



Residential village in Atyrau, Kazakhstan

Architectural firm Archest, Italy

Successful concept for new housing development

Italian architectural firm Archest won a competition to design a new housing development in the Caspian Sea region for oil company Agip Kco. From conception of the master plan through to production of the final design, Archest relied on Allplan software from Nemetschek, taking advantage of the flexibility provided by using a 3D model.

The competition involved designing a small village in Atyrau, Kazakhstan, with 150 town houses, 150 apartments, three detached houses, office buildings and a large club house with sports and visitor facilities. With a project value of over 240 million euros, the facilities will cover an area of 40,000 square meters in total and cater to around 800 people.

The competition also involved the analysis of the entire required infrastructure, with particular focus on the landscaping and the possibility of implementing the construction work in two phases. The plot is an area of 17 hectares with 90,000 square meters assigned for the buildings. For this project, Archest took care of all architectural matters while Eni-Servizi dealt directly with the project management. As the winner of the competition, Archest has carried out the preliminary phase of the proposed project and the final project itself.

More layouts in less time

Archest combines modern and professional technology with outstanding expertise in the fields of architecture and engineering as well as in planning and consultancy infrastructures. Archest designs and implements its own projects by actively combining various approaches such as the further development of research findings, the use of innovative technologies, the integration of professional skills and a focus on the environment. By using Allplan software, Archest is able to coordinate complex work groups and projects, ensuring technically reliable and economic working methods as well as guaranteeing a “planning and delivery” service.

“The use of a three-dimensional model for the Agip project gives the architectural firm an advantage over the competition that extends beyond being able to realize an idea in the shortest possible timeframe,” explains engineer and chairman of Archest, Lucio Asquini. He continues, “in this way, many more requests by the customer for different solutions or variants can be explored because they can be visualized very quickly.”

The starting point is the creation of the complete parametric model, as that defines solutions, visualizes them in the simplest way and can keep a check on their volumes. The software offers excellent functions for weighing up the alignment of a building envelope and the solar irradiation on a façade, and adjustment elements, such as correcting for excessive sun exposure, provide further planning assistance.

“It is important to retain control over various versions, as well as being able to view the model and see how it works,” explains Lucio Asquini. “Having the 3D model available after a successful competition provides an additional advantage in that the project, along with its internal sequence and spaces, can be shown to the customer. The building can be viewed from various perspectives and filmed, and extremely realistic effects can also be created.”

With easy-to-control, three-dimensional visual processing and editing, use of the Allplan software has ensured continuity in the architectural and urbanistic verification of the master plan while successful graphic representation through Allplan has provided accurate and conclusive communication with the project partners.

