



Project Information

Builder-Owner
TUM Universitätsstiftung, München

Location
Berchtesgaden

Completion
2019

An alpine science station at altitude

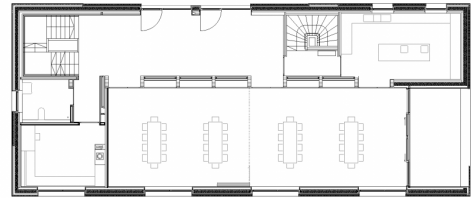
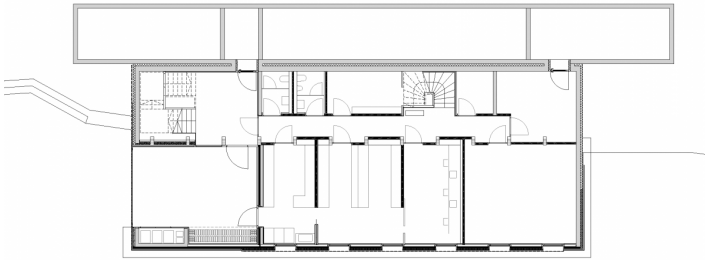
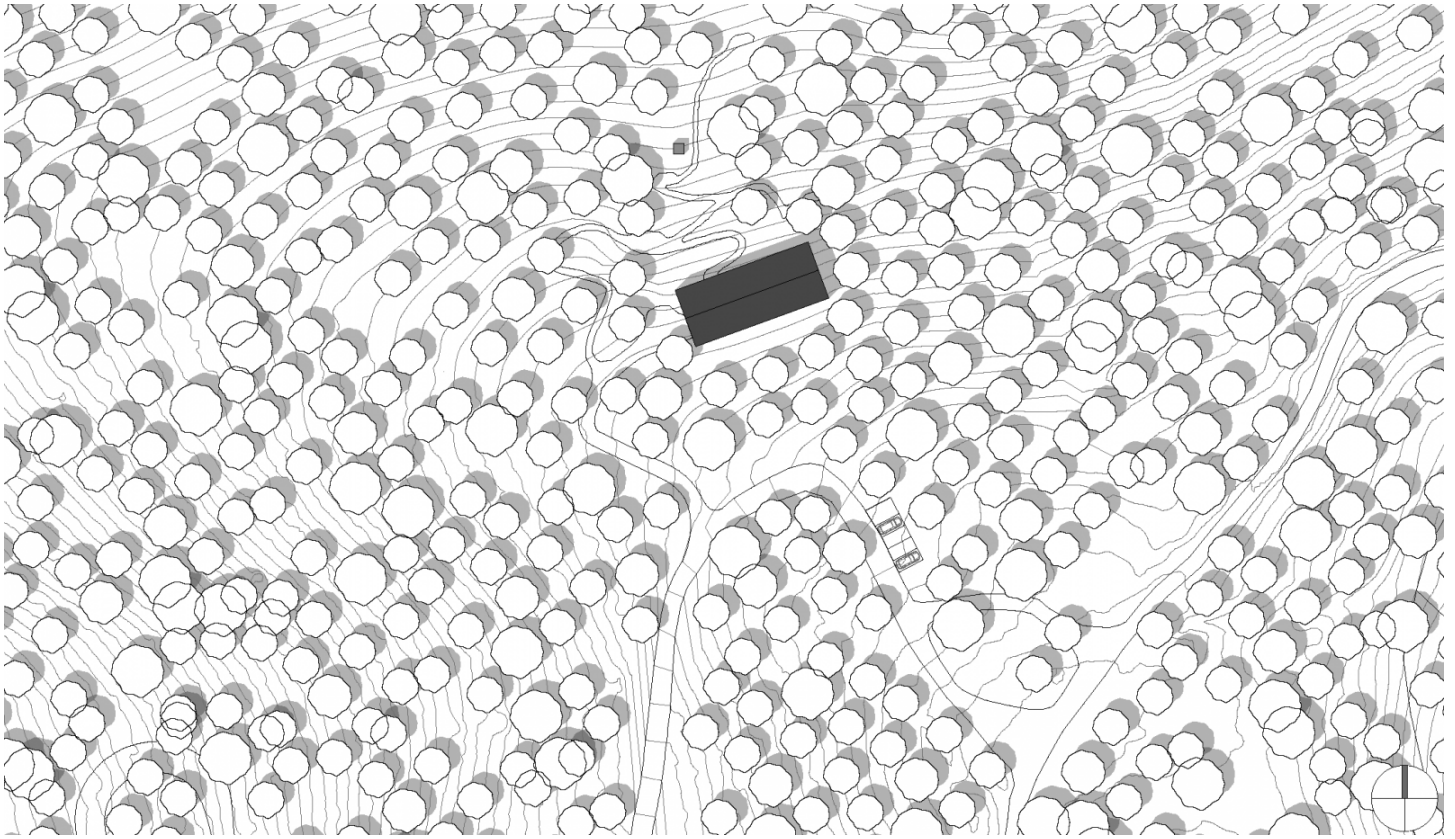
The Technical University of Munich chose a piece of forest at 1,262 meters above sea level over the national park town of Berchtesgaden as the building site for their research station. In order to protect the soil and avoid unnecessary ground work and filling, the three-story volume is firmly bound into the fabric of the terrain.

The basement is on the back set into the steep slope, so all three levels of the building can be accessed directly. Through a generously dimensioned entrance hall, visitors can either go directly to the staircase or to the laboratories and storage rooms via a drying room. In the area of the cooling and pantries, a second vertical access with a stair lift leads to the ground floor above, which offers full accessibility. The dividable guest and seminar room with access to the covered terrace can be catered for by a well-equipped gastro kitchen. The adjoining office room has a wet room and can be used as a wheelchair-accessible guest room if required. The sleeping areas for a total of 44 people are on the upper floor. Two of the four-bed bunks are connected to each other via a shower chamber; the rooms for lecturers have their own bathrooms.

The structures in contact with the ground are made of reinforced concrete. All other room-forming components are made of solid timber. The outer walls were built from cross laminate timber panels. The substructure of the sheet metal roof is lined with solid timber planks, which were also used for the ceilings, utilising a composite system with reinforced concrete. Both the rear-ventilated facade and the timber panelling of the interior are made of untreated spruce boards.

The house was designed to be completely self-sufficient. A high-performance hybrid module made of photovoltaics and solar thermal energy, as well as a combined heat and power plant using rapeseed oil ensure the energy and heat generation, while treated surface water and a biological small sewage treatment systems cover the sanitary needs.





Project Stakeholders

Project Leader

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Building Site Manager

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Structural Analysis

merz kley partner ZT GmbH,
Dornbirn

Heating Ventilation and Sanitary Planning

Dusch-Ingenieure GmbH &
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Building Physics

Müller-BBM GmbH, München

Fire Protection Planning

Dehne Kruse

Brandschutzingenieure, Gifhorn

Landscape Planning

Keller-Damm-Roser

Landschaftsarchitekten

Stadtplaner GmbH, München

Geologie

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Teaching Practices

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