

GREEN, THE NEW GOLD

CREATING THE FAIR BANK OF BELGIUM

Student number: 4707044

P5 | 30-06-2022 | AR3AI100

Interiors Buildings Cities
MSc4 Graduation Project
2021-2022

Tutors:

Daniel Rosbottom
Mauro Parravicini
Amy Thomas



CONTENT

The Future Bank

The Social Plinth

The Concept

The Design

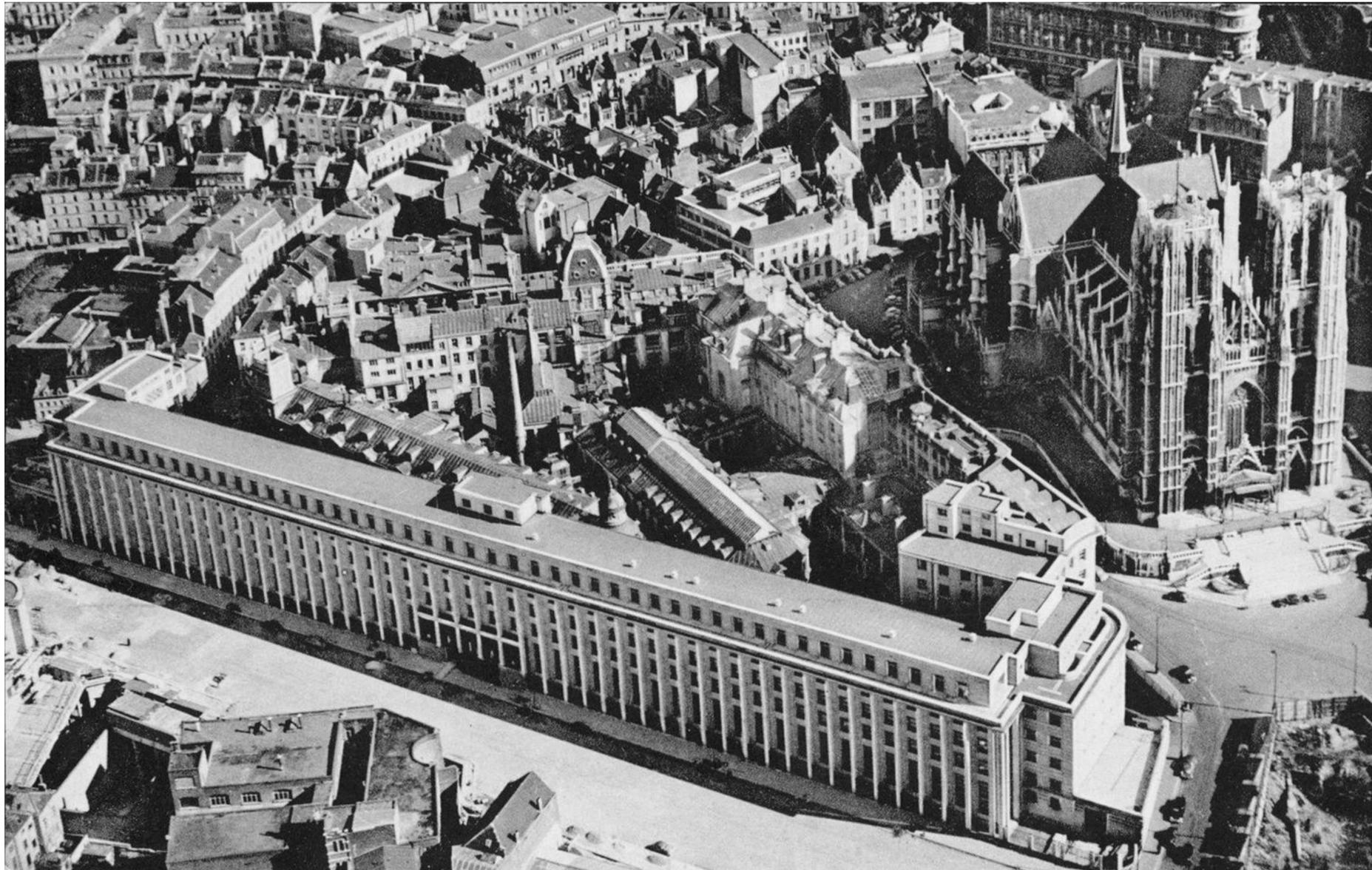
CONTENT

The Future Bank

The Social Plinth

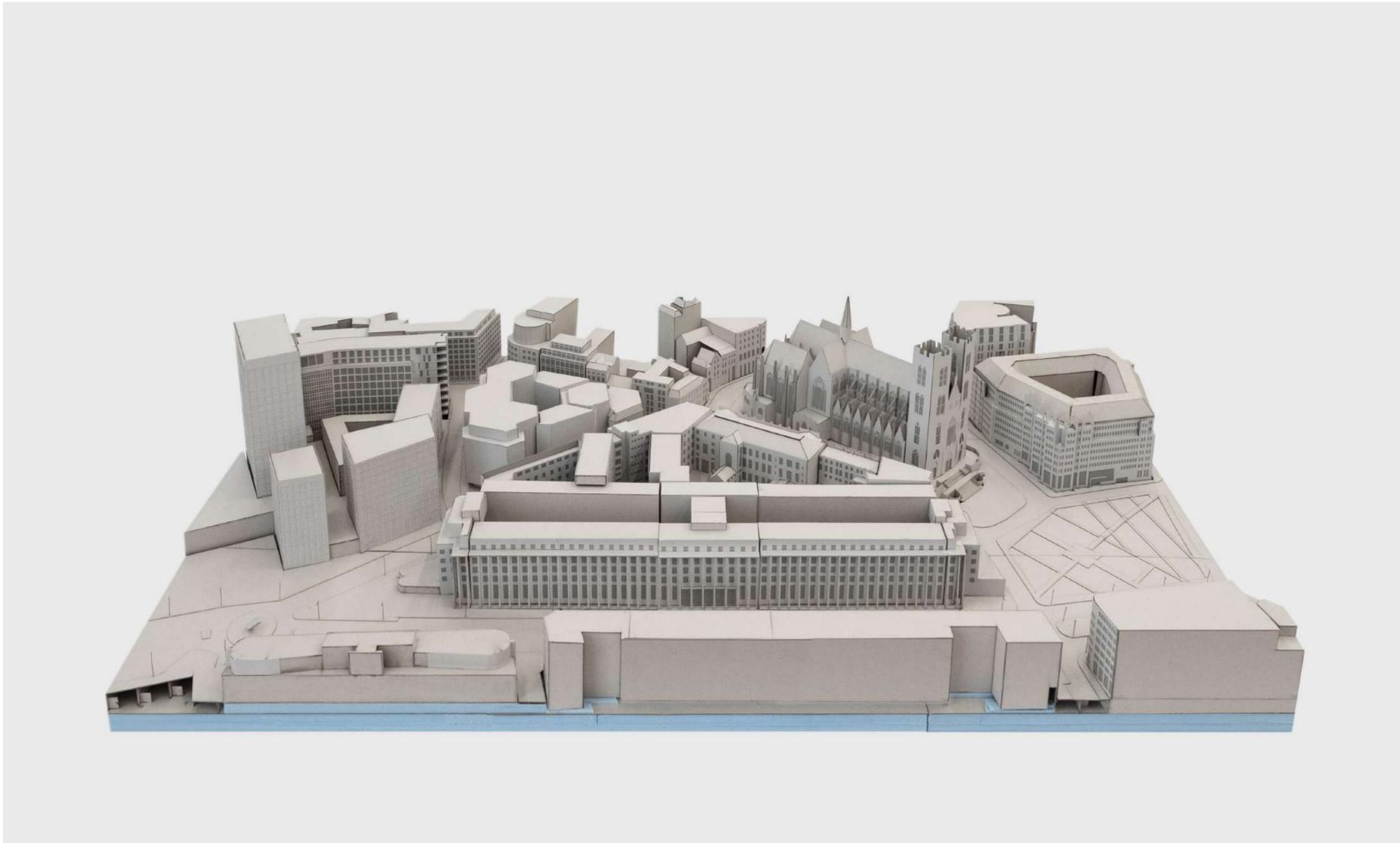
The Concept

The Design

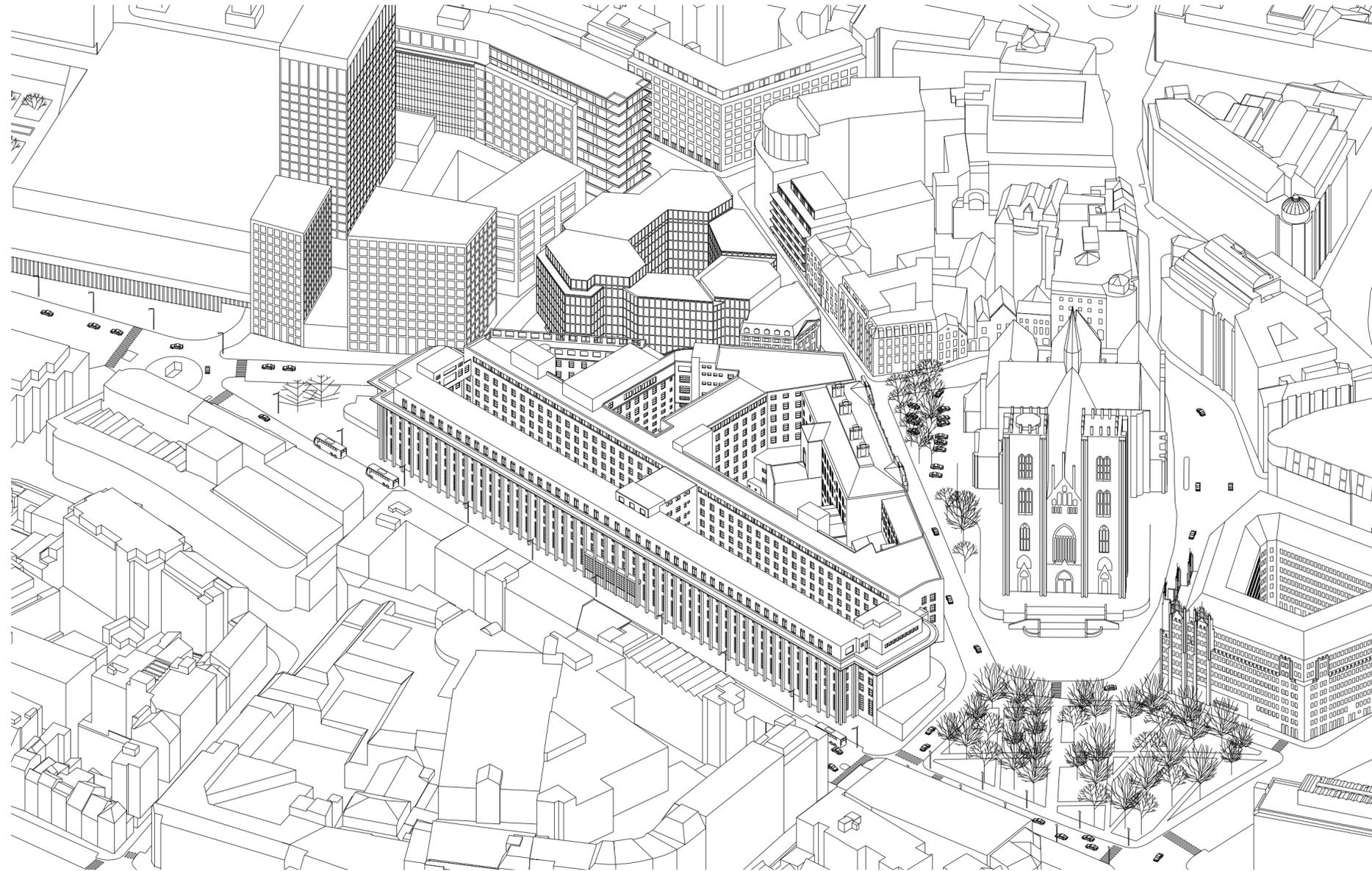


NATIONAL BANK OF BELGIUM, Boulevard de Berlaimont, 1950s. Source: hemels.brussels

THE FUTURE BANK



1:500 SITE MODEL



THE FUTURE BANK



THE PEOPLE OF BRUSSELS

CONTENT

The Future Bank

The Social Plinth

The Concept

The Design

The National Bank of Belgium (NBB) must stop ignoring climate

On May 12, 2021, 21 Belgian civil society organizations wrote to the National Bank of Belgium (NBB) asking it to stop blocking climate integration at the European Central Bank (ECB). The open letter comes as the Governor of the NBB, unlike several of his European colleagues, has spoken out against climate action.

The open letter – published in French in *l'Echo* and in Dutch in *Knack* – is crucial to advance the climate debate that is currently raging at the ECB. While the Dutch and French central bank governors and several ECB board members have clearly stressed the need to adapt the ECB's operations to climate issues, the Belgian and German governors are taking a much more conservative position.

The Governor of the NBB, Pierre Wunsch, has been very vocal in his opposition to climate measures. He went so far as to deny that climate risks are not taken into account by the market.

The NBB's position ignores both the work carried out by the financial sector itself – notably within the Network For Greening the Financial System (NGFS) – and the European climate objectives.

ClientEarth v. Belgian National Bank

Filing Date: 2021

Reporter Info: 21/38/C

Status: Pending

Case Categories: [Suits against corporations, individuals](#) > [Corporations](#) > [Disclosures](#)
[Suits against governments](#) > [Human Rights](#)

Jurisdictions: [Belgium](#) > [Brussels](#) > [Court of First Instance](#)

Principal Laws: [EU](#) > [Treaty on the Functioning of the European Union](#) > [Article 11](#)
[EU](#) > [Charter of Fundamental Rights of the EU](#)

Summary:

On April 13, 2021, ClientEarth filed suit against the Belgian National Bank for failing to meet environmental, climate, and human rights requirements when purchasing bonds from fossil fuel and other greenhouse-gas intensive companies. The Belgian National Bank has participated in the European Central Bank's Corporate Sector Purchase Program (CSPP), in which six national central banks purchase bonds from eligible companies to improve financing conditions by lowering debt costs. ClientEarth alleges that over half of bonds purchased under the CSPP were issued by greenhouse-gas intensive sectors, and that the program therefore exacerbates the climate crisis. ClientEarth alleges that the Belgian National Bank's participation in the CSPP, by not taking into account climate, environment, and human rights impacts, violated Article 11 of the Treaty on the Functioning of the EU and Article 37 of the EU Charter of Fundamental Rights (both concern the obligation to integrate environmental protection into EU policies). As part of its case, ClientEarth seeks a preliminary reference to the European Court of Justice to determine whether the decision to establish the CSPP was lawful.

OPINIE

'ECB moet haar enorme hefboom gebruiken om geld richting een groene economie te laten stromen'

12/05/21 om 10:23 Bijgewerkt om 15:24



Vrije Tribune

Hier geven we een forum aan organisaties, columnisten en gastbloggers

'Centrale banken hebben door hun grote rol in onze economie ook een enorme impact op de klimaatcrisis. Daarom woedt binnen de Europese Centrale Bank momenteel een belangrijk debat over het integreren van klimaat in haar beleid. Maar onze eigen Nationale Bank lijkt op de rem te staan', schrijft een groep middenveldorganisaties die de Nationale Bank daarom oproept om het stuur om te gooien.



AGNES DENES, "WHEATFIELD - A CONFRONTATION," Accessed October 31, 2021 from <http://www.agnesdenesstudio.com/works7.html>.



THE SOCIAL PLINTH

- The project proposes a controlled process of decay in three steps, based on the project of Hansish Schikert called "Second Nature".
1. Take out all the reusable materials such as glass, frames, installations, wiring etc.
 2. Strategically remove parts of the floor and provide a nutritious soil.
 3. Sow plants and add a watering system.

Project Journal
 Michele Andriessen
 P1 | 28-50-2021 | AKASAKI
 Interior Building Clinic
 MBA 314 Graduate Project
 2021-2022

Preliminary Position: Creating the Fair Bank

The National Bank of Belgium (NBB) is a financial institution and ecological refuge for flora and fauna. In 2019, the project proposes a controlled process of decay and involves the passage of time and growth to show the possibility of collapse. Ultimately, nature takes its own path there to find a new setting for the NBB above in the heart of the city.

As Mark Blyden states in his history of Brussels: "The city was an almost continuous site of destruction and reconstruction. The city's history is a story of constant change and adaptation to a changing environment." A future bank needs a possibility for ecological adaptation, quiet moments and "recovery" spaces. "Nature may be occupying the site not dead."

References:
 1. Blyden, Mark. "The National Bank of Belgium (NBB) and the 'Green' Bank." *Brussels: The National Bank of Belgium*. 2019. <https://www.nbb.be/en/press/2019/09/11/2019-09-11-the-national-bank-of-belgium-announces-a-green-bank>

2. "Green Change Initiative." *Green Change Initiative*. 2019. <https://www.greenchangeinitiative.com/>

3. "The National Bank of Belgium (NBB) and the 'Green' Bank." *Brussels: The National Bank of Belgium*. 2019. <https://www.nbb.be/en/press/2019/09/11/2019-09-11-the-national-bank-of-belgium-announces-a-green-bank>

4. "The National Bank of Belgium (NBB) and the 'Green' Bank." *Brussels: The National Bank of Belgium*. 2019. <https://www.nbb.be/en/press/2019/09/11/2019-09-11-the-national-bank-of-belgium-announces-a-green-bank>

5. "The National Bank of Belgium (NBB) and the 'Green' Bank." *Brussels: The National Bank of Belgium*. 2019. <https://www.nbb.be/en/press/2019/09/11/2019-09-11-the-national-bank-of-belgium-announces-a-green-bank>



GREEN VS. GOLD



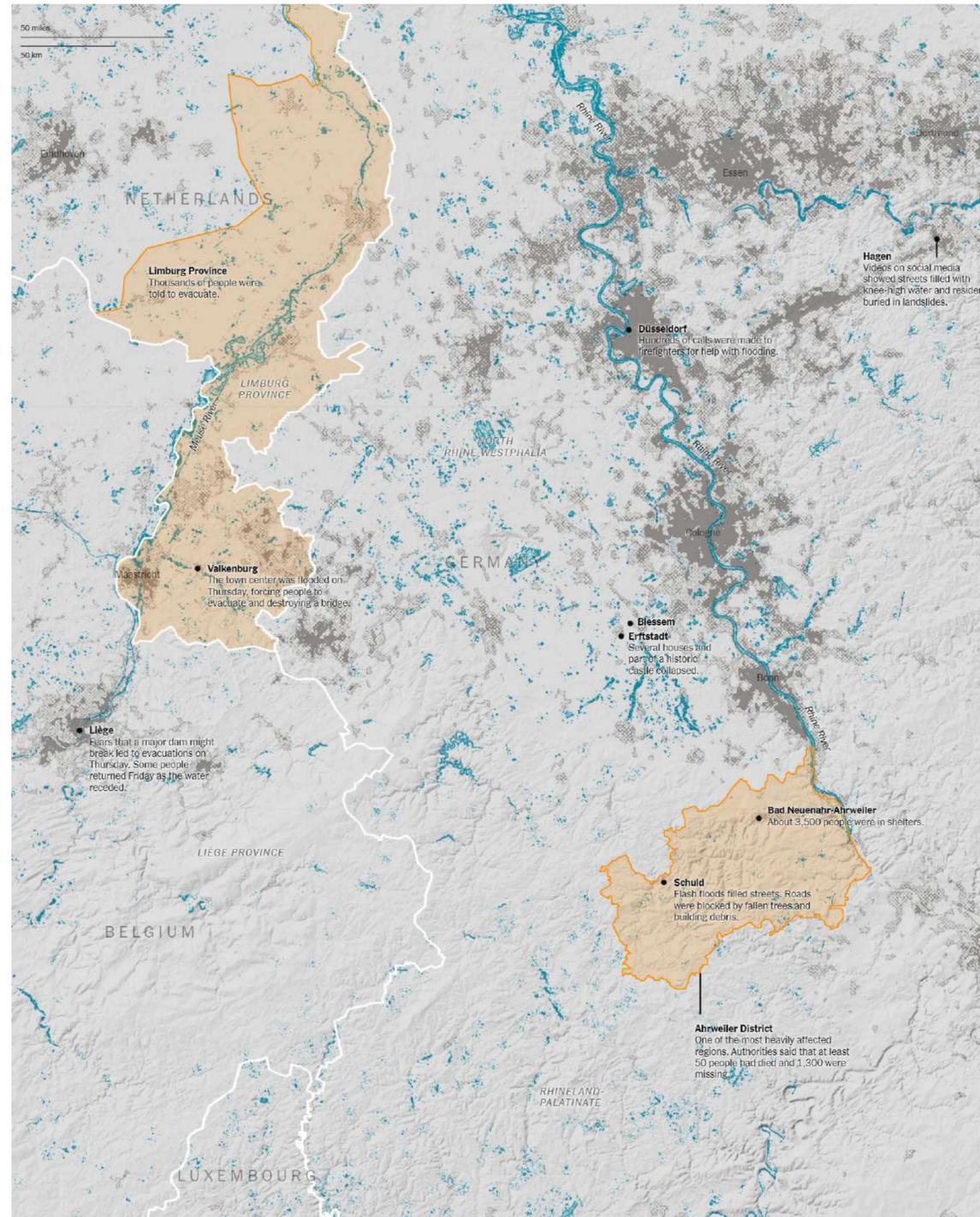
GREEN VS. GOLD



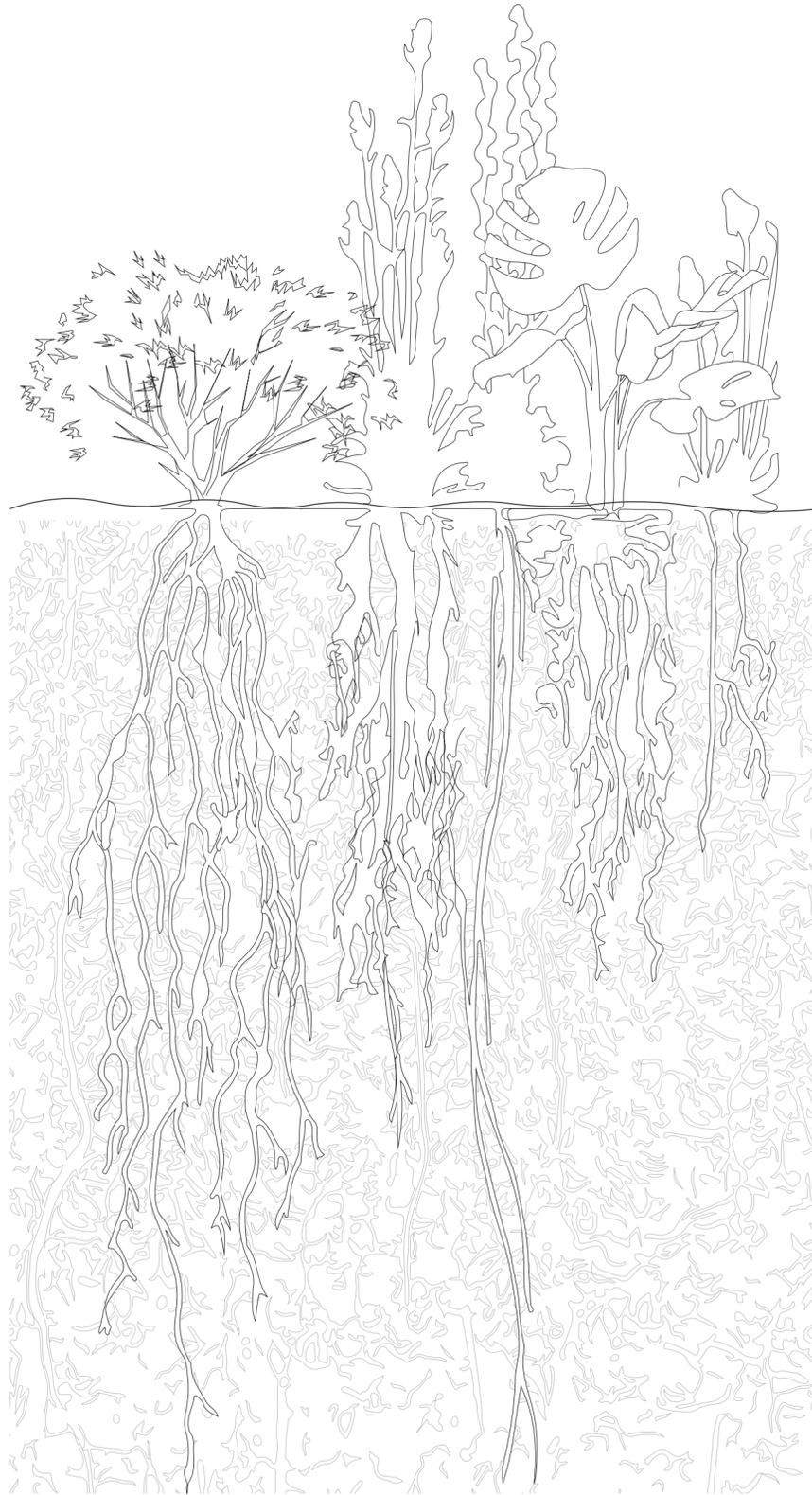
GREEN IS THE NEW GOLD



FLOODS IN BELGIUM, JULY 2021



THE EXTENT OF FLOODING IN THE HARDEST-HIT AREAS OF EUROPE - from <https://www.nytimes.com/interactive/2021/07/17/world/europe/europe-flood-map.html>.



ROOT SYSTEM

CONTENT

The Future Bank

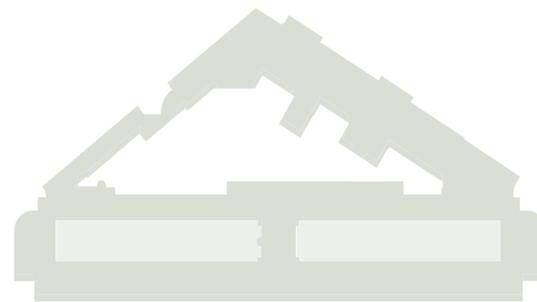
The Social Plinth

The Concept

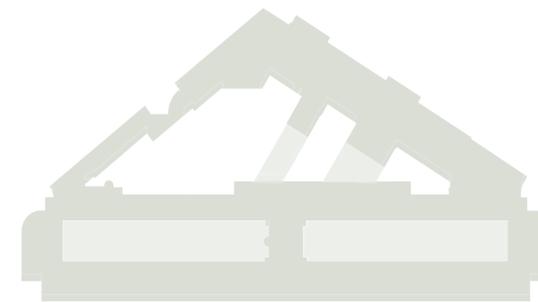
The Design



Adding the interior greenhouse



Removing inefficient building blocks

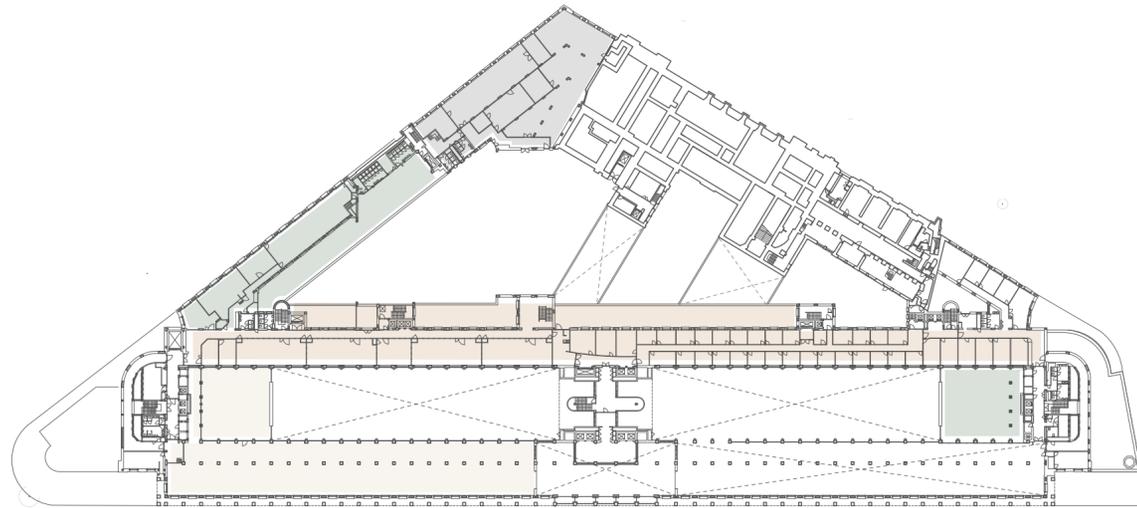


Adding new volumes

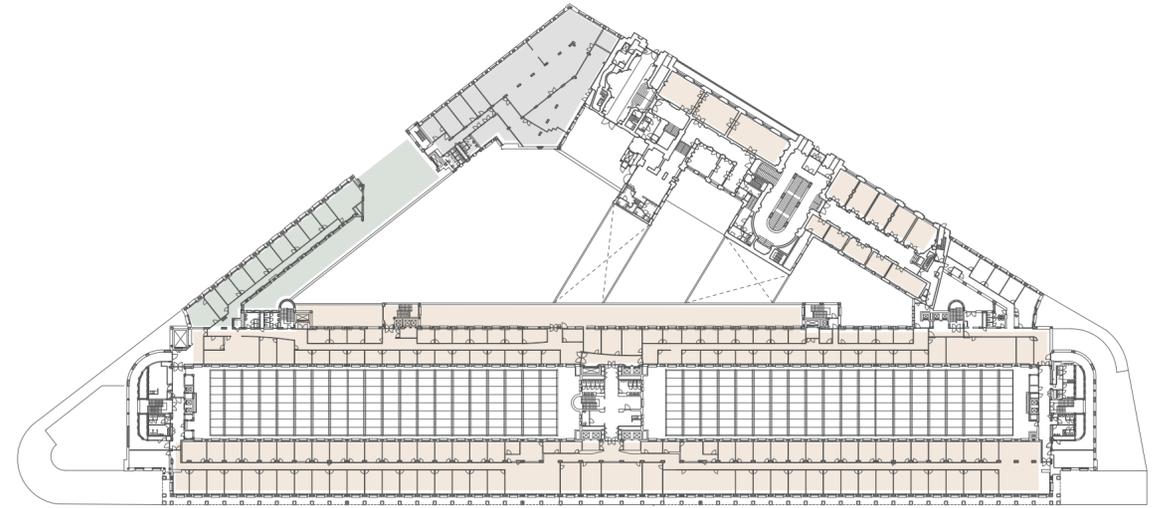
THREE MOMENTS

| National Bank of Belgium – Summary of programmatic competition brief | | | | |
|--|-------------------------------------|------------------------------|--|--|
| Function | Description | Total area/m2 | Breakdown | Floor |
| Office | Typical | 1500 = 22500 1800 = 27000 | 12 m2 pp 3 m2 coffee/printing/ kitchenette/lockers | 1500 workspaces 300 WP flexible All floors |
| | Senior managers | 400 | 6x30 m2 office 100 m2 board rooms 40 m2 dining room 2x30 m2 meeting room 20 m2 coffee corner | Floor +5 |
| | Central meeting rooms | 700 | 1x 100 persons 2x 50 persons 8x 20 persons 6x 5 persons | |
| | Trading hall | 240 | | |
| | Crisis centre | 150 | 15 people | Floor -1 |
| Public | Reception + security | 25 | | Floor 0 |
| | Auditorium | 300 | 250 seats | |
| | VIP meeting | | 8 people | Palace |
| | Wardrobe + lockers + changing rooms | | 200 people | Floor 0 |
| | Waiting area | | | Floor 0 |
| | Counters | 300 | | Floor 0 |
| | Museum | | Greenhouse | Floor 0 |
| Social | Restaurant | 500 | 150 seats, buffet | Floor 0 |
| | VIP Restaurant | | 60 seats | Palace |
| | VIP Kitchen | | | Palace |
| | Kitchen | | | Floor 0 |
| | Lounge | | 180 spaces | Floor 0 |
| | Coffee bar | | 30 seats | Floor 0 |
| | Library | 500 | | Floor 01 |
| | Storage rooms | 2000 | | |
| | Archives | | | |
| | IT | 400 | | |
| | Server rooms | 50 | 10 m2 per floor | All floors |
| | Data centres | 500 | 100 m2 per floor | All floors |
| | Delivery zone | | | |
| | Print shop | 450 | | Floor 01 |
| | Workshop | 450 | | Floor 01 |
| | Bike parking | | | |
| | Rental offices | 7000 | 6000 m2 office 500 m2 nursery | New building block |
| | Medical facilities | 150 | | |

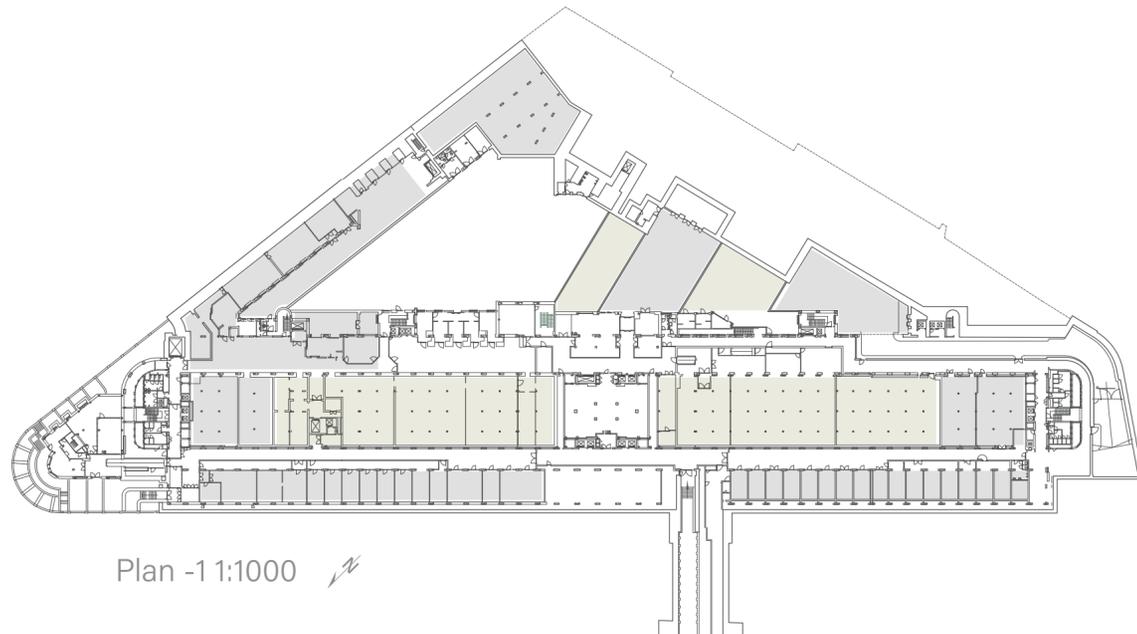
THE BRIEF



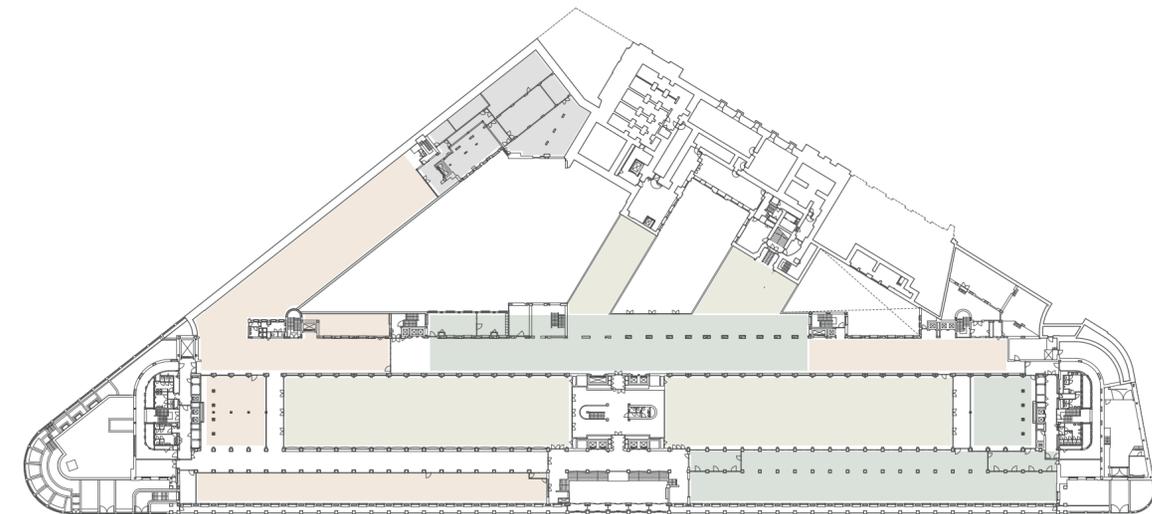
Plan 01 1:1000 ↗



Plan 1-4 1:1000 ↗

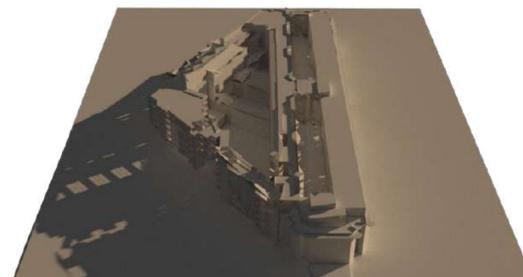
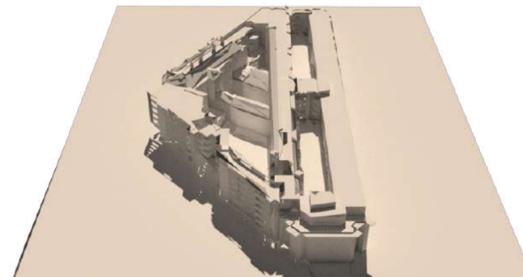
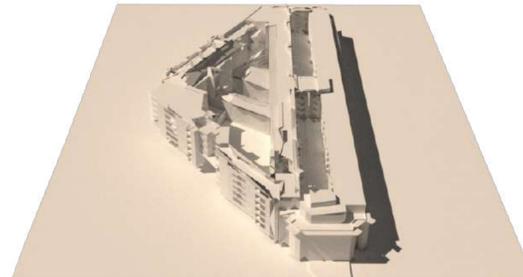
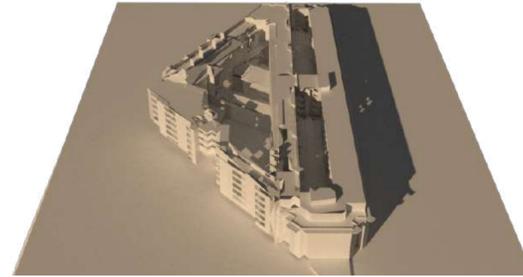


Plan -1 1:1000 ↗



Plan 0 1:1000 ↗

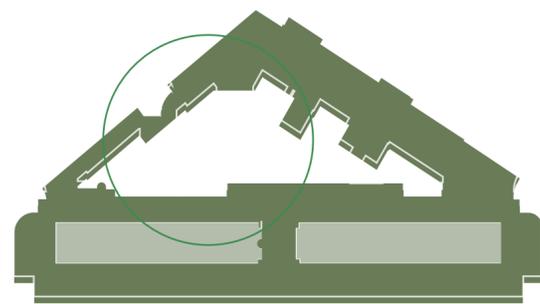
- Green spaces
- Office spaces
- Public spaces
- Storage/technical spaces



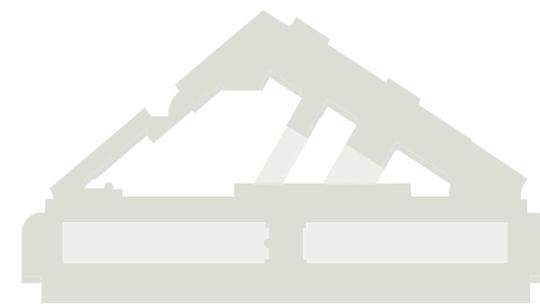
SUN STUDY



Adding the interior greenhouse



Removing inefficient building blocks

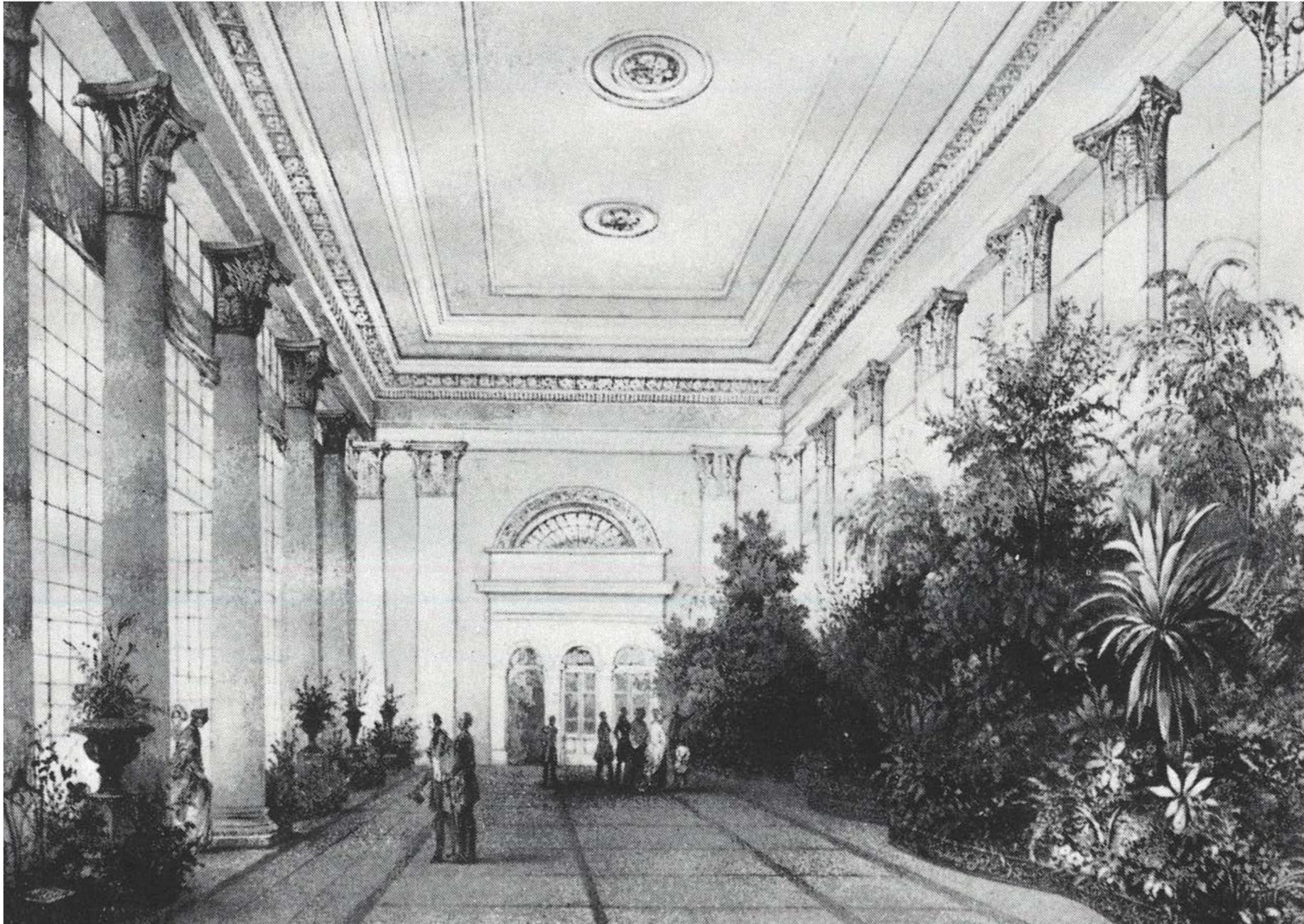


Adding new volumes

THREE MOMENTS



THE PALACE



OLD WINTER GARDEN, BURGGARTEN, VIENNA, 1823-1826 - from Houses of Glass: A nineteenth century building type by George Kohlmeier

THE BANK, THE PALACE AND
THE GLASS HOUSE



KAYSER, FLORA, PALM GARDEN OF THE CITY OF FRANKFURT, 1869-1871 - from Houses of Glass: A nineteenth century building type by George Kohlmeier

THE BANK, THE PALACE AND
THE GLASS HOUSE



Section 3 1:100





OLD



NEW

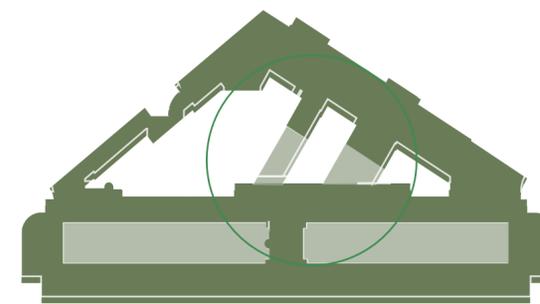
THE BANK, THE PALACE AND
THE GREENHOUSE



Adding the interior greenhouse

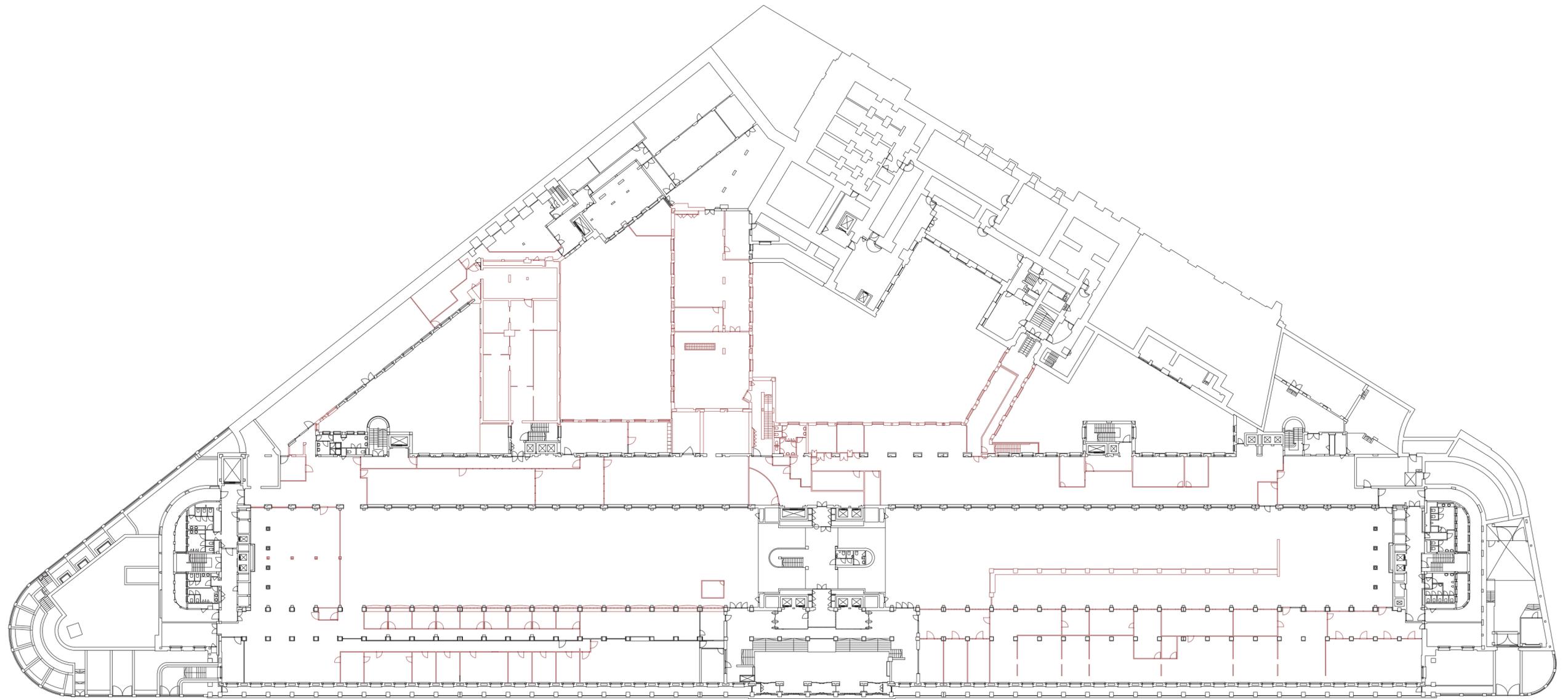


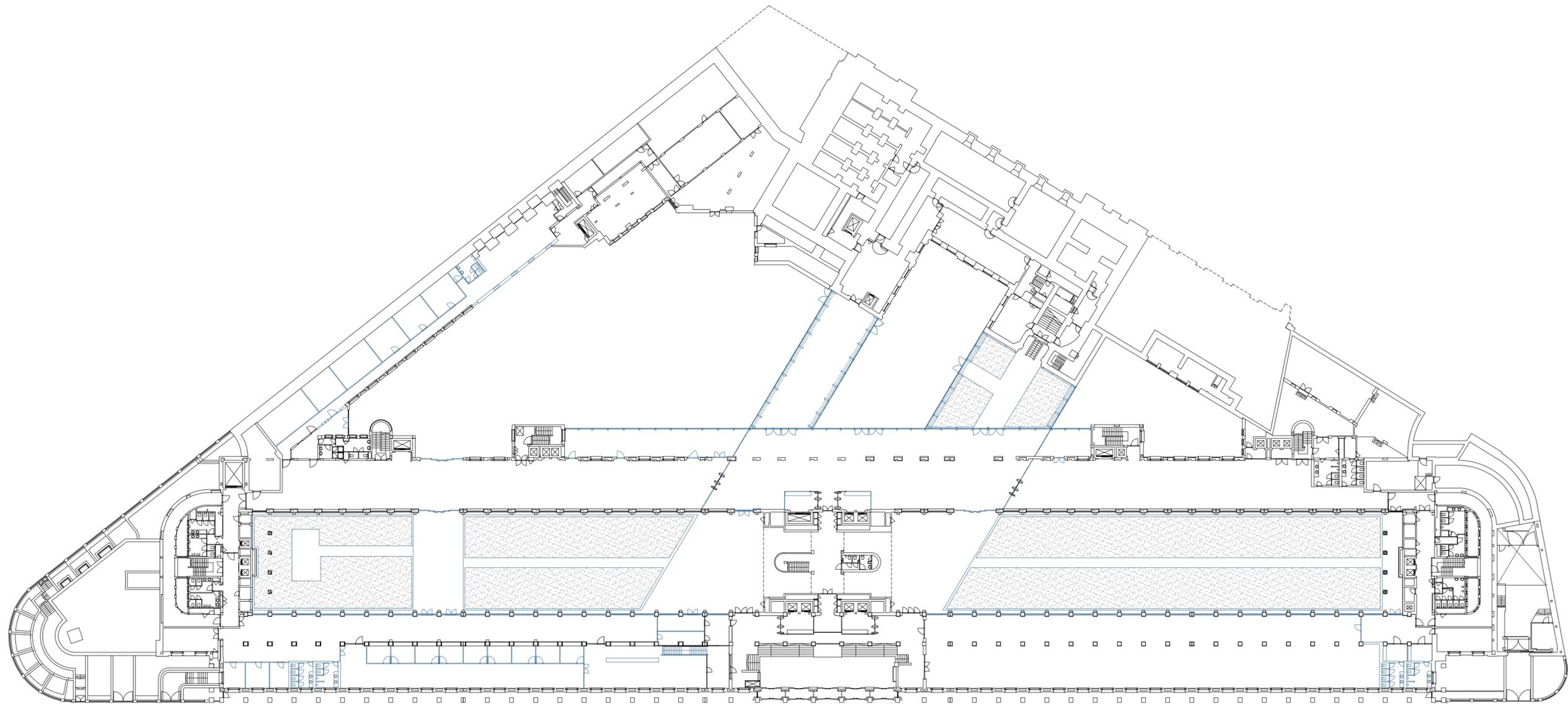
Removing inefficient building blocks



Adding new volumes

THREE MOMENTS





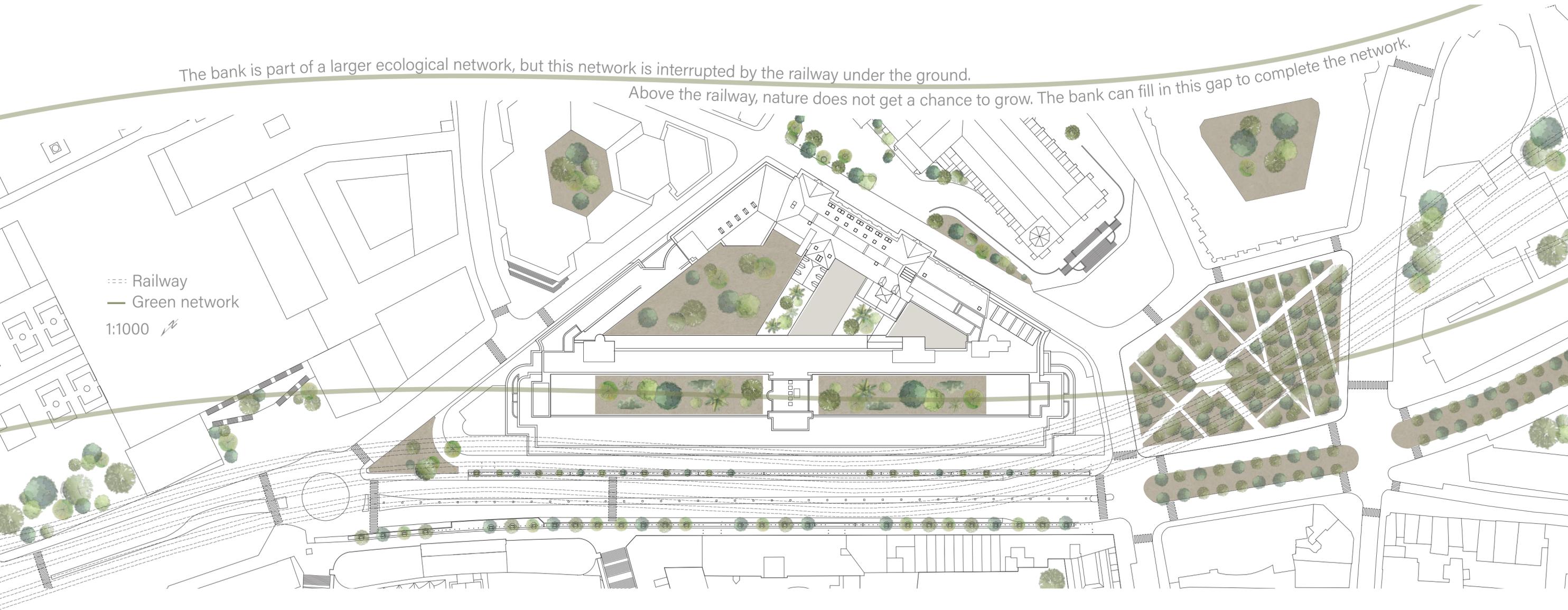


ECOLOGICAL NETWORK

The bank is part of a larger ecological network, but this network is interrupted by the railway under the ground.

Above the railway, nature does not get a chance to grow. The bank can fill in this gap to complete the network.

--- Railway
— Green network
1:1000 ↗



ECOLOGICAL NETWORK



Jardin Botanique /
Victoria regia house



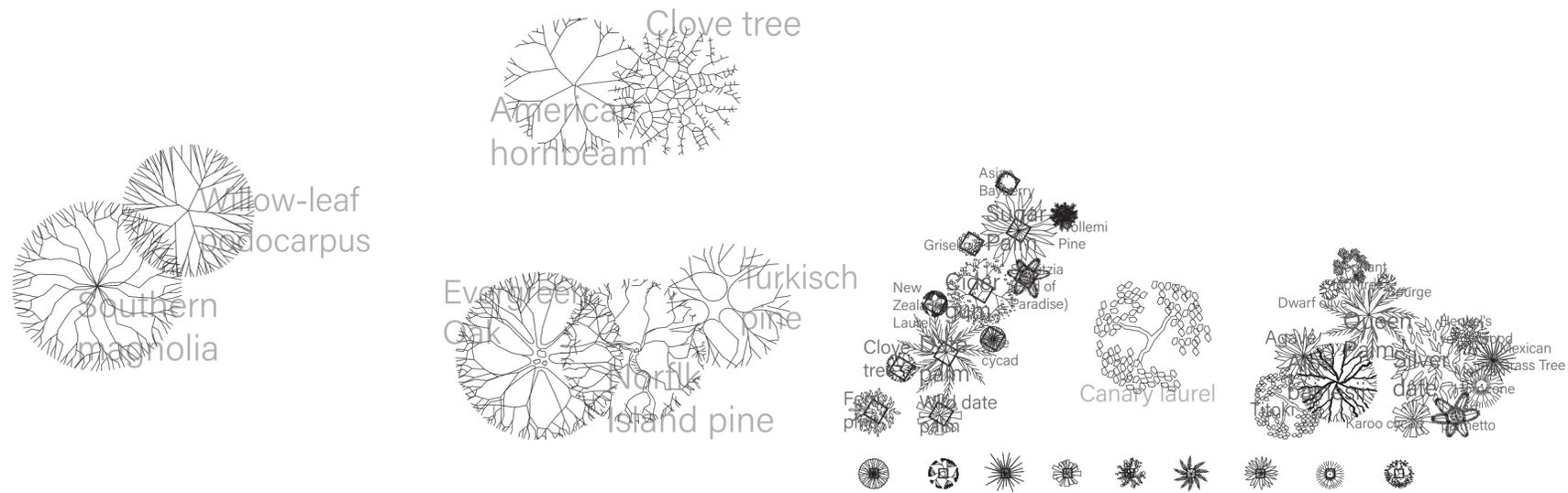
Royal Park /
Winter garden



THE BANK IN THE CITY

| Name | Common name | Origin | Specificities | Container |
|---|-------------------------------|--|--|-----------|
| Cactaceae Echinocactus grussoni | Hedgehog cactus | Mexico | It has recently experienced a significant decline. It can reach more than one meter in diameter. It requires loose soils with good drainage, slightly shaded at first and then high solar radiation. In summer it is watered twice a week, in winter once a month. the rest of the year every 12-15 days. | No |
| Asparagaceae Cordyline stricta | Slender Palm Lily | Subtropical Australia | This species can grow in sun or shade, and in shallow or deep soils and will stay between 2-5 m. Leaves are long and thin, 30 to 50 cm long. Width is small (0,5 m). | No |
| Asparagaceae Dracaena draco | Dragon tree | Canary Islands, Morocco | The plant is virtually no longer found in a wild state. It is a slow-growing plant, which takes ten years to reach a height of 1 m, but grows up to 12 m. Trunk is 5 m and too can be very wide. | No |
| Onagraceae Fuchsia boliviana | Fuchsia boliviana | Ecuador, Peru, Bolivia, Argentina | This species will stay between 4-6 m and stays green. Half shadow, cool, subtropical climate. It needs protection from direct sunlight. Perfect for the interior greenhouse! It has large drooping corombs up to 20 cm. | No |
| Arecaceae Howea forsteriana | Kentia palm | Australia, New Zealand | Palm is popular for growing indoors, requiring little light. It is slow growing, but will eventually reach heights of 6 to 18 metres. If used indoors, make sure to mist the fronds three times a week with rainwater to raise the humidity levels and keep the fronds looking green and healthy. Eventually growing to 6m wide. Grows to a height of 5 metres. Some subspecies are rare and near threatened. Occurs in a wide range of habitats and grows in a range of soils. Attracts birds and honey bees. Bush of 3 m wide. | No |
| Myrtaceae Calothamnus quadrifidus | One-sided Bottlebrush | SW Australia | Can grow to a height of 2,5 m. The plant has average water requirements, and little maintenance is needed other than the removal of dead leaves when the shrub nears its ultimate height. The plant is very hardy, without leaf damage at -20 °C (-4 °F), and can handle occasional snow and freezing temperatures. Width is 2 m. | No |
| Asparagaceae Yucca gloriosa | Yucca gloriosa | North America | The tree grows up to twelve metres tall. This is crowned by nearly straight, shiny, spiny pinnate leaves up to two and a half metres long. Width can be 5 m. | Yes |
| Zamiaceae Encephalartos transvenosus | Modjadji's palm | South Africa | It is a tree up to 20 m high with a broad crown and curved, red twigs. Minimum temperature: 5 degrees Celsius. In New Zealand, pohutukawa are under threat from browsing by the introduced common brushtail possum which strips the tree of its leaves. Pohutukawa have been introduced to other countries with mild-to-warm climates. Width = length. | Yes |
| Myrtaceae Pohutukawa | Christmas tree | New Zealand | It may reach 30 to 35 m, but is usually shorter in cultivation. It is famous for the bright red bell-shaped flowers that often cover the whole tree when it is leafless. Width = length, can be very wide. | Yes |
| Malvaceae Brachychiton acerifolius | Flame tree | Australia | Up to 15 meters high fern lives in high humidity. The fully grown leaves are 2 to 4 meters long and originate at the top of the trunk. Can be 8 m wide. | Yes |
| Dicksoniaceae Dicksonia antarctica | Tree fern | Australia, Tasmania | This genus can withstand cold and are the hardiest trunking palms. This palm can become 10-13 metres high. This species is also hardy in limited areas in Flanders and the Netherlands. Width = 4 m. | Yes |
| Arecaceae Trachycarpus fortunei | Chinese windmill palm | China, Japan, Myanmar, India | Near threatened! Species grows to 7 meters. Summer climate diurnal range 21-35°C, winter 6-23°C. Are some of the oldest plants still living on the planet that trace their origins back to the ancient flora of the early Mesozoic era more than 170 million years ago. Width can be 5 m. | No |
| Zamiaceae Macrozamia moorei | Macrozamia moorei | Australia, NSW | Endangered species! It is palm tree like, and can reach a height of 6 metres. The annual rainfall at the site ranges between 750-1,000 millimetres (30-39 in), and the climate has hot summers and mild winters. These plants are currently distributed in various botanical institutions around the world. Width is 3m. | No |
| Encephalartos woodii | Wood's cycad | South Africa | It has a trunk that is up to 4 m. They are commonly cultivated as ornamentals. Width = length. | No |
| Zamiaceae Encephalartos senticosus | Lebombo cycad | Mozambique, South Africa | This cycad grows up to seven meters tall. Width can be 6m. | No |
| Zamiaceae Encephalartos altensteinii | Breadtree | South Africa | Endangered species! Cycads are among the oldest seed plants and even pre-date the dinosaurs. They have developed a selective advantage for growing in harsh climates including vigorous tap roots for anchorage and water conduction. Width = length. Can be 2 m tall. | No |
| Zamiaceae Dion edule | Chestnut dion | Mexico | Small tree with a typical height in the wild of some 7 m, but more typically 1-4 m in gardens. It is also cultivated as an ornamental. Width = length. | No |
| Erica arborea | Tree heath | Bulgaria, Spain | Endangered species! Is characterised by its heart-shaped (truncate) leaves and very large pitchers, which can reach up to 40 cm in height. | No |
| Nepenthes truncata | Pitcher Plant | Philippines | Endangered species! They are small trees which can reach up to 15 m. This plant exhibits many adaptations to dry climate. Width = 0.5 x length. | No |
| Medusagyne oppositifolia | Jellyfish tree | Island of Mahé | They can grow between 10-90 cm tall. It has been used in experiments growing in soils high in copper content, to determine if the plant could be used to help clean contaminated soils. | No |
| Lepidium heterophyllum | Smith's cress | UK, Denmark, France, Germany | Plant grows to 3-6 m tall. Pinus mugo is widely cultivated as an ornamental plant, for use as a small tree or shrub, planted in gardens and in larger oots and planters. Width = 2 x length. | No |
| Pinaceae Pinus mugo | Mugo pine | Romania, Poland | It grows 10-15m tall, though very occasionally taller, in tropical and subtropical wet closed forests. Podocarpus species are evergreen woody plants. Width = length. | No |
| Podocarpaceae Podocarpus nerifolius | Yellowwood | India, Himalaya, China, Myanmar, Thailand | It's a small weeping tree growing to 8 m. It has cylinder of fruits on the branches. It is hardy and will grow in most soils and aspects. Width = length. | No |
| Myrtaceae Melaleuca armillaris | Bracelet Honey Myrtle | Australia | It is a small to medium-sized evergreen tree growing to 10-20 m tall with a trunk up to 60 cm diameter. It is cultivated as an ornamental tree in parks and temple gardens. Width = 0.5 x length. | No |
| Aquifoliaceae Ilex latifolia | Tarajo Holly | Japan, China | Myoporum tenifolium is an erect shrub usually growing to a height of 1-2 m. It can be distinguished by its very thin leaves and its odorous flowers. Width = length. | No |
| Myoporaceae Myoporum tequifolium | Myoporum tequifolium | Australia | The juvenile form, which lasts for between 15 and 20 years, is very easily recognized. The leaves are stiff and leathery with a prominent central rib, about 1 cm wide and up to 1 m long with irregular teeth, all growing downwards from a central stem. Width = max 2 m. | No |
| Araliaceae Pseudopanax crassifolius | Lancewood | New Zealand | F. rubiginosa matures into a tree 30 m high (although it rarely exceeds 10 m) and nearly as wide with a yellow-brown buttressed trunk. It is used as a shade tree in parks and public spaces, and when potted is well-suited for use as an indoor plant or in bonsai. Ficus rubiginosa was first cultivated in the United Kingdom in 1789, where it is grown in glasshouses. The soils it grows on are often well-drained and low in nutrients. They are derived from sandstone, quartzite, and basalt. Width = length. | No |
| Moraceae Ficus rubiginosa | Rusty fig | Australia | The Azores laurel is a small dioecious tree, growing up to 15 m in height. Width = length. | No |
| Lauraceae Laurus azorica | Azores laurel | Canary Islands, Madeira, Azores | The laurel is an evergreen shrub or small tree, variable in size and sometimes reaching 7-18 m tall. Loves a humid climate. Width = 0.5 x length. | No |
| Lauraceae Laurus nobilis | Bay laurel | Italy, Spain, Morocco | Elaeocarpus obovatus is sometimes a small tree 3-10 m tall, and sometimes a tall tree growing to a height of 45 m with buttress roots at the base of a trunk that is up to 150 cm in diameter. Hard quandong is a tall tree in subtropical rainforest and a small to medium-sized tree in drier rainforest. Width = 0.5 x length. | No |
| Elaeocarpaceae Elaeocarpus obovatus | Blueberry ash | Australia | Small tree of the genus Pistacia, growing up to 4 m tall. It resists mild to heavy frosts but prefers milder winters and grows on all types of soils. Width = length. | No |
| Anacardiaceae Pistacia lentiscus | Lentisk | Mediterranean, Morocco, Italy, Greece | The stems grow slowly and often tightly together, eventually reaching 2-5 m tall with a trunk diameter of 20-25 cm. It is a very slow-growing plant. Each leaf is up to 1.5 m long. It is one of the most cold-hardy palms and is used in landscaping in temperate climates. Width = 3m. | No |
| Arecaceae Chamaerops humilis | Mediterranean dwarf palm | Mediterranean | It is increasingly grown as an ornamental tree in African gardens. It is often multi-stemmed and can eventually reach a height of over 15m. In a shady habitat (like deep forest) Halleria lucida grows tall and slender; while it forms a smaller shrub-like tree if grown in the open. Width = length. | No |
| Stilbaceae Halleria lucida | Tree fuchsia | Tropical and South Africa | It is a medium-size tree, growing up to 10 m tall. Its leaves are evergreen, and distinctly whitened on the back. It produces yellow flowers in the fall, and its fruit is a red berry. Width = length. | No |
| Lauraceae Neolitsea sericea | Neolitsea sericea | East-Asia | Dalbergia obovata is a canopy climber that grows up to 30 m tall in the wild or a small tree up to 6 m tall. As a legume these plants fix nitrogen in the soil for other plants to use. Hanaina plant. | No |
| Fabaceae Dalbergia obovata | Climbing flat bean | East-Africa | Nerium grows to 2-6 m tall. The flowers grow in clusters at the end of each branch; they are white, pink to red. The plant is tolerant of poor soils, intense heat, salt spray, and sustained drought – although it will flower and grow more vigorously with regular water. | No |
| Apocynaceae Nerium oleander | Nerium | Mediterranean till West China | L. japonicum is an evergreen shrub or small tree growing to 2-5 m tall. It is occasionally grown as an ornamental plant in Europe and North America. Width = length. | No |
| Oleaceae Ligustrum japonicum | Japanese privet | Japan, Korea | Jasminum sambac is a small shrub or vine growing up to 0.5 to 3 m in height. It is widely cultivated for its attractive and sweetly fragrant flowers. It prefers humid tropical climates. | No |
| Oleaceae Jasminum sambac | Arabian jasmine | India, Burundi | | |
| Araceae Alocasia zebrina | Zebrina alocasia | Philippines | | |
| Araceae Caladium bicolor | Heart of Jesus | America | | |
| Musaceae Musa spec | Banana | Sumatra | | |
| Marattiaceae Anacopteris anustifolia | Anacopteris | Madaascar, Asia, Pacific | | |
| Bromeliaceae Ananas comosus | Pineapple | South America | | |
| Apocynaceae Adenium coetaneum | Sabi star | Tropical Africa | | |
| Zamiaceae Encephalartos horridus | Blue Cycad | South Africa | | |
| Podocarpaceae Podocarpus macrophyllus | Fern pine | Japan, China | | |
| Arecaceae Phoenix reclinata | Wild date palm | South Africa | | |
| Corynocarpaceae Corynocarpus laevigatus | New Zealand laurel | New Zealand | | |
| Araucariaceae Wollemia nobilis | Wollemi Pine | Australia, NSW | | |
| Podocarpaceae Nageia nagi | Asian Bayberry | China, Taiwan, Japan | | |
| Griselinaceae ruscifolia | Griselinia | Argentina, Chili, Brazil | | |
| Myrtaceae Eucalyptus gunnii | Cider gum | Rwanda | | |
| Arecaceae Phoenix dactylifera | Date palm | Egypte, Iran, Saudi Arabia, Algeria, Iraq, Pakistan, Sudan | | |
| Arecaceae Areca pinnata | Suvar Palm | India, Malaysia, Indonesia, Philippines | | |
| Musaceae Strelitzia alba | Strelitzia (Bird of Paradise) | South Africa | | |
| Anacardiaceae Pistacia terebinthus | Turpentine tree | Mediterranean, Portugal | | |
| Myrtaceae Eugenia rubricaulis | Clove tree | Myanmar, Malaysia | | |
| Zamiaceae Ceratozamia mexicana | Mexican Horncone | Mexico | | |
| Podocarpus henkelii | Henkel's yellowwood | South Africa | | |
| Asparagaceae Beaucarnea recurvata | Elephant foot tree | Mexico, Guatemala | | |
| Aaavaceae Nolana lonqifolia | Mexican Grass Tree | Mexico | | |
| Asparagaceae Agave winteriana | Agave | America | | |
| Arecaceae Syagrus romanzoffiana | Queen palm | Brazil | | |
| Zamiaceae Encephalartos lehmannii | Karoo cycad | South Africa | | |
| Asphodelaceae Aloe bainesii | Aloe bainesii | South Africa, Mozambique | | |
| Euphorbiaceae Euphorbia coerulescens | Spurge | Congo, South Africa | | |
| Sapindaceae Alectryon excelsus | Titoki | New Zealand | | |
| Oleaceae Olea europaea | Dwarf olive | Mediterranean, Himalaya, Arabia | | |
| Arecaceae Sabal minor | Dwarf palmetto | South VS | | |
| Arecaceae Phoenix sylvestris | Silver date palm | India | | |
| Sapotaceae Chrysophyllum argenteum | Chrysophyllum argenteum | Central America, South America | | |
| Betulaceae Carpinus caroliniana | American hornbeam | North America | | |
| Lauraceae Apollonia canariensis | Canary laurel | Madeira, Canary Islands | | |
| Podocarpaceae Manio de hojas largas | Willow-leaf podocarpus | Chili | | |
| Maoniolaceae Maonolia grandiflora | Southern maonolia | South East VS | | |
| Araucariaceae Araucaria heterophylla | Norfolk Island pine | Norfolk Islands | | |
| Lauraceae Ocotea foetens | Stink laurel | Madeira, Canary Islands | | |
| Pinus brutia | Turkish pine | Turkey, Greece, Syria, | | |
| Polygonaceae Muehlenbeckia complexa | Maidenhair vine | New Zealand, Australia, Mexico | | |
| Fagaceae Quercus ilex | Evergreen Oak | Mediterranean | | |

CATALOGUE OF PLANTS



1/2.

Cactaceae *Echinocactus grussoni*
 Asparagaceae *Cordylina stricta*
 Asparagaceae *Dracaena draco*
 Onagraceae *Fuchsia boliviana*
 Arecaceae *Howea forsteriana*
 Myrtaceae *Calothamnus quadrifidus*
 Asparagaceae *Yucca gloriosa*
 Zamiaceae *Encephalartos transvenosus*
 Myrtaceae *Pohutukawa*
 Malvaceae *Brachychiton acerifolius*
 Dicksoniaceae *Dicksonia antarctica*
 Arecaceae *Trachycarpus fortunei*
 Zamiaceae *Macrozamia moorei*
 Encephalartos *woodii*
 Zamiaceae *Encephalartos senticosus*
 Zamiaceae *Encephalartos altensteinii*
 Zamiaceae *Dioon edule*
 Erica *arborea*
 Nepenthes *truncata*
 Medusagyne *oppositifolia*
 Lepidium *heterophyllum*
 Pinaceae *Pinus mugo*

Podocarpaceae *Podocarpus neriifolius*
 Myrtaceae *Melaleuca armillaris*
 Aquifoliaceae *Ilex latifolia*
 Myoporaceae *Myoporum tequifolium*
 Araliaceae *Pseudopanax crassifolius*
 Moraceae *Ficus rubiginosa*
 Lauraceae *Laurus azorica*
 Lauraceae *Laurus nobilis*
 Elaeocarpaceae *Elaeocarpus obovatus*
 Anacardiaceae *Pistacia lentiscus*
 Arecaceae *Chamaerops humilis*
 Stilbaceae *Halleria lucida*
 Lauraceae *Neolitsea sericea*
 Fabaceae *Dalbergia obovata*
 Apocynaceae *Nerium oleander*
 Oleaceae *Ligustrum japonicum*
 Oleaceae *Jasminum sambac*
 Araceae *Alocasia zebrina*
 Araceae *Caladium bicolor*
 Musaceae *Musa spec*
 Marattiaceae *Angiopteris angustifolia*
 Bromeliaceae *Ananas comosus*
 Apocynaceae *Adenium coetaneum*

3.

Zamiaceae *Ceratozamia mexicana*
 Podocarpus *henkelii*
 Asparagaceae *Beaucarnea recurvata*
 Agavaceae *Nolina longifolia*
 Asparagaceae *Agave winteriana*
 Arecaceae *Syagrus romanzoffiana*
 Zamiaceae *Encephalartos lehmannii*
 Asphodelaceae *Aloe bainesii*
 Euphorbiaceae *Euphorbia coerulescens*
 Sapindaceae *Alectryon excelsus*
 Oleaceae *Olea europaea*
 Arecaceae *Sabal minor*
 Arecaceae *Phoenix sylvestris*

4.

Zamiaceae *Encephalartos horridus*
 Podocarpaceae *Podocarpus macrophyllus*
 Arecaceae *Phoenix reclinata*
 Corynocarpaceae *Corynocarpus laevigatus*
 Araucariaceae *Wollemia nobilis*
 Podocarpaceae *Nageia nagi*
 Griselinaceae *ruscifolia*
 Myrtaceae *Eucalyptus gunnii*
 Arecaceae *Phoenix dactylifera*
 Arecaceae *Arenga pinnata*
 Musaceae *Strelitzia alba*
 Anacardiaceae *Pistacia terebinthus*
 Myrtaceae *Eugenia rubricaulis*

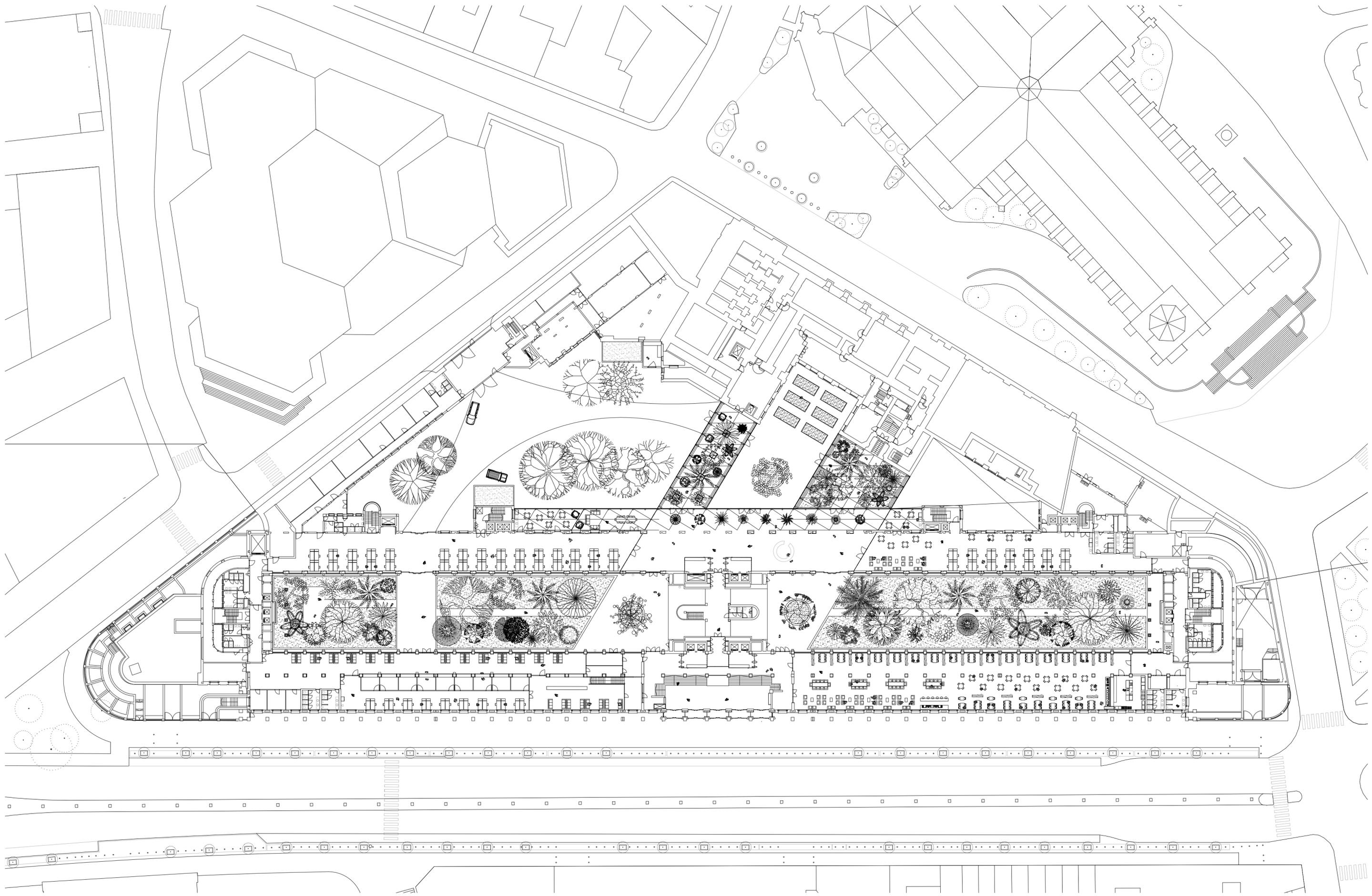
CONTENT

The Future Bank

The Social Plinth

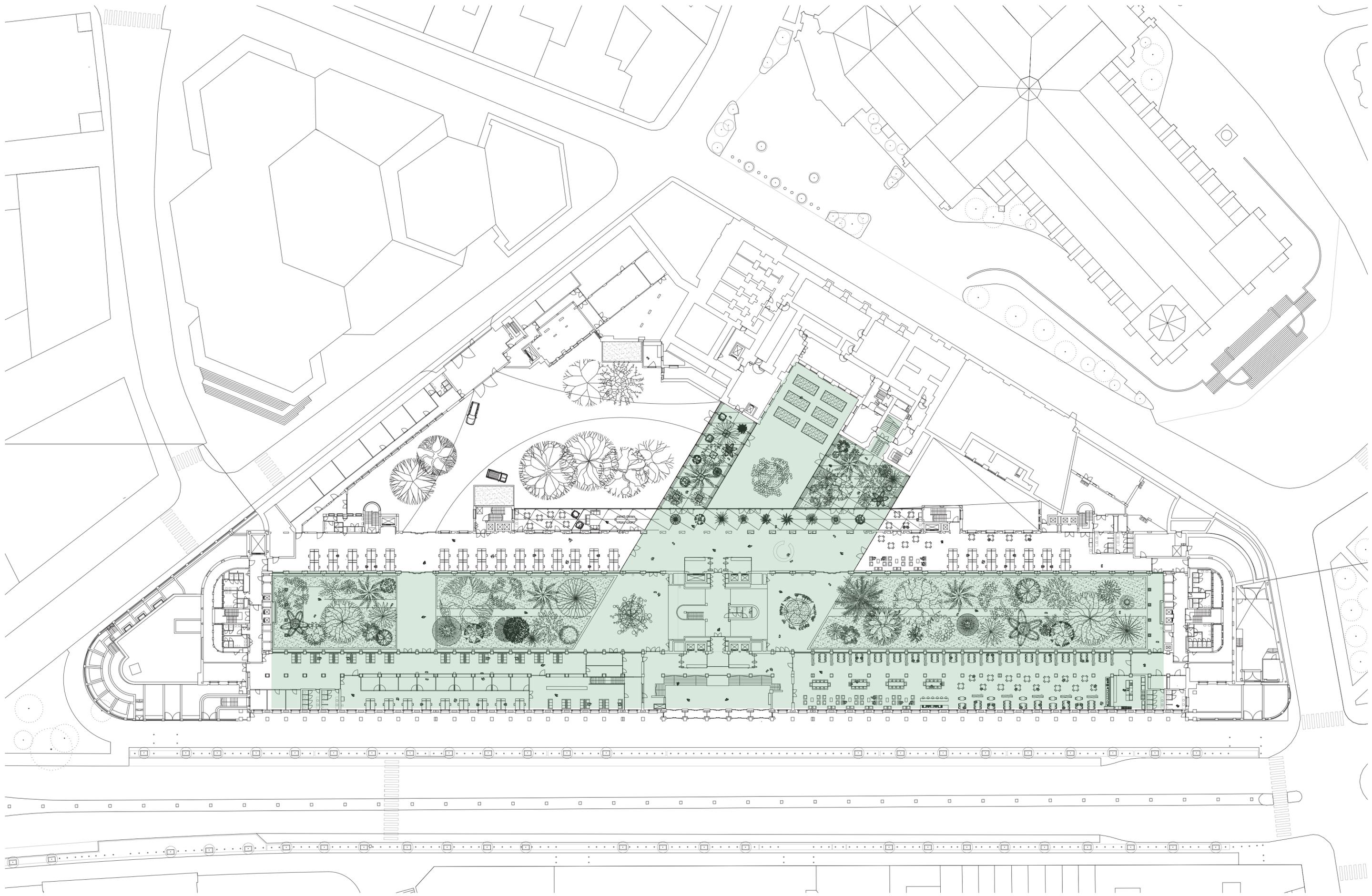
The Concept

The Design

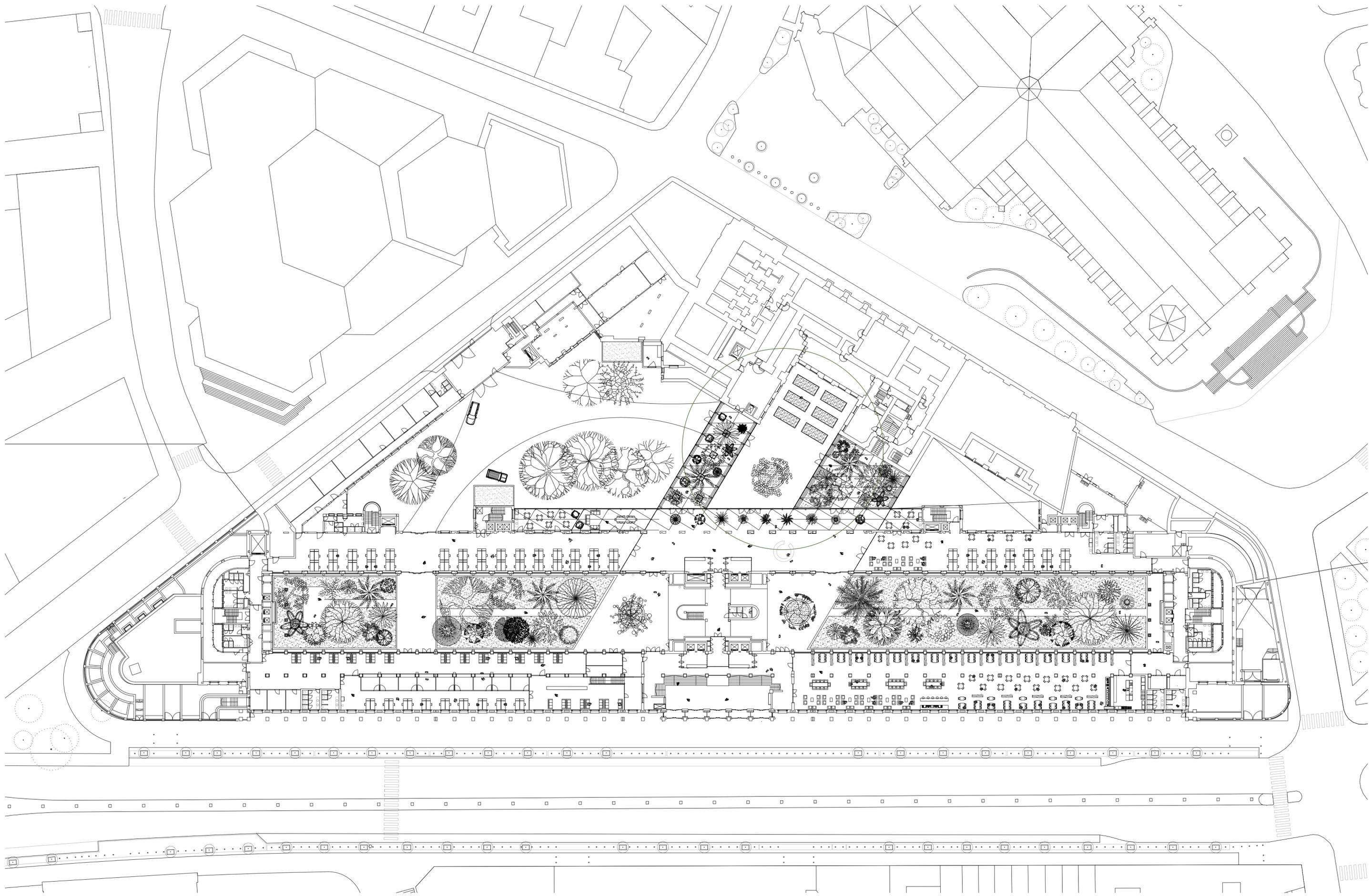


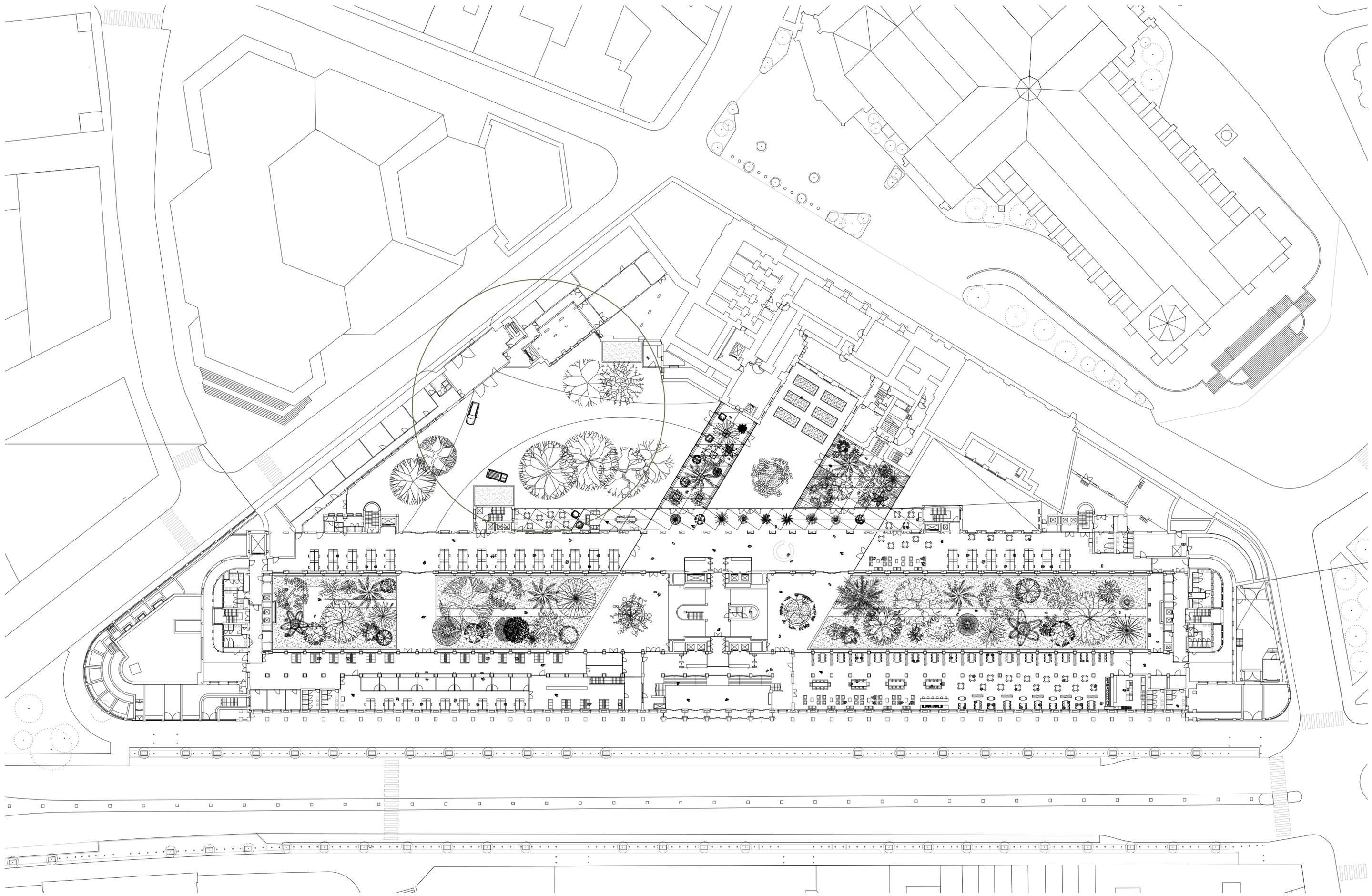


THE PEOPLE OF BRUSSELS

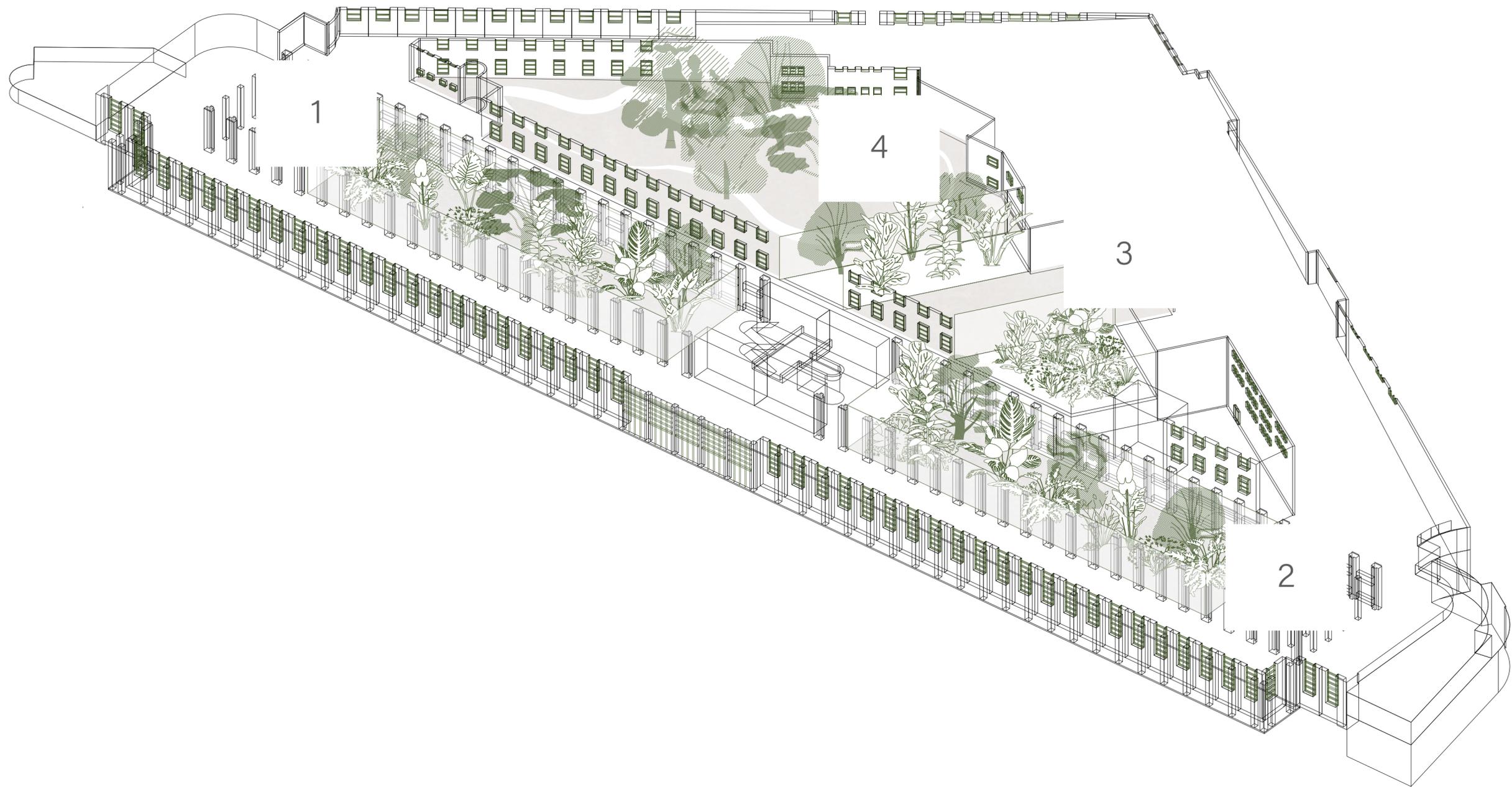












CATALOGUE 1/2

Cactaceae *Echinocactus grussoni*
Asparagaceae *Cordyline stricta*
Asparagaceae *Dracaena draco*
Onagraceae *Fuchsia boliviana*
Arecaceae *Howea forsteriana*
Myrtaceae *Calothamnus quadrifidus*
Asparagaceae *Yucca gloriosa*
Zamiaceae *Encephalartos transvenosus*
Myrtaceae *Pohutukawa*
Malvaceae *Brachychiton acerifolius*
Dicksoniaceae *Dicksonia antarctica*
Arecaceae *Trachycarpus fortunei*
Zamiaceae *Macrozamia moorei*
Encephalartos woodii
Zamiaceae *Encephalartos senticosus*
Zamiaceae *Encephalartos altensteinii*
Zamiaceae *Dioon edule*
Erica arborea
Nepenthes truncata
Medusagyne oppositifolia
Lepidium heterophyllum
Pinaceae *Pinus mugo*
Podocarpaceae *Podocarpus neriifolius*
Myrtaceae *Melaleuca armillaris*
Aquifoliaceae *Ilex latifolia*
Myoporaceae *Myoporum tequifolium*
Araliaceae *Pseudopanax crassifolius*
Moraceae *Ficus rubiginosa*
Lauraceae *Laurus azorica*
Lauraceae *Laurus nobilis*
Elaeocarpaceae *Elaeocarpus obovatus*
Anacardiaceae *Pistacia lentiscus*
Arecaceae *Chamaerops humilis*
Stilbaceae *Halleria lucida*
Lauraceae *Neolitsea sericea*
Fabaceae *Dalbergia obovata*
Apocynaceae *Nerium oleander*
Oleaceae *Ligustrum japonicum*
Oleaceae *Jasminum sambac*
Araceae *Alocasia zebrina*
Araceae *Caladium bicolor*
Musaceae *Musa spec*
Marattiaceae *Angiopteris angustifolia*
Bromeliaceae *Ananas comosus*
Apocynaceae *Adenium coetaneum*



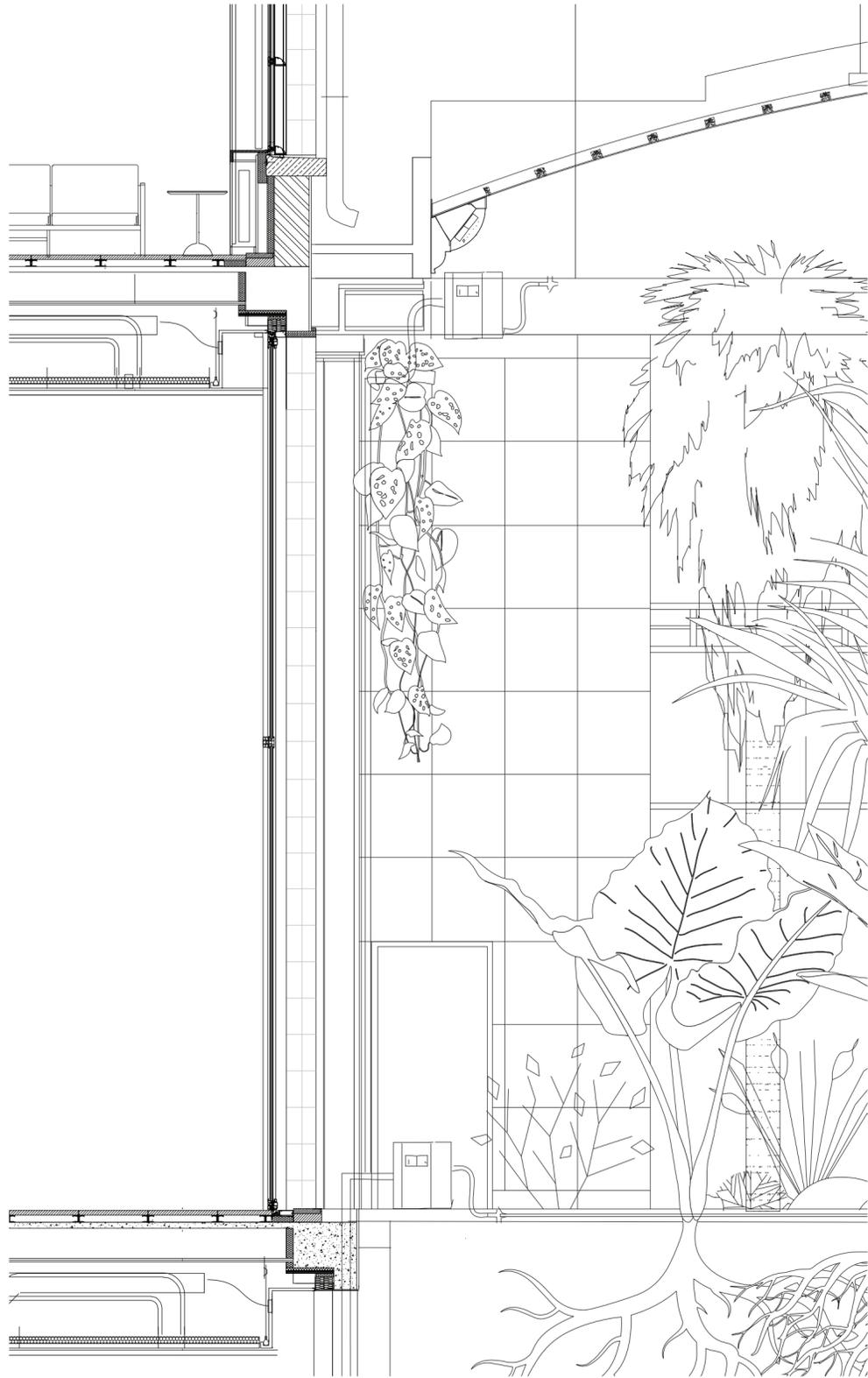
INTERIOR GREENHOUSE

CLIMATE

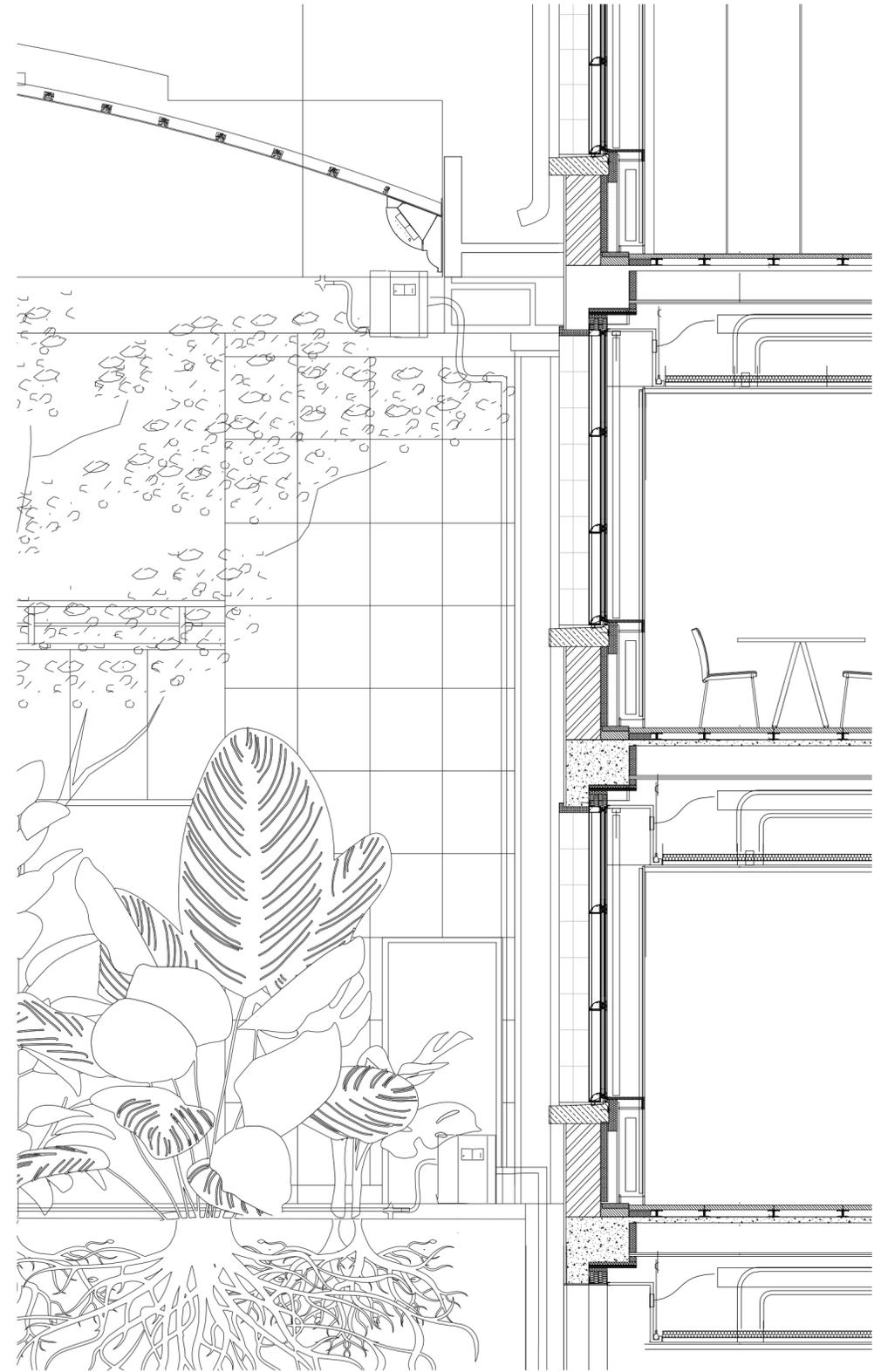
High humidity
High temperature
No direct sunlight
Top height = 10 m.
Plants live in soil of
4 m deep.



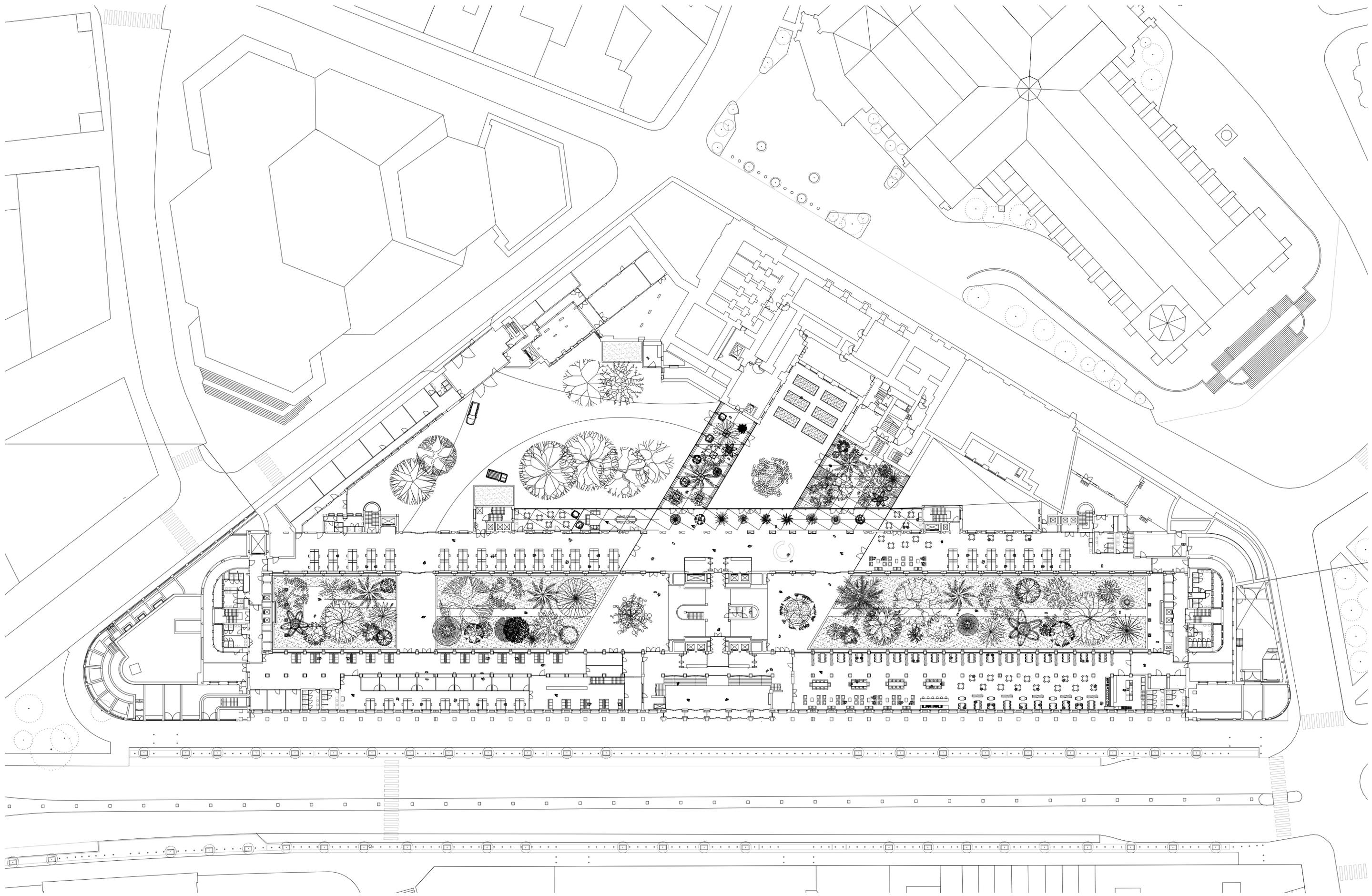
INTERIOR GREENHOUSE

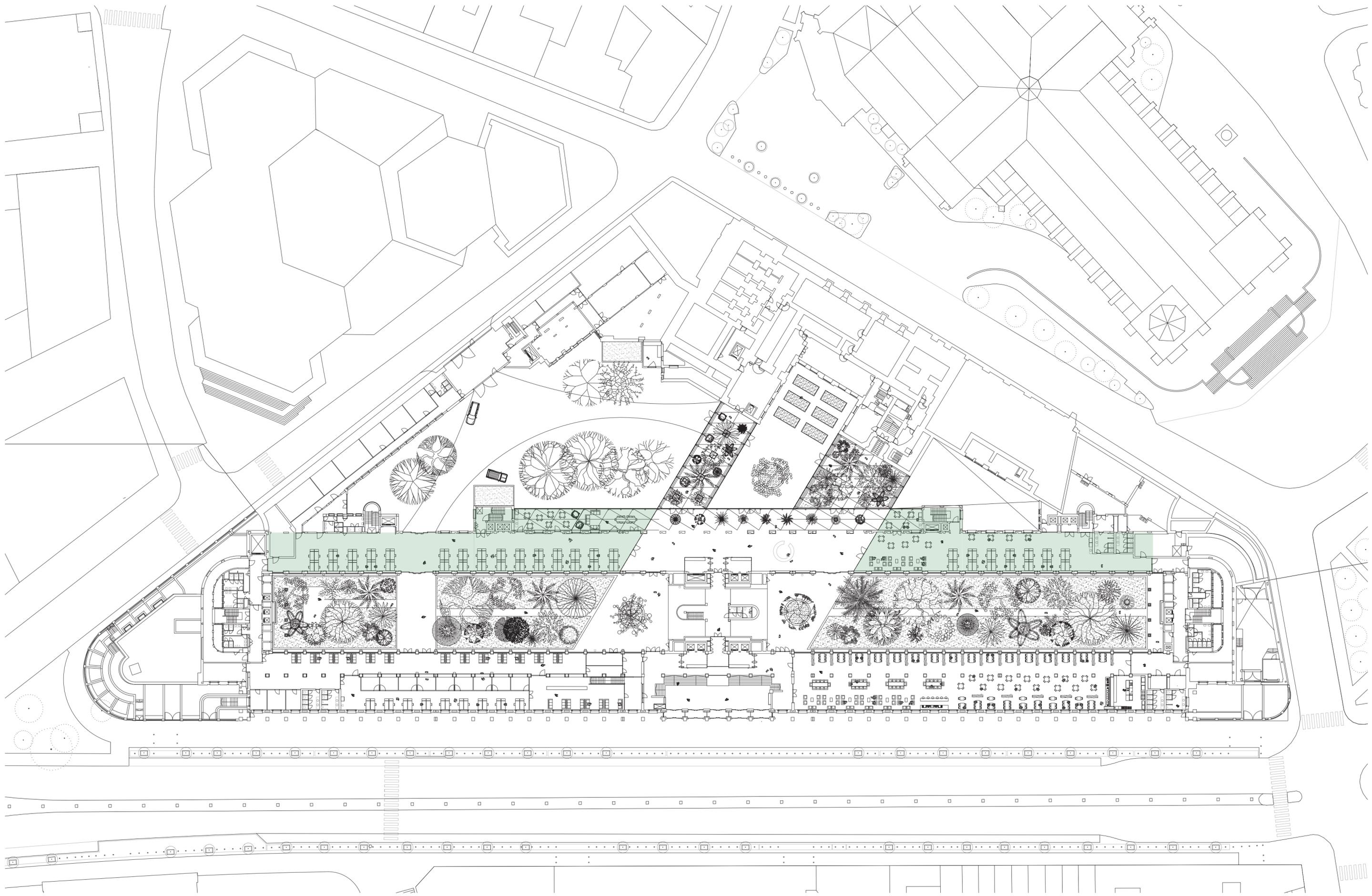


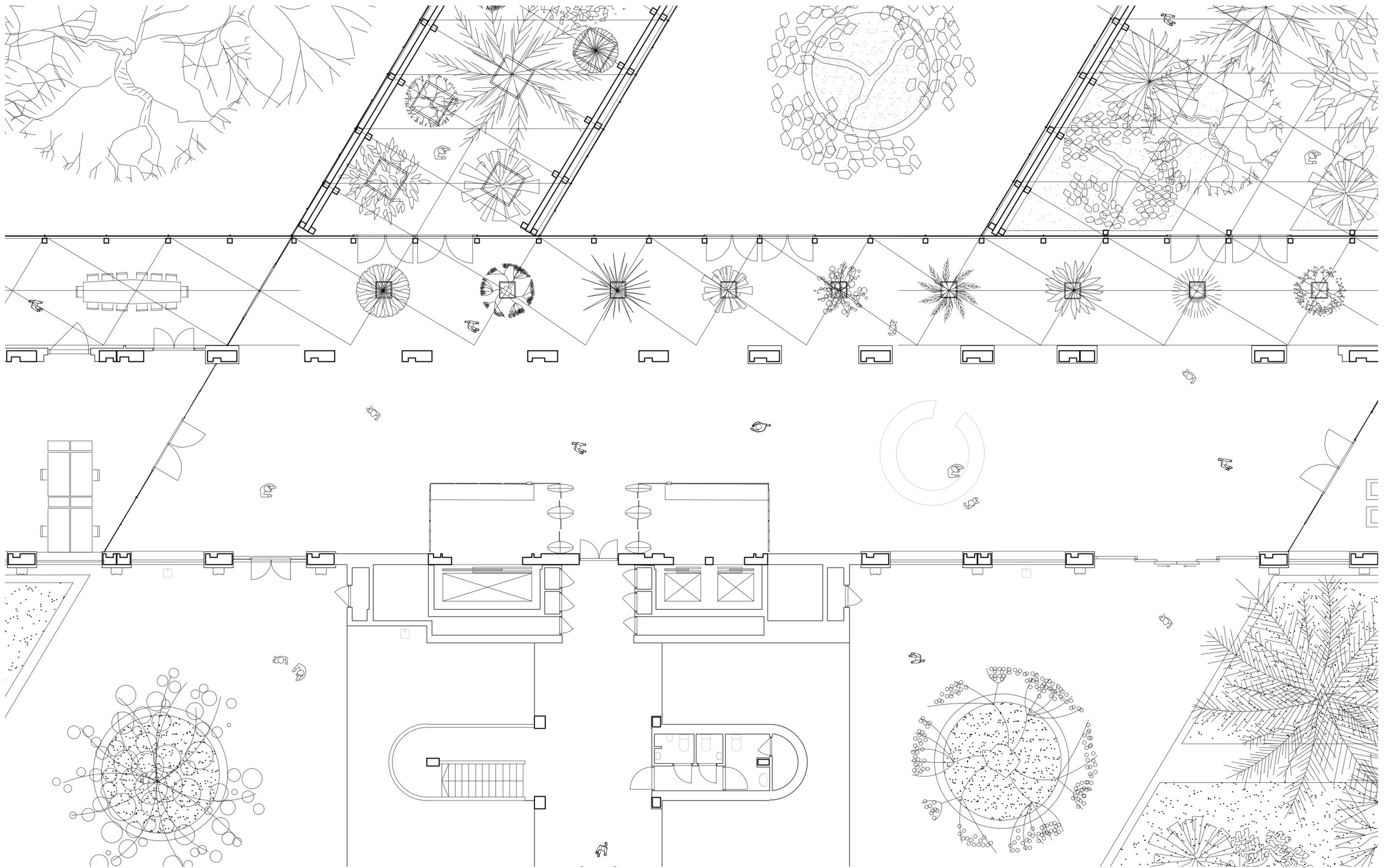
NEW GLASS PANELS



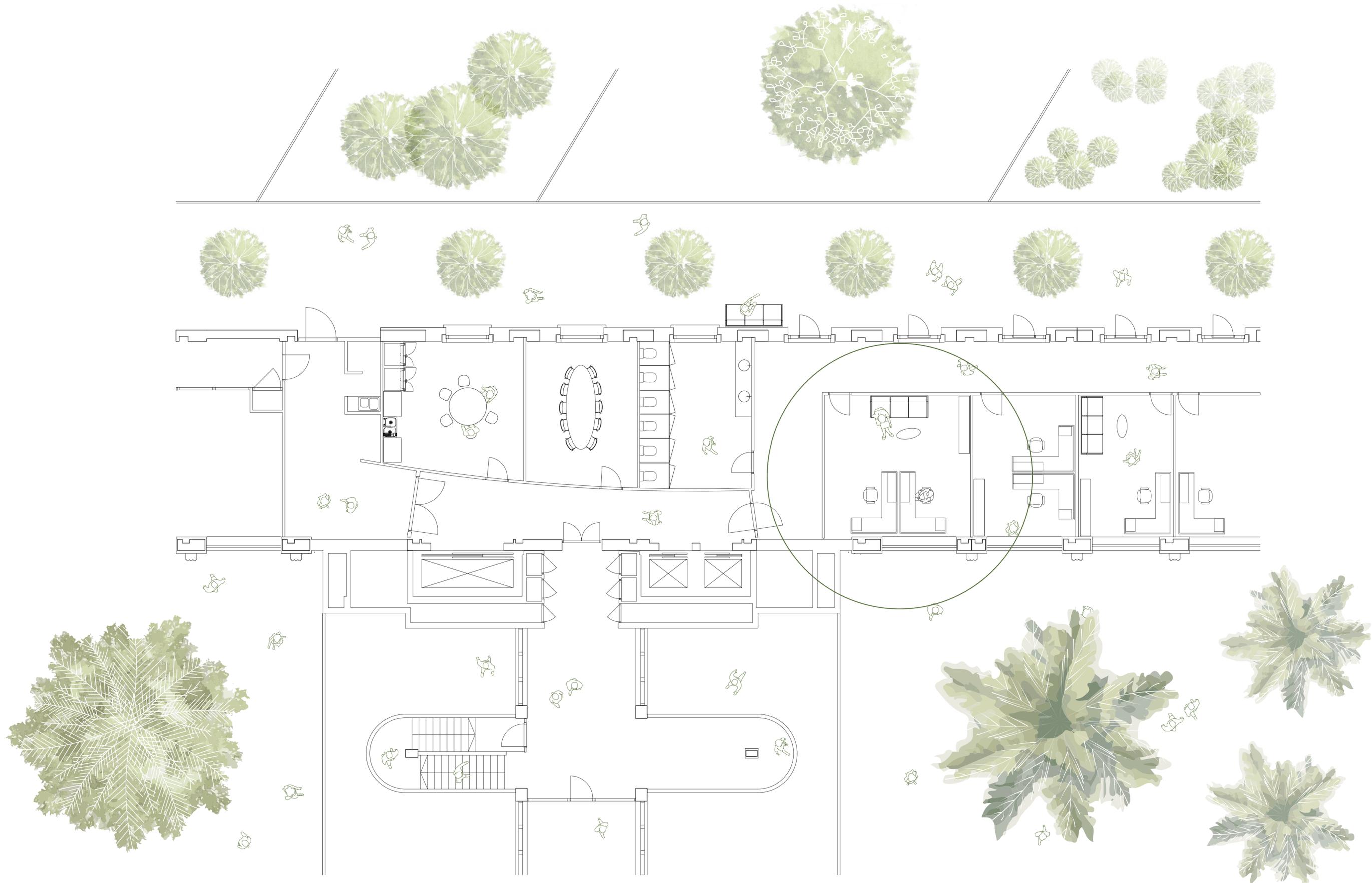
EXISTING GLASS PANELS









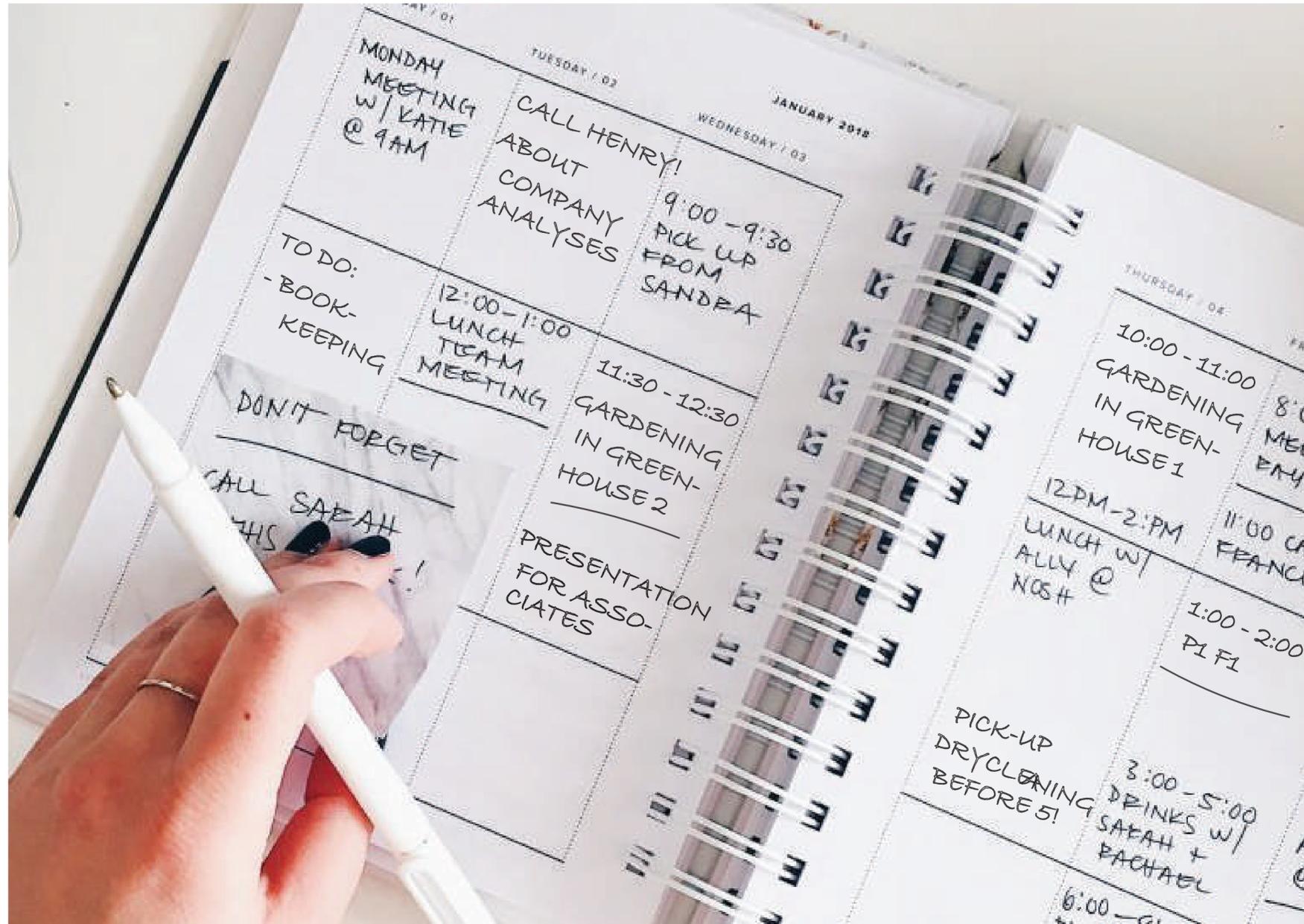




THE MODEL



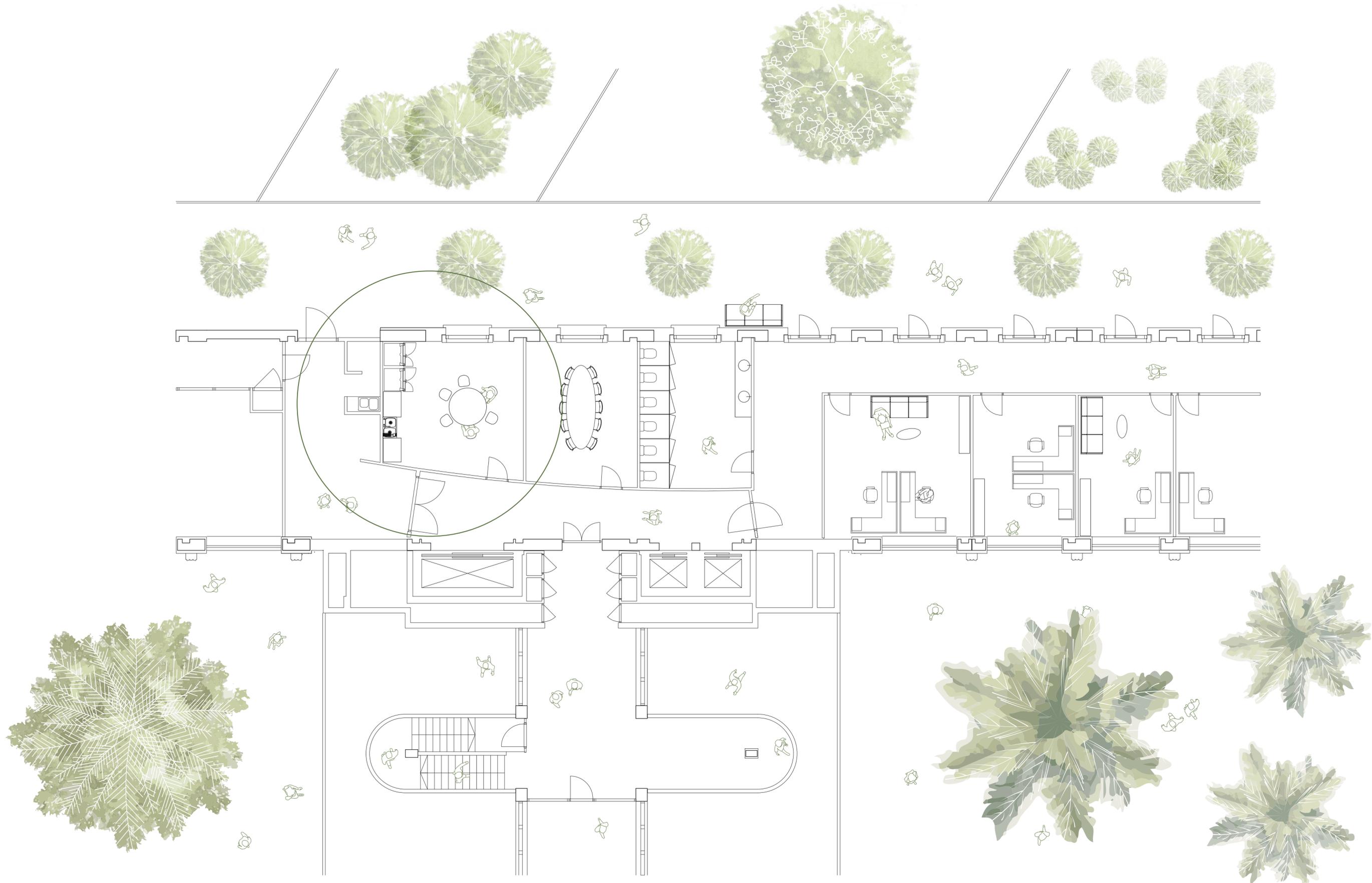
THE OFFICE



THE OFFICE



INTERIOR GREENHOUSE





CATALOGUE

3.

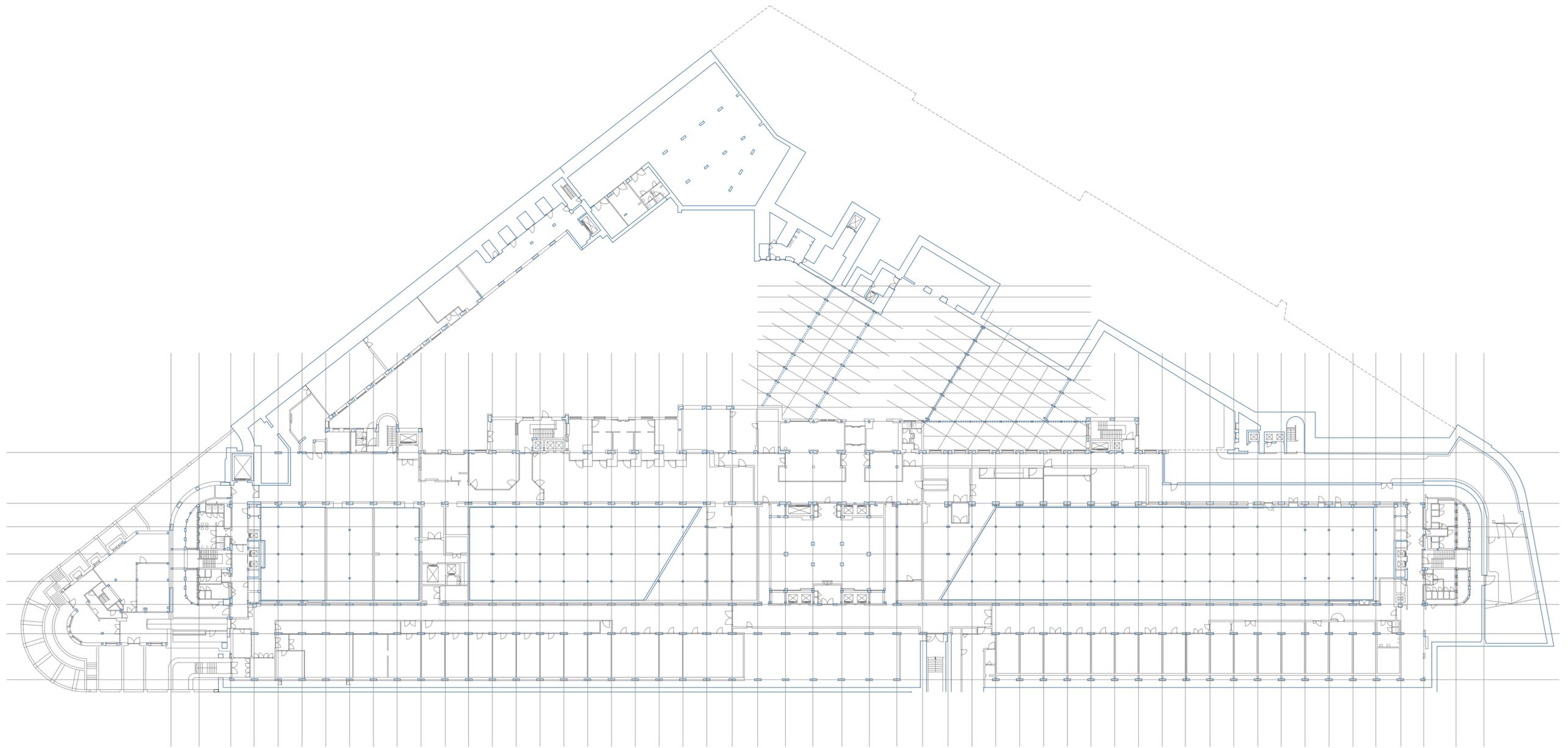
Zamiaceae *Ceratozamia mexicana*
Podocarpaceae *Podocarpus henkelii*
Asparagaceae *Beaucarnea recurvata*
Agavaceae *Nolina longifolia*
Asparagaceae *Agave winteriana*
Arecaceae *Syagrus romanzoffiana*
Zamiaceae *Encephalartos lehmannii*
Asphodelaceae *Aloe bainesii*
Euphorbiaceae *Euphorbia coerulscens*
Sapindaceae *Alectryon excelsus*
Oleaceae *Olea europaea*
Arecaceae *Sabal minor*
Arecaceae *Phoenix sylvestris*

4.

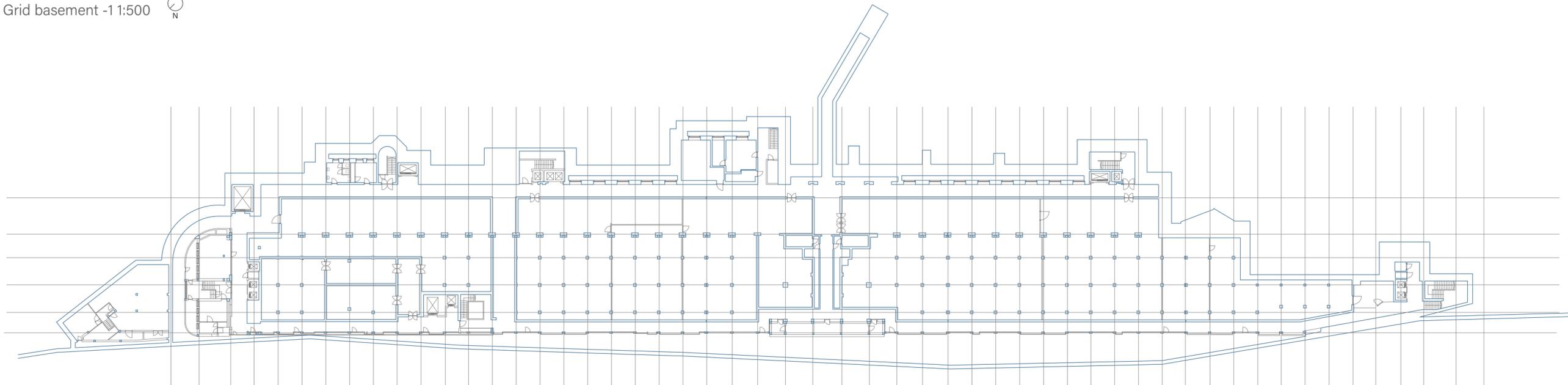
Zamiaceae *Encephalartos horridus*
Podocarpaceae *Podocarpus macrophyllus*
Arecaceae *Phoenix reclinata*
Corynocarpaceae *Corynocarpus laevigatus*
Araucariaceae *Wollemia nobilis*
Podocarpaceae *Nageia nagi*
Griselinaceae *ruscifolia*
Myrtaceae *Eucalyptus gunnii*
Arecaceae *Phoenix dactylifera*
Arecaceae *Arenga pinnata*
Musaceae *Strelitzia alba*
Anacardiaceae *Pistacia terebinthus*
Myrtaceae *Eugenia rubricaulis*



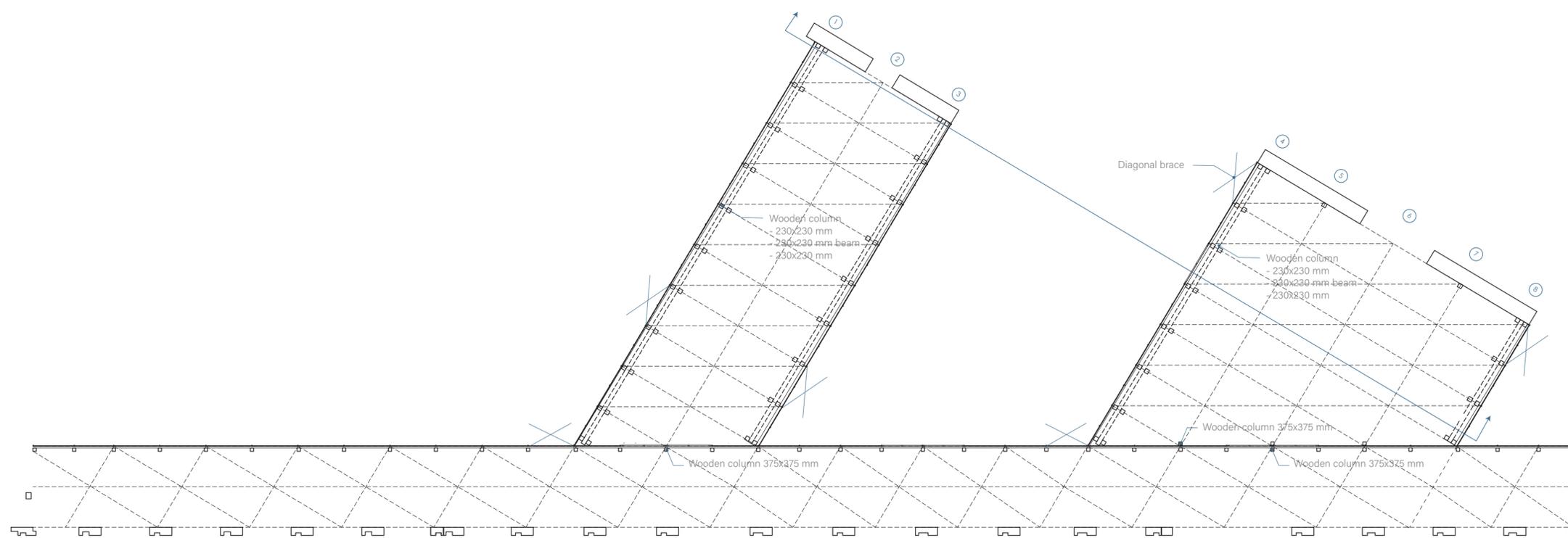
EXTERIOR GREENHOUSE



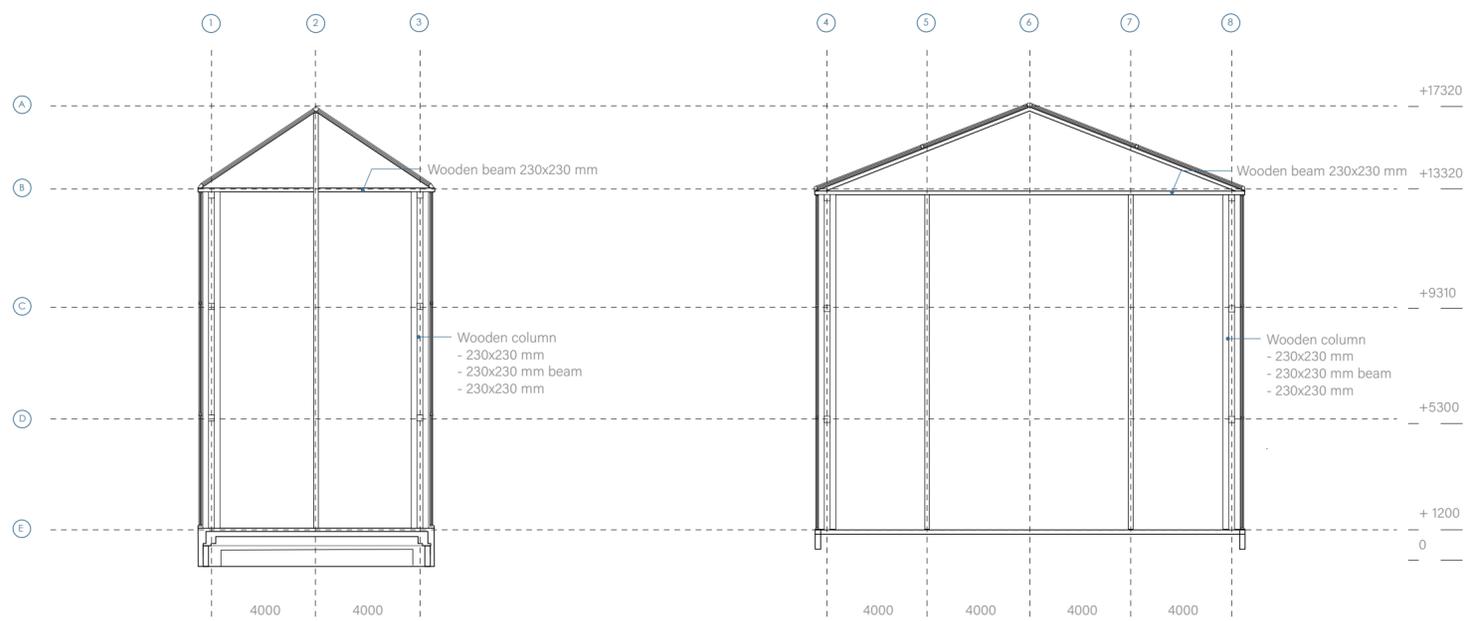
Grid basement -1 1:500



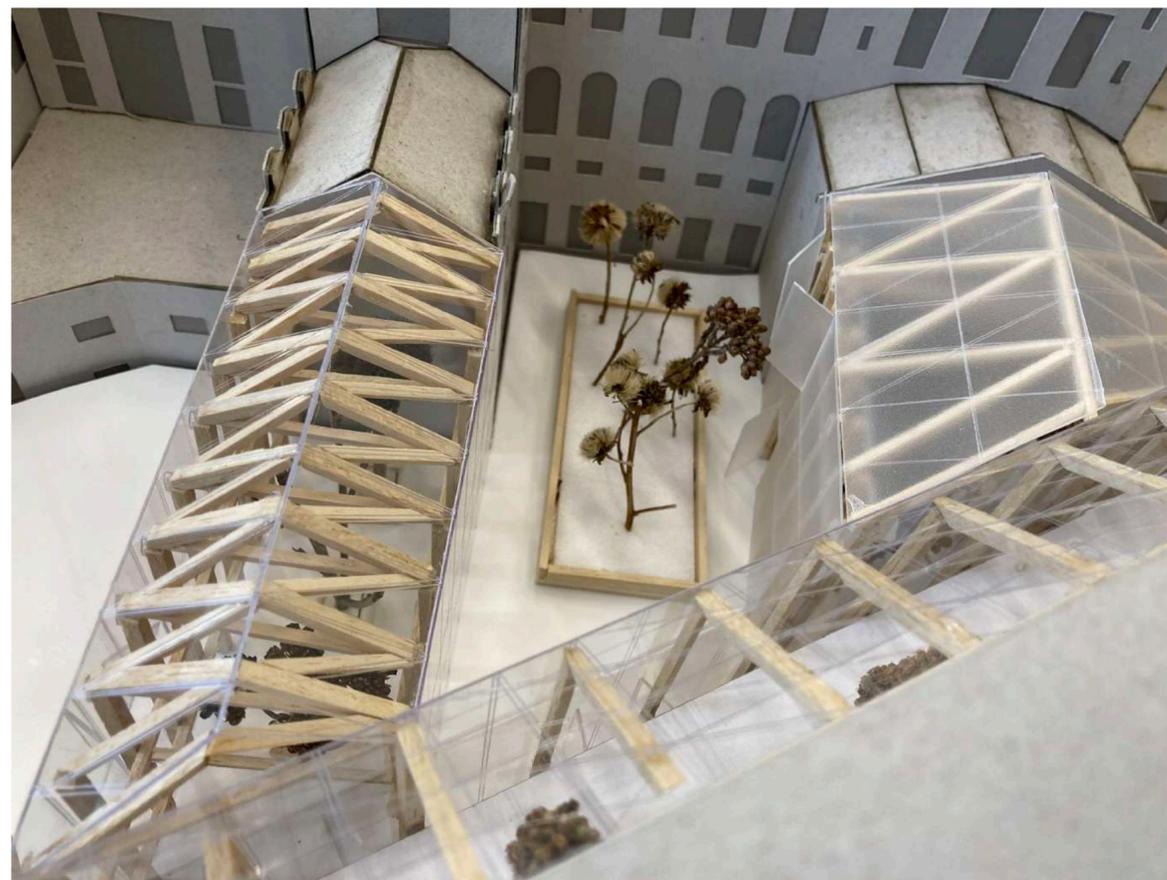
Grid basement -2 1:500



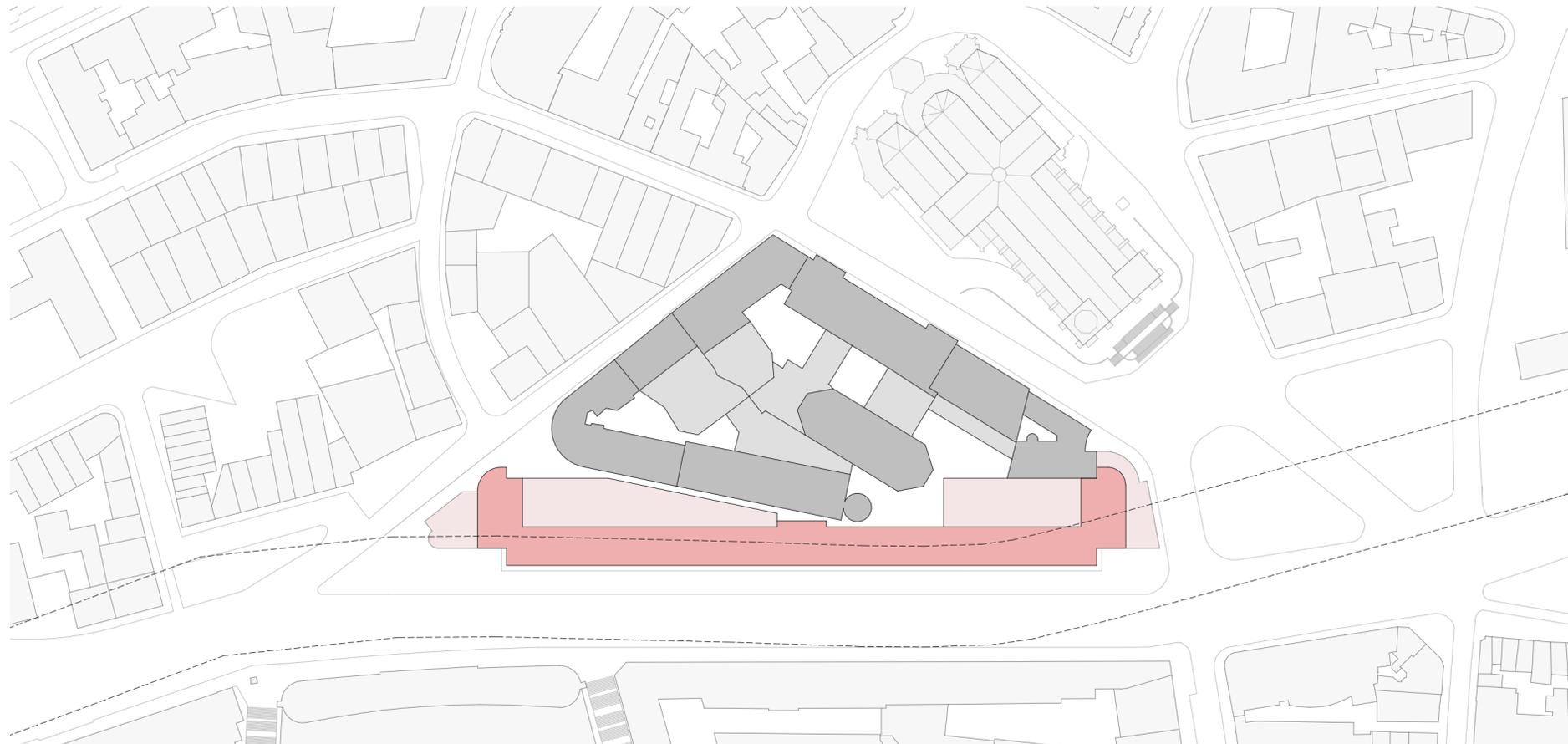
Plan 1:200



Section 1:200



1:200 MODEL



1949

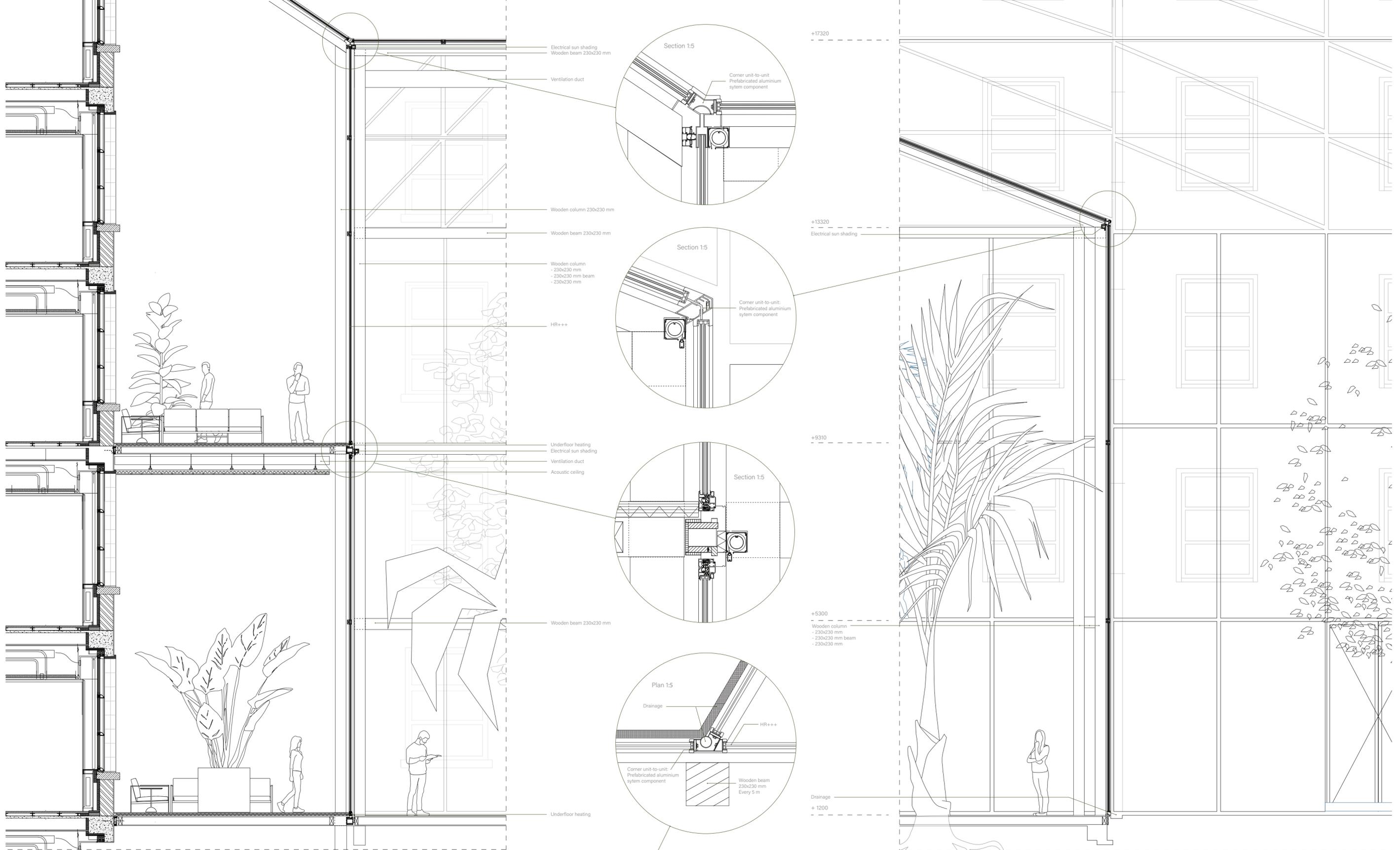
HISTORY OF THE BUILDING



Section 2 1:100

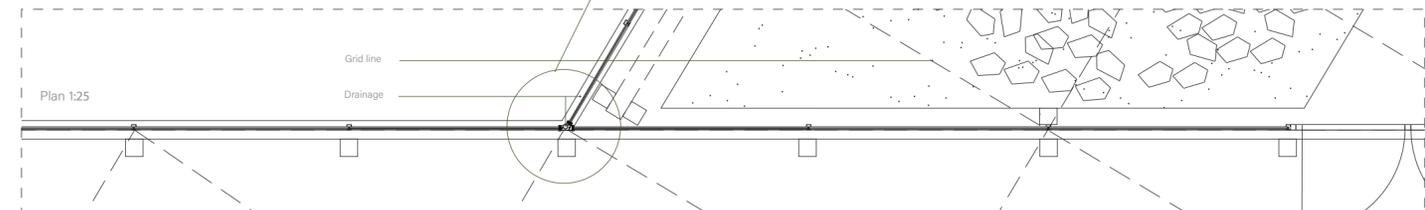






Section 1:25

Section 1:25



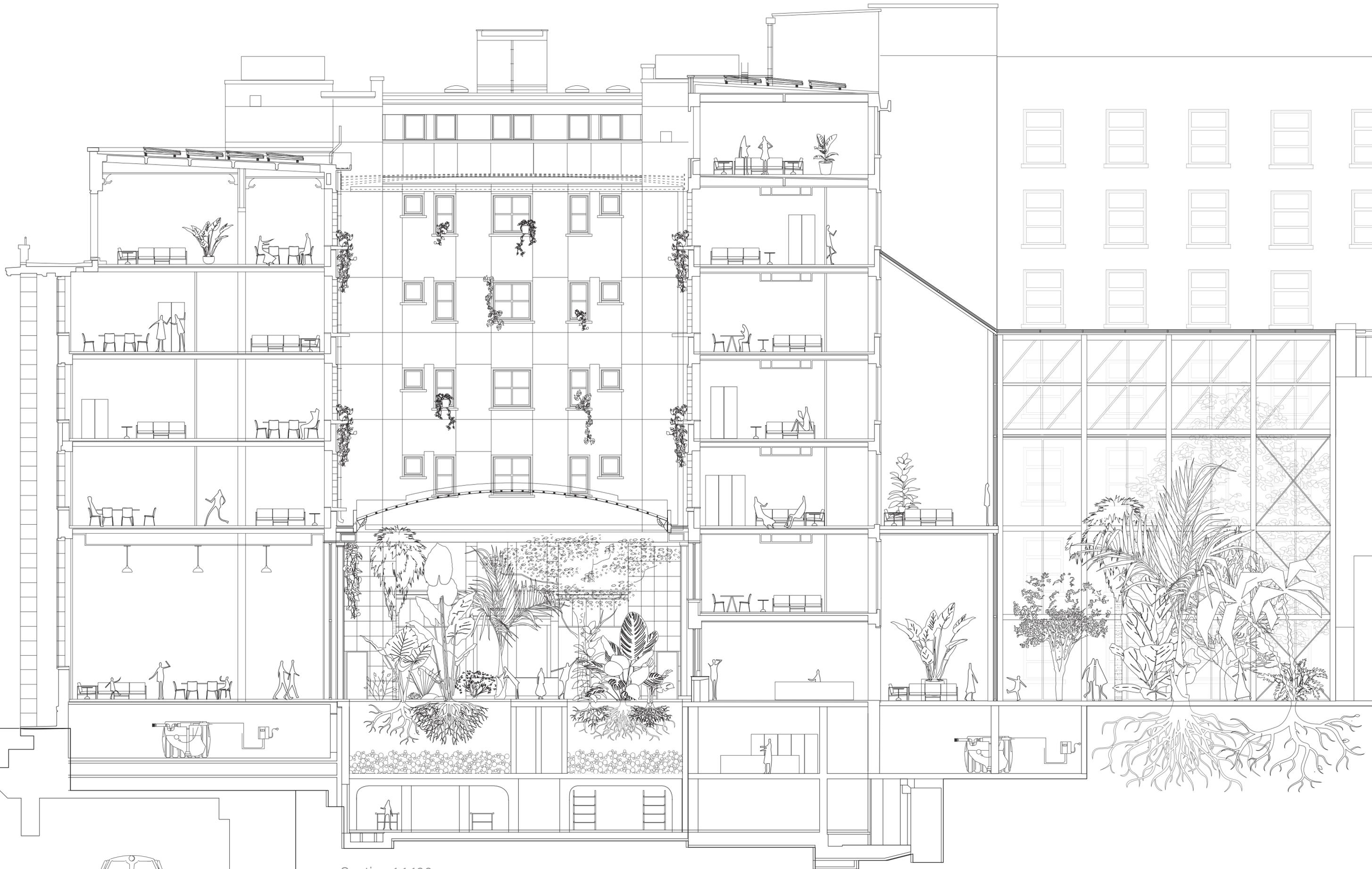
Plan 1:25



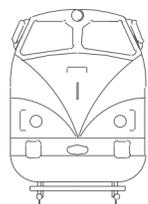
CLIMATE

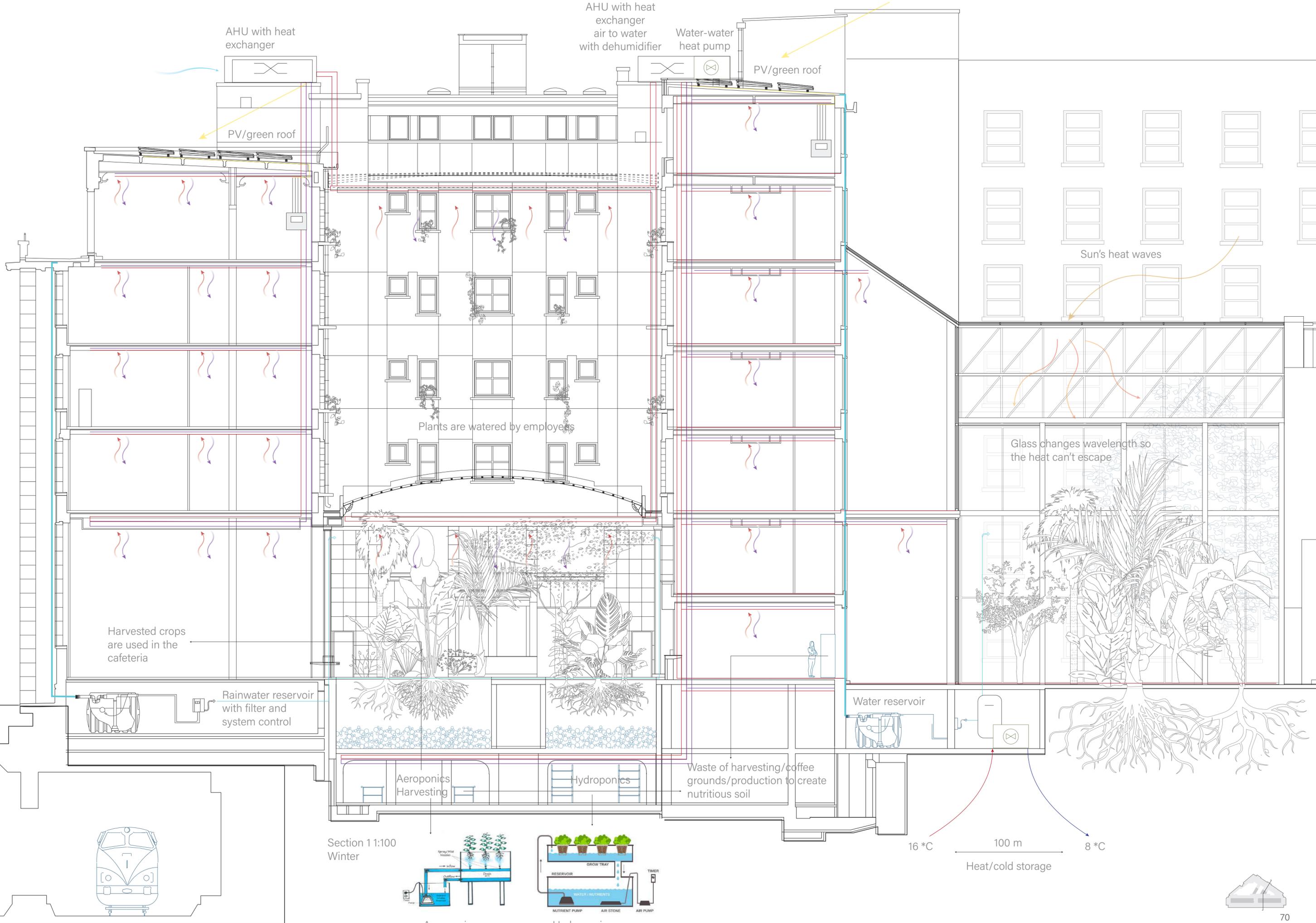
3.
Low humidity
High temperature
Direct sunlight/semi shade
Top height = 17 m
Plants live in deep soil

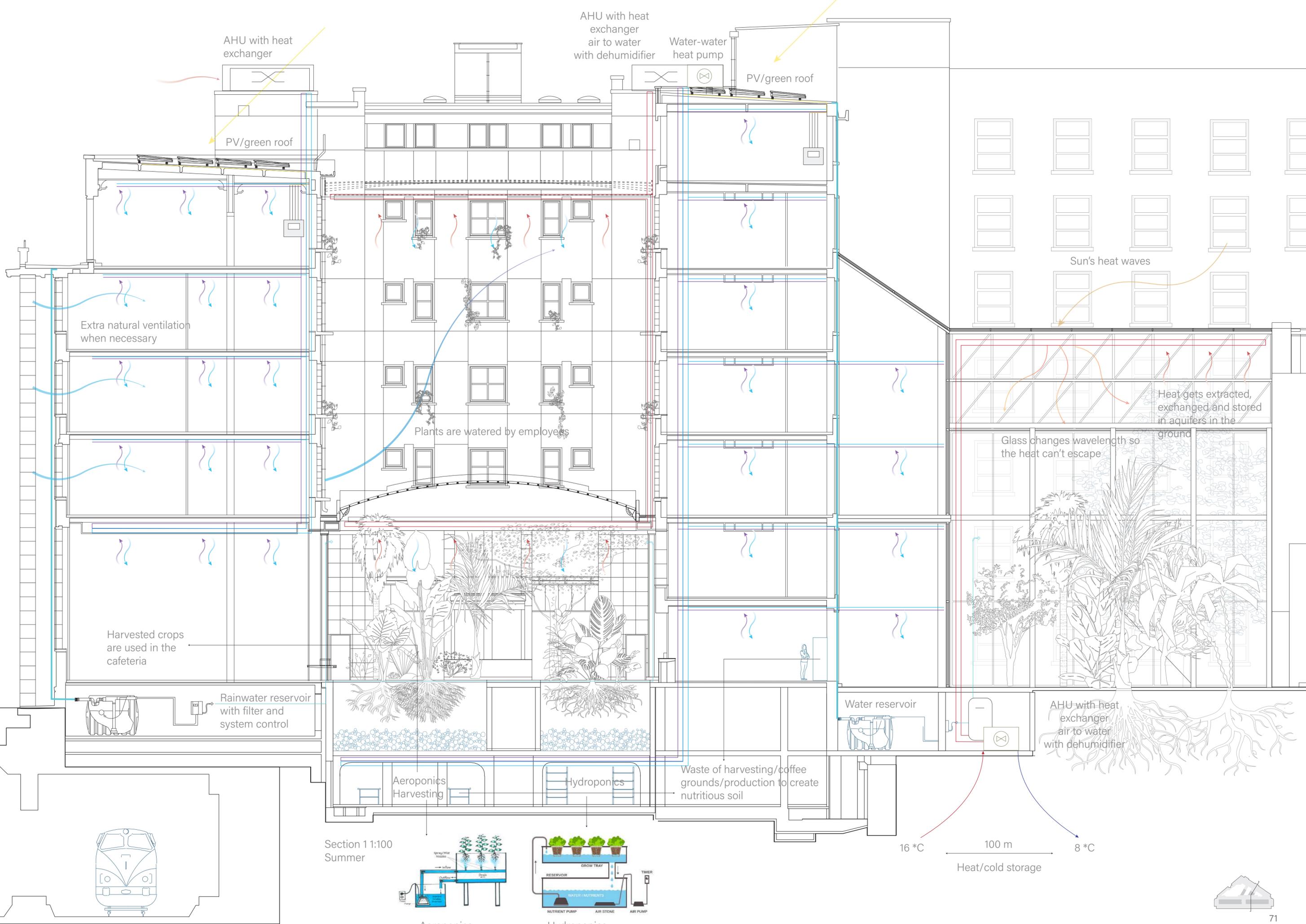
4.
Low humidity
High temperature
Direct sunlight
Top height = 17 m
Plants live in pots that can be moved



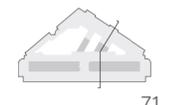
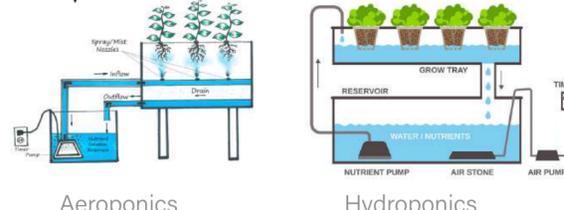
Section 1 1:100

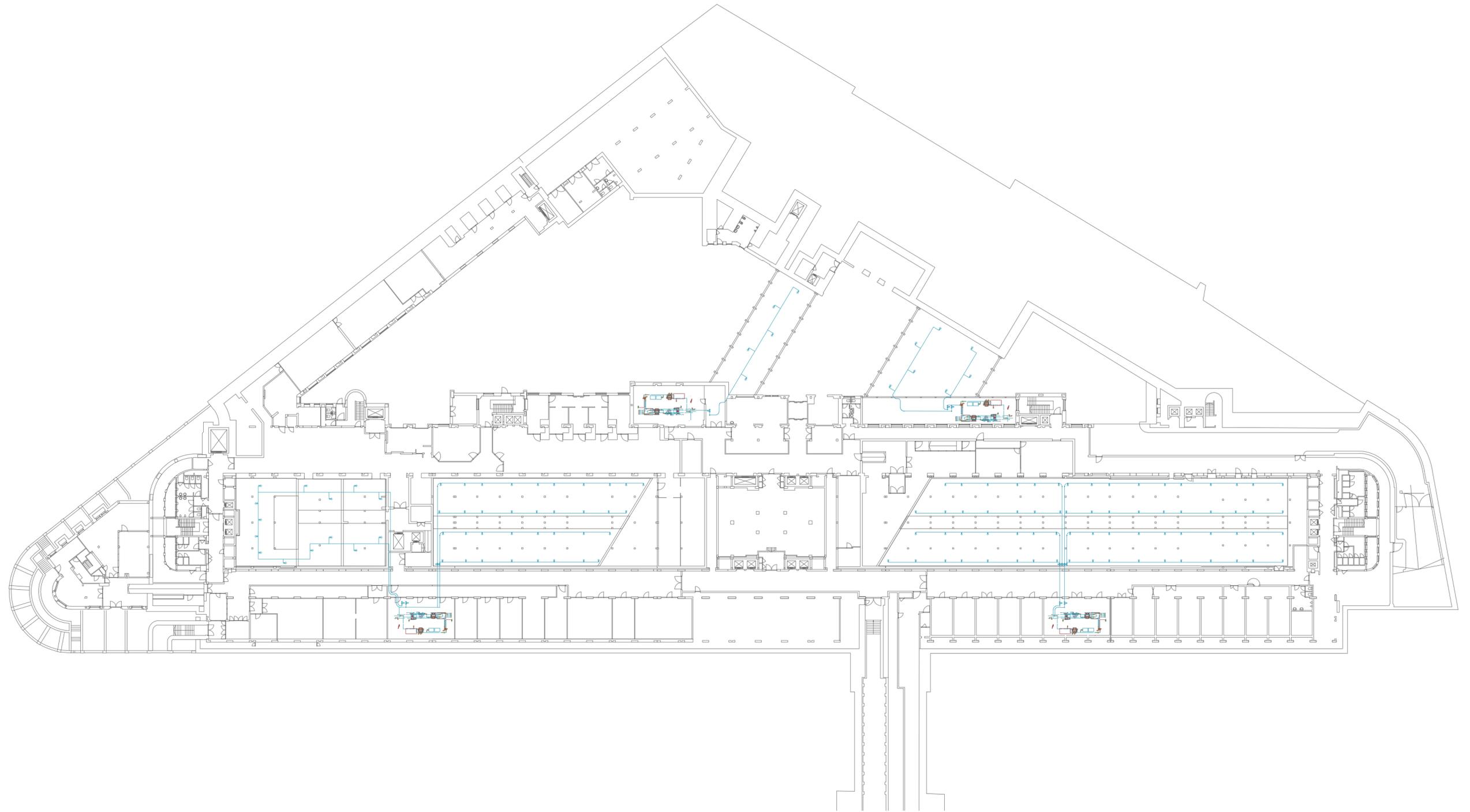


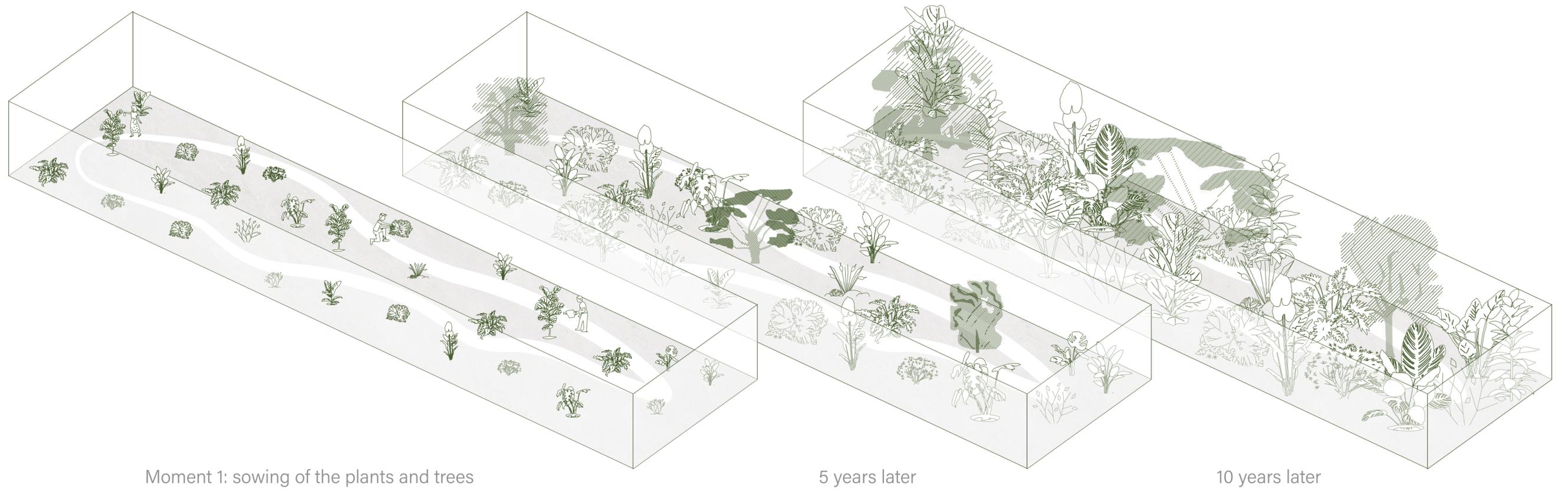




Section 11:100 Summer







Moment 1: sowing of the plants and trees

5 years later

10 years later



EXTERIOR GREENHOUSE



INTERIOR GREENHOUSE

Jardin Botanique de Banque Nationale de Belgique

Botanical Garden of the National Bank of Belgium

PUBLIC EVENTS IN OCTOBER 2037

| | | |
|-----------------------------|--|-------------------|
| SATURDAY 2 12.00-15.00 | WHAT'S IN THE SOIL? WORKSHOP FOR KIDS | TICKETS AVAILABLE |
| SUNDAY 3 14.00-18.00 | PHOTOGRAPHY WORKSHOP SAM ABELL | TICKETS AVAILABLE |
| THURSDAY 7 20.00 - 22.30 | AN INTIMATE PERFORMANCE WITH DAVID COHEN (CELLIST) | TICKETS AVAILABLE |
| 9 & 10 10.00-16.00 | WEEKEND OF THE OPEN HOUSE | OPEN EVENT |
| MONDAY 11 20.30 - 22.30 | UNE PERFORMANCE INTIME AVEC COEUR DE PIRATE | TICKETS AVAILABLE |
| SUNDAY 17 14.00-16.00 | PAINTING LIKE MARIANNE NORTH : A WORKSHOP BY LUC TUYMANS | TICKETS AVAILABLE |
| SATURDAY 23 14.00-16.00 | WEEKEND OF SCIENCE: FREEK VONK 'EVOLUTION' | OPEN LECTURE |
| SUNDAY 24 14.00-16.00 | WEEKEND OF SCIENCE: BIOLOGISTS FROM KBIN 'THE LARGEST INSECTS IN THE WORLD' | OPEN LECTURE |
| TUESDAY 26 21.00-23.00 | AN IMPORTANT MESSAGE FROM THE GOVERNOR ELKE VAN DEN BRANDT | OPEN EVENT |

The National Bank of Belgium
De Berlaimontlaan 14
1000 Brussel

www.nbb.be/tickets
tickets@nbb.be
+32 2 221 21 11

THANK YOU



REPORT

Values Based Banking: Bringing the Voice of the Citizen into Finance

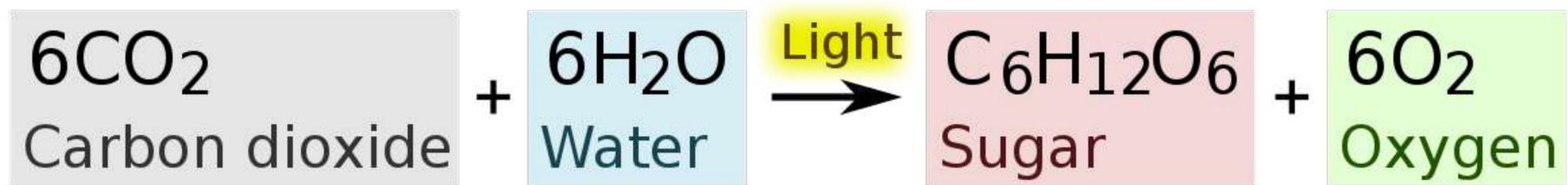
VALUES BASED BANKING:

PEOPLE

PLANET

PROSPERITY

PHOTOSYNTHESIS





TREES FLYING OVER LONDON