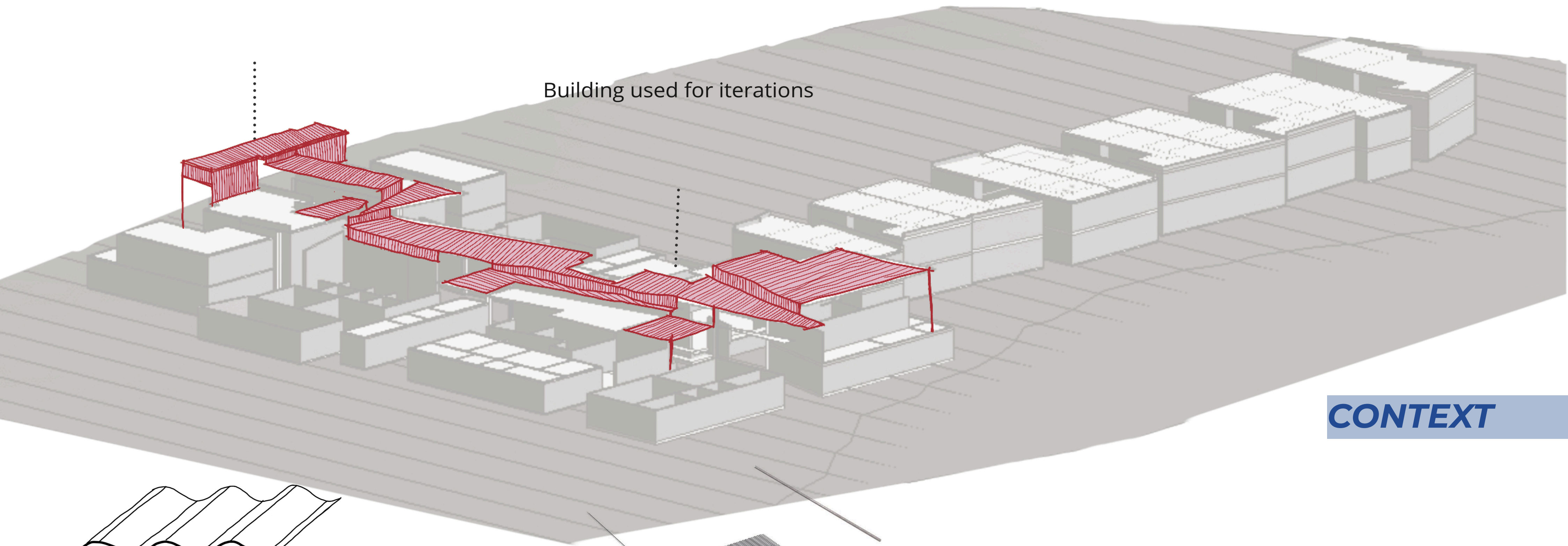
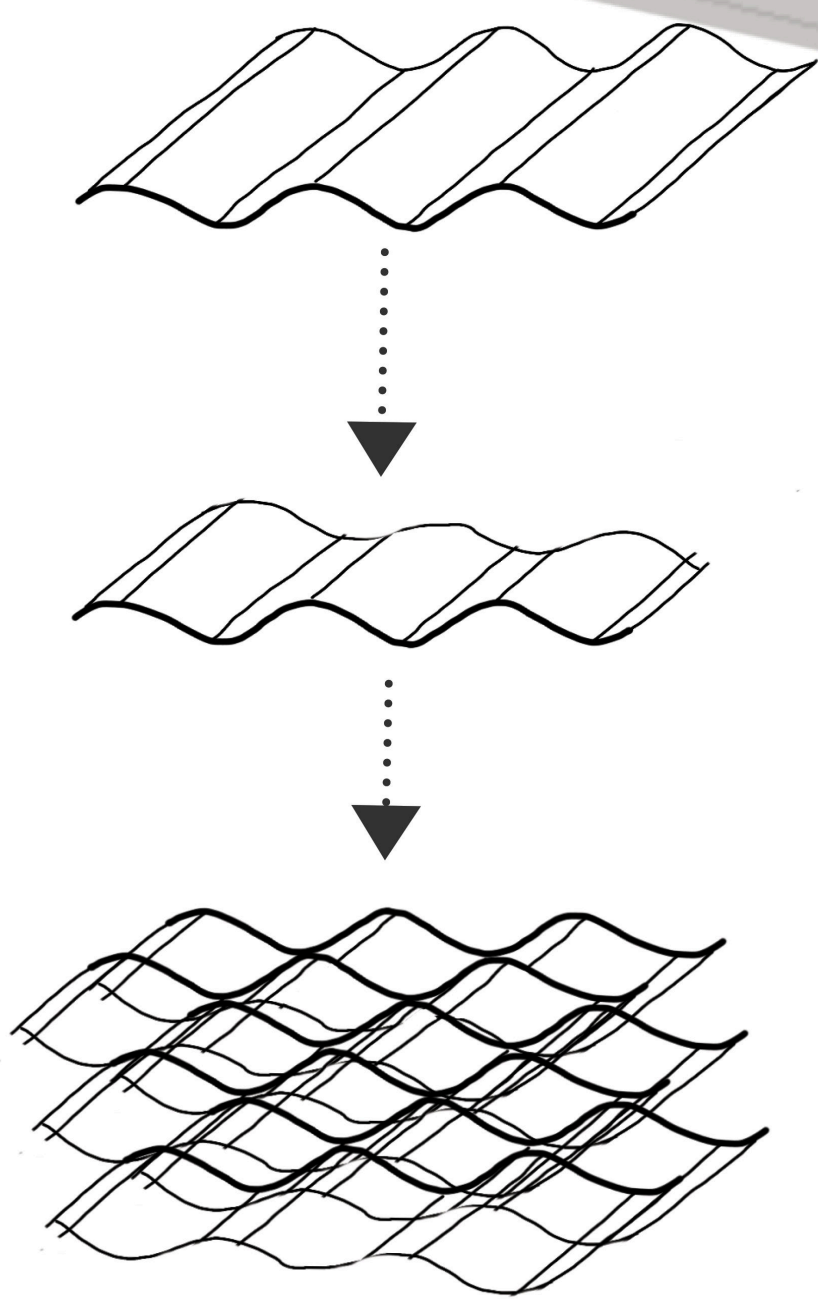


Pergola structure

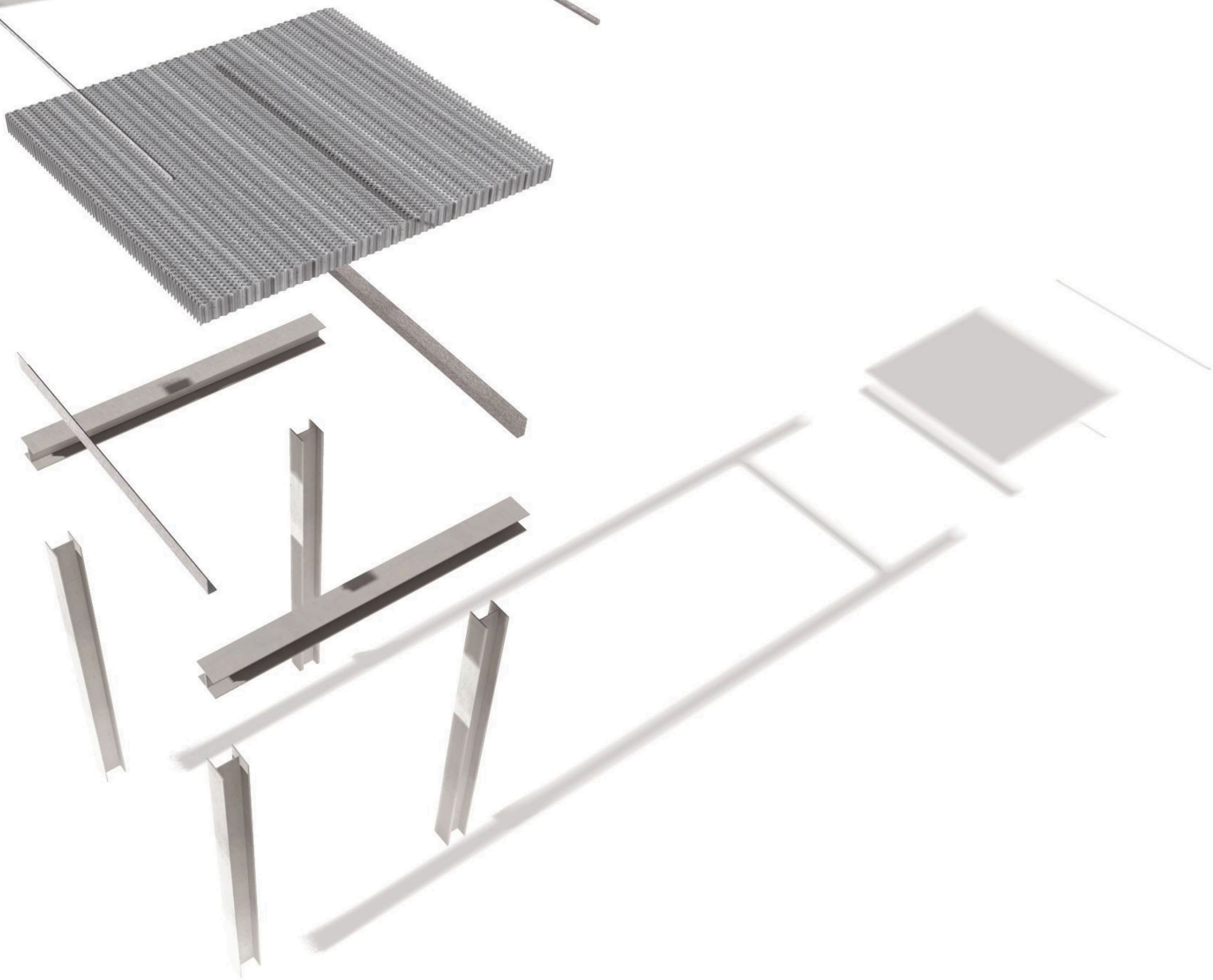
Building used for iterations



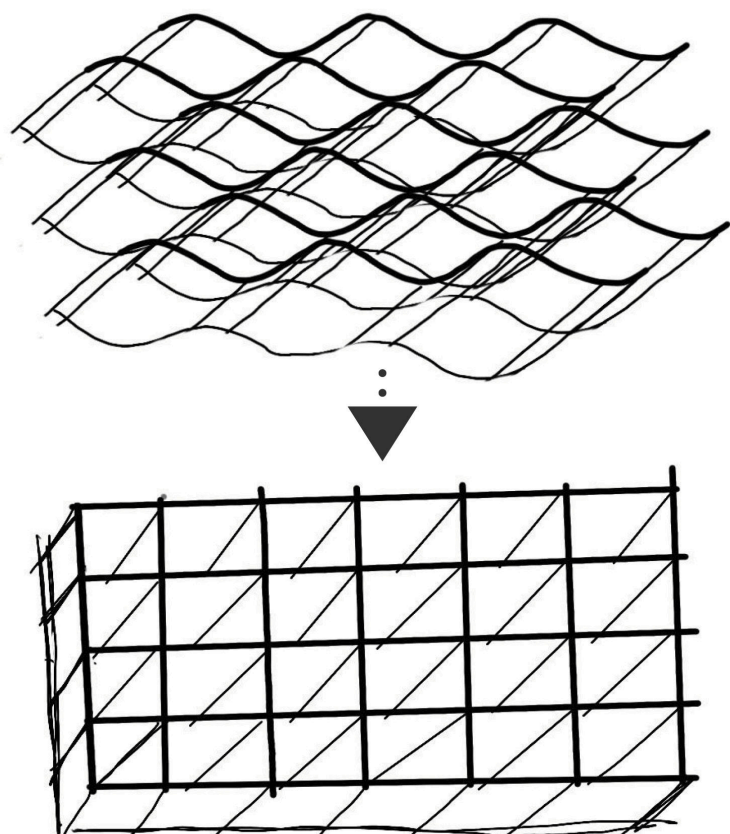
CONTEXT



Composition



Structure of Pergola



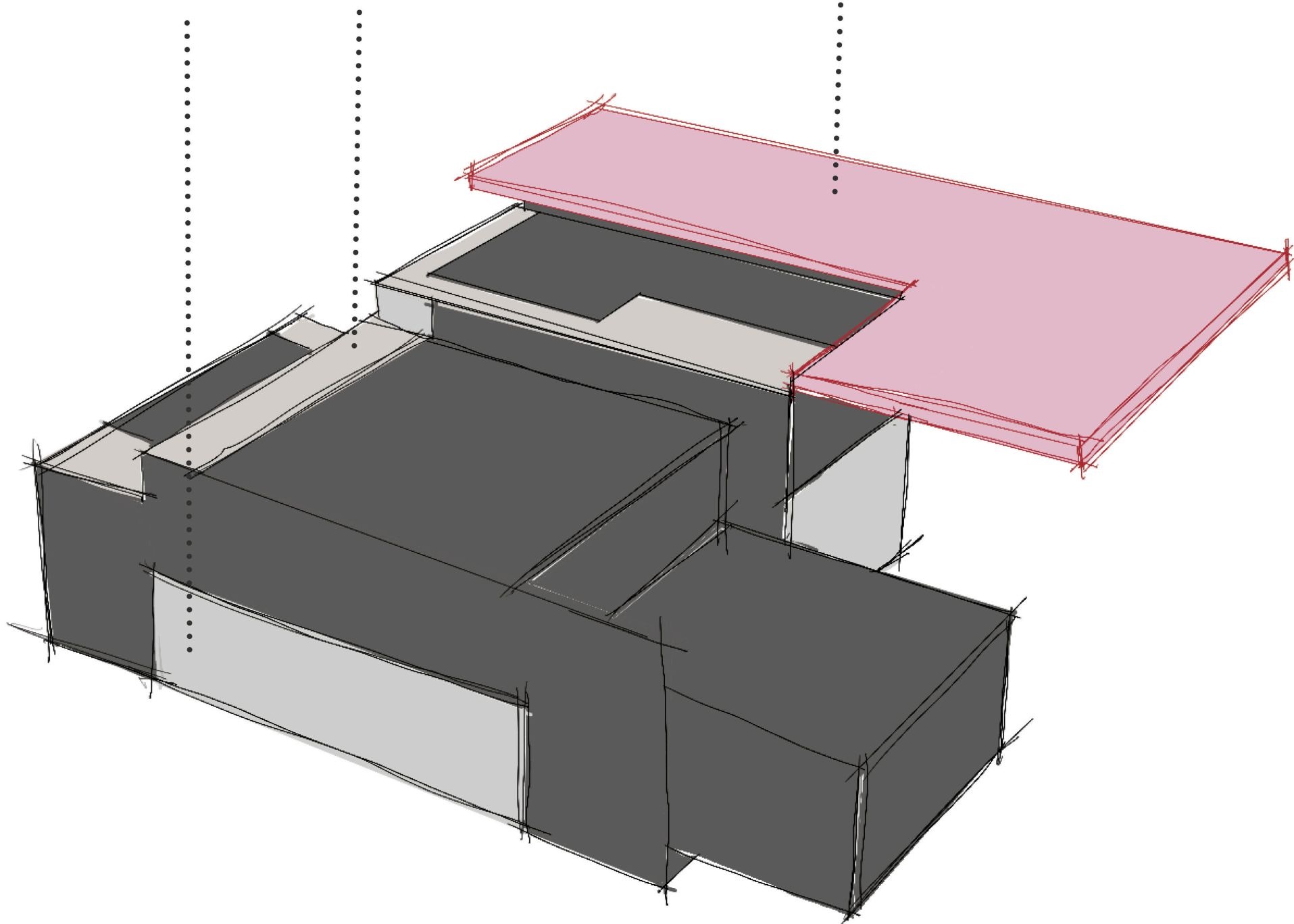
Simplification for simulation purposes

CONSTRUCTION

Glazing on the north western side

Skylight

Pergola

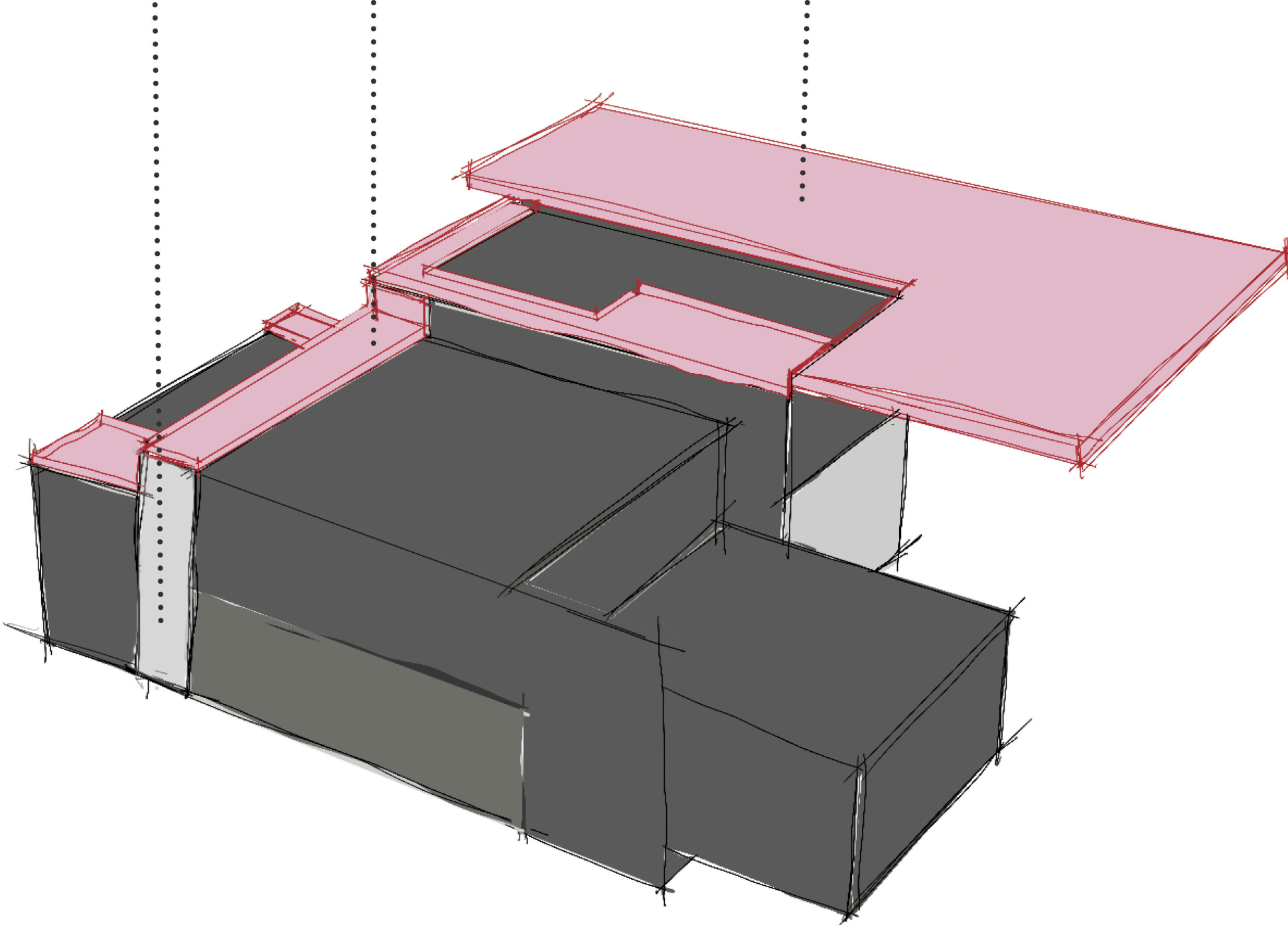


BASE CASE

Glazing

Skylight shaded with same structure as the pergola

Pergola



PROPOSED DESIGN

DAYLIGHT SIMULATIONS

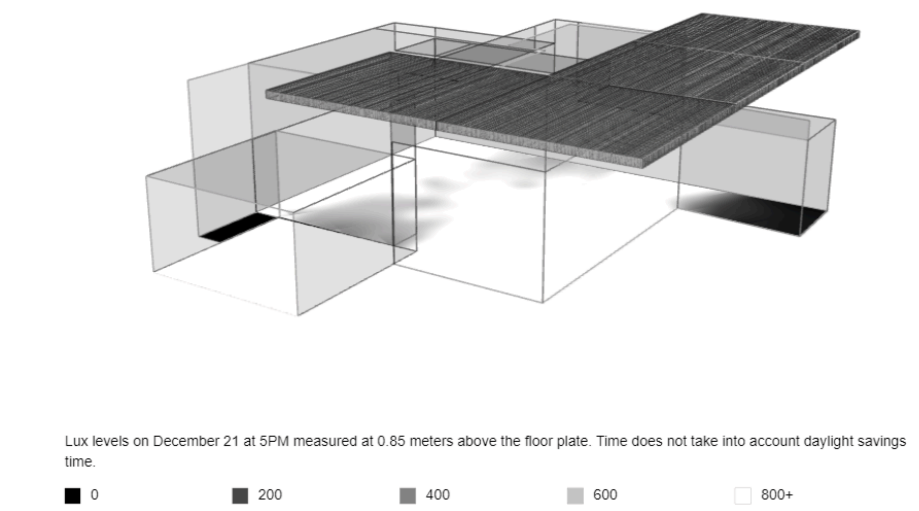
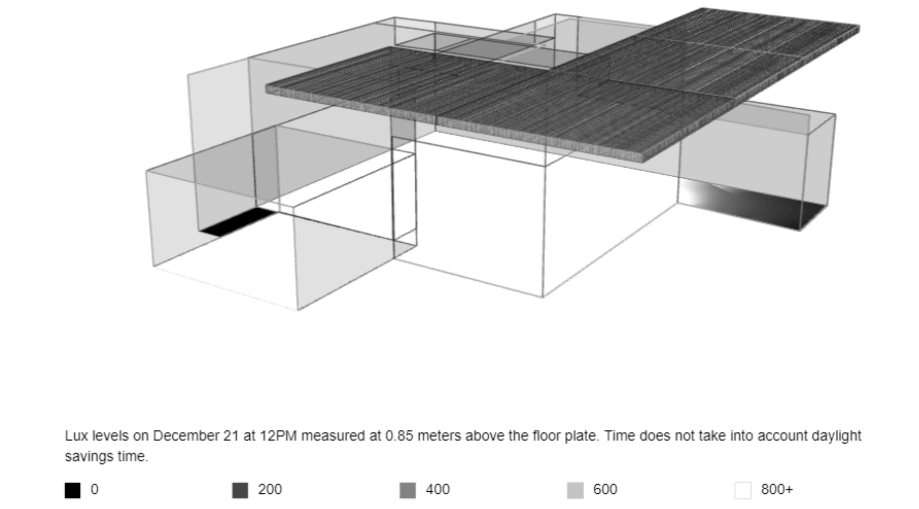
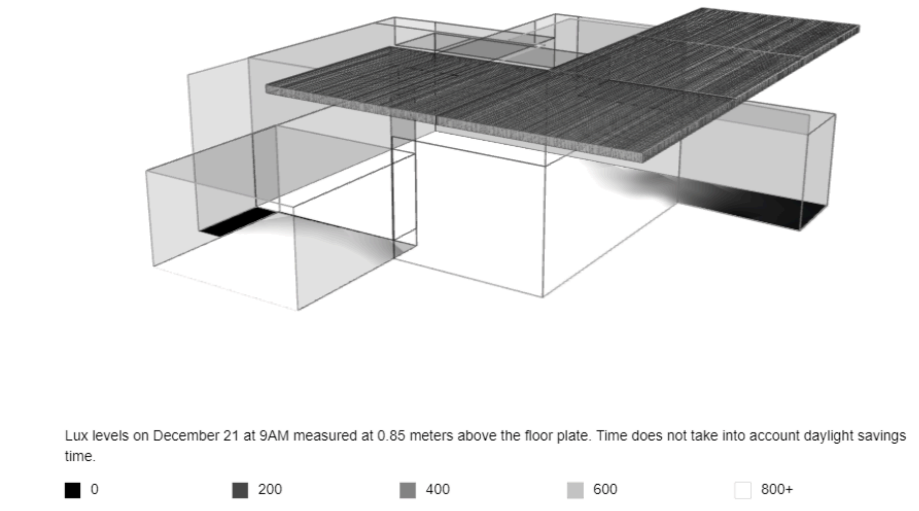
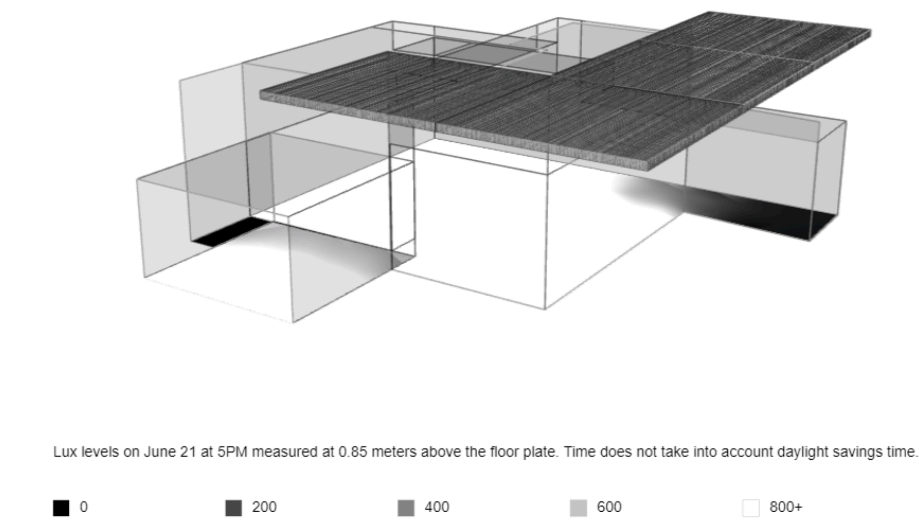
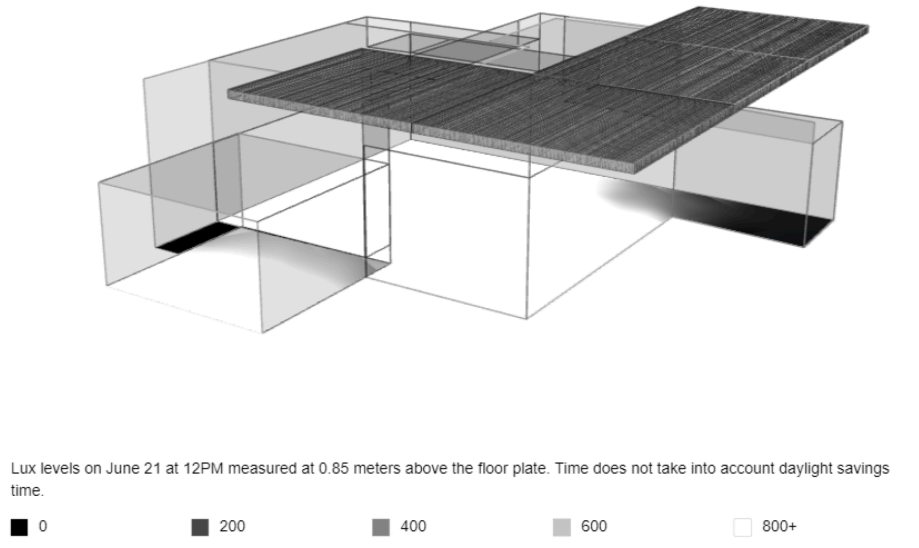
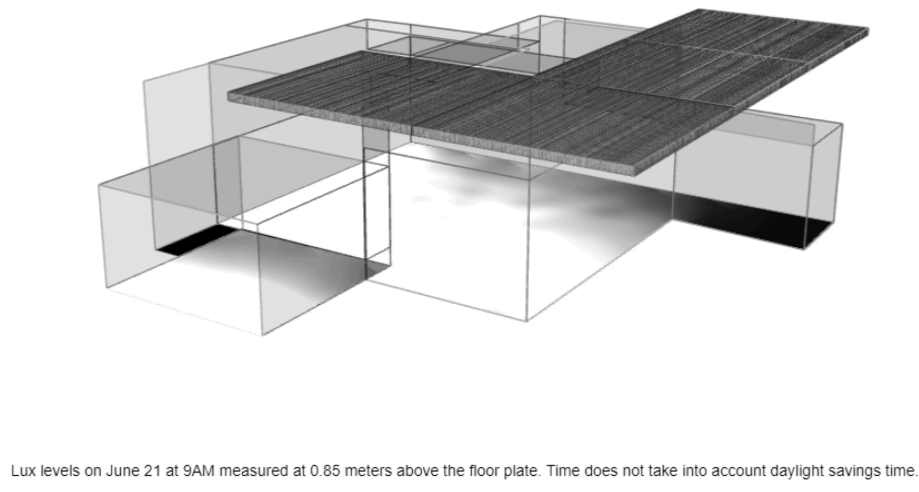
BASE CASE

The base case was run using the current design of the building. The results of the Daylight simulation from Sefaira clearly showed that the project was overlit. As the base case with the pergola was overlit it can be assumed that the pergola doesn't cause the building to be underlit. Thus the iterations focussed on how to achieve a better well lit space by increasing the shading.

Underlit: 5%

Well lit: 5%

Overlit: 90%



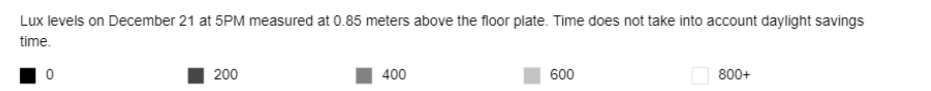
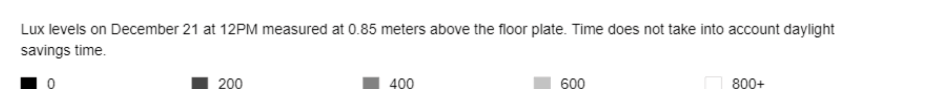
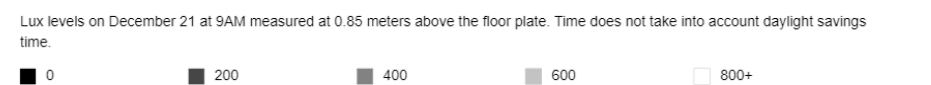
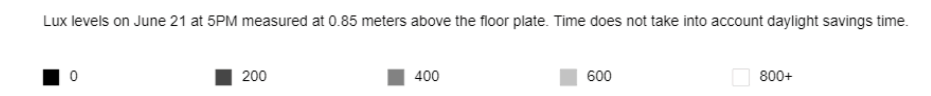
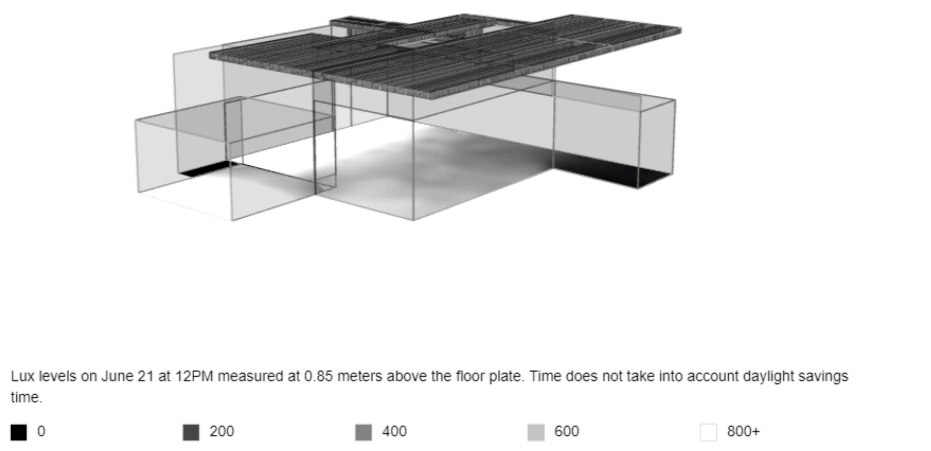
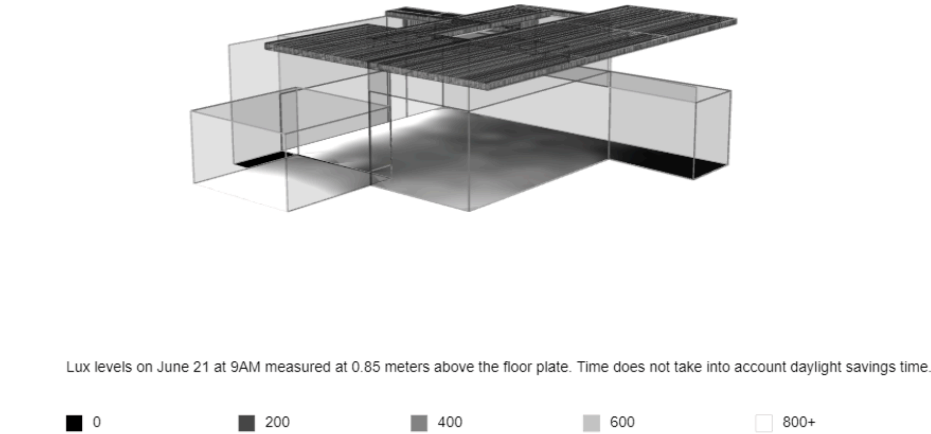
ITERATION 1

The same structure that was used for the pergola was added to the skylight as a shading device. This decision was made as the form and the size of the skylight is heavily influenced by memory of the previous settlement and by changing that it would disturb the design significance too much. The shading device is 200mm deep, the same as the depth of the pergola structure. The light quality of the space is improved.

Underlit: 7%

Well lit: 47%

Overlit: 46%



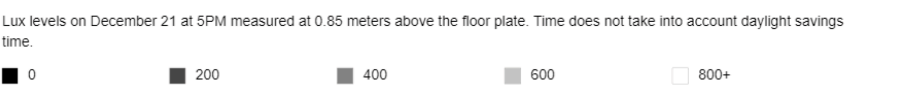
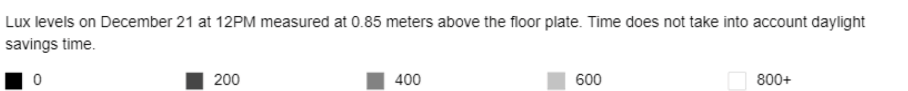
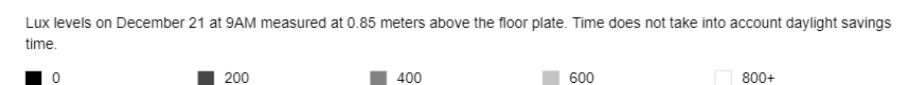
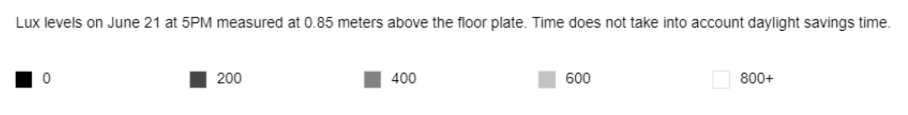
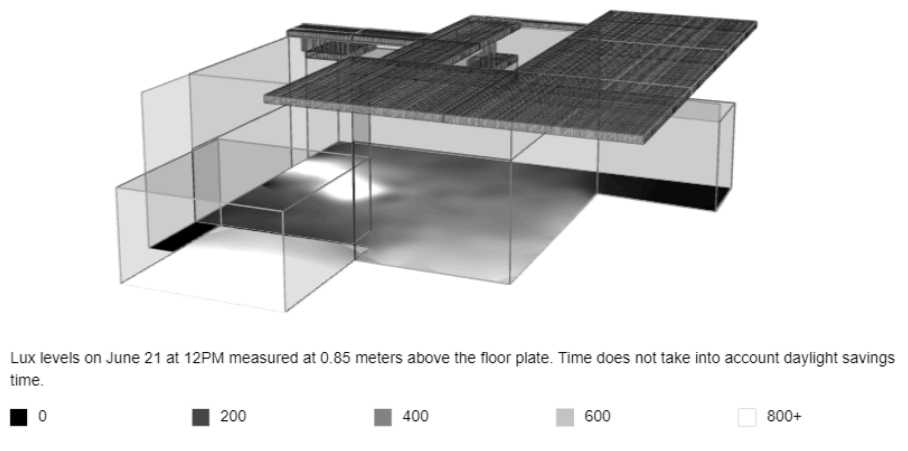
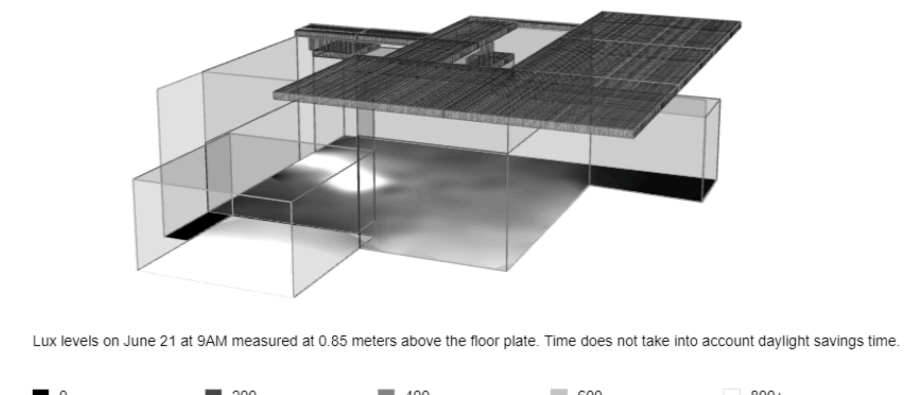
ITERATION 2

Iteration 2 was done using Iteration 1 and trying to improve it even more. On the north western facade there is a large amount of glazing. By reducing the glazing while keeping the significance of the openings in mind the new glazing now lines up with the sky light detail. The light quality improved even further.

Underlit: 10%

Well lit: 51%

Overlit: 39%



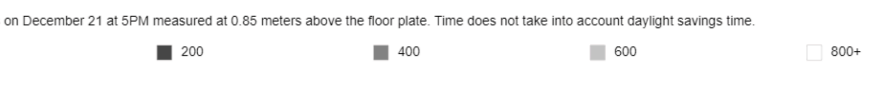
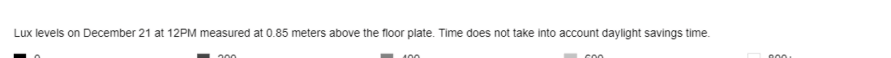
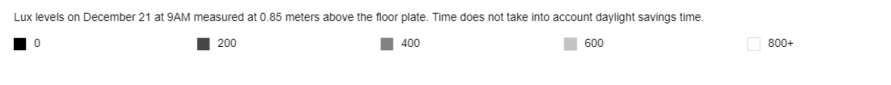
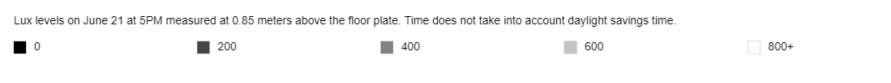
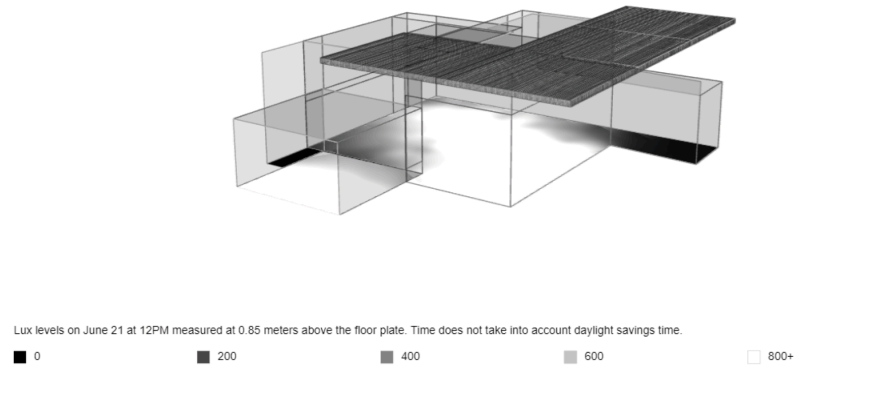
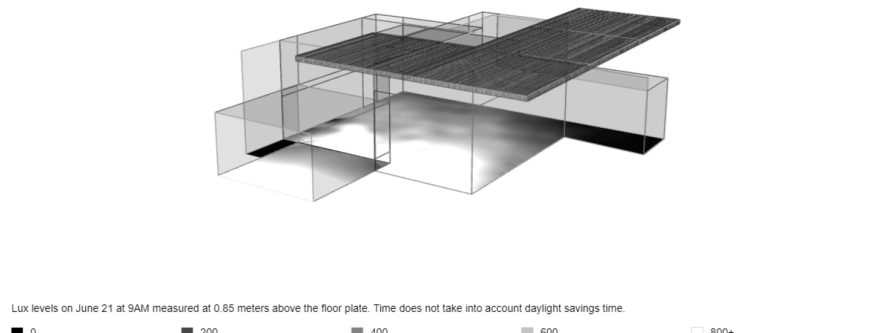
ITERATION 3

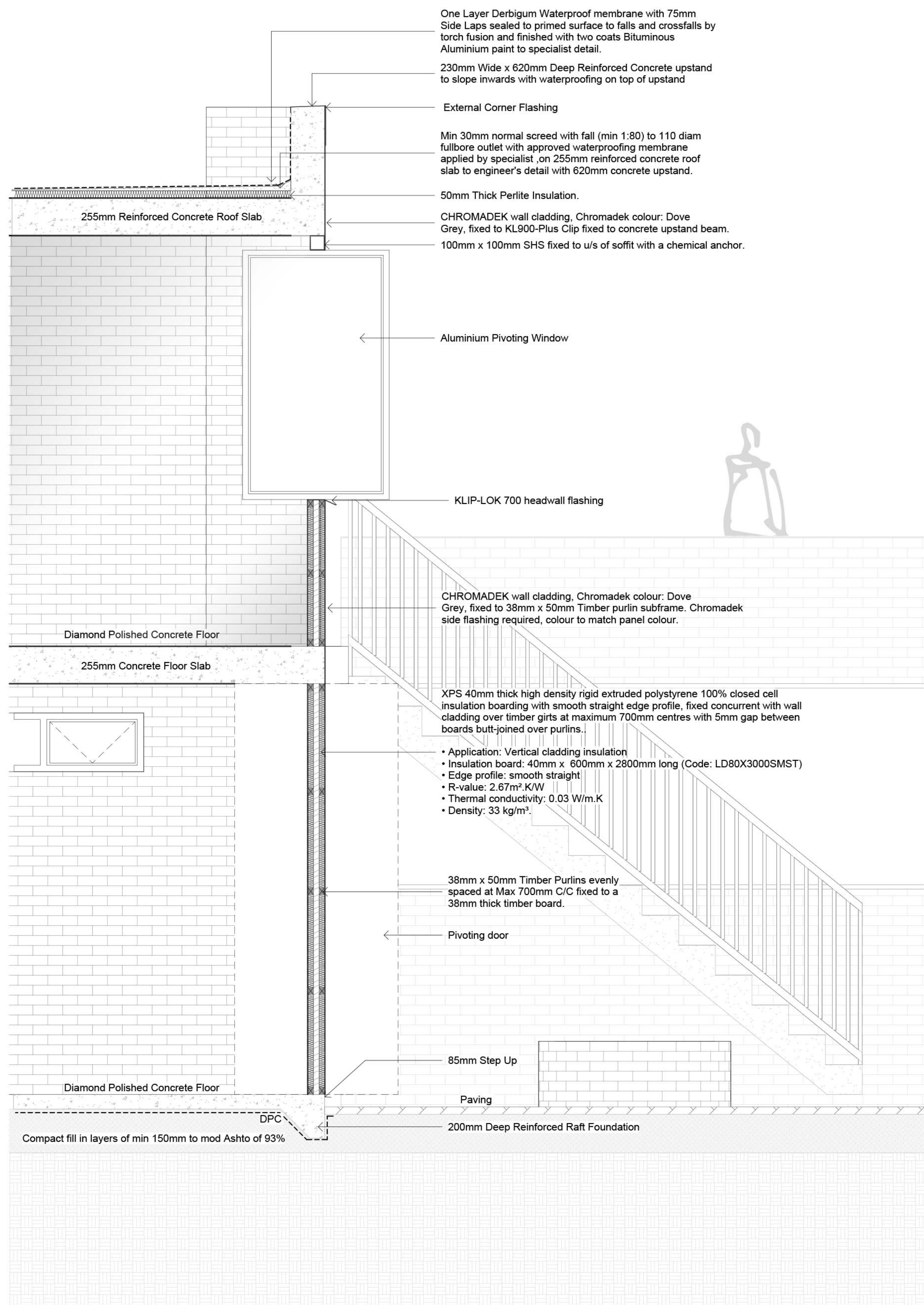
In this iteration the glazing on the north western facade was completely removed. The operable glazing in the form of glass sliding folding doors on the south and western side was changed to solid sliding folding doors and the shading structure that was present in iteration 1 and 2 was removed. Thus only the skylights could lead to the building being overlit. As expected for this iteration, the building was overlit

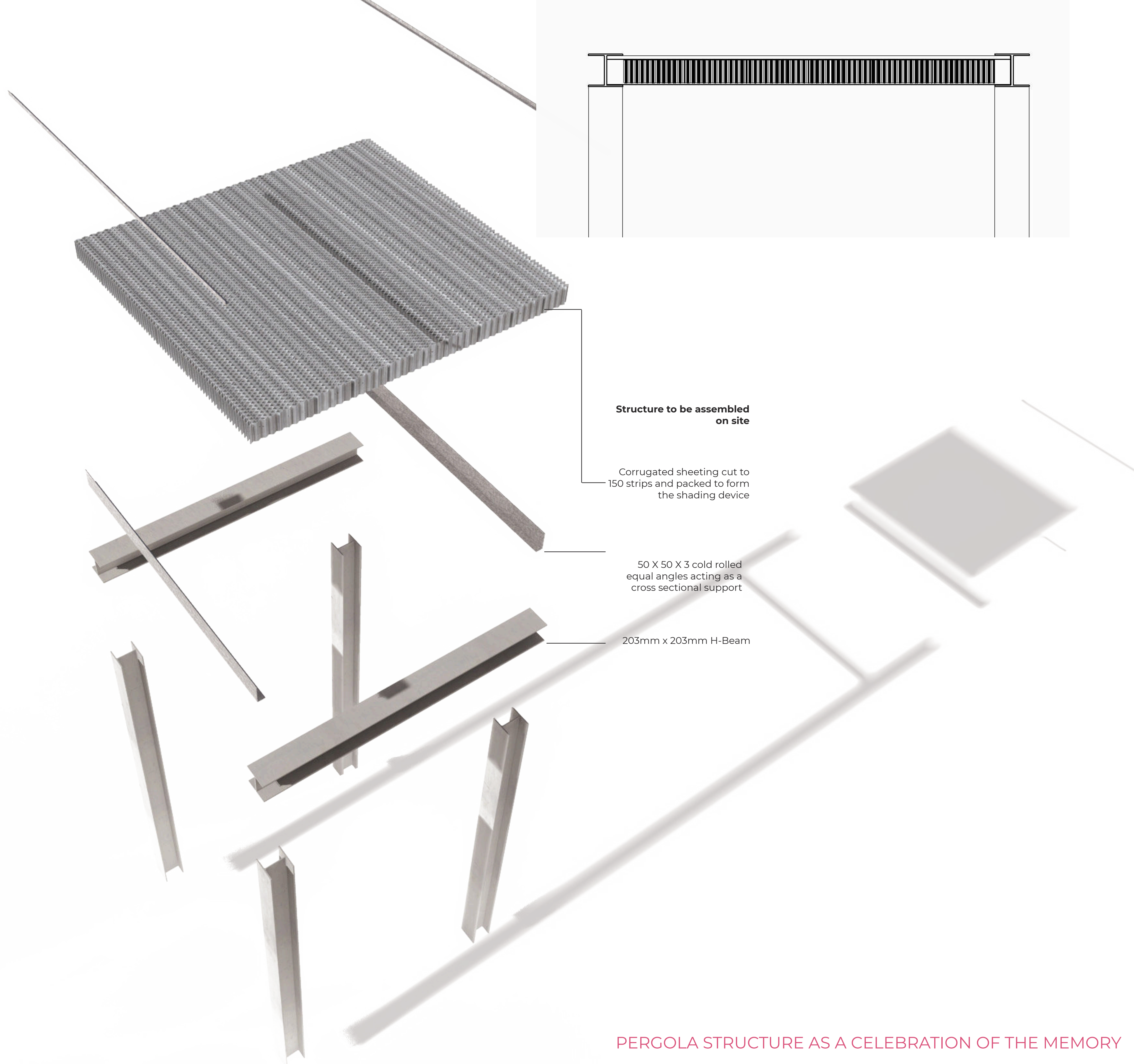
Underlit: 5%

Well lit: 6%

Overlit: 88%







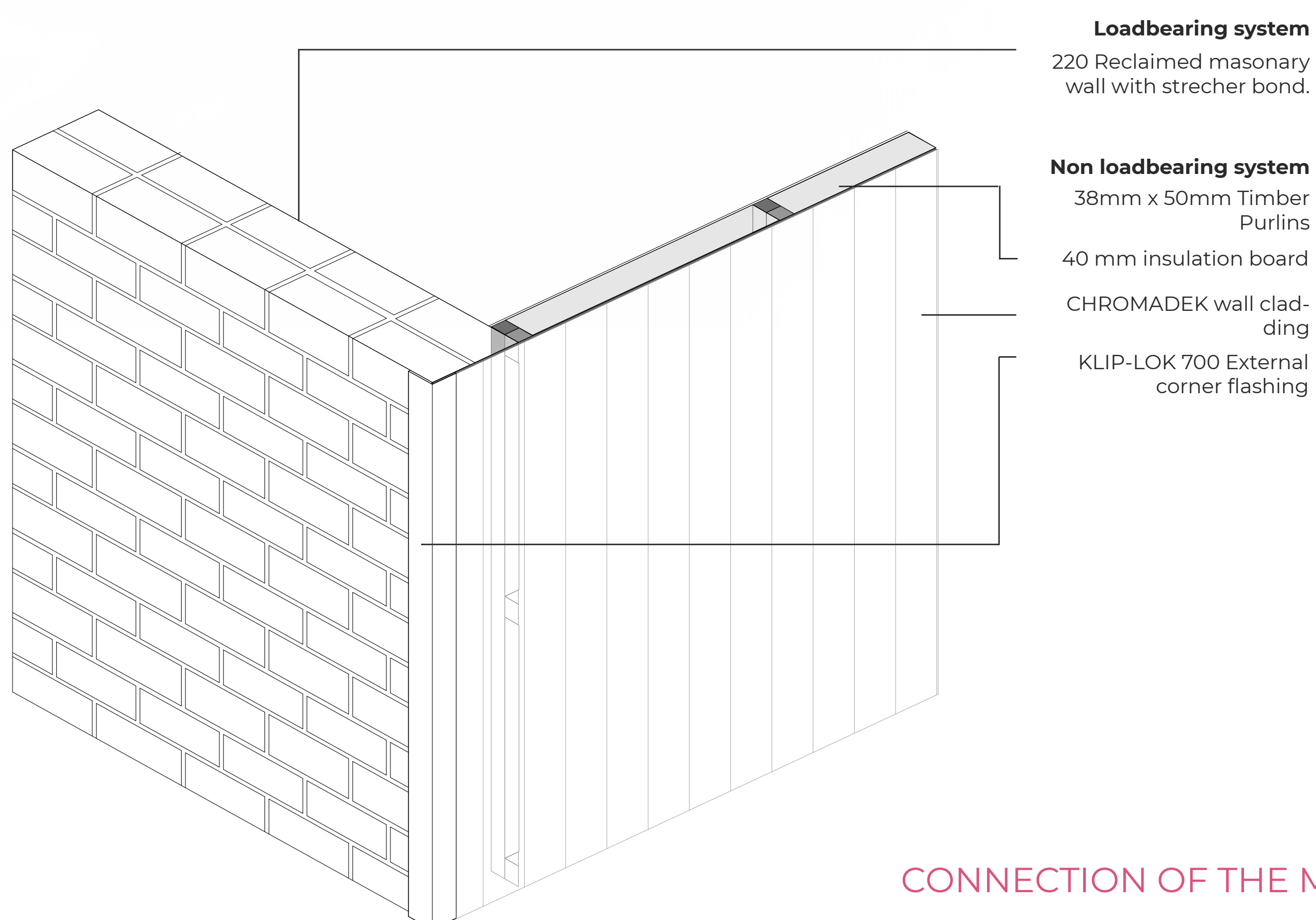
**Structure to be assembled
on site**

Corrugated sheeting cut to
150 strips and packed to form
the shading device

50 X 50 X 3 cold rolled
equal angles acting as a
cross sectional support

203mm x 203mm H-Beam

PERGOLA STRUCTURE AS A CELEBRATION OF THE MEMORY



Loadbearing system

220 Reclaimed masonry
wall with strecher bond.

Non loadbearing system

38mm x 50mm Timber
Purlins

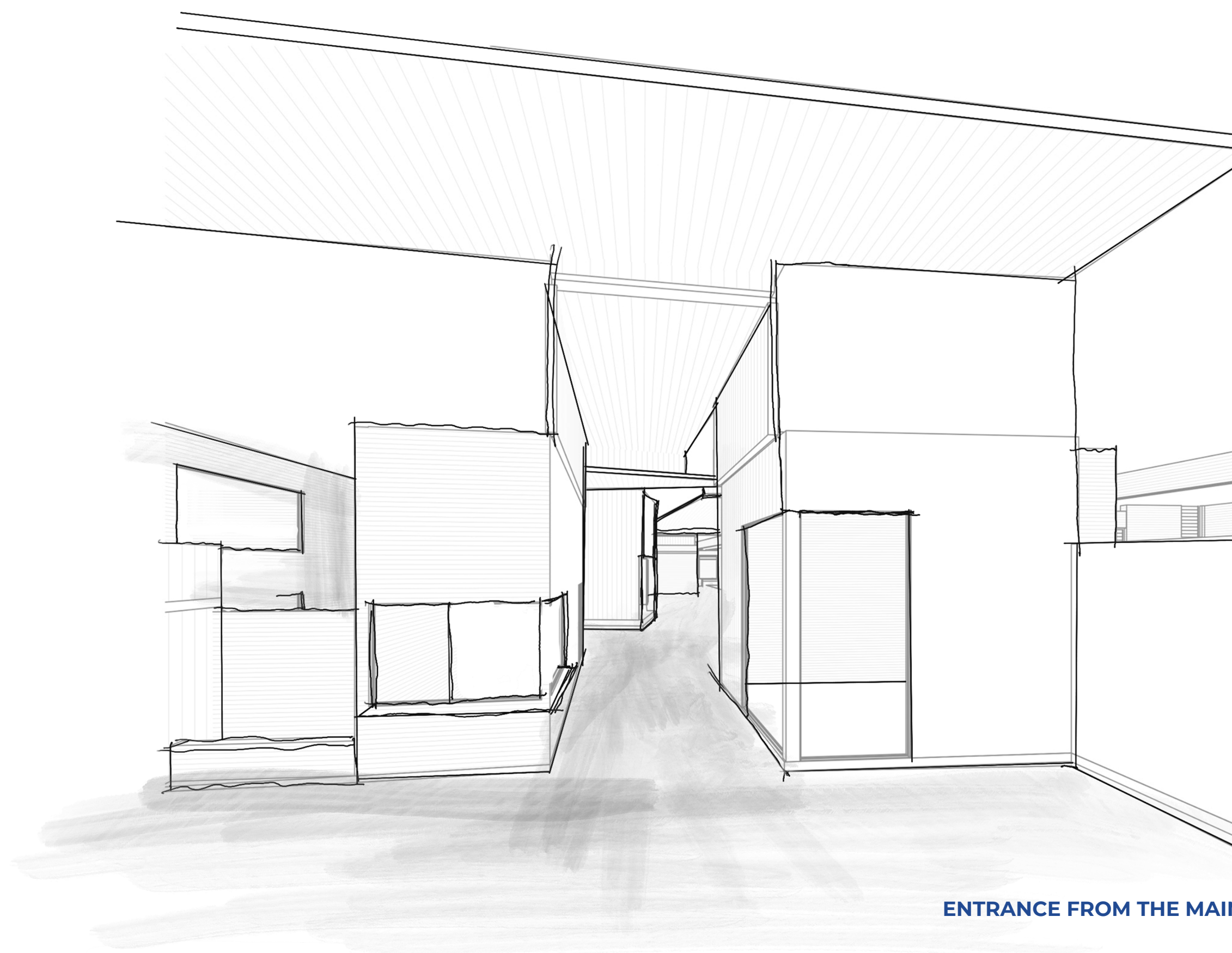
40 mm insulation board

CHROMADEK wall clad-
ding

KLIP-LOK 700 External
corner flashing

CONNECTION OF THE MEMORIAL ELEMENTS AND THE NEW GRID

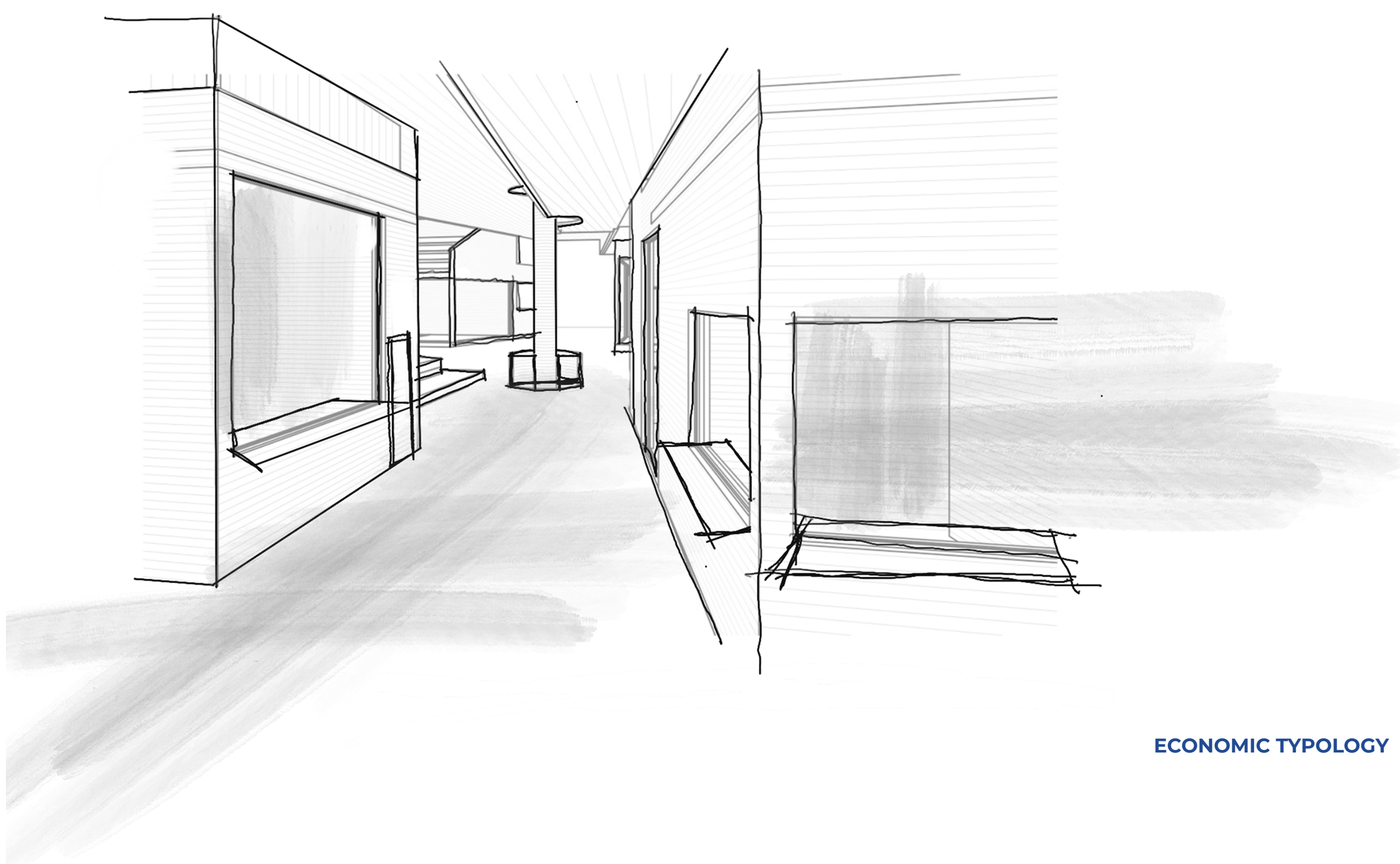
**DESIGN DETAILS
NOT TO SCALE**



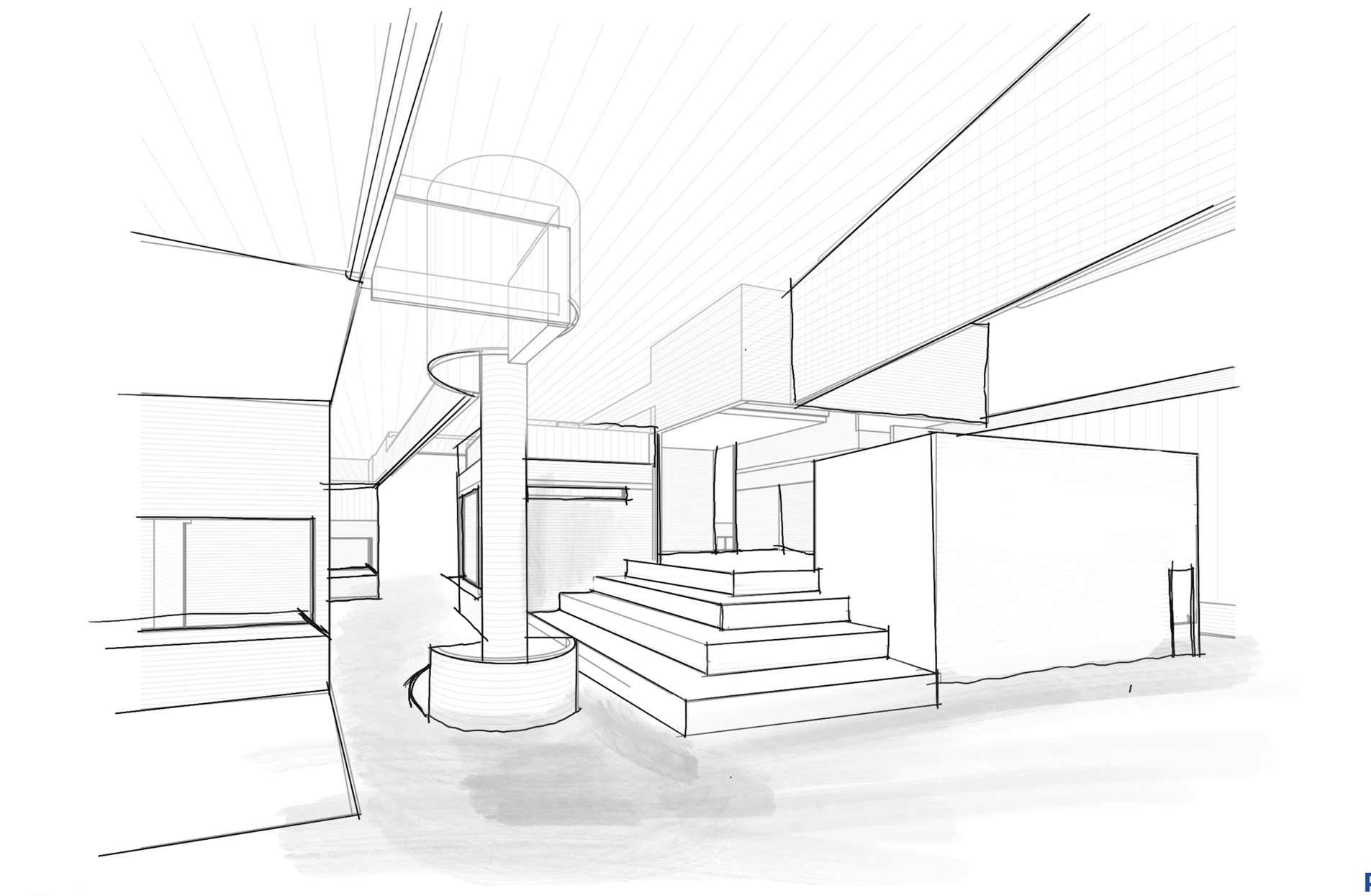
ENTRANCE FROM THE MAIN ROAD



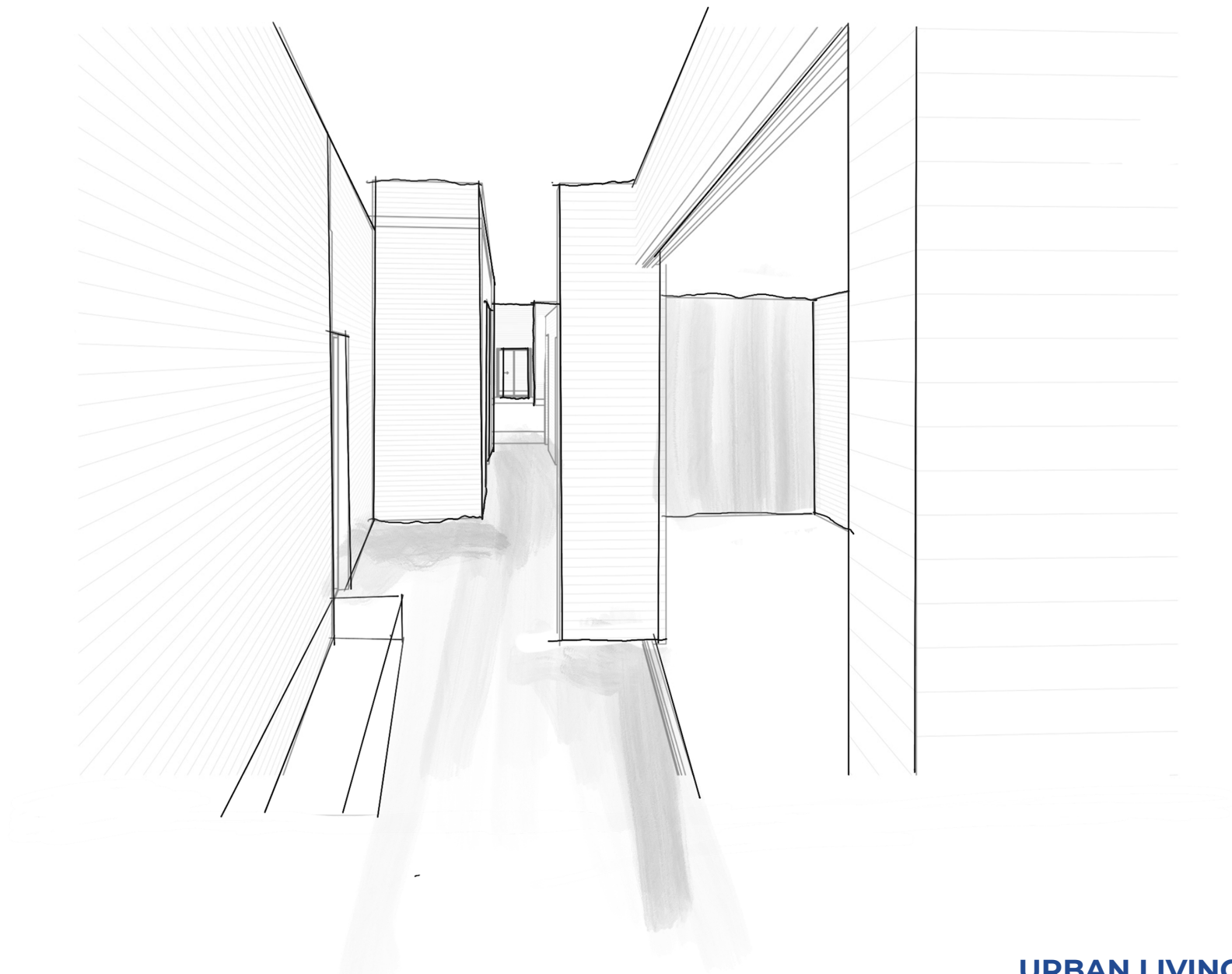
WALKWAY UNDERNEATH THE PERGOLA



ECONOMIC TYPOLOGY



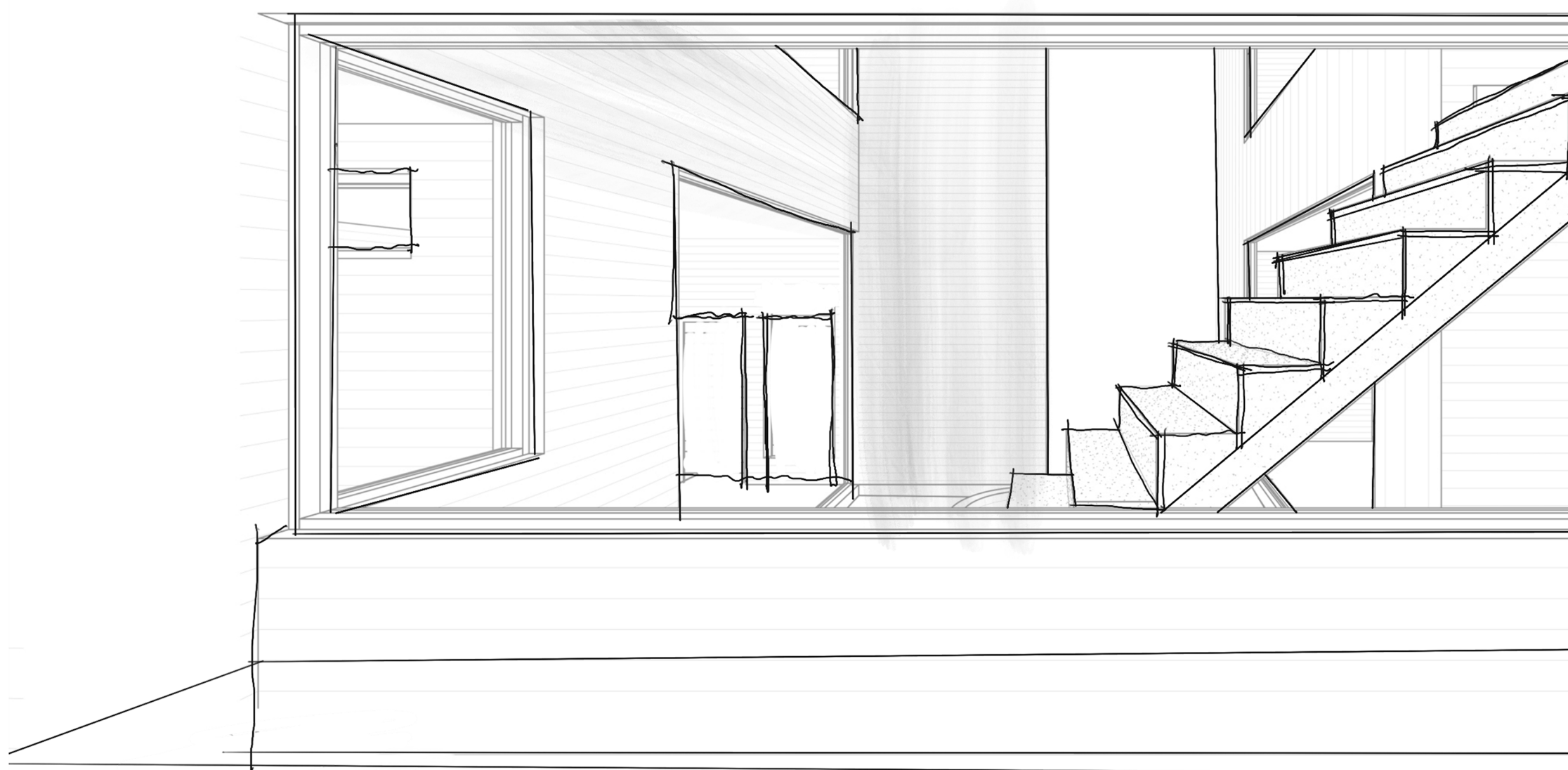
PUBLIC SQUARE



URBAN LIVING ROOM COURTYARD SPACE



COMMUNAL COURTYARD FOR APARTMENT CLUSTERS



COMMUNAL COURTYARD FOR APARTMENT CLUSTERS