Amsterdam Papaverdriehoek (NL)

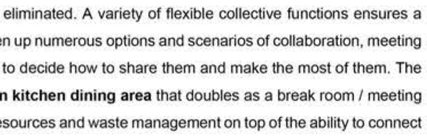
#righthererightnow aspires to be part of the major wave of changes and developments in Papaverdriehoek by being a model and a pivotal point for inclusive development within the block. The densification of the greater area is a chance to create a vibrant, innovative and outward neighbourhood. A successful mix of functions and lifestyles comes through the placement of collective shared functions, open spaces, views etc., based on proper zoning, daily cycles and certain guideline proposals meant to enrich and interconnect the public, collective and private spheres respectively. A smooth flow from working to living functions along with flexible collective areas and open zones inspires collaboration and awareness. A typology of 3 volumes around an inner courtyard with open public access enhances a small scale street network which connects businesses, residents and visitors. Each volume has strong connections to its context and surroundings, adapts to its orientation and activates each face of the urban block. With a clear distinction between traffic zones, priority is given to pedestrians and cyclists with respect to a functional network for cars, given the increasing demands of the productive sector. The installation of mechanical stacked parking, in an over-ground designated vault within the building, stores cars efficiently in the most compact way and allows for a car free urban block without extra excavations. The extended use of structural timber elements (CLT) combines the advantages of prefabrication with eco-friendly materials, where high ceilings and flexible quality spaces form a lively building of a distinct architectural style. Circular economy requires a multi-layered approach involving a variety of actions that extend further than just spatial design and technical solutions. Phasing scenarios along with participatory processes will enable the organic development of a future open and accessible urban environment where different functions coexist seamlessly. The design, through its proposals, stresses the need for building guidelines and collaboration. A combination of architectural solutions and energy strategies of various scales create a user-friendly vibrant living and working environment with multiple scenarios of sharing. **#righthererightnow** wishes to fuel the local society with new generations of open minded, environmentally and socially conscious people and become a unique point of reference for further developments.

The new developments in the greater area are expected to change demographics due to increase in density and types of functions, especially through the extensive addition of housing. A challenge this project confronts is the formation within undefined future surroundings. The proposal develops a vision of how the required mixed use volumes will coexist with a dense organically formed future scenario. The vision aims in inclusive developments that are conscious of their surroundings and open to these along with public space and always with a smart use of resources. The presented possible surrounding buildings follow a comparable floor area ratio (as the one in Europan 14 site) to have a more realistic approach in relation to the proposed building. Although (obviously) not binding, since outside the site plot, the abstract form and volume of the surroundings is meant to initiate a realistic discussion concerning organic development, density and inclusivity under the perspective of circular economy. The need to clarify and specify building guidelines will arise very early in this transitional period along with the need for participatory processes. Especially on a block level, this approach may determine a common strategy that will be beneficial both on energy level and architecturally. Therefore the proposal wishes to trigger an active participation by involved parties and stakeholders of the surrounding urban block. Certain guidelines, found in the proposal, can be incorporated in other future developments and involve building heights, orientation, volumes, connections and accessibility along with energy and resource strategies. Also, equally important is a phasing strategy that will support relocations. Already established businesses will be able to continue their activity within the area, while developments take place. A first step is to record all surrounding businesses, space demands, function types, create lease schemes and gradually relocate these on appropriate newly finished grounds while moving to the next development. Collaboration is key.

A future based on circular economy requires a strategy with a multi-layered approach, involving a variety of actions that extend further than just spatial design. It is reasonable for the accessible extensive research and guidelines which have produced viable examples like De Ceuvel to be the starting base. The goal is to transfer this knowledge into more complex urban structures, such as the one proposed for Europan 14, following the position of Buiksloterham towards circular economy. Same as with the purely architectural side of the project on a block level, this sustainable attempt requires participation and involvement of more parties within various scales of the area. In a circular economy model, each building/fragment affects the whole system respectively, e.g. through contribution in infrastructure, participation in a closed loop and a swift of user mindset. As presented throughout the diagrams and plans, the proposed solutions envision an effective turn towards more efficient & conscious forms of living together within a socially conscious architectural project.

The proposed 3 volumes connected around an inner courtyard is the optimal choice for the specific location as it activates all the faces of the urban block. Additionally, it allows for a dynamic central element which connects, not only the proposed building parts but the future surroundings too. The three proposed volumes are differentiated in height by taking into account the orientation, sun, position and relation to the surroundings and the canal / streets in the front. The proposed facades secure unobstructed views and privacy regardless of the future surrounding developments. Each volume is provided with a separate circulation core to ensure proper access, autonomy and safety in case of emergency given the types of accommodated functions. The first floor and the subsequent inner atrium acts as a filter for the time cycles of the living and non – living functions which opens up to the possible future surrounding developments. The architectural choice of the pilotis for the lower volume maintains the public character and open access to the center of the complex.

A key to a successful mix of functions is the incorporation and enrichment of all involved social spheres and their respective spaces such as public, collective and private. The distinction between public and private is a misleading simplification and ignores all the in-between situations and spatial qualities. The proposed architecture shall provide options and promote a feeling of togetherness, collectivism and sharing, which flourish in combination to well-designed individuality and privacy as part of a pair where balance is key. A 50/50 mixing of living / non – living functions, although a present goal, is also a factor subject to change in future conditions and demands. The proposed flexible solution can be reconfigured / adjusted to future needs therefore has a lot more advantages than a static program. This adaptability broadens the project's market appeal, and therefore its economic viability along with immediate spatial qualities. The open floors and higher ceiling heights allow for maximum flexibility with respect to future use. The proposed ground floor has a gross height of 5.60m, allowing for a mezzanine level and an extensive open area in the form of pilotis where pop-up functions can be hosted. For non – living functions the height is set to 4.20m enough to accommodate production activities. The living functions in the form of 2 main types of residences are offered in 3.15m. The proposal envisions and promotes a dynamic mixing of residents and professionals were active participation is possible. These two groups follow different time cycles, which can be used as a chance towards the liveability of the building. Through the division to different zones any issues coming from possible incompatibilities may be eliminated. A variety of flexible collective functions ensures a visible and strong collective atmosphere. These spaces open up numerous options and scenarios of collaboration, meeting and living together and it is up to the whole group of users to decide how to share them and make the most of them. The central part of the first floor is an open area with **a common kitchen dining area** that doubles as a break room / meeting area and leads to multiple benefits such as energy, use of resources and waste management on top of the ability to connect people. The overall shared spaces are equipped with a variety of movable furniture and can be transformed depending on the demands. Residences are initially meant for people who wish to live together and can be transformed to family housing with minor changes. They promote sharing and unobstructed views through a generous balcony that can be used as a common area or with the addition of partitions as a semi-enclosed extension of the personal space. Sharing starts from the housing unit and expands to the whole complex, while at the same time, work spaces and residences are oriented towards the views and more (selective) privacy.



The challenges that arise through the coexistence of **various types of transport** within the competition area are tackled with a clear distinction between zones meant for pedestrians, cyclists and cars. The mixing and densification of living and non-living functions increases all types of traffic and accessibility demands to the general area. The road network should be able to cover emergencies, smooth access for residents & visitors without cancelling the progress towards a reduction in car use. More frequently from now on, the delivery of goods meant for the productive sector will increase. Therefore the proposal suggests that the municipality should consider **the continuation of Korte Papaverweg towards Papaverhoek** via a bridge to maintain proper circulation of vehicles. The possibility of still placing car parks in crucial points within the greater area should be further investigated and discussed. For the proposed building, **the installation of mechanical stacked parking** in a designated vault (which can be dismantled in the future) keeps the amount of stored cars efficiently high in respect to available space. The car is treated as a tool, a transport medium, and not a dominant element of the urban life, therefore it is stored in the most discrete and compact way possible when it is not used. An important advantage of this solution is that it keeps excavations to a minimum, avoids extended underground spaces, therefore it overpasses technical and financial challenges while still getting the most of the offered location. Bicycle storage for permanent users is provided in the form of double stacks.

The proposed structure is a hybrid mix of reinforced concrete and timber. Concrete will be used on the ground floor podium (up until level +5.60), circulation cores (if deemed necessary upon further study) and on other technical facilities. The upper levels will rely on structural cross laminated timber due to its high quality recycling options and environmental and constructional advantages. The extended use of timber along with standardization / prefabrication will allow for faster and more efficient eco-friendly construction, easier maintenance and changes in the future. Fire safety and weight load issues can be tackled successfully with timber, given proper dimensioning and detailing (in case of visible timber on the interior). The facade will use a metal and glass based curtain wall from recyclable sources. Full height glass with movable steel meshes for sun protection will give plenty of natural light and uninterrupted views. The structural strategy has a goal to allow for multiple future scenarios by offering open floors separate cores and unlimited possible configurations. Due to the productive functions, extra care should be taken concerning acoustics, noise & vibration reduction with appropriate choice of materials and connections.

A **business plan & revenue strategy** for the project's economic sustainability is crucial, to keep the proposed development functional and financially self - sufficient for years to come. Its financial legacy for the developer and the future users will rely mostly on rentable spaces and provided services. We may make a distinction between two types of expected revenue, active and passive. **Active Revenue** covers all the types of spaces that renting or selling can apply. Flexible spaces for production and residences can provide a steady income through rent. The proposed flexibility of spaces can allow for future scenarios and changes in m² which affects the respective renting policy. The ground floor multifunctional hall, though for private collective use, could also be periodically rented to third parties for events and activities (e.g. presentations, meetings etc). **Passive Revenue** refers to energy harvesting / production and general reduction in maintenance costs and energy demands. It is expected to involve all parties within the urban block where the project is found due to the need to establish a common infrastructure and exchange policy. An extra form of revenue may come through energy production and water recovery along with resource and material recycling. Both networks, electricity and treated water are connected to the city network. In case of surplus, the distributed energy and water brought back to the city will be a source of income. Every part of the building complex and the urban block has a respective strength to maintain the overall financial growth. All parties are connected and equally affected.

Project statement & strategy

Strategic area vision & interventions

0 5 15 30 **scale 1:750**

A: urban block / entity
circular economy loops strategy / local governance / participatory processes (intentions / guidelines)
realization in phases (step by step moving of businesses) / model for greater area
B: De Ceuvel (post 2022 vision)
variety of public functions & open accessible green / connection to urban block inner courtyards
bicycle pad is placed further inland to allow for unobstructed green public space close to the water
C: canal & traffic
continuation of public area instead of local bridge (municipality intentions for bicycle only)
connection of streets & bicycle pad
D: hotel back side / public space & hotel building (post 2027 vision)
extended public area that leads to the water with variety of recreational activities & vegetation
raise the subject of intentions on the future of the hotel & its relation to public spaces & access

proposed building
envisioned buildings
existing buildings
artificial beach / sand
green areas
car direction
2 lane bicycle pad

Strategic area legend

Expected gross surface : **5050 m²**
Plot surface (graphic version) : **1535 m²**
Living functions / residential (excl. semi enclosed balcony) : **1465 m²**
Non living functions / production (incl. greenhouse) : **1655 m²**
Collective functions : **535 m²**
Circulation (incl. cores) : **945 m²**
Other (incl. parking vault & storage) : **450 m²**
Proposed total gross surface : **5050 m²**
Ratio of living / non living : **47 / 53**
Built ground floor surface : **640m² = 42%**
Open ground floor surface : **895 m² = 58%**
Green surfaces (incl. roof & greenhouse) : **560 m²**
Maximum height (±0.00 = 1.00m above water level) : **29.75 m**
type of residence (3 bedrooms + semi enclosed balcony) : **5 x 90m²**
type of residence (4 bedrooms + semi enclosed balcony) : **9 x 110m²**
Total residences : **14**
Parking residential (automated parking) : **10 cars**
Parking production (1/125 per m²) (automated parking) : **14 cars**
Total stored cars (may vary based on the chosen system) : **24**

Project site proposed m² calculations & figures

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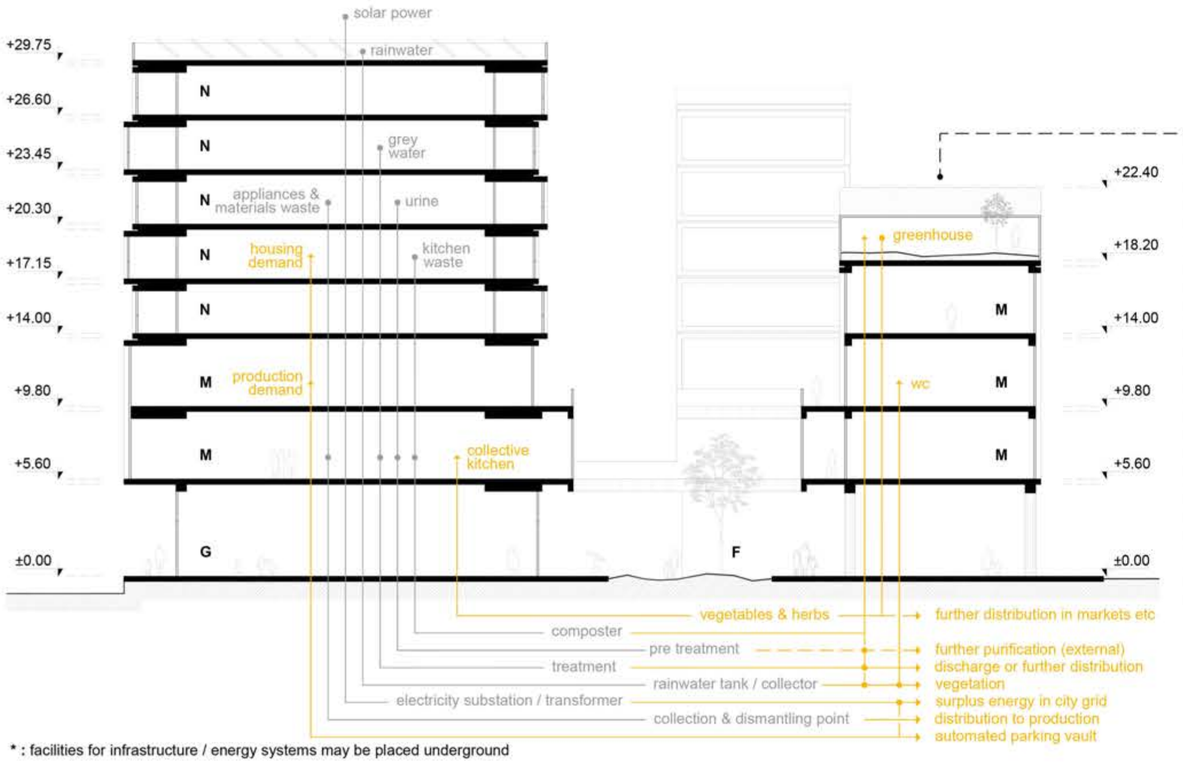


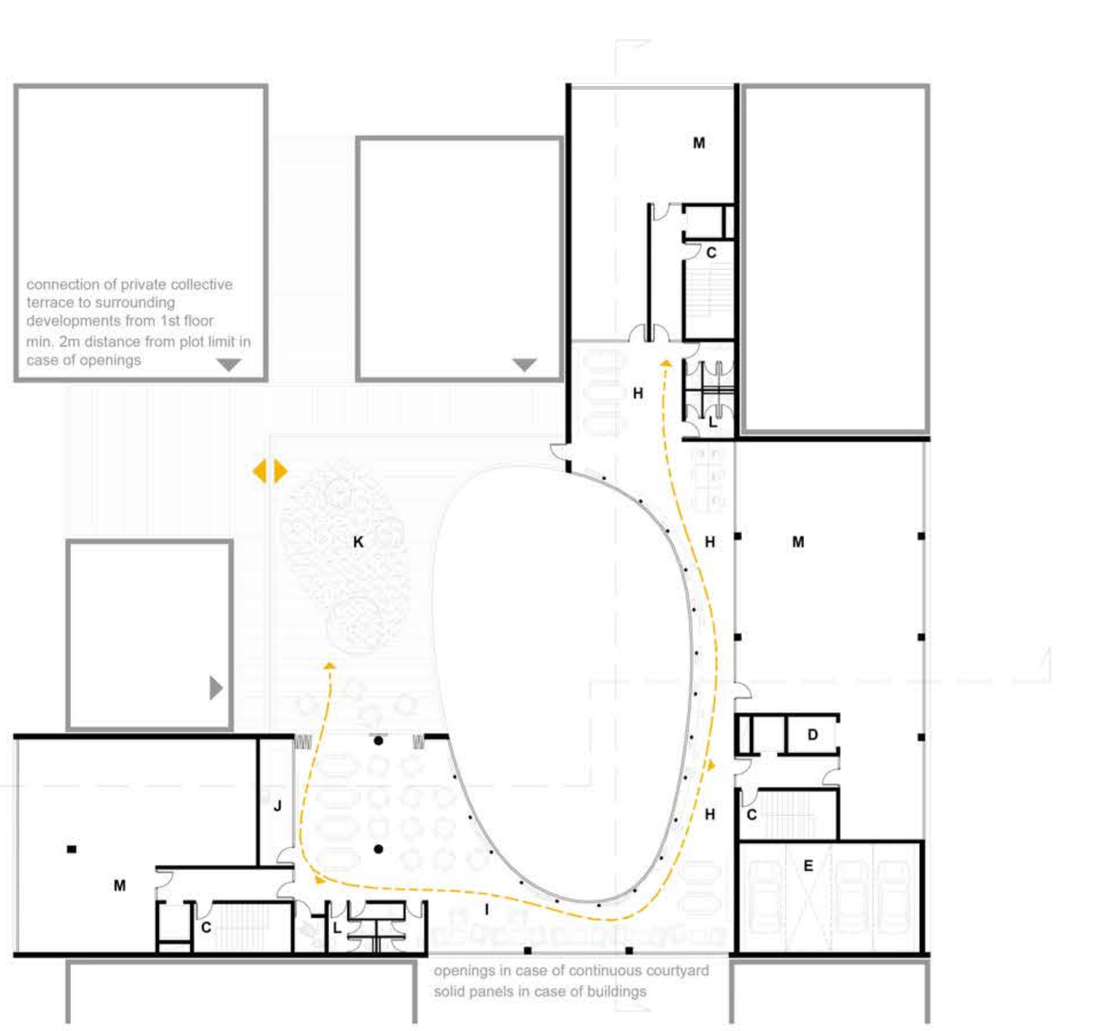
* : facilities for infrastructure / energy systems may be placed underground

** : the automated parking system relies on a separate self standing steel structure which can be dismantled in the future & allow for more production space

section 1a* / 1b & energy / circular economy strategy**

1 : extensive vegetation (accessible via hatch)
2 : residential heat recovery system
3 : semi - enclosed balcony / glass buffer zone
4 : sound insulation & further acoustics
5 : curtain wall / insulation & movable wire mesh elements for sun protection
6 : production heat recovery (machinery / equipment)
7 : external insulation
8 : automated lighting systems / censors
9 : use greenhouse as heat source (winter) & heat exhaust (summer)
*** :** foldable panels can be placed during night time to contain light pollution from the greenhouse towards housing & neighboring plots

section 2 & energy / circular economy strategy



ground floor ±0.00

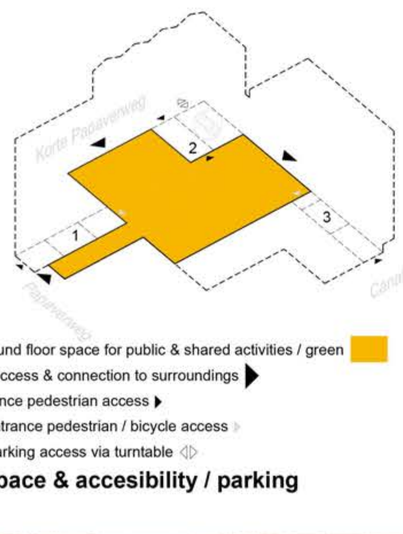
1st floor +5.60

0 1 5 10

scale 1:250

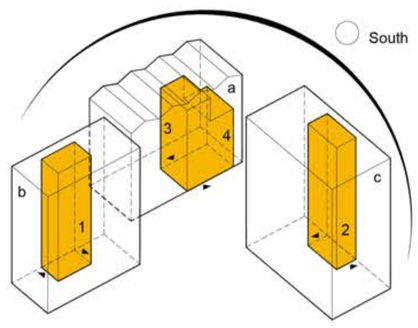
A : entrance lobby
B : bicycle storage & secondary entrance
C : circulation core
D : goods lift for production
E : automated parking vault (access via ground floor turntable)
F : inner square for public access & various activities
G : collective multifunctional hall with access to storage (mezzanine) (gross height 5.60m)
H : shared informal workspaces / individual & teamwork
I : lounge areas
J : collective kitchen with access to terrace
K : shared private terrace (access from surroundings depending on future developments)
L : wc & shower cores & cleaning room
M : production / non living functions (gross height 4.20m)
N : residential / living functions (3 or 4 bedrooms) (gross height 3.15m)
O : semi - enclosed balcony (2.50m or 3.00m width)
P : storage incl. laundry room (mezzanine / access from main core)
Q : greenhouse / agricultural production & nutrient loop
R : drop off zone for production / short stop / car queue for automated parking

proposed spaces legend



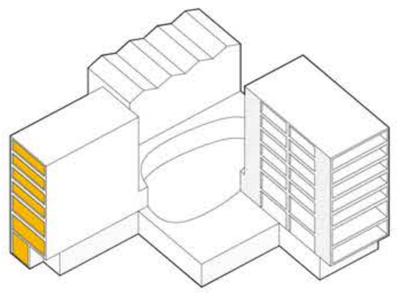
58% free ground floor space for public & shared activities / green
open public access & connection to surroundings
primary entrance pedestrian access
secondary entrance pedestrian / bicycle access
automated parking access via turntable

public space & accesibility / parking



volume a : 5 floors / allows for southern sun to reach the complex & atrium
volume b : 7 floors / overlooking Papaverweg
volume c : 8 floors / views towards canal
1 & 2 : entrances for pedestrians & bicycle storage
3 : extra lift especially for goods delivery (productive functions)
4 : automated car parking vault (powered via solar panels)

main volumes / cores & access



ground floor podium with prefabricated reinforced concrete
upper floors with prefabricated cross laminated timber elements (incl. cores)*
passive house principles & recyclable cladding materials (main envelope)
recyclable metal structures & glass with movable wire mesh (facades & openings)
* fire safety strategy for timber (e.g. visible or non visible timber / overdimensioning)

main materialization & structural strategy

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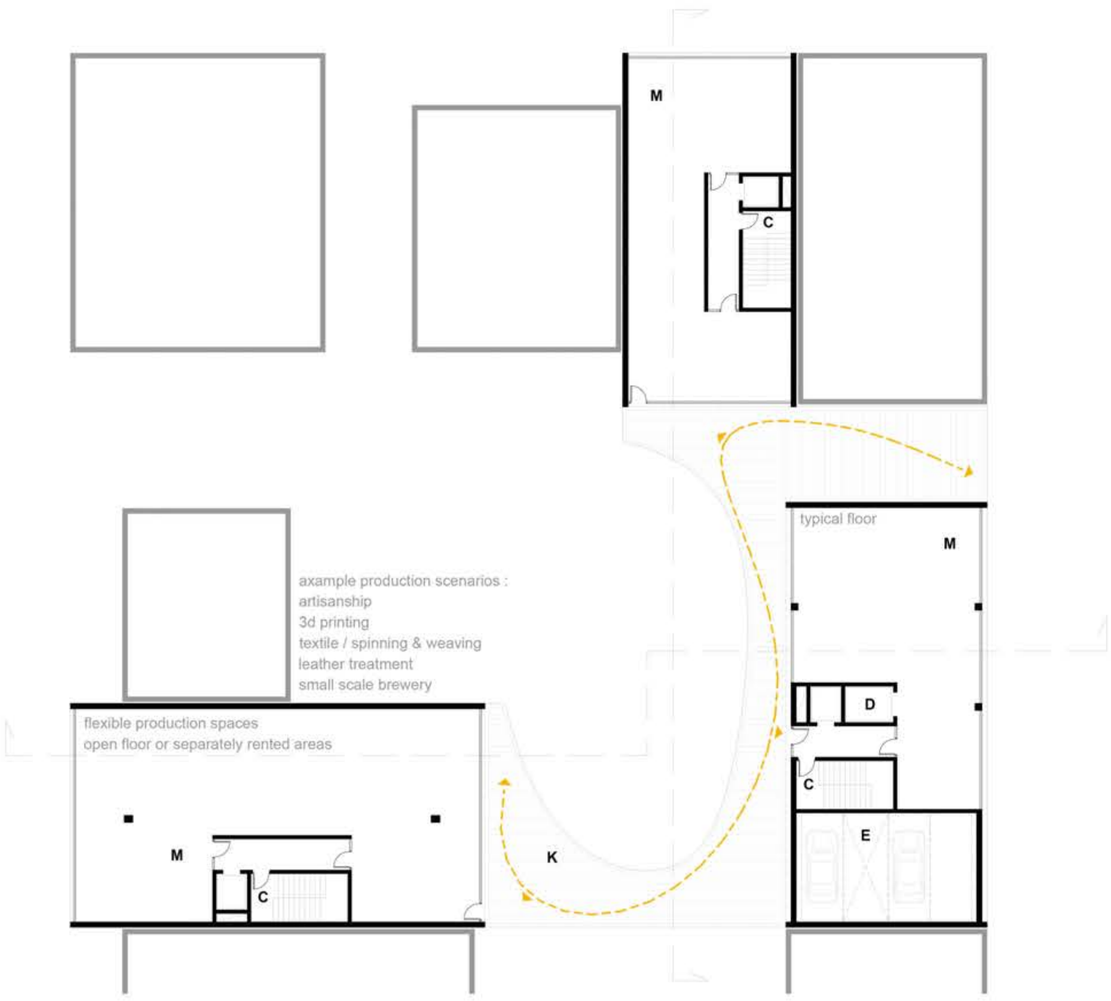
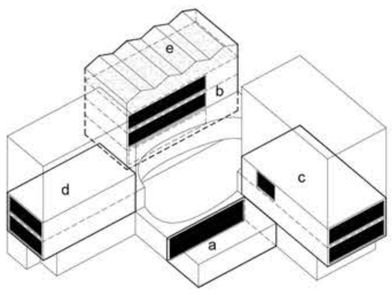


2nd floor +9.80

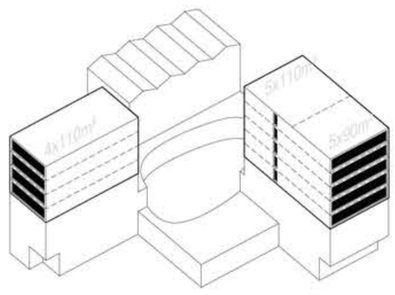
upper floors

scale 1:250



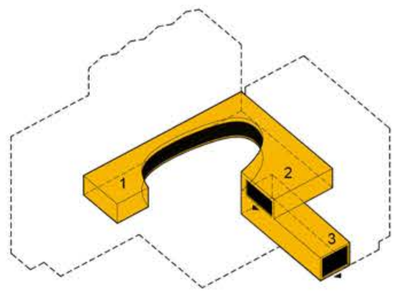
multiple scenarios of production spaces
open floor / flexible configurations / high ceilings / natural ventilation & lighting
a : production area with mezzanine & open access (gross height : 5.60m)
b : separate production volume for heavier machinery / vibrations (gross height : 4.20m)
c & d : open floor production areas for lighter machinery (gross height : 4.20m)
e : greenhouse section of productive functions / nutrients loop

production



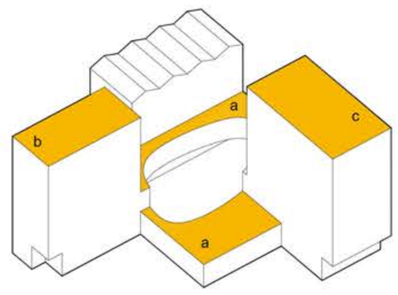
flexible configurations & scenarios / gross height : 3.15m
on top of lighter machinery production areas (reduced noise / vibrations)
semi - enclosed balconies of 2.50 or 3.00m width with unobstructed views
proper natural lighting & ventilation
5 x 90m² with 3 bedrooms & balcony
9 x 110m² with 4 bedrooms & balcony

residential



1 : central shared area connecting volumes & zones / open floor / movable furniture
flexible configurations (gross height : 4.20m)
2 : collective kitchen / dining / break room / reconfiguration based on daily cycles / access to terrace (gross height : 4.20m)
3 : multifunctional hall / private or public access / various scenarios of use & access to storage / opens up & connects to the canal & inner square (gross height : 5.60m)

indoor private collective / shared



4 available surfaces for open green / energy / shared activities
a : private shared garden / terrace (accessible from future surroundings)
b : extensive vegetation (accessible via hatch)
c : solar panels roof (accessible via hatch)

outdoor private collective / shared