loss during the winter and to diminish the warming effect during the summer. Vegetation was planted on some rooftops (E and F) for a better thermal isolation.

Passive techniques have been applied to the façades of buildings A, B and D in order to reduce the warming effect during summer and to prevent heat loss during winter.

The south façade of building A has been equipped with louvers. The openings in the east wing have been reduced to the minimum, so that the heating effect during the morning hours remains limited. The west façade is a large, opaque surface offering an excellent thermal



isolation that prevents from heating up near the end of the day. The façade has plenty of openings to let natural light come in.

The south façade of building B has no windows that directly look out on the classrooms. This façade has been isolated as to reduce the heating up as well as cooling down throughout the different seasons. The east and west façades have windows allowing plenty of natural light to come in. The rest of the façade has been isolated. At the northern side, a circulation corridor forms an efficient isolating buffer for the classrooms.

The south and east façades of building D are equipped with horizontal louvers. On the one hand, they prevent the direct entry of sunlight during the summer, but on the other, they let natural sunlight in during winter months.

6. Timing

The works proceed according to the planned schedule and barring unforeseen circumstances; they will be finished in July 2012. The European school's administration itself will move all furniture and material from Forest (Berkendael) to the new school in Laeken and will purchase all equipments of the new school.

The next three to four years, the High Council of the European Schools is free to use the Berkendael school in Forest as a buffer school. In this way, students of the primary school of the European School in Uccle can temporarily attend lessons while their classes in Uccle are being renovated.

In September 2012, the new school will open its doors.

7. Technical data

Owner: Belgian State

Property developer: Belgian Buildings Agency

Customer: High Council of the European Schools (European Commission)

Architect: temporary association 4à4 (Archi 2000 sprl + Atelier d'Architecture du Sart Tilman sc + Conix Architects cvba + DMV Architecten bv + Marcq & Roba sa)

Electricity study: Tractebel Development Eng. S.A. (Woluwe)

Stability study: Setesco S.A. B-Group (Brussels)

HVAC study: Belgian Buildings Agency

Demolition and asbestos removal: G & A De Meuter (Ternat)

Construction and renovation: temporary association s.a. CFE & Louis DE WAELE s.a. (Brussels)

Safety coordination: n.v. Mebumar (Brussels)

Technical control: SECO s.c. (Brussels)

Site construction site: 4.73 ha

Build surface: +/- 52,000 m²

Duration of the works: 2009- 2012

Cost: +/- 88 millions of Euro (incl. VAT, adaptations and adjustments)

Belgian Buildings Agency

The real estate expert of the federal state

The Belgian Buildings Agency provides quality office accommodation for federal public servants and maintains the federal heritage in excellent condition.

Responsibility, integrity, professionalism, flexibility and efficiency are its core values.



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The Agency manages about 7.8 million m² in real estate, divided over some 1,420 buildings. About 948 of these buildings are owned by the Federal State (about 4.9 million m²), 484 buildings are rented (about 2.9 million m²). Quality service and a specific and unique expertise in the fields of construction, restoration and real estate management make the Belgian Buildings Agency the real estate expert of the Federal State.

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