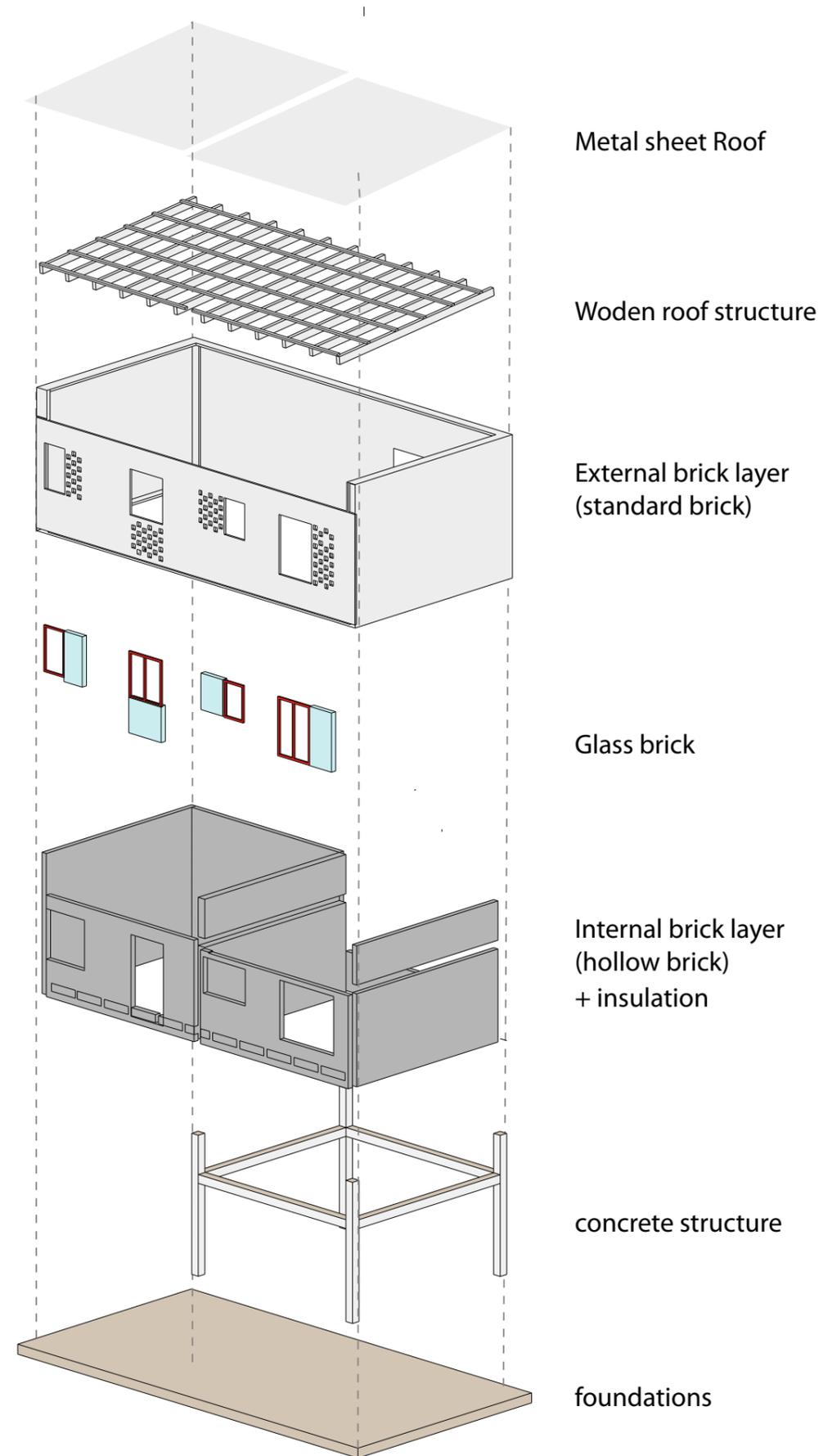


The main idea is to conceptualize a basic module of 50 square meters of affordable housing for low-income families, and to create a harmonious development of the urban complex of Maseru, Lesotho's capital city.

The climate of the city varies constantly with the different seasons: hot summer and cold winter with temperatures below zero degrees. For this reason it is necessary to create housing units with locally-available insulating materials.

The initial building is made of a compact design, strategically arranged by a structure of loadbearing bricks and concrete that allows a flexible aggregation. This aggregation is possible by razing one wall without affecting the main structure. The unit can easily grow to 75 s.m. with a very low consumption of resources, and develop 3 different options. The low-rise density can grow without overcrowding.



Metal sheet Roof

Woden roof structure

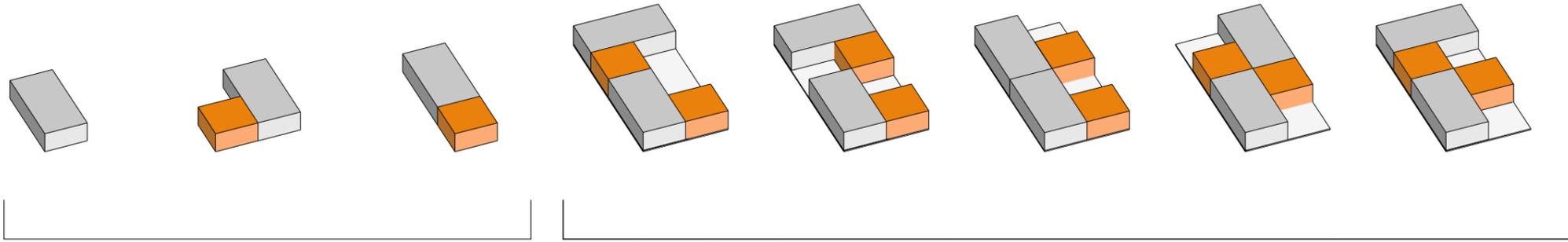
External brick layer
(standard brick)

Glass brick

Internal brick layer
(hollow brick)
+ insulation

concrete structure

foundations

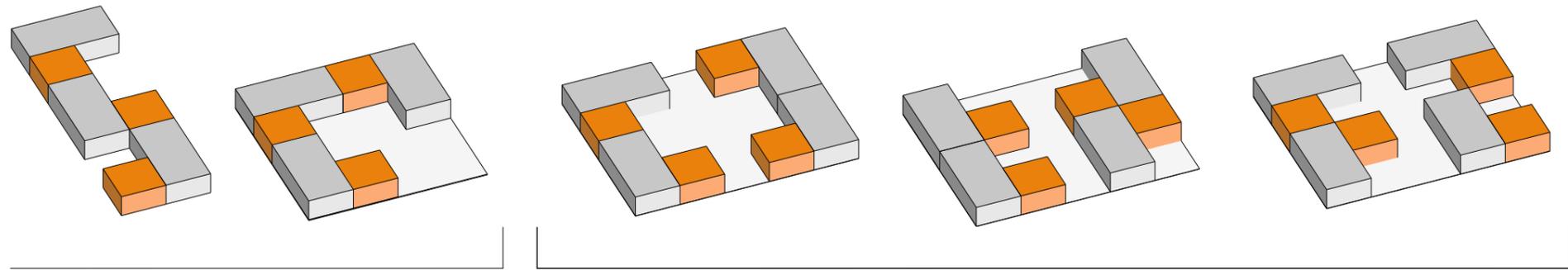


Unifamiliar

Bifamiliar



Low Density

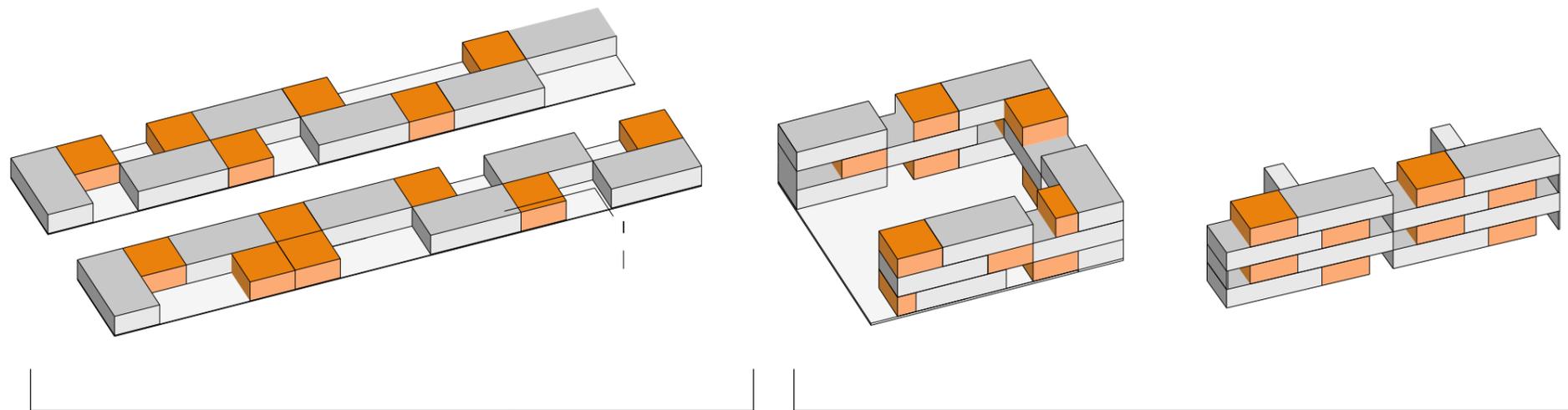


Trifamiliar

Block



Medium Density



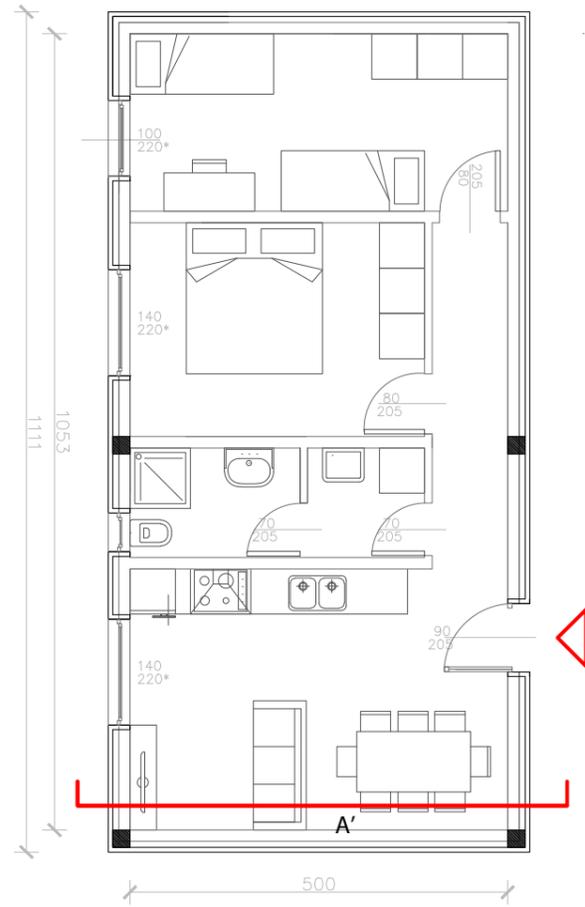
Row

Multifloor building

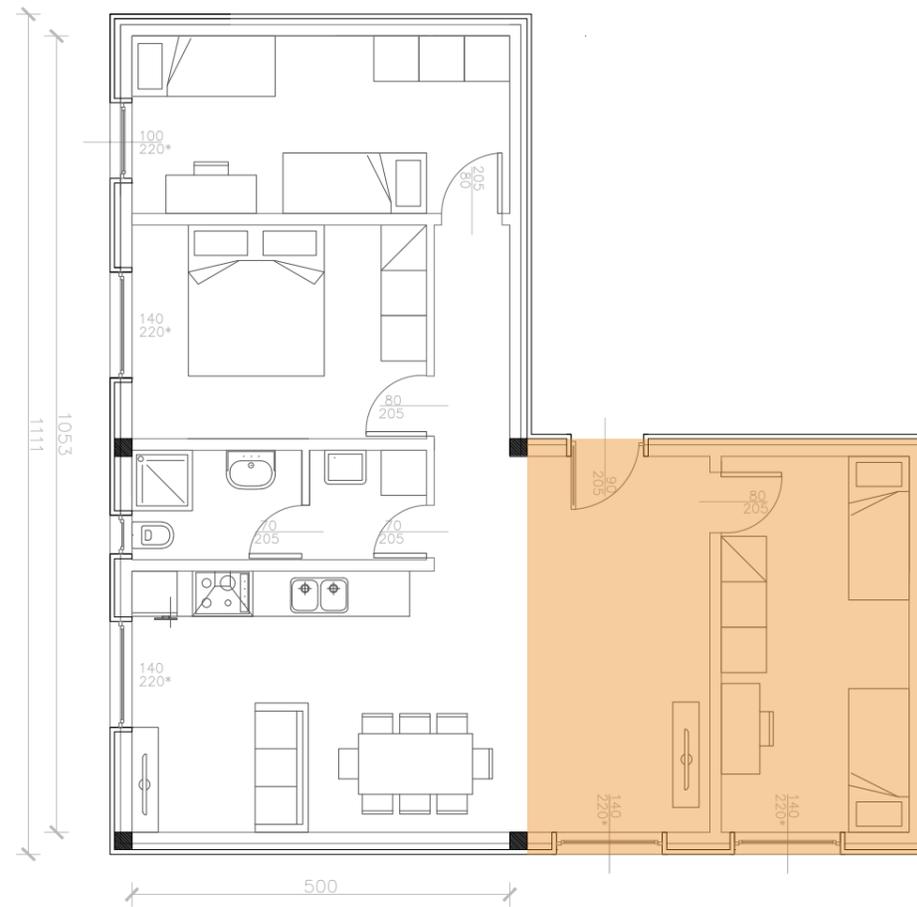


High Density

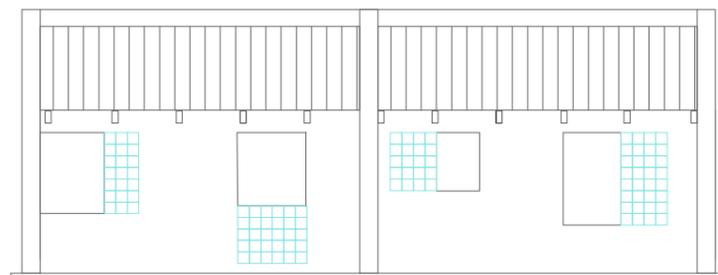
A



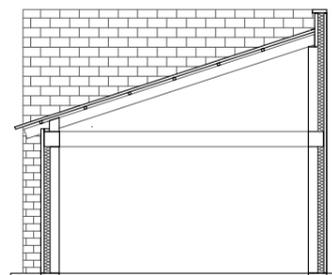
Basic Module Plan



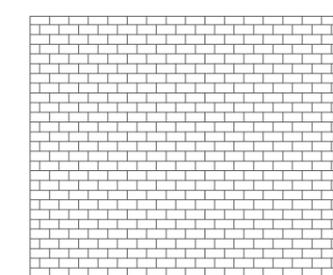
Increased module - option B



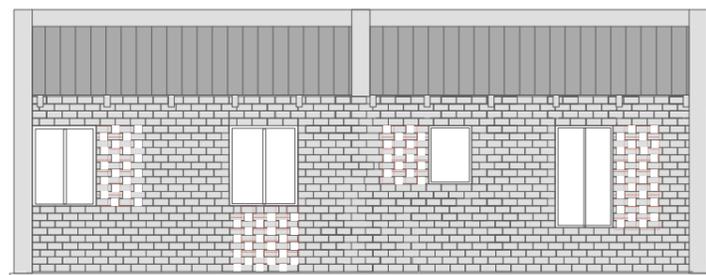
Window system



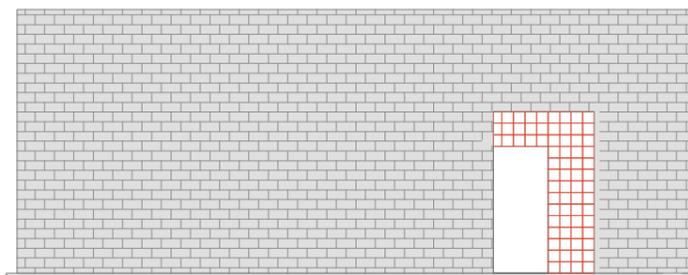
Section AA'



Facade

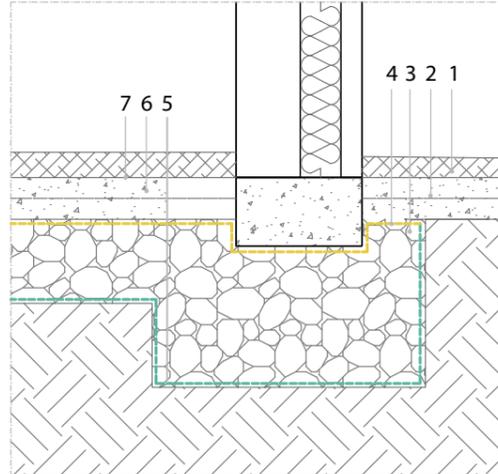


Facade



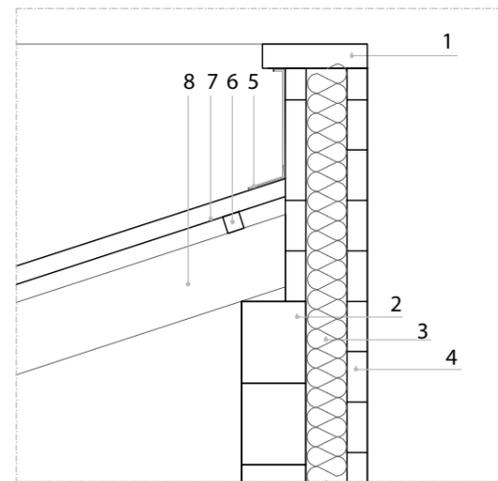
Facade

Detail 01



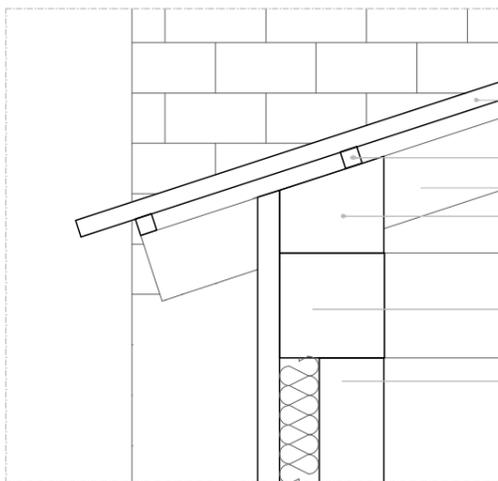
- 1 .Finished floor
2. Concrete layer
3. Gravel
4. PVC layer
5. Geotextile sheet
6. Concrete floor
7. Ceramic

Detail 02



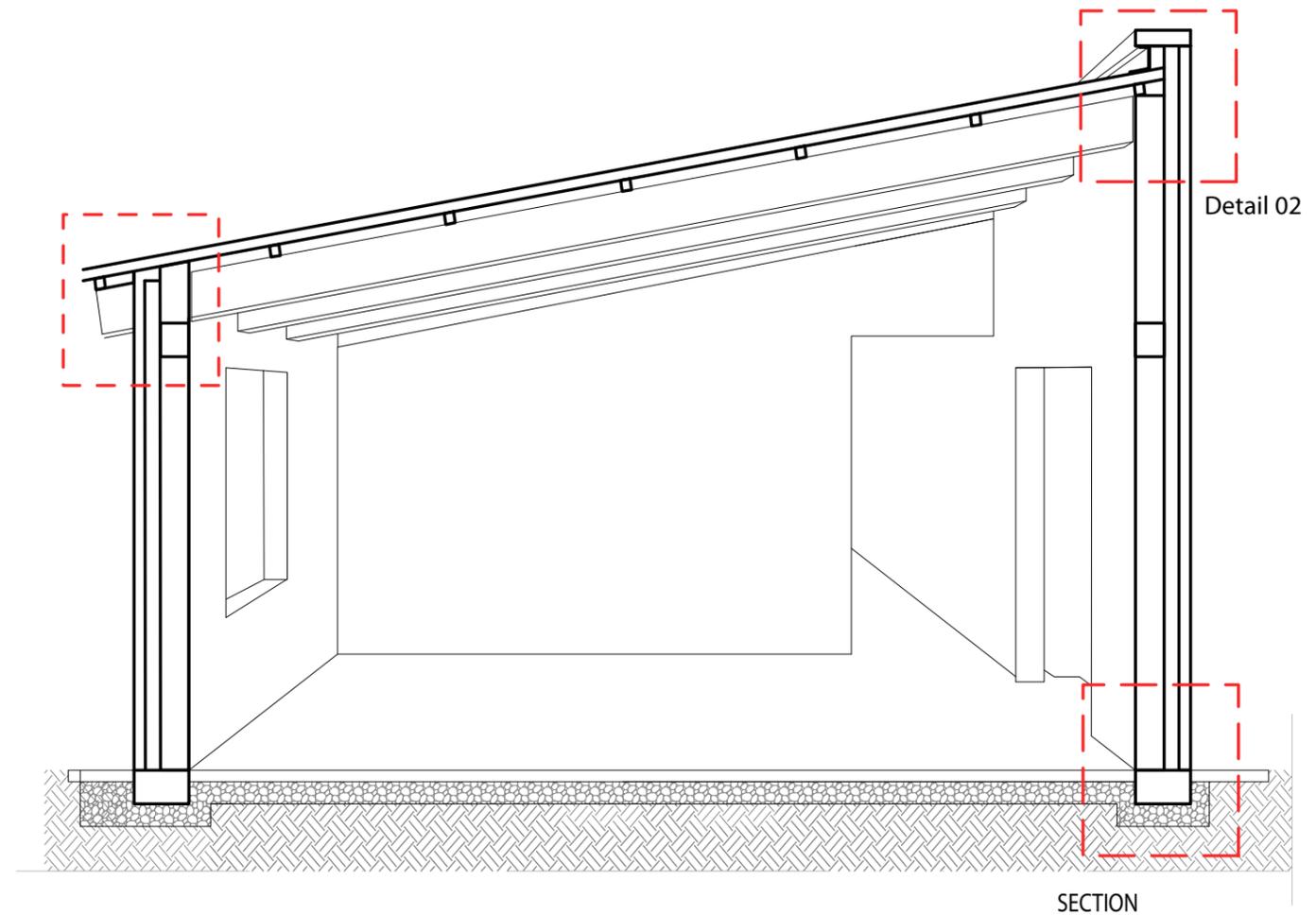
- 1 . Brick cap
2. Hollow block
3. Insulation
4. External brick layer
5. Iron sheet
6. Wood stick
7. Iron sheet sandwich + insulation
8. Wooden timber

Detail 03



- 1 . Iron Roof Sheet with insulation
2. Wooden stick
3. Wooden Beam
4. Concret curb
5. Concrete beam
6. Hollow block

The initial building is also conceptualized for aggregation with other units considering the various population density in respect to the needs of the urban fabric. The flexibility of the settlement solutions may vary from small housing clusters to multilevel buildings, focusing on semi-private spaces able to develop a communitarian association beyond the nuclear family unit. All of this is possible thanks to the creation of a porous, urban structure able to contain rationalized individual intention, limiting the possibility of chaos. The units will be able to accommodate the residents' diversity and be easily integrated with the existing building. Creating a location for underserved families close to the city with easy access to urban opportunities is the key to helping them to overcome poverty.



The idea is to conceptualize a basic module of 50 m² of affordable housing for low-income families, and to create an harmonious development of the city of Maseru.

The initial building is made of a compact design that allows a flexible aggregation. The unit can easily grow to 75 m². The building is also conceptualized for aggregation with other. The units will be able to accommodate the residents' diversity and be easily integrated with the existing building. Creating a location for families close to the city with access to urban opportunities is the key to helping them to overcome poverty.

Project Cost Estimate

Reinforced concrete cement foundation 2,000 LSL
Concrete structure: 3,000 LSL

Hollow block brick: LSL 9,000
Esternal bricks : LSL 4,600
Glass Brick 19x19 cm LSL 38,00 each = LSL 3,800

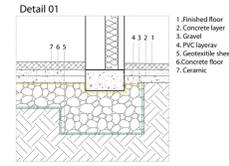
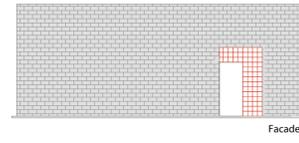
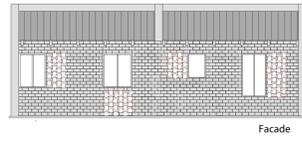
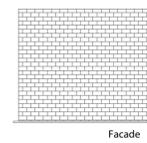
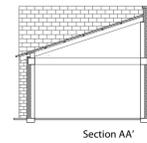
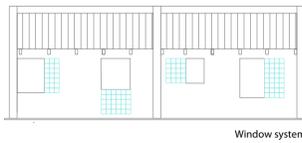
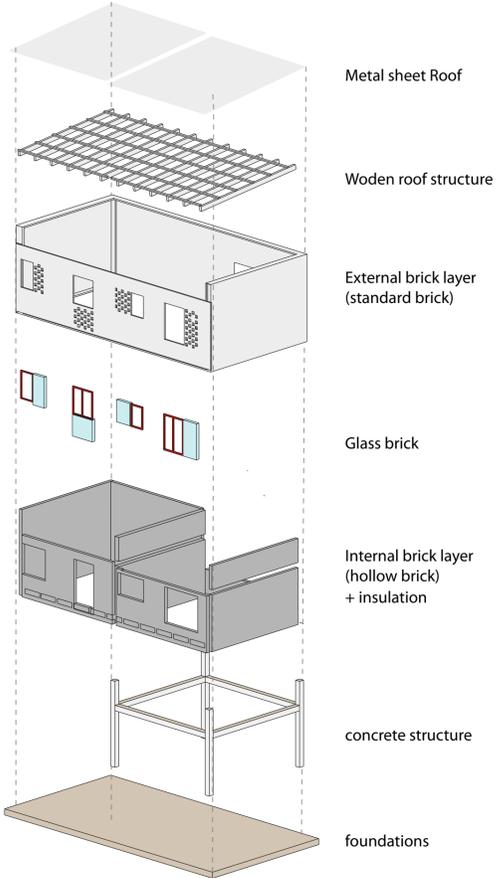
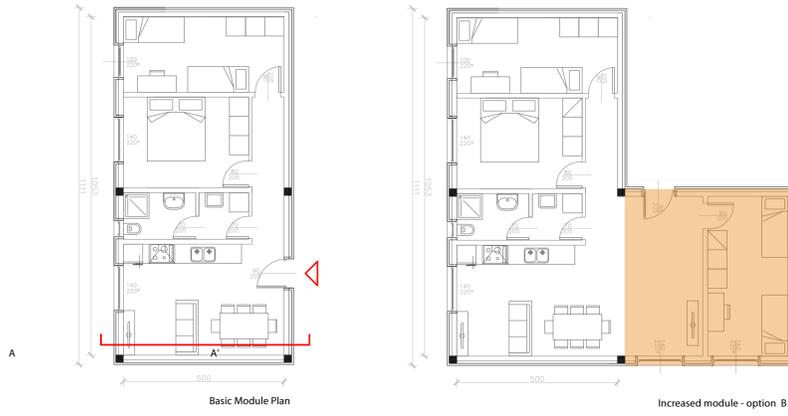
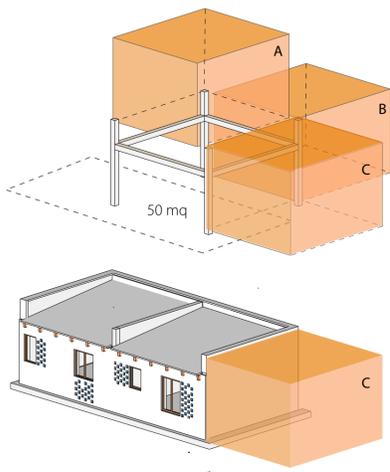
Insulation: 4,000 LSL

Window : 2,500 LSL
Door : 2,500 LSL

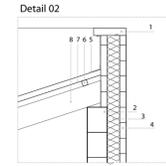
Wooden roof structure:
timber mm76x220 LSL 140.00/m 60 m x 140 LSL: 8,400 LSL
wooden stick 60x60 mm 20,00 LSL/m 60m x 20 LSL :1,200 LSL

Iron sheet Roof: 7,000

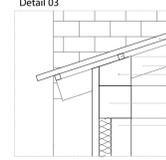
TOTAL: 48,000 LSL



- 1. Finished floor
- 2. Concrete layer
- 3. Gravel
- 4. PVC layer
- 5. Concrete sheet
- 6. Concrete floor
- 7. Ceramic



- 1. Brick cap
- 2. Hollow block
- 3. Insulation
- 4. External brick layer
- 5. Iron sheet
- 6. Wood stick
- 7. Iron sheet sandwich
- 8. Insulation
- 9. Wooden timber



- 1. Iron Roof Sheet with insulation
- 2. Wooden stick
- 3. Wooden beam
- 4. Concrete curb
- 5. Concrete beam
- 6. Hollow block

