## Module Réfugiés, Sanem and Millebach (LUX)

project New construction of modular accommodation

for refugees

client Administration des bâtiments publics (LUX) / public client

services WW+, Esch-sur-Alzette (LUX) / Trier (GER)

architecture OAI services according to HOAI LPH 1-9

in cooperation with

civil eng. Felgen Associés, Luxembourg (LUX)

traffic planning SGI, Junglinster (LUX)

photographs Sanem: Levygraphie, Helmdange (LUX) / BP

Millebach: Linda Blatzek, Trier (GER)

facts - 11 rooms per building

3 barrier-free rooms per building lounge with kitchen on each floor

- office and support personnel in each building

building to low energy standardexternal facade in larch wood siding

- wooden frame construction with stiffening staircase

in reinforced concrete

dates and numbers Sanem

gfa 1.355 m²
ufa 779 m²
gv 4.790 m³
net construction c. total gross costs start of planning 03/2011

realisation 03/2016 - 09/2016

dates and numbers Millebach gfa 660 m²

ufa 2.395 m² start of planning 09/2015

realisation 11/2016 - 03/2017

## **Module Sanem**

The housing module providing refugee accommodation for 'demandeurs de protection internationale' ('applicants for international protection') is based on the results of a feasibility study carried out by WW+ in 2015 in response to a commission by the Luxembourg State. Given that no actual building site was specified, the objective was to develop a flexible, modular system, which could be adapted to various parameters, e.g. requirements regarding the number of people, construction type, various topographical features and potential specifications as a result of different land-use plans.

The result is a modular, additive system, which can in each case accommodate 33 individuals. Several living units can be combined to create an urban ensemble.



Sanem







The structures are designed in such a way that they can be erected in timber or steel or else using conventional construction methods. This allows for a high level of flexibility when selecting potential manufacturing firms, with the timber or steel construction options enabling a high degree of prefabrication and maximum modularity.

Different roof and façade design options provide for an individual adaptation to different regions and localities. The number of storeys can vary between two and three full floor heights. This allows for an individual reaction to existing specifications as a result of local land-use plans.

The modular construction type provides for an erection both on a flat terrain and in topographically difficult locations.

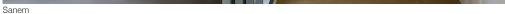
Based on a grid of approx. 4.6 x 4.6 m, various use modules can be combined with one another. By adding to this grid, various building sizes are possible. A central corridor and double staircase ensure surface-reducing access. Sanitary and cooking facilities are centrally located and for communal use. To avoid social tensions, a fixed number of living units has been assigned to a corresponding number of sanitary and cooking facilities and communal areas.

The living units each measure 18 m² and can house three individuals. Privacy is ensured through a room divider, which separates the individual sleeping areas from one another. The sanitary facilities with showers are separated by gender and also have a base size of 18 m². Robust materials and a sold construction method allow for a later change of use, for instance as a youth hostel, a boarding house, a scouts' home or similar. At present, WW+ architektur + management Sàrl has been commissioned with the planning and realisation of several of these living units in various municipalities throughout Luxembourg. The first living accommodation is due for completion in Sanem in late August 2016 and will feature a timber frame construction.

Two additional structures, also featuring a timber construction, are already in the advanced planning phase, i.e. in the functional tender phase. A suitable location is still being sought for further living accommodation.









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