# EXEMPLUM20



Housing project for the elderly in Hanover Röben clinker brick OXFORD





### 20 YEARS OF EXEMPLUM

Twenty years during which EXEMPLUM has

evolved into a vibrant medium for contem-

porary brick architecture and building cul-

ture. An ever increasing number of mutual

exchanges with planners and processors

concerning their experiences and views has

time and again lead to new forms of ex-

pression, innovative ideas and future-orien-

ted solutions for the building environment

emerging. Contained between the pages

of this twentieth edition of EXEMPLUM is a

brief snapshot of a very promising process.

We are on the right track.





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Dear reader!

you now have the twentieth edition of our architect magazine EXEMPLUM in your hands. We have been introducing sophisticated examples of international clinker architecture to you for the past twenty years. A quite remarkable anniversary and one of which we are naturally very proud! And so, for this reason, we welcome the opportunity to say a very big thank you for the past cooperation in partnership: It has been your ideas and designs that have helped establish EXEMPLUM over such a long period of time. So that

we may continue to build on this success, we are more than happy to publish any designs or photos from your offices on projects that you make available to us.

When looking back over the different issues of EXEMPLUM from the past twenty years, other than the changing trends in architecture, it is the changes in materials that catches the eye most. Not only do the selected clinker bricks facilitate a representative exterior but they have also long since become a key element in the architectural design as a whole. In the past few years we have significantly extended our range of clinker bricks and facing bricks in order to meet this trend. You can select your individual sorting grade with the desired colour and surface structure from the wide variety of different stones available. And, if you don't manage to find the stone of your choice this way, well, we have the available know-how and technical expertise to manufacture a customised clinker with your help to match your expectations.

In order to bring the main purpose of your design to the fore, for example, we have a large selection of architectural stones at your disposal. A wonderful example of this can be seen in the newly developed sorting grade EAST END which was used in designing the funeral parlour in Doetinchem in Holland. With its interplay of bluish-silver and reddish-grey colours, it underscores the high-quality design of the project. On the other hand, with the residence complex "Vier Sonnen" in Moscow, the architects have emphasised the radiant vitality of the two different shades of grey from the existing special sorting grade FARO grey-nuanced, together with the red clinker WESTERWALD and the sand-white and yellow-orange coloured ceramic clinker SOR-RENTO and set the scene for the building complex. And for the residential and office building in Hanover, the choice of those responsible fell on the clinker brick OXFORD with its

Equally unusual are our black FARO clinkers with their elegant colour. There is no darker clinker brick! Both the Inland Revenue office in Doetinchem and the Humboldt Carré in Leinfelden-Echterdingen used

vivid red-blue hues.

this stone as strip tiles in combination with an external thermal insulation composite system. The black shade underlines the modern character of the architectural designs.

A rather more classic appearance is provided by the hand-moulded facing brick WIESMOOR coal-variegated. At the control centre of the Belgian railway in Liege it creates an altogether more vivid brickwork design providing a more varied visual exterior with a hand-crafted character. The bank branch in Rotselaar in Belgium presents a more classic-modern appearance. In this case, it is the WIESMOOR facing bricks which provide a powerful contrasting interplay with steel profiles and visible concrete elements. Quite persuasive arguments that proves even a classic can turn its hand to modern designs.

We wish you pleasurable reading. And perhaps you might find one or two ideas to inspire your own work.

Yours sincerely



Wilhelm-Renke Röben



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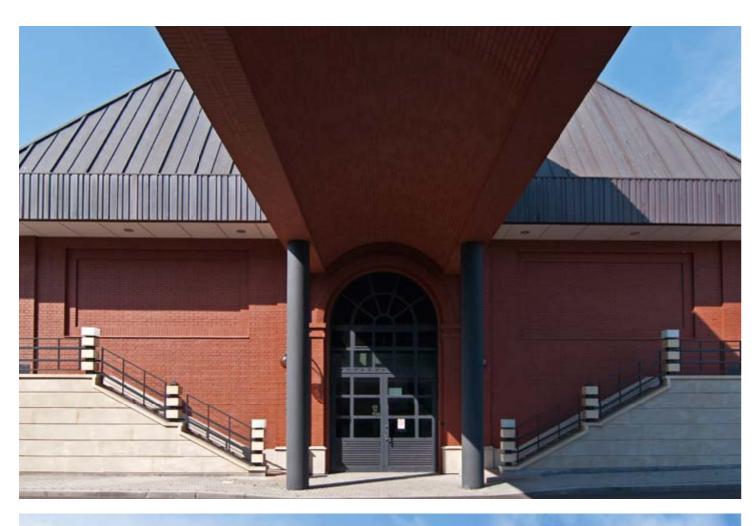
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NEW MONUMENT IN
THE CENTRE OF WARSAW (PL)

Röben clinker brick NEUMARKT brick red, smooth Most drinking water plants are located outside or at the edge of large cities. But Warsaw is different: On a 32-hectare plot of land standing in one of the best locations in the city, the "Lindley Filter" (Polish Filtry Lindleya) came into existence in 1883-1886, waterworks which were planned and erected by the British engineer William

Lindley. The building was completed by his son, William Heerlein Lindley. Now, an extension to the building has proved necessary, one which harmoniously blends into the complex as a whole. At first glance it is difficult to imagine that this is a new building.



Around 170,000 clinker bricks were specially fired in a special format for this object.



High-quality building materials and many attentively introduced details represent the particular aesthetic value of this brick architecture.

The central waterworks is the oldest and largest of the Warsaw waterworks. It has provided the inhabitants of Warsaw with water since the middle of 1886, covering 50 % of the capital's water needs. The two technical buildings and the water tower as well as the 1933 newly built fast filter system are now listed in the preservation of historical monuments.

The Warsaw city administration had often toyed with the idea of relocating the plant. However, the significance of having an historic building on the site has prevented this. Even UNESCO had considered placing it on the list of world cultural heritage site jointly with the old city of Warsaw.

### Major challenges to the architects

In view of the great significance of the old waterworks, it was decided to construct the new plant required on the existing site thereby creating a "new attraction" at the same time. This concerned a closed complex with a total floor space

of 21,000 m<sup>2</sup>. It is divided into three building sections of varying shapes and sizes. It was important to the client that both the design itself and the related building material were of the highest quality. Durable materials that were also characterised by a high aesthetic appeal were selected. This explains why the clinker brick façade, the façade details made from sandstone as well as the sheet copper on the roof numbered amongst the most important of these building materials.

The problems and challenges that faced the architects and master builder were manifold: The short construction time planned, the necessity of having to connect to the existing development, the listed building aspects of construction and the technological demands on the building are just some of them.

# Old and new from a single mould.

Thanks to the experience of the Warsaw architects Ryszard Sobolewski, a fully-functional and state-of-the-art building arose which is in keeping with the architecture of the old filtration building and whose industrial functions are consistent with its environment. It nestles harmoniously in the entire complex of the central waterworks. At first glance it is difficult to imagine that this is a new building.

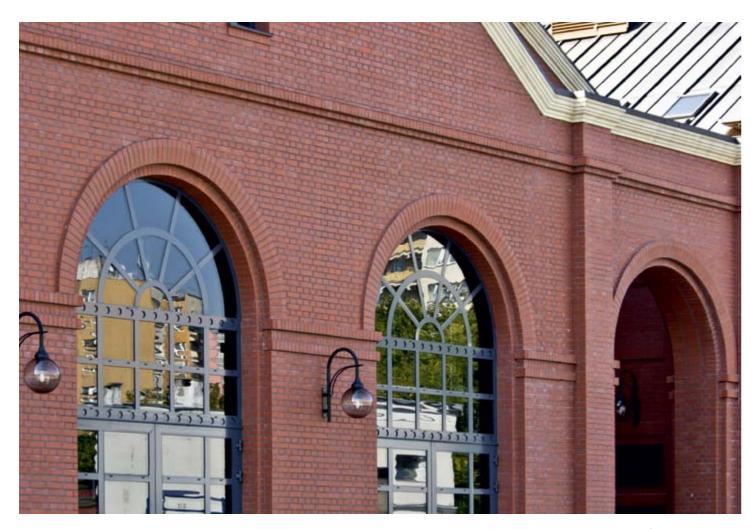
The façade tectonics are an important design element in this instance: The building appears to be relatively lightweight.

Sandstone niches, pillars and cornices reinforce this effect. A large green area - an integral part of the overall building concept - prevents the large, windowless building sections from creating an overly weighty impression. In addition, the entire building was cleverly provided with embankments which also act as a "green roof".

### Specially shaped bricks and special formats

The green blends naturally with the warm colour of the facade. The architect selected the clinker brick NEUMARKT brick red from the Röben factory near Breslau. " We decided to

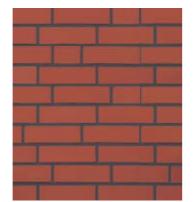




At the request of the architects, around 1,600 arch bricks were fired to create the arcade arches.

go with the brick principally because Röben was the only clinker brick manufacturer with the ability to produce the special details, such as the arch bricks, from the same material. Which means they also have the same colour as the façade bricks", explains the architect Ryszard Sobolewski. "This was an important consideration as the semi-circular shapes are an important design element in the façade. The arch bricks, which were only produced for this building, were used in the arcade arches which span across the gateways and entrances with a width of practically 3 m." Altogether 1,600 pieces were used.

Röben also fired the standard bricks in a special size. More than 170,000 clinker bricks in a size of 250 x 65 x 120 mm were especially made for this property. By using these special designs, the new premises were optimally blended into the historic buildings which were constructed using the red bricks typical for the period of industrialisation during the 19th century.



New monument in the centre of Warsaw (PL)

Architect:

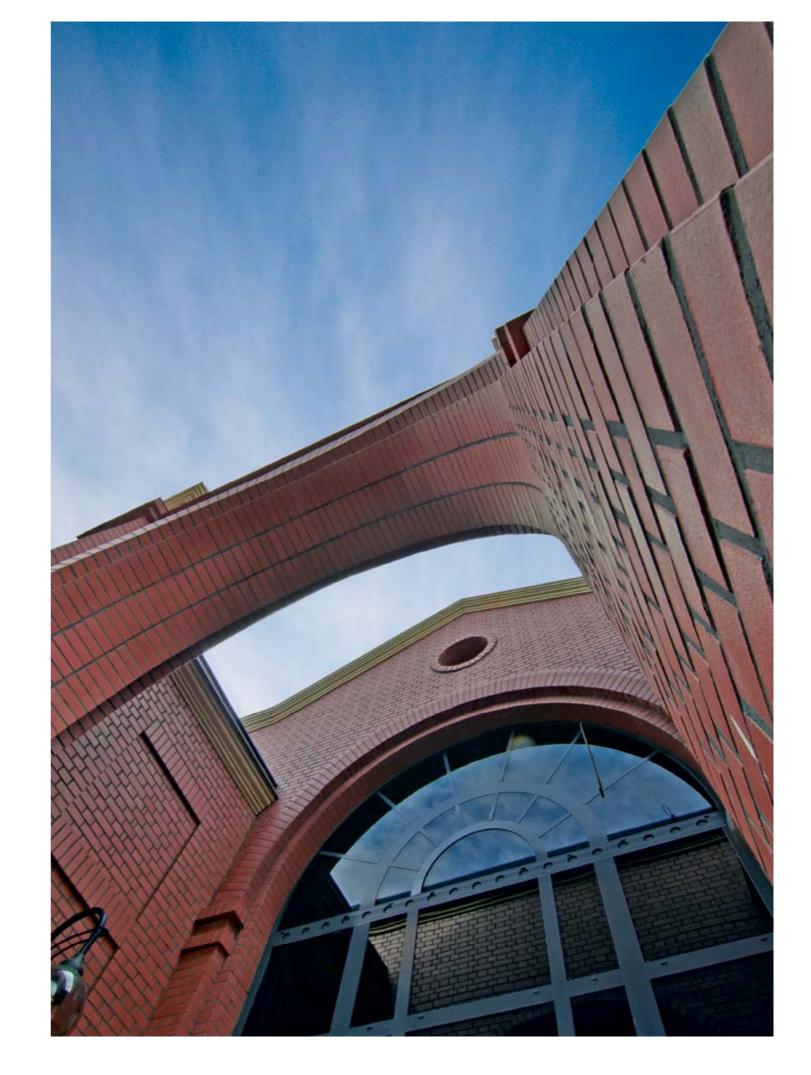
Ryszard Sobolewski, Warsaw (PL)

Photos:

Röben

Röben clinker brick NEUMARKT, brick-red Water absorption approx. 5.5 %

Röben specially shaped brick







RESIDENTIAL QUARTERS WEINBERGHÖHE IN ZUG (CH)

Röben clinker brick RYSUM, flashed-variegated The small city of Zug in the heart of Switzerland, between the economic and cultural centres of Zurich and Lucerne, is both cosmopolitan and manageable. The town on Lake Zug with its 25,000 inha-

bitants has evolved into an idyllic small metropolis. The beautiful landscape with mountains, lakes and rounded moraine crests make Zug a popular place in which to live.



Facing the mountain-side are the bathroom and sleeping quarters. Facing the valley, in a southerly direction, the structure opens with generously-sized balconies.



The residence quarter Weinberghöhe was built here, on a hillside with an excellent south-west facing prospect and impressive views of the city of Zug, Lake Zug and the alpine landscape of central Switzerland. Freehold apartments are on offer with 3 ½ to 5 ½ rooms and an overall floor space of 108 to 149 square metres with superior level of fixtures and fittings.

The topography of the hill moves in a curved line. Along the high curve, four rows of building each with a larger and smaller amount of space are beautifully embedded into the terrain. Thanks to the parallel arrangement in relation to the hillside, generously-sized outside rooms have sprung into existence. In addition, views into the valley's far distance in addition to the nearby stream with its abundantly flourishing banks have been achieved by staggering the structure of the building.

# Dynamic with soothing proportions

The buildings are arranged into mountain-side and valley-side structural elements. The bedrooms and bathrooms are located in a layer of rooms on the mountain-side which is designed as a massive structure with openings. The zones on the valley sides are positioned facing the sun and the valley and are horizontally divided by connecting balconies. The cooking, eating and living areas are to be found here.

The architecture of the building is as modern as it is timeless. The two-layered aspect of the building volume lends the apartments dynamic and soothing proportions. The prestigious form of expression is further highlighted by the

materials selected for the facade such as clinker brick, glass balustrades and dark metal elements.

### Quality with a high standard

The buildings were constructed by the Swiss general enterprise Alfred Müller AG which has built around 5,000 apartments and 1.5 million square metres of offices, business and industrial premises to date. The philosophy of the company's founder, Alfred Müller, is only to build high-quality buildings which will create lasting pleasure for the client. This is the reason why it was decided to use a high-quality, durable and weather-resistant clinker brick façade.

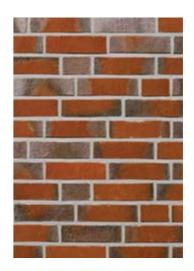
With its brick red colour and changing interplay of shades, the client selected Röben RYSUM, flashed-variegated as they considered this to blend into the environment best. In this instance too, Röben not only supplied the product but also assisted with constructive know-how with their planning service. So, both fitted lintels by smaller bridgings and suspended lintels by larger bridgings were mainly used in the window aperture sectors. The brickwork consisted of a classic stretcher bond with clinker bricks in a NF-format. 16 cm mineral wool insulation with an air layer is situated between the facing wall and concreted back-up wall.

# Houses grow out of the ground

The brickwork reaches down to ground level in order to convey an optimal impression of the building and because the soil area on the side walls runs diagonally owing to its sloping hillside position. So, visually speaking, the houses grow out

of the ground. This, however, will not prove to be a problem because of the clinker bricks resistance to frost and its low water absorption.

"With the Röben clinker brick facade we have got a high-quality product. The full-scale and good collaboration on the part of everybody involved in the construction finally lead to an excellent result, and one whereby the residents, the architects and the main contractor can be equally proud", summarises Müller.



Residential quarters
Weinberghöhe in Zug (CH)

Planning:

Alfred Müller AG, Baar (CH)

Photos:

Alfred Müller AG, Baar (CH)

Röben clinker brick RYSUM,

flashed-variegated

Water absorption approx. 5.5 % Röben prefabricated brick lintel



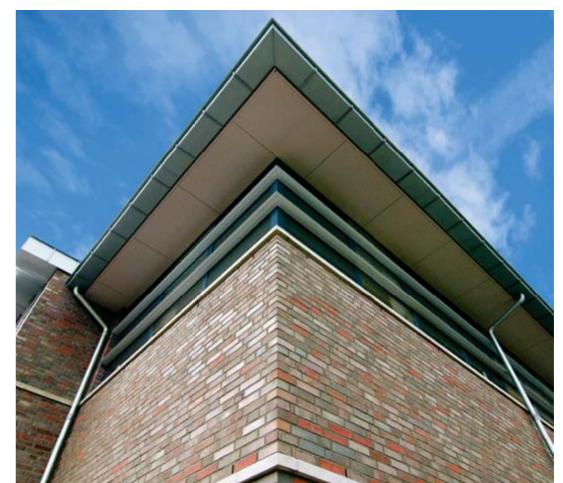
FUNERAL PARLOUR IN DOETINCHEM (NL)

Röben architectural stone EAST END

Whether the health care system, urban planning or drug policies - the Dutch are said to have a rather more pragmatic attitude to many things. This also applies to and especially for dealing with aspects of death and dying which is usually treated in a more matter-of-fact way. In contrast, the design and set-up of the privately-

run funeral parlour "Agelink", located in the small town of Doetinchem close to the German-Dutch border, is comparatively "baroque". This is because the first impression of the new building's prestigious appearance and numerous exclusive details calls more a House of God to mind than a down-to-earth functional building.





With its vibrant interplay of colours, the Röben EAST END architectural stone accentuates the high-quality of the architecture.



In contrast to the entrance front, the northwest façade has been designed with a white bay window and slender glass areas.

The family-run "Agelink Uitvaartzorg" company, now in its third generation, delegated project planning to the local offices of the Duoplan Doetinchem Architecten. Based on the client's request for a modern, yet dignified new building which also combined the actual funeral hall on the ground floor itself in addition to a viewing room, a small kitchen as well as office space, the designers planned a compact, three-story building in high-quality clinker brick. A particularly striking architectural detail can be seen in the unusual contrast between the largely closed masonry in the lower section and the almost continuously open second floor with its black printed glass panels.

### Powerful median risalit

A further challenge for the planning project was the plot's

location, visible from various directions on a busy intersection at the transition point from a residential to a commercial area. As a response to this heterogeneous urban situation, the design was quite consciously executed with an almost square layout and a flat sloping hipped roof - in this way, the building has a front but no pronounced rear section.

The front entrance facing the north-east was highlighted by creating a powerful median risalit rising skywards directly above the wooden door entrance and the circular canopy and is completed at its peak by an additional circular canopy. The elaborately designed structure has bands of brickwork giving the appearance of columns and the glass joints in between not only serve to provide the two upper stories with additional daylight but

by connecting the upper and lower sections also serve to architecturally convey the themes of dying and transcendence in an effective and intelligent manner. A similar motif can also be found in the white bay window on the north-west façade and which is opened up through the vertical glass joints. The design is completed by a single-story garage adjoining on the south-west side. The considerably smaller amount of space was designed following similar specifications and creates an exciting staggered arrangement of buildings, shielding the main building from the adjacent car park and the commercial zone which lies further to the south-west.

# High-quality clinker brick architecture

Owing to the large number of brick houses in the surrounding

area, from the onset it was decided to use clinker brick for the outside material of the building. In accordance with the wishes of the client and in cooperation with the Röben product designers, the architectural sorting grade EAST END was devised. The architectural stones highlight the modern high-quality architecture of the new building with their changing blue-grey and red-grey interplay of colours and blend with the black printed glass panels on the upper storey beautifully. The vibrant image of the facade with its large, mainly closed brickwork surface is further aided by the Flemish bond with grey pointing mortar.

In order to create a horizontal counterpoint to the vertically ascending projections, the brickwork was also divided by three small, completely encircling bands of concrete.

The resulting architecture is of a high-quality, providing the deceased's loved ones with a dignified framework in which to mourn and take leave of the dearly beloved. Funeral parlour Doetinchem (NL)

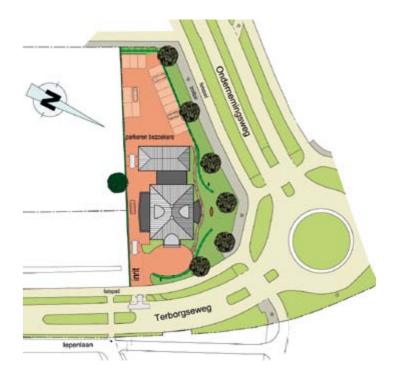
 Planning:
 Röben architectural stone

 Duoplan Doetinchem
 EAST END

 Architects
 Water absorption approx. 5.0 %

Photos:
Andrea Gulicks

Röben architectural stone
EAST END





OFFICE BUILDING HUMBOLDT-CARRÉ IN LEINFELDEN ECHTERDINGEN (D)

Röben ceramic clinker brick strip tiles FARO black-slate coated

The office centre close to the Exhibition Centre and Stuttgart airport in Leinfelden Echterdingen should convey euphoria. The newly developed building zone is linked to an existing industrial area on its northern side which, architecturally speaking, is quite unpretentious. The Humboldt Carré is the first project to have been realised in this expanded industrial area and explains why the town requested its sophisticated architec-

ture be a model for further development. A conglomerate of housing in a variety of sizes and ages of building is located on its eastern side.

The COR AG, one of the leading software and consulting businesses for insurance companies and banks, as the main tenant not only wanted an impressive exterior they also wanted a building that guaranteed an efficient and resource-saving use. Once all the key requirements for implementing this were catalogued, a design was prepared for a jointly selected plot of land.

#### **Customised structure**

The Bülow AG received the construction contract via the lease contract concluded with the COR AG. The building was then realised in close cooperation between the investor, tenant and the Böblingen architect's office Hanka & Nolte Architekten (HNP). It was initially only planned to be half the size but it transpired that the main tenant needed considerably more space. However, this was not foreseen in the city's development plans.

In order to extend it in its current form, two areas were necessary which, however, were separated by a building ban zone. A compromise was reached whereby the building design was adapted so that the façade was optically divided by large glass panels on the street side and which hid the central staircase in an atrium behind it. The Humboldt-Carré is pleasantly set apart from the surrounding buildings dating from the 1960s and 1970s through the selection of the high-quality dark Röben clinker brick.

# Sophisticated energy concept

The new building has a lot to offer in every respect. Behind the low-maintenance façade, which has been designed using a thermal insulate composite system using Röben clinker

brick slip tiles, hides a building with a sophisticated energy design:

A geothermal system uses the heat from the earth and should save up to 160 tonnes CO<sup>2</sup> every year compared to a conventional energy supply system and building air conditioning. 80 geothermal probes and around 11.2 km pipes were laid so that this could be achieved. Together with further measures, such as the high thermal insulating glazing and the planted green roof, the building now qualifies as a Green Building. However, the property received its official award in the form of certification in silver by the Deutsche Gesellschaft für nachhaltiges Bauen (DGNB (German Sustainable Building Council)).

The aim of the DGNB certification was also a crucial factor for the choice of building material. "The brick offers many advantages", say the supervising architects. "On the one hand, it is a natural material with an extremely high level of design quality and habitus. The original brick style of older buildings has unfortunately been lost in recent years and the buildings with plaster ETICS are much too similar in appearance. On the other hand, the sustainability and efficiency of the building material was a great concern as the project was to gain DGNB certification - which it did."

# Strip tiles with thermal insulate composite system

The choice fell on the Röben strip tiles FARO black-slate coated which were used as a component in a thermal insulate composite system. "The products from Röben distinguish themselves through their high quality, and the range through its great diversity. The rapid availability of the large quantities and the consultancy service were also an important aspect



Clean curves with Röben ceramic clinker brick strip tiles. A modern thermal insulate composite system is concealed underneath. On the right:

Angled glass panels divide the elongated structure.

Office buildings Humboldt-Carré
in Leinfelden - Echterdingen

Planning:

Architects office Hanka & Nolte, Böblingen

Photos:

Armin Wenzel, Sielenbach

Water absorption ≤ 3.0 %

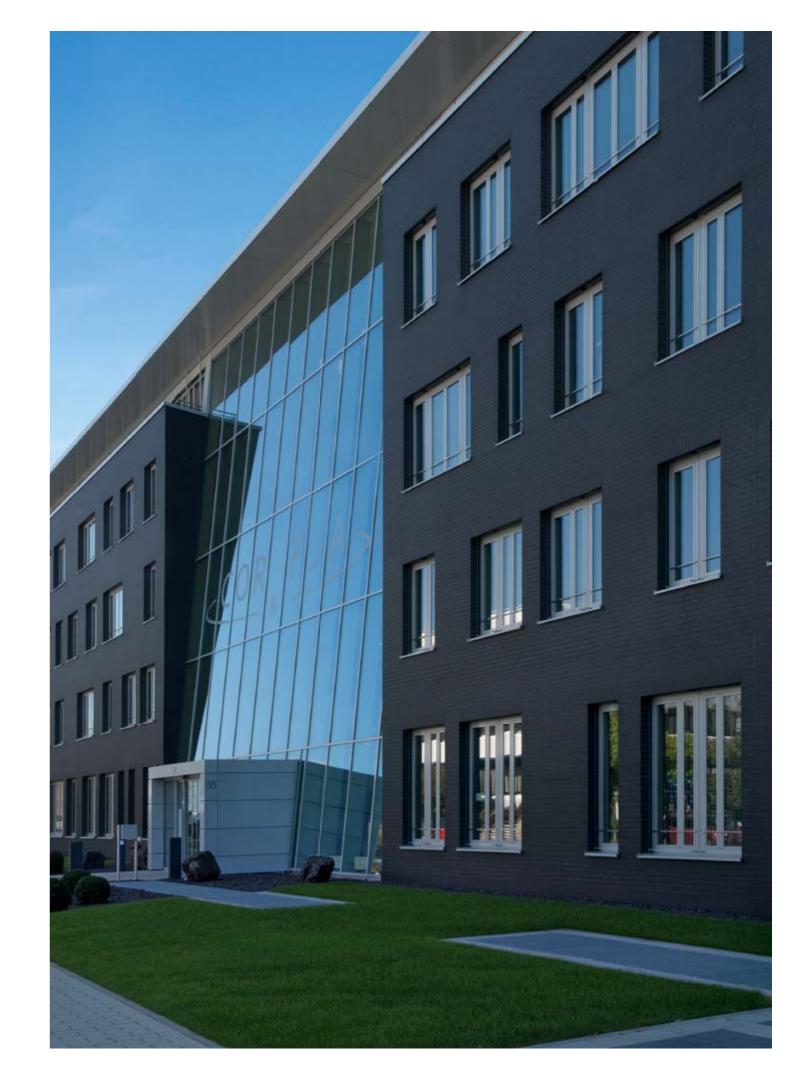
Röben ceramic clinker brick strip tiles FARO black-slate coated



owing to the short construction time. There were few suppliers who could meet these requirements", the architects stress.

Strip tiles in the NF format were used for the façade. The lowest possible grain of brick surface was desired since otherwise the front image would have appeared too restless with its different sized windows and asymmetrical arrangement. The restful stretcher bond was selected and only the lintels were bonded in a rowlock course to achieve the typical appearance of a full brick façade.

With its combination of aesthetics, user-friendliness and energy efficiency, the aim of euphoria was fulfilled in a manifold manner both for the town as well as for the tenants.





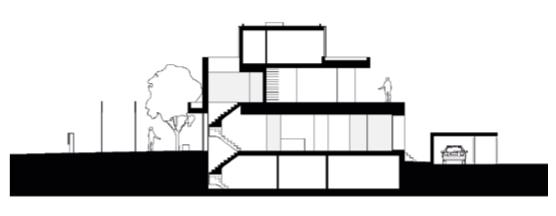
BRANCH BANK IN ROTSELAAR (B)

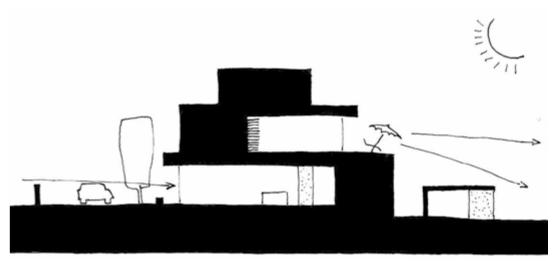
Röben hand-finished facing brick WIESMOOR coal variegated

In the previous issue of our EXEMPLUMS, we introduced our multi-storey housing estate "De Wachter" in Londerzeel in Belgium. Another of architect Peter Kint's successful projects is the planning of a bank and residential building in the Flemish community of Rotselaar, situated about twenty

kilometres north-east of Brussels and ten kilometres to the north of the university town of Leuven. The three-storey flat roof building houses a ground floor branch of the Belgian Dexia Group and has a large maisonette apartment available on the two upper storeys.







Compact brickwork, exposed concrete, steel and a lot of glass: An almost minimalist structure in modern clinker brick construction.

### Heterogeneous urban context

The starting point for planning was the plot's difficult location situated at the exit to the town in the south: "Rotselaar was originally a more rural area", says the architect Peter Kint. "However, through the proximity to the provincial capital of Leuven and the resulting urbanisation, the town's landscape has changed drastically in the past few decades - a supermarket and industrial area with numerous warehouses and production halls have settled very close to the old village centre." In order to contend with its heterogeneous surroundings whilst also creating a link to the region's intrinsic brick

architecture, Peter Kint decided to create a deliberately stripped-back, almost minimalistic design in modern clinker brick construction. A characteristic detail found in the process is the richly contrasting front view of the building, the ground floor level being mainly glazed and the first floor without windows, designed as a blind wall with red-brown hand-moulded facing bricks. In order to highlight the different uses of the two areas, the concrete ceiling cantilevers over the open main hall as a canopy.

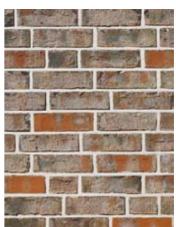
In contrast, the top level of the new building has been designed as a well set-back penthouse level with a green roof. The almost black facade panels made from steel sections and large

window on the right-hand side cleverly continue the ground floor design and pull each of the different areas into a unified whole. The same principle was used on the pavement and the bank's car park, alternating red, dark-grey and light-grey cobblestones and with boundaries made from exposed concrete. Another successful design detail is the passageway which has been created as a glass joint on the south-east side directly abutting the brick house. The two-sided open annex not only serves as a vertical connection with the maisonette apartment, but also allows direct access to the rear of the property, where the residents have a garden in addition to a large roof terrace on the first floor.

### Moving façade

All the façades were constructed as cavity walls with a tencentimetre-thick mineral wool layer of insulation in-between. In keeping with the architec tural concept and despite a conscious independency that still enables harmonisation with the environment, Peter Kint decided to opt for the Röben hand-finished facing brick WIESMOOR coal-variegated in a 240 x 115 x 71 mm sized normal format again which he had previously used in the housing estate in Londerzeel: "With its rough, irregular surface and its red-brown interplay of colours, the brick seamlessly blends into the numerous brick buildings in the region and the

neighbourhood ", says the architect. "But at the same time, it also has an extremely modern character which harmonises perfectly with its steel sections in the top floor and the different exposed concrete elements." In contrast to the strong geometric architecture, all façade were bricked in Flemish bond with an irregular intermix of stretchers and binders and finished with light-grey pointing. So, we have achieved an exciting surface; especially in the closed front area", reports Peter Kint. The stones were alternatively bricked using a half-brick thickness on the side façades. An additional highlight can be seen in the design of the window reveals: "In this instance and for static reasons, we braced the brickwork



TOTAL BUILDING MARK	Bank branch
STATE OF THE PARTY OF	Rotselaar (B)
	Planning:
· · · · · · · · · · · · · · · · · · ·	Peter Kint Architecten,
TOWNS PRODUCTION	Pellenberg (B)
THE RESERVE AND DESCRIPTIONS AND	
	Photos:
	André Nullens,
<b>湖州京东 (2017年)</b>	Londerzeel
STREET SUITS STREET, STREET,	
	Röben hand-finished facing brick
	WIESMOOR coal variegated

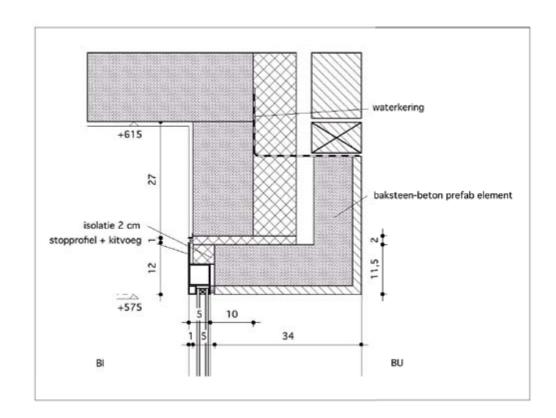
Water absorption approx. 7.0 %





with prefabricated brick lintels. In this way, we were able to implement these technically challenging areas well. " The project client, the Dexia Group with headquarters in Brussels, were also similarly convinced too. As, shortly after submission of the designs, the architect was also awarded the planning of another Dexia branch in Vilvoorde.

All lintels were designed as prefabricated elements





HOUSING PROJECT FOR THE ELDERLY IN HANOVER (D)

Röben clinker brick OXFORD "Lister LebensArt" is the name of a new housing project for the elderly, its concept being to combine a high standard of living with a high quality of life with individual care. 85 barrier-free apartments, 35 - 50 m<sup>2</sup> in size, are located in the new six-storey,

red-blue clinker brick building on the Podbielskistrasse - Ecke Waldstrasse plot of land in a central location in the Lower Saxony capital city of Hanover. A doctor's practice, a bank and the apartment's communal area are located on the ground

floor, in the 1st - 5th storeys are the "Lister LebensArt" apartments and larger free-hold apartments on the floor above. The sunken courtyard provides ample parking space and is covered with an accessible planted green roof.





Above: Horizontal brick bands break-up the façade Below:
Clear façade structure
with only one size of window,
spaced the same distance
from each other. In contrast
to this, the white plastered
façades in the courtyard area.

# Clear, strictly gridded façade structure

The aim of the urban planning was to integrate the building within the existing context, creating a gateway aspect with the building opposite. Furthermore, with its geometry and appearance, the building was to take on an intermediary function between two sectors of the road, each fundamentally exhibiting its own creative personality. Therefore, the city planning department had placed high demands on creative quality and surface quality of the façade before granting approval.

Following the style of brick artwork from the so-called "Hanoverian School" dating from the beginning of the last century, the new building was designed with brickwork. The building is strictly gridded and has a clear façade structure with only one size of window, spaced the same distance from each other. The white plaster façades in the courtyard area face towards the west and the large, encircling balconies and terraces convey a rather Mediterranean air.

# Used opportunities with clinker masonry

The decision for clinker brick was made fairly quickly. Röben had the requisite interplay of colours and the most suitable surface design in its programme with OXFORD. Its strong, dark, almost violet, shimmering colour had convinced both the client and the architects. An anthracite coloured mortar was selected so that the joint pattern did not visually compete with the brick area.

The brickwork also shows several artistic features. Horizontal

facing bricks were planned, consisting of two protruding facing layers and one recessed and were bricked between lintel and window ledge of the floor above. Offset was 20 mm. Two corners of the building have a 45° angle, together forming a 90° angle of the building wing, and were designed with rounded corners using Röben shaped bricks.

# Advice from the Röben planning service

The architects already coordinated with the Röben planning service during the planning phase and discussed details of the façade construction. As an alternative to full brick, an ETICS with clinker strip tiles was considered. However, as there was only one system with building approval for the protruding facing layers, the advantage was given to the full faced brickwork. Furthermore, conventional facing with mineral insulation was actually cheaper.

So, the entire longitudinal section was coordinated with the NF format at an early stage. Röben prefabricated elements were used for the deep lintels which were more than five layers in some areas and all window lintels were designed as brick prefabricated elements. Thanks to the early advice and support during the construction phase, the façade work was implemented quickly and trouble-free.





Housing project for the elderly in Hanover

Planning: generalPLAN GmbH Pruis · Uffelmann Architekten

Photos:

Ralf Hansen Fotografie, Hanover

Röben clinker brick OXFORD

Water absorption approx. 5.5 %
Röben specially shaped brick
and brick prefabricated elements

Above:
All lintels were Röben
prefabricated elements.
Below:
The building's corners with
angles of 45° were designed

with Röben shaped bricks.

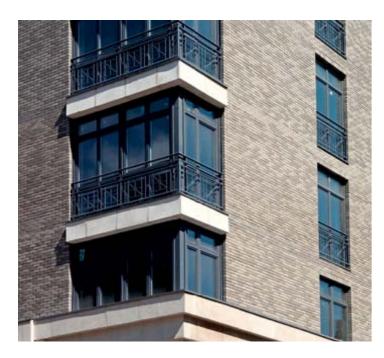


RESIDENTIAL COMPLEX
"FOUR SUNS"
IN MOSCOW (RUS)

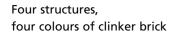
Röben clinker brick SORRENTO,FARO, WESTERWALD The former merchants and craftsmen settlement Samoskworetschje in the heart of Moscow is an important architectural monument of the city because of the stately homes and splendid townhouses of the wealthy merchants from the 18th and 19th centuries which still survive today. Touches

from Greek and Roman antiquity, rectangular, symmetrical buildings with pillars and ornately designed façades, often made of brick, can be found in the monumental buildings. In order to preserve this character, the construction of large properties has been forbidden since 1973. An exception

to this rule are areas that previously belonged to industrial plants as well as planning and execution of individual projects when the architectural style harmonises with the historic substance of Samoskworetschje. The architectural ensemble "Four Suns" fulfils both conditions.



Neoclassicism newly interpreted: Four buildings each with different colours of clinker brick. One of them is the special sorting grade FARO, a Röben ceramic clinker brick in varying shades of grey which were specially developed for this project.



The complex has emerged on a tract of land which formerly housed a factory for hydraulic power machines, and takes its architectural style from elements of the historic building. The residential complex is composed of four structures of varying heights, designed following the neo-classical style of their surroundings. The ensemble of four towers are grouped around a central courtyard which highlights the sophisticated design of the façade with its green lawns and fountains.

Owing to the pre-existing building solutions of its neighbours at the residential complex

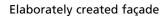
location, use of bricks had already been foreseen during the planning stage. Therefore, the architects had the task of selecting an appropriate clinker brick for each of the buildings. Four products in one format wereintended in a variety of colours. In addition, they should all come from a single manufacturer.

From the many proposals, the decision finally crystallised for clinker bricks from Röben. Four sorting grades were selected, SORRENTO sand-white and yellow-orange, WESTERWALD red, smooth and the Röben FARO grey-nuanced. A special sorting grade was developed for FARO using varying shades of grey at the Röben factory in Bannberscheid.





A column of elaborately created glass bay windows stands in front of a homogeneous red brick wall, pointed in the same shade. Röben clinker brick WESTERWALD, red, smooth

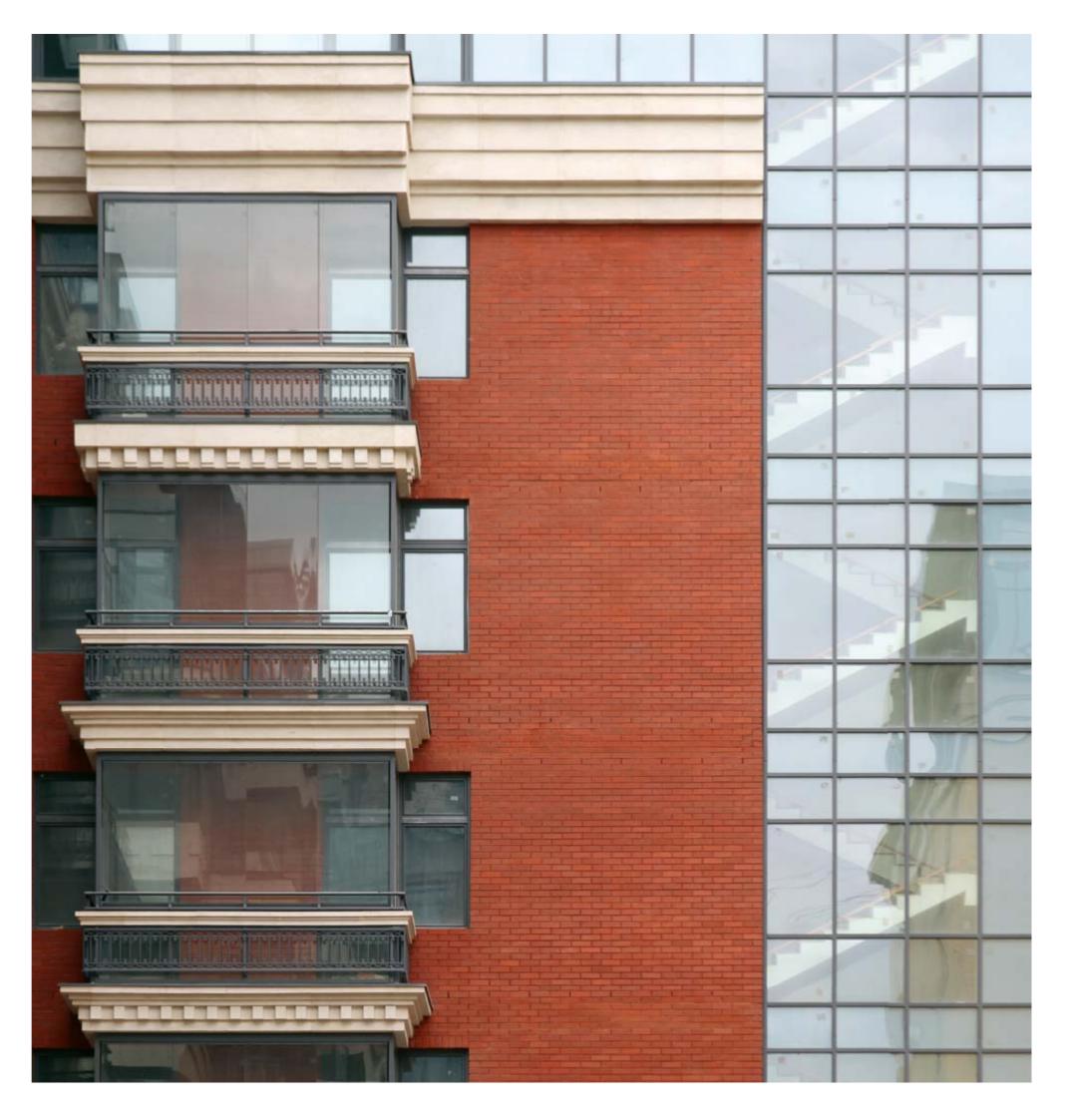


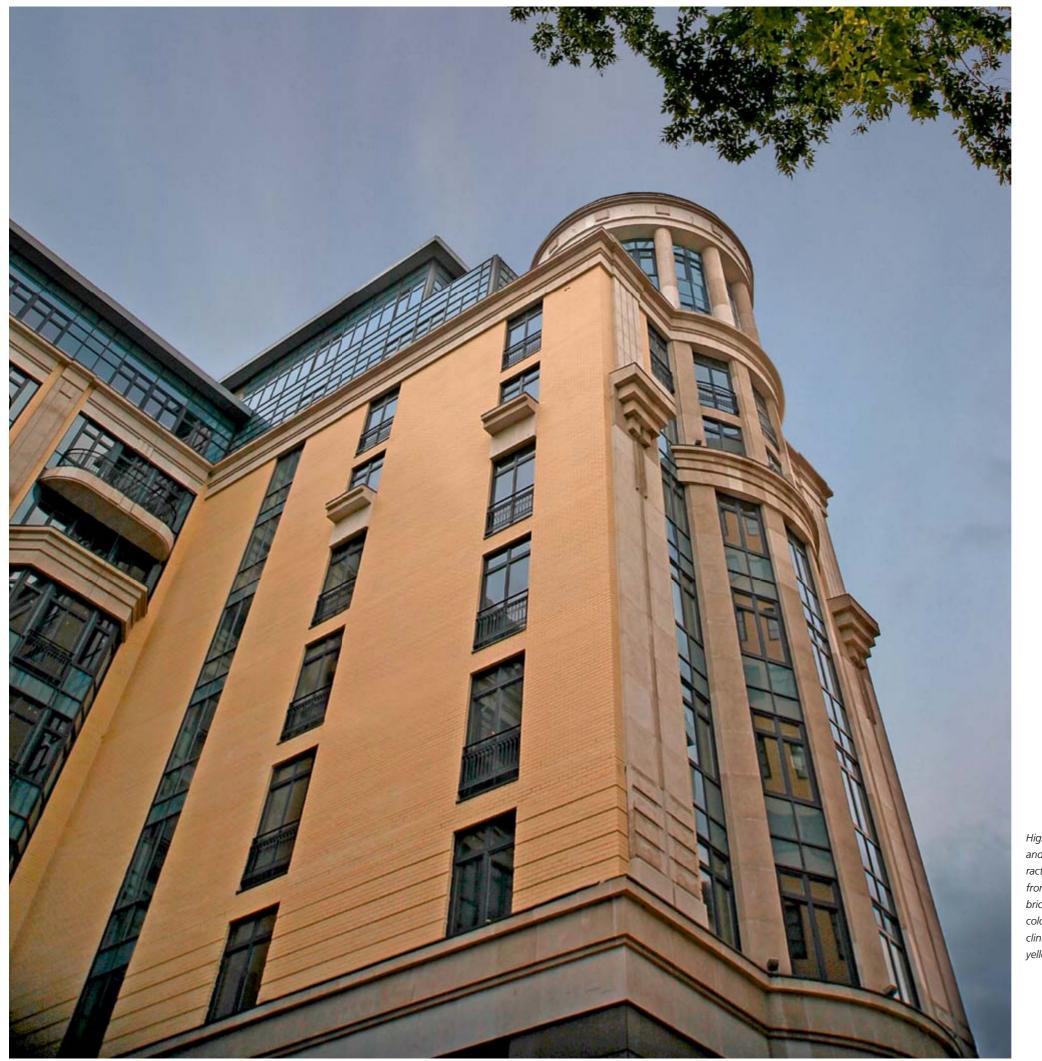
The façades of all the buildings were composed of an ingenious combination of granite, brick and natural stone areas, intermingled with large areas of windows and glass thereby bridging a link between classic and modern forms of architecture. This permitted each house to have its own individual character.

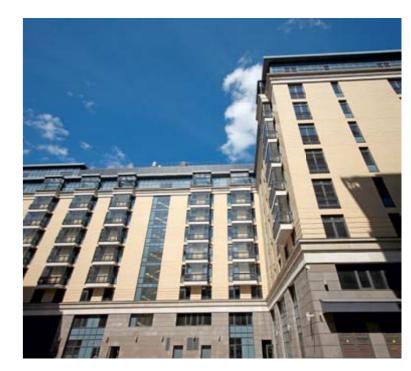
The lower levels are mainly designed with large granite slabs and primarily house the commercial rooms and utilities. Above, lie the residential areas with clinker brick façades, broken up by large balconies and elaborate glass bay windows. All the clinker brick has been

conventionally bricked. The appearance of the buildings differs from each other by way of various types of cornices, apron columns, pillars, balustrades and the diverse range of decorative elements and showcases the neo-classical style. The upper floor is completely glazed and takes up the modern contemporary building style again.

With the ensemble "Four Suns", the architects have succeeded in integrating a new building project into the surrounding area in such a manner that despite being a relatively large structure, the cohesion with the existing structure of the settlement is not disturbed.

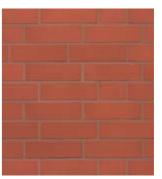


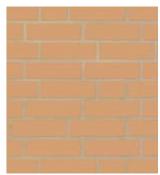




Sophisticated and elegant: The sand-white Röben ceramic clinker brick SORRENTO, pointed in the same shade









Housing estate "Four Suns" in Moscow (RUS)

Planning:
Werkstatt No. 1
Team leader
Michael Michailo
Chief architect:
Lewon Grantovit

Team leader

Michael Michailowitsch Prosochin

Chiof architect:

Lewon Grantovitsch Chatschaturjan

Photos:

Oleg Burlakov, Moscow (RUS)

Röben ceramic clinker brick

SORRENTO sand-white

and yellow-orange

FARO grey-nuanced,

special sorting grade

Water absorption approx. 1.5 %
Röben clinker brick WESTERWALD,

red, smooth

Water absorption approx. 3.0 %

High, slender columns and façade bands characterise this tower-like front building. The clinker brickwork is composed of coloured Röben ceramic clinker bricks SORRENTO yellow-orange.



NEW CONTROL HEADQUARTERS
OF THE BELGIAN RAILWAYS (B)

Röben hand-finished facing brick WIESMOOR coal-variegated

The Belgian railway has been divided into three independently operating business units since 1991. The Infrabel company is responsible for the care, maintenance and expansion of the rail network. In 2007, the group decided to increase the existing number of signal boxes and control centres across the country in order to optimise the safety of rail transport. In the French-speaking area of the country, new systems were planned in the towns of Liege, Monceau, Mons, Neufchateau and

La Louvière. The new buildings which were realised in close proximity to the railway stations, not only house the entire control technology but also provide office and computer rooms for the local members of staff too.



Monceau



Mons



Neufchateau



La Louvière



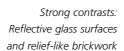
Liege

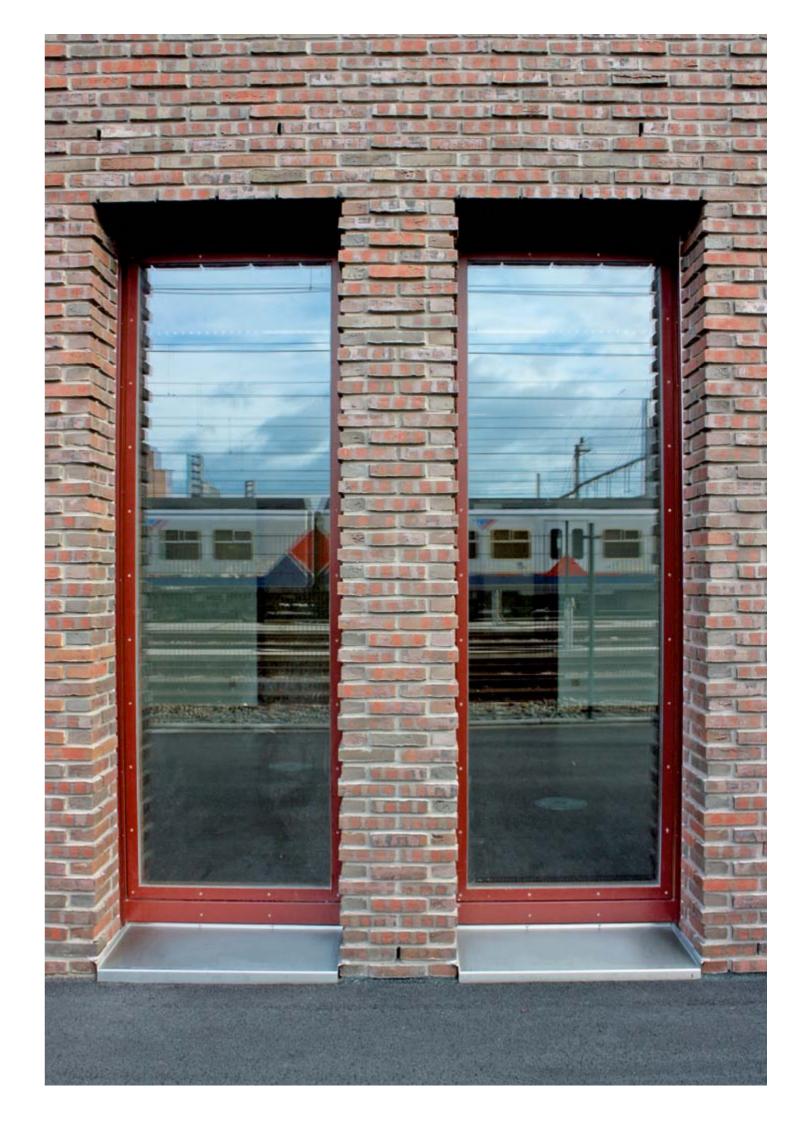
In 2007, the Liege engineering office Ingenieurbüro Canevas were awarded the contract of planning and executing the various projects. In order to bring all the different functions of the new control headquarters together under one roof whilst also complying with Infrabel's wish for a high-quality and lasting architecture, the planners realised all new buildings as a compact clinker brick space.

# Within sight of the new station of Calatrava

The largest of the projects was finished in Liege in the spring of this year. The new building is situated around 500 metres to the south-east of the new main station of Santiago Calatrava on the banks of the Mass and over its three levels integrates state-of-the-art switching and control technology to control the incoming and outgoing train traffic towards Brussels as well as towards Germany, France and the Netherlands. Starting from the narrow plot of land and the location

along the railway line, the new building was realised as a narrow, terraced structure that descends towards the north. The approximately 3,500 m<sup>2</sup> large, elaborate, detailed clinker façade is a characteristic eye-catcher. Towards the north and south, as well as towards the neighbouring Rue Namur in the east, the shell is opened in several areas by narrow, vertical or small square windows. In the opposite direction, a long horizontal glass front has been additionally inserted in order to enable a clear view of the railway line. All window frames were recessed or inserted flush with the façade and were selected in the same rust-red colour as the blinds, doors and the masonry copings.

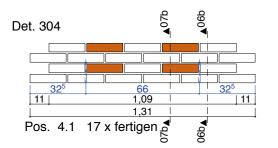


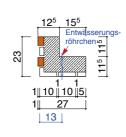


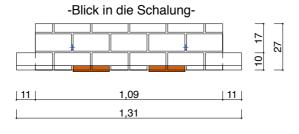




In the interest of a speedy and cost-effective progression of the construction work, all the lintels were calculated and manufactured by the Röben planning service and delivered to the site.







### Sophisticated brickwork

"Owing to its durability, its timelessness and its relation ship to the surrounding area, the clinker brick material was obvious from the beginning", states the project architect Stéphane Marville. Röben hand-finished facing brick WIESMOOR coal-variegated were used in all projects. The individual vibrancy and the dark, slightly colourful bricks allow the façade to project a variety of different looks full of

character and which harmonise beautifully with the numerous rust-red details.

To enliven the façade with a three-D appearance, different brickwork techniques were used for the new building in Liege - similar to the other projects too - and, owing to its segmentation, placed quite a challenge on the building materials: In addition to a traditional half-stone bond, there are also sections with 1 cm recessed and 1 cm protruding

stones and rows. Extremely deep inset joints emphasis the vivid impression of the relief, the effect is particularly striking when lit by spotlights. The unusual design draws on the long tradition of brick buildings from previous centuries and, therefore, ensures an extremely vibrant facet of an otherwise functional architecture.

"In order to achieve a speedy and cost-effective progression in the construction work despite the elaborate brickwork technique, we used prefabricated lintels throughout", says Stéphane Marville. "All solutions were calculated, drawn up and manufactured by the Röben planning service and delivered to the site." The bonds and three-dimensional projections of the prefabricated elements posed a great challenge, they were specially created by hand in the Röben prefabricated factory following precise specifications. Perfect bespoke work!



An eye-catcher: The elaborate, detailed brick façade. Sections with stones protruding or set-back in addition to the deeply inset joints create the impression of a relief. New control headquarters of the Belgian railways

Planning: Ingenieurbüro Canevas,

Liege (B)

Photos:

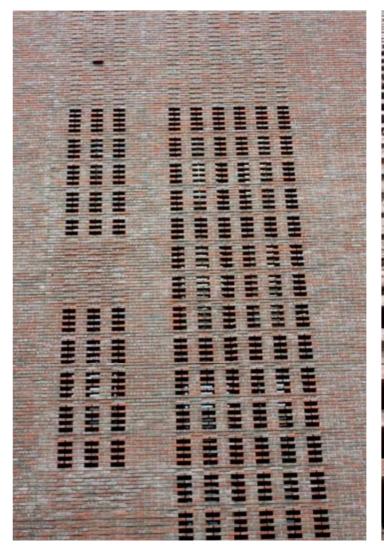
Charlotte Ceyssens (B)

Röben hand-finished facing brick
WIESMOOR coal-variegated

Water absorption approx. 7.0 %

Röben prefabricated brick lintels







# Modern wav es in Liverpool

ART & DESIGN ACADEMY IN LIVERPOOL (GB)

Röben ceramic clinker brick OSLO pearl-white, smooth

The Art & Design Academy in Liverpool was founded in 1825 and is the oldest British Art University outside London. Until now, the faculty has been housed in various locations throughout the city and the five-storey new building is finally in a central location at Brownlow Hill. The design by the famous London architect Rick Mather has been executed as a light clinker brick architecture and covers an area of around 12,000 m<sup>2</sup> providing state-of-the-art facilities for the fields of architecture, art, graphics and print. Besides studios which have been designed as open and column-free, there is also a public auditorium with space for 350 people and an additional exhibition area and café. A building-high atrium with a sculpted staircase connects all areas.





On the right:
The outwardly folded, vertical, wing-like wall elements provide optimal protection from the sun. Depending upon the view, they afford completely different perspectives: Ranging from almost transparent to practically closed.

A building-high atrium with a sculpted staircase connects all areas.



The elongated, wavy, curved block lies in front of the Liverpool Metropolitan Cathedral with its modernistic dome.





### Homage to the Liverpool Metropolitan Cathedral

The centre is annexed on its western side with the Beatles town; towards the east, the grounds of the new academy building border directly with the Liverpool Metropolitan Cathedral built in 1967, one of the most important landmarks of the city with its modernistic dome. "The architectural quality of the surrounding buildings is extraordinarily high", explains the architect Rick Mather. "In response, we have realised a modern, impressive design which unobtrusively dovetails into the urban context whilst creating a visual contrast to the cathedral."

A particular feature of the compact building, is its layout which bends and curves in a north-south direction to reflect the gently sloping topography of the site. Not only does the unusual shape create a logo for the Art Academy, it also renders a respectful integration of the cathedral with numerous surprising lines of sight between the two buildings. In addition, the location of the new building is emphasised through the use of several roof terraces and through a narrow penthouse level which affords wonderful views across the town and the cathedral. The space between the two buildings provides green areas which may be used by the general public.

### Elegant modern clinker brick architecture

Similarly, the use of bright ceramic clinker bricks can be seen as a direct reference to the Liverpool Metropolitan Cathedral with its light sandstone façade. The new building is also bestowed with a lightness through the large window areas and the elongated horizontal bands of window. A striking detail can be seen in the outwardly folded, vertical, wing-like wall elements, that in some of the bands of window cover three levels, and provide optimal protection from the sun as well as bring an interesting rhythmic vibrancy to the façade. Depending upon the view, they afford completely different perspectives: The two fronts appear almost transparent when coming from the north, in contrast, from the south, they appear largely closed.

All the brickwork areas and also the large vertical elements were designed with the Röben ceramic clinker brick OSLO pearl-white, smooth. The stone is supplied in a normal format of 240 x 115 x 71 mm and highlights the light, elegantly modern character of the architecture, creating a natural transition to the cathedral, the clinker brick buildings on the north and south sides and also to the neighbouring Adelphi Hotel with its bright white architecture from 1826 which

lies further to the west. "Furthermore, the clinker brick provides a high structural and colourful quality and emphasises the curved shape of the building", explains project architect Tim Paul. "When seen from a distance, the brickwork appears as a homogenous surface in the same shade as the Portland stone of the neighbouring cathedral. When viewed up-close, the smooth clinker brick and the light-coloured lime mortar lend the building a rather more tactile quality."

At the same time, the stone must prove to be extremely resistant and dirt repellent owing to its central location. Here, too, the Röben clinker bricks show that they are the right choice. Because the high-quality, white, fired clay sinters relatively early, the ceramic material solidifies at around 1,000 °C. As a result, the water absorption is less than two percent so that the clinker brick practically absorbs no further moisture. Which means, that the dirt which accumulates everywhere, is simply washed off by the next rainfall again.



Art & Desig	n Academy	
in Liverpool	(GB)	
Planning:		
Rick Mathe	Architects,	
London (GB	;)	
Photos:		
Andy Matth	iews	
Photograph	V	

Röben ceramic clinker brick
OSLO pearl-white, smooth
Water absorption approx. 1.5 %





FIRE STATION IN WILHELMSHAVEN (D)

Röben clinker brick CAMBRIDGE Where once the youth of Wilhelmshaven sat in class later became the place from where the fire brigade, for nearly 70 years, has been setting out on call-outs: The Fire Station 1 in the Wilhelmshaven inner city has a chequered history. The old school

building of the boy's secondary modern was built between 1905 and 1907 and has served as a fire station for professional firefighters since the war. Now a new team and vehicle building has been inaugurated at the corner of Peter- and Mozartstrasse..



On the outside modern Röben clinker brick Cambridge, on the inside the indestructible and extremely resilient Röben fine stoneware VIGRANIT.







A "top base for providing citizens with rapid professional help", the fire department commented on the new building. The Fire Station 1 is equipped with state-of-the-art and cutting-edge technology and offers the crew plenty of amenities. In future, the firefighters have their own dorm rooms for the demanding 24-hour service, modern wet rooms and communal rooms as a matter of course. The new halls for the emergency vehicles are generously sized and have exhaust gas disposal and special cleaning tanks for the equipment.

### Discreet awareness

With the new construction phase, plans for the fire station in Wilhelmshaven have now

ended. The gap between the historic building of the former school in the Mozartstrasse and the fire station's control centre built in 2004 on Peterstrasse where only one small vehicle depot stood, has been closed.

The client indeed wanted to have an independent architectural solution for the new building but one which could be embedded in the urban situation. The dark colour of the Röben clinker brick CAMBRIDGE underlines this desired independence in addition to the modern architecture. "The clinker brick that we selected from Röben, on the one hand, provides us with the option of creating a discreet awareness, and on the other hand, stylishly suits the materi-

als of the surrounding buildings without appearing deferential", say the supervising architects.

### Exciting street image

On two of its sides, the new building provides a contrasting annex to the different buildings and, in turn, their visual appearance benefits from the dark iridescent material. From the architects' point of view, trying to match the very different red shades and surfaces of the neighbouring buildings would have lead to an unexciting façade. A vibrant element has been introduced into the street image with Röben CAMBRIDGE. The clinker brick façade was bricked in the conventional manner, the load transfer in the display windows and above the building's 11

thoroughfares are provided by Röben prefabricated brick

### Linking with existing buildings

At first glance, from its outward shape and height, the new building joins the control centre built in Peterstrasse in 2004. This section of the building has a recessed, flat sloping gable roof which has been covered with Röben adjustable tiles RHEINLAND anthracite, scarcely visible from the street. The connection to the higher, old school building in the Mozartstrasse was established through an additional floor. This section has a flat roof. In the crossroads area, the corner is emphasised by the arrangement of windows and

on the ground floor. In order to create the link to the red bricks of the two existing buildings enclosing the new building, the vehicle door and windows in

the cut-out of display windows

the upper area were designed with orange-coloured and firered panels in addition to bordering sections of the façade.

### Extremely resilient hall floor

Owing to the generally extremely high weight placed on the floor of the vehicle hall not just through the vehicles themselves but also through concentrated loads of equipment, the architect and client jointly decided on the Röben fine stoneware VIGRANIT anthracite which was laid using the vibration method and with

various gradients. Interestingly enough, the ceramic surface has a so-called "fire-seal" which also guarantees that the floor can be quickly and easily cleaned. The anthracitecoloured floor tiles were, therefore, also laid in the stairwells for this and design reasons.

8

The old school building and former fire station will be renovated once the team has moved into the new building and will remain to house the fire brigade's management and administration.



Fire station in Wilhelmshaven

Planning: Griesemann & Griesemann,

Dipl.-Ing. Architekten BDA, Wilhelmshaven

Photos:

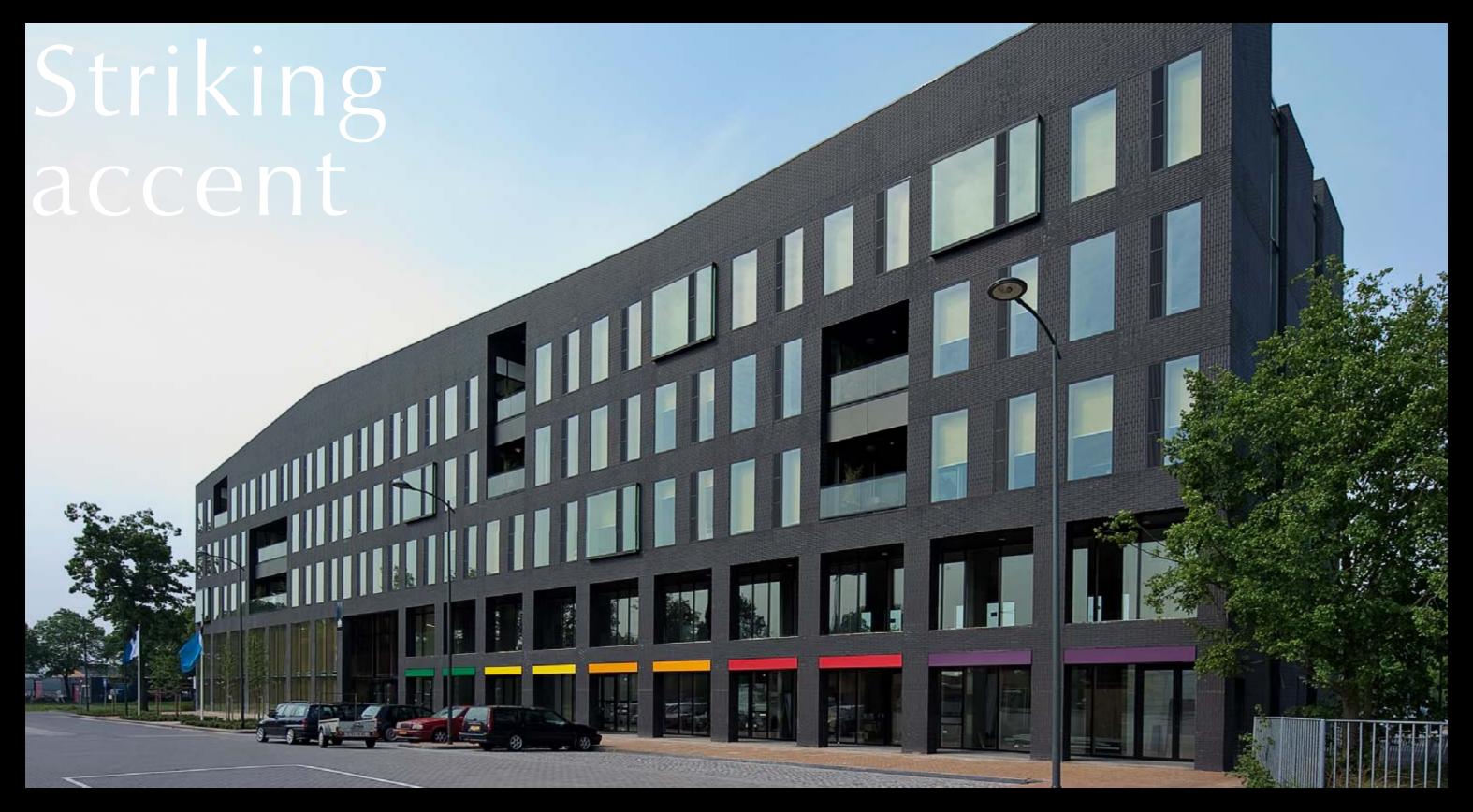
PROFOTO Studio Zahn, Großenkneten

Röben clinker brick CamBridge

Water absorption approx. 5.5 % Röben prefabricated brick lintels

Röben fine stoneware Vigranit anthracite

Röben reform adjustable tiles RHEINLAND anthracite



INLAND REVENUE OFFICE IN DOETINCHEM (NL)

Röben ceramic clinker brick strip tiles FARO black-nuanced

A few weeks ago, a new inland revenue office was completed in the small Dutch town of Doetinchem near Arnheim for the surrounding county. The project is one of the first public buildings in the Netherlands to have been realised in Public Private Partnership entirely through a private in-

vestor. In addition to planning, execution and financing, the project service provider Facilicom was also entrusted by the Dutch Building Ministry to be similarly responsible for operating the building until 2026.



Striking ensemble of buildings with a conscious "metropolitan" air.

The planning office MAS Architectuur from Rotterdam was awarded the contract for the architectural implementation in 2008. Using the specifications as a starting point - creating a flexible working environment for the offices previously scattered across several locations whilst facilitating an architectural impulse for the further development of the "Hamburgerbroek" quarter lying to the south of the railway station - the planners designed a striking ensemble of buildings with a conscious "metropolitan" air. Characteristic details can be seen in the black clinker brick façade, the irregular, curved eaves and the set-back balconies in different sizes which appear to be dotted around the façade as though at random.

# Differentiated building design

In order to facilitate the use of as much daylight as possible, the architects distributed the required floor space across three parallel structures designed with a maximum of five floors. The different lengths of the blocks and the eaves which run in opposite directions, provide an intriguing "mountain" effect with different perspectives. The volume of the building is additionally divided by a total of seven vertical glass joints which were integrated into the front end of the building in the staircase area. When approaching from the north or south, an effect is produced as though the complex is put together with undulating black ribbons of clinker brick placed next to one another.

In contrast, the front side of the new building facing east presents a much more compact shape: On the left of the main central entrance, a glass wall covering two storeys allows bright light to enter the rooms inside. As a contrast, the right-hand section is designed like an arcade, whereby panels set above the ground floor in green, yellow, orange, red and violet, provide colourful accents.

### Black strip tiles

"Not only do the black FARO clinker bricks emphasise the unusual architecture of the new building, they also allow a point of reference to the industrial building from the 19th century which previously stood in its place with its characteristic black brick façades", explains the project architect Joost Berger. "In order to

maintain the lightest possible structure and to better shape the underneath sections of the arcades and balcony recesses better, we decided to use clinker brick strip tiles on a thermal insulating system."

All the façades were created with a uniform stretcher bond throughout. However, the strip tiles in the format 240 x 115 x 14 mm were not horizontally positioned at window height, instead they were positioned vertically in order to lend additional geometry to the facade. Moreover, the deviations caused by assembling the prefabricated insulation elements into the brickwork by hand in the narrow areas between the windows is significantly less visible", says Joost Berger.

This is because the Röben clinker slip tiles are already em-





Integrated into the front end of the building seven vertical glass joints.

Homogenous overall impression: Black ceramic, dark pointing, black profiled windows and dark-grey parapet of latticework.

Ceramic clinker brick strip tiles on a thermal insulate composite system



Inland Revenue Office in

Doetinchem (NL)

Planning:

MAS Architectuur,

Rotterdam (NL)

Photos: Maarten Laupman

Röben ceramic clinker brick strip tiles
FARO black-nuanced

Water absorption ≤ 3.0 %



bedded into a foam insulation at the system manufacturer's factory. The prefabricated elements are then bonded onto the OSB boards mounted onsite, additionally anchored and supplement the half-clinker bricks left out at the edges on every second row at the building site with element-spanning clinker bricks. Finally,

the strip tile façade is pointed. In purely visual terms, the structure cannot be distinguished from a wall bricked the conventional way.

Furthermore, the homogenous appearance of the façade is emphasised by the choice of a dark-coloured mortar as well as by the installation of black,

profiled windows that sit flush with the façade. In combination with the dark-grey parapet of latticework and the covers at the roof edges, the sculptural character of the building is further showcased", Joost Berger describes the successful overall impression.

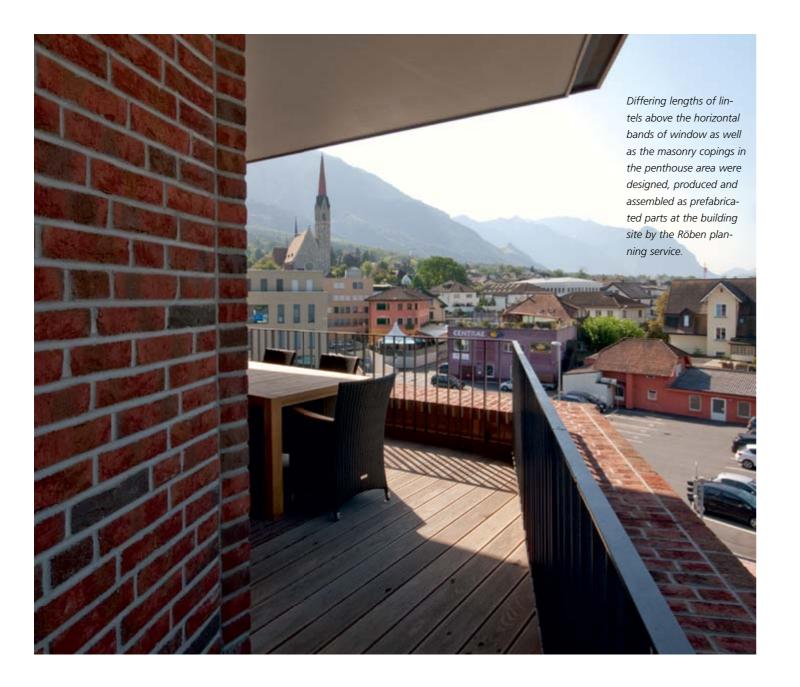


OFFICE BUILDING
IN LIECHTENSTEIN

Röben hand-moulded facing brick WASSERSTRICH light-red, variegated

The principality of Liechtenstein is not only of importance in terms of its international financial centre but also because it forms an important transportation hub between Switzerland, Austria, Germany and Italy. The dynamic centre of the Alpine state is the small town of Schaan, which despite its mere 6,000 inhabitants is the most populous municipality in the principality. In order

to optimise the local infrastructure whilst also attaining a greater urbanisation of the centre of Schaan, the railway station area of Schaan has been completely restructured over the past few years. Besides the new avant-garde bus station designed in a triangular shape, several new office buildings have also been completed - including the "office building Im Bretscha".









Bands of anthracitecoloured profiled windows, the eye-catching flying roof and the bright red coloured Röben hand-finished facing brick WASSERSTRICH set the building apart.



Office building in

Liechtenstein

Planning:

Architekturbüro

Helmut Kindle AG, Triesen

Photos:

Armin Wenzel Fotodesign,

Sielenbach

Röben hand-moulded facing brick
WASSERSTRICH light-red, variegated
Water absorption approx. 8.0 %
Röben prefabricated elements

# Striking façade cut-outs

The new four-storey building integrates two shop premises with flexible layout into 1350 m² of floor space on the ground floor as well as different sizes of office- and doctor's practice space in the three upper levels. There is additional space available in the basement for a communal underground garage. In 2009, the architect's office Helmut Kindle AG from nearby Triesen was commissioned with the project. Using the plot

of land's exposed location as a starting point, the planners realised the new building as an acute-angled clinker structure with striking façade cut-outs. The powerful modern architecture with its anthracite-coloured profiled horizontal bands of window and the eye-catching flying roof provide a conspicuous contrast to the otherwise very heterogeneous development.

### Timelessly modern character

To optimise power consumption, the new building has been

designed with the Swiss Minergie standard, which more or less corresponds to the German KfW energy-efficiency house 60 standard. An important part is played by the double-walled façade, which consists of a loadbearing steel concrete structure, a 18 cm thick core insulation of glass wool and a facing wall shell with Röben hand-moulded facing bricks WASSERSTRICH light-red-variegated in the normal format 240 x 115 x 71 mm. "We had previously had excellent results with this stone in other properties", reports

project architect Nils Estrich.

"The facing bricks emphasis

"The facing bricks emphasis the timelessly, modern architecture whilst also providing wonderfully natural warm tones with all lighting conditions." The lightred is further enhanced by the light-grey pointing providing a counterpoint with the anthracite-coloured window profiles and the same-coloured sun protection lamellae and metal parapets in the penthouse level. The Flemish bond also serves to highlight the vibrant façade and the hand-made character of the stone with its

irregular pattern of stretchers and binders.

But it is not only aesthetically, the use of WASSERSTRICH facing bricks also provide a convincing solution from a building physics aspect too. "Unlike plaster walls the stones are completely low-maintenance and durable so that the risk of structural damage is very low", says Nils Estrich. "And as there is no need of regular coats of paint, the long-term cost-benefit analysis pays off."

### From a single source

In order to achieve a high-quality and on-schedule execution of the façade, the architects worked closely with the Röben planning service from the beginning. "The technical office by Röben not only provided us with advice whilst obtaining tenders for the project, they also created a complete concept for the entire façade from the beginning, including a detailed cost calculation and then also took over the entire logistics, right up to its implementation

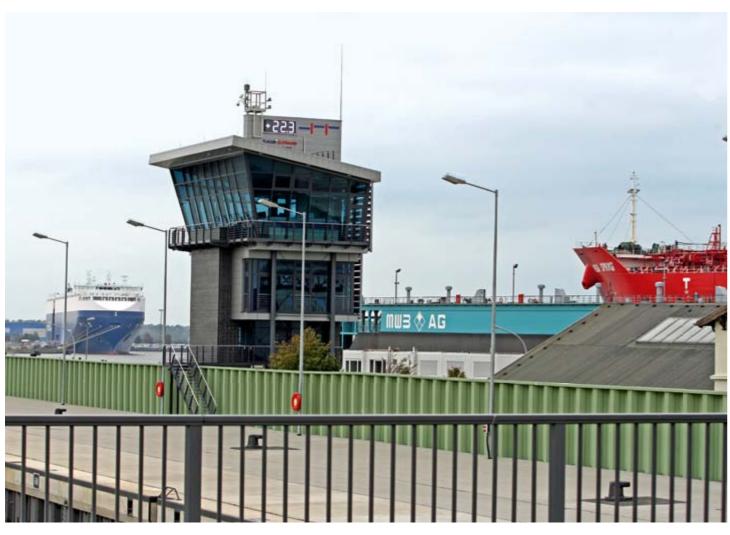
on the building site", reports Nils Estrich. In addition to 72,000 facing brick and highquality masonry copings in the penthouse floor area, different lengths of lintels above the horizontal bands of windows were also integrated. "With these special components not only did we have perfect detail solutions, we also achieved a fast and cost-effective construction progress in almost all weather conditions", the architect summarises the experience of his office.



# THE "KAISERSCHLEUSE" IN BREMERHAVEN (D)

Röben clinker brick CAMBRIDGE Röben ceramic clinker brick OSLO pearl-white Each year, more than a 1,000 ships with around 1.6 million cars on board pass through the bottleneck of the Bremerhaven North- and Kaiserschleuse locks in order to reach the car transhipment facilities in the inland port. The old Kaiserschleuse lock

could no longer meet the needs of modern shipping and the large carriers had to lose precious time by using the North lock and entering the Kaiserhafen port after intricate manoeuvring. In any case, a second large lock was essential to secure the harbour operations should the North lock malfunction. As a consequence of this, a new more efficient lock chamber came into existence at an investment volume of around 233 million euro. It is 305 metres long, 55 metres wide and 13 metres deep.



Calming pole in the lock operations: The new control stand.

The structural engineering design of the two so-called "Heads" is cubic in nature, based on the almost identical drives of the lock gates.



On the 23rd August 1897, the twin-screw steamer "Bremen" from the Norddeutsche Lloyd (NDL) was the first transatlantic ship to pass through the newly built Kaiserschleuse locks in Bremerhaven. The steamer was ultra-modern for its time and embodied the large type of ship that the Kaiserschleuse locks had been built for. At the end of the 19th century they were largest locks in the world.

# Modern, technologically advanced architectural structure

All that remains of the historic lockage are the former boiler room and the navigational lights "Kaiserschleuse Ostfeuer". Both properties are now listed buildings. Next to these prominent neighbours with their Wilhelminian architecture, the new buildings - the control stand and the outer and inland head gates - have added a modern, technologically advanced architectural structure.

The outer head and control stand lie in close proximity to the former boiler house. The two 12 m and 15 m high clinkered wall panels play a supporting role in the characteristic features of the control stand and into which the glass utilisation structure is fixed. The whole is surmounted by a "centreboard of information" with navigation lights, operator logos and water level information.

The purpose-oriented structural engineering design of the two so-called "Heads" is cubic in nature, based on the almost identical drives of the lock gates. However, a so-called additive building was joined to the operation building at the outer head gate, into which all the technical rooms only nee-

ded once are located. A smaller additive building was joined to the inner head gate.

The main engine technology is located in the lower area of the head gates, 3.5 m above sea level and covers two floors at the rear of the building. On the levels above, operating rooms for the necessary systems technology for operating the locks as well as staff rooms are located.

The grouping of old and new buildings creates an interesting focus on the essential structures in this major project. And so, a piece of architectural history has been created on this site, one that looks back over 100 years and with the new buildings will look forwards for at least 80 years.

### Good experience with clinker bricks

Anthracite-coloured clinker bricks, blue, low-reflection sun protection glass and aluminium components create a clear, counterpoint design to the historic buildings. Selecting the materials used was lengthy and difficult. The observance of general technical conditions, consideration for protecting listed buildings, the character of building materials typical for the area and the resistance to seawater required by its location all constituted the criteria. They should all be made in such a way which would allow the new building to have a life expectancy of at least 80 years. As a result, low maintenance costs for running operations should be guaranteed far into the future.

Based on this demanding profile of requirements, the decision for designing a façade with clinker brick was then made fairly quickly. The good experience with this material



The two 12 and 15 m high clinkered wall panels play a supporting role in the characteristic features of the control stand.

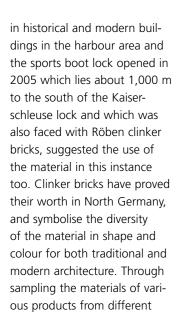






The clinker shell was bricked in a so-called "American bond". On one header course follow four stretcher courses.

On the right:
The sailing school ship
"Alexander von Humboldt"
is leaving the Kaiserschleuse locks
towards the Weser estuary.



manufacturers, a clinker brick by Röben soon became evident. The selection fell on the dark Röben CAMBRIDGE.

The surface was to be divided by a band of lighter ceramic clinker bricks, OSLO pearl-white, and pointed in cement-grey colour. The clinker brick shell was bricked using an "American bond"; it is similar to the "Flemish bond" with the difference that, in this instance, one header course is followed by four stretcher courses.

# Precision fit of joints for the pre-fabricated lintels

Röben pre-fabricated lintels were used above the doors, windows and technical openings. In the development of this lintel, the entire brickwork of the façade, including the expansion joints, was thoroughly planned and drawn in order to guarantee a precise, exact fit of joints for the pre-fabricated parts.

The new Kaiserschleuse lock is now for its part again one

of the largest lock projects in Europe. It can now take the largest transport ships in the world and secures the longterm future of Bremerhaven as a leading international car hub.



The "Kaiserschleuse" locks in Bremerhaven

Design planning and implementation of the structural engineering:

TOWN PLANNERS BREMERHAVEN

Architect Dipl.-Ing. Wolfgang Ehlers

Photos:

PROFOTO Studio Zahn, Großenkneten

Röben ceramic brick
oslo pearl-white, smooth
Water absorption approx. 1.5 %
RÖBEN CLINKER BRICK CAMBRIDGE
Water absorption approx. 5.5 %





EXEMPLUM Nº19

Property	Residential complex "Weser Loft" Bremerhaven, D
Architects	JPS Joost, Philipps, Schulz, Bremerhaven (D)
Façade	Röben architectural clinker brick WESTMINSTER



The entire EXEMPLUM archive is available as a download under www.roeben.com. The summary provided on these pages only shows an excerpt.

EXEMPLUM Nº19

Property	Detached house in Kamperland, NL	
Architects	Bedaux de Brouwer Architecten, Goirle (NL)	
Façade	ceramic clinker brick FARO black-nuanced	



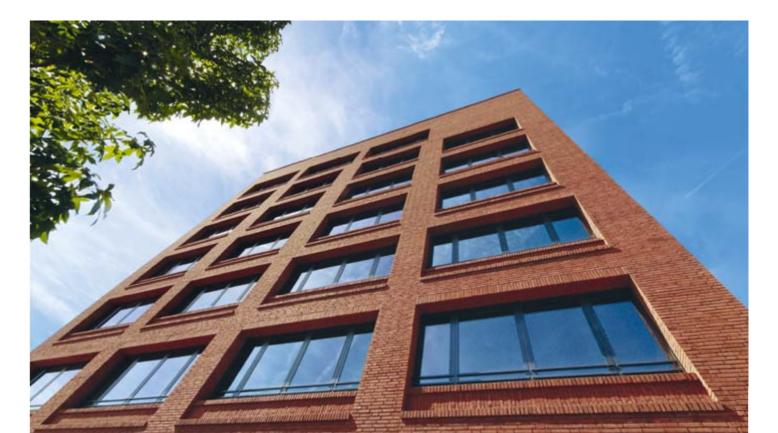


Property	Court house in Katowice (PL)
Architect	Archistudio Studniarek + Pilinkiewicz, Katowice (PL)
Façade	Röben ceramic clinker FARO grey nuanced, smooth

EXEMPLUM Nº19

Property	Office building in Frankfurt/Main (D)
Architect	Ortner & Ortner Baukunst, Berlin (D)
Façade	Röben hand-finished facing brick Wiesmoor in three special colours

EXEMPLUM Nº19



### EXEMPLUM ARCHIVE



Property	Social housing construction, Hamburg (D)
Architect	kbnk Architekten, Hamburg (D)
Façade	Röben hand-moulded facing brick
	GEESTBRAND variegated white

EXEMPLUM №19



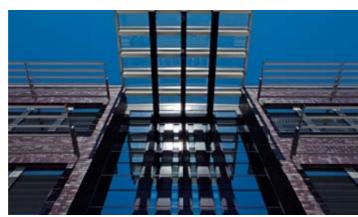
Property	Vileda headquarters in Weinheim (D)
Architects	BAURCONSULT
	Architects + Engineers, Haßfurt (D)
Façade	Röben, clinker brick strip tiles
	WESTERWALD variegated, smooth
EXEMPLUM №18	



Property	Production building in Balgach (CH)
Architects	Baumschläger Eberle, Lachau (A)
Façade	Röben hand-moulded facing brick
	WASSERSTRICH light-red, variegated

Property	Multi-functional complex in London (GB)
Architects	Edward Cullinan Architects, London (GB)
Façade	Röben ceramic clinker bricks VERSAILLES,
	a sorting grade of OSLO pearl-white

EXEMPLUM Nº18



Property	Hungarian National Bank in Budapest (H)
Architect	Márton Szabó
	Engineering office ARCAD-Szabó Kft (H)
Façade	Röben clinker brick NEUMARKT,
	blue-red, flashed,
EXEMPLIM №18	



Office loft in the Bremer Überseestadt (D)
Jilmes Lamprecht, Bremen (D)
Röben hand-moulded facing brick
MOORBRAND, loam-variegated

EXEMPLUM Nº17



Property	Detached house in Steensel (NL)
Architects	Bedaux de Brouwer Architecten, Goirle (NL)
Façade	Röben ceramic clinker brick FARO,
	black-nuanced

EXEMPLUM Nº16



Property	Office building "Queenstowers", Amsterdam (NL)
Architects	de Architekten Cie., Carel Weeber, Amsterdam (NL)
Façade	Röben clinker brick WESTERWALD,
	red, smooth
	Röben ceramic clinker brick FARO black-nuanced



Property	"Motel One Berlin-Ku'damm" (D)
Architect	Architekturbüro Benedict Tonon, Berlin (D)
Façade	Röben ceramic clinker brick FARO, grey, in four
	Architects sorting grade. Glazed Röben cera-
	mic clinker bricks in white, red and turquoise
EXEMPLUM №16	



Property	Detached house in Amsterdam (NL)	
Architect	Marc Koehler, Amsterdam (NL)	
Façade	Röben ceramic clinker brick FARO,	
	black-nuanced	

EXEMPLUM Nº16



Property	ABC-Tower, Cologne,
	office building with 17 floors (D)
Architect	Engelbert Zepp, Erftstadt (D)
Façade	Röben ceramic clinker brick OSLO, carrara-white,
	Architects sorting grade
EXEMPLUM №12	

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EXEMPLUM №10

EXEMPLUM №18



# **BRICK-DESIGN** by Röben

YOUR IDEA - YOUR STONE

"I imagine a stone which is steel-blue with a silver fired colour, in a long, slim shape. That would be ideal for the property I am designing". Something along those lines could be what an architect or client is looking for. - We can fulfil this wish. Present us with your ideas and by exchanging our thoughts and understanding, we will be able to put the goal and path to reaching this in concrete terms. Trials and attempts and repeatedly making adjustments - a process of development that pays off. At the end, a new never-been-seen-before stone will have been created - completely tailored to your vision! Röben clinker

bricks have been fired for more than 150 years. Now, as then, it is the zeal for the aesthetic appeal of fired clay which continually motivates the creation of new forms of expression. Fascinating clinker bricks arise from innovative ideas and cutting-edge manufacturing technologies. Their usage is determined by the creativity of the architect. We provide the knowhow, the dialogue and the equipment. - With the initiative "BRICK-DESIGN by Röben", we would like to accord brick architecture with new impetus. Especially in the property sector, we foresee great creative potential in collaboration with architects.

Speak to us. We make the stone.

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