

IN PROGRESS
GERMANY/BERLIN/2018-20

OFFICES WITH VISION

"Neue Spreespeicher" project in Berlin

Text: Susan Glöckner

An office complex on the Spree, comprising six building elements and a multi-story glass hall, is currently under construction

PORR is completing the premium building shell construction and finishes on four of the buildings. Although the design is reminiscent of the old warehouse building, the very latest technology is being used throughout the planning, construction and operation of the buildings - 3D modelling, model presentations and the use of 3D data to control the technical building services works.

Background

The "Neue Spreespeicher" project on the former German-German border is located on a site rich in history - but the project itself can look back on a lengthy history as well. Planning permission was obtained back in 2002 for the construction of offices and a hotel in the Schlesische Strasse area. In the typical Kreuzberg fashion, the empty site was promptly transformed into a tent city, occupied by squatters for several years, and causing execution of the project to be postponed for the first time. After a lengthy process of negotiations, the occupants were finally persuaded to vacate the premises in 2017. In the meantime, however, the client's main focus had shifted and the building permit for the hotel was converted to office space.

Project data

Employer	Cuvrystrasse 50-51 Berlin GmbH
Contractor	PORR Deutschland GmbH
Architect	PORR Design & Engineering GmbH
Order type	Generalunternehmer
Project type	Building construction . Residential building . Design & Engineering
Project scope	Design and construction of an office complex in Kreuzberg, Berlin
Order volume	46 million euros
Construction start	01/2018
Construction end	01/2020

In the spirit of community-building, a neighbourhood shop measuring approx. 200m² has been included in the plans as a social gathering place for the district. Moreover, the public outside spaces will be open to all of Berlin's residents. The green, tree-filled inner courtyard is connected to the street by public passageways, while a planned path along the Spree will provide all Kreuzbergers with the opportunity to enjoy the river views from well-placed park benches and steps.



View across the Spree to the new construction. Source: PORR

Success with BIM and LEAN

Once the site was again available for construction, the project made rapid progress. In July 2017, PORR secured the contract for main contracting services to a value of more than 46 million euros for a premium shell construction and finish on four buildings, including outside areas. In collaboration with PORR Design & Engineering GmbH (PDE) as general planner, the project was soon drafted. Due to the application of Building Information Modeling (BIM), now the standard method used at PDE, the necessary interfaces and action points were soon established and resolved. LEAN design methods, used in the planning development and involving construction management as well, enabled the efficient exchange of data between planning and execution



THANKS TO BIM AND LEAN METHODS, THE EXCHANGE OF INFORMATION BETWEEN PLANNING AND EXECUTION WAS VERY EFFICIENT.

Susan Glöckner, Project manager
PDE Deutschland

Technical data



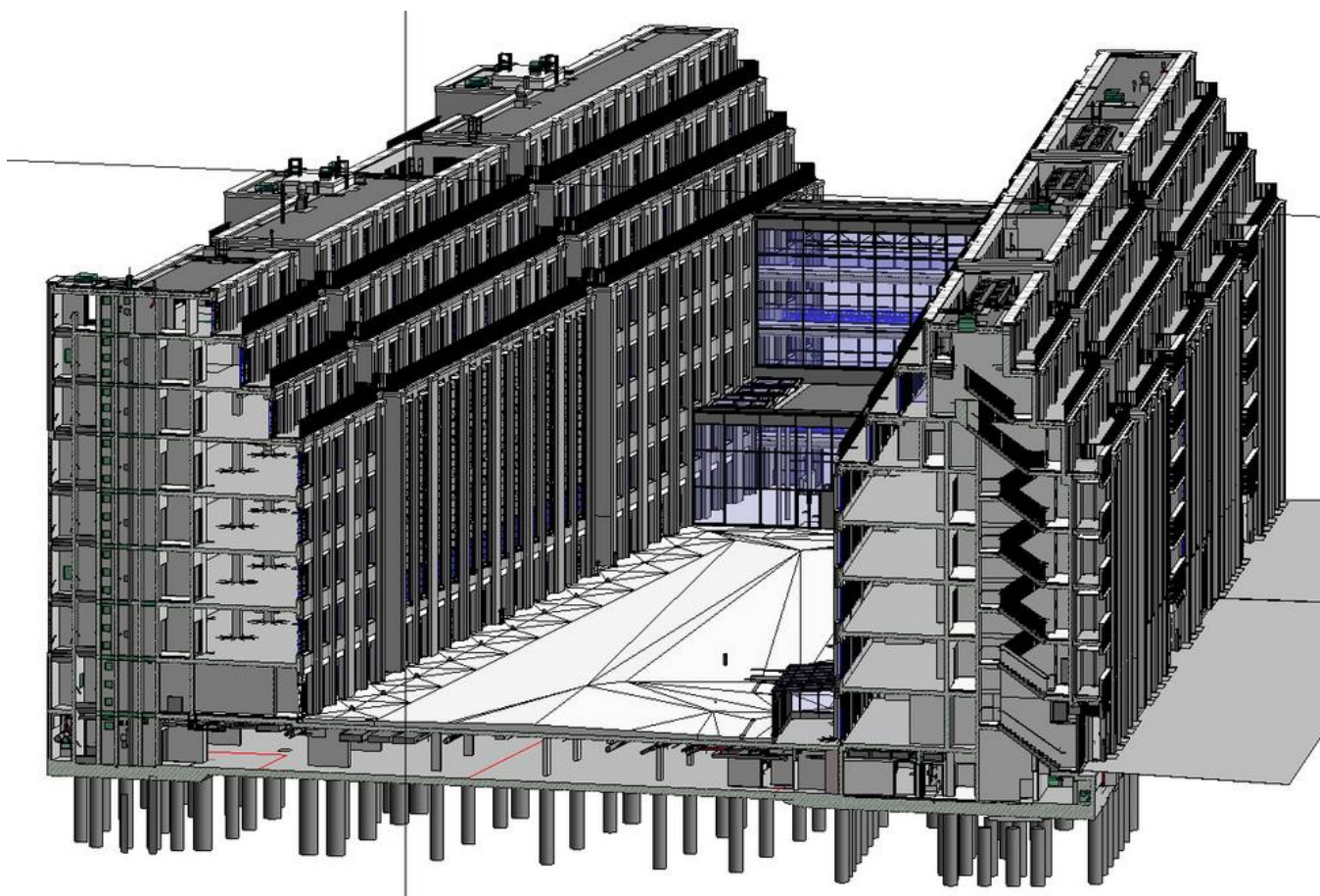
approx. 400.000m³

Water pumped out

Gross surface area 39.192m²

Plot area 9.805m²

Floors 8 upper floors, 1 underground floor



3D-modelling of all elements in the course of the execution planning facilitated cooperation and improved the transparency of processes.
Source: PORR

Cooperation across all levels

Cooperation and the exchange of information were not only emphasised within the PORR team, but PORR was also able to bring years of experience to bear in discussions with future tenants. The combination of service provision facilities and dining areas in the ground floor and high-quality office spaces in the upper floors demanded a variety of specifications from the building equipment. These had to be taken into consideration during planning and execution, and the future rental properties outfitted accordingly. This meant that adequate commissioning of the building equipment shafts and the need for assembly areas on the ground floor, with the requisite larger sprinkler control centre, were successfully dealt with in the execution planning stage.



ALL GENERAL PLANNING PROJECTS BY PDE WERE MEANWHILE IMPLEMENTED WITH LEAN DESIGN AND BIM METHODS.

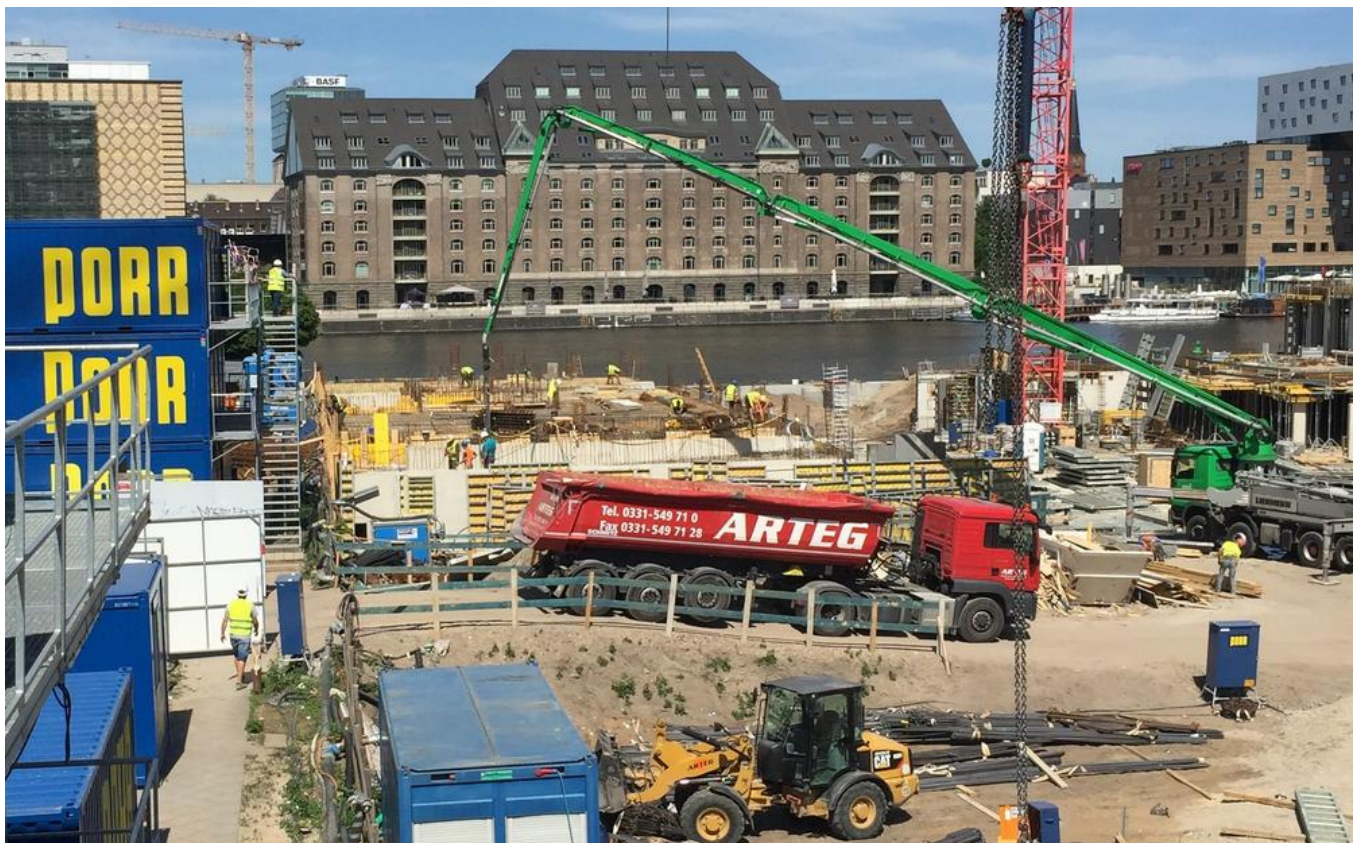
Markus Strobl, Managing director
PDE Deutschland

Working on and under the water

Work on the construction site itself began with the handing over of the site facilities at the beginning of 2018. The site's location right beside the Spree necessitated extensive dewatering of the construction pit. This amounted to around 400,000m³ of water pumped out and returned to the Spree. After this, the construction pit had to be filled with the basement floor as quickly as possible, to minimise the dewatering period. In addition, a professional diver was hard at work in a dry suit, flame-cutting the sheet-pile wall, installing protective grating for the inflow structure and manufacturing the facade connections under water.

A growing shell

Above the water, meanwhile, structural works were well underway. At present, two buildings have already been constructed and the building services finishes are beginning in the shafts. The external appearance of the project is just as important as the interior construction. The patterned facade was examined by the critical eyes of all project participants and formed the first impression of the building's imposing image, which will later on become widely visible as the Neue Spreespeicher.



Approx. 400,000m³ of water had to be pumped out of the construction site. Source: PORR