



Medical Clinic, Tübingen, Germany

Sander Hofrichter Architect Agency, Ludwigshafen, Germany

Green “Feel Good” Clinic

Serving approximately 45,000 patients per year, the Medical Clinic is one of the most important facilities at the Tübingen University Hospital. The intention is that it will be gradually renovated and supplemented by new annexes and extension buildings over the next few years. The West Ward Building was completed in 2008 as one of the first stages in this construction program.

The new structure was planned and realized by Sander Hofrichter Architect Agency of Ludwigshafen, Germany. The agency has been using the Allplan planning software from Nemetschek for twelve years now. The challenge presented to the architects was not only to create a new ward building with complete medical facilities, but also to integrate it with the surrounding buildings of the clinic by way of existing and new supply links and connection routes. It was a project that in many respects proved to be very demanding.

Link between the Old and the New

Because further renovation of the old building was seen as no longer economical, it was demolished while the surrounding buildings carried on working as usual. The adjacent buildings and the area destined for renovation (the so called Node) were very close to the demolition area and had to be stabilized so that this could be done safely. The intention was that this "Node" would become a link creating a connection between the new building and the existing complex. For the planners, this meant having to import all the existing CAD files from the surrounding structures into Allplan. Any missing data was acquired subsequently by means of site measurements and then integrated appropriately into the new construction. In order to allow for links to be created with the surrounding structures in the future as well, varying heights between floors were created in the new building.

A connection conduit with the main supply links for other hospital buildings ran transversely through the basement of the old building, which made it necessary for demolition to be carried out in two stages. First, the upper stories and parts of the basement were dismantled. A section of the technology floors was erected, with new supply conduits. This was followed by the complete enclosure of the conduits and the demolition of the remaining structure. "The project called for very precise planning," explains the Sander Hofrichter Architect Agency. "The entirely CAD-based planning process with Allplan saved a great deal of time in this respect and minimized errors. For both the demolition and subsequent new construction, as well as for the connection to the

existing buildings, we relied on a mixed working approach using 2D and 3D." Allplan allows for input and construction planning using a 3D model to be combined in a single application with detailed 2D planning. This means that users can make recourse to the optimum form of working in each case and combine them at will, even within the same project.

Teamwork at the highest level

The intense demands made on the technical medical and engineering equipment in turn imposed requirements at many levels with regard to planning and building equipment. In order to avoid conflicts at the planning stage with complex projects such as this, the architects established contact and worked closely with planning specialists for fire protection, the electrical systems, the medical aspects and HVAC. Sander Hofrichter Architect Agency accordingly created a structure together with all the participants in the project for the processing and draft planning stages. This provided a framework for data and layer structures, data exchange procedures, reference points and the allocation of planning sectors for all those involved in the planning.

White tones create a green effect

The new ward building today stands on the same spot as its predecessor but on a larger surface area. The upper four levels of the new structure provide the space for the emergency unit and the wards for the internal medicine departments. Two atria admit daylight into the core area, right down to the basement. Two basement floors accommodate changing rooms, supply equipment rooms, central bed management and technical centers for supply units, as well as the laboratory.

With its discreet appearance and the reflective light green glass facade, the new building matches perfectly into the ensemble of the surrounding structures. In the interior, the interplay of light and color is truly impressive, with high windows and warm orange and red tones; an atmosphere in which medical staff and patients alike really do feel good.