

SUSTAINABLE HIGH-RISE BUILDINGS

REACHING FOR THE SKIES

That timber is becoming increasingly important as a building material is commonplace nowadays. However, what is noticeable is that these buildings are being designed taller and taller – and not only in metropolises such as New York, Dubai or Shanghai. Traditional “wood countries” have now also overcome their reservations when it comes to wooden high-rise buildings.

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دفتر مرکزی : مشهد، بین قرنی ۳۱ و ۳۳

تلفن : ۳۷۱۳۳۰۰۰ - ۰۵۱

DEVELOPMENTS IN THE WORLD OF ARCHITECTURE ARE AS EXCITING AS THEY ARE CHALLENGING. AS A PROVIDER OF SANITARY SOLUTIONS, GEBERIT HAS THE RIGHT ANSWERS FOR SOME OF THE PRESSING CONCERNS.

I would like to emphasise three of these developments in particular. Firstly, space is at a premium and thus expensive – and not only in global metropolises. Secondly, expectations in terms of quality of life are continuing to grow – a situation that is becoming apparent not only in public and semi-public spaces but also in the private sphere as well. Finally, while digitalisation is opening up new horizons, it also increases the time pressure when it comes to planning and implementing projects.

How do we incorporate these developments into our business operations? For one thing, answers to the aforementioned challenges can be found in our innovative products themselves. We use our long-standing experience in piping systems, installation technology, flush technology and bathroom design to create solutions in which clever installation methods and the highest levels of functional design go hand in hand. These solutions deliver added value in many different ways, whether saving space, saving time or ensuring added comfort.

Our holistic approach is an essential prerequisite for also being able to offer convincing solutions in future. In doing so, we rely on close cooperation with our customers and partners within the construction industry. Understanding their needs is key here. Even though experts from Geberit were not on site at all the projects found in this magazine, our partners in planning offices and on construction sites know that they can count on our support when needed. Digital helpers are being increasingly used here to make information, calculations and inspirations available quickly and to counteract the third major challenge – namely time pressure.



Christian Buhl
CEO of the Geberit Group



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THE GLAMOUR OF THE BIG CITY

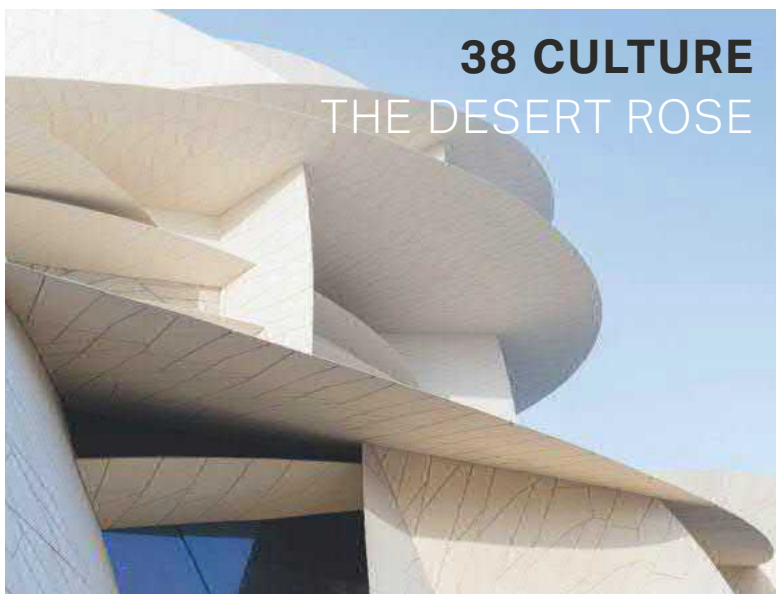
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LAGASCA 99, MADRID, SPAIN

THE GLAMOUR OF THE BIG CITY

LAGASCA 99

Building owner: Grupo Lar
 Architecture: Rafael de La-Hoz
 Opened: 01/2019

GEBERIT KNOW-HOW

Duofix installation system
 Sigma 8 cm and Omega 12 cm
 concealed cisterns
 Sigma01, Sigma20,
 Sigma30, Sigma50 and
 Omega60 actuator plates



The project by Rafael de La-Hoz on Madrid's Golden Mile completely lives up to its exclusive demands – as seen here in the lobby area.



The distinctive facade ensures the building interior is flooded with light while also protecting the privacy of those inside.

This modern town house is located in the heart of Madrid and exudes a sense of exclusiveness. Inside, the flexibility of the Geberit installation and flush technology can be seen throughout.

The district of Salamanca in Madrid is known as the "Golden Mile", with luxury boutiques and hotels lined up one after the other. The art galleries, museums and parks of central Madrid are only a stone's throw away. It goes without saying that this exceptional location also needs exceptional buildings.

Rafael de La-Hoz – an award-winning Spanish architect responsible for over 500 projects worldwide – was tasked with this challenging project. His solution is characterised by large rooms, lots of natural light and the use of state-of-the-art technologies. Four free-standing facades can be seen, with the rest made of glass. This gives the highest possible transparency inside the building. At the same time, the privacy of the residents is protected by the clever layout of the rooms and spaces.

**OMEGA**

The Omega concealed cistern can be installed at different heights. The flush is actuated either from the front or – in half-height prewalls – from above. At just 18 × 11 cm, the Omega60 actuator plate is particularly compact and can be installed surface-even.

PARKSIDE, FREUDENSTADT, GERMANY

PERFECT ROOM DESIGN



This exclusive residential construction on the outskirts of the German town of Freudenstadt is made up of two buildings, each with seven barrier-free apartments. It promises spacious living conditions with fantastic views of the Black Forest. →



↑

The brick facades and large glass fronts of the modern multifamily houses immediately catch the eye at this project in the Kneipp spa resort Freudenstadt. Inside, a spatial concept tailored to the individual needs of the residents comes to the fore.



In the Parkside complex, architecture and nature are inextricably linked. The numerous panoramic windows not only flood the rooms with light, but also open up the apartments towards their natural surroundings.

SPACIOUS AND WITH A SOPHISTICATED ENERGY CONCEPT

Essentially, architect Siegfried Schmelzle took seven spacious single-family houses and stacked them on top of one another. Each residential unit offers between 150 and 180 m² of living space, can be accessed via lift and also has a barrier-free design. In terms of energy, both buildings are completely up to date. Solar energy is predominantly used as an energy source. The sustainability concept is rounded off by a ventilation system with heat recovery.

A MASTERFUL SPATIAL CONCEPT THANKS TO GIS

With the help of the Geberit installation system GIS, the architect was able to design the bathrooms individually. For example, a GIS prewall was installed between the bathroom and toilet in some bathrooms to cleverly separate both areas from one another. In contrast to a brick wall, the prewall provides space for all the sanitary technology, such as the cistern, drinking water pipes and discharge pipes, plus the control technology for the lighting and blinds. Another prewall installation – in this case the half-height version – is found underneath the windows. This is used as a shelf surface and cleverly conceals the pipes and connections from the free-standing bathtub. Further added comfort is provided by the installed AquaClean Mera.



“We have combined functionality, aesthetics and quality in such a way that appeals to all the senses. Each individual element meets the highest standards in terms of practicability and is also of outstanding quality.”

Siegfried Schmelzle
Schmelzle+Partner Architekten



→

In addition to the spray functionality, the Geberit AquaClean Mera Comfort shower toilet offers a variety of functions, such as an odour extraction unit, WC seat heating, user recognition and automatic opening and closing of the WC lid. The Geberit Sigma80 actuator plate is also a stylish addition to the luxury surroundings.



↑

The prewall installation is used as a room divider or, as seen under the window, as a shelf surface. It also contains the technical components used in the bathroom.

PARKSIDE

Building owner: Borgmann
Bauträger GmbH
Architecture: Schmelzle+Partner
Architekten
Completed: 01/2017

GEBERIT KNOW-HOW

Mapress Stainless Steel supply system
Silent-db20 and Silent-PP drainage systems
GIS installation system
AquaClean Mera Comfort shower toilet
Wall drain for floor-even showers
Sigma80 actuator plate



←

The floor-even shower is fully tiled and thus barrier-free. The water drains away seamlessly through the wall drain into the prewall system.

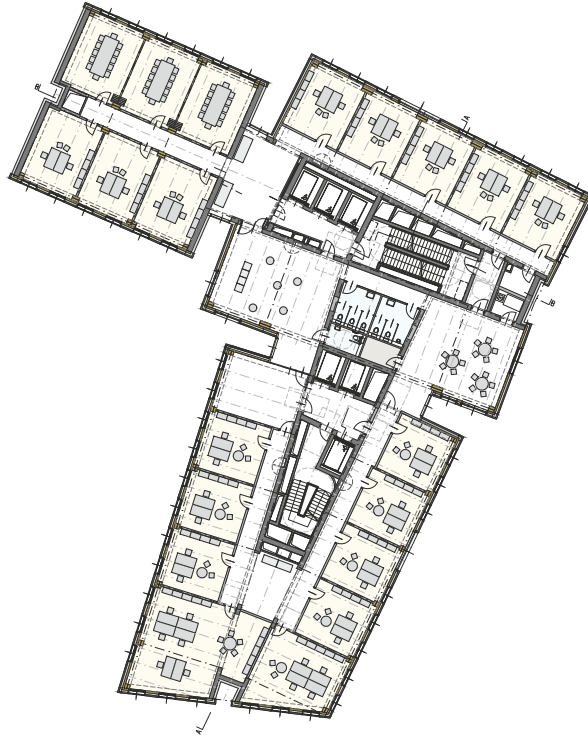
At 85.4 metres, Mjøstårnet in the Norwegian town of Brumunddal currently holds the world record as the tallest wooden high-rise building (see page 20 for more information). Due to the sheer number of planned building projects, it is only a matter of time before this record is broken.



HOHO WIEN, AUSTRIA

FLEXIBLE AND INTELLIGENT





By 2028, apartments for more than 20,000 people and almost as many workplaces will be built here on a former airfield in the north-east of Vienna. HoHo Wien is the flagship project of the new Aspern Seestadt urban development, and not only due to its height of 84 metres.

HOHO WIEN

Building owner: Kerbler Holding GmbH

Architecture: Rüdiger Lainer + Partner Architekten ZT GmbH

Completed: 11/2019

GEBERIT KNOW-HOW

Mepla supply system

Pluvia roof drainage system

CleanLine shower channel

Huter installation elements

Once humming with the sound of propeller planes and airships taking off and landing, things came to a standstill here with the closure of Aspern airfield in 1977. It was only decades later, in 2007, that the master plan for this new district was finally approved by parliament in Vienna.

CREATION OF A NEW SMALL TOWN

The master plan was based on studies made by architect Rüdiger Lainer in the 1990s. His analysis of the topography and unique historical context of the site was used to a certain extent as a charter for the plans that followed, which have since been vigorously pursued. The charter contained the rules to be followed for future activities and building structures. Lainer's study emphasised the need for the greatest possible openness and flexibility on one hand, and creative anchor points for identities and identification on the other. →

Spread over 24 storeys, HoHo Wien features a range of other uses in addition to office space and serviced apartments, including a restaurant, gym, health and beauty facilities, and a hotel.



The total amount of wood used in HoHo Wien is 4,350 m³ – an amount that grows back in Austria's forests within 77 minutes, according to the developers.

A TOWER WITH A FAR-REACHING IMPACT

The most striking anchor point of the development is clear – HoHo Wien. That this building became reality is down mainly to the hard work of trained construction technician Caroline Palfy. At a height of 84 metres, this 24-storey building built using hybrid construction has a total floor space of 25,000 m² and is a central, particularly sustainable landmark in the new urban development. Its office space stands out due to a special feature: the floor plan can be subsequently modified with minimal effort, meaning the rooms can be adapted to meet changing needs.

A VARIETY OF USES

In addition to innovation and technology, one aspect in particular was focused on when designing the centre of the urban development – the social interaction that takes place in the huge range of different uses. Nobody wanted to build a sleepy backwater, nor a business district that is dead in the evenings and on the weekend. This is why HoHo Wien features a range of other uses in addition to office space and serviced apartments, including a restaurant, gym, health and beauty facilities, and a hotel.



“Right from the outset, I knew that if I was going to use wood, it would have to be visible. I have never understood why a wonderful building material such as wood is often hidden behind plasterboard.”

Caroline Palfy

Managing Director at cetus Baudevelopment GmbH

LIGHTHOUSE JOENSUU, FINLAND

A SHINING EXAMPLE

With timber construction booming, particular attention has to be paid to the topic of building statics. However, there is also a demand for innovative solutions in terms of the technical building systems used. Such solutions were found and successfully implemented in the Finnish town of Joensuu. →

LIGHTHOUSE JOENSUU

Building owner: Opiskelija-asunnot Oy

Architecture: Arcadia Oy
arkkitehtitoimisto

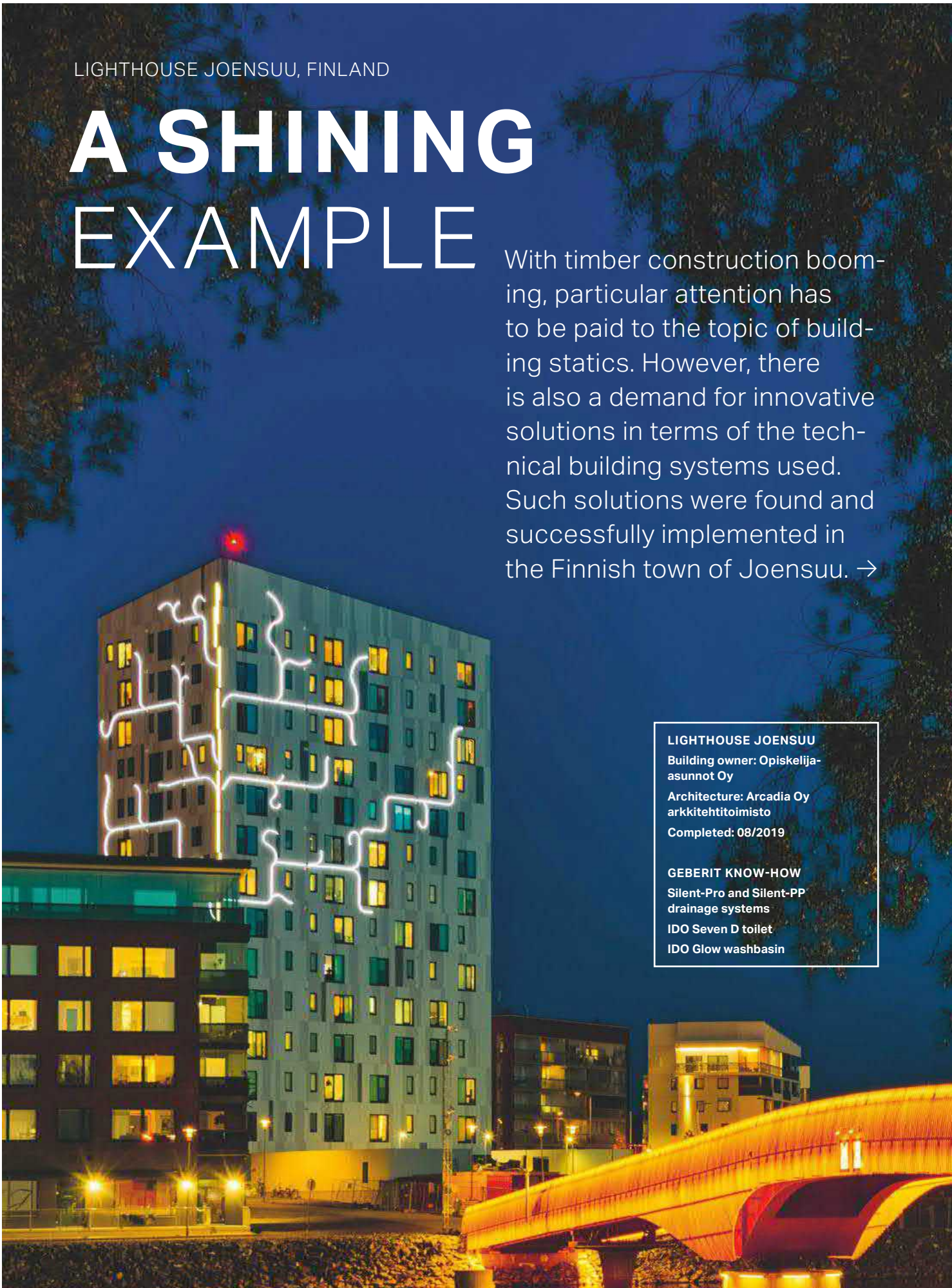
Completed: 08/2019

GEBERIT KNOW-HOW

Silent-Pro and Silent-PP
drainage systems

IDO Seven D toilet

IDO Glow washbasin





↑

Lighthouse Joensuu offers comfortable living space for up to 700 students.



“A drainage system from a single source with components that are perfectly coordinated with one another results in reliability on a whole new level.”

Samuli Sallinen
Architect at Arcadia Oy arkkitehtitoimisto

Further scientific advancements are needed before wooden skyscrapers become the norm. However, even today there is no shortage of adventurous plans for towers that will soar 300 metres and more into the sky.

WOOD AS FAR AS THE EYE CAN SEE

Compared to such visionary plans – not to mention already completed projects such as Mjøstårnet and HoHo Wien – the 48-metre-high Lighthouse Joensuu looks relatively modest at first glance. However, unlike its (in many cases) much taller competitors, the student residence is made entirely of wood. To be more precise, it consists of a combination of cross-laminated timber (CLT) for the floor elements and laminated veneer lumber (LVL) for the wall elements.

OPTIMAL SOUND INSULATION

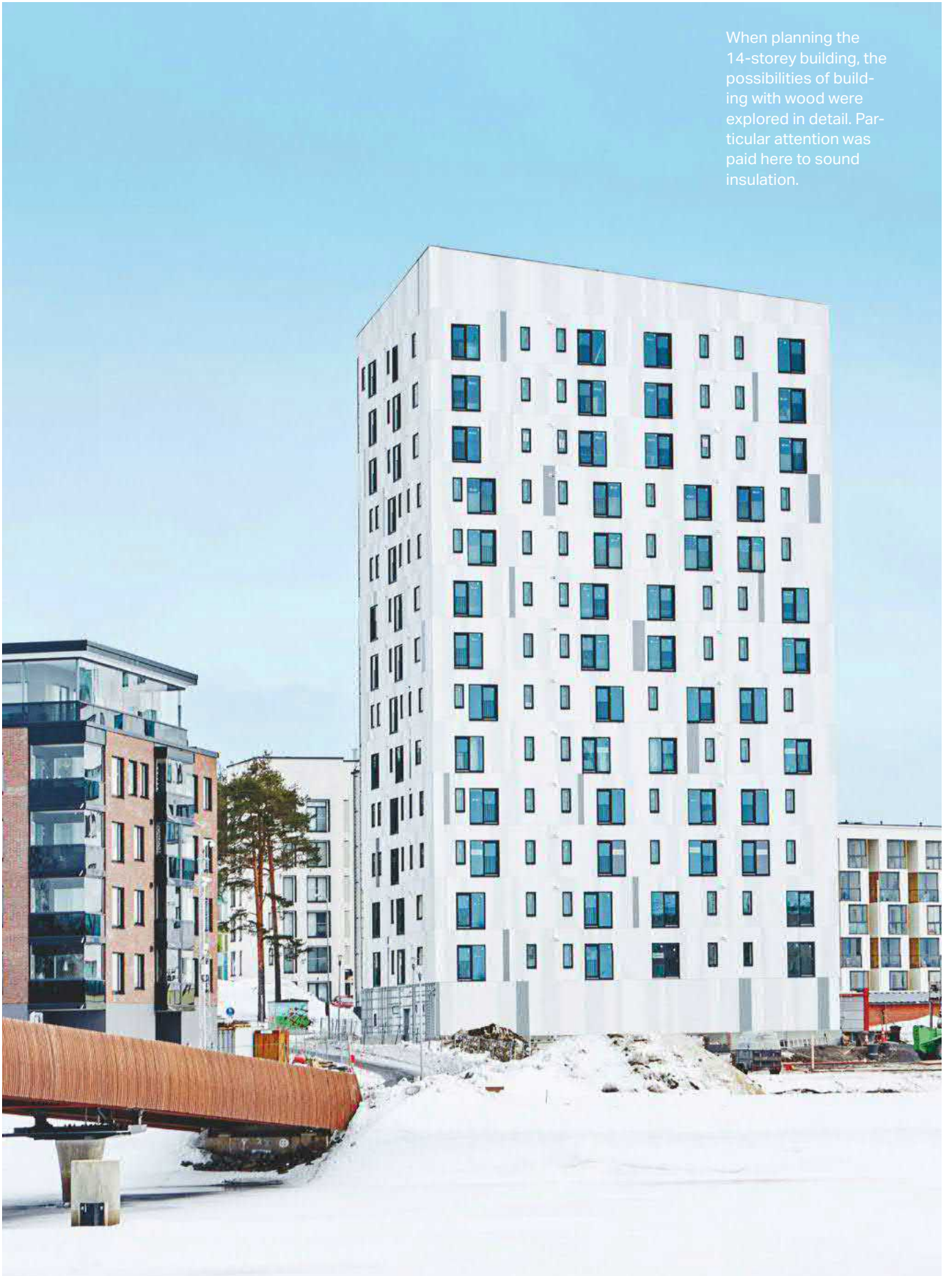
The compact 14-storey building has a floor space of 3,772.5 m² and offers comfortable living space for up to 700 students. During planning and implementation, there was a focus on sound insulation. In order to meet the strict regulations and cope with the limited space in the installation ducts, the people behind the project opted for the Silent-Pro drainage system, which is both highly sound-insulating and easy to install.



SILENT-PRO

Geberit Silent-Pro represents the state of the art when it comes to building drainage. The plug-in system achieves its outstanding sound insulation primarily due to three factors: the high inherent weight of the product material, targeted reinforcements on the fittings, and a consistent decoupling from the building structure thanks to special system pipe brackets.

When planning the 14-storey building, the possibilities of building with wood were explored in detail. Particular attention was paid here to sound insulation.



MJØSTÅRNET

Building owner: AB Invest AS


Architecture: Voll Arkitekter

Completed: 03/2019

GEBERIT KNOW-HOW

Duofix TEK installation system

Mapress supply system



The total floor space of 11,300 m² is spread over 18 storeys. The building features a mixture of uses, with a hotel and restaurant in addition to apartments and offices. A neighbouring building also houses a swimming pool.

MJØSTÅRNET, BRUMUNDDAL, NORWAY

A LAKESIDE VIEW

It is well known that Norwegians are skilled at carpentry; even the Vikings built wooden longhouses. However, instead of being built long, buildings are nowadays increasingly being built high – very high – into the sky.

Brumunddal is located north of Oslo in Hedmark county, an area dominated by the forest industry. Selecting this small town as the site for the pioneering Mjøstårnet project was thus seen as a clear signal. By obtaining wood locally and processing it into building material, the goal of the tower on Lake Mjøsa was to cause a sensation as a model for green building. And cause a sensation it most certainly did.

Even more eye-opening than the location is the building's impressive height – at 85.4 metres, Mjøstårnet currently holds the world record as tallest wood building. Scaffolding was not used during construction. Instead, the elements made of glued laminated timber (glulam) of four storeys each were preassembled directly on site and then hoisted into place using a crane.

After two years of building work – one-and-a-half years if excavation work is not taken into account – Mjøstårnet opened its doors in March 2019.



DUOFIX TEK

In order to meet the extremely strict Norwegian guidelines concerning the tightness of water-bearing installations, Duofix TEK was developed – an installation element with concealed cistern equipped with a waterproof shell.

THE WASHBASIN AREA...

...is often a beehive of activity. How can you keep a clear overview here? Geberit ONE has the answer: technical components such as the washbasin trap and tap base are securely attached to the installation system behind the wall. The space saved can then be used for storage and thus cuts through the clutter and chaos.



DESIGN
MEETS
FUNCTION

DESIGN MEETS FUNCTION





CASA CAMINADA, FÜRSTENAU, SWITZERLAND

AN ARCHITECTURAL TITBIT

Thanks to the top chef Andreas Caminada, Schloss Schauenstein has become a prestigious culinary location. A guest house designed by Gion A. Caminada is the latest addition to the castle ensemble. While this has certain traits of the two barns that were here previously, it avoids all forms of nostalgia.

There are very few top chefs as highly decorated as Andreas Caminada. The master chef has been celebrating his art at Schloss Schauenstein for years. At the heart of the ensemble from the 13th century is Casa Caminada, a guest house which boasts a menu featuring traditional dishes as opposed to haute cuisine. In the words of the chef himself: "We wanted to create something for both guests and locals alike where people say, 'that comes from here'."

A CONFIDENT STATEMENT

"From here" is also a fundamental part of Casa Caminada. The goal for architect Gion A. Caminada was to replace →



As architect Gion A. Caminada emphasises in his interview (on page 27), it is clear that you wouldn't build a new building in this way. As a result, the Casa Caminada blends in perfectly with the castle ensemble in Fürstenuau.



Thanks to the handmade tiles, each of the bathrooms has its own individual colour. Meanwhile, the Geberit products installed here are the same throughout.



"Guests experience something here that they don't get at a big hotel – the opportunity to chat to the baker, for example."

Andreas Caminada
 Chef and host at
 Schloss Schauenstein



CASA CAMINADA

Building owner: Heinrich Schwendener-Stiftung

Architecture: Gion A. Caminada

Opened: 05/2019

GEBERIT KNOW-HOW

AquaClean Mera shower toilet

Sigma20 actuator plate

Duofix installation system

Preda urinal ceramic appliance

Setaplano shower surface

Acanto and Xeno² bathroom series

Mepla and Mapress supply systems

Silent-db20 drainage system



The roof beams are one of the carefully selected elements that create a connection between the old and new use of the building.

two unused barns with a new building that is carefully integrated into the organic surroundings of the complex as a whole while also enabling a forward-looking use of the spaces. Caminada was able to accomplish this balancing act between the past and future. Original elements such as the weathered roof beams or the floors under the roof on which hay used to be dried are

not some kitsch, romanticised reference, but instead functional parts of the new building that is both deeply grounded yet independent.

A HIDDEN TREASURE TROVE

In Casa Caminada, the architect and the chef – who are not related to each other – have completed a project that is close to

both their hearts. The conversion has not only resulted in a restaurant with accommodation, it also houses a bakery, meat cellar, cheese cellar and a chamber with a growing assortment of exquisite delicacies created by Caminada, thus giving the old castle a huge injection of flair and quality of life.



Interview with architect Gion A. Caminada

“TRADITION MEANS REPEATING CERTAIN THINGS”

None of the ten guest rooms at Casa Caminada are alike. One reason for this is that the original shape of the barns that were previously located here was kept. This is one of the hallmarks of Gion A. Caminada, who has gained a reputation as a moderniser of Alpine building culture with projects such as the “Stiva da morts” mortuary in Vrin.



→
What appears new is actually based on the original shape of the two barns that were previously located here.

Unused barns are not exactly rare in Alpine regions. Where should caution be exercised when dealing with these pieces of cultural history?

It may be provocative to say so, but a farmer sleeps in a barn because he has to, and a tourist because he wants to. The fact that barns are now a dream destination for city dwellers is something that you have to consciously confront as an architect.

And where is the danger?

Resourceful politicians had the clever idea of keeping old barns as a defining hallmark of the local area – but in appearance only. Imagine we also pretended to do this here, it would have been a disaster.

In your opinion, how can repurposing succeed?

You have to go back to thinking about villages from the inside out, to think about them spatially or – as it is commonly known – in terms of urban development. It is all about “realities” – not reality itself but instead what you see as a reality. A reality can be a natural phenomenon. However, Andreas (Caminada) is also a reality – he has left a mark on the area culturally and everything has developed around him.

How is this approach followed at Casa Caminada?

All in all, despite some major changes being implemented, the project shows great appreciation for what was here before. On one hand, it should not be immediately evident that this used to be a barn. On the other hand, it's also clear that you wouldn't build a new building in this way.

How can you keep the beauty without it appearing kitschy?

When the barns were built, there wasn't much thought given to how nice they looked. What we consider attractive nowadays was once a combination of form and function – the barns had to be built in such a way that the hay could dry there, for example. Usually, the boards with slots between the studs required for drying the hay would be left as they were during a building conversion. However, we replaced them with an element that highlights the new building use – prefabricated concrete balustrades.

Your designs at Casa Caminada and your list of works elsewhere show how important tradition and old craftwork techniques are to you. With this in mind, how do you see sanitary technology as a comparatively young discipline?

Young or old is not important. After all, tradition does not simply mean old, but instead what has stood the test of time. Keeping traditions means repeating certain things. Sanitary technology will also become a tradition when it works on a long-term basis. In my opinion, the best sanitary technology is one that is condensed. Setaplano is very promising in this regard.



HOSPITALITY

Thanks to the dome, guests at Alchemist can enjoy a truly 360-degree experience.

ALCHEMIST, COPENHAGEN, DENMARK

SPECTACLE FOR THE SENSES

After two years of building work, the restaurant Alchemist in Copenhagen has now opened its huge bronze door. Once inside, guests are taken on a journey to a sensual world. Geberit AquaClean is part of it.



↑
Coffee, tea, cakes and cocktails are served on the "balcony".

ALCHEMIST

Building owner: NT Consulting

Architecture: Studio Duncalf

Opened: 07/2019

GEBERIT KNOW-HOW

AquaClean Mera Comfort

Sigma80 actuator plate

Comfort that you can feel: the toilets at Alchemist are equipped with AquaClean Mera Comfort shower toilets.



Refshaleøen is a former industrial site in the harbour of Copenhagen. Since the closure of the shipyard in 1996, the peninsula has seen significant changes and is known today as a colourful mixture of creative enterprises, flea markets and cultural institutions. Since this summer, it has also been home to the restaurant Alchemist and its trademark mixture of art, drama, culinary delights and visual effects. Put simply, this is a holistic experience for all the senses.

DOME AS PROJECTION SPACE

The principle of the holistic kitchen is the brainchild of chef Rasmus Munk. He started the project back in 2015 in a small, dark bar in the north of the city. As this quickly became too small, relocation to the 2,000 m² warehouse was the next logical step. At the heart of Alchemist is the huge roof structure made of 200 tonnes of steel. An 18-metre-high dome is lit by twelve projectors and is used as a backdrop for different images, such as the Northern Lights or majestic jellyfish floating through the ocean. →





↑

Fragrances, spices and freeze-dried ingredients from all four corners of the world are presented in the "Wall of Taste".

A ROLLERCOASTER OF FEELINGS

During their meal, guests move from room to room and experience different settings. The first room is dedicated to New York and was designed by the Brooklyn-based Japanese street artist Lady Aiko. The next room is equipped with a sound and light installation that highlights the struggles of the LGBTQ community. In addition to these visual treats, the restaurant also features live acts. However, the guests are not part of the theatre performances as the key focus of the restaurant still remains the food – in a more or less traditional sense. The dishes consist of 50 "impressions" and comment on sociopolitical topics such as food waste or environmental pollution.

A visit to the toilet at Alchemist is also a spectacle for the senses – primarily touch. Both the ladies and gents are equipped with shower toilets from Geberit. The eight AquaClean Mera Comfort shower toilets come along with Sigma80 actuator plates.



"I hope we can make a difference. I want Alchemist to comment on the present and be more than 'just' a restaurant. I hope that our guests eat – and then think."

Rasmus Munk
Chef and founder of Alchemist

CHEETAH PLAINS, SABI SANDS GAME RESERVE,
MPUMALANGA, SOUTH AFRICA

WILD AT HEART



Bright, open-plan rooms allow for close contact with nature.

Visitors to this very special lodge in the Sabi Sands Game Reserve live in a bush camp where the boundaries between luxury and the wildness of nature are blurred. →



Lodge guests do not simply live in an enclosed luxury resort. Instead, they reside in the heart of the Sabi Sands Game Reserve and feel at one with it thanks to the open-plan rooms. The transitions between living spaces and the savannah are almost indistinguishable.

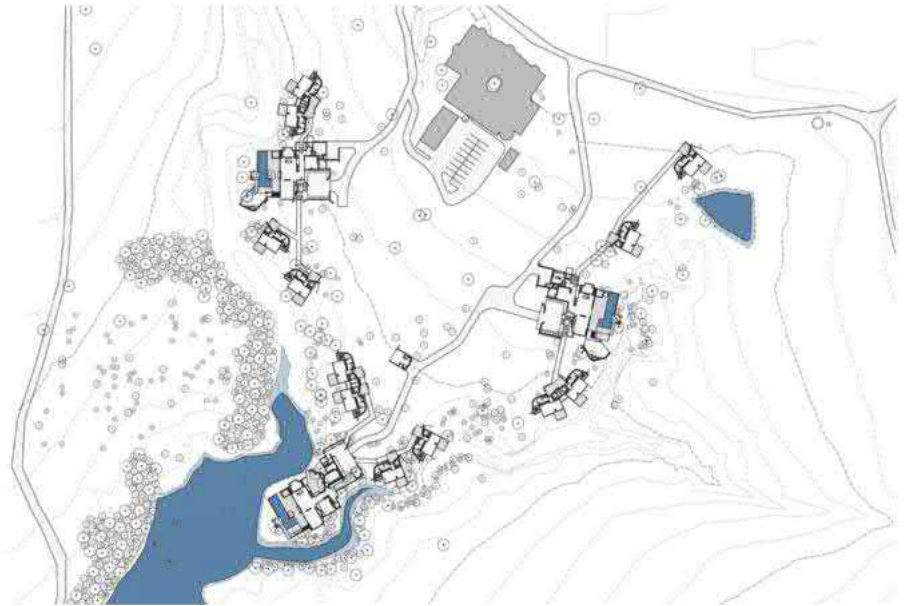
UP CLOSE AND PERSONAL WITH NATURE

This is made possible thanks to the architectural design of the three exclusive bush villas with their expansive cantilever roof structures, not to mention the open, seamless design of the site as a whole. The buildings have been laid out in such a way that the existing trees were kept and fully integrated into the overall lodge concept.

The building interiors were also designed with one eye on the wildness of nature while also offering the very highest luxury. Through expansive windows, all living spaces open towards the surrounding bush, and the open spaces – such as the romantic boma fireplace, the spacious terrace and the heated pool – virtually project into the reserve. The bathrooms in the luxury bush villas can be opened up completely to overlook the savannah, giving guests the feeling of almost bathing together with the hippos outside.

A NATURAL EXPERIENCE

Both indoors and outdoors, the buildings feature building materials in archaic styles and natural materials from the surrounding area. While the architecture has a primal, linear feel with its off-shutter →



↑
The lodge buildings blend in seamlessly with the surrounding game reserve, giving the guest a feeling of being at one with the bush.

The bathroom exudes a modern atmosphere, African style.
↓

←
The villas are integrated into the bush at Sabi Sands Game Reserve.



CHEETAH PLAINS

Building owner: Japie van Niekerk

Architecture: ARRCC

Completed: 12/2018

GEBERIT KNOW-HOW

Citterio wall-hung WC and bidet

Mapress and Mepla supply systems

HDPE drainage system

Pluvia roof drainage system

Sigma50 actuator plate

Kombifix installation element for wall-hung WCs

Sigma concealed cistern 8 cm



concrete walls and elements in weathered steel, the interior design focuses on warmth and different textures. Examples include rough natural stone walls, wooden tables and expansive panes of glass that give the interior spaces a style that is simultaneously both archaic and modern.

From this ambience, the reserve can be admired in an excellent way, for the guests live in the heart of the bush itself. This award-winning concept breaks away

from traditional lodge design and allows for an impressive and diverse interaction with the surrounding environment.

On the subject of the environment – electricity is provided by solar panels that are positioned cleverly between the trees at the lodges. Meanwhile, guests are transported in electric off-road vehicles, thus allowing for an environmentally friendly, almost silent safari experience.



↑

The luxury bush villas at the lodge are spacious, bright and above all integrated in their natural surroundings. The bar carved out of stone and the wooden table establish a direct link with nature.

→

The combination of modern building materials and natural materials gives African flair in a contemporary design. The interior design is influenced by typical traditional African art, ranging from the masks to the mirror that is reminiscent of a warrior shield.



FLOOR-EVEN SHOWERS...

...are loved by many.
But how practical are they
really? Geberit ONE has the
answer: in addition to the
wall drain, the glass partition
wall and niche storage box
with mirror door are integrated
into the installation system
and provide space for unsur-
passed showering pleasure.

DESIGN
MEETS
FUNCTION



NATIONAL MUSEUM, DOHA, QATAR

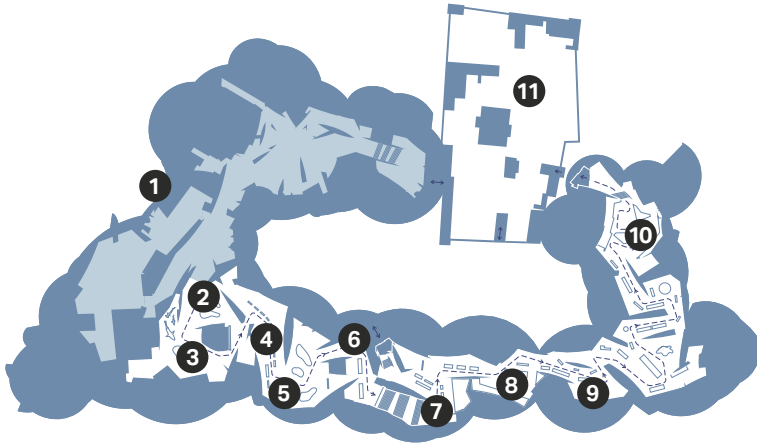
THE DESERT ROSE

Since its grand opening, the National Museum of Qatar in Doha has been celebrated by the architecture community as one of the architectural highlights of recent years. →



When designing the National Museum of Qatar, Jean Nouvel got his inspiration from the desert rose crystal.





Experiencing the history and culture of Qatar

- 1 Main Entrance
- 2 The Formation of Qatar
- 3 Qatar's Natural Environments
- 4 The Archaeology of Qatar
- 5 The People of Qatar
- 6 Life in Al Barr (Desert)
- 7 Life on the Coast
- 8 Pearls and Celebrations
- 9 The Modern History of Qatar
- 10 Qatar Today
- 11 Jila'at Sheikh Abdullah bin Jassim

The impressive National Museum of Qatar was planned and constructed over an 18-year period directly next to the restored palace of Sheikh Abdullah bin Jassim Al Thani. It was designed by architect Jean Nouvel, who got his inspiration from the crystalline structure of desert roses.

FROM ANCIENT TIMES TO THE PRESENT DAY

Anyone hoping to see western art at the National Museum of Qatar – such as the works by Picasso, Rothko or Cézanne acquired by the Qataris over the past few decades – will go home disappointed. Instead, the rich cultural history of Qatar is explored in impressive fashion using artefacts, stories and pictures. A range of educational offers and the possibility of introducing visitors to the past and present of the country are an integral part of the museum experience.

SPECTACULAR ARCHITECTURE

The striking building extends over 350 metres along the coast road in the capital, Doha. The 539 slat-shaped panels that unfold on all sides like a fan are clad with 76,000 elements and held in place by 7,000 tonnes of concrete. A tour of the museum takes visitors on a 1.4 kilometre loop through the building and reveals the many cultural treasures of Qatar. There are no right angles to be found here – everything is dominated by curves and ellipses. This masterpiece appears to contradict the rules of statics and logic, yet ends up a perfectly synchronised whole.



An aerial shot of the National Museum of Qatar emphasises its impressive size and spectacular architecture.



NATIONAL MUSEUM

Building owner: Qatar Museums Authority

Architecture: Ateliers Jean Nouvel

Completed: 03/2019

GEBERIT KNOW-HOW

Duofix installation system

Sigma concealed cistern

HyTronic toilet flush

Sigma01 urinal flush control

Silent-db20 drainage system



→

"The Formation of Qatar" is one of the exhibitions that explores the rich history of the country.

CLORE LEARNING CENTRE, LONDON, UK

HOMEBASE FOR ARCHITECTS



↑

Designed by George Grey Wornum (1888–1957), the building has been listed since 1970.

CLORE LEARNING CENTRE

Building owner: Royal Institute of British Architects

Architecture: Hayhurst & Co

Opening: 10/2019

GEBERIT KNOW-HOW

Duofix installation system

Sigma 12 cm concealed cistern

Sigma20 actuator plate

iCon washbasin and WC wall-hung

Twyford tap X60

Twyford barrier-free solution

The Royal Institute of British Architects (RIBA) not only presents prestigious awards such as the Stirling Prize. The professional organisation also organises a variety of education initiatives on a local level. At its headquarters in London, this takes place in a renovated art deco building.



↑

Thanks to a complete renovation, RIBA now has the perfect facilities for a range of event formats at its disposal.



↑

The iCon bathroom series with its linear design is as varied as the individual tastes of those using it. A comprehensive range of ceramic products and bathroom furniture with clear, modern lines offers maximum design freedom.

66 Portland Place in the London district of Marylebone has been an important meeting point for architecture enthusiasts since 1934. Designed by George Grey Wornum, the building was listed in 1970 as one of the first examples of "modern" architecture in London.

Today, the RIBA headquarters are used in a variety of ways. In addition to a library, the building also plays host to training events, exhibitions, lectures and special workshops for children and adolescents. The structural requirements for this type of use were no longer met by the old building. As a result, new learning spaces were created as part of a careful renovation, and the entire infrastructure was also completely modernised.

Geberit sanitary products were used in the complete renovation of the toilet facilities on the upper floors, thus allowing these areas to be used to their full potential.

AYLA GOLF CLUB, AQABA, JORDAN

BRIGHT FUTURE



AYLA GOLF CLUB

Building owner: Ayla Oasis
Development Company

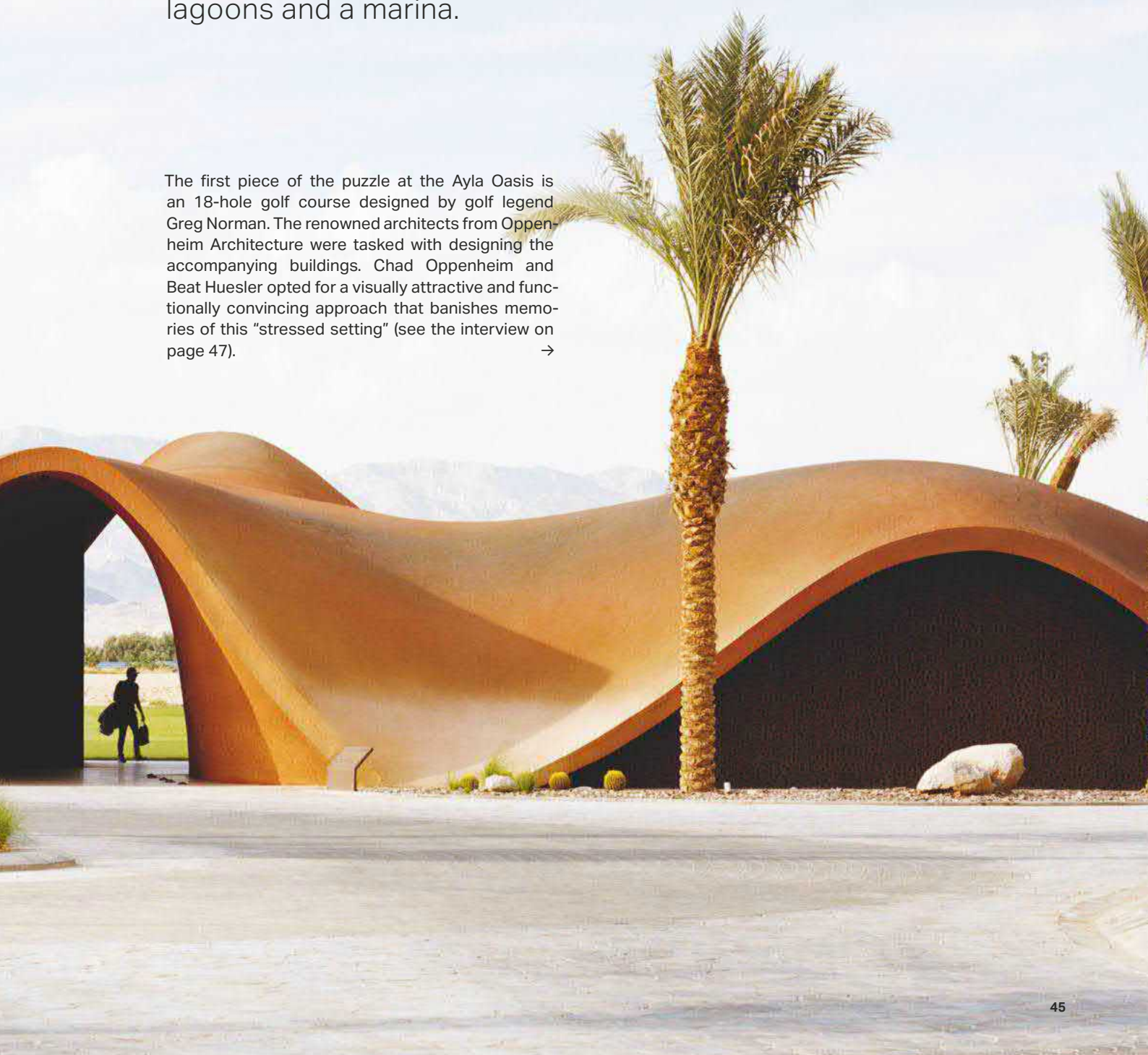
Architecture: Oppenheim Architecture
Completed (Phase 1): 04/2018

GEBERIT KNOW-HOW

Duofix installation system
Sigma01 actuator plate, special brass

At the southern end of the Israel-Jordan border lies Aqaba, where lasting peace has paved the way for construction of the Ayla Oasis. This development project will eventually include hotels, artificial lagoons and a marina.

The first piece of the puzzle at the Ayla Oasis is an 18-hole golf course designed by golf legend Greg Norman. The renowned architects from Oppenheim Architecture were tasked with designing the accompanying buildings. Chad Oppenheim and Beat Huesler opted for a visually attractive and functionally convincing approach that banishes memories of this "stressed setting" (see the interview on page 47). →





Oppenheim Architecture is in charge of five of the construction projects in the Ayla Oasis master plan. Two "comfort stations" (recreation areas with toilets) have already been completed.

"Most of the furniture, such as the benches, was made specially for this project. The design is inspired by the earthy tones of the Jordanian mountains. The same also applies to smaller items, such as the actuator plates. Geberit was one of very few companies who were able to offer a suitable design."

Rasem Kamal

Project architect at Oppenheim Architecture

STRENGTH LIES IN PEACE

The characteristic wavy design gives the various building types a sense of charisma and calm. With this in mind, Oppenheim Architecture speaks of a "silent monumentality" – as seen in a range of other spectacular projects such as the wastewater treatment plant in Muttenz, Switzerland. The wavy design of the roof also defines the building interior. As a result, there is a complete lack of exact angles and alignments. Instead, the architects consciously used organic shapes that openly highlight the traces of the construction process.

LEARNING BY DOING

Of course, this construction process is anything but the norm. As the process of concrete spraying was widely unknown to those on site, the construction of the two toilet facilities was used as practice and accompanied by two experts from Switzerland. As a result, the larger academy building – which will take on the role of the clubhouse until the building is finished – was built in its entirety by the local workforce.





Interview with architect Beat Huesler

“AN ANCHOR POINT FOR UPCOMING DEVELOPMENTS”

The buildings designed by Oppenheim Architecture are both unspoilt and elemental. In case of the Ayla Golf Club, this is even more impressive when you consider that this plot of land used to be a restricted zone during the Israel-Jordan conflict. After the ceasefire, building on this land was not possible for many years. Only now is the huge potential of the site on the Gulf of Aqaba being exploited to the full.

←

The golf academy is being used as a temporary clubhouse. Also planned is a golf hotel with 25 units, whose design matches that of a comfort station.

Beat Huesler, as company partner you head up the Swiss office of Oppenheim Architecture, whose roots can be found in the USA. How does this transatlantic cooperation work?

We have a range of different geographical focal points, but there is always a point of contact during the design phase. Our blueprints have a joint signature style that combines American lightheartedness and Swiss rationality.

To what extent can this signature style be seen in the project in Aqaba?

The Ayla Oasis is a perfect example of how we strive for a coexistence between built and natural surroundings. The plot was ripped from nature during the years of conflict, leaving behind barren land. We asked ourselves how architecture can react to this stressed setting.

Which conclusions were you able to draw from this?

The project should be an anchor point for upcoming developments in the tourist infrastructure, but not by using sensationalist architecture. The buildings are iconic, yet not loud and gaudy. We use the term “silent monumentality” here. This cannot necessarily be seen from a distance, but the nearer you come the clearer it becomes.

This is the first project by Oppenheim in Jordan. How did you become familiar with the on-site conditions and come to use local resources?

The materials and expertise available on site determine how sustainable a project is. In the case of Aqaba, while the spectrum of craftsmanship techniques was limited, there was a huge desire to learn new things. There is also great appreciation for the manual processing of typical local minerals. It was possible to use this in connection with our concept of silent monumentality. The minerals were mixed into the sprayed concrete. Some areas are now reminiscent of an Italian church from the 16th century with wall pigments applied in many layers.

“Our blueprints allowed to cope with inaccuracies during construction, which give the building its organic character.”

Is the certain coarseness that characterises the building the result of this approach?

A couple of things were indeed the result of practical restrictions. However, our blueprints allowed to cope with such inaccuracies, which then give the building its organic character.

LONZA ARENA, VISP, SWITZERLAND

INTO THE CAULDRON



The outline of the "cauldron" inside shimmers red through the expansive glazed facade of the Lonza Arena in Visp, Switzerland.

LONZA ARENA

Building owner: Visp municipality
 Architecture: Rollimarchini (Berne) and
 Scheitlin Syfrig Architekten (Lucerne)
 Completed: 09/2019

GEBERIT KNOW-HOW

Duofix and GIS installation systems
 Mapress Stainless Steel supply system
 HDPE drainage system
 Renova No. 1 washbasins and toilets
 Urinal system with Preda urinal and
 integrated flush control



Thanks to a clear structure and good accessibility on all sides, visitors can easily find their way around.

The district of Visp in the Swiss canton of Valais now boasts a brand new ice rink and event centre. The robust sanitary installations from Geberit are able to cope with the rush of visitors.

Autumn 2019 saw the grand opening of the Lonza Arena in Visp with its first ice hockey game. Covering a total area of around 5,700 m² and with a maximum building height of 15 metres, the ice rink and event centre blends in well with its surroundings despite its impressive size. As the building is set back from the street, there are sufficient outdoor spaces and entrance zones, which makes coordination of the large influx of visitors easier. The transparent building shell supports the fundamental spatial idea of merging indoors and outdoors. →



Optimal operational reliability: the urinals are equipped with a control unit underneath the ceramic sanitary appliance that can be quickly replaced when needed.

↓



A DISTINCTIVE GRANDSTAND

At the core of the new building is the grandstand, which runs in an east-west direction parallel to the main road outside. A gallery located underneath benefits from the transparent building shell and stands out as a bright, open area that links outdoors and indoors. The gallery is used to access the grandstand areas, as an area for food and drink, and can also be used as an event space depending on the building use. The spectator areas are divided up into four sectors, with seats running parallel to the ice and standing areas behind the net at each end. As a result, the ice rink can hold up to 5,000 visitors. By raising the first row by 2.3 metres, spectators have an optimal view of the ice from all areas.

READY FOR THE FLOOD OF VISITORS

The backbone of the arena is provided by the multi-storey structure on the north side, which is used as the entrance for players, VIPs, staff and visitors to the restaurant. By connecting to the entrance zone on the east side, fans at sports events can be then segregated accordingly. The ground floor houses the cash desks and a sports bar.



Even with a full house, all fans have a good view of the ice.



Interview with managing director Mauritian Carlen

"THE FOCUS IS ON THE EVENT, NOT THE SURROUNDINGS"

The new Lonza Arena in Visp, Switzerland, was designed and built by Scheitlin Syfrig Architekten from Lucerne together with Rollimarchini from Berne. In this interview, Mauritian Carlen, partner at Scheitlin Syfrig, gives some insights into the building.

You have created a rigidly structured, sleek building in which fiery, emotional matches take place. How do these two aspects go together?

The Lonza Arena has been designed as an ice rink and event centre, and should provide the backdrop for many different events. With its clear architecture and design, it takes a step back in order to not get in the way of the emotion inside. The focus here should be on the event and not the surroundings. The precise arrangement of the individual elements allows both visitors and organisers alike to find their way around easily and to keep an eye on things at all times.

How sustainable is the arena?

The Lonza Arena has Minergie certification. By consistently utilising the waste heat from ice production, the building also meets sustainability standards from a technical perspective. Waste heat is exploited at all temperature levels and for all usages, such as the hot water, heating and ventilation systems. At the same time, environmentally neutral carbon

dioxide is used for ice production. However, all the technical installations are of no use if energy-related data is not constantly collected, evaluated and the systems adjusted accordingly. This is why both an external and internal operational optimisation is planned for the building over the next five years.

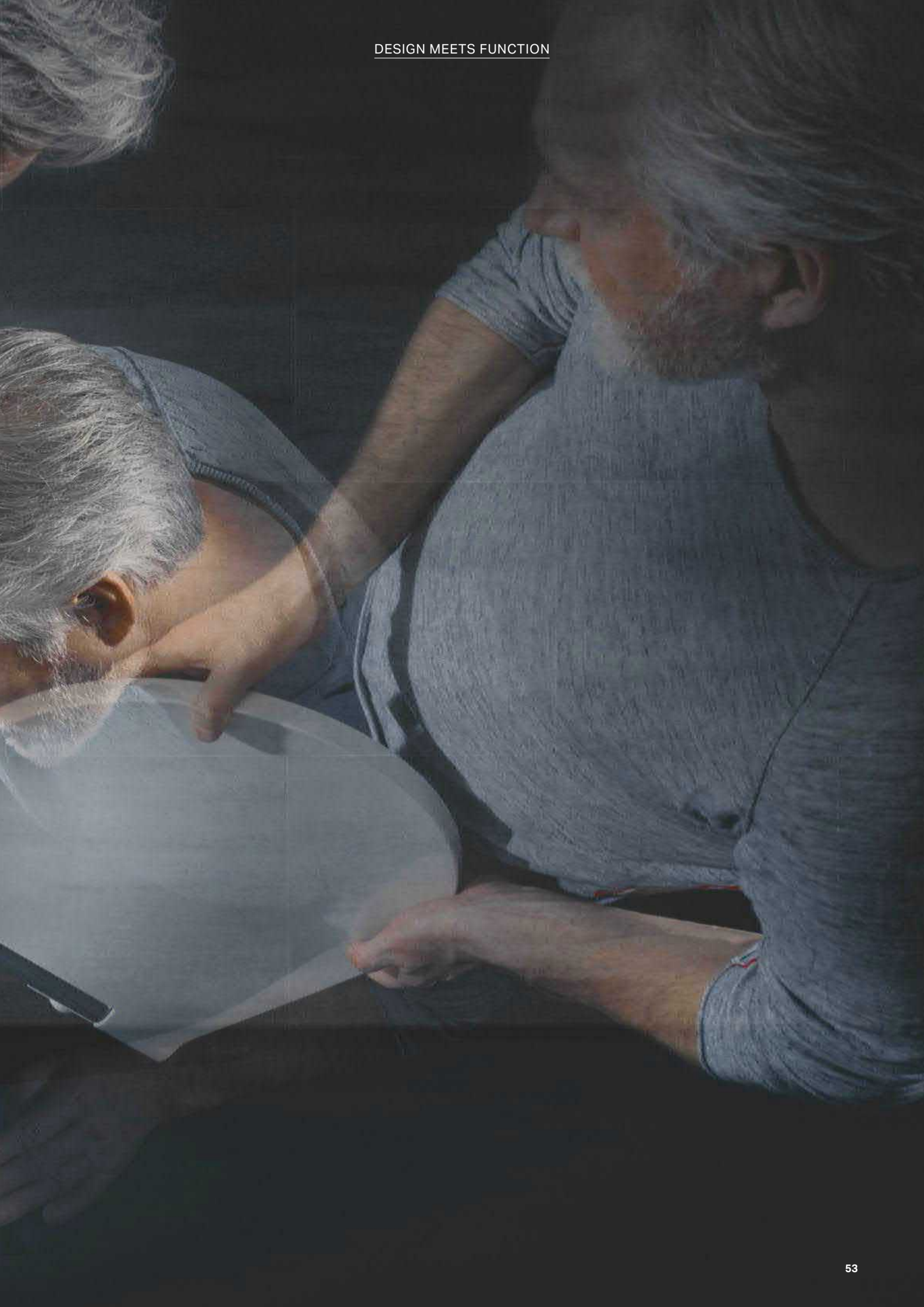
Which requirements do the sanitary facilities at the Lonza Arena have to meet?

The facilities are subjected to a lot of rough use, meaning they have to be suitably robust. From an operational perspective, the security of supply is key – particularly for hot shower water in perfect quality. To ensure this, it is important that the requirements of the building owner are formulated accordingly and the implementation phase is accompanied by technical planners.

WHEN IT COMES TO THE TOILET...

... cleanliness is of prime importance. But who wants to waste their time cleaning? Geberit ONE has the answer: thanks to TurboFlush technology, the inside of the ceramic appliance is flushed out particularly well. The WC seat ring and lid can be removed with a flick of the wrist and the DuoFresh module ensures odour-free air.

DESIGN
MEETS
FUNCTION



BEIJING DAXING INTERNATIONAL AIRPORT, BEIJING, CHINA

BIG, BIGGER, DAXING



The sweeping, striking airport roof is made of powder-coated aluminium panels and can be seen from a distance.

Opened at the end of September 2019, Beijing Daxing International Airport not only turns heads thanks to its futuristic shape and sheer size – the complex roof drainage system also impresses as well.

As is commonly known, China has experienced massive economic growth in recent years. As a result, the number of business travellers has also increased. It is thus not surprising that Beijing Airport, which was built back in 1958, was no longer able to cope with the increasing passenger numbers – despite capacity increase in 2008. As further expansion was not possible, a second airport had to be built for international traffic.

UNMISTAKABLE DESIGN

Zaha Hadid Architects was tasked with designing the new airport. When these world-renowned architects give a building their hallmark design, it is sure to get people talking – and this was no different when it came to Beijing Daxing International Airport. Due to its unusual design, the building structure resembles a huge starfish when looked at from above. Meanwhile, the building shell – which shimmers in bronze in the sunlight – also plays its part. →

BEIJING DAXING INTERNATIONAL AIRPORT

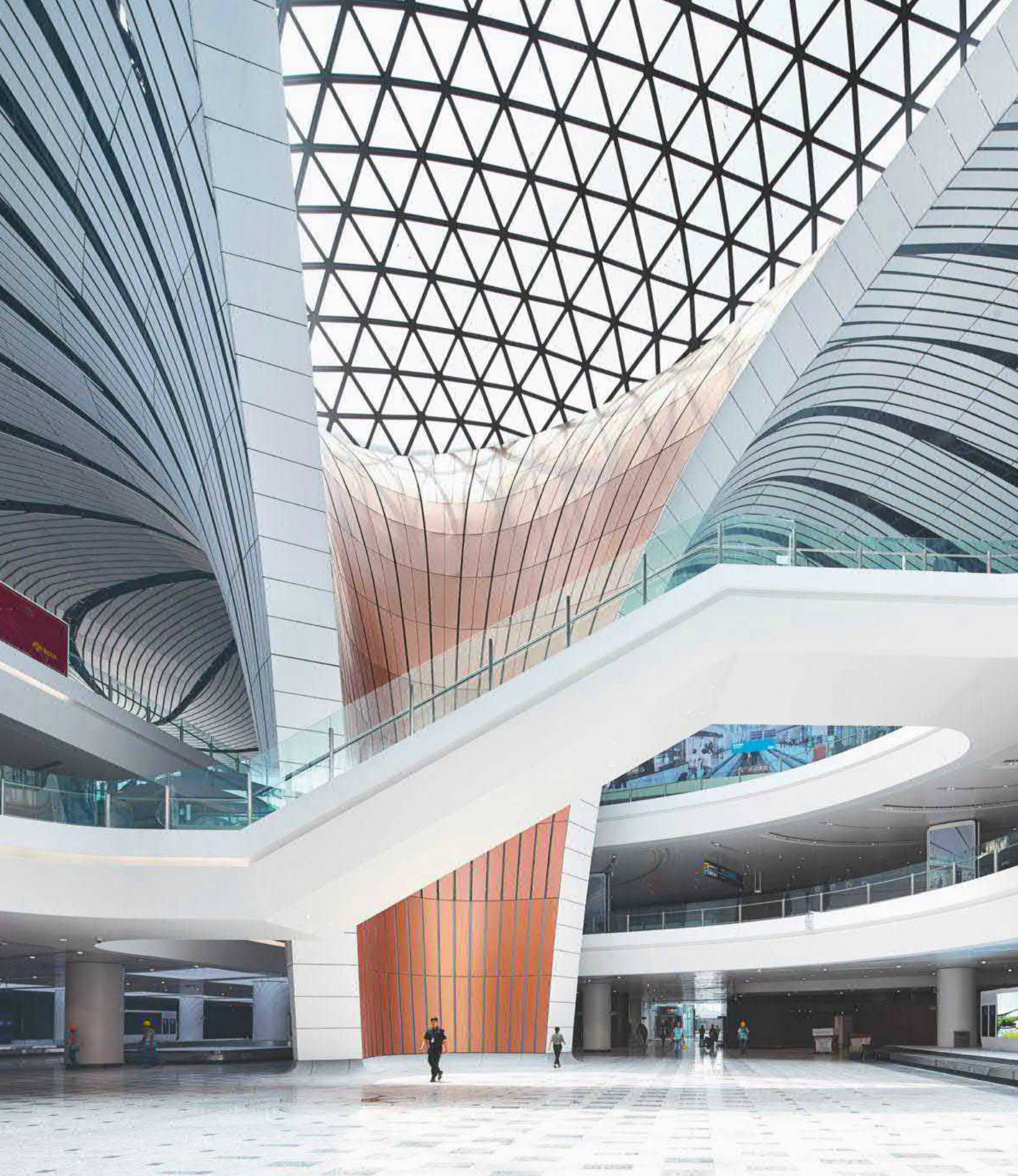
Building owner: Beijing New Airport Construction Headquarters

Architecture: Zaha Hadid Architects

Completed: 06/2019

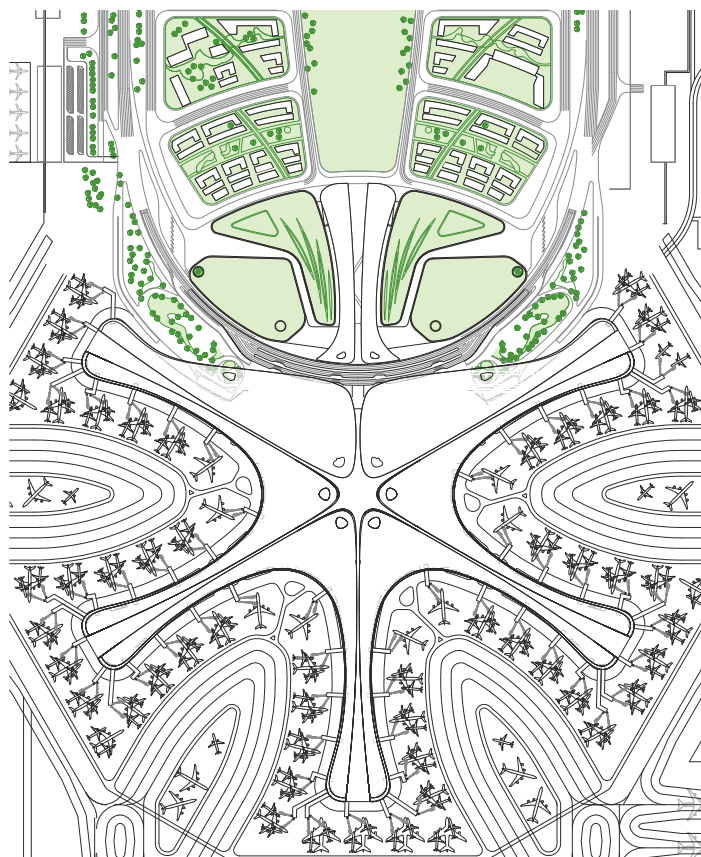
GEBERIT KNOW-HOW

Pluvia roof drainage system



↑

The flowing architecture is reminiscent of a waterfall, but also has other important functions. On one hand, it supports the building structure, and on the other it lets natural light into the building.



←
The radial layout of the terminal allows for all planes to park directly at the gate. This allows for smooth operation and prevents long distances between the terminal and the 79 gates.

GIGANTIC DIMENSIONS

Construction of the 780,000 m² airport took five years, and its size is by no means the only impressive thing. A sophisticated concept separates arrivals and departures. While two floors are used for processing incoming domestic and international flights, two further floors are dedicated to processing the departures. The airport has four runways, with the possibility of a further three as part of further expansions. The airport operator estimates up to 72 million passengers will travel through the airport per year by 2025. These passengers can enjoy seamless onward travel thanks to the many train and underground lines and public buses.

COMPLEX ROOF DRAINAGE

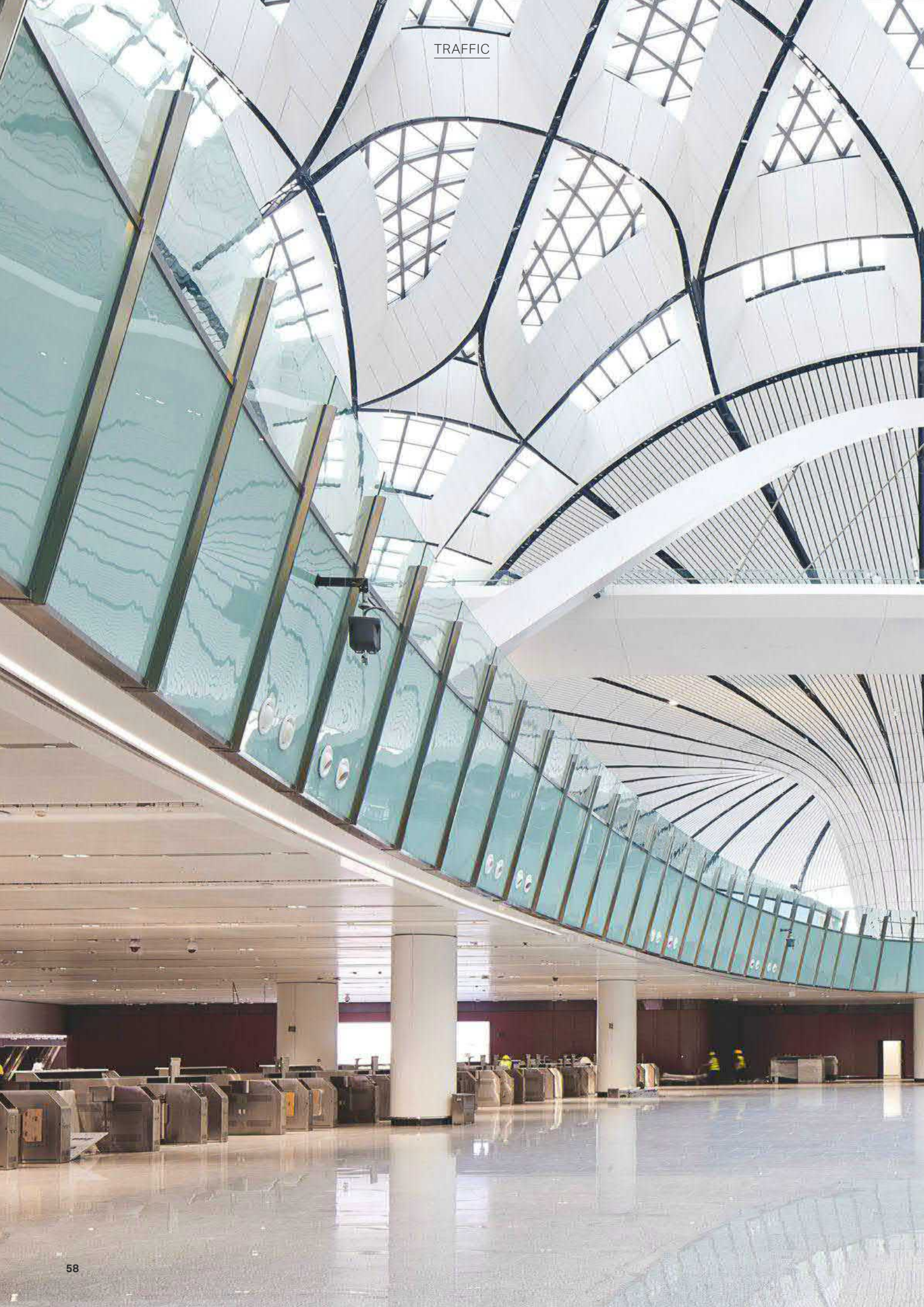
The airport has also set some ambitious targets when it comes to sustainability. Solar panels contribute to environmentally friendly energy generation. Rain-water is collected in huge water tanks and used for cleaning the parking garage, for example. Drainage of the massive roof – which covers an equivalent of 100 football pitches – is ensured thanks to Geberit Pluvia. The 1,200 Pluvia roof outlets are positioned in such a way that even a once-in-a-century period of extreme rainfall does not pose a problem.

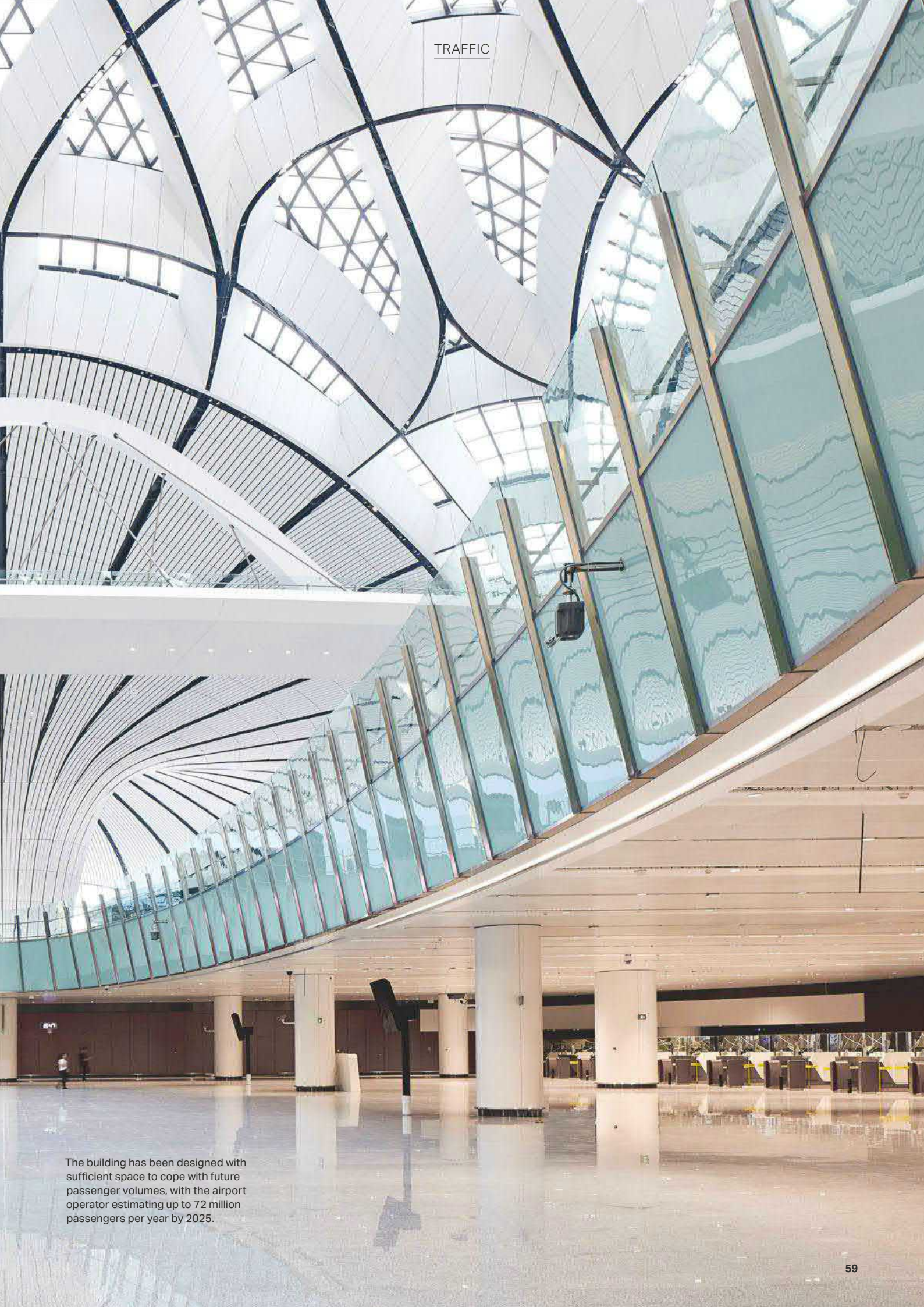


PROPLANNER

With the ProPlanner planning software, Geberit is providing sanitary engineers with a sophisticated tool for making the calculation of projects easier. Using different planning modules, the software covers all aspects of sanitary technology, from drinking water, waste water and installation systems all the way through to siphonic roof drainage with Pluvia. When planning and calculating the Pluvia roof outlets at Beijing Daxing International Airport, the sanitary engineers counted on ProPlanner and the support of Geberit experts.

TRAFFIC





The building has been designed with sufficient space to cope with future passenger volumes, with the airport operator estimating up to 72 million passengers per year by 2025.

TRAFFIC

UTRECHT CENTRAAL BIKE PARKING, NETHERLANDS

A TEMPLE FOR TWO-WHEELERS



←

The parking station was designed so that cyclists can ride to a free space without putting oncoming pedestrians in danger.



↑

The pillars are not only for support, they also house the HDPE pipes that drain the rainwater from the roof into the sewage system below.

Since summer 2019, the Dutch city of Utrecht has been home to the world's largest bicycle parking station. Connected directly to the main railway station, it boasts no less than 12,500 spaces.

Bicycles are a popular mode of transport in the Netherlands. However, the growth of two-wheeled traffic brings with it an entirely new problem – public parking spaces are hopelessly overcrowded and monitored bicycle stations extremely thin on the ground.

IDEAL FOR COMMUTERS

Utrecht – the fourth-largest city in the Netherlands – reacted to this problem by opening what is currently the world's largest bicycle parking station. This three-storey shelter features an impressive 12,500 spaces. Its ideal position with the main station just next door allows for onward connections by train. A colour-coded system guides riders cleverly through the catacombs to a free space. Meanwhile, numbered spaces and coloured parking zones make finding your bike afterwards easier. →

UTRECHT CENTRAAL BIKE PARKING

Building owner: City of Utrecht

Architecture: Ector Hoogstad Architecten

Completed: 08/2019

GEBERIT KNOW-HOW

Pluvia roof drainage system

HDPE drainage system

Mapress supply system

Sigma concealed cistern 12 cm



TRAFFIC



“The pillars consist partly of concrete and partly of metal. The biggest challenge for us was to achieve a perfect connection of the drainage system between the metal pillars and the concrete base. To be able to correctly install the HDPE pipes, we let the pipes protrude slightly out of the concrete. Accurate alignment was then possible.”

Peter Platzer

Project Manager at Linthorst Techniek until 2019

↑

Although situated underground, the parking station is still in a perfect location for commuters between Utrecht Centraal railway station and the large Hoog Catharijne shopping centre.

Parking is free of charge for the first 24 hours, which gives commuters the perfect reason to leave the car at home and travel to work on two wheels instead. The Hoog Catharijne shopping centre is conveniently located just over the road. An in-house repair shop and bicycle rental – which is very popular among tourists – round off the services offered at the parking station.

EXTENSIVE DRAINAGE SYSTEM

The 5,000 m² roof is supported by seven pillars. An area of this size needs a reliable roof drainage system, especially in the event of heavy rain. The solution here

was immediately apparent – Geberit Pluvia. Geberit provided assistance when calculating the Pluvia roof outlets and the slope required. 21 roof outlets were installed in total, with the drainage system cleverly concealed inside the concrete pillars. HDPE pipes were installed inside the hollow pillar body. These convey the rainwater quickly and reliably into the sewer running underneath the parking station.

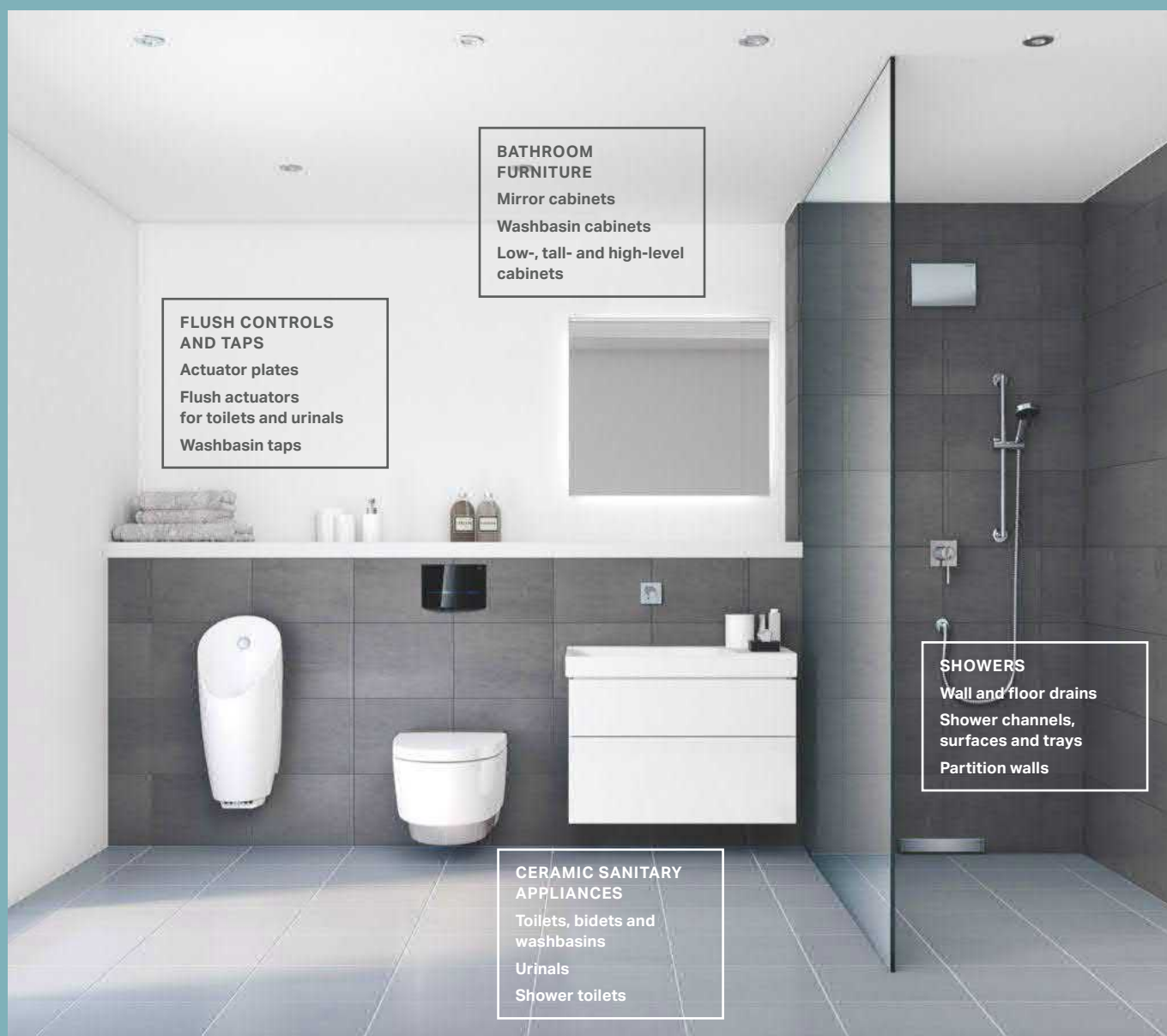
TRAFFIC



The roof is supported by seven pillars of up to 37 metres in height, made of metal over the ground and of concrete underneath.

A WORLD FULL OF POSSIBILITIES

The name Geberit stands for comprehensive know-how in bathroom design and sanitary technology.



Geberit products in front of the wall embody the perfect balance of elegant design and outstanding functionality. They are manufactured in a responsible way from high-quality materials, are easy to clean, easy to use and offer increased comfort. As a result, they play a decisive role in meeting the key customer requirements in the bathroom.



DRAINAGE SYSTEMS
Pipes and fittings
Siphonic roof drainage



INSTALLATION SYSTEMS
Elements for sanitary walls
Concealed cisterns



SUPPLY SYSTEMS
Pipes and fittings
Sanitary flush units

Reliable technology behind the wall has always been one of Geberit's trademarks. When developing new products, the system approach takes centre stage – individual components are designed and tested in practice with the whole system in mind. Skilled sales partners are on hand across the world to offer partners in building projects expert advice, thus ensuring planning, installation and operation all go off without a hitch.



www.geberit.com/products →
Product range