

# LIEBWYLEN

**Statement:**  
*Future networked lifestyle, changed mobility behavior and global climate protection require an **environmental Urban Planning and adapting Heritage, Sensitive Urban Intervention and Ecological Architecture and Sustainable Materialisation.***

### Environmental Urban Planning and adapting Heritage

Liebwylen is a residential development on a parkland of 7630m<sup>2</sup> and 60% density placed on the property of the famous Swiss chocolate manufacturer Max Felchlin in Schwyz/Switzerland.

The original site consisted of the villa (1927) and a linked building (1960) shaping an L-form of two buildings witnessing two decades. Both buildings were used as the headquarter of the company placed in a remarkable landscape of almost 7200m<sup>2</sup> footprint.

In 2021 the Max Felchlin company decided to expand and leave this site for a new developer. The community of Schwyz and all neighbours were concerned to keep the villa and surrounding park, as it was considered to be a landmark and a community heritage.

The design process were therefor predefined thru the social, cultural, environmental and urban criteria beside the economic requirements of the new developer.

The design process went thru an intensive cooperation process between the new owner, the neighbours, the community and environmental NGO's. The main goal of the design was to preserve the villa as the community urban heritage, preserve and redefine the landscape saving the entire oak tree area at the east side of the site.

### Sensitivity of Urban intervention

The villa Max Felchlin (1927) is of a clear rectangle shape. Five L-shaped buildings were developed from the existing L-shape of the villa and the linked building to it. This building-link of the villa was demolished to clarify the villa form and redefine the landscape. All five residential buildings encircle the Villa Felchlin and create a park-oriented living environment. Generous green areas and pathways connect the buildings and encourage the residents to interact.

The Villa and all five residential buildings are strongly enhanced by the formal contrast of the residential buildings which are freely placed on site but unified thru their shape and form.

A total of 32 individual 1, 2, 3 and 4-room apartments are being designed. They interact with the surroundings differently according to form, orientation, buildings height and placing. Out of 32 units, 18 were developed as duplex-units to benefit horizontally and vertically from the north-south, east-west orientation, the surrounding landscape and view axis down the mountain.

The folding roof of each multifamily house is a unique wooden structure covered with metal sheets and bull-eye openings. Each roof consist of 12 different slopes and a variety of angles. The roof shape leans to the silhouette of the surrounding mountains.

Finally the combined formal shape of all buildings, the roofscape, landscape and equipment technology flow together to form an environment adapted urban planning cluster.

### Ecological Architecture and Sustainable Materialisation

The buildings are of hybrid construction system (concrete slabs and wooden facades elements) erected and covered with local prefabricated wood elements.

The main resource of heat and electricity services relies on the central communal district heating (wood) and electricity (wind/water).

The sub distribution and use of both resources within the building fulfills the Swiss MINERGIE-Standard. The energy balance of MINERGIE prescribes a responsible approach to the environment thru an economical use of all household appliances like e-mobility for traffic, photovoltaic for electricity and electric vehicles in the garage, electricity storage installations, rough surfaces for soundproof/noise protection and acoustic insulation, controlled fresh air supply/reuse and conditioning (heating/cooling) for saving energy and controlling energy-balance. A fiber optic cabling provides a controlled communication networking security and components control.

Last but not least all building materials used for the interior fittings are of regional products; together with the mechanical controlled ventilation, they ensure a healthy indoor climate.

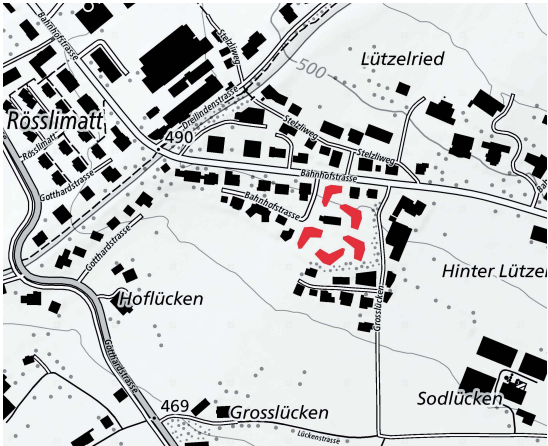
**Facts and Figures:**  
Location: Liebwylen 1-6, Schwyz/Switzerland  
total site Area: 7'630 m<sup>2</sup>  
cross Volume: 25'471 m<sup>3</sup>  
cross units area: 7'772 m<sup>2</sup>  
residential units: 32 residential units (av. space 120m<sup>2</sup>)  
construction start/end: 2021/2023



Site view



Ground floor plan, M 1:350



Black and white site plan



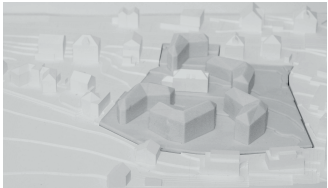
Derivation of floor plan typology



Site plan: case study



Site model: case study



Site model: final stage

