



Case study

St. Josef foundation in Bremgarten, Switzerland

Residential building for people with cognitive disabilities

Products:

3'000 m² MONTAFORM® Design special fabrication with full-perforation in anodised aluminium

Builder:

St. Josef Foundation, Bremgarten, CH

Architect:

Meyer Gadiant Architekten AG, Luzern, CH

Facade:

Gerber & Gadola Fassaden AG, Cham, CH

Realisation:

2013 - 2015

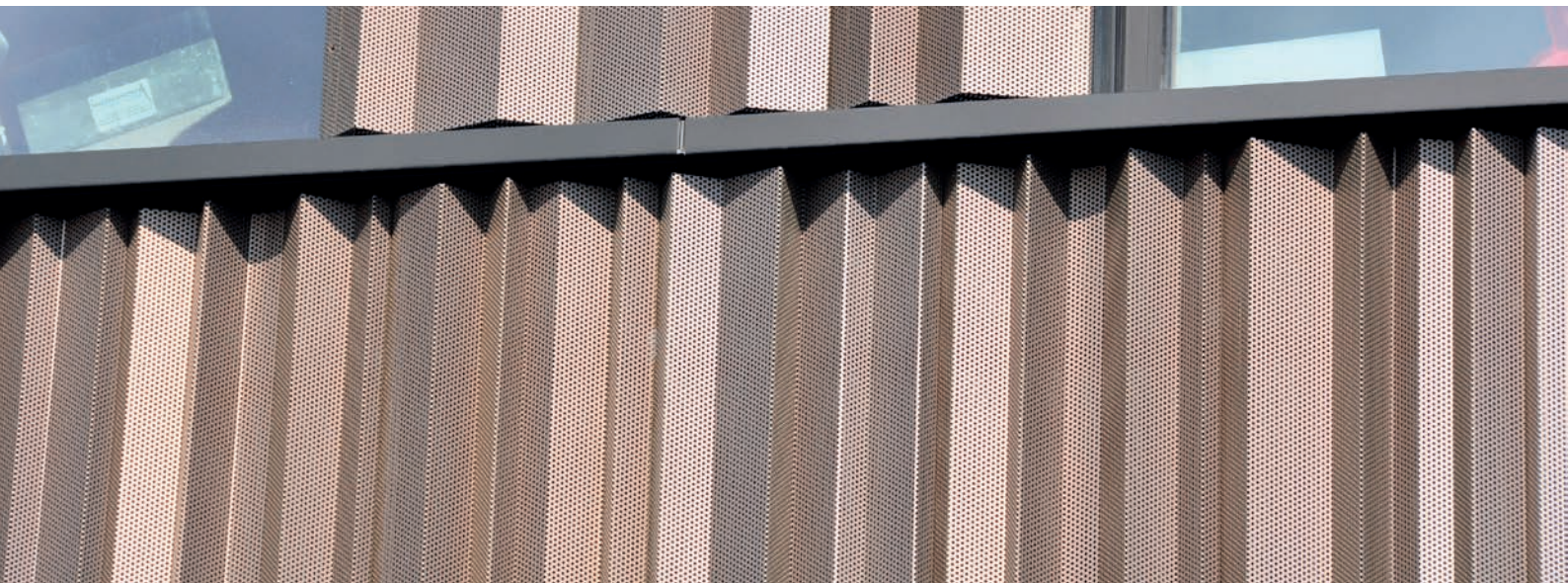
Construction costs:

about 35 Mio. CHF



CREATIVE FACADE DESIGN WITH ANODISED ALUMINIUM

Architects often wish for individual solutions in the implementation of their concepts. This applies in particular to the outer shell, because it is the business card of a building. A joint project between Meyer Gadiant Architekten AG from Lucerne and Montana Bausysteme AG from Villmergen demonstrates how an individualised, unique facade can be planned and made from industrially manufactured aluminium profiles.



The St. Josef Foundation in Bremgarten in the Canton of Aargau takes care of disabled people. It aims at the education, upbringing and support of mentally handicapped, children, adolescents and adults. In order to fulfil this task, the foundation maintains a residential home, a special education school, a therapeutic service/early education as well as outpatient facilities for psychomotor therapy in Bremgarten, a small town about 16 km west of Zurich.

All facilities are accommodated in a building complex in a central point of the town that is significant from an urban development point of view. The main building of the St. Josef Foundation currently accommodates 12 residential groups on the second to seventh floors, accommodating people with severe and multiple cognitive disabilities (children, adolescents and adults). These apartments no longer comply with applicable organisational and technical requirements. The space available is also inadequate.

For these reasons, the foundation council decided on a general renovation and re-design of the complex in 2010. In several surveys, various feasibility scenarios were examined. After a final detailed status analysis, the cost estimations from the studies and further intensive clarifications, the solution was found in a three-phase model.

First of all a new residential building for 12 residential groups, each with seven single rooms and the corresponding ancillary areas will be built. After its completion, the conversion of the existing central building will take place, followed by the renovation of the cellar. A public architectural competition was staged at the end of 2010 for the planning of the new building, which was won by Meyer Gadiant Architects from Lucerne with the concept «Falling Water».

At present, the striking central building from the seventies, built on a base element, dominates the building ensemble of the

St. Josef Foundation. The concept of the Lucerne architects plans to allow the new residential building to also have a striking appearance and to build it on the south-eastern corner of the base element.

Together with the central building and the personnel house, the 25-metre high building creates a courtyard-type situation. "While the east and south facades form a sharply cut end section for the building complex, the balcony area on the north west corner provides soft shapes, thus reacting to the close vicinity to the central building", the prize jury describes the concept.

The six-storey residential building projects over the base in such a way that a generous, covered outdoor area on the level of the sensory garden is created on the one hand, and on the other hand space is provided on the ground floor for an inner courtyard, which serves as an arrival point and playground for the residential home.

The administrative rooms and medical service facility areas are accommodated on the north, east and south facades. The lifts are positioned centrally and are easily accessible. A pleasantly designed path leads to the waiting area of the new residential building, passing two inner courtyards and ending directly at the foyer of the existing central building. Above the ground floor there are six identical storeys, each accommodating two residential groups. The apartments are arranged in a windmill-type layout around the central core with ancillary rooms and an escape staircase. Continuous balconies connect the zones of the residential groups and enable outdoor walks. The residents' rooms are mainly aligned in east or south direction. The living and dining rooms of the residential groups face west, thus having a connection to the inner courtyard.

The groundbreaking ceremony for the new residential building took place in October 2013. The carcass, built in mixed construction, was able to celebrate its topping-out ceremony one year later. The central load-bearing cores as well as the walls and ceilings are made of solid reinforced concrete. Composite concrete supports dissipate the vertical forces along the facades.

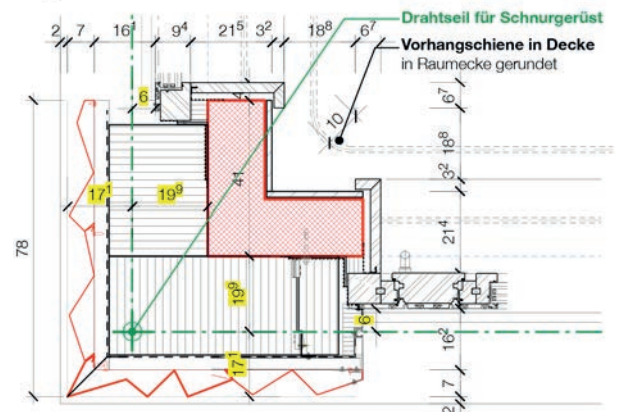
The outer shell is designed with non-load-bearing wooden elements. Steel supports along the facade absorb the vertical loads. The fall protection of the balconies takes place from the parapet to the ceiling via vertical glass lamellae, which create a lively facade image due to their different recesses. The outer cladding of the wooden elements takes place with perforated profiles made of anodised aluminium. This creates a filigree appearance, adding a flair of lightness and

elegance to the building. The metal facade, developed by the building owner and the architects together with the employees of Montana Bausysteme AG from Villmergen, reflects the incoming light in various ways, glistening in a manner that calls falling water to mind, which gives the new residential building its name.

The development and manufacture of this individual facade construction was particularly important to the architects, as they wanted to distinguish themselves from facades with conventional metal profiles in the design of the outer shell. They were therefore looking for a partner who would be capable of meeting their requirements. In Montana AG, they found a manufacturer who was capable of realising an individual, unique and creative facade design in metal.



Edge detail



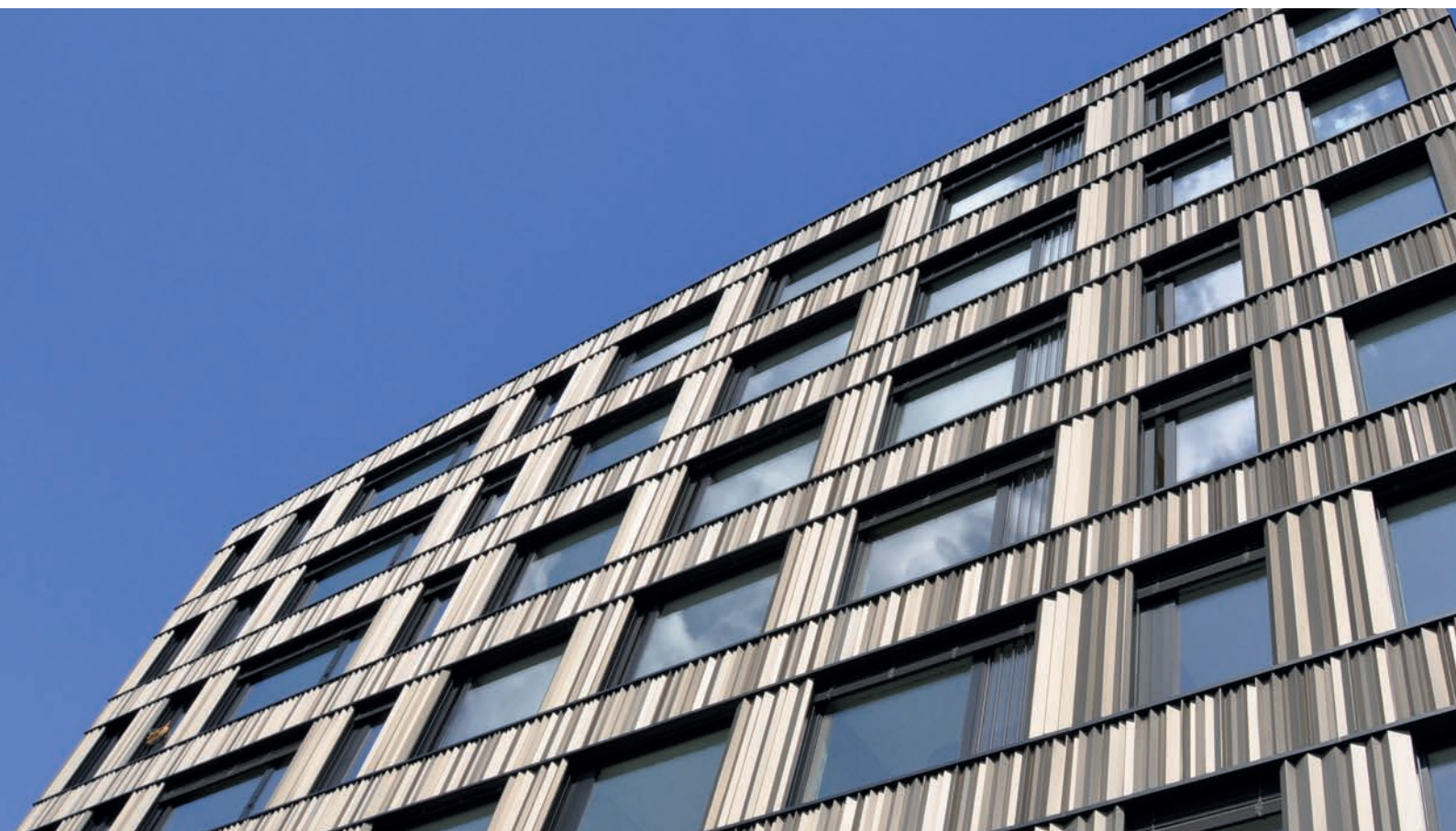
Under the name MONTAFORM® Design, the planners and architects were offered unusual possibilities of implementing their ideas. Thanks to modern machine park, the manufacturer of metal profiles is a position to form almost any thinkable profile. A wide range of angular or round shapes can be manufactured, adapted from a panel width of 1'240 mm.

For the creative and individual requirements of the Meyer und Gadiant architects in their «Falling Water» outer shell concept, the profiles from MONTAFORM® Design were simply ideal. Together with a team from the sales, technology, purchasing and production,

the kick-off was initiated for the development of the facade elements. More than 40 variants were conceived in total in order to implement the architects' ideas. Finally, in January 2013, the initial sample inspection took place with eight different profiles. The project participants finally decided on a solution made of anodised aluminium, which generates the desired effects.

After completion of the new residential building in October 2015, the individualised metal facade, having a surface area of about 3,000 square metres, will re-interpret the unique character of the concept every day, depending on the time of day and the season.

The architects and building owner were able to harmonise their unusual concept and implementation ideas to the benefit of the later residents, who are intended to feel at home here. It was only thanks to the manufacturer of the metal profiles that the quality of design and material could be realised. Montana Bausysteme AG has proved once again in this project that it is the right partner for individual and sophisticated metal facades.



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10/2015

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