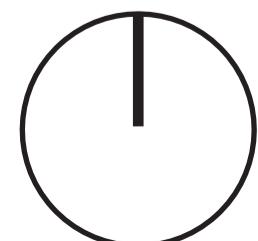


SITEPLAN

N



# ConfEx park 2.0

## THE MAIN IDEA

The proposal provides Thessaloniki with a world class conference centre and a contemporary architectural landmark by combining the two main elements of the city in an innovative way. In Thessaloniki the historical, thriving urban areas with their humane scale and historical layers are contrasted with impressive rolling hills and sea views. The architecture of the new ConfEx Park is built with these two scales. The large exhibition halls form a sequence of landscape-scale hills with accessible rooftops, defined not as urban blocks or crude blank buildings but rather as built three dimensional landscapes. These are contrasted by the hotel, conference and business centre functions which are defined as high quality buildings inspired by the scale, materiality and texture of the existing cityscape.

## THE LANDSCAPE STRATEGY

### **The mountain and the sea**

The natural landscape of the Thermaic Gulf is dominated by two elements: the Mediterranean Sea and the mountains. Thessaloniki is situated in between these two features, separating them with its dense urban fabric. In our vision Confex park unifies the two key natural elements and invites the people to enjoy them. A grand axis runs from the peaks to the water, passing through the urban fabric towards the Mediterranean. Confex Park is a meeting ground for the mountain, the sea and the city.

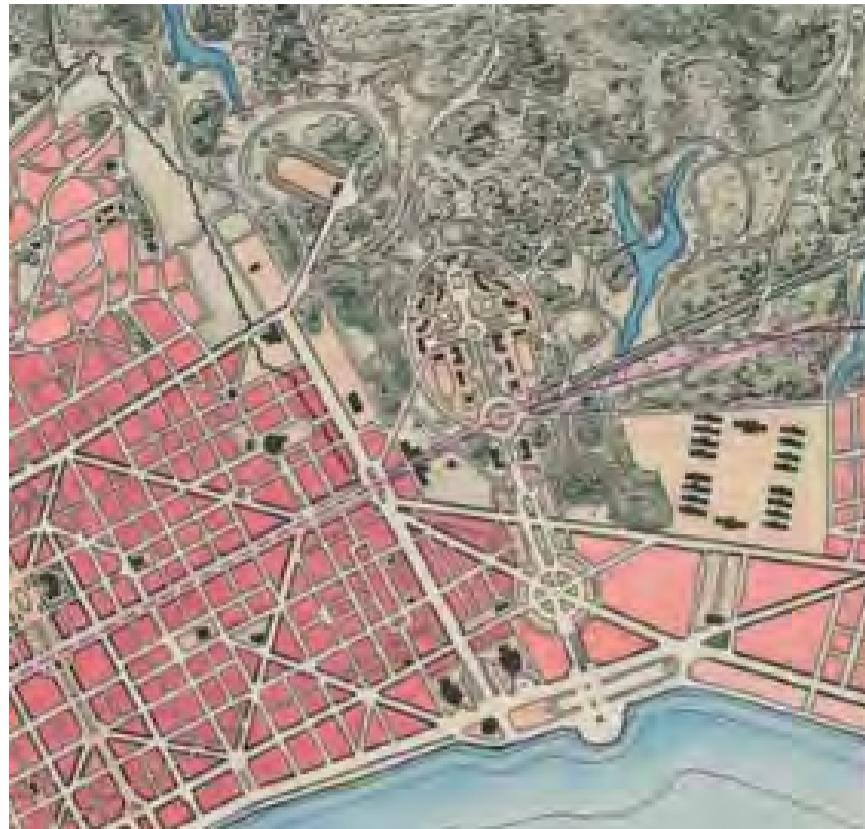
### **Mindset**

Since the heydays of the Byzantine Empire, the site was an area beyond the city walls, outside of the daily life of the people of Thessaloniki. It was defined by military facilities, cemeteries and the roads leading up the gates. After the great fire of 1917, the city's ambition was to transform the area into a great park with public buildings. It would have been a pause in the urban fabric, creating an opportunity for recreation and connecting with nature. Today's urban grid system, that dominates the layout of the area is based on the paths and roads drawn up in the proposal.

In the early years, the Helexpo exhibition grounds were an open space with buildings placed as pavilions in the main park. These light structures were embedded in a harmonic and natural manner. The growth of the exhibition and the increased needs for shelter from the sun resulted in a series of new buildings on the expo grounds. Through these interventions the area lost its park character and became a grey, enclosed and introverted space sealed off from the other parts of Thessaloniki. It disrupts both green-blue and urban connectivity.

This task gives us a unique opportunity to rethink the place and role of the fairgrounds in the urban fabric. Confex Park is a green and lively piece in the urban puzzle composed of a high quality public park, a strong axis and iconic, welcoming buildings.

Our statement is clear – the buildings should either be part of the green park or a sculpturally formed pavilion carefully fitted in it. With sustainability in mind, we renew the area in a way that lets nature and city life flourish in the same place.



## Rooftop landscape

A green and accessible rooftop landscape is not just about aesthetics – it brings multiple benefits regarding social, economic and environmental sustainability. The diverse plantings of the roof, inspired by the native plant communities of Macedonia support native biodiversity, inviting insect and bird life. It creates green-blue connections in all directions. The display of native and non-native species arranged in diverse, natural inspired plantings have a strong educational value. We leave part of the rooftop landscape “human-free”, so wildlife can develop undisturbed. The area and Confex Park will be a new public space for all social groups, a new landmark of the city. This landmark will be also an attraction for tourists, that provides economic benefits. The insulation and cooling granted by the roof gardens can also significantly reduce energy use and expenses. The ecosystem services produced can also be calculated as an economical aspect.

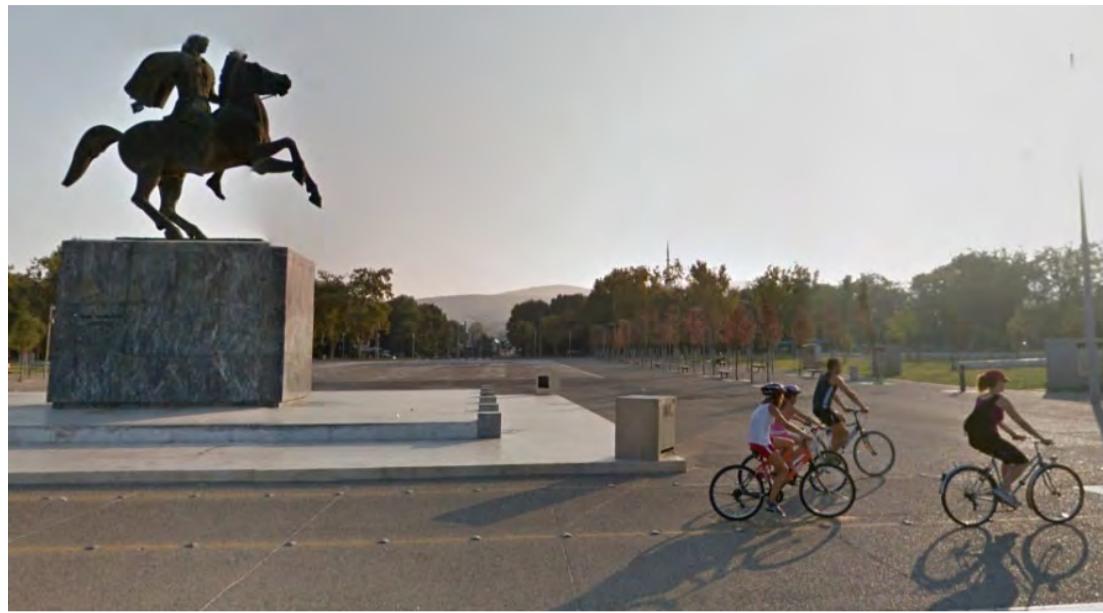
Our aim was to design a multifunctional, resilient park landscape working well with the Greek climate and the site conditions. We see it as part of the sun exposed hillside therefore our planting design is adapted to these harsh conditions. Most of the roof will be designed with a thin layer of soil imitating the conditions of the sun exposed hillsides of Kedrinos Lofos. This also keeps maintenance at the minimum. Some parts where we have more massive structural support, a thicker soil layer is installed which allows the planting of small trees and bushes. These areas are mostly laid out around the paths so visitors will have shelter from heat and sun when they walk across the roof landscape even on the hottest summer days. All rainwater will be led to plantings and surplus will be stored for irrigation. Water will be powered by solar panels. Rainwater can be also utilised in the fire extinguishing system. Furthermore vegetation will be sectionized with fire barriers of gravel and sand.

Some parts of the roof can be fenced off and used for the expo, but most parts will always be open for public access. The roof has several elevators and can be accessible for all. It provides multiple functions, such as: amphitheatre, look out points, pavilions, a café and attractive, diverse plantings and winding paths going through a variety of vegetation and spatial typologies.

## The Mountain-Sea Axis

Another statement is to clear up and reopen the great axis all the way from the hillside to sea and Alexander the Great statue. This will emphasise the relation between the Mountain and the Sea, where the city has been situated from ancient times. Through the Confex park, the axis is a sequence of raingardens combined with stands of pine trees. The design is based on an ephemeral mountain riverbed with natural plants, soil and gravel. It will gather rainwater from the surrounding hard surfaces and roofs and during rainfall it will fill up and fluctuate. The purpose is to expose the water, provide cooling, delay and store it in underground cisterns. This precious resource will be used for watering the rooftop park. The spectacle will be a public attraction during and after rainfall. The Pines are placed in gravel and provide shade for the public. The axis and the water management system are inspired by traditional Arabic-Mughal techniques.

The axis is paved with natural stone slabs and kept open for strong visual connections towards the mountain and the sea.



## **Plaza Sintrivaniou and the Bazaar**

Due to the new metro station and busy roads leading up to it, this area acts as the main entrance to Confex Park. During certain events, the influx of people will be very strong. Because of this we leave generous spaces and keep the main directions clear. The Plaza will be open and paved closest to the Metro entrance, but in front of the hotel there will be extant, diverse tree plantings in gravel, giving shade and space for rest. A water feature will emphasize the dignity of the square, mirroring the trees and the hotel building. Within the area the narrow bazaar-like street will hold space for commerce, outdoor seating and urban life. The hotel and the restaurant will be visible and exposed to the urban pulse and flow of people.

## **The Bosque**

The Bosque (Forest) is a densely planted part of the park. It's shape and structure relate to the triangles of the YMCA park. Various programmed and unprogrammed rooms provide multiple possibilities for recreation. Since the urban heat island effect is one of the biggest climatic challenges in Thessaloniki providing protection from direct sunlight is extremely important. We envision our Bosque as a dense, forest like planting with groundcovers and understorey. Our planting strategy ensures that it has shaded rooms from the beginning to create thermal comfort, invite users and decrease moisture loss from evaporation.

Within the park there will be rooms of different sizes open for multiple programming. The main purpose should be to be open for the public, but some rooms can be fenced and temporarily used for expanding the trade fairs and events for the public. It will be the display window of the Confex Park.

## **The Open Park**

This is a green open space for multiple purpose. Its size and openness make it a great venue for concerts and other events, but also provide possibilities for the general public to host gatherings, play games, have a picnic. Furthermore, the conventions can expand into this area as well. The terrain will be slightly modified to create some low raingardens and a woodland. A retaining wall with a densely planted slope on it will shield off traffic from the park. The combined wetland, wall and designed iron railing will create a discrete and pleasant barrier if the area must be sealed off.

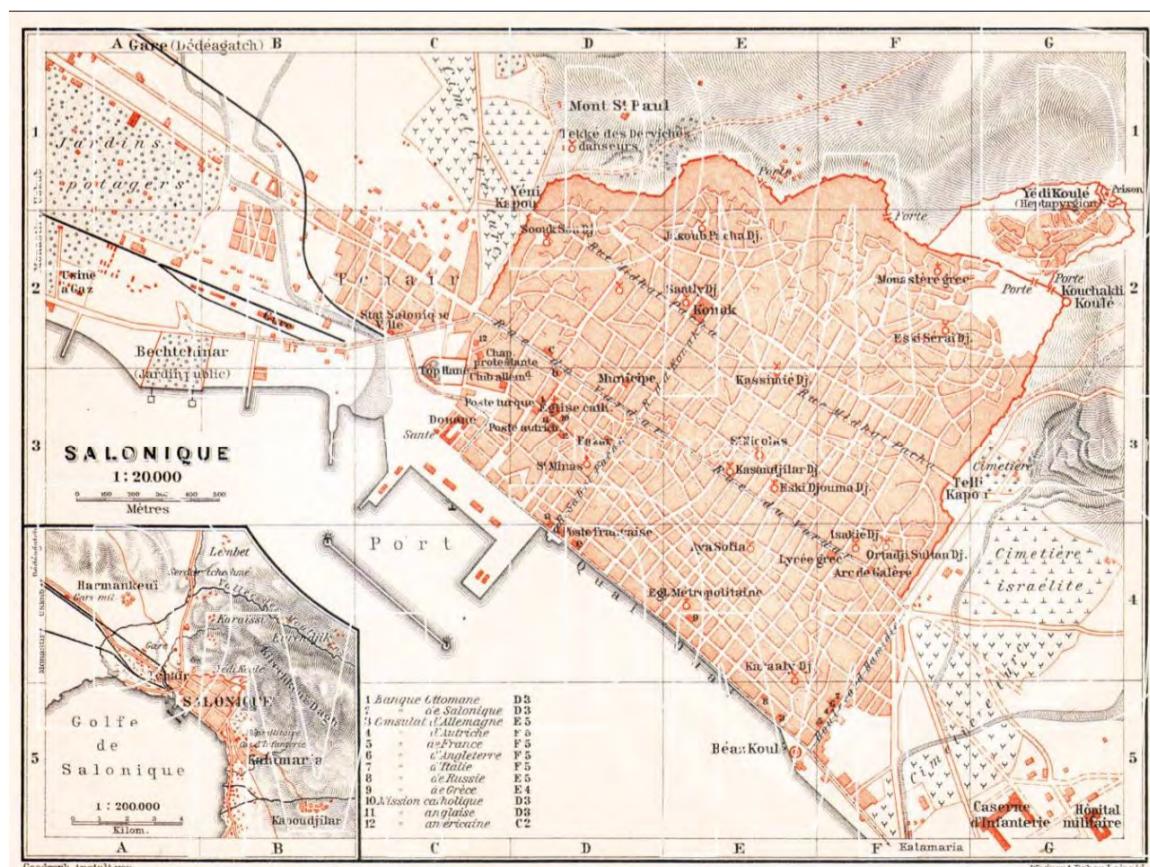
## Convention Plaza/Fair Square

The primary function of this space is to provide a place where convention visitors can take a break and relax. Orchards and trees around to roof access points provide shade. The openness of the area makes it a good suitable for outdoor exhibitions as well. Due to the expected truck traffic, we did not place fixed furniture in the area but the amphitheatre and mobile furniture can provide comfortable seating.

## Planting scheme

Our planting proposal is a matrix of various typologies, ensuring the diversity of species, habitats, micro climatic conditions, and visitor experiences. Each typology draw inspiration from a different natural biome of the Mediterranean region. We emphasize the use of the native plants of the region. However, to ensure climate adaptation and resilience we also selected plants from other parts of the country as well as from abroad. These non-native ones are from areas where the vegetation is adapted to extreme drought and heat stress.

Besides heat we also kept noise pollution in mind and created dense plantings around the edges to create calmer areas that facilitate higher quality recreation for citizens, convention centre visitors and tourist.



## THE ARCHITECTURAL STRATEGY

### Functionality

The main functional layout of the complex follows and implements the guidelines given in the area masterplan. The hotel and business centre block expands the city centre eastward with a considered composition of normal, high quality buildings, laid around a bazaar-like intense public space which creates a path towards the heart of the expo area from the city centre and the nearby metro station. The sight and sound of thousands of expo visitors emerging from the metro station and finding their way towards the expo halls through the business centra bazaar is an inspiring and uplifting experience, and a mood every expo visitor and organizer knows and loves. The intention of the hotel & business centra block is to frame this experience and to set the stage for the bigger drama that is yet to come.

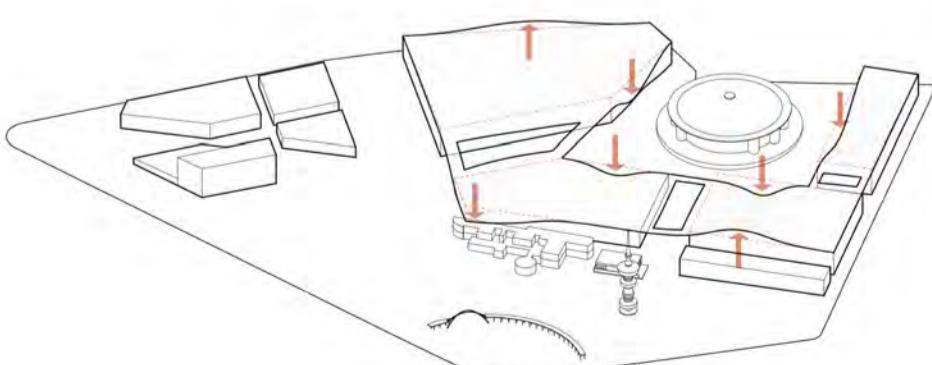
The main exhibition halls are defined as clear and multifunctional open spaces under an undulating and beautiful landscaped roof. While the halls themselves are often divided into several ticketed events with specific user groups and strict access control, the roof landscape can remain open to all and act as an informal extension of the outdoor event areas on ground level. The general public, tourists, local workers and residents can use the rooftop landscape and the open restaurants and cafes, creating a high-class urban sociological context that elevates the expo visitors experience to match a visit to a real, living city.

The access zone with entry functions and public amenities of each expo hall is facing the inner expo yard built around the circular sports arena. The roof of each hall bends down towards the expo yard, creating a recognizable orientation feature inside the exhibition spaces. The interiors of the halls are based on a large span modular column grid, with a dramatic wavy timber structure providing an elegant and powerful visual backdrop to the events inside.

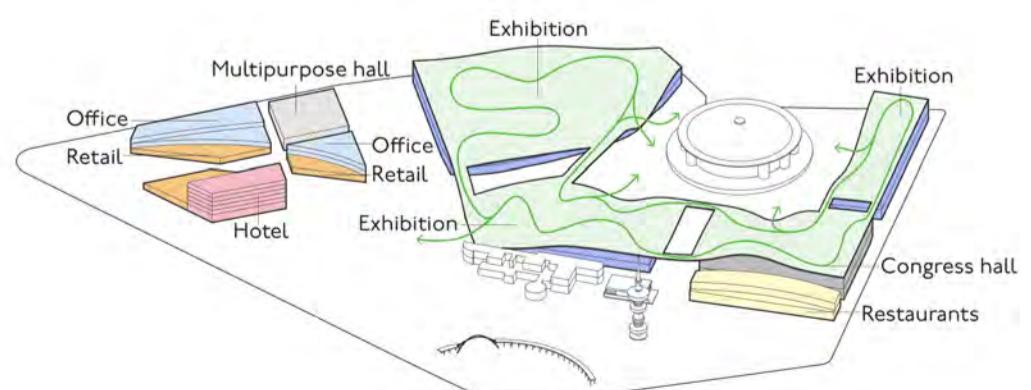
The expo halls are linked with an underground street, which provides the most efficient indoor connection between the separate buildings, and links with the subterranean parking and logistics routes. The subterranean route for the expo visitors is designed as an experimental virtual display technology showcase, where a transition from one hall to the next can be a living part of the expo visit experience.

The main floors of the expo halls are directly on the ground level, providing easy and flexible logistics for updating exhibitions quickly and efficiently. It is possible to set up an exhibition while other events are running, because the complex has multiple access points. All halls contain a very large door for bringing in boats and other maximum size items in easily.

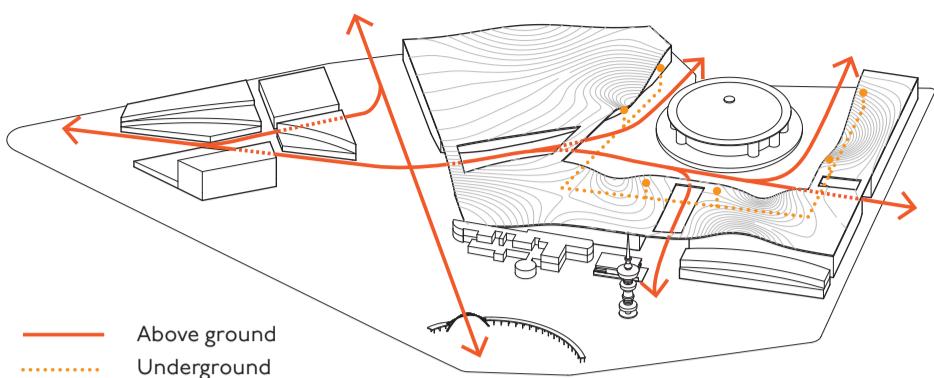
The high-end expo hall is located next to the existing art museum and the tower, facing the public park and plaza area south of the expo halls. The gently curving hall, clad with a beautiful ceramic rod façade, peeks from behind a smaller scale restaurant and event building, with multiple terraces and outdoor areas offering majestic sea views.



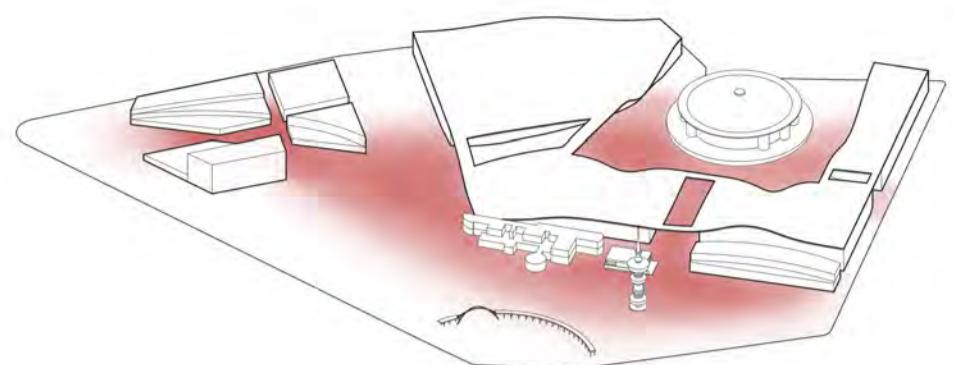
SHAPE FORM



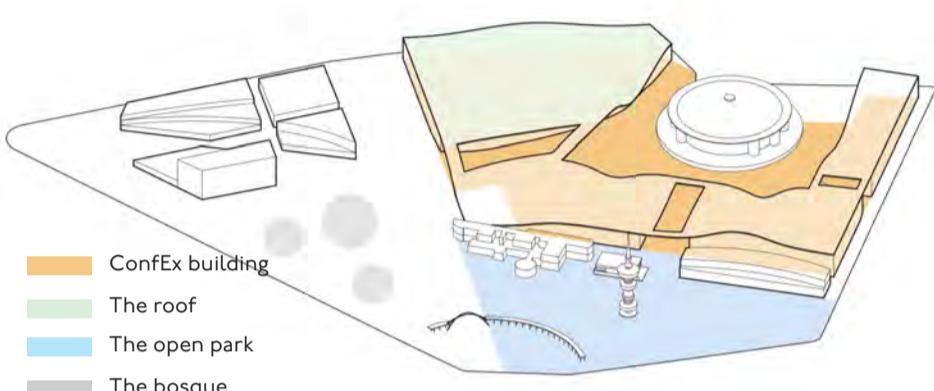
PROGRAM DIVISION AND ROOF LANDSCAPE



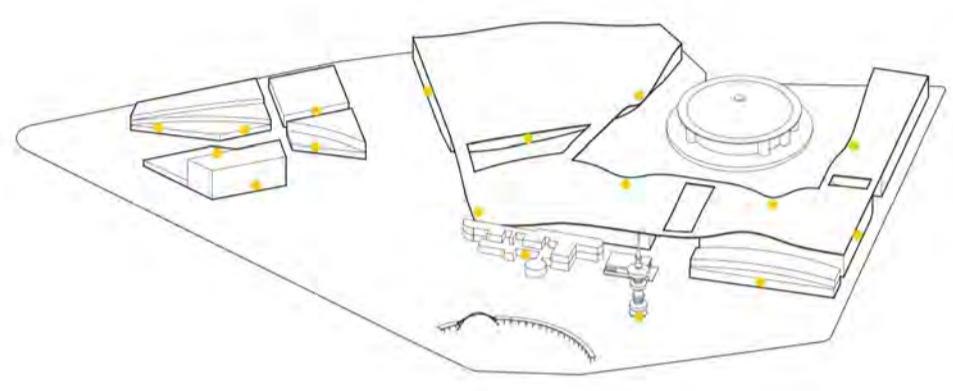
**PUBLIC ROUTES**



**INTENSIVE URBAN AREAS- MEETING POINT**



**EVENT STRATEGY**



**MAIN ENTRANCES**

## Sustainability

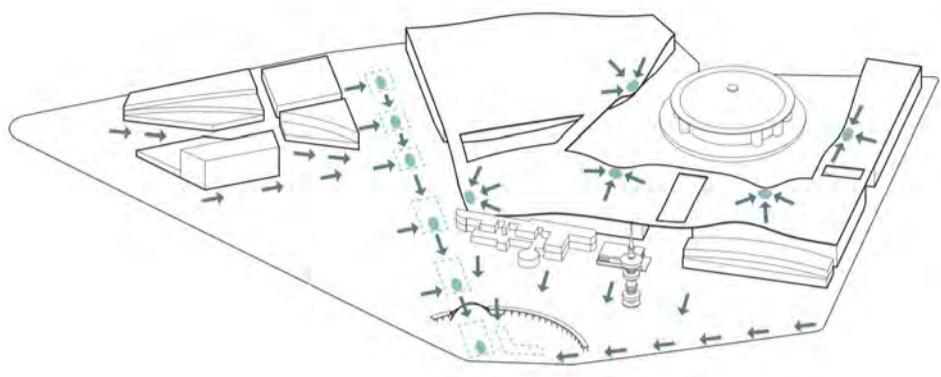
The ConfEx park buildings are going to be some of the most ecological and energy efficient real estate in Greece. The project has fundamental reasons and motivations to showcase sustainable city building and the use of renewable, carbon neutral materials and solutions. The large scale and capacity of the complex also make it very important to build and operate the premises with very ambitious sustainability targets.

The architecture and the design are based on energy-efficient and rational building forms and sustainable use of construction materials. The shape factor of the building has been optimized during the design phase, which lowers the heat loss of the building and reduces the carbon footprint of the construction materials. Timber has been extensively utilized in the building design, to further optimize the carbon footprint of the ConfEx complex.

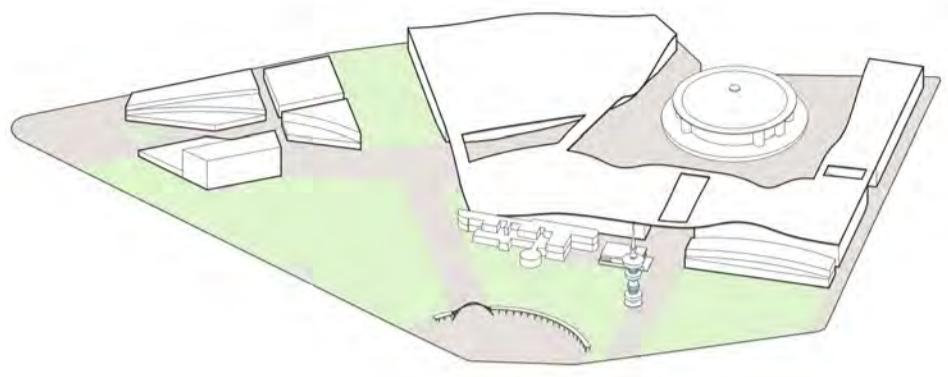
The buildings are equipped with an efficient intelligent energy system, which adapts to the different types of energy consumption profiles depending on the time of the day. Exhibition and conference spaces are mostly occupied during daytime, but the hotel rooms and evening venues and restaurants are occupied in the evening and night-time hours. The energy system has the capacity to store and recycle energy between these different usage phases, which reduces the need for purchased energy.

The energy recovered from different spaces in the complex is combined with locally produced energy. Laminated photovoltaic panels are integrated on the building facades, and large areas of solar panels are placed on the flat roofs and as part a themed part of the accessible roof landscape, located and oriented where the energy production is optimal. Multidirectional photovoltaic panels (over 10 000 m<sup>2</sup> in total) balance the daily and annual energy production leading to a better overall utilization of solar energy.

The building's solar and anti-glare protection are among the main drivers in the façade and architectural design. The large facades of the expo halls are clad with sun-shading ceramic tile patterns, creating delightful and earthy materiality, and allowing for a controlled amount of natural light to enter the buildings. The natural light affects the comfort in the building and has a positive impact on work productivity and the visitor experience.



**RAINFALL COLLECTION**



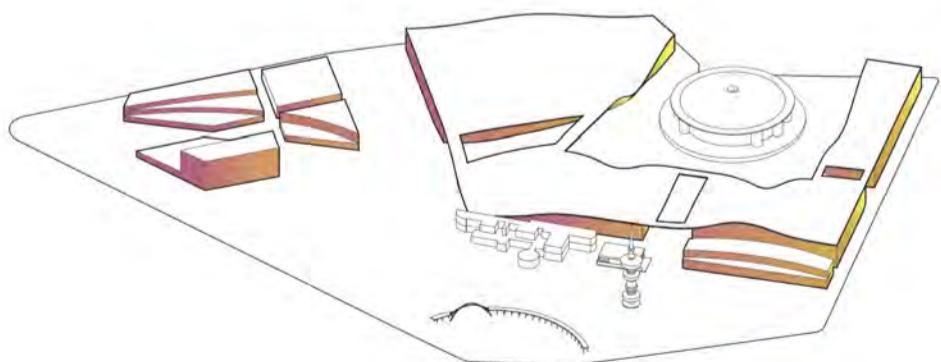
**HARD SURFACES VS SOFT SURFACES**

## Materials and maintenance

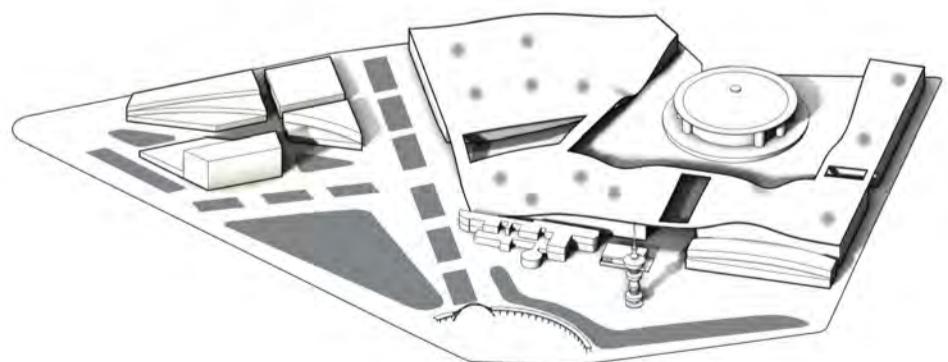
The hotel, business centre and restaurant buildings are built simple, elegant and durable local materials, continuing and complementing the themes and moods of older Thessaloniki buildings. Stone facades with simple, sharply detailed windows and timber & plaster interiors create a comfortable and humane layer around the more dramatic expo halls.

The curving roofs of the expo halls are supported by massive timber beam and column structures, reinforced and complemented by steel components as necessary. This layer of timber is clad with timber-steel hybrid decks supporting the weight of the roof garden. The heaviest loads created by the landscaping are landing on the columns, which can be made of concrete where necessary. The interior walls of the exhibition halls are clad with ceramic tiles, echoing the hues of the Greek landscapes.

The exterior walls of the expo halls are clad with ceramic rod grilles with varying scales, tones and geometries, optimized according to the solar exposure and potential for natural light, and set up to reduce glare inside. There are normal windows and solid lightweight walls hidden behind the ceramic layer, which lifts up to accentuate the public entrances.



**SOLAR EXPOSURE - FAÇADE**



**SHADED & COMFORTABLE OUTDOOR AREAS**

## **Structure**

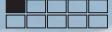
In the business area a structural grid system is smaller in the basement, and it can be optimized to parking usage. Parking floor structure is post tensioned slab and beam structure and concrete columns. On the first floor a grid is 18x18...30 m. Roof structure consist of primary steel trusses spanning from 18 to 30 m and secondary glue laminated timber beams spanning 18 m. Columns are glue laminated timber. Lateral force resisting system relies on the diagonal bracings and concrete cores where available. Roof level is horizontally stiffened with trusses.

In the exhibition and congress center area a structural grid for parking level can also be denser than in other areas in order to achieve structurally economical solution. In medium scale halls a structural grid for one story height space can be 25x25 m or 8.3x50 m to achieve very open space for exhibition usage. In the largest exhibition hall, a structural grid is 35x35 m. Basic structural system is similar with the business area consisting primary steel trusses and glulam secondary beams and columns. Lateral force resisting system relies on the diagonal bracings and concrete cores where available. Roof level is horizontally stiffened with trusses.

# International Architectural Design Competition for the Thessaloniki ConfEx Park

## Data Sheet for the evaluation of the Economy of the Project

| No                        | Description   | SECTORS I & II                    |   | SECTOR III                   |                        | SECTOR IV                    |                        | SECTOR V                  |                              | TOTAL   |                        |
|---------------------------|---|-----------------------------------|---|------------------------------|------------------------|------------------------------|------------------------|---------------------------|------------------------------|---|------------------------|
|                           |   | Proposed by Competitor (SECTOR I) | Proposed by Competitor Requirements (SECTOR I & II) | Proposed by Competitor       | Programme Requirements | Proposed by Competitor       | Programme Requirements | Proposed by Competitor    | Programme Requirements       | Proposed by Competitor                        | Programme Requirements |
| <b>A. General Metrics</b> |   |                                   |   |                              |                        |                              |                        |                           |                              |   |                        |
| A1                        | Above Ground GFA (m <sup>2</sup> )  | 41200                             | 9100  | max 48.500                   | 24350                  | max 26.750                   | 17200                  | max 16.500                | 100                          | max 250                                       | 91950                  |
| A2                        | Below Ground Parking use GFA (m <sup>2</sup> )                                  | 14300                             | -   | -                            | 26700                  | -                            | 19200                  | -                         | -                            | 60200   | -                      |
| A3                        | Below Ground other Aux uses GFA (m <sup>2</sup> )                               | 8340                              | 10840   | -                            | 5170                   | -                            | 6350                   | -                         | -                            | 30700   | -                      |
| A4                        | Net Floor Area NFA (m <sup>2</sup> )  | 36800                             | 8300  | -                            | 20600                  | -                            | 13600                  | -                         | -                            | 79300   | -                      |
| A5                        | Building Coverage ratio (%) & Area (m <sup>2</sup> )                            | (39%) - 21800 m <sup>2</sup>      | (16%) - 9100 m <sup>2</sup>                         | (60%) - 12000 m <sup>2</sup> | max 60% - 12.020,40    | (73%) - 10300 m <sup>2</sup> | -                      | (0,2%) 100 m <sup>2</sup> | (32%) - 53300 m <sup>2</sup> | max 45% - 64.000<br>excl. AA/MT/H - pres.bids |                        |
| A6                        | Gross Volume above Ground (m <sup>3</sup> )                                     | 415000                            | 68000   | -                            | 121000                 | -                            | 157000                 | -                         | -                            | -   | -                      |
| A7                        | Foundations Footprint (m <sup>2</sup> )   | 25000                             | 10300   | -                            | 19100                  | -                            | 13000                  | -                         | 100 m <sup>2</sup>           | -   | -                      |
| A8                        | Façade (m <sup>2</sup> )  | 14700                             | 3300  | -                            | 10300                  | -                            | 8300                   | -                         | 150 m <sup>2</sup>           | -   | -                      |
| A9                        | Exterior Openings (m <sup>2</sup> )   | 3200                              | 900   | -                            | 6500                   | -                            | 2400                   | -                         | -                            | -   | -                      |
| A10                       | Accessible Roof surface (m <sup>2</sup> )                                       | 21700                             | 12300   | -                            | 2850                   | -                            | 12700                  | -                         | -                            | -   | -                      |
| A11                       | Inaccessible Roof surface (m <sup>2</sup> )                                     | 4200                              | -   | -                            | 7300                   | -                            | -                      | -                         | 100 m <sup>2</sup>           | -   | -                      |
| A12                       | Green Roof surface (m <sup>2</sup> )  | 25900                             | 12300   | -                            | -                      | -                            | -                      | -                         | 100 m <sup>2</sup>           | -   | -                      |
| A13                       | Balconies / Open Covered Areas (m <sup>2</sup> )                                | 3200                              | -   | -                            | 1500                   | Hotel:<br>max 40% of GFA     | 4000                   | -                         | -                            | -   | -                      |
| <b>B. Programme Area</b>  |   |                                   |   |                              |                        |                              |                        |                           |                              |   |                        |
| B1                        | Exhibition Center Area (m <sup>2</sup> )  | 42600                             | 10300   | 47.000                       | -                      | -                            | -                      | -                         | -                            | -   | -                      |
| B2                        | Administration Offices Area (m <sup>2</sup> )                                   | 1570                              | -   | 1.500                        | -                      | -                            | -                      | -                         | -                            | -   | -                      |
| B3                        | Hotel (m <sup>2</sup> )   | -                                 | -   | -                            | 7250                   | 7.250                        | -                      | -                         | -                            | -   | -                      |
| B4                        | Commercial Complex / Retail-Recreation (m <sup>2</sup> )                        | -                                 | -   | -                            | 9000                   | 9.000                        | -                      | -                         | -                            | -   | -                      |
| B5                        | Commercial Complex / Offices (m <sup>2</sup> )                                  | -                                 | -   | -                            | 7200                   | 7.000                        | -                      | -                         | -                            | -   | -                      |
| B6                        | Mult-purpose Hall (m <sup>2</sup> )   | -                                 | -   | -                            | 3200                   | 3.500                        | -                      | -                         | -                            | -   | -                      |
| B7                        | Conference Center Area (m <sup>2</sup> )  | -                                 | -   | -                            | -                      | 12700                        | 10.500                 | -                         | -                            | -   | -                      |
| B8                        | Luxury Exhibition Hall Area (m <sup>2</sup> )                                   | -                                 | -   | -                            | -                      | 5980                         | 6.000                  | -                         | -                            | -   | -                      |
| B9                        | Cafeteria (m <sup>2</sup> )   | -                                 | -   | -                            | -                      | -                            | -                      | 100 m <sup>2</sup>        | 250                          | -   | -                      |
| B10                       | Underground Parking Area (m <sup>2</sup> )                                      | 14300                             | -   | 12.500                       | 26700                  | 25.000                       | 19200                  | 15.000                    | -                            | -   | -                      |
| B11                       | Underground Storage Area (m <sup>2</sup> )                                      | 4500                              | 7650  | 12.000                       | 3300                   | 3.500                        | 2500                   | 2.000                     | -                            | -   | -                      |
| <b>C. Open Areas</b>      |   |                                   |   |                              |                        |                              |                        |                           |                              |   |                        |
| C1                        | Provide Area of Roadways (m <sup>2</sup> )                                      | -                                 | -   | -                            | -                      | -                            | -                      | -                         | 1200 m <sup>2</sup>          | -   | -                      |
| C2                        | Provide Area of Pedestrian Pathways (m <sup>2</sup> )                           | 2700 m2                           | 200 m2  | -                            | 5900 m2                | -                            | 3550 m2                | -                         | 6250 m2                      | -   | -                      |
| C3                        | Provide Area of other Hardscape (m <sup>2</sup> )                               | -                                 | -   | -                            | -                      | -                            | -                      | -                         | -                            | -   | -                      |
| C4                        | Provide Area of green Landscape without underground buildings (m <sup>2</sup> ) | 1300 m2                           | -   | -                            | 1750 m2                | -                            | -                      | -                         | 33700 m2                     | -   | -                      |
| C5                        | Provide Area of Green Landscape over underground buildings (m <sup>2</sup> )    | -                                 | -   | -                            | -                      | -                            | -                      | -                         | -                            | -   | -                      |
| C6                        | Provide Area of other Landscape (m <sup>2</sup> )                               | -                                 | -   | -                            | -                      | -                            | -                      | -                         | 11350 m2                     | -   | -                      |
| C7                        | Provide Area of Water Features (m <sup>2</sup> )                                | -                                 | -   | -                            | -                      | -                            | -                      | -                         | 2400 m2                      | -   | -                      |
| C8                        | Provide Area of other structures (m <sup>2</sup> )                              | -                                 | -   | -                            | -                      | -                            | -                      | -                         | -                            | -   | -                      |



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Mindset

Since the heydays of the Byzantine Empire, the site was an area beyond the city walls, outside of the daily life of the people of Thessaloniki. It was defined by military facilities, cemeteries and the roads leading up the gates. After the great fire of 1917, the city's ambition was to renew the area and to create new public buildings. It would have been a pause in the urban fabric, creating an opportunity for recreation and connecting with nature. Today's urban grid system, that dominates the layout of the area is based on the paths and roads drawn up in the proposal.

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1918 - HÉBRARD'S PLAN

VISION OF A PUBLIC PARK

1955 - HELEXPO

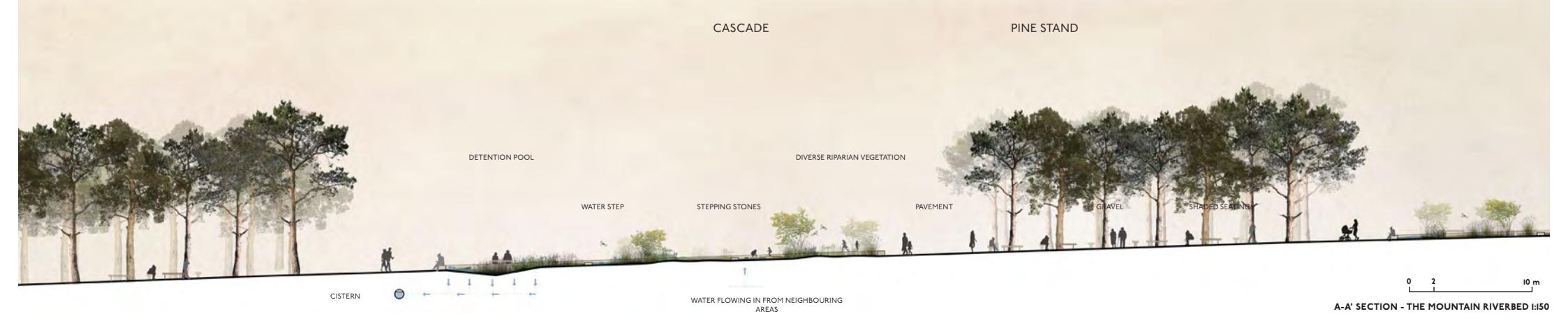
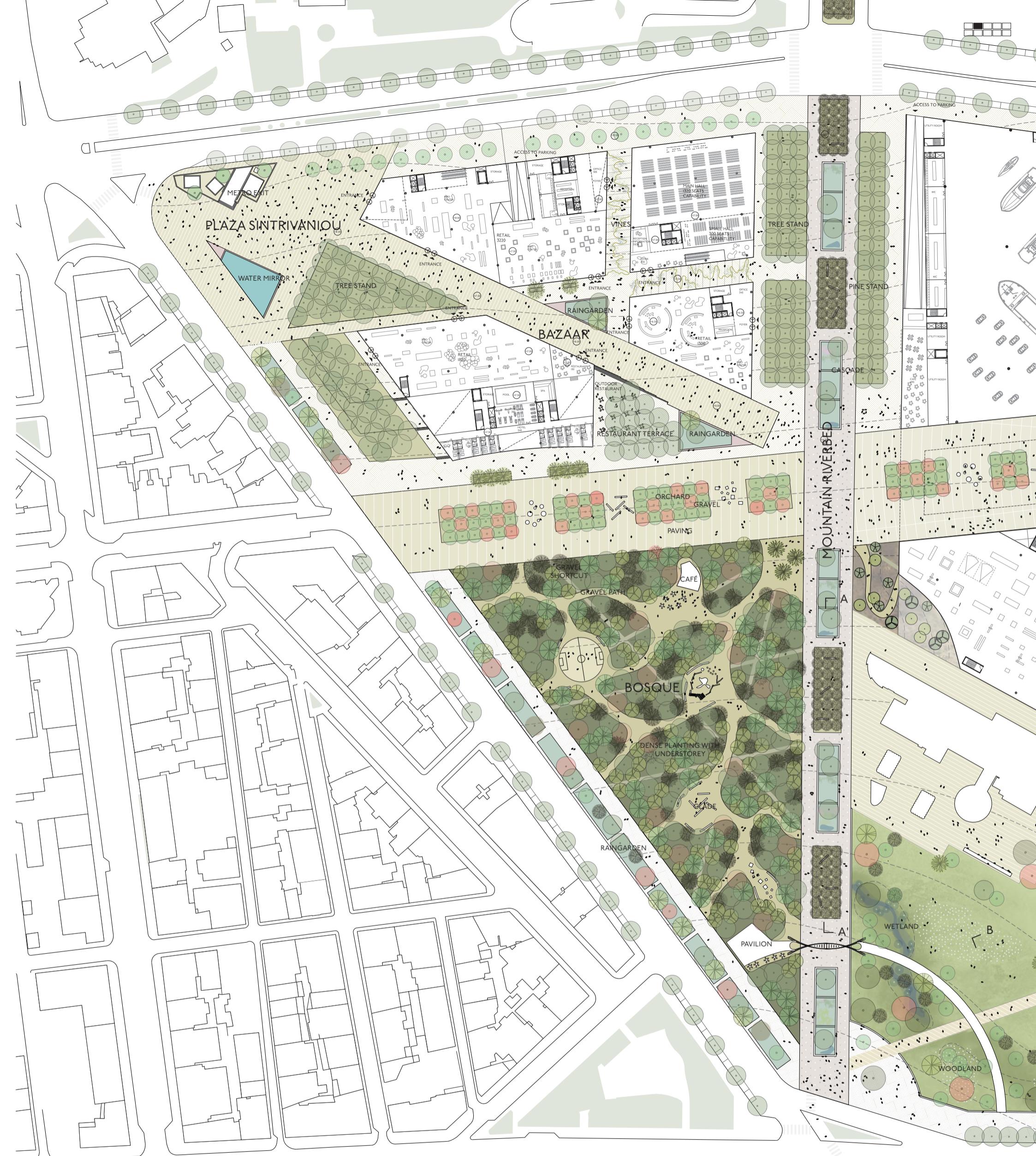
PAVILIONS IN OPEN SPACE

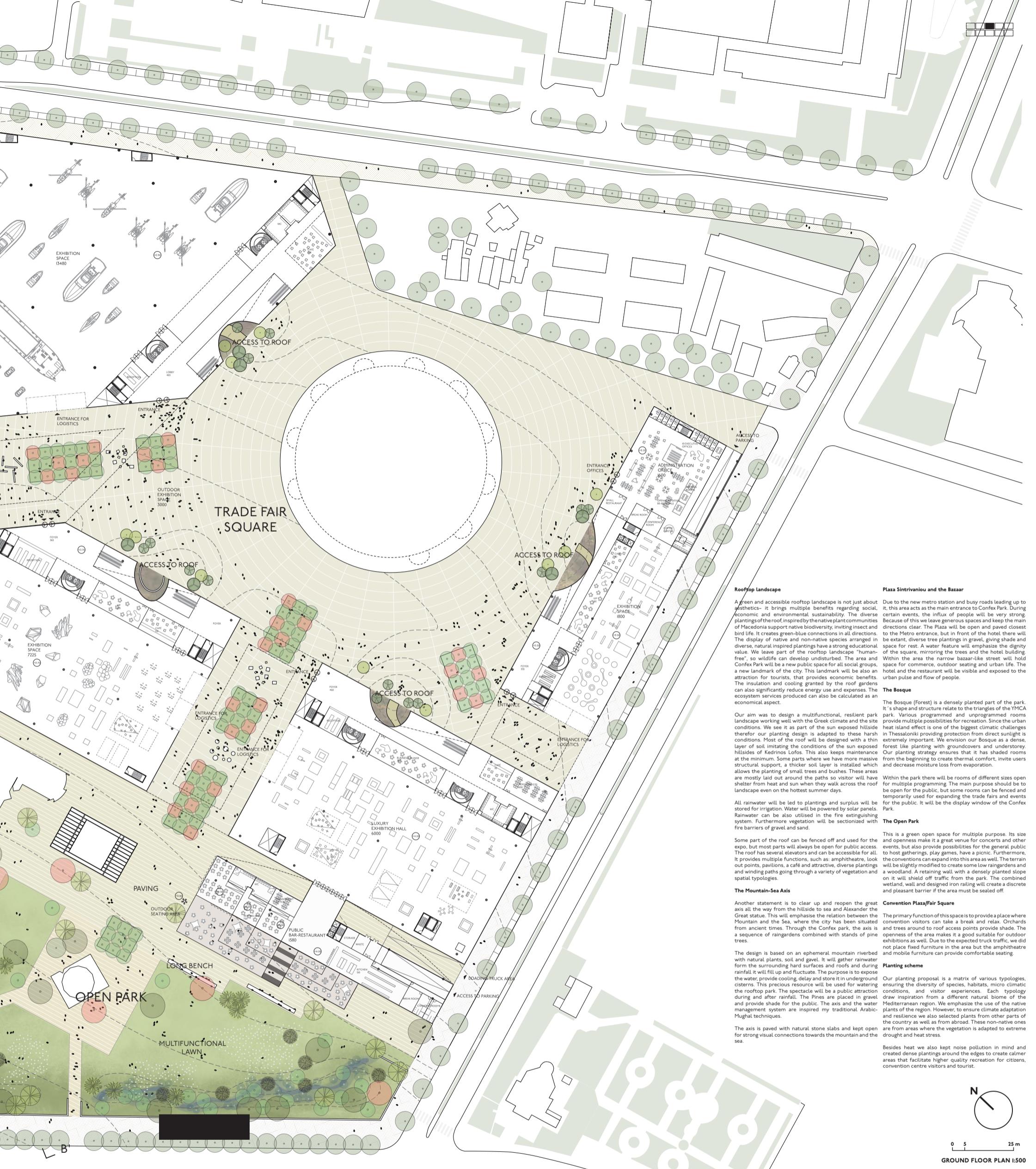
1968 - 2004

UNCONTROLLED DEVELOPMENT

2023 - CONFEX PARK

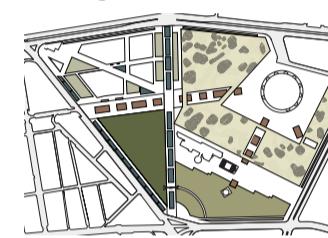
A SUSTAINABLE PUBLIC PARK







### Planting scheme



#### Roof I. Meadow



Drought tolerant grasses and succulents. Important role in fire protection.  
Key species: Various grasses, annuals, and perennials as well as: *Agave americana*, *Opuntia ficus-indica*, *Sedum sp.*, *Yucca sp.*

#### Roof II. Phrygana



Low, scrubby vegetation. Adapted to the dry Greek Mountain sides.  
Key species: *Asparagus acutifolius*, *Cistus cretius*, *Cordythymus capitatus*, *Hypericum empetrifolium*, *Lavandula stoechas*, *Myrtus communis*, *Salvia triloba*

#### Roof II. Groves



Wooded patches along the main path to provide shade for visitors. Small and multi-stem trees.  
Key species: *Acer sempervirens*, *Arbutus unedo*, *Cercis siliquastrum*, *Fraxinus ornus*, *Olea europaea*, *Phoenix canariensis*, *Pinus halapensis*, *Quercus calliprinos*

#### Riparian vegetation

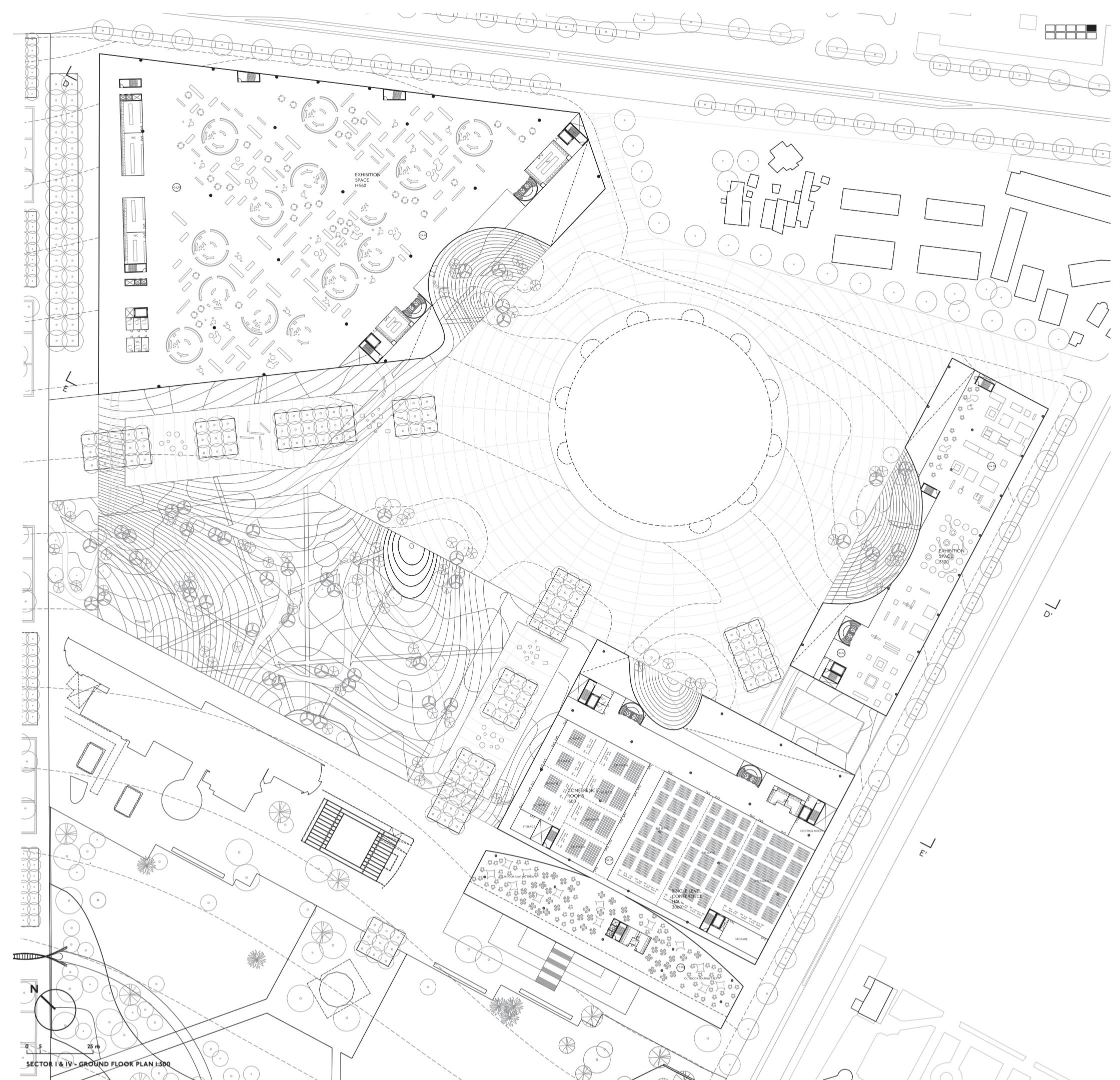


Water-logging tolerant plants usually found along rivers. Placed in the raingardens and the wet parts of the mountain river.  
Key species: *Populus sp.*, *Alnus glutinosa*, *Cyperus sp.*, *Fraxinus angustifolia*, *Iris sp.*, *Phragmites australis*, *Platanus orientalis*, *Salix sp.*, *Ulmus minor*

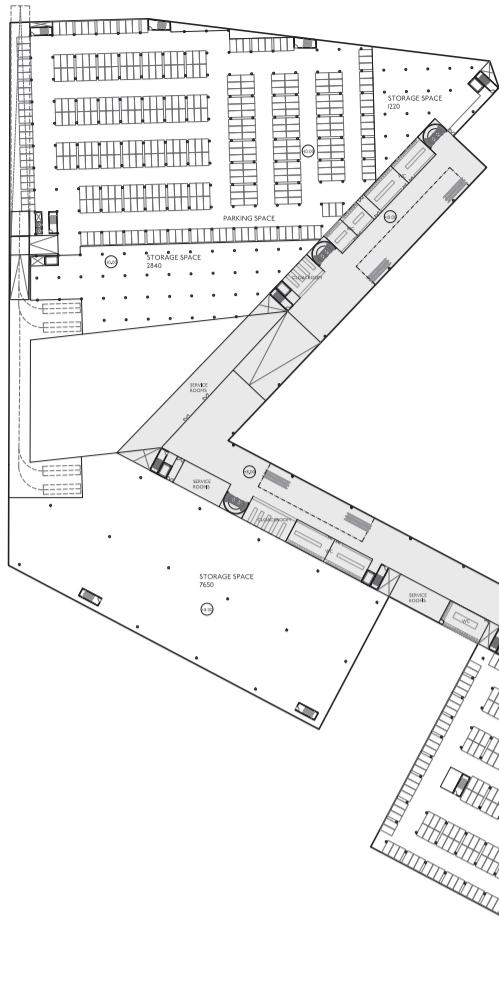
#### Planting strategy for the Bosque

Since the urban heat island effect is one of the biggest climatic challenges in Thessaloniki providing protection from direct sunlight is extremely important. We envision our Bosque as dense, forest like planting. Our planting strategy ensures that it has shaded rooms from the beginning to create thermal comfort, invite users and decrease moisture loss from evaporation.

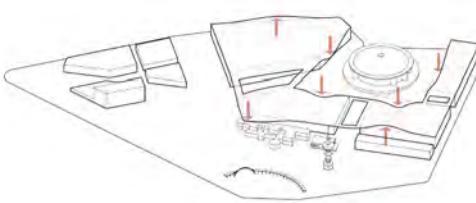




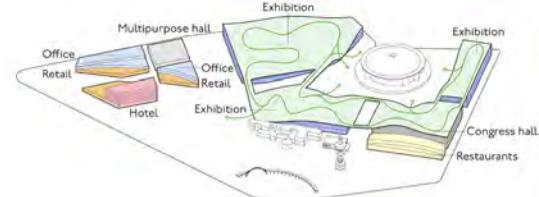
EXHIBITION HALL ROOFTOP PERSPECTIVE



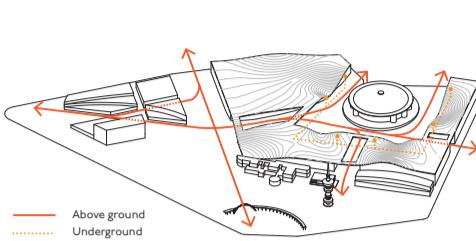
SECTOR I &amp; IV - BASEMENT 1F PLAN 1:1000



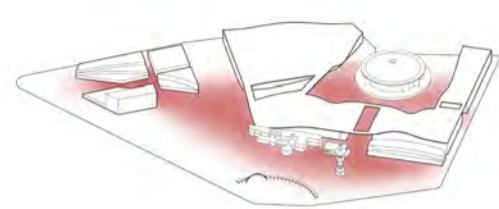
1. SHAPE FORM



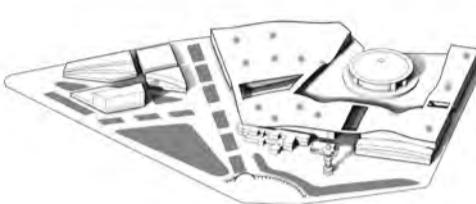
2. PROGRAM DIVISION AND ROOF LANDSCAPE



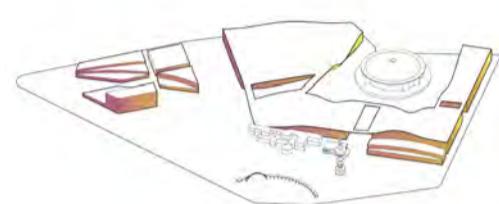
3. PUBLIC ROUTES



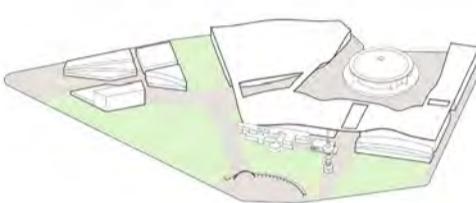
4. INTENSIVE URBAN AREAS - MEETING POINT



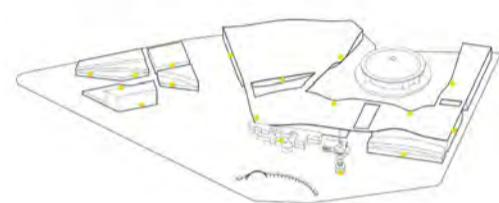
5. SHADED &amp; COMFORTABLE OUTDOOR AREAS



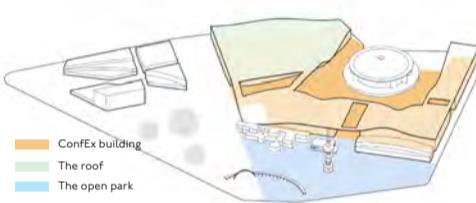
6. SOLAR EXPOSURE - FAÇADE



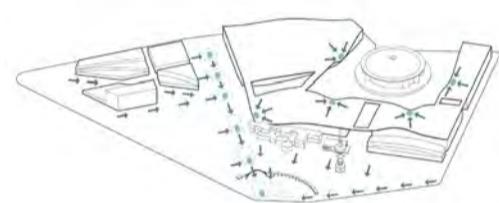
7. HARD SURFACES vs SOFT SURFACES



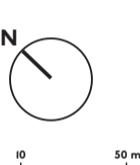
8. MAIN ENTRANCES



9. EVENT STRATEGY



10. RAINWATER COLLECTION



SECTOR I &amp; IV - BASEMENT 2F PLAN 1:1000

**THE ARCHITECTURAL STRATEGY****Functionality**

The main functional layout of the complex follows and implements the guidelines given in the area masterplan. The hotel and business centre block expands the city centre eastward with a considered connection between the separate buildings, and links with the subterranean parking and logistics routes. The subterranean route for the expo visitors is designed as an experimental virtual display technology showcase, where a transition from one hall to the next can be a living part of the expo visit experience.

The expo halls are linked with an underground street, which provides the most efficient indoor connection between the separate buildings, and links with the subterranean parking and logistics routes. The subterranean route for the expo visitors is designed as an experimental virtual display technology showcase, where a transition from one hall to the next can be a living part of the expo visit experience.

The main floors of the expo halls are directly on the ground level, providing easy and flexible logistics for updating exhibitions quickly and efficiently. It is possible to set up an exhibition while other events are running, because the complex has multiple access points. All halls contain a very large door for bringing in boats and other maximum size items in easily.

The high-end expo hall is located next to the existing art museum and the tower, facing the public park and plaza area south of the expo halls. The gently curving hall, clad with a beautiful ceramic rod facade, peeks from behind a smaller scale restaurant and event building, with multiple terraces and outdoor areas offering majestic sea views.

The ConfEx park buildings are going to be some of the most ecological and energy efficient real estate in Greece. The project has fundamental reasons and motivations to showcase sustainable city building and the use of renewable, carbon neutral materials and solutions. The large scale and capacity of the complex also make it very important to build and operate the premises with very ambitious sustainability targets.

The main exhibition halls are defined as clear and multifunctional open spaces under an undulating and beautiful landscaped roof. While the halls themselves are often divided into several ticketed events with specific user groups and strict access control, the roof landscape can remain open to all and act as an informal extension of the outdoor event areas on ground level. The general public, tourists, local workers and residents can use the rooftop landscape and the open restaurants and cafes, creating a mood every expo visitor and organizer knows and loves. The intention of the hotel & business centre block is to frame this experience and to set the stage for the bigger drama that is yet to come.

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The access zone with entry functions and public amenities of each expo hall is facing the inner expo yard and the sports arena. The roof of each hall bends down towards the expo yard, creating a recognizable orientation feature inside the exhibition spaces. The interiors of the halls are based on a large span modular column grid, with a dramatic wavy timber structure providing an elegant and powerful visual backdrop to the events inside.

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The architecture and the design are based on energy-efficient and rational building forms and sustainable use of construction materials. The shape factor of the building has been optimized during the design phase, which lowers the heat loss of the building and reduces the carbon footprint of the construction materials. Timber has been extensively utilized in the building design, to further optimize the carbon footprint of the ConfEx complex.

The buildings are equipped with an efficient intelligent energy system, which adapts to the different types of energy consumption profiles depending on the time of the day. Exhibition and conference spaces are mostly occupied during daytime, but the hotel rooms and evening venues and restaurants are occupied in the evening and night-time hours. The energy system has the capacity to store and recycle energy between these different usage phases, which reduces the need for purchased energy.

The energy recovered from different spaces in the complex is combined with locally produced energy. Laminated photovoltaic panels are installed on the building roofs, and large areas of green roofs are placed on the flat roofs and as part of a themed part of the accessible roof landscape, located and oriented where the energy production is optimal. Multidirectional, photovoltaic panels (over 10 000 m<sup>2</sup> in total) balance the daily and annual energy production leading to a better overall utilization of solar energy.

The building's solar and anti-glare protection are among the main drivers in the façade and architectural design. The large facades of the expo halls are clad with sun-shading ceramic tile patterns. Large panels are integrated in the building facades, and large areas of green roofs are placed on the flat roofs and as part of a themed part of the accessible roof landscape, located and oriented where the energy production is optimal. Multidirectional, photovoltaic panels (over 10 000 m<sup>2</sup> in total) balance the daily and annual energy production leading to a better overall utilization of solar energy.

**Materials and maintenance**

The hotel, business centre and restaurant buildings are built simple, elegant and durable local materials, continuing and complementing the themes and moods of older Thessaloniki buildings. Stone facades with simple, sharply detailed windows and timber & plaster interiors create a comfortable and humane layer around the more dramatic expo halls.

The curving roofs of the expo halls are supported by massive timber beam and column structures, reinforced and complemented by steel components as necessary. This layer of timber is clad with timber-hybrid decks supporting the weight of the roof garden.

The heaviest loads created by the landscaping are landing on the columns, which can be made of concrete where necessary. The interior walls of the exhibition halls are clad with ceramic tiles, echoing the hues of the Greek landscapes.

The exterior walls of the expo halls are clad with ceramic rod grilles with varying scales, tones and geometries, optimized according to the solar exposure and potential for natural light, and set up to reduce glare inside. There are normal windows and solid lightweight walls hidden behind the ceramic layer, which lifts up to accentuate the public entrances.

**Structure**

In the business area a structural grid system is smaller in the basement, and it can be optimized to parking usage. Parking floor structure is post tensioned slab and beam structure and concrete columns. On the first floor a grid is 18x8 .30 m. Roof structure consist of primary steel trusses spanning from 18 to 30 m and secondary glue laminated timber beams spanning 18 m. Columns are glue laminated timber. Lateral force resisting system relies on the diagonal bracings and concrete cores where available. Roof level is horizontally stiffened with trusses.

In the exhibition and congress center area a structural grid for parking level can also be denser than in other areas in order to achieve structurally economical solution. In medium scale halls a structural grid for one story height space can be 25x25 m or 35x35 m to achieve very open space for exhibition usage. In the largest exhibition hall, a structural grid is 35x35 m. Basic structural system is similar with the business area consisting primary steel trusses and glued secondary beams and columns. Lateral force resisting system relies on the diagonal bracings and concrete cores where available. Roof level is horizontally stiffened with trusses.

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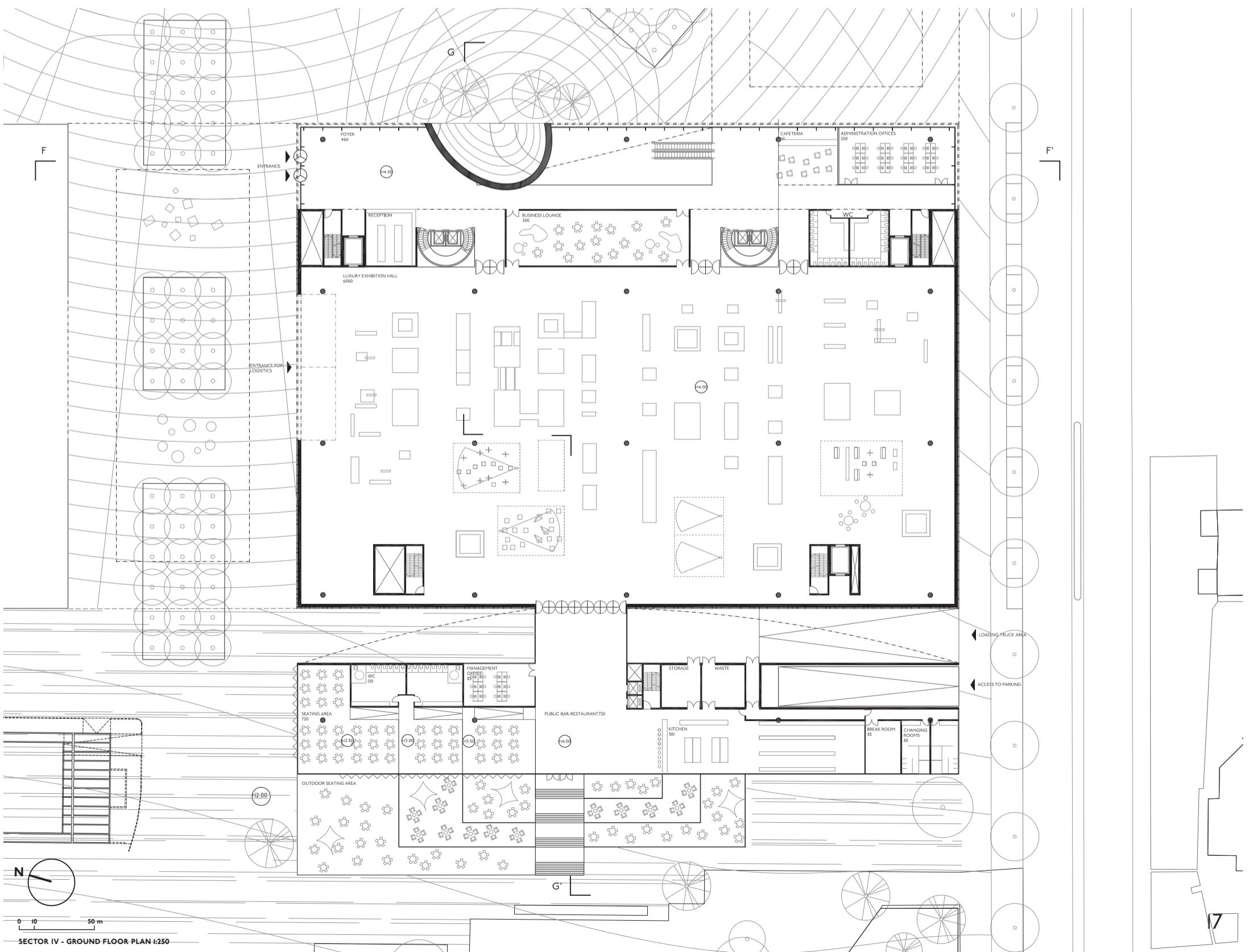
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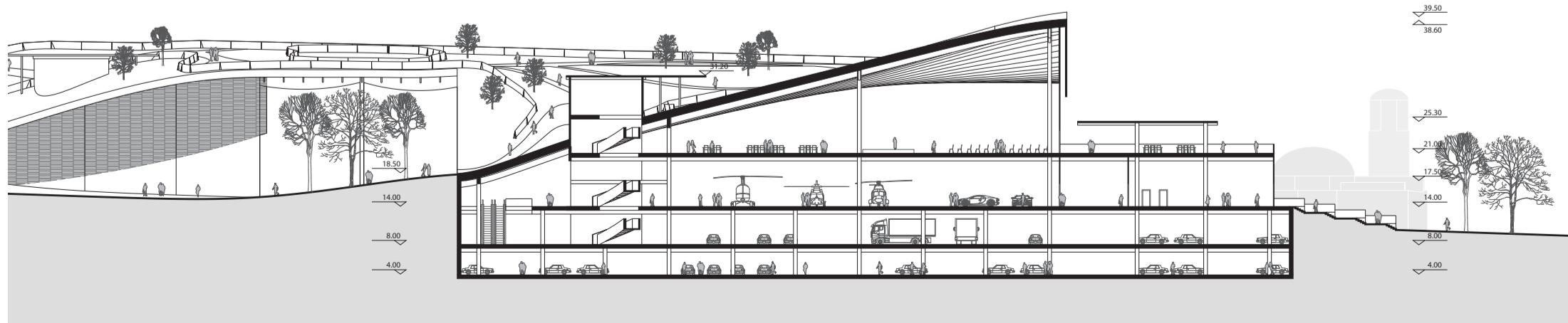
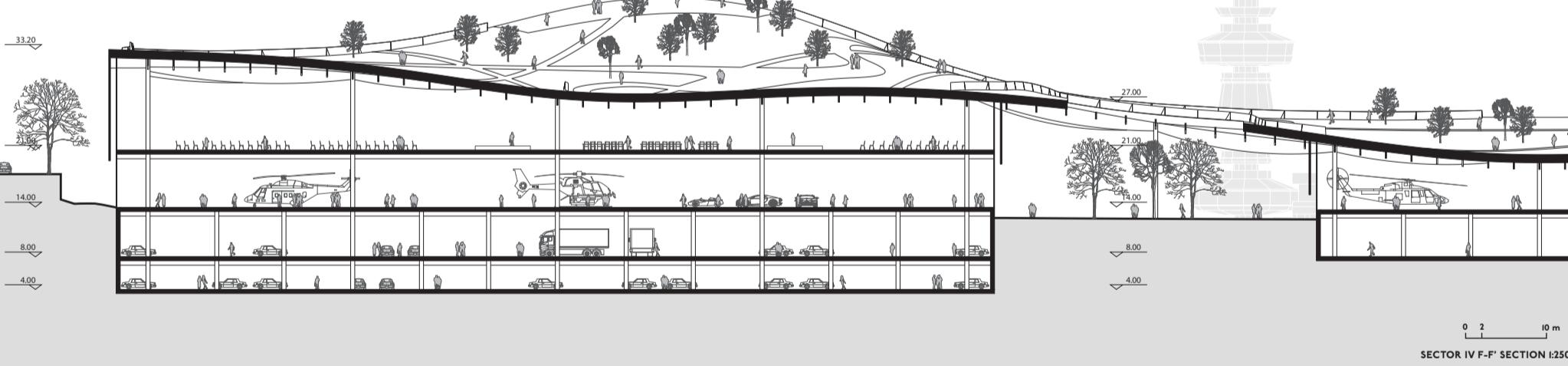
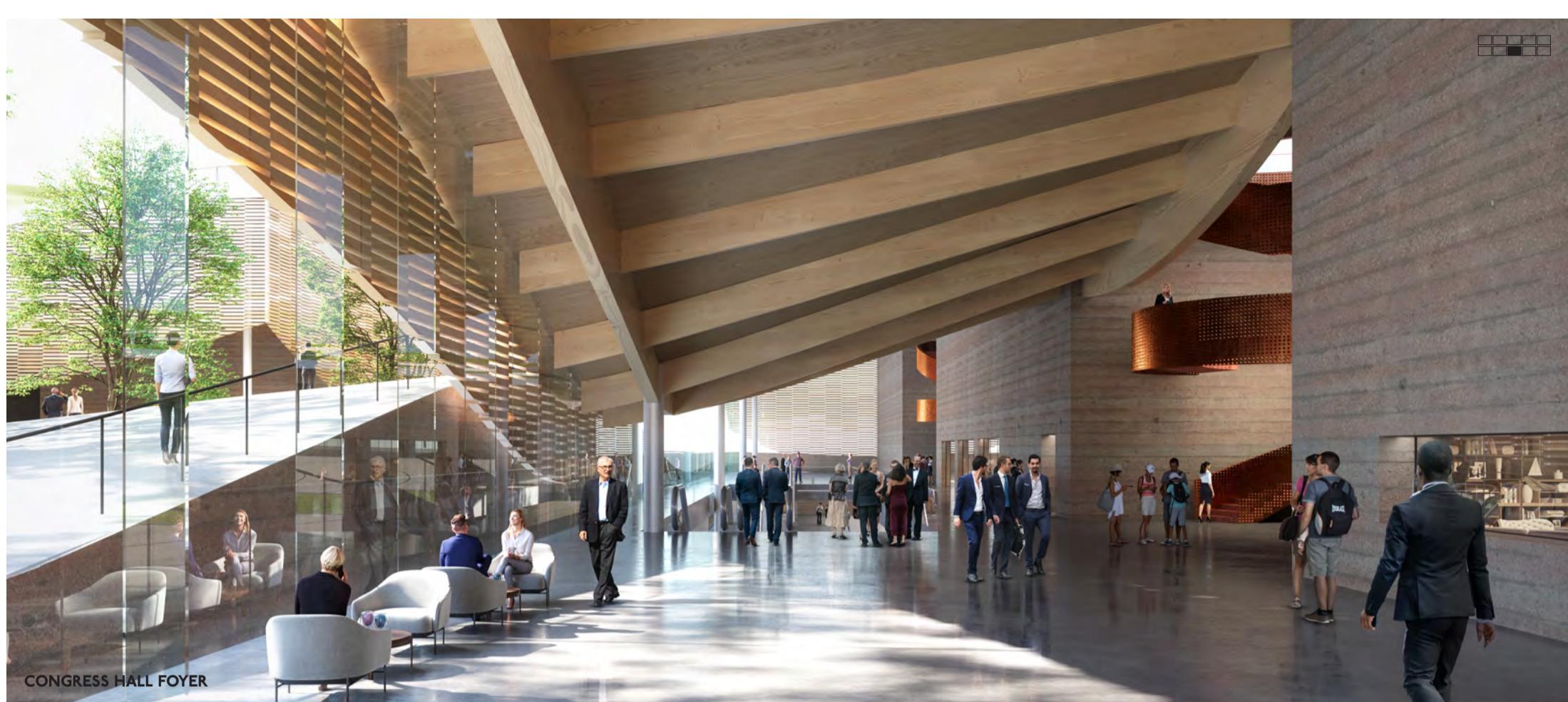
**CONGRESS HALL AND RESTAURANT PERSPECTIVE**



**SECTOR I & IV ELEVATION**



**SECTOR IV - GROUND FLOOR PLAN 1:250**



39.50  
38.60

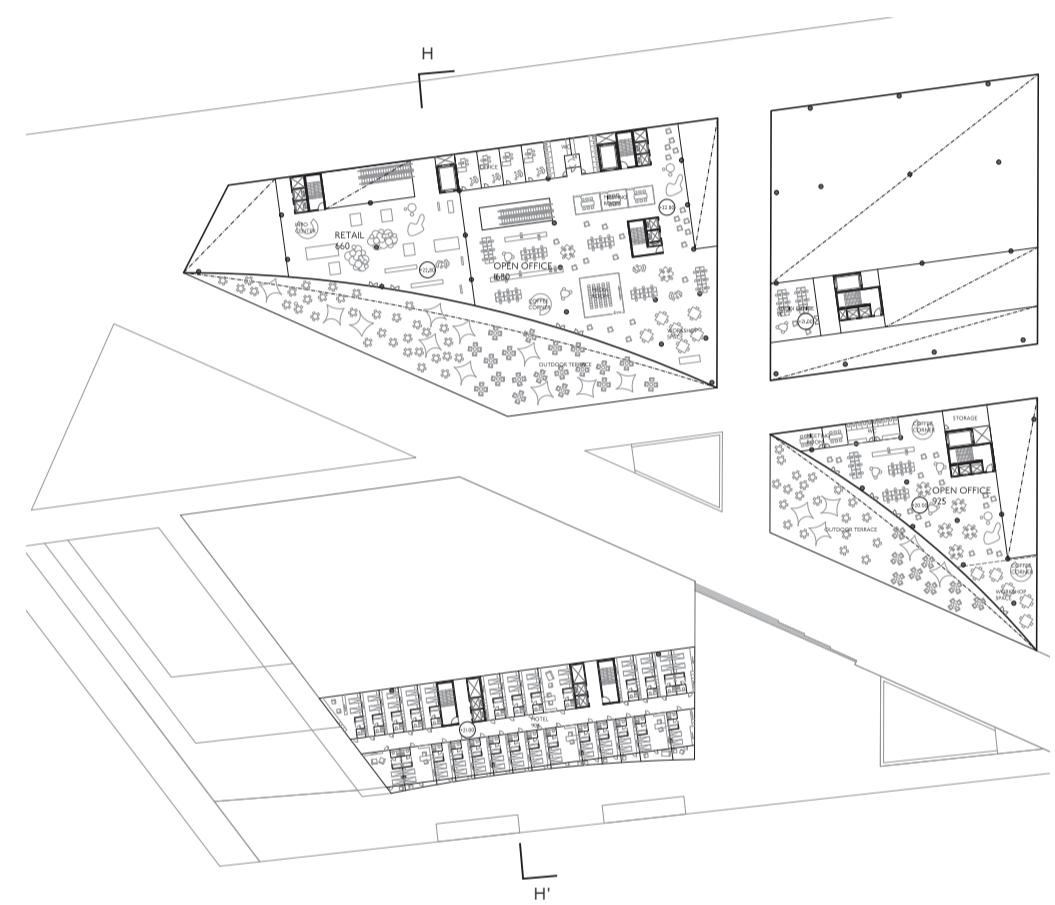
25.30  
21.00  
17.50  
14.00  
8.00  
4.00

18  
1  
2  
10 m

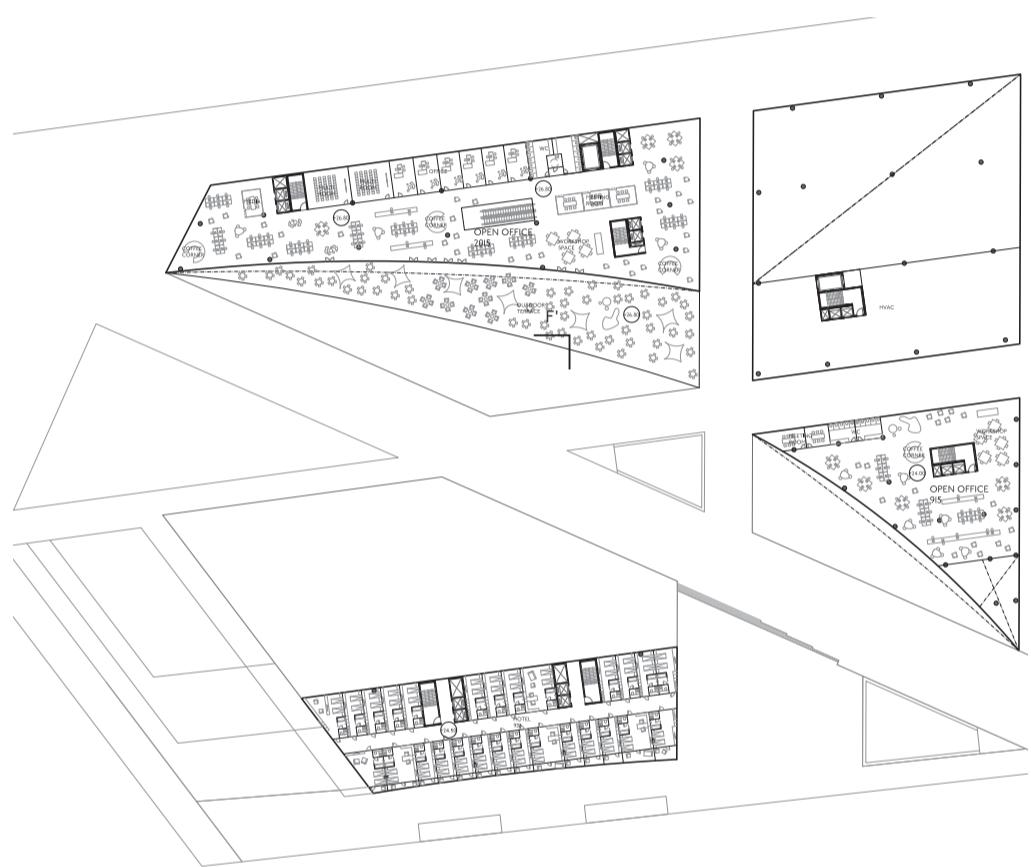
SECTOR IV G-G' SECTION I:250



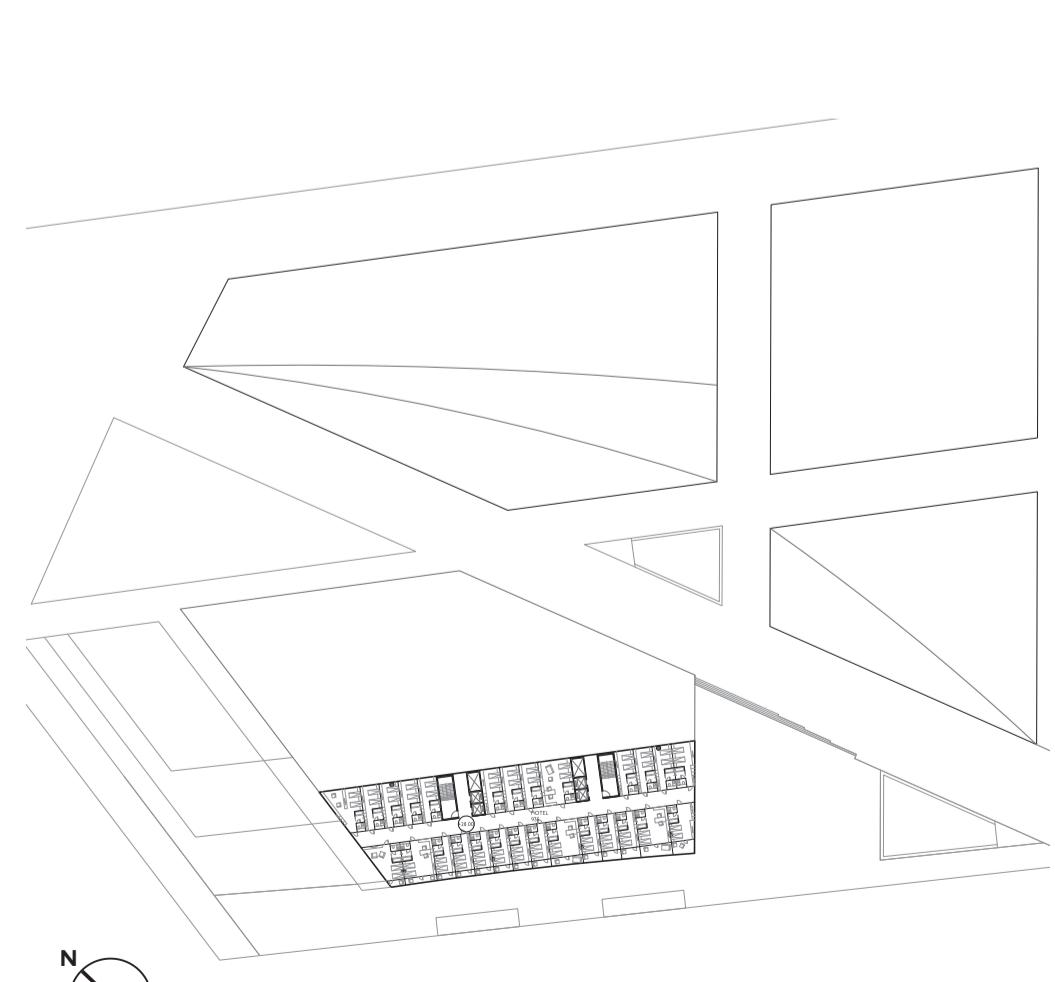
BUSINESS AREA STREET VIEW



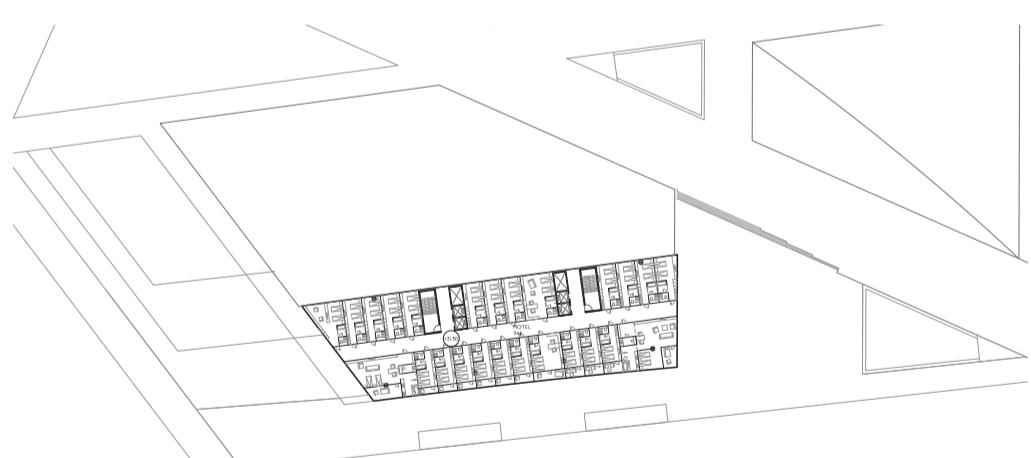
SECTOR III - 2F PLAN 1:500



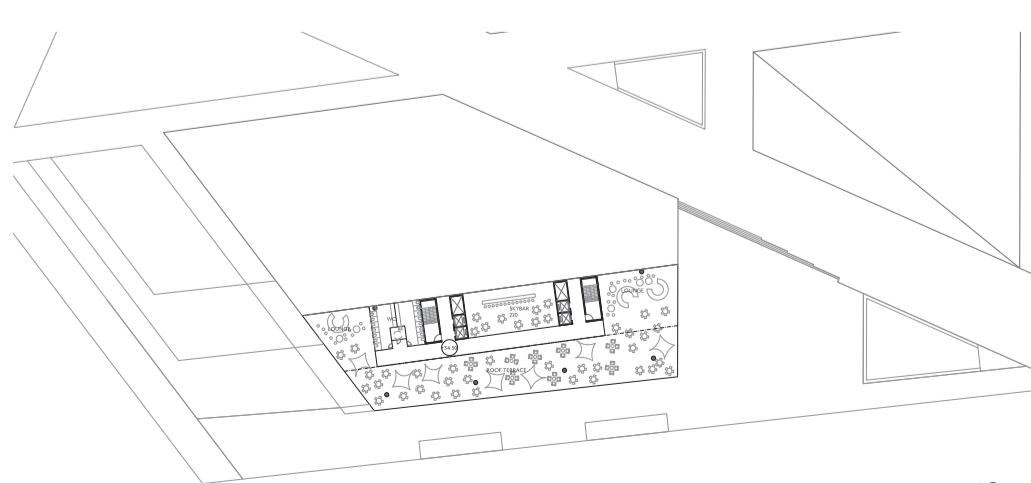
SECTOR III - 3F PLAN 1:500



SECTOR III - 4F PLAN 1:500



SECTOR III - 5F PLAN 1:500



SECTOR III - 6F PLAN 1:500

