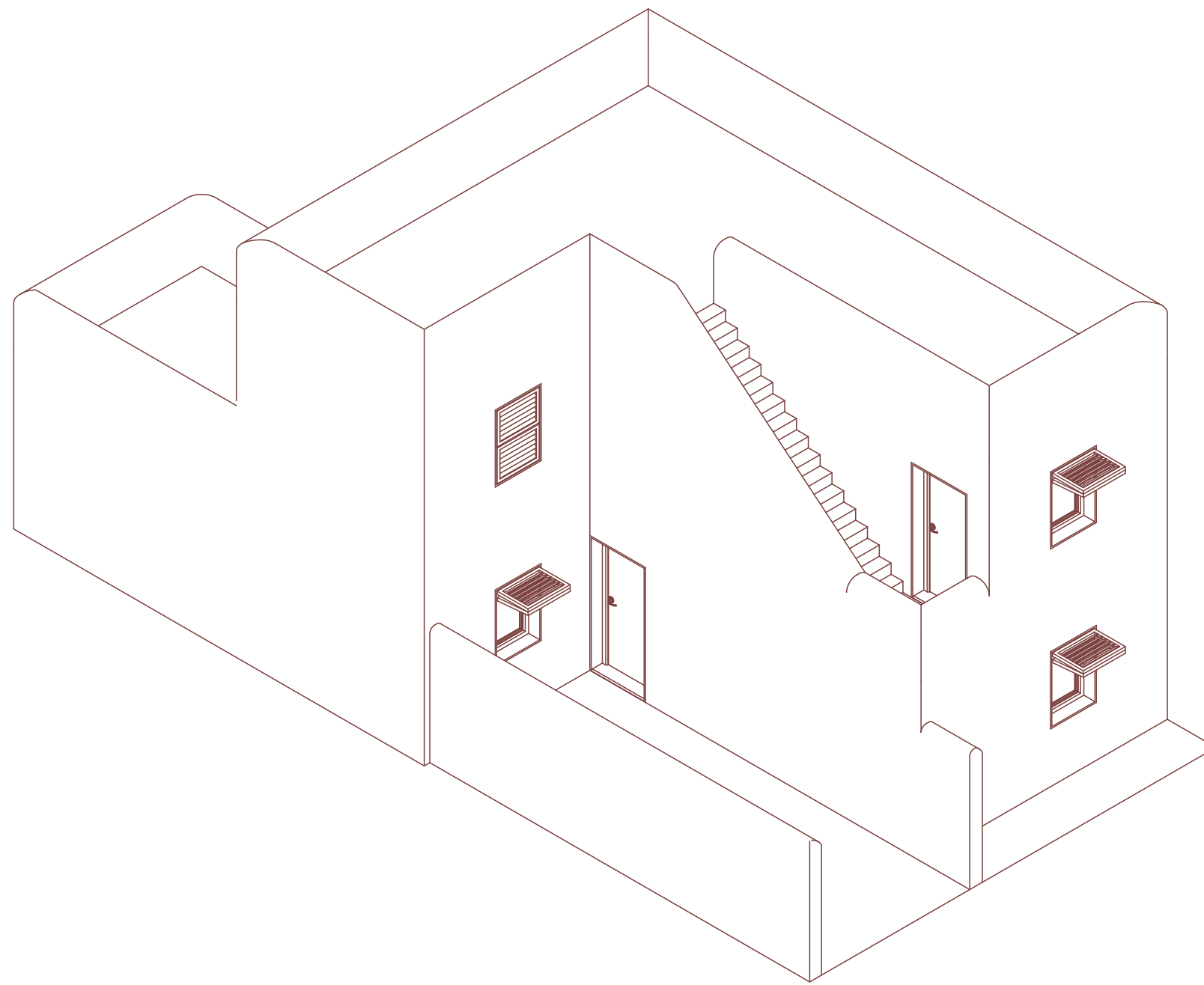


Radical Vernacular

A New Ethiopian Urbanity

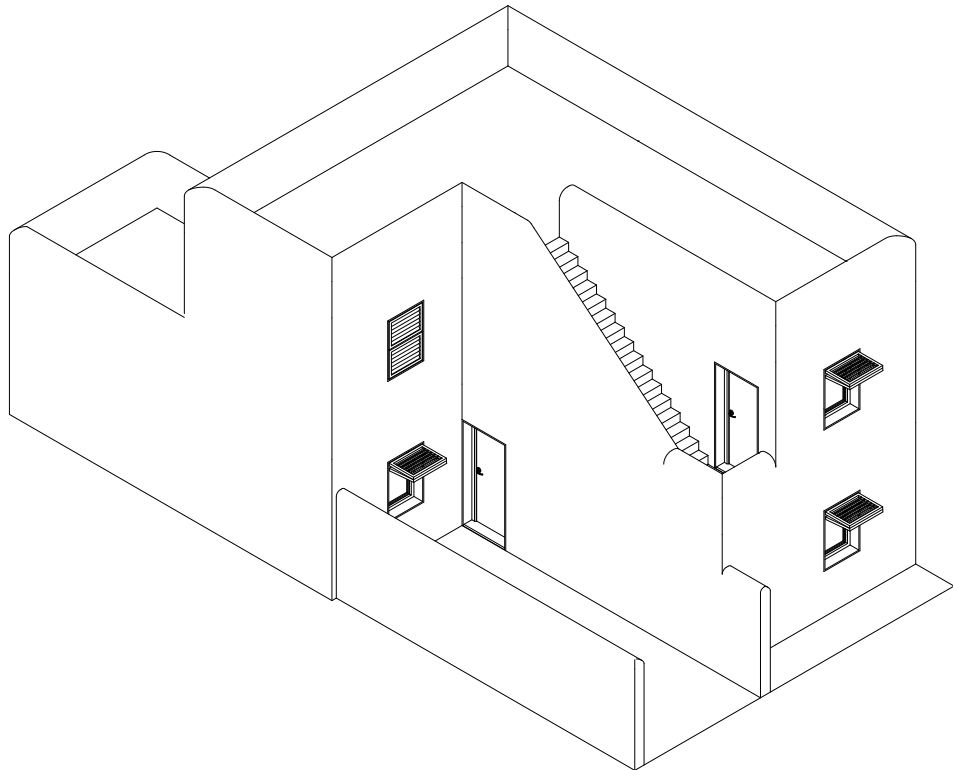


Alex Hewitson
4924843

Scheme



Type 1

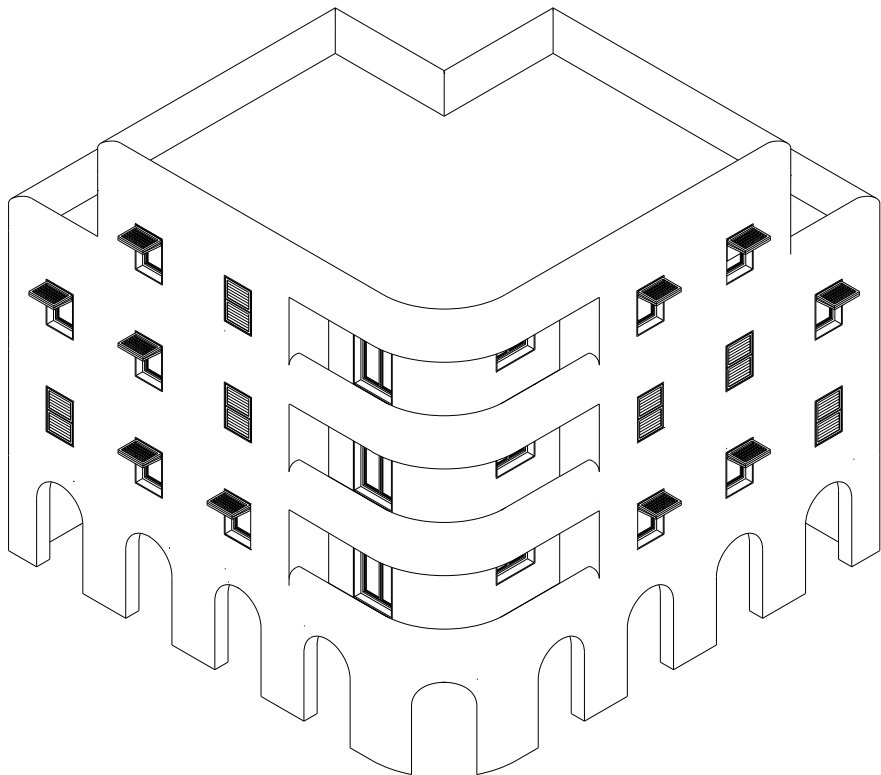


613 units

Existing Tenants
Leaseholders

Residential (+ Commercial)

Type 2

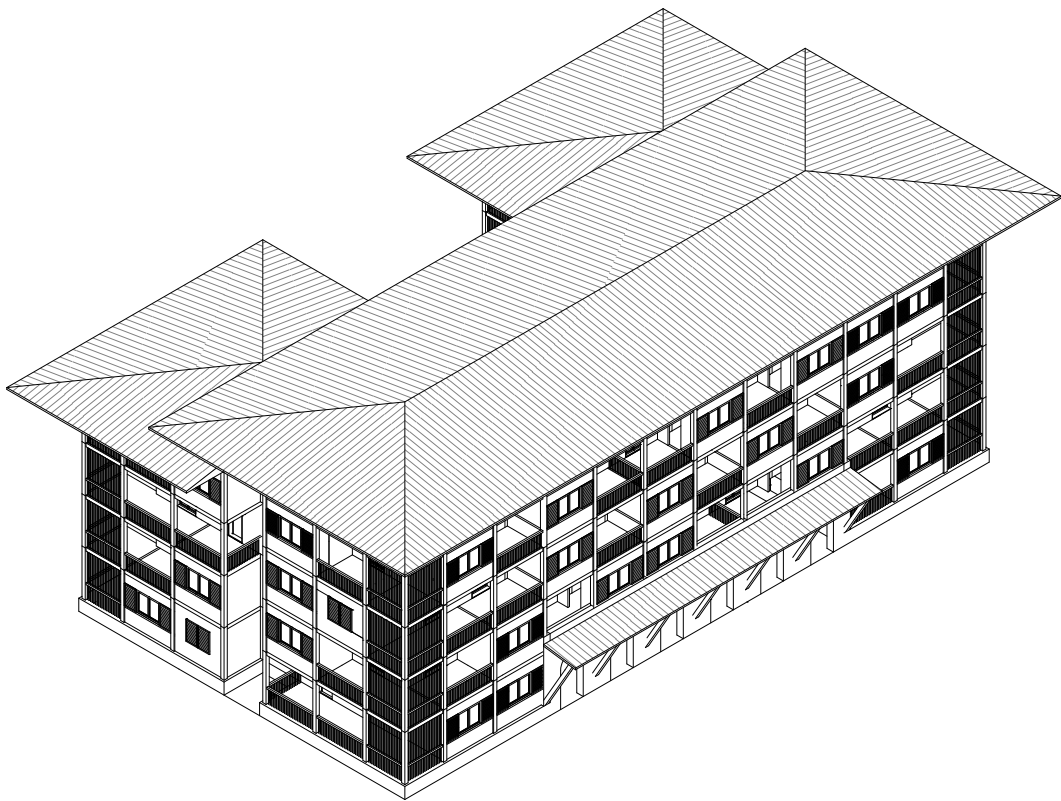


23 units

Co-operatives / Landlords
(Leaseholders)

Residential + Commercial

Type 3



7 units

New Tenants

Residential + Commercial +
Community

Data

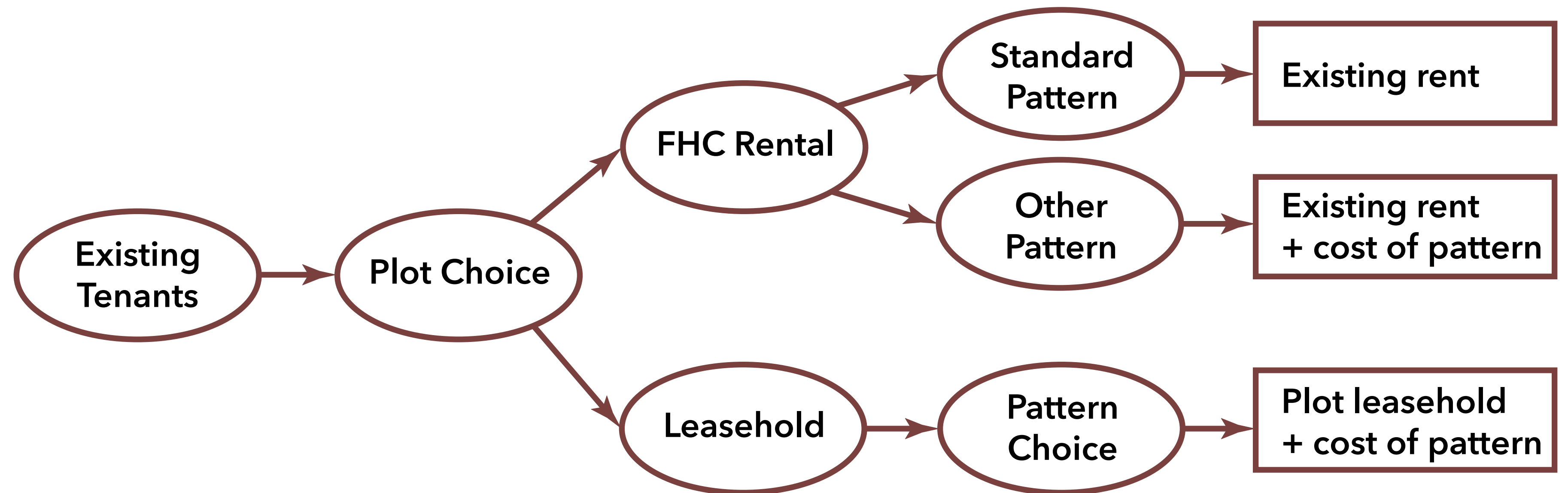
Existing

Site Ownership:	FHC
Tenure:	Social rental, (sub-rental)
Function:	Residential (community)

Proposed

Site Ownership:	FHC
Tenure:	Social rental, Private rental, Sub-rental Co-operatives, Leasehold
Function:	Residential, Commercial, Community

Flowchart



Urban Plan



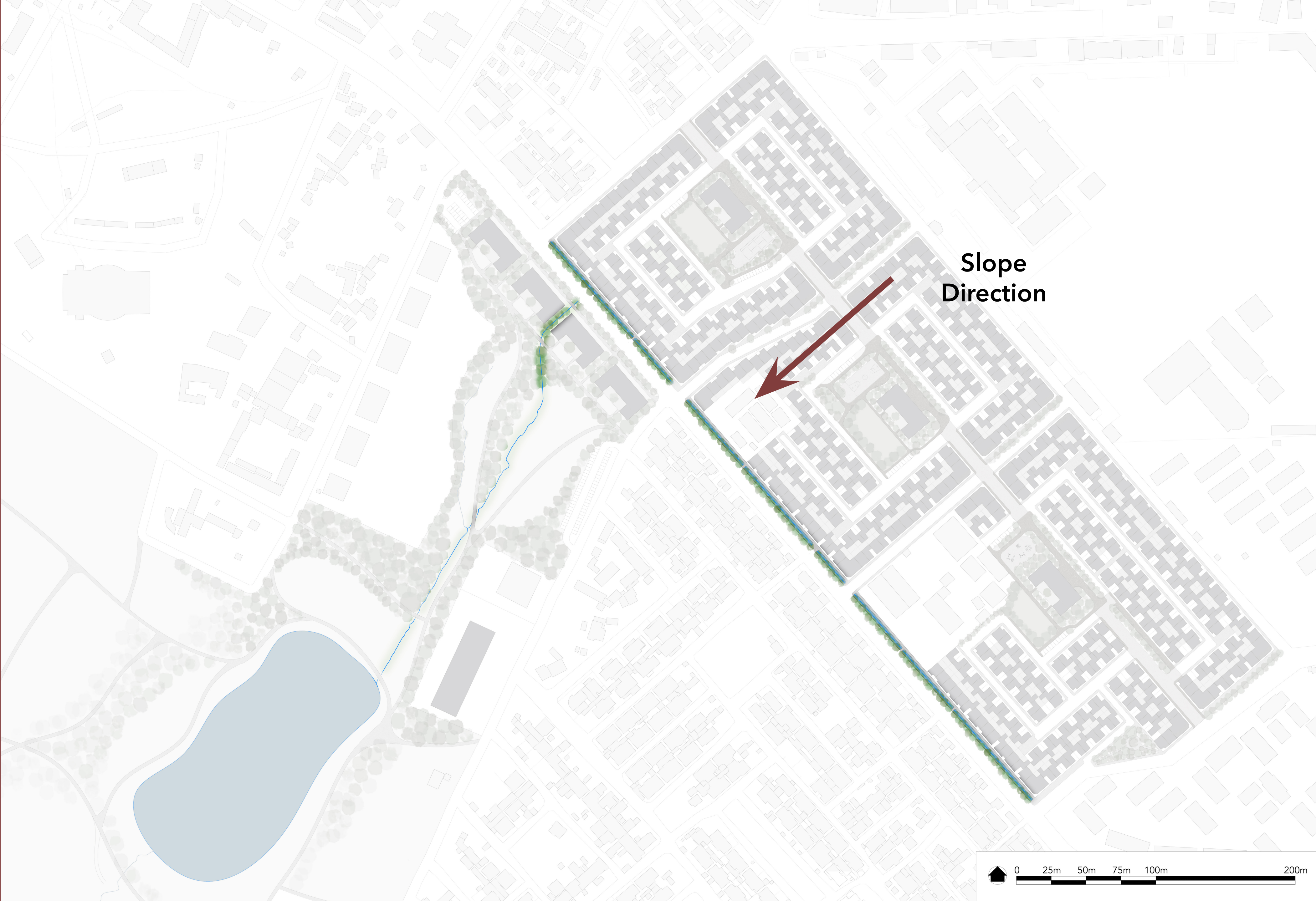
Wind



Prevailing
Wind



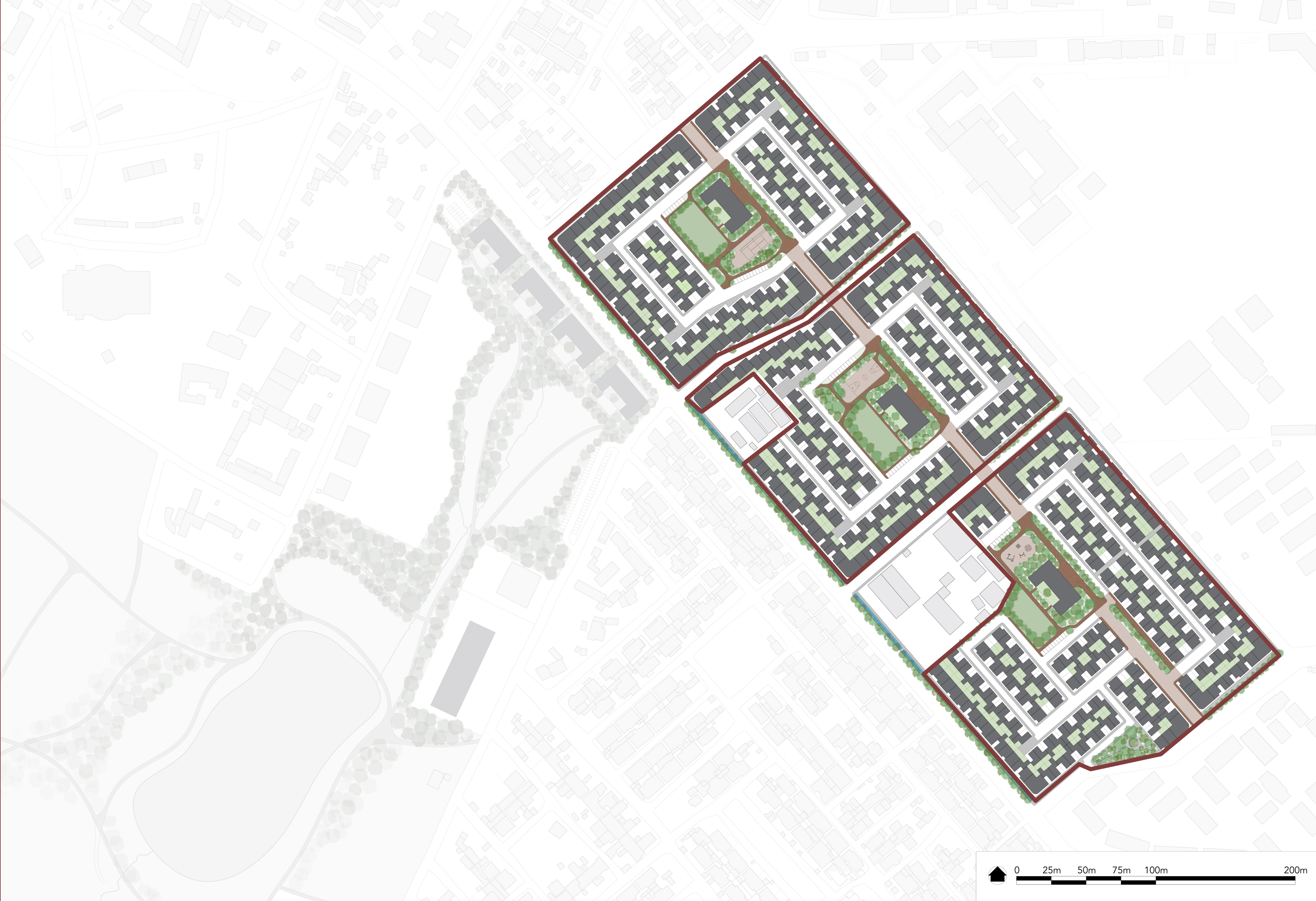
Water



Slope
Direction



Quarters

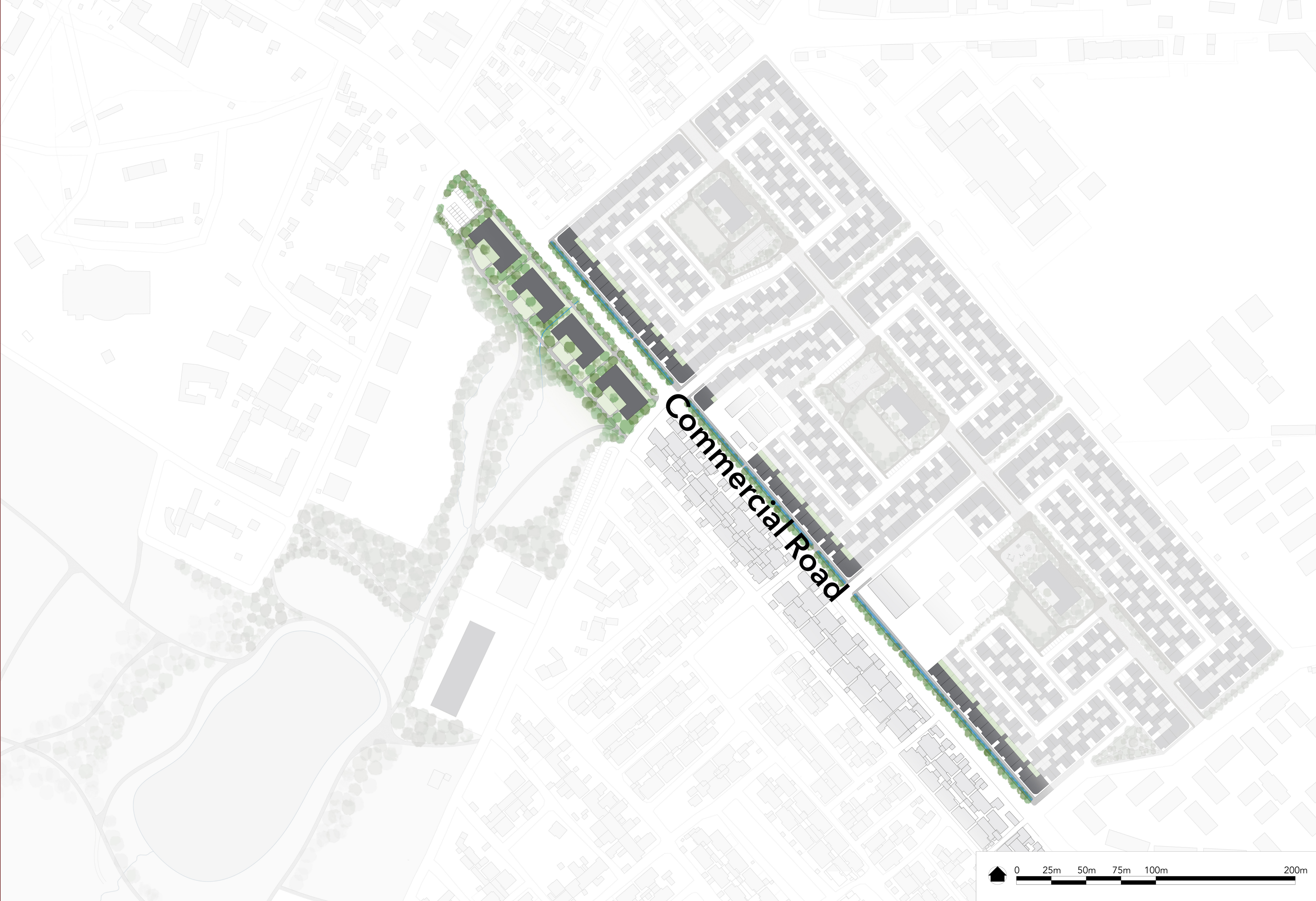


Social Corridor





Commercial



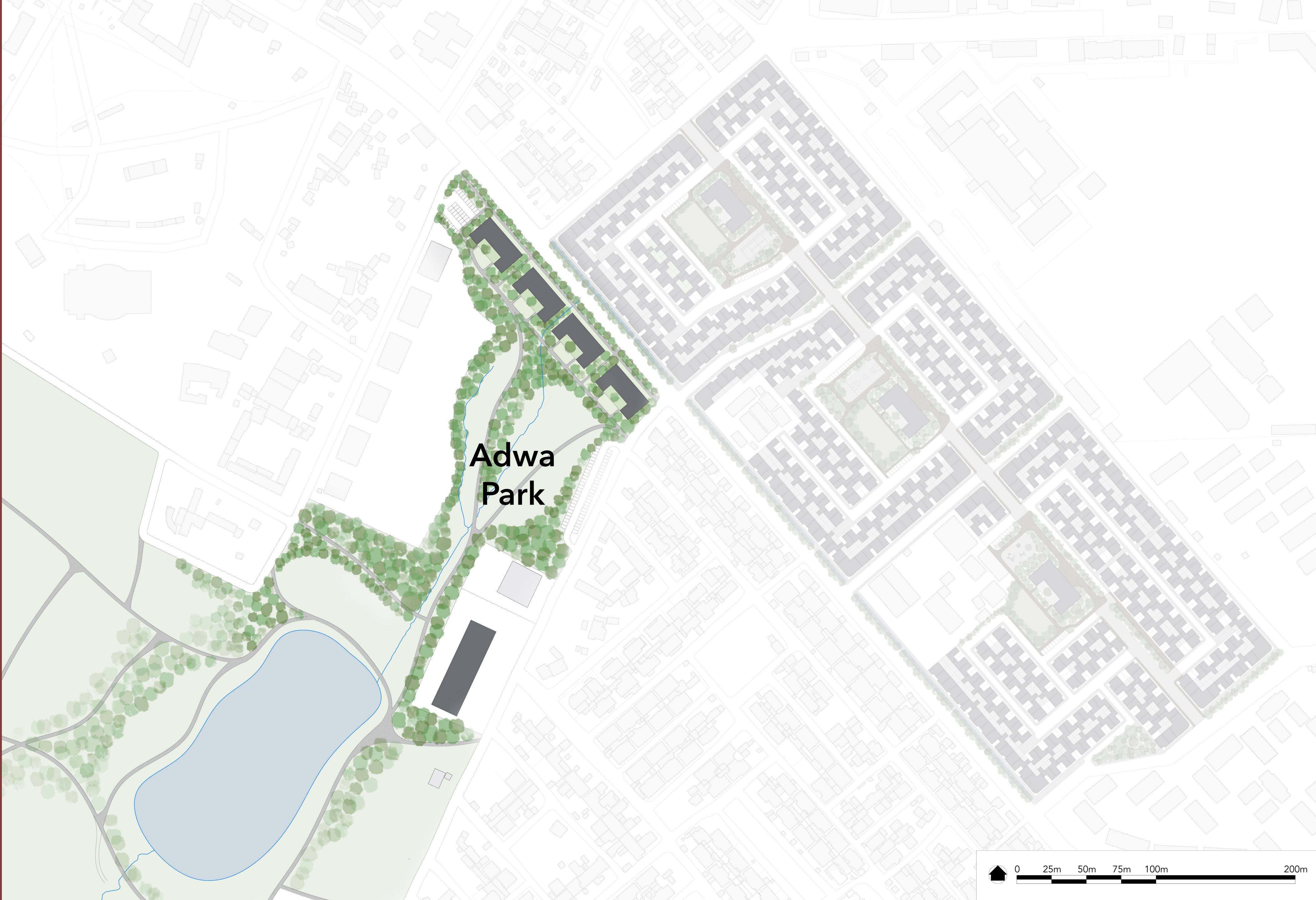


የትስ ራፋኤል ጽሕፍት
0911 122546/0910 065037

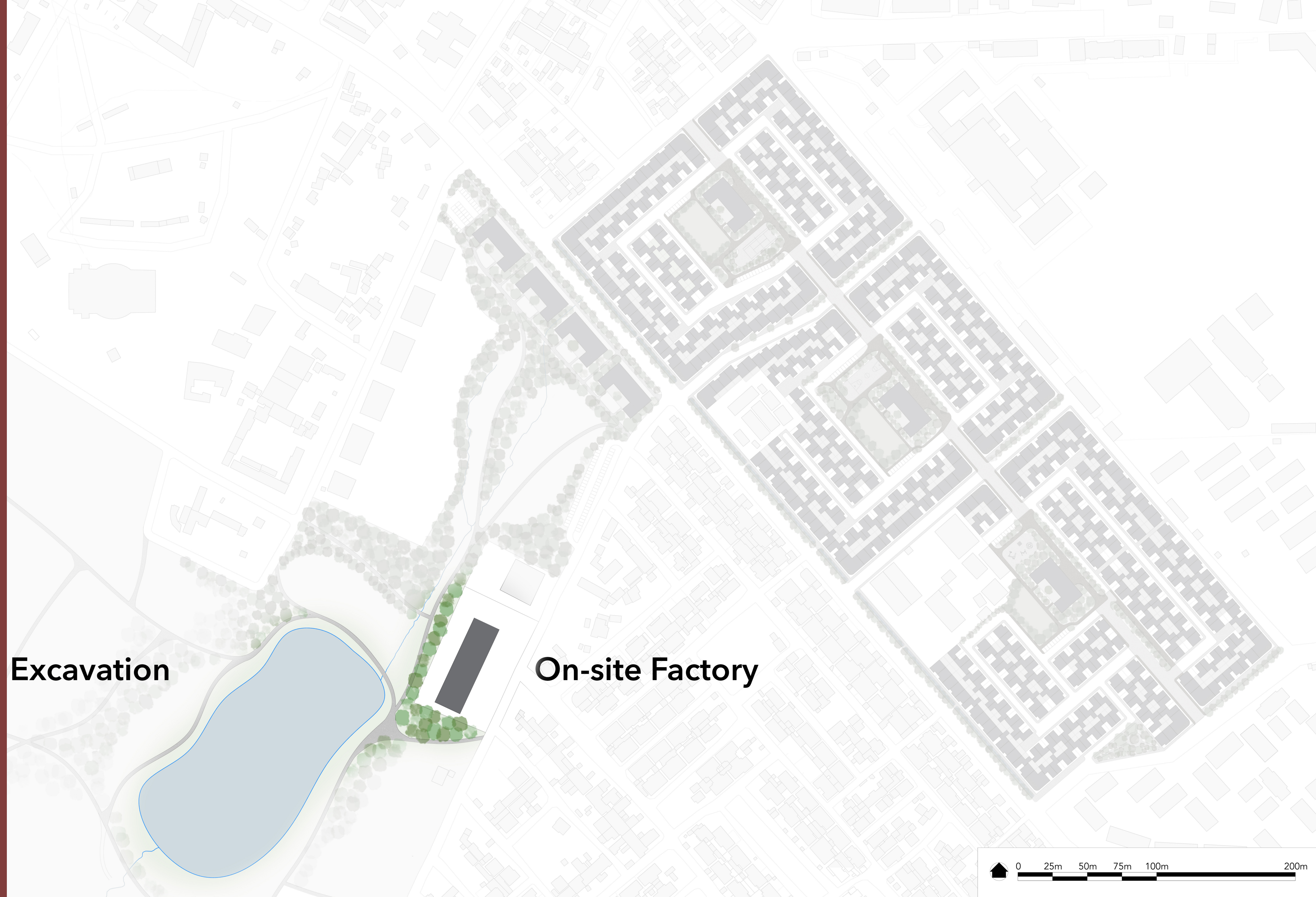


TOMOCAL

Adwa Park



Factory



Excavation

On-site Factory



Adobe



Image source:
[https://commons.wikimedia.org/wiki/File:Mud_Brick_Wall_at_Ashkelon_\(5758799883\).jpg](https://commons.wikimedia.org/wiki/File:Mud_Brick_Wall_at_Ashkelon_(5758799883).jpg)

Adobe

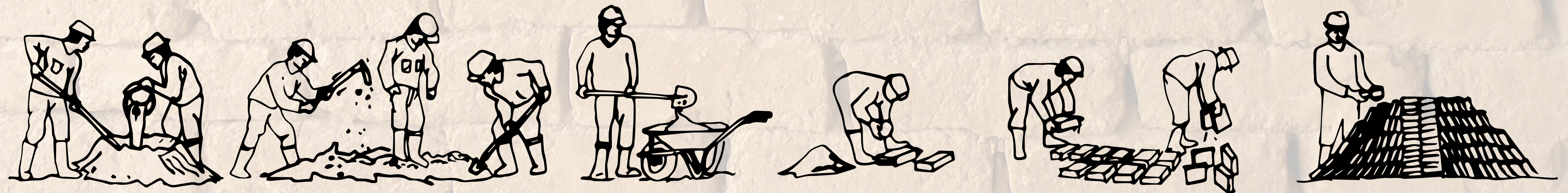


Image sources:
[https://commons.wikimedia.org/wiki/File:Mud_Brick_Wall_at_Ashkelon_\(5758799883\).jpg](https://commons.wikimedia.org/wiki/File:Mud_Brick_Wall_at_Ashkelon_(5758799883).jpg)
<https://madeinearth.in/topics/techniques/adobe/>
(adapted)

Adobe

Gerji:

Clay: 50 - 70%
Sand: 30 - 50%

(Montmorillonite:
45 - 50%)

Adobe:

Clay: 20 - 28%
Sand: 62 - 70%
Straw: 10%

(Montmorillonite:
18 - 20%)

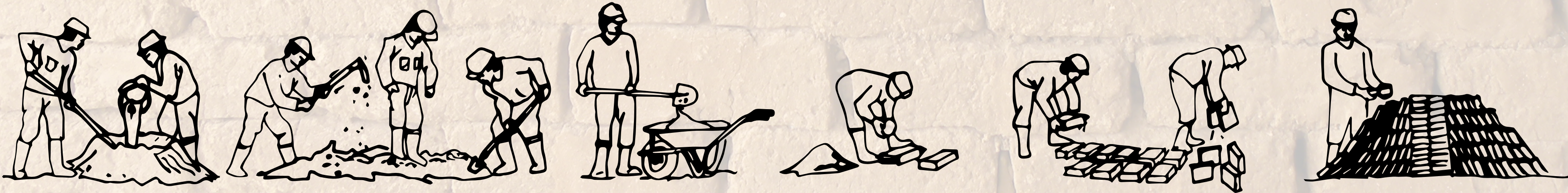
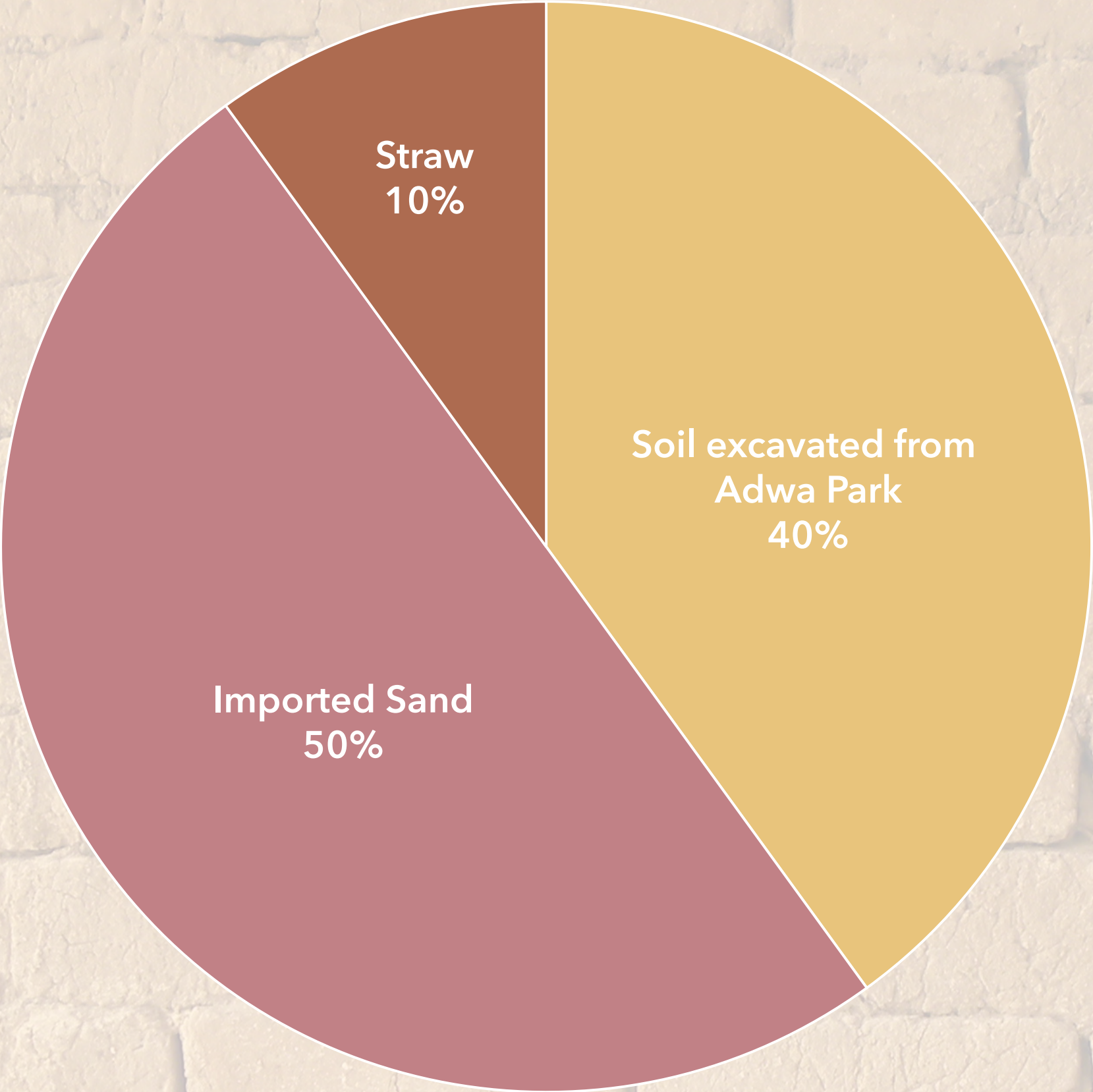
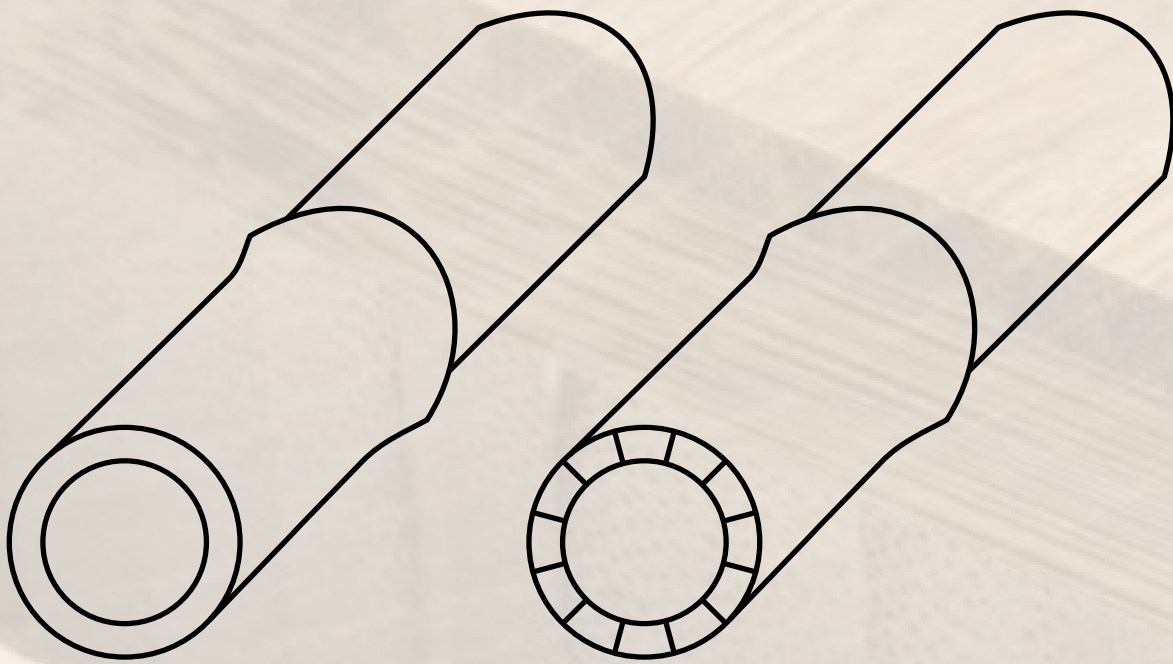


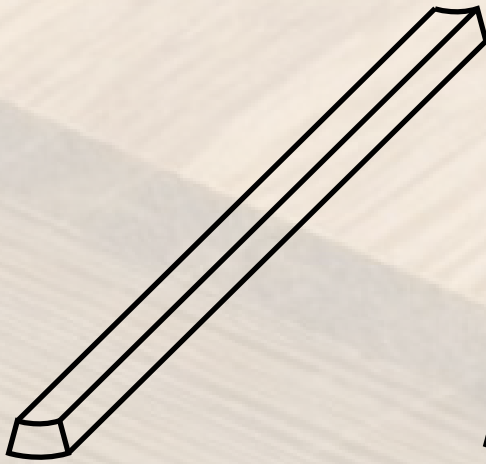
Image sources:
[https://commons.wikimedia.org/wiki/File:Mud_Brick_Wall_at_Ashkelon_\(5758799883\).jpg](https://commons.wikimedia.org/wiki/File:Mud_Brick_Wall_at_Ashkelon_(5758799883).jpg)
<https://madeinearth.in/topics/techniques/adobe/>
(adapted)

LBL

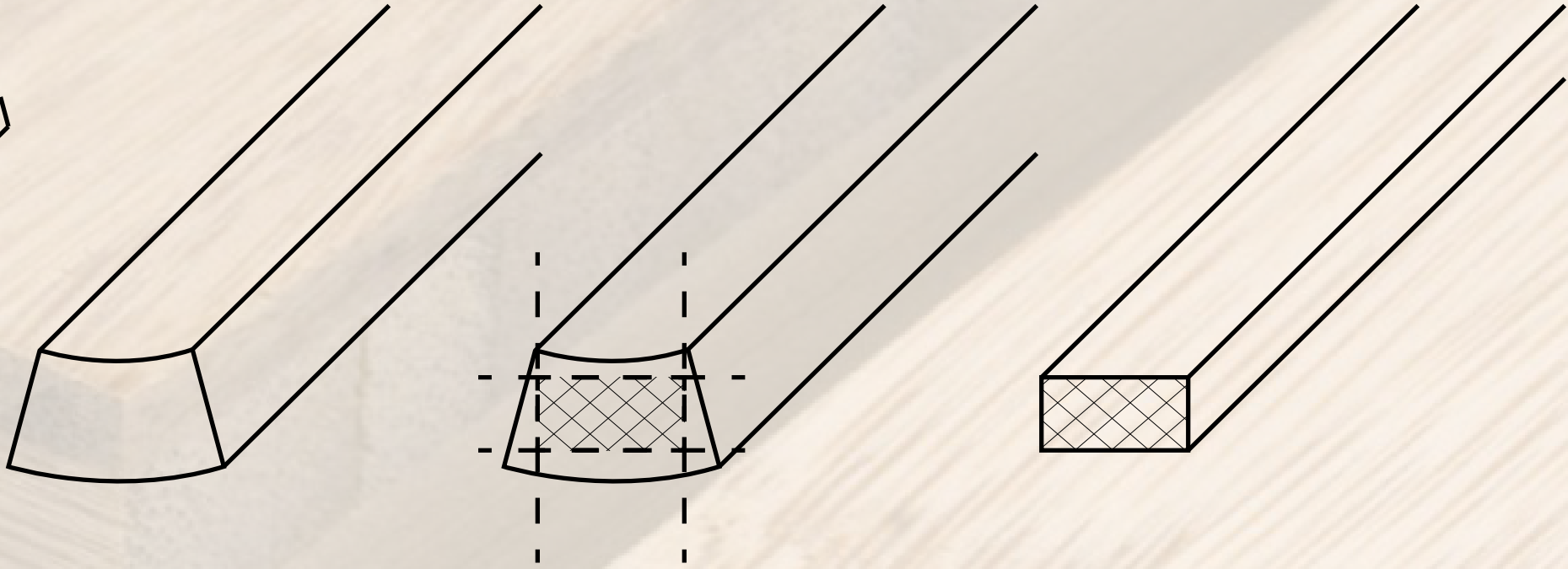




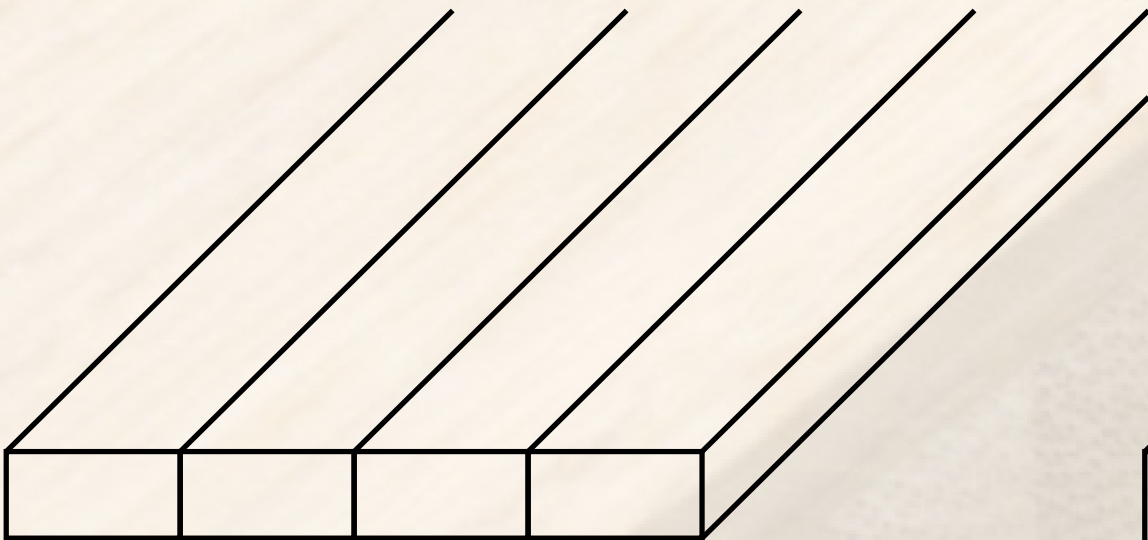
Raw bamboo split



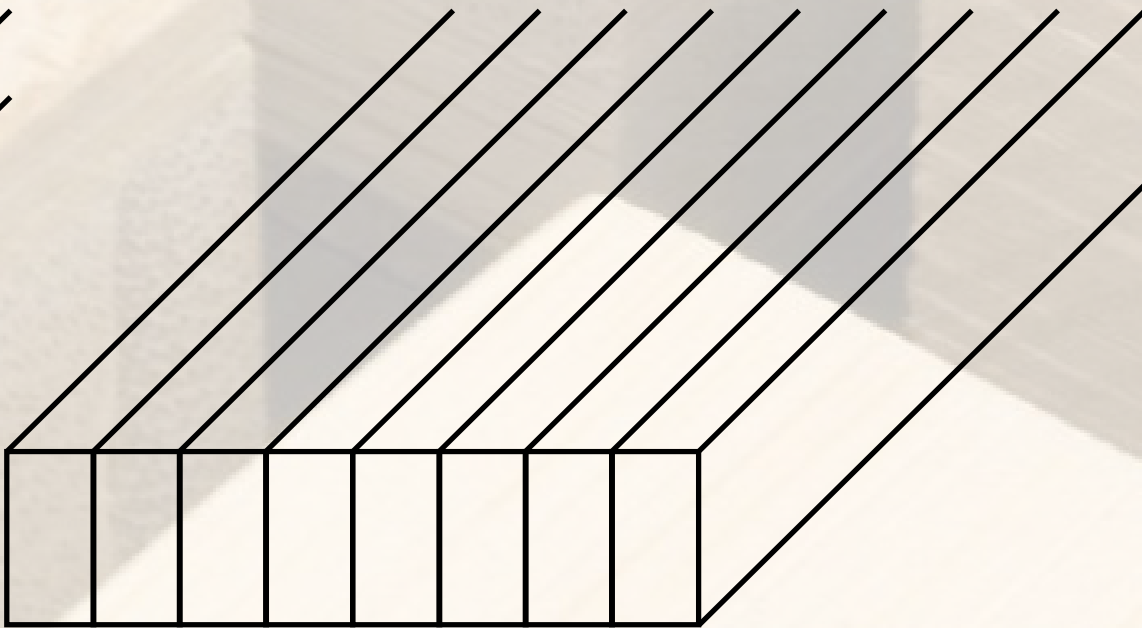
Single strip



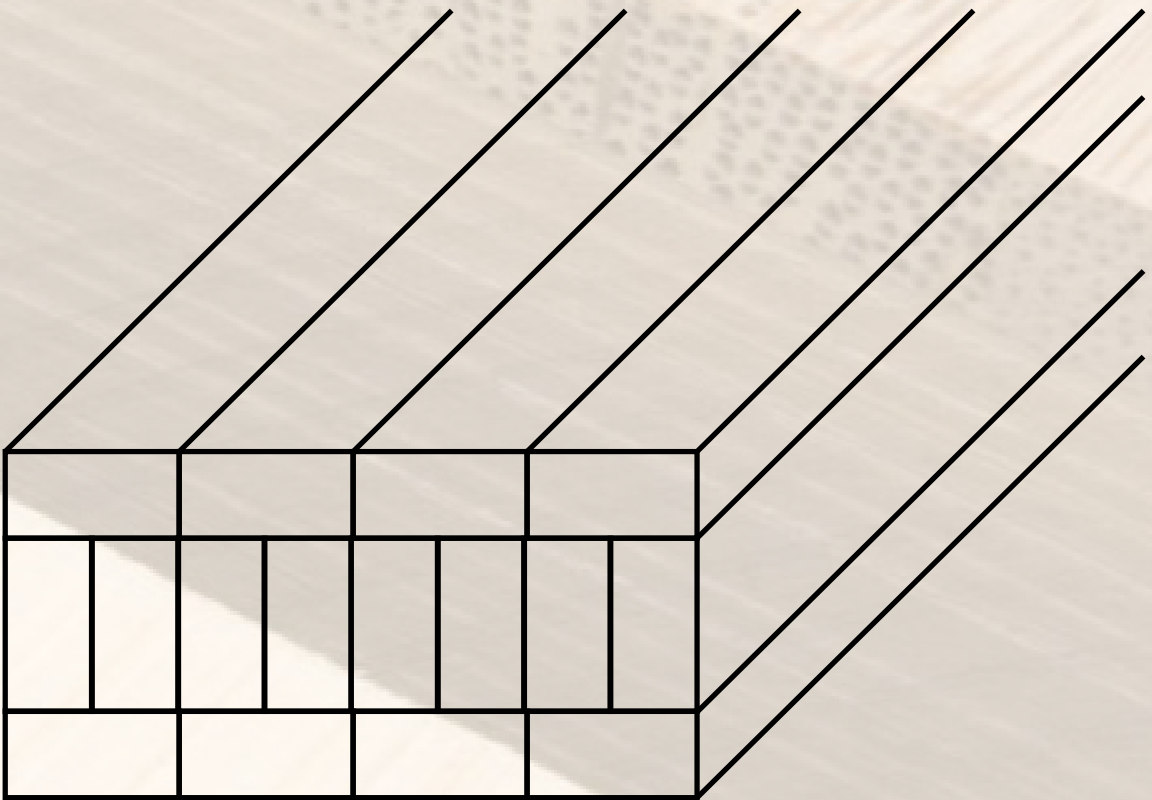
Strips planed



Laminated horizontally



Laminated vertically



Glued

Image sources:
<https://www.bambooflooringchina.com/products/bamboo-plywood.html>
<https://ascelibrary.org/cms/asset/0f4a69b5-9a50-4074-ab61-661c95734135/4.jpg> (adapted)

Phasing



Data

Existing

Proposed

Site Ownership: FHC

Tenure: Social rental,
(sub-rental)

Function: Residential
(community)

Dwelling Units: 319
Total Units: 319

Dwellings/Hectare: 25.5

FSI: 0.43

Site Ownership: FHC

Tenure: Social rental,
Private rental,
Sub-rental
Co-operatives,
Leasehold

Function: Residential,
Commercial,
Community

Dwelling Units: 1800 (est.)
Total Units: 2000 (est.)

Dwellings/Hectare: 151 (est)

FSI: 1.8

Typologies



Key

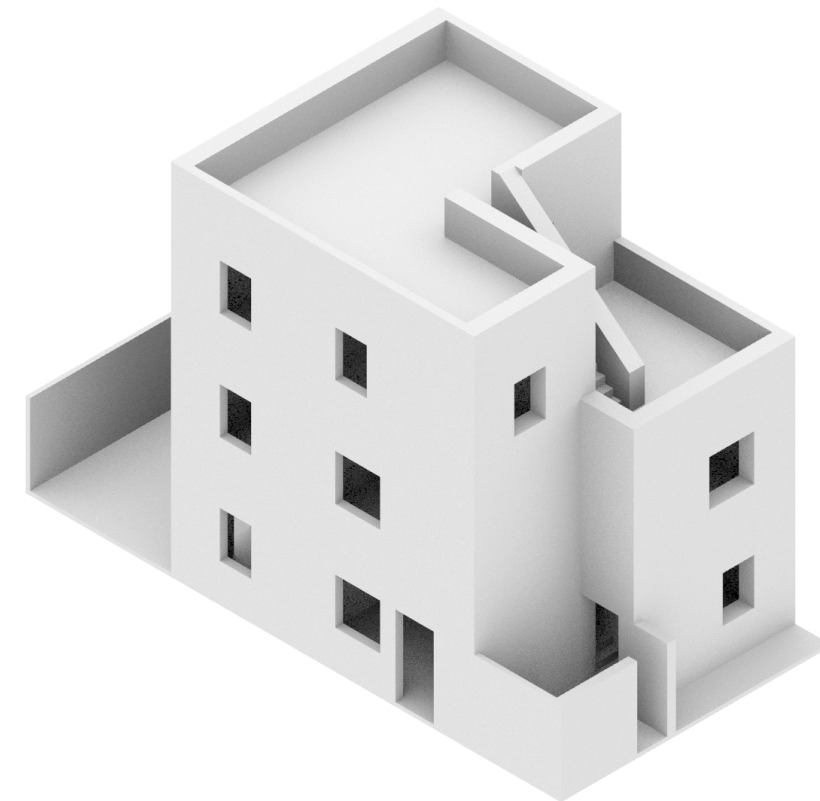
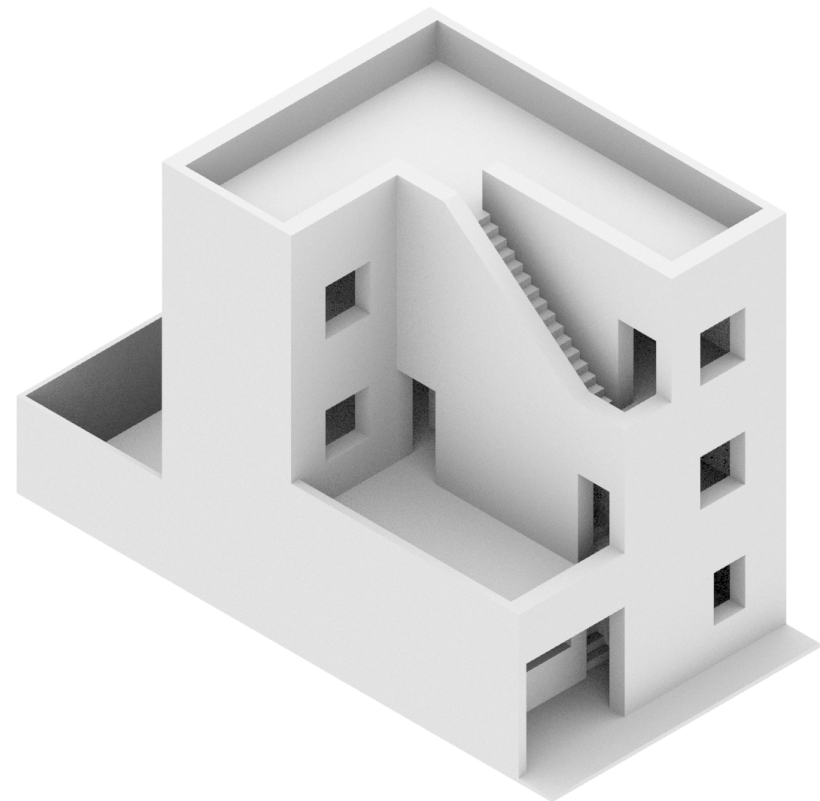
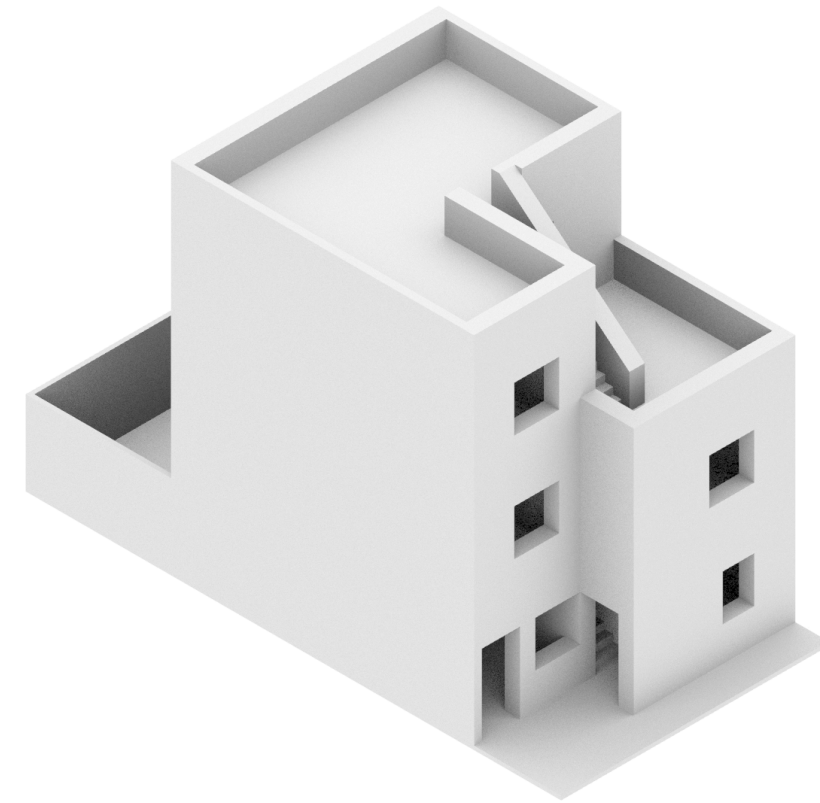
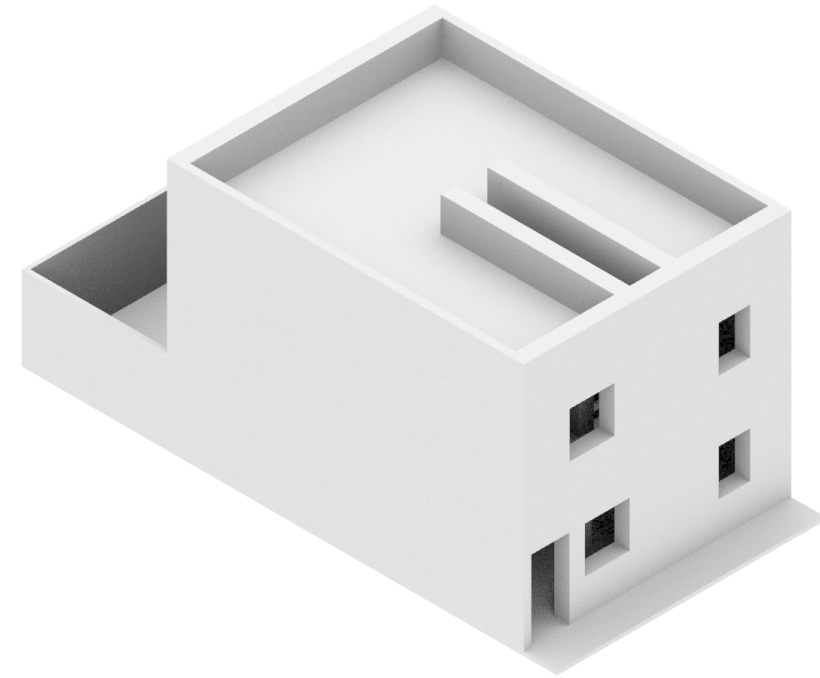
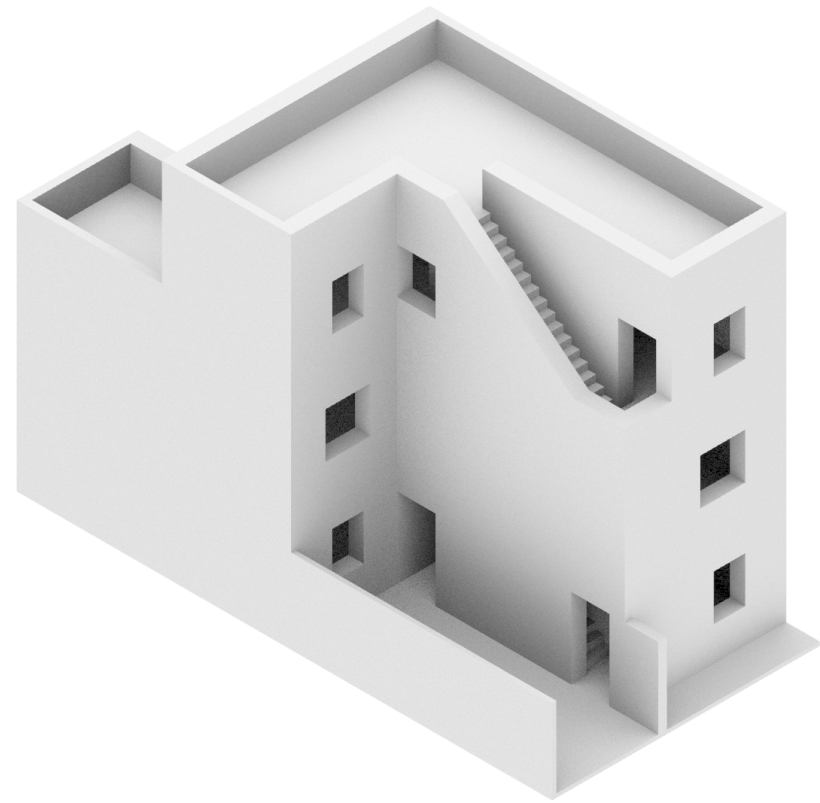
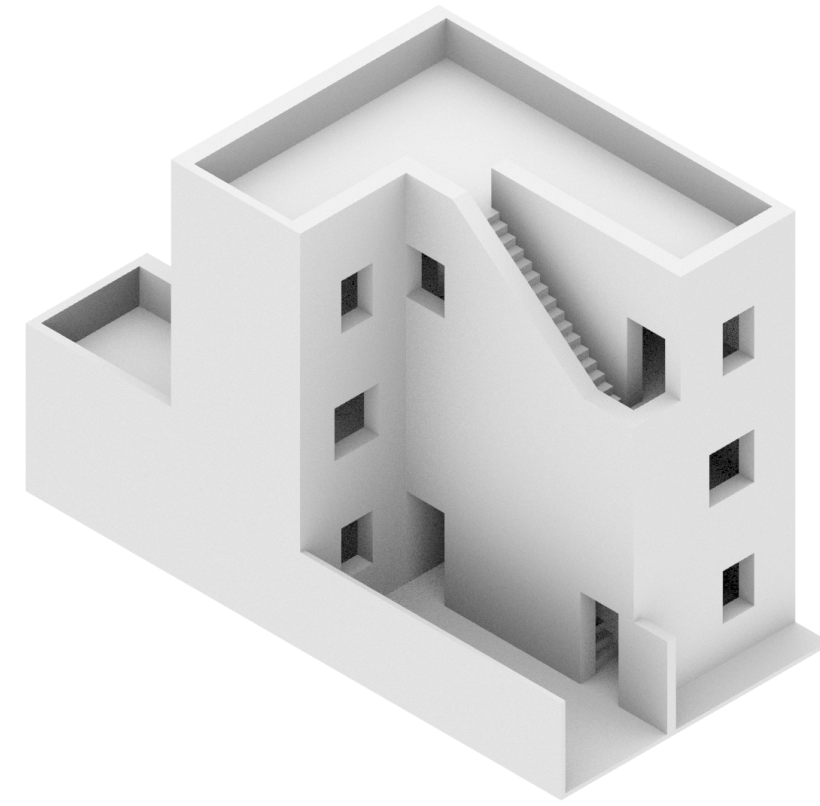
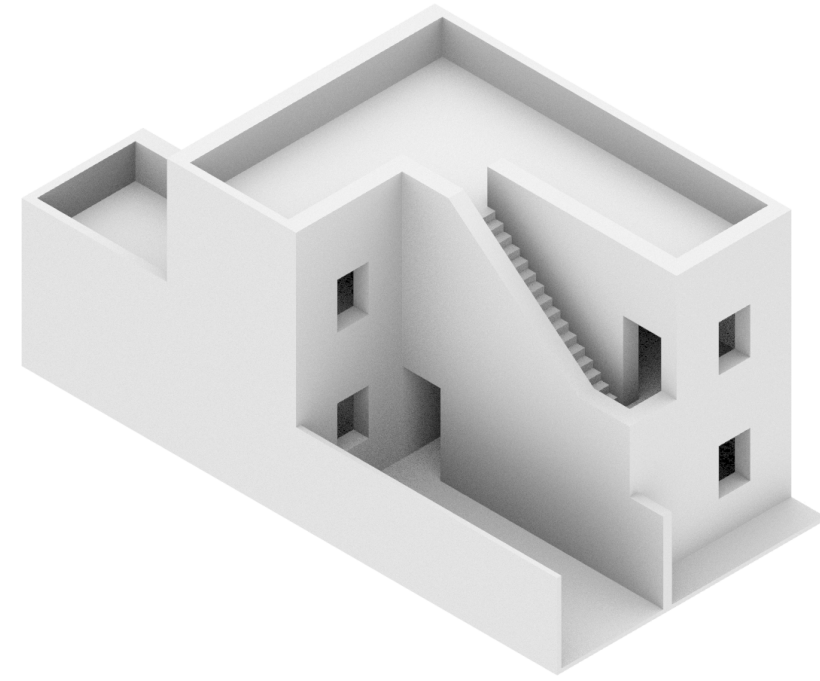
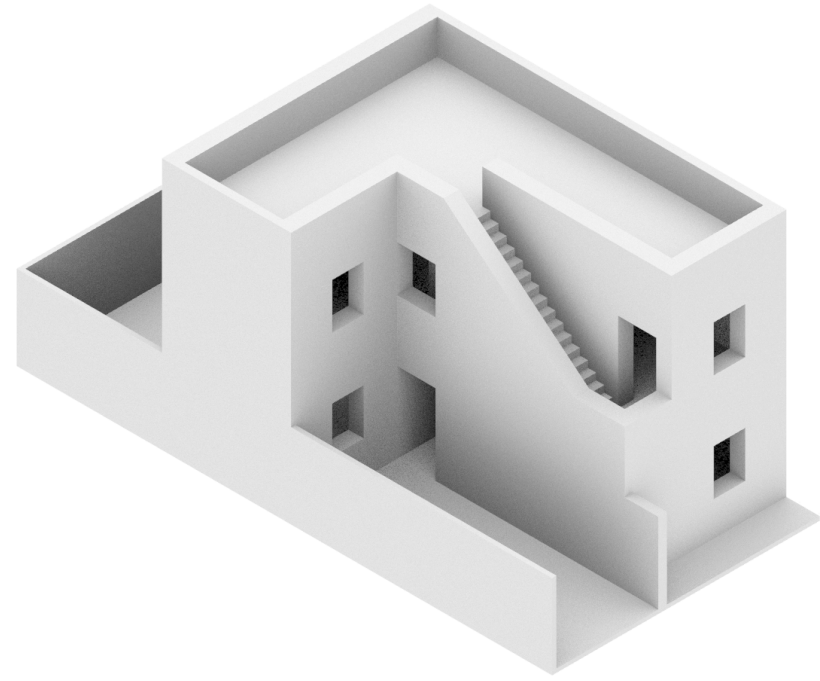
<div></div> Type 1	<div></div> Type 2	<div></div> Type 3
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Typical Block



Type 1





**Malagueira Housing,
Évora, Portugal
Álvaro Siza, 1973-77**

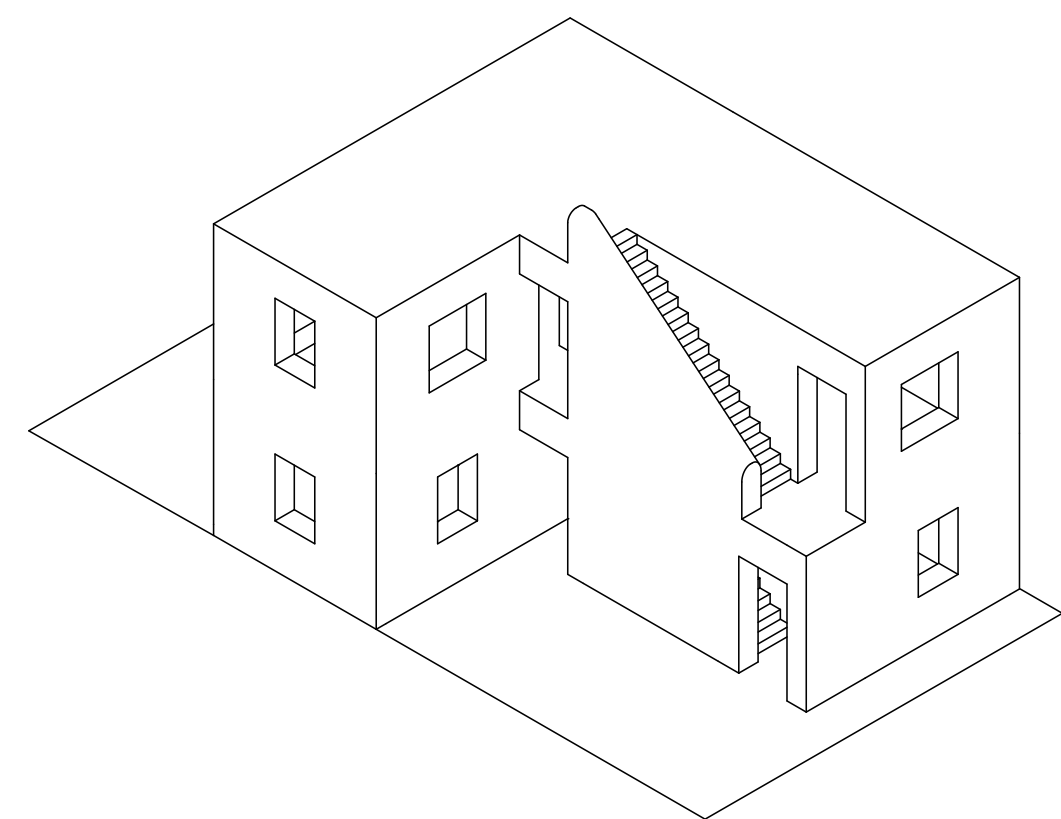
Image source: <https://befrontmag.com/2017/04/13/public-housing-and-a-teaspoon-of-ethics/>



**Street of Vernacular Housing,
Harar**

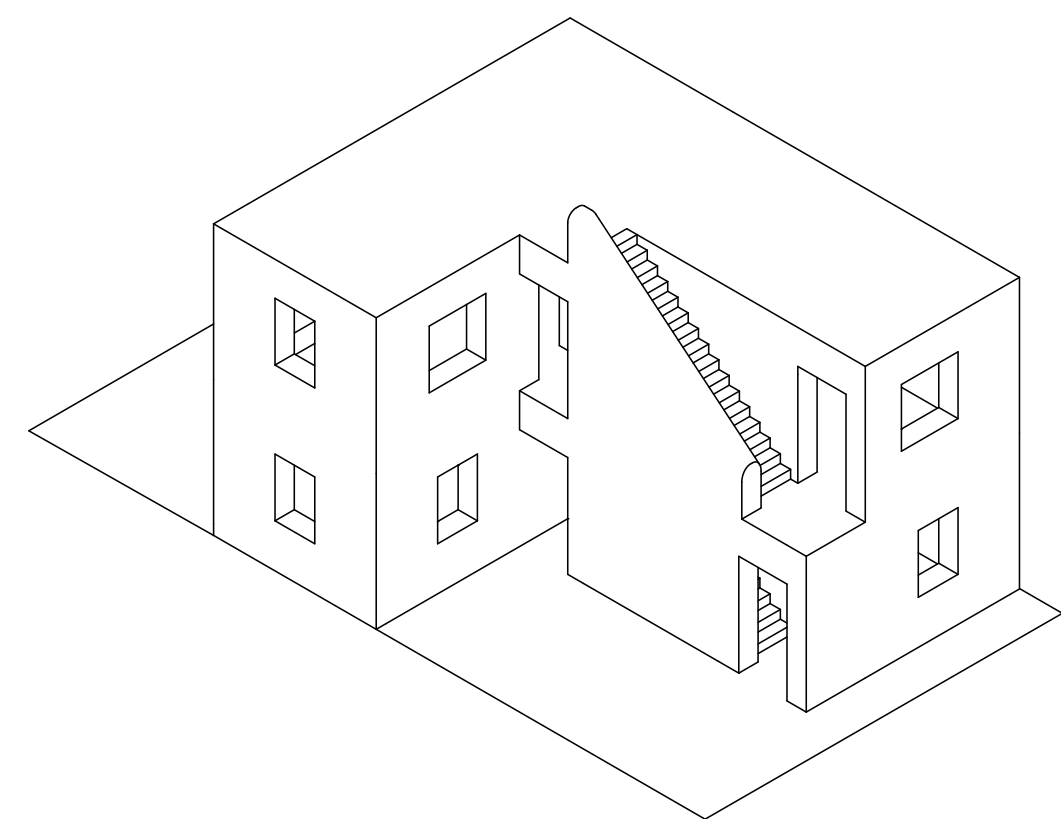
Image source: <https://www.flickr.com/photos/mytripsmypics/26692603890>

Nucleus

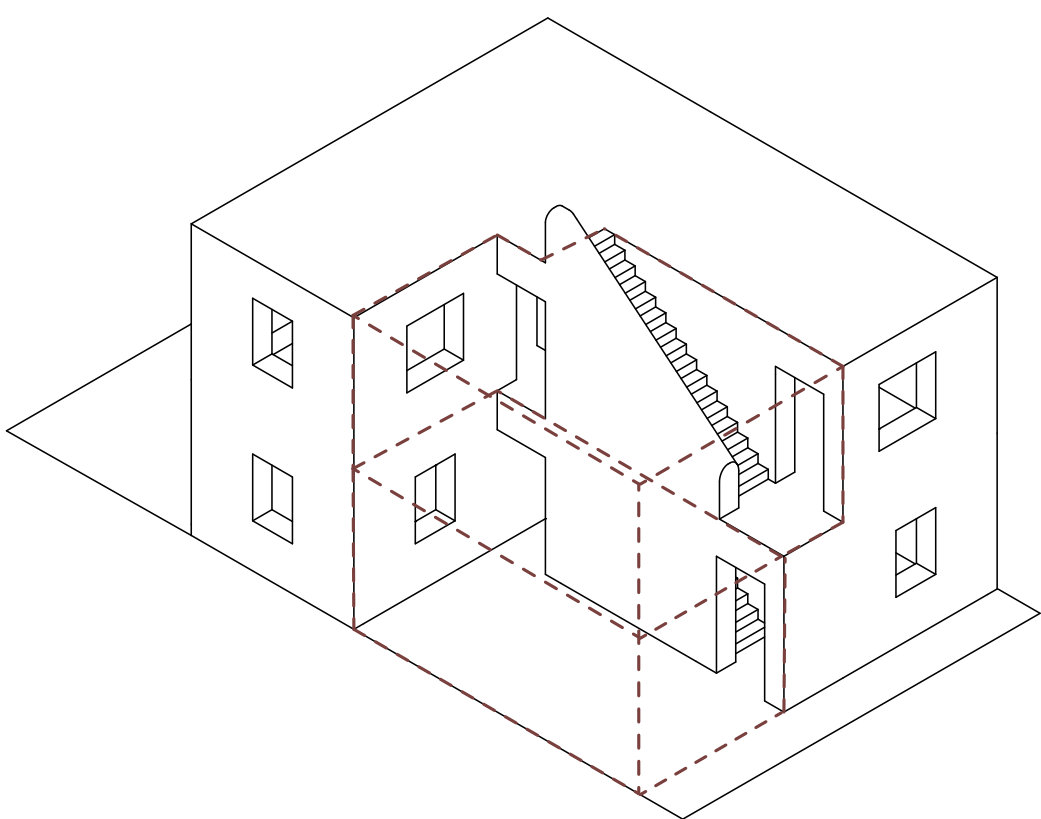


Nucleus

Nucleus

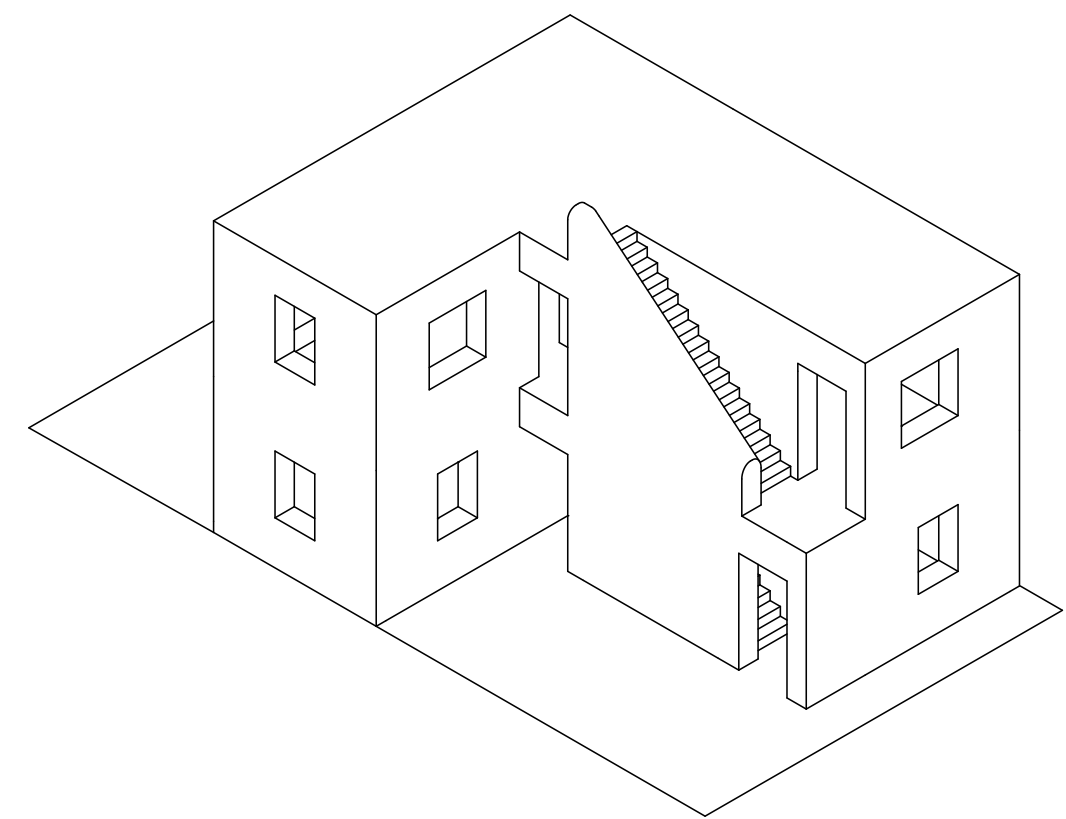


Nucleus

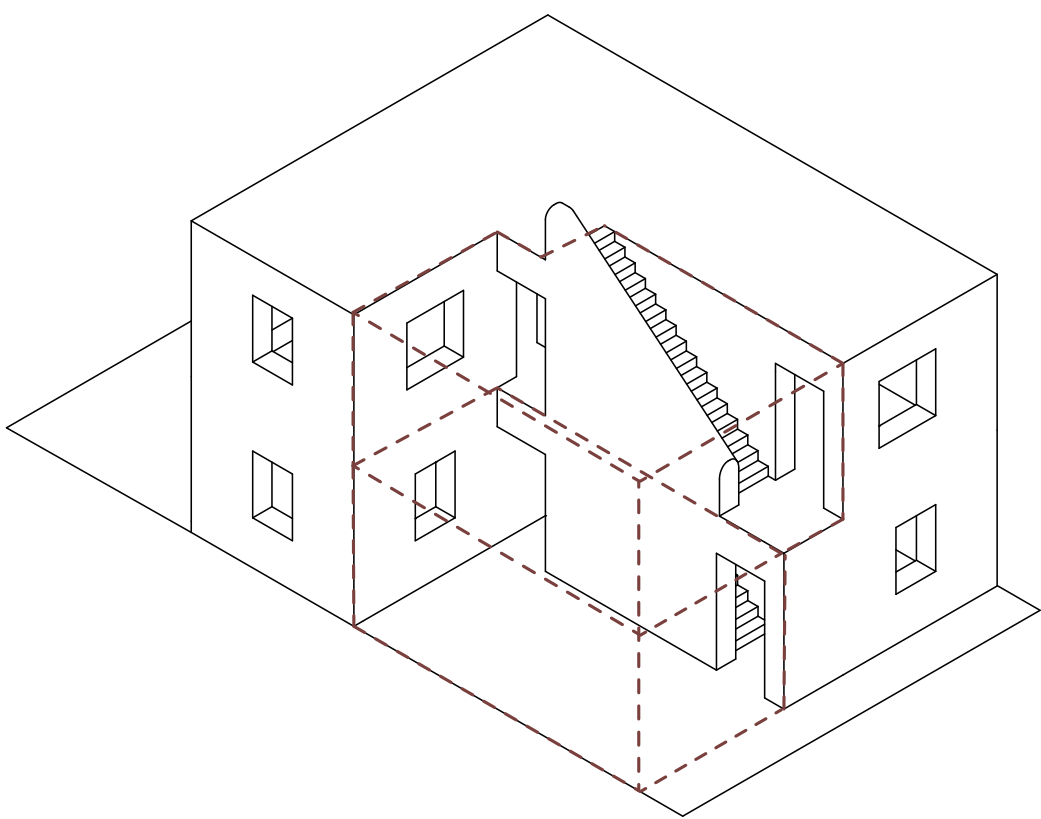


Front Extension

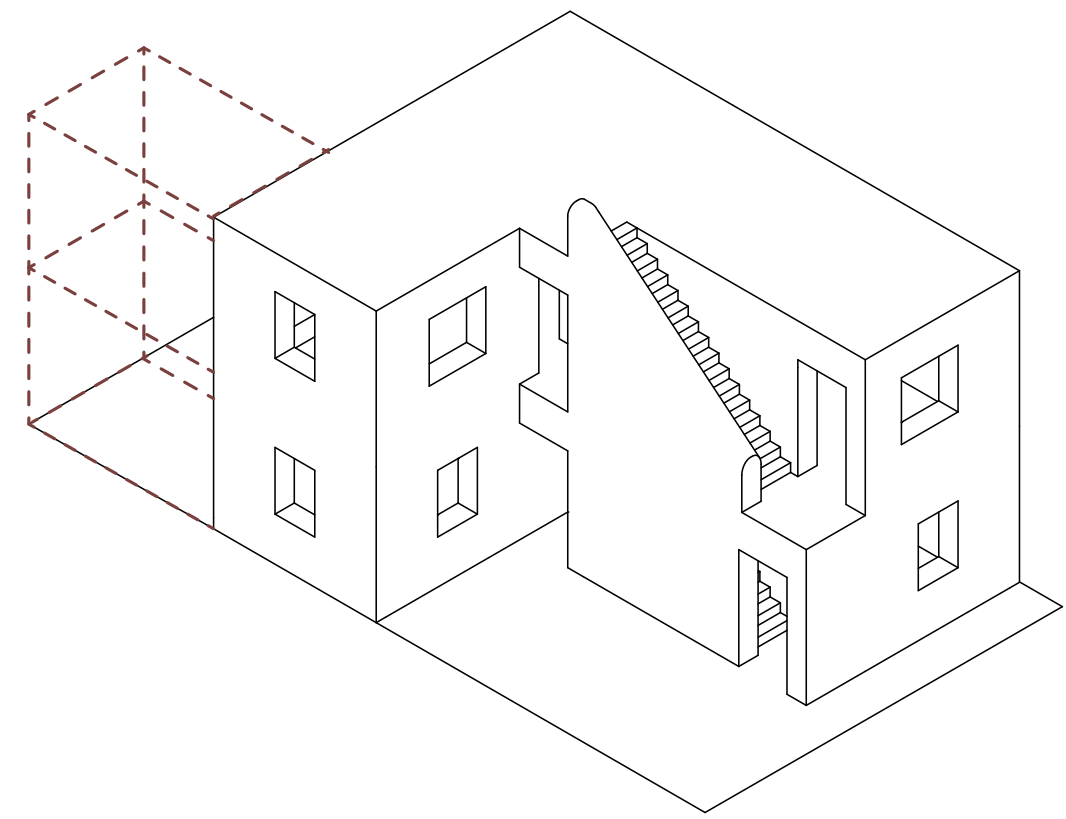
Nucleus



Nucleus

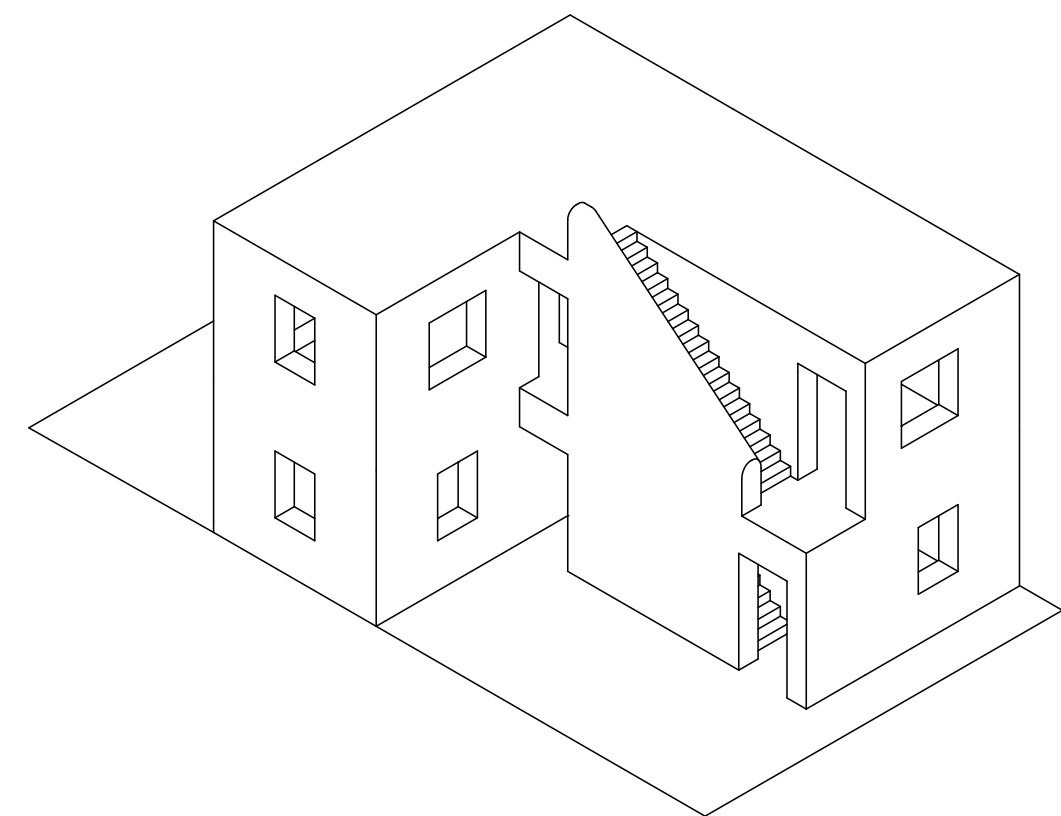


Front Extension

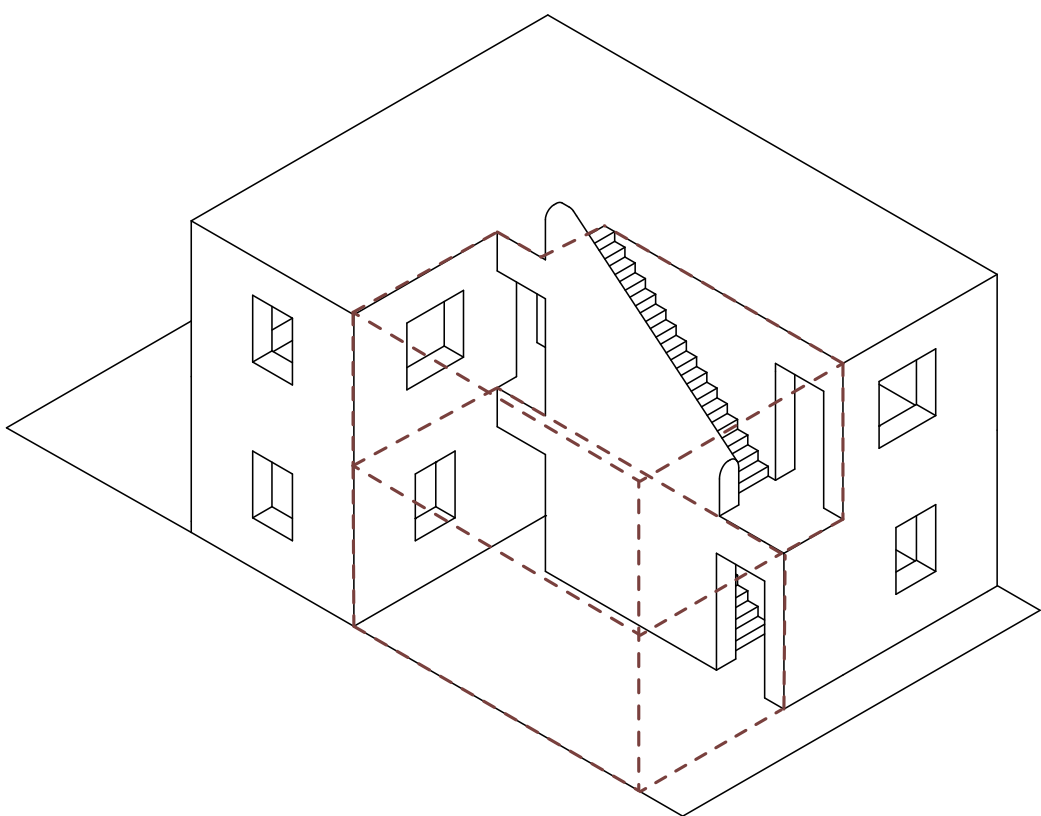


Rear Extension

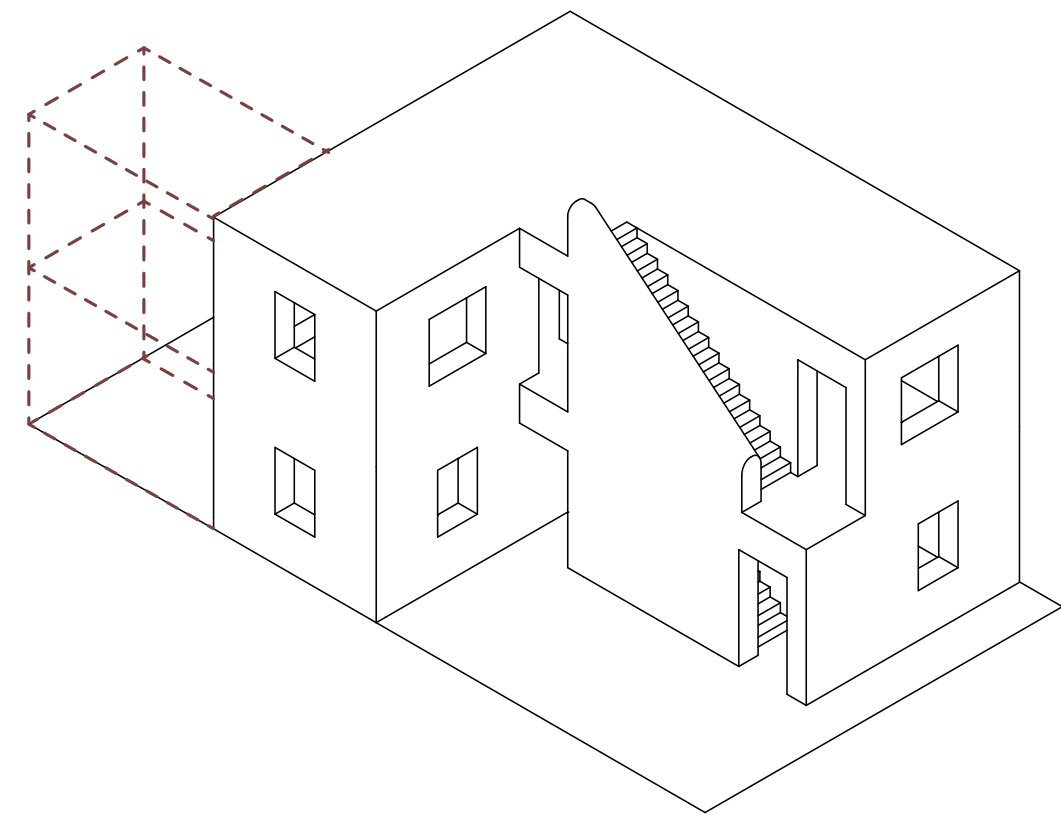
Nucleus



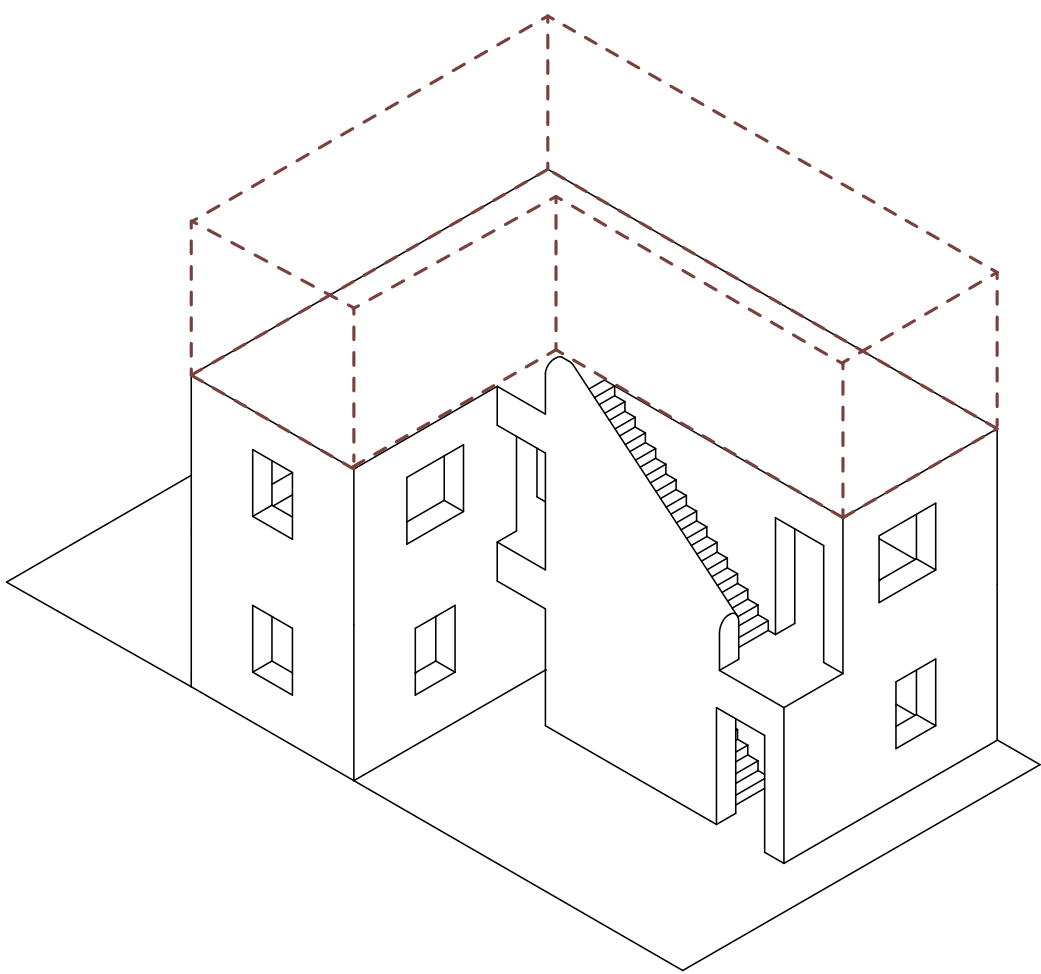
Nucleus



Front Extension

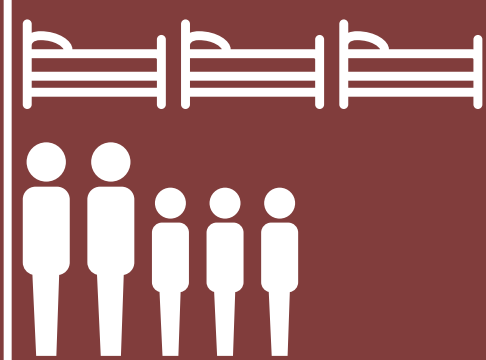


Rear Extension

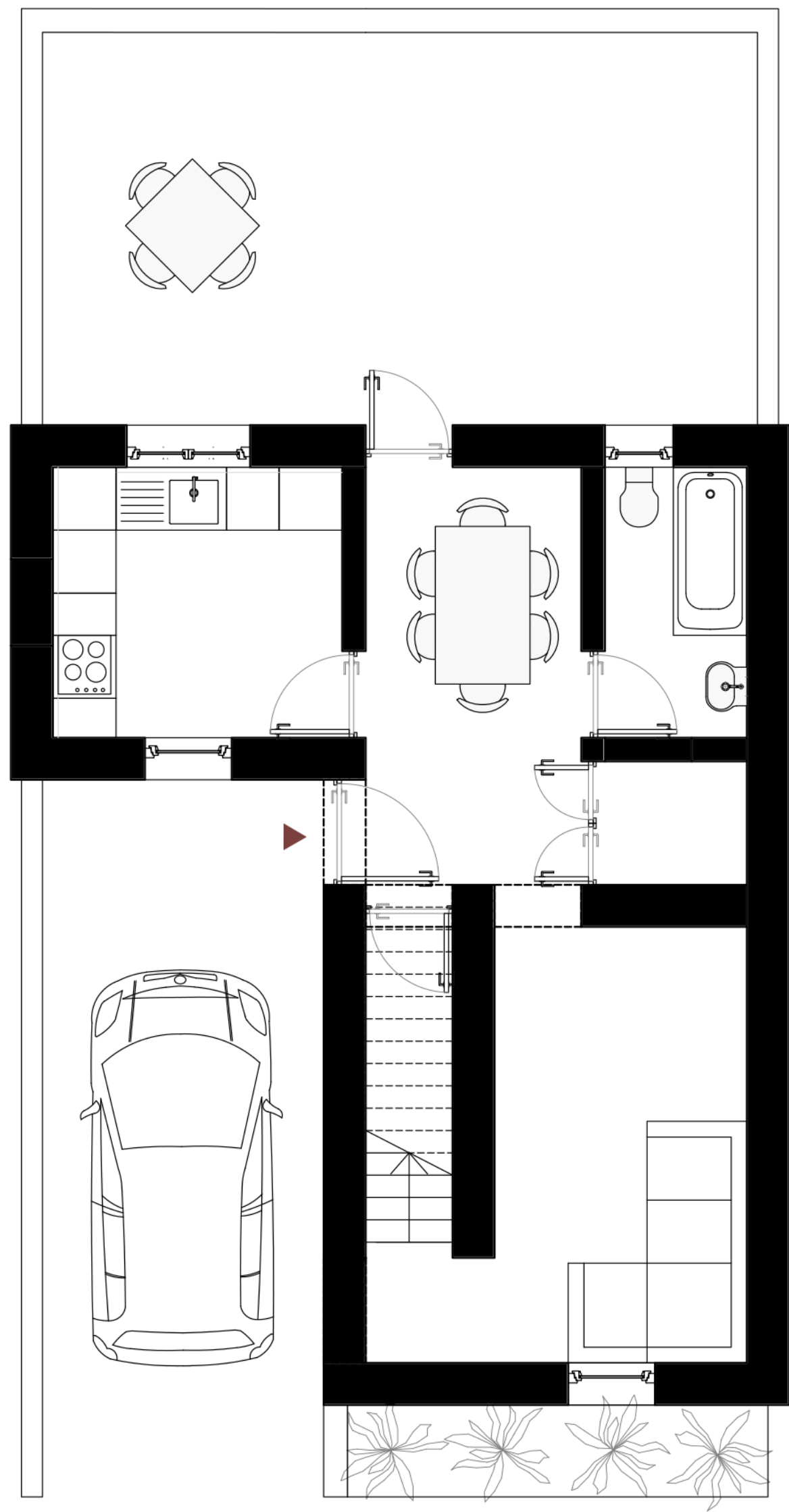


Top Extension

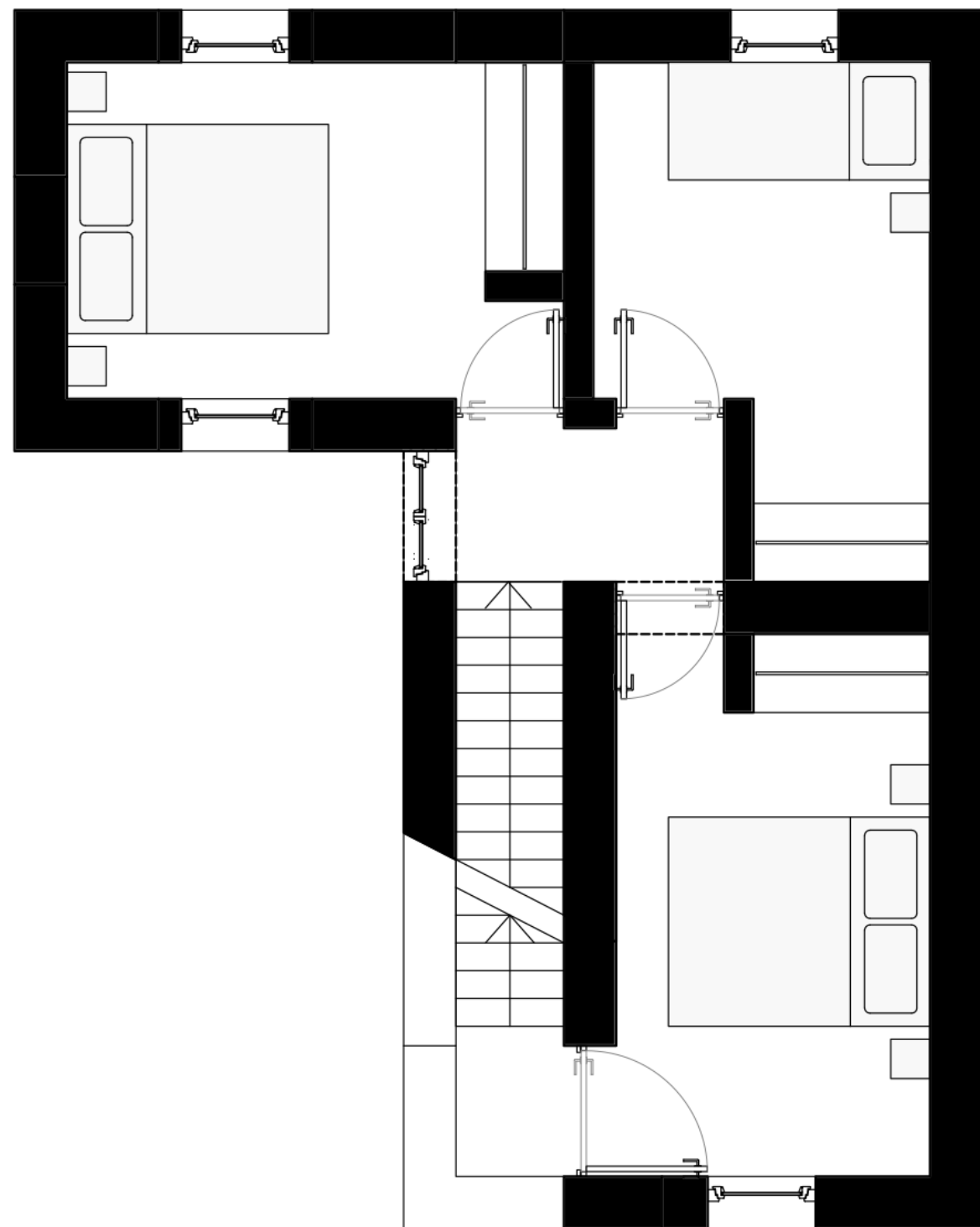
Type 1A



66sqm



Ground Floor

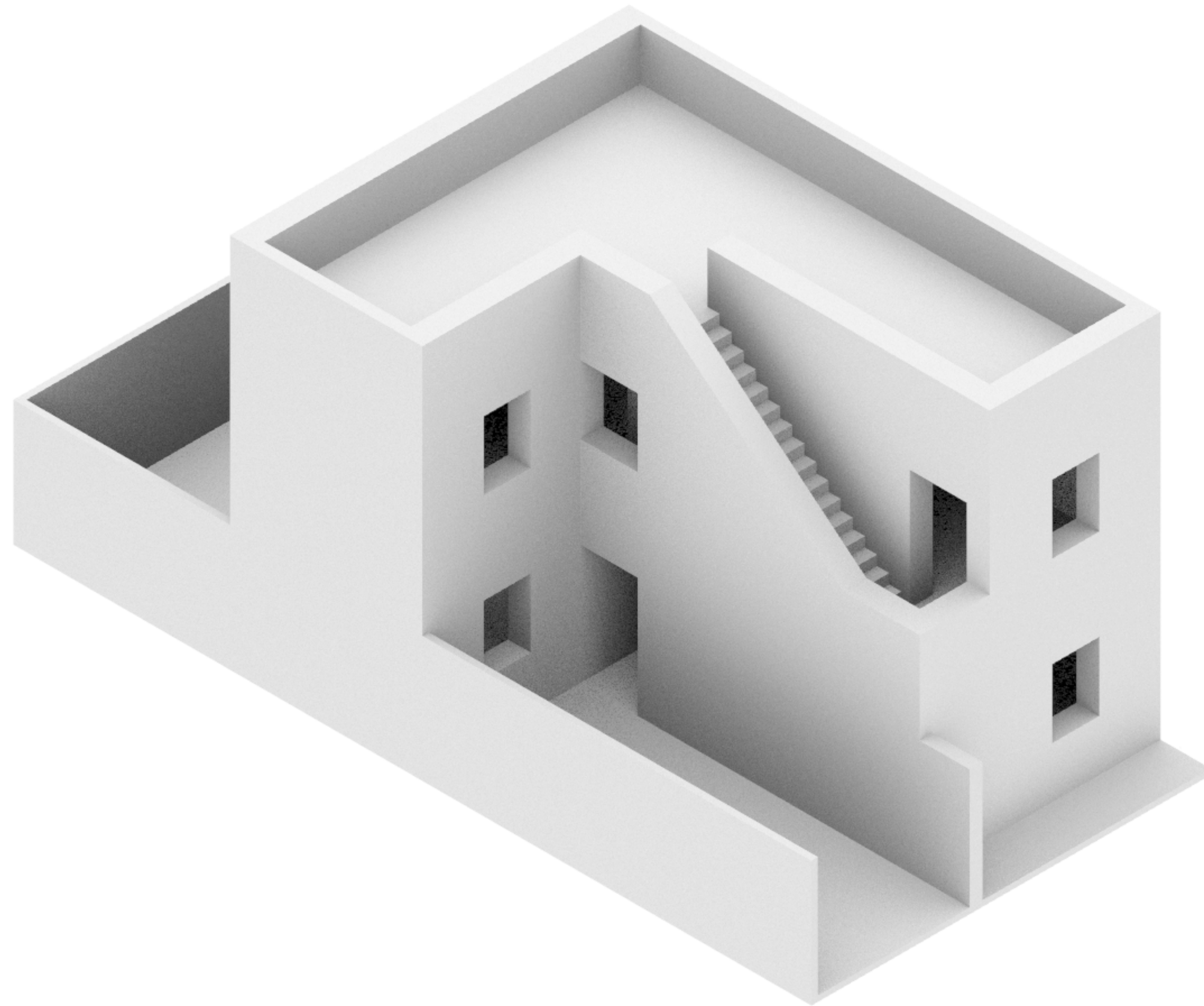


First Floor

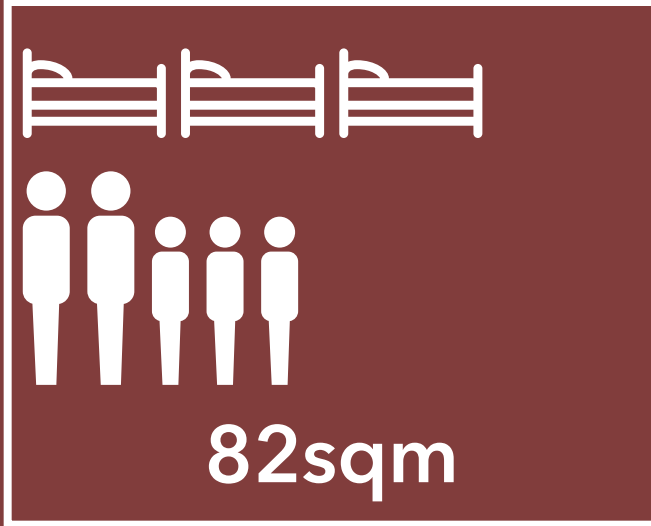
Type 1A



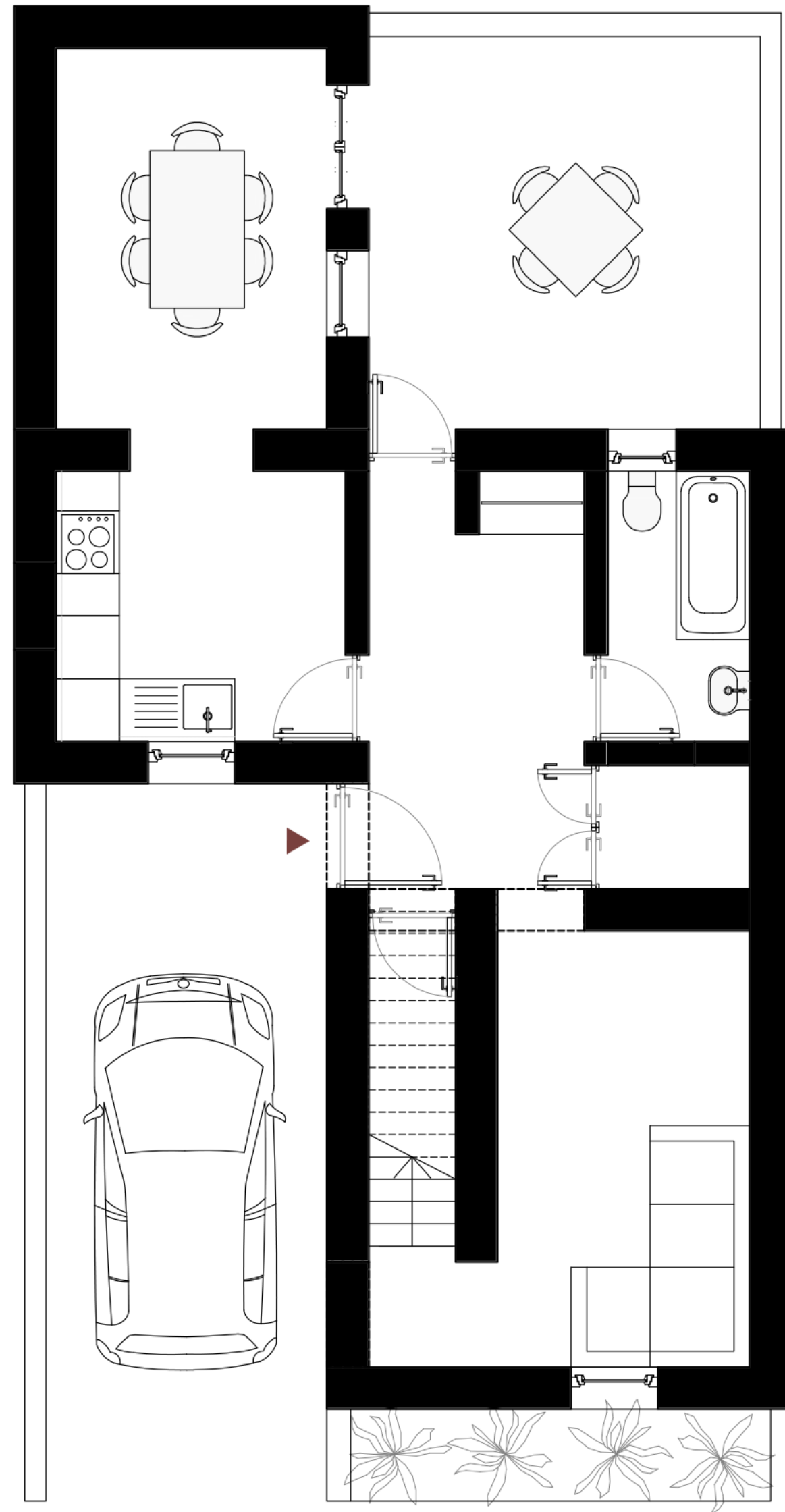
66sqm



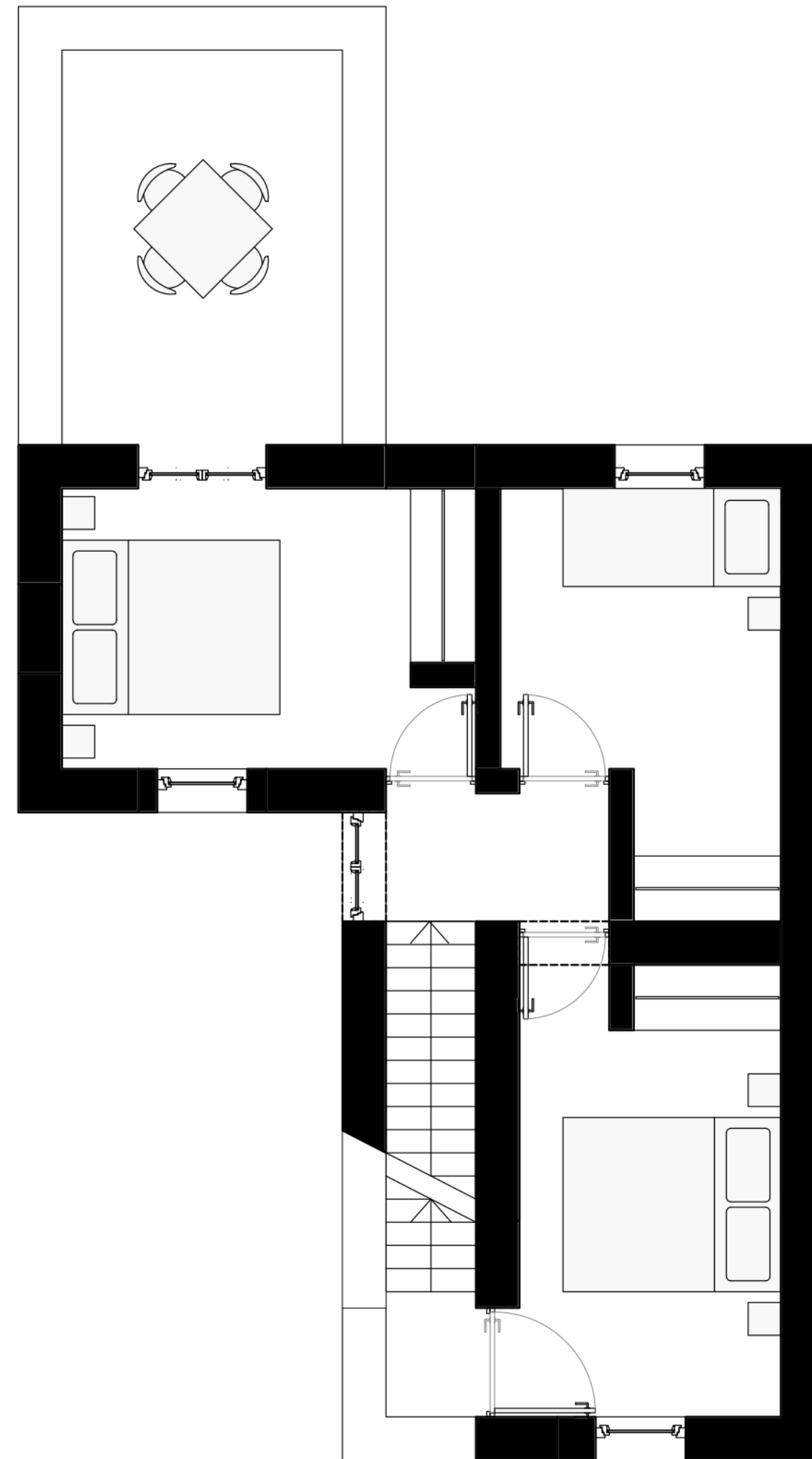
Type 1B



(standard offer
for existing
residents)

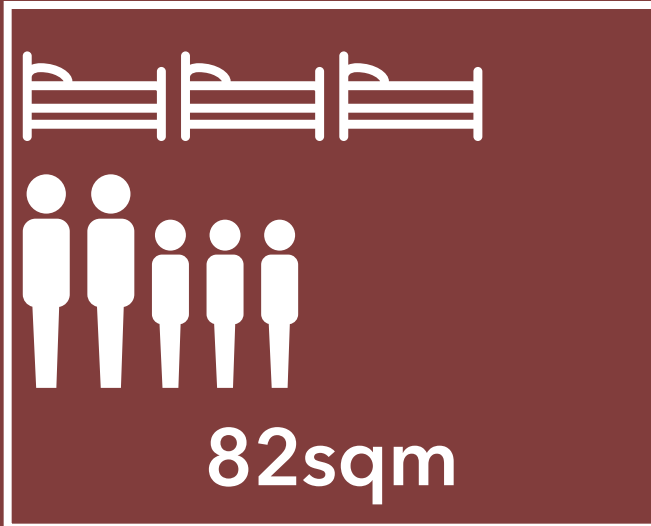


Ground Floor

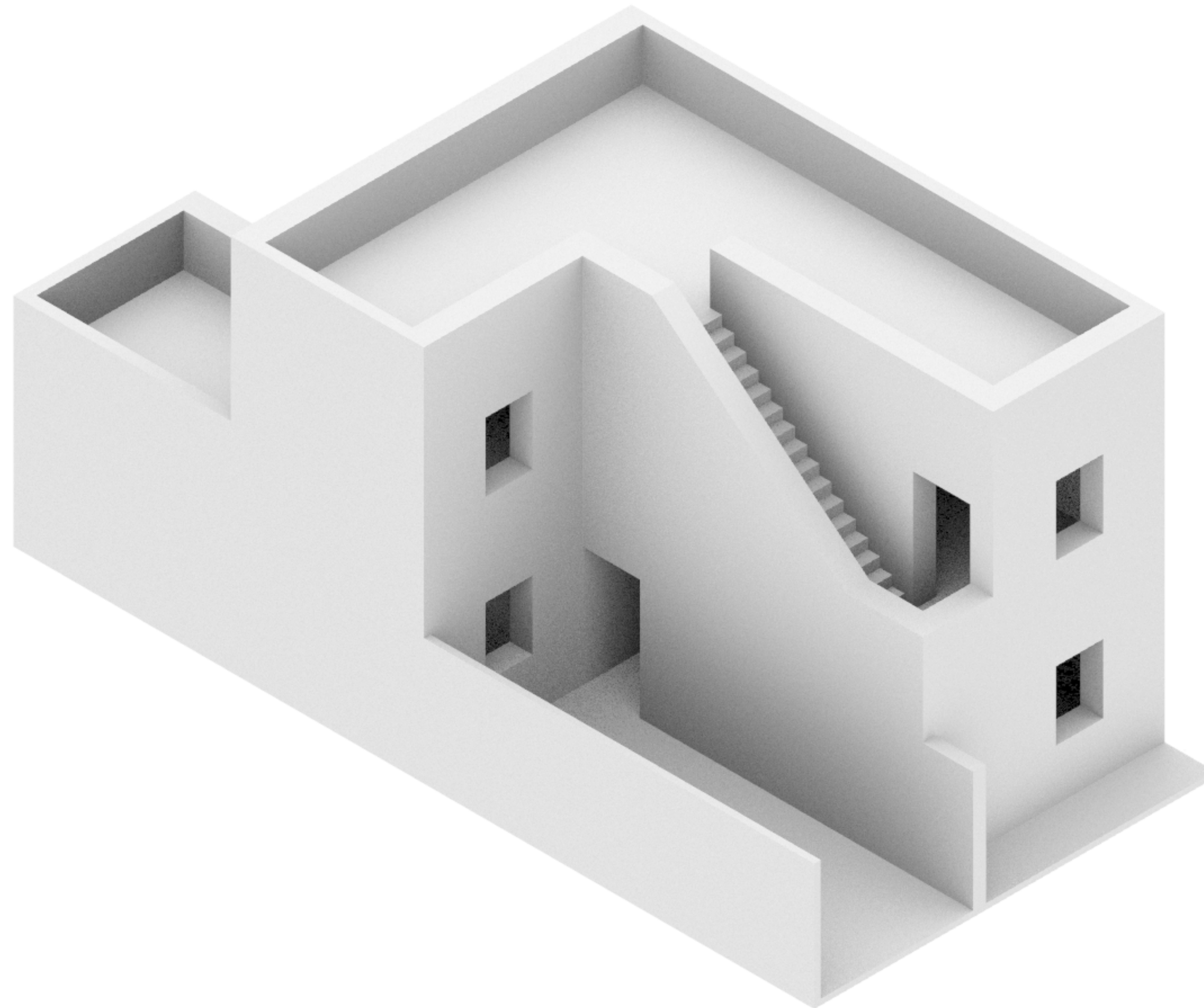


First Floor

Type 1B



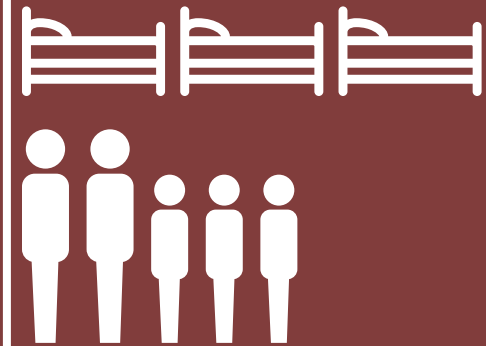
(standard offer
for existing
residents)



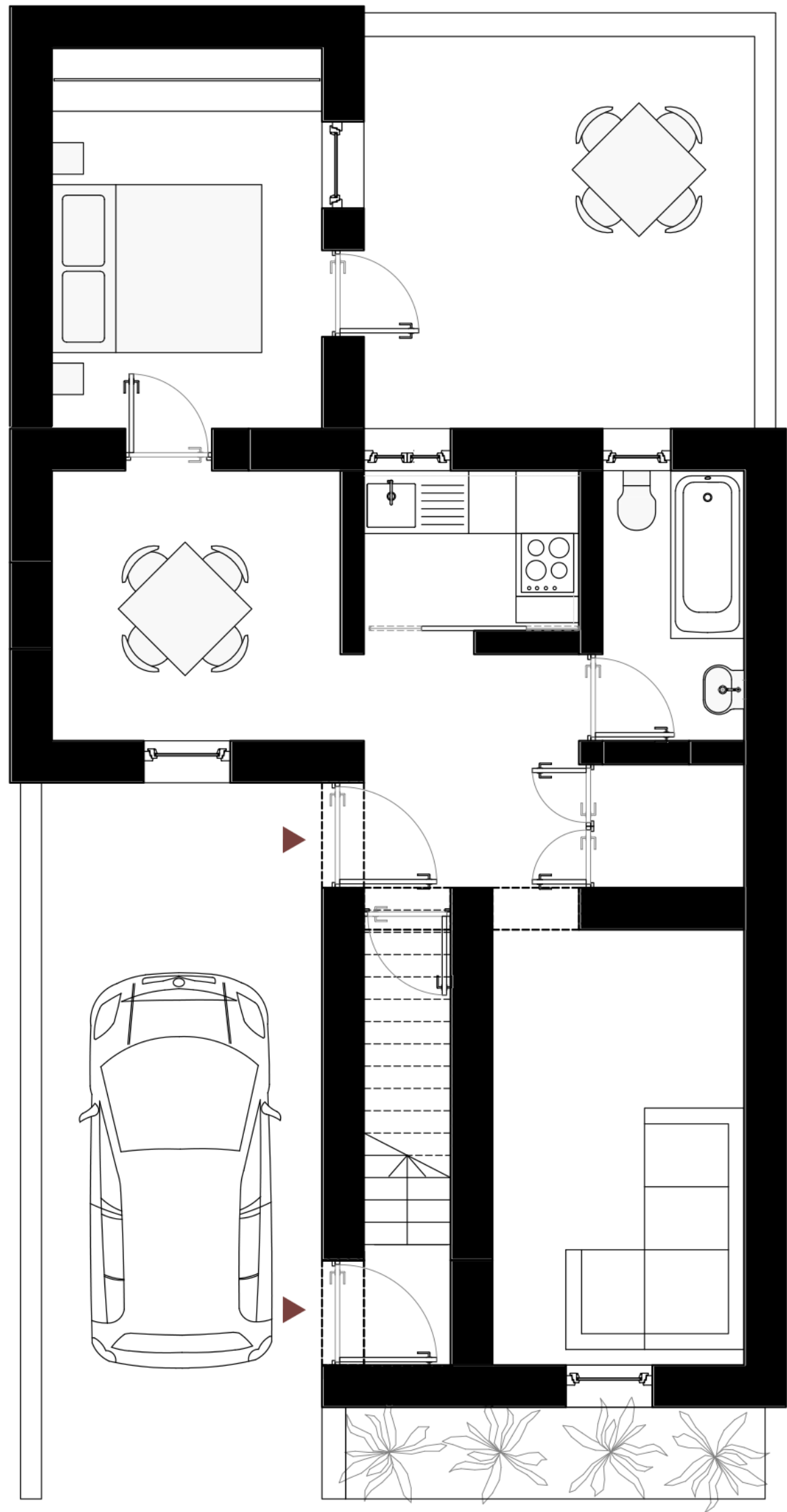
Type 1C



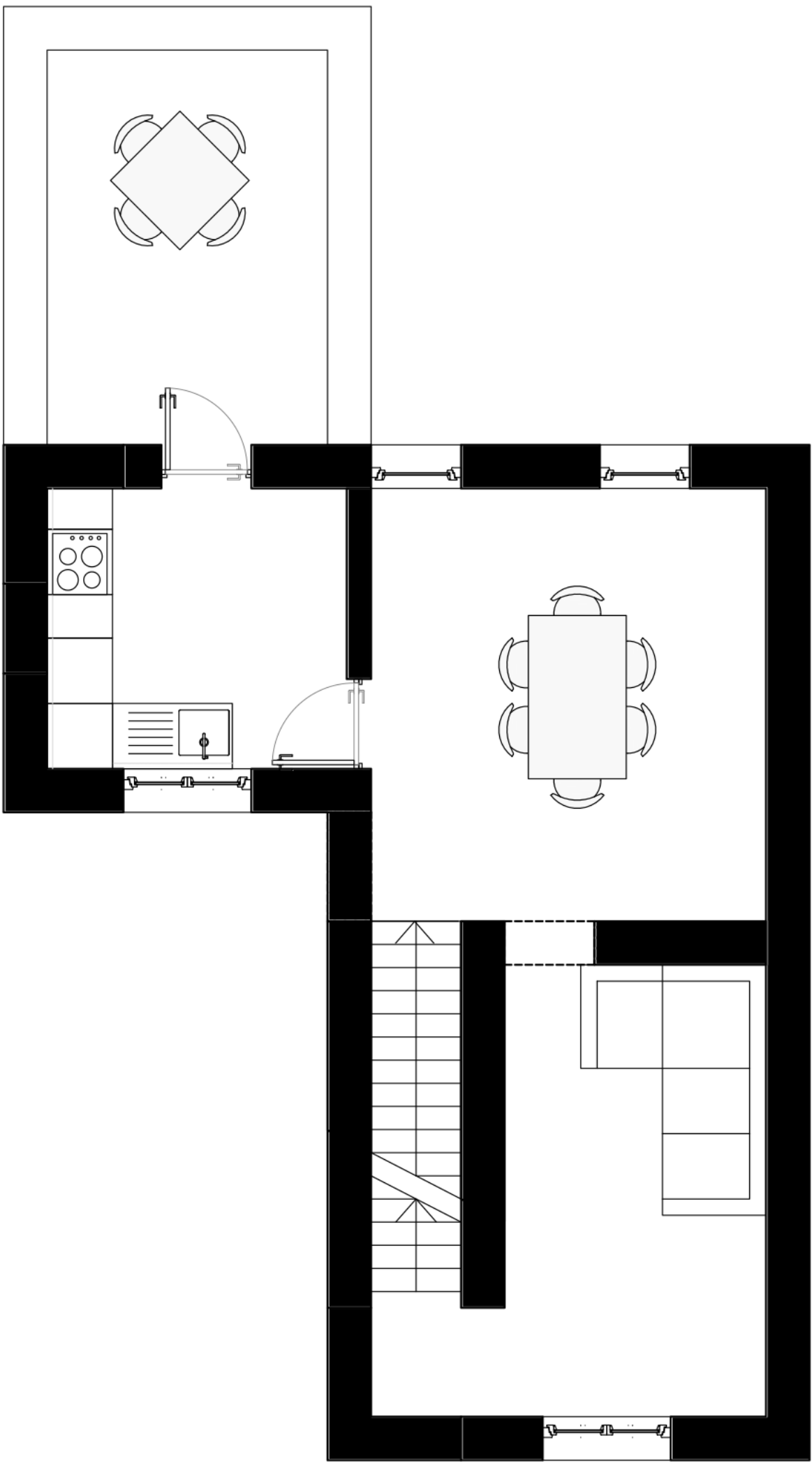
49sqm



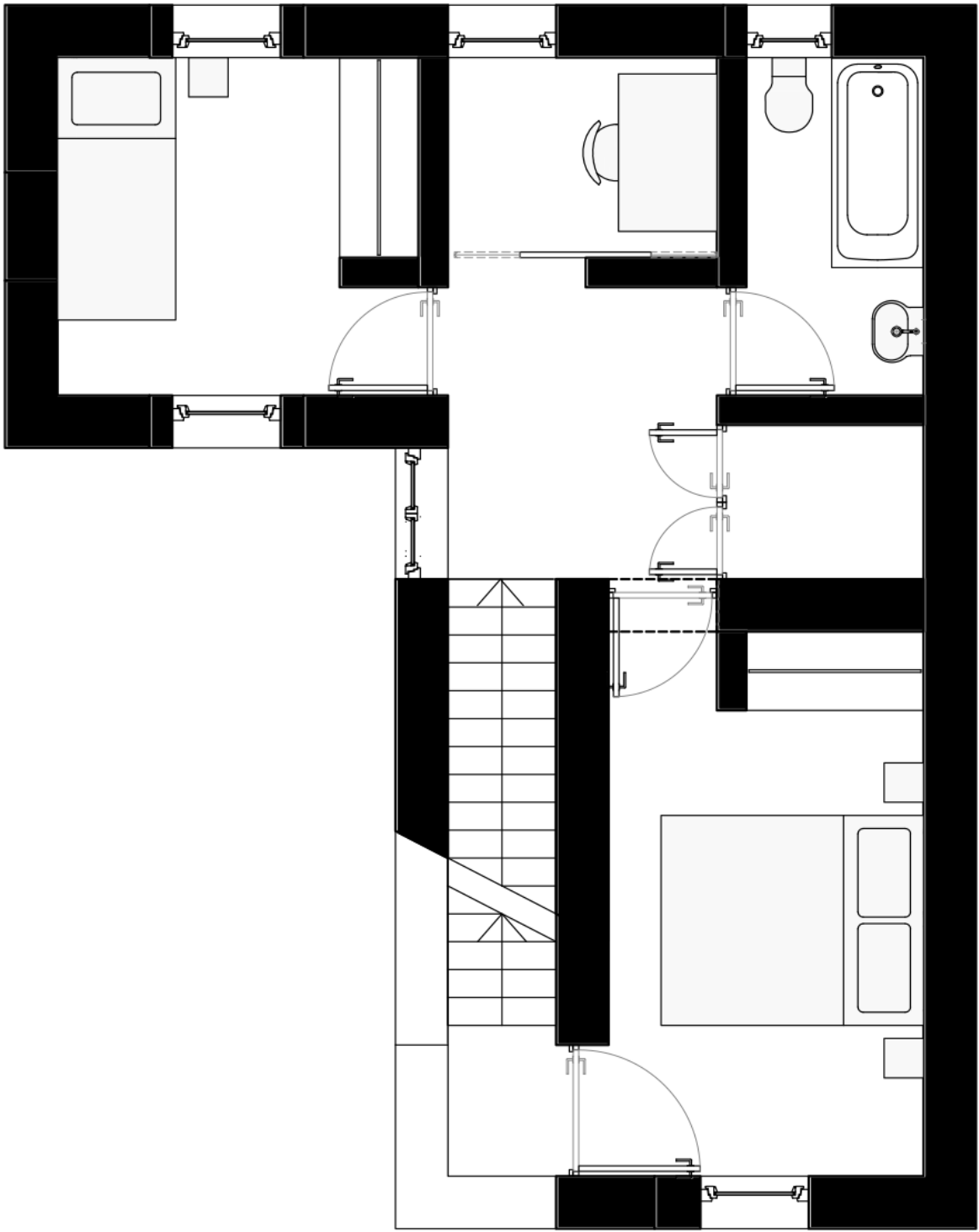
82sqm



Ground Floor



First Floor



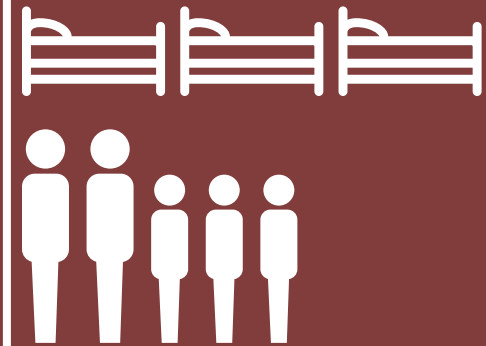
Second Floor



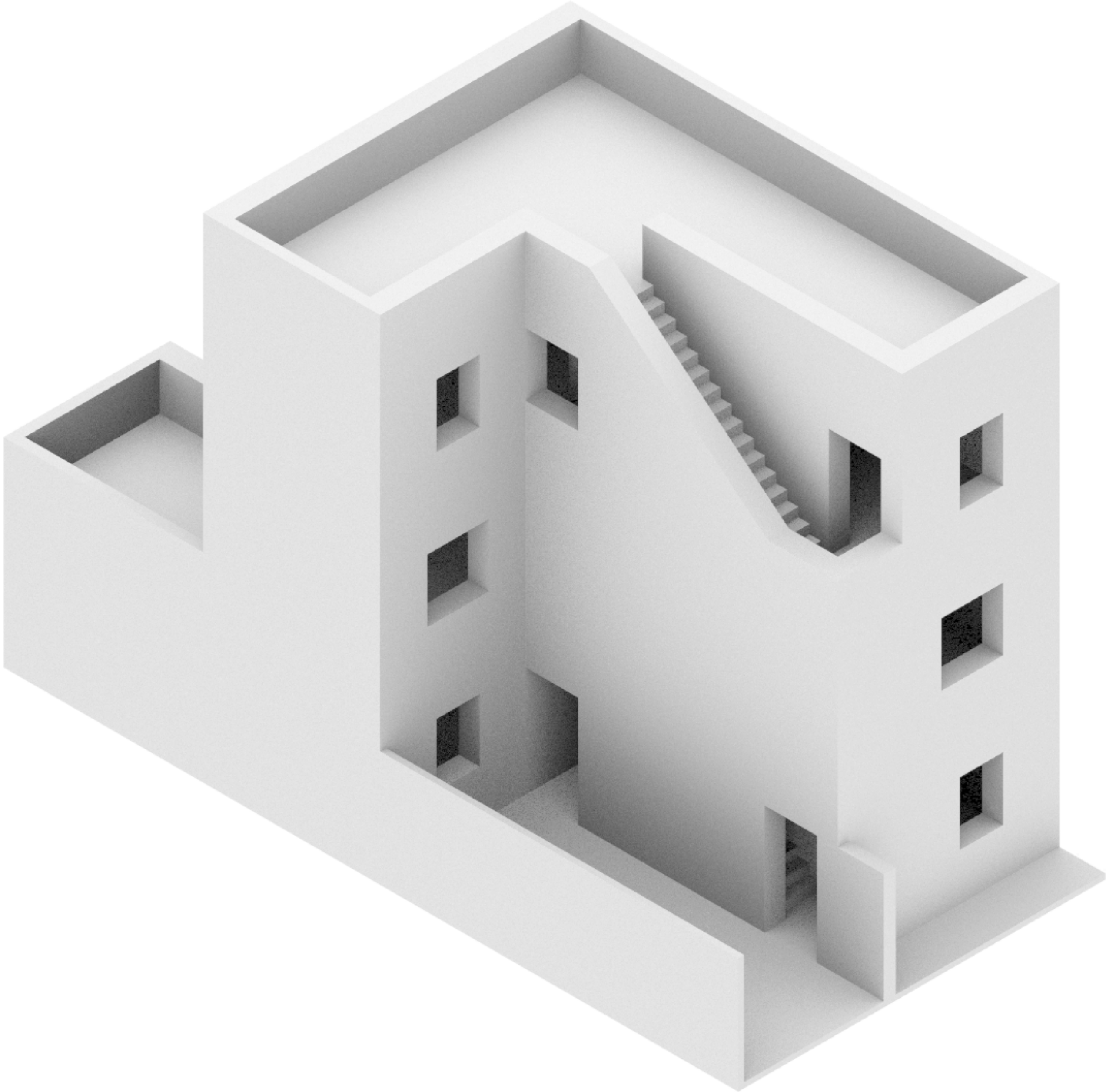
Type 1C



49sqm




82sqm




Type 1D



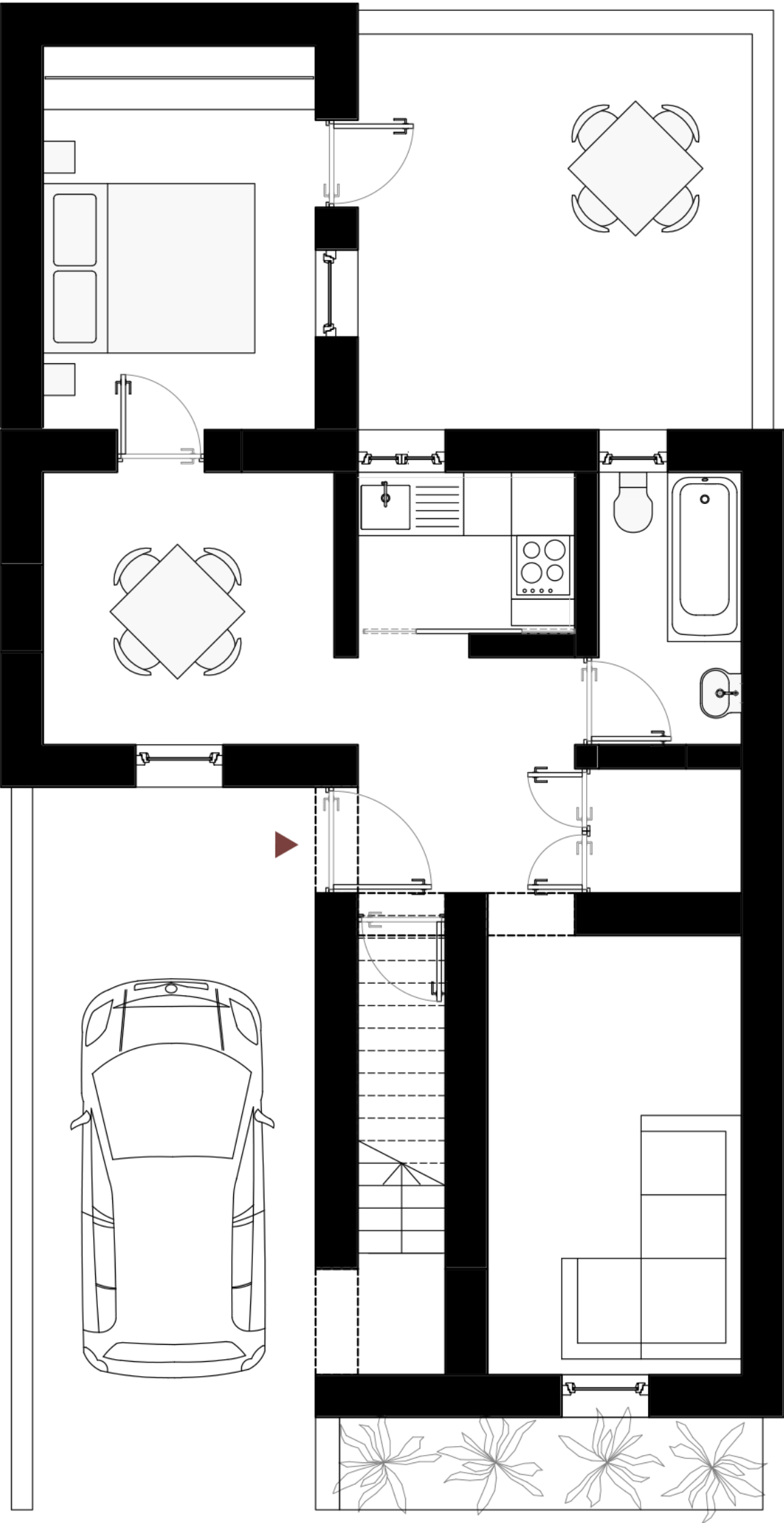
49sqm



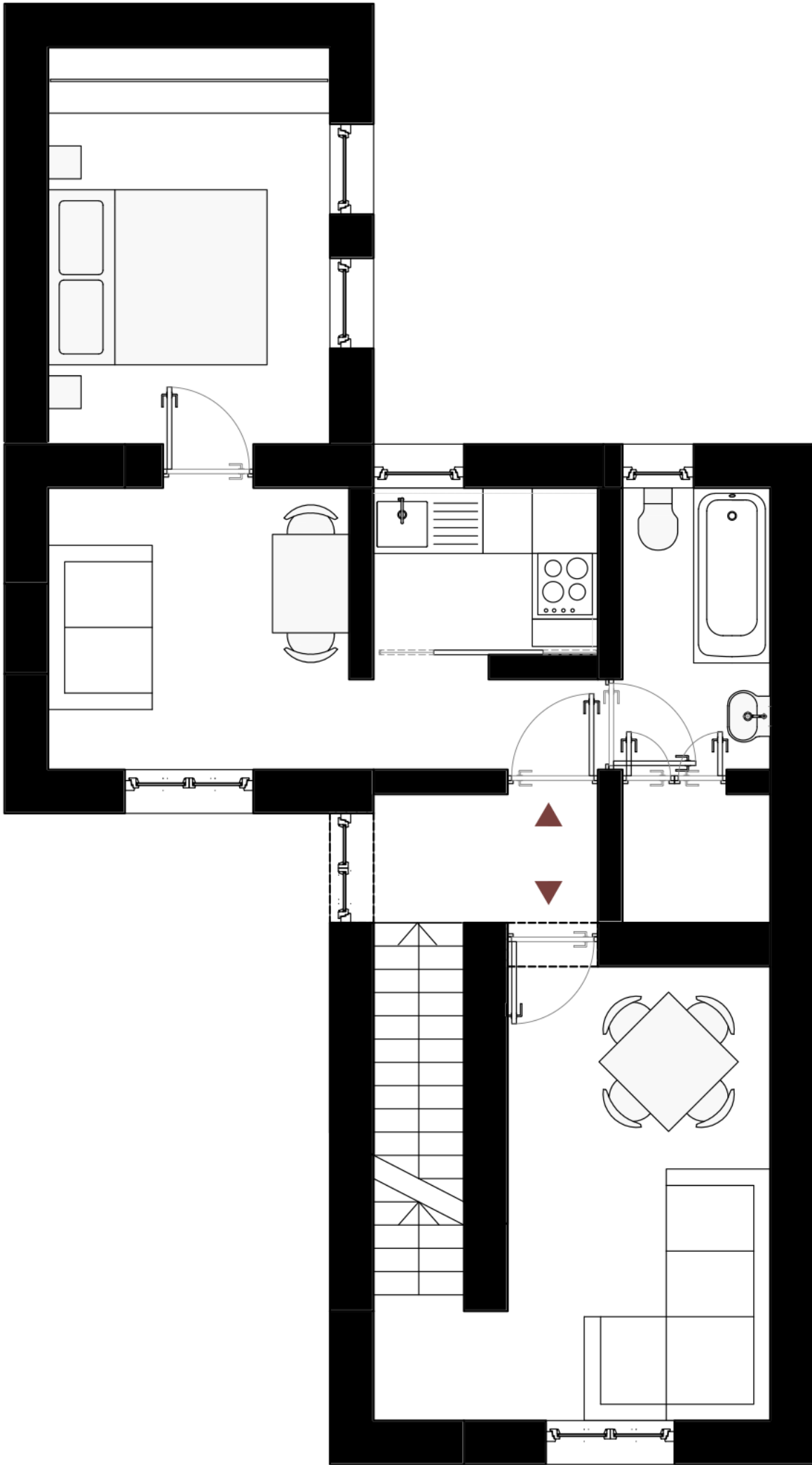
29sqm



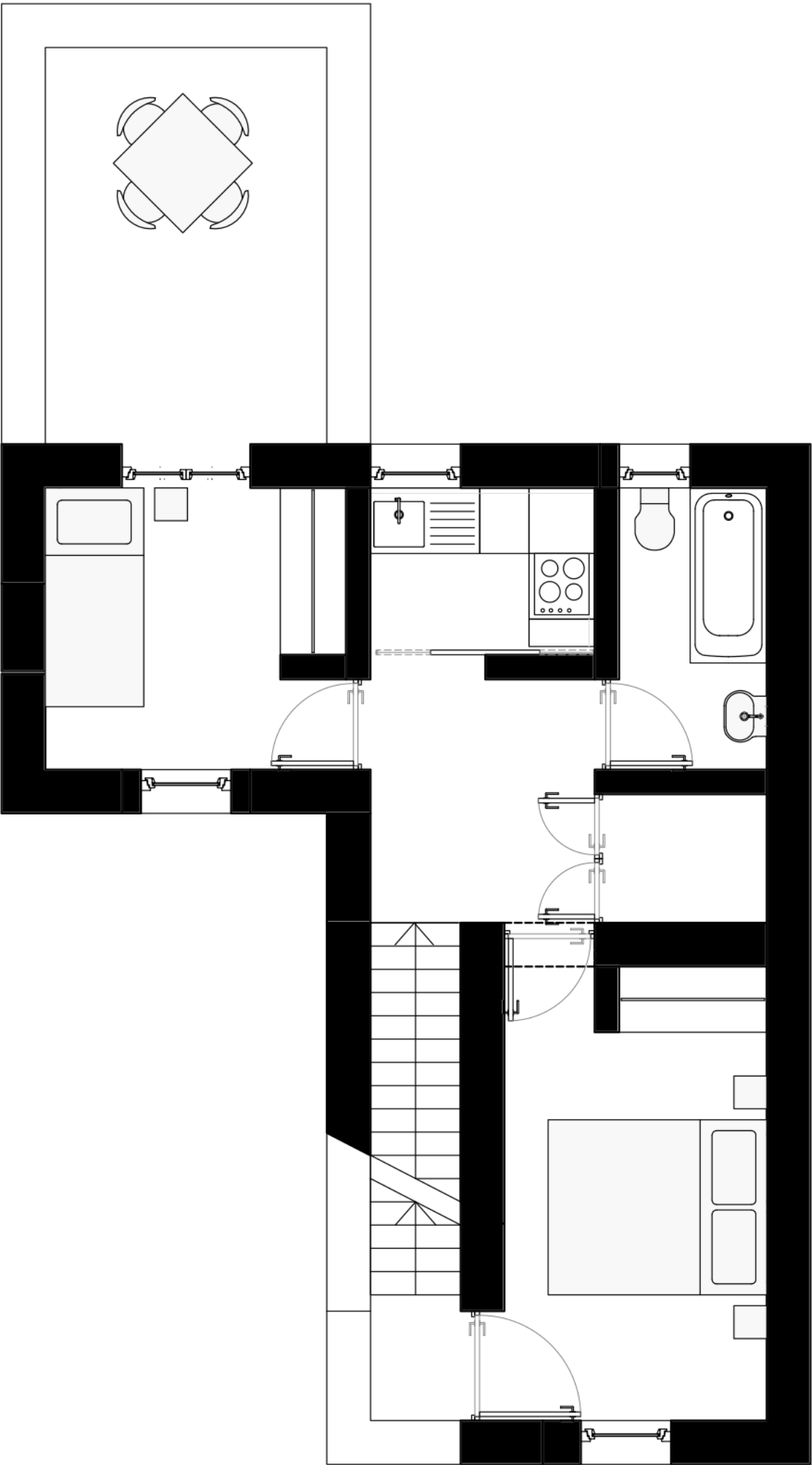
48sqm



Ground Floor




First Floor




Second Floor

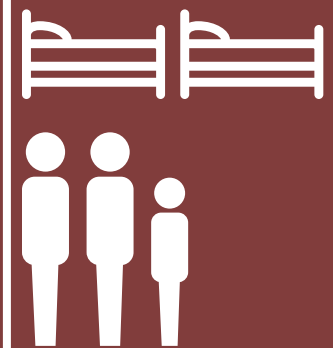
Type 1D



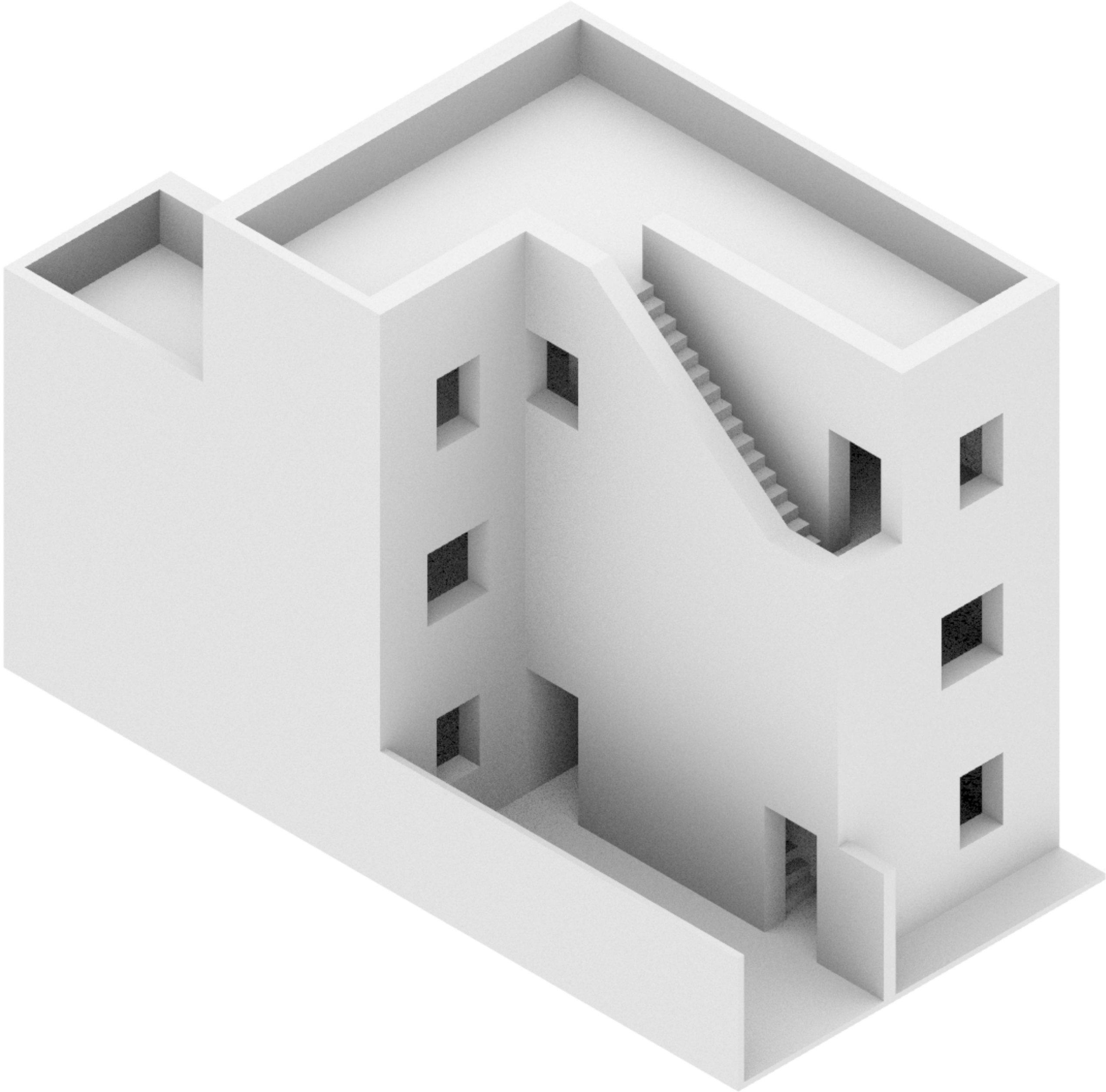
49sqm



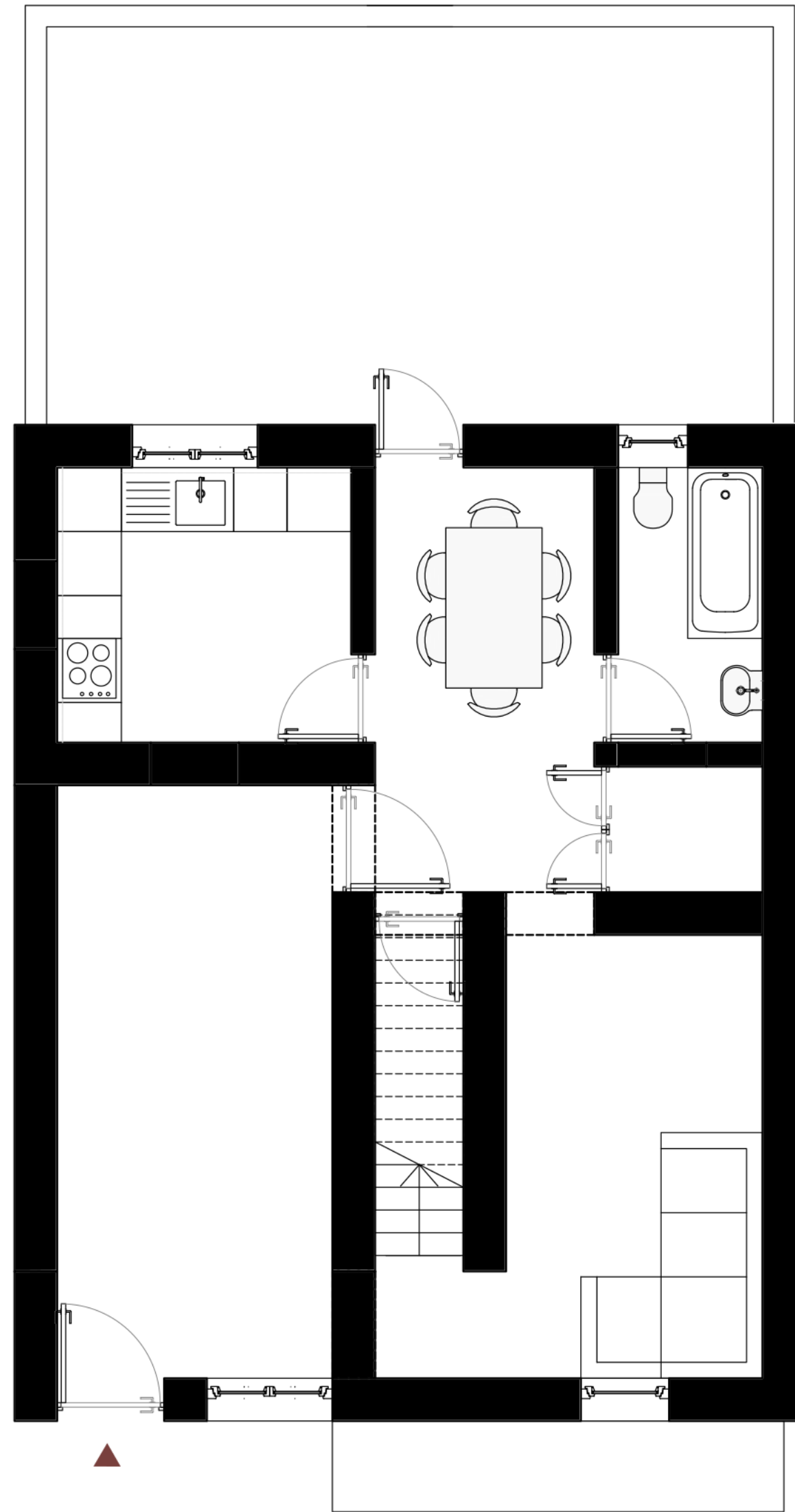
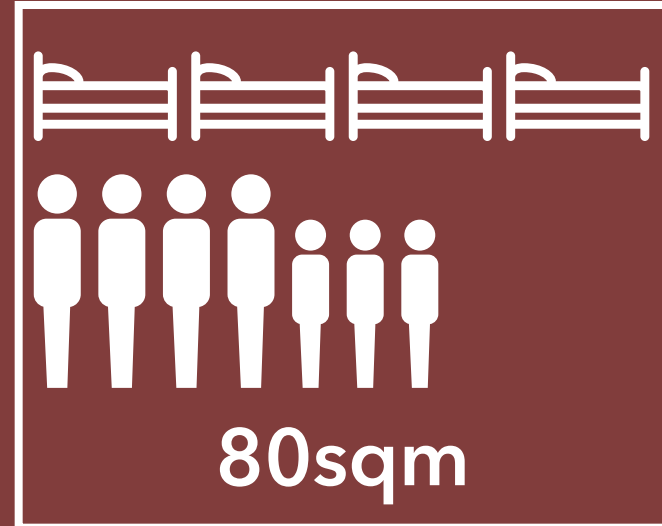
29sqm



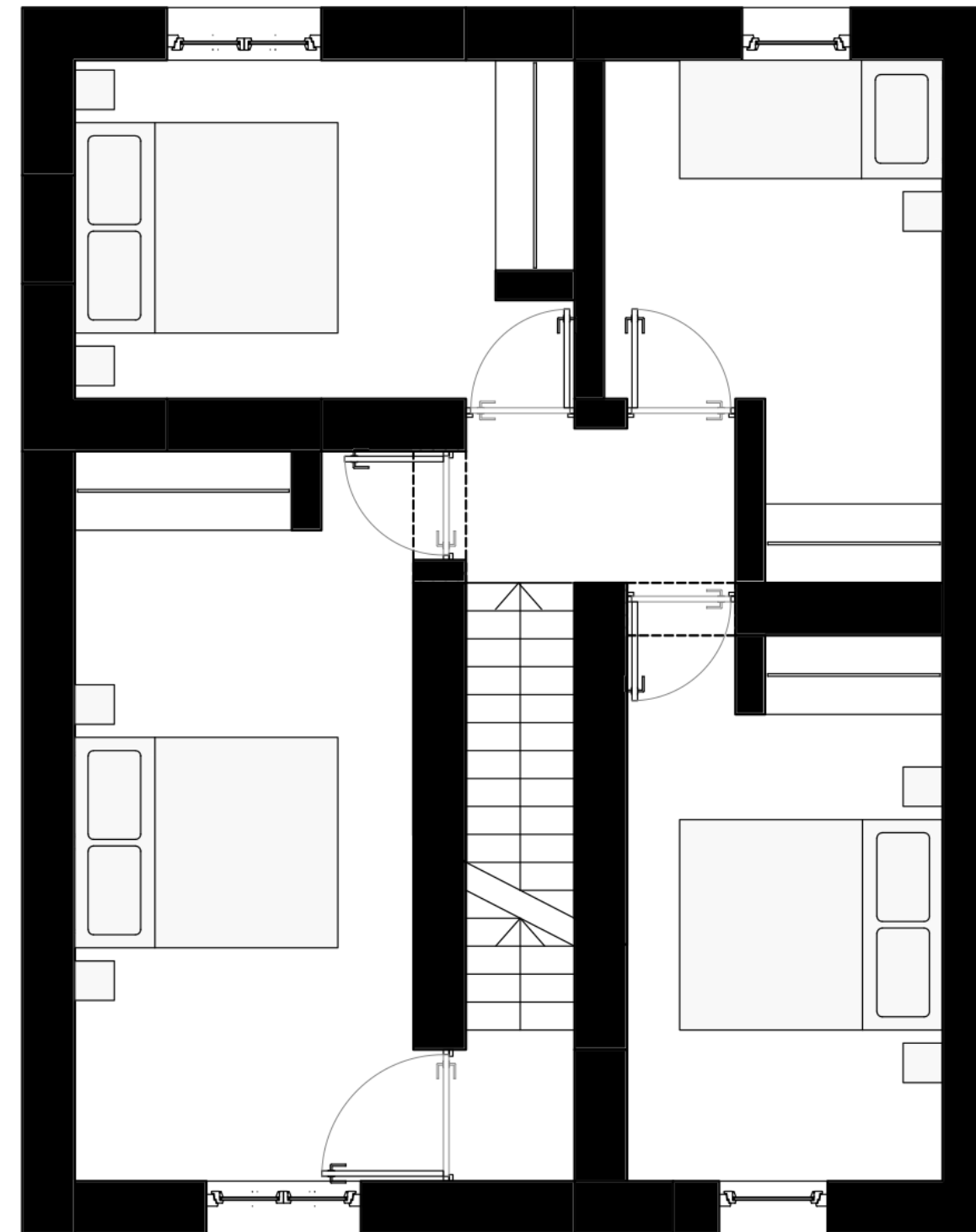
48sqm



Type 1E



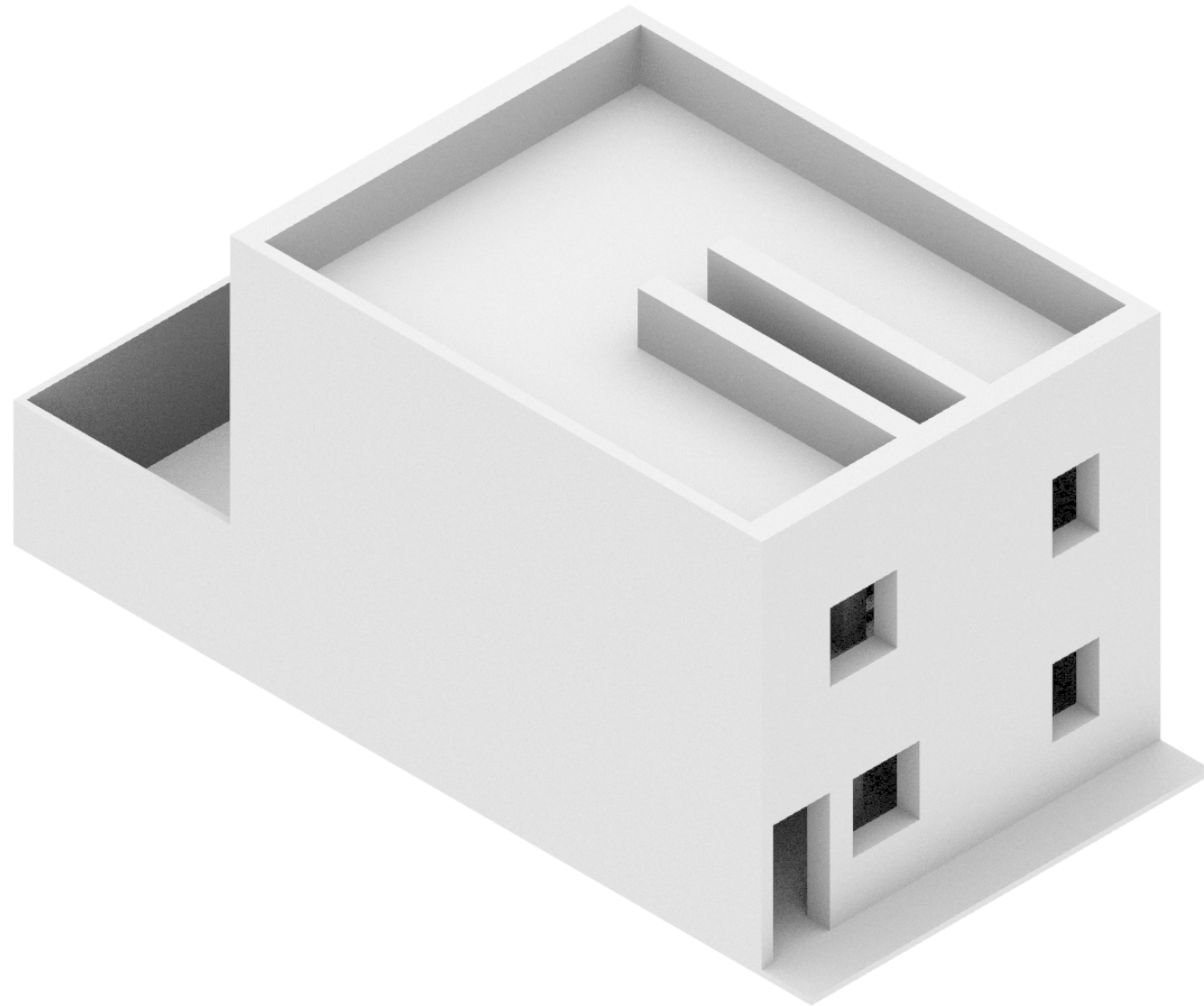
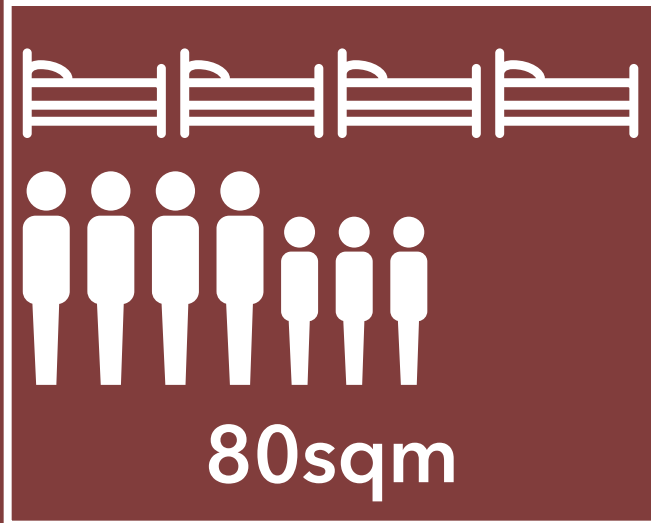
Ground Floor




First Floor



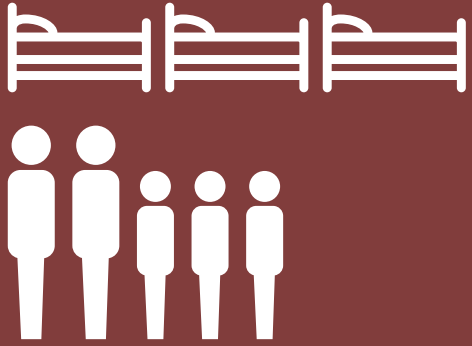
Type 1E



Type 1F



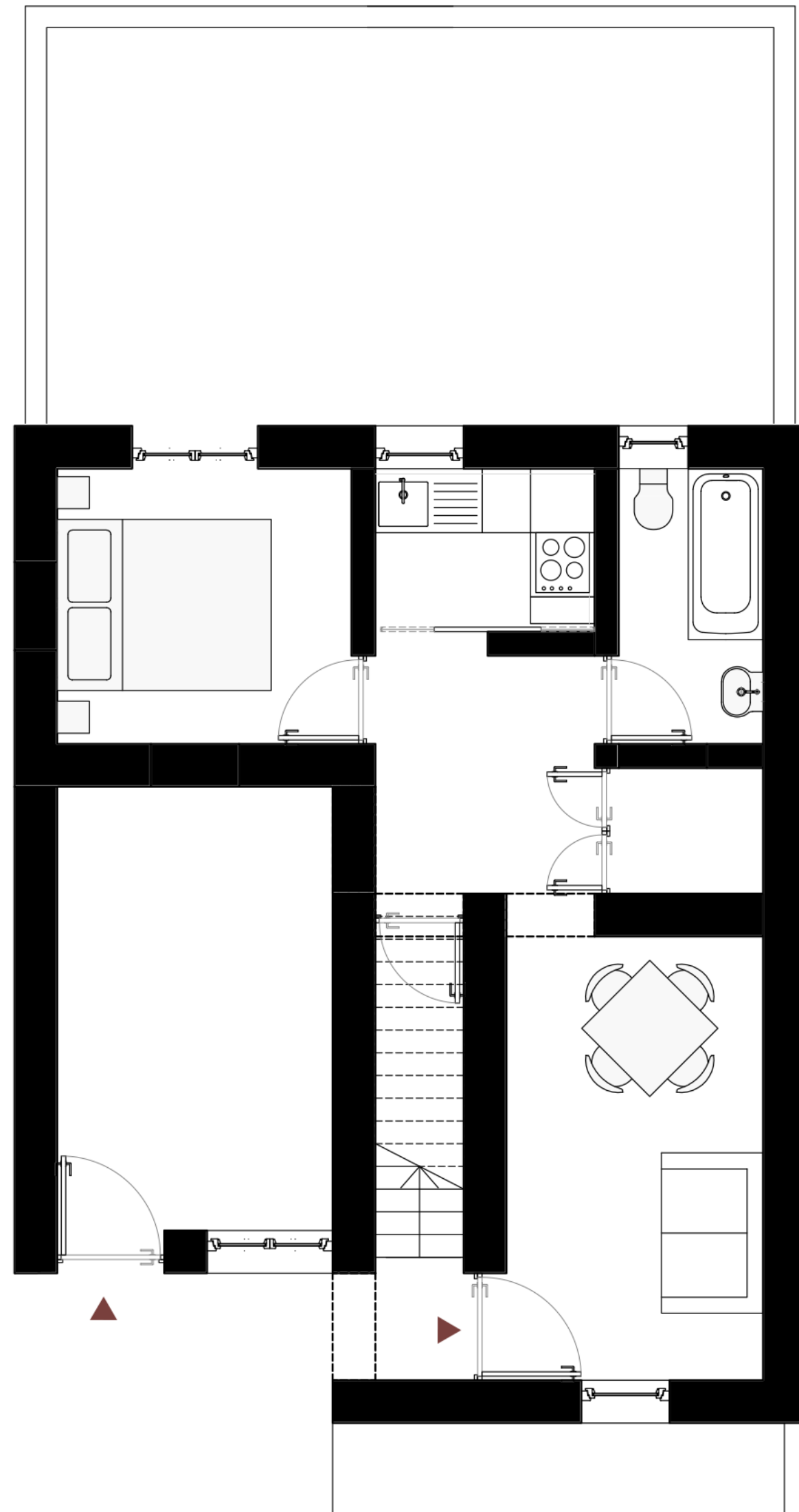
33sqm



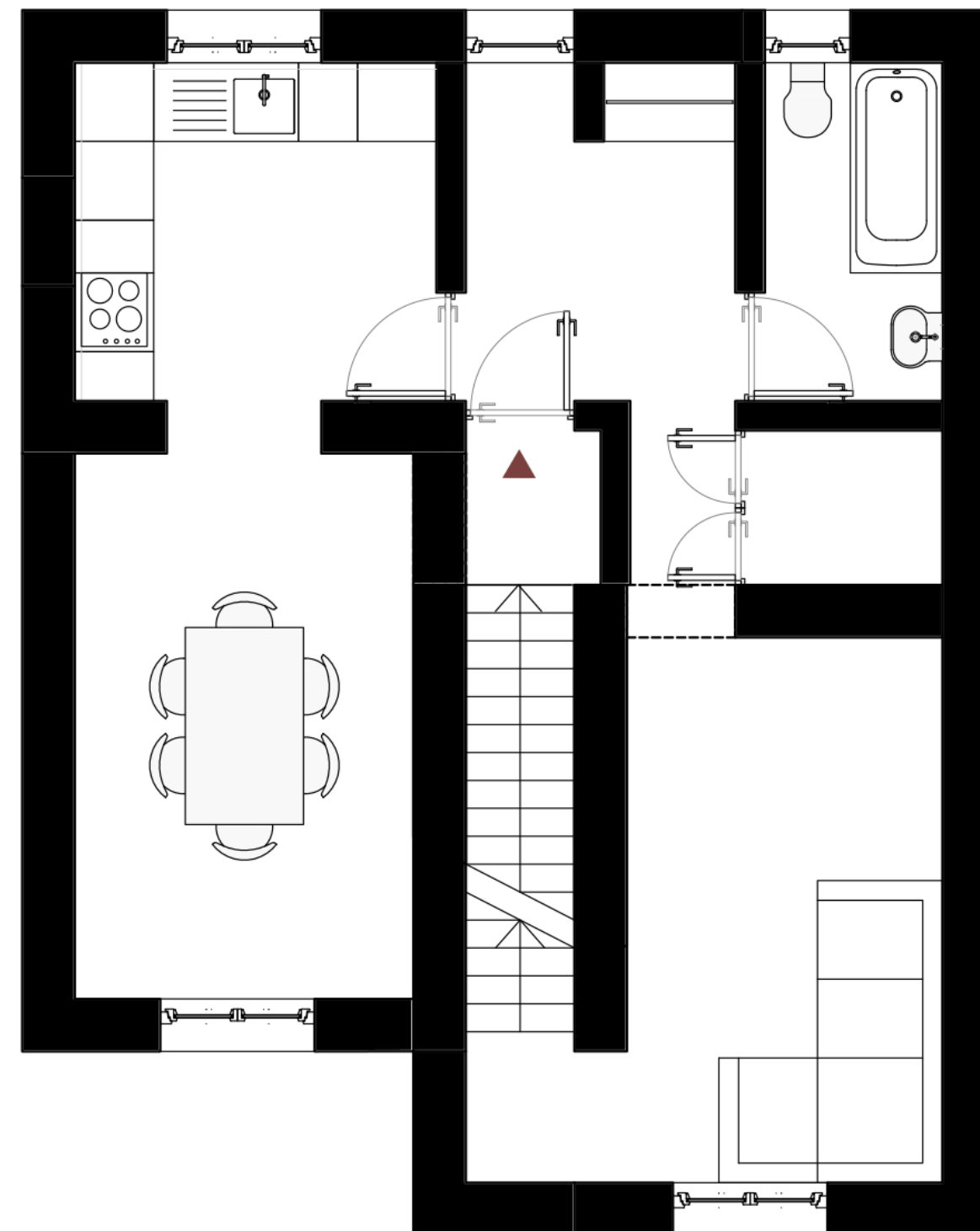
75sqm



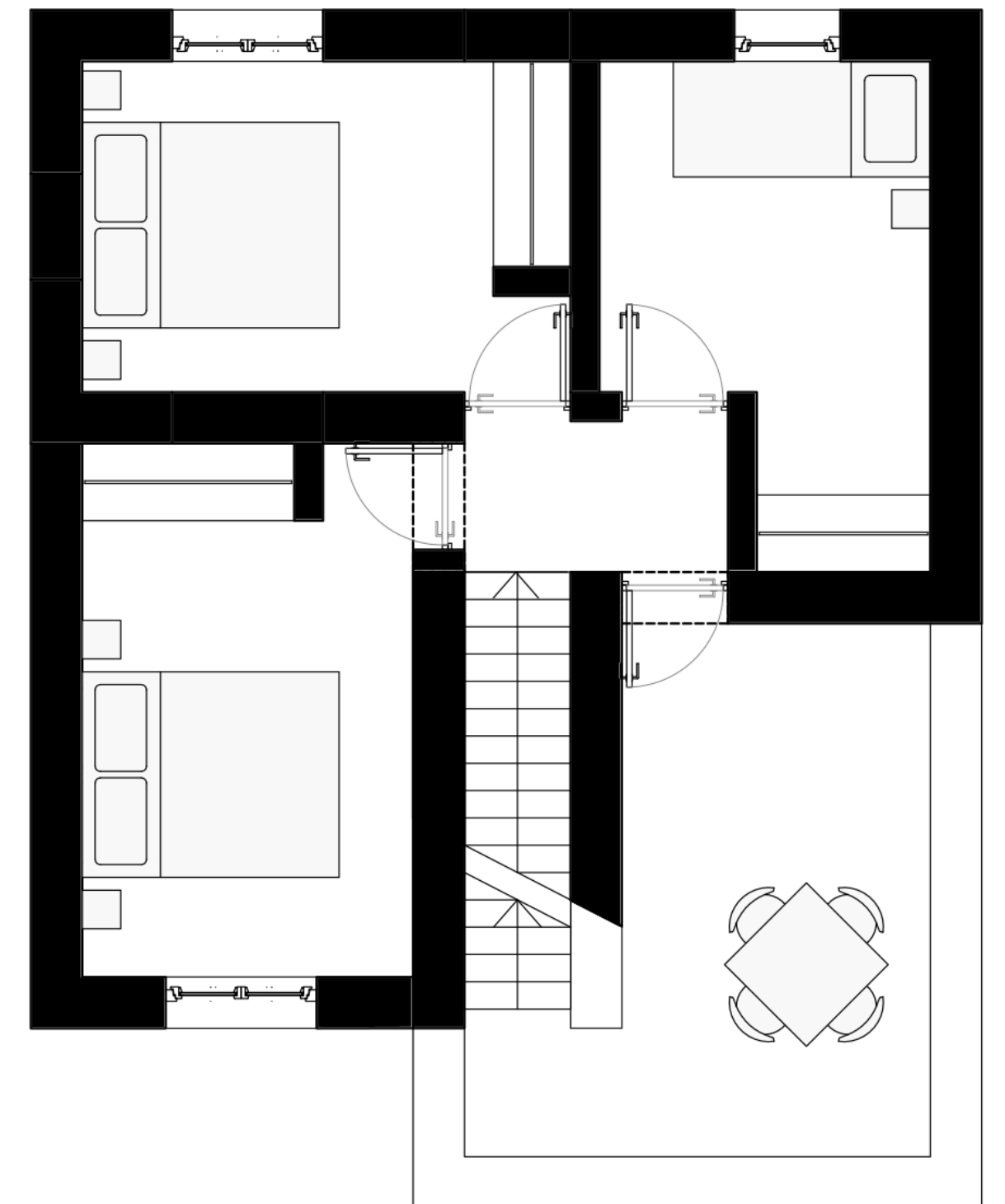
12sqm



Ground Floor



First Floor



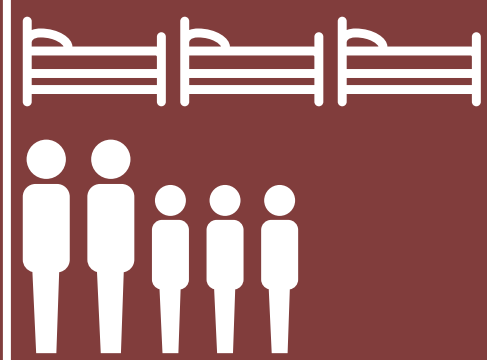
Second Floor



Type 1F



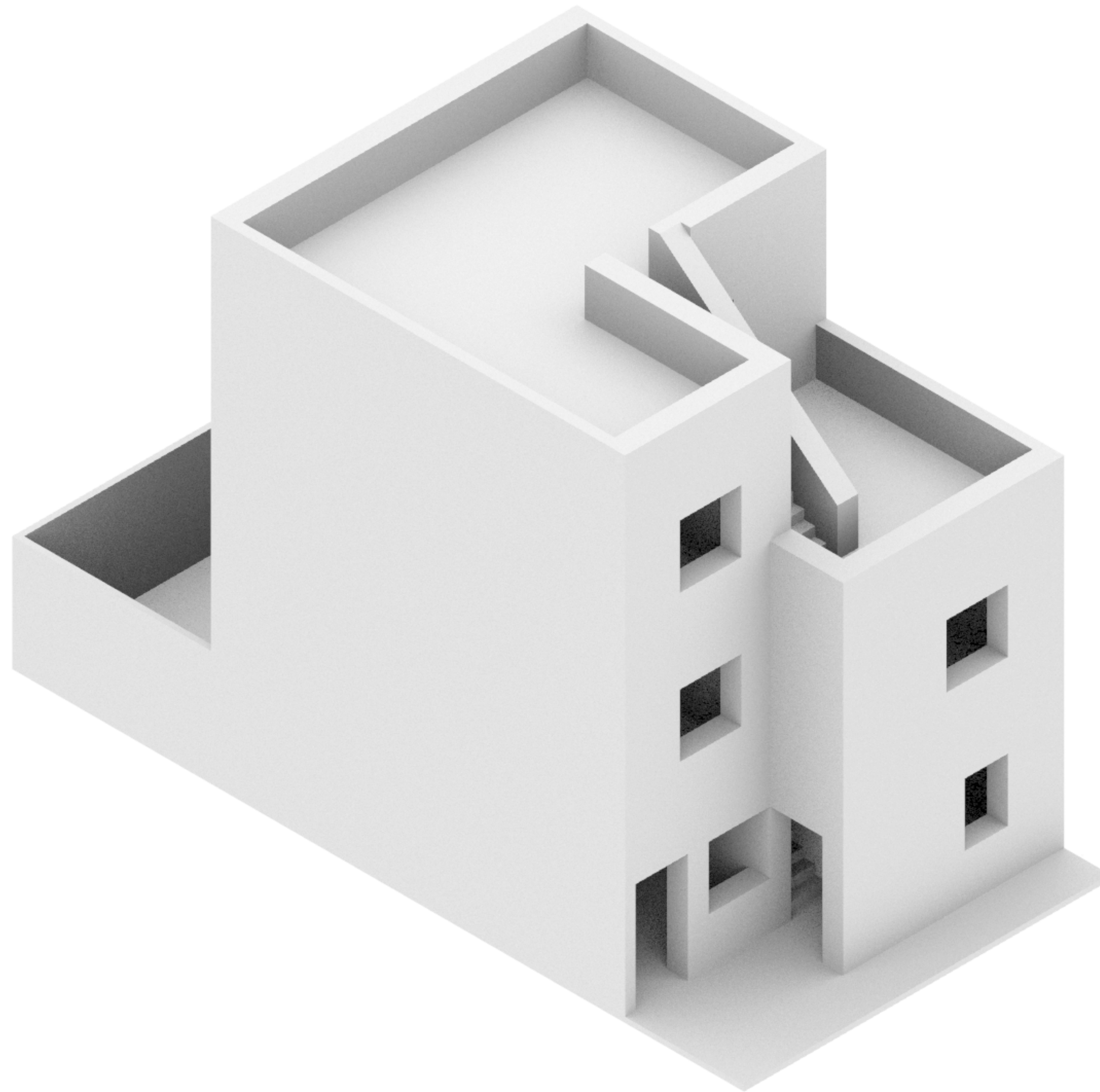
33sqm



75sqm



12sqm



Type 1G



33sqm



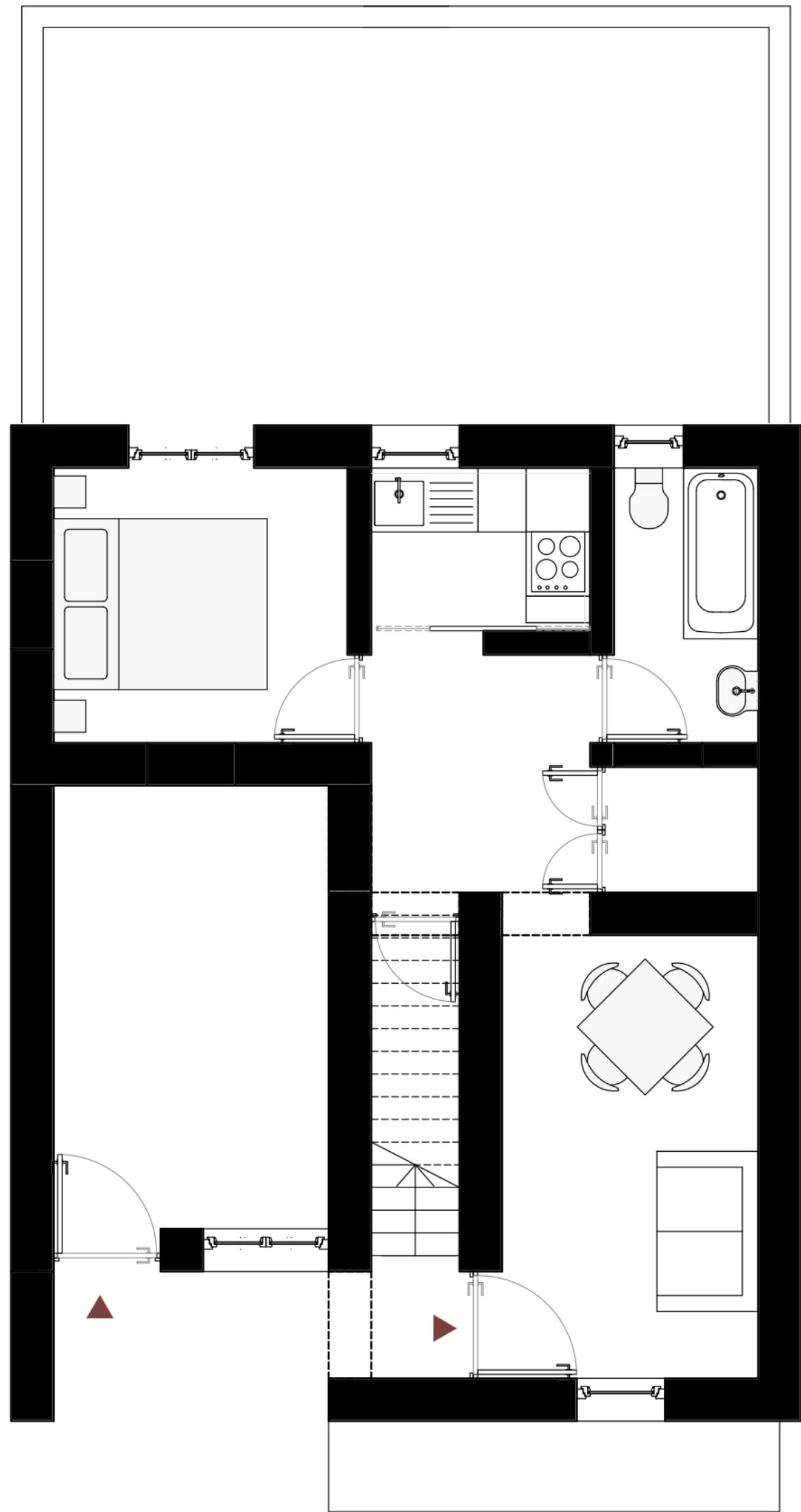
33sqm



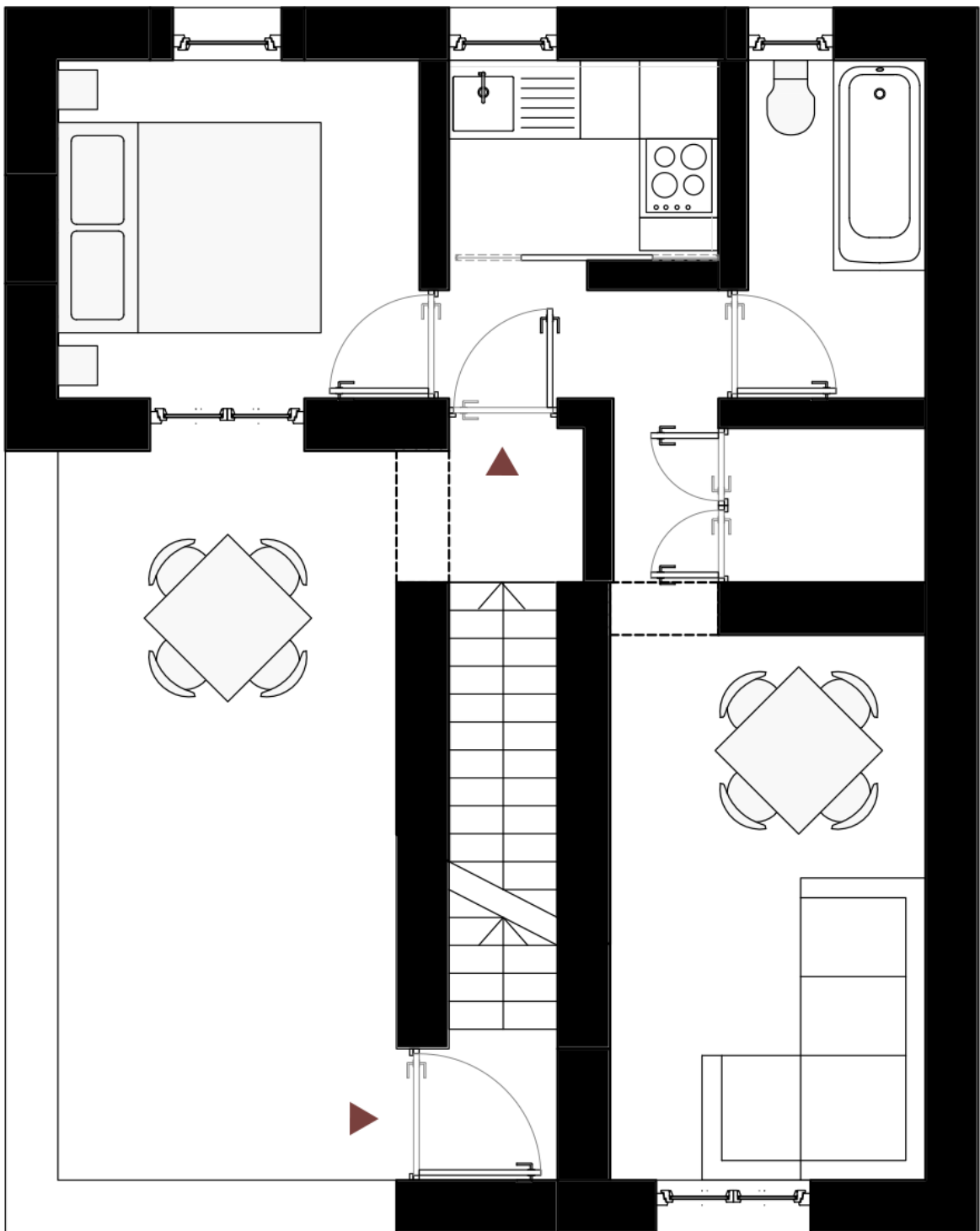
33sqm



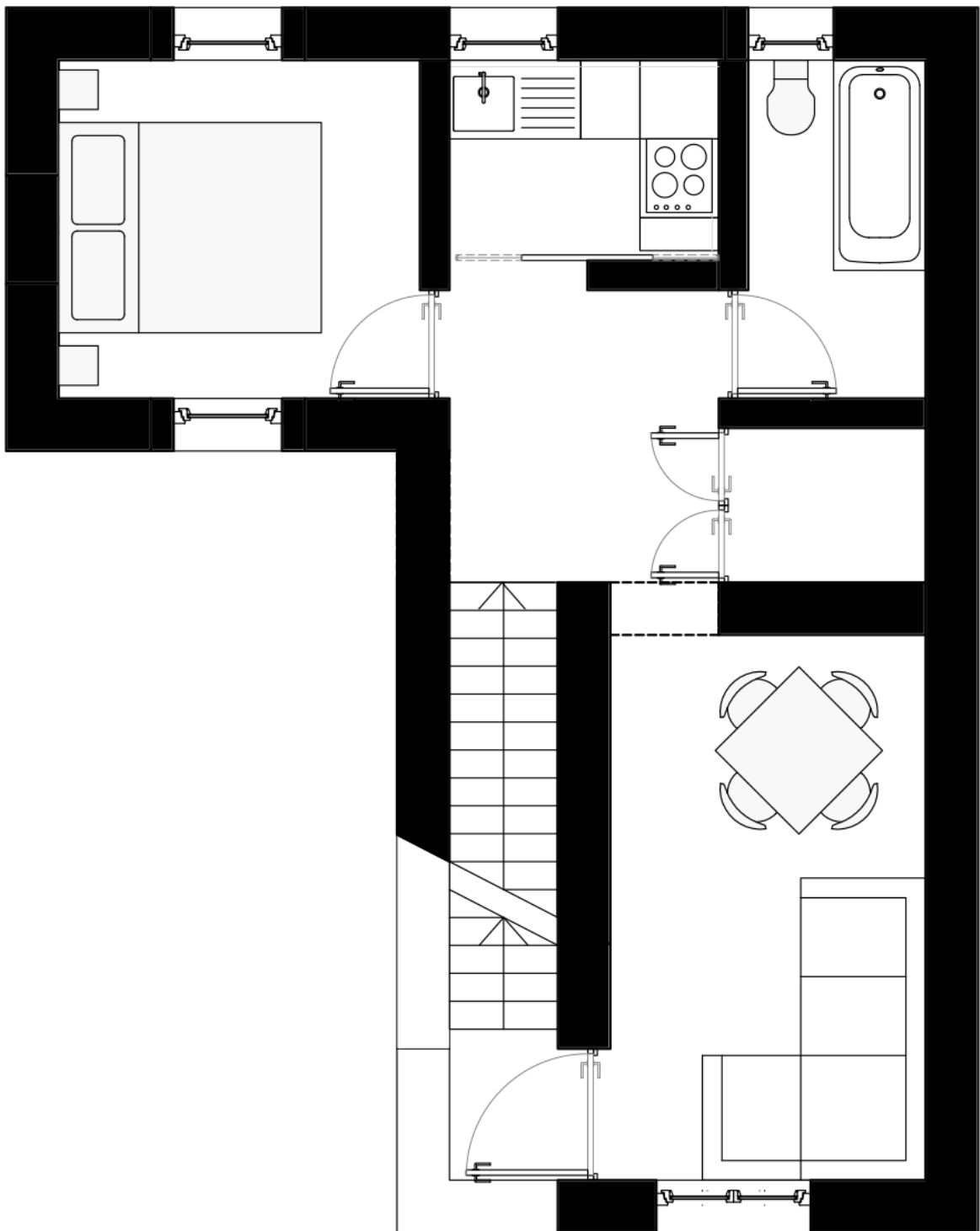
12sqm



Ground Floor



First Floor




Second Floor

Type 1G



33sqm



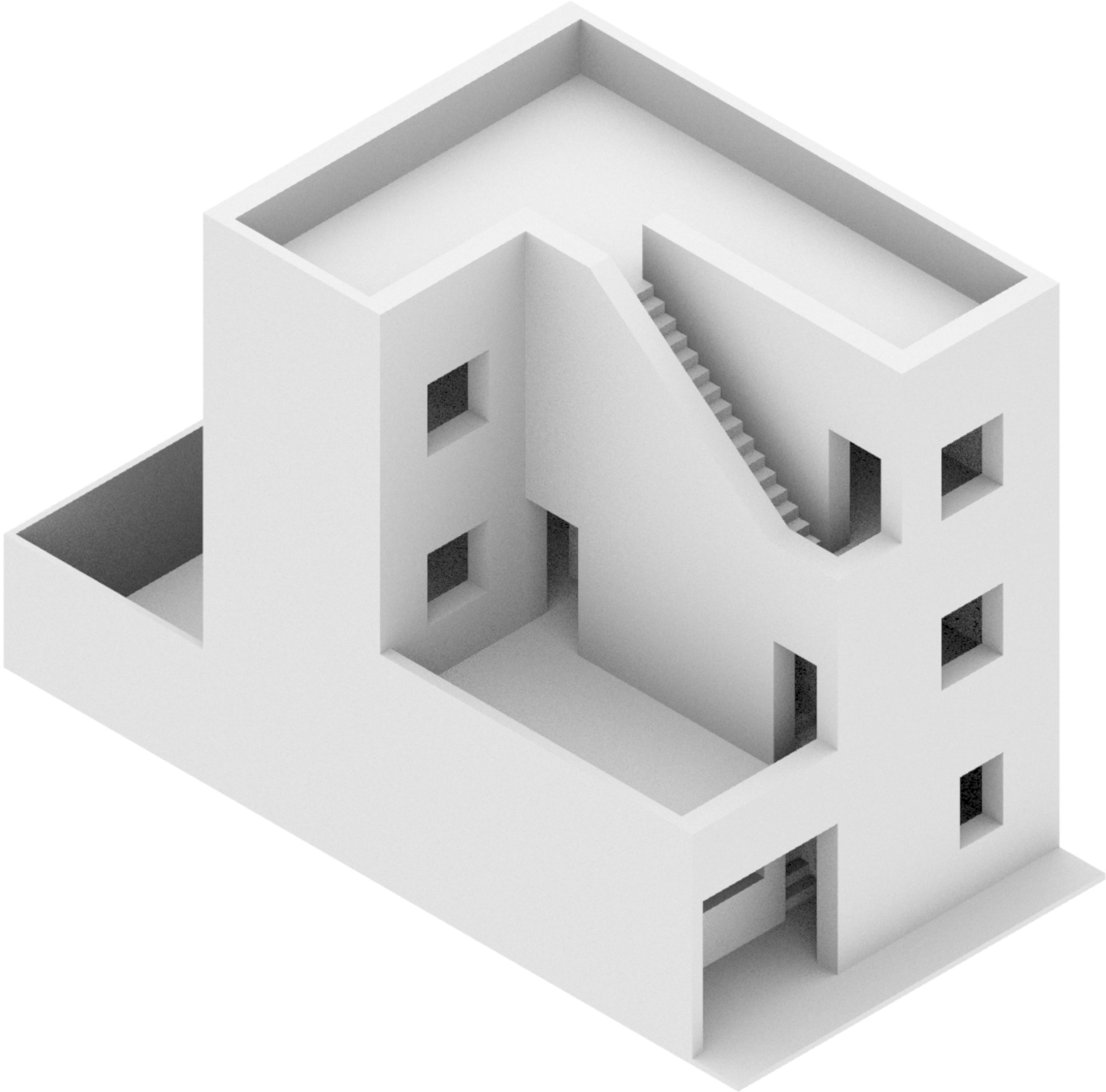
33sqm



33sqm



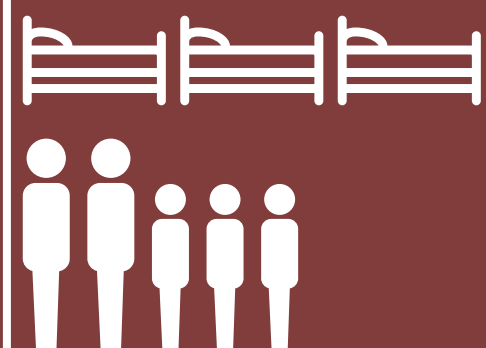
12sqm



Type 1H



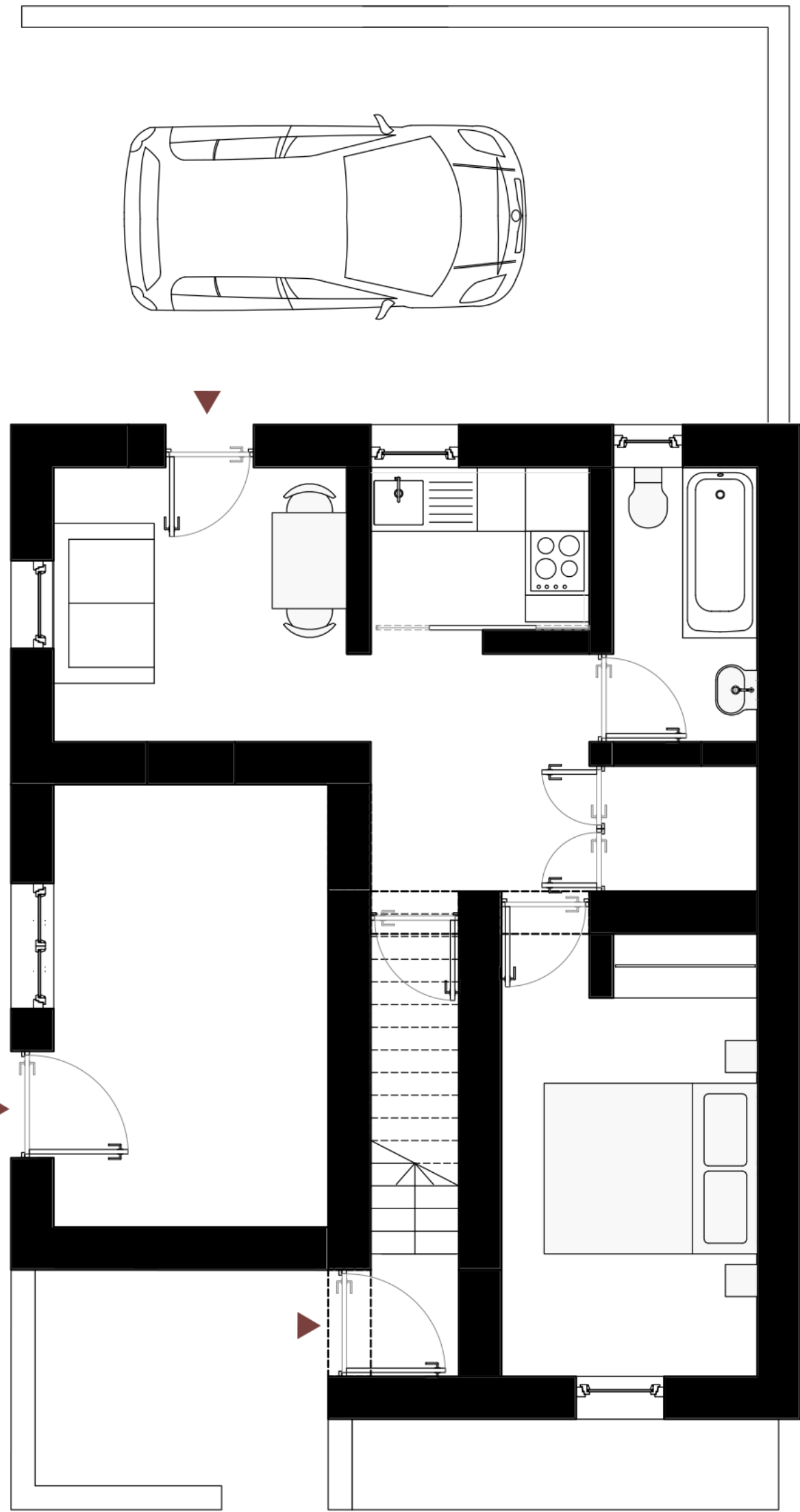
33sqm



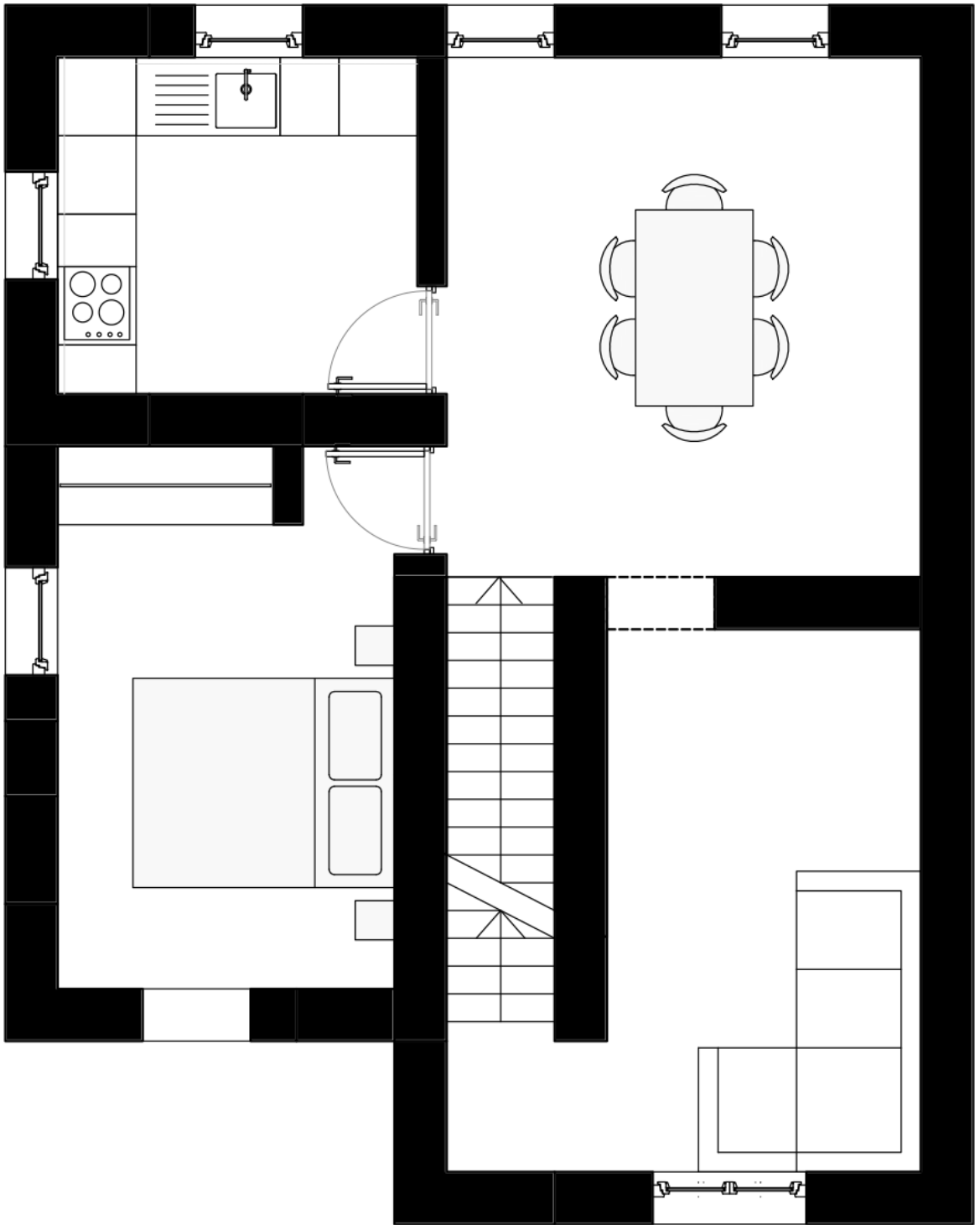
75sqm



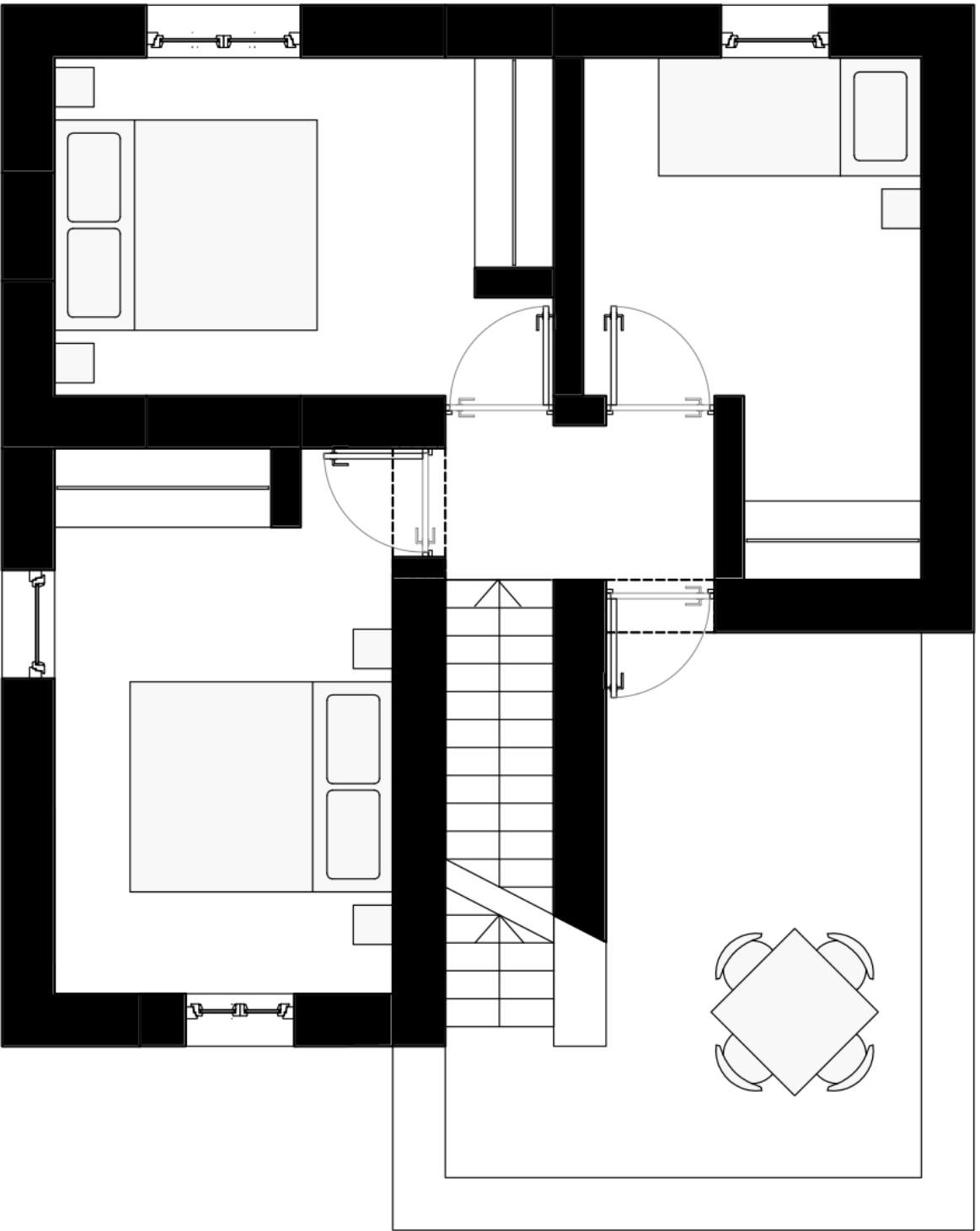
12sqm



Ground Floor



First Floor



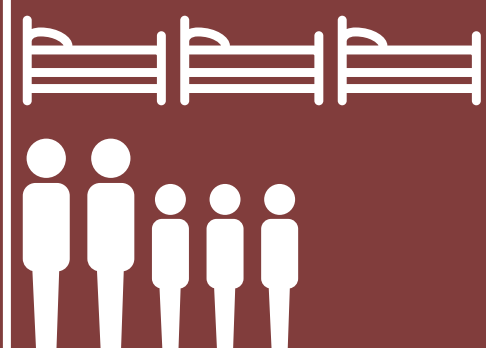
Second Floor



Type 1H



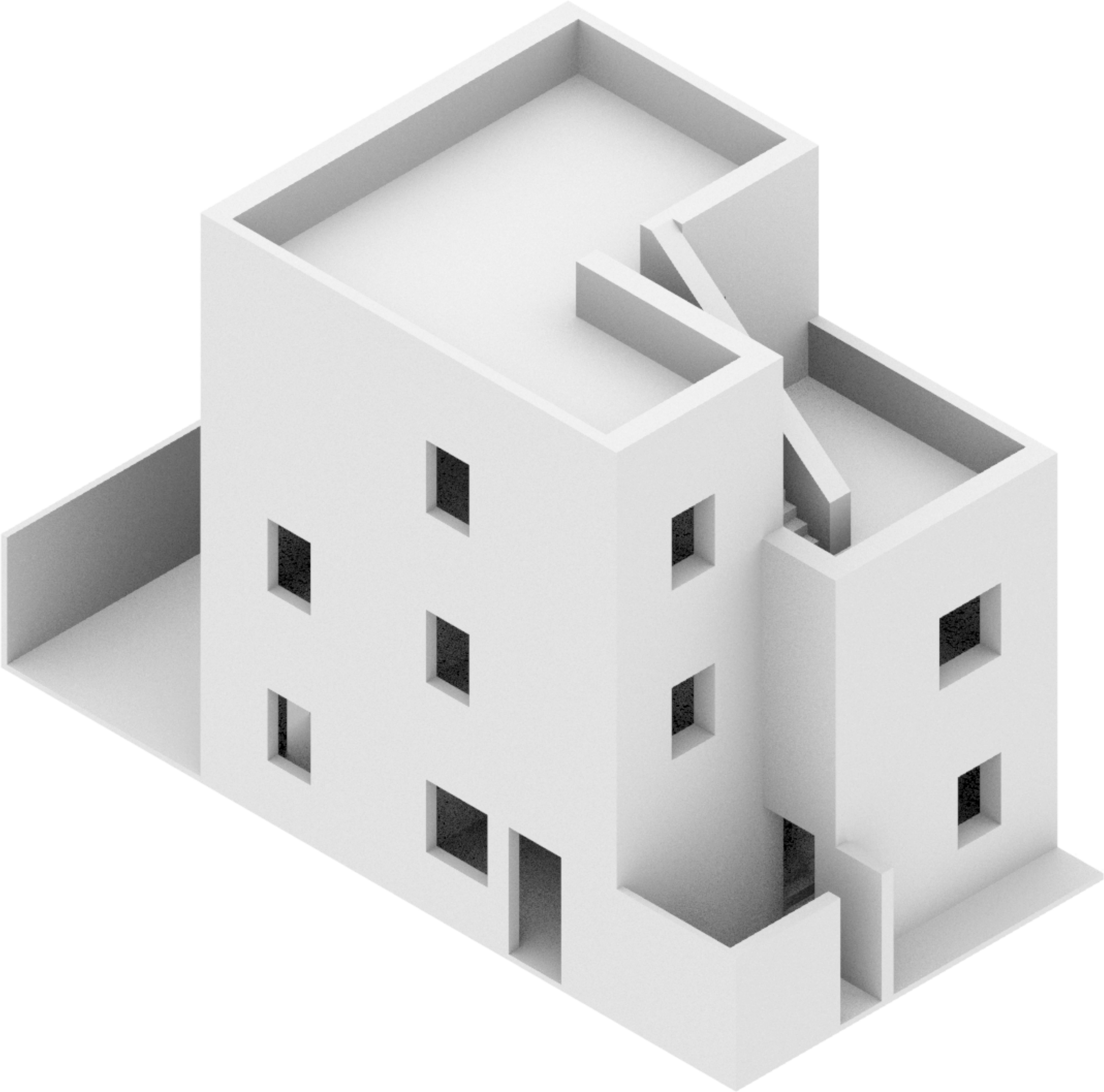
33sqm



75sqm




12sqm




Type 1I



33sqm



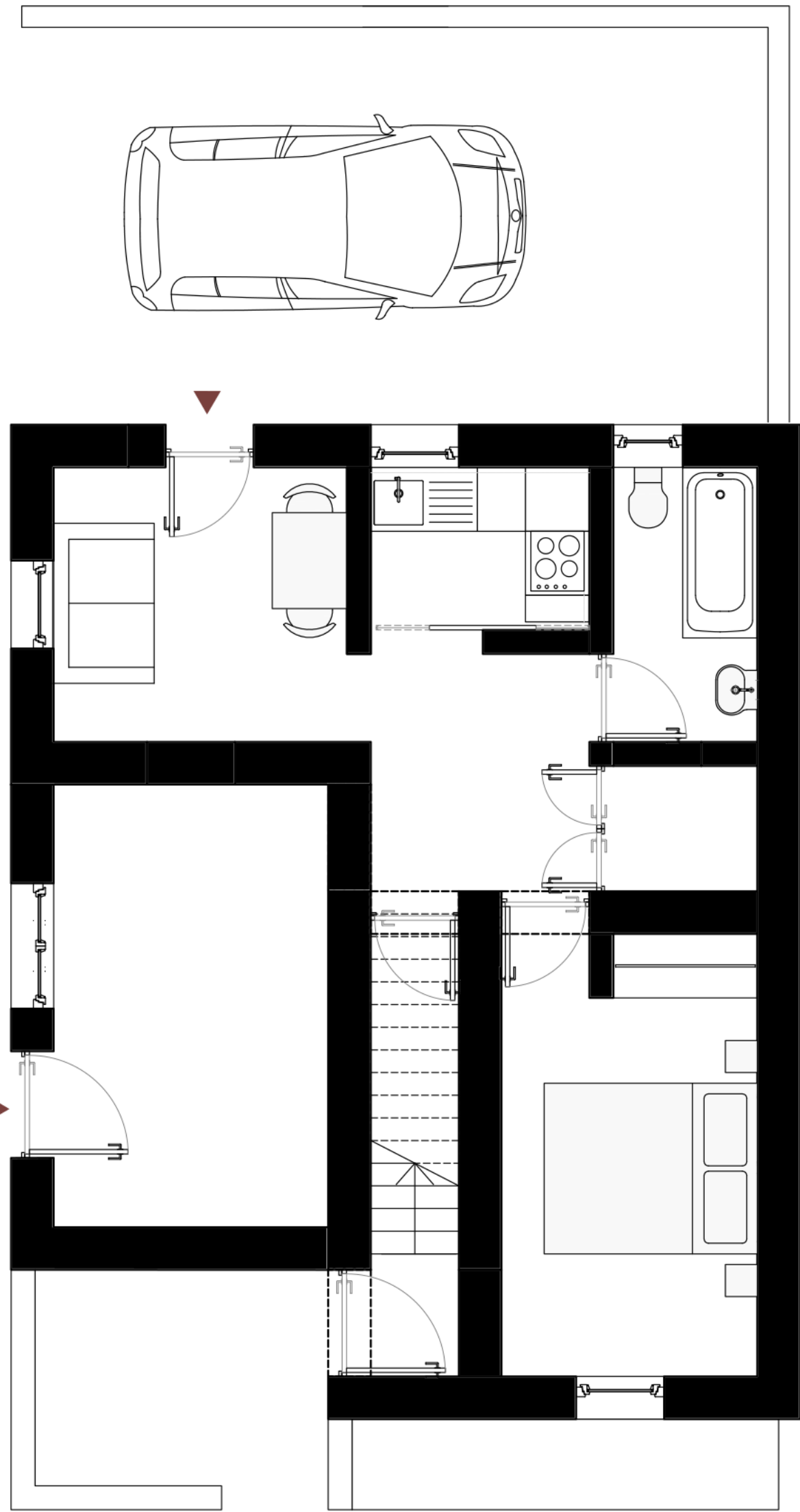
30sqm



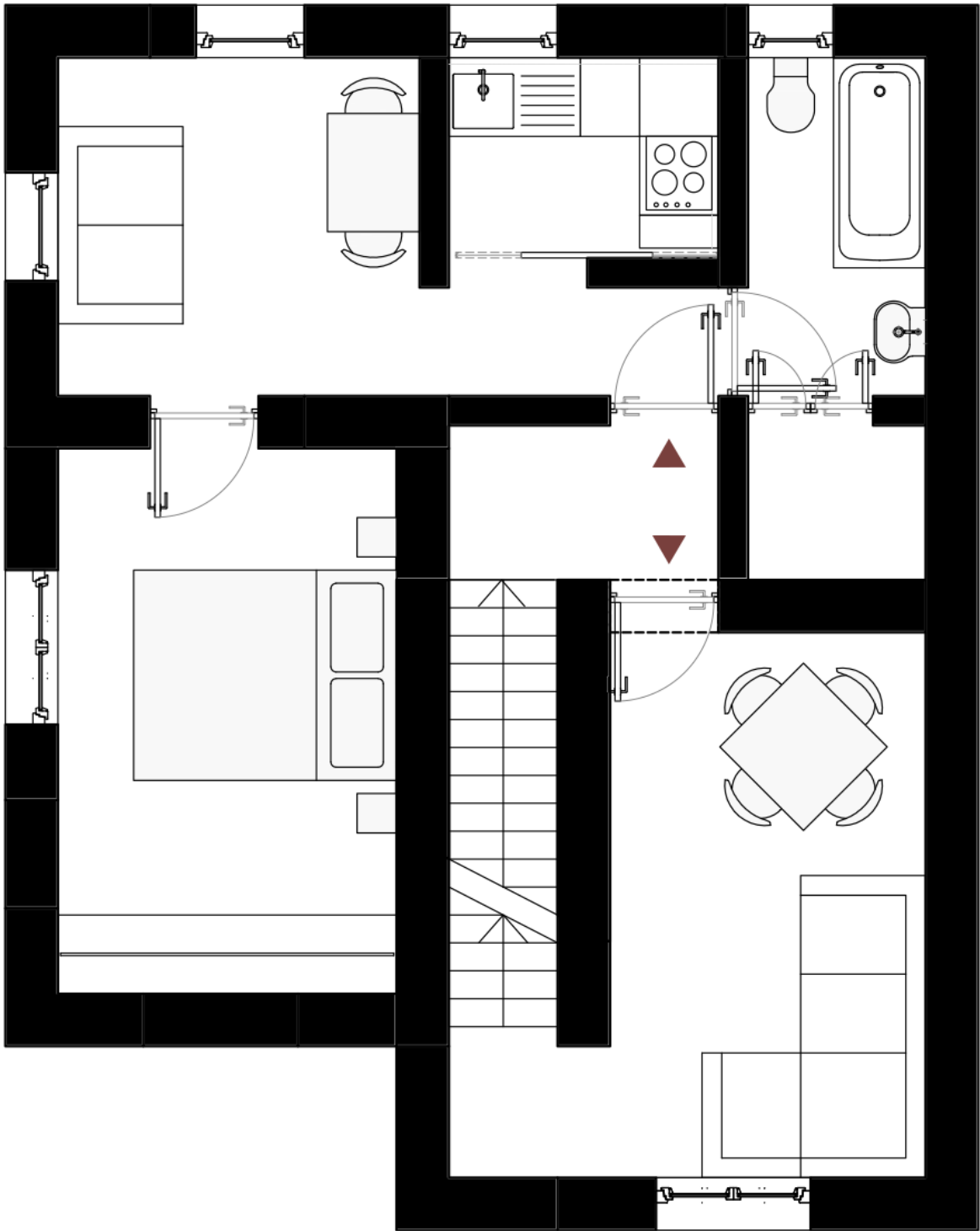
45sqm



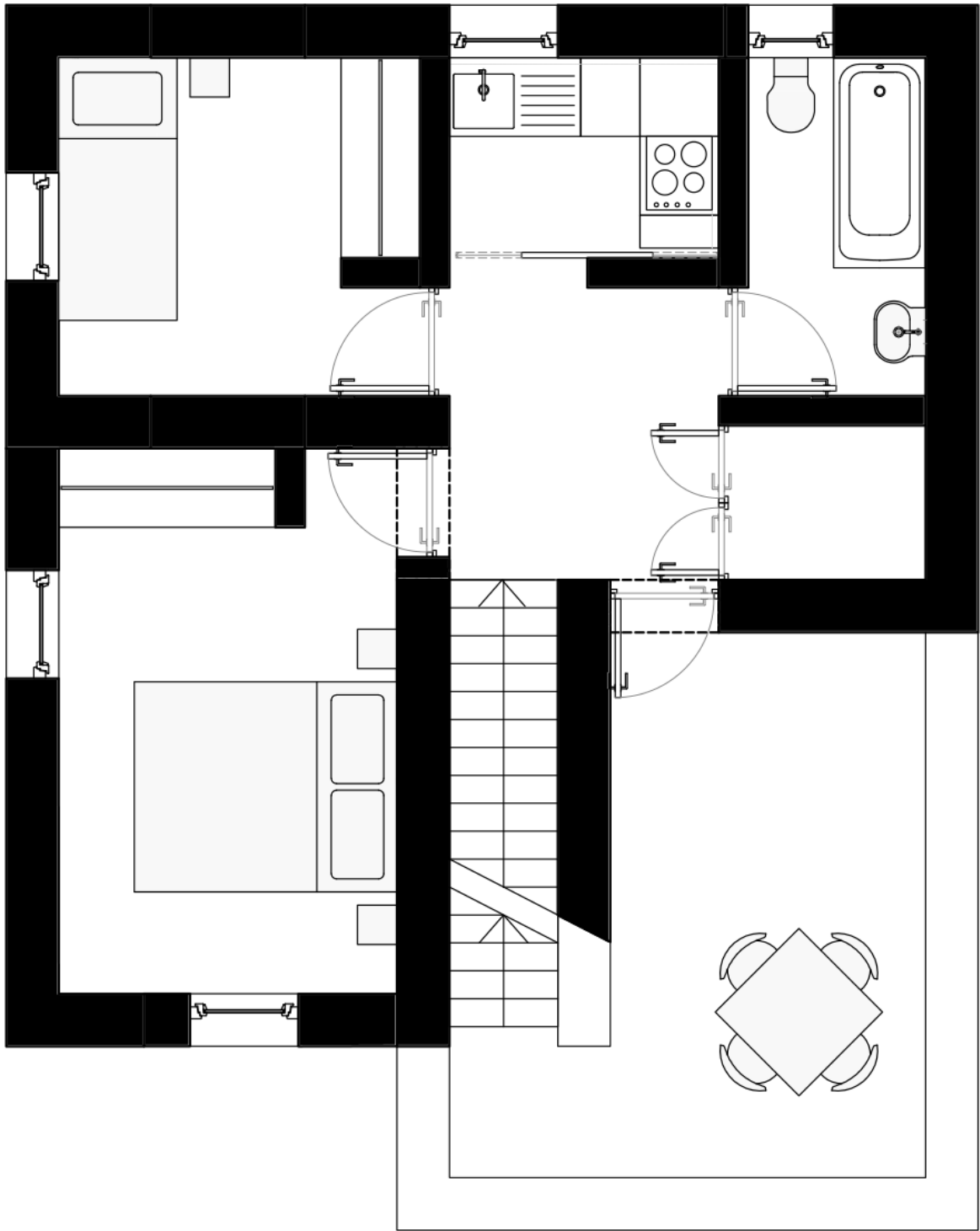
12sqm



Ground Floor



First Floor

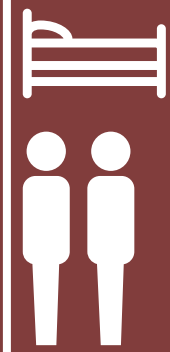


Second Floor

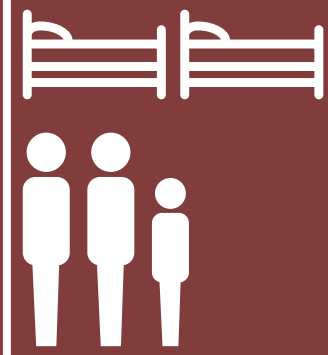
Type 11



33sqm



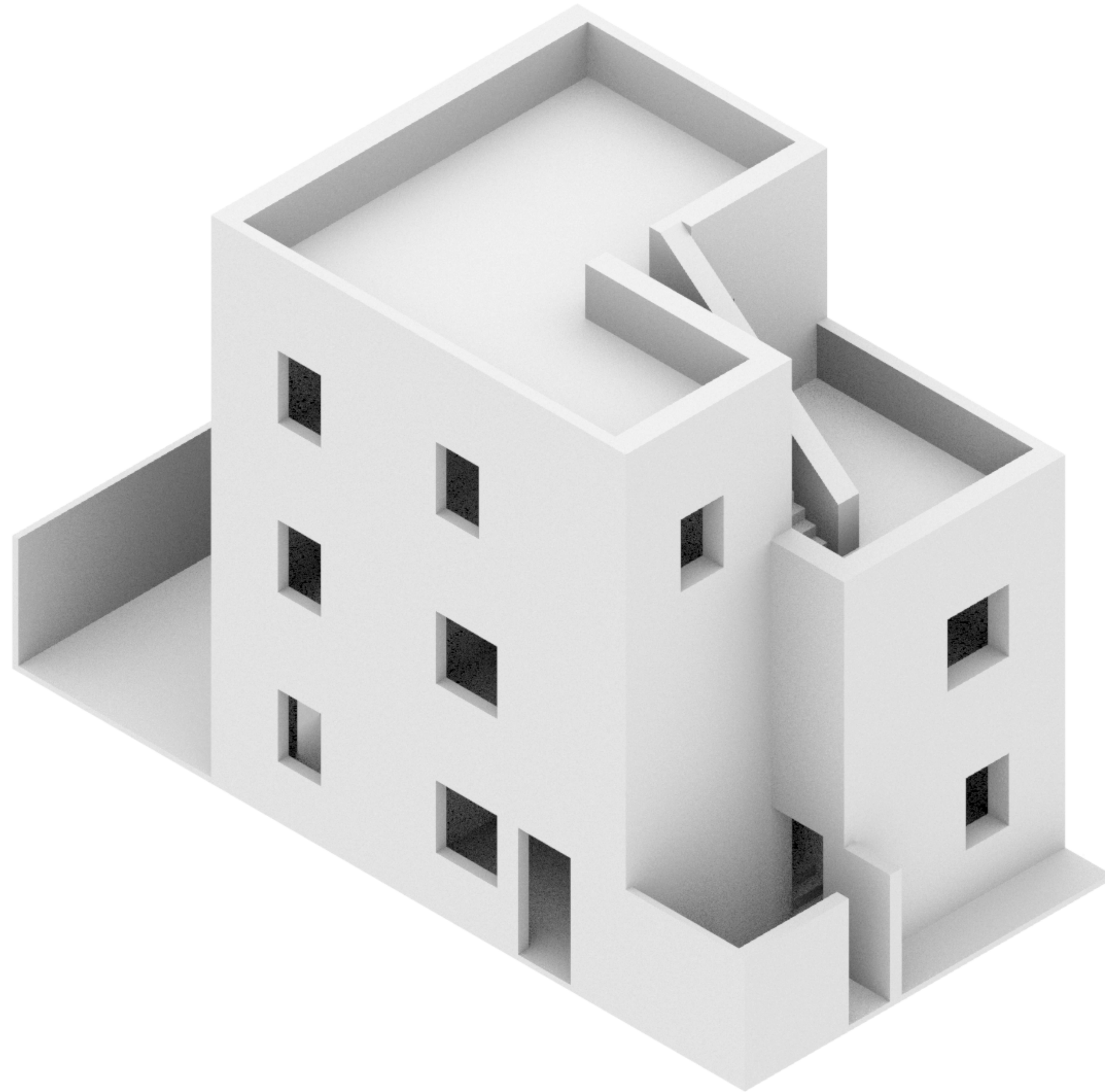
30sqm



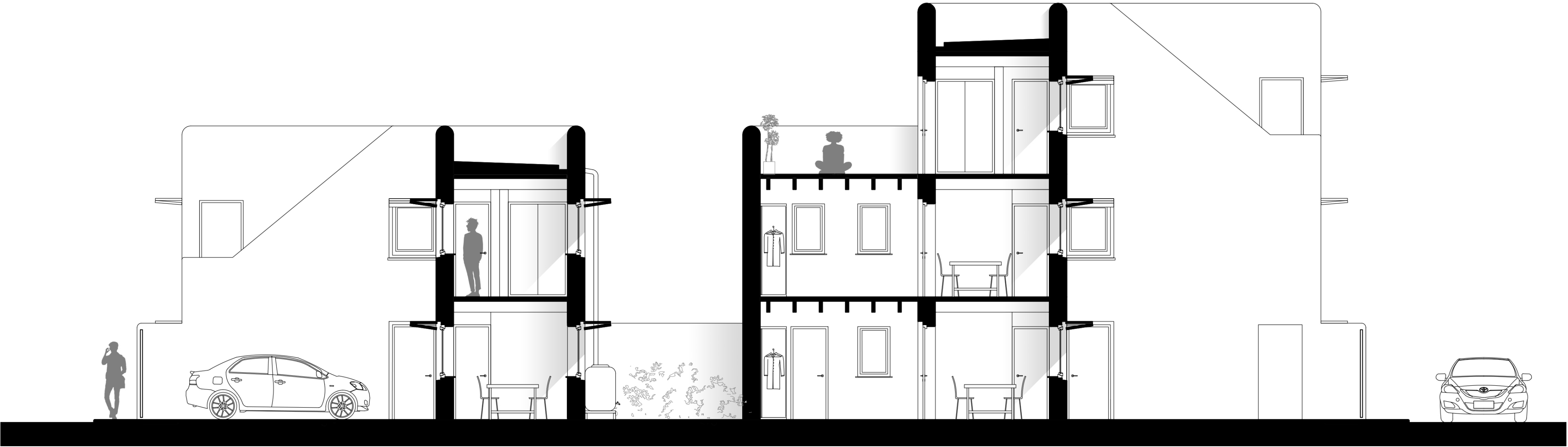
45sqm



12sqm

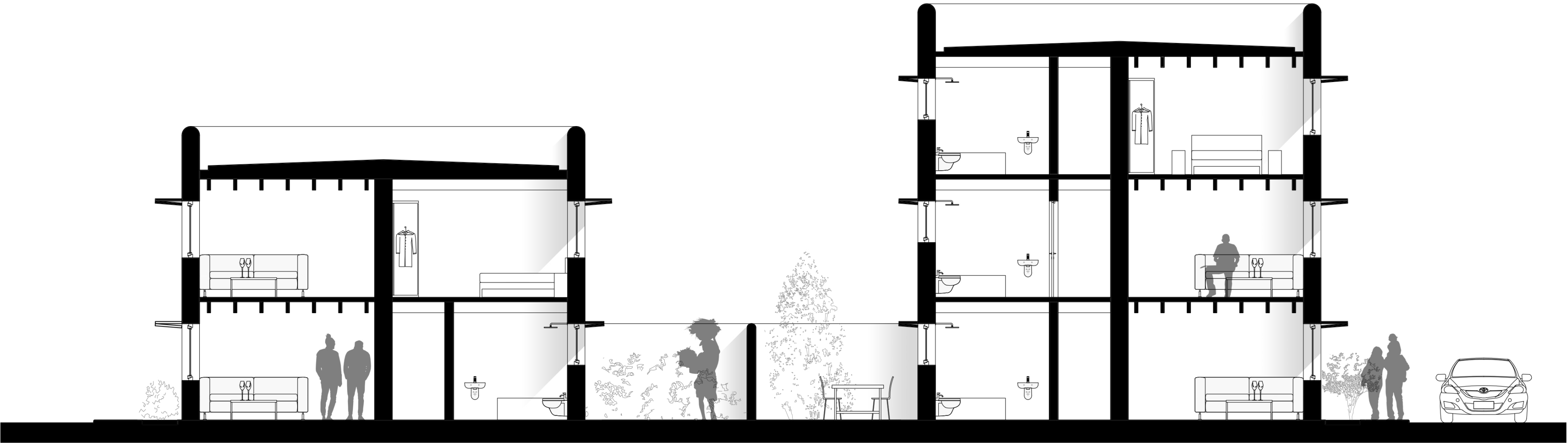


Sections



Type 1A

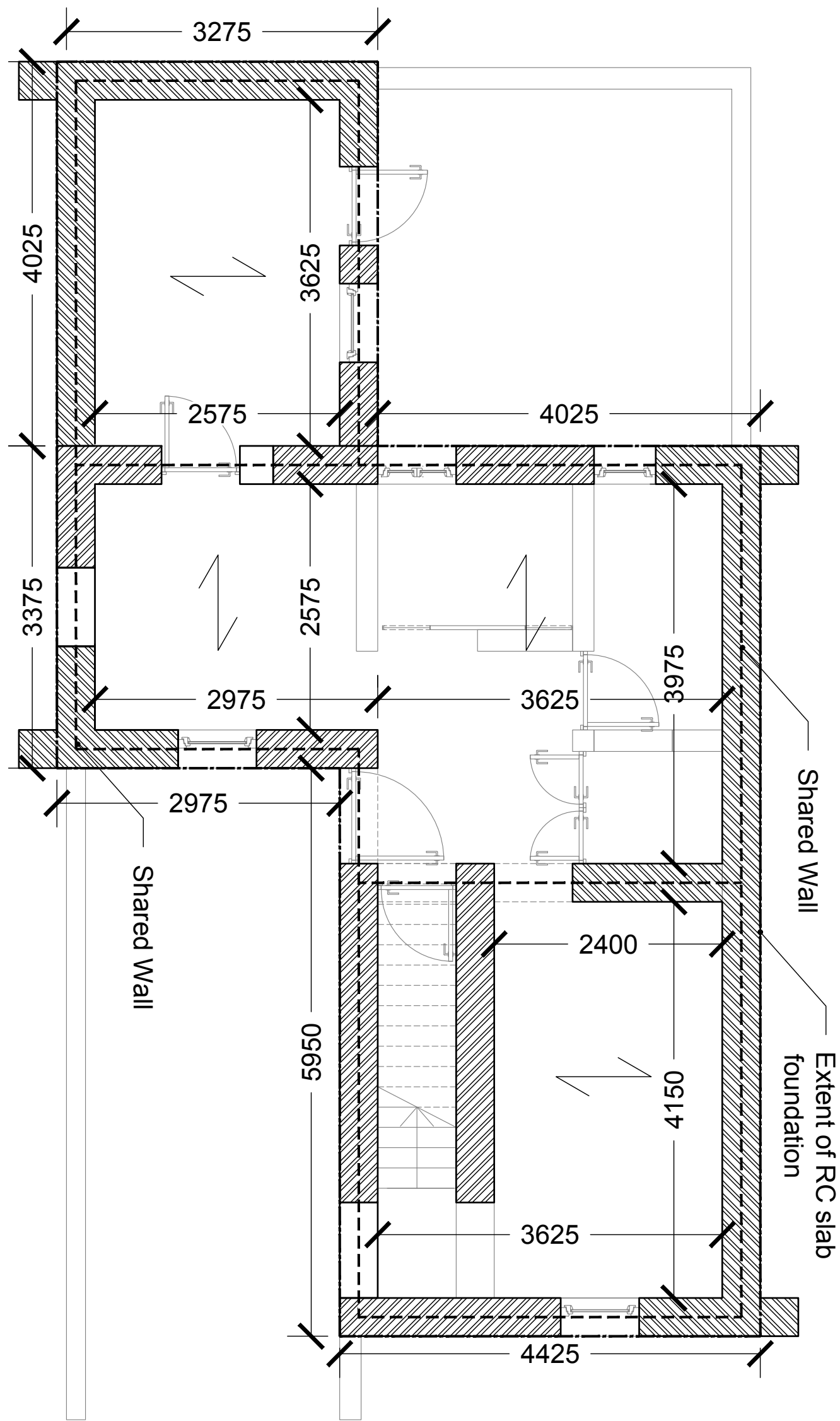
Type 1D



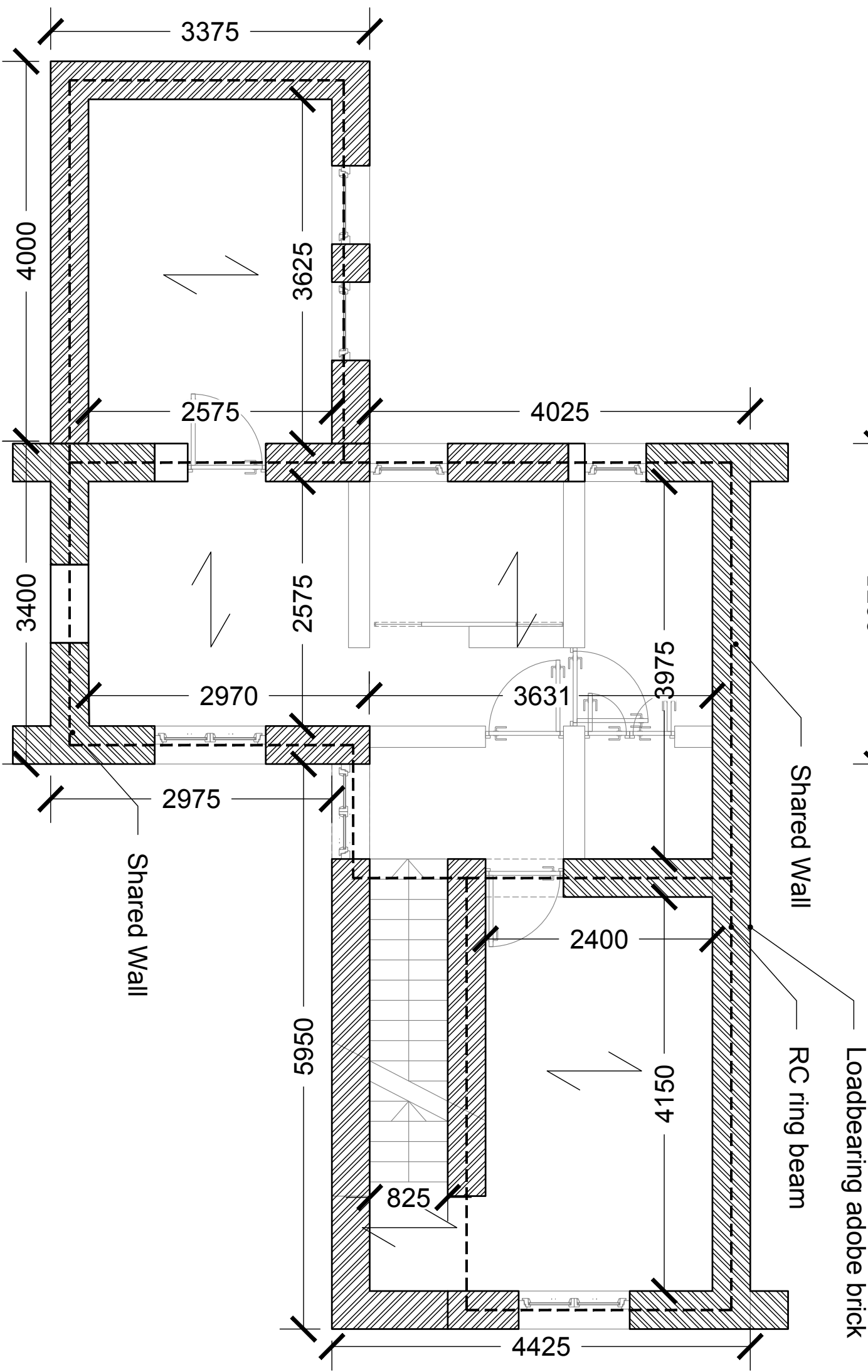
Structure

Type 1D

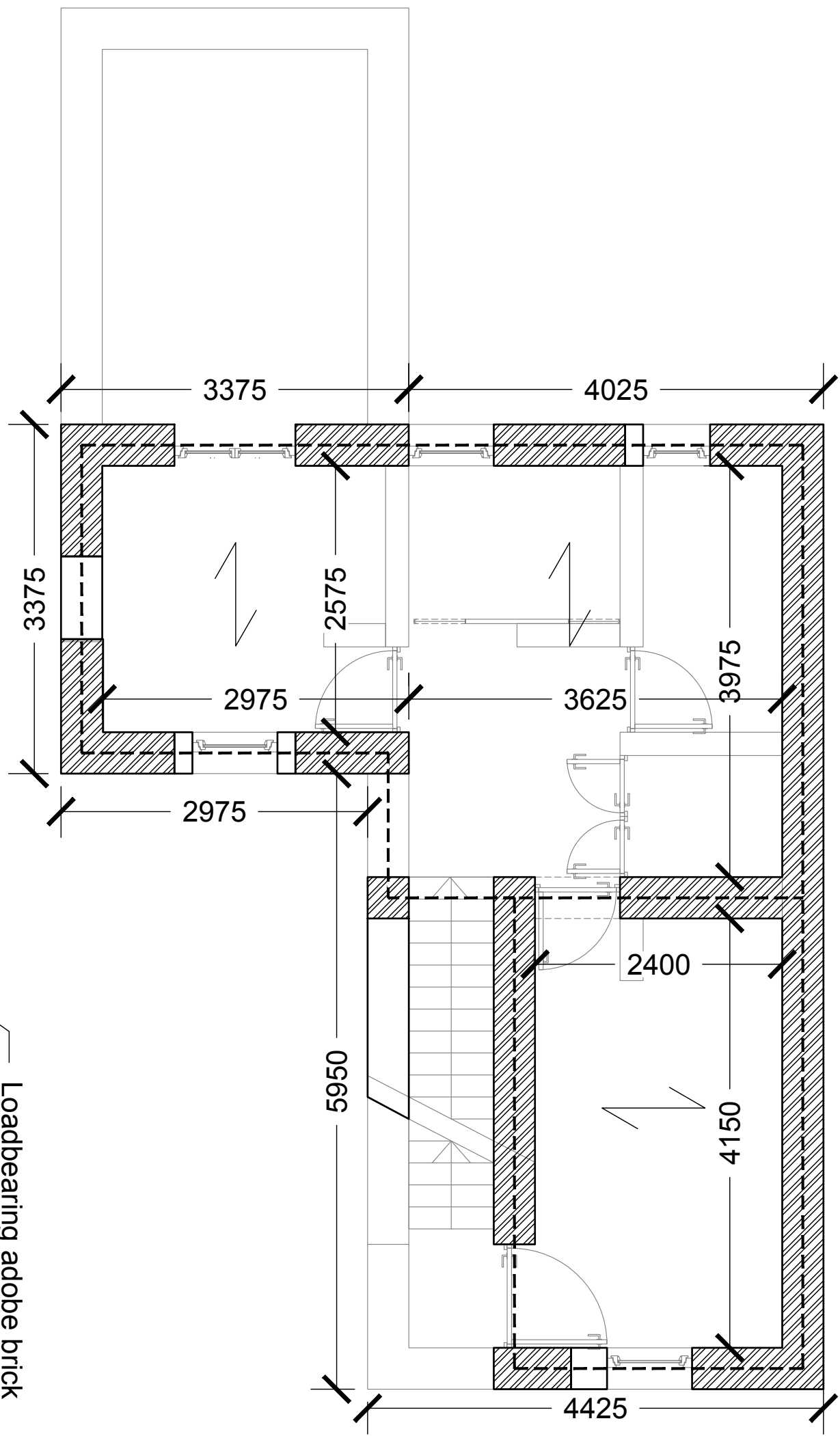
RC slab
foundation
+
Loadbearing
adobe walls
+
LBL floors
+
LBL flat roof



Ground Floor



First Floor

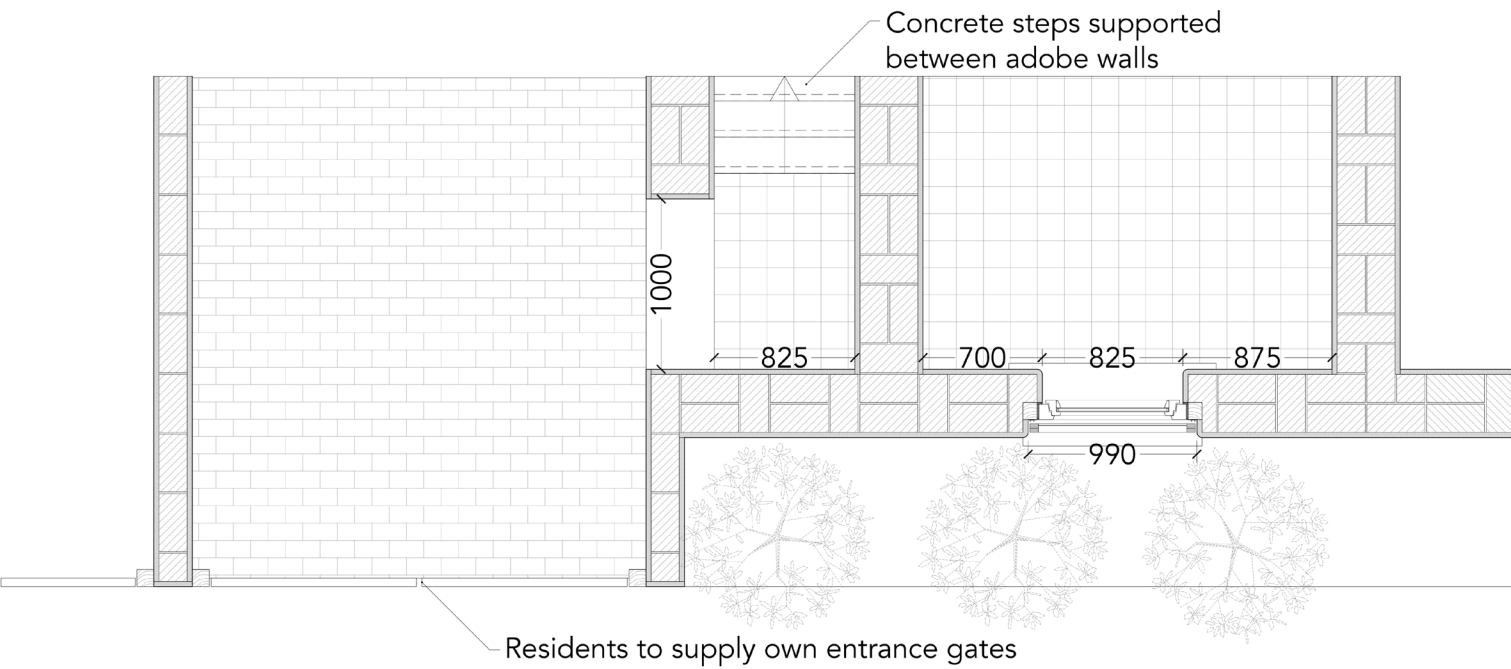
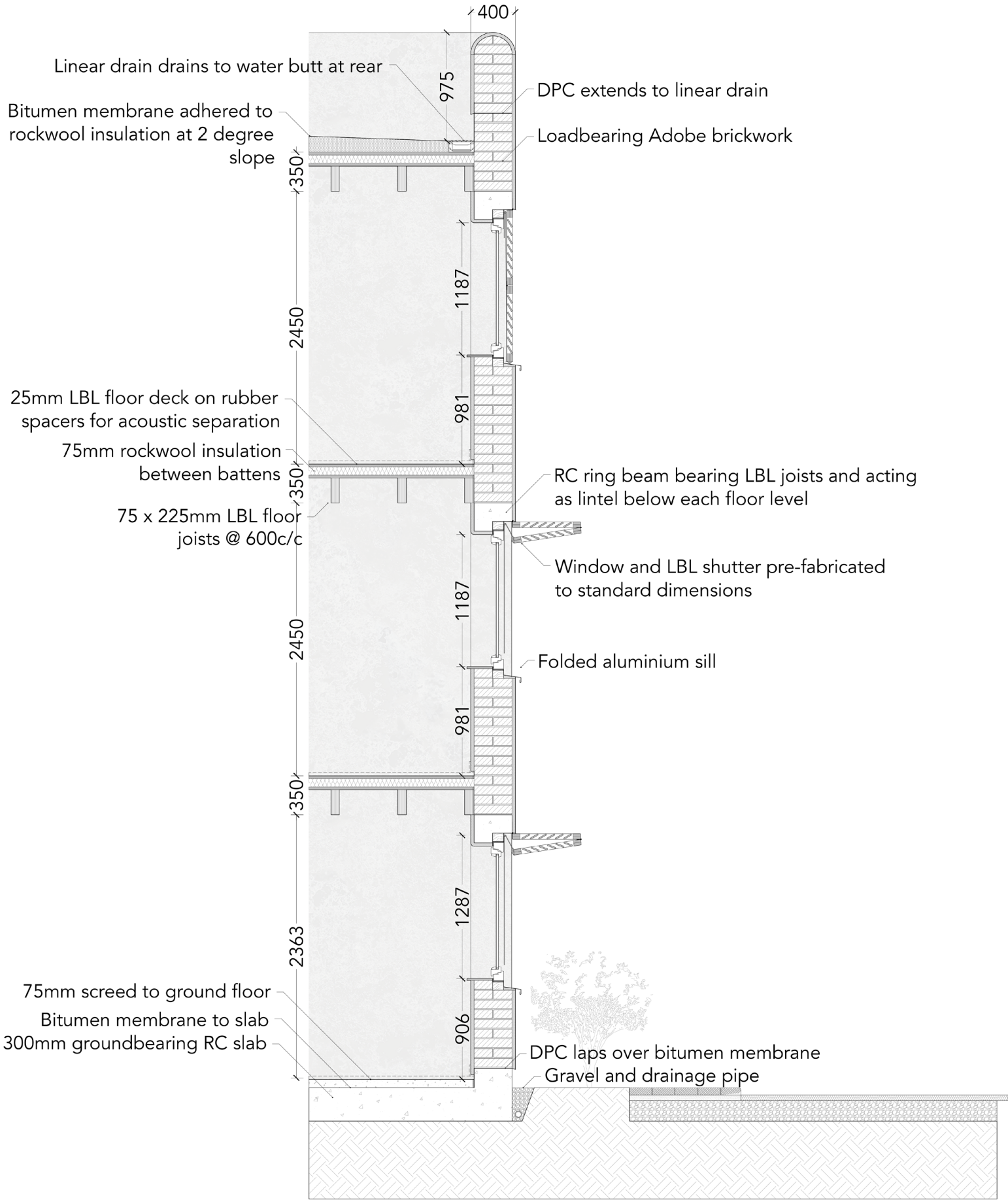


Second Floor

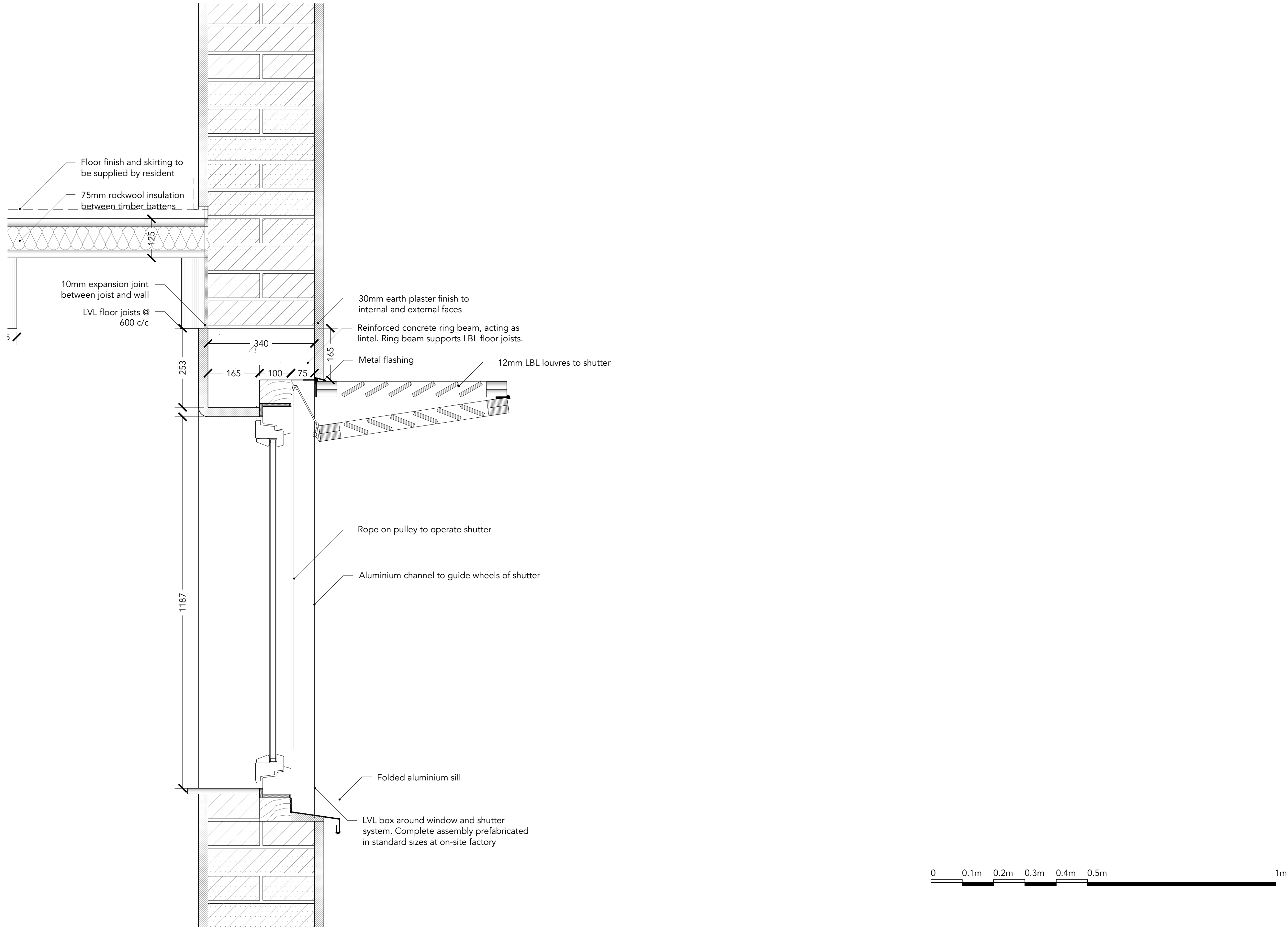


Facade

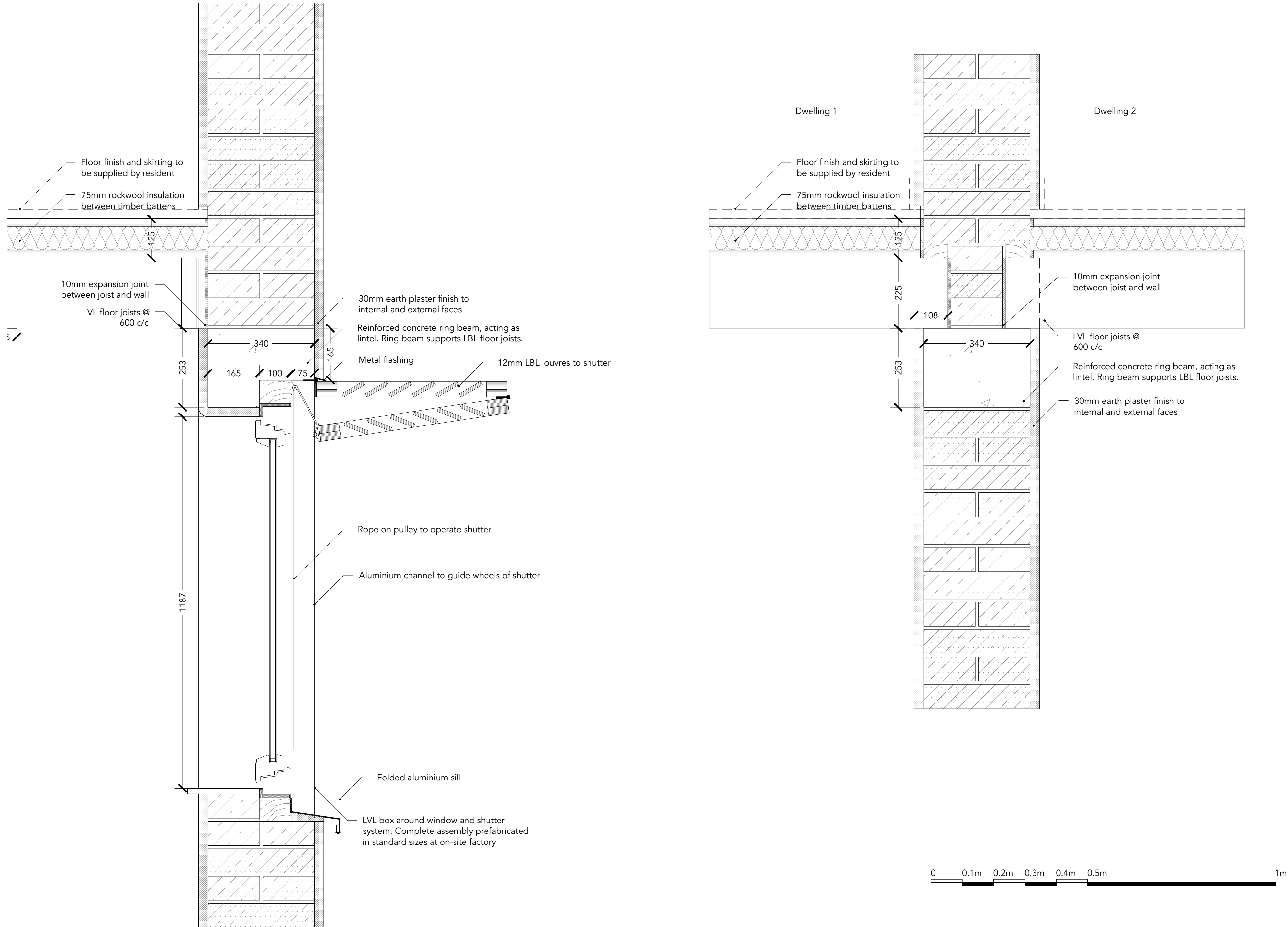
Type 1D



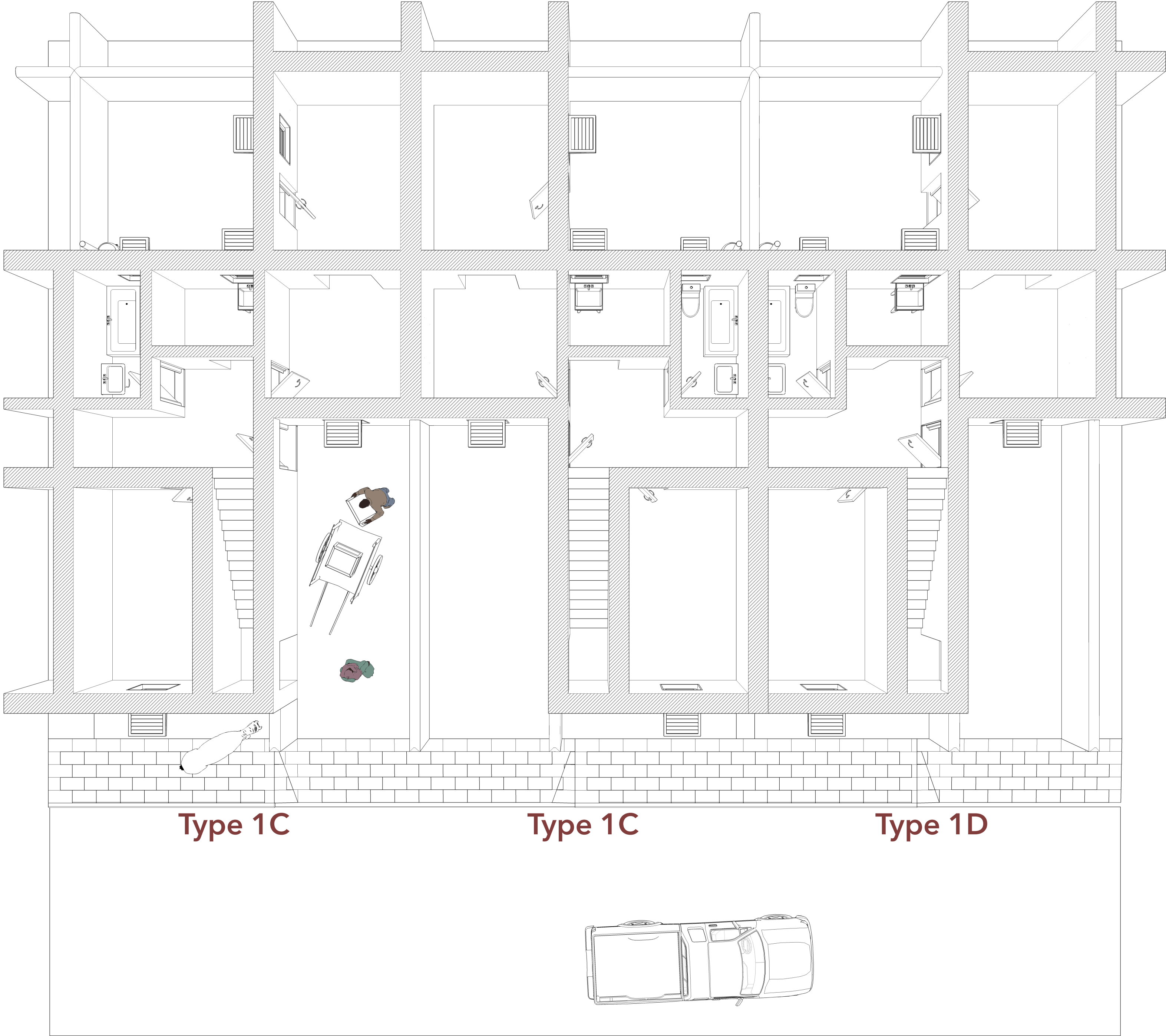
Detail



Detail



0 Years

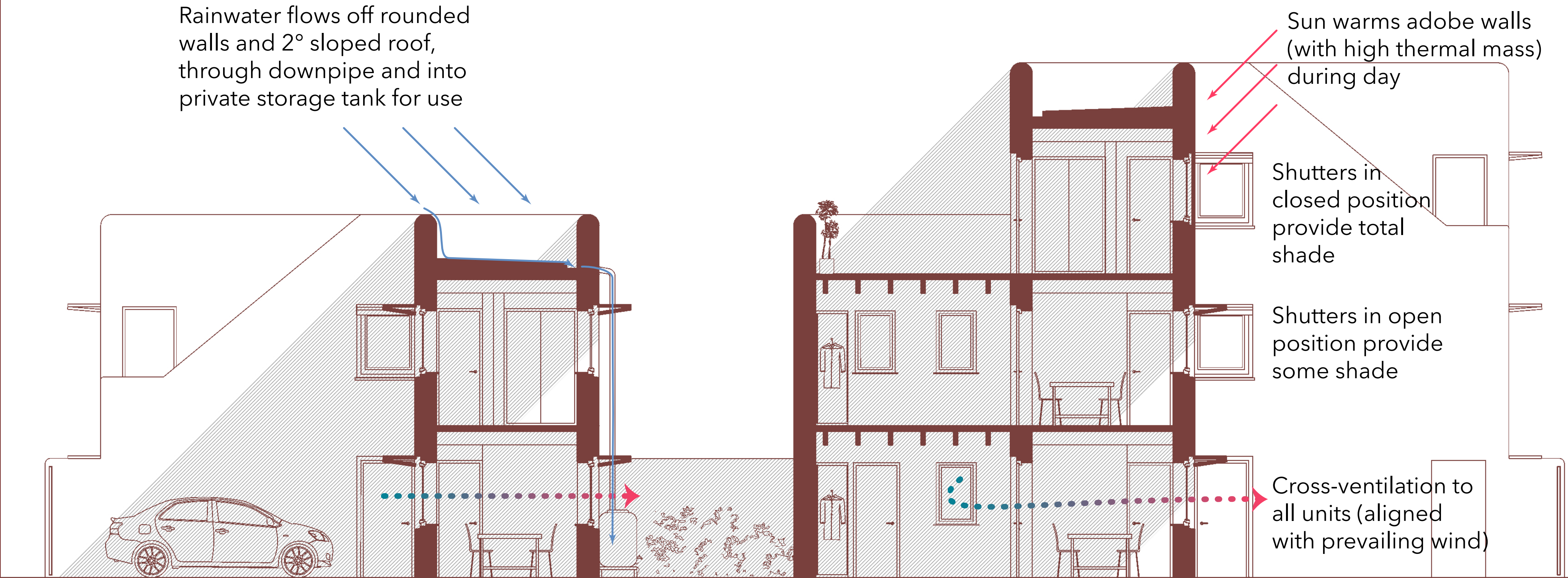


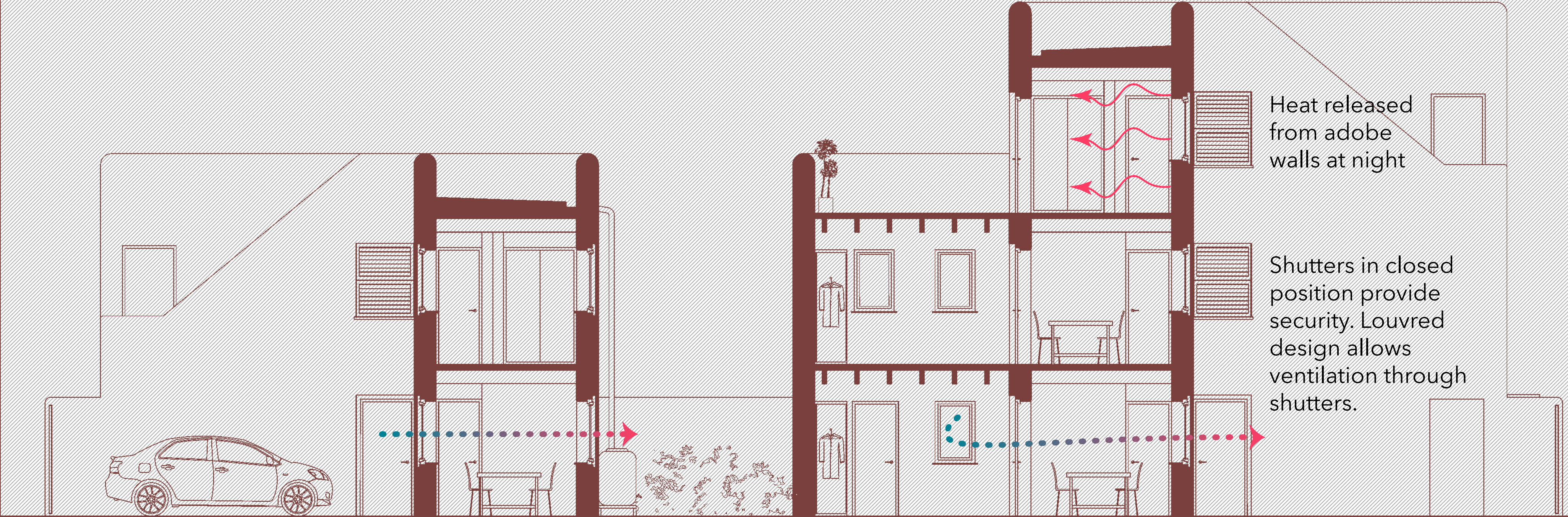
1 Year



5 Years

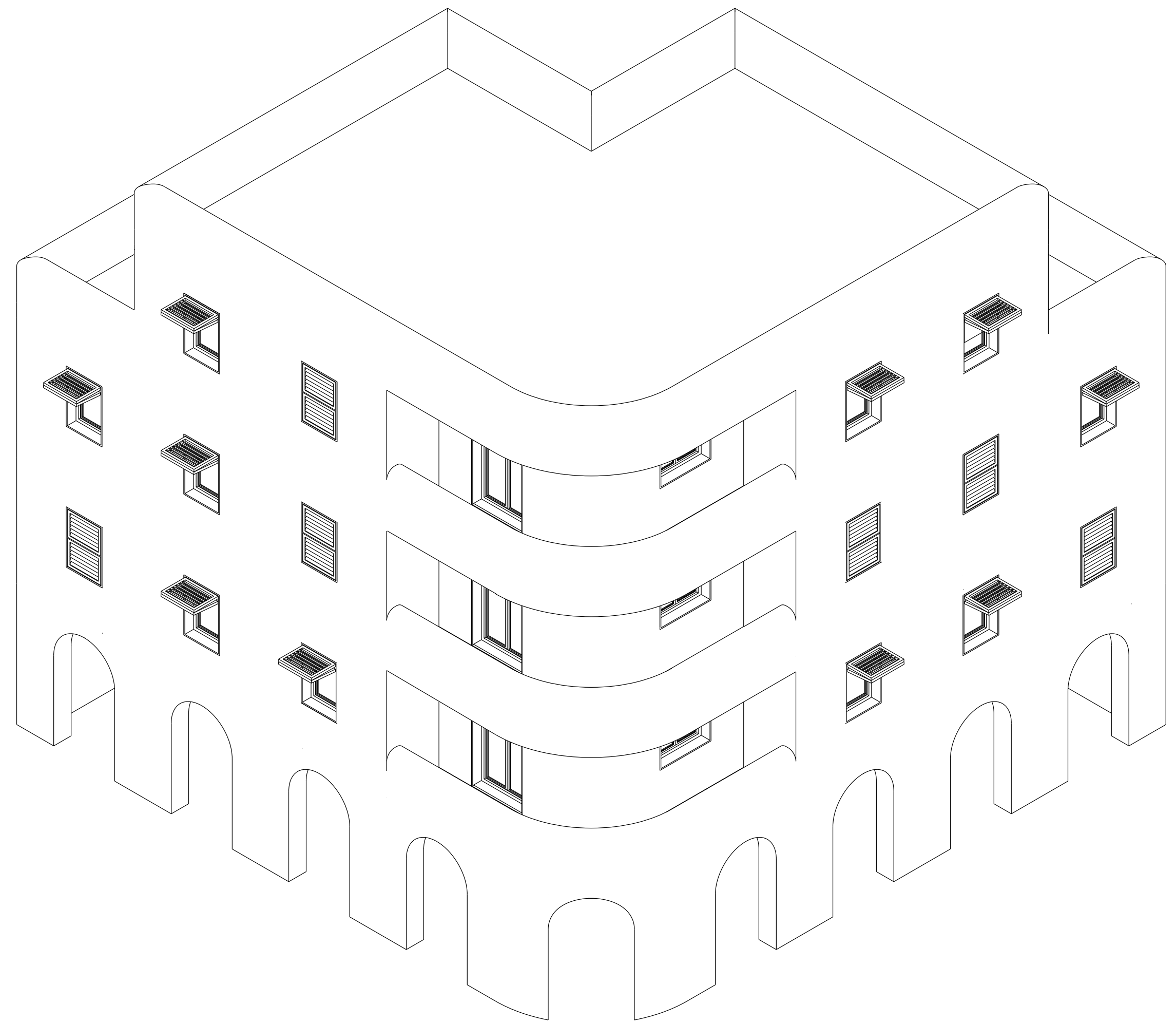








Type 2





Donnybrook Quarter
London, UK
Peter Barber Architects, 2006

Image source: <http://www.peterbarberarchitects.com/donnybrook-quarter>

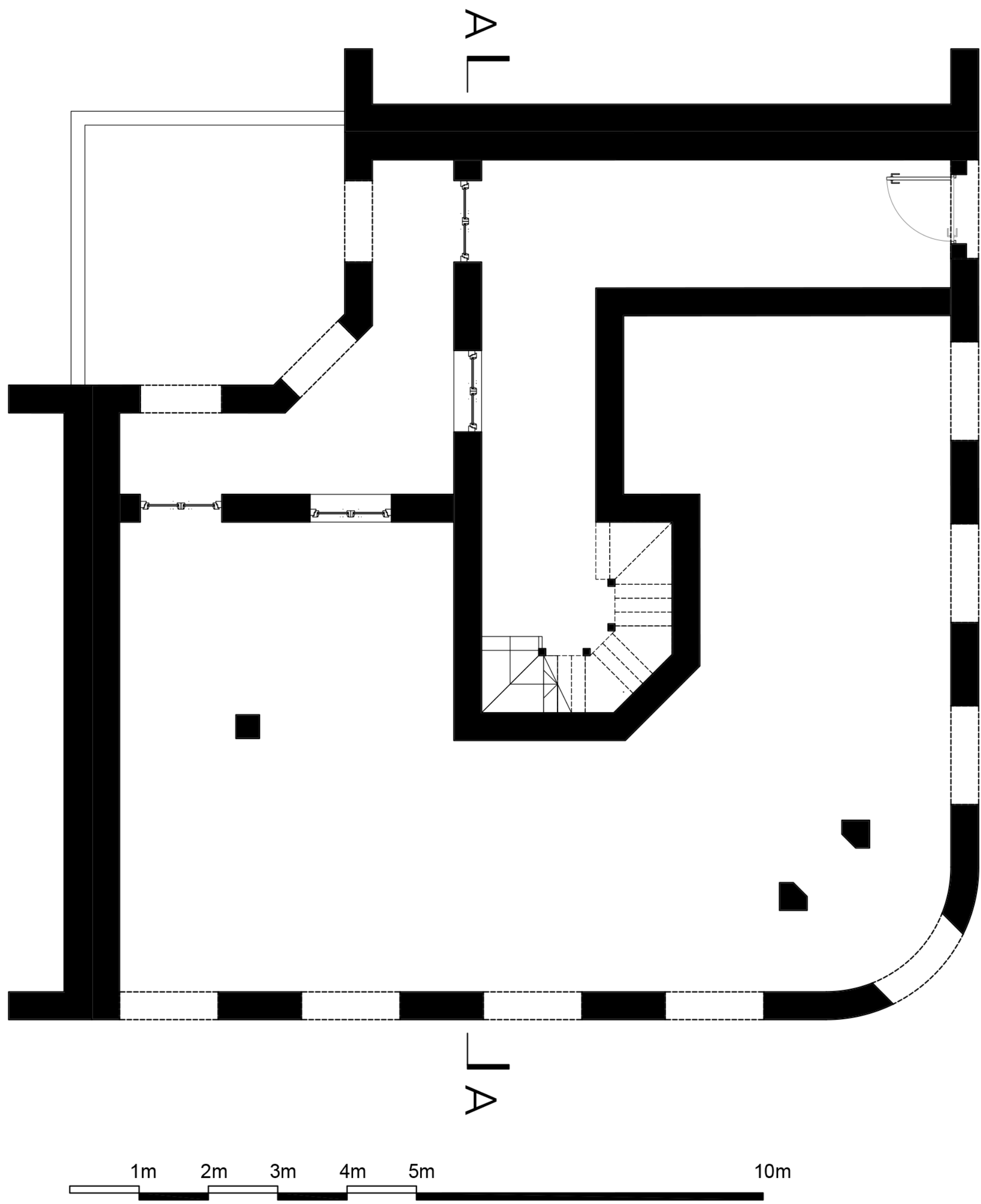


Ethiopia Hotel
Gondar
Unknown, c. 1930s

Ground Floor



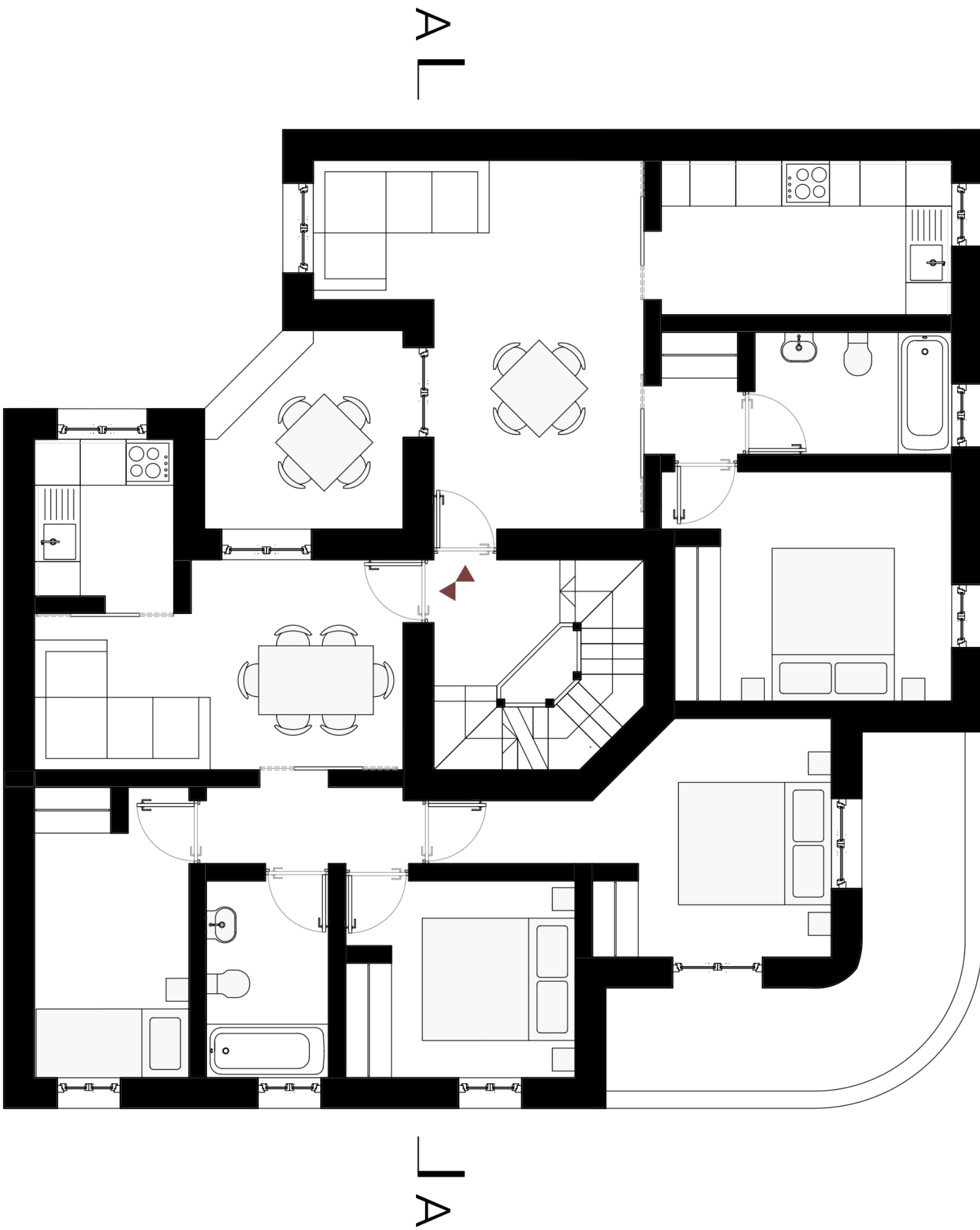
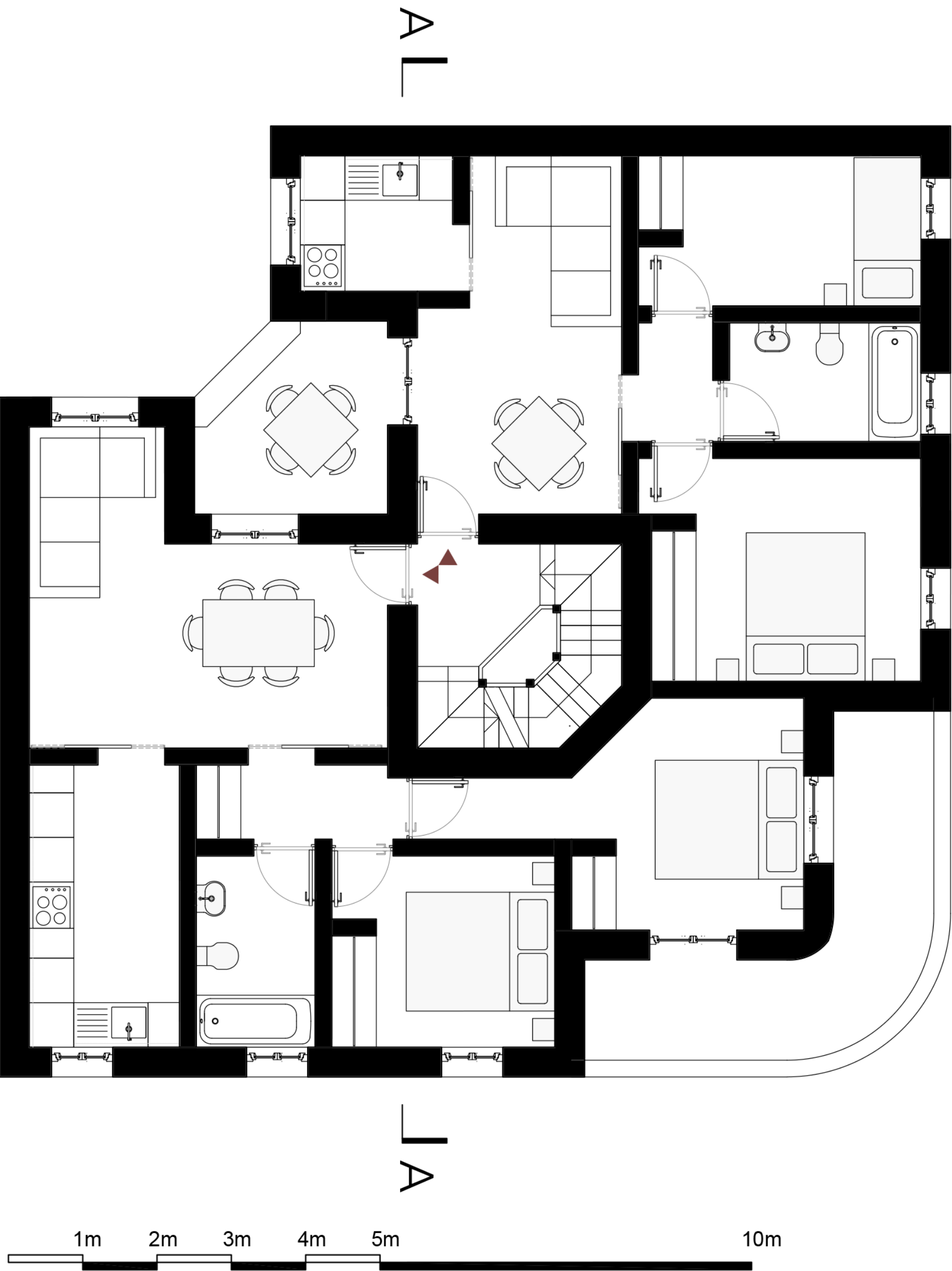
82sqm



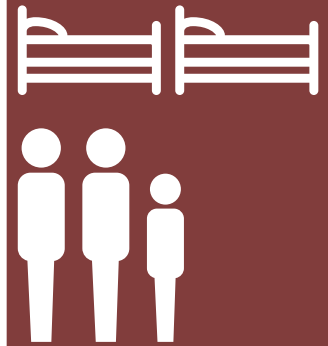
1st/2nd Floor

Icons representing two beds and four people. Text: 57sqm

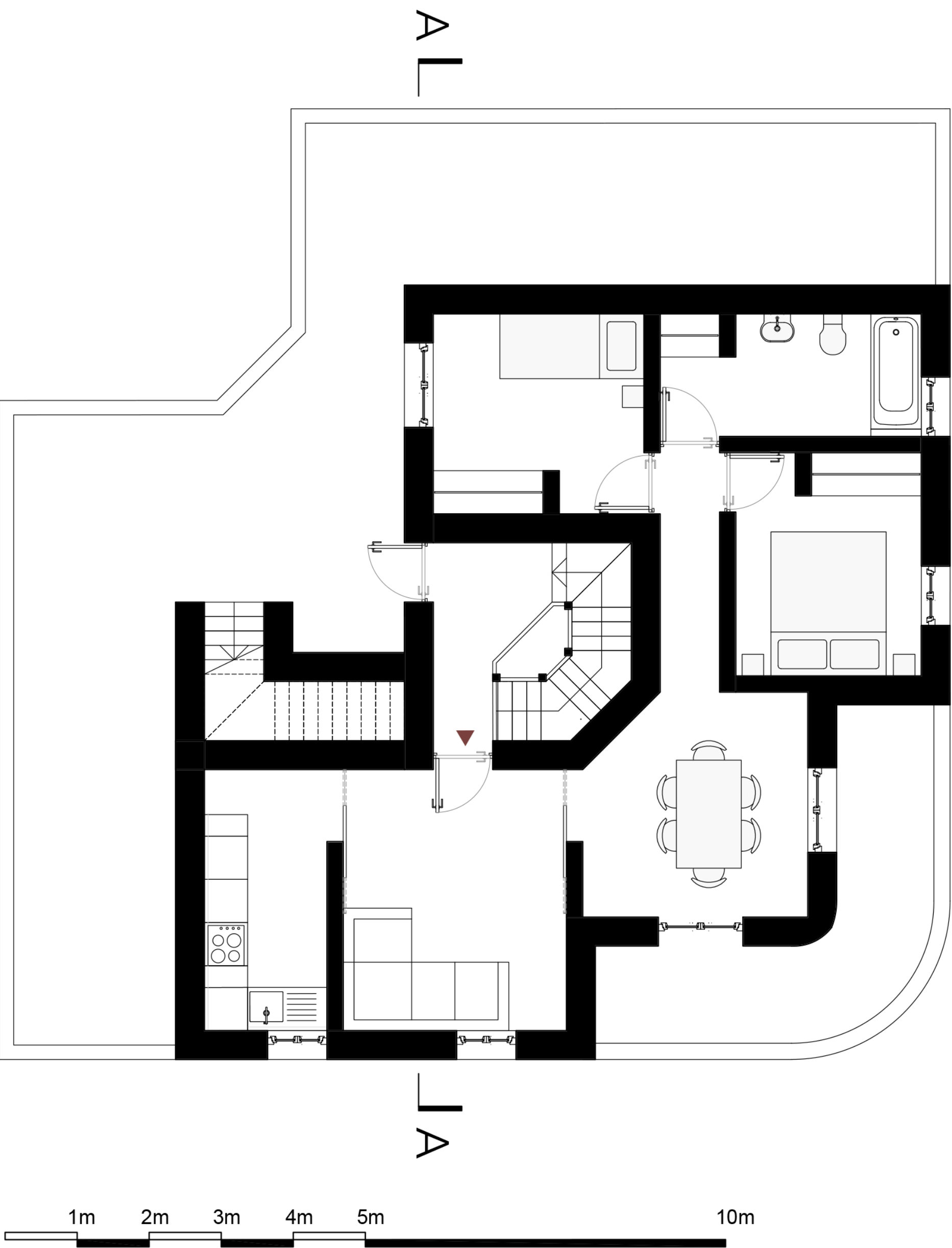
Icons representing two beds and two people. Text: 75sqm



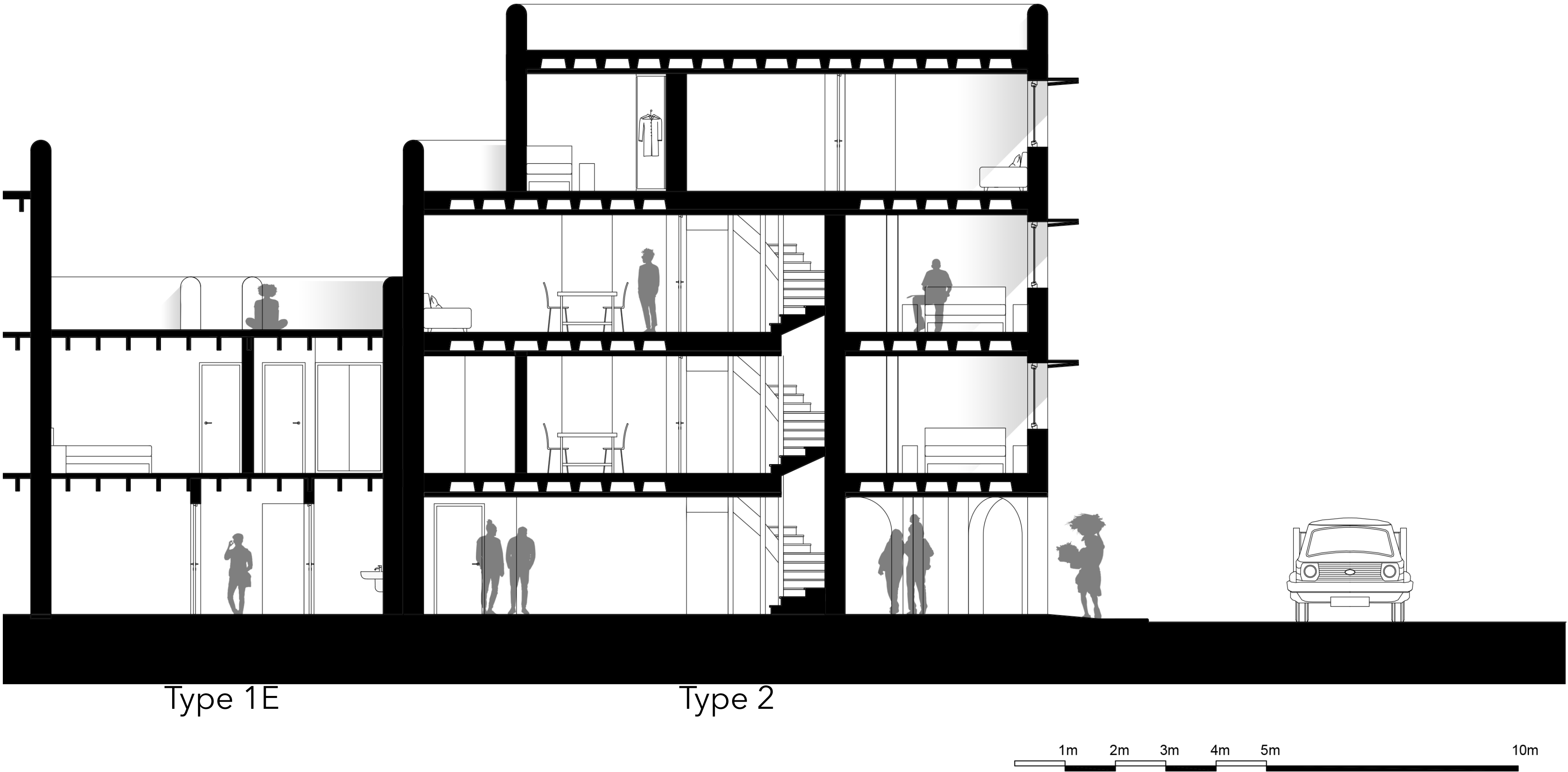
3rd Floor



55sqm



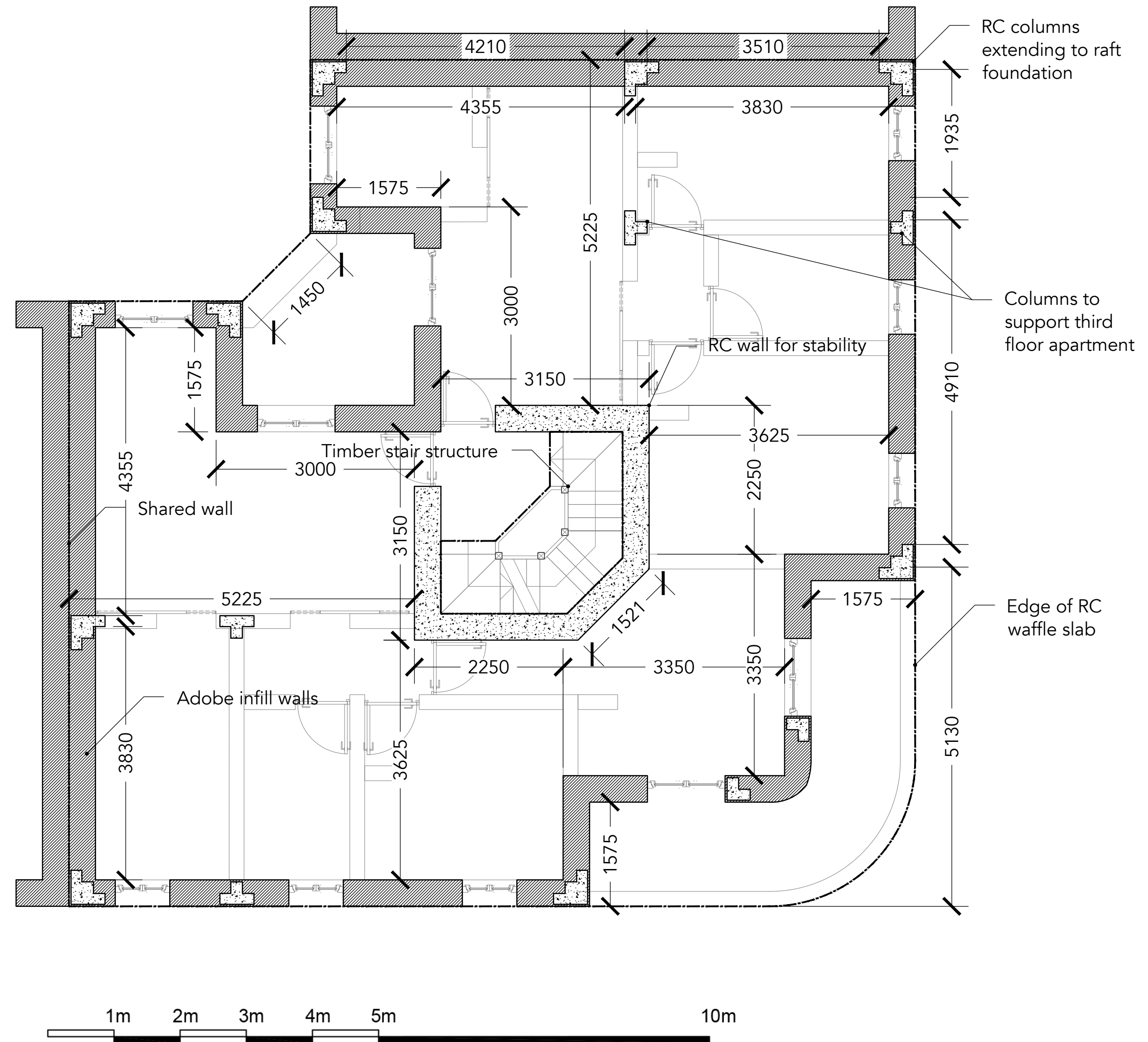
Section



Structure

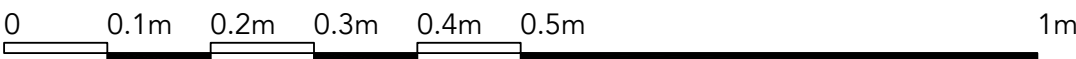
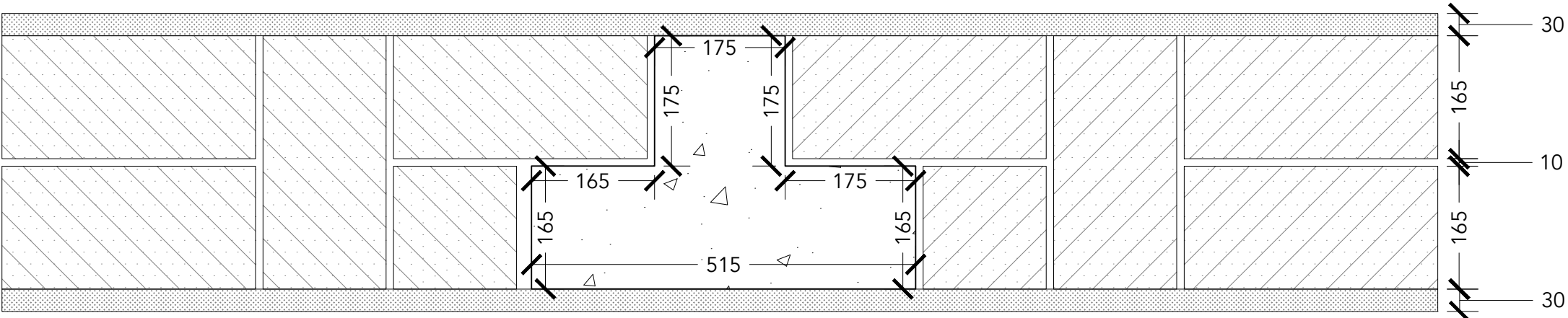
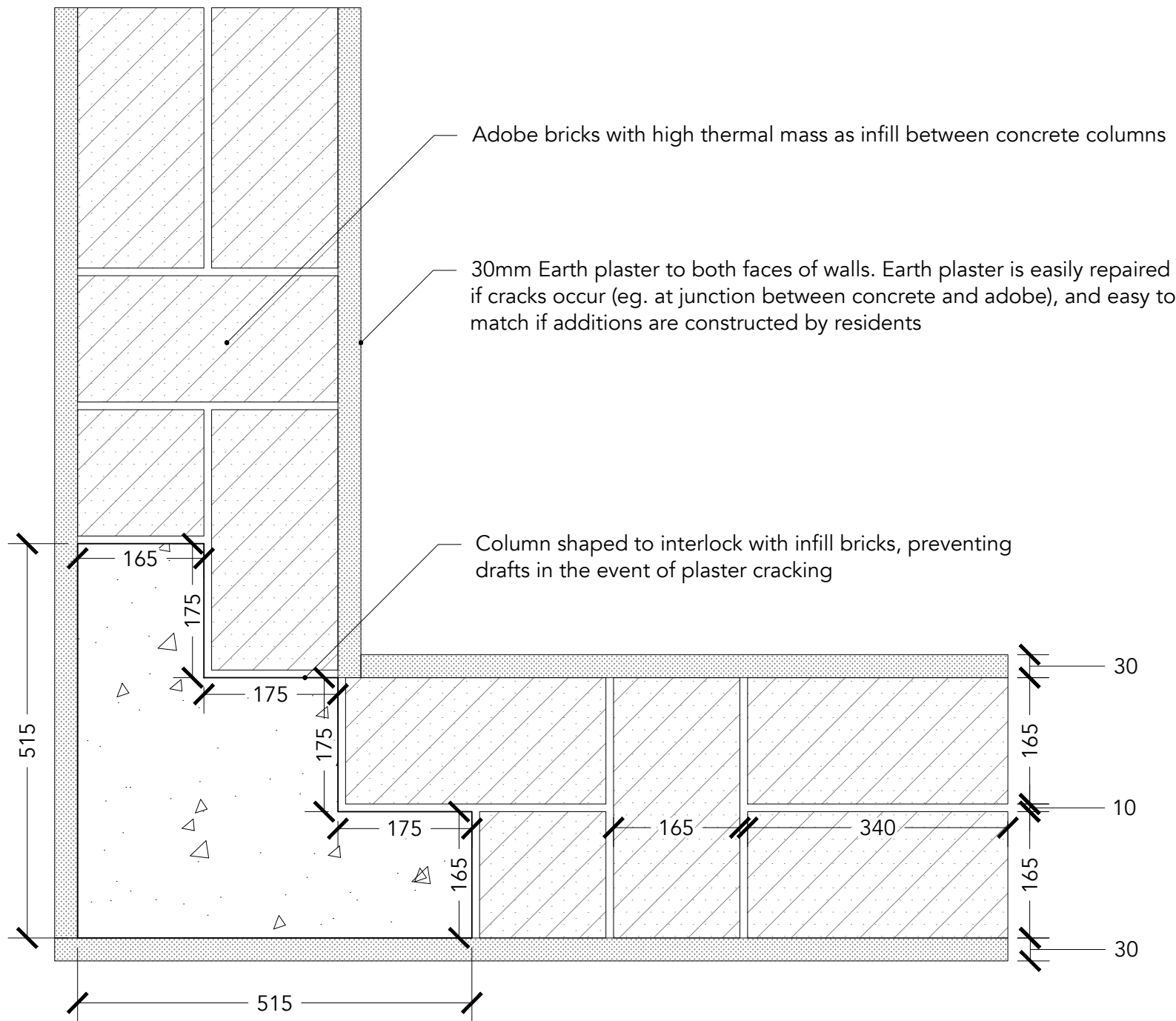
Typical Floor

RC slab
foundation
+
RC columns and
core
+
Infill adobe walls
+
RC waffle slab
floor
+
RC waffle slab
roof

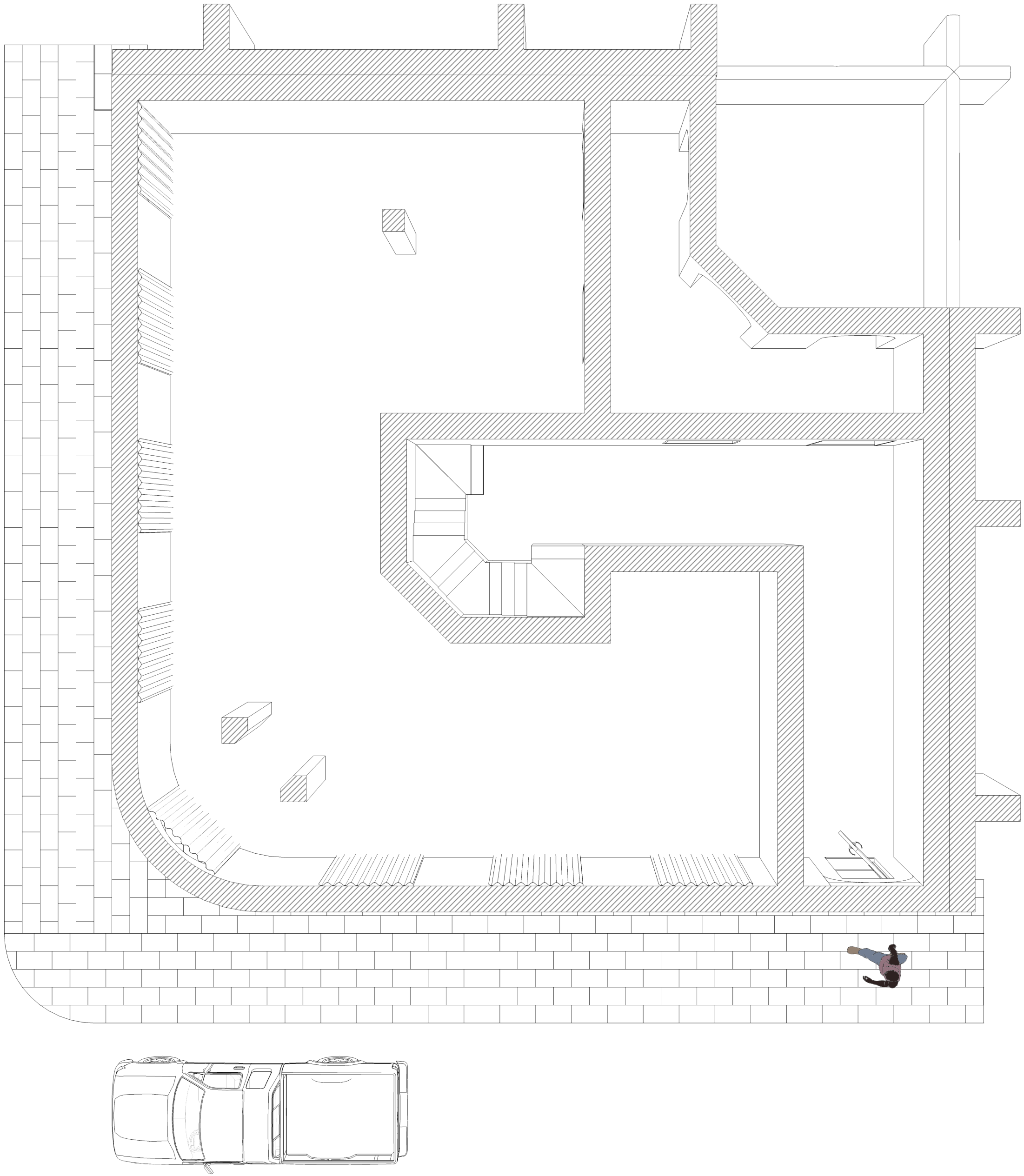


Detail

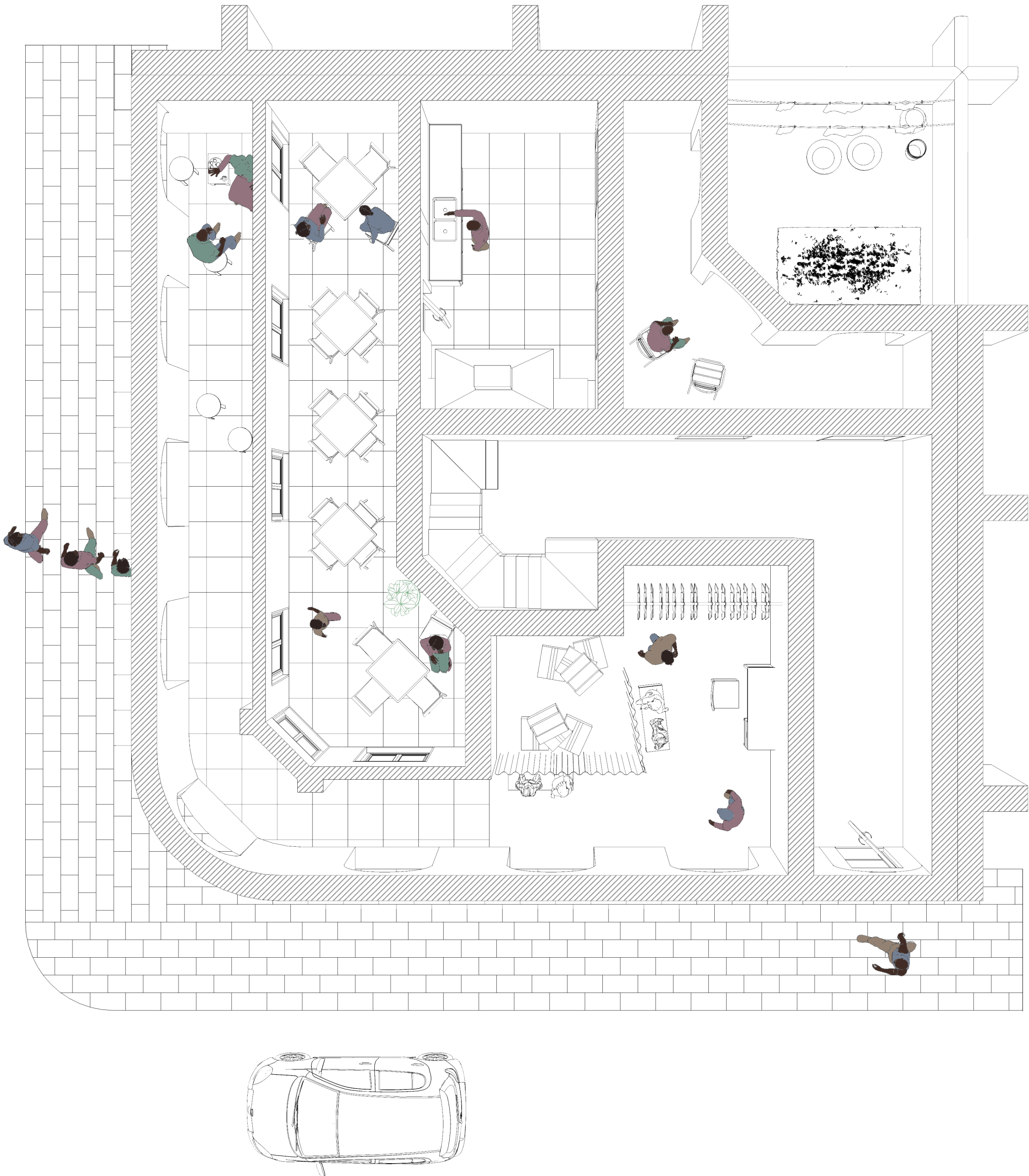
RC columns +
adobe infill walls



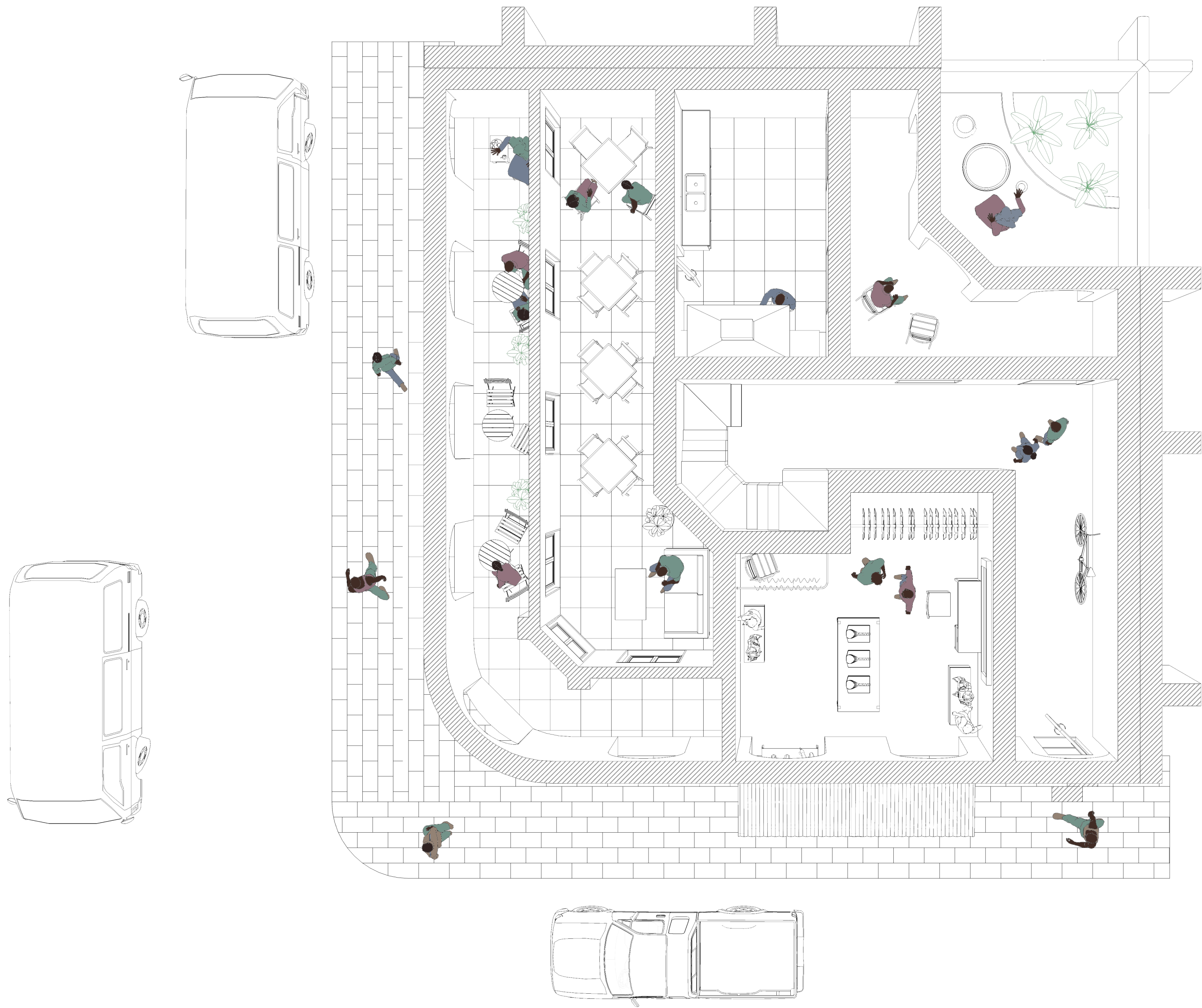
0 Years



1 Year

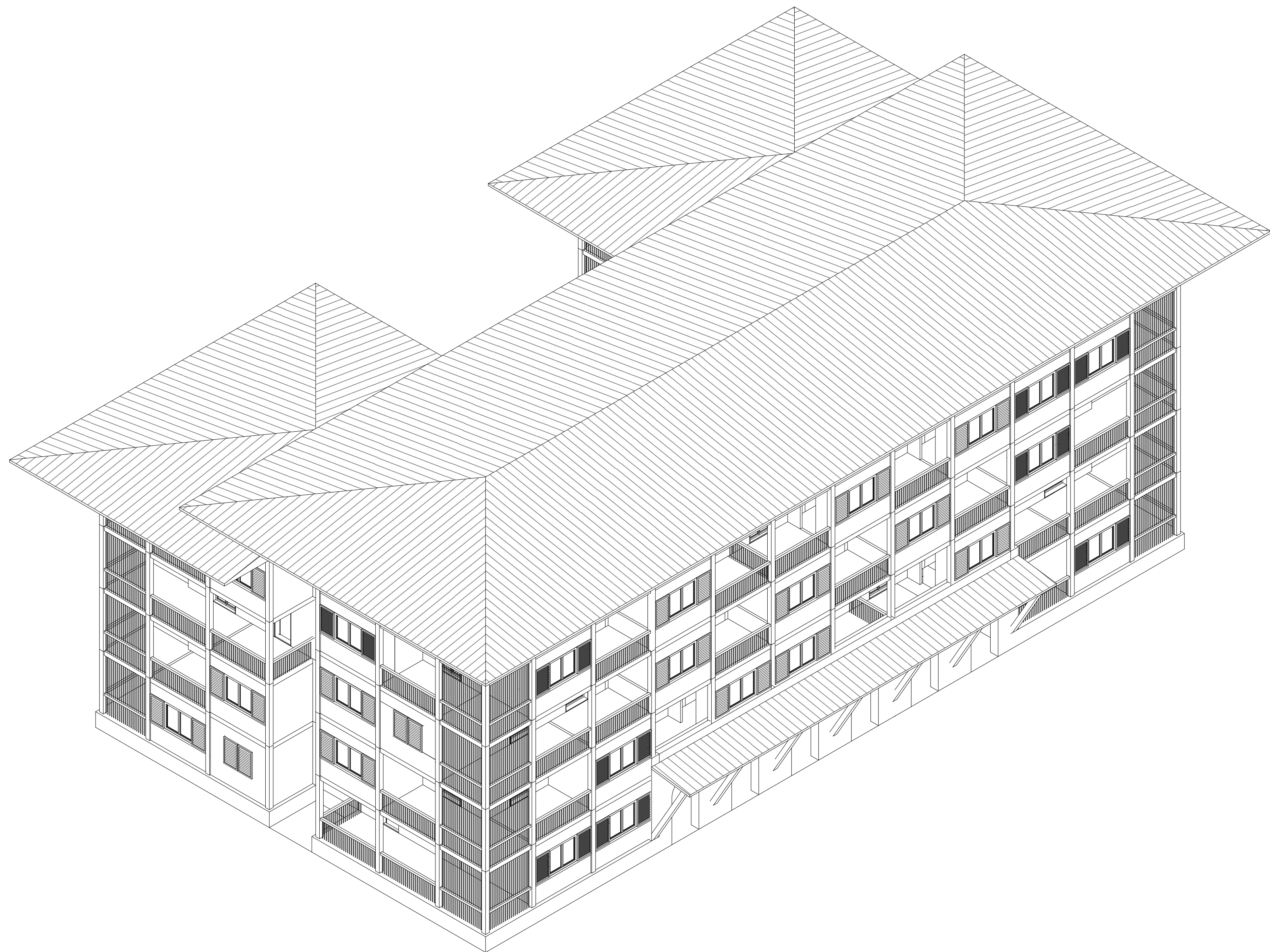


5 Years





Type 3





**Bitwoded Haile Giorgis Palace
Addis Ababa (demolished)
early 20th century**



Debre Maryam Monastery
Bahar Dar
c. 1600


Ground Floor



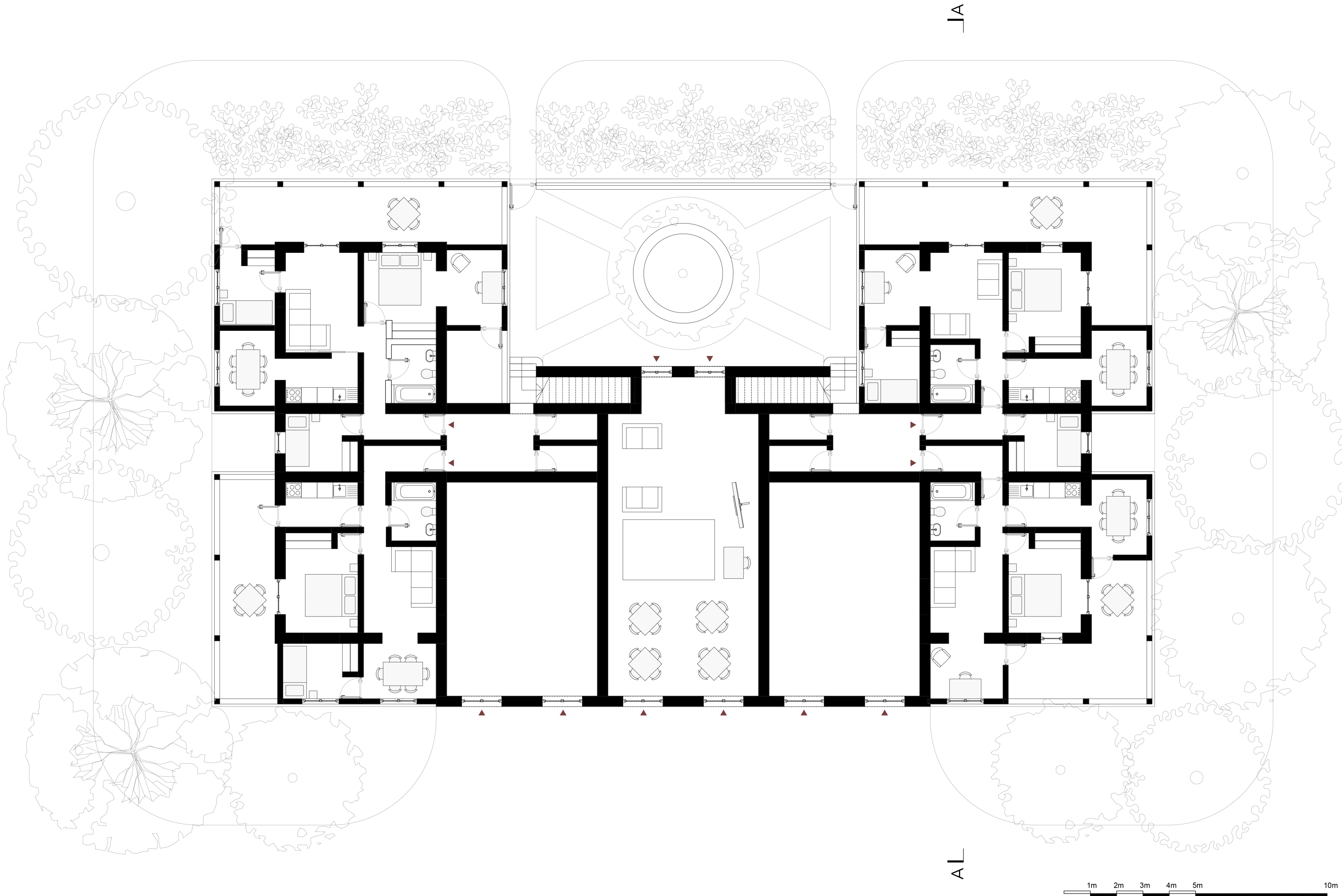
x4



x2



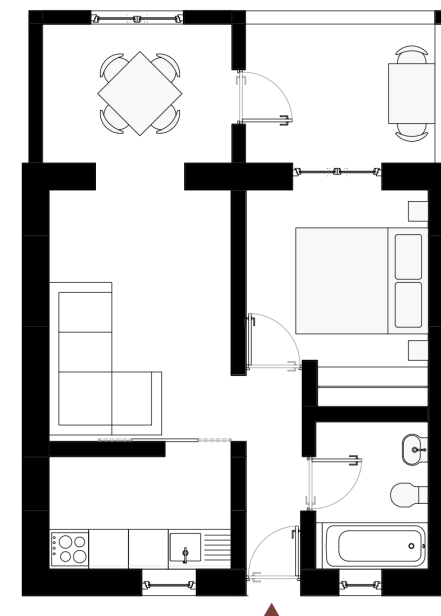
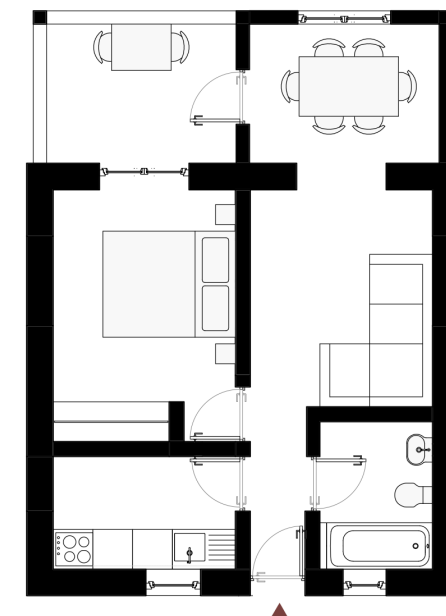
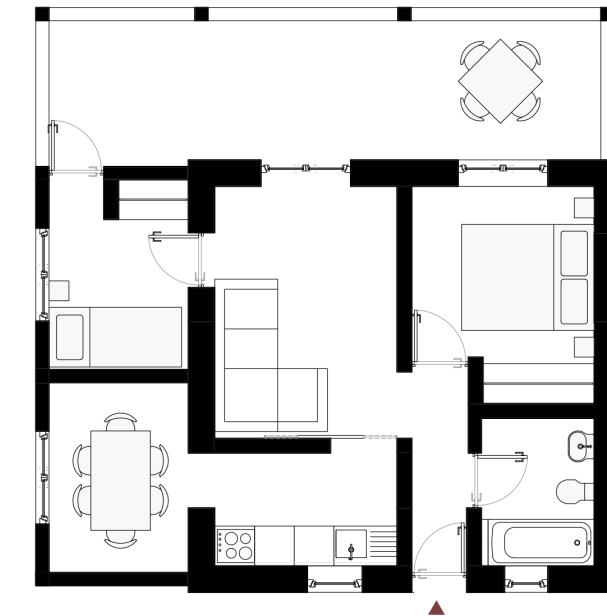
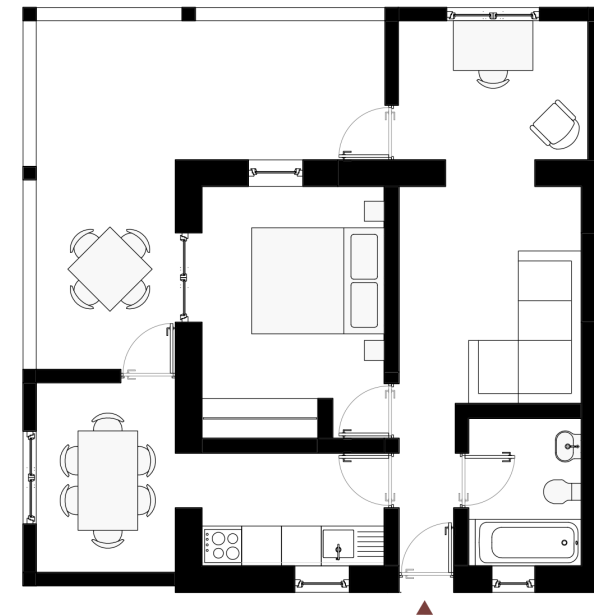
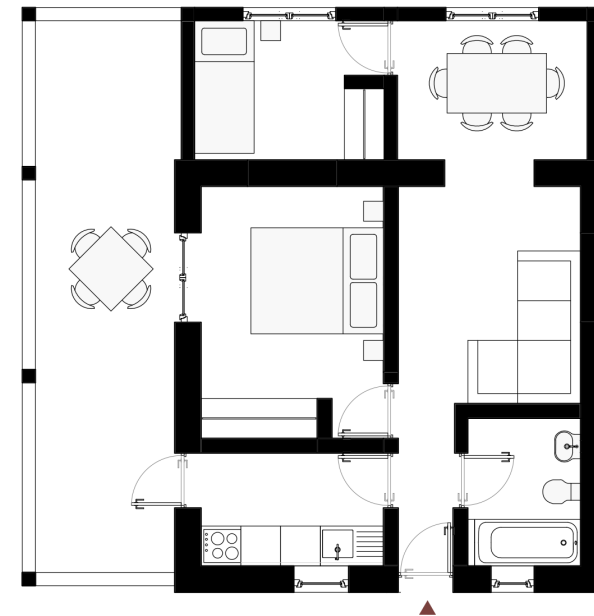
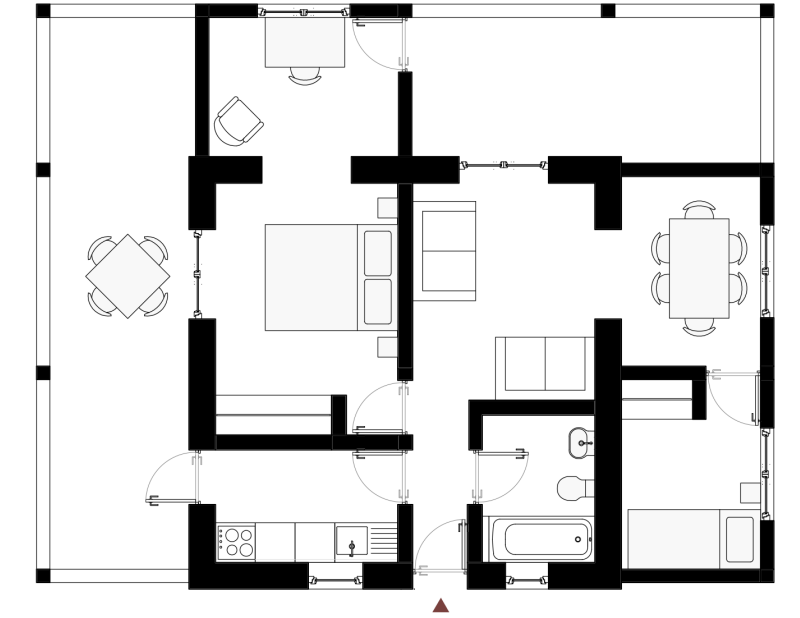
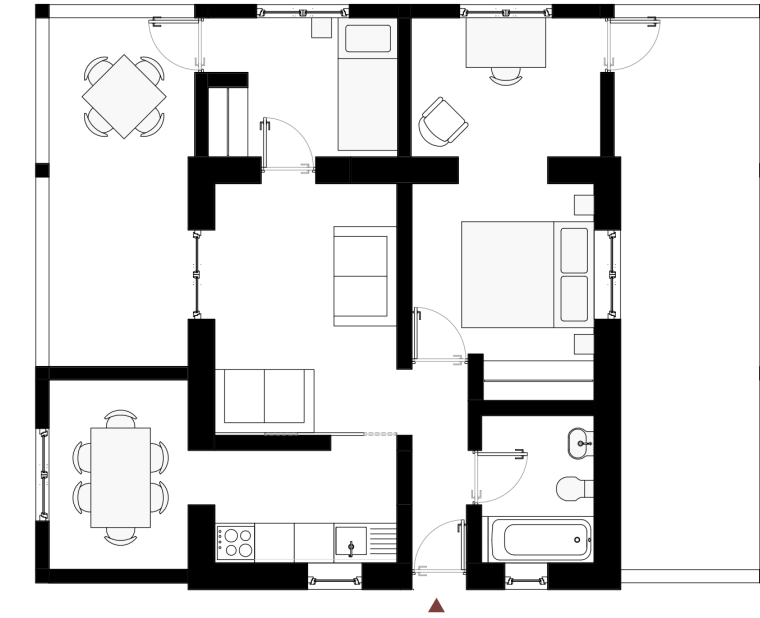
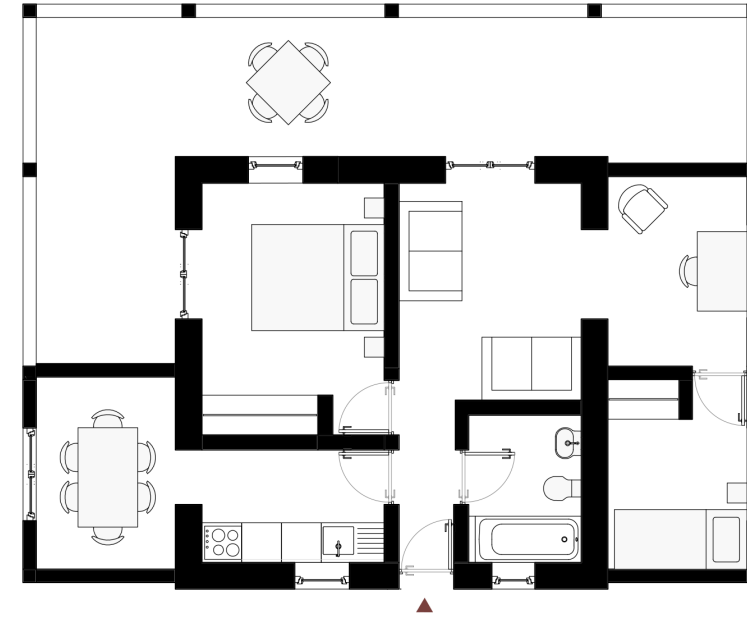
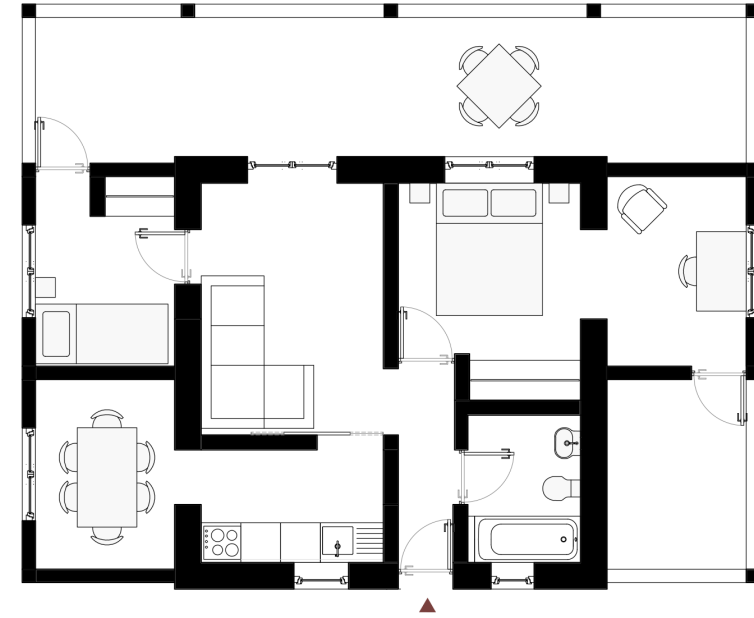
x1



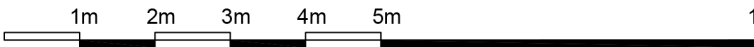
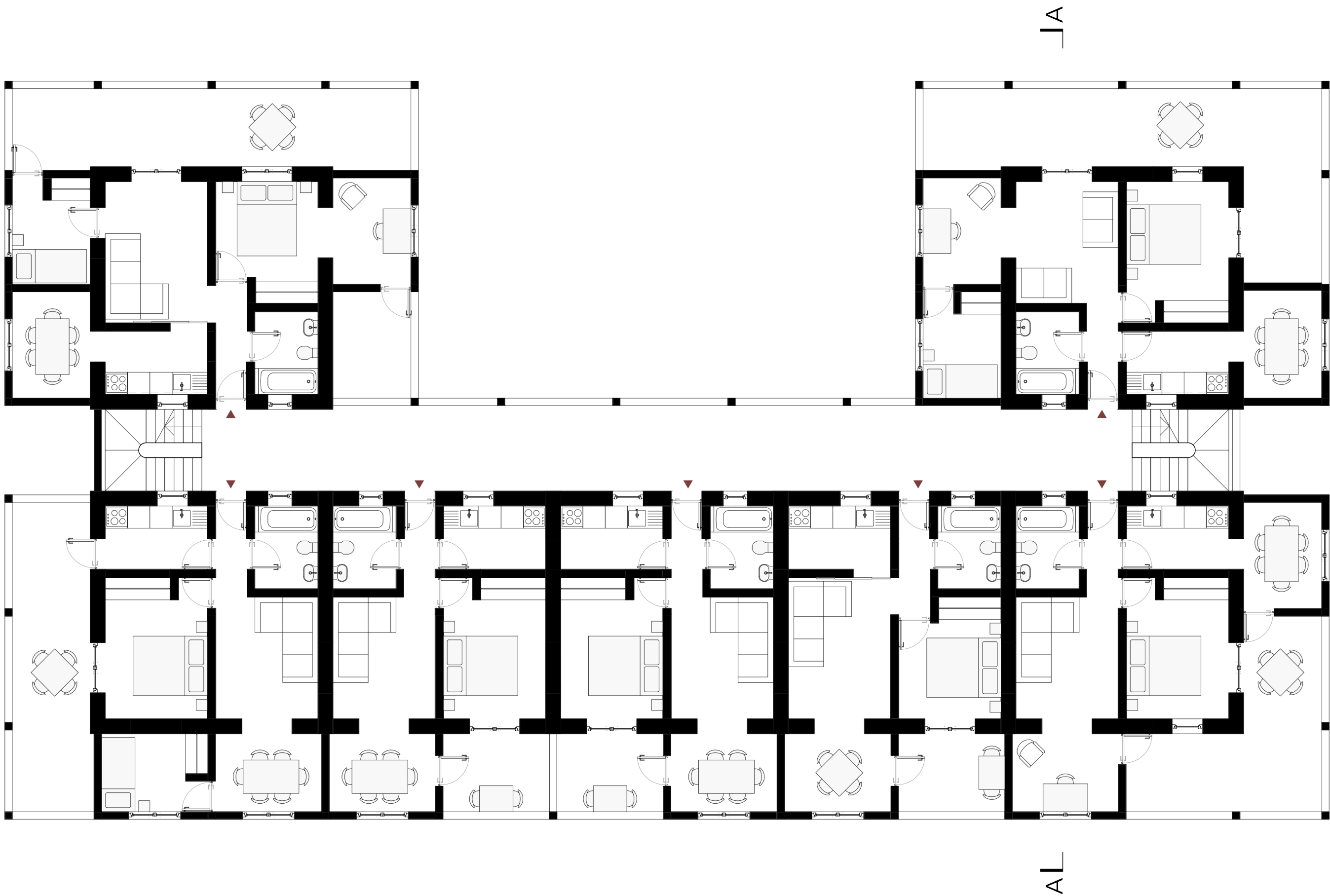
Apartments

3 conditions

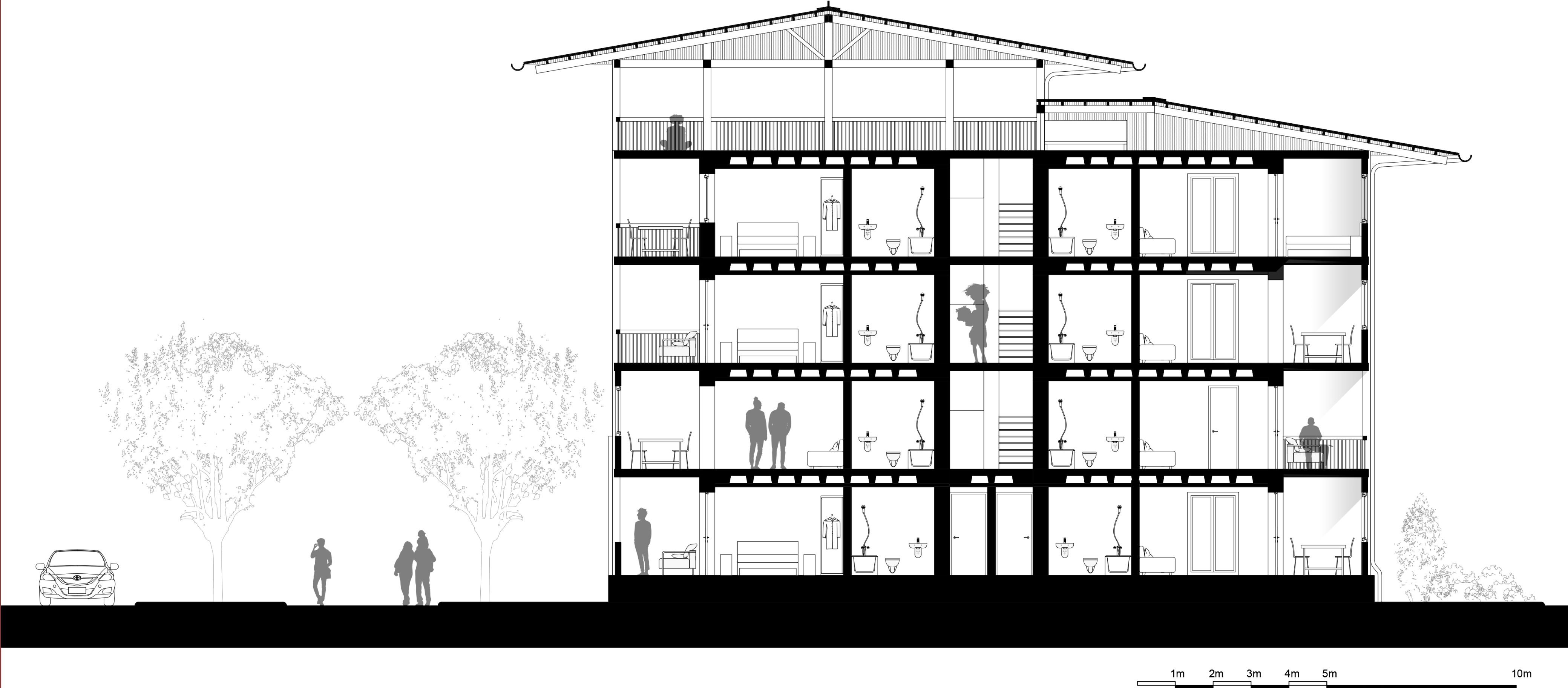
9 variations



Typical Floor



Section



Elevations

Front -
facing the social
corridor



Elevations

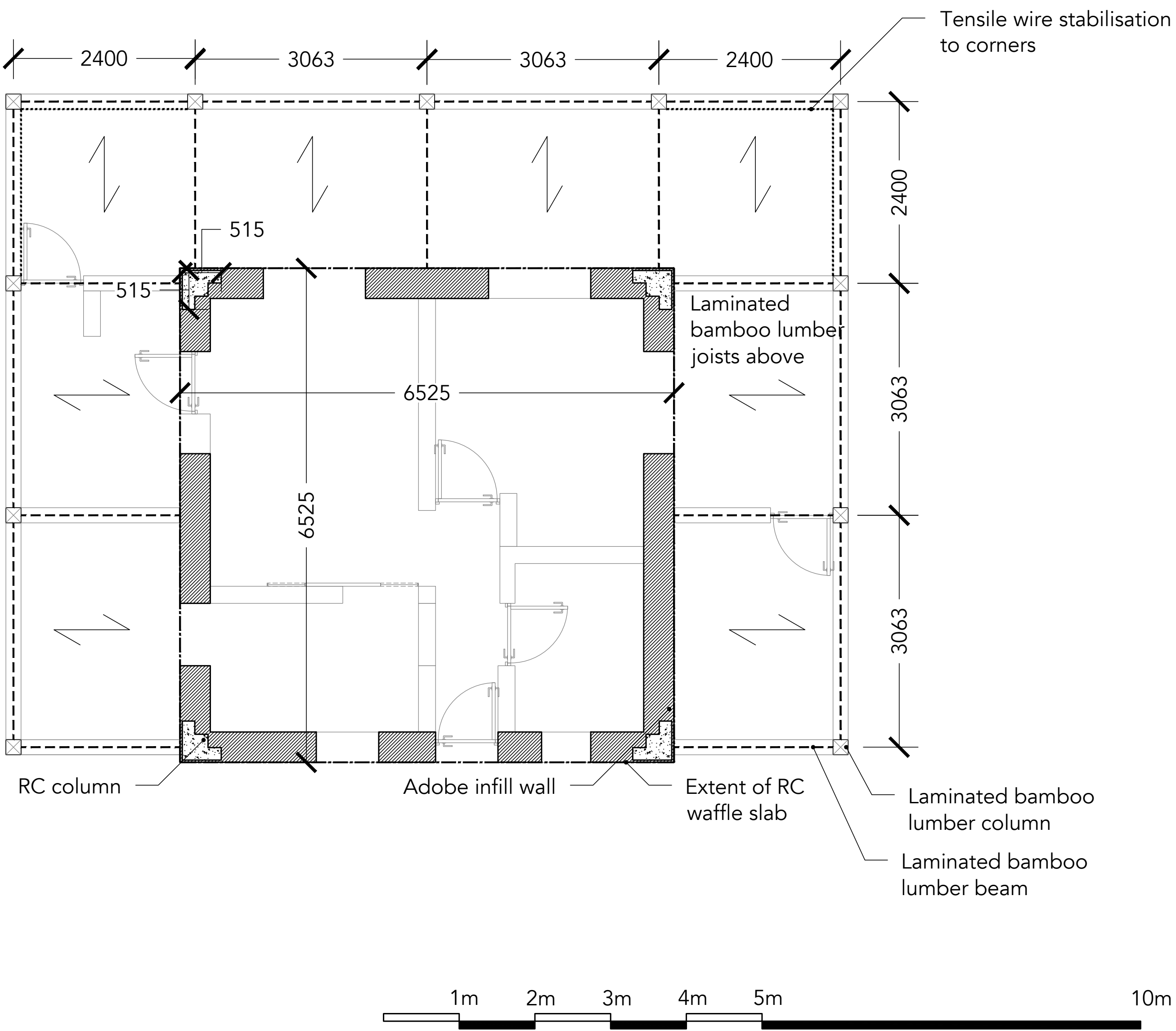
Rear -
facing the park



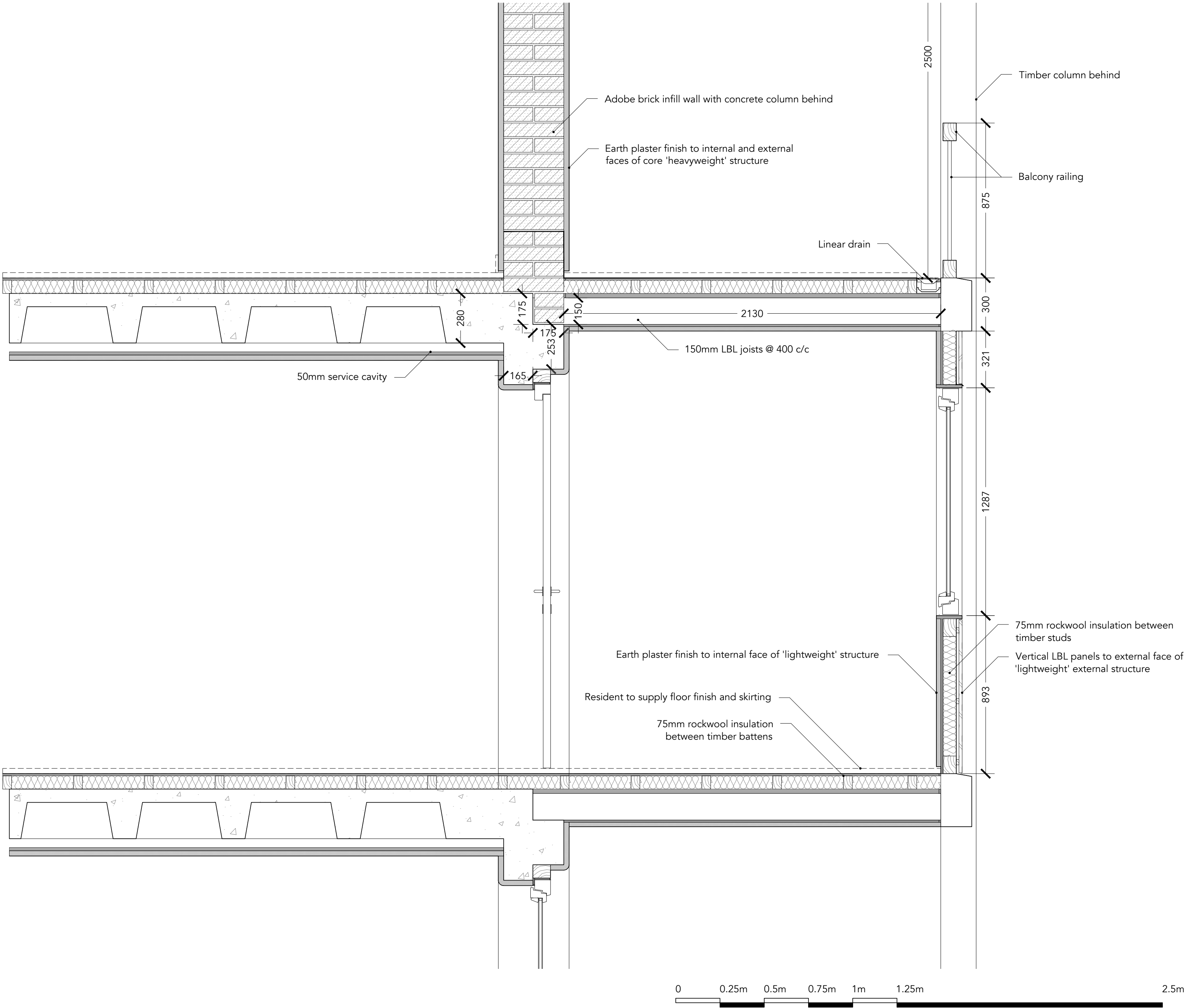
Structure

Typical Unit

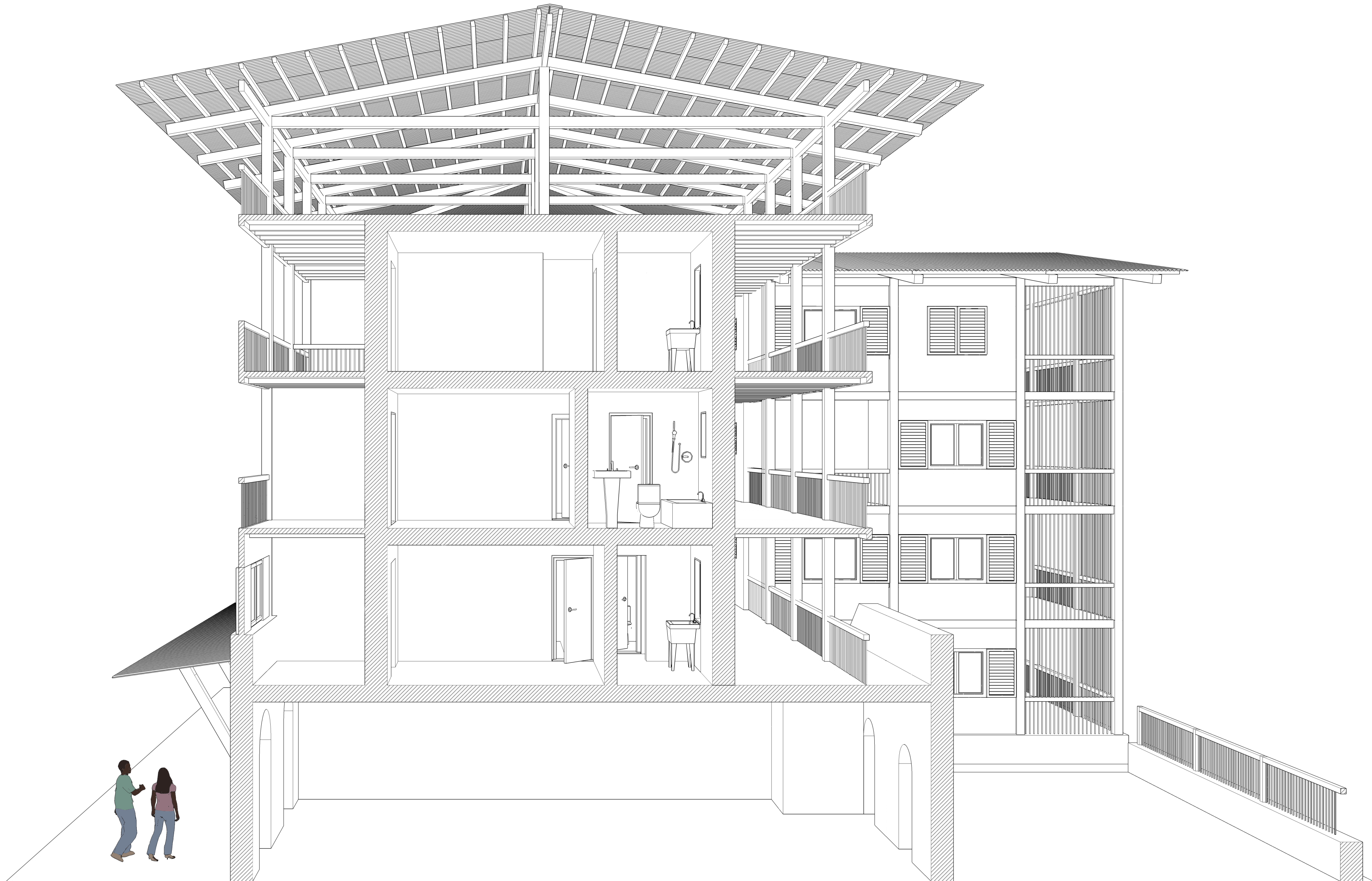
- RC slab
- foundation
- +
- RC columns
- (heavy)
- +
- Infill adobe walls
- (heavy)
- +
- RC waffle slab
- floor (heavy)
- +
- LBL frame (light)
- +
- Timber walls
- (light)
- +
- LBL floor (light)
- +
- LBL roof



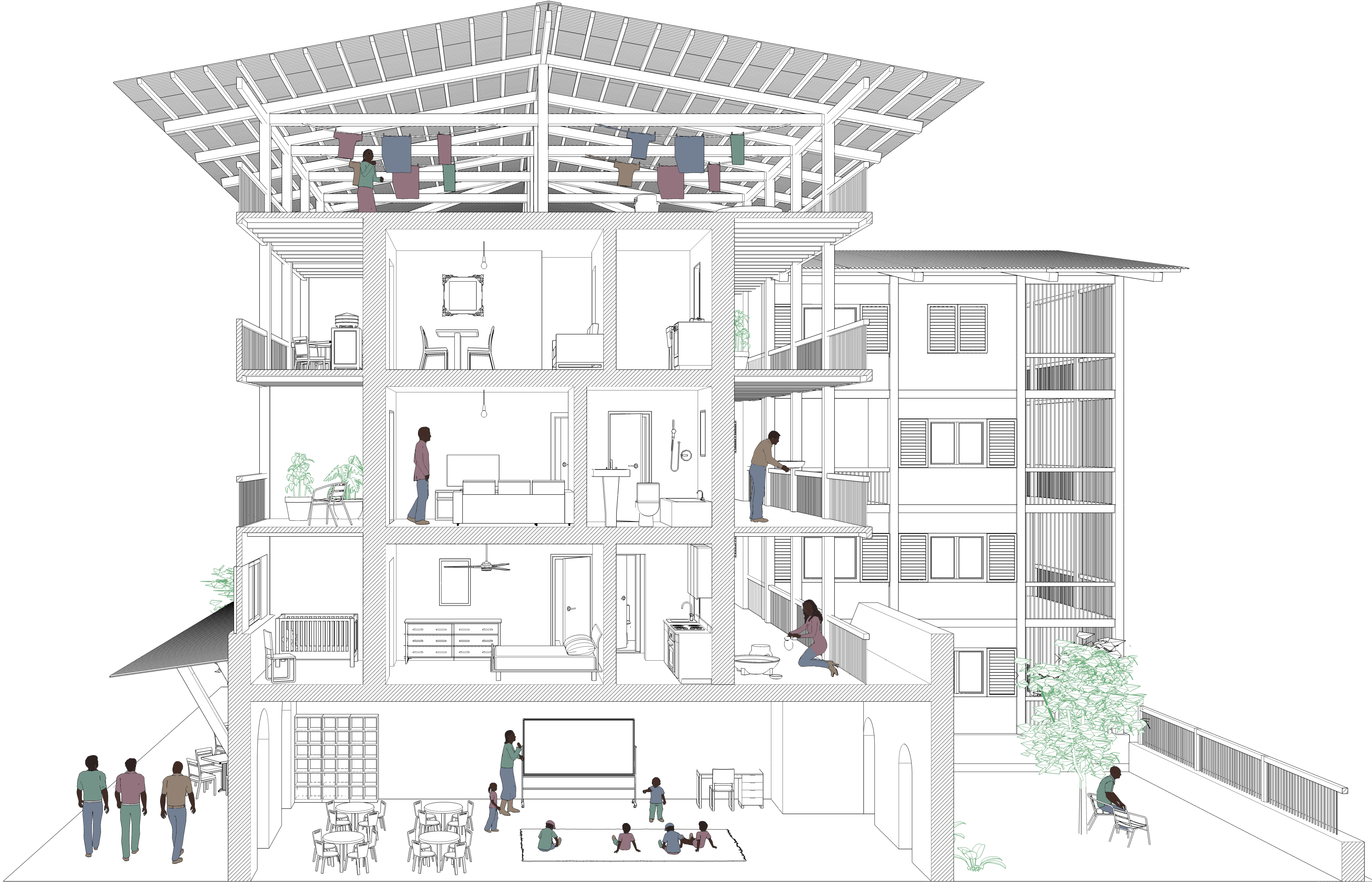
Facade



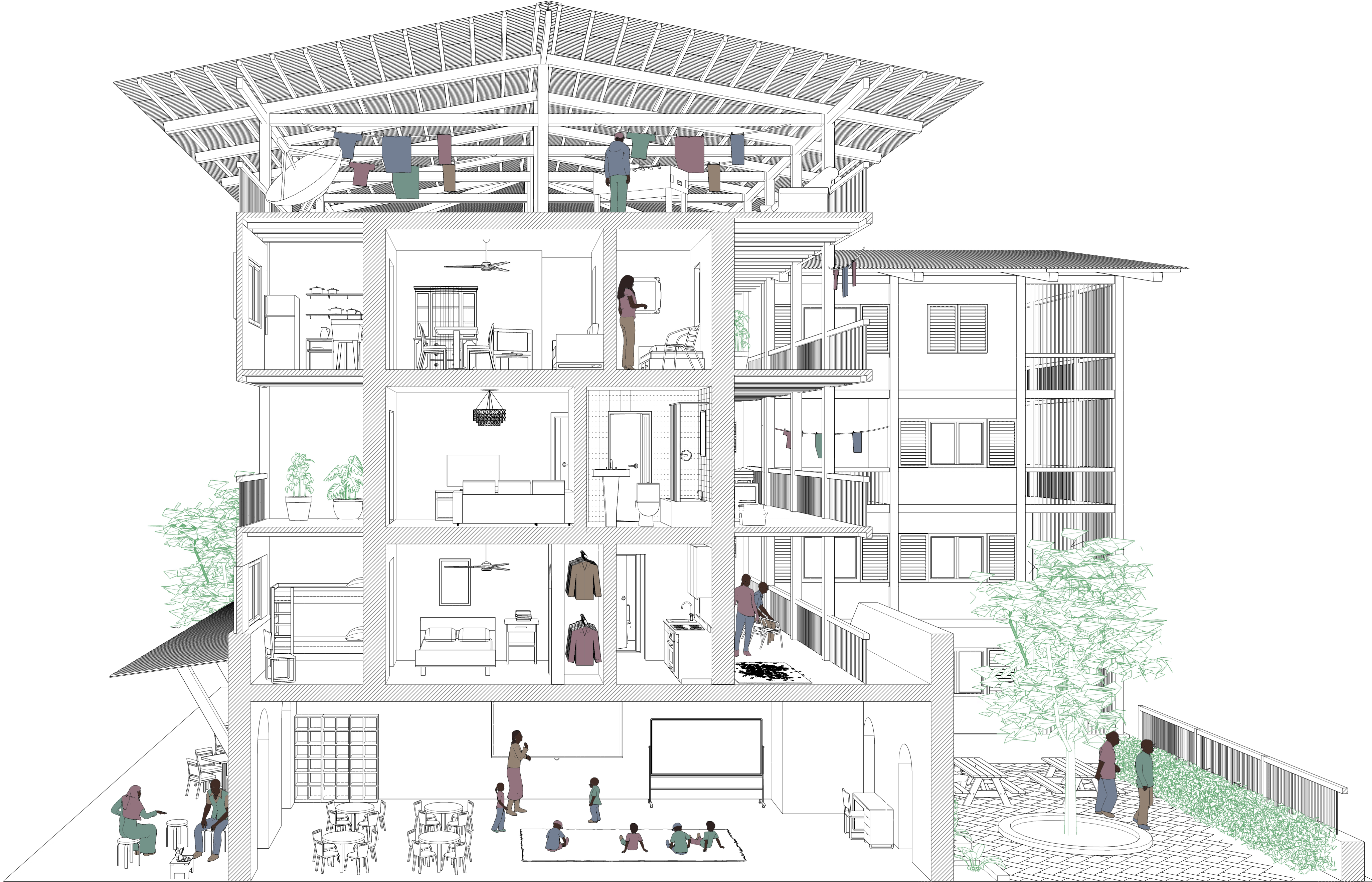
0 Years



1 Year



5 Years



Climate

