

CASE STUDY

WILD Bau Wasserburg

Complete Bids for All Construction Measures
with the 5D Working Method

**iTWO is the core solution of MTWO Cloud*



About WILD Bau Wasserburg

WILDBAU is a construction company that has been planning and building new buildings, renovating and revitalizing existing residential and commercial buildings for over 20 years. The focus of their work is solid wood construction, our main area of application in Upper Bavaria.

“In order for the entire process to work at the touch of a button, and so that at the end every employee – even without an engineering background – can generate a BoQ, it is important to always look after the matchkey list and the content.”

Markus Wild

WILDBAU is currently constructing barrier-free multiple-occupancy house with underground parking for twelve families in Neuburg an der Donau in solid wood. In the HOAI project phases 1 to 7, the RIB iTWO 5D project control system ensures a swift and economic processing.

The general planning company WILDBAU, headquartered in Wasserburg am Inn, has been responsible for more than 20 years for the planning and construction of new-builds and the renovation of existing buildings. The company's main emphases, while focusing on the region of Upper Bavaria, are residential and commercial buildings. Here, WILDBAU offers all types of services along the entire construction value-added chain – from project development through planning to turnkey ready realization or renewal of existing stock. Consultation services and real estate project management complete the comprehensive services portfolio of the general planner. WILDBAU offers individual solutions to customer demands. These include services for individual trades and the overall execution of extensive projects. The company has a rich experience in sustainable solutions and energy efficiency. In all phases, the general planning company always focuses on cost-effectiveness and quality.

Model-based working brings time savings of around 30 to 40 per cent

The elementary tools of planning include model-oriented working with BIM-5D – a combination of three-dimensional building models with continuously integrated construction costs. Here, the company works with the software programs Revit Architecture by Autodesk and iTWO 5D by RIB Software. With continuous integration of the IT solutions, the company is able to save several weeks of time during service phases 1 to 7, depending on the project size and in comparison to conventional working methods using 2D CAD plans and manual transfer of the quantities into technical software. An inestimable advantage.

Currently, the general planner WILDBAU from Wasserburg has been entrusted with the planning and execution of a twelve-family house with four commercial units and a subterranean garage on the 1,046 square meter plot of the former traditional inn “zum Streidl” in Neuburg an der Donau. The structural planning tasks and testing engineers’ activities have been assigned to IngPunkt Ingenieurgesellschaft für das Bauwesen, located in Augsburg. The client, Erbegemeinschaft Lenz, has expressed a desire for an accessible building. The living units and one to four units intended alternatively for commercial use are all intended to be rented out. The building will be built in solid wood. It will be heated with heat pump. Modern technology also ought to provide comfort for the tenants. The building will consist of a historic and a modern wing, linked via a stair tower with elevator. Below this, there will be a subterranean garage, with space for in total twelve vehicles. The construction budget for this project is 4,000,000 Euro. The planned date for completion is in February 2018.

Bills of quantities at the touch of a button...

“On this very simple foundation, the iTWO 5D from RIB Software takes over all further stages of work, from which we simply receive in the end a bill of quantities (BoQ) with all quantities and estimated prices.”

Markus Wild

Based on rough 3D models

First, the RIB system recognizes, using a so-called matchkey list from the element planning list, that a roof surface must be measured. This individual construction component catalog is created and maintained by the company itself. Using the number assigned for the component “roof”, the software accesses all relevant information in the work item catalog that is required to create the BoQ. In this way, the software “knows,” from the classification with variables in the element planning, that rafters are needed, and generates the quantities and service areas according to the requirements of the German regulations for construction tendering and contracts (VOB). In addition, the software provides variables. Via the special variable list for carpentry works, the program determines rafter spacing and cross-sections in this concrete case. From these results, finally, the required running meters and cubic meters of timber are calculated.

Database maintenance as a foundation

To determine this information, the individual content that a company creates itself, just like the matchkey list, and extends as necessary, is needed. The content contains components with service items and formulae. “So that the entire process works at the touch of a button, and so that at the end every employee – even without an engineering background – can generate a BoQ, it is important always to look after the matchkey list and the content. That is why, in our company, every new component that we use is immediately stored in the matchkey list and element planning catalog in RIB iTWO 5D, so that the data are immediately available,” Wild explains.

The time saving in this method is enormous, as Markus Wild and his team can arrive very quickly at the desired goal, namely, a finished bill of quantities, from just rough drawings without suitable details. “All service items are determined in the RIB system,” Wild adds. “And thanks to the variables, we can refine the planning as desired.”

From a rough sketch to the volume for the excavation

In this way, the effort needed for turnkey structures is significantly reduced. Because excavations also no longer need to be drawn in order to create a BoQ for the earthworks. According to the company, in this case all that is needed is to sketch the basement roughly in the BIM CAD. The element planning list with the work items for the basement area and corresponding variables, such as ground type, depth and angle of slope, help in generating the quantities at the end for the excavation.

The finished BoQs serve at the end as a basis for the call for tender and finally for the construction contracts, which are also created automatically. "These tasks can all be carried out by our commercial staff," the managing director summarizes. "Every employee in our company works with the RIB system iTWO 5D. It always provides our colleagues with the functionalities relevant to their needs."

The biggest obstacle: internalizing 3D modeling

"iTWO 5D is the only program on the market that makes solutions to every problem possible in a simple way. Thus, we always find it easy to create for our clients a complete offer for their construction measure and then execute the project with no commercial flaws all the way to the final invoice."

Markus Wild

After Markus Wild decided in 2010 to work with BIM models and integrate Revit Autodesk and RIB iTWO 5D, two years passed before WILDBAU entered the productive phase. "Even if we only create rough drawings at the start of a project, the conversion of manual sketches or 2D CAD to 3D geometry brings with it great effort," the IT-loving company manager says. In all, he sees 3D modeling as the greatest hurdle for the conversion to model-based working – especially for the "Mittelstand", the small and mid-sized firms. Once this is achieved, the new working method offers very great time savings on every measure and ensures much more efficient working processes along the entire construction value-added chain.

Not least thanks to what the company acknowledges is a very well programmed software system, RIB iTWO 5D. Wild concludes: "iTWO 5D is the only program on the market that makes solutions to every problem possible in a simple way. Thus, we always find it easy to create for our clients a complete offer for their construction measure and then execute the project with no commercial flaws all the way to the final invoice."

Benefits

High transparency in the planning process

Improved coordination of all involved in planning

BIM as an all-encompassing method ensures quality in the project