

ALUMINIUM & ARCHITECTURE

CUSTOMER REFERENCE FOR
HUECK GMBH & CO. KG LÜDENSCHIED

CRÈCHE AT THE UNIVERSITY OF ERLANGEN

FUNCTIONALITY

WITH AN UNMISTAKABLE LOOK



BRIEF INFO

HUECK CONSTRUCTIONS:
Trigon 50, Lambda 77 L, Lava 77-S

MAIN CONTRACTOR:
State Construction Authority for Erlangen/
Nuremberg

ARCHITECTS:
State Construction Authority for Erlangen/
Nuremberg; Hausmacher Architekten,
Nuremberg

METALWORK:
Meindl Metallbau GmbH, Rügland



Opened in summer 2014, the crèche at the Friedrich-Alexander University in Erlangen is consistently tailored to the needs of small children in every regard. The design of the main contractor, the State Building Authority for Erlangen/Nuremberg, was used as a basis by the Nuremberg firm "Hausmacher Architekten", which gave the new two-storey building with north and south wings its own unmistakable look without compromising on functionality. In the process, the special requirements for the outer shell were realised using a slightly "unconventional" combination of Hueck constructions from the Trigon and Lambda systems.

"This has become one of our most attractive facilities," enthuses Vera Treitl about the "Pfauennest" crèche, which is operated by Johanniter Germany. "The children feel totally at ease here." And, as Johanniter Germany's head of department for day nurseries in Mittelfranken, she knows what she is talking about. The crèche looks after a total of 36 children aged from three months to three years, who are split into three groups. Accordingly, the crèche is consistently tailored to the basic needs of children in this age group. The extensive use of timber and large, highly thermally insulated window areas, as well as child-friendly and safe interior decoration and a large garden, lend the building a feeling of cosiness and an identity of its own.

The implementation and interior planning were based on the design by Andreas Latzel of the State Building Authority for Erlangen/Nuremberg and were taken on by the Nuremberg firm "Hausmacher Architekten". The firm developed a child-friendly house with its own identity that offered optimum usability while also satisfying the special safety requirements of a crèche. The new building was designed as a two-storey construction with two wings, one to the north and one to the south: the "service" area on the north side houses utility, plant and storage rooms in addition to the vertical circulation. To the south lie

the main rooms, with one group area on the ground floor and two group areas on the upper floor. On the east side, the two building sections are connected by a ground-floor entrance area, which is flooded with light, and by an open leisure area on the upper floor. The overlaid flat roof not only binds the two wings into one harmonious unit but also delivers effective protection against weather and the sun with its large overhangs.

COMBINING THE ADVANTAGES OF DIFFERENT BUILDING TECHNIQUES

As an alternative to the originally specified timber-frame construction in the south section and solid brick construction in the north section, Hausmacher Architekten developed a slightly unconventional concept: with the building's indoor climate in mind, their design used a solid brick construction both for the supporting internal walls and for the ceilings and roof so that there would be sufficient thermal mass for temperature equalisation despite the timber-frame construction on the south side. "Although we wanted the crèche to have the cosy feel of a timber house, we did not want the disadvantages of that building technique in terms of the thermal masses of the interior spaces," explains Hans Birnbaum of Hausmacher Architekten. "This solution combined the advantages of both techniques – and was actually even cheaper."

Viewed from the outside, the building not only reflects the two building techniques but also the north/south division of the structure. For example, the northern block, which is made of solid brickwork with a subtle plaster façade, has a rather reserved look. "With the simple square shape of the single cavity windows in an extremely slender aesthetic design, the north side of the building gives a visual impression of clarity and calmness," explains Birnbaum. In contrast to this, the timber façade on the south side reaches outwards to the garden with its large windows and glazed areas. A connection between





01

One harmonious unit:

On the east side, the two wings are linked by the glass façade that extends across both storeys.



02

An unusual solution:

The tall “window elements” in the timber façade were realised using Trigon façade profiles from HUECK.

the two wings is created by the glass façade that extends across both storeys on the east and west sides. Behind this façade lie both the entrance area on the ground floor and an open play area on the upper floor. For all of the areas used by the children, the architects wanted the design to incorporate as much light and as much of a view as possible – i.e. ceiling-height windows with low parapets, maximum glazing transparency, very narrow elevation widths, and barely visible transoms wherever possible.

AN UNCONVENTIONAL COMBINATION OF STANDARD PROFILES

“The extremely tight schedule made it a real challenge to find a practicable and especially economical solution to meet these requirements,” recalls Hueck’s architectural adviser Kai Hofmann, who supervised the project. “Together with the architect and the Rügland-based metalworking company Meindl, which was carrying out the work, we ultimately developed a concept using unconventional, project-specific combinations of conventional standard profiles from Hueck, taking advantage of their excellent compatibility.” For example, the expansive, transparent façade area on the east side was realised using an elegant mullion-transom façade from the Hueck Trigon 50 series. Integrated into the fixed glazing are window insert elements from the HUECK Lambda 77 L series. Here, large centre-to-centre distances and narrow profile widths make the building look exceptionally open, transparent and light.

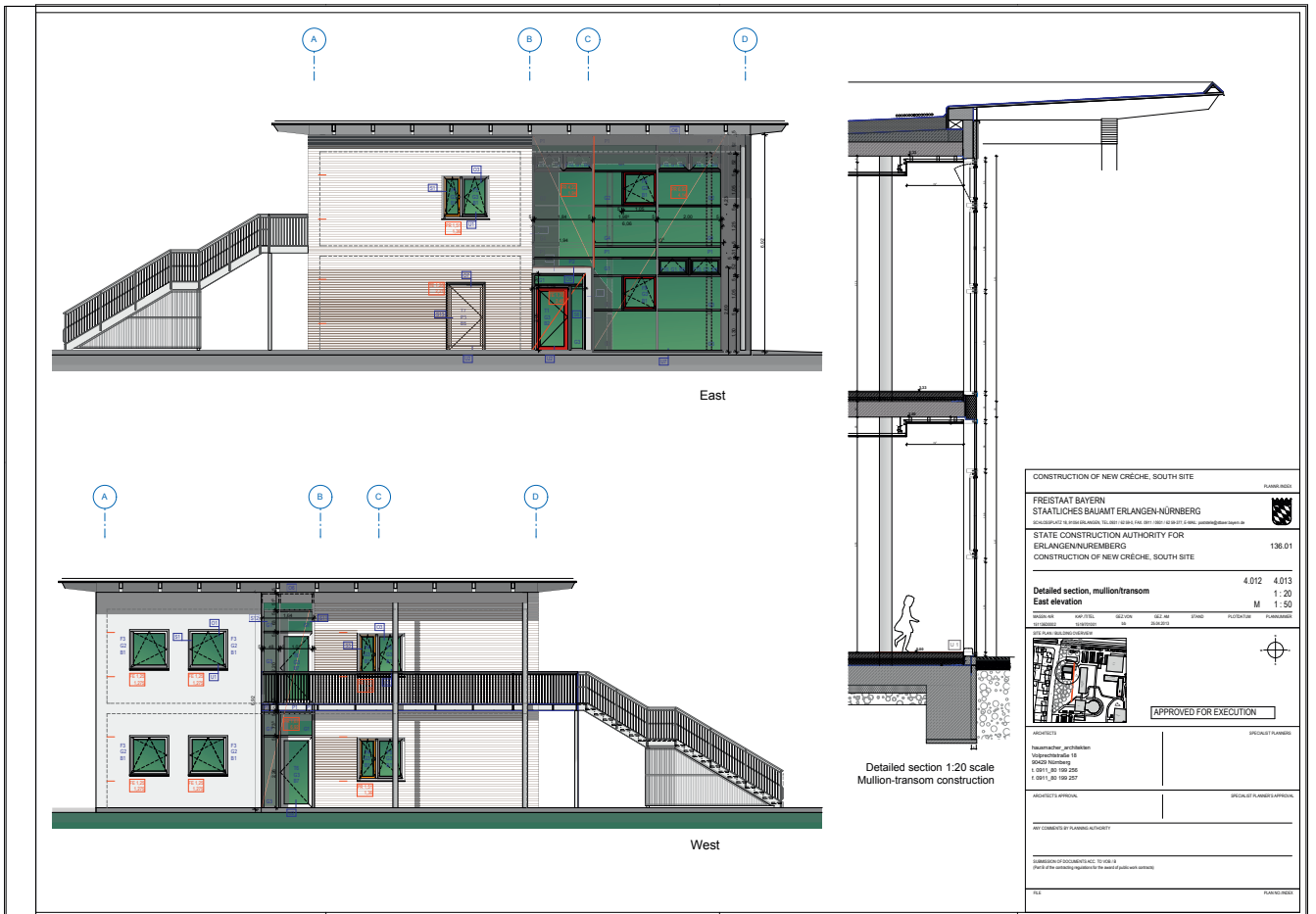
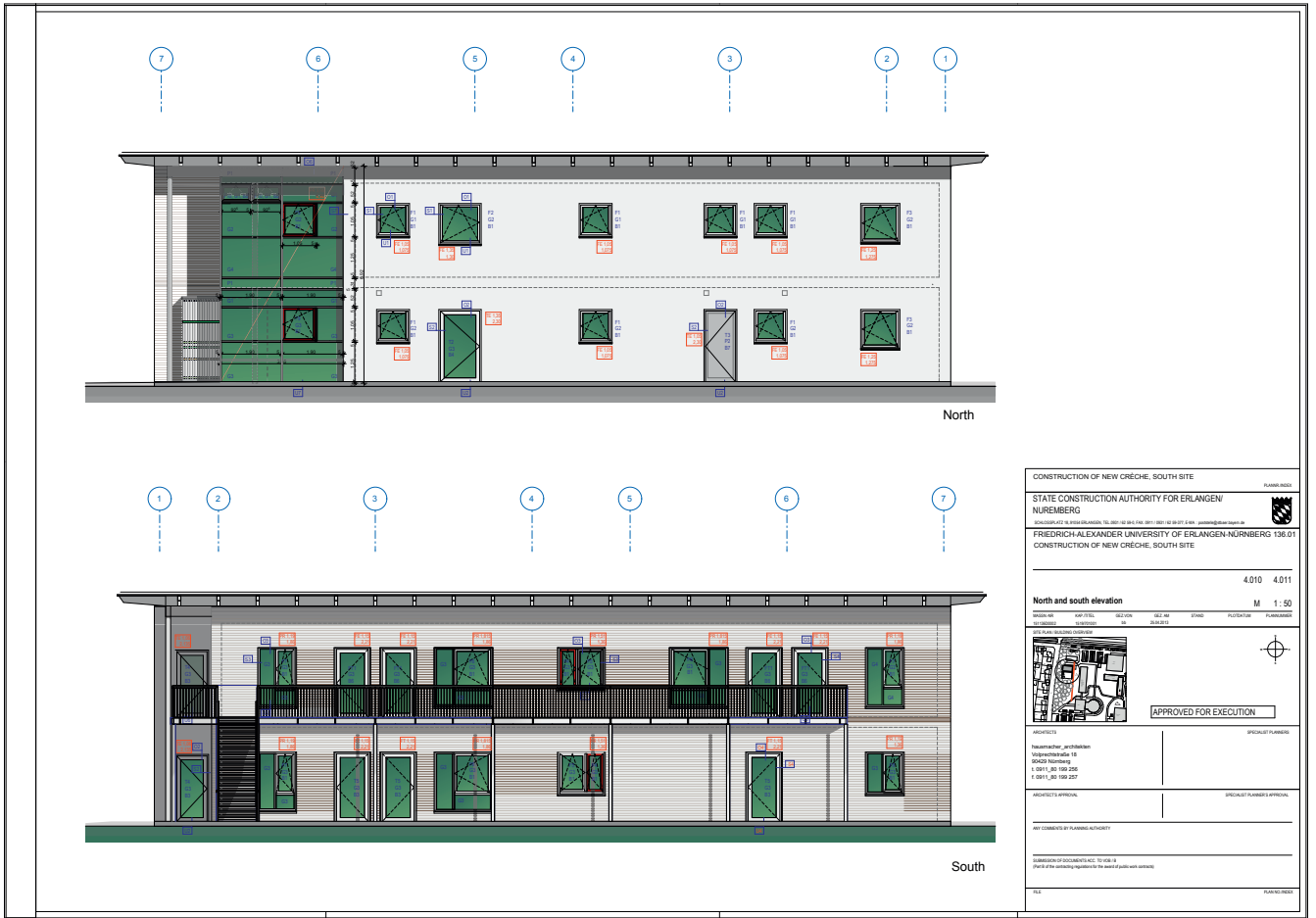
On the south side, the planners worked with highly insulated timber-frame elements and timber cladding that was made of rhombus-shaped strips with drained joints. The large, almost ceiling-height “window elements” in the timber façade were also realised using Trigon 50 façade profiles. Here, too, classic window inserts from the Lambda series were integra-

ted into the vertical fixed glazing. “Thanks to their very slender, elegant profile widths, the profiles are almost invisible to people viewing them from the inside,” explains Hofmann. However, this unusual solution did involve some challenges, especially in terms of the wall connections. “Ultimately, we should also have allowed for easy inspection of the floor-height fall-protection glazing,” says Hofmann.

The three group classrooms on the south side open out to the garden through the generously sized windows and glass doors. On this side of the building, classic external Venetian blinds were additionally installed on windows and doors despite the wide roof overhang. With this in mind, the sunshade in particular imposed special requirements in terms of safety. After a great deal of tinkering, approval was finally obtained for external Venetian blinds with a sophisticated automatic folding mechanism in case of fire.

STRICT SAFETY REQUIREMENTS

“Of course, the topic of safety is generally quite complicated for a crèche intended for small children,” explains Birnbaum. Accordingly, the architects were especially careful with the safety and escape-route concept. For example, the expansive stairwell and the escape balcony serve as structural escape routes from the upper floor. On the ground floor, there is a door to the outside in almost every room. Throughout the building’s interior, smoke control doors from the Hueck Lava 77-S series and finger protection doors ensure that the stipulated level of safety is met. Because of the requirement in day nurseries for the gaps in the timber façade to be smaller than 4 millimetres, the joint spacing was only increased to the aesthetically desired spacing of 9 millimetres once the “child height” of 1.20 metres was reached. “The wave-like effect that this created meant we were able to turn this obligation to our advantage.”



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