

# BUILDING DESIGNER HOMES ON VIENNA'S STEEPEST SLOPES



*Klaus Heissbauer founded Livingpool Architecture and Design in Vienna, Austria, in 2001. Today, he leads a team of five other architects who focus mostly on private housing projects, including family homes and loft conversions. Heissbauer likes to experiment in his CAD software, where he can blend his love for the beauty of architecture and smart technology. "Architecture should simply be fun," he asserts.*

## Unspoiled Views

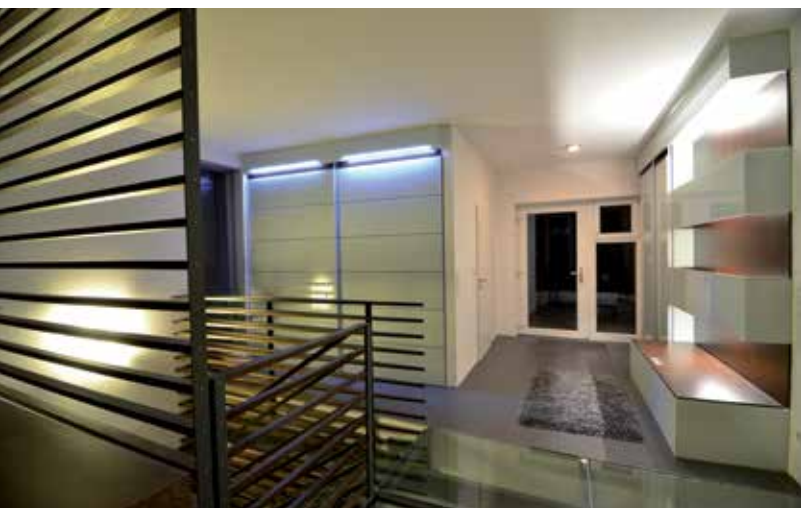
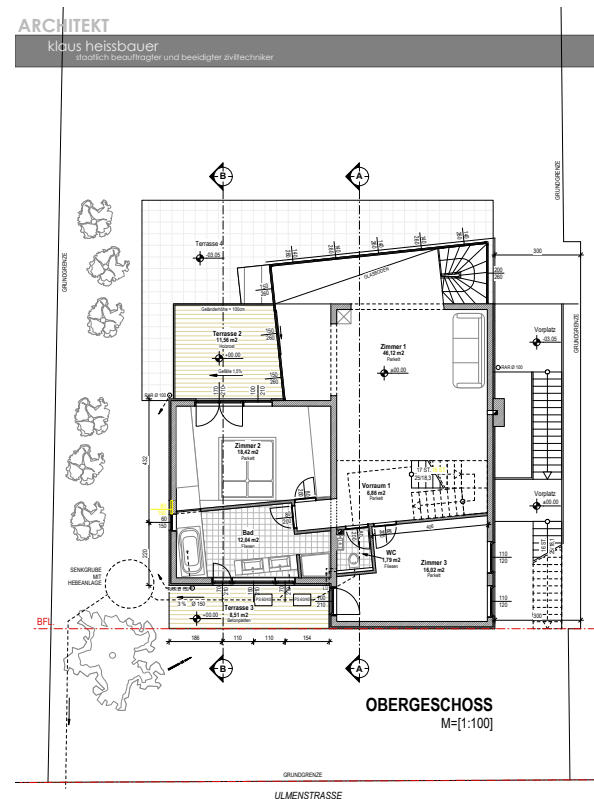
Heissbauer's investigative nature can be seen in the renovation he did of his own residence, Project Home, aptly named because it forced him to discern how an architect builds his own house. The challenge: A neglected house from the 1960s built on one of the steepest slopes in Vienna. The goal: To remodel the house to meet today's space and comfort needs and complete it in less than 12 months.

Heissbauer was able to measure the complicated building site quickly and smoothly in Vectorworks® Architect with Renderworks® software. "Due to the complexity of the building geometry, the 3D visualization tools in Vectorworks were a big help," he said. "The difference between the rendering and reality was minimal because we did a lot of detailed modeling work."

There was an 18-meter height difference from the highest to the lowest point of the property, which created an extremely steep slope. "The hillside situation of the project was very complex, so the Vectorworks Digital Terrain Model was therefore decisive for the design." After the remodel, the site's topography and natural features were used to design

the terraced backdrop for the house. A tiered garden, as well as the terraces on all floors, made it possible to enjoy unspoiled views from every corner of the house.

The remodel was completed in 10 months with a pre-scheduled planning period of just four months. And, in addition to construction planning, all of the important detail work was designed and planned in 3D and built using Vectorworks – from the carport to the wood paneling of the stairwell.



The difference between the rendering and reality was minimal because Heissbauer did a lot of detailed modeling work using Vectorworks Architect with Renderworks software.



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*“Vectorworks meets my architecture and technology needs. It makes the work easier for us, and we are nevertheless able to let our creativity blossom to its fullest.”*

*– Klaus Heissbauer, Livingpool Architecture & Design*

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*Heissbauer enjoys unspoiled views from his remodeled home, whose interior meets today's space and comfort needs.*

## Austria's Flag Influences Next Project

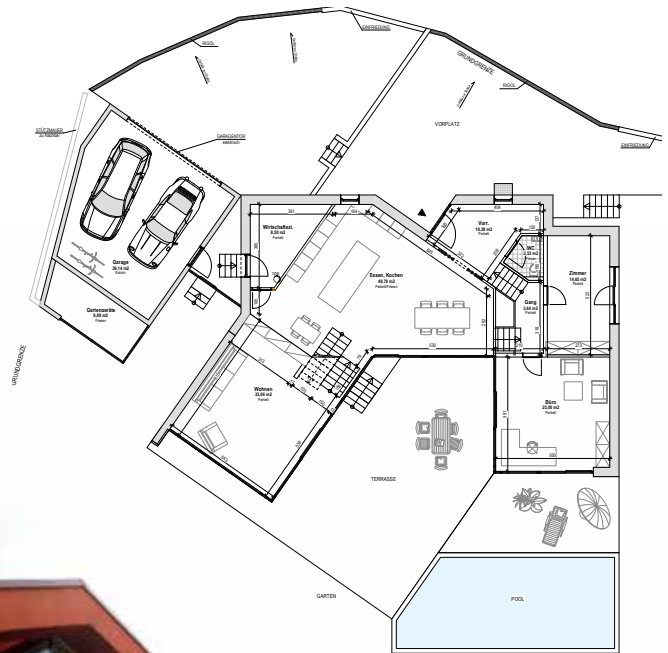
Heissbauer uses CAD in all planning phases of his projects. In fact, he jumped right into the software when tasked with designing a single-family home with an integrated office and standalone garage in Amstetten (Lower Austria). "We plan everything in Vectorworks, starting with the first drawings to detailed design plans, site plans, and comprehensive blueprints for the builders on site," he explained.

The house's exterior mirrored Austria's national colors of red and white while the inside was designed as a split-level to imitate the property's slope. A generous terrace with a pool, a sauna for cold winter days, and a pellet wood stove for environmentally friendly heat generation brought the home to the next level of comfort.

"Vectorworks accelerates the work enormously and in no way leaves room for misunderstandings with contractors," said Heissbauer. "Even for private homes, it is important to keep costs from suddenly

exploding. Misunderstandings and time delays can get very expensive. This makes it all the more important for lay people to properly understand the plans and for them to be highly legible."

Having a well-crafted set of plans is also crucial for building professionals. "How drawings are structured and organized is very logical in Vectorworks," said Heissbauer. "With the activating and deactivating of classes, a plan can contain information for all contractors. If a basic structure is slightly modified, this can be seen directly by all parties involved in the construction work. And even the legibility of the blueprints is always ensured due to simple class activation and deactivation."



Taking inspiration from Austria's flag, this split-level home was designed to imitate the property's slope. It features an integrated office, standalone garage, and outdoor pool.



*Heissbauer and his team achieved success for this modern, yet affordable, home by reducing the design to essential features and straight lines without sacrificing living comfort.*

## Transparency for All

The firm's workflow proved successful again when planning a single family home in Neuhofen (Upper Austria), which presented a special challenge. Despite limited financing, the customer wanted a distinctive, modern home that would meet the needs of a family of four. It also had to be affordable.

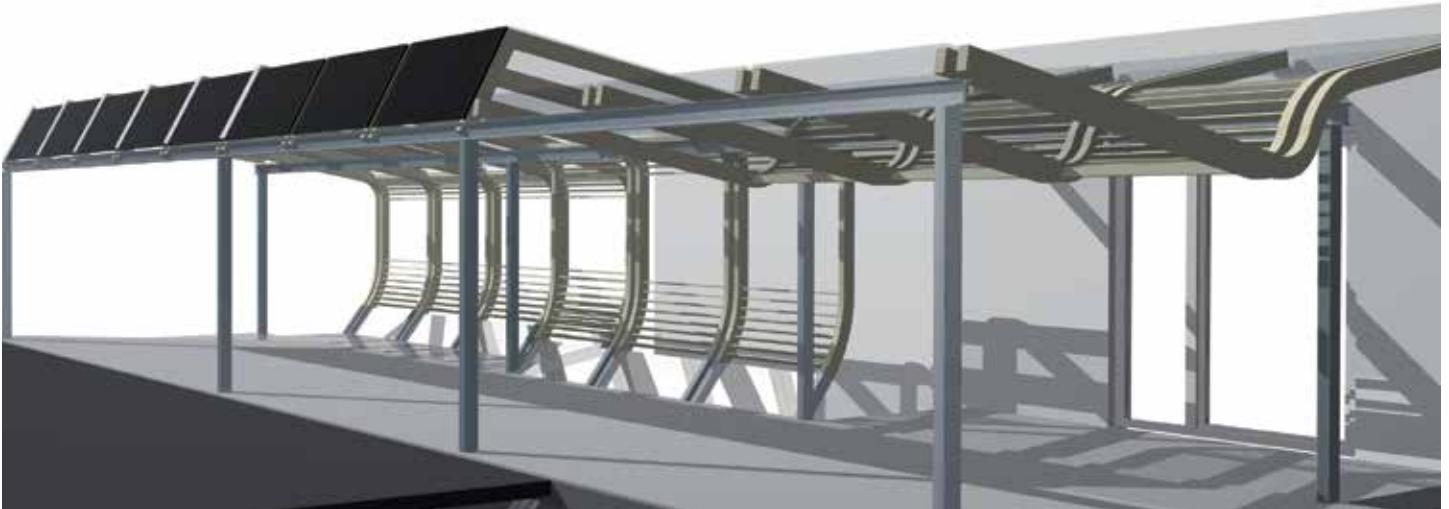
Recalling the development process for this home, Heissbauer said, "Though agreeing on planning and design issues was not a given at the start, the intense discussions between the customer and architect created a decisive foundation for perfect teamwork. Reducing to essential features and straight lines was the main focus – without sacrificing living comfort – and continued in every detail up to and including garden landscaping."

The entire house was built using a wood-frame design with wooden flooring, and the project was completed on time. All windows, as well as glass-only façades on the ground floor, have a triple glazing and create, together with a well-insulated wood structure, a low-energy home design with minimal heating costs.

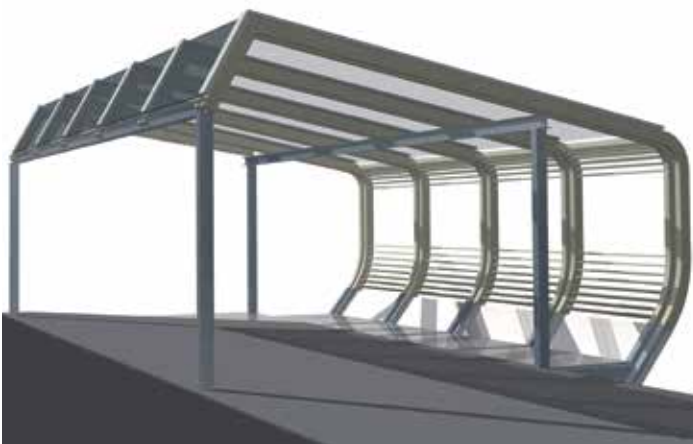
"Because Vectorworks can be used on both Mac and Windows PCs, we had no problem sending the files to all parties involved, and all partners were able to open and use them easily," Heissbauer said.



*Triple-glazed, glass-only façades and a well-insulated wood structure minimize heating costs.*



*Heissbauer is an enthusiastic Vectorworks user who easily designs things like this carport. Today, he plans everything in Vectorworks, starting with the first drawings to detailed design plans, site plans, and comprehensive blueprints for builders on site.*



## Sharing Vectorworks with Others

Heissbauer's climb to becoming proficient with Vectorworks came after being unimpressed with other CAD programs he tried out while a student in Vienna. "I was unable to develop my skills the way I wanted to," recalled the architect. So he began to search for alternatives.

"When I tried Vectorworks for the first time, its user-friendliness impressed me more than anything else." He was able to customize his use of the software, which enabled him to work intuitively. The Viennese architect has been an enthusiastic user ever since. "Naturally, as a student, you look up to great architects," said Heissbauer. "So the fact that the office of Daniel Libeskind works with Vectorworks certainly reinforced my decision to work with this software."

After graduating from the Vienna University of Technology, Heissbauer began working with Vectorworks software as an architect. He also started supporting its development, demonstrating its features to colleagues and offering training to Vectorworks users in Austria as a partner of Computerworks GmbH, Nemetschek Vectorworks' distribution partner in Germany. He achieved those goals by founding his first company, unlimited software KG, which he still operates along with his architecture firm. It is a special challenge for Heissbauer to get customers enthusiastic about Vectorworks, as well as to plan, draw, and build his own projects. "First, I have to take the program to its limits and beyond to answer as many customers' questions as possible. Second, it is exciting to be involved with the software's growth," he explained.



Heissbauer (second from right) leads a team of five other architects who focus mostly on private housing projects, including family homes and loft conversions.

Heissbauer enjoys the simultaneous challenge of meeting customer desires while providing transparent and high-quality work. Any new project generates new questions, a process that is continuous and demanding. However, such a process gives a designer a chance to learn something new and to develop fresh ideas. "Vectorworks meets my architecture and technology needs," he said. "It makes the work easier for us, and we are nevertheless able to let our creativity blossom to its fullest."

Whether a single-family home or homes for demanding customers, one thing Heissbauer knows for sure is he has no intention of switching programs. "We are, and will remain, loyal to Vectorworks," he said.



For Heissbauer, Vectorworks accelerates the work and in no way leaves room for misunderstandings with contractors. It also helps him live the motto, "Architecture should simply be fun."

## Acknowledgements

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