

PASILAN KONEPAJA MIXED-USE DESIGN COMPETITION



VIEW FROM TEOLLISUUSKATU

JURY REPORT

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1 General information on Competition

1.1 The Organizer and the aim for the competition

The Train Factory Oy in cooperation with the City of Helsinki and the Finnish Association of Architects (SAFA) organized an invited competition on the urban design and concept for a mixed-use development in the historic Konepaja area in Helsinki.

The aim for the competition was to find a design solution suitable for the project site (the 3-building complex that is focal centre of the historic Konepaja Train Factory), with a new more efficient land use solution that would become a natural part of the city structure and the nationally significant built cultural environment. At the same time, the new building complex should support the future development of the Teollisuuskatu axis as Helsinki's central workplace and downtown area and improve the quality and connections of the area's pedestrian realm.

The aim of the competition was to:

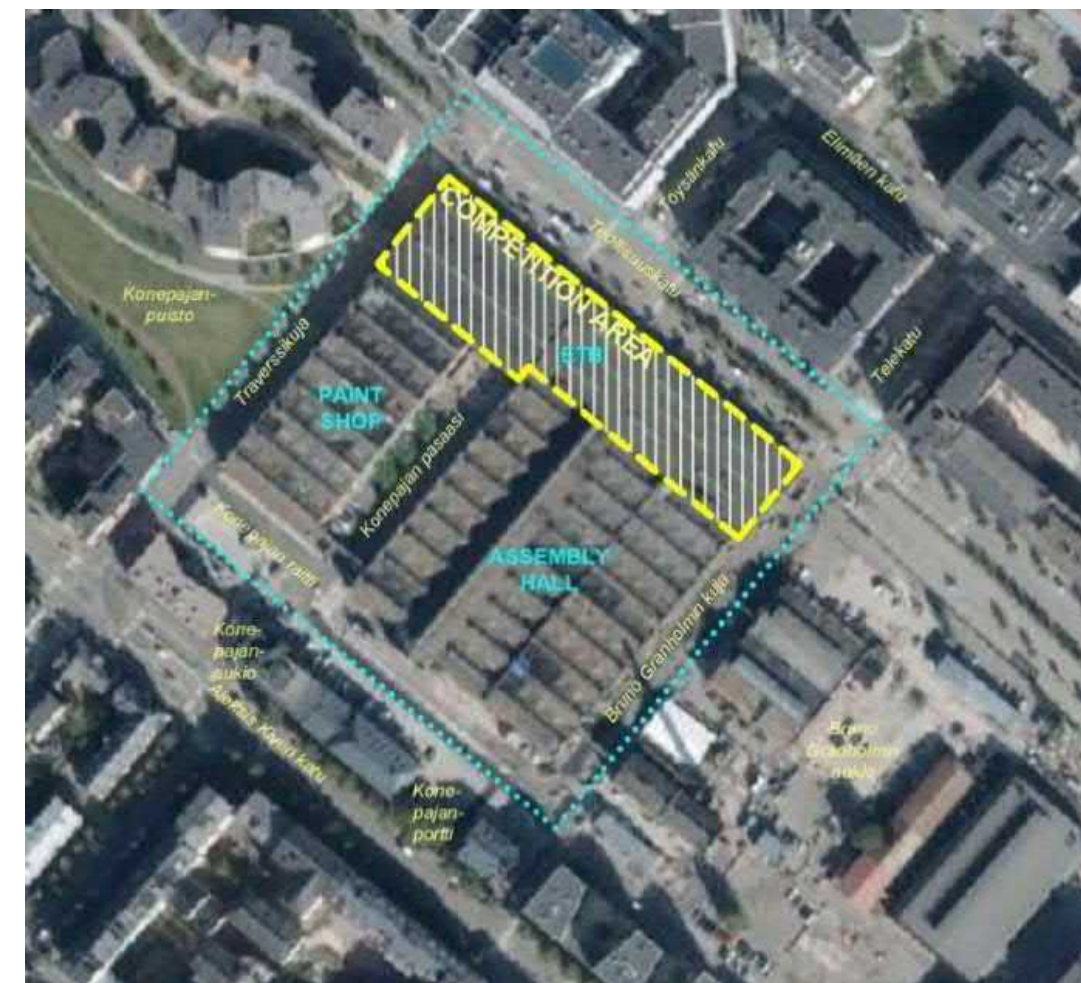
- Identify an architectural design solution for a rapidly developing high-profile site in the centre of Helsinki that implements the requirements of high-quality urban space and environment. The solution should fit well with its surroundings in terms of future visions, cultural heritage and functionality and be capable of serving as the basis for the development of a new detailed plan for the site;
- Identify the optimal concept solution for the project both in terms of architectural merit and functionality including a 4-star conference hotel, a headquarters quality office building, retail and leisure components designed in such a manner that allows for the possible future conversion of the project to accommodate other functions, there by providing resilience
- Determine a contextually appropriate vehicular and pedestrian circulation strategy inside the competition area, complying with the given traffic guidelines, and propose connectivity appropriate to a development of this scale;
- Identify a high-quality architectural design solution both in terms of urban and building design along with a specific architectural language for the development (materials and façade proposals);
- Identify high-quality solutions for the public realm, with the given diversity of functional content, from office jobs and shops to leisure services and meeting places as defined further in this document;

- Identify a design solution that is technically and economically feasible in accordance with the project brief, generating minimal area loss-factors.

The envisaged project is one of mixed use with an estimated Gross Floor Area above ground of around 45,000 sqm.

The project is to be located on the site currently occupied by the Konepaja Train Factory Electric Train Building (ETB) - facing onto Teollisuuskatu between Bruno Granholminkuja and Traverssikuja (marked with the yellow line).

The project site is part of the Pasila Machine Shop Area urban design entity, and is adjacent to the Assembly Hall and Paint Shop buildings that form the heart and symbol of the nationally significant industrial heritage area.



1.2 Invited participants

The Competition started with an open invitation, after which 10 of the applying teams were interviewed. Based on the interviews the following 5 teams were accepted into the competition:

Tommila Architects Ltd., Kaleidoscope Nordic, Nomaji Landscape Architects Ltd., AINS Group

*Architects Rudanko + Kankkunen Ltd., Nomaji Landscape Architects Ltd., WSP
Traffic Planning*

Cobe A/S, Schauman & Nordgren Architects Ltd., WSP Finland Ltd.

Lahdelma & Mahlamäki architects

MASSLab Porto, AFRY & AFRY Ark Studio

1.3 Jury

Representatives of the City Of Helsinki

Rikhard Manninen (chair), Head of Land Use and City Structure, Urban Environment Division, City of Helsinki

Janne Prokkola, Unit Manager, Detailed Planning, City of Helsinki

Tiia Ettala, Senior Architect, Detailed Planning, City of Helsinki

Representatives of Kiinteistö Oy Train Factory

Cameron Sawyer, Kiinteistö Oy Train Factory

Martin Hyams, Architect, AD Studio Architects

Manu Humpi, Architect

Independent professionals in the Jury

David Cook, Architect, Partner, haascookzemrich STUDIO2050, Stuttgart, Germany

Representative of Finnish Association of Architects SAFA

Esko Rautiola, Architect SAFA

Competition Secretary (not a member of the jury)

Petteri Nikki, Architect SAFA

1.4 Approval of the Competition Brief

The competition programme and its appendices were approved by the organizer of the competition and the jury.

1.5 Competition time

First Phase: 22th June – 28th September 2022

Competition seminar for the 1st phase was held on 15th August 2022.

Second Phase: 11th November – 20th January 2023

1.6 Received competition entries

Five proposals were submitted by 28th September 2022, which was the deadline set for the first phase entries of competition. Proposals were left with number tags that are:

201033, 271096, 278418, 422620 and 444044.

The jury noted that,

- All of the entries were submitted on time.
- All of the entries fill the minimum requirements.

The jury decided to accept all the entries for evaluation.

The whole material of each proposal is found on website:
<https://kerrokantasi.hel.fi/trainfactory>

1.7 Criteria for assessment

The following criteria was used to evaluate the submissions:

- Overall architecture approach and strength of idea;
- Input to the area's image and cityscape in relation to the historic Pasila Machine Shop Area;
- Input to the area's image and cityscape in relation to the Teollisuuskatu Axis and the overall cityscape
- The quality of urban spaces, connectivity and the pedestrian realm;
- Traffic functionality and safety, taking into account how the traffic-related premises and principles described in the competition brief have been incorporated;

- Technical feasibility;
- Planning efficiency, commercial and economic efficiency of the proposed solutions;
- Sustainability of the proposed ideas.

2 Assessment of the proposals in the 1st phase

2.1 Assessment process

The Jury met six times and had also a working group assessing the proposals. The Jury consulted traffic experts and Finnish Heritage Agency during the assessment process and was also presented a summary of the Voice Your Opinion (Kerro kantasi) public hearing. The evaluation was carried out anonymously.

Finnish Heritage Agency stated the following:

The Agency sees that the competition site is a unique place for a combination of old & new. Historical identity would be good be a part of the new built as well. Technical issues are very important regarding this site, not the least because of the wooden foundations of the old buildings and the ground water level that should remain undisturbed. One of the main points of interest has been the pedestrian level and how that has been solved. The connection between the new and the old is very important. The museum is not immediately in favor of a high-rise proposal.

Voice Your Opinion public hearing:

Feedback was collected via the Voice Your Opinion service. In the voting the level-height proposal 444044 formed of gabled blocks and the proposal 271096 consisting of three towers rising towards the east got most support (40 and 34 percent), others getting 6-11 percent. In many of the responses the size and high towers were considered alien, but on the other hand also suitable to the location, but lower than proposed. The responses evaluated variedly and in depth the architecture, materials, street level arrangements and connections of the proposals.

2.2 General assessment

2.2.1 Overall architectural approach

The jury has strongly emphasized the need for the solution to have a positive impact on the pedestrian and public environment. The suitability to historical site as well as the architectural connectivity to the existing built structures must be studied carefully.

The new building complex will inevitably change the character of the historical Pasilan Konepaja area. The Jury was particularly mindful on how each of the proposals fit into the valuable cultural environment. The diagonal view from the direction of the Bruno Granholm square and the view along Konepajanpasaasi

alley were considered important view directions and from these the competitors were asked to provide visualizations.

The cityscape character and the impact to the entity of the area varied greatly. Difficulty of understanding the scale of the area was visible in some of the proposals. Forming a holistic character of the cityscape was considered important by the Jury. Continuing the formal language of the historical buildings was experienced as redundant and 'glued-on' excerpt.

Reconciling the demands of the large building volume with the need to maintain and create new pedestrian routes, establish visual new connections, and create focal points within the urban block is critical to the success of the project. These challenges were addressed very differently by the competitors. The constricted nature of the site, together with the organizational and technical requirements of the different public and commercial functions including the respective support spaces / services has proved to be a challenge to all competitors.

2.2.2 Input to the area's cityscape

Some of the competitors approached the task from the street aligning point of view where there are significant building masses between the historical site and Teollisuuskatu. The shadowing effect on Teollisuuskatu and neighboring buildings were seen as a negative consequence of this. The jury points out that due to the orientation of the site each of the entries create a shadowing effect on the street level. High-rise construction is cityscape-wise demanding in this location, but on the other hand the location needs something else than a long and monotonous building. In the most successful design solutions had managed to create a slender volume divided into several parts, that brought something new into the street level.

Connections to the historical site, leading into the urban block, were proposed with differing degrees of openness and levels of invitation. Generous a access to the site, as well as maintaining the visibility of the old facades to Teollisuuskatu were deemed to be essential, although the need to block the noise from the street conflicts to some extent with these objectives. The jury considered the need for a positive addition to the streetscape providing a new dimension to the neighborhood, a new experience in city life and a welcome spatial break to the long and busy Teollisuuskatu as being essential to the new development.

The competition entries proposed different arrangements functions and activities to Teollisuuskatu. The jury emphasized the need for a rich and inviting streetscape, rather than merely providing space for additional retail locations. The jury emphasized the need for a rich and inviting streetscape, rather than merely providing space for additional retail locations. The Jury urged that, the site take into account the demands of 24/7 openness and accommodate public functions with an atmosphere of public marketplace, rather than that of a shopping center or traditional lobby.

When considering the allocation of the above-ground building massing, the need for a tower of reasonable size becomes obvious. The lower-mass studies show that without a high-rise the remaining low-lying structure is both over sized and overscales the surroundings. One of the main challenges of the competition task was thus to find an acceptable location for the higher building volume in the cityscape, and to evaluate the number of possible towers. In the final assessment it was seen that the historical context and urban plan entity of the Pasila Machine Shop area could tolerate one slender tower. It is therefore a question of the location, orientation, and proportions of the tower.

The placement of the tower was strongly guided by the phasing, functions and program set for the project, and as a result the best option was to situate the highest mass to the west side of the site, but as far away as possible from the neighboring housing block, in connection to the inner courtyard (Konepajanpasaasi).

The appearance of the existing concrete and steel industrial structures on site is defined by a combination of brick and glass with delicate detailing. The Jury therefore looked to see how the competitors proposed combining any new materials with the existing structures. It was concluded that continuing with new brick facades can, if not carefully considered, easily lead to imitation which is not desirable. The balance between new and old materials is critical to the success of the project and must at all times remain respectful of the historic buildings.

2.2.3 Quality of urban spaces, connectivity and the pedestrian realm

The issue public traffic through the site is addressed very differently by the 5 proposals; varying from totally open to closed with strictly limited connections. While the most open of the proposals achieves a freely accessible ground level connecting the historical buildings directly to the Teollisuuskatu streetscape, the most closed cuts this connection and provides only a narrow passage and interior connection to the urban block.

The Jury feels that this openness is critical to the success of the project and is to be maintained and further developed in respect to the careful study of the structures and services necessary to serve the above ground spaces.

2.2.4 Traffic functionality and safety

Below ground parking was not to be considered as part of this competition study, but all proposals showed that the impact of driveways, in combination with service yards must be studied further.

Difficulties in solving the hotel and office drop-off when crossing the high-speed bicycling lane as well as very tightly dimensioned pedestrian lanes on Teollisuuskatu are present in just about each proposal.

Location of tram stop is not yet decided by the authorities, as such its accessibility and potential impact on the project cannot be evaluated at this point in time.

2.2.5 Technical feasibility, planning efficiency, commercial and economic efficiency

There are several technical issues in all the proposals in structure, HVAC and functions at this point which need to be addressed as the project proceeds.

All the proposals can be optimized in terms of in creating an effective, economically and commercially feasible structures which allow flexibility and multipurpose use in the future.

2.2.6 Sustainability

None of the competitors showed a totally integrated proposal to environmental or ecological questions, although all did present ideas around the theme, varying from recycling existing materials, incorporating greenery, using low-carbon materials etc. As the project proceeds it is essential that the agenda be developed through dialogue with the authorities.

Based upon the different building geometries a combination of passive / technical solutions is possible in each of the proposals. Further development will require a closer look on the matter due the tightening regulations and issues of ever-increasing public perception.

271096

The proposal is based on three separate volumes aligned with Teollisuuskatu, The rising masses have been divided horizontally into 2-3 separate volumes. The buildings are of moderate height and therefore don't compete with the higher accents in Kalasatama and Pasila. This proposal is the only one that has situated the highest volume on the east side of the site. This has many advantages regarding the urban context and cityscape, but the solution is problematic programmatically: hotel functions fit better in a high and slender volume than do offices, but due to phasing and functional aspects (loading bay etc), it is clear that the hotel should preferably be on the western end of the site.

The presented scheme shows a great understanding of the context, and the street level is the strongest among the proposals. The connection to the Konepajanpasaasi is open and easy, but maybe a bit too straightforward, regarding both the spatial character of Konepajanpasaasi and the busy traffic environment of Teollisuuskatu, although the glass roof makes this space pleasant, and its height provides potential for different functions. The Winter Garden is presented as a multi-function entrance to both hotel and offices, as well as a passage to the large market hall in the existing Assembly Hall. It is situated elegantly as a continuation of the Assembly Hall Cathedral Space and opening up the -1 level to the street level is an interesting idea.

A double height market hall -type space is proposed between the old and new structures, creating a pedestrian passage all the way from Traverssikuja to Bruno Granholmin kuja. This is a convincing idea, but the loading bay has to remain where it is at the moment, thus impeding the connection through to Bruno Granholmin kuja. To summarize, the ground floor spaces of the proposal are beautiful and inviting.

The presented materials and coloring form a strong connection with the existing historical buildings and continue the scheme of the area, where commercial buildings are brick-colored while the upper volumes of housing blocks are white.

The view from the street level shows an indecisiveness in which form the architectural language should be applied. Deriving from the existing roof forms is superficial and not assuring. The northern corner with over scaled tilted roofs is very strange to this industrial milieu. The front is heavy on Teollisuuskatu side, and the combination of the three building volumes form a massive wall to the street. The massing is not elegant, and makes a heavy impression. Despite the intent of having a historical flavor, it is likely that the new built will look very different to the old buildings.

Dividing the hotel into two volumes is not possible, this would probably lead to two separate hotels which is undesirable. The resilience and flexibility is well considered and thought through. The proposal has sensible floor plates and it is in general a buildable solution.



278412

The proposal foresees a distinctive podium. The podium lends optimum visibility to the old buildings through the glazed elevation to Teollisuuskatu. The project presents a strong concept, presenting a totally new view onto the site by lifting the buildings onto the podium. This allows a very generous contact for the pedestrians to the historical buildings and opens up the entire site toward the street. This part of the concept is convincing and beautifully presented. However, in reality the covered area should be mostly glazed and protected from the winds and cold, for most of the year, direct sunlight would be restricted, and a cold shaded space would need to be avoided through appropriate lighting and climate concept. Any extensive covered exterior areas beside a heavily trafficked street must be avoided as these would be very noisy and feel unsafe.

The wooden material chosen for the podiums lower structures is not seeking to mirror the historical sheds, but instead provide a strong contrast. The large wave-like forms of the podium provide further contrast the existing historic structures on site. There is therefore no attempt at any form of imitation. The roof above the podium and its proposed use is beautifully presented and would bring a peaceful but active exterior for the hotel guests and the people working in the offices. It would be greatly beneficial to open this level for the public too.

The proposed greenery is beautiful, but it's to be questioned if any of the nordic evergreen trees would manage here, as they need a much greater space of soil in terms of depth and width in order to prosper. The proposed large trees must be assessed in terms of maintenance and reparation of the complex podium structure.

Above the podium, lower part of the building volumes is treated in brick, while the facades of high-rise volumes are white and "transparent". The material presented provide little trace of how the appearance of most of the building volumes are going to be resolved. The scaling of the buildings must be addressed, with appropriate reference to the existing buildings in the vicinity. It is essential that the vertical bearing structures should be brought through the podium down to foundation level, which would strongly affect the space under the podium. The open nature of the podium should not be allowed to change when combination of technical issues and sheltering of the public realm are addressed. The massing of the towers seems haphazard and lacks elegance. In general, the organization of the volumes would need to be developed further, with a view to making the proposal lighter and more coherent.

The relationship to the Konepaja area and the historical buildings is not shown in the images and drawings and the connection to the old buildings is weak and must be developed further.

The proposal is ambitious with a wide-ranging agenda, and there is an inherent risk that it would suffer in the further design process if not carefully managed. The model is falsely scaled vertically, being lower than in reality.



422620

The proposal foresees the program divided into two distinctly different parts and as such the composition forms a clear and bold statement: the low-lying horizontal mass is devoted to the office building; the hotel and conference functions are located in the towers. Architecture of the lower building has pleasant resemblance to modern historical industrial architecture. The receding form of the office improves the natural lighting down to street level and blocks efficiently the traffic noise from towards the inner site. The taller of the towers forms a beautiful composition with the old buildings on the courtyard side (Konepajanpasaasi). The passage is led very logically between the two large masses giving a natural invitation to the area. Entrance to the office lobby is marked with a strong triangular cut in the horizontal mass. The architectural and functional role of these cuts should be studied further to make full use of their potential, and clearly lead pedestrians through the new building and towards the Assembly Hall Cathedral Space.

The connection to the Konepajanpasaasi could be wider and have some inviting services placed on both sides of the passage. The street level is uninviting, even dull. The public realm needs to be reconsidered thoroughly to provide an inviting and pleasant walking area. The tower is very high but ordinary in functions and the facades still need work.

The relatively simple forms make proposal structurally viable. The office building is basically well thought of, but the deep core of the lower part is difficult to use efficiently, although the triangular cuts help some. The deep floor plates at the lower levels are difficult in terms of daylighting, etc. The shape of these “cuts” should be reconsidered, especially in the street view where the marking of something significant is missing.

The larger tower is very high, and simple in terms of function. However, dividing hotel into two towers is impractical and needs to be thought over. The highest part has shrunk to uneconomical dimensions. The facades of the tower need further development to reach an acceptable level of detail. Office floor plates are difficult to sub-divide.

All traffic and service are currently taken below ground level contrary to the competition brief. One entrance to the basement for parking and all services is not considered a preferable solution.



201033

The proposal is a grand posture and it's based on one single strong form which associates directly with historical industrial large-volume architecture. It has a very strong character and an immediate factory feeling to it. It's architecture represents a bold addition to the site, although its places the historic halls in a suppressed position hiding them from the street-view. In spite of its inviting vaulted form, the turning of the entrance passage reinforces this hiding effect., The vaulted brickwork forms appear to conflict with the themes of the historical buildings. The recessed façade provide light to Teollisuuskatu even though the massing is large. Through its disitinctlve form the buildingt is likely to become a destination.

The extensive use of brick establishes a direct connection to the historical building materials.

The proposed facades are beautifully presented, and the hand-drawn perspective is charming and enticing. The brick facades create a straight connection to the historical building materials.

The tower resembles a chimney but does not make any special contribution to the function of the building other than its strong position in the town scape. Neither it's positioning nor the large format signage is convincing in this context.

Public connection towards Teollisuuskatu is weak and the building remains uninviting. The concept does not appear to encourage urban activities other than those already present. This is a missed opportunity. The street façade is long and straight, with mainly conference rooms and no entrances or porousness.

The staggered building form allows for light to the street and avoids excessive shadowing, Excessive use of glassy facades was questioned, as were the largely opaque facades at the lower floor levels which would unnecessarily reduce daylighting levels.

The singular, extruded building form is not fit for its purpose. It is functionally flawed, and it is economically very demanding. Hotel and conference facilities cannot occupy the same floors of the building. There is an excessive amount of conference space in the proposal. The maintenance of the building would also be difficult and expensive. To place a hotel in the narrowing body of the building in near to impossible and will bring a multitude if technical and functional problems.

When examined in the scale-model, the proposal appeared over-sized, and dominated its historic neighbors.



444044

The proposal is seen as a very literal translation of the competition brief. It has taken the materiality from the historic buildings on site and has a strong resemblance to historical central-european waterfront warehouses. The two large building functions are disguised behind series of detached roofs and individual facades supporting this impression. The two building masses are of the same size and with a narrow opening in the middle. This significant urban gesture is however not opening towards the Konepajanpasaasi, thus not contributing any real value. Horizontally the whole Teollisuuskatu street level is of the same structure and the opening to the site beyond is neither appealing, nor convincing.

The facades are treated in a manner which reinforces the large volumes, without any reference to the inner structures. This gives the feeling of an oversized proposal, where structures and functions remain illegible. The roof forms are not fitting, and make no convincing urban contribution.

The proposal is very practical, rational, and flexible in terms of the floor plates. Floor plates are of a commercially viable. The design is commercially strong, and its buildability is good. The organization of the volumes in the floor plan echoes the character of industrial buildings, but unfortunately this isn't conveyed in the character and massing of the proposal.

The traffic has been all taken underground. All parking is on level -2 and below. This must be reconsidered.

The division of the buildings should mark access to the urban block, but it is made symmetrical, without sensitivity to the historic neighboring buildings. Pedestrian level is not studied at all and weakens the proposal.

The true scale of the project cannot be seen in the views, and the proposal is deceptive of its scale. In the scale-model the design reveals itself to be largely oversized and over- scaled, dominating its neighbours. A project of this size would benefit from some variety in higher rising structures, this would lessen the effect on the street level and the overall heaviness of the proposal.



3 Jury decision on second phase

After lengthy debate the Jury, felt that although each of the projects had its own attributes, none of the proposals was convincing enough to be able to select an individual winner. Instead, it was decided to invite three of the participants to work further on their proposals and address a number of concerns raised during the Jury appraisals. It was therefore decided to introduce a second phase to the competition.

For the second phase of the competition the Jury provided additional information which the competitors would be requested to take into account in their updated proposals. The second phase of the competition was to remain anonymous.

4 Second phase

4.1 Design guidelines

Before the 2nd Phase the competitors were given the following instructions for developing their entries:

To all proposals

It has been clarified that at this point there will be no **retail units** on the ground level of the new buildings. This space should be devoted to public and semi-public functions, culture, digital art, galleries, concert space, anything like that. It should be shown how this type of space can be created here, still considering flexibility for further uses.

Even though the Teollisuuskatu Axis is envisioned to connect Pasila and Kalasatama, The Kalasatama towers (max +133 from sea level) and the Tripla mixed use complex in Pasila (max. +93,5) should remain dominants in the cityscape. Study the relationship of the proposal to these in the cityscape.

As additional information the competitors are provided with a fixed phasing line (the existing juncture between the two building phases of the ETB, Appendix 1). Explain how the project can be phased along this line.

As specified in the competition brief (4.6 Traffic and Appendix 11 "Traffic Study Report") and additional Appendix 2 of these instructions, the loading bay for the existing supermarket in the Assembly Hall must be located on the ground floor, adjacent to the Assembly Hall. The hotel service traffic can be arranged from Traverssikuja. The competitors are also asked to pay attention to the quality and dimensioning of the pedestrian zone (footway) along Teollisuuskatu. Show the pedestrian and bicycle lanes in the ground floor drawing and specify if the pedestrian lane passes through an arcade etc.

Additionally, all competitors are asked to provide

- shadow studies on the dates March 31st at 11.00 and June 1st at 9.00

- gross & net floor area (huoneistoala) listed in a spreadsheet, with above / below ground spaces separated (see Appendix 3)
- explanation of the main functional idea of the HVAC solution.

4.1.1 Specific guidelines for 271096

The ground floor connects beautifully with the existing historical context, but the massing of the superstructures is very bulky and needs further studying. The number, height, position and orientation of the highest masses must be reconsidered. In the current proposal the superstructure is permeable only when viewed from straight up front whereas from Bruno Granholm square and Teollisuuskatu the solution looks very massive. Setbacks should be studied on the street side, as it is seen especially problematic that the proposal forms a massive straight wall towards Teollisuuskatu. The massing of the superstructures is encouraged to be developed with two rather than three superstructures, along the lines of Variant "A" in the competition proposal.

The area's industrial history should be conveyed more through the overall architectural concept (massing) than by its detailing. The street view is a mixture of different approaches – simpler and more decisive architecture is needed. A more differentiated architectural response in term of materials and colors could help reduce the bulky appearance.

The proposal's ground floor is meticulously studied and beautifully presented but more generosity towards the public realm could be added. The podium appears closed and rather conventional to the street and should be made more "porous", providing a more a "playful" gateway to the site. The idea of an open summer garden in a tunnel facing a noisy street is not quite viable and the character of this connection would need some further studying. The proposed external alley along the Assembly Hall façade between the Cathedral Space entrance and Bruno Granholmin kuja is not possible due to supermarket loading bay. The competitors are encouraged to identify if semipublic space can be accommodated on the upper or podium levels.

The hotel tower should be slender and not have an unnecessary number of enlarged lower floors – bedroom floors should have identical floor plates.

4.1.2 Specific guidelines for 278412

The overall composition and architectural expression should be worked on. The towers and middle level masses seem randomly placed and their architecture sketchy. The jury would like to see these masses configured and designed in a way to emphasize their lightness; if possible the towers should "disappear" into the sky.

The proposal focuses strongly on the Teollisuuskatu side. The massing and architecture of the proposal should be better studied in relationship to the

Konepaja area (historical, new and soon coming structures). The view from Konepajanpasaasi should be shown from the pedestrian level.

Sensitivity should be shown to overshadowing of the residential building across Traverssikuja to the West.

The transparency of the ground floor and the „re-stitching“ of the urban fabric is a key feature of the proposal. However, the amount and placement of open space under the canopy should be revised (considering lighting, weather conditions, structural feasibility, functionality, social safety issues etc) and the leakage of traffic noise from Teollisuuskatu to Konepajanpasaasi should be considered. Considering the Finnish climate and the Finnish building regulations it is not viable to open and close such large glazed areas between winter and summer. The amount of open-air and enclosed space should be mainly fixed. Show the connection between the historic buildings and the public realm in more detail. What will we see of the historic buildings? How does pedestrian traffic flow? The possible uses and layout of the ground level need to be shown more clearly.

Clarify the hotel and office circulation and lobby spaces. The number of „blocks“ is to be rationalized. The proportions of the towers as well as the balance of accommodation located in the towers versus the accommodation in the midrise elements should be studied. The positions, heights and interconnectivity of the midrise volumes should be further developed in order to achieve larger floor plates for the office functions and prevent having to double up on cores, stairs, lifts etc. The hotel should be a slender tower with larger floors on only enough levels to provide necessary non-bedroom space.

Show how the proposal can be made technically feasible. How will the structural engineering work without a forest of columns on the ground level? Will the entire green level floor slab be a massive transfer slab? Large, high, open, column free space on the ground level is very appealing, lightening the scheme and revealing the historical buildings, and producing a noble public realm and indentation in the Teollisuuskatu line of facades, but is it buildable?

The greenery is an essential part of the concept proposal. However, big trees, and especially evergreens, require a great deal of soil and depth. Also, as in the Finnish climate trees grow slowly and deck superstructures need to be renovated around every 40 years, the presented big trees seem unfeasible. The concept should be verified in terms of what amount and type of greenery is feasible in the presented structure and local climate.

The proposed drop-off is dangerous regarding the high-speed bicycle lane. The motor vehicles should not cross the bicycle lane. The service yard for the supermarket needs to be adequately dimensioned.

4.1.3 Specific guidelines for 422620

The ground floor scheme of this project needs to be reworked in a different spirit. The ground floor spaces should be high, open, and generous, creating an

indentation in the canyon-like line of facades along Teollisuuskatu and an enlarged public realm – a public node in the middle of Teollisuuskatu.

The slot between the tower and the low office building is interesting but also problematic. The connection should be made more generous and attractive. Is it possible to have more visual connection to the historical Train Factory buildings from Teollisuuskatu (without compromising the architectural idea of the proposal or the acoustics of Konepajanpasaasi)? The semipublic connection from Teollisuuskatu to the Cathedral Space of the Assembly Hall should be made more evident and inviting. The proposed external alley along the Assembly Hall façade between the Cathedral Space entrance and Bruno Granholmin kuja is not possible due to the supermarket loading bay.

The position of the tower at the end of the courtyard is very convincing, but its architecture should be worked on further. The tower is beautifully slender seen from the narrow side but seems very wide when the site is looked at longitudinally from further away. Intensify the meaning of the “cut” in the street façade of the horizontal mass.

Assess the depth, arrangement and/or height of the lower floors of the stepped, extruded office building in terms of daylighting and future flexibility (multiple uses, dividing into multiple tenants etc).

In the process of opening up the ground floor they will lose floor area from the (many) floors they have squeezed into the ETB podium height – where will this area be compensated in the project to ensure they will still meet the total gross area requirement?

5 Assessment of the proposals for the second phase

5.1 Received entries

All three proposals that were asked to be developed were submitted by 20th January 2023, which was the deadline set for the second phase entries of competition. Proposals were left with the same number tags as in the first phase: 271096, 278418 and 422620.

The jury noted that

- All of the entries were submitted on time.
- All of the entries fill the minimum requirements.

The jury decided to accept all of the entries for evaluation.

5.2 General assessment

In the second phase all competitor had developed their work according to the Jury's instructions and the general level of the designs was good. Heights of the building masses had been checked and ground level solution developed. Service yards had been located on ground floor as per competition brief.

Cityscape-wise the proposals had been developed into positive direction. The new building will continue the central urban structural idea of Konepaja area, where new buildings on the edge of the greater block frame the core of the block formed by the historical buildings.

271096

Jury's assessment:

The formerly 3-mass proposal has been changed to two similar masses of roughly equivalent height. The towers have now been pulled back from Teollisuuskatu and the given phasing line has been taken into account. The massing of the proposal has improved with the previous "wall-effect" addressed and greater transparency achieved. The developed proposal gives a lighter effect towards Teollisuuskatu, The distinctive architecture has been retained and developed further. The two flat tower-like buildings of almost the same height appear unmotivated and not the right solution for this site.

Unfortunately, the ground floor has lost a lot of its joy in the second phase. The street front is less inviting than in the first phase and there are still problems regarding pedestrian routes and their dimensions. It is unclear why the connection between Konepajanpasaasi and the 'Cathedral' entrance has been omitted from the updated project.

Deliveries on ground floor have been designed according to the given guidelines. The highest volume rises to +109.00 from sea level but it is unlikely the technical spaces currently presented are adequate.

The proposal is commercially sensible and easily workable towards the desired direction. The simplicity of the proposal is its strength. However, the manner in which the proposal references its historical neighbors is not deemed appropriate. The detailing appears alien to its context and at times difficult to execute. The straightforward massing does balance this, but stylistically the proposal is not seen as strong enough.



278412

Jury's assessment:

The proposal has the strongest approach in terms of the public realm: a generous, inviting space that gives the most to the public and has the potential to provide a public attraction and a place with an identity. The functions in the podium contribute toward extensive public use, although concerns about the weather remain.

The enclosures of the ground level have been developed into more realistic solution, although the loading bays remain too small. The extensive lobby space must be shown to work for different user groups at the same time. Should the project be developed further special care should be taken to ensure the space created is truly attractive and functions as an essential part of the city.

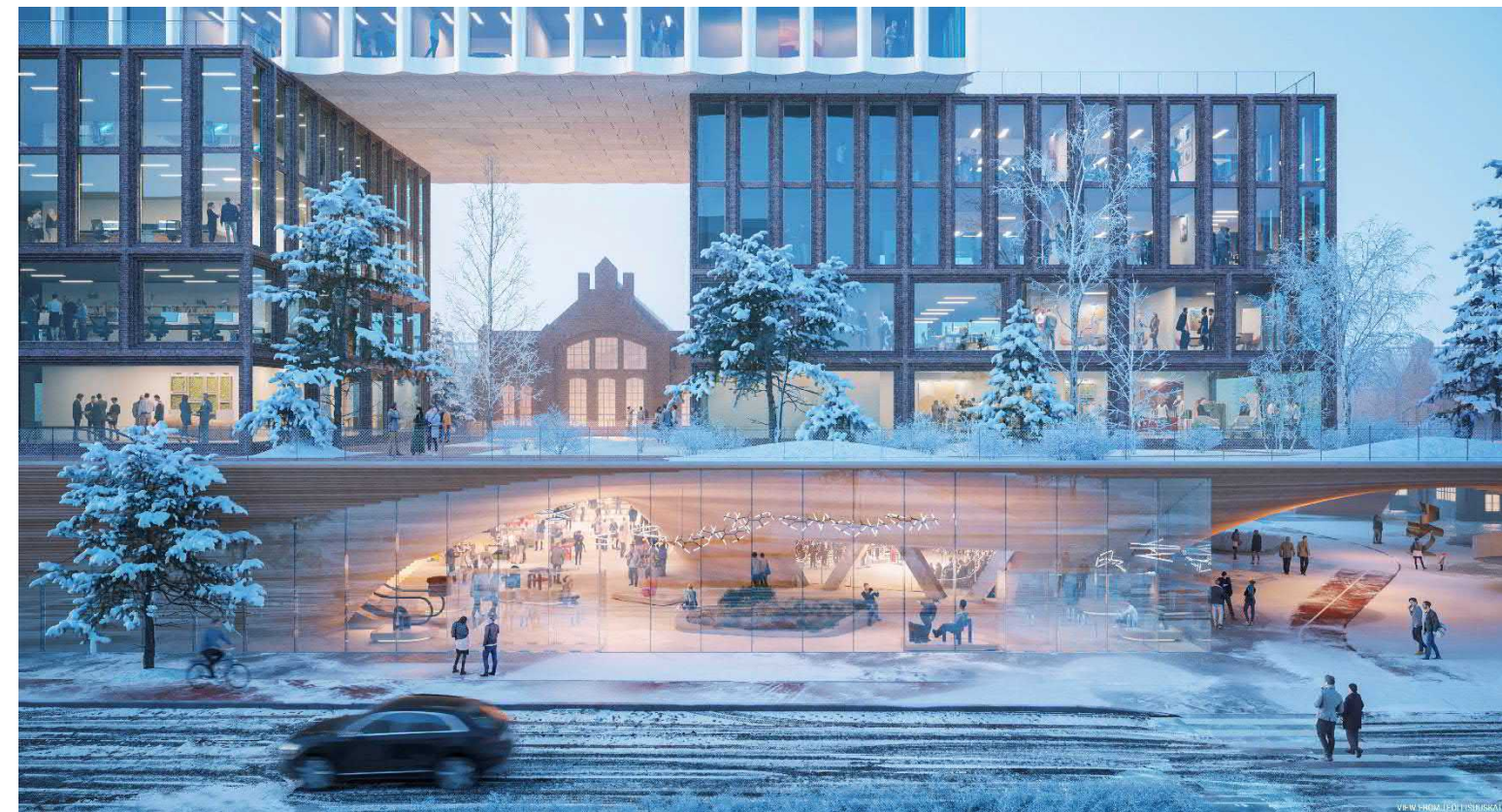
The Jury welcomed the fact that the updated proposal now has only a single slender tower. The facades have been developed in greater detail addressing some of the concerns raised in the first phase of the competition. Basically, the massing of the project above podium has been reassessed. The Jury welcomed the simplifications here but believed that the massing of the office building can be further improved.

The volumes above the podium are conceived as a composition responding to masses of the neighboring buildings. By treating the external appearance of these volumes as three vertical layers the proposal feels distinctly lighter, but however the uppermost office volume remains too bulky. A positive addition is the opening through the office building, which gives a glimpse of the Cathedral Space gable end from the street side, although it is not clear if this can be seen from pedestrian level. The proportions of the tower are good, and the office floor plates are commercially sensible. The depths of the floor plates have been carefully controlled throughout. The jury were also impressed by the visible lightness of the office and hotel masses and the gap between them when seen from the courtyard. The volumes do not dominate the public realm.

The "Raised Forest", which is one of the main ideas of the original proposal, has been concentrated and reduced in size. The roof of the podium currently appears expensive to construct, it is anticipated that the superstructure can be further rationalized. Above ground structures must be carefully coordinated with a grid in the basement levels.

The additive nature of the architectural concept allows for the position of structures above the podium to be further optimized.

The presented shadow studies are not accurate, the shadows being shorter than in reality.



422620

Jury's assessment:

The proposal has developed into a slightly lower but distinctly heavier scheme with substantial change in the hotel massing. The tower has been reduced in height. The elegance of the original proposal has been compromised. The project retains a clear architectural idea with the tower well positioned. The narrow opening between the two main volumes has been retained despite the concerns of the Jury. Connection to the 'Cathedral' has improved.

Delivery has been changed to ground level. Hotel lobby remains is a little congested, but workable. Although the distribution of program is clear the hotel floor plans are problematic in terms of the staggered building form. Technical spaces are not adequate. Concerns remain regarding the depths of the floor plates for the office building.

The Jury welcomed the sketches describing how their comments to the original proposal have been addressed, without losing the original architectural idea and concept. This dialogue is highly constructive. Ground floor has been developed and the spaces have been enlivened of the proposals, The manner in which the proposal addresses the street has improved. The ground floor facades are a playful and convincing response to the urban context.

From a commercial point of view the stepped form of the tower is next to impossible to develop as a hotel. In general, all the floor plates appear to compromise the use; office plates are either too small or too deep, hotel floor plans are currently impossible to build in a pragmatic manner.

The tower slender appearance of tower has been lost; the wider form now has a far more overpowering presence in terms of the public courtyard.

The scale model is nice, probably best suiting to the area.



6 Selection of the winner

All three teams submitted a revised proposal that had been developed according to the given guidelines. All three proposals have generally developed positively in response to the comments from the first phase, although the jury found that all three proposals still had both strengths and weaknesses in terms of organization, massing, and response to the urban situation. It is envisaged that further development will be necessary as part of an ongoing dialogue with the authorities.

After lengthy discussions the jury chose the proposal 278412 as the winner.

The jury found that 278412 gave the best response to the demand of an active and inviting street level and had the best potential to create a vibrant, highly attractive new entrance and new public spaces to the Train Factory area, as well as a unique new destination for the city. The scheme was by far the most generous in providing a varied and substantial public realm that complimented the public spaces provided by the old train buildings. The elegant single tower is considered an appropriate response to the hotel. The raised public gardens have the potential to create a shared asset for both the offices and hotel distinguishing them from competition in the city.

A Roof for Helsinki was chosen to be the winner, as its strong and unique design composition combines Teollisuuskatu with Pasilan Konepaja in a new and interesting way. The Jury assessed that the active and inviting street level of the proposal 278412 correlates best with the goals of the project and the the proposal has the largest potential in creating a new entrance into the Konepaja area and a new unique attractive destination in the city.

Nevertheless, like all three projects, the design concept for 278412 is not considered to be completed and will be further developed during the next design phases. The Jury recognizes that the strong concept has an inherent flexibility which should enable design adjustments to be made without diluting its original idea.

7 Jury recommendations for further planning

The Jury recommends the following guidelines for the next planning stages of the project:

The challenging location between heavily trafficked Teollisuuskatu and the pedestrian active inner courtyard with its historic industrial creates a situation where desired openness which is crucially important for keeping the concept, must be balanced with issues of the protection from traffic noise. The public areas should stay generous and open all day and all-year-round, protecting from unpleasant weather and exterior circumstances. Visitors must be encouraged to dwell. The street level must remain "porous" and stay transparent with special attention paid to connections and views of the historical buildings to the Teollisuuskatu side.

The resilience, functionality and flexibility of the ground floor should be studied further as the program continues to evolve.

The roof above the podium should be active, inviting, and accessible to public. Multiple points of access to the offices and hotel should be encouraged, thereby encouraging use of the proposed gardens.

The horizontal office volume should be studied further in terms of massing and Teollisuuskatu lighting conditions, paying careful attention to façade treatment and composition. Deep floor plans should continue to be avoided.

The dimensioning of the podium should be studied further. By increasing the height of the podium public parts of the program could be better accommodated. Further, a slightly higher podium level could also connect better to the immediate surroundings and pay reference to the current volumetric form of the existing ETB building.

The wooden cladding of the podium level should be re-assessed in further design phases: perhaps would another material connect better to the historical milieu?

The greenery strategy should be carefully studied while retaining the goal of an urban forest.

The structural concept should be rationalized and potential impact of mechanical plans to be considered thoroughly without major structures on the roof level. The structural rationalization should nevertheless not obstruct the openness of the ground floor and the concept of flow of space, which should be retained in further development of the design.

The dimensioning and organization of the traffic and service solutions are to be optimized.

The jury looks forward to seeing how the concept is further developed and understands that adjustments will have to be made. The development team must ensure that the concept is not diluted during this process if we are to maximise the potential of the train factory site and give Helsinki a new world-class public destination to be proud of.

8 Approval of the Jury Report

Helsinki 15.2.2022

Rikhard Manninen

Head of Land Use and City Structure
Urban Environment Division, City of Helsinki

Cameron Sawyer

Kiinteistö Oy Train Factory

Janne Prokkola

Unit Manager, Detailed Planning,
City of Helsinki

David Cook

Architect Partner,
haascookzemmrich STUDIO2050,
Stuttgart, Germany

Tiia Ettala

Senior Architect, Detailed Planning
City of Helsinki

Martin Hyams

Architect, Partner
AD Studio Architects

Esko Rautiola

Representative of Finnish Association
of Architects SAFA, impartial member

Manu Humppi

Architect

9 Identity of competitors

422620

*Tommila Architects Ltd., Kaleidoscope Nordic, Nomaji Landscape Architects Ltd.,
AINS Group*

444044

*Architects Rudanko + Kankkunen Ltd., Nomaji Landscape Architects Ltd., WSP
Traffic Planning*

271096

Cobe A/S, Schauman & Nordgren Architects Ltd., WSP Finland Ltd.

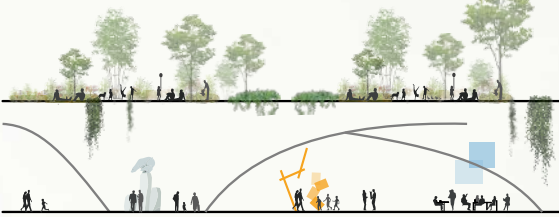
201033

Lahdelma & Mahlamäki architects

278412

MASSLab Porto, AFRY & AFRY Ark Studio

A ROOF FOR HELSINKI



The vision for the Train Factory is a blend of Urbanity, Landscape and Architecture - filled with civic engagement, exploration, and connections to people and place.



VIEW FROM THE GREEN OPEN PUBLIC ROUTE - KONEPAJANPASAAZI

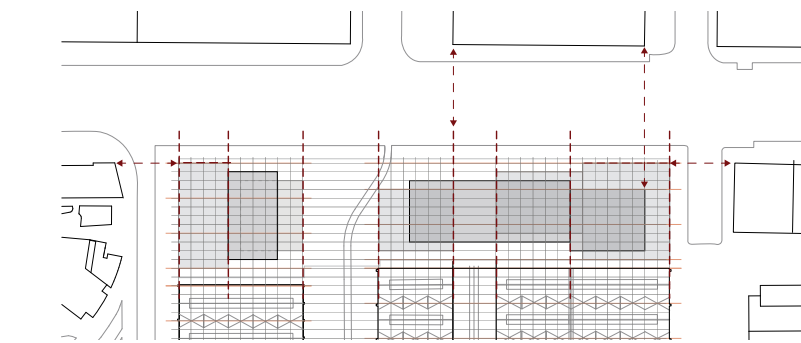


HOW MIGHT WE TRANSFORM A FORMER TRAIN FACTORY INTO A VIBRANT HIGH DENSITY MIXED USE HUB WHILE PRESERVING ITS RICH HISTORICAL HERITAGE?

A strategy based on a unique blend of special cultural heritage and forward-thinking solutions, where the ambition is to set an example that contributes to the sustainability ambitions of the municipality and benefits everyone in the city by generating a variety of public spaces that can be used all year around.

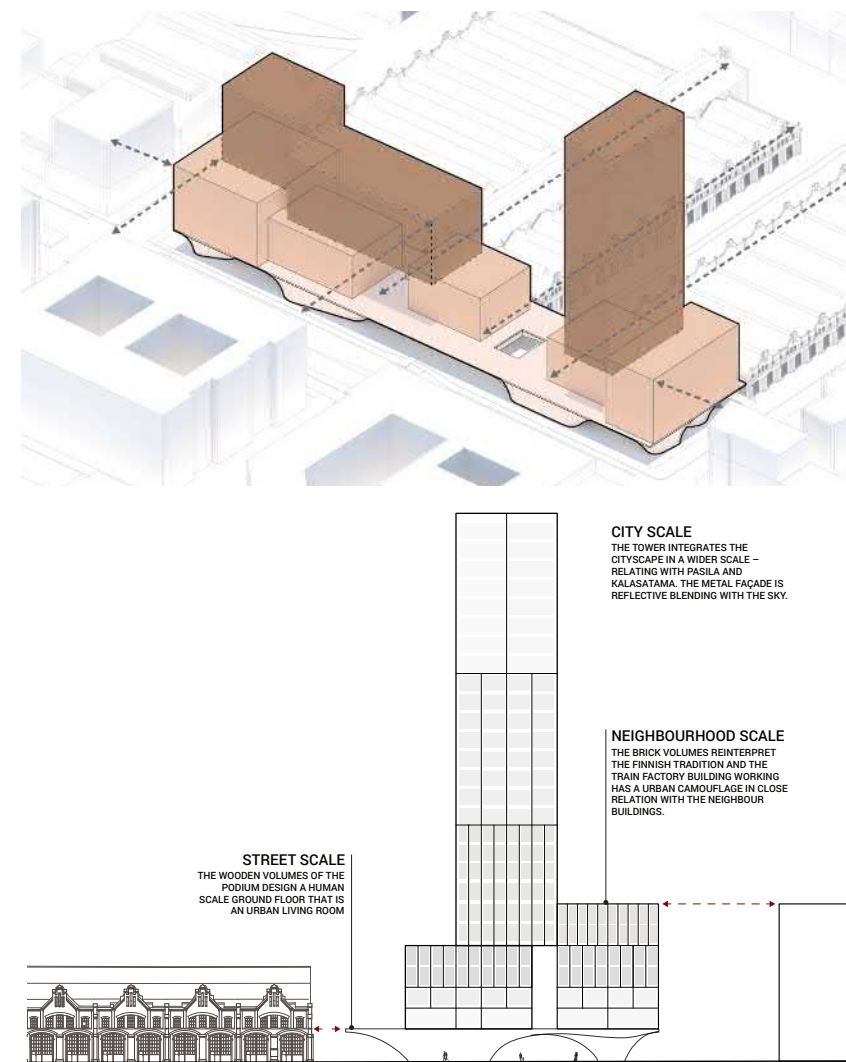
A place for everyone - a mixed use neighbourhood that accommodates a system of streets, parks, plazas, and open spaces that encourages people to spend more time outdoors, together. A place where there is space for both an active life and a quiet retreat. The new tiny forest combined with the thriving ground floor will become a destination in the city, inviting visitors with a full offering of cultural life, sports and leisure activities.

RATIONAL BUILT LANDSCAPE

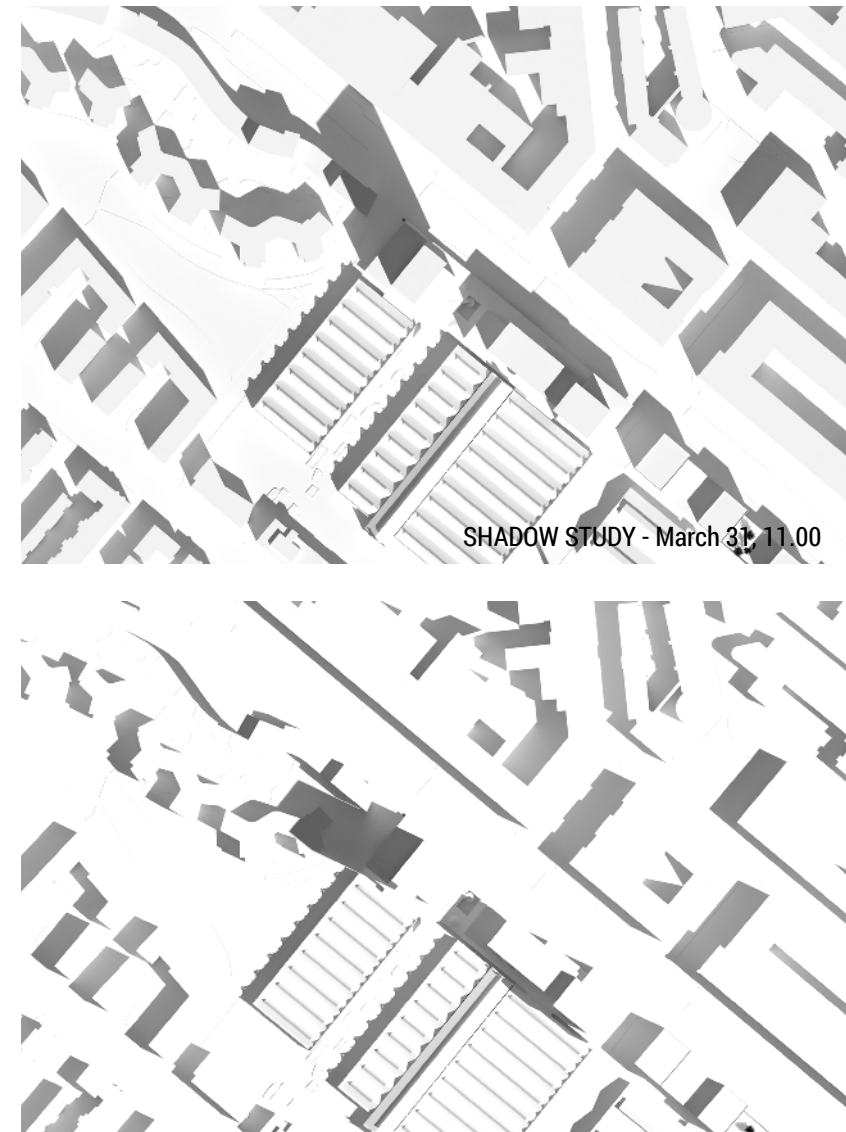


For us the new Train Factory Hub should be a reversion of natural laws within the limits of urban space. Building 45,000 m² in a 6,000m² plot with 3 levels of underground could easily point to creating a self-contained building. Thus, we propose a building that comes out from the need for open space versus the allure of the solid traditional block - reimagining the urban and its connections.

We know that an expansive open space network is vital to create a neighborhood culture and forming community bonds, and therefore we lifted the building podium, liberating space for a system of parks, plazas, and open spaces that encourages people to spend more time outdoors, together. The ground level is designed by the urban circulation and composed by a series of rounded wooden volumes. The study of the expected pedestrians preferred routes formed the basis for the proposed design, creating an unexpected urban space that considers primarily the needs of pedestrians and cyclists. The former train station will be not only a mixed-use building, but a thriving urban living room. This idea present on the base on the building is supported by the view that is projected to the surrounding area. All the blocks placed on top of the ground floor pedestal seek alignments from the surrounding buildings, making clear and concise their design between themselves and the neighbouring buildings.

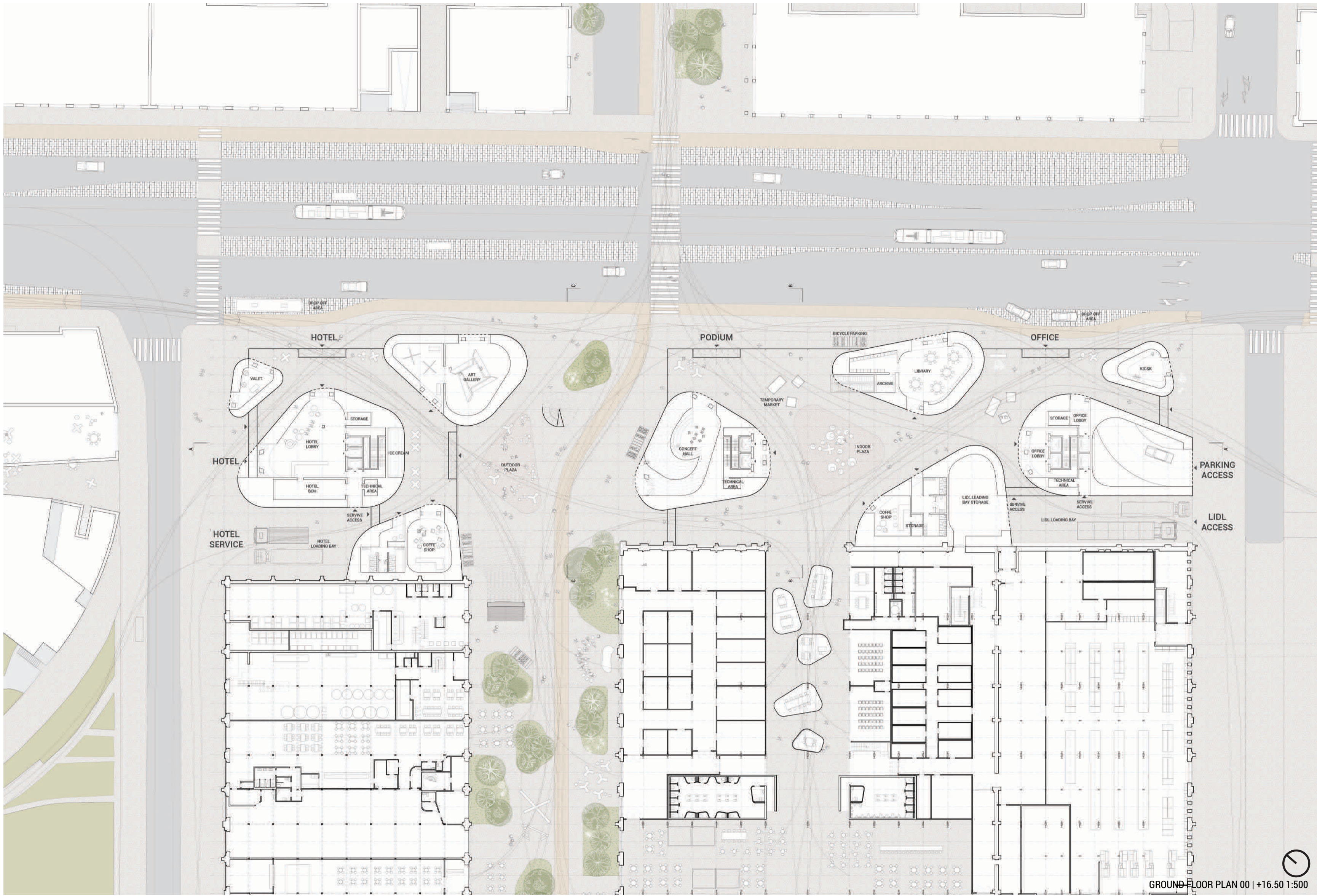


The care that is put in the overall organization and material work of the roads, sidewalks and pathways is mirrored in the comprehensive way in which a complex structure results in an apparently organic form. In this way, we understand that we are not overdesigning a building but we are making concrete attempts at conforming mass through empty space, through the possibilities for occupation given by a specific location. With an increase of density within city limits there is also an excess of overdesign, thus the focus of the project becomes the void within the mass and the organic elements that are going to organize different steps within the overall logic of the proposal. That way the relationship with the surrounding buildings is softened and putting the emphasis on a light design that enables the passersby to take part and occupy the place.





VIEW FROM TÖYSÄNKATU



GROUND FLOOR PLAN 00 | +16.50 1:500

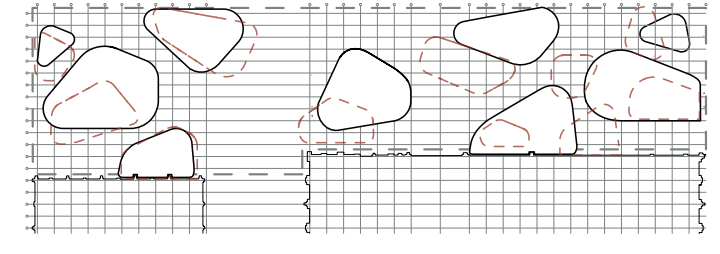
BUILDING PUBLIC BEFORE PRIVATE

An 'everyday' public realm is not meant to be an escape from the city, but instead to be a fundamental shaper of the community – filled with civic engagement, exploration, and connections to people and place. The new urban heart will be both a covered public space, able to be used all seasons of the year, and a shared lifted garden, composed of a tiny forest and a series of shared programs that serve the hotel, the office spaces, and the city. Here, everyone can experience a vibrant public realm – full of life and energy. 24/7, 365 days a year. The covered ground floor features an expansive public realm designed to bring together residents, workers, and visitors of all ages and abilities and to remove traditional barriers between indoors and outdoors, public space and private space.

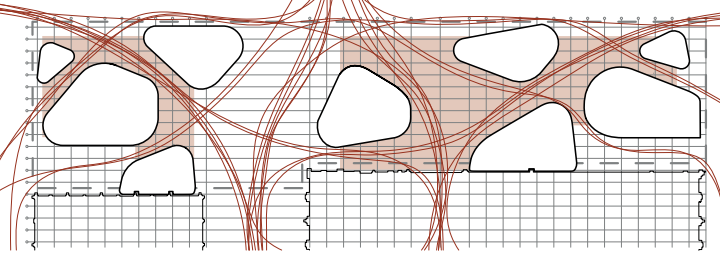
The proposed urban space does not treat the plot in isolation, instead aiming to create a network carefully stitched together with surrounding areas. This organization of the void gives us the opportunity to organize the access cores to the upper floor, organizing them around three main cores, that permit independent but connected access to the blocks on top of the platform. The fluid green corridor crosses the plot, punctuated with a monumental skylight and access to the upper floor. The Teollisuuskatu edge is carefully designed to accommodate the urban flows, such as bike lanes, public transportation and drop-off for the hotel and office buildings. The service access is delicately positioning between the wooden bubbles both on Traversisukuja and Bruno Granholminkuja, allowing all service works without disturbing the urban flows. The building becomes a nucleus for the surrounding area where through the lightness of the composition the buildings around it are elevated and not overshadowed. The base proposes itself as a backdrop for the historic building, choosing not to impose but to soften its contact with the old.

The lifted podium, provides the opportunity to create a big shared green space, taking advantage of the better sun exposition on this level, and giving a biophilic approach to the proposed design. An arcade transforms the existing backside of the train factory into a new front side opening to the city. This extroverted proposal takes inspiration on the brick arches of the nationally significant built environment, re-interpreting both the facade and the cathedral industrial interior spaces. The wooden volumes are more than just structure, they become inhabited by retail spaces that can extend their space into the public realm. These structures also accommodate smooth access to the elevated shared garden and programs, duplicating the public space and opportunities.

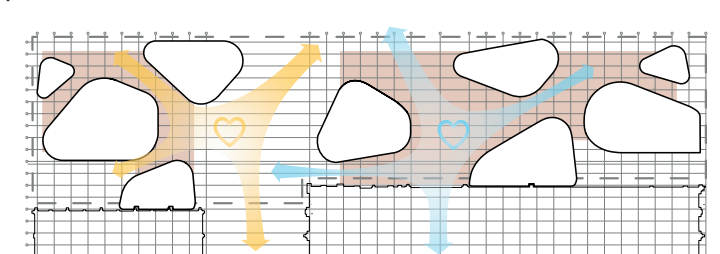
1ST STAGE VS 2ND STAGE GROUND FLOOR PLAN



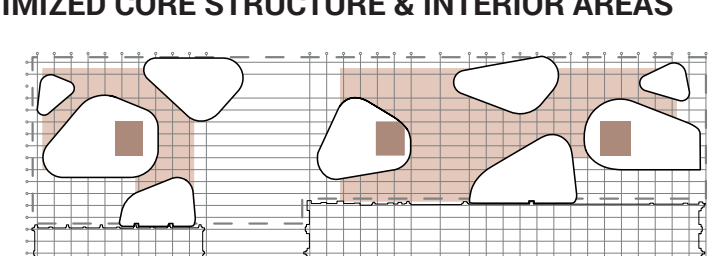
FLUXES OPTIMIZATION



A SQUARE FOR EVERY SEASON: SUMMER & WINTER

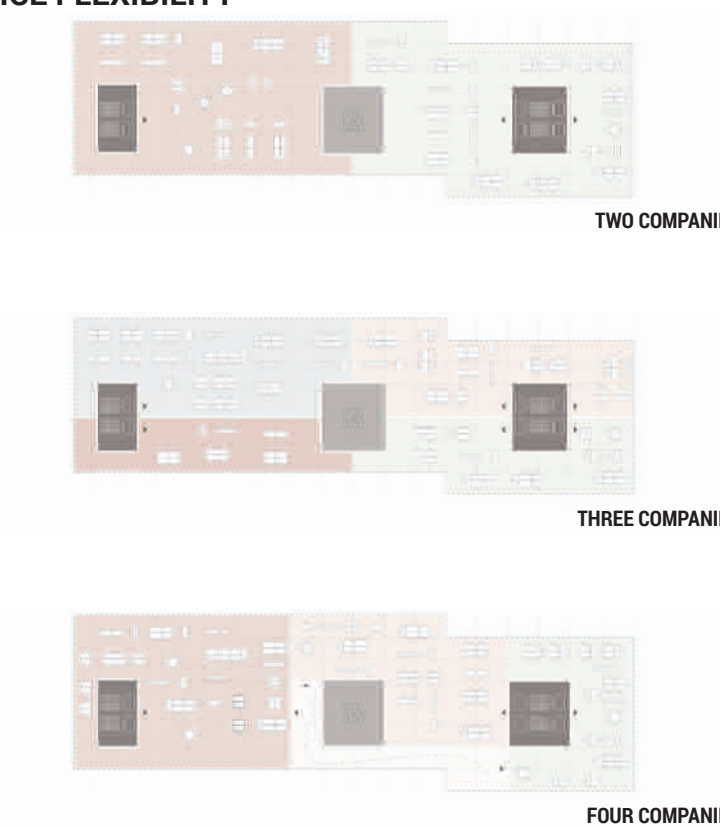


OPTIMIZED CORE STRUCTURE & INTERIOR AREAS

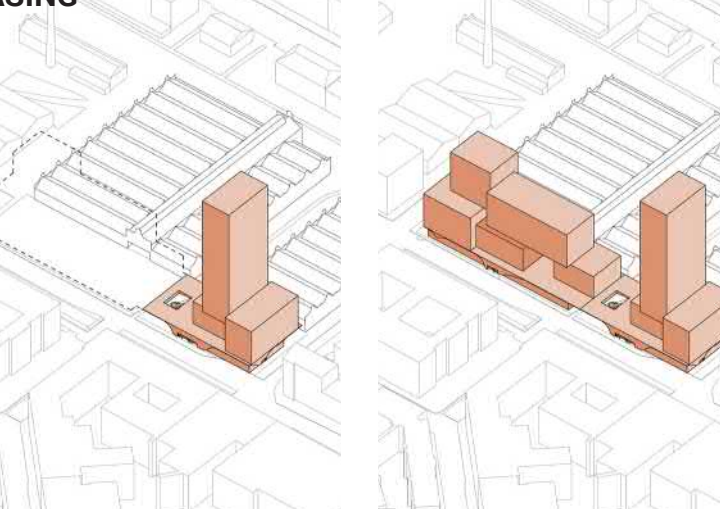


In the wintertime, the urban space under the roof transforms into a series of clustered marketplaces where kiosks and their vendors pack into vibrant groups, taking advantage of movable enclosure and efficient heating from the structures above. The form of these elements as been optimized so that all glass surfaces are reduced to their essential, taking in consideration the weather conditions of Helsinki. This clarification of shape also enables us to understand the main flow routes within the building and around it, making clear to the viewer an interconnected system of possibilities and activities through the design of open space.

OFFICE FLEXIBILITY



PHASING



A ROOF FOR HELSINKI - 6/8

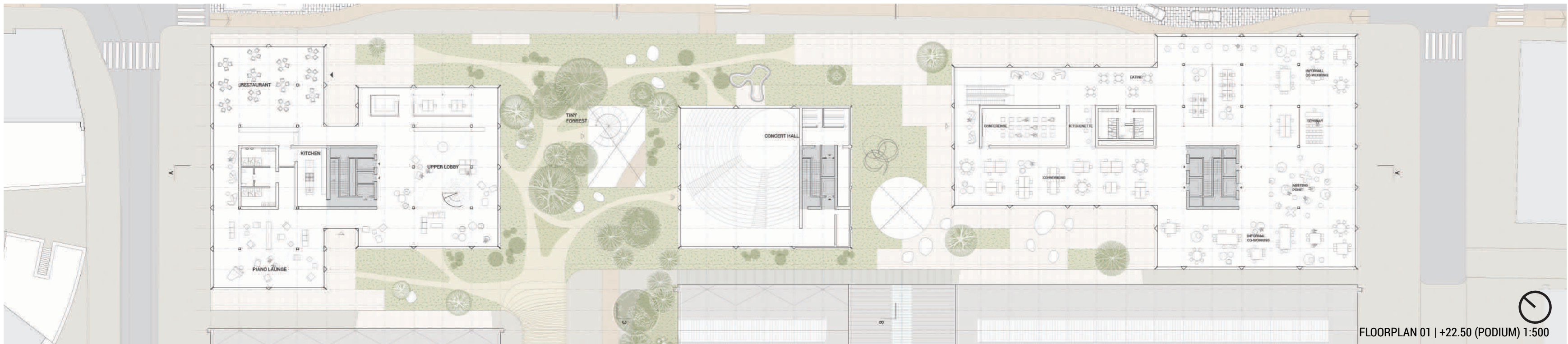
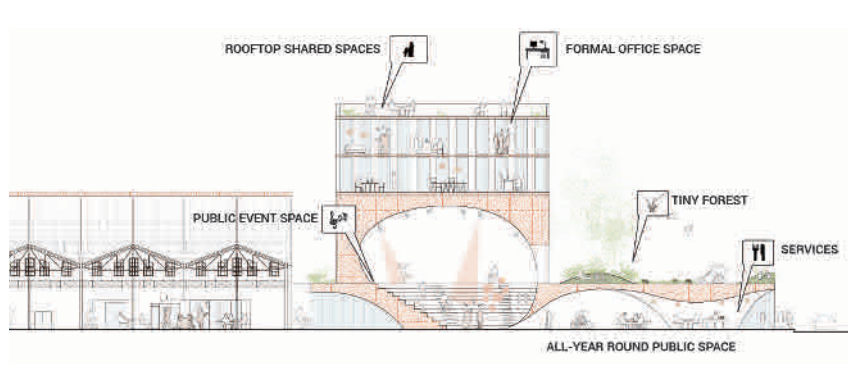
LONGITUDINAL SECTION 1:500



VIEW FROM TEOLLISUUSKATU

SPATIAL DIVERSITY

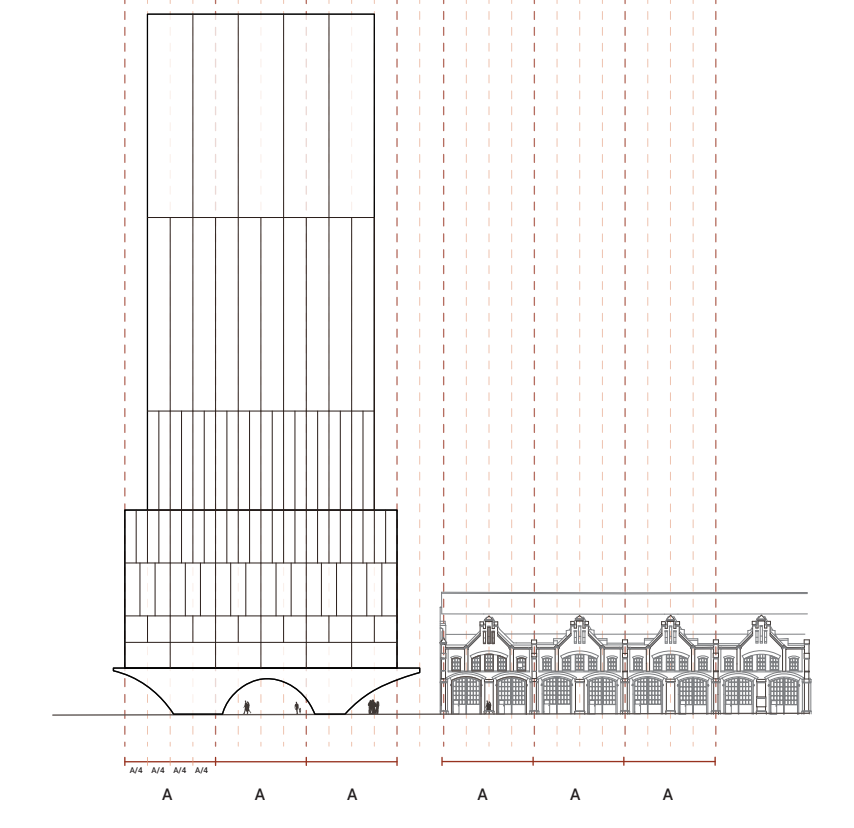
The structure of the building varies in size and scope. While the tower reinforces the scale of existing landmarks in Helsinki, the base conforms to the more intimate scale of the surrounding area. The wooden raised platform, which can accommodate a range of functions, further emphasizes the building's duality in scale. The ground floor is shaped by the surrounding urban landscape and serves as a hub for public activities, providing access to Konepöytäpassaasi. Together, the ground floor and platform offer a diverse array of public functions, such as a large communal living room that changes with the time of day and season. Both levels are open to the public and the unique design creates spaces with distinct personalities, accommodating for a variety of programs and uses.



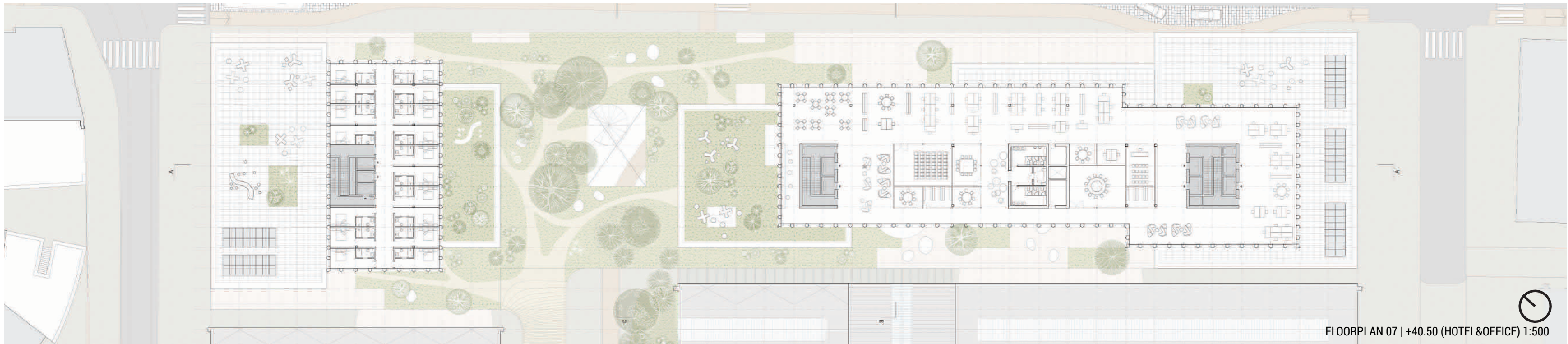
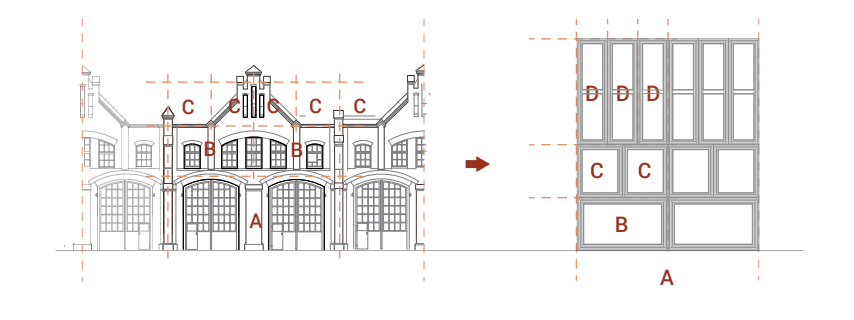
FLOORPLAN 01 | +22.50 (PODIUM) 1:500

THE RHYTHM OF THE TRAIN FACTORY TRANSLATED INTO A URBAN LANDMARK

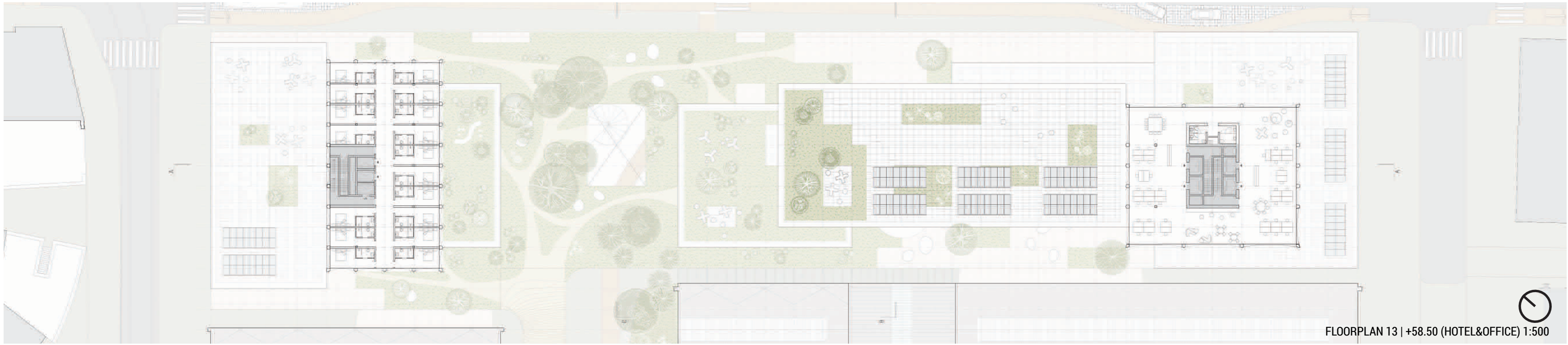
The proposal follows the Train Factory building existing metric and proportions, which defines the volumes position as well as the facade design rhythm.



In detail, the facades follow and reinterpret the typical facade metric in a contemporary way, maintaining the brick tradition.



FLOORPLAN 07 | +40.50 (HOTEL&OFFICE) 1:500



FLOORPLAN 13 | +58.50 (HOTEL&OFFICE) 1:500

DESIGNED BY THE CONTEXT

How might we design a facade that blends into the context and respects the Train Factory building heritage while creating an innovative and progressive building?

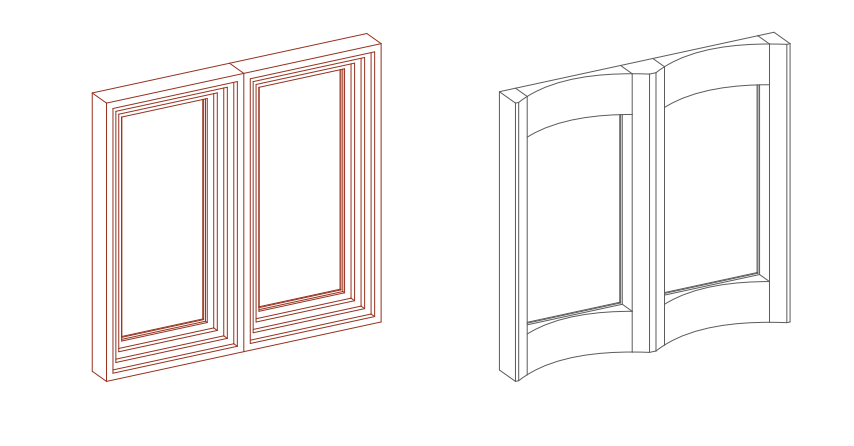
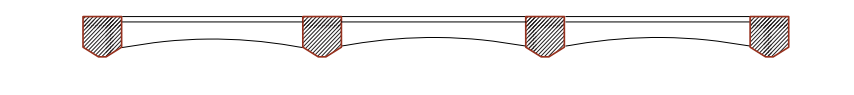
Existing Train Factory Brick Facade
We started our design by reinterpreting the brick facades of the Train Factory. The intricate design serves as an inspiration to the Podium Volumes facades, generating a sense of continuity and respect for the existing.



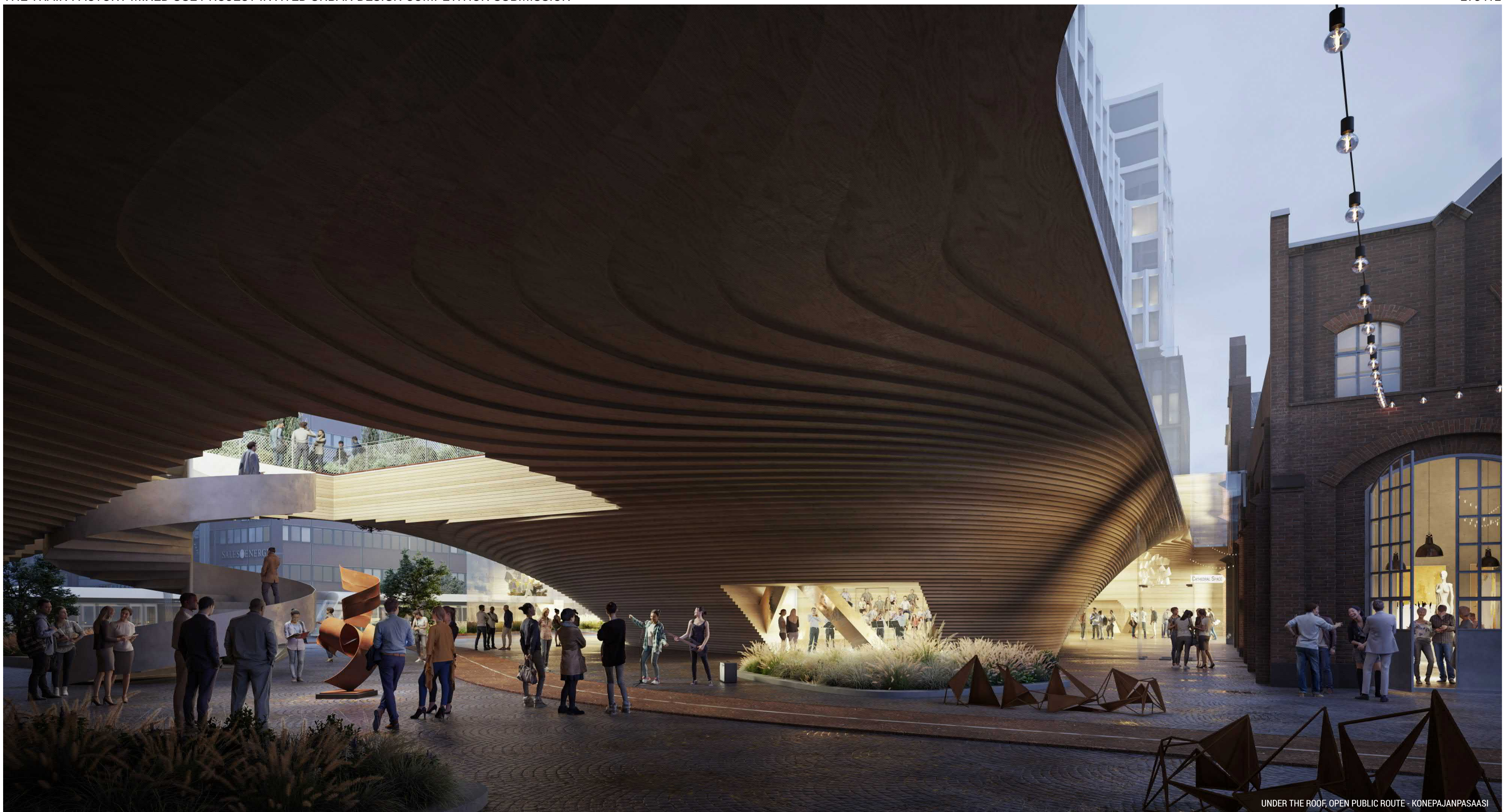
Podium Brick Reinterpretation
The podium volumes appear both timeless and current, using a formal and material language contaminated by the place and an exercise in dematerialization and purification that escapes the Train Factory original program.



Metal Upper Volumes
The upper volumes are shaped by a simplification of the podium buildings and the curved shape of the tectonic of its facade cuts into the sky. The metal panels reflect the sky contributing for a light presence of the highest volumes.



TEOLLISUUSKATU ELEVATION 1:500



UNDER THE ROOF, OPEN PUBLIC ROUTE - KONEPAAJANPASAASI

FUTURE PUBLIC CITIES – DESIGNING A TINY FOREST

Green areas have gained importance in urban planning – we expect to respond to challenges of climate adaptation and biodiversity loss as well as the promotion of recreation and well-being. Low density and proximity to nature are traditionally recognized features of Finnish cities. However, as a result of urban densification, it's now essential to integrate green structure and urban development more effectively and redefine the methods of designing urban natural landscape. Forests, for example, have a special value within Finnish urban culture, and concerns about decreasing biodiversity, reduced well-being, and children's lack of contact with nature are boosting the importance of forest greenery within cities. That's why we see our proposal as a green lung capable of creating nature-rich habitat patches to support urban wildlife while providing the space for collective enjoyment and productive social exchange.

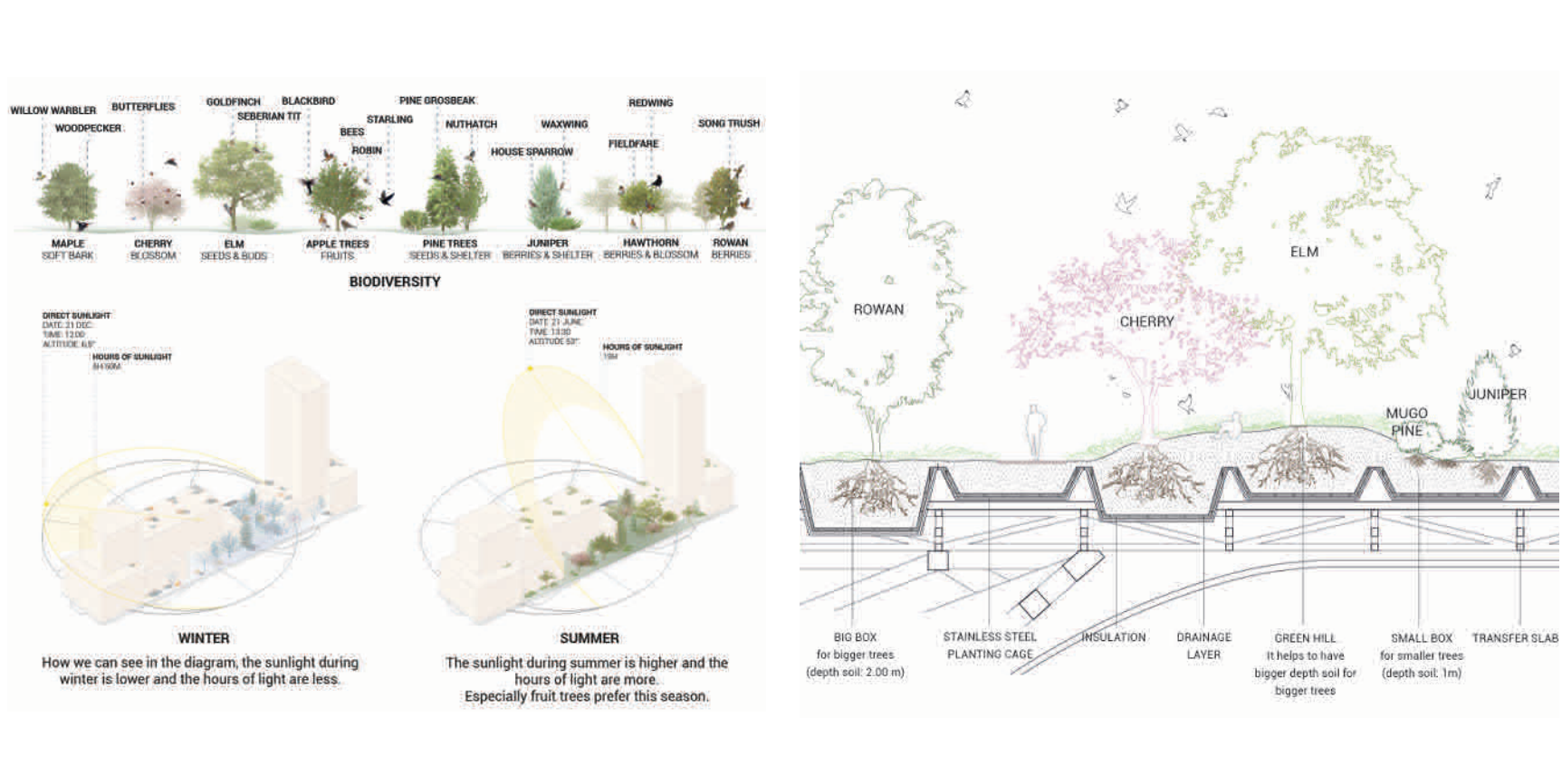
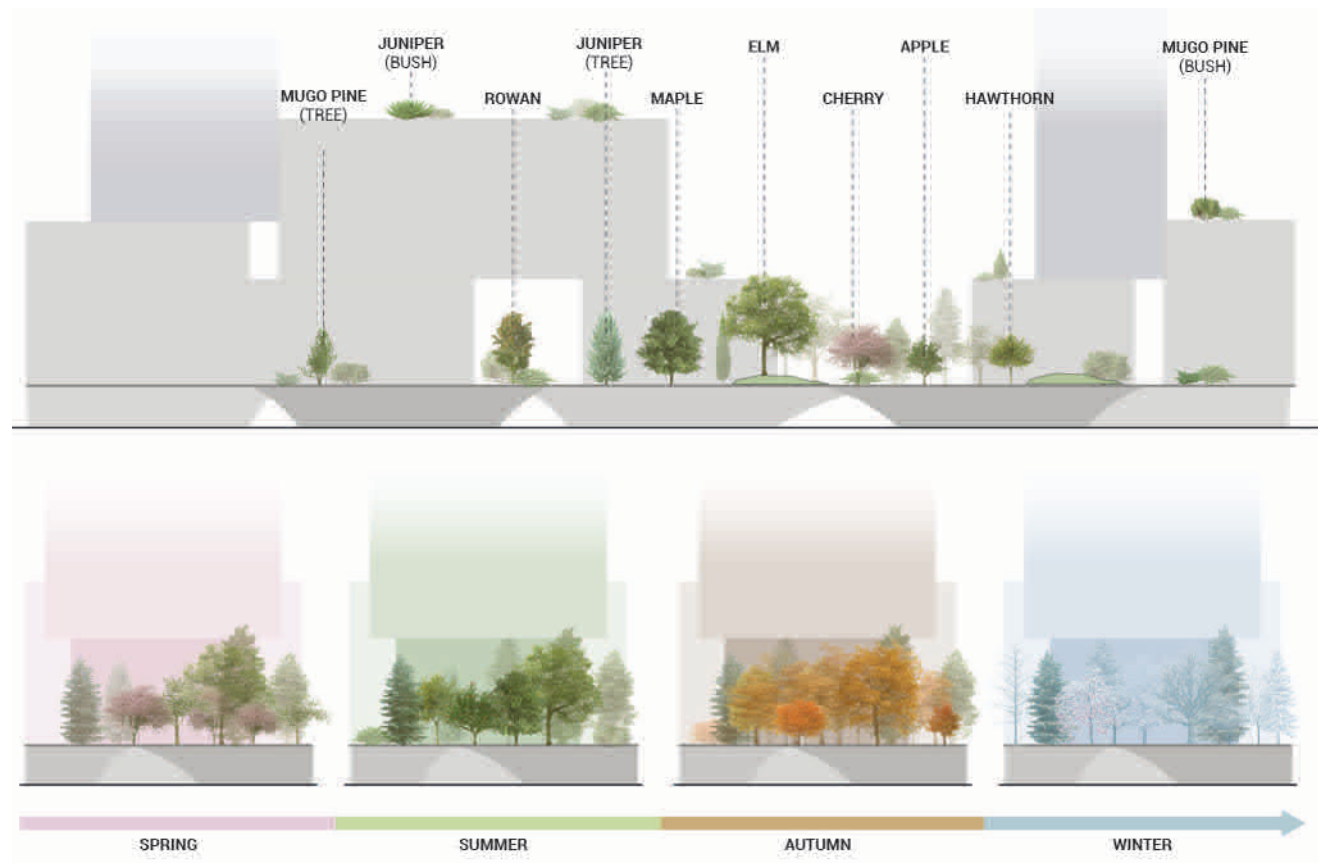
The need to have parking in the entire plot underground levels left us with a big challenge: how to reconnect with nature in a high-density, impermeable, potentially bare plot? The technical difficulty suggested a surprising solution – the lifted podium. This allowed a vibrant and connected street level and a raised green surface with better sun exposure and a thicker slab, enough to sustain up to 3 meters of soil. The special features of the project are its biotope-based planning and process-oriented landscaping. The landscaping makes use of selected loads of salvaged soil, carefully planning the biotopes' substrates, and transferring vegetation. Soil profiles, fine grading, and rock placement will be assigned mostly on-site. The process must be timed carefully: direct transplanting without intermediate storage is essential in order to preserve the natural flora, microbes, and "seed bank" contained in the soil. Planting will be complemented with indigenous plants species from local nurseries.

Deciduous trees are mostly fruit trees like cherry, apple, hawthorn, rowan, maple. They are trees with a smaller size that can go from 8 to 12 m and their roots need a soil depth of at least 60 cm. Most of these species, due to the fruits, prefer greater exposure to the sun, therefore their position will be further from the buildings and more in the centre of the green area, so as not to receive too much shade. Among the evergreens, we have identified small species such as juniper and Mugo pine, resistant and easy to care for, which require a good exposure to the sun and, due to their small dimensions, they can be located also on the roof of the buildings. For the bigger trees, the big size of the soil can be achieved by adding green hills above the transfer slab. To ensure ease of maintenance, most of the soil substrate is on top of the superstructure. For larger plants, we utilize the space between the transfer beams to provide more room for soil and deeper roots. Additionally, we limit larger trees to just a few specific areas within the tiny forest where they will receive more sunlight and be more easily accessible.

The choice of the typology of each tree for the green podium is based on various parameters:

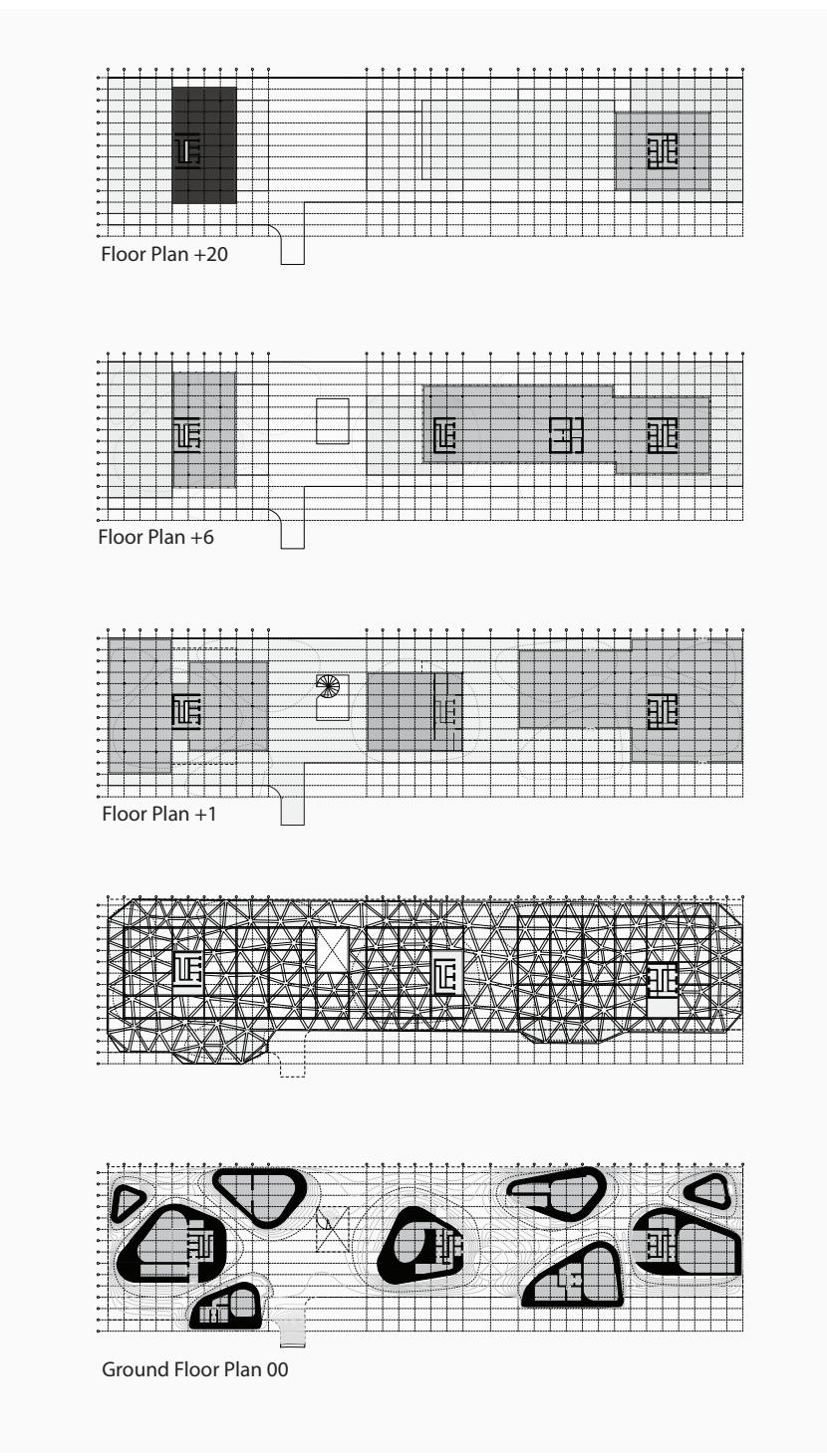
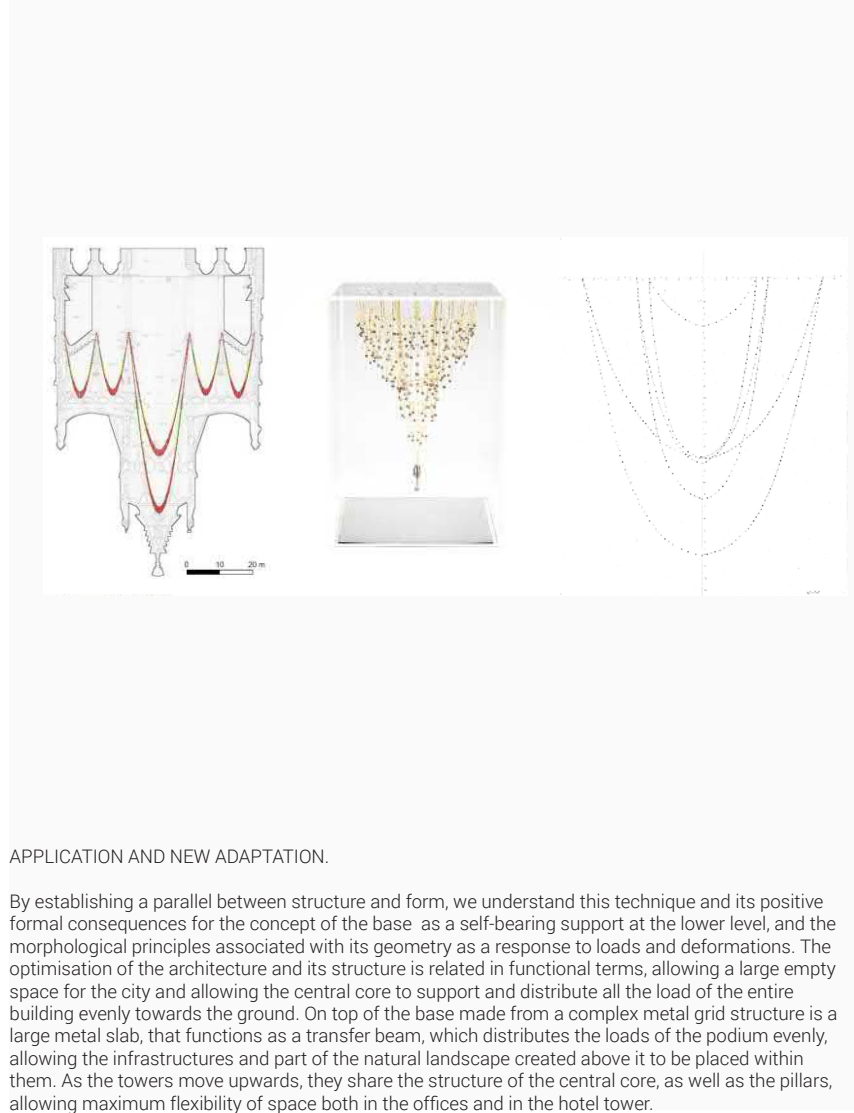
- the species present in the Finnish territory
- the dimensions (height and width) of the tree, suitable for a green roof
- the required depth of the soil for the roots
- the necessary sunlight that influences the location of the plants

APPLE Deciduous Height: 4-5 m Width: 4-6 m Soil depth: min 60 cm Light: sun, partial shade	CHERRY Deciduous Height: 5-15 m Width: 4-8 m Soil depth: min 60 cm Light: sun, partial shade	HAWTHORN Deciduous Height: 5-6 m Width: 3-4 m Soil depth: min 60 cm Light: sun, partial shade	JUNIPER (BUSH) Evergreen Height: 0.5-1.5 m Width: 2-4 m Soil depth: min 20 cm Light: sun	JUNIPER (TREE) Evergreen Height: 7-10 m Width: 4-6 m Soil depth: min 60 cm Light: sun	MUGO PINE (BUSH) Evergreen Height: 0.5-1.5 m Width: 1-1.5 m Soil depth: min 20 cm Light: sun, partial shade	MUGO PINE (TREE) Evergreen Height: 7-10 m Width: 4-6 m Soil depth: min 60 cm Light: sun, partial shade
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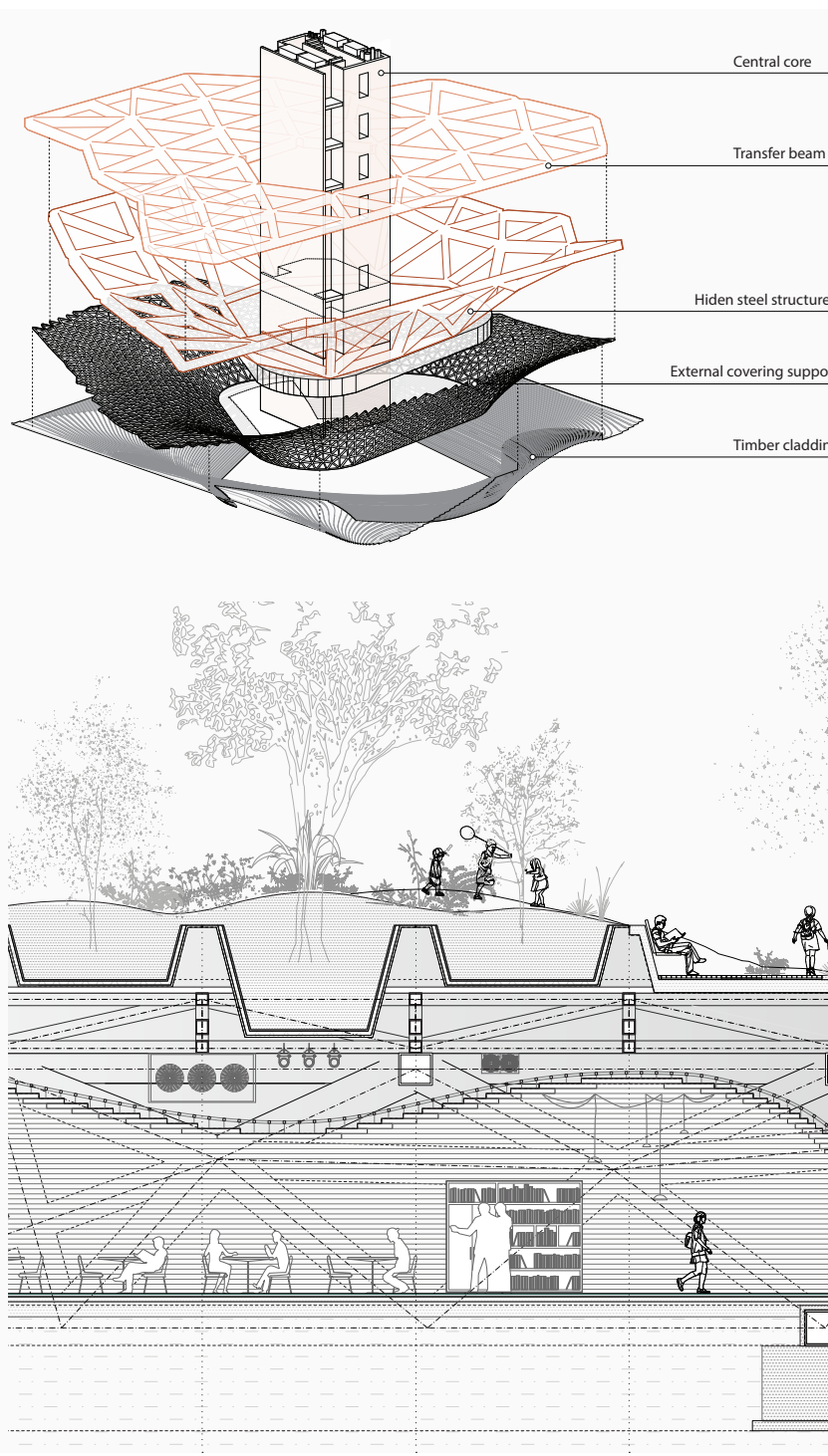
TAKING ROOT, RISING UP - BASIC STRUCTURAL BEHAVIOUR

The study of natural structures is relevant nowadays, because these forms in an optimized distribution of structural loads. Looking for this kind of effective design, we researched architectural references where experimental methods have been applied to produce singular forms. In the Sagrada Família we can appreciate the constructive form and the possibilities of local materials used, through the method of experimentation. Synthesizing the structural technique, the use of funicular elements gave us an efficient structural solution while achieving the desired spatial attributes. It is relevant to rescue vernacular construction techniques based on the experimentation of geometry, the use of local materials and the functionality of the architectural project. One of the main strategies to balance the loads and to support them through the centre of gravity of the structure was the application of transition elements in columns such as arches and corbels.

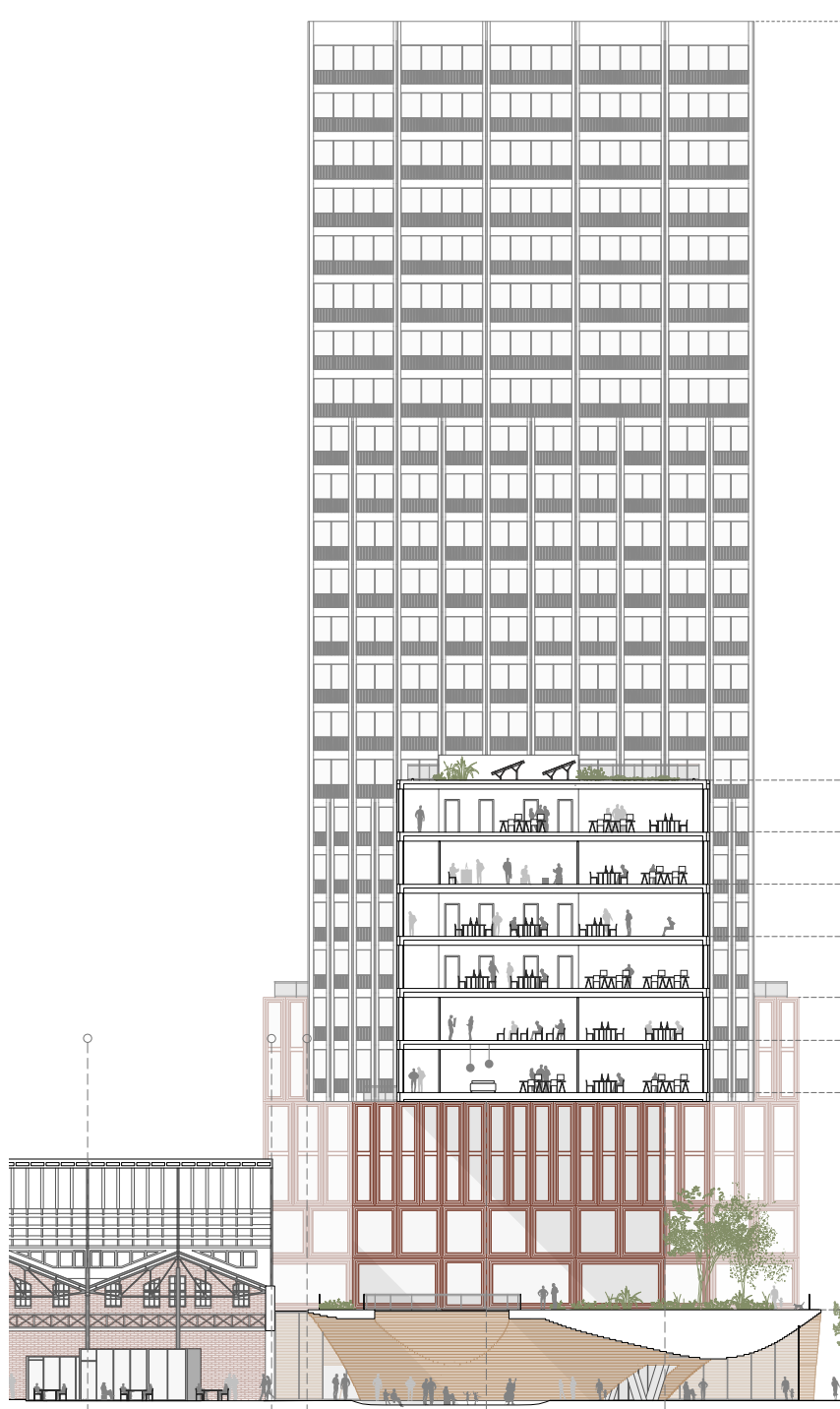


GENERAL STRUCTURE
The structural conformation of the building begins with three large central cores that connect the entire building from the bottom of the building to the top, the first tubular structures in the form of large tree-like pillars that support a vegetable podium, leaving a large spatial void below, from which the upper volumes (offices and housing) are supported.

A. The main structure is formed by large central concrete cores that are supported on large independent footings reapplying the loads from the top of the building to the base of level -3, reinforced as it descends by pillars, slabs, a large platform supported by large spatial pillars, a large podium and finally in the 3 lower levels.
B. As a general collaborating structure we have a base of large tubular tree pillars with a concrete base to strengthen the load distribution at level 0. Together with the pillars they support the main podium and reinforce the overall structure.
C. The exterior facade of brick and glass with self-leads are located along the entire inner perimeter, also in the largest tower the variable facade is aligned on the inner face of the base.



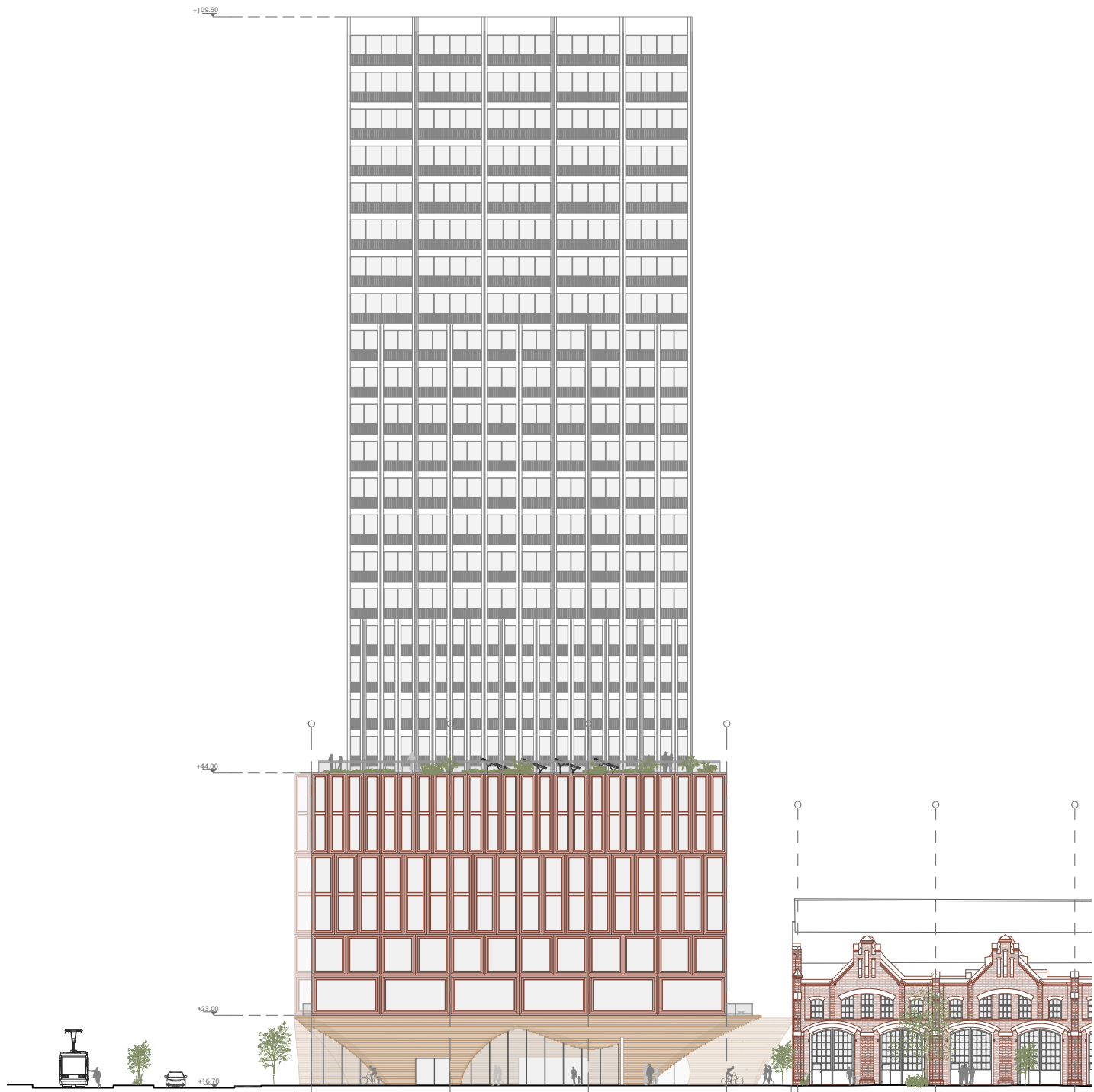
HVAC
Heating and cooling
The heating energy needed by properties is produced with district heat and cooling energy with district cooling. Each property to be built will have its own heating plant on the ground level. The heating methods of the properties are water-based radiator heating (e.g. office premises, hotel rooms, corridors, common areas, technical rooms and stairwells), water-based underfloor heating (e.g. social facilities, staff rooms) and air heating (e.g. conference facilities, sport facilities, underground parking facilities).
When choosing a heating method, the suitability of different systems for the specific application is taken into account. The semi-warm space at the street level, the meeting of green areas and the defrosting of driving ramps will be equipped with a liquid circulation heating system.
The heating of underground parking spaces is mainly handled by air heating with the help of supply air and transfer air fans. The wind cabinets are equipped with water-circulating warm air fans. Loading door openings are equipped with door curtain fans. Cooling energy is used to cool the supply air in supply air units and in individual rooms in fan coils to cool the premises.
Air conditioning
The premises will be equipped with mechanical supply and exhaust ventilation units equipped with efficient heat recovery systems. Supply air units are equipped with filtration, heating and cooling of the supply air.
Large buildings (office buildings, retail outlet, hotel, conference hall, concert hall, sport hall) are equipped with central air conditioning. Air handling units are placed in machine rooms built on the roofs and technical floors. Smaller commercial premises and individual separate premises will be equipped with their own air conditioners. The exhaust fans in the kitchen areas are placed in their own separate compartmented engine rooms. Separate exhaust fans are placed on the roofs of buildings. Fans of mechanical smoke extraction are placed on the roofs.
Exhaust air from kitchen spaces in buildings is partly used as replacement air for underground parking spaces. Part of the thermal energy recovered from the exhaust air is transferred to the air-freeze of the planting pools.



CROSS SECTION (CONNECTION BETWEEN TEOLLISUUSKATU AND ASSEMBLY HALL) 1:500



A ROOF FOR HELSINKI - 8/8 CROSS SECTION GREEN CORRIDOR 1:500

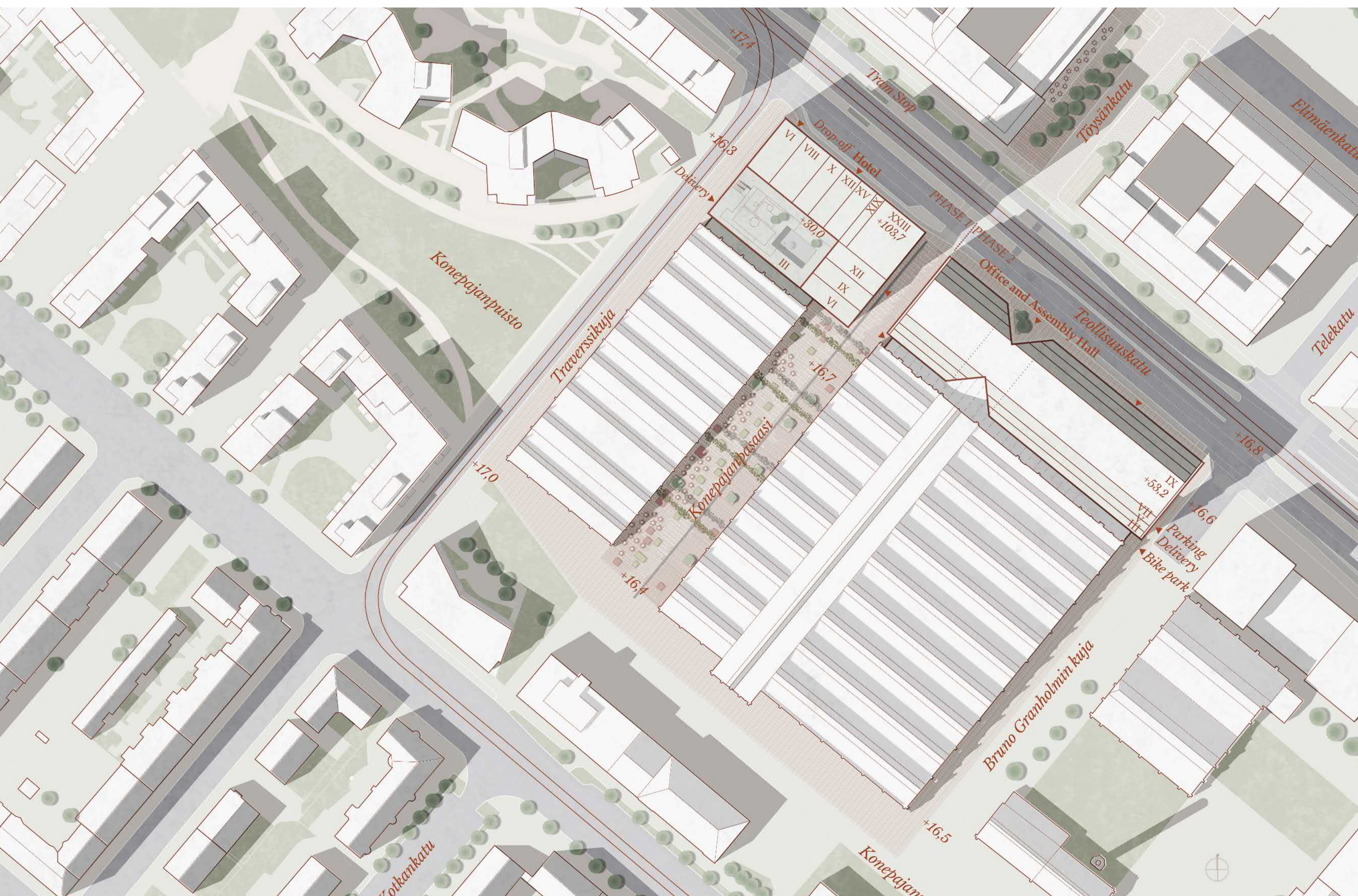


TRAVERSISUKUJA ELEVATION 1:500



Illustration from Konepajanpasaasi

Site plan 1:1000



In the 2nd phase, the townscape qualities of the proposal have been improved and internal organization and programming elaborated. Building heights, massing and positioning on the site have been adjusted with both immediate and wider context in mind. The hotel tower is lower and its top part is slimmer, lightening its appearance as seen from Bruno Granholm Square and beyond. These changes are thanks to the more compact design of the hotel on the lower floors.

The Train Factory hotel tower subordinates in height and dimensions to the Kalasatama and Tripla buildings. The Train Factory tower is lower than the Kalasatama towers. While the sea-level height is above Tripla, the top of the Train Factory hotel tower is significantly smaller in dimensions. Furthermore, the colour gradient concept creates a diminishing effect towards the sky, allowing the lower Tripla towers to still visually dominate the skyline.

The office building and the podium datum line are lower, too. They match better the existing and planned surrounding buildings and improve the proportions of the Teollisuuskatu streetscape. These changes have been achieved by locating HVAC machines in the basement and reworking the floor dimensions.

The office building is now neatly aligned with the provided phasing line, enabling a simple phasing solution.

The gradually diminishing massing and terracing principles of the design allow for flexible further development of the proposal without losing the main idea of the architecture.

The idea of providing not only a passage through the site but a continuation of a true pedestrian street is stronger now: there is more distance between the hotel and office buildings. Furthermore, the corner of the hotel building has been retracted to create an indentation in the streetscape. This improves vistas, navigation and people flow between Konepajanpasaasi, Teollisuuskatu and Traverssikatu. Simultaneously, the ground floors connect better to the exterior, enlivening the passage.

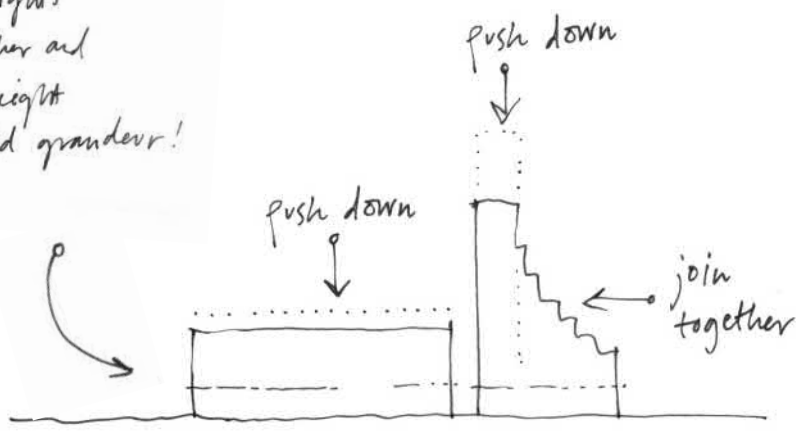
Brickwork from the existing ETB building on site will be used in Konepajanpaasi landscaping. The old brick is cut into modular pieces to form urban furniture, and brick waste is crushed into gravel to function as draining soil for green patches or vegetation on the urban square and green roofs.

In general, the facades feature large openings that integrate the interior of podium spaces better with the exterior. The public-facing functions in the podium are now more attractively present and enlivening the streetscape. The ground floor is higher and double-height spaces further enhance their grandeur. The central space of the old Assembly Hall, the 'Cathedral' is extended to Teollisuuskatu through a winter garden-like lush semi-public passage covered with a glass roof.

The ground floors are designed to accommodate versatile, changing programs during the lifetime of the buildings.

The bottom levels of the office building have a larger ceiling height, improving lightness and versatility. Shared, flexible meeting rooms for serving the whole office building are concentrated in the deep part of the podium thus freeing the lighter top floors for actual work desks.

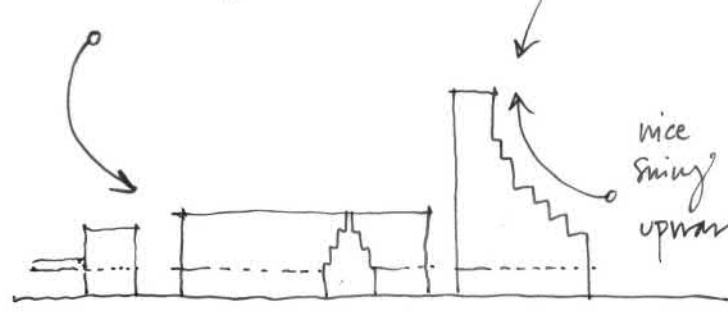
The office podium ceiling heights are higher and double-height spaces add grandeur!



We adjusted the office mass to bring down it's height.

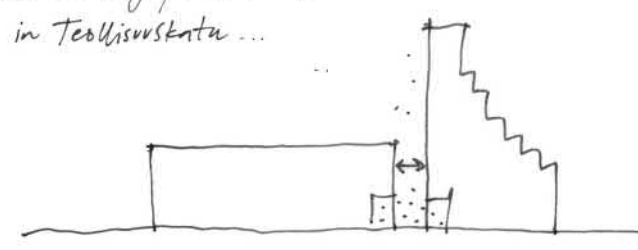
We made a more efficient hotel building mass in order to bring down the tower height without losing the slender main figure.

The lower podium connects better with surrounding buildings



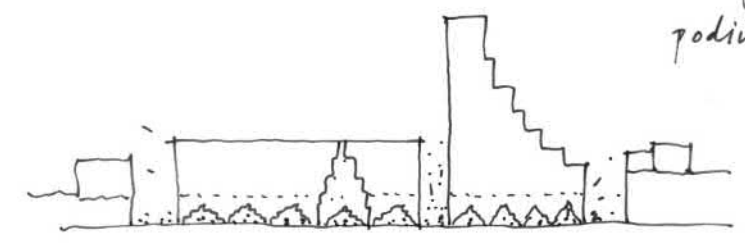
The terracing connects even better with the office building terraced theme!

We added more space between the buildings and re-worked the ground floor layout and functions to create an inviting public node in Teollisuuskatu...



... and to give a peak to the old buildings!

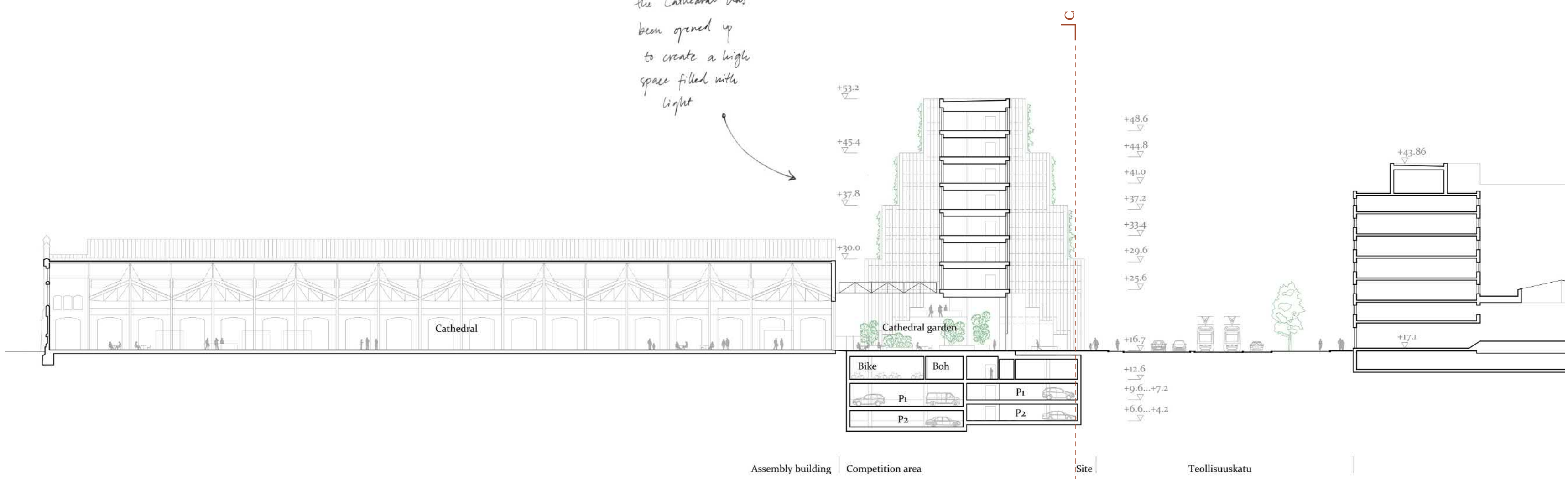
We developed the facades to allow for a playful and lively expression, in the scale of the existing buildings.



The new openings create more interaction between interior and exterior and bring more daylight to the podium floors

We then boosted the ground floor with new, more public and engaging programs to bring new life to Teollisuuskatu and to build a community to the future Train Factory!

The connection to the Cathedral has been opened up to create a high space filled with light



Section A-A The Cathedral Garden, 1:500

For the urban space in Konepajapasasi, we are reusing the brickwork from the demolished Electric Train building.

The old brick is cut into smaller pieces to form urban furniture. Brick waste is crushed into gravel to function as draining soil for vegetation on the urban square and green roofs.

The remaining old railway tracks at Konepajapasasi will be preserved as an element in the new stone pavement, strengthening the identity of the place.



Section B-B through the Culture Club, relation to the Konepajapasasi, 1:500

A key feature of the office building is a multi-use space for performances, concerts and gigs, cinema and lectures, with retractable seating. This unit is opening to Konepajapasasi and enlivens it with its diverse activity and public life. The unit works as one single, large two-level event space equipped with foyer bars, but it can be divided into two parts hosting separate events. These parts are called the Culture Club and the Black Box / Cinema.

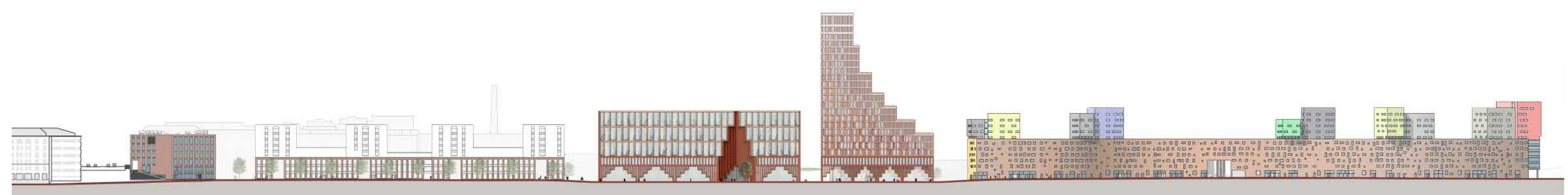
On the opposite side of the passage, Learning Lab is a transparent, double-height glass corner and envisioned as an educational space. Learning Lab activities can be organised in collaboration with the surrounding educational institutes and enterprises. It can host courses and small public events both for the resident community and visitors from further away and for various age groups.

On the other corner of the hotel building, a satellite library caters for locals, especially for youth and families with kids with its playful interiors.

In the summer months, interiors facing Konepajapasasi could open directly with large doors to the passage, unifying Culture Club, Cinema and Learning Lab and the street itself as one large, temporary festival venue.

In the office building, the HVAC plant rooms have been located in the basement. In the hotel building, the bottom floors are serviced with HVAC plant rooms in the basement and the top floors with an HVAC plant room on the tower top.

Programmatically, the proposal regards the Train Factory area as one large entity that can become an almost self-sufficient mini-society. The proposal further diversifies the area, rendering it a true centre in Eastern downtown Helsinki. The proposal both nurtures a community in the quarter, as well as builds a new destination within the city.

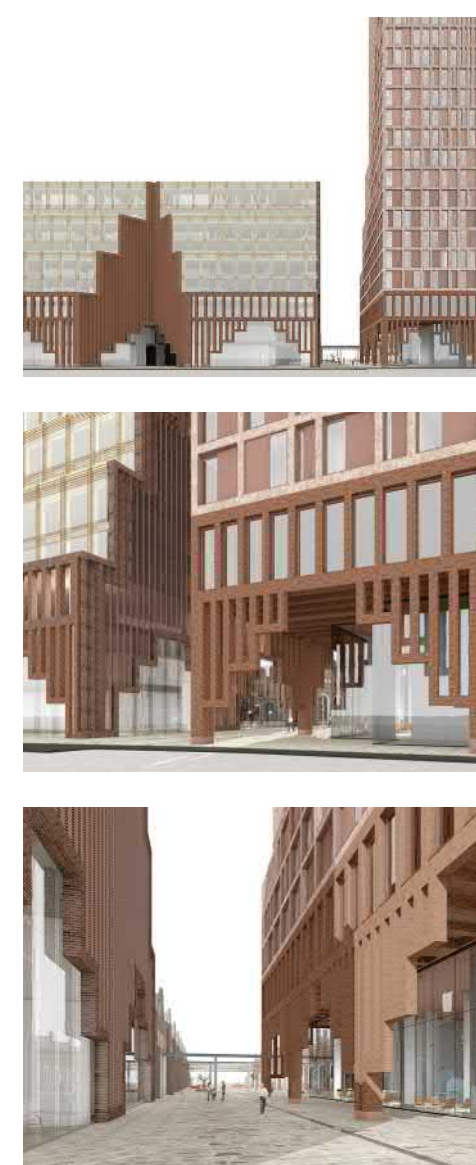


Aerial elevation towards Teollisuuskatu, 1:2000

Passage illustration from Teollisuuskatu



Passage sketches from Teollisuuskatu



Shadow study on June 1st at 9.00



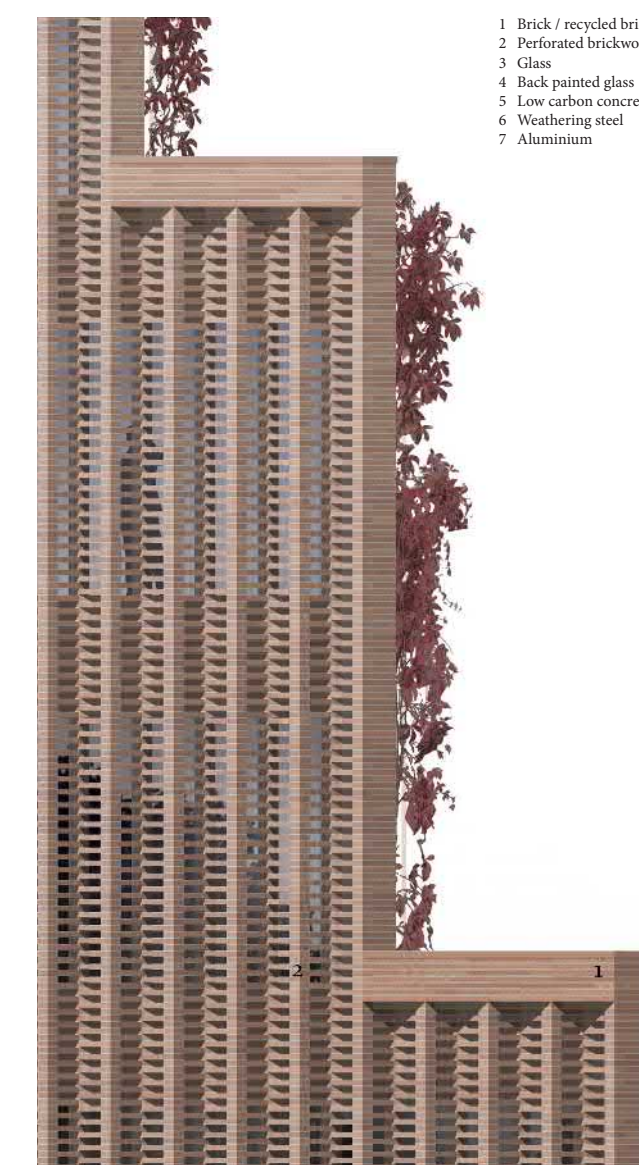
Shadow study on March 31st at 11.00



Office facade study / not in scale



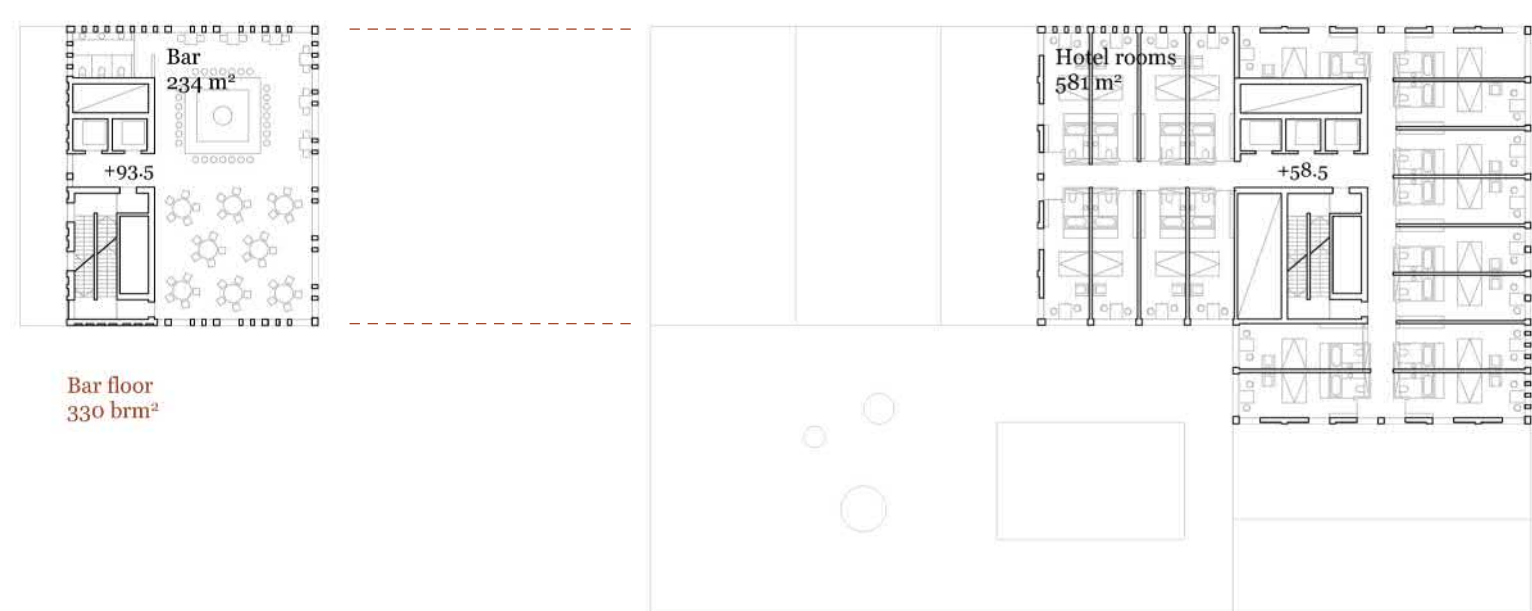
Office facade study, principle of brickwork



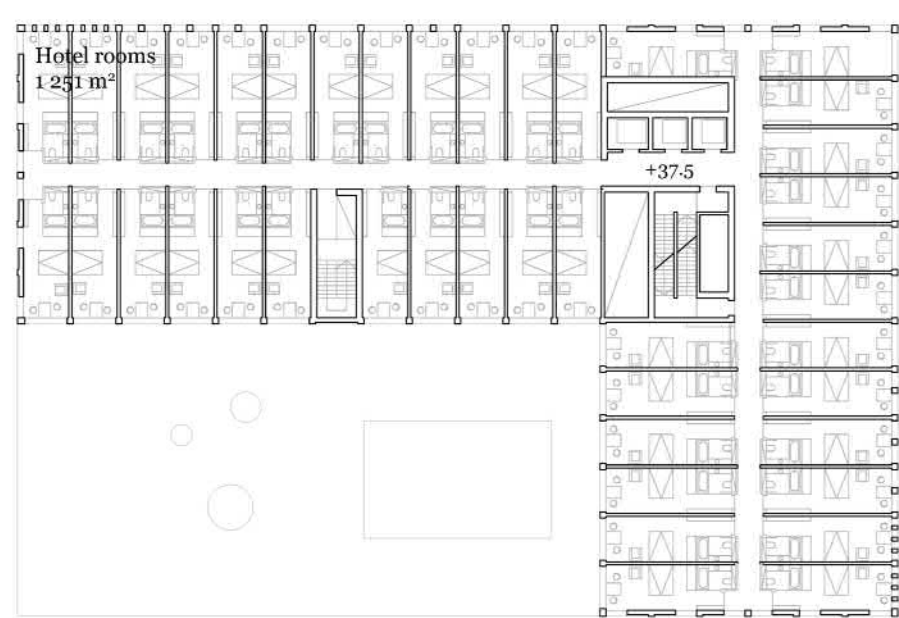
- 1 Brick / recycled brick
- 2 Perforated brickwork
- 3 Glass
- 4 Back painted glass
- 5 Low carbon concrete
- 6 Weathering steel
- 7 Aluminium

Hotel facade study / not in scale

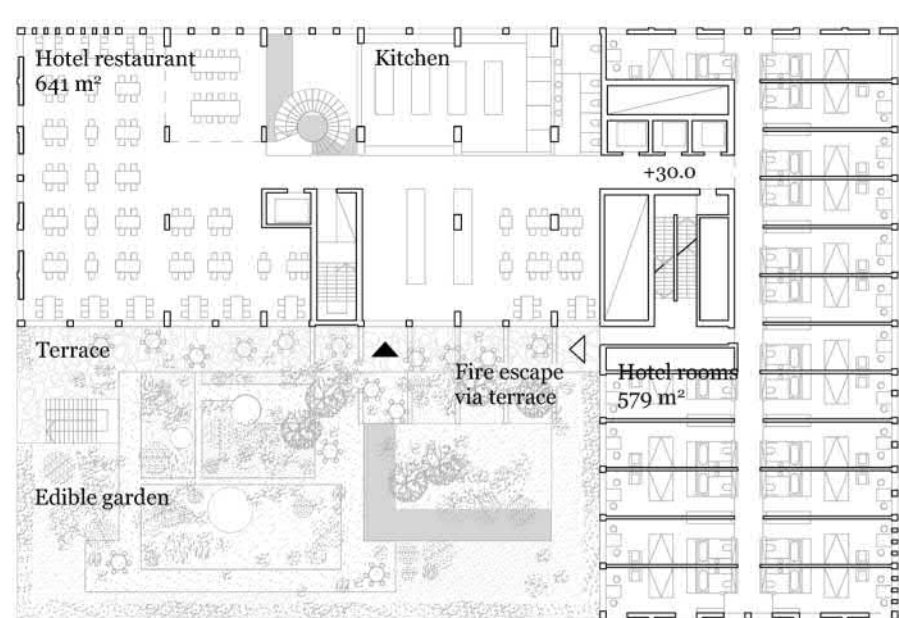




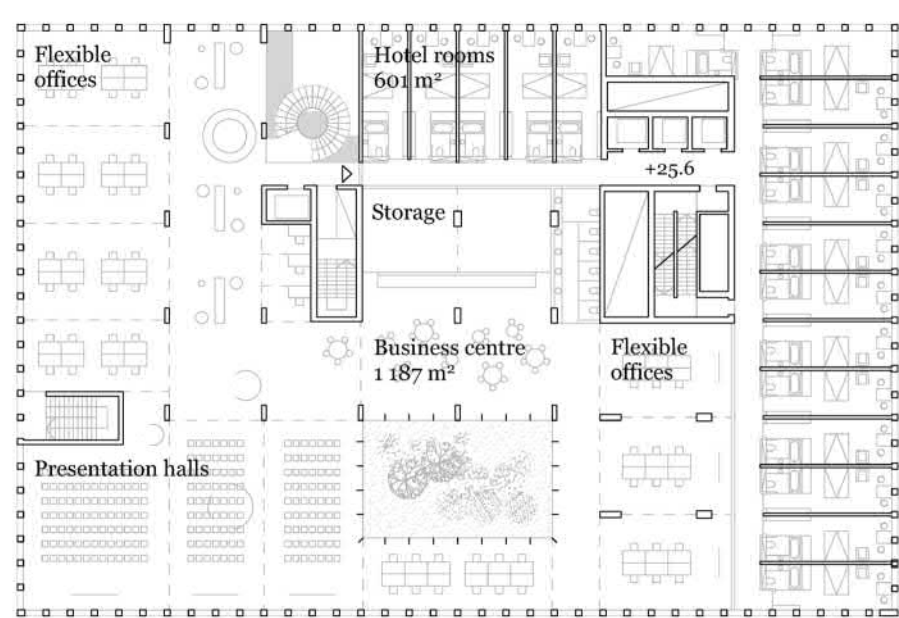
Hotel floors
10th-11th 770 brm²
12th-14th 510 brm²
15th-18th 390 brm²
19th-20th 330 brm²



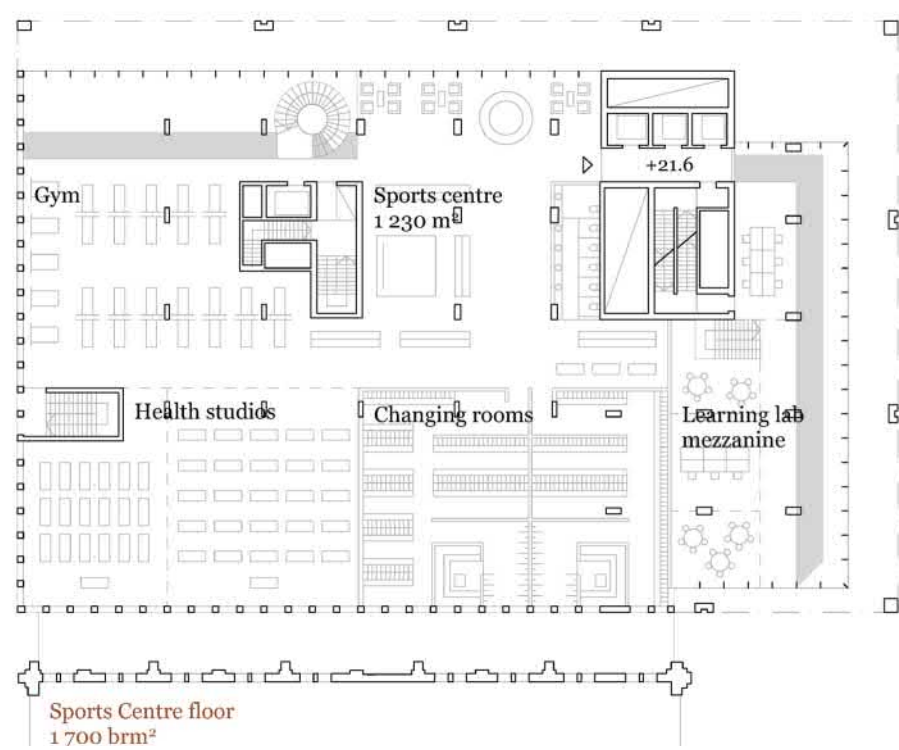
Hotel floors
4th-5th 1 530 brm²
6th-7th 1 210 brm²
8th 1 020 brm²
9th 890 brm²



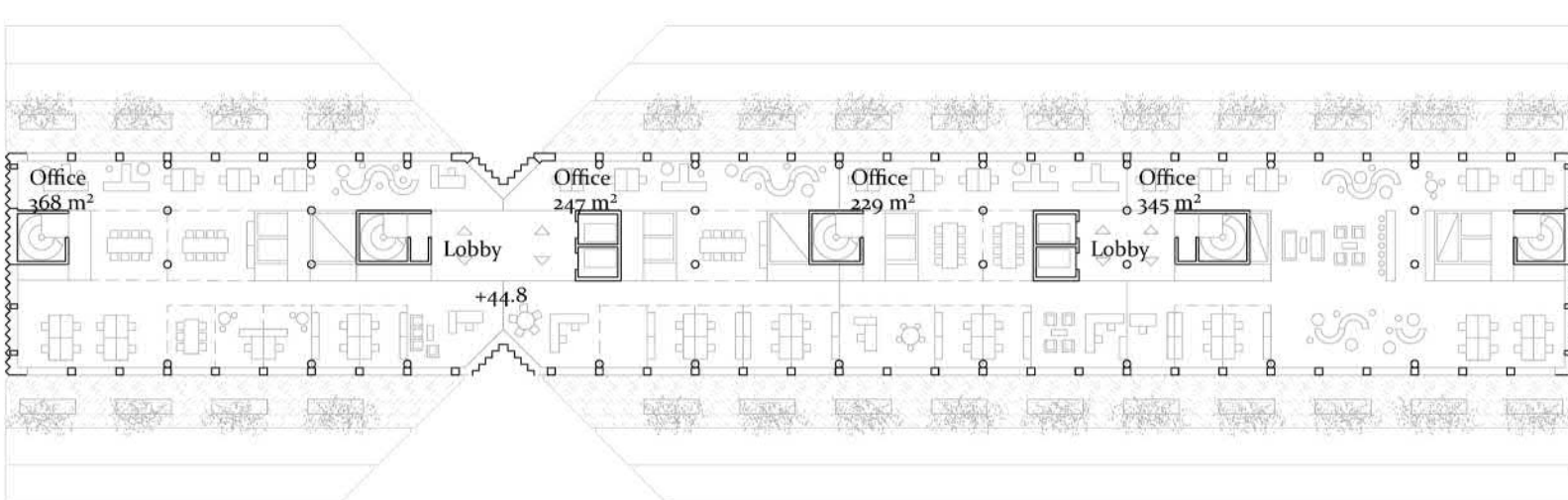
Hotel and restaurant floor
1 530 brm²



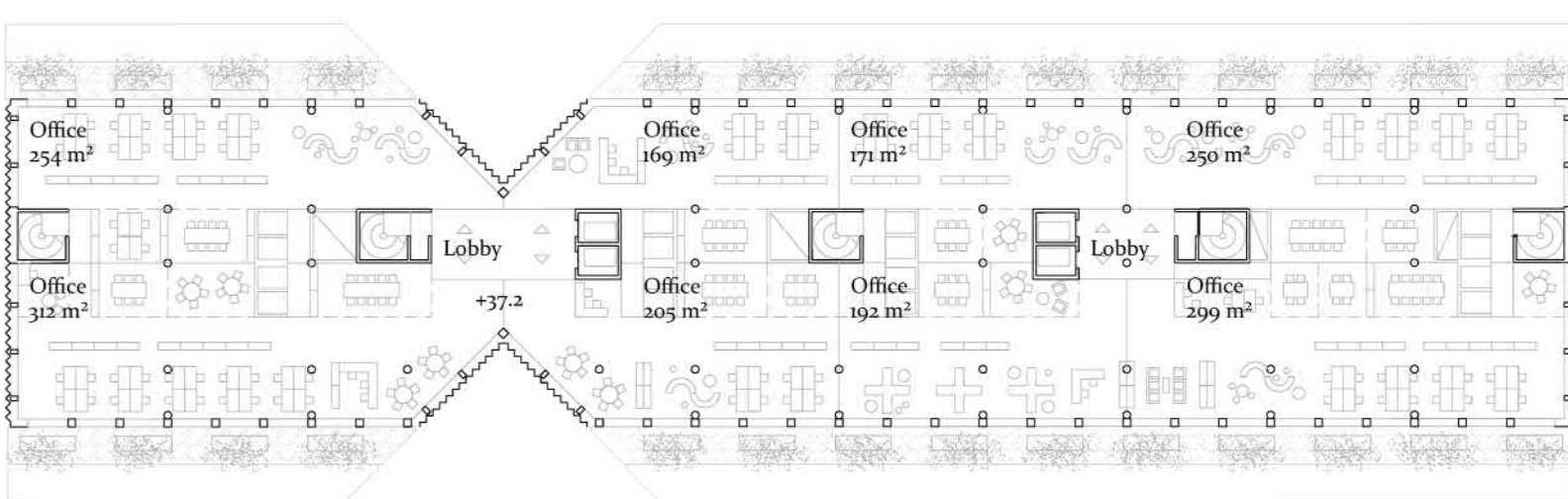
Work hub and hotel building floor
2 170 brm²



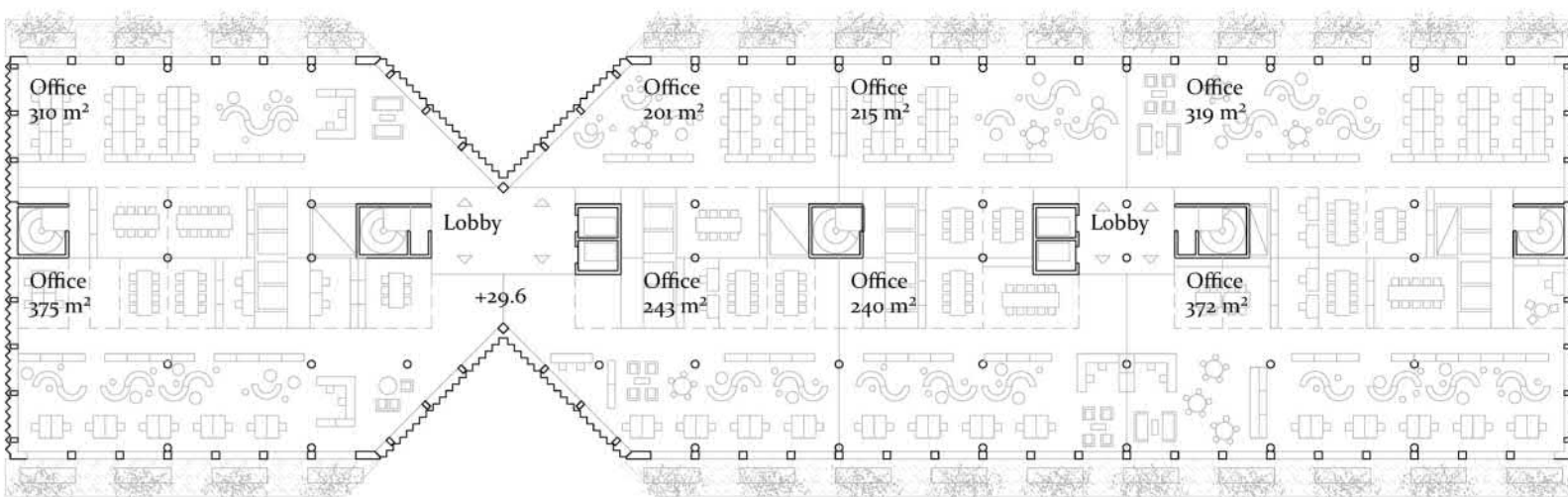
Sports Centre floor
1 700 brm²



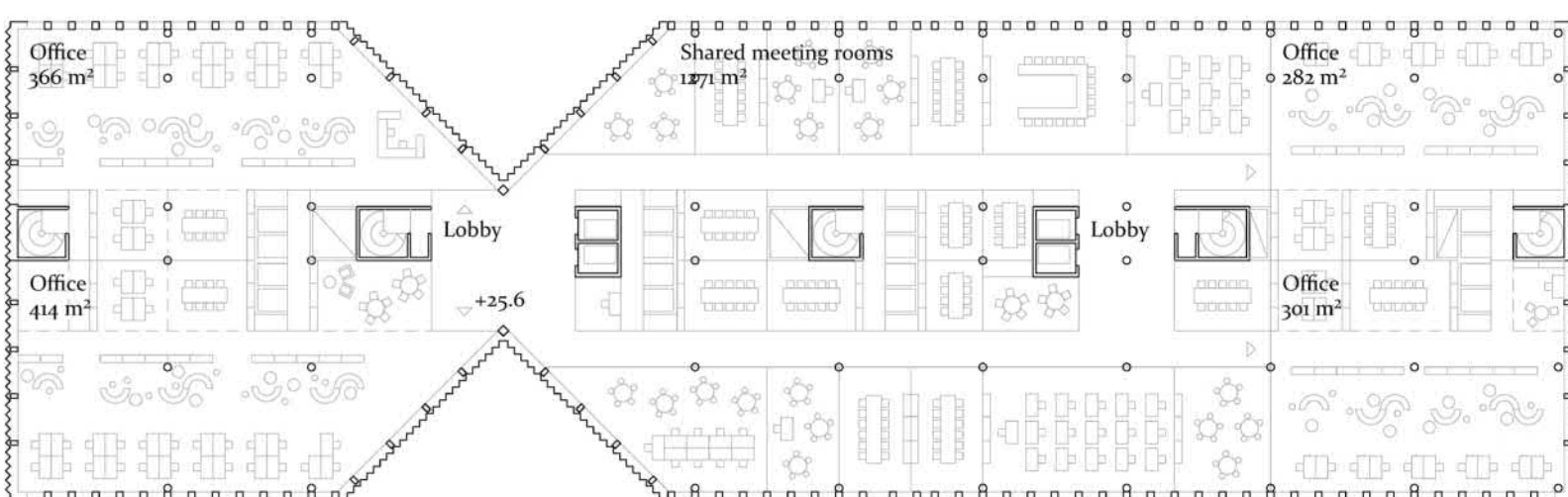
Office floors
7th-8th 1 530 brm²



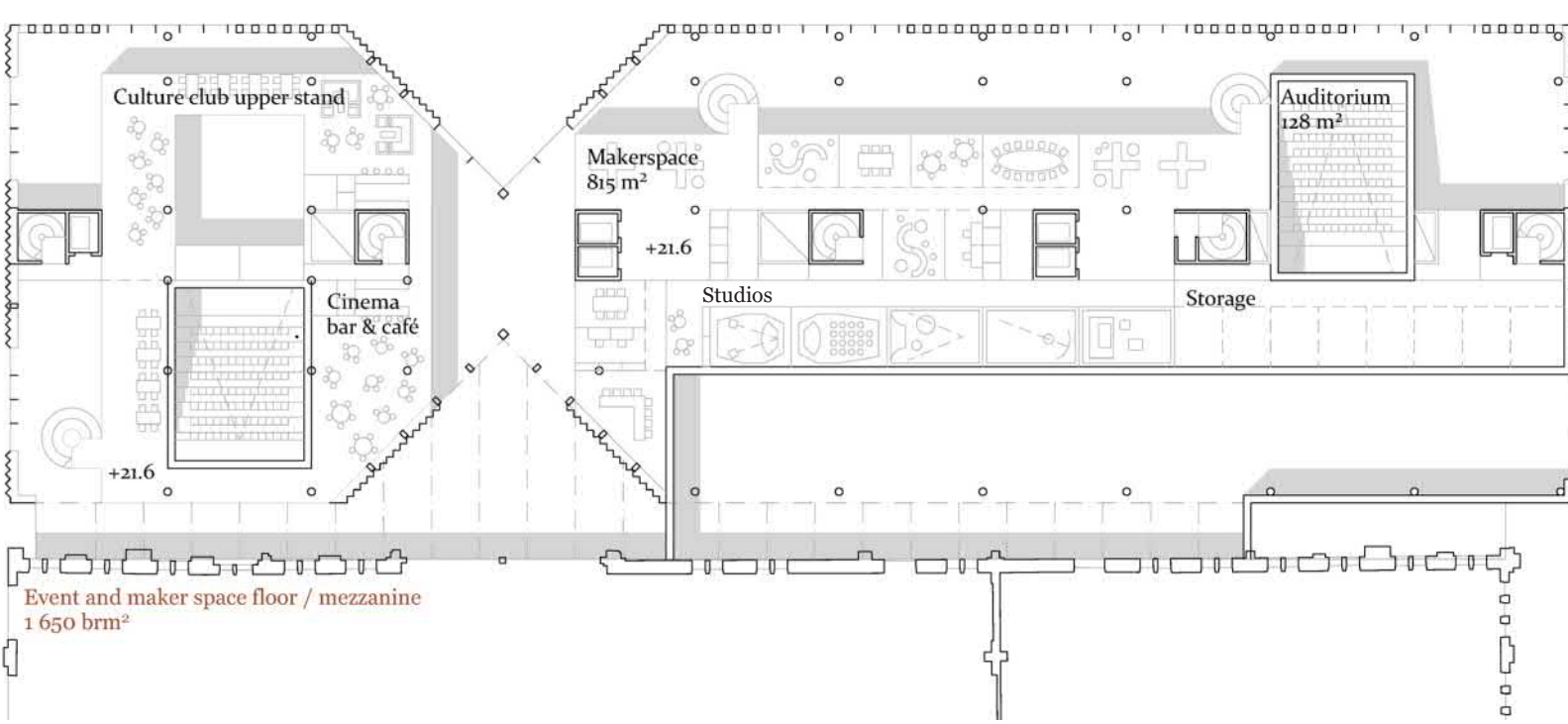
Office floors
5th-6th 2 200 brm²



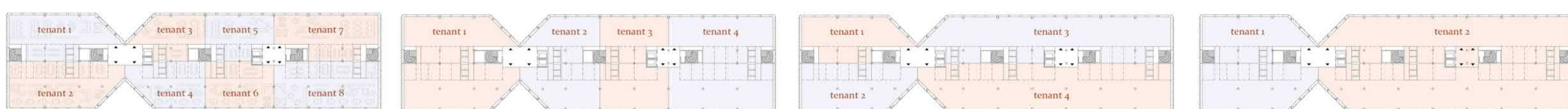
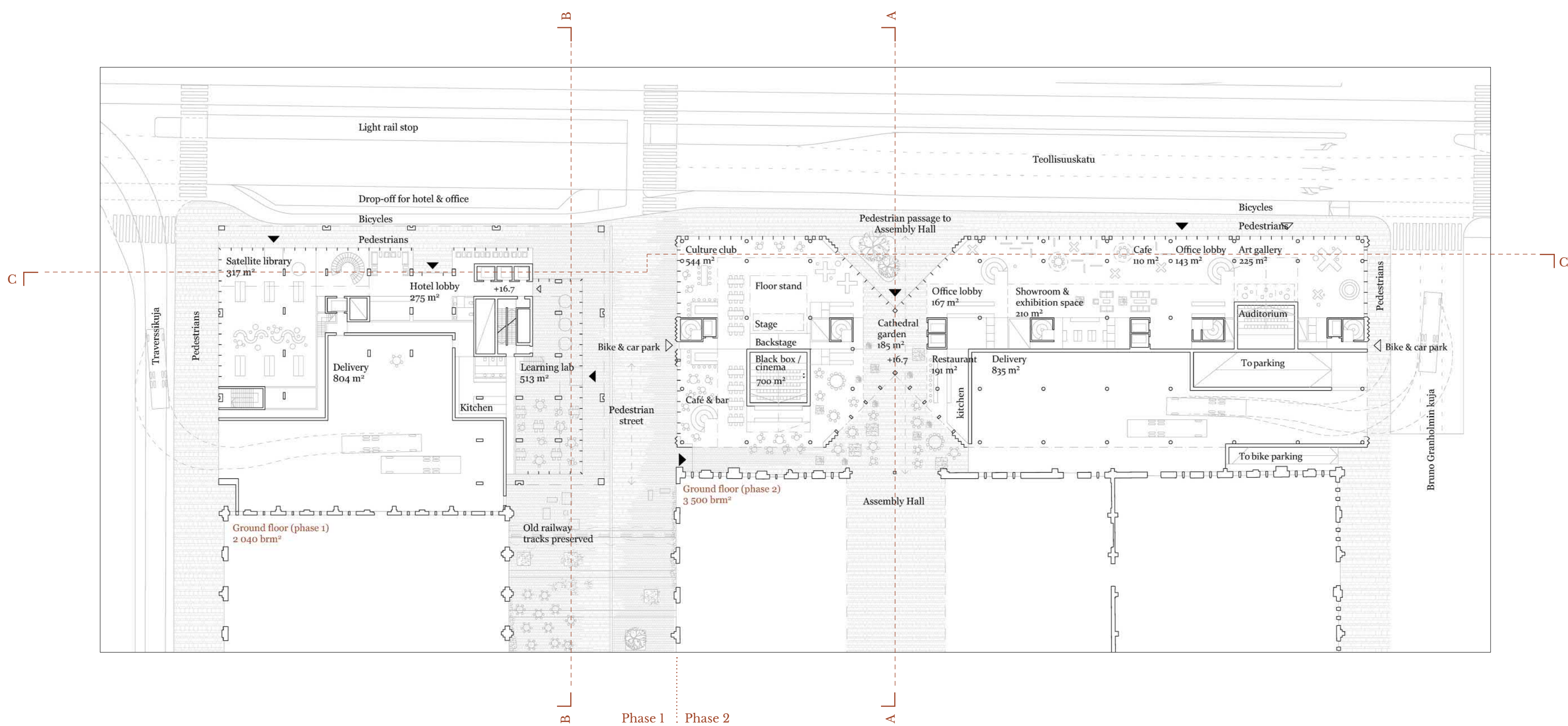
Office floors
3rd-4th 2 650 brm²



Office floor
3 080 brm²

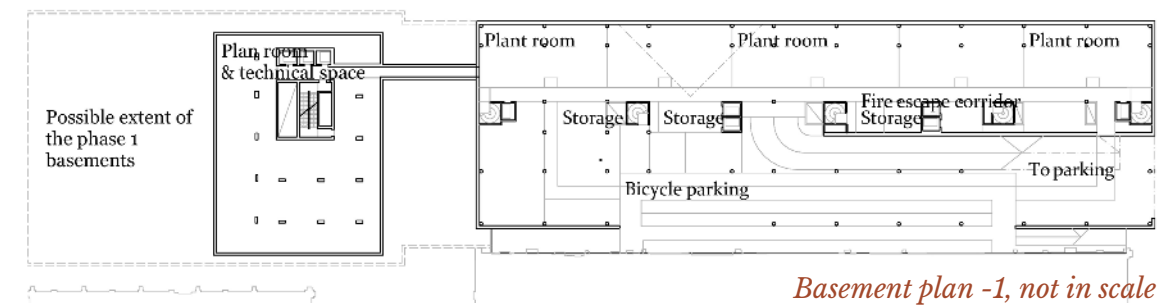


Event and maker space floor / mezzanine
1 650 brm²



Tenant division principles

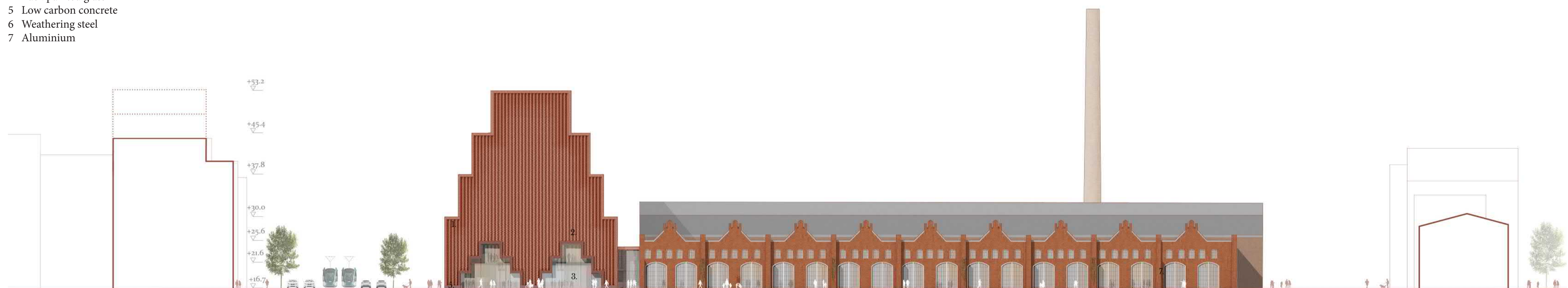
Tenant division in the office building is flexible across the entire floor plan either longitudinally or crossing the building. Maximum comfortable amount per floor is 8 separate tenants. The elevator lobbies and stairs are positioned to cater for multiple tenants, who can enter their premises without crossing other tenants areas. Meeting rooms and phone or video conference rooms can be positioned in the deepest parts of the building core, enabling maximum daylight in the flexible work areas along the facades. Several layout options are possible within the flexible wall system.



Basement plan -1, not in scale



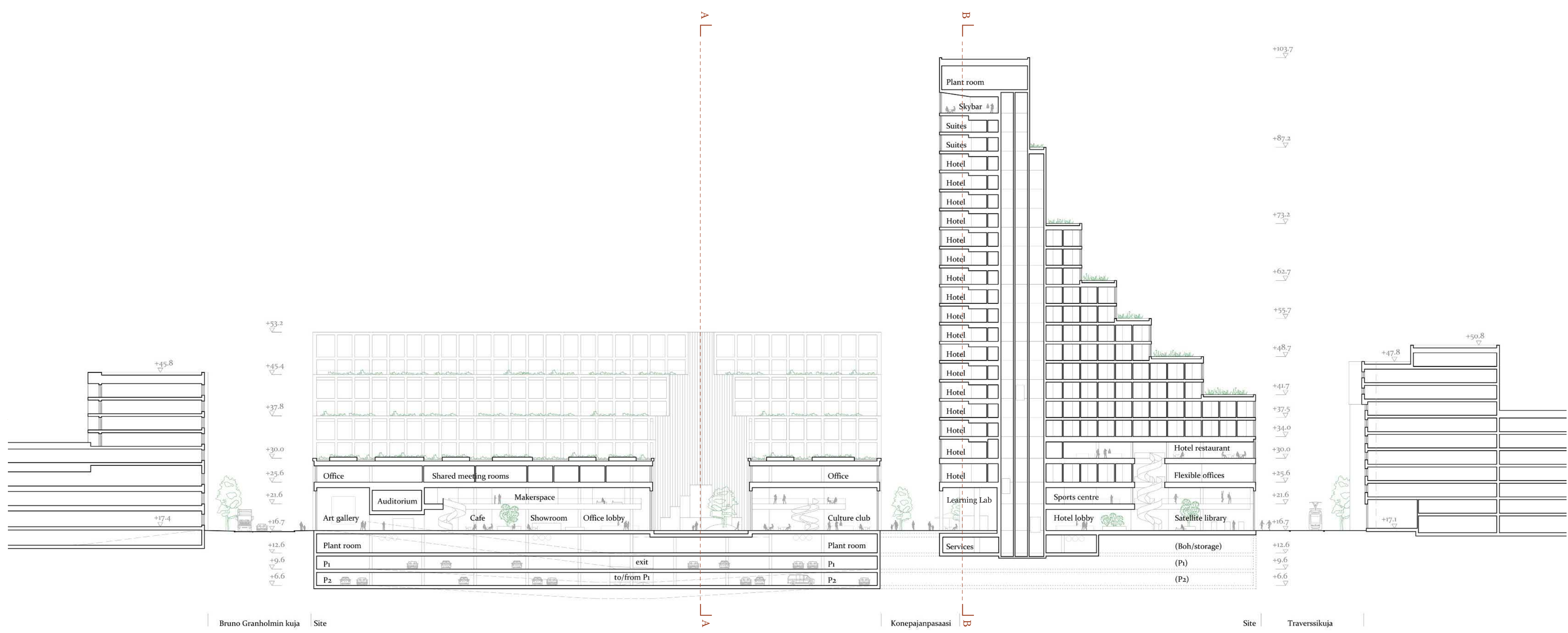
- 1 Brick / recycled brick
- 2 Perforated brickwork
- 3 Glass
- 4 Back painted glass
- 5 Low carbon concrete
- 6 Weathering steel
- 7 Aluminium



Elevation towards Konepajnpassaasi southeastern side, 1:500

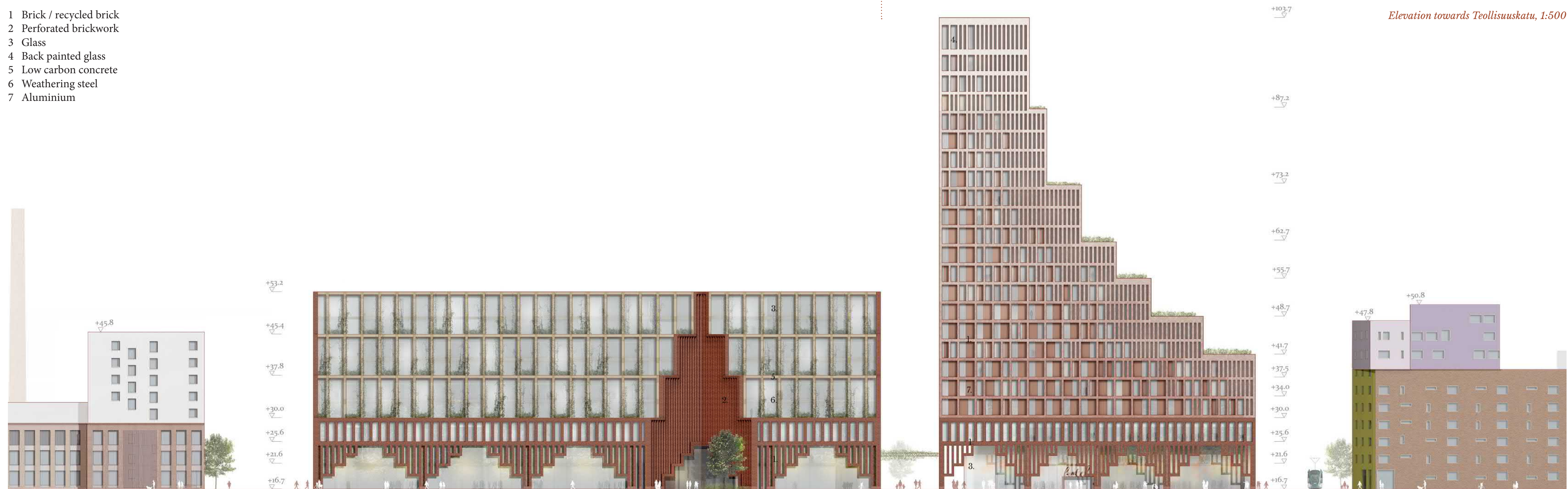


Elevation towards Traversssikuja 1:500



Section C-C Longitudinal section of the new buildings, 1:500

- 1 Brick / recycled brick
- 2 Perforated brickwork
- 3 Glass
- 4 Back painted glass
- 5 Low carbon concrete
- 6 Weathering steel
- 7 Aluminium



Elevation towards Teollisuuskatu, 1:500

The Train Factory

Following the tracks of history



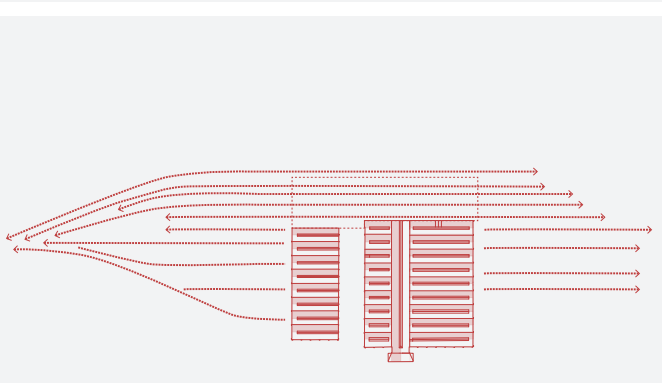
Visualization, seen from Bruno Granholminkatu

Following the tracks of history

The Konepaja train factory aims to introduce a clear vision and flexible architecture that will attract a diverse audience with high demands in their work and everyday environment. The project aims to build on the existing qualities and functions of the historic Pasila Machine Shop area, while also emphasizing the train factory's history as more than just a business. The ground floors and roof tops will be designed to be generous, inviting, and accessible, with the goal of giving back to the city. The project will offer a melting pot of culture, business, recreation, events, and tourism, and will transform Teollisuuskatu from intense traffic to human scale experiences with attractive edge zones. The ground level of the new buildings will not be used for shops, but rather for public and semi-public functions such as culture, digital art, galleries, and the like, with an emphasis on flexibility for future uses.

The project has undergone revisions to address the feedback about massing, architectural expression, the ground floor podium, and the plan layout. The revisions include reducing the number of buildings from three to two, making the massing more permeable, studying setbacks on the street side, making the podium more porous and playful, making the hotel tower more slender, simplifying and streamlining the architectural expression, and exploring different materials and colors. A color progression has been incorporated in the design, where the color tones progress from dark to lighter as the building's volumes increase upward. This helps to create a sense of lightness and movement in the overall massing, further reducing its visual bulkiness.

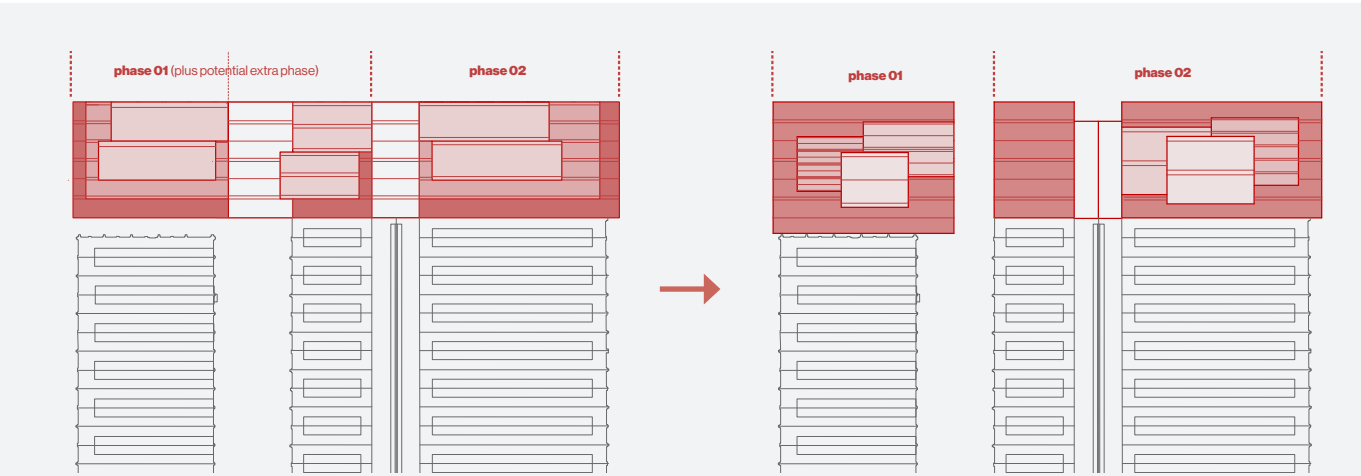
Welcome to the Konepaja Train factory!



Traces from the past and present: Both the former train tracks on the site and the existing halls have a very clear direction. Therefore, the project tags on to this direction in its disposition of volumes, roof profiles and architectural language.

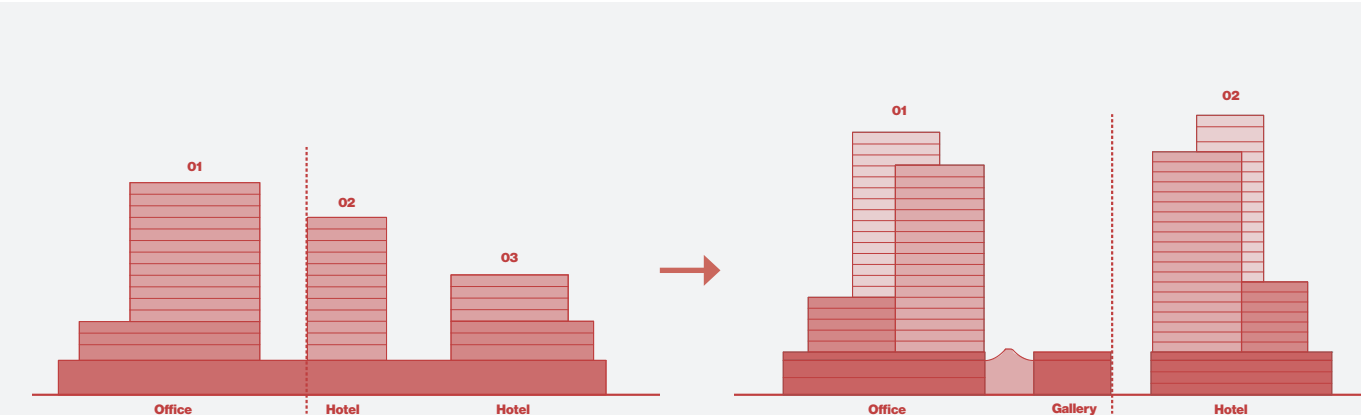


Openness and permeability: The long site is opened up by creating passages across. This allows people from Teollisuuskatu to access the heart of the area, but also to let the urban life from the area spill out to add urban quality to the streets edge zone.



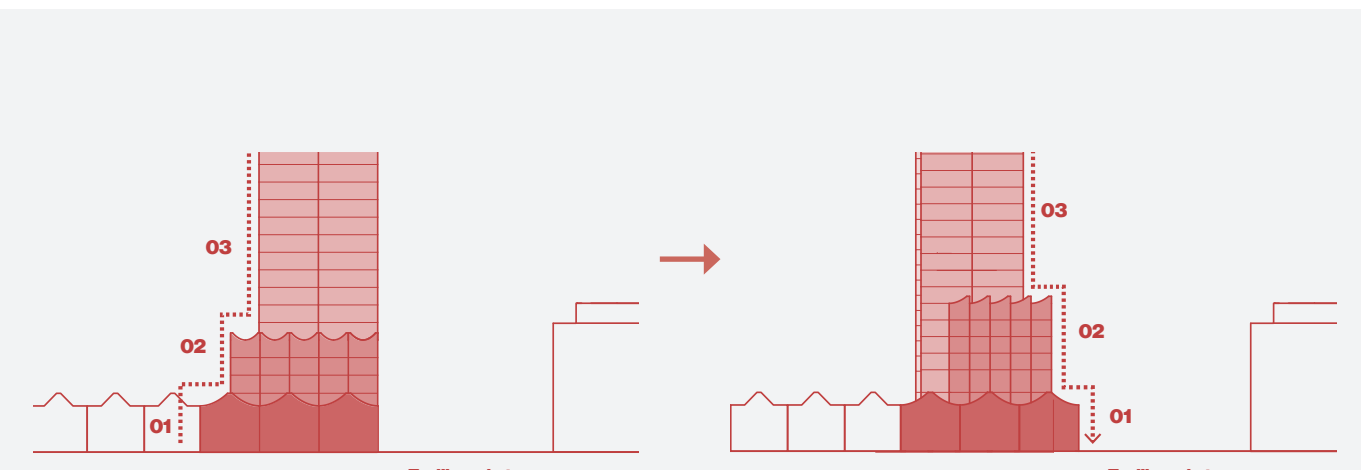
Volume optimized for phasing

The first phase of the project featured a hotel divided into two separate buildings connected by a bridge. In the new proposal, the hotel has been consolidated into a single building, which will simplify the phasing process and create a more efficient layout for the hotel. This change also allows for the creation of a new flexible gallery space in the central area.



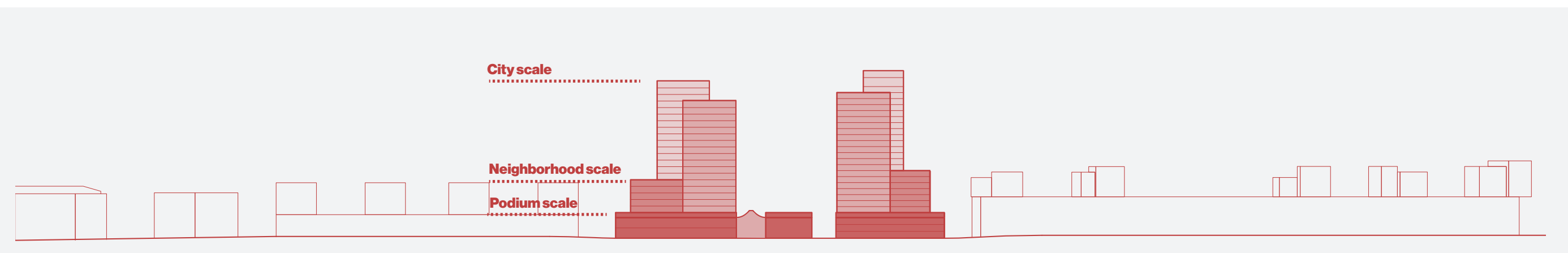
An open and permeable structure

The new design features a reduction from three buildings to two, which has resulted in a more open and permeable structure. The changes have improved the visual connections between the train factory area and Teollisuuskatu. The buildings have been downscaled by clustering them into groups of three, and the long site has been opened up by creating passages across it. This allows for easy access for people coming from Teollisuuskatu to the heart of the area, while also allowing the urban life from the area to spill out and add vitality to the streets and edge zones.

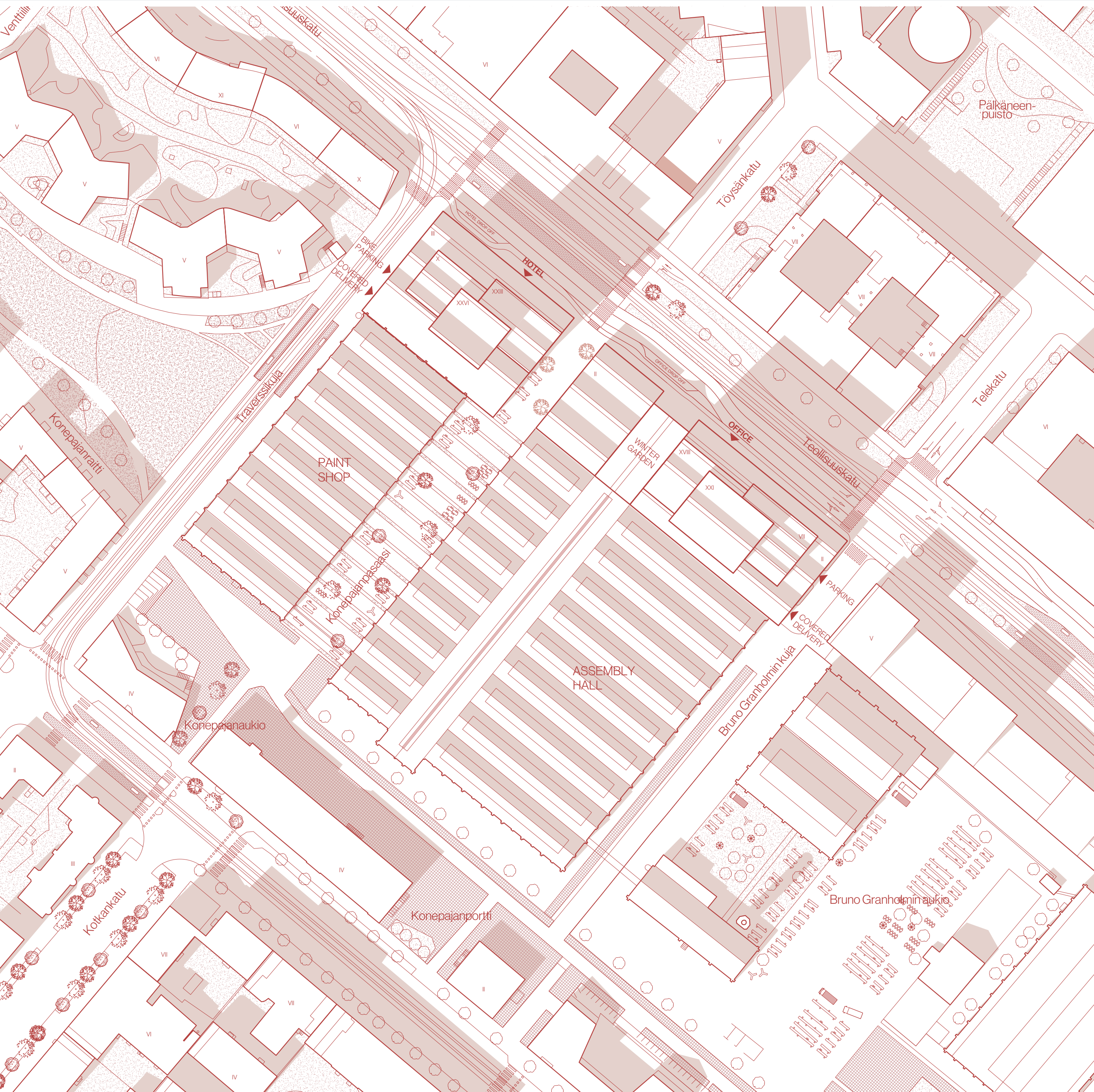


Scaling down to Teollisuuskatu

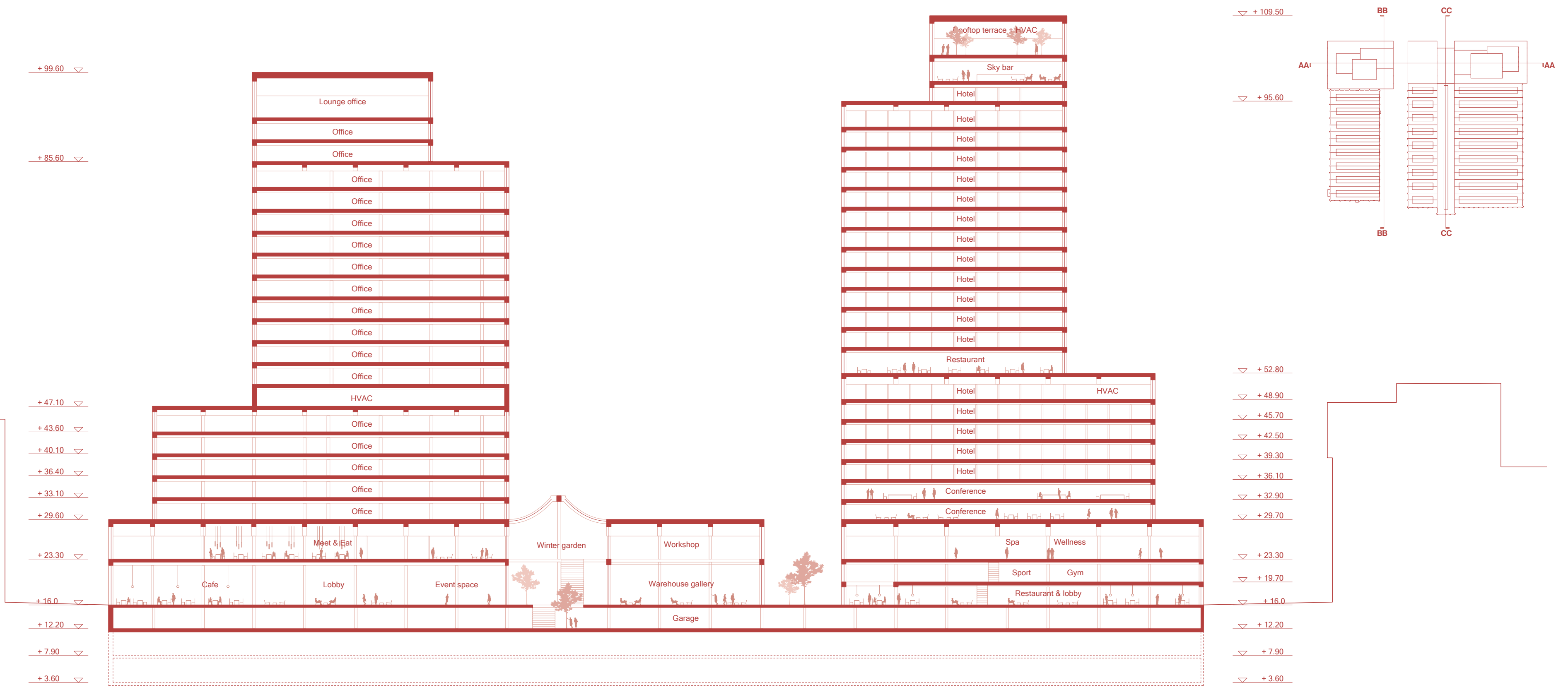
In the new proposal setbacks towards Teollisuuskatu has been carefully integrated to scale down the buildings towards the street. This design approach means that only the base meets the street while the office and hotel buildings are set back.



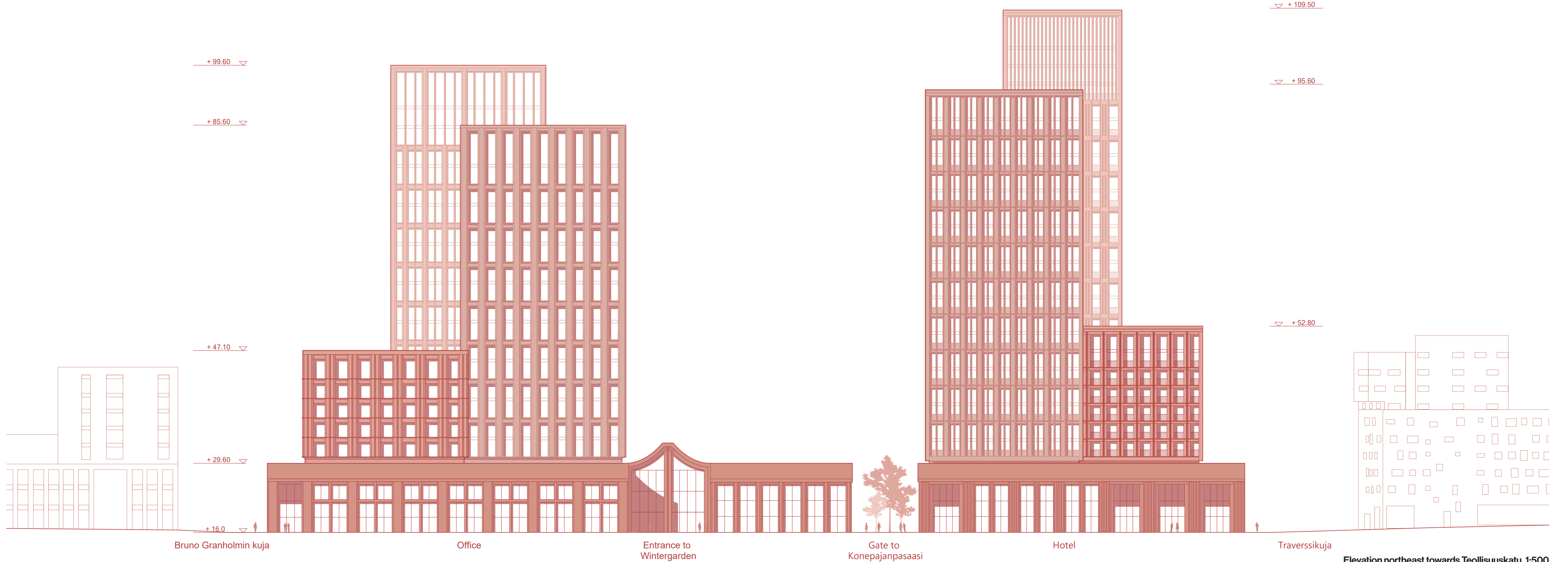
The new proposal aims to maintain the dominance of the Kalasatama towers and the Tripla mixed-use complex in Pasila in the cityscape by designing the majority of the buildings to be lower in height compared to their neighboring areas. Additionally, a smaller portion of towers will be higher to act as a stepping stone between Kalasatama and Pasila, creating a seamless integration into the current cityscape.



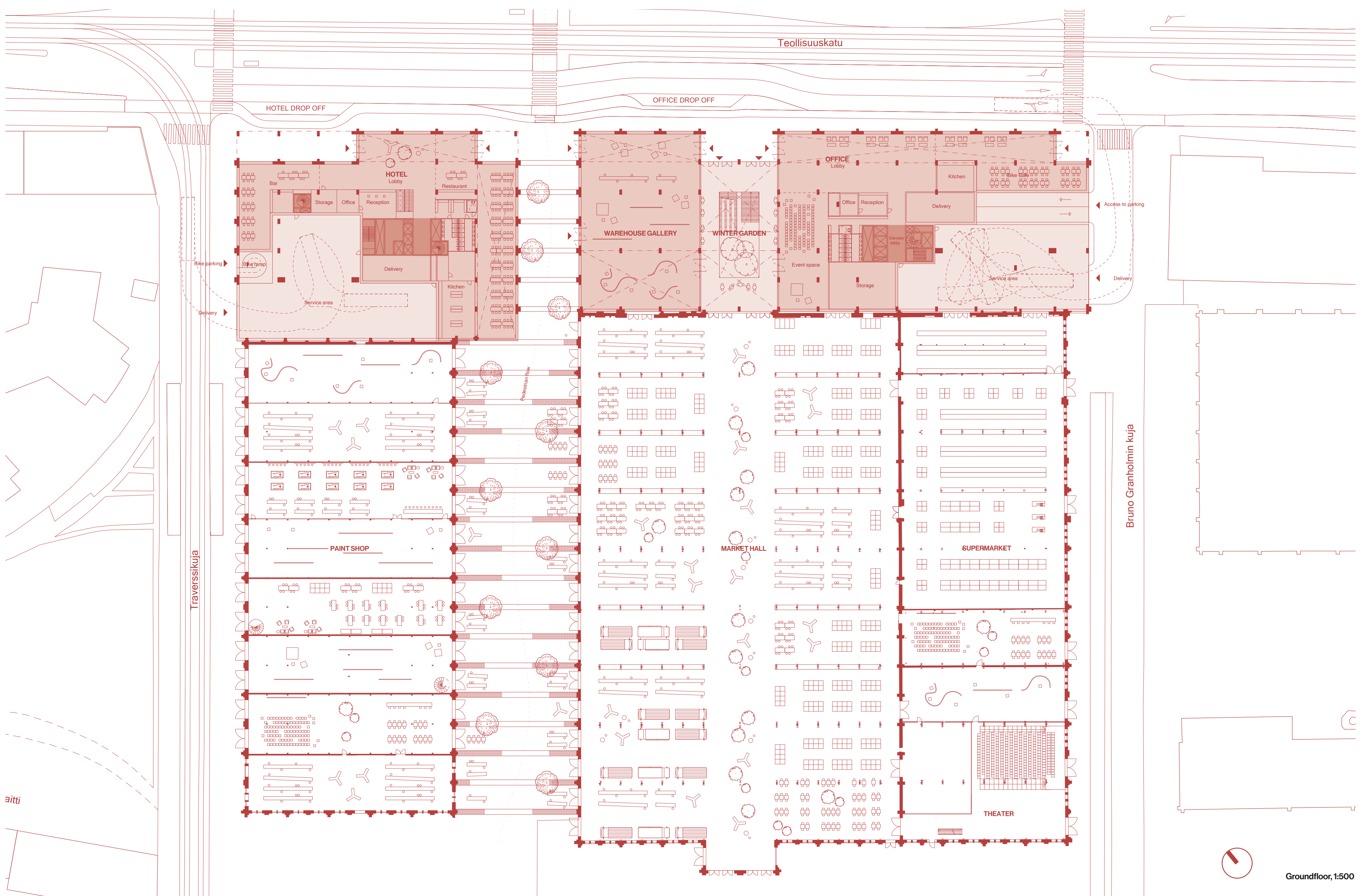
Siteplan, 1:1000



Section AA, 1:500



Elevation northeast towards Teollisuuskatu, 1:500



Groundfloor, 1:500

From a place for production To a place for people



Urban life between the former paint shop and assembly hall



The passage between the hotel and the warehouse gallery introduces a new gateway to the area



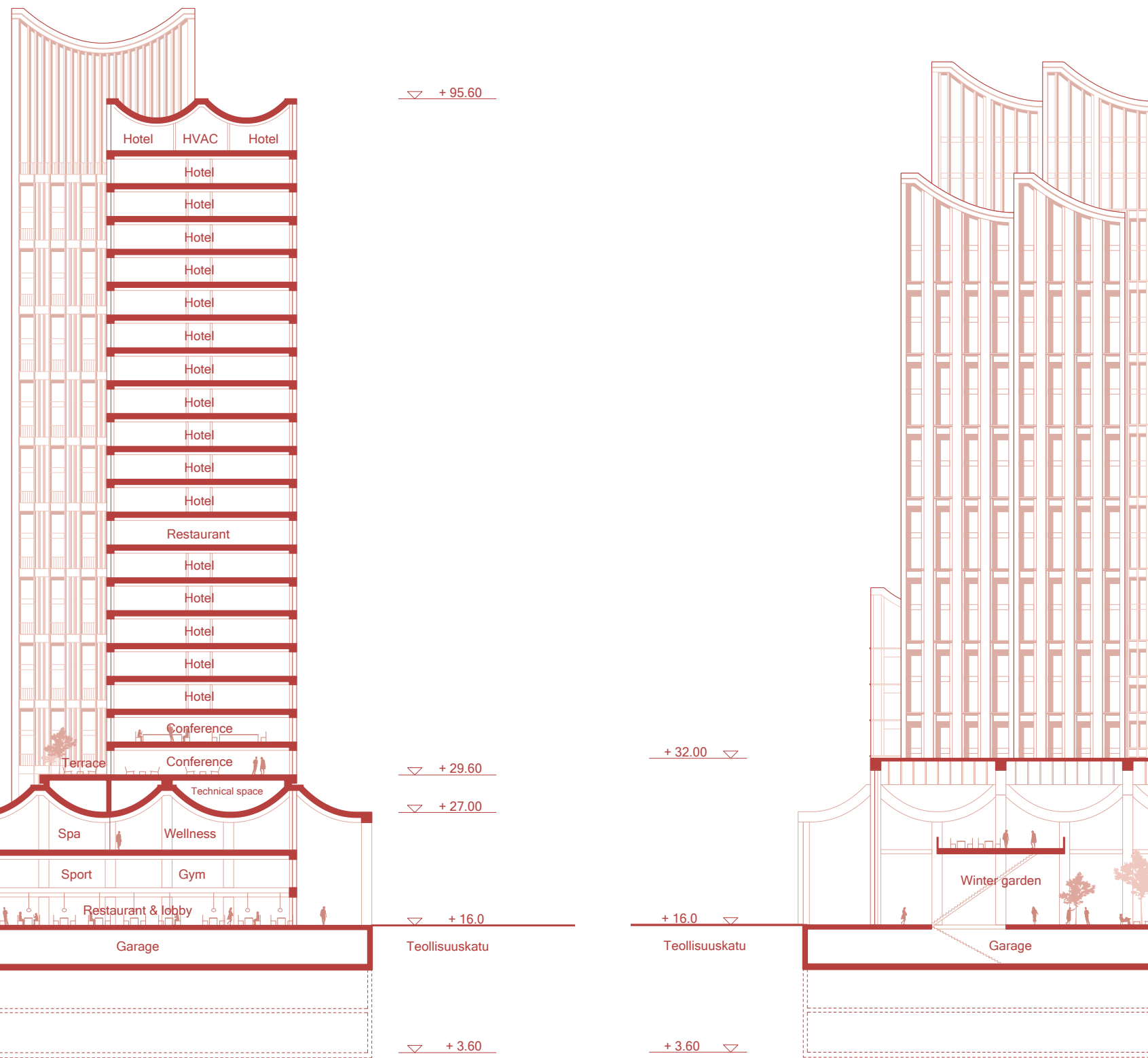
The wintergarden is a new living room that connects office, hotel, assembly hall, the warehouse gallery and basement below

General: The façades are envisioned as light façade elements hung to the main structure of the building. All façades are based on a module that easily can be divided into smaller segments well fitted for both different types of office layout and hotel rooms. The modules can be adapted to the specific program, for example introducing balustrades and external solar shading for the office façades or French balconies for the hotel rooms. The new project replaces the current ETB building. Instead of demolishing it and throw away the material, the ETB building could be seen as a material bank, from where material can be harvested and reused in various ways.

City/Neighborhood scale: To create a lighter and more reflective appearance, the higher points of the buildings could be in metal. Aluminum performs good in high-rise construction compared to other materials. Due to the low weight, it favors both transport and assembly. It is also an extremely durable, low-maintenance and 100% recyclable material.

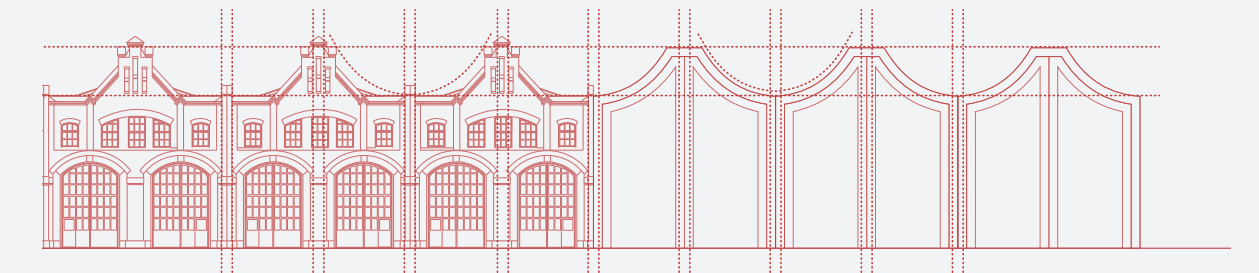
Podium scale: In scale and materiality, the new podium should maintain the appearance as a heavy tectonic volume. The brick from the ETB building could be used in the podium, ensuring a historic reference to the former building. Reused bricks can also ensure a significant reduction in the CO2 emission.

HVAC: In order to prevent a significant increase in the building's size, the design includes sufficient reservations for HVAC units and shafts. Currently, the ventilation units are placed on floors with direct access to fresh air to minimize the size of the vertical shafts. All HVAC spaces can also be located in the basement level to maximize the available space for hotel and office facilities.

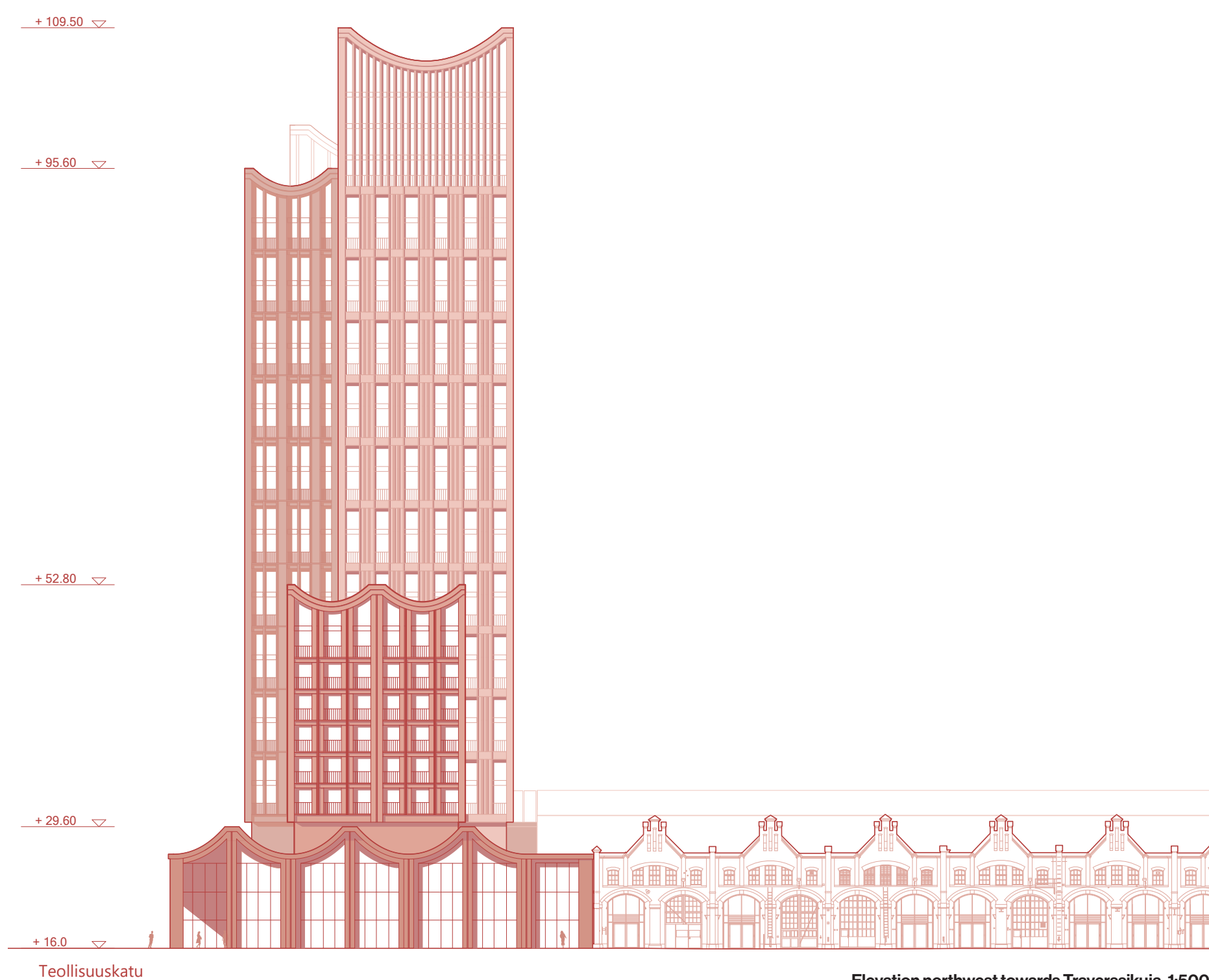


Section BB, relation to Konepajansasaasi, 1:500

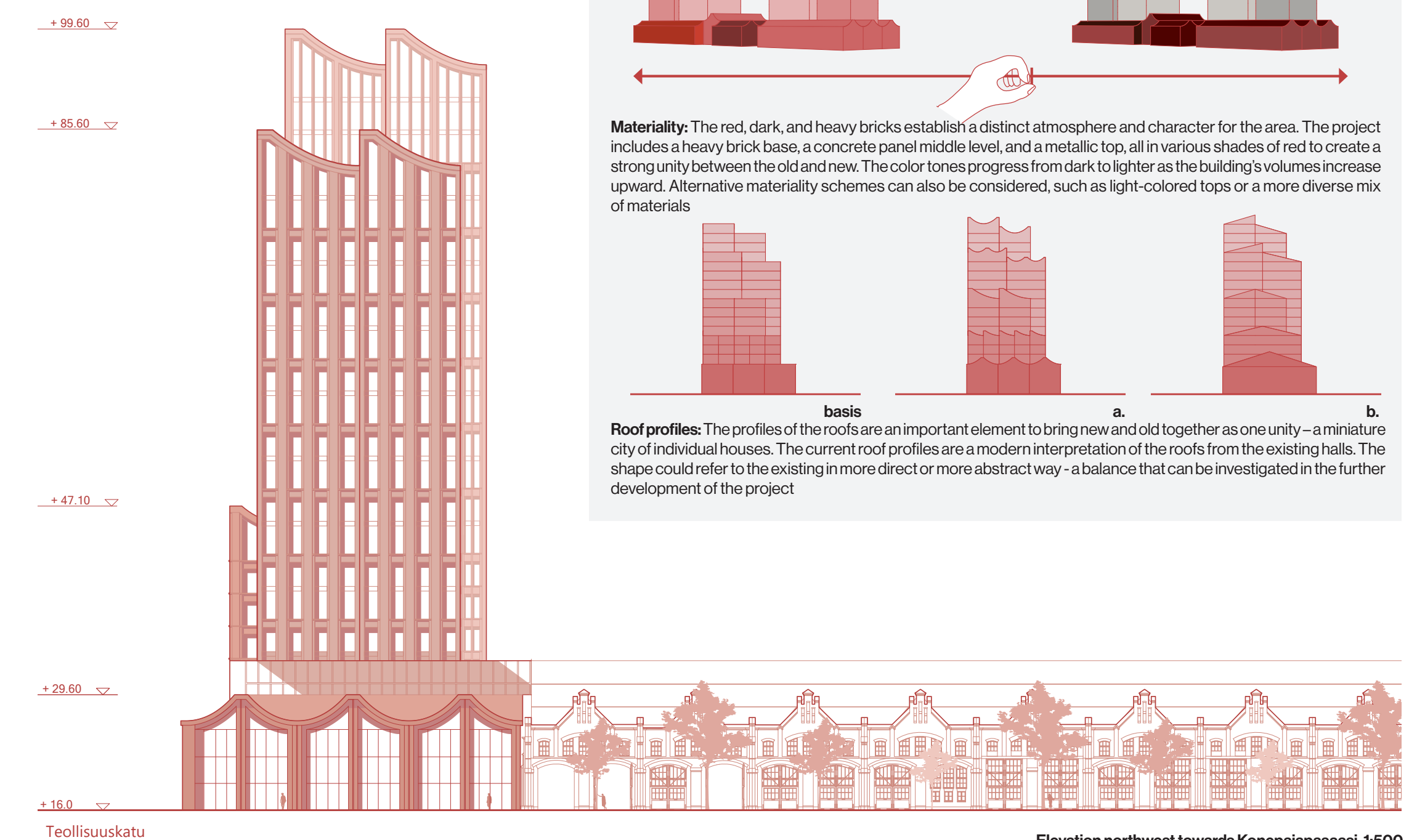
Section CC, Semi-public connection between Teollisuuskatu and Assembly hall, 1:500



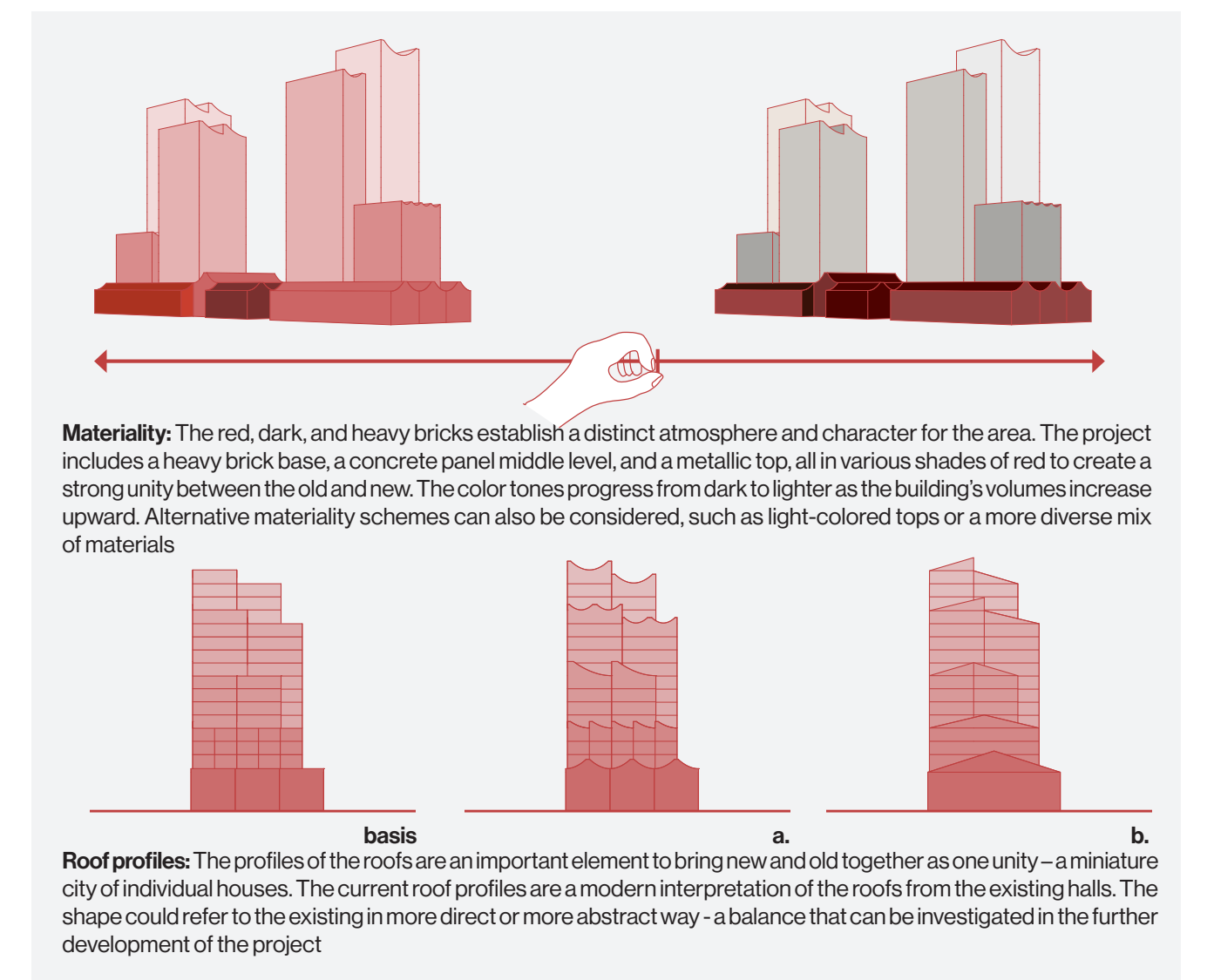
Drawn by the context: Rhythm, hierarchy, and proportions of the existing architecture on the site are carefully analyzed and set clear guidelines for the composition of the new architecture introduced on site.



Elevation northwest towards Traversisukuja, 1:500



Elevation northwest towards Konepajansasaasi, 1:500



Building the future with respect for the past



Visualization seen from Teollisuuskatu towards Konepajapaasi



View over Helsinki from the public accessible skybar



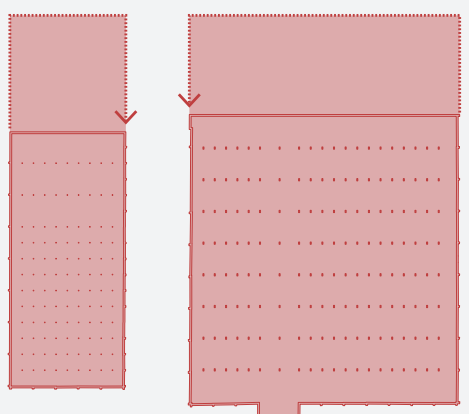
Office lobby towards Teollisuuskatu



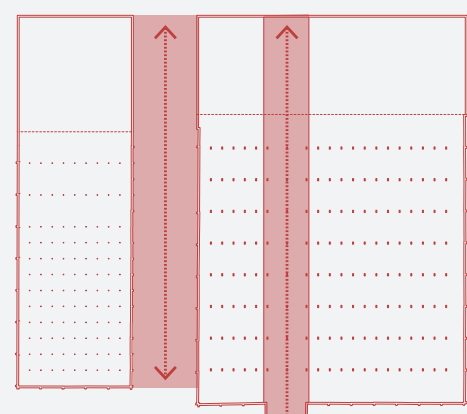
Visualization along Teollisuuskatu



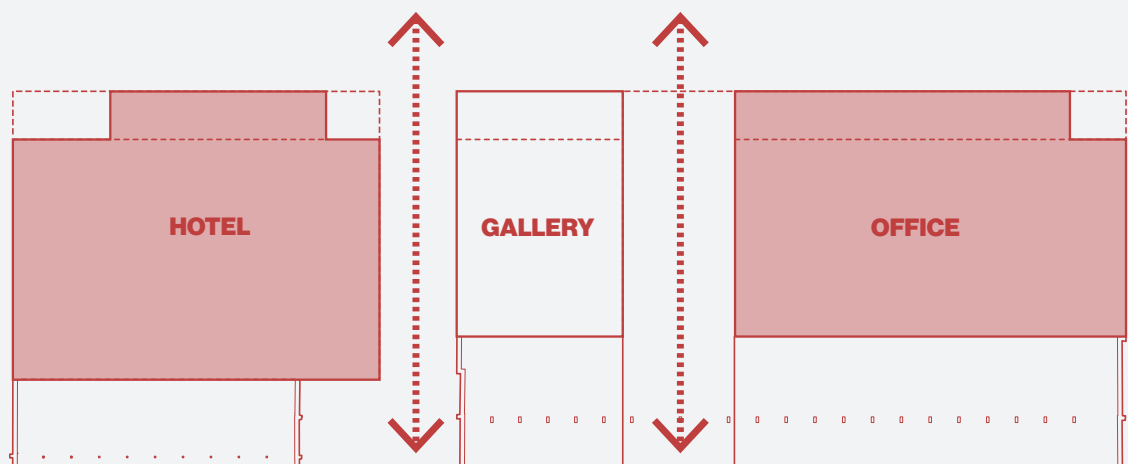
Colonnade along Teollisuuskatu



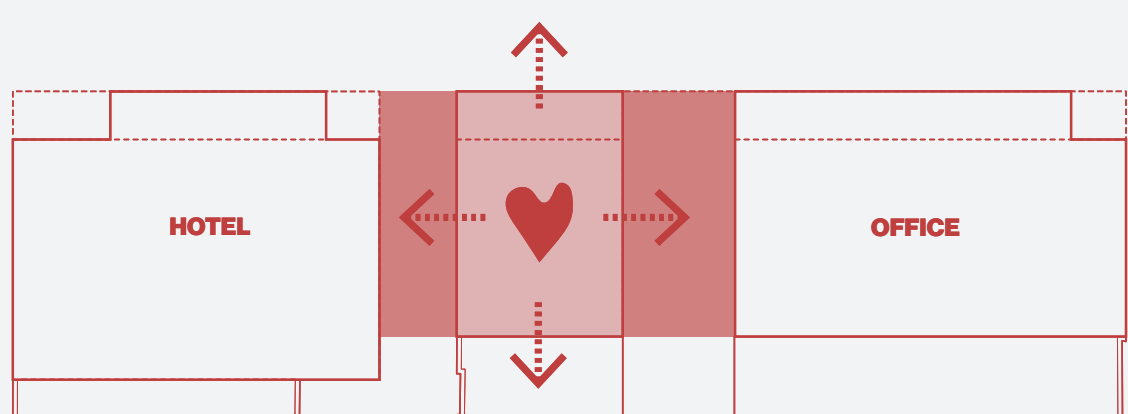
Continuation of the existing hall: The typology of the existing halls has proven to be highly flexible and contains versatile spaces that can be used for many different purposes. The podium level refers both in function, scale and typology to the existing halls.



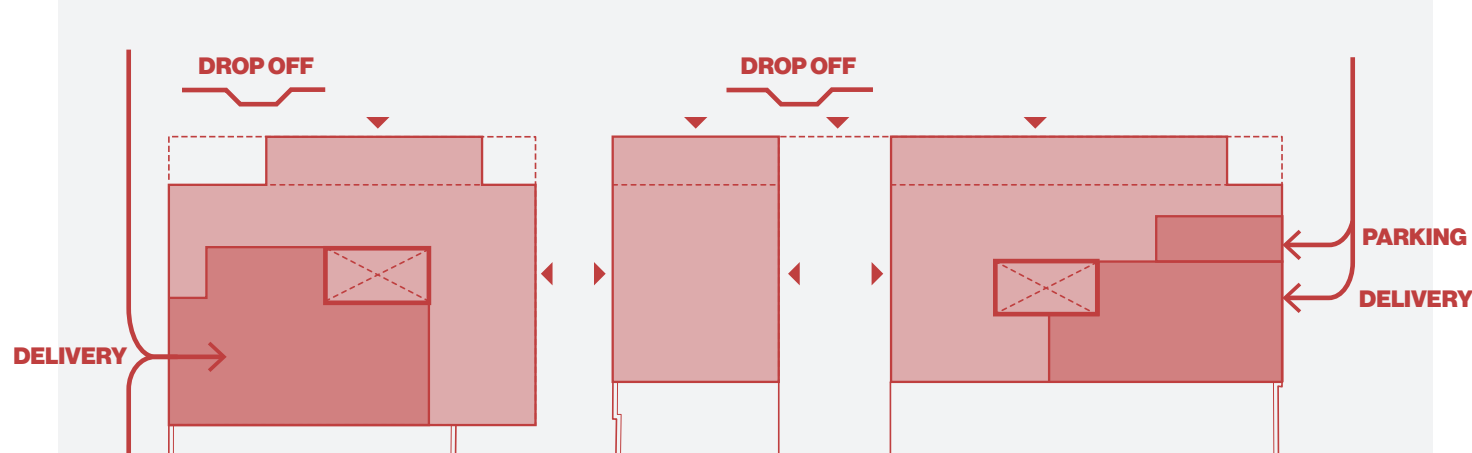
Connections to the city: Besides the green passage the existing paint shop already has an indoor and outdoor passage, which is continued in the new podium. This allows for good connectivity across the site – indoor and outdoor.



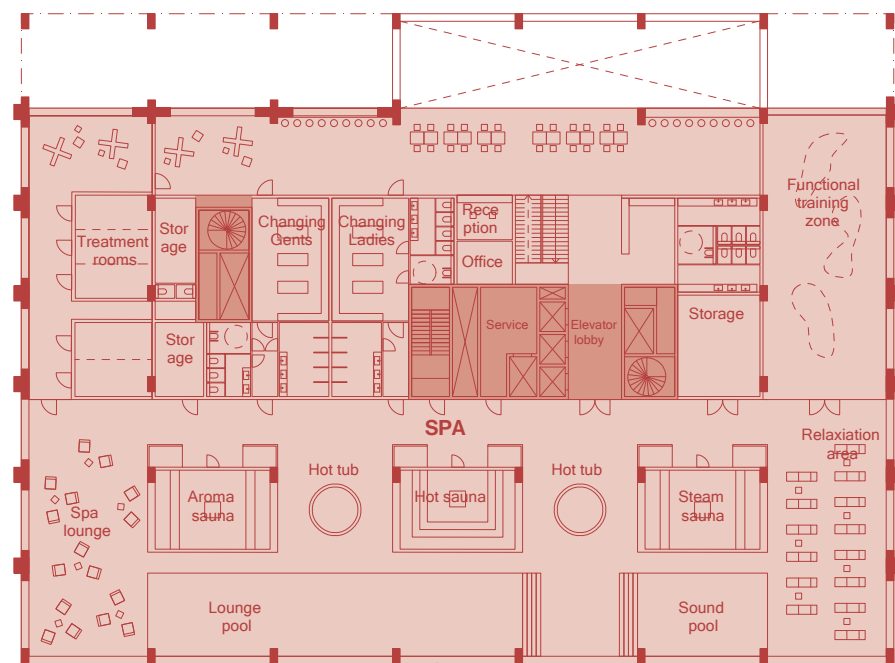
A simple programmatic division: The two streets are separating the program so that the office and hotel is separated in each side with direct connection to logistics. This releases space for a more flexible program in the middle of the site, where the full height can be utilized. It would be perfect for a gallery for instance.



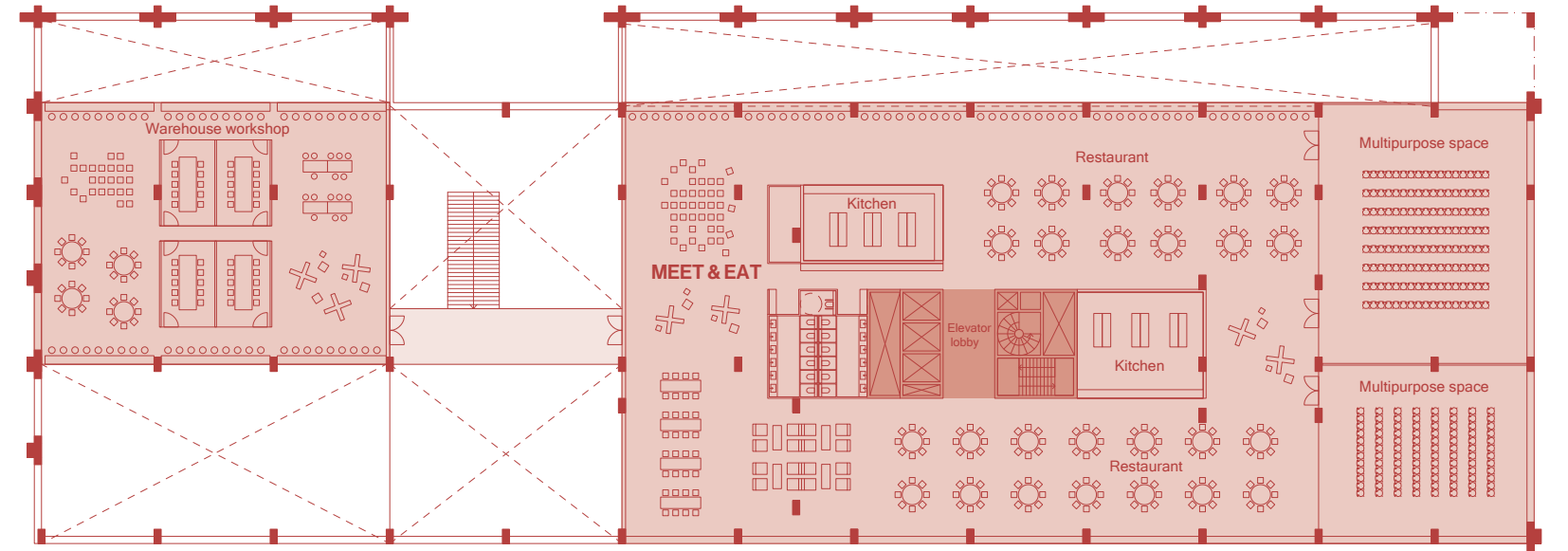
Flexible central gallery connects streets, hotel, office: A central gallery will act as the heart of the site where it connects both the two streets, the hotel and the office. It will be a flexible space that can be used for different programs and open up to all sides so that the space can be expanded into the streets.



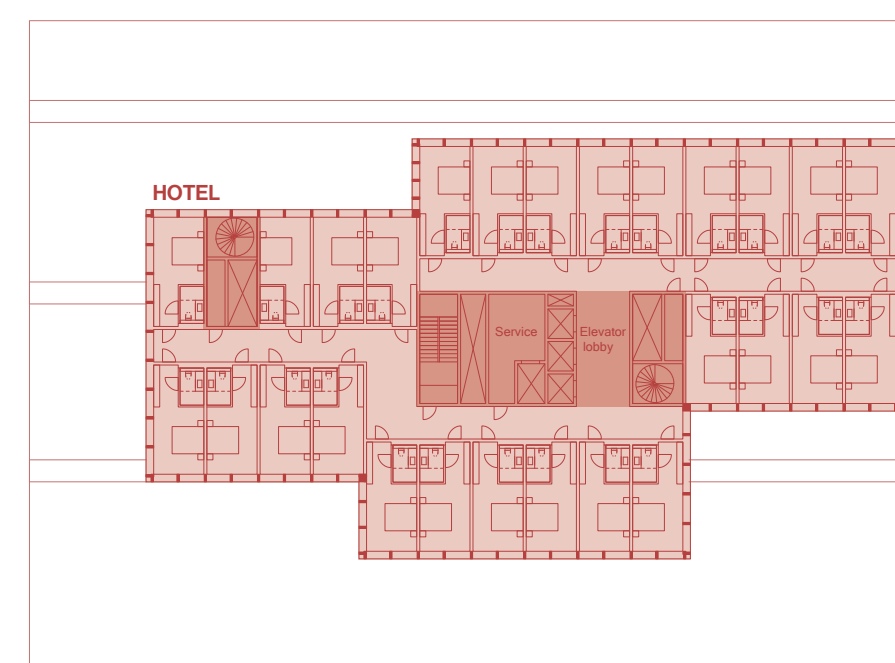
Logistics: Two drop-off areas for taxis and other services is placed on Teollisuuskatu right in front of the hotel and office lobbies, the service to the hotel will be from Traverssikuja while service to the office will be from Bruno Granholminkuja. Access to the parking will also be from this side.



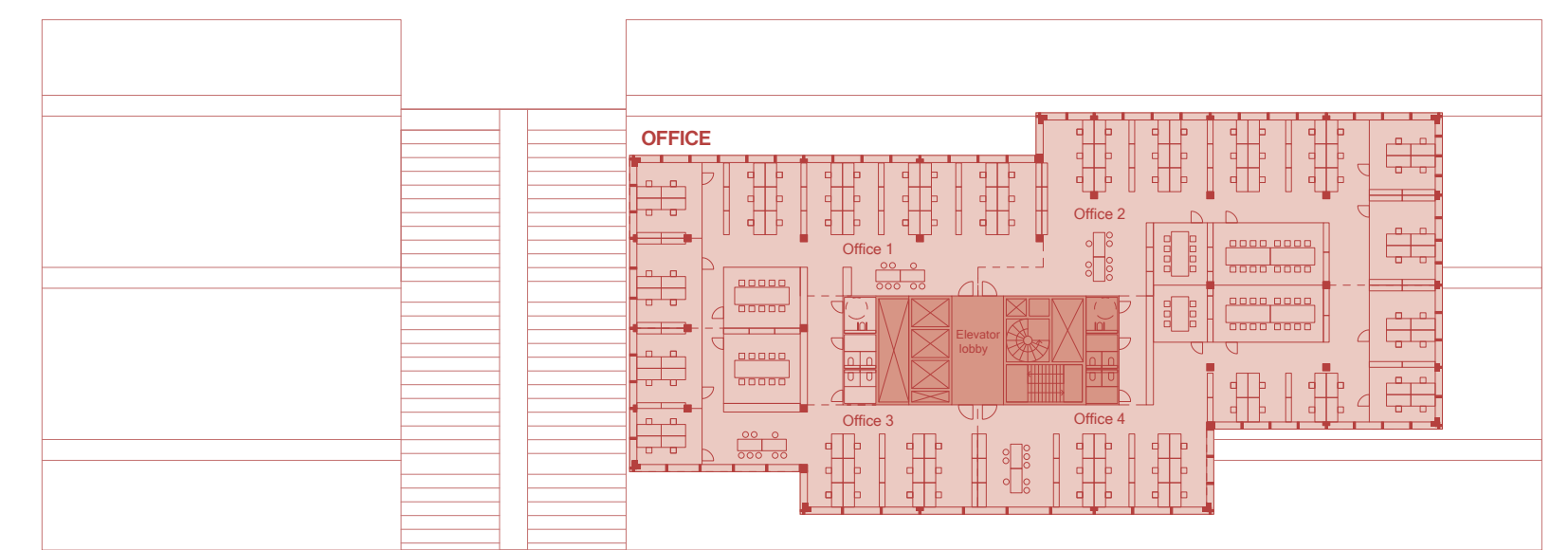
Level 03, 1:500



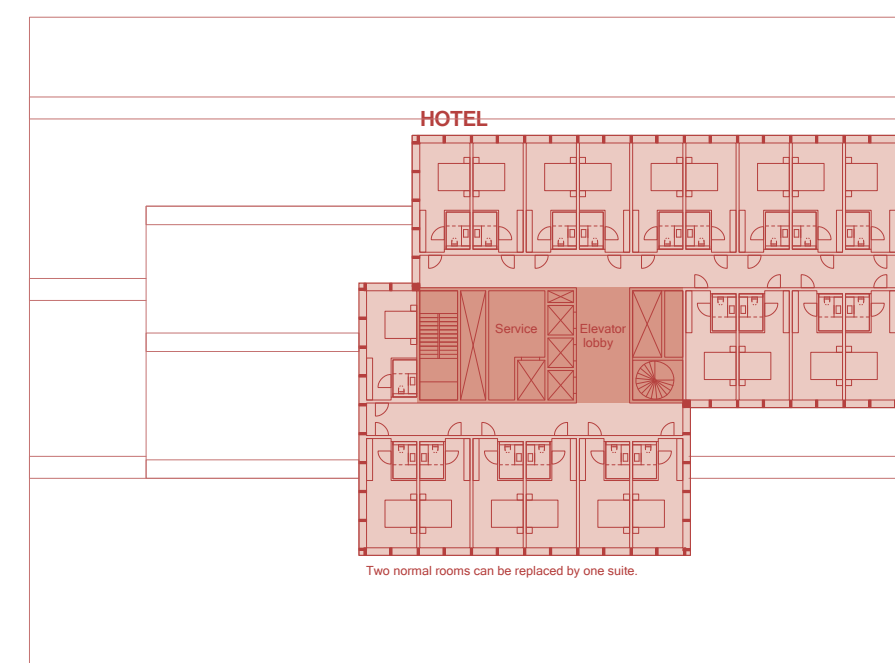
Level 02, 1:500



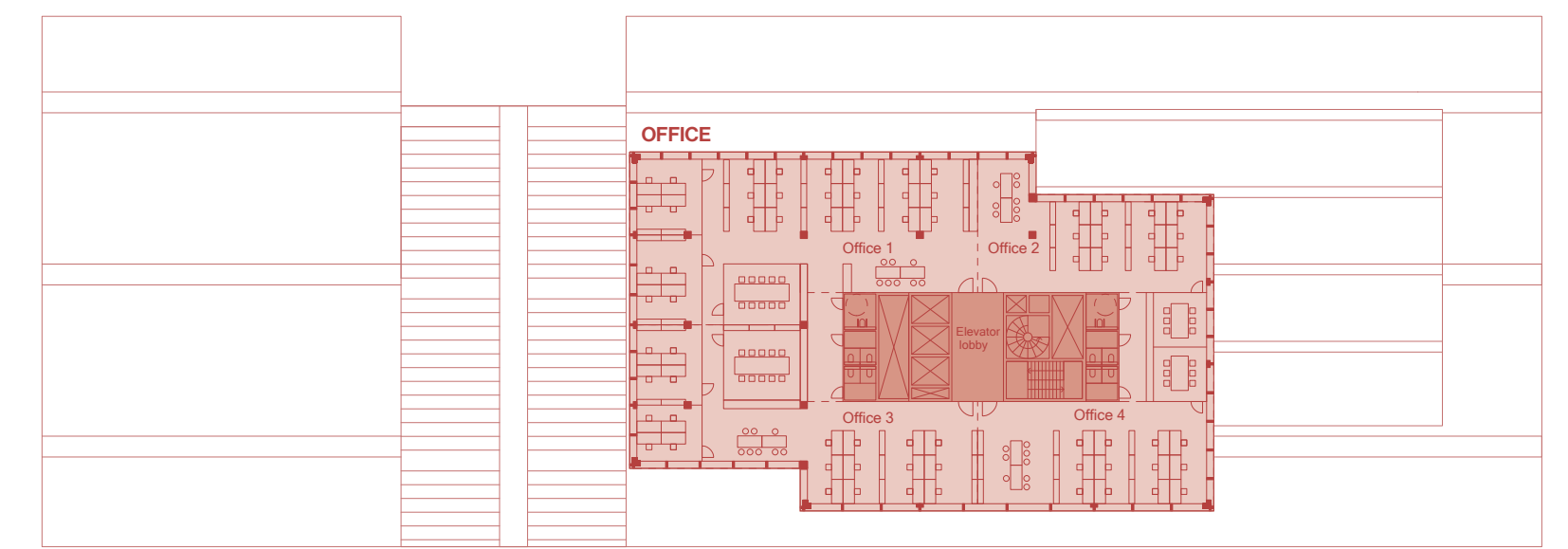
Typical floor with 27 rooms, Level 04-10, 1:500



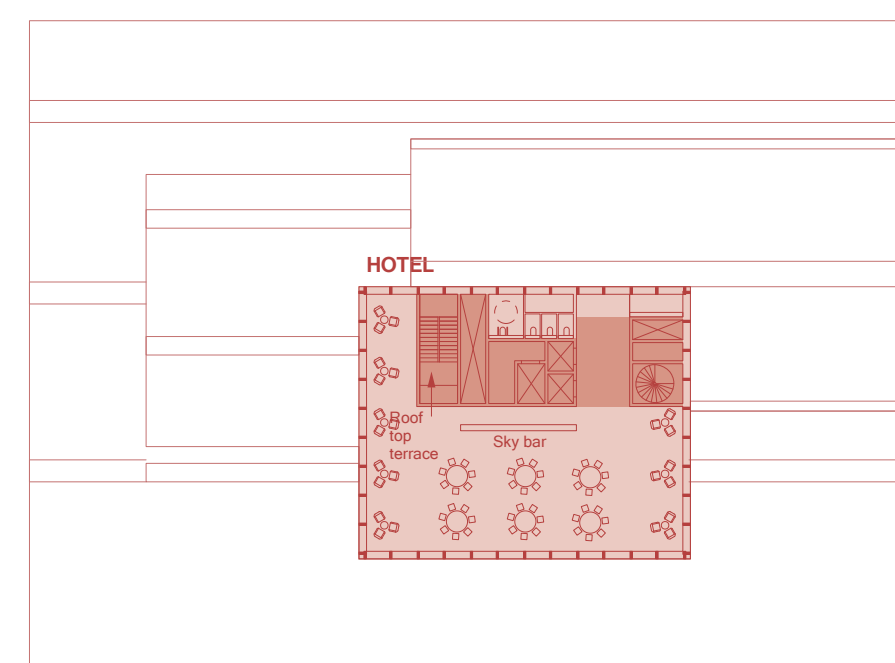
Typical floor, Level 03-07, 1:500



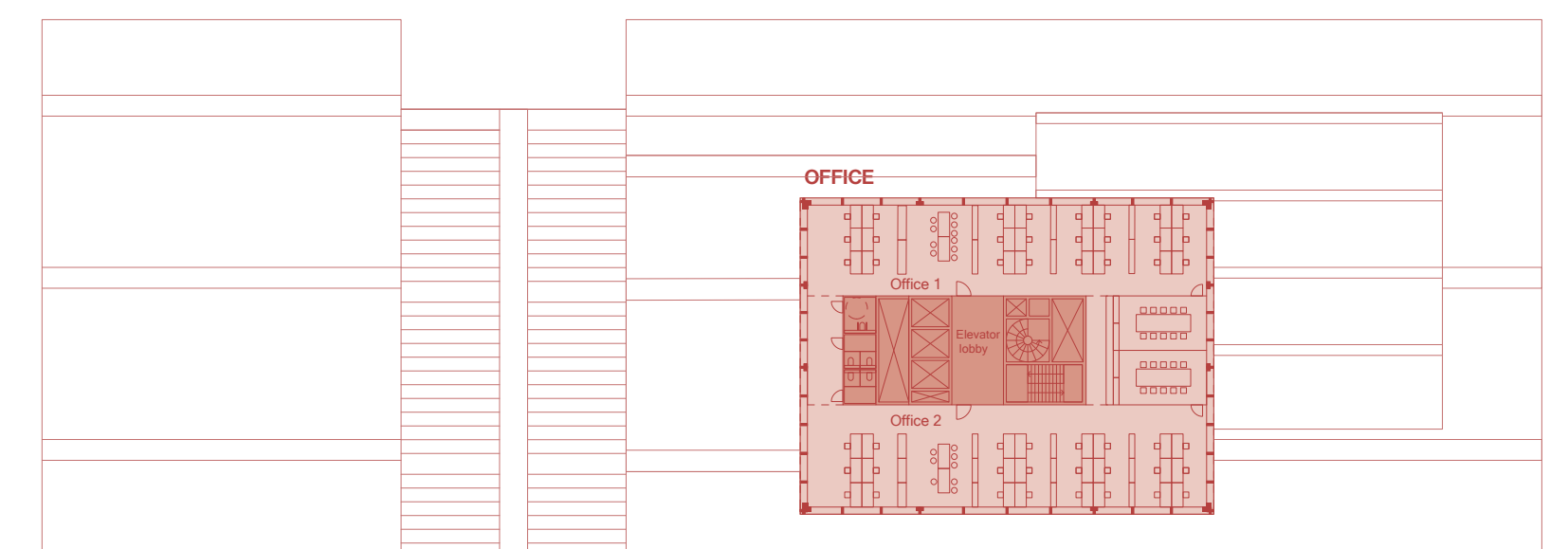
Typical floor with 20 rooms, Level 11-23, 1:500



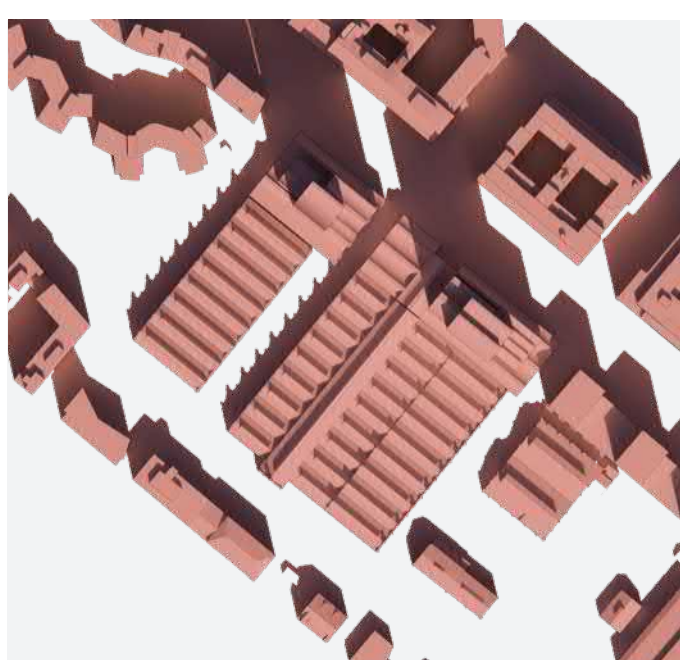
Typical floor, Level 08-18, 1:500



Typical floor, Level 24-26, 1:500



Typical floor, Level 19-27, 1:500



Sun study, 31. March 11:00



Sun study, 01. June 09:00

