

floating low-energy house

PNED 166

brochure

life on the water . . .

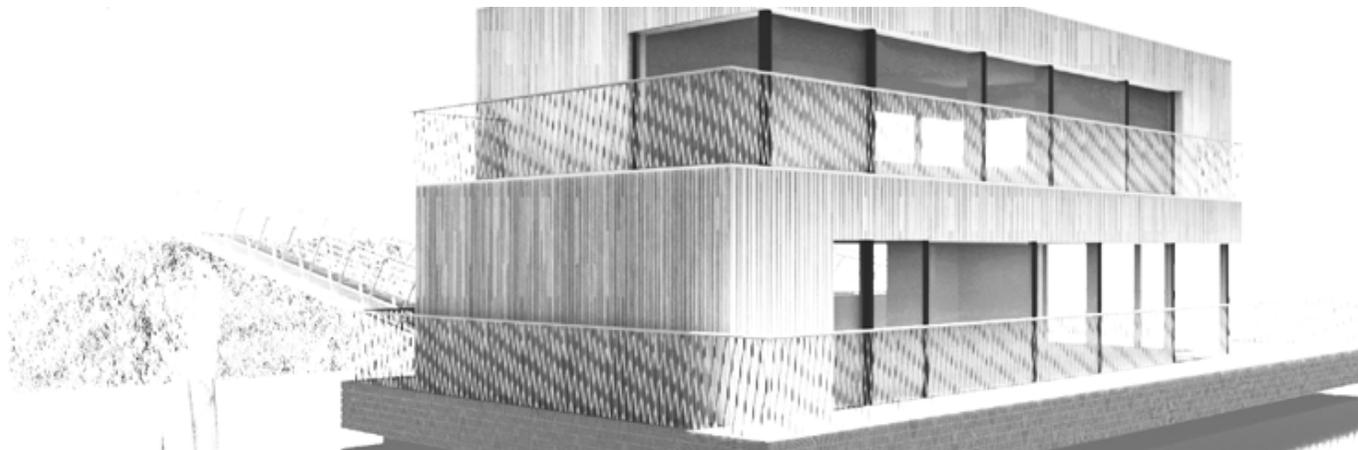
Why water? Why would anyone leave the stability of terra firma to live on a moving surface, in smaller quarters and relative uncertainty?

The answer is simple. Water is life and water changes everything.

Can someone who doesn't crave water understand the attraction? Houseboat owners, who have convinced friends or spouses to share floating spaces, say that time is key to understanding. The longer one lives on the water, the less one fears it, and the better one may adapt to watertop rhythms. But it's not for everyone: the most common way of saying that water obsessions are born, not made.

floating house . . .

House on the water offers specific qualities to its habitants. It gives them opportunity to feel and live in the nature that is surrounding them, on the other hand its construction and technologies ensure necessary background and comfort equal to houses on the land.



general specification

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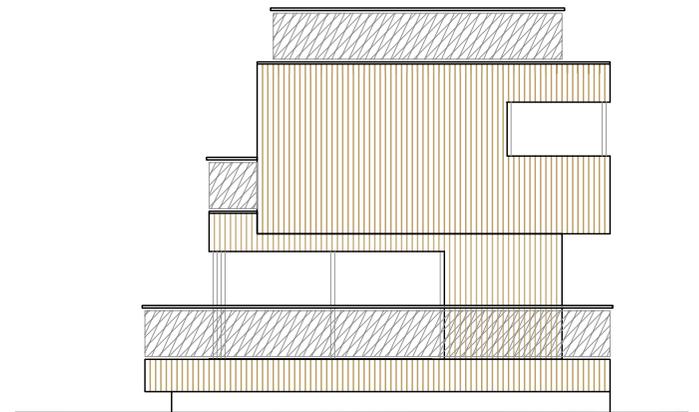
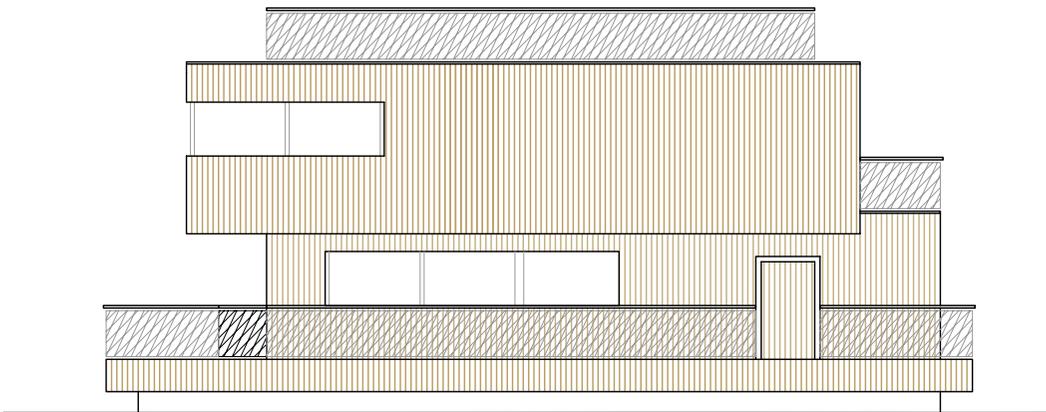
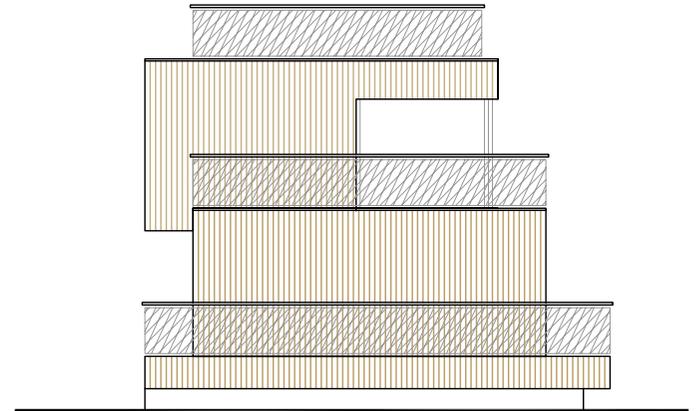
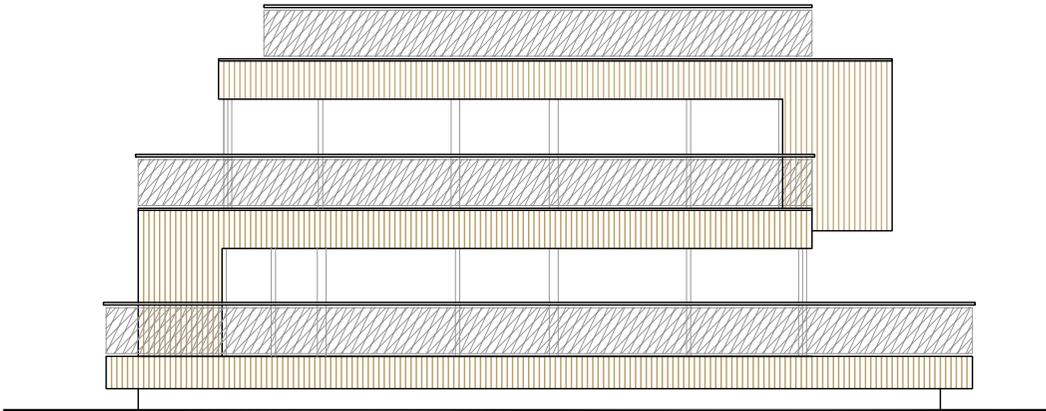
Preliminary design: 2010

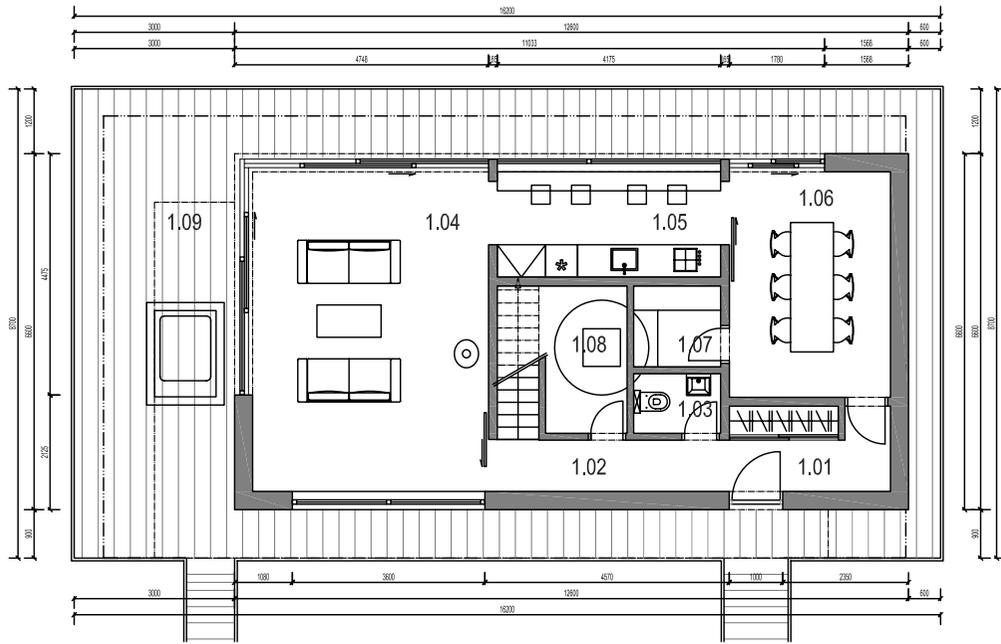
Main dimensions:

L_{\max}	=	16,3 m (max length)
B_{\max}	=	9,60 m (max beam)
T_{\max}	=	1,20 m (draft @ max load)
H_{CWL}	=	7,48 m (high above capital waterline @ max load)
F_{\min}	=	0,30 m (pontoon freeboard @ max load)
G	=	172,8 t @ T_{\max} (displacement)

Bedrooms	4
Gross area	166,30 m ²
Net area	137,00 m ²
Terrace area	124,80 m ²

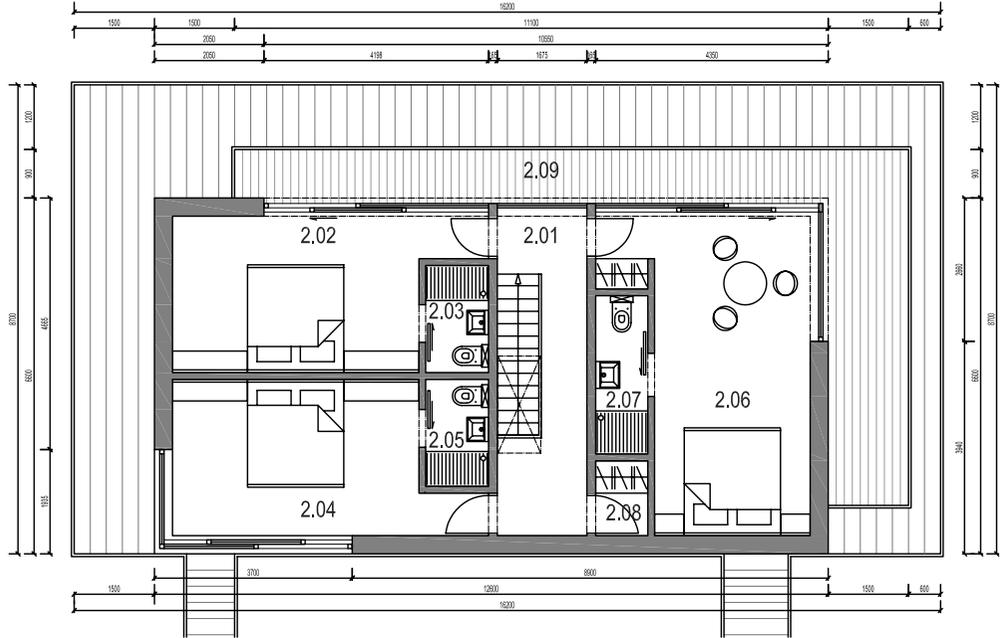






MAIN DECK

ROOM No.	ROOM	ROOM AREA /m2/	SURFACES				NOTES
			FLOOR	WALL	CEILING	SOOLE	
1.01	ANTE-ROOM	5	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
1.02	HALLWAY	4.5	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
1.03	TOILETTE	2	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	WATERPROOF SURFACE
1.04	LIVING ROOM	27	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
1.05	KITCHEN	8.5	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
1.06	DINNING ROOM	13	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
1.07	STOCK	2.5	PVC	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
1.08	TECHNOLOGIES	5.5	PVC	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	WATERPROOF SURFACE
1.09	TERRACE	58	WOODEN DECKING				
OVERALL NET FLOOR AREA - INNER		68					
OVERALL NET FLOOR AREA - OUTER		58					



UPPER DECK

ROOM No.	ROOM	ROOM AREA /m2/	SURFACES				NOTES
			FLOOR	WALL	CEILING	SOOLE	
2.01	STAIRWAY	10	WOODEN STEPS	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
2.02	BEDROOM	15	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
2.03	BATHROOM	2.5	PVC	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	WATERPROOF SURFACE
2.04	BEDROOM	15	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
2.05	BATHROOM	2.5	PVC	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	WATERPROOF SURFACE
2.06	BEDROOM	19.5	PARQUETRY	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
2.07	BATHROOM	3	PVC	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	WATERPROOF SURFACE
2.08	STOCK	1.5	PVC	PAINTED OFF - WHITE	PAINTED OFF - WHITE	COVER RAIL	
2.09	TERRACE	19.8	WOODEN DECKING				
OVERALL NET FLOOR AREA - INNER		69					
OVERALL NET FLOOR AREA - OUTER		19.8					

pontoons

Foundation of floating house is made of concrete pontoons filled in with polystyren foam that ensures their unsinkability. We rely on the highest quality SM PONTON company pontoons in all of our floating foundations. Dimensions of foundation depends on size of the house.

construction

Superstructure of the floating house is of wooden frame construction with inner thermal insulation and batten facade. Total width of the wall is 335 mm of which 250 mm is thermal insulation. Composition of walls is diffusion open.

Other construction systems can be used when low weight is preserved.

All used materials are ecological and recycable.

technologies

Floating house is built in low-energy consumption standard. Some necessary technologies used: ventilation with heat recovery, air heating, heat pump, waste-water treatment tank built in the pontoon platform, passive house windows and door. Solar panels can be used as well as photo-voltaic panels. Water for shower, wash-machine or dish-washer can be taken from surrounding water cleaned in filtration device. All utilities (water, electricity 230/400V, sewage) are mostly connected to municipal system.

anchoring/mooring

There are few possibilities how to fix position of the floating house with respect to the bank but keeping the freedom of moving up and down with changing water-level.

Most common is probably connecting bridge in combination with one or more shore booms additionally secured with mooring ropes. The other more sophisticated option are piles. Last but not least is the most flexible system that uses anchoring concrete blocks laying on sea bed which are connected to pontoon with chains or Seaflex system in the case of greater water-level variation.

Choice of anchoring/mooring system depends on local conditions.



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