



ALLPLAN ARCHITECTURE IN PRACTICE

A flagship project

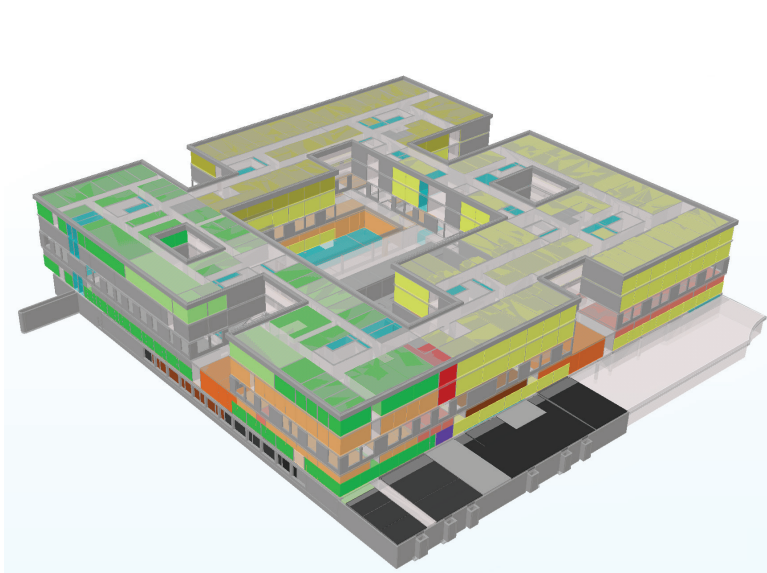
📍 Felix Platter Hospital Basel, Switzerland

By summer 2018, there will be a new hospital for geriatric medicine on the Felix Platter site in Basel. With the realization of the project from consortium "ARGE HandinHand", which won the two-stage overall performance competition, the hospital should "reach new heights", in the words of the hospital management team. The project, which will cost 200 million francs, is also one of the first BIM projects in Switzerland, however. With the concept of Building Information Modeling (BIM), the global construction industry is well on the way towards digitizing processes in project management, planning, implementation, and documentation. It is expected that in the future, there will no longer be any construction projects that are planned without BIM – just like hardly any projects are sketched by hand anymore today.

The Felix Platter Hospital, which specializes in geriatric medicine, is the second largest hospital in the city after Universitätsspital Basel (University Hospital of Basel). The company employs around 850 members of staff and has been independent since January 2012. Around 3000 patients are treated there every year, but the hospital buildings, which were built in 1967, no longer meet current structural and operational requirements. In April 2013, the client launched a two-stage overall performance competition for the "New Building for the Felix Platter Hospital, Basel". The aim of the overall performance competition was

a financially sustainable new hospital building that enables optimal processes, generates cost-effective operating and maintenance costs, is architecturally outstanding, and shows potential for expansion within the perimeter of the project. In the first stage of the competition, which was anonymous, a total of nine teams submitted their files by the end of August 2013. The assessment panel then evaluated the quality and cost effectiveness of the proposals submitted and presented to the client which projects showed good potential for firmly establishing the project and which teams should be invited to take part in the second stage of the competition.

In November 2013, the contractor invited four teams to take part in the next stage. In December 2014, the contractor officially introduced the winning project "HandinHand". A consortium of Swiss and German companies lies behind the new construction project: BAM Swiss AG/ BAM Deutschland AG/ Marti Generalunternehmung AG Bern, plus wörnertraxlerriecher planungsgemeinschaft mbh with Holzer Kobler Architekten, Health Company Dresden GmbH, and club L94 Landschaftsarchitekten GmbH. On March 26, 2015, ARGE HandinHand submitted all the documents required to obtain the construction permit and hoped to start the construction work by the end of July. When the chosen winning project was presented in December 2014, the hospital man-



agement board set out its great expectations for the future hospital: "I hope that the new building will enable the hospital to reach new heights," explained Peter Tschudi, on behalf of the management board. He also spoke of "geriatric medicine of the future" and a "unique institution that provides the perfect example". The new building will stand out due to its short routes and the rooms that are designed to cater for patients' needs. "Our patients are elderly people, so we are planning an attractive atmosphere for them," explains hospital director Ursula Fringer. The new four-story building will stand on around 18,000 square meters of the total 53,000-square-meter hospital grounds. Compared to the current figure, the number of beds will be reduced by 90 to 240. The plan is to have twin rooms only. The Felix Platter Hospital is already a leading university center for geriatric medicine in Switzerland.

"The Allplan Architecture BIM software supported the winning team considerably."

Dirk Hennings, wörner traxler richter planungsgesellschaft mbH

In the new building, it will be possible to provide all services under one roof for the first time. In addition to inpatient and outpatient care and teaching and research with the three main pillars of cognition, mobility, and nutrition, the Basel Mobility Center and the Memory Clinic will also be included on site in the new hospital. The planned opening date for the new hospital is July 1, 2018, after around three years' construction time. The estimated costs, including all interior fittings, amount to 200 million francs, 80 million of which are available as own capital, and the rest will be funded via the capital market. The client initially set out the objective of building the Swiss hospital so that it could be constructed and run using available or refinancable financial resources. The relevant specifications were also formulated just as clearly in the competition. The "HandinHand" project is impressive on the one hand due to its subtle architectural design within the urban context. It is a precise piece of the jigsaw at the point where residential quarter, public infrastructure, and the architectural icon of the old Felix Platter Hospital meet. On the other hand, the new hospital

promises a good quality of accommodation for patients plus an attractive exterior. A public park is planned between the new hospital building and the existing Felix Platter Hospital, which also takes into account a later conversion of the site of the current hospital. The structure of the individual building units as well as the organization of care wards and support services or administration enable plenty of flexibility for future changes to use. If necessary, another story could be added onto the new building today or at a later point in time without a problem, creating rooms for two further wards, each housing 40 beds. But the winning project has also planned the inner workings of the new hospital – which will have over 1370 rooms – with as much flexibility as possible. This will mean that the necessary adaptations can easily be made should requirements change over the next 30 to 40 years.

What is already prescribed by law in other countries is only just beginning in Switzerland: the digitization of planning, implementation, and operational processes using Building Information Modeling (BIM). This concept was introduced over 20 years ago and now acts as the "tool" of the future. BIM is used to coordinate all construction information concerning the building model and the sub-models, so that everyone can concentrate on the information and designs that are relevant to them. The important thing, however, is that everyone is able to work together and have the same level of information at all times, which is something that BIM achieves. The new Felix Platter Hospital building is one of the first BIM projects in Switzerland. The project manager for the new hospital building, Jean-Luc Perrin, relies on the use of BIM from the outset as the client's representative. As a pioneer of BIM in Switzerland, Perrin summarizes the benefits of a virtual planning and construction simulation with the following statement: "Use the mouse instead of the pneumatic drill." He is also of the opinion that nowadays, use of BIM is compulsory for project development, implementation, and documentation of (hospital) construction projects. The economic benefits that BIM can bring can be seen in the example of Great Britain, where the use of BIM in major public projects is already compulsory. According to estimations, the British government has so far been able to save around two billion euros thanks to BIM. What is more, two thirds of the projects were completed on time and on budget.



In the two-stage overall performance competition for the new hospital building in Basel, winning team BAM Swiss and Marti Holding AG, together with lead architects wörner traxler richter, in collaboration with Holzer Kobler Architekturen, has met the specifications defined by the client for project implementation with BIM with the aid of BIM software Allplan. As an intelligent and efficient platform, Allplan is the perfect basis for the successful implementation of the BIM method. Over 50 file formats are available to the user for communication and data transfer with other software, including import/export certified transfer format IFC (Industry Foundation Class) for 3D models. This enables a smooth, interdisciplinary collaboration between architects, engineers, cost planners, construction companies, and facility managers.

Dirk Hennings, managing director of BIMwelt GmbH, also confirms this. He was commissioned by wörner traxler richter to lead the BIM process for the Felix Platter Hospital. "The use of Allplan Allfa – the infrastructural and technical facility management software solution that has a bidirectional link with Allplan – meant that we were able to implement the client's comprehensive requirements efficiently." Allplan Allfa enables convenient management of room attributes, as well as monitoring of the expected maintenance costs. The direct link to facility management is entirely in line with the concept of building lifecycle management, since information about technical maintenance, as well as monitoring of building maintenance costs (which exceed the construction costs several times over), must subsequently be easily accessible to all parties involved, over the entire lifespan of a property.

PROJECT INFORMATION AT A GLANCE

Focus: Building Information Modeling

Software used: Allplan Architecture and Allplan Allfa

Team HandinHand:

- ➔ TU: Consortium of BAM Swiss AG, Basel/BAM Deutschland AG, Stuttgart (Germany)/Marti Generalunternehmung AG, Bern
- ➔ Architect: wörner traxler richter planungsgesellschaft mbh, Frankfurt am Main (Germany) in collaboration with Holzer Kobler Architekturen, Zurich
- ➔ Hospital planner: Health Company Dresden GmbH, Dresden (Germany)
- ➔ Landscape architect: club L94 Landschaftsarchitekten GmbH, Cologne (Germany)
- ➔ Specialist planner for HVAC/sanitary facilities/building services coordination: Brunner Haustechnik AG, Wallisellen
- ➔ Specialist planner for electrical installations/instrumentation and control systems: enerpeak salzmann ag, Dübendorf
- ➔ Construction engineer/building physicist/traffic planner/sustainability/fire safety: Gruner AG, Basel
- ➔ Catering planner: hpmisteli, Gastrokonzepte, Bern
- ➔ Medical engineering planner: mtp Planungsgesellschaft für Medizinaltechnik mbH, Frankfurt am Main (Germany)
- ➔ BIM coordinator: BAM Deutschland AG, Stuttgart (Germany)
- ➔ Facility management: BAM Immobilien-Dienstleistungen GmbH, Stuttgart (Germany)