

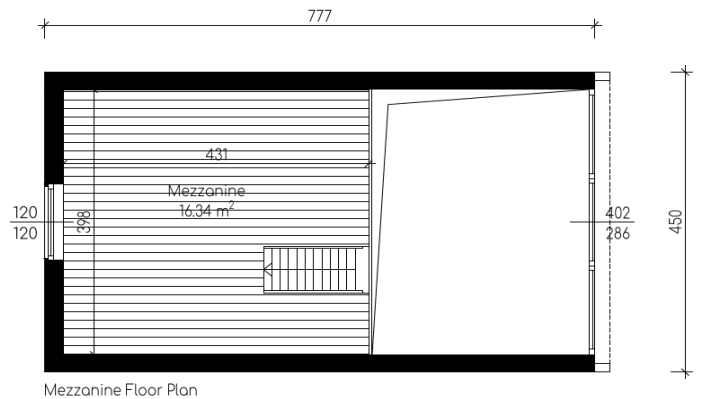
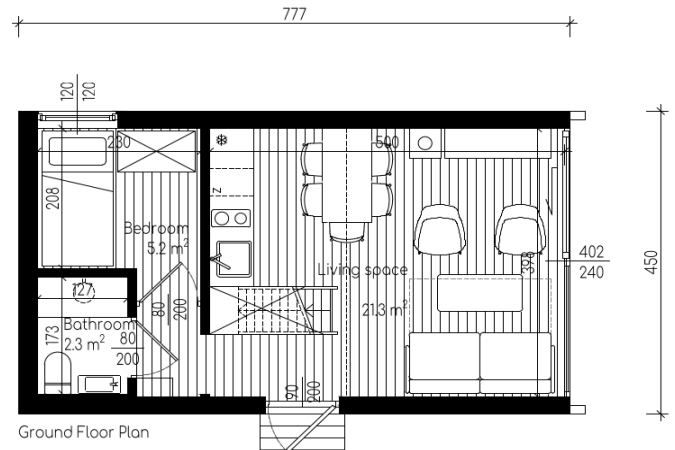
Hest

The barn is a memory of a childhood spent in the countryside, full of adventures and exploring the surrounding nature. Here you can relax naturally and spend time actively outdoors, catching your breath from everyday life. A barn-type house can stand anywhere, not only by the water, in the mountains, in the forest, but even in heavily urbanized areas. Let yourself slow down and feel the rural atmosphere.

BUILDING AREA	35 m ²
NET AREA	44,77 m ²
HEIGHT	6,56 m
ANGLE OF THE ROOF	45°

Allow yourself to rest, like never before.

An extremely spacious house, with its simplicity resembling a classic barn. Thanks to the glass gable wall and the open form of the interior, both the ground floor and the attic remain filled with daylight. The building has a very functional layout of the rooms. When designing this, we planned a large living space during the day for its residents with an open kitchen, bathroom and bedroom, as well as a spacious mezzanine. Additionally, we have created a practical entrance area with a large wardrobe accessible from the corridor. The illuminated and spacious living room can be additionally enlarged with a terrace, which, thanks to large sliding windows, can be combined with the interior, so that it constitutes an extension of the relaxation area.



Technological standards *

WALL CONSTRUCTION

frame technology, heat transfer coefficient $U = 0.20 \text{ W} / \text{m}^2\text{K}$

ELEVATION

	Bare (larch) cladding board; 22 mm thick
	Larch cladding board, painted with impregnation; 22 mm thick
HORIZONTAL GRATE	Impregnated square (spruce) timber; 25x50 mm
VERTICAL GRATE	Impregnated square (spruce) timber; 25x50 mm
WIND BARRIER	Highly vapor-permeable membrane; weight: 233 g / m ²
CONSTRUCTION	(C24) Spruce wood; 45x120 mm
THERMAL INSULATION WITHIN THE STRUCTURE	Mineral wool; 12 cm thick; $\lambda = 0.035 \text{ W} / \text{mK}$
SHEATHING	OSB board; 12 mm thick
VAPOR INSULATION	Activated foil; weight: 77 g / m ²
INSTALLATION GRID	(C24) Spruce wood; 45x45 mm
THERMAL INSULATION WITHIN THE GRID	Mineral wool; 5 cm thick; $\lambda = 0.033 \text{ W} / \text{mK}$
FINISH	Drywall; 12.5mm thick
	Spruce panel boards; 12.5 mm thick

ROOF

wooden structure with a suspended ceiling; heat transfer coefficient: $U = 0.15 \text{ W} / \text{m}^2\text{K}$

Includes steel guttering and flanges

COVERING	Seam sheet; color RAL 7016
	Trapezoidal sheet; color RAL 9007
RAFTER	Impregnated square (spruce) timber; 40x60 mm
BATTEN	Impregnated square (spruce) timber; 25x50 mm
INITIAL COVERING	Highly vapor-permeable membrane; weight: 233 g / m ²
CONSTRUCTION	(C24) Spruce wood; 22x4.5 cm
THERMAL INSULATION WITHIN THE STRUCTURE	Mineral wool; 20 cm thick; $\lambda = 0.033 \text{ W} / \text{mK}$
VAPOR INSULATION	Activated foil; weight: 77 g / m ²
INSTALLATION GRID	(C24) Spruce wood; 45x45 mm
THERMAL INSULATION WITHIN GRID	Mineral wool; 20 cm thick; $\lambda = 0.033 \text{ W} / \text{mK}$
FINISH	Drywall; 12.5mm thick
	Spruce board panels; 12.5 mm thick
GUTTERING, FLOORING	Complete set of steel guttering; color of the roof

GROUND FLOOR

wooden structure; heat transfer coefficient $U = 0.15 \text{ W} / \text{m}^2\text{K}$

FINISH

	Spruce floor boards; 28 mm thick
	3-layered oak boards; 14 mm thick
UNDERLAY	Cork; 2 mm thick
SHEATHING	OSB board; 22 mm thick
VAPOR INSULATION	Activated foil; weight: 77 g / m ²
GRATE	Impregnated square (spruce) timber; 45x45 mm
THERMAL INSULATION WITHIN GRID	Mineral wool; 5 cm thick; $\lambda = 0.033 \text{ W} / \text{mK}$
CONSTRUCTION	(C24) Spruce wood; 22x4.5 cm
THERMAL INSULATION WITHIN THE STRUCTURE	Mineral wool; 20 cm thick; $\lambda = 0.033 \text{ W} / \text{mK}$
RODENT PROTECTION SEAL	Bitumised OSB board; 12 mm thick

MEZZANINE

FINISH	Spruce board panels; 12.5 mm thick
SHEATHING	OSB board; 22 mm thick
CONSTRUCTION	(C24) Spruce wood; 22x4.5 cm
FINISH	Drywall; 12.5mm thick
	Spruce board panels; 12.5 mm thick

PARTITION WALL

light technology on a structure made of CW steel profiles

FINISH	Drywall; 12.5mm thick
CONSTRUCTION	(C24) Spruce wood; 45x95 cm

JOINERY

WINDOWS	Pine wood; double glazed; $U_w = \text{max. } 1.22 \text{ W} / \text{m}^2\text{K}$
	Pine wood; triple glazed; $U_w = \text{max. } 0.9 \text{ W} / \text{m}^2\text{K}$
PATIO DOORS	Pine wood; double-glazed; tilted & sliding; $U_w = \text{max. } 1.19 \text{ W} / \text{m}^2\text{K}$
	Pine wood, triple-glazed, tilted & sliding; $U_w = \text{max. } 0.9 \text{ W/m}^2\text{K}$
EXTERIOR DOORS	Metal & wood; $U_d = \text{max. } 0.96 \text{ W} / \text{m}^2\text{K}$

CARPENTRY PACKAGE

INTERIOR DOORS	Knotless, ground, pine door with a fixed door frame; unpainted
SCHODY	Unpainted pine milling stairs
RAILING	(C24) Wood; 4.5x4.5 cm
FINISHING STRIPS	Quarter-round corner finishing strip; wooden angle

INTERNAL INSTALLATIONS

VENTILATION	PVC ventilation ducts with fireplace & sewage exhaust mechanical ventilation fan
SEWEGE	Complete system of polypropylene (PP) pipes for fittings & venting; assortment to be hooked-up by yourself
WATER	Push-in polybutylene piping system, complete installation from cold water valve connector pipe, including but not limited to: manifolds, couplings, pipes and approaches
ELECTRIC	Boxless installation; including: switchgear, plug-in sockets, connectors, wires run in conduits

* Certain specifications may vary, depending on the country and its building regulations, in which the project takes place.

Materials used

C24 WOOD

All construction elements are made of certified wood (high strength class C24) from Scandinavian forests which, due to severe weather conditions and long winters, are characterized by slow growth, which makes the wood hard and durable. Chamber drying to a humidity of 15-18% additionally makes it free from all fungi and insects.



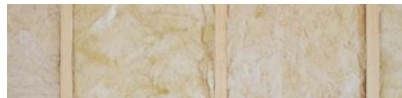
HIGHLY PERMEABLE MEMBRANE

To protect the surface against moisture, a top-class, diffusion, 3-layer, highly vapor-permeable membrane with a grammage of 233 g / m² is used. It can act as a roof and facade for up to 6 months, due to the guaranteed resistance to UV radiation during this time.



MINERAL WOOL

All partitions are insulated with mineral wool. Vertical partitions are insulated with wool of increased stiffness to prevent the wool from collapsing by gravity. HYTA houses meet the requirements for thermal transmittance of partitions, set for all-year-round buildings for 2021.



WOODEN WINDOW JOINERY

The houses are equipped with very high-quality wooden windows. Window joinery made of natural material is an ecological solution that allows for large glazing.

