

ALLPLAN IN PRACTICE

Intelligent Cost Management

📍 Clemens-Beck Primary School, Dudenhofen

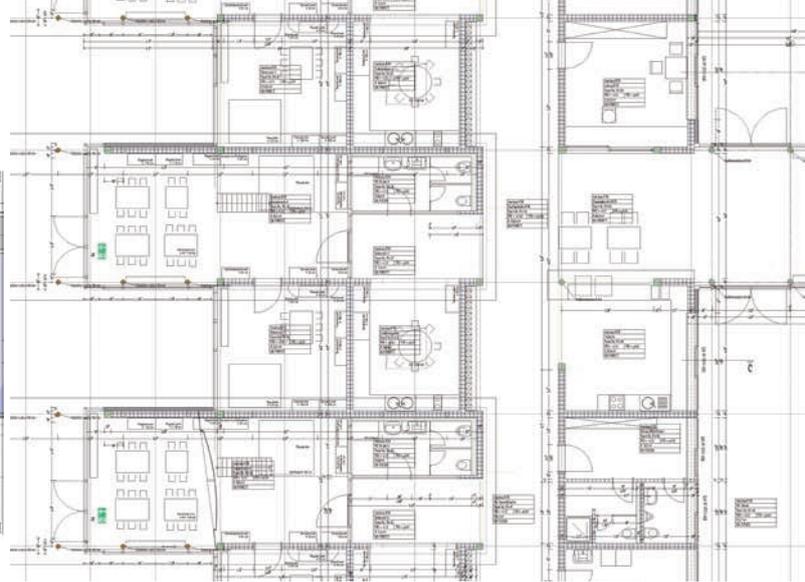
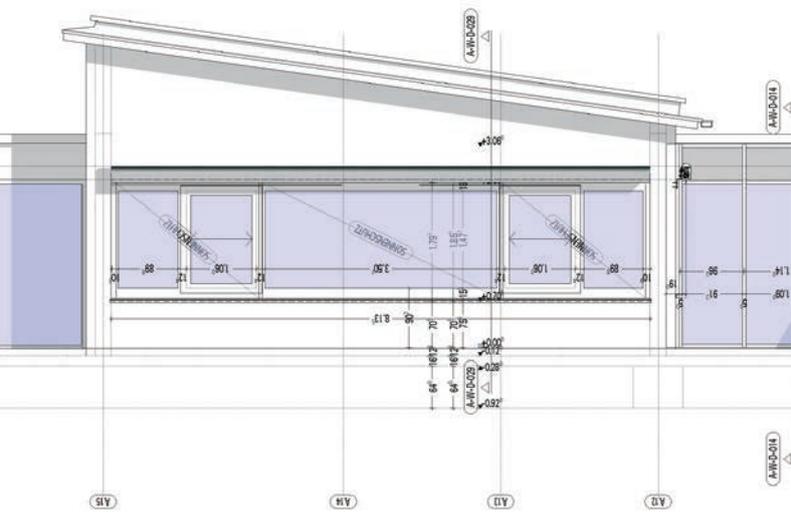
Architecture office Elwert & Stottele specializes in the economic planning of complex buildings. However, this task is only possible with accurate quantity take-off and cost determination. The more accurate the quantity take-off is, the more precise the cost calculation will be. For complex projects, in particular, these calculations must be broken down in detail and must be consistent so that building clients and investors can make well-founded decisions at an early stage and evaluate the cost effectiveness of the building project.

"Architects today are confronted with a wide range of challenges during building creation. In particular, though, transparent cost management is becoming increasingly important, and accompanies the creation process for a building, from planning through to management," explains Prof. Ulrich Elwert. Together with Wolff Stottele, he founded the architecture office Elwert & Stottele in Ravensburg in 1998, and has many years' experience in the area of planning and building management. The architecture office specializes in demanding building planning and project management, as well as comprehensive advisory expertise in the determination of investment costs. To provide its extensive

planning services, Elwert & Stottele has counted on software solutions from Allplan from day one: "Planning is fundamental for construction of the building and its subsequent management. From the very start, we work with Allplan in all project phases. We have been using Allplan IBD for around nine months, and can therefore create reliable, cost-aware plans using the Design2Cost method," says Prof. Elwert. As a former professor at the Mainz University of Applied Sciences teaching planning and building management, IT/CAD, building construction and design, Elwert is an expert in the development of planning methods as well as their practical application.

COST SECURITY IS PARAMOUNT

The greatest challenge for Elwert today is the increasing importance placed on cost security in the planning process. It is not only necessary to take account of pure building costs when creating a building, the follow-on and management costs of a building measure are often required as early as the planning stage. "But before we can create the first sketch for the draft, clients want information on the overall cost-effectiveness of a building. A decision won't be made until they are familiar with the complete life cycle costs," states Elwert.



One of the first projects Prof. Elwert planned with Design2Cost was the extension of the Clemens Beck primary school and the construction of a new nursery school in Dudenhofen, near Speyer. The main reason for extending the existing building was the lack of space in the school building. In addition, the poor condition of three classrooms, which were moved to a free-standing pavilion, meant that renovation measures were urgently needed. In order to ensure integrated cost security for this project, the architecture office captured the building with Allplan in 3D. The digital models for both building and the associated outdoor areas could be created quickly and easily using the Allplan IBD wizards. "As Allplan IBD describes the CAD objects with all its positions, we obtained a clear cost framework and were able to determine whether we were still within the budget. In addition, the quantity and cost data permits an early check not only on investment costs, but also on the subsequent management costs for cleaning and maintenance."

"The advantages of Design2Cost clearly lie in time savings and quality. Precise and reliable procedures take a great deal of time, while creating quick overviews usually mean less precision and lower data quality."

Prof. Ulrich Elwert, Elwert & Stottele

3D ANIMATIONS A WINNER FOR THE CLIENT

The construction measures, which were split into three building sections based on usage, began in May 2008. In the first step, three new rooms were built in the school building to replace the classrooms moved to the pavilion. As soon as these new classrooms are ready for use, the run-down pavilion will be demolished. In its place, there will be a multi-purpose room, a quiet room and a staff room, which can be shared by the school and the new nursery school. In addition to five group rooms, the nursery school consists of a common room for the nursery staff, and parents' meeting room and a material room. "One problem during planning was that the building sections have different funding.

For this reason, we digitally captured the various building sections separately with Allplan BCM, and were therefore able to ensure accurate accounting for the quantities involved in the building. Planning of the multi-section project not only involved complex cost management, but also a detailed clarification process with the Dudenhofen association of municipalities. "Thanks to Design2Cost, we were able to create the relevant plans at the touch of a button and present our planning results convincingly to numerous committee meetings. The clear 3D presentations, in particular, helped to accelerate decision-making," says Prof. Elwert.

WORK PROCESS OPTIMIZATION

Another plus is the accuracy and reliability of the planning software, which helps to improve work processes. Thanks to Allplan BCM, Elwert & Stottele were able to create transparent cost calculations for the primary school and nursery school long before construction began, and to react flexibly to design changes. The intelligent software automatically modified the quantities for the cost calculation, meaning that the time-consuming, error prone updating of data was not necessary. The architecture office also benefited from the intuitive user guidance of the Allplan solution. "The simple and clear structure supported fast and thorough work, from requirements planning and building planning through to management. Even novice users could quickly learn how to use the program," states Prof. Elwert.

Completion of the Clemens Beck primary school is scheduled for November of this year, and the new nursery school should be finished by April 2009. "Without Design2Cost, we would not have been able to plan this demanding project in such a short space of time and have set such a solid budget. These positive experiences have convinced us to use the Allplan planning solution again in future projects."