Architecture as a language that can bridge cultures

on understanding the city through type, elements and systems

“No city ever lacked the sense of its own individuality” (Rossi, 1984).

Liége, Bressoux

City

The "city grows upon itself" (Rossi 1982:18); it acquires consciousness and holds memory. In the course of its development, original themes do persist but at the same time might be modified, rendered illegibly or fade away. This sedimentation of history can be discovered in the built structures of architecture, the social spaces of human life and the material culture of the landscape. The city changes and mutates, as if in a metamorphosis. It is made out of different episodes or moments of formation. Cities grow, decline and redevelop. To work with the existing city thus means to assess the tendencies of remaining forms and to anticipate emergent developments. Doing urban architecture inevitably requires a sensitivity towards past episodes, current conditions and future possibilities.

Scar

In their process of change, cities alter the landscape. Swamps are drained and built; courses of rivers are adjusted; rivers turned into canals; hills crowned by buildings, excavated or doubled by heaps of debris. In this studio, we raise awareness for the mutual relationships between the architecture of the city and the landscape as its supposed backdrop. Instead of a mute and passive given, topography and geology engage as active partners in a continuous negotiation with man's urge to build.

As a result, cities and their landscapes find themselves equally transformed. The sharp tools of transformation may inflict wounds, in society, urban fabric and urban nature alike. Deeper layers reveal stories and histories. Built upon and buried beneath the ground are remnants, traces, ruins, replicas and stigmas; as injuries inflicted upon the land and its people. In the process of recovering, scars appear. They testify to the healing of the wound and, at the same time, bear witness to aggression

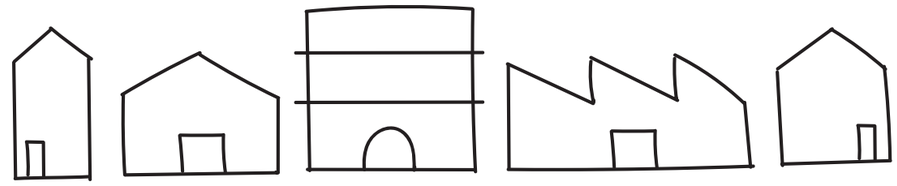
“No city ever lacked the sense of
its own individuality” (Rossi, 1984).

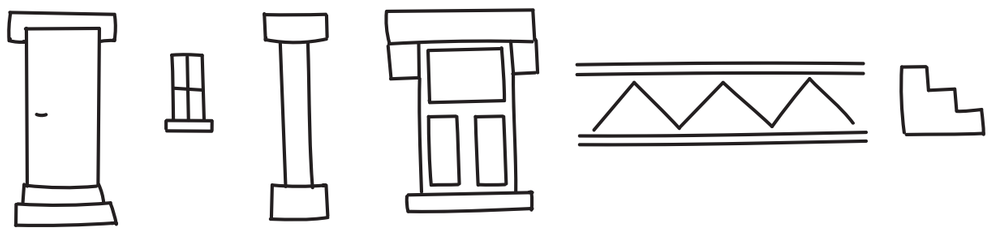
RESEARCH GOAL

Just as the walls, the columns, etc are the elements which compose buildings, so buildings are the elements which compose cities.” – Jean-Nicolas-Louis Durand wrote in his lessons at Ecole Polytechnique

TYPES

city scale



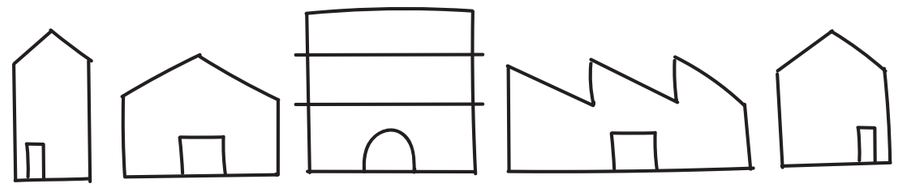


building scale

ELEMENTS

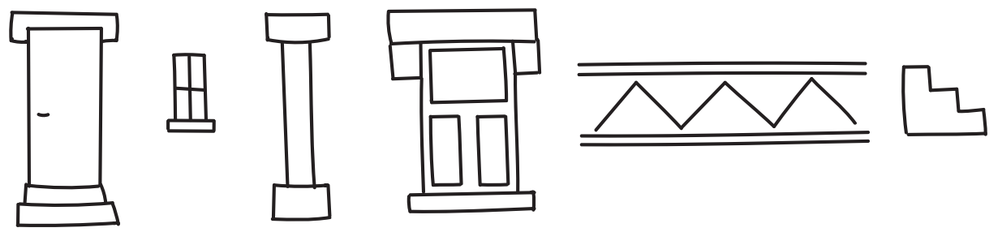
TYPES

city scale



architectural
domain

THEORY



building scale

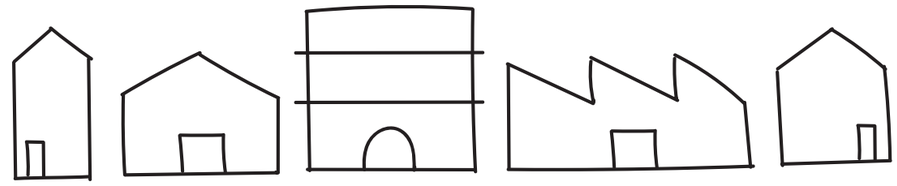
ELEMENTS

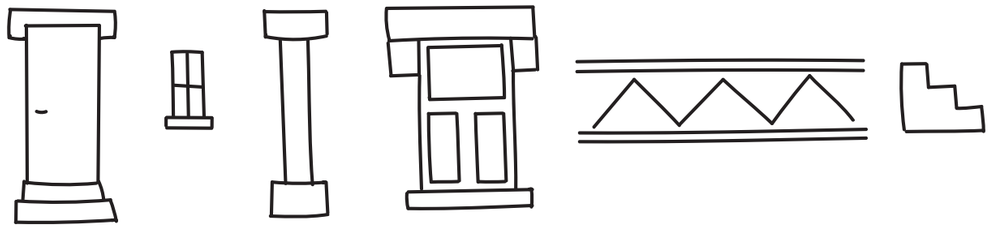
socio-ecological
domain

OBSERVATIONS

TYPES

city scale





building scale

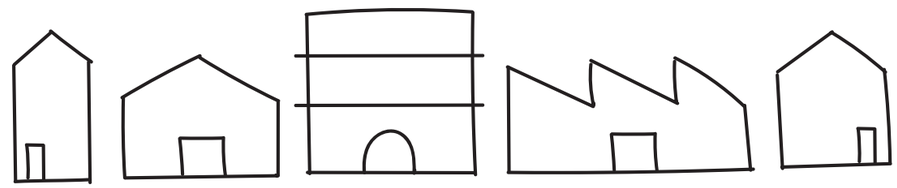
ELEMENTS

architectural
domain

THEORY

TYPES

city scale



socio-ecological domain

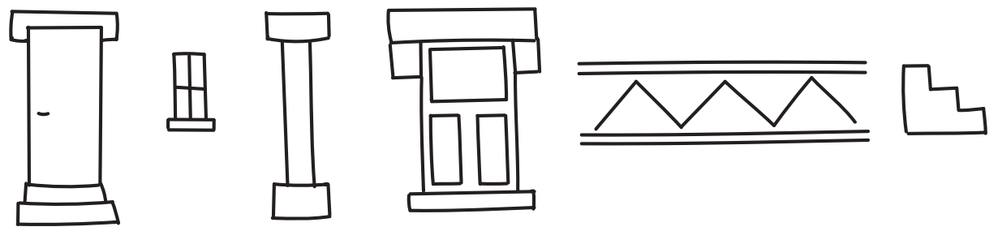
OBSERVATIONS

what role can architecture play in the intercultural discourse in Bressoux?

can elements give meaning to the city, making the ordinary become meaningful?

architectural domain

THEORY



building scale

ELEMENTS

public
collective
private

MY HYPOTHESIS

constructing the logic of architecture in spatial design

public
collective
private

MY HYPOTHESIS

constructing the logic of architecture in spatial design
and architectural language

socio-ecological domain

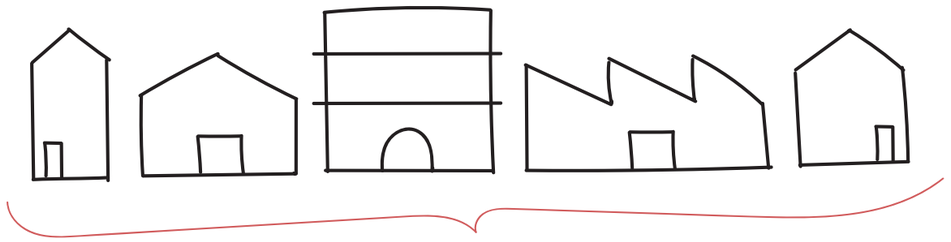
OBSERVATIONS

PUBLIC COLLECTIVE PRIVATE →

THE LIFE OF ELEMENTS →

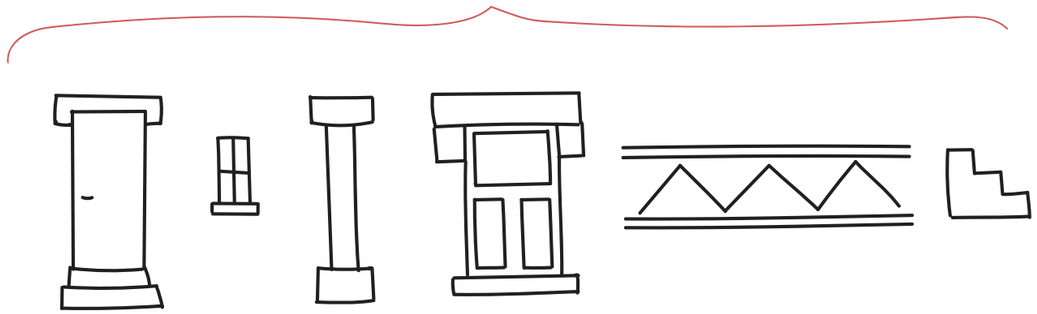
TYPES

city scale



SPATIAL STRATEGY

ARCHITECTURAL LANGUAGE



building scale

ELEMENTS

← ALDO ROSSI
CITY IN MICROCOSM

← CHARLES VANDENHOVE
ARCHITECTURE AS TEXT

architectural domain

THEORY

... The film shows the architectural language Vandenhove uses, structuring his architecture classically, like a text, almost like a poetic composition. He starts his architectural text with words, like plinth, architrave or column, the words make up sentences, the composition: symmetry, frontality, centrality. Combining all of it in an architectural whole by using stylistic principles, for example like a house or gateway does

RESEARCH PRODUCTS

the Vocabulary the Grammar the Story

RESEARCH PRODUCTS

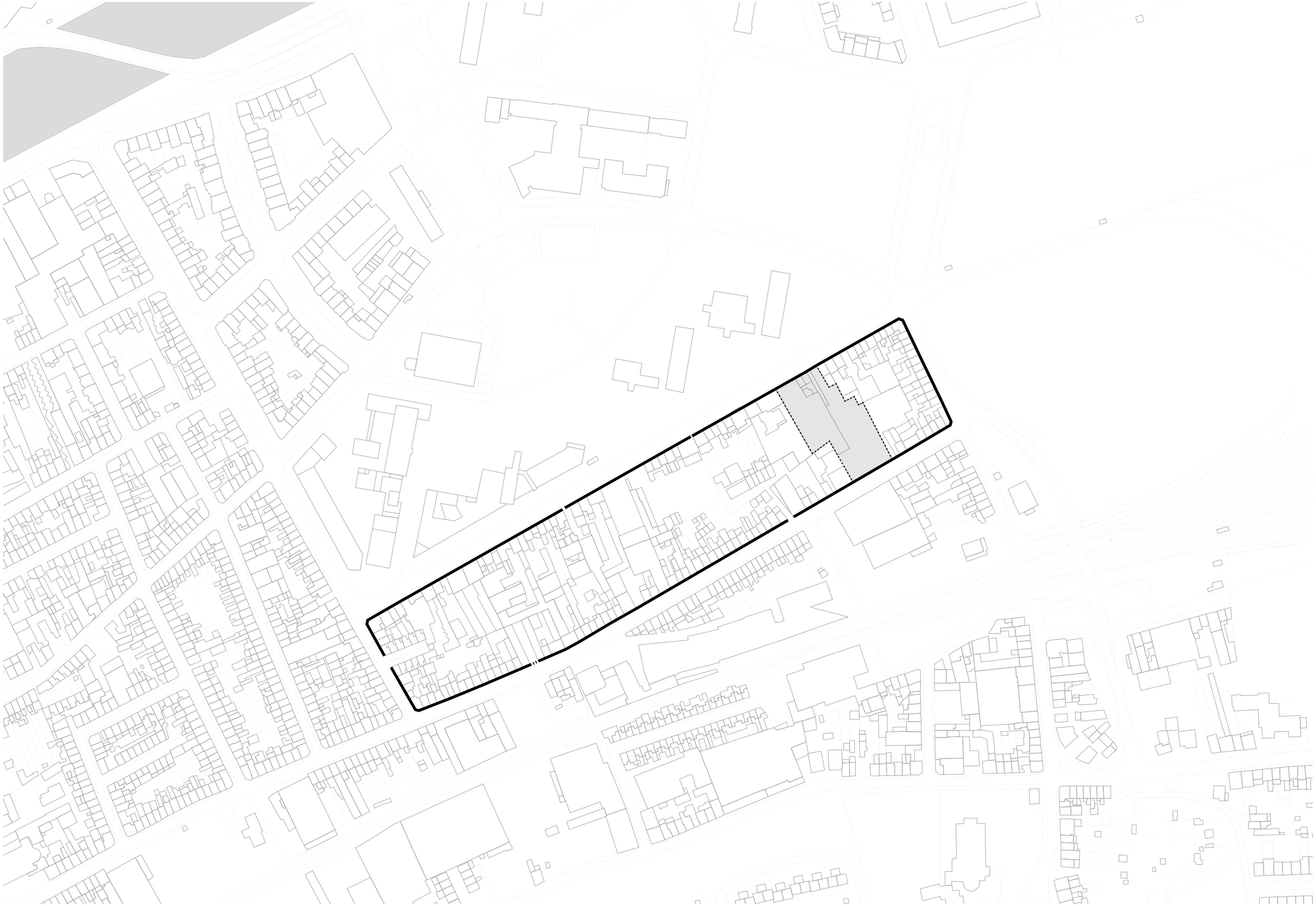
THEORETICAL FRAMEWORK
on understanding the city through type, elements and systems

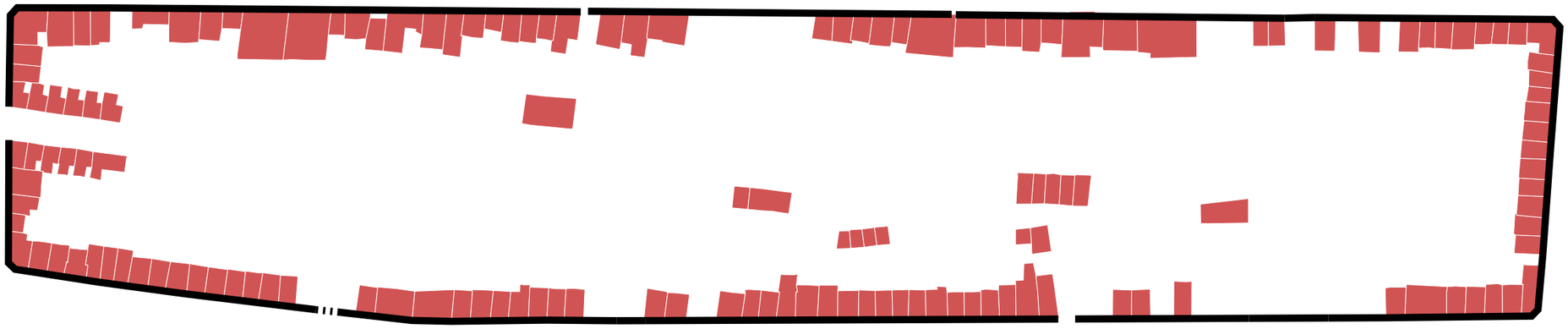
the Vocabulary the Grammar the Story

RESEARCH PRODUCTS

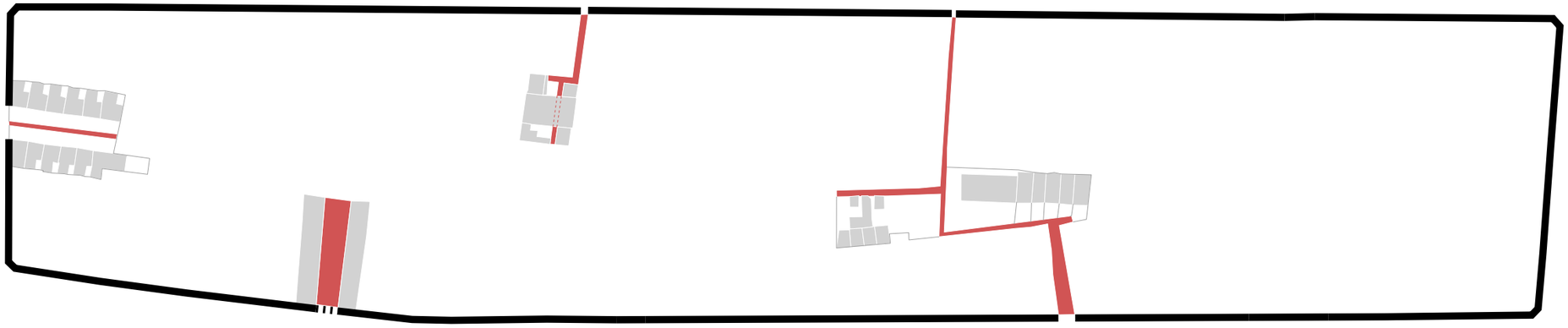
the Story

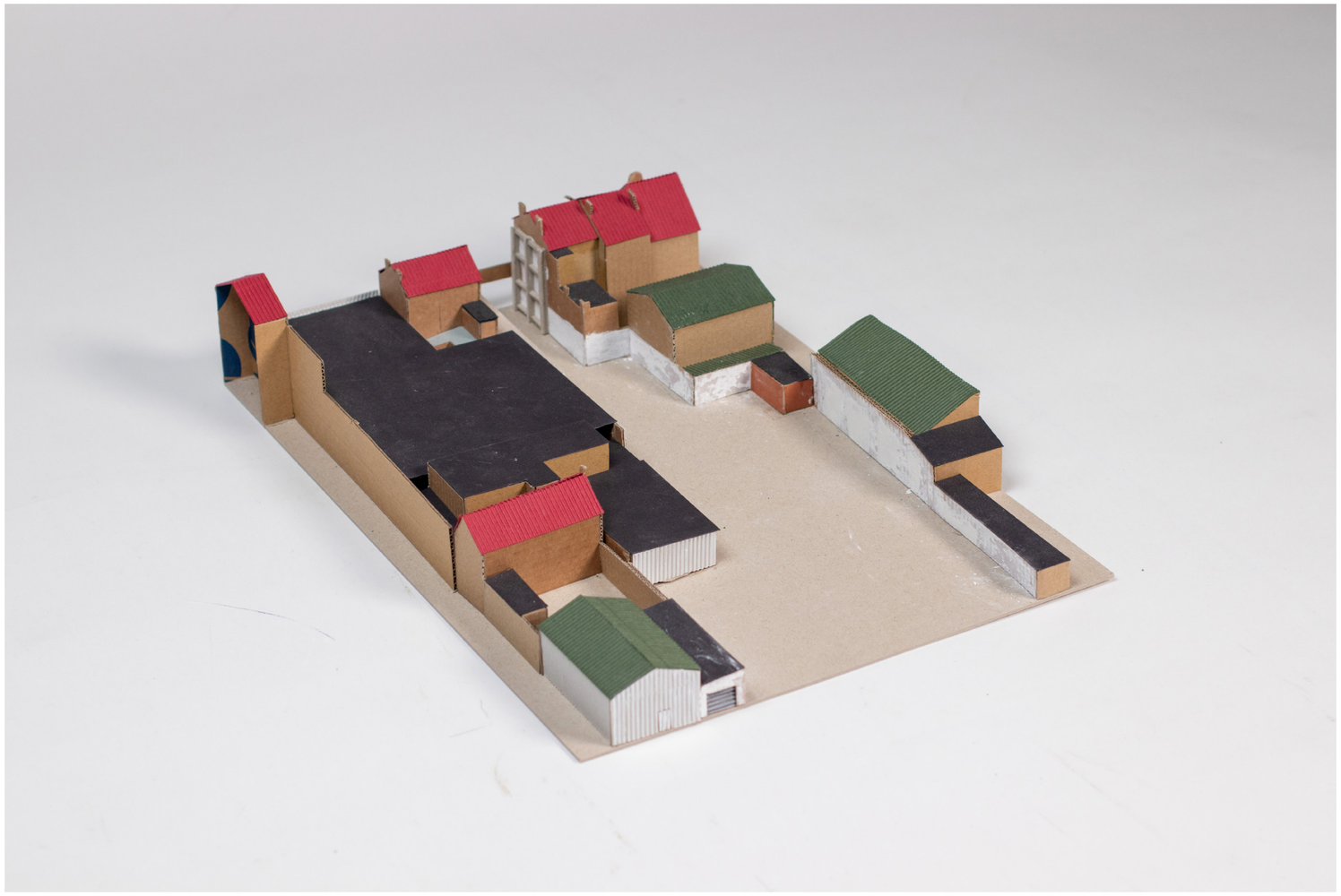
RESEARCH PRODUCTS

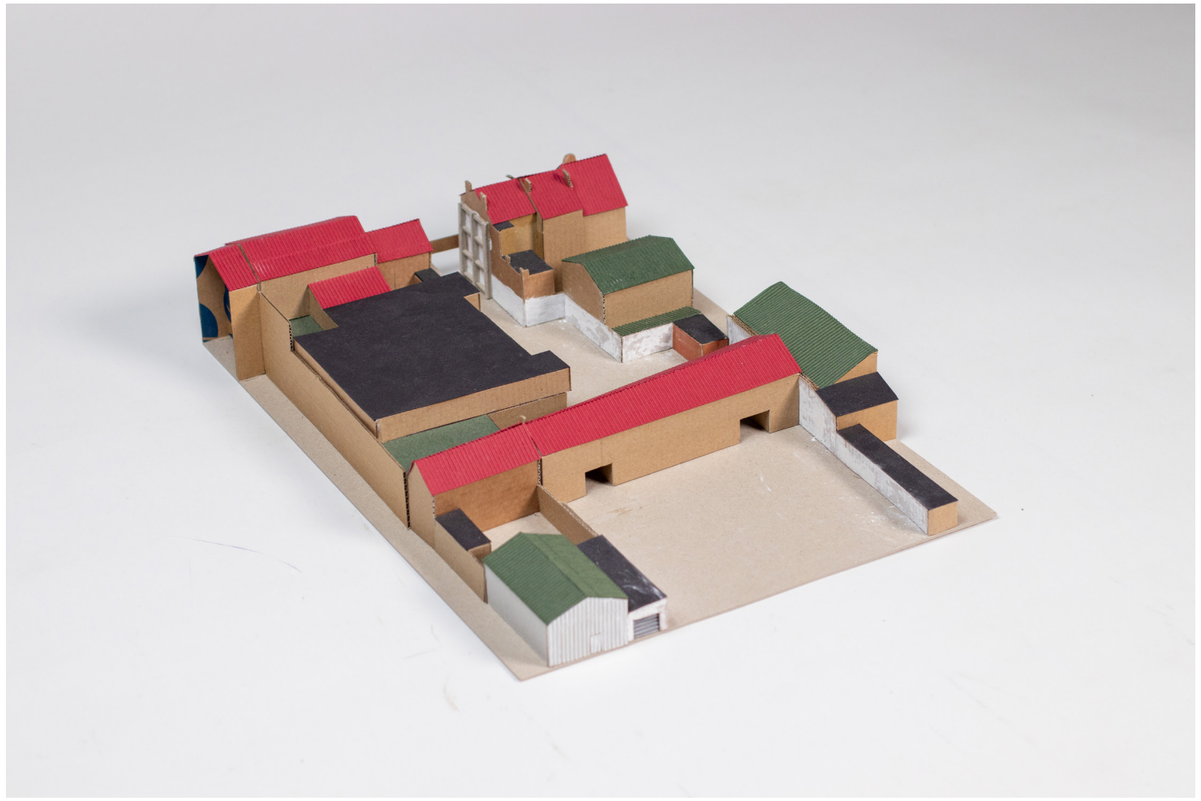





Librairie







ARCHITECTURAL DOMAIN

SOCIO ECOLOGICAL DOMAIN

SPATIAL STRATEGY

NETWORK OF URBAN ARTIFACTS = DWELLING + PRIMARY FUNCTION

TYPE

AND FROM THE CITY

LEARNING FROM ROSSI TO MAKE ARCHITECTURE THAT ADDRESSES A CURRENT PROBLEM : THE SCAR OF URBAN FRAGMENTATION

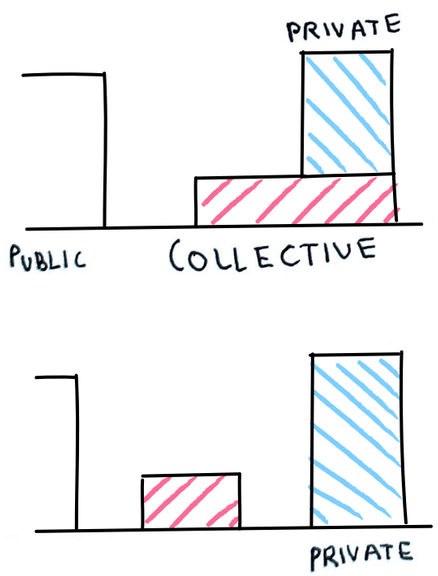
+ SOCIAL ASPECT

DICTATES A NEED FOR COLLECTIVE SPACE

INVESTIGATING RELATION

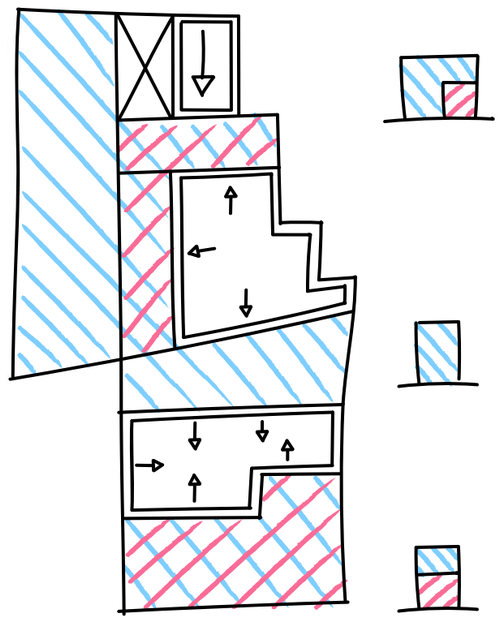
PUBLIC → COLLECTIVE → PRIVATE

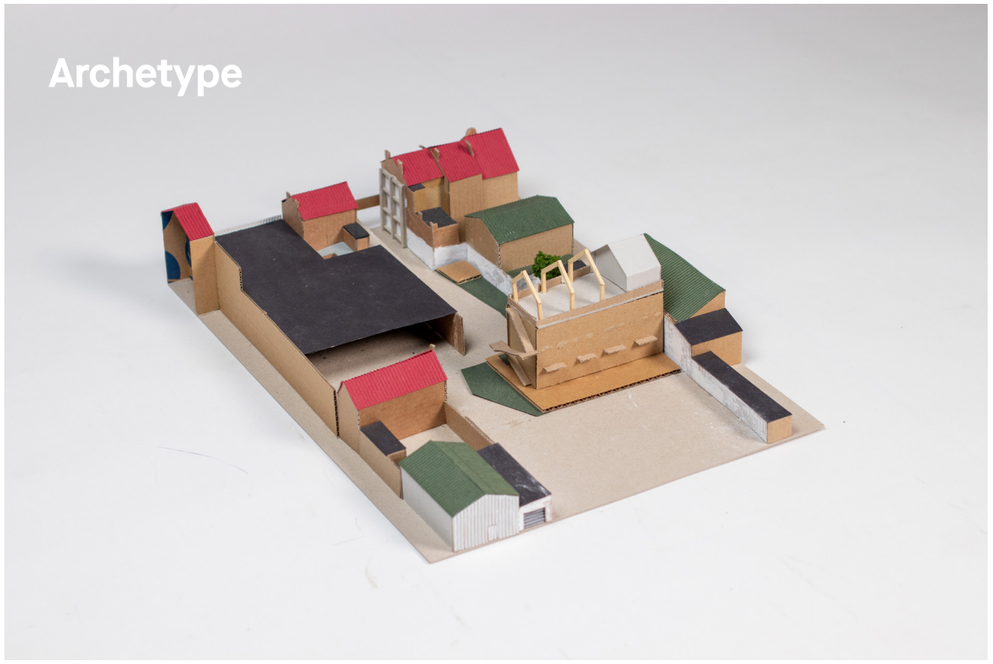
in SPATIAL DESIGN



WHERE IS PUBLIC ?
WHERE IS PRIVATE ?
HOW DOES COLLECTIVE PLAY A ROLE ?

AND WHAT ABOUT THE SPACES IN BETWEEN ?




Archetype


Bio based


Co-living

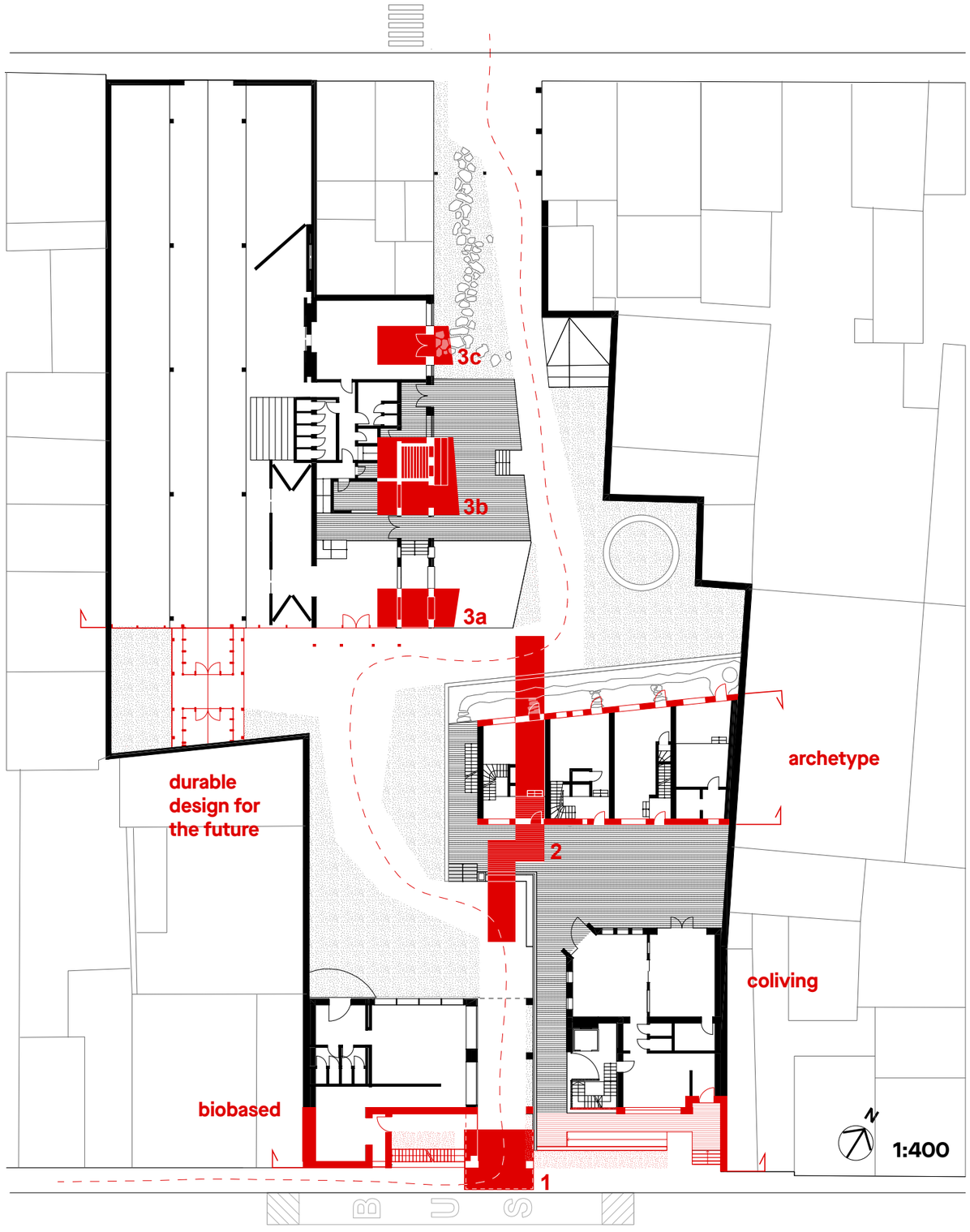

Durable design for the future

A

B

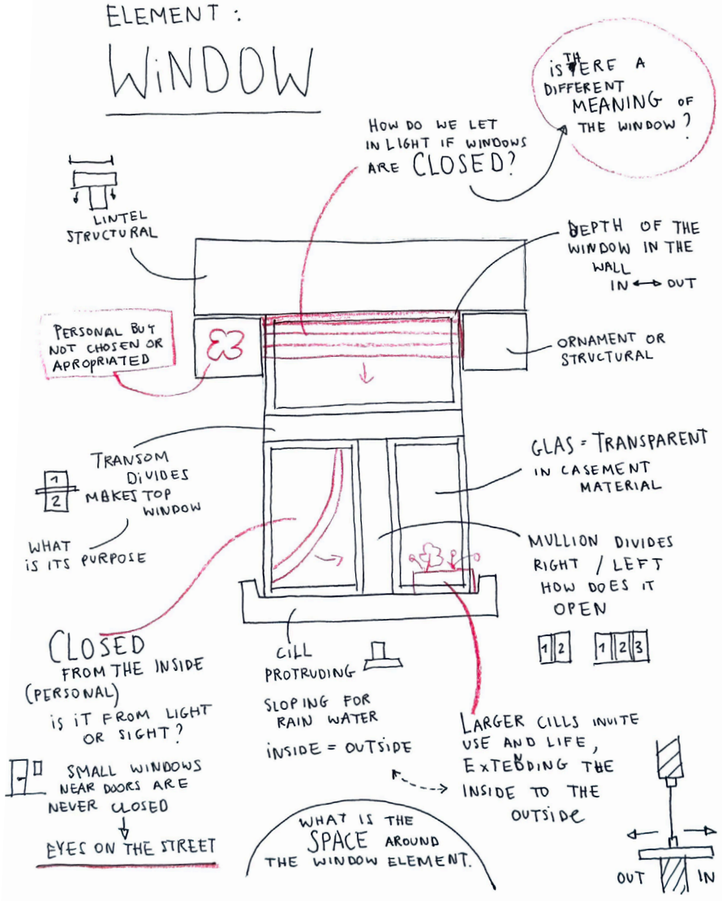
C

D


3c
3b
3a
durable
design for
the future
archetype
2
coliving
biobased
1
1:400

ELEMENT:

WINDOW



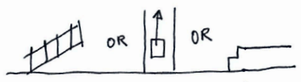
ELEMENT:

ENTRANCE

PUBLIC → COLLECTIVE → PRIVATE

HOW DO WE ENTER? WHERE ARE THE DOORS? WHAT ARE THE TRANSITIONS? HOW DO THE ELEMENTS PLAY A ROLE?

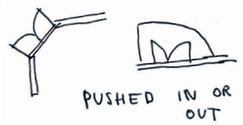
COLLECTIVE ENTRANCE



PRIVATE ENTRANCE

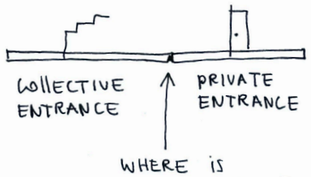
(OWN DOOR, INVITING TO APROPRIATE)

PUBLIC ENTRANCE



PUSHED IN OR OUT

ESTABLISHING A CHARACHTERISTIC PLACE IN THE MICROCOSMIC CITY AND THUS IN MEMORY



WHERE IS THE TRANSITION?

ELEMENT

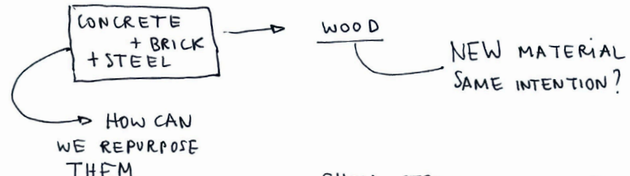
STRUCTURE

CAN STRUCTURE BE MORE THAN JUST STRUCTURAL?

HOW ARE THESE ELEMENTS ADRESSING THE ELEMENT STRUCTURE IN DIFFERENT WAYS?

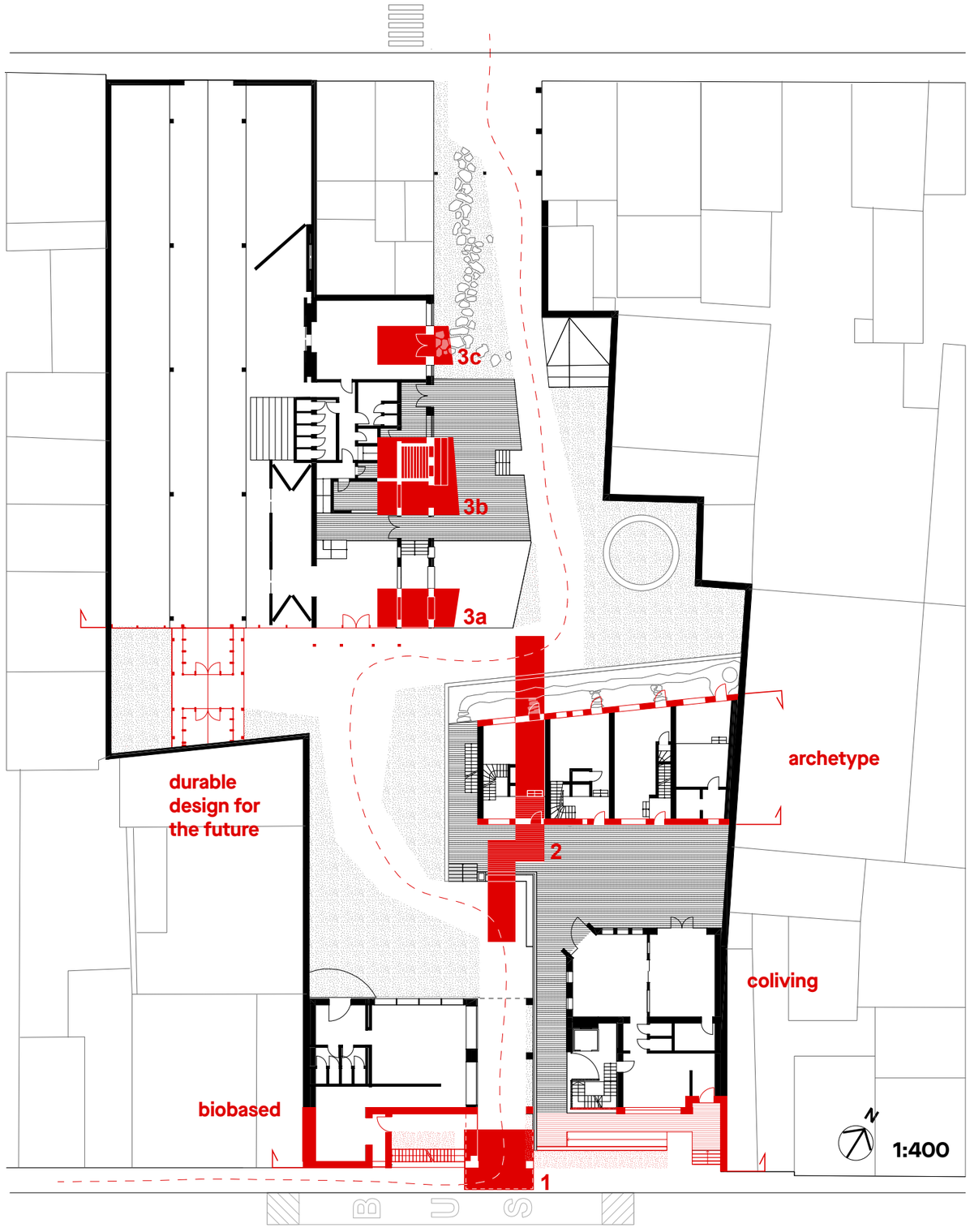
HOW CAN WE, IN DESIGN?

OLD STRUCTURE → NEW STRUCTURE



CAN OLD ACT AS A MONUMENT, WHAT CAN WE LEARN FROM OLD, WHAT MAKES IT OLD, LOSING ITS FORMER FUNCTION. ASSIGNING A NEW FUNCTION DOESN'T MAKE IT NEW, DOES IT?

SHOW STRUCTURES IN/AS DIFFERENT FORMS AND FUNCTIONS.


3c
3b
3a
durable
design for
the future
archetype
2
coliving
biobased
1
1:400

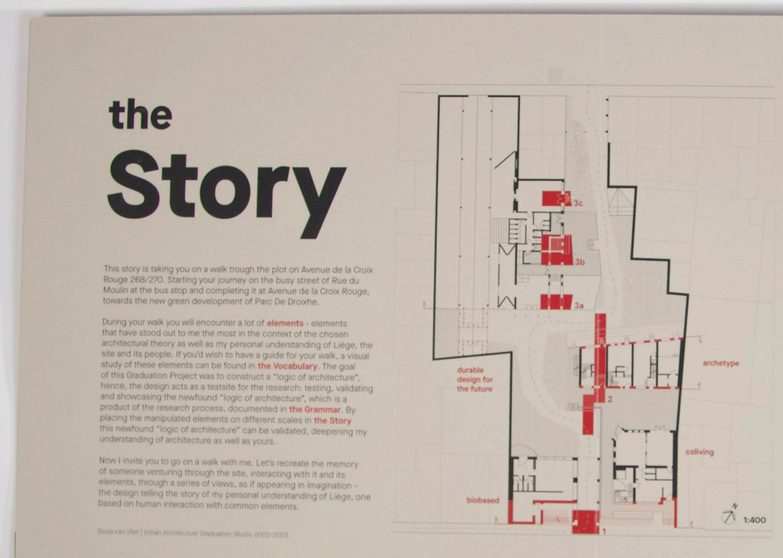
the Story

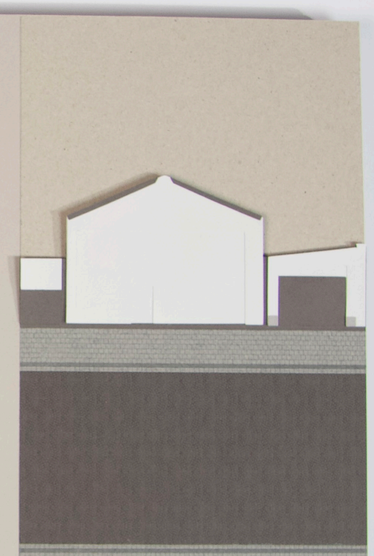
This story is taking you on a walk trough the plot on Avenue de la Croix Rouge 268/270. Starting your journey on the busy street of Rue du Moulin at the bus stop and completing it at Avenue de la Croix Rouge, towards the new green development of Parc De Droixhe.

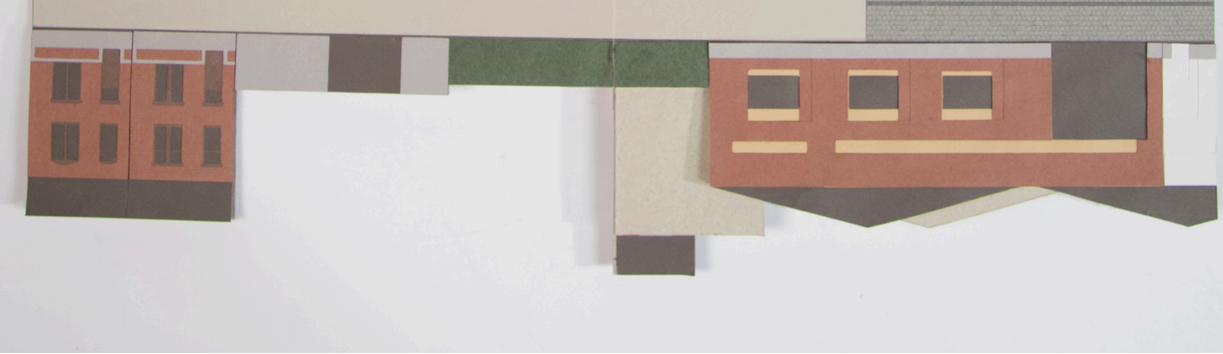
During your walk you will encounter a lot of **elements** - elements that have stood out to me the most in the context of the chosen architectural theory as well as my personal understanding of Liège, the site and its people. If you'd wish to have a guide for your walk, a visual study of these elements can be found in **the Vocabulary**. The goal of this Graduation Project was to construct a "logic of architecture"; hence, the design acts as a testsite for the research: testing, validating and showcasing the newfound "logic of architecture", which is a product of the research process, documented in **the Grammar**. By placing the manipulated elements on different scales in **the Story** this newfound "logic of architecture" can be validated, deepening my understanding of architecture as well as yours.

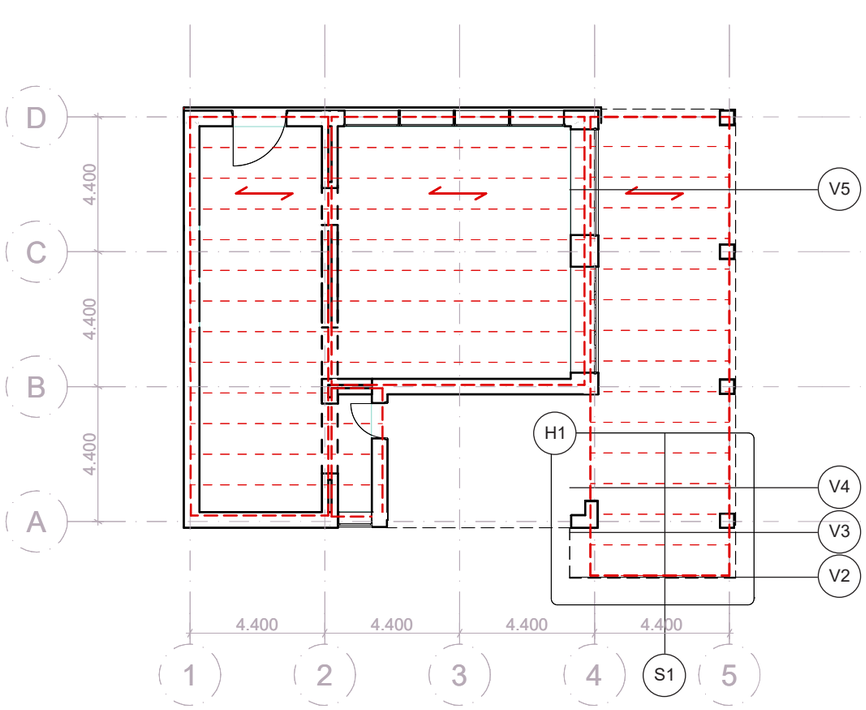
Now I invite you to go on a walk with me. Let's recreate the memory of someone venturing through the site, interacting with it and its elements, through a series of views, as if appearing in imagination - the design telling the story of my personal understanding of Liège, one based on human interaction with common elements.

Ilona van Vliet | Urban Architecture Graduation Studio 2022-2023

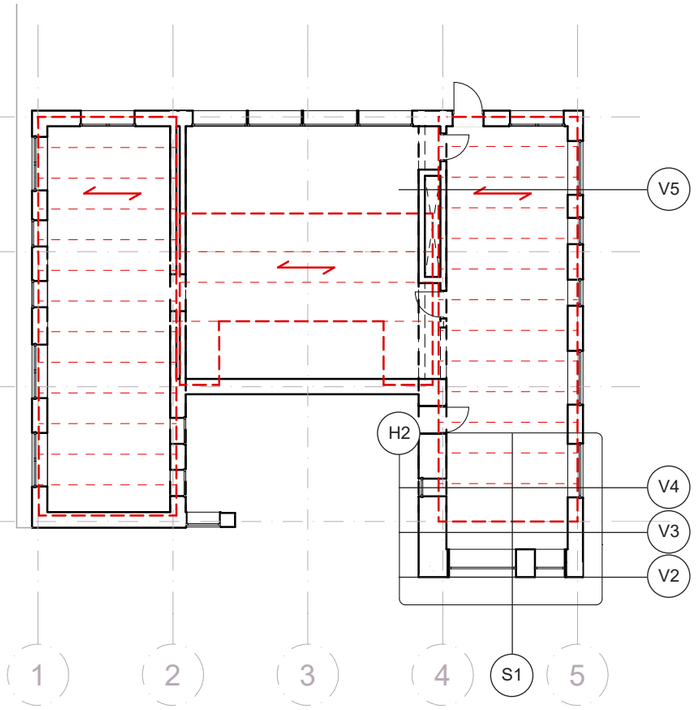




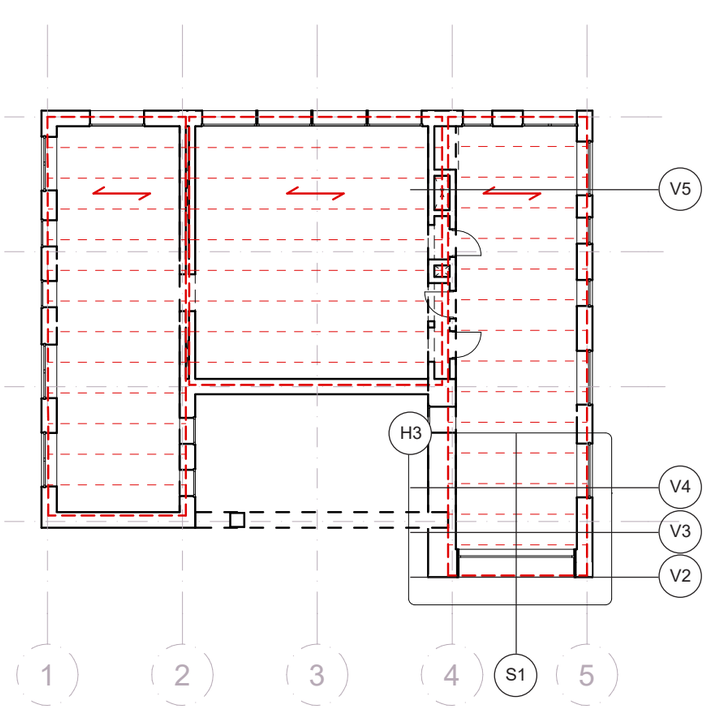




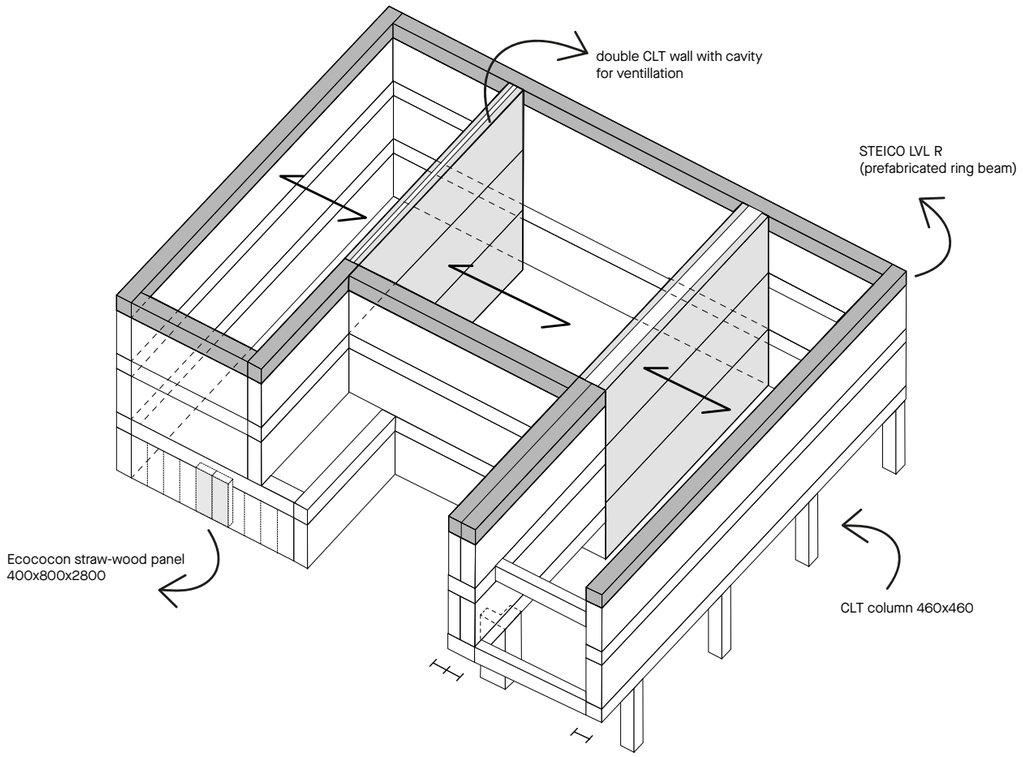
Level 1 +4000



Level 2 +7000



Roof +10000



Avenue de la Croix-Rouge 268/270, Liége

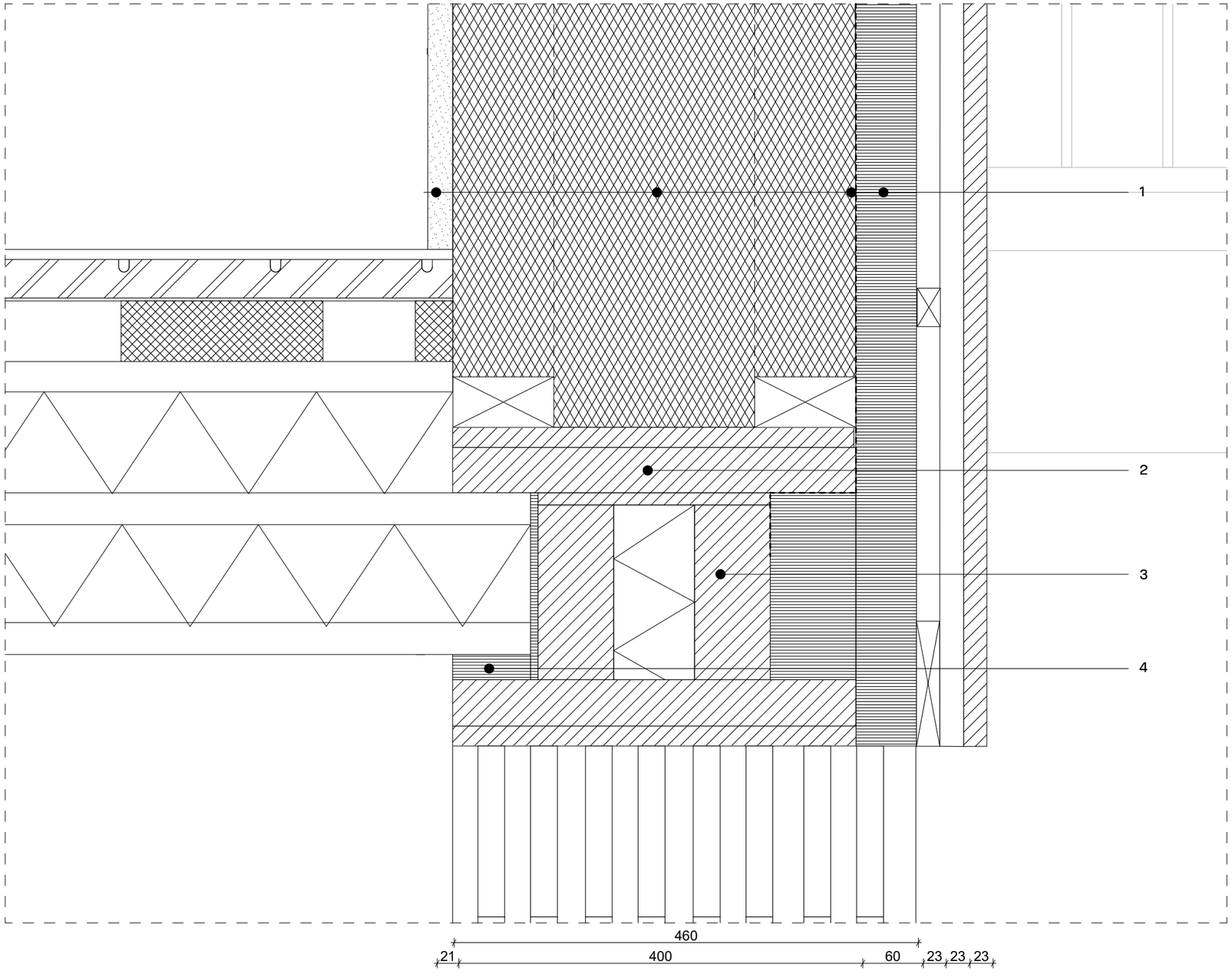
Structural Plans

Building A

Drawing Scale

1:200

Basia van Vliet | UA graduation Studio 2022-2023

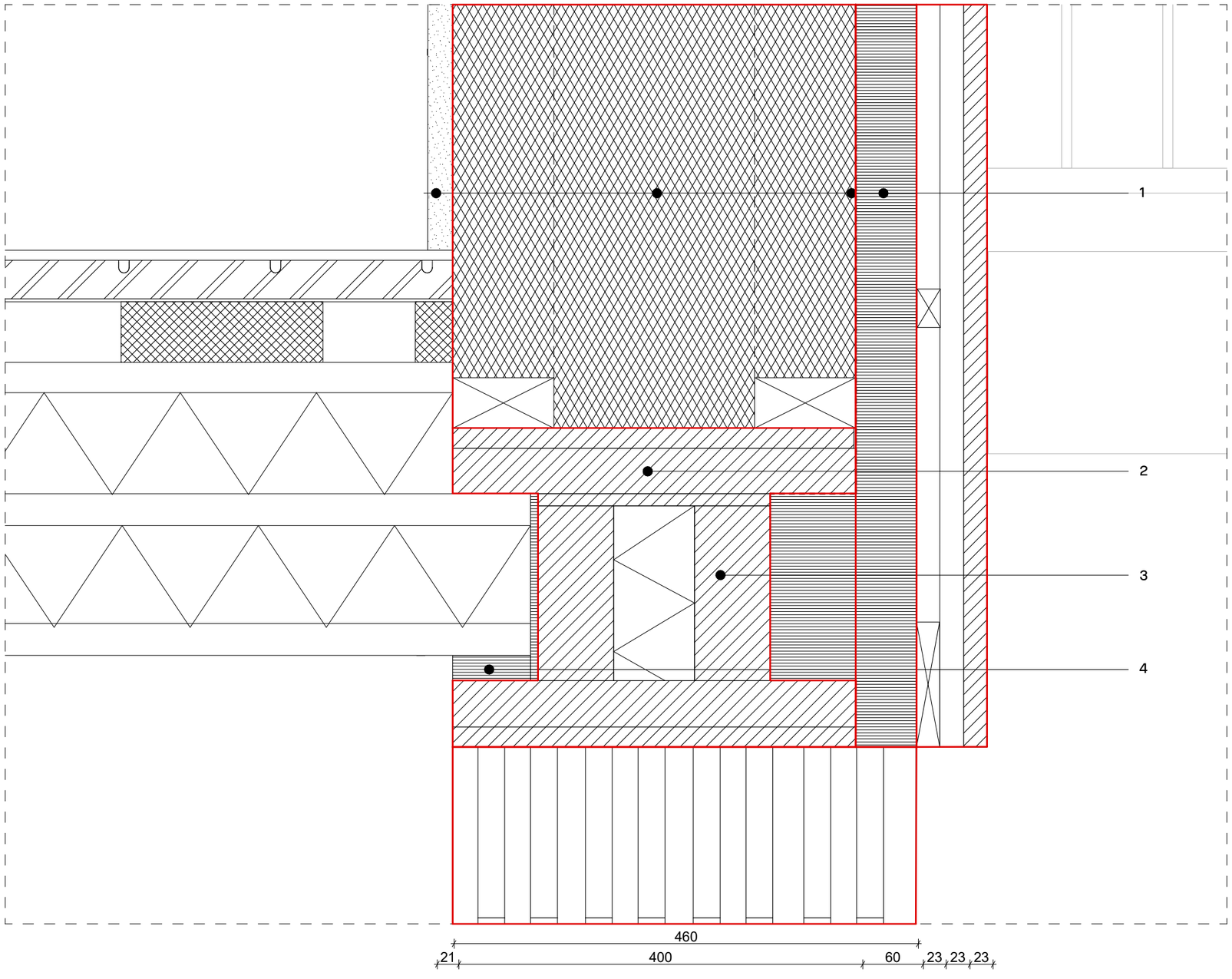


1. EXTERIOR WALL
vapour permeable certified BioLime render system 21mm
BioLime Finish Coat Carrara White 3mm
BioLime Brown Coat 6mm
BioLime Scratch Coat with embedded Mesh 6mm
BioLime Bond Coat 3mm
straw/wood Ecococon panel 400×800
airtight breather membrane
STEICOprotect Typ H woodfibre board 60mm
ventilated timber facade Platowood Spruce 3×23mm
2. TOP BEAM STEICO LVL X (top beam)
3. PREFABRICATED RINGBEAM STEICO LVL R
4. ACOUSTIC SEPERATION Rothoblaas Xylofon

B1 Drawing Scale

Detail 1:5

Av. de la Croix-Rouge 268/270



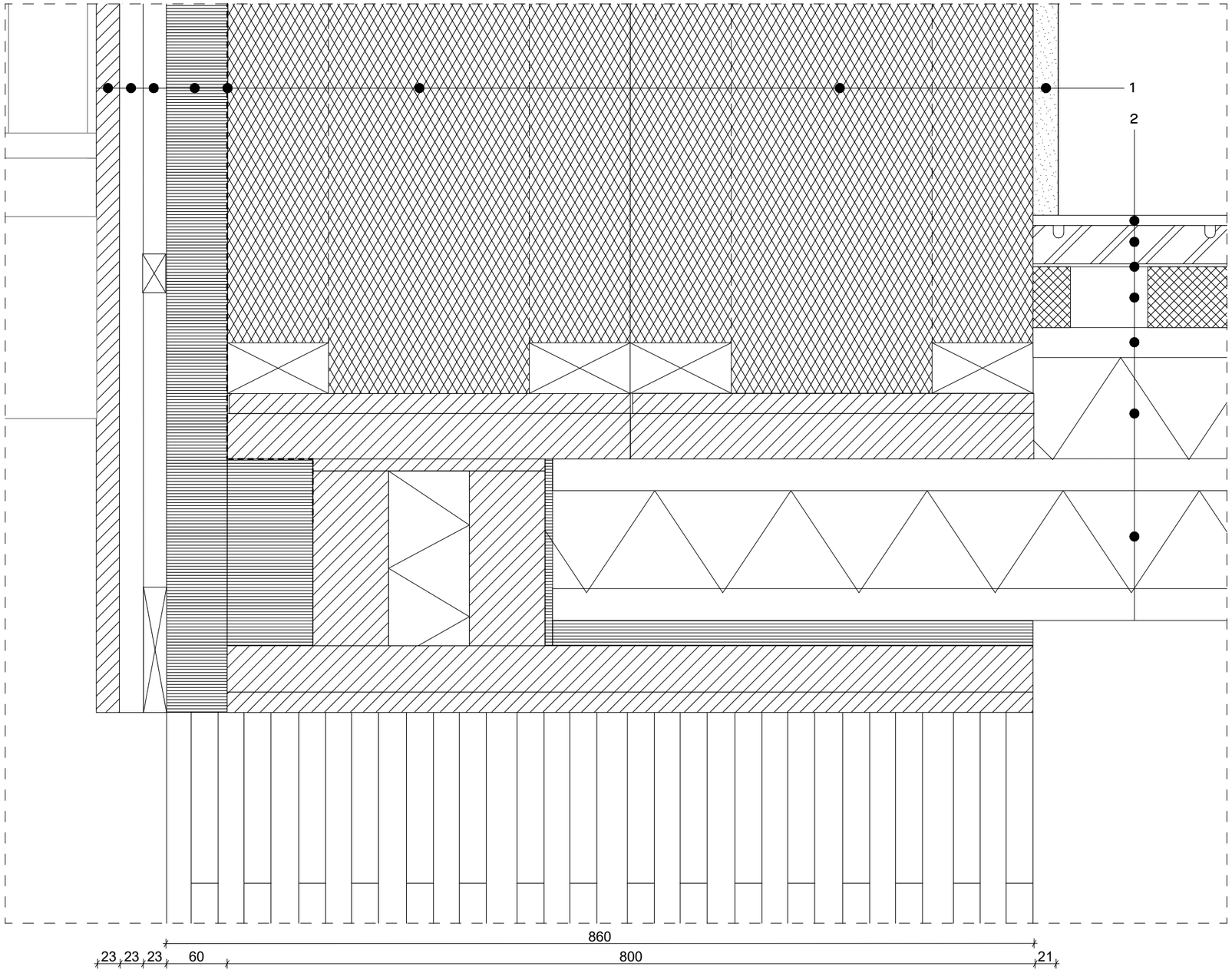
How strong must that wooden **column** be, proudly exhibiting the support it is giving to the gate, the entrance to the site. Ready to prevail over the passing of time, ready to do a better job than concrete ever could. The protagonist of the future, **wood**, anchoring its proof in the ground, they way it has been for centuries. This story is narrated by wood, the brave hero, pioneering in the neighbourhood, truthful to its purpose, exposing itself to its core, setting a precedent. A **ringbeam** connects the four columns to each other, crowning theim by showcasing their bearing task. If you look up you can see that each column is equally tasked with carrying the ceiling, a Lignatur floor element spanning 4,4 m with a height of 280mm. The ease with which the floor element can slide into the ringbeams shows the obviousness of this construction, setting a precedent for whats to come: a lightweight element within the precise boundaries dictated by the wooden structure, a straw/wood Ecococon panel 400×800 providing a biobased solution to the need for **isolation**. The 460 mm columns perfectly lining up with the 400mm straw/wood panel and 60mm of STEICOprotect Typ H woodfibre board, seperated only by a thin layer of **airtight breather membrane**. Instead of a facade plinth made of stone, a vapour permeable wooden cladding of the same height, once more shows that wood is tough and can withstand time while staying truthful to its age.

1. EXTERIOR WALL
vapour permeable certified BioLime render system 21mm
BioLime Finish Coat Carrara White 3mm
BioLime Brown Coat 6mm
BioLime Scratch Coat with embedded Mesh 6mm
BioLime Bond Coat 3mm
straw/wood Ecococon panel 400×800
airtight breather membrane
STEICOprotect Typ H woodfibre board 60mm
ventilated timber facade Platowood Spruce 3×23mm
2. TOP BEAM STEICO LVL X (top beam)
3. PREFABRICATED RINGBEAM STEICO LVL R
4. ACOUSTIC SEPERATION Rothoblaas Xylofon

B1 Drawing Scale

Detail **1:5**

Av. de la Croix-Rouge 268/270



1. EXTERIOR WALL
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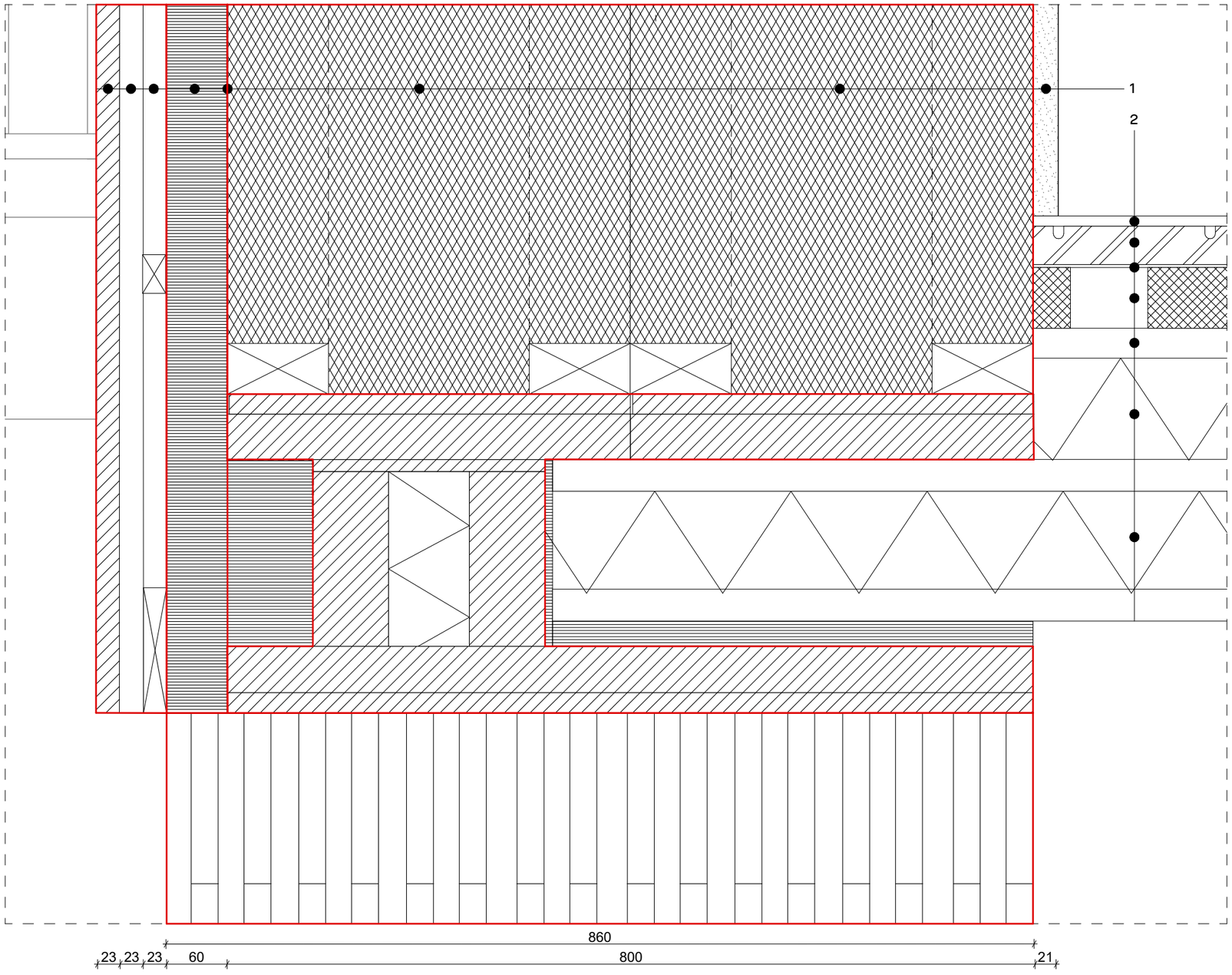
BioLime Brown Coat 6mm
BioLime Scratch Coat with embedded Mesh 6mm
BioLime Bond Coat 3mm
straw/wood Ecococon panel 400×800
straw/wood Ecococon panel 400×800
airtight breather membrane
STEICOprotect Typ H woodfibre board 60mm
ventilated timber facade Platowood Spruce 3×23mm
wooden plank 200mm horizontal

2. FLOOR
Marmoleum
Knauf GIFAfloor Klima with heating 38 mm
Landolt TS Silent 3 mm
concrete flags 60 mm
Isover EP 2, 30 mm, s' ≤ 15 MN/m3, on the edge Thermofloor
wood fibre 100 mm
LIGNATUR surface element (LFE 200) insulated

B2 Drawing Scale

Detail 1:5

Av. de la Croix-Rouge 268/270



Allready in the first encounter with the site, before even entering, our protagonist makes a strong statement. staying true to what he promised: to be truthfull to the precise boundaries dictated by the wooden structure. Hence, the challenge, if the structure is doubled, the isolation layer must be doubled as well. One Ecococon panel of 400 mm is joined by another of 400 mm making the perfec pair, and together with the 60mm woodfibre board they match the 860 mm of the wooden structure seamlessly.

1. EXTERIOR WALL
vapour permeable certified BioLime render system 21mm
BioLime Finish Coat Carrara White 3mm
BioLime Brown Coat 6mm
BioLime Scratch Coat with embedded Mesh 6mm
BioLime Bond Coat 3mm
straw/wood Ecococon panel 400×800
straw/wood Ecococon panel 400×800
airtight breather membrane
STEICOprotect Typ H woodfibre board 60mm
ventilated timber facade Platowood Spruce 3×23mm
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concrete flags 60 mm
Isover EP 2, 30 mm, s' ≤ 15 MN/m3, on the edge Thermofloor
wood fibre 100 mm
LIGNATUR surface element (LFE 200) insulated

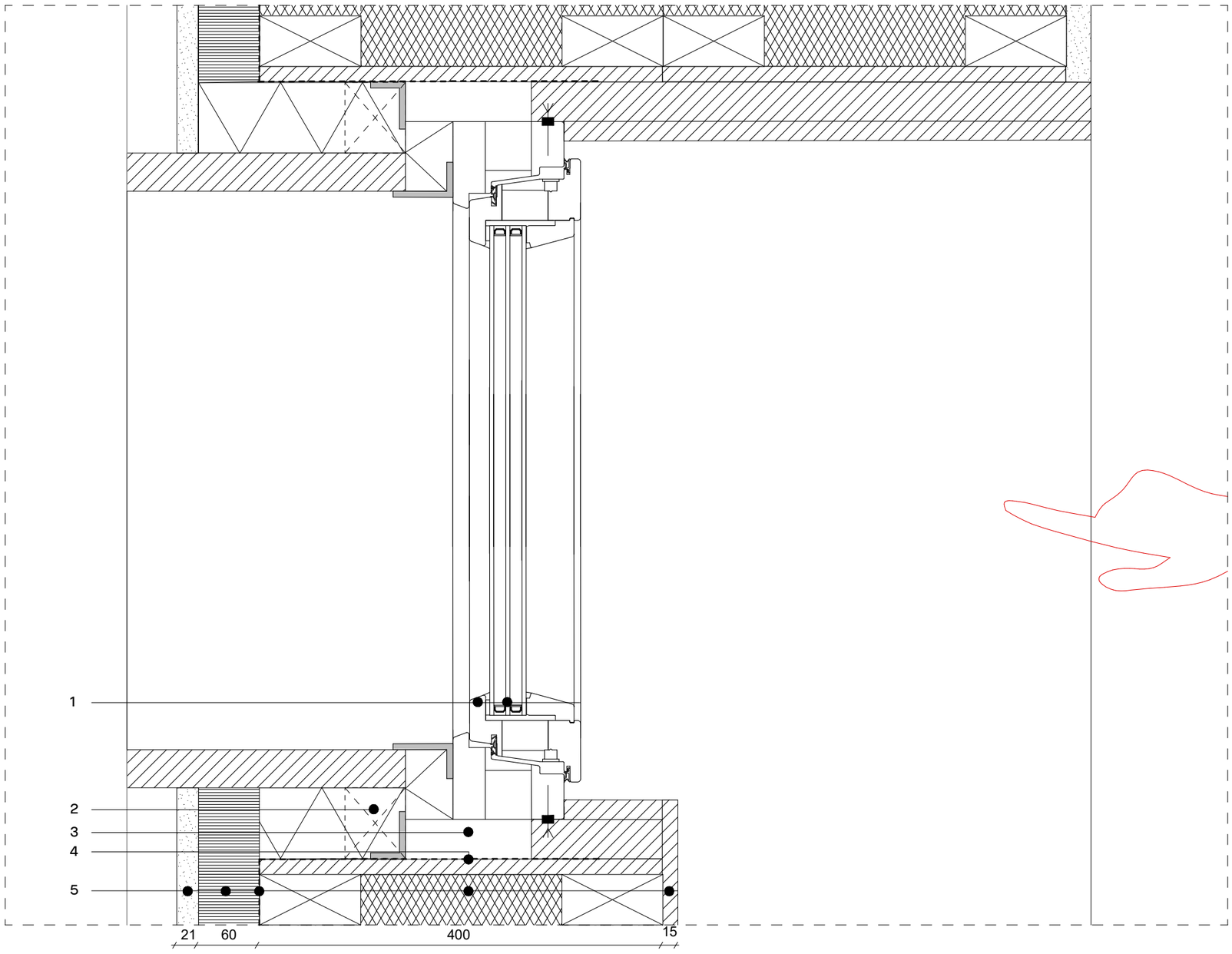
B2 Drawing Scale

Detail **1:5**

Av. de la Croix-Rouge 268/270

B12

B7

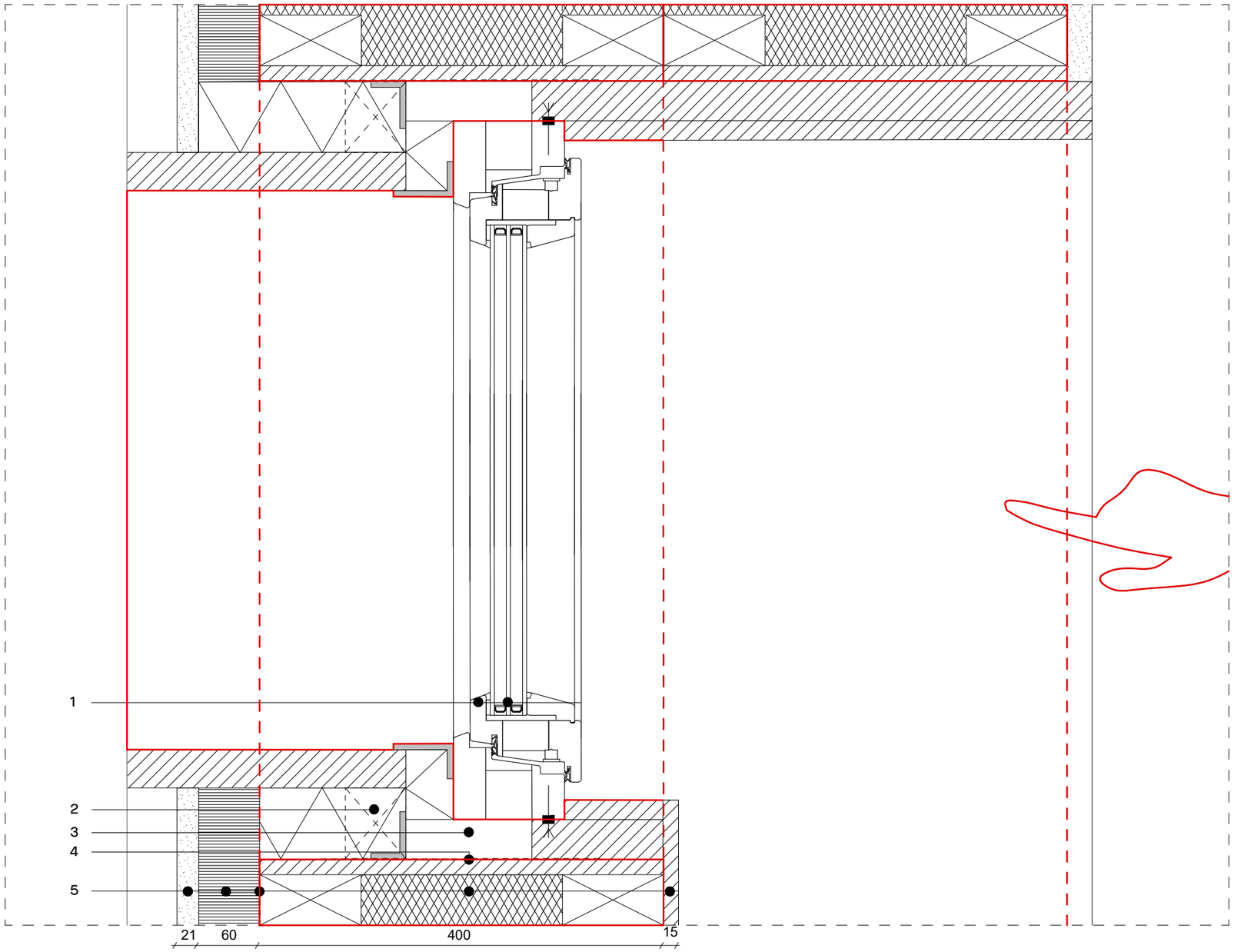


1. WINDOW
passive airtight window frame ENERGATE 1042+
triple HR+++ glass
2. LINTEL ACHORING wood 60×70mm
3. INSTALLATION GAP
4. AIRTIGHT BREATHER MEMBRANE
5. EXTERIOR WALL
vapour permeable certified BioLime render system 21mm
BioLime Finish Coat Carrara White 3mm
BioLime Brown Coat 6mm
BioLime Scratch Coat with embedded Mesh 6mm
BioLime Bond Coat 3mm
STEICOprotect Typ H woodfibre board 60mm
airtight breather membrane
straw/wood Ecococon panel 400×800
plywood 15 mm

B3 Drawing Scale

Detail **1:5**

Av. de la Croix-Rouge 268/270



This doubling in the structure creates the possibility for this layer to fullfil more than just the purpose of isolation. While one layer of panels is enough to accomodate the structural needs as well as the need for isolation and the occasional window or door, the second panel shows an investigation into the use of elements, aiding the manipulation of elements, into objects that ensue a certain use of the element and thereby the space. Take this window for example. Its shape and height is based on a type found in the neighbourhood, narrow windows near doors, with an unobstructed view of the space in front of the front door. Usually they are just used for a quick check if the doorbell rings, or if you'd here a soind outside. But what if you could include them more in the "inkom" instead of just adding them for their incidental functionality. Could making it a place to sit, stay, take of your shoes, increase the sense of "eyes of the street", a visual safeguarding without the need for an instigator, something happening?

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airtight breather membrane
straw/wood Ecococon panel 400×800
plywood 15 mm

B3 Drawing Scale

Detail **1:5**

Av. de la Croix-Rouge 268/270

B6

B5

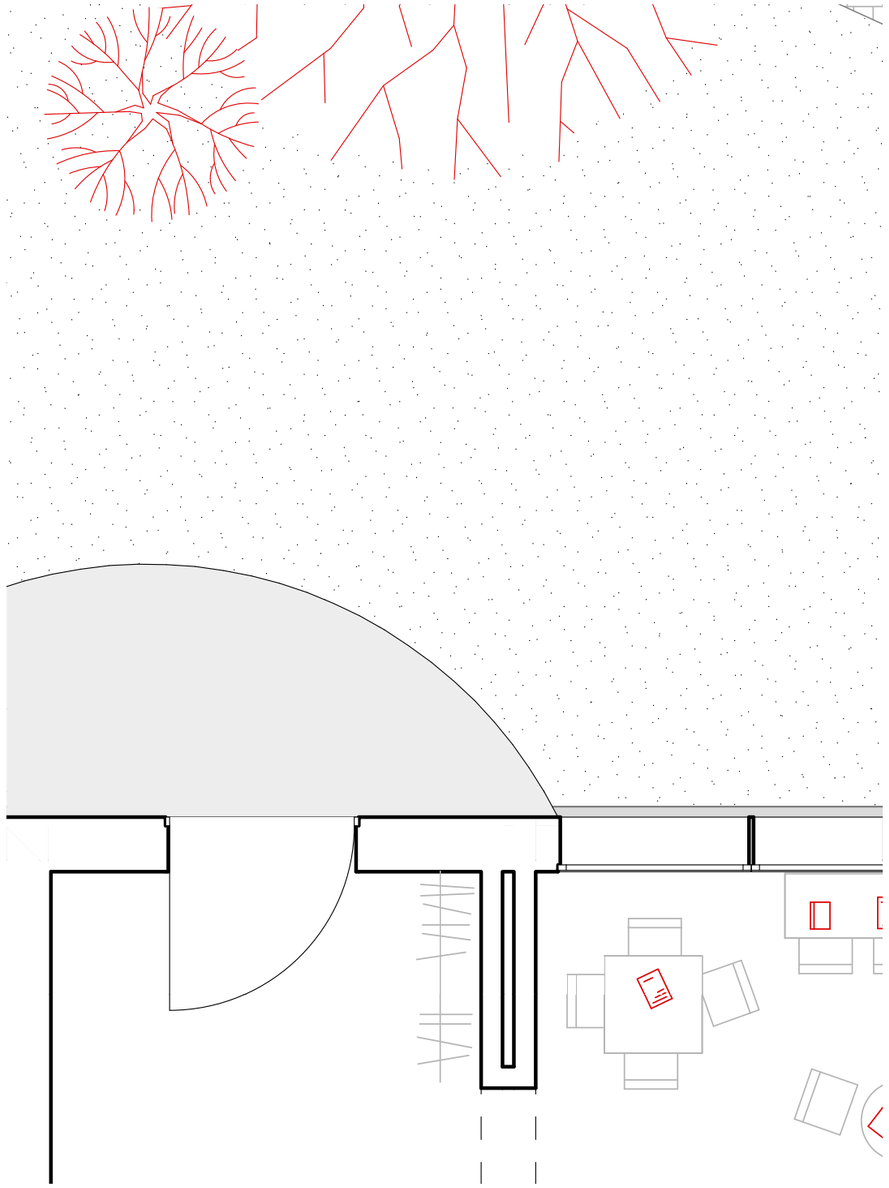
V5

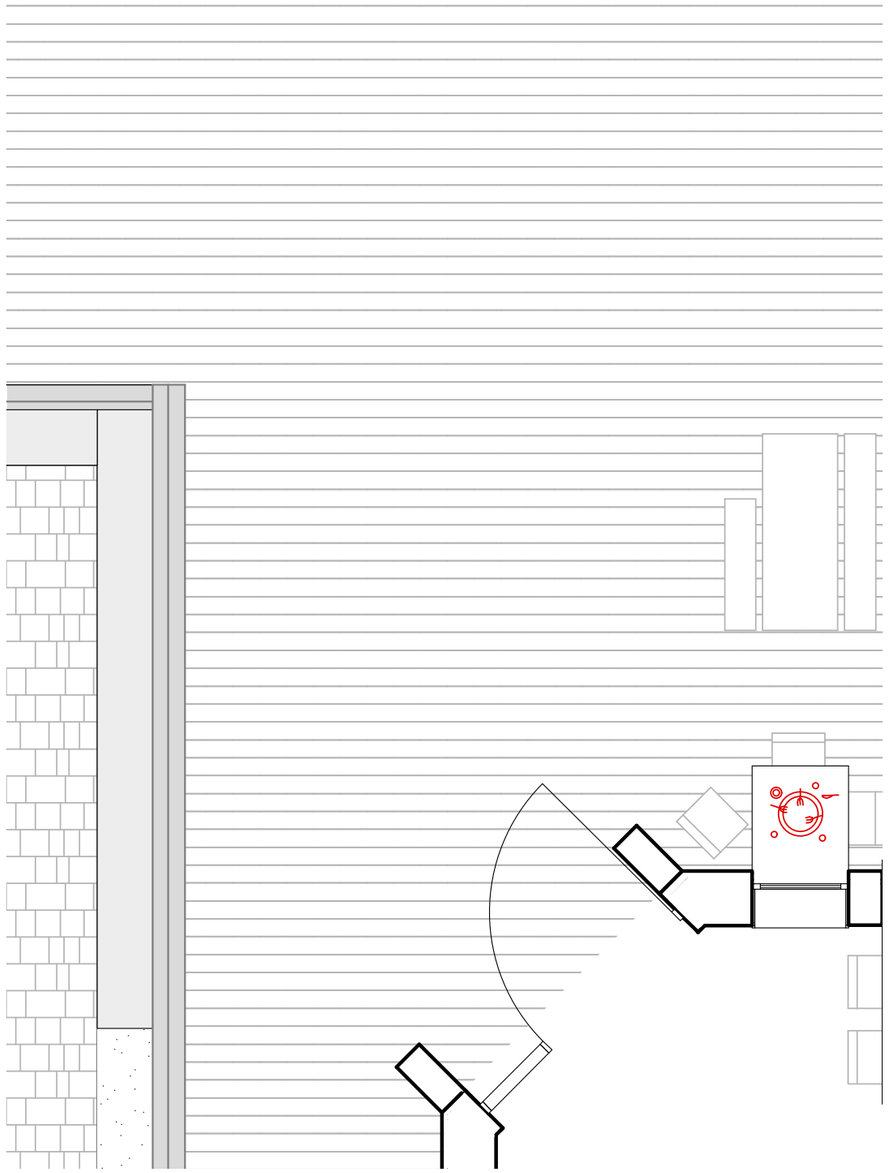
Section B

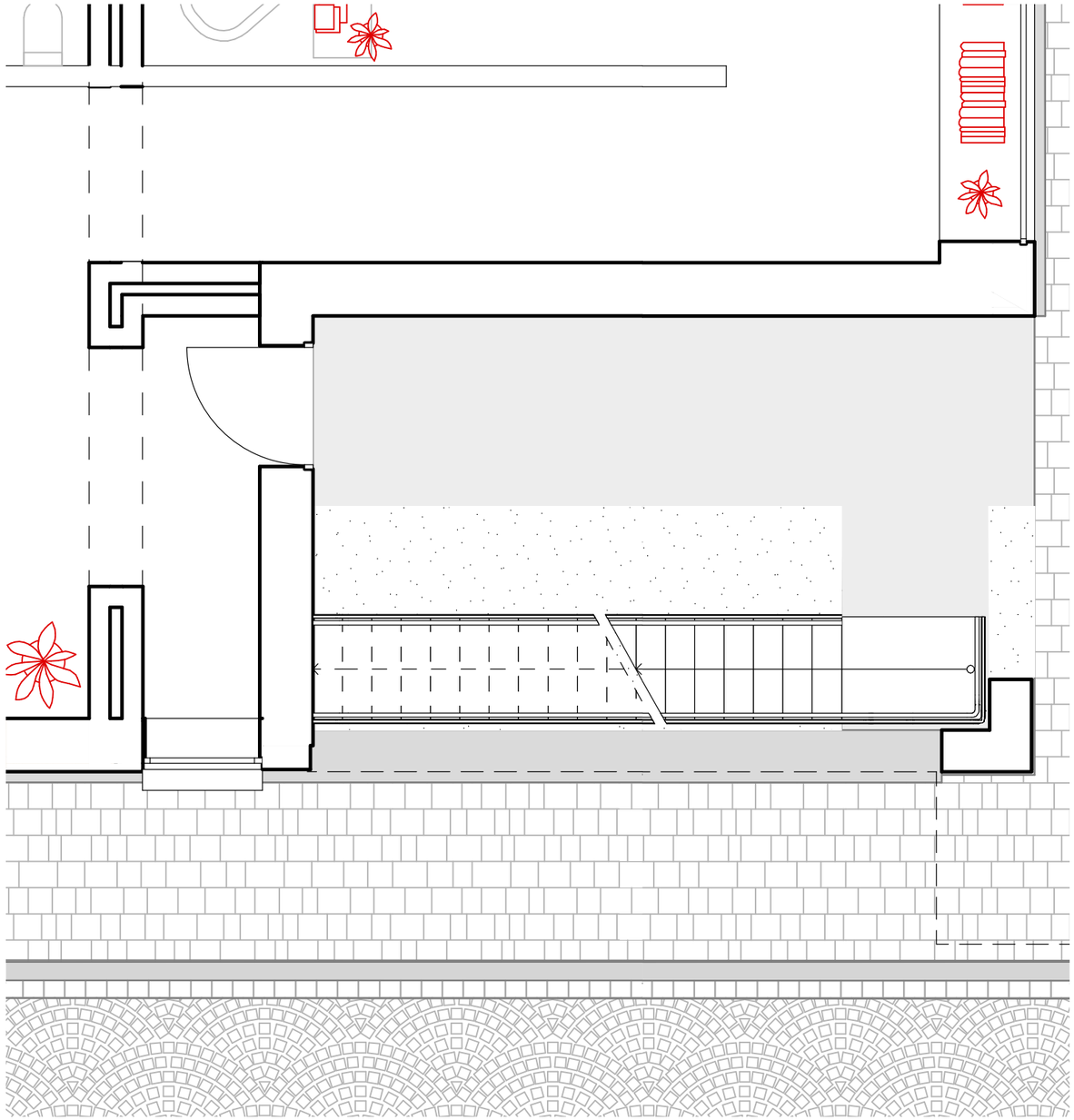
Drawing Scale

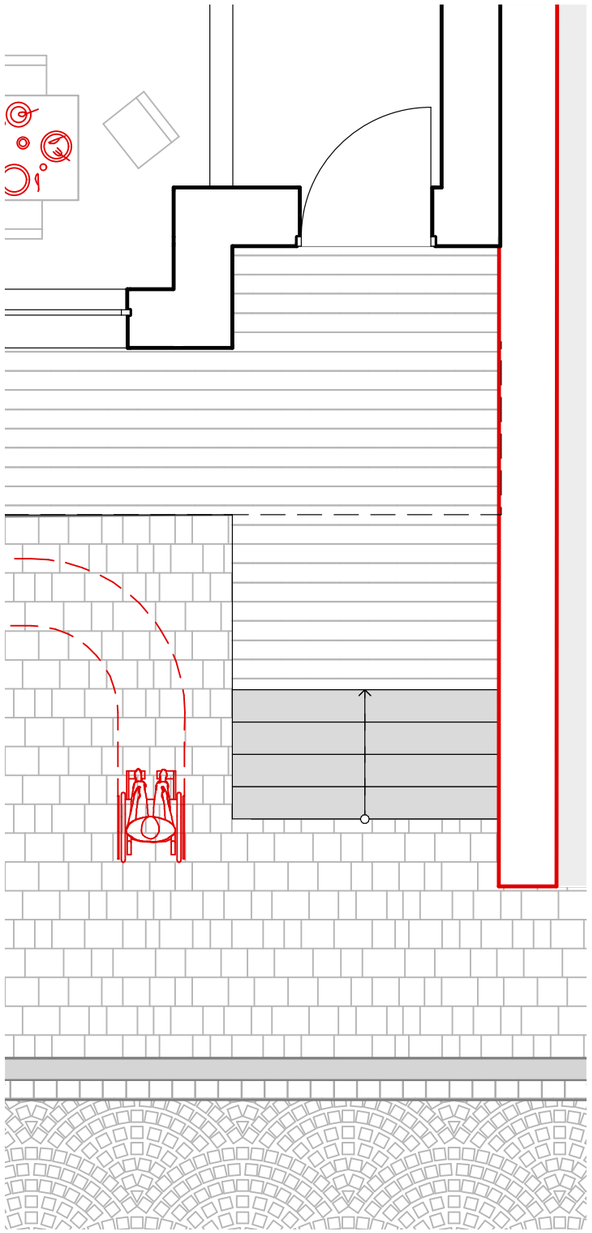
1:20

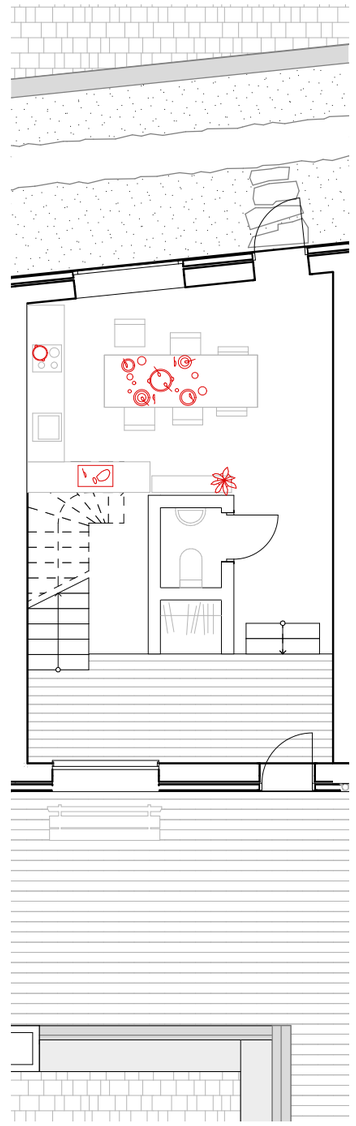
Avenue de la Croix-Rouge 268/270, Liége

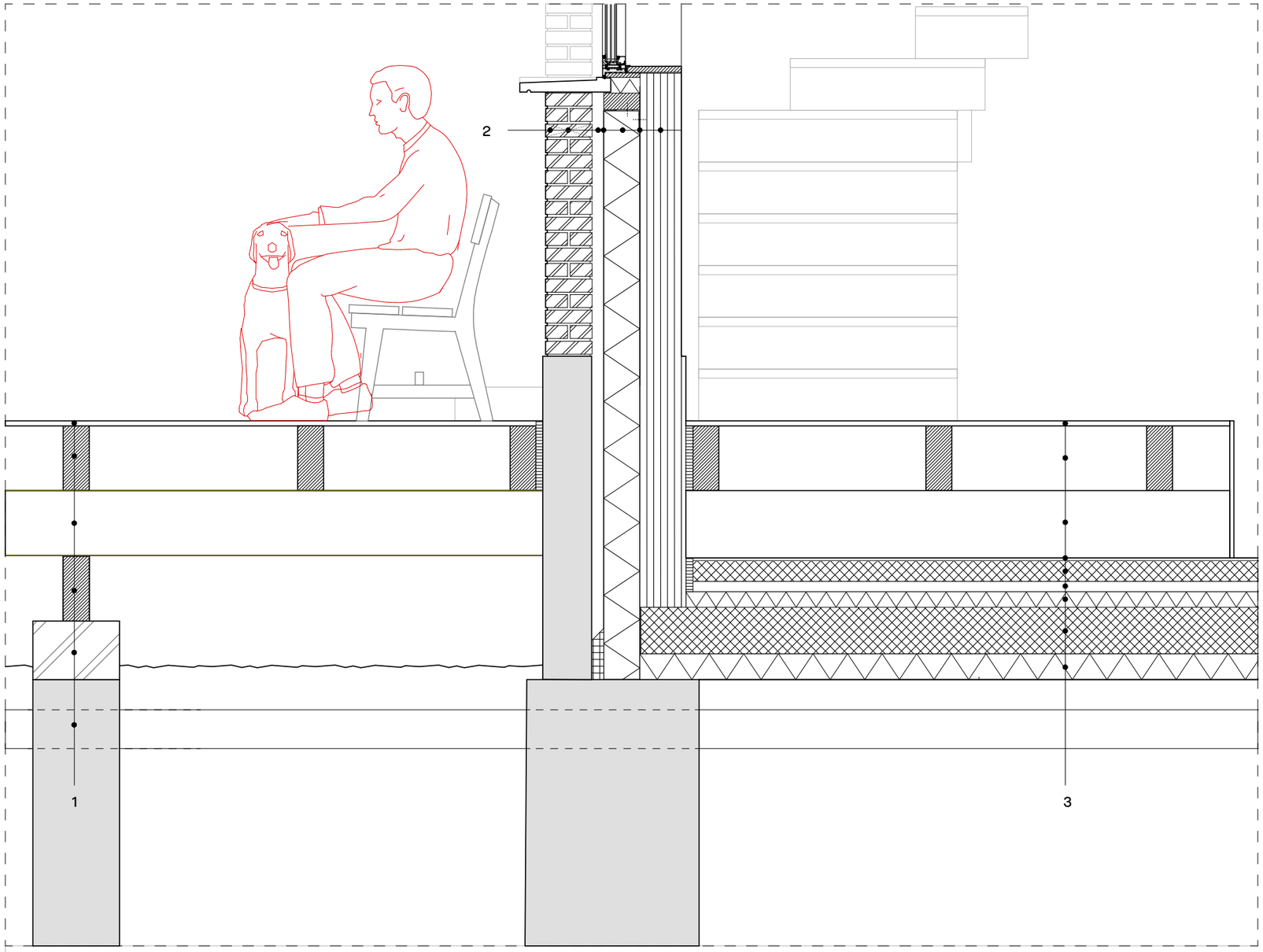












1. OUTSIDE TERRACE
timber planks 20 mm
timber beam 250 mm
timber beam 250 mm
timber beam 250 mm
concrete block 225 mm
foundation

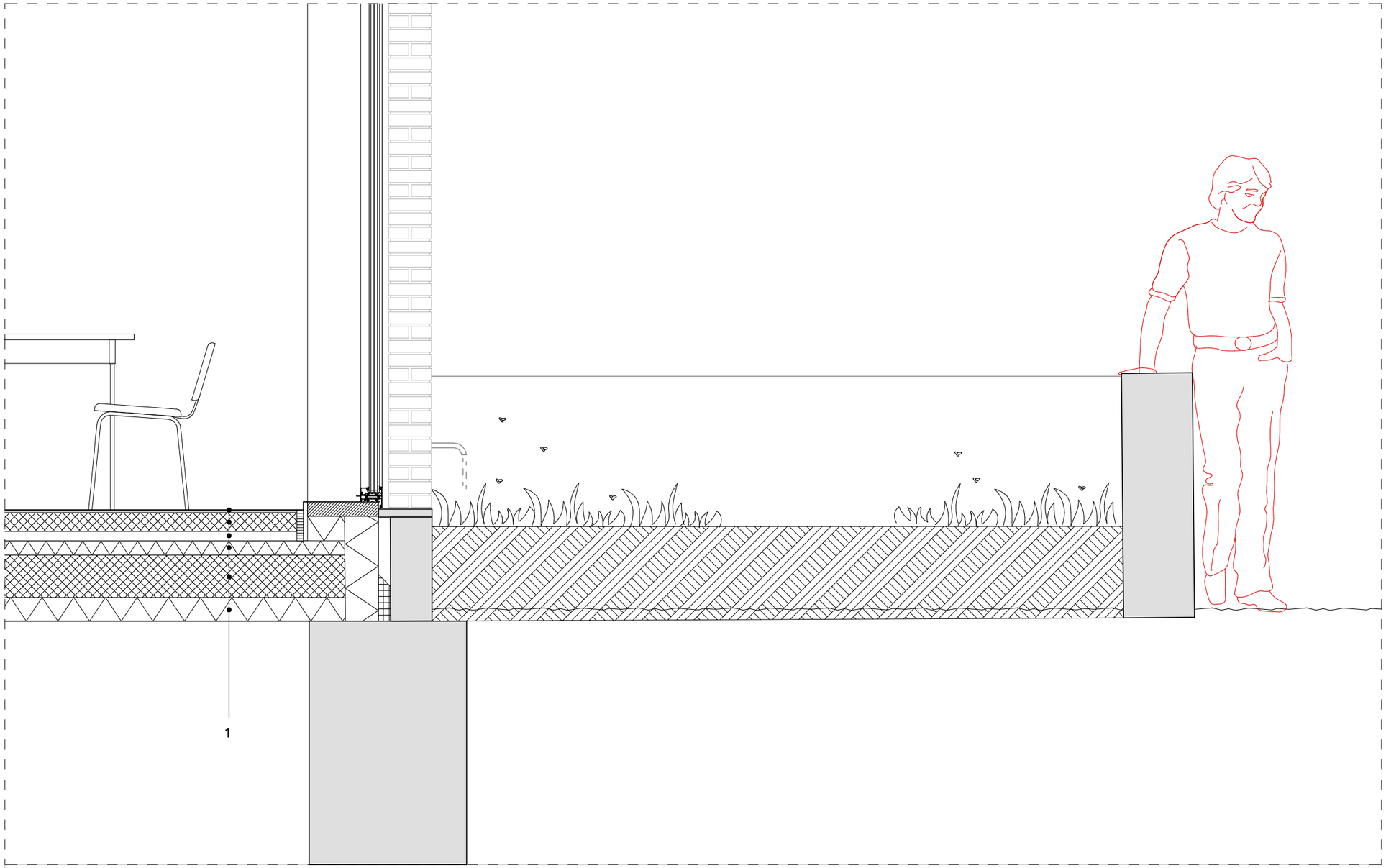
2. EXTERIOR WALL
repurposed brickwork 180 mm
open butt joint
ventilated air cavity 40 mm
Waterproof layer
Isoroof woodfibre isolation 140mm
vapour permeable membrane
CLT 160 mm

3. FLOOR
timber planks 20 mm
timber beam 250 mm
timber beam 250 mm
marmoleum finishing 10 mm
cement screed floor 80 mm
climalevel system element with floor heating
and vetilation 40 mm
rigid insulation 60 mm
cast concrete 180 mm
rigid insulation 100 mm

A1 Drawing Scale

Detail **1:20**

Av. de la Croix-Rouge 268/270

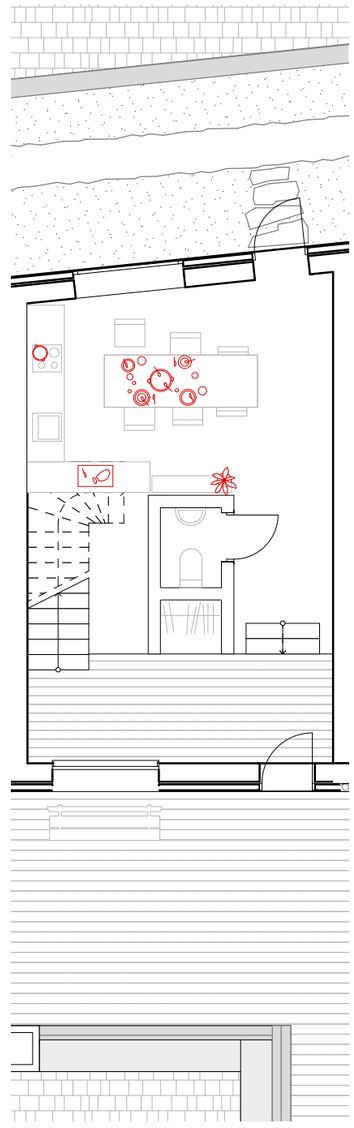


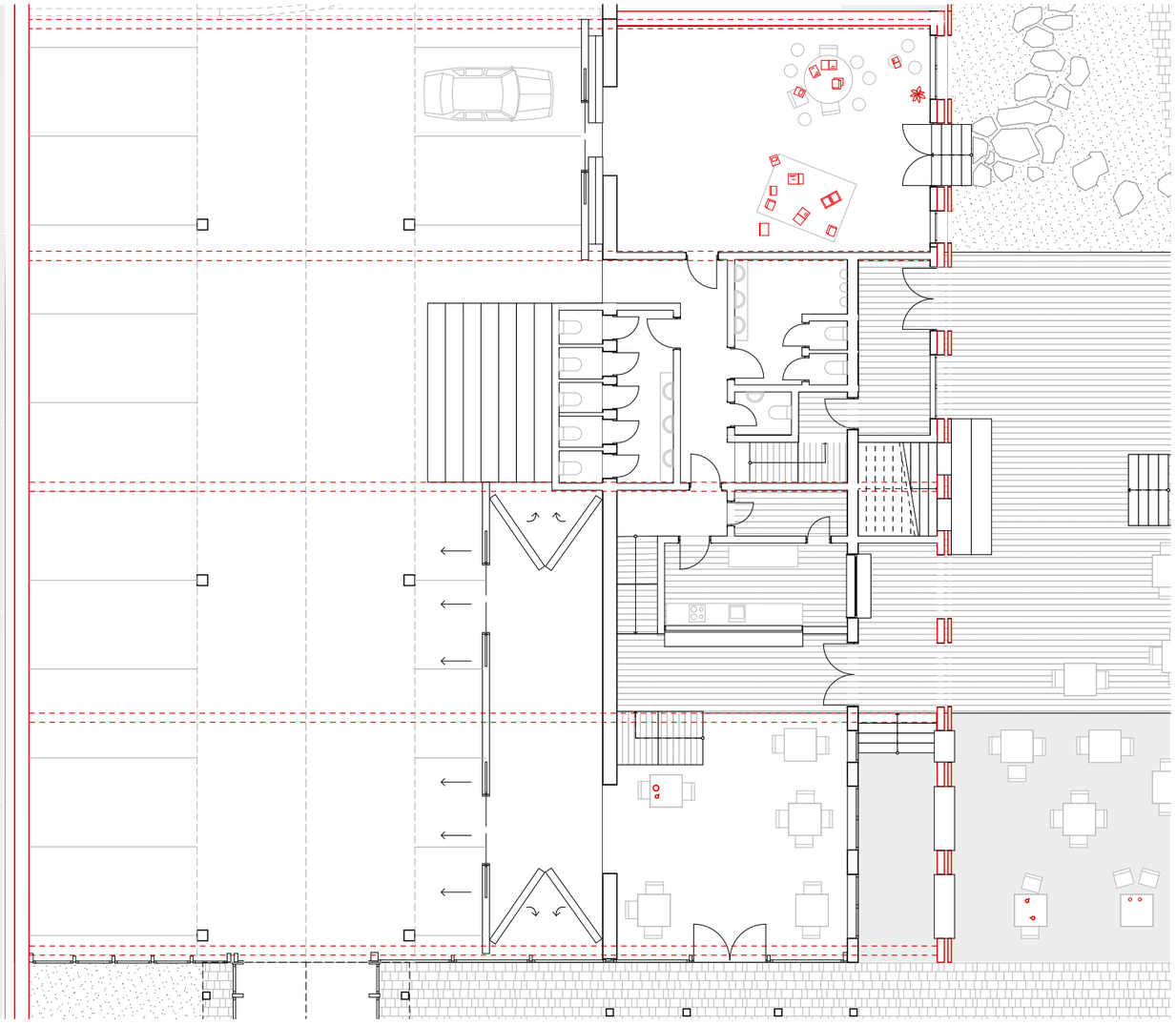
1. FLOOR
marmoleum finishing 10 mm
cement screed floor 80 mm
climalevel system element with floor heating
and vetilation 40 mm
rigid insulation 60 mm
cast concrete 180 mm
rigid insulation 100 mm

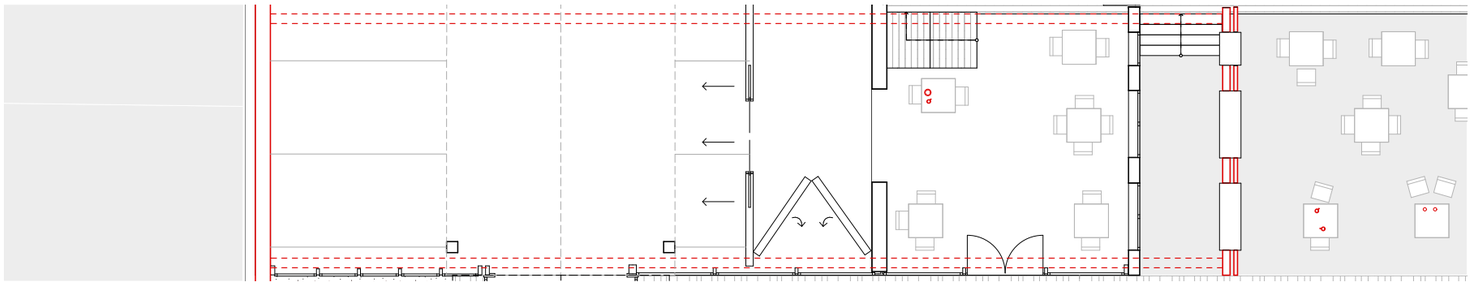
A2 Drawing Scale

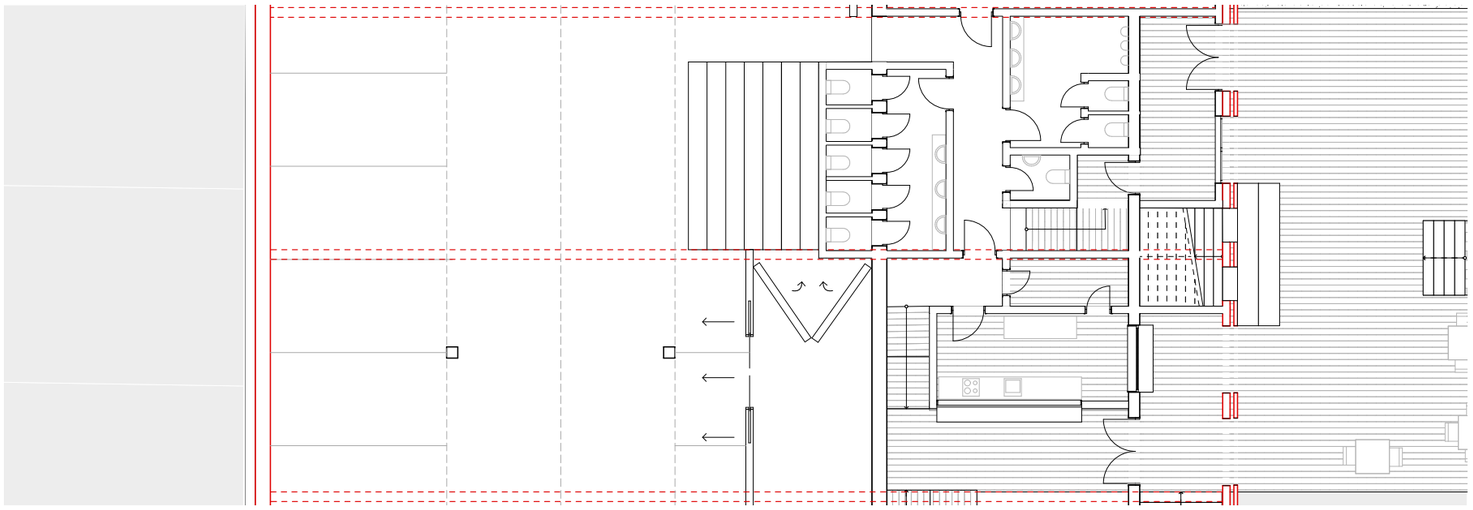
Detail **1:20**

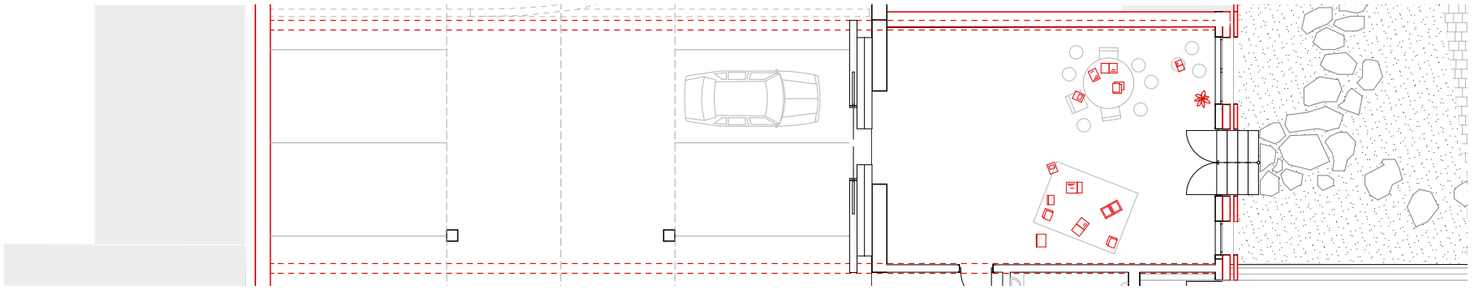
Av. de la Croix-Rouge 268/270

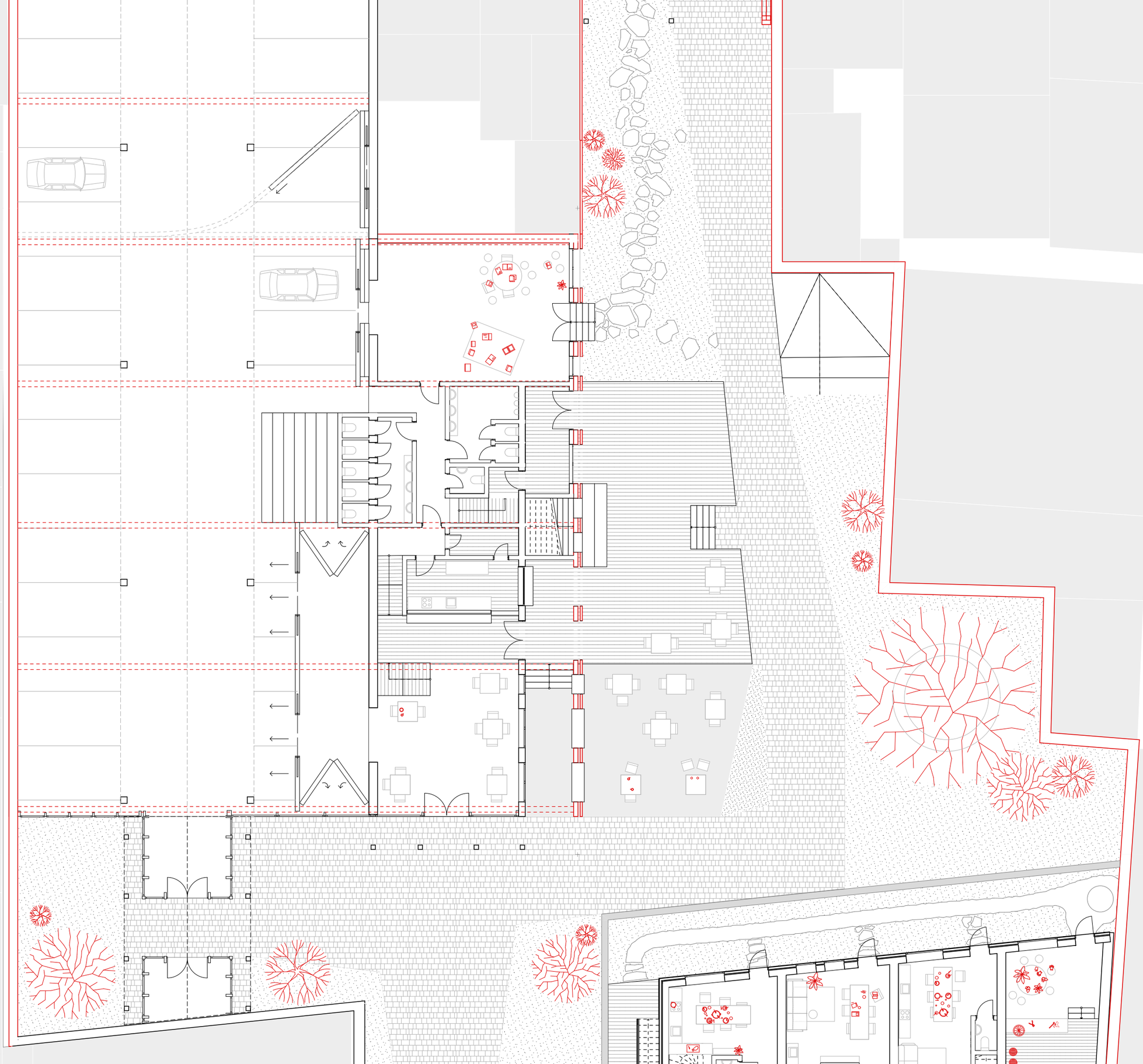













L'ORCHESTRE DE LIÉGE
journée de la musique