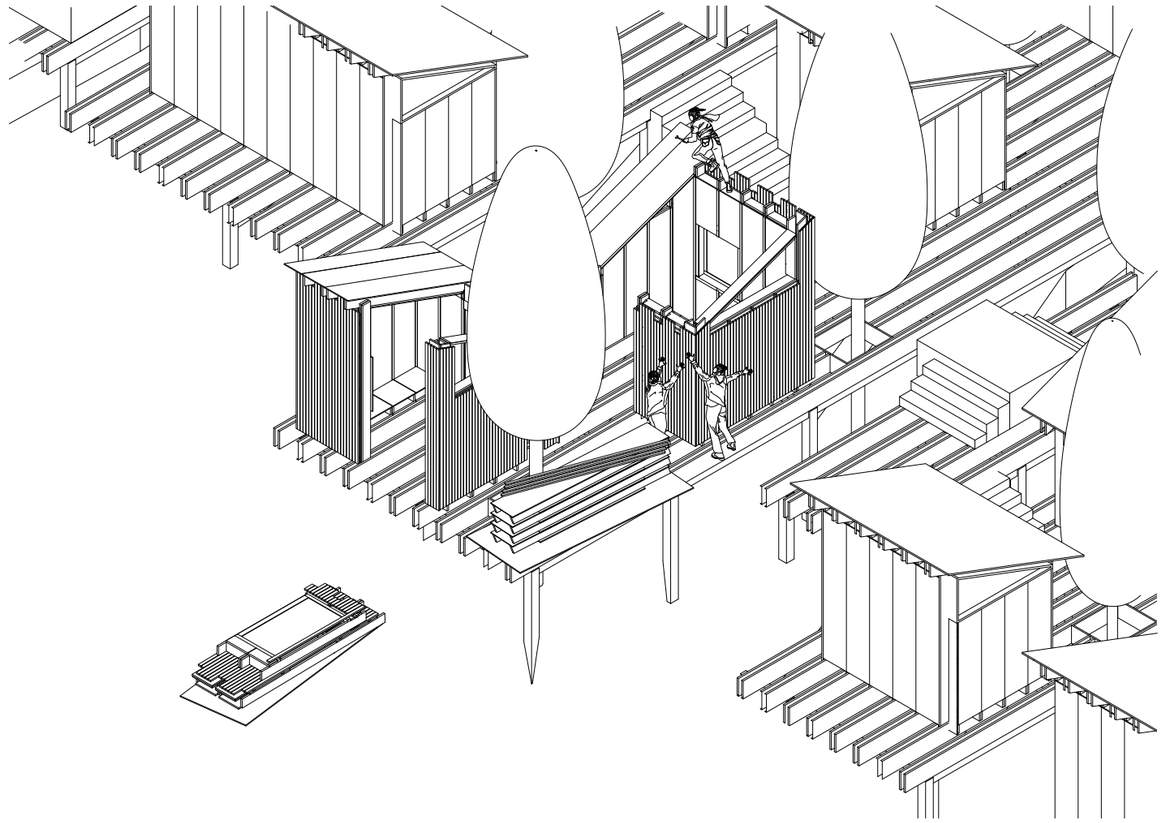
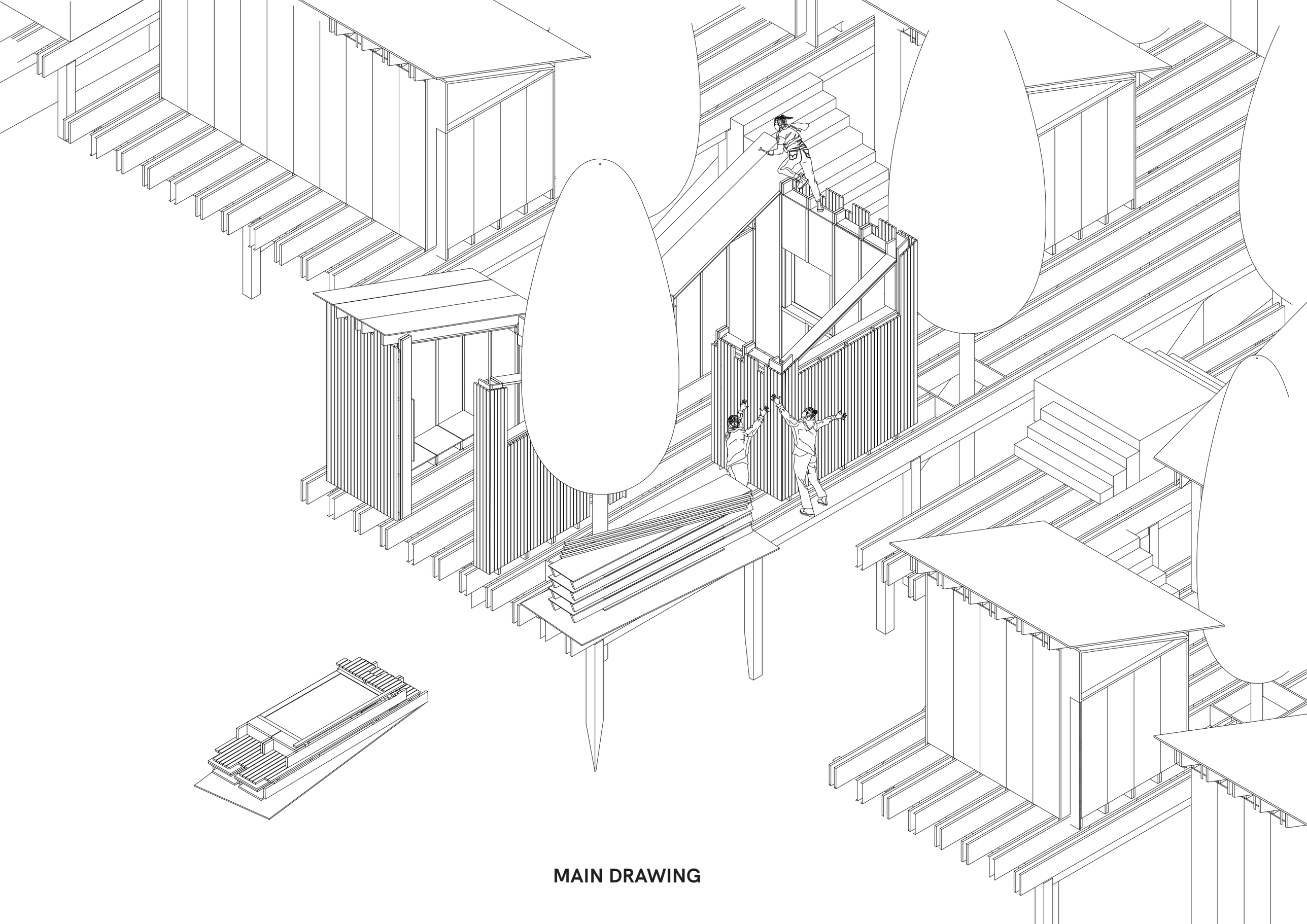
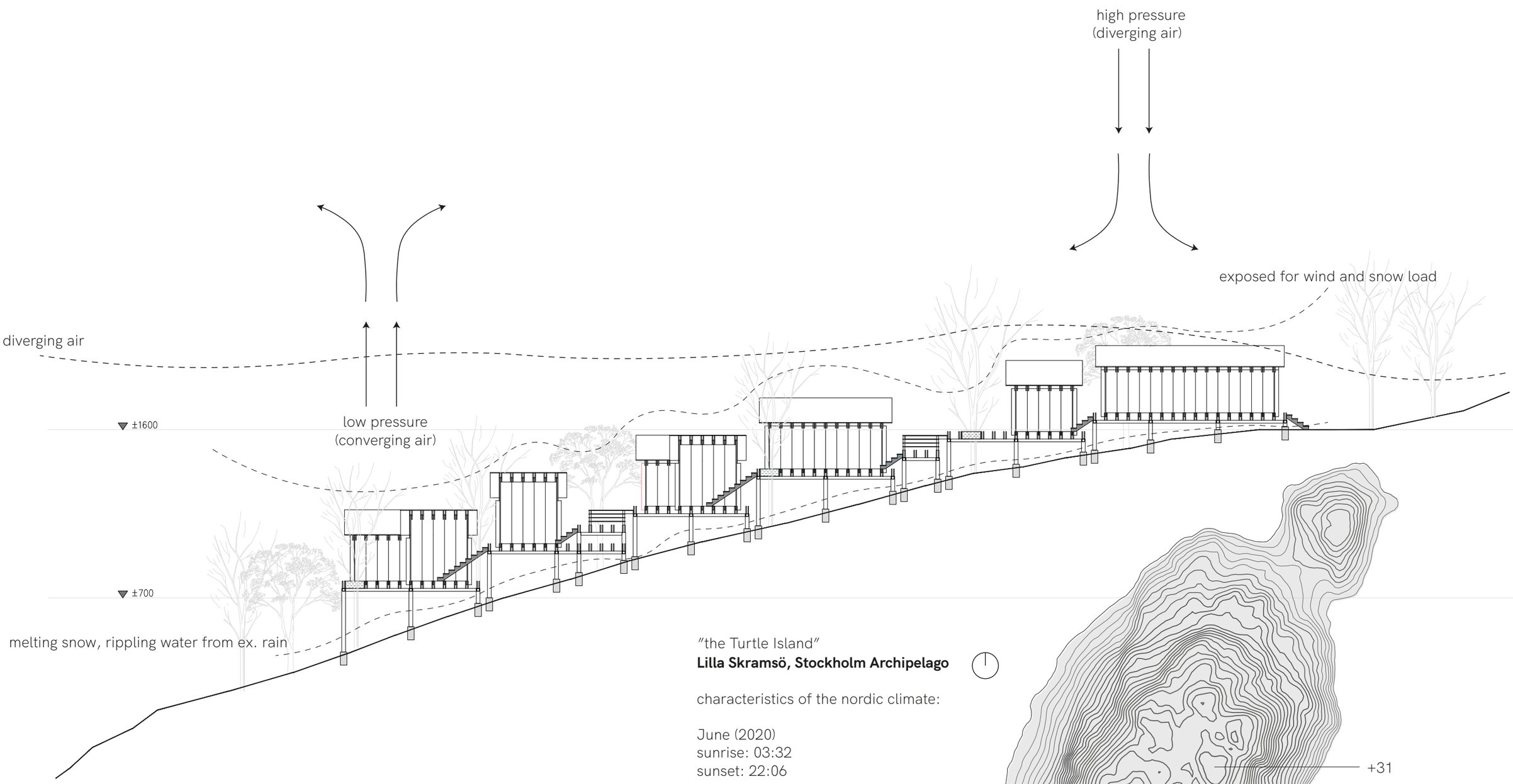
A mountain in a steep.



Yidian | Moa | Sophie



MAIN DRAWING



"the Turtle Island"
Lilla Skramsö, Stockholm Archipelago

characteristics of the nordic climate:

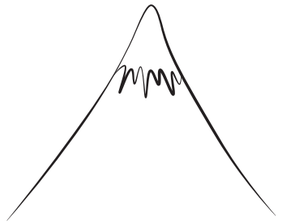
June (2020)
sunrise: 03:32
sunset: 22:06

sun hours: 18,5

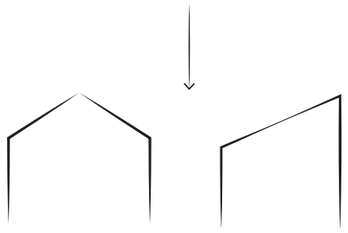
December (2020)
sunrise: 08:40
sunset: 14:46

sun hours: 6

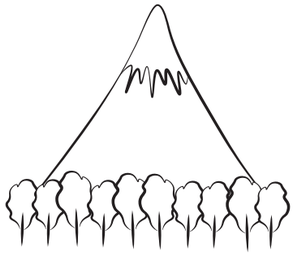
SITE PLAN / CONDITIONS



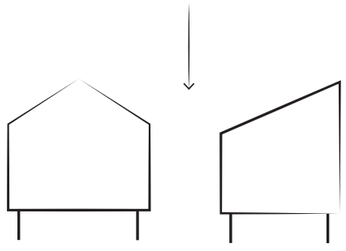
A mountain tends to be narrower at its top then at the base.



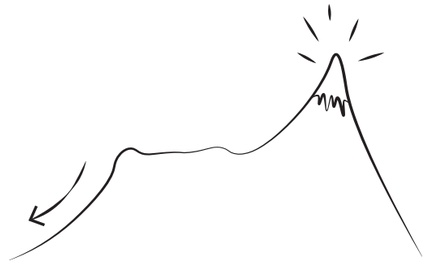
Tilted roofs.



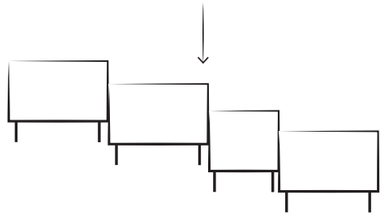
A mountain is a landform that rises prominently above its surroundings.



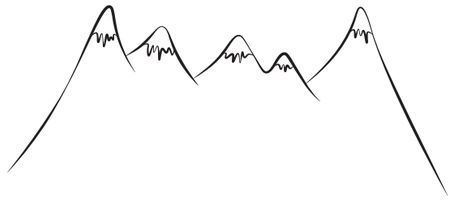
Lifted up.



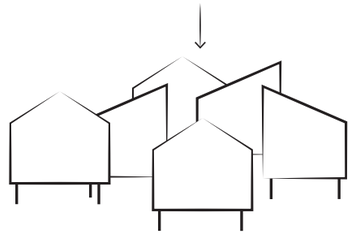
They usually have steep,sloping slides and sharp or rounded ridges and a a high point called peak or summit.



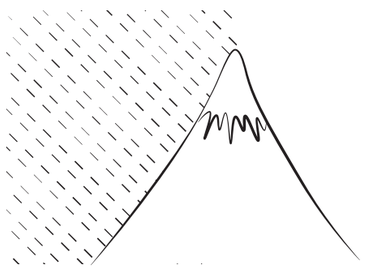
Different Levels [shaped by the ladscape].



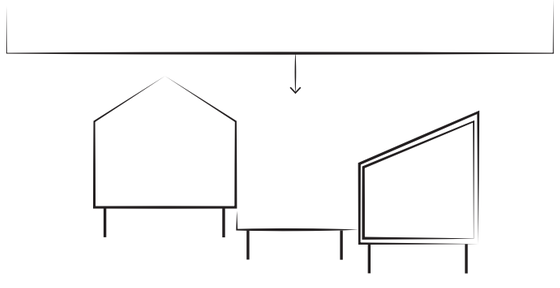
Very rarely do mountains occur individually. In most cases, they are found in elongated ranges or chains. When an array of such ranges is linked together, it constitutes a mountain belt.



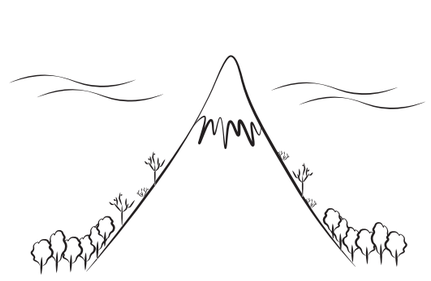
Individual landforms [units] but supporting each other.
Opportunity to move from one to another.



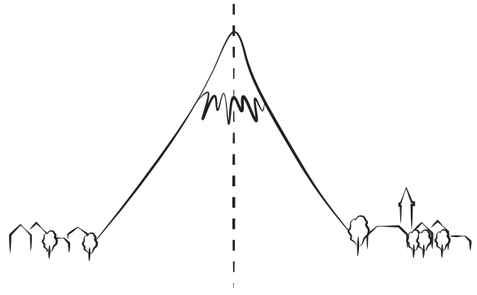
Their height can influence weather patterns, stalling storms that roll off the oceans and squeezing water from the clouds. The other side is often much drier.



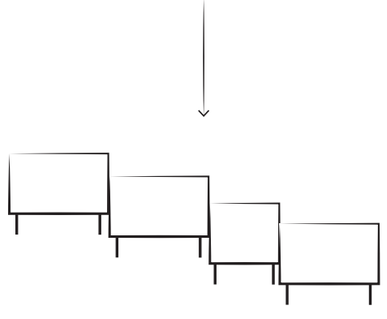
Different climatic zones.



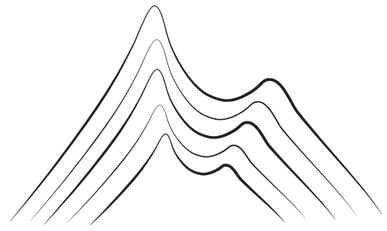
Mountains have different climates [...] The climate of a mountain tends to include colder weather, wetter weather, and thinner air.



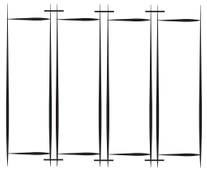
Mountains often serve as geographic features that define natural borders.



Natural division / zoning due to different levels.

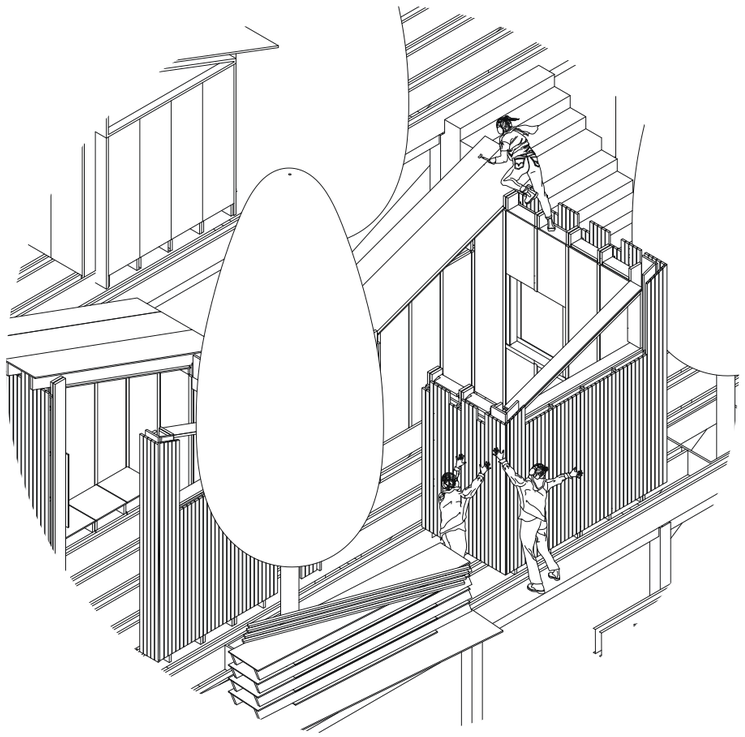


The folding of layers of sedimentary rocks with thicknesses of hundreds of metres to a few kilometres often leaves long parallel ridges and valleys termed fold belts.



Small elements supporting each other forming one strong unit.

CHARACTERISTICS OF A MOUNTAIN



The settlement on the steep is easy
to carry, fast to build and can be
simply maintained.
It can be carried and assembled by
a small group of people.
It can grow or fully disappear.

Efficient use of transport & resources

small structure
small pre-fabricated modules
easy on-site- assembly

Easy to repair , maintain & dismantle

elemts with layers
independent elements
screws (instead of nails)

Constructural protection & durability

pile foundations
tilteted roofs
eves

Adaptability

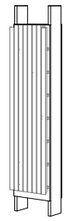
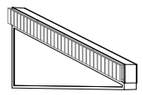
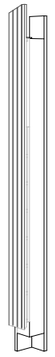
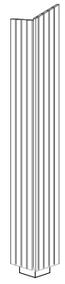
adaptable to surrounding
transportable elements
extension/compression possible

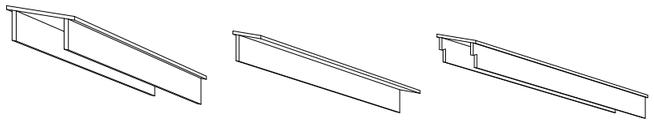
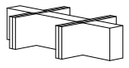
Simple infrastructure

shared functions
back to basics

GUIDELINES

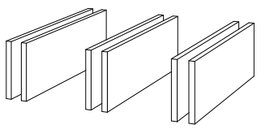
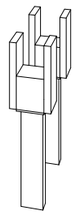
Building

	Wall
cladding battens insulation LVL studs wood board	Wall A  330x60cm Wall B  240x60cm Wall C  240x60cm  330x60cm  
WEIGHT	

	Roof	Beam	Floor
insulation LVL studs wood board		 330x60cm	 60x60cm  50x60cm  50x56cm
WEIGHT			

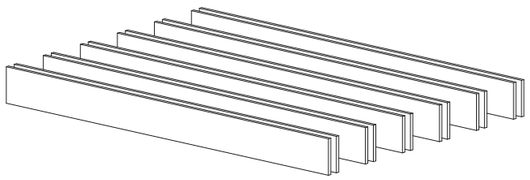
BUILDING CATALOGUE

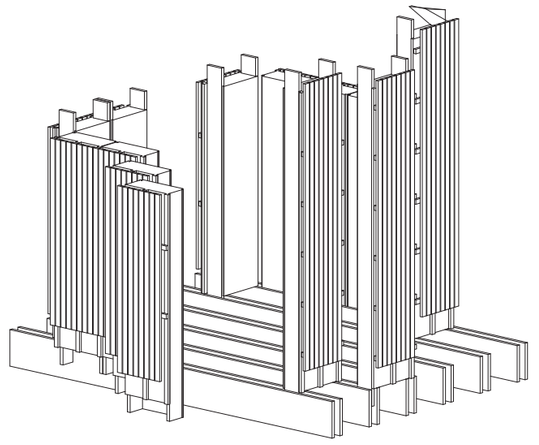
Foundation

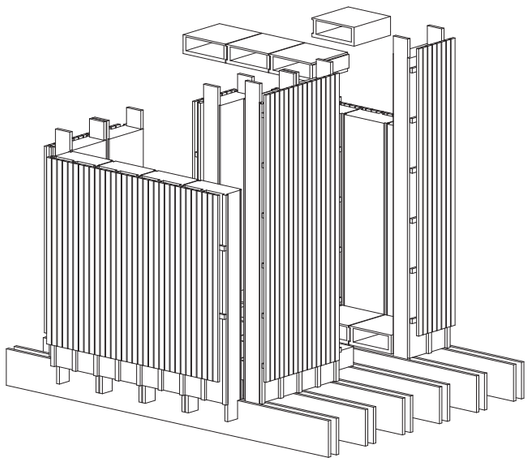
	Beam	Steel Pipe
LVL studs wood board	 40x3.9cm	
WEIGHT		

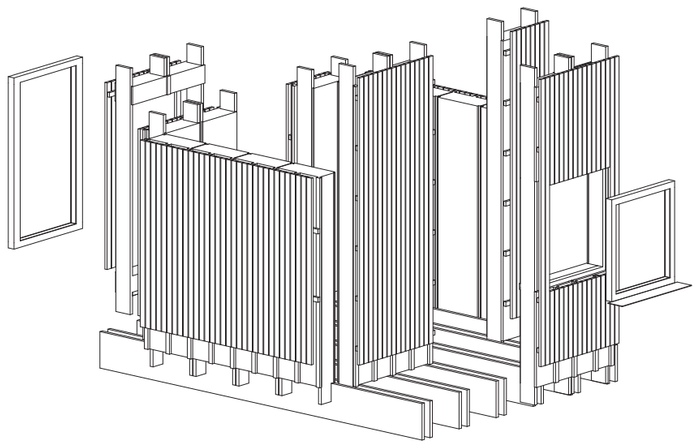
Interior / Furniture

	Interior wall	Furniture
battens wood board		
WEIGHT		

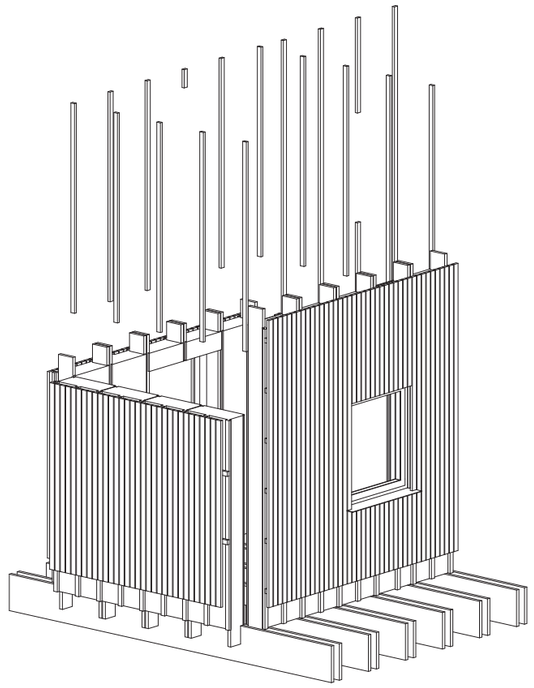


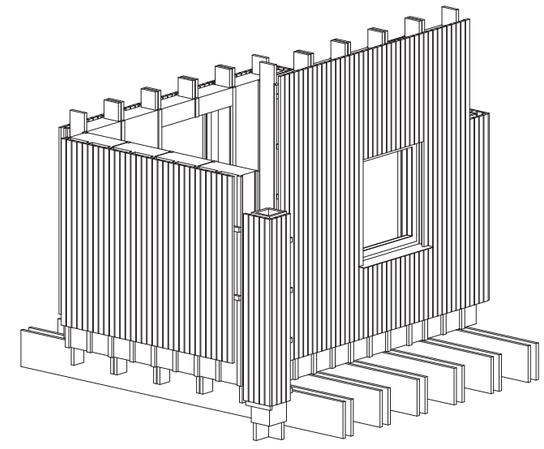


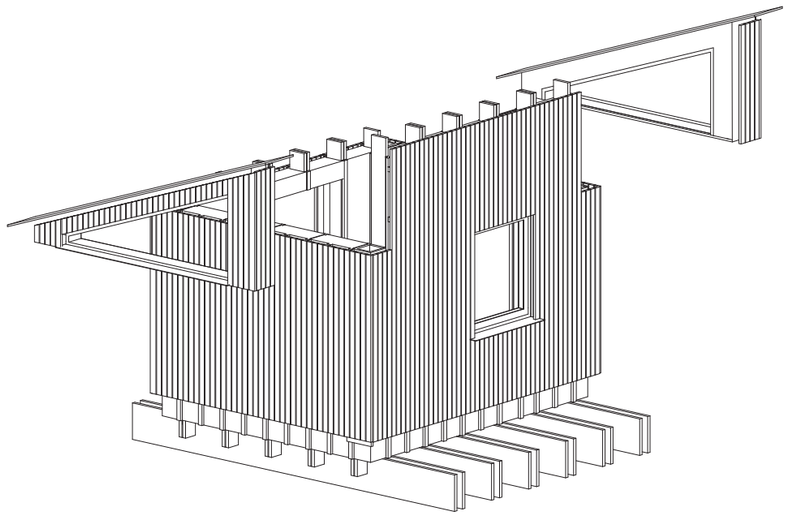


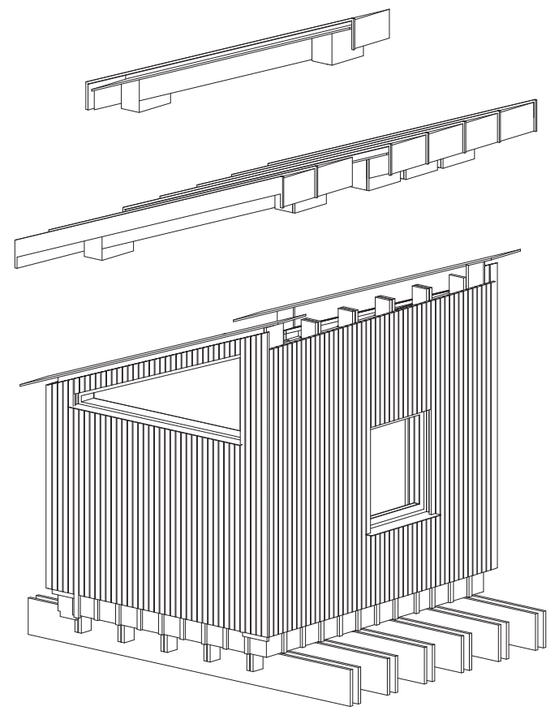


ASSEMBLY

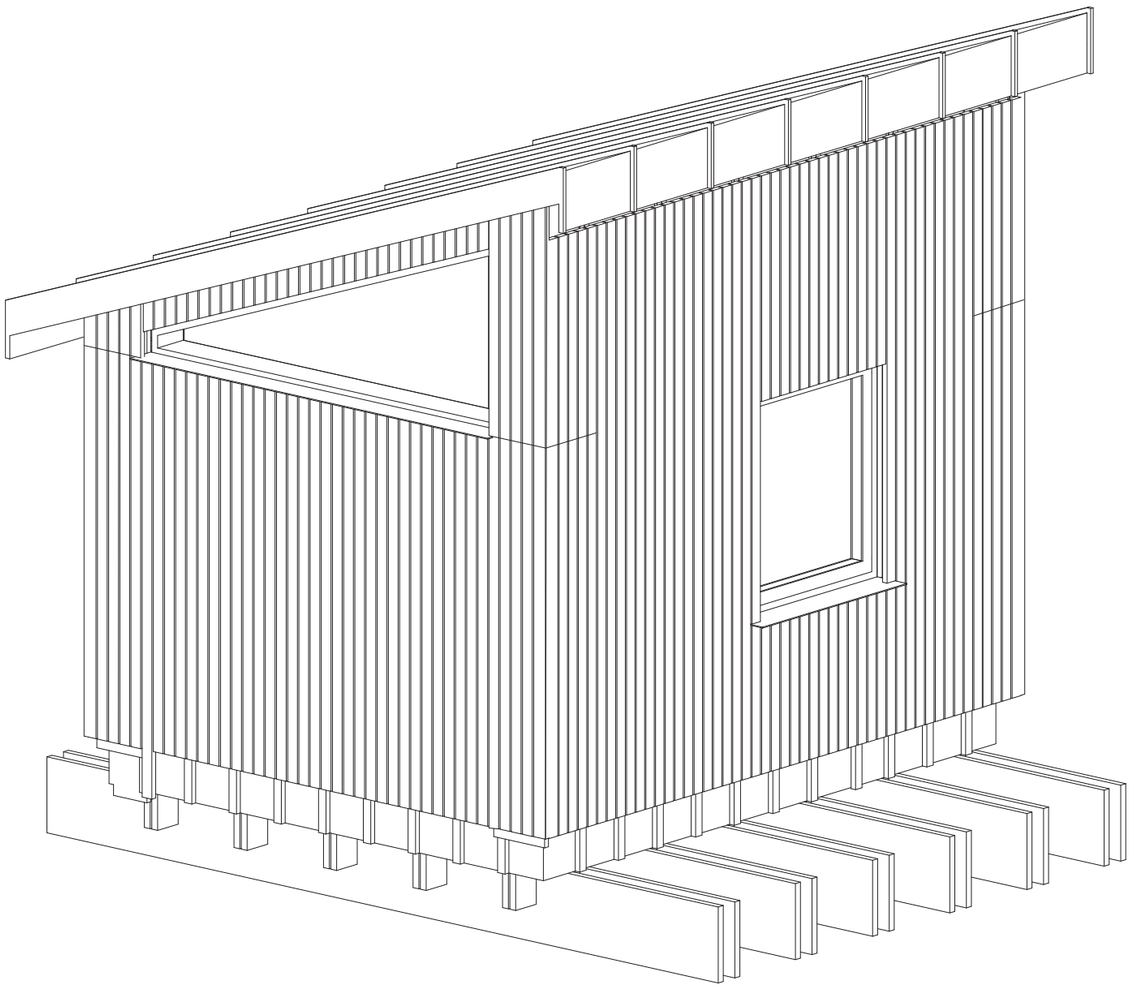






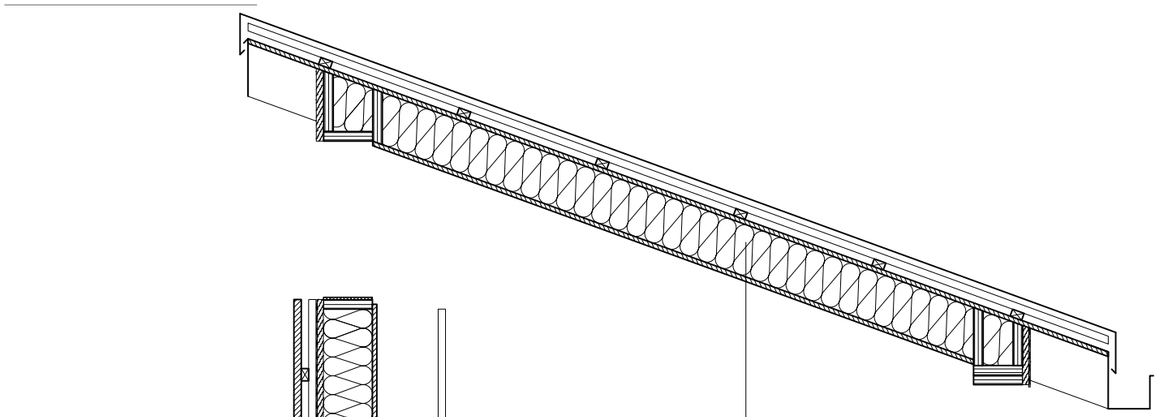


ASSEMBLY



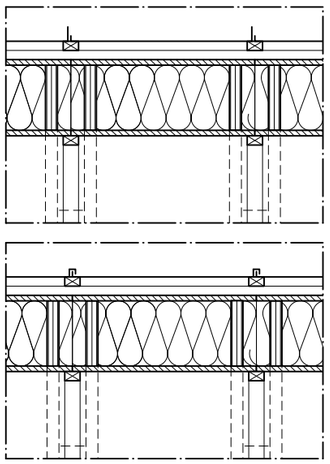
Axonometric Units

CONSTRUCTION
SECTION
M 1:25



Metal sheets come with the elements and can be folded on site.

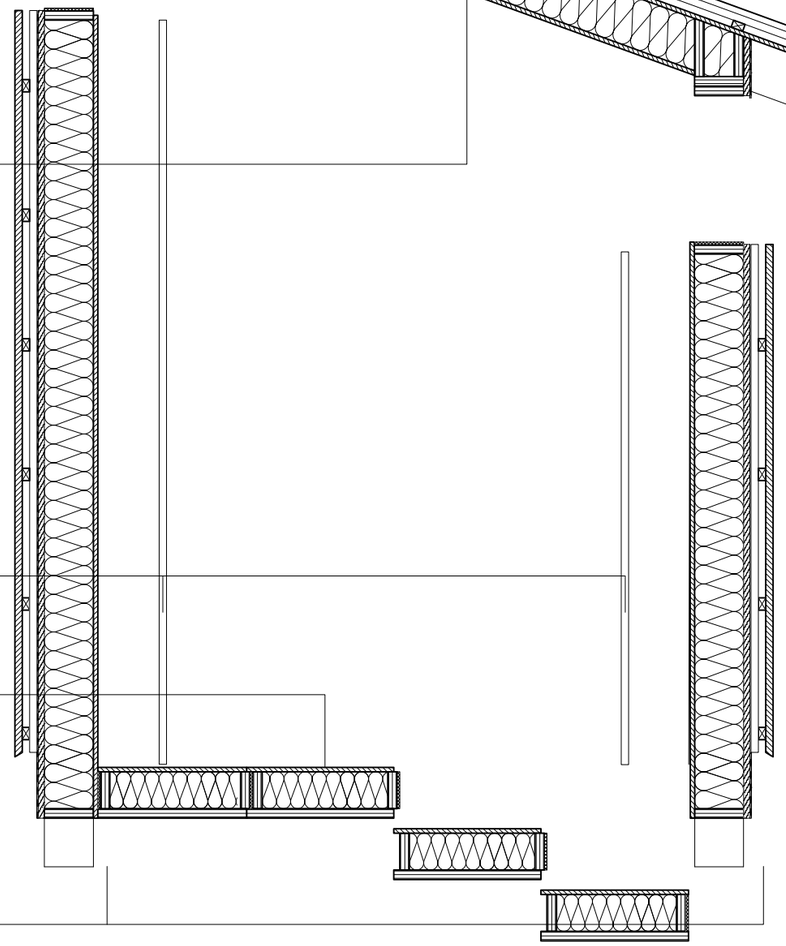
5 - ROOF ELEMENTS



M 1:20

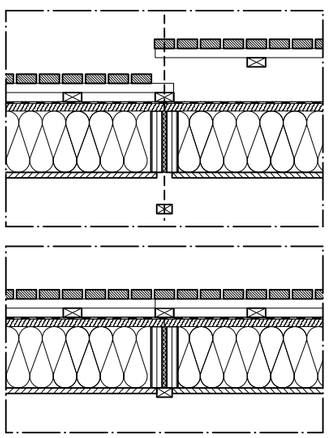
5 - BATTENS

4 - FLOOR



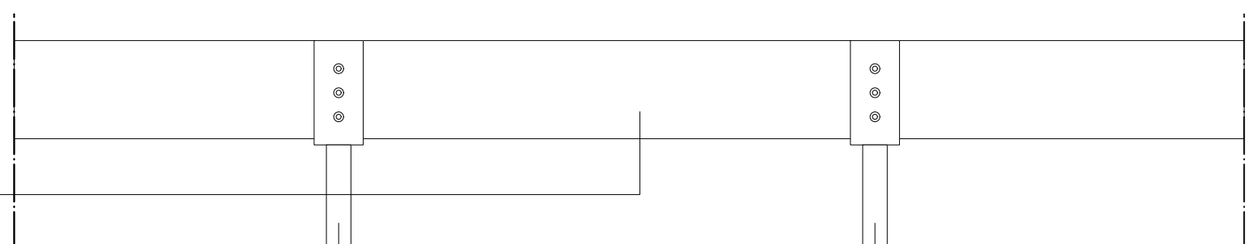
Seams will be covered with the overlapping cladding and battens inside.

3 - WALL - ELEMENTS



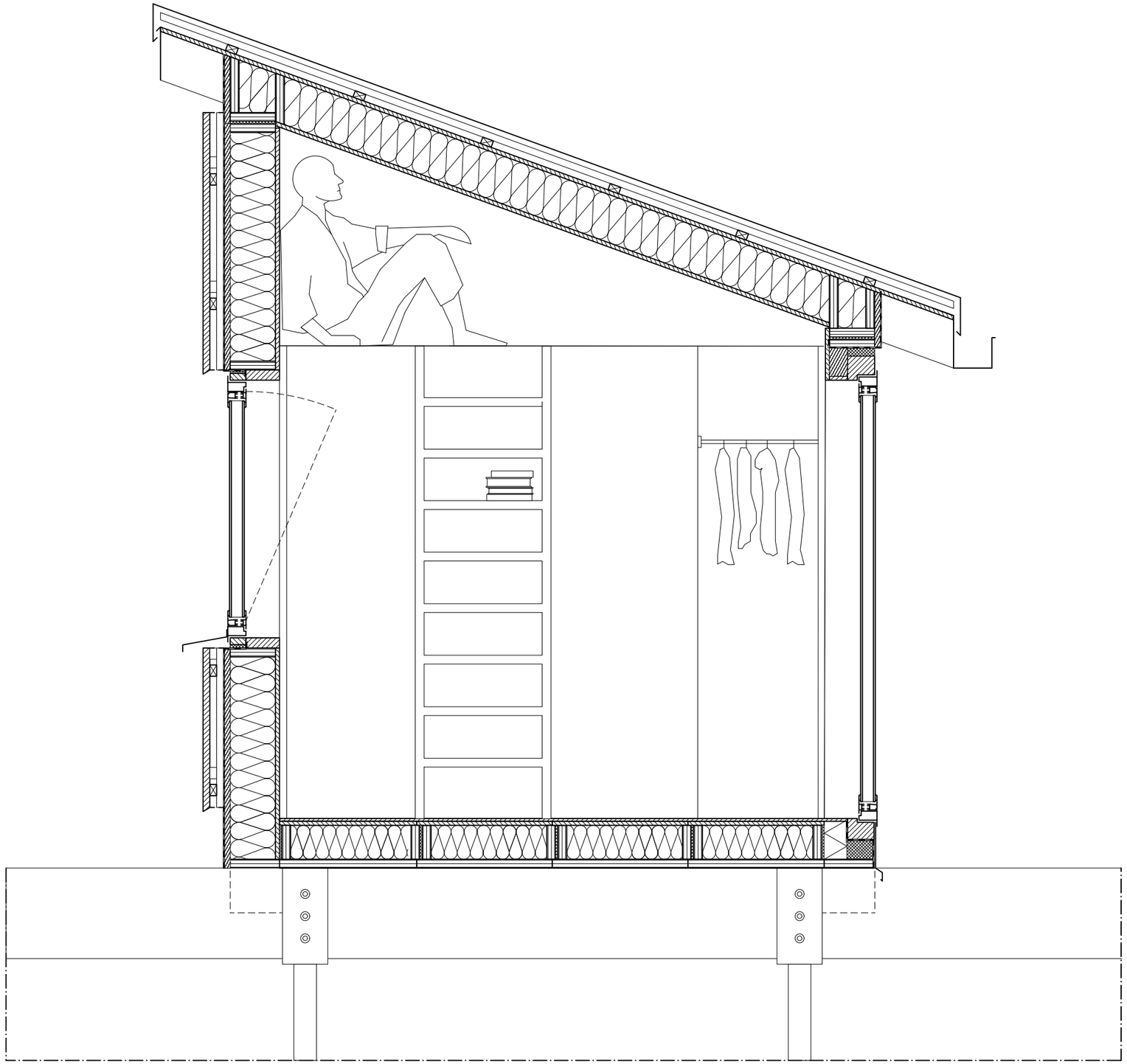
M 1:20

2 - GRID

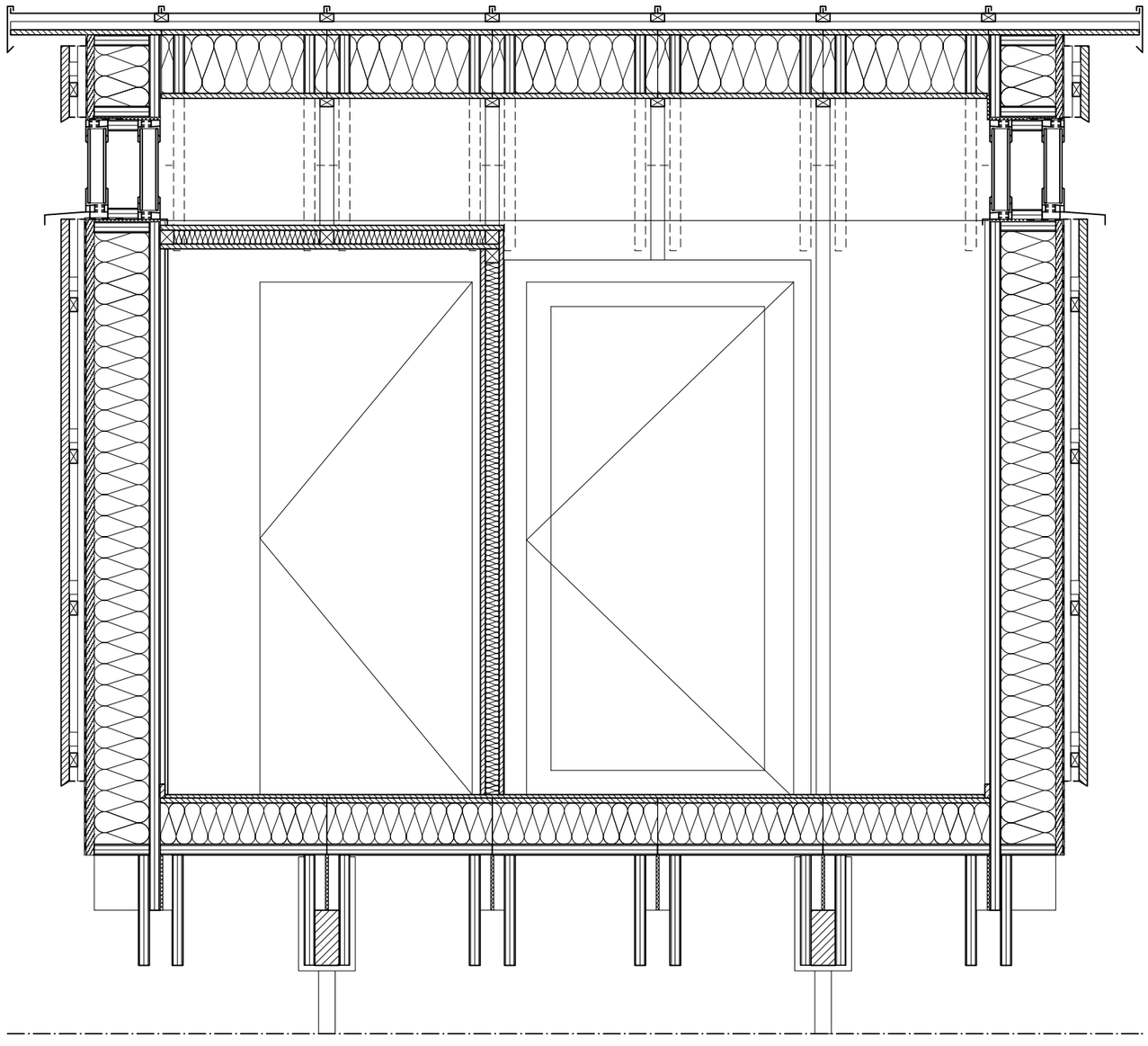


1 - FOUNDATION

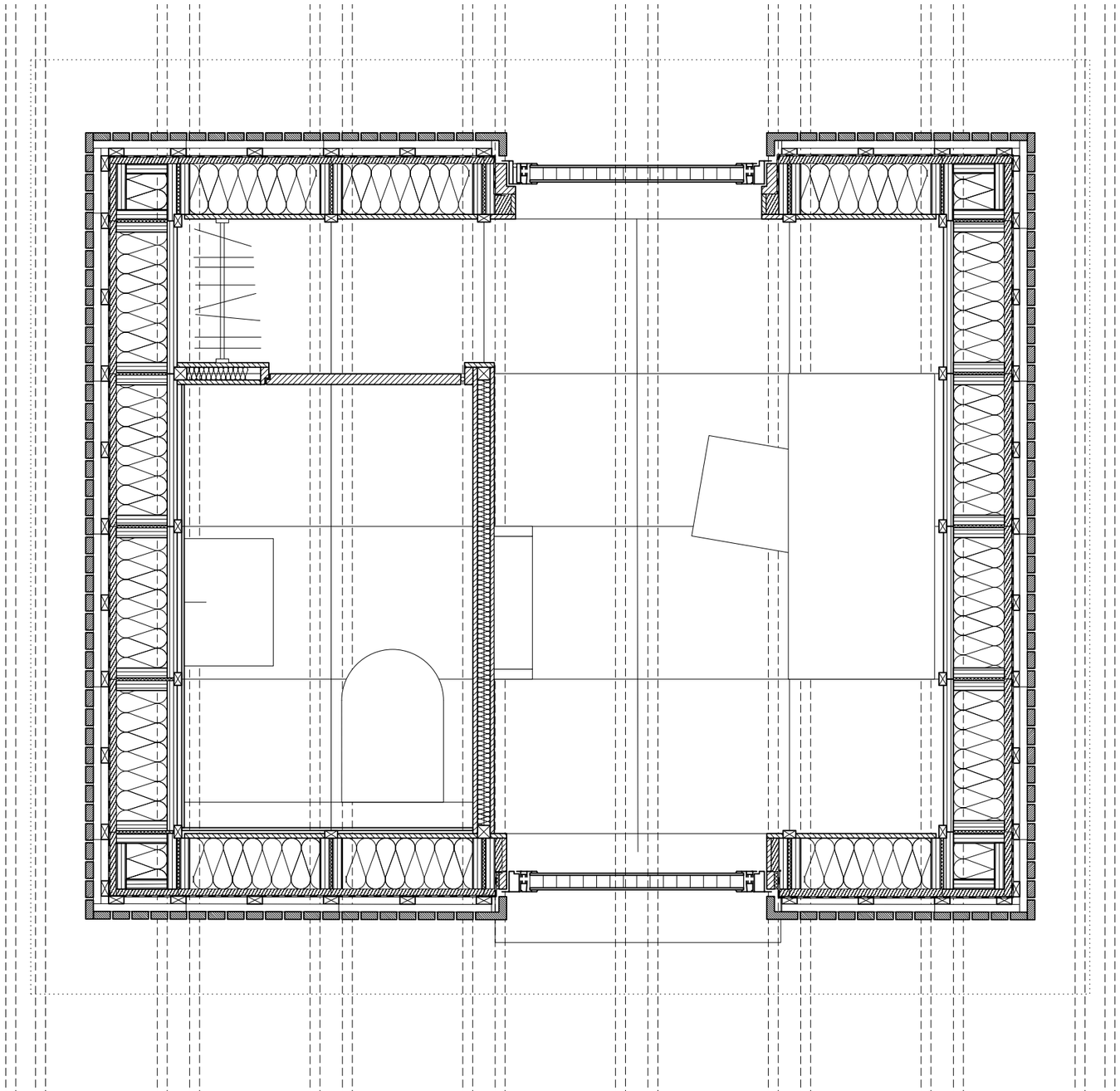
PRIVATE UNIT
SECTION A
BASIC ELEMENTS
M 1:20

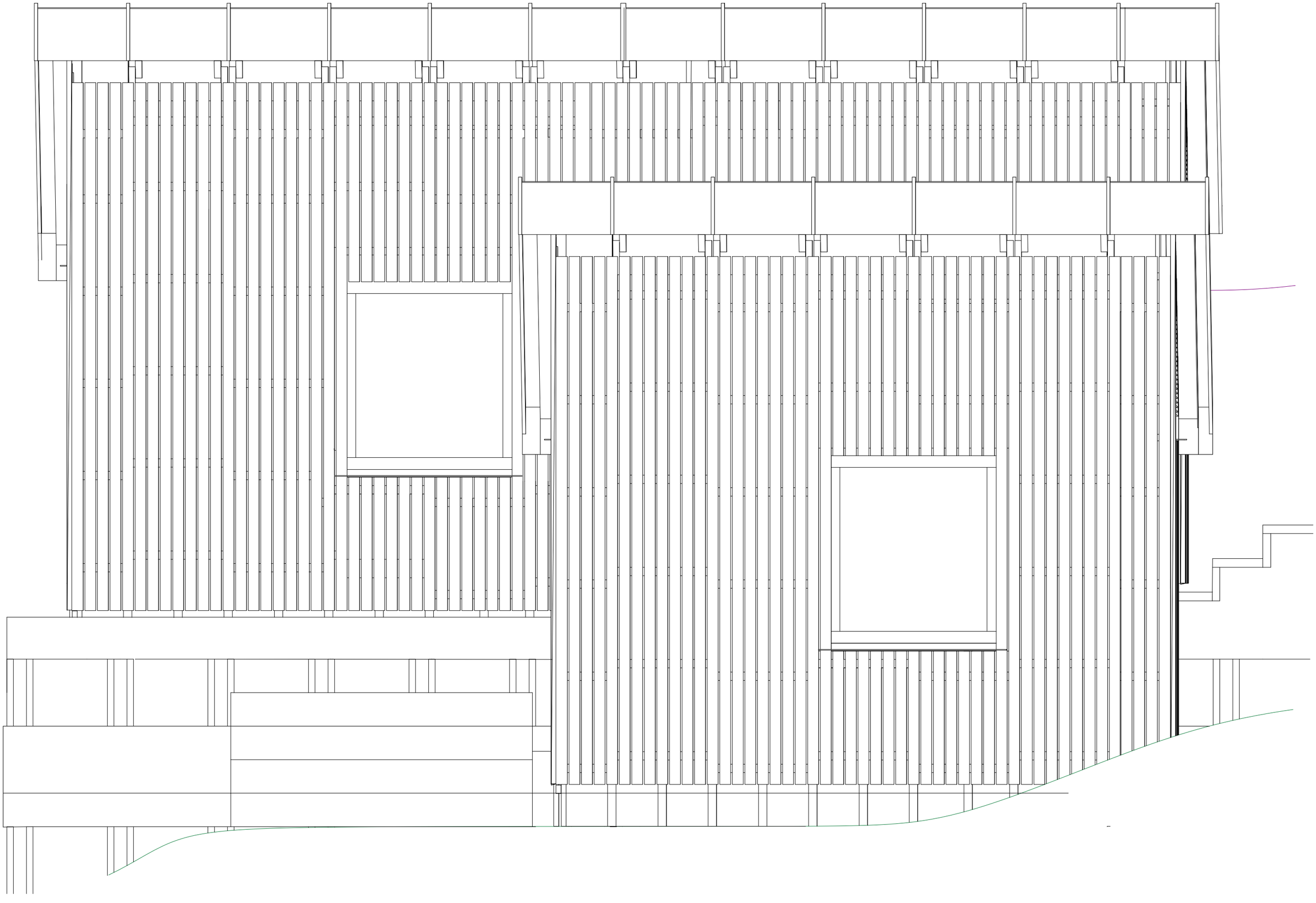


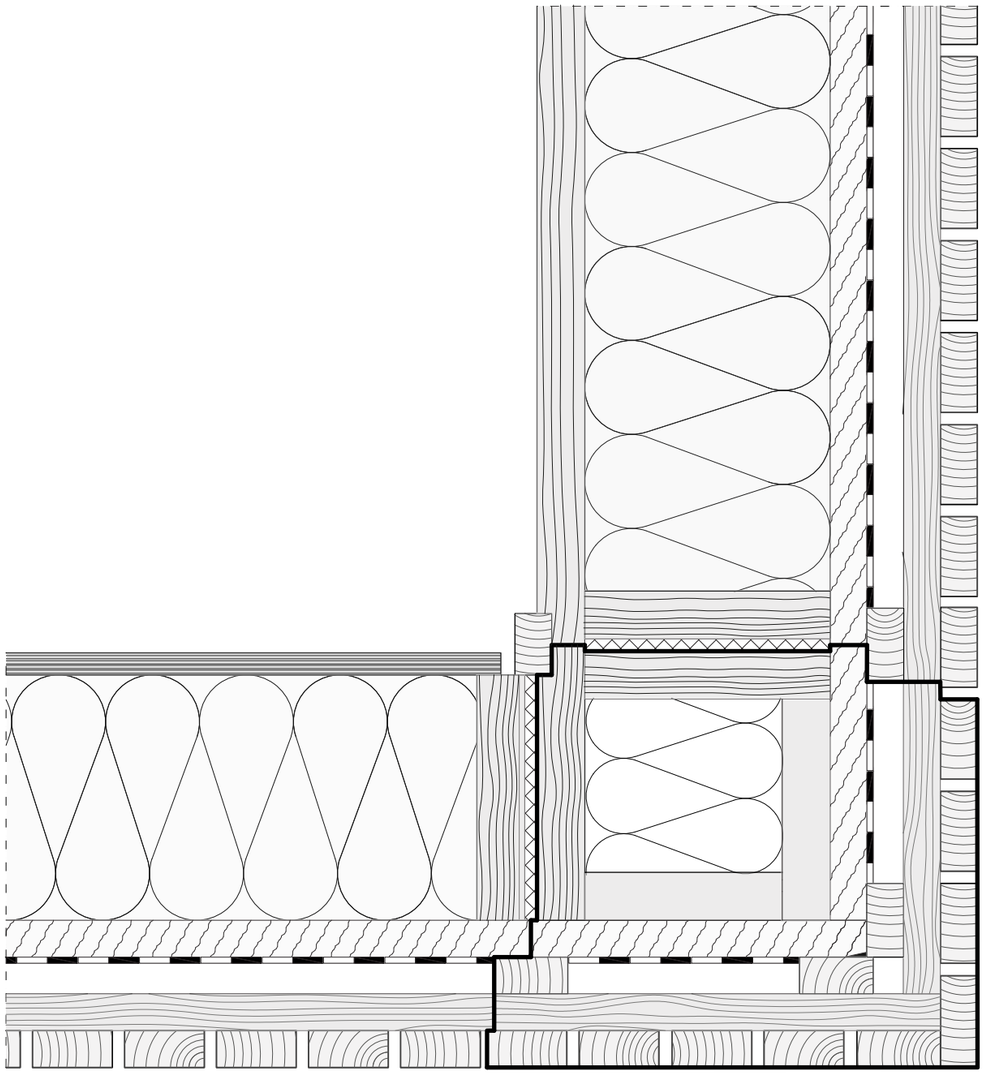
PRIVATE UNIT
SECTION B
BASIC ELEMENTS
M 1:20



PRIVATE UNIT
FLOORPLAN FURNISHED
M 1:25

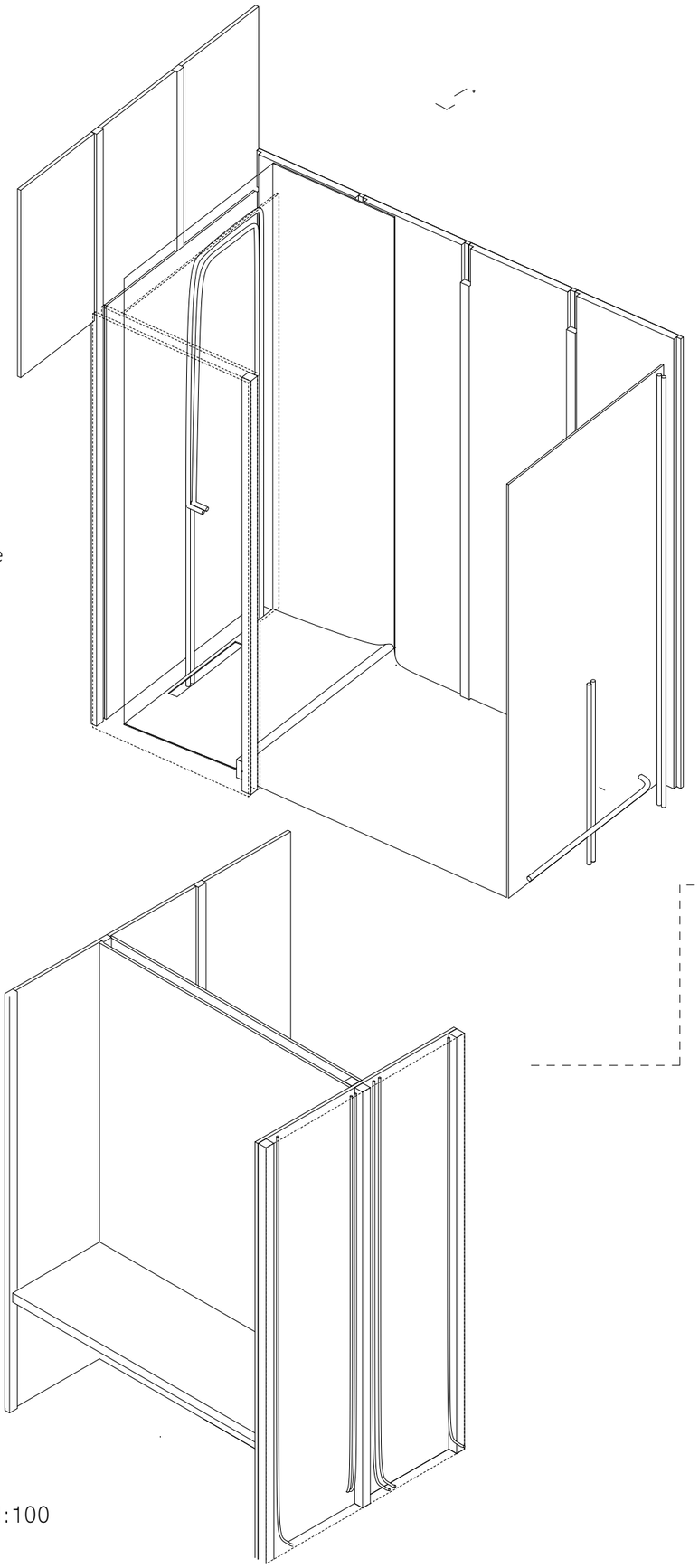




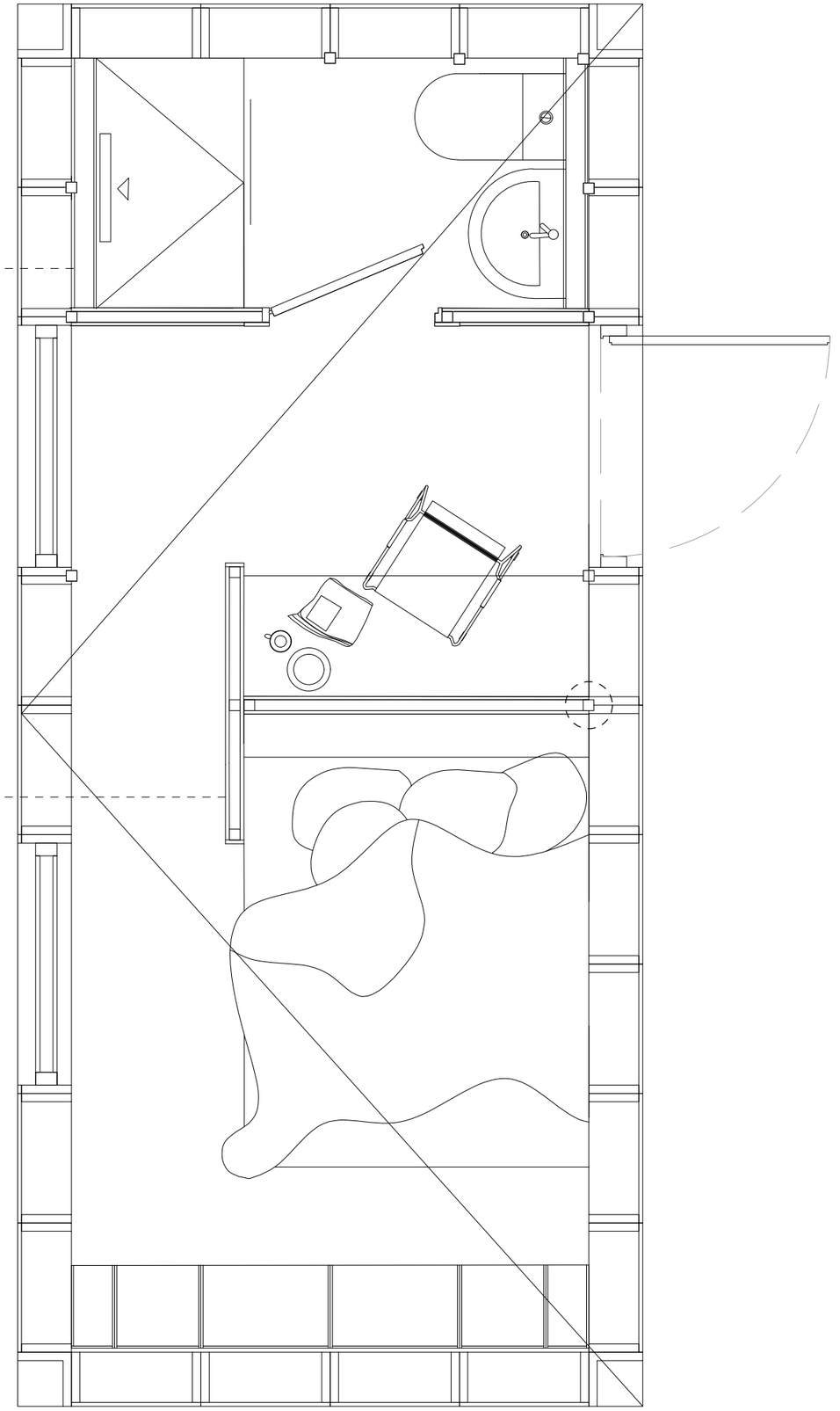


CORNER-DETIAL

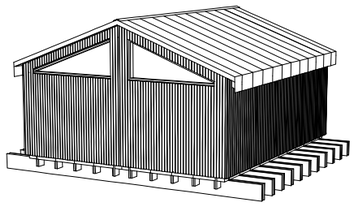
-water pipes in
inner walls element
-water proofing membrane

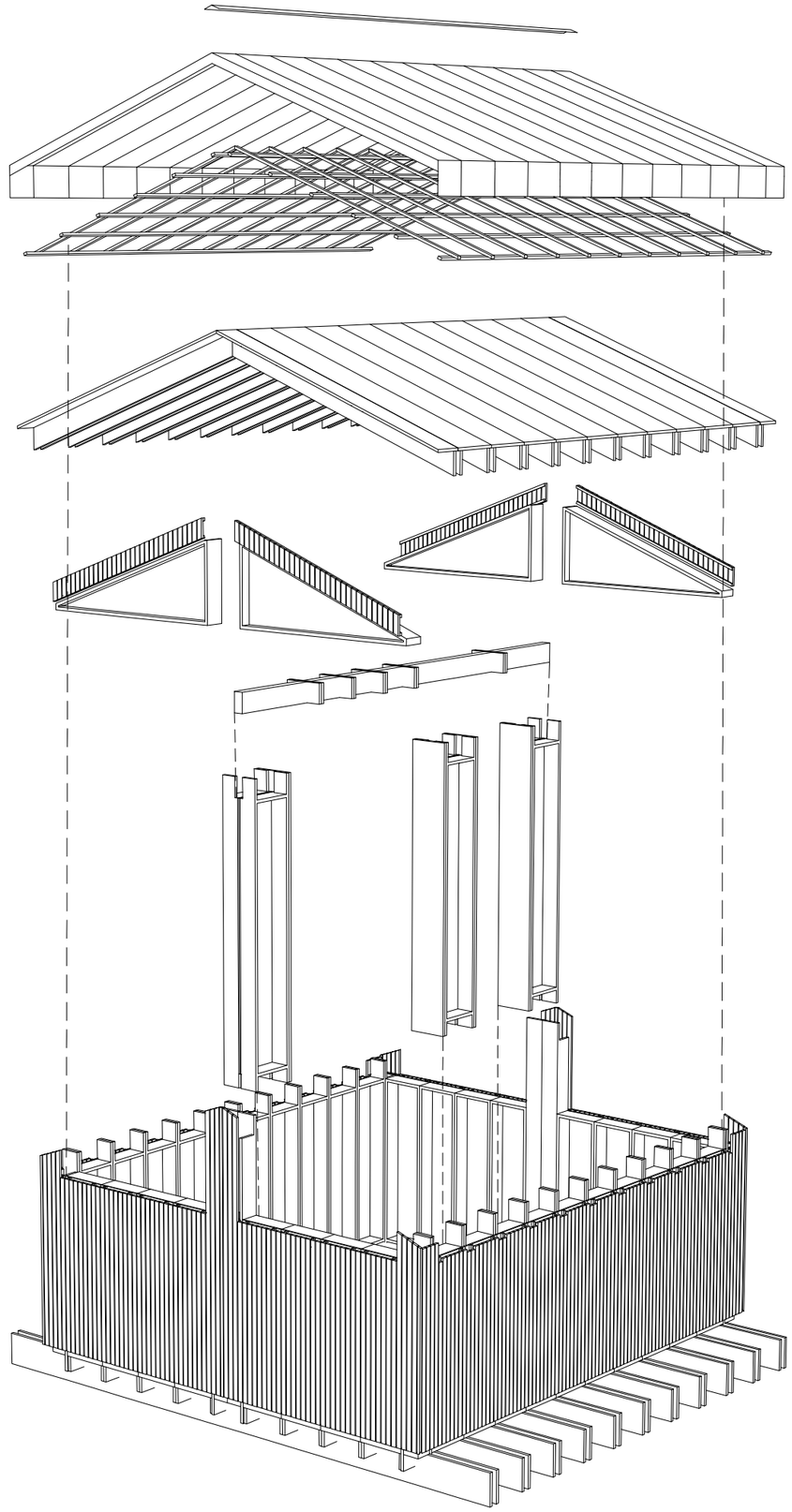


_ tech in inner walls
element (insulation)
- inner walls are
attached to the vertical
beams



Interior / tech / drain 1:100





Steel Roofing — ⑧ step

Surpport system — ⑦ step

Roof — ⑥ step

Triangle -elements — ⑤ step

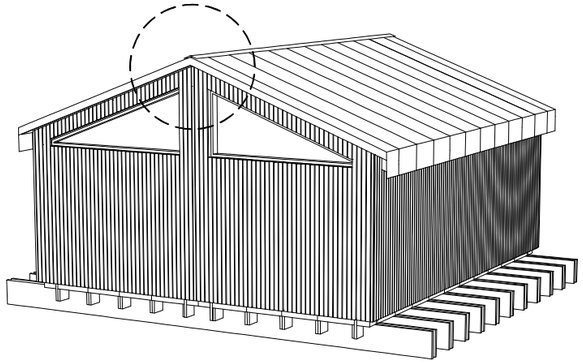
Beam 12*25 cm — ④ step

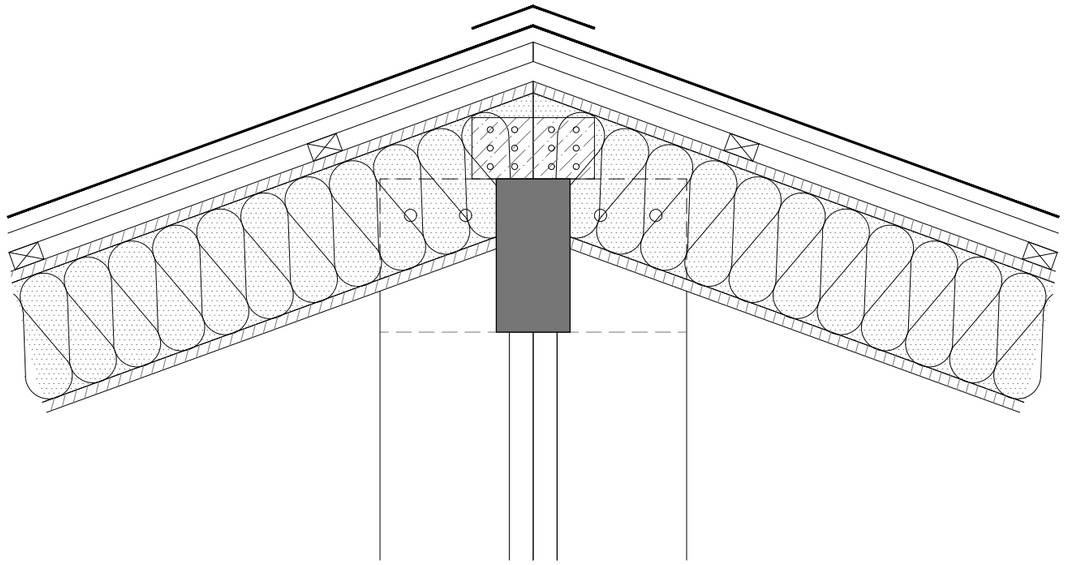
Colum-Wall — ③ step

Wall — ② step

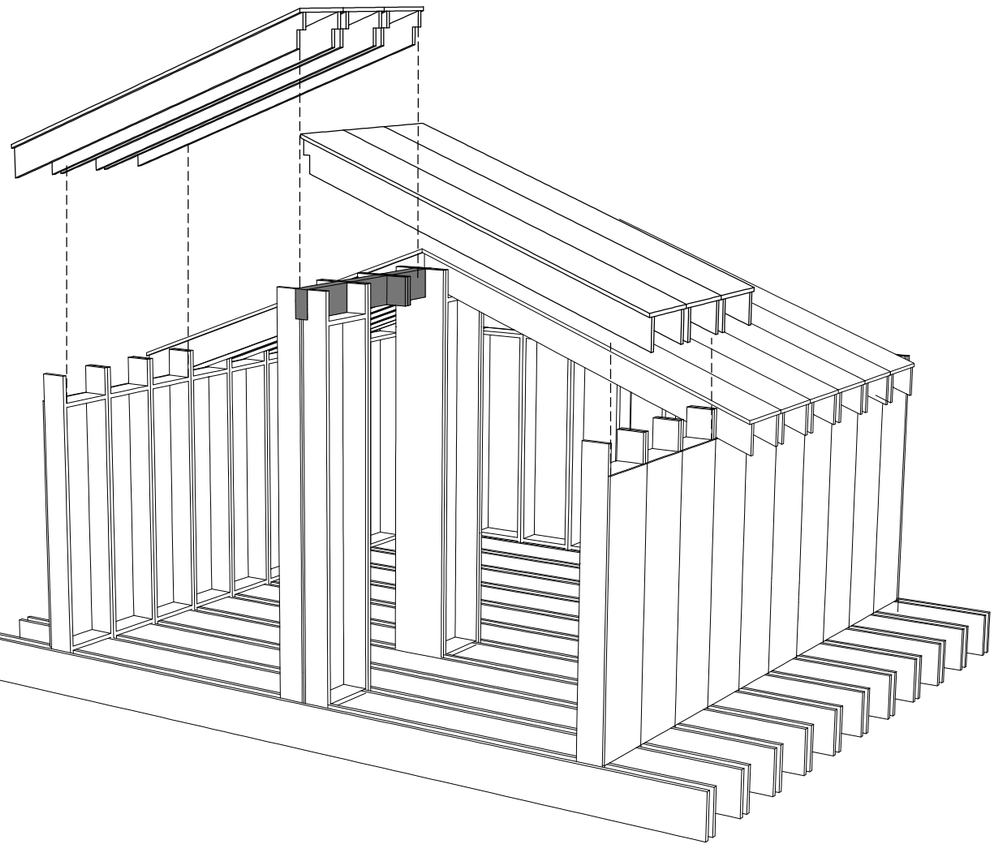
Above beam-Foundation — ① step

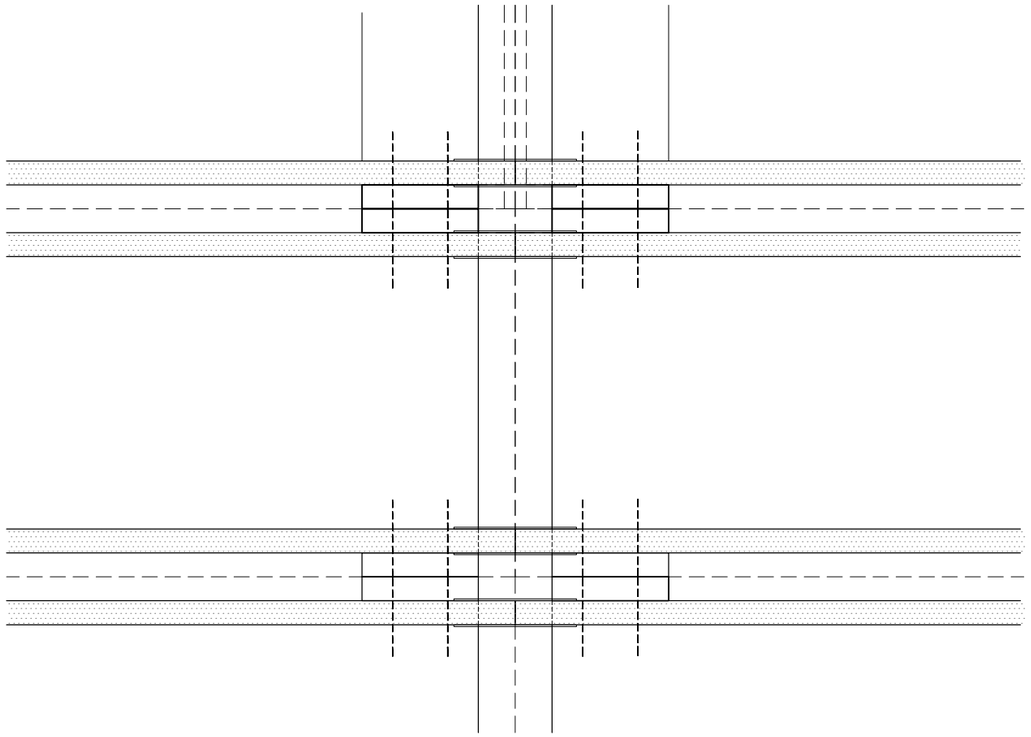
Axonometric - Common Space





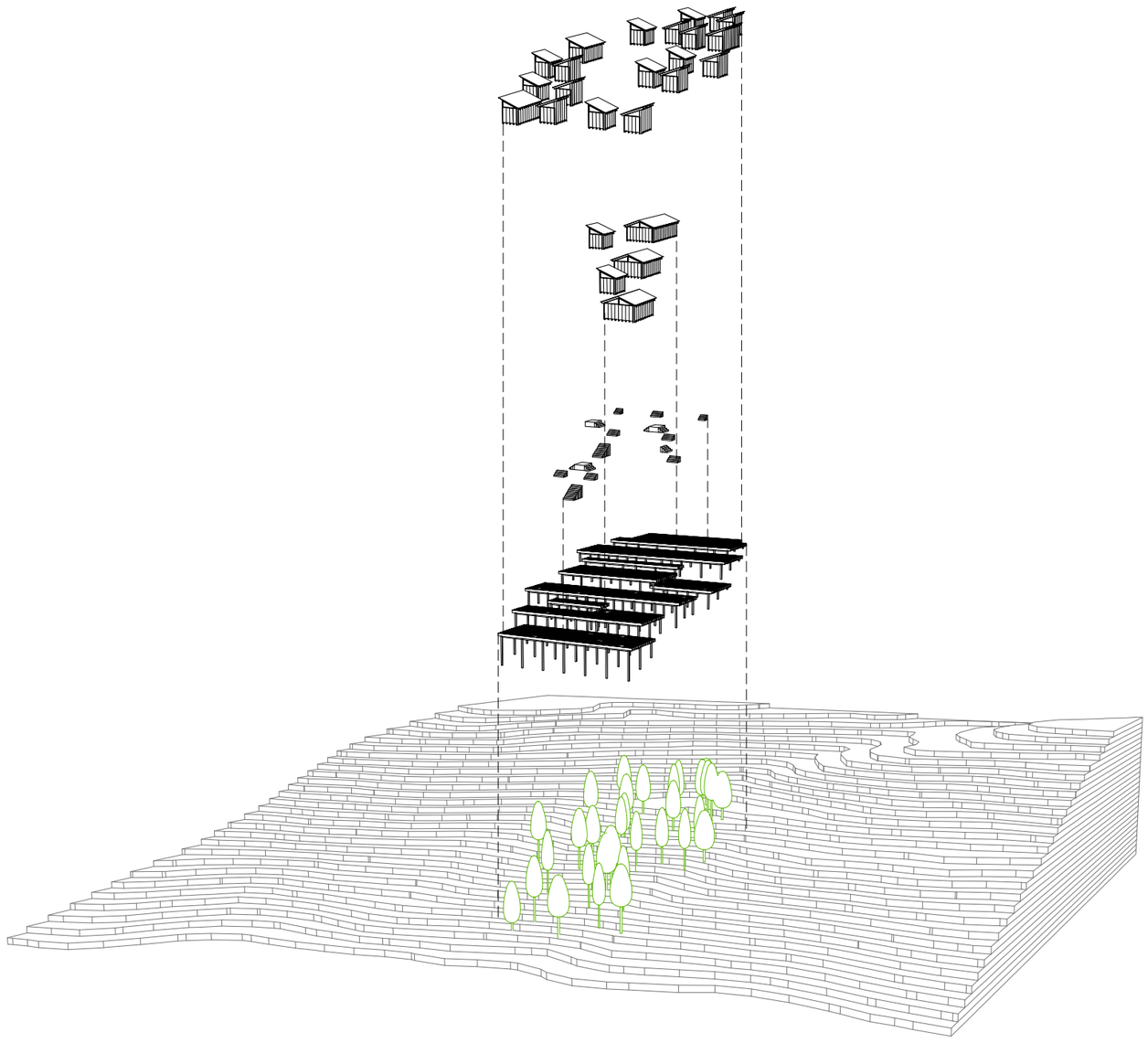
SECTION S=1/10





PLAN S=1/10

COMMON SPACE-DETIAL



Living Unites x20

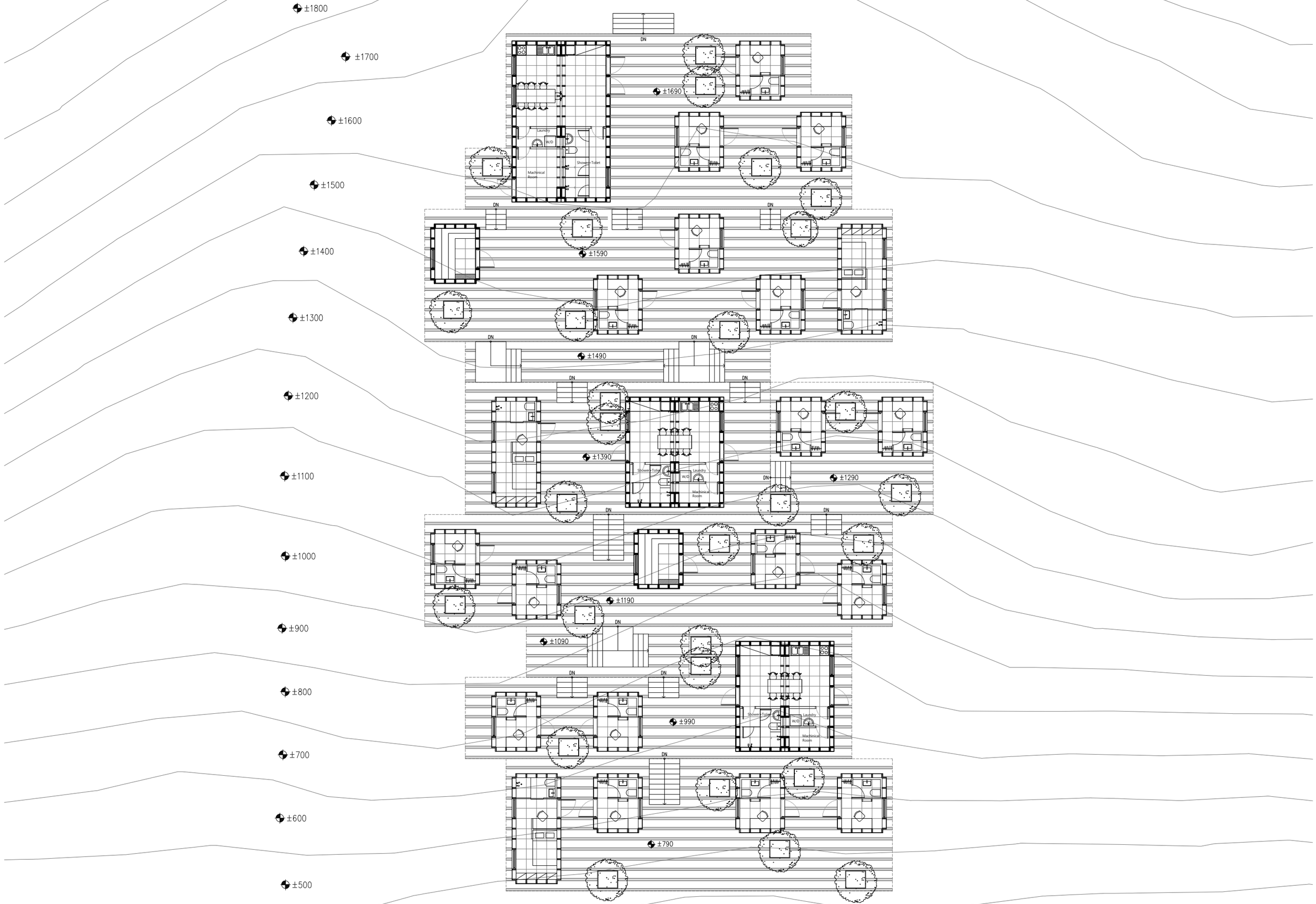
Common Space x3
Sauna x2

Stair

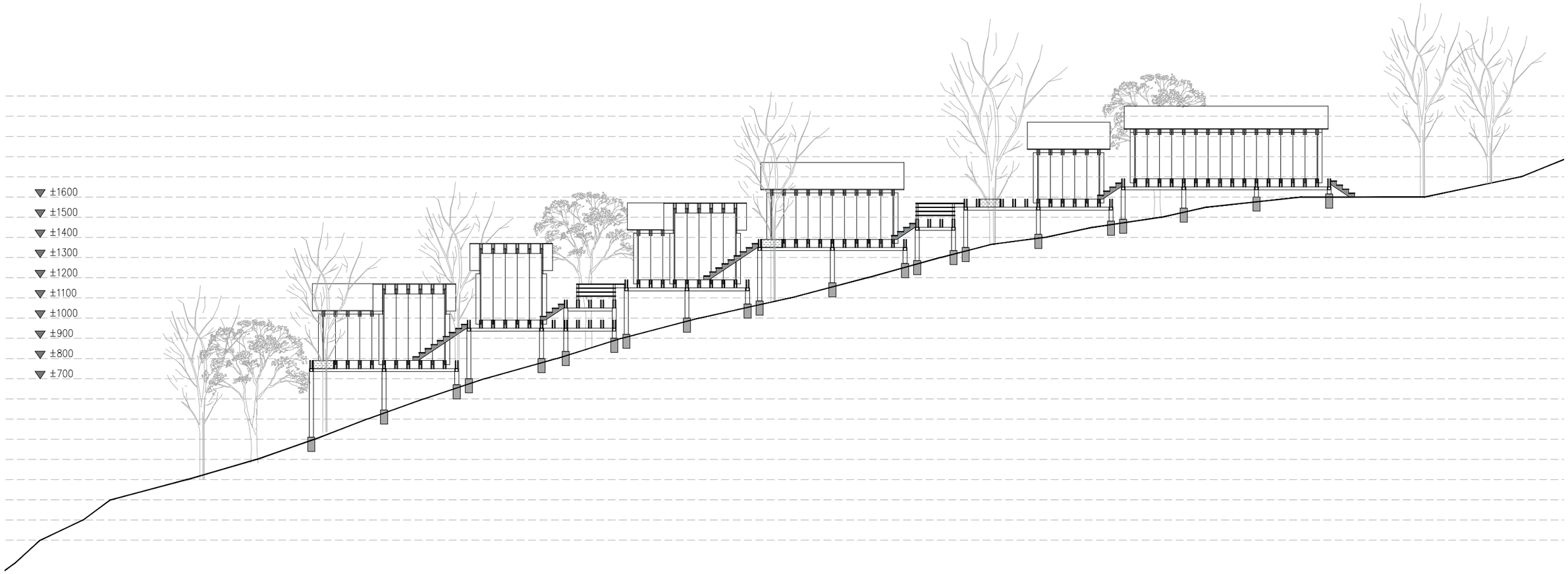
Grid Beam
Foundation

Landscape

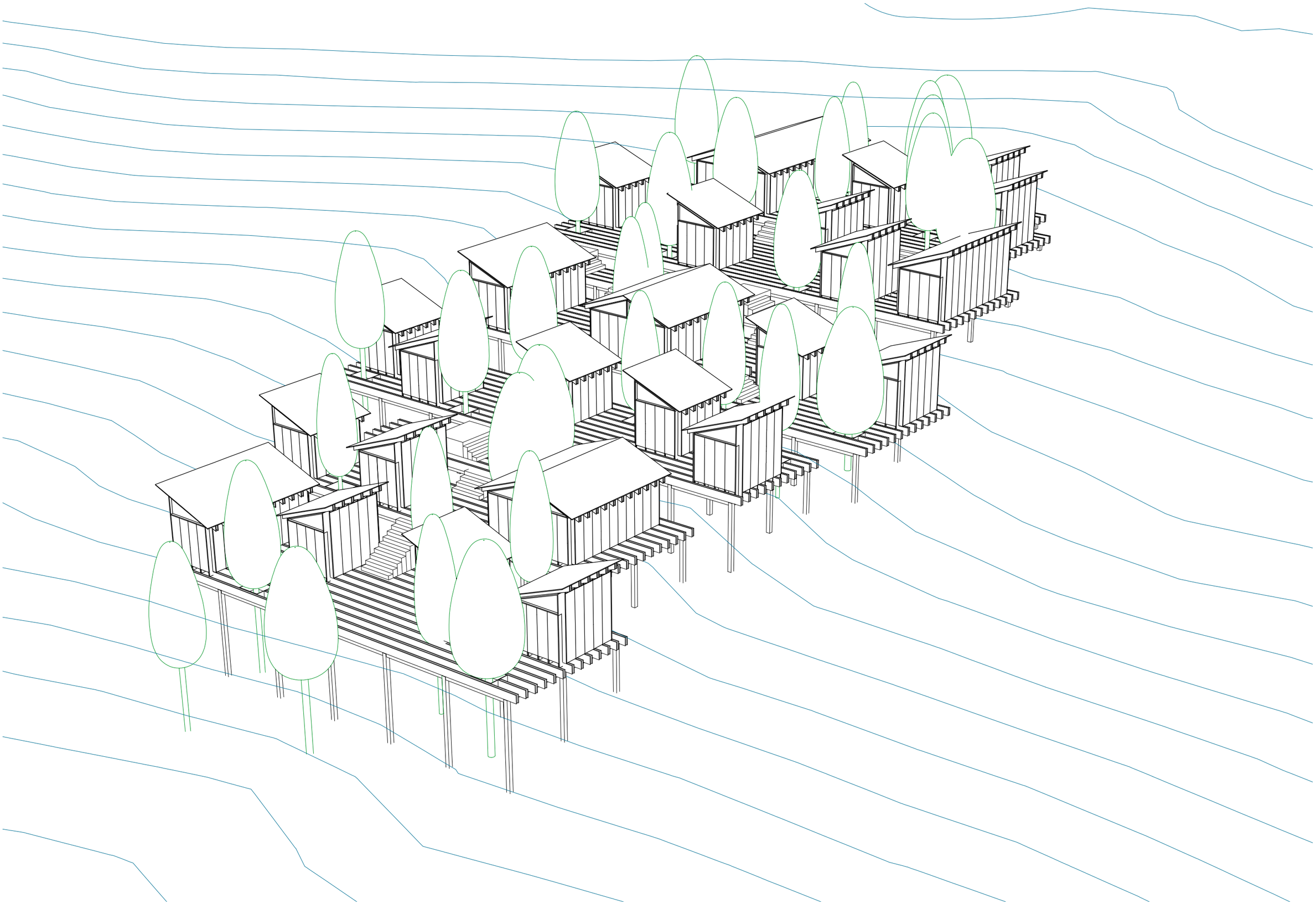
ASSEMBLY -Master Plan



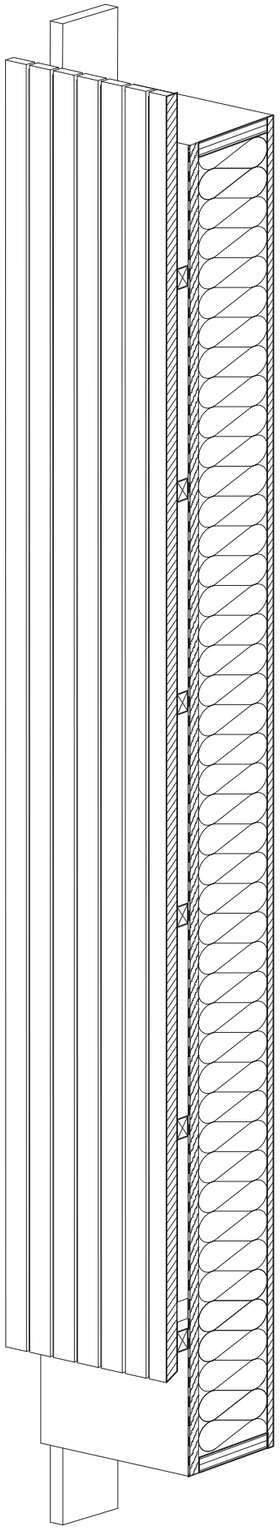
Master Plan / S=1:200



Master Section / S=1:200



Axonometric - Master Plan



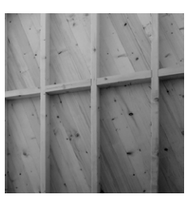
cladding 30/65mm
the cladding is suggestet to be a vertical larch cladding. Larch is out of the coniferous species a durable choice for the outdoor use. The vertical batterns could come in even lengths and will be easy to maintain and prefabricate. They would overlap the seams and will be fixed with screws. Thermally modified they could last (exposed to heavy rain) 25 years.

battens / counter battens 30/50mm
the battens would come in evenly lengths. The horizontal ones can be produced with short lengths (which gives us a good chance to use recycled wood). They would be sligthly off set to the neighbour wall element. That makes each wall easy to replace or maintain affecting the overall structure.

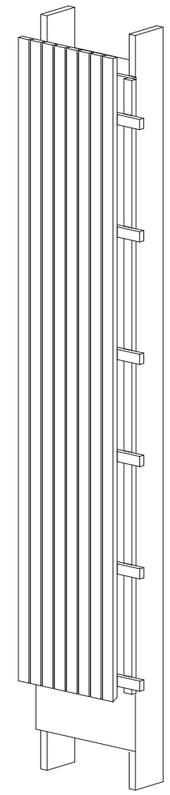
wood fibre insulation 30mm
wood fibre boards are a very sustainable choice to cover the balloon frame structure while it stays water vapour permeable. With less then 40mm we can use wood fibre boards from wet processing, which means they contain only lignin and no other additives as binder. That would mean a compostable broduct in the end of the life cycle.

wood chip insulation 200mm
the insulation in between the studs is considered to be wooden chips. Those could also be secondary / recovered products from the industry (e.g. sawmills). This natural insulation is perfect for pre fabrication since it can be filled and compressed optimally in the factory. Besides, other blow in insulations like cellulose might subside a lot with timeand contain additives affecting the afterlife of our surrounding wood.

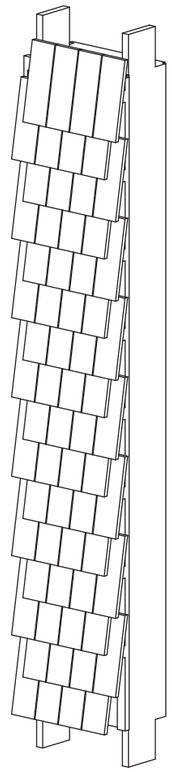
LVL studs 39mm
LVL is chosen since it allows for the precise pre fabricated shapes and sice is a very efficient material. The little use of bolts and metal contaminats (seams, top and bottom) should make it easy to use the middle part of the board further.



diagonal orientated wood board 18mm
In the back a massive wooden board, orientated diagonally stiffens the frame structure. Hereby we are using an glue-free and airtight alternative to OSB that could be reused afterwards, and is considered to be very durable. Besides it provides an aesthetically attractive interior surface.

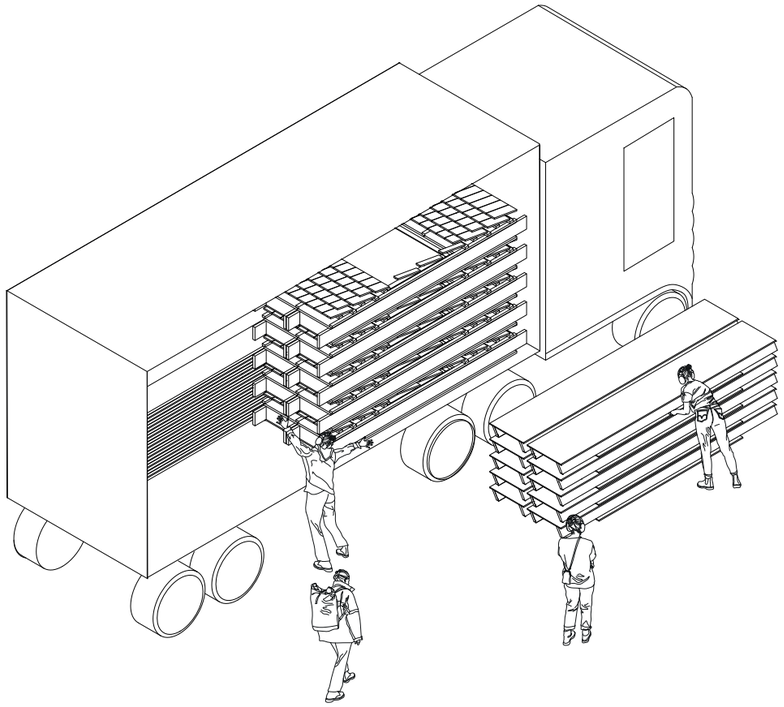


due to the aim of keeping the amount of elemets little we suggest a vertical cladding the elements would overlap and enclose the structure. Similar hights make it very easy to prefabricate. The straight structure will ease the transport.



another option is presented to be shingles. Large shingles are considered to be the most durable choice and will last up to 50 years. Also the elements would grab into each other and cover the seams very naturally.Still it will cause more complex elemetations and the small parts might be more difficult to bring on site.

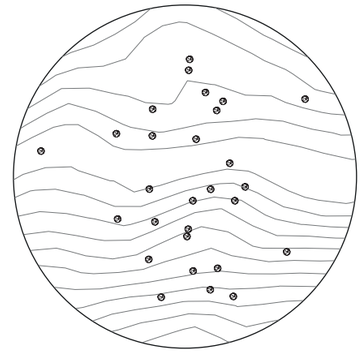
LIFE CYCLE



Small units within the elements,
which makes it easy to transport.

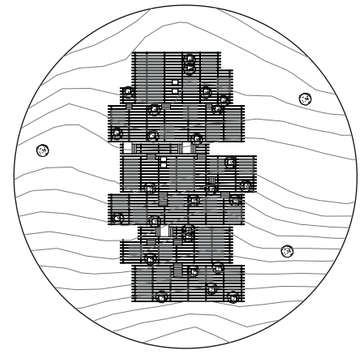
small amount of tools

just nature



2021

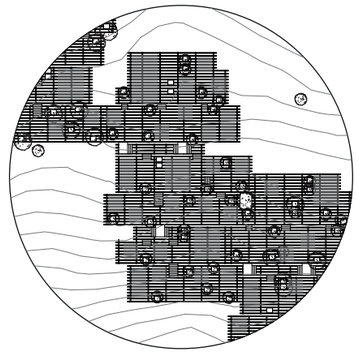
20 units
3 common space
2 sauna house



2031

- Pile foundation to
avoid ground contact.

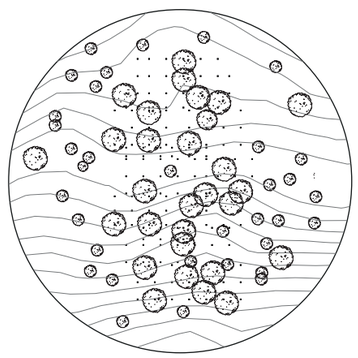
40 units
4 common space
2 sauna house



2041

- Designed to
be reassembled.

nothing but the trace after life



2051

LIFE CYCLE