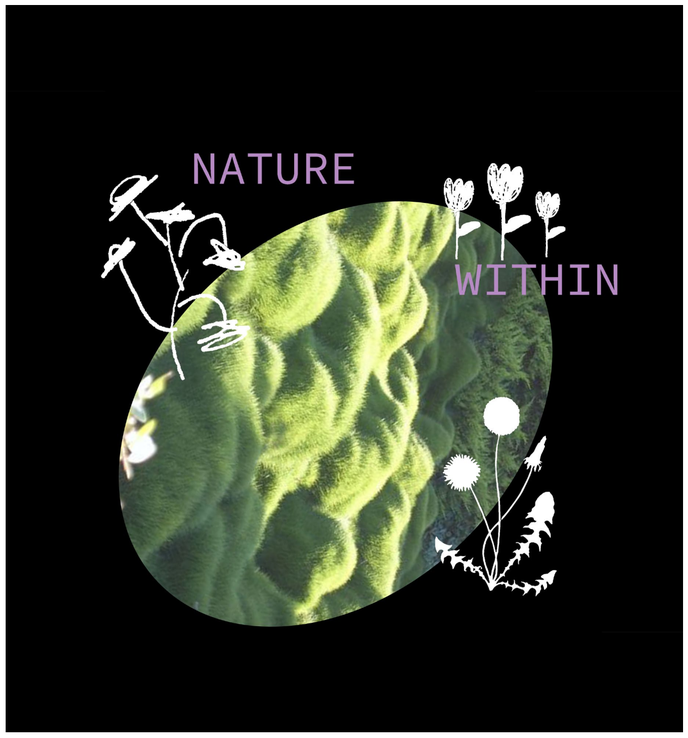
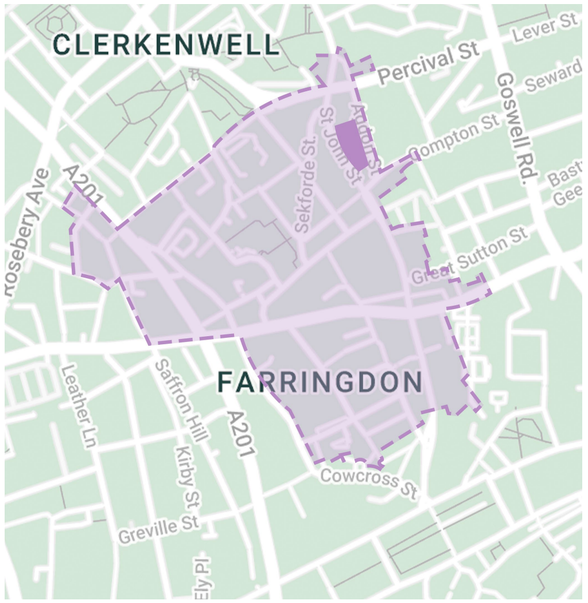


Alexandra Santos

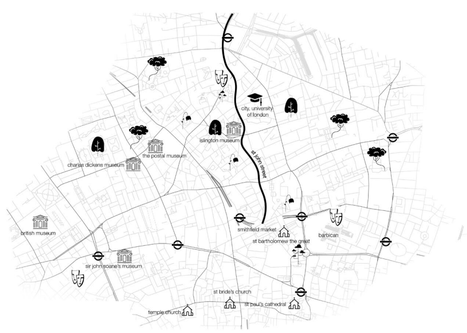


SITE LOCATION

The building is located north of the intersection between St John Street and Clerkenwell Road. It is located within the Clerkenwell Green Conservation Area (it is not listed) and is south of the London Borough of Islington, nearby the Farringdon Road underground station.
The front facade faces St. John Street, which connects Smithfield Market to Farringdon Road, The Angel, and Pentonvile Road from the north. The back facade faces Agdon Street, a secondary access road that has been increasingly redeveloped.

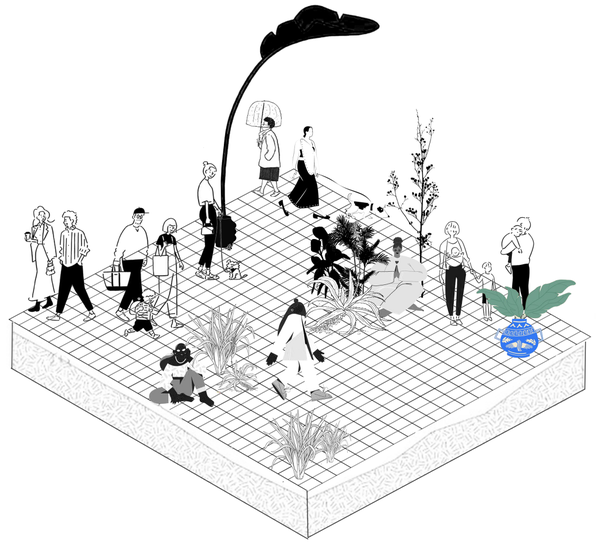
TRANSPORT

The site location offers convenient access to Liverpool Street, Highbury & Islington, and South London since it is close to both Angel and Farringdon stations. The Farringdon Station, Chancery Lane and King's Cross stations all have extensive transport connections to the National Rail, Circle, Hammersmith & City and Metropolitan lines, the Metropolitan, Northern, Victoria and Piccadilly lines.



DEMOGRAPHICS

Population of Clerkenwell.
These population numbers describe the population pattern by broad intervals of age and gender.



TOTAL POPULATION

13,386

48.2% female
51.8% male

AGES 0-15

1,549

11.6% (Islington = 15.9%)

Working age population

10,818

80.8% (Islington = 75.3%)

Aged 65+

1,019

7.6% (Islington = 8.9%)

White British

5,660

49.3% (Islington = 47.7%)

Black

1,074

9.3% (Islington = 12.8%)

Non-White

3,366

29.3% (Islington = 31.8%)

Mixed

568

4.9% (Islington = 6.5%)

Asian

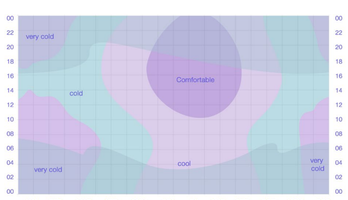
1,401

12.2% (Islington = 9.2%)

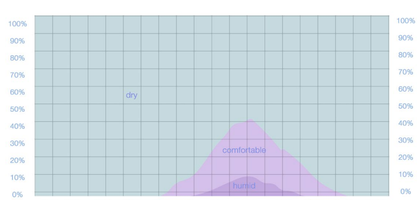
Other ethnic group

323

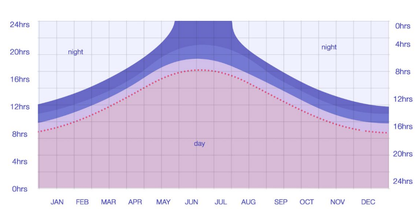
2.8% (Islington = 3.4%)



Temperature



Humidity



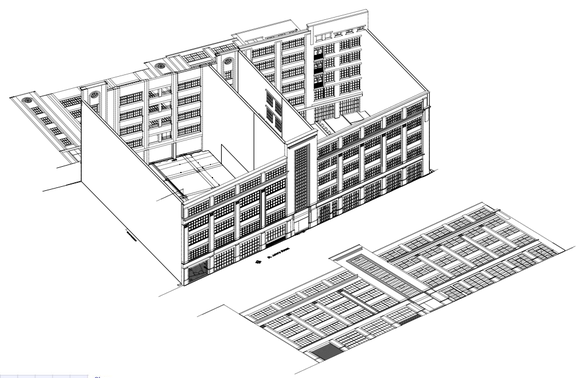
Sun

SITE HISTORY

The building was The Scholl Manufacturing Co. headquarters, a company that specialises in foot care and medical equipment. However, only one part was occupied by Scholl. The oldest structure is Nos. 190–194, built in 1910 for the United Yeast Co. The company also bought No.188 in 1919, refurbished it, and added a rooftop canteen in 1925–1926. In 1913, Nos 182–186 was constructed as Pioneer House by Peckham-based builders George Parker & Sons.

In 1930, Scholl relocated from Granville Square to the former United Yeast buildings, subsequently expanding into Pioneer House. Parkers refurbished Nos. 196–204 for Scholl in 1937–1939 based on plans created by H. Yolland Boreham of Boreham, Son & Wallace. For Nos. 190–204, Boreham created a virtually symmetrical facade with a central stair-tower with small adornments at Nos. 191–94.

In the 1990s, the building was transformed into lofts, with lift access to all floors.



CONCEPT

SKIN AND PLANTS LABORATORIES

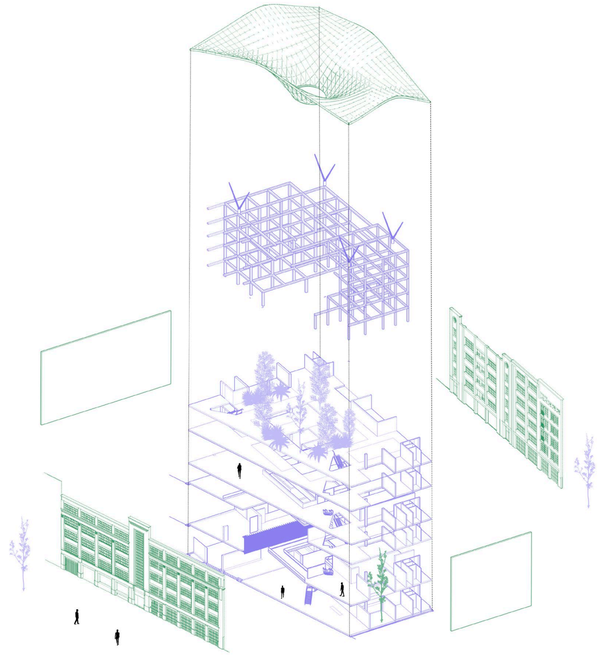
My design proposal is to convert the building into skincare laboratories focused on research for a deeper understanding of both the behaviour of skin and plants. By expanding our understanding of how the skin behaves while also gathering more scientific evidence on plant biology, enhances possibilities and more opportunities for innovation while fully embrace the potential of plants. When applied to the skin the plants components interact with skin cells and improve the health and overall appearance of the skin. Both physico-chemical investigations and botanical research have revealed a wide variety of plants with the potential to improve contemporary cosmetic products.

The project will provide functional spaces for the research, development and production of plant based products, as well as syntethic skin technologies.

Biomedical science has achieved a large progress in understanding how cells grow into functional tissues. Tissue engineering is the practical use of that knowledge to the construction and repair of organs, including skin. Artificial tissues typically consists of a scaffold, a support structure, and living cells. The scaffold can range from a collagen matrix, a structural protein, to synthetic biodegradable plastic loaded with chemicals that promote cell growth and multiplication. Tissue regeneration technology substantially improves skin repair, the success rates of skin healing from burn injury have significantly improved with the use of various skin substitutes.

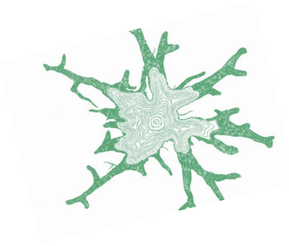
By developing nearly full-thickness skin in the laboratory, the scientists anticipate they can make smooth, soft skin transplants that look natural. Currently, the skin is used to treat burns and minimise scar tissue, but scientists intend to expand further. In their laboratory-based work, researchers can make skin grafts that contain pigmentation, allowing them to produce a skin colour that matches all range of skin tones.

Plant stem cells, which are often employed in cosmetics, can be remarkable as they have no limits when contrasted with animal and human cells. They cannot be used as a cell component in the development of skin substitutes, but they can offer bioactive substances that can speed up the healing of injuries.

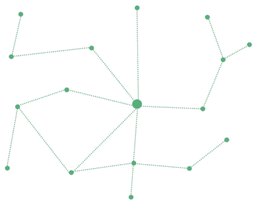


CIRCULATION

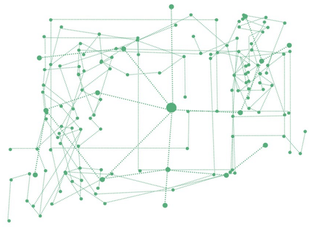
The circulation represent the roots that usually grow from the center and spread in multiple directions. Instead of organic shapes, the interior will be rigid and linear to emphasize the contrast between the building - unorganic and the grown - organic. This circulation diagram is based on the slime mold technique used for the tokyo rail system, where they use oat on the key places and slime mold on the centre. As it spreads organically it traces the faster connections between the key points (represented by the oat).



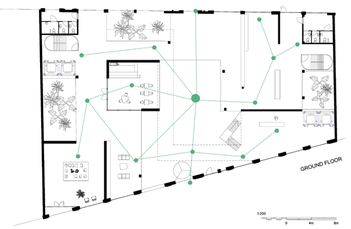
Organic reference shape



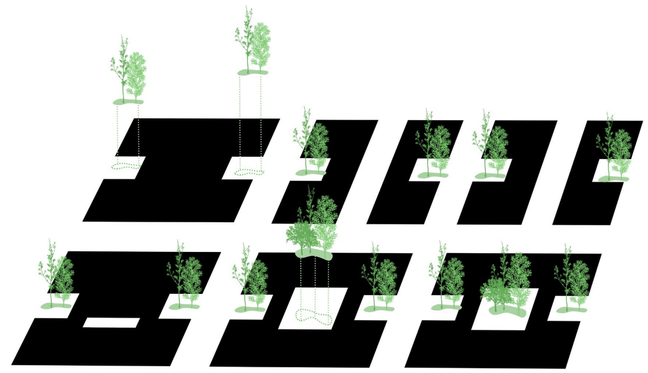
Grounf floor circulation



All floors combined

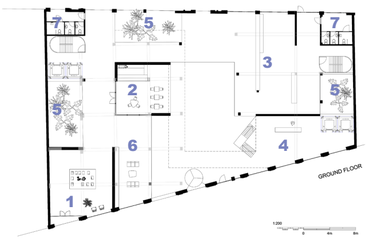


GREEN AREAS



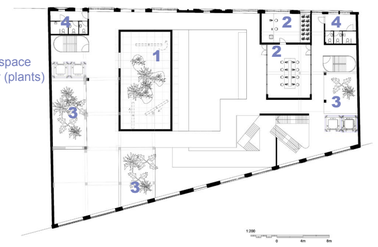
PROPOSED PLANS

1. Library
2. Coffee
3. Store
4. Reception
5. Gardens
6. Sitting area
7. WC

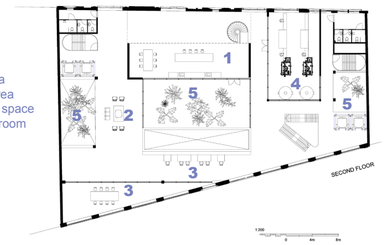


1. Marketing office
2. Meeting areas
3. Show room
4. Laboratory (skin)
5. Gardens
6. WC

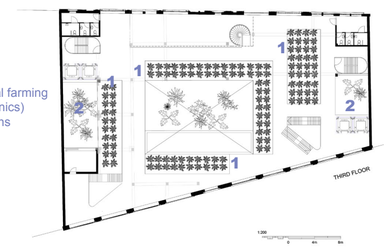
1. Exhibition space
2. Laboratory (plants)
3. Gardens
4. WC



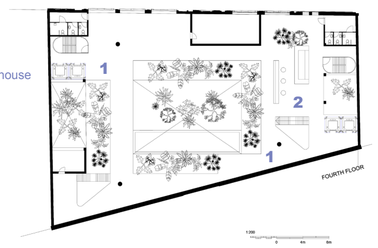
1. Kitchen area
2. Common space
3. Co-working space
4. Production room
5. Gardens



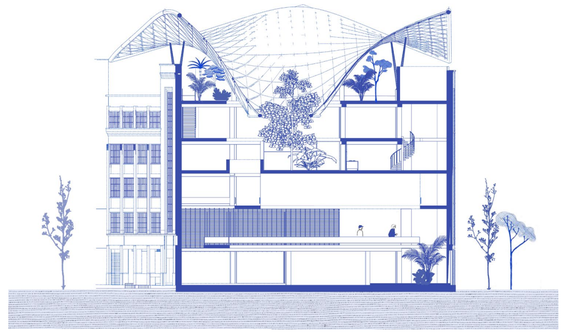
1. Vertical farming (hydroponics)
2. Gardens

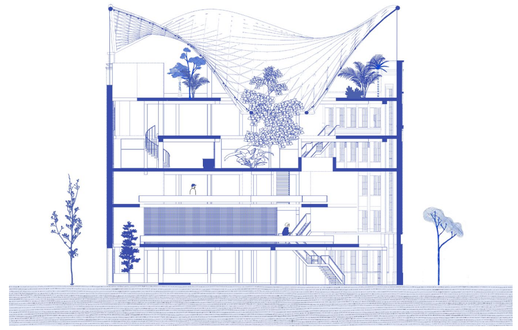


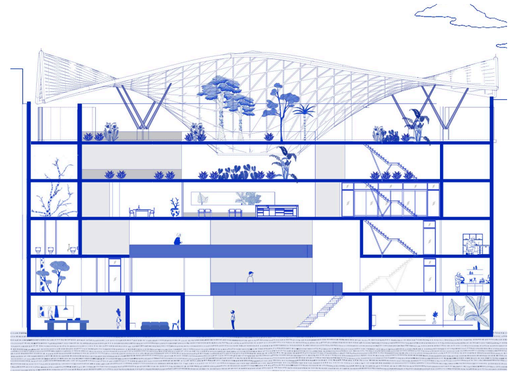
1. Biodiverse greenhouse
2. Coffee area

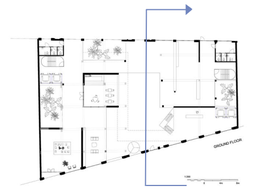


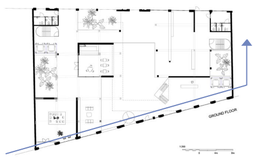
PROPOSED SECTIONS

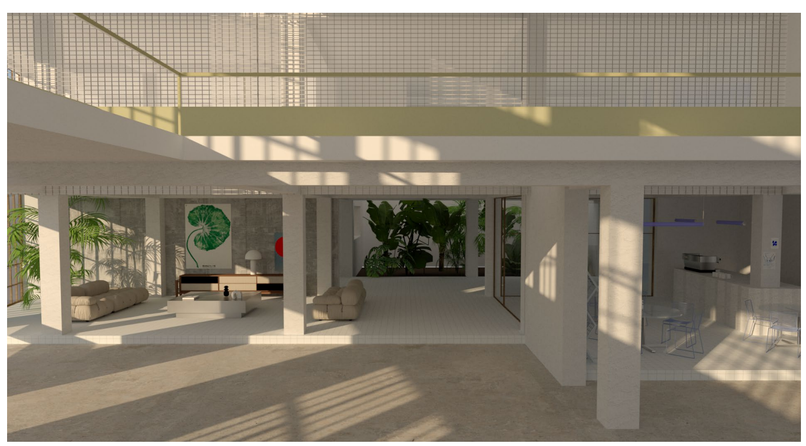




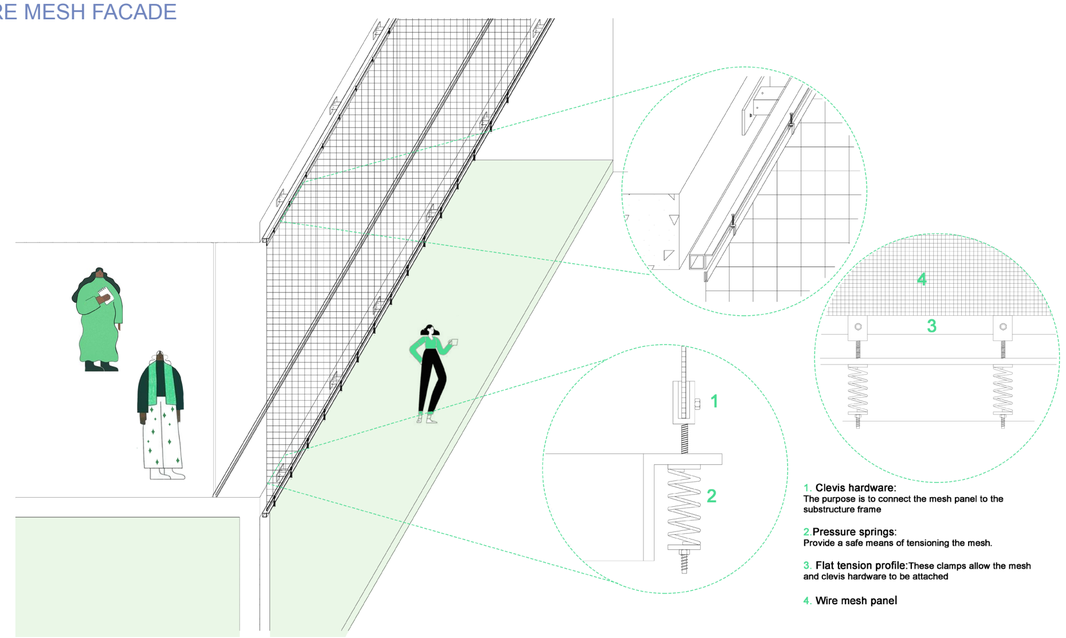








DETAILS
WIRE MESH FACADE



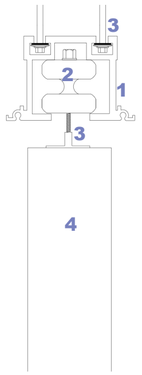
1. Clevis hardware:
The purpose is to connect the mesh panel to the substructure frame

2. Pressure springs:
Provide a safe means of tensioning the mesh.

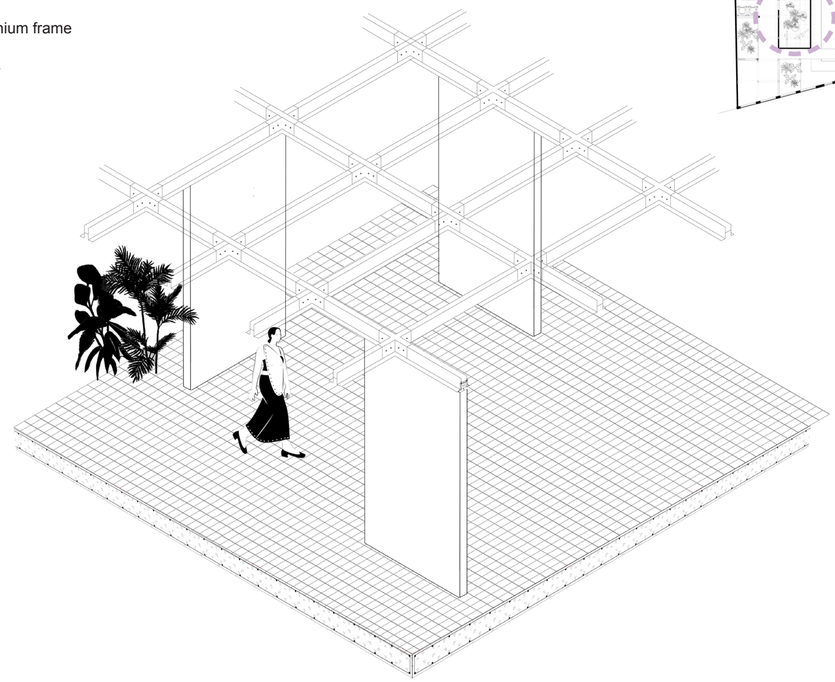
3. Flat tension profile:These clamps allow the mesh and clevis hardware to be attached

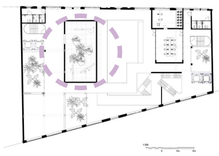
4. Wire mesh panel

DETAILS
MOVABLE WALLS (exhibition space)

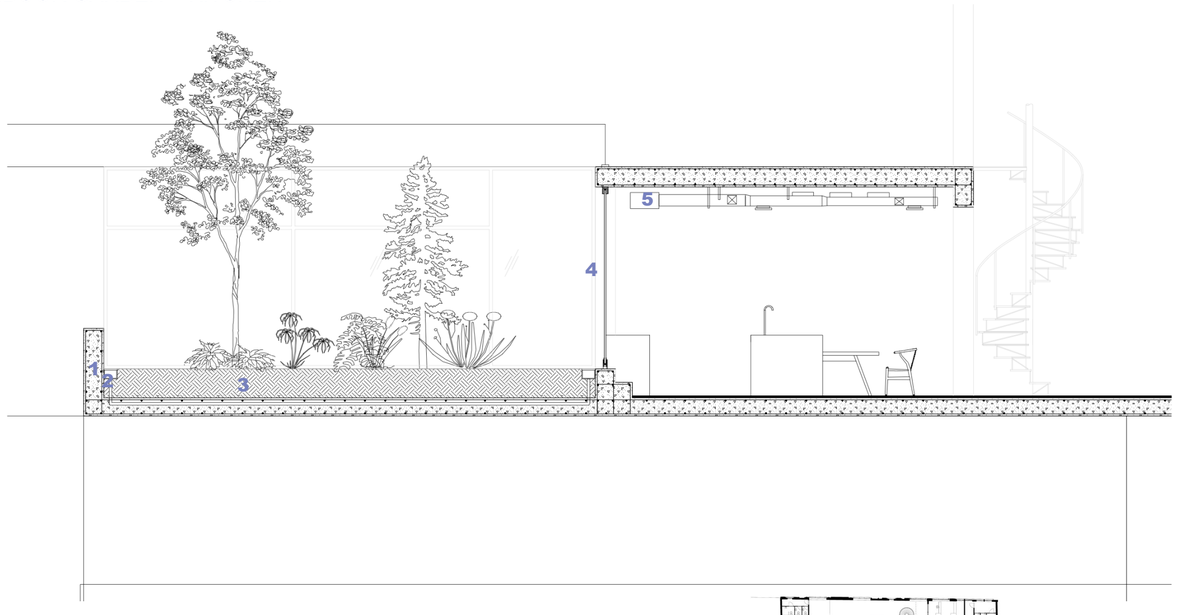


1. Aluminium frame
2. Roller
3. Screw
4. Wall

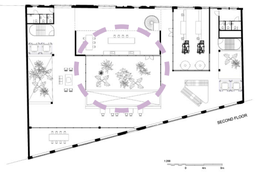




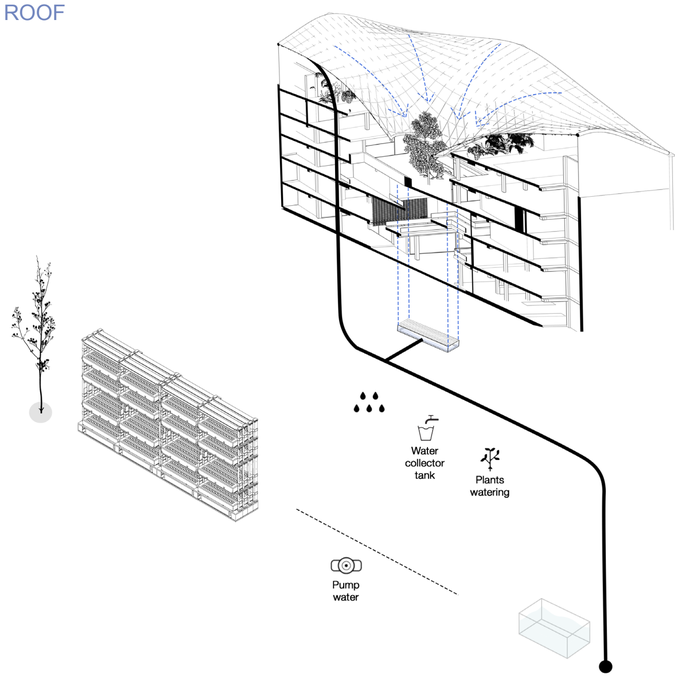
DETAILS
INDOOR GARDEN + KITCHEN

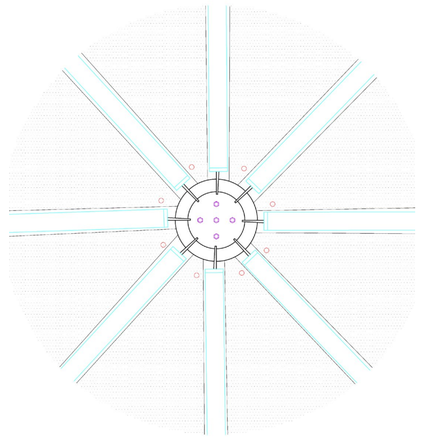


1. Steel reinforced concrete slab
2. Water collector grid + pipes
3. Soil
4. Glass windows
5. HVAC system



DETAILS
ETFE ROOF





1.ETFE cushion

2. Steel support