

IMAGINING THE HOUSE

In the spirit of prefabrication and standardization, we have proposed a modular dwelling which is flexible, scalable and economic but built *in situ* by local contractors or its inhabitants. It is a system that does not involve the manufacturing of technologically sophisticated components, but is built with materials that exist in any market such as concrete blocks, steel rods and corrugated iron.

A User's Guide explains the cost of each one, how to self-build them in the manner of DIY assembly instructions and ways to combine the pieces. It also offers an additional planning guide giving the user the possibility to access the designs when and if expansion is needed.

USERS **MODULE BASE** **Module area: 13,8 m²**

HOUSING TYPE A - 5 module + porch + laundry room
Total area built: 69,00 m²

HOUSING TYPE B - 7 module + porch + laundry room
Total area built: 96,60 m²

HOUSING TYPE C - 8 module + porch + laundry room
Total area built: 110,40 m²

HOUSING TYPE D - 9 module + porch + laundry room
Total area built: 124,20 m²

HOUSING TYPE E - 10 module + porch + laundry room
Total area built: 138,00 m²

Each housing type is detailed with a list of components (e.g., Living Room, Kitchen, Bathroom, Bedroom, Laundry Room), a color-coded floor plan, and two 3D perspective views.

BUILDING THE HOUSE

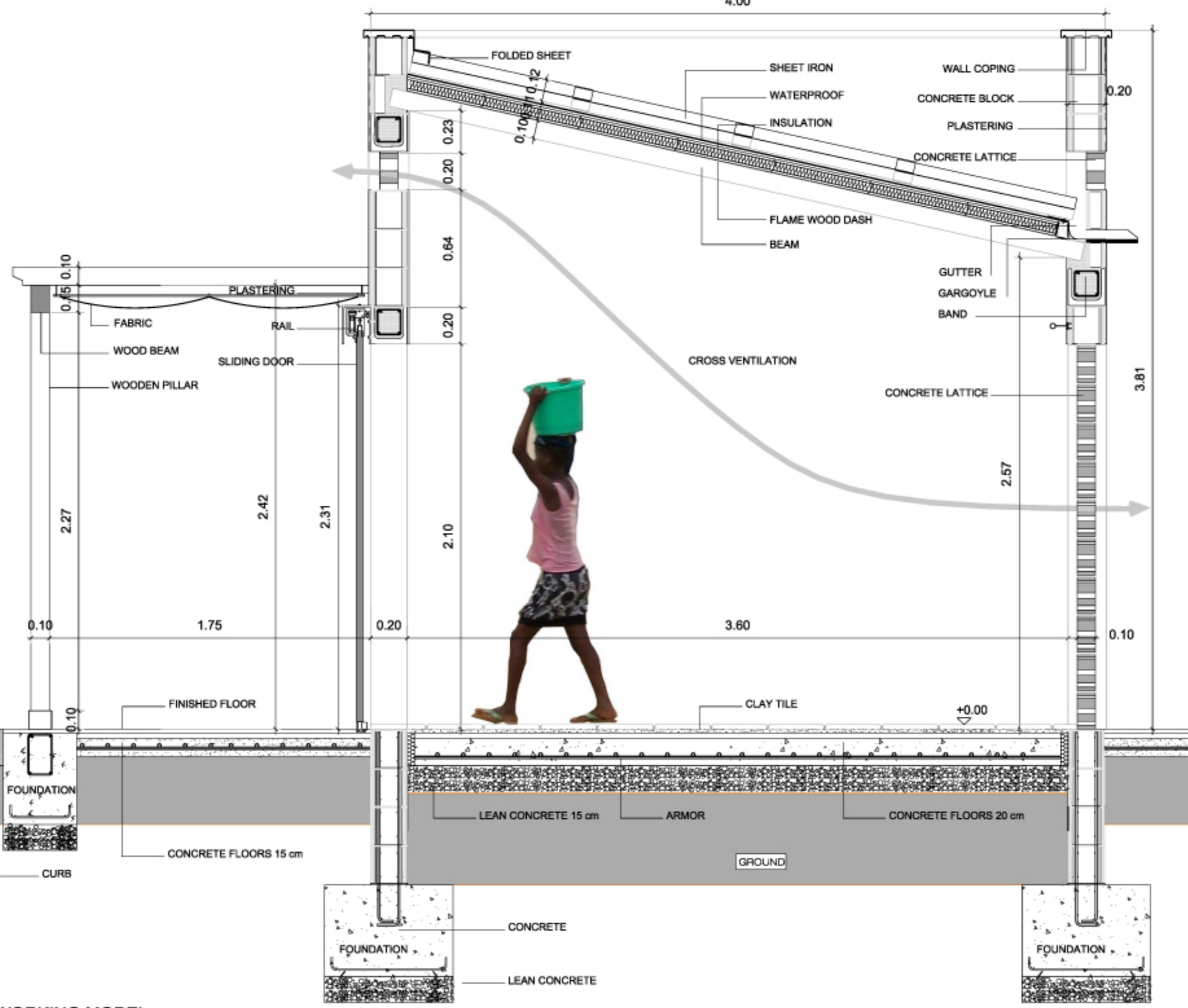
With these materials, a series of simple modules or units are constructed. First of all, a base module that can be used as a bedroom, living room or shop. Next, a technological unit identical to the base module but incorporating water, sanitation and electrical lines along the fencing. The third and final unit is a porch made of wooden beams and pillars covered with cloth to provide protection from the sun.

The dimensions of these modules are established by the division of the plot (10m in width x 25m in depth) in a way that permits the above-mentioned combinations. Thus, the base module is 4.00m deep and 3.46m wide. The construction consists of load-bearing walls of solid concrete blocks or drafts, with vertical rebar rods forming pillars of 20x20 spaced each 1.43m, to leave areas for passageways. The woodwork involves sliding doors with exterior rails.

CONSTRUCTION ELEMENTS

- ROOF**
 - Profiles of metal tube 8x10 cm
 - Flame retardant & insulating boards
 - Waterproofing foil
 - Folded sheet
 - Folded sheet metal gutter
 - Gargoyle
- CARPENTRY**
 - Rails
 - Wooden board for sliding doors
 - Swing door
- PORCH**
 - Wooden pillars
 - Wooden beams
 - Fabric
- LOAD-BEARING WALLS**
 - Concrete block 40x20x20
 - Block concrete pillars 20x20x20
 - Concrete landing
 - Concrete lattice 20x19, 5x20
 - Wall covering
 - Corrugated steel rods
 - Plastering
 - Cement & Sand
- FOUNDATIONS & SUPPORT**
 - Clay tiles
 - Concrete + framework + block

CONSTRUCTION SECTION. Scale 1/20



ORTHOGRAFIC PROJECTION



BUILDING THE CITY



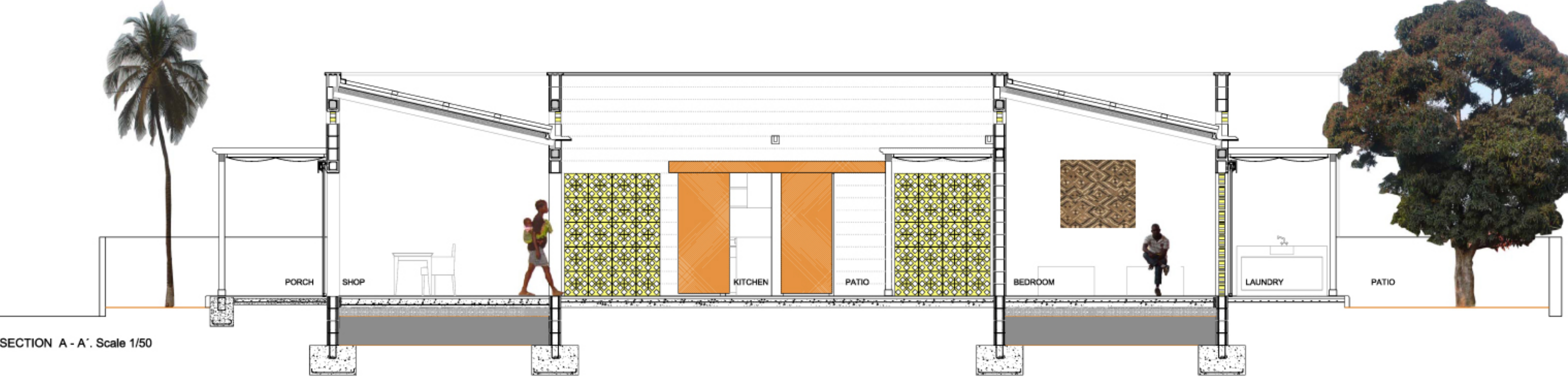
One of the key aspects we have considered is the climate: in 2006, the city of Luanda recorded an average annual temperature of 24.6°C and there were only 29 days of rain throughout the year with an average of 128 mm of rainfall in the most humid months. Under these conditions and considering the additional lack of humidity, there is no obvious need for a house to be elevated from the ground. However, there is a great need for solar and thermal protection. The modules have sloping roofs to create cross ventilation in each one of them, and are arranged around courtyards.



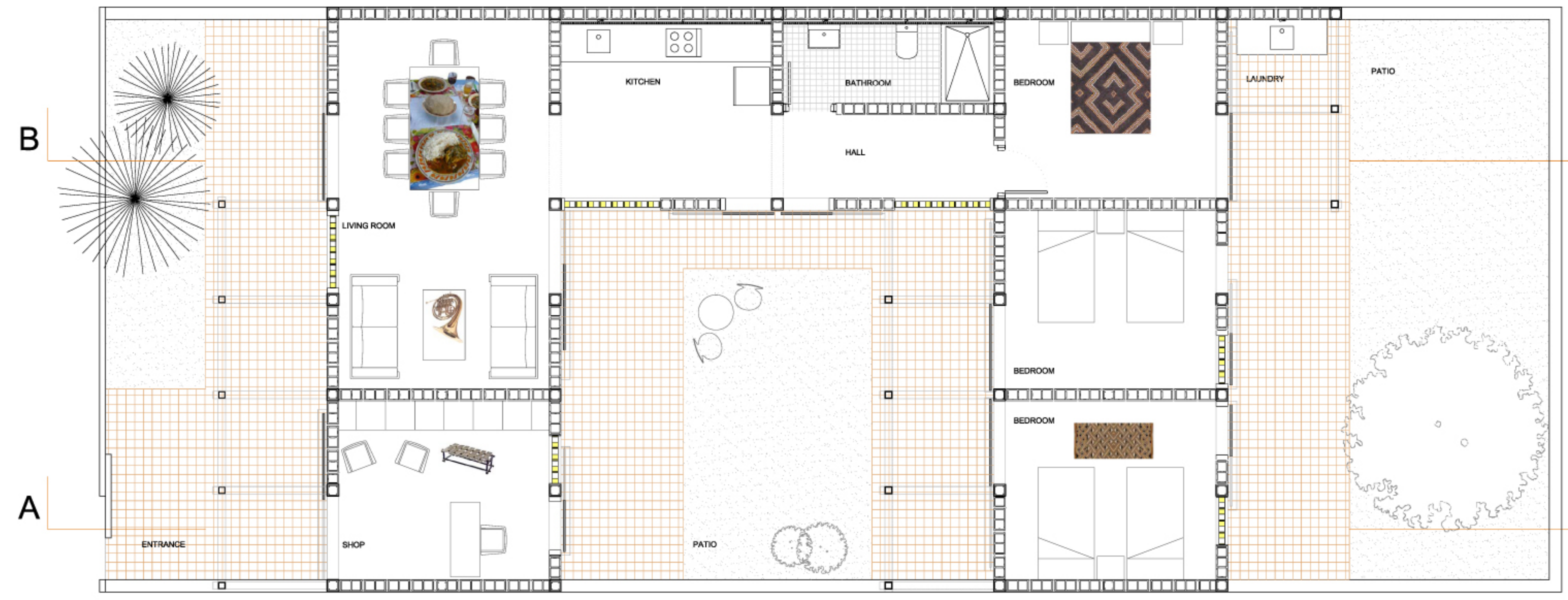
CITY FLOORPLAN. Scale 1/1.000

FRONT PATIO VIEW

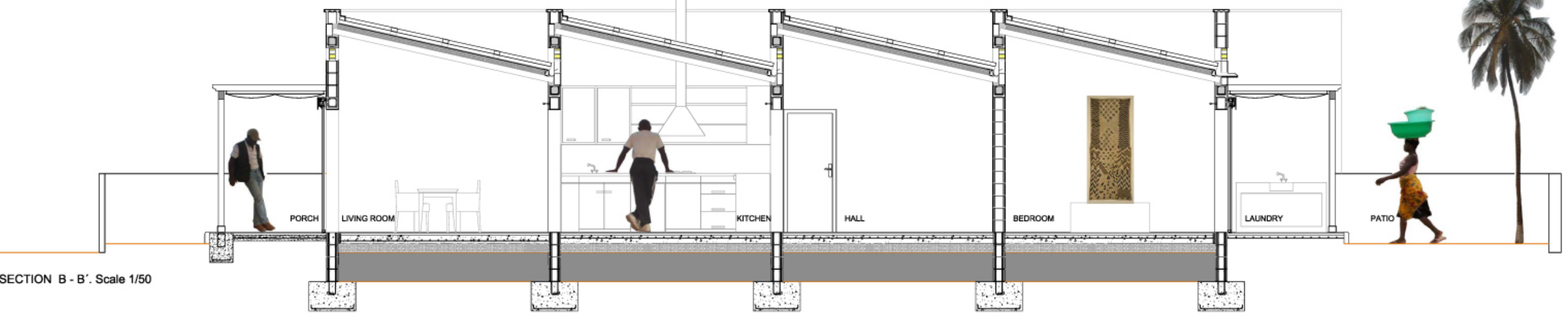
THE HOUSE



SECTION A - A'. Scale 1/50



FLOORPLAN. Scale 1/50



SECTION B - B'. Scale 1/50

BACK PATIO VIEW

FRONT ELEVATION. Scale 1/50

