THE OVERALL CONCEPT

Our proposed masterplan seamlessly integrates the site with the historic center of Thessaloniki and its eastern expansion through the reinstatement and enrichment of the 1918 urban plan for the city by Ernest Hébrard.

Site
The position of the site for the Thessaloniki International Fair (TIF) sits at a pivotal junction within the greater city, between the western historical center and the eastern expansion. The site, at the narrowest point between the Central-Western and Central-Eastern Sectors of Thessaloniki, is currently a bottleneck. A physical impediment to pedestrian flow, with controlled and limited access. By breaking down this urban barrier, the new ConfEx Park Project will play a pivotal role in redefining the center of the city, becoming a central metropolitan zone for business, culture, recreation, exhibition, and congress.

The position of the site within the Direct Impact Zone of the city additionally provides the opportunity for ConfEx Park to be a key connector. Our scheme marks and celebrates the epicenter of the site sectors, which are immediately relative to the surrounding cultural, educational and heritage use.

Hébrard
Thessaloniki is a city that produces and resonates with history: an important economic and political hub in Roman Macedonia, Byzantium's second city, a major Ottoman metropolis, and gateway to the Balkans. The 20th century transition of the Ottoman Empire into nation-states is manifest in Ernest Hébrard's plan for the city following the catastrophic 1917 fire. Key interventions were the grid pattern opening to the sea, monumental axes linking historic landmarks, preservation of the old town in Ano Poli, and the preservation of a green ring.
Remnants of Hébrard's plan are evident in the current TIF – Helexpo Fairgrounds. Built loosely following the urban plan as conceived by Hébrard, only the polygonal shape of the site and the main axis through the site from Egnatias Street to Stratou Avenue remain. Conceived in the urban plan largely as a park, the site as intermittently open fairgrounds has never met it's fully envisioned potential.

Axes / Circle
Our proposal rematerializes Hébrard's plan and reconnects the city, redefining the Hébrard site as a new metropolitan center. Fundamental to this is the reintroduction of the axes, connecting major historical and archaeological sites.

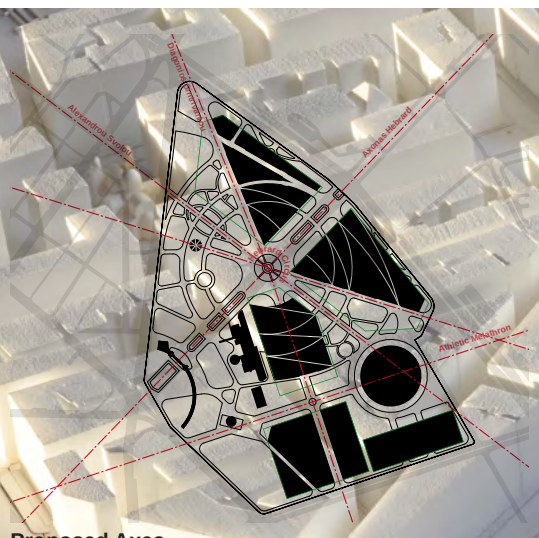
- The "Hébrard Axis" conceptually connecting Seikh Su forest with the Thermaikos Gulf and Mount Olympus.

- The north to south 'Hagia Sofia' axis, an extension of Alexander Svolou reconciles the site with the city realm.

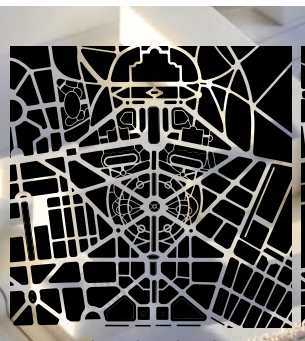
- The Rotonda – Square axis connects the Arch of Galerius/ Rotonda to Sintrivaniou Square and 'propels' the urban fabric towards the site;

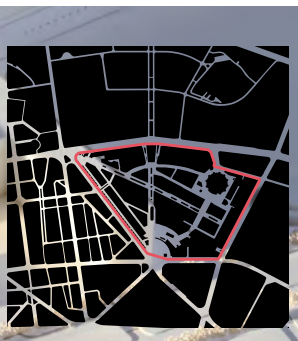
- The Tower-Melathron axis connects two city landmarks: the White Tower and Alexandreio Athletic Melathron of Thessaloniki;

At the center of the site is "Hébrard's Circus", linking 4 sectors of the site at a major landscape intervention, further reflected in the roofscape of the new buildings.



Proposed Axes


1918 Hebrard's Plan for Thessaloniki


Current Street Layout. The Vertical Axis and the Diagonal leading to Sindrivani square are the only remnant from Hebrard's Proposal.

VISION AND PHILOSOPHY OF THE DESIGN

Masterplan
Our masterplan completes the design of Thessaloniki by Hébrard, accomplishing the city's vision of a connected and united urban fabric. The revitalized site reinforces Thessaloniki's tradition of attracting traders, dating back to Byzantine times, with the implementation of a significant public park and multi-use program, with exposition at its core.

Site and Ground Floor Plan
The ground floor plan explicitly denotes the reinstatement of the Hébrard plan for the site, where the key axes are visible and reinforced. These continue where appropriate through buildings as interior thoroughfares and cross pollinate the defined sectors. The concentric circles additionally delineate routes through the public realm as well as building edges.

Open Space
The landscape strategy suggests three distinct landscape organizations across the site.

- At the eastern sector II & IV which hosts the existing cultural and Congress buildings, the open areas are structured in a systematic orthogonal grid, facilitating practical uses, access, mobility and site logistics.
- The western part of the site, the Urban Park, follows an organic organization, recalling landscape forms encountered in nature of various densities and character. It will host varied landscape typologies including "Recreational Land" and "Productive Land" in agricultural zones.

- In the southeast area, where the site is connected with the city and the museums, the Museum Garden, the Cultural sector, is articulated as a transition between the structured landscape and the free/organic layout of the Park.

At the center of the site, Hébrard's Circus is embossed into the ground, interconnecting adjacent 4 sectors (I,II&III,V) as a dynamic cultural, exhibition, recreational and professional hub and point of reference for locals and visitors. The circus will have a direct connection to the metro network through the Sintrivani station on the north edge of the site, and with the underground car park for sectors I &III.

Landscape
The landscape strategy creates active open space, a "green thread", an urban Park, as a destination with timeless qualities that will enrich everyday life experiences.
Landscape resilience and sustainability are predominant in the strategy. The new topography is designed with a holistic approach to storm water management. Essential are the use of porous materials along the site, the use of trees for shade and as organizing elements, the use of indigenous and Mediterranean plants, and the evolution of dynamic spaces.
The Park connects and relates the city to the fairgrounds. The edges of the Park are active, and provide multifunctional spaces that are open and accessible to all.

The Circle
The landscape follows and re-interpretates Hébrard's layout of axes and circles across the site. At the core is Hébrard Circus. Hébrard's Circus takes advantage of the level difference across the site, and is excavated into the ground in contrast to the natural elevations of the site.

This "embossment" contrasts with the strict geometry and natural topography of the site, offering a valuable release point. Located at the epicenter of the 4 sectors, through indentation, natural light is brought to the lower levels of the Exhibition Center and Multipurpose Hall, transforming these into ground floor spaces. Visitor circulation is seamlessly connected from the foyers of these buildings, as well as the parking areas, straight to the heart of the scheme and to the Urban Park. At the center of the Circus, a water feature becomes the meeting point for all axes that traverse the site.

The Squares
A significant reference point for the site is a set of Squares that comprise the major entrance points to the site. The YMCA Square at the southwestern part of the site attracts and coordinates people flow, directed from the city to the site's interior and vice-versa, while Sintrivaniou Square directs the intensive pedestrian movement from the adjacent Metro Station to or away from the site.

The Urban Park is the predominant landscape element, implementing a series of interventions of active open air public spaces across the site, with distinct landscape typologies that can be referenced as Recreational and the Productive Land.
The west part of the Business Center (Sector III) is seamlessly integrated into the Park to allow for a vital connection with the city. A sequence of gardens including the Flanerie and the Labyrinth Garden will also be used by the Hotel residents.

The Recreational Land comprises a series of open-air spaces that can be adapted to different uses. The spaces are flexible and dynamic so as to evolve through time and adapt to the community's needs. Spaces of different scales will host different activities.
The Great Lawn, is designed as a vital green space and will host a series of outdoor events, such as concerts, outdoor cinema, and sports activities. The Great Lawn follows the site's new topography, and through a gentle slope connects the park with the lower level of the Hébrard Circle.

The Park Pavillion is situated among a scenery that interchanges between clusters of trees and clearings. The Playgrounds, a set of kinetic interactive spaces for children, addresses different age groups to ensure safety and to provide an experiential framework for activities and play.
The Secret Water, extends in an oblong, shallow pool, accentuating reflections from the sky and the trees, in an interplay of light, with a serene and a calming effect.
The Urban Park incorporates the city's bicycle network and directs it through the Park for a reprieve from urban cycling.

The Productive Land is an area especially designed for urban agriculture. It is configurated with symbolic reference to Greece's agricultural tradition, and associated with AGROTICA, one of the most popular field exhibitions organized by TIF-HELEXPO since 1985. Promoting sustainable and organic agriculture practices including the use of organic fertilizers, biological pest control and crop rotation as a pillar for the Greek economy, the area will also host a canteen that will offer F&B services based on organic urban farm crops.
The Labyrinth Garden is a more intimate introvert garden mainly populated with aromatic shrubs and flowers. These aromatic plants have healing properties and will serve as a reference to the Mediterranean and Greek flora where educational activities and gardening classes can take place. These gardens can also be used by the hotel residents.
The sequence of gardens within the Park provide places of respite with distinct spatial qualities.

The Cultural Landscape
The Museum Garden is situated in the Cultural Sector, and extends the park area between three landmark museum institutions for the city of Thessaloniki: the Archaeological Museum, the Museum of Byzantine Culture and the Macedonia Museum of Contemporary Art. The Museum Garden is designed to intensify the cultural cargo of this area by introducing two different landscape configurations.

- Opposite the Archaeological Museum, the Museum Garden will be populated by tall shrubs that will create "outdoor rooms" where sculptures and art objects could be rediscovered by the visitors.

• Adjacent to the MMCA, the gardens will host outdoor exhibitions in looser arrangements within trees' clusters that enable open views and visual corridors across the site. This area will be the setting for the relocation of the existing sculptures of the museum. The new ConfEX Urban Park is vitally connected with the city's existing green infrastructure – YMCA Municipal Park, the Beach Promenade, and the Pedion tou Areos Park – adding to and enhancing the city's green policy and sustainability agenda. Green infrastructure, landscape dynamics, adaptability, accessibility and the creation of social places where people can meet and exchange is the strategy of the ConfEx landscape and the new urban Park for the citizens and the visitors of Thessaloniki.

Exhibition Buildings

The Expo program is expressed in three distinct Exhibition halls. Hébrard's diagonals define the massing of these exhibition halls, while at Sector II, the axis has been interiorized as a boulevard through the exhibition areas.
All exhibition halls are designed to minimize structural components, and maximize flexibility. The ground floors are planned on a 18x18m Grid while the exhibition spaces on the 1st floors are column free, facilitating spaces for circulation and movement. Layouts are spacious and the spans between columns are wide, providing the necessary flexibility and versatility required for exhibition purposes. The clear heights of the ground floor is set to 8.5m while the halls above the ground floor level are provide a clear minimum height of 5m. Each exhibition hall includes allocation of reception and control areas, cafeterias, and an adequate number of WCs. The roof profiles of the exhibition halls are conceived to reinforce the concentric circles of Hébrard's plan, emanating from the water fountain at the epicenter.

The open spaces between sectors I and II are planted with green and directly connected to the exhibition spaces. The open space will host outdoor exhibitions in loose arrangements within tree clusters that enable open views and visual corridors across the site.

More than just defining the entrance to the exhibition buildings, the open spaces of sector I, II and IV is designed as an urban plaza with an open exhibition space in the form of an exhibition plaza. It is directly connected with the city via the Alexandrion Melathron axis attracting public life outside of trade fair times.

Logistics

There main access runs between the exhibition sectors as a two-lane road at 9m wide. Parking spaces for unloading/uploading for the logistics of exhibition spaces are allocated around the Alexandreion Melathron, facilitating vehicular axes for cars and delivery trucks. Logistics are also considered underground at Sectors 1b and IV.

Materiality

The expo halls are materialized with prestressed concrete, and a light steel structure. The use of a UV Resistant polycarbonate and/or U-Glass alongside inflatable Ethylene tetrafluoroethylene cushions, (ETFE) allow for natural light to enter the interiors. The expression is light, fresh and contemporary, and enable a translucent appearance to the interior from outside, providing a glimpse of activities while in use.

Congress Center

The Congress Center located in Sector IV at the southern part of the site is in proximity to the intersection of 3rd Septemvriou and Stratou avenues.

The Congress center is bordered to the east by the new park of sector V and to the north and west by the new exhibition halls of sector I and II. Further to the east the site overlooks the Archaeological Museum and to the south the Byzantine Museum as well as the green area of the 3rd Army Headquarters forecourt.
The expression of the congress hall is simple, minimal and rectilinear, and sympathetically complements the adjacent modernist building of the Archaeological Museum, designed by Patroklos Karantinos. Together with the Byzantine and the Archeological museums, these buildings complete a trilogy, setting up Sector IV as the epicenter of the cultural district.

OTE Tower Square

Special attention is given to the connection of the new Congress Center with the Urban Park of sector V, and the way its relationship with the iconic OTE tower. Between the tower and the multipurpose hall, a new square is proposed that establishes direct access and connectivity to those 2 buildings with the city.

Hébrard's axis connecting Sindrivaniou square with the congress hall extends within the building. The access leads directly to the Foyer of the Congress Hall and divides the floor into 2 programmatic entities. The Event Hall, and the Luxury Exhibition space. A grand stair departing from the main Foyer leads to the 1st floor, where the conference rooms are located.

The intent is to create a unique and attractive multifunctional venue that is able to programmatically complement major events taking place at the Exhibition Center (sectors I and II), while also operating independently with an emphasis on business and science events.

The restaurant with its outdoor roof terrace facing Stratou avenue overviews the Archaeological museum, providing an idyllic panoramic view towards the gulf of Thermaikos and mount Olympus.

Business Sector

The business sector (Sector III) integrates a complementary mix of uses including hotel, leisure and recreation as well as office, retail and events spaces.
Sector III is positioned at a sensitive urban site, adjacent to the historic city centre. Here the blocks differ in size, relating typologically to the urban grain of the city as implemented per the 1918 Plan, thus providing a seamless continuation of the urban tissue towards the Exhibition site.

The Business Sector is a prominent building complex that visibly marks the north entrance to the ConfEx Park from a distance, while blending into the built environment as naturally as possible. It is designed as a public and dynamic quarter between city and park, easily accessible by the adjacent Sindivaniou Metro station. The direct connection to the metro via the proposed 'Diagonios Sindrivaniou' axis will improve the pedestrian experience, and enhance the accessibility to the site. This connection facilitates the transition between metro station to Hébrard's Circus, where the entry to the exhibition sector is located. The hotel sitting at Sindrivaniou Square echoes the footprint and height of adjacent city blocks; the office building along Egnatia is paired with the north-west of the university's modernist buildings ; and the Event Hall with it's curved roof enriches the roofscape across the site. The leisure/commercial use unites the diverse buildings of the business sector into a cohesive yet unique urban cluster.

Hotel

Positioned at the key crossroads at the northern tip of the site, where Egnatia Avenue intersects the junction of Aggelaki and Ethnikis Aminis Streets, the hotel serves as a visual landmark for ConfEx Park within the urban fabric of the city.
The massing, orientation and height provide key views towards the Byzantine walls of the Ano Poli at northeast and the Nea Paralia towards Thermaikos at the south.
The design proposals, preserve and highlight the axis view to the roman monument of Rotunda re-establishes the visual connection between the Rotunda, Hébrard's Circus, and the new park to the south.

APPROACH TO SUSTAINABILITY

ENERGY CONSERVATION STRATEGY

Our proposal

For the HelExpo conference park in Thessaloniki, we propose a holistic engineering approach centred around sustainability principles. We propose to use the UN Sustainable Development Goals (UNSDG) as a framework to prioritise the key strategies. In this technical note we have indicatively defined the energy and water conservation strategies.

Regarding the energy strategy, we believe that this park has the opportunity to become a net zero carbon development in terms of operational energy and become a point of reference for future projects in the Balkan peninsula and wider Europe.

Suitability for the future

Trigeneration is feasible for HelExpo because Greece has such a high carbon factor associated with its grid electricity. We know the grid will decarbonise over time and therefore we propose a heat network which will be adaptable to future low carbon energy generation, a network ready to switch over to operate with a lower ΔT. The network will be capable to serve high grade trigeneration in 2025 but adaptable for low carbon technology such as ASHP in 2040.

Figure 8 outlines our proposed strategy, the trigeneration equipment is located in a central plantroom, from which heating and cooling for the site is generated. This equipment could be replaced in the future with ASHPs with out the need for significant changes to the pipework distributing the heating and cooling across the site.

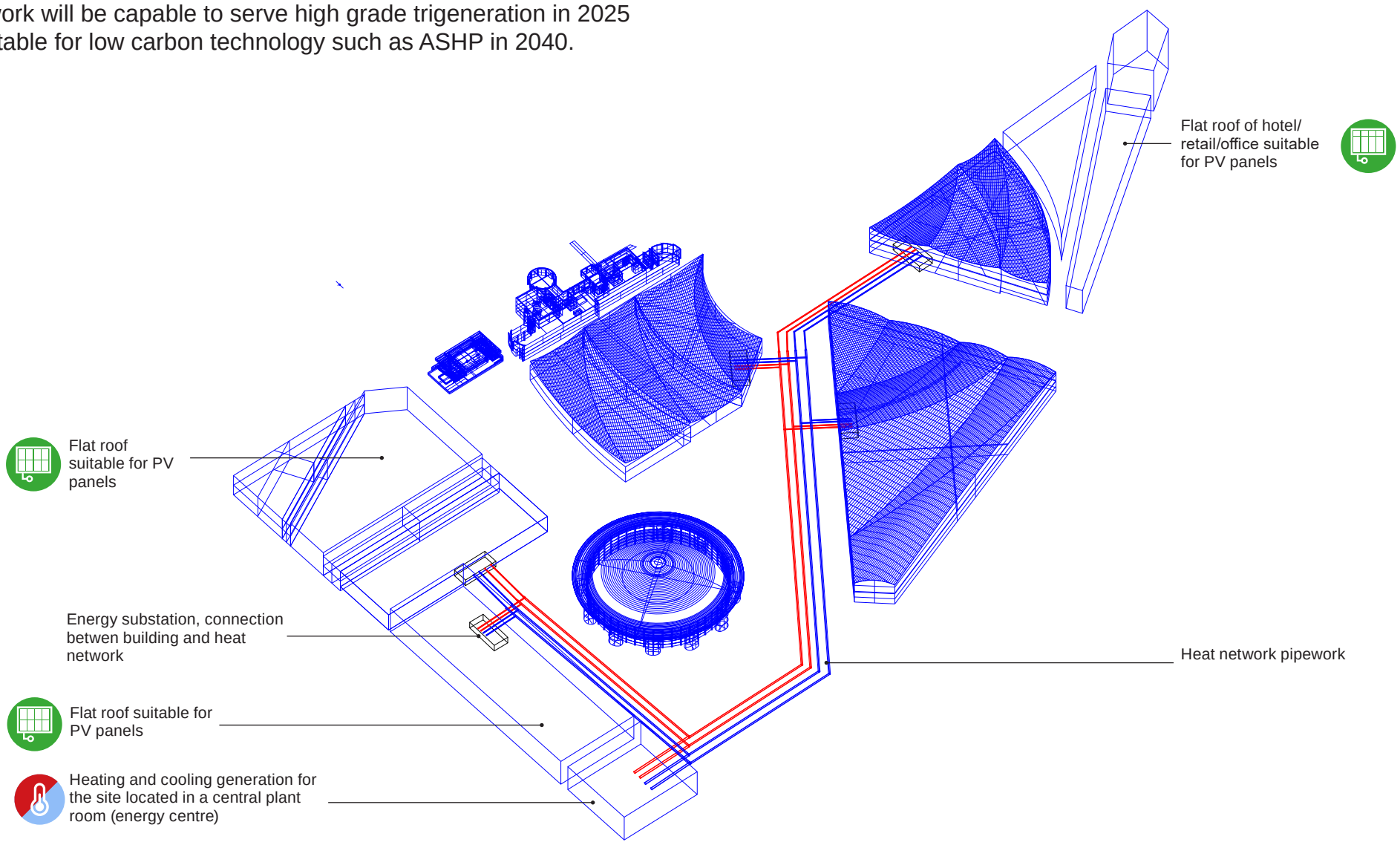


Figure 7 Energy generation strategy plan for ConfEx Park

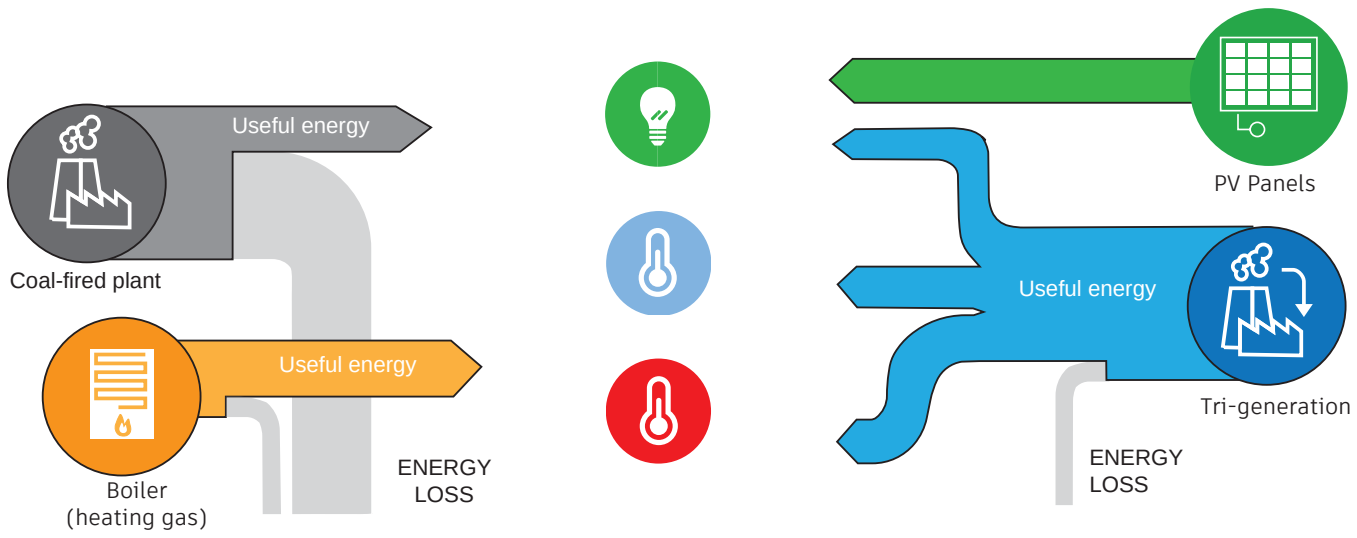


Figure 8 Energy generation proposal diagram for ConfEx Park

ENERGY CONSERVATION STRATEGY

Be Lean-Clean-Green-Seen

Our proposal has been based on the 4 key areas of focus: Be Lean-Clean-Green- Seen which will set the development on a trajectory to net zero carbon.

In the “Be Lean” category we propose a strategy of measures for each individual building such as:

- Natural ventilation
- Use of thermal mass
- Efficient use of LED lighting
- Natural daylight in perimiter areas
- Low flow water fittings
- Passive cooling technologies

In the “Be Clean” category we propose to develop a district heating and cooling network to supply heating and cooling to each building from a central energy centre.

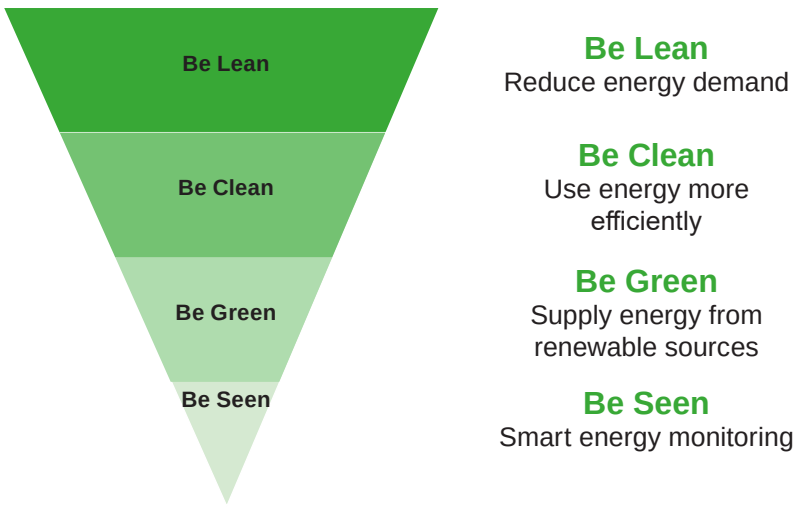
Considering that Greece’s grid electricity has a very high carbon factor we propose to use trigeneration central plant which will include a gas fired combined heat and power unit connected to absorption chillers for cooling. Generating electricity on site is a much better and more efficient way to produce clean energy for the development.
In the “Be Green” category we propose to consider the following renewable categories:

- Photovoltaics to generate electricity
- Ground source heat pumps to generate heating/cooling
- Solar thermal to generate domestic hot water

The steps proposed within the “Be Seen” category are:

- Water consumption monitoring
- Lighting controls (daylight and occupancy response)
- Space sensors monitoring indoor air quality, data from sensors fed into Building Management System to optimise plant operation

Figure 9 outlines the Be Lean-Clean-Green-Seen steps proposed to help the development achieve net-zero carbon.



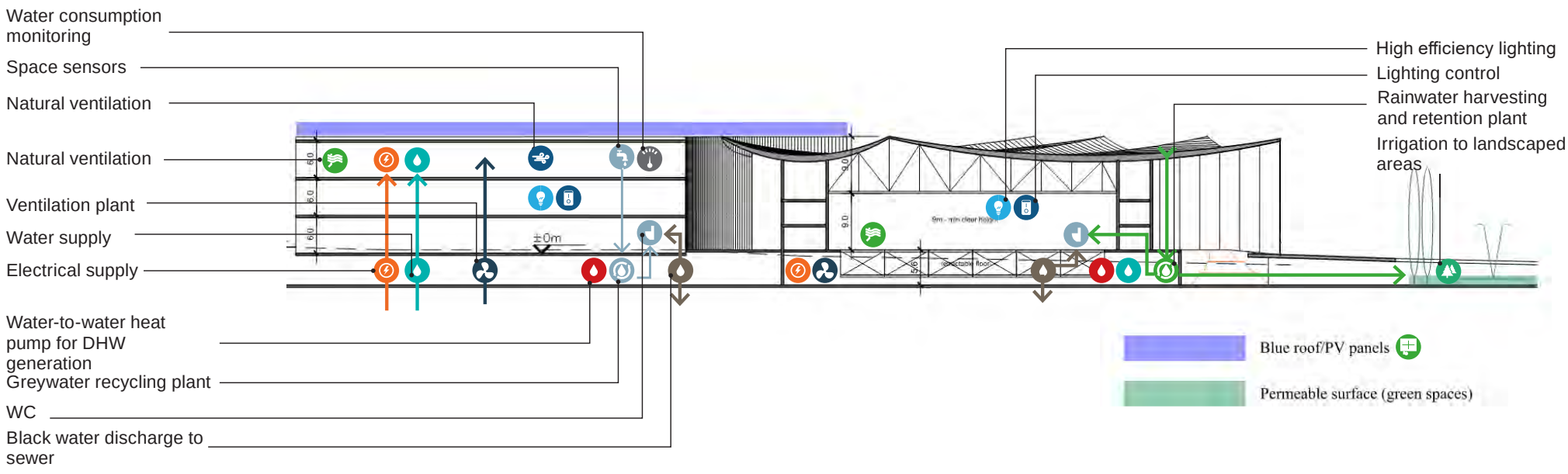


Figure 9 Section of proposed strategy for ConfEx Park

APPROACH TO SUSTAINABILITY

WATER CONSERVATION STRATEGY

Our proposal

Sustainable water management will be a key feature of the ConfEx Park Project. We propose an integrated rainwater management strategy utilising a combination of sustainable drainage systems (SuDS) to control and manage rainwater.

Retaining water on site, via blue roofs, attenuation tanks and ponds and gradually releasing it back to the city rainwater sewers will relieve pressure to the network and mitigate flood risks. Harvested rainwater could be used for irrigation purposes and for toilet flushing.

In addition to rainwater harvesting it is also possible to recycle condensate water from cooling equipment/Air Handling Units for use in toilet flushing or irrigation. By reusing greywater the buildings demand for potable water is reduced.

Water conservation strategy for ConfEx Park

Flat sections of roof could have blue roofs installed, Figure 11 shows the areas in purple that have been identified as potential locations for blue roofs. The areas shown in pink indicate sections of roof that are curved and therefore unsuitable for blue roof, these roofs would collect rainwater in storage tanks for non-potable uses.

The dashed pink lines are indicative of potential pipework routes to allow for irrigation of the green spaces on the site, the rainwater could also be used for filling water features where appropriate. The green spaces are areas in which water can permeate into the soil or evaporate, reducing the strain on the local drainage infrastructure.

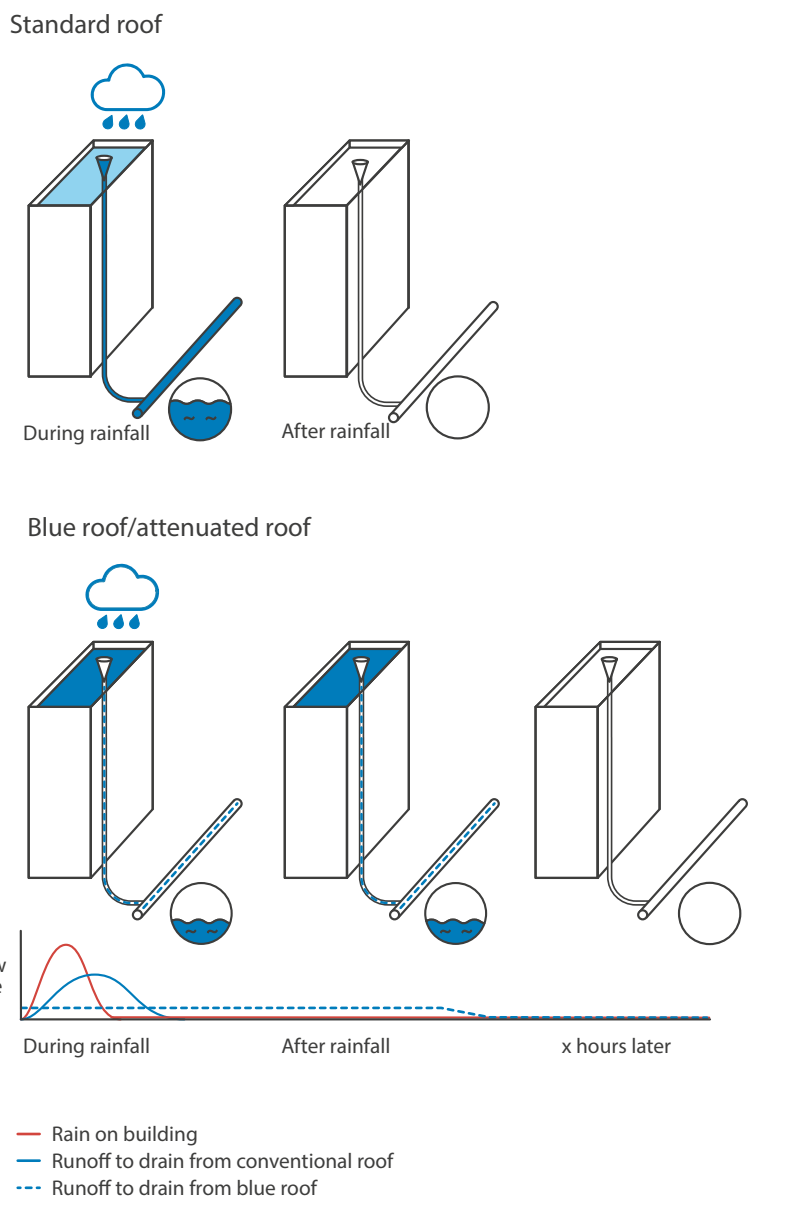


Figure 10 Standard roof vs blue roof comparison

Low flow rate to drain:

- Less potable water usage
- Lower wastewater volume to sewer
- Reduced impact on drainage infrastructure
- Reduced flooding
- Reduces potential pollution

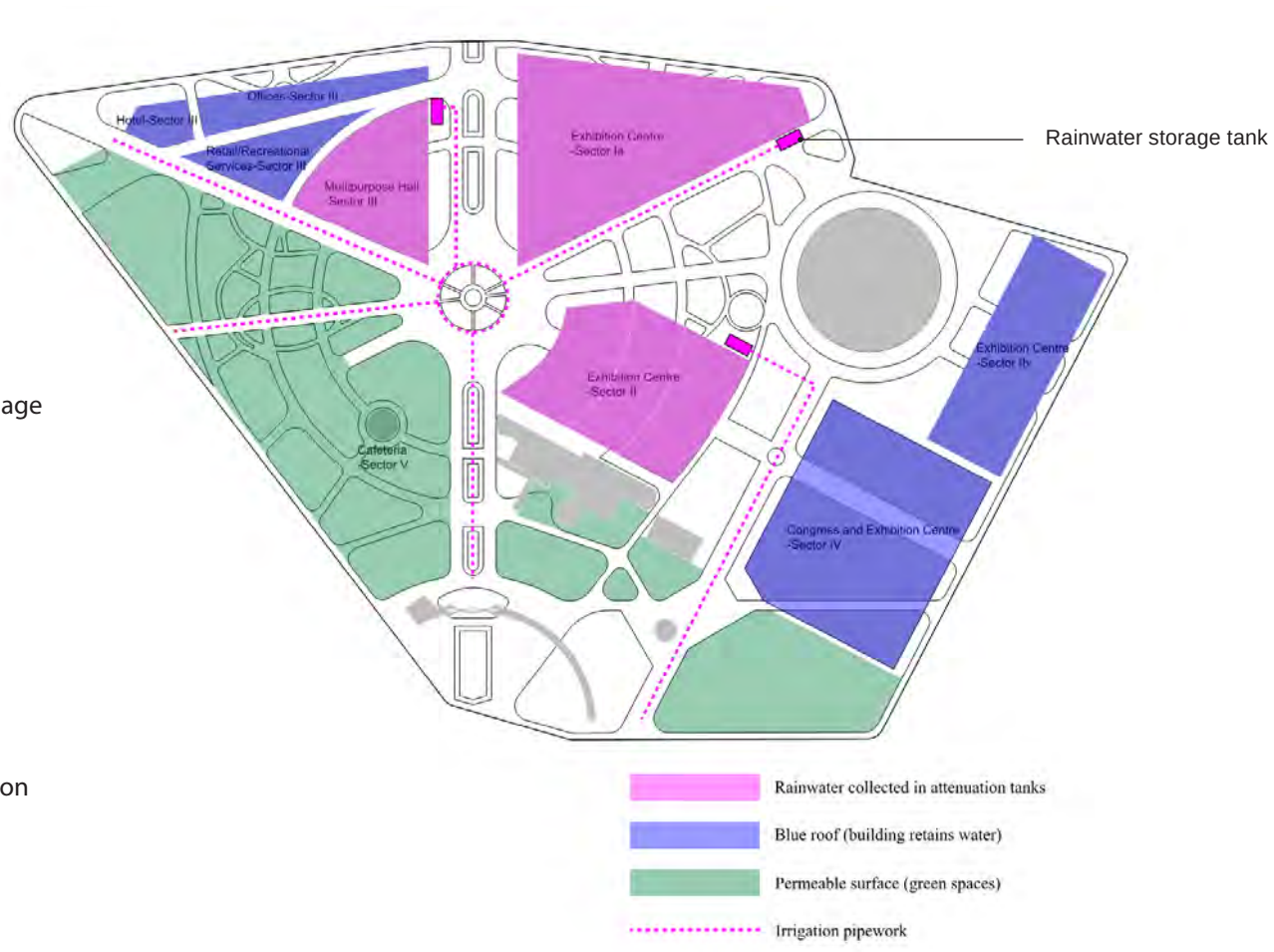


Figure 11 Water conservation strategy plan for ConfEx Park

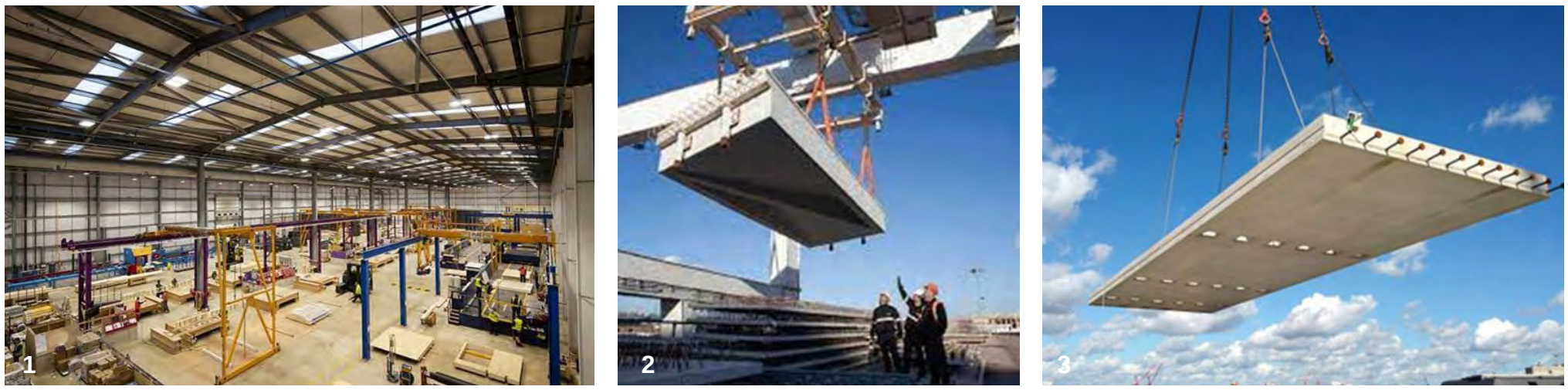
APPROACH TO MATERIALITY / ECONOMY OF THE PROJECT

Adopting Modern Methods of Construction

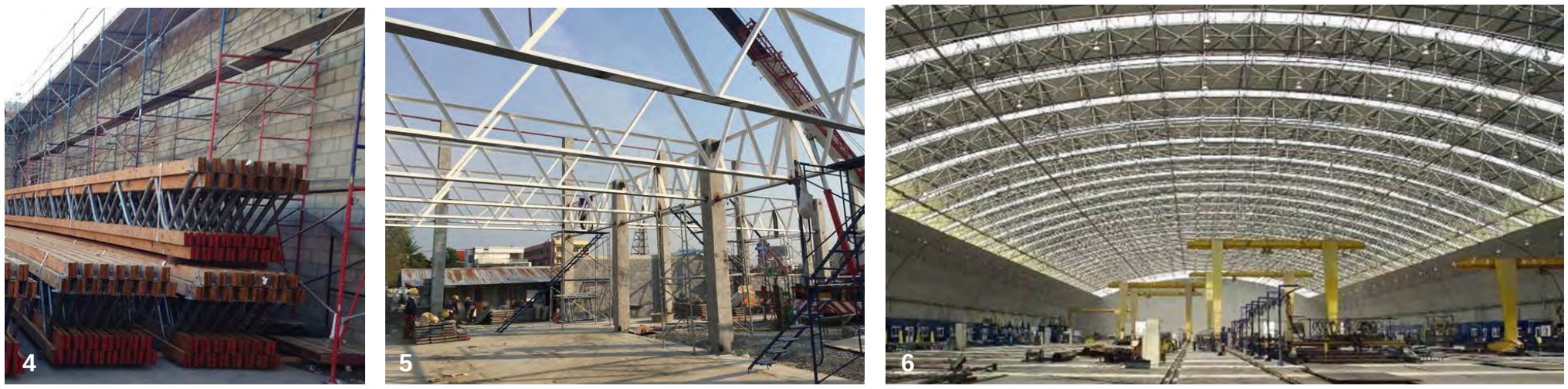
Design for Manufacture and Assembly (DfMA), a term linking both design for manufacture (DFM) and design for assembly (DFA), describes a process of design that increases the efficiency of delivery. It is an essential part of improving the overall productivity of the construction industry, producing better quality products, and embracing the full possibilities of digital design and automatic manufacturing.

For the ConfEx Park Project we recognise immediately the possibility to modularise the design given the nature of the buildings we are proposing. We would look to maximise repetition and modularisation of systems to exploit the possibility of early factory produced componentry such as; precast concrete framing, timber and steel roofing modules, pre-assembled services, unitised façade panels. By exploring the best utilisation of this modern construction methodology, within the constraints of the local market, we believe we can deliver the best outcomes in terms of; cost, speed of construction, low carbon, and quality.

Picture 1-3: Explore factory – where robotically manufactured building components are made



Picture 4-6: Prefabricated long span structures



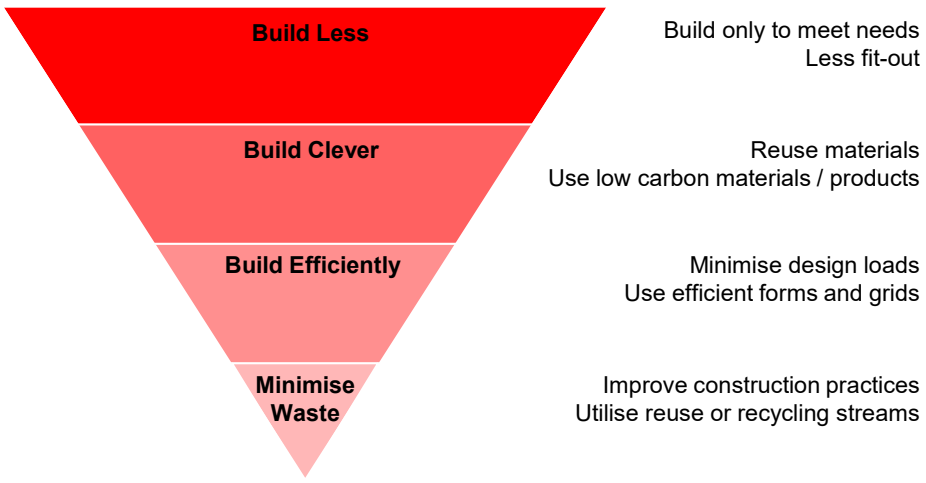
Picture 7-9: Modular glue lam timber systems

Picture 10: Long span modular concrete floor plate system

APPROACH TO TECHNICAL AND STRUCTURAL ISSUES

Technical Criteria
According to the Greek National Annex to EN 1998, Thessaloniki is located in a seismic area (Zone 1 with a_gR=0.16g) and as such it has experienced significant earthquake activity in its long history. The lateral loads generated via seismic forces will require the buildings to have robust lateral stability systems for which different options are available (e.g. braced frames, cantilever columns, shear walls and cores to mention a few). The structural design of the buildings will consider this and other key loading conditions.

Embodied Carbon
Embodied carbon refers to green house gas emissions associated with the materials used to construct and maintain a building, whilst Operational carbon refers to the emissions associated with the energy used within it. As buildings become more operationally efficient, the relative contribution of the embodied carbon is often seen to be in the region of 50% of the total life time emissions. It is also an immediate concern as it is mainly emitted at the start of the life cycle. Reducing embodied carbon is therefore key and we will adopt the following strategy towards achieving a minimal impact:



Structural Concept
The buildings of this development primarily consist of low-rise (one or two-storey) long span structures with the exception of the sector III Hotel, Offices and Retail buildings.
Figure 1 shows the initial structural arrangements in plan of each building, where long span deep trusses allow the exposition spaces to achieve wide column free areas. Where the presence of columns is less of an impediment, the grid spacing can be reduced to allow a more economical design and use of material (e.g. Sector Ia and III).

The low-rise multistorey hotel building in Sector III (**Figure 2**) can be developed as a reinforced concrete (RC) structure, with a RC core for lateral stability (with a total of ~25m of walls in each direction) and perimetral columns to maximise internal space (~8m gird). The adjacent Office and Retail blocks could also be developed as RC structures with RC cores and moment frame columns, respectively, for lateral stability. The Retail block could also be an RC frame but might benefit from the use of pre-stressed elements to achieve longer spans. Finally, the multipurpose Hall envisages a long span roof, achievable via deep trusses, and structural mullions suitable for the external façade support.

The low rise long span buildings can achieve lateral stability with cantilever column systems (**Figure 3** and **Figure 6**) and or with braced bays (**Figure 4** and **Figure 5**). Typically, these long span roofs structures are designed in steel but long span timber roof beams could also be considered. To achieve curved geometries, tension roof membranes could be used in combination with the steel structure (**Figure 4**).

The proposed building massing and arrangements are deliverable using and adapting known technologies and construction techniques. Design work will focus on making these early strategies cost and carbon efficient as well as considering modern off-site and modular construction processes.

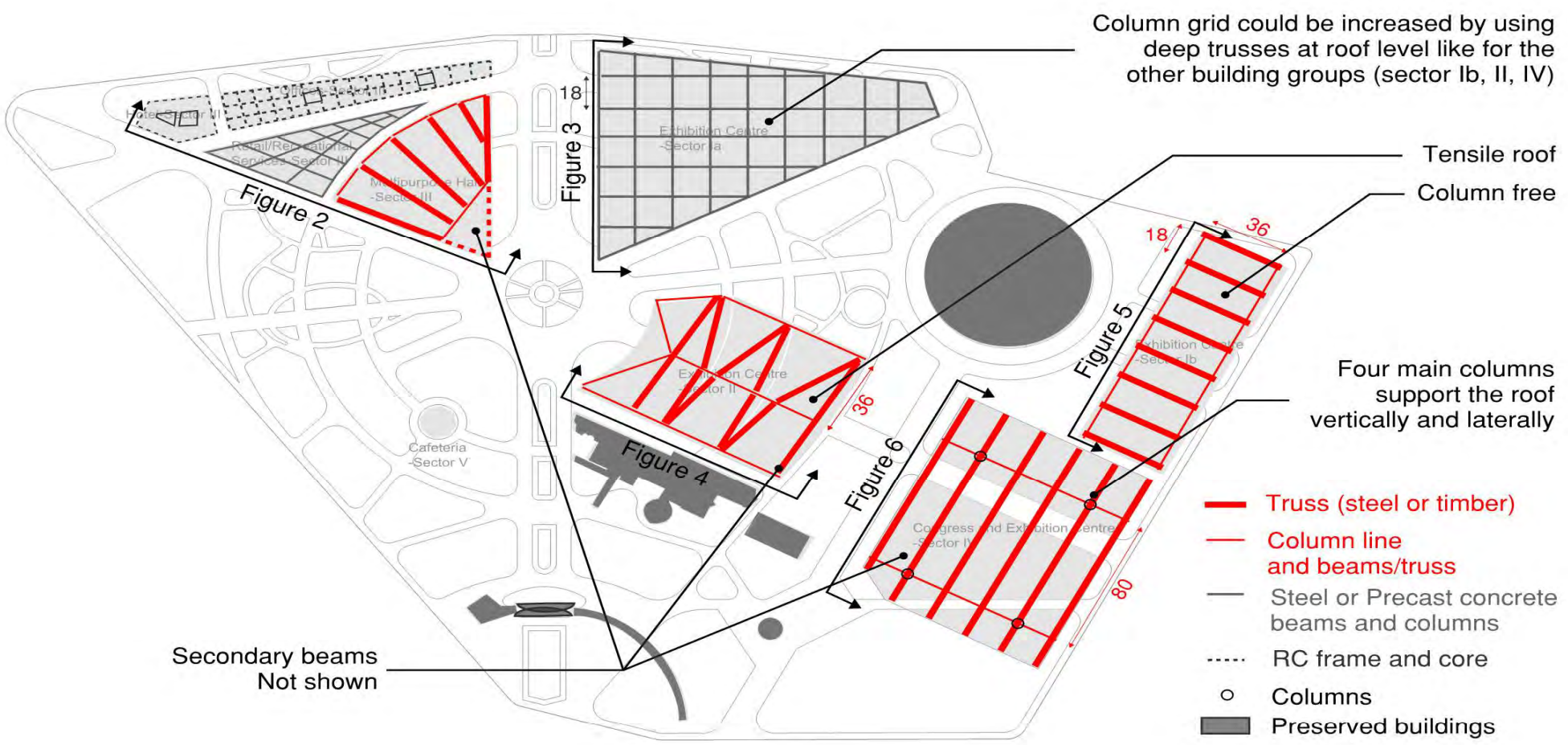


Figure 1 ConfEx Park Plan. Typical grid lines and potential arrangement for the different building sectors.

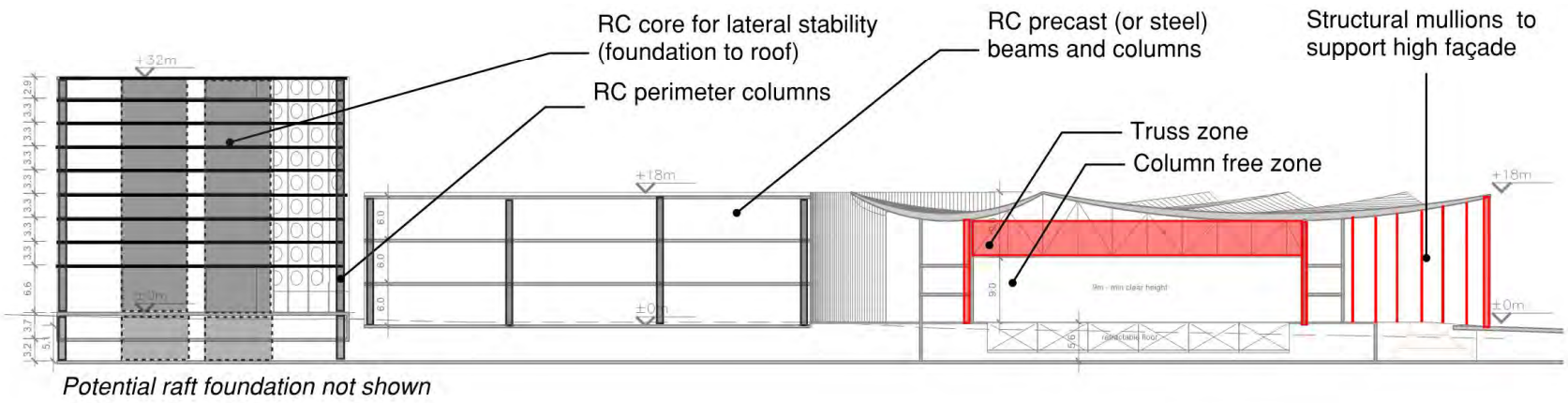


Figure 2 Sector III.

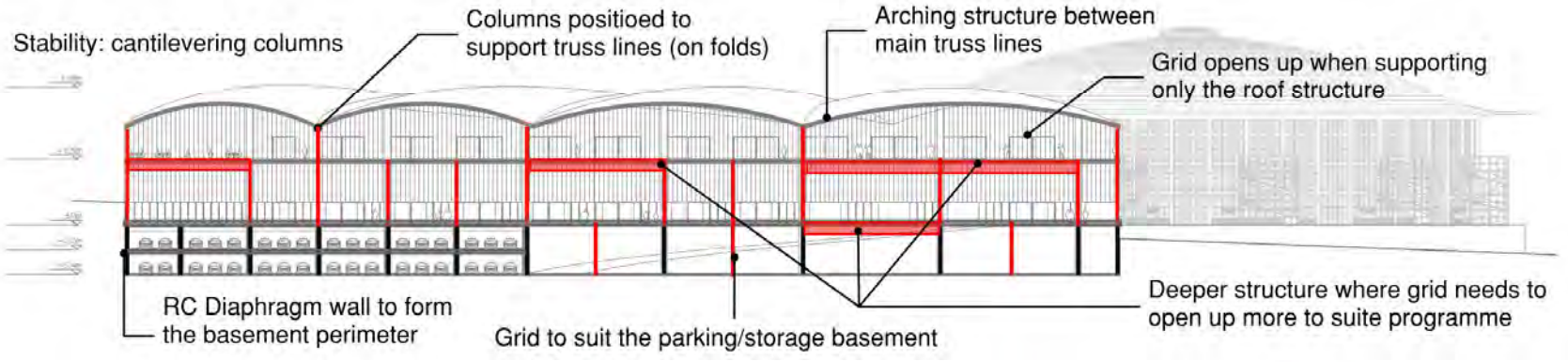


Figure 3 Sector Ia.

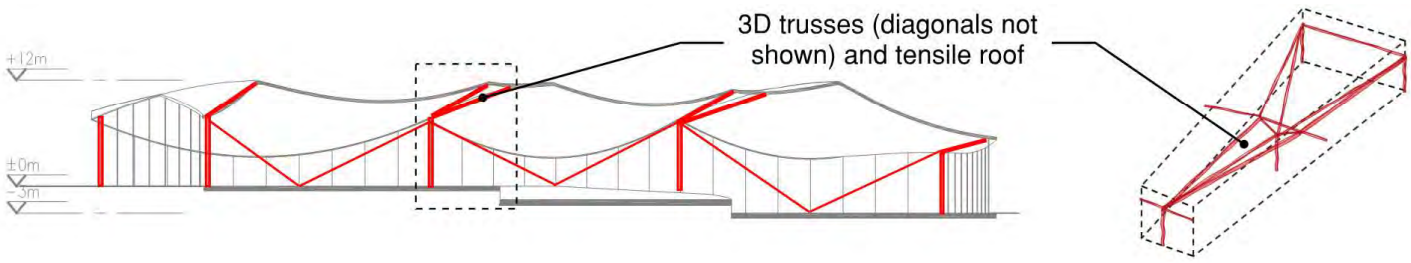


Figure 4 Sector II.

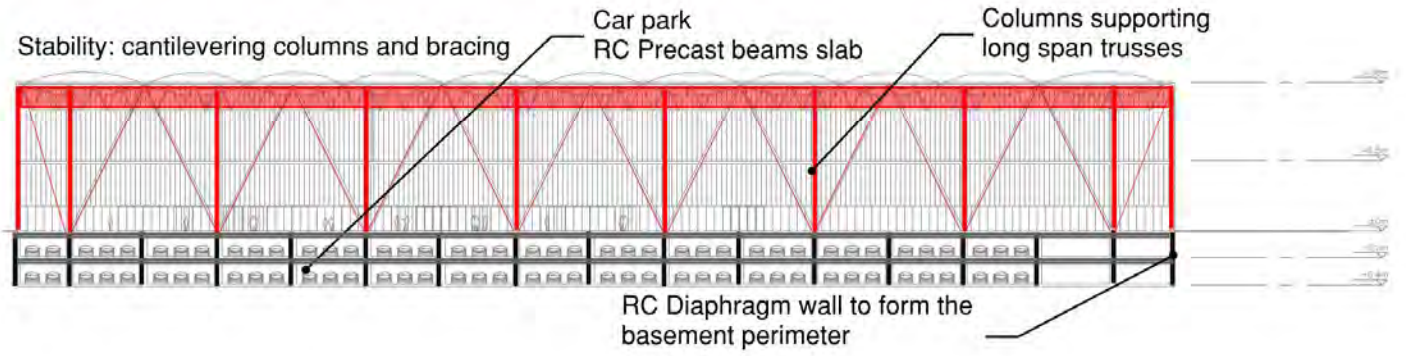


Figure 5 Sector Ib.

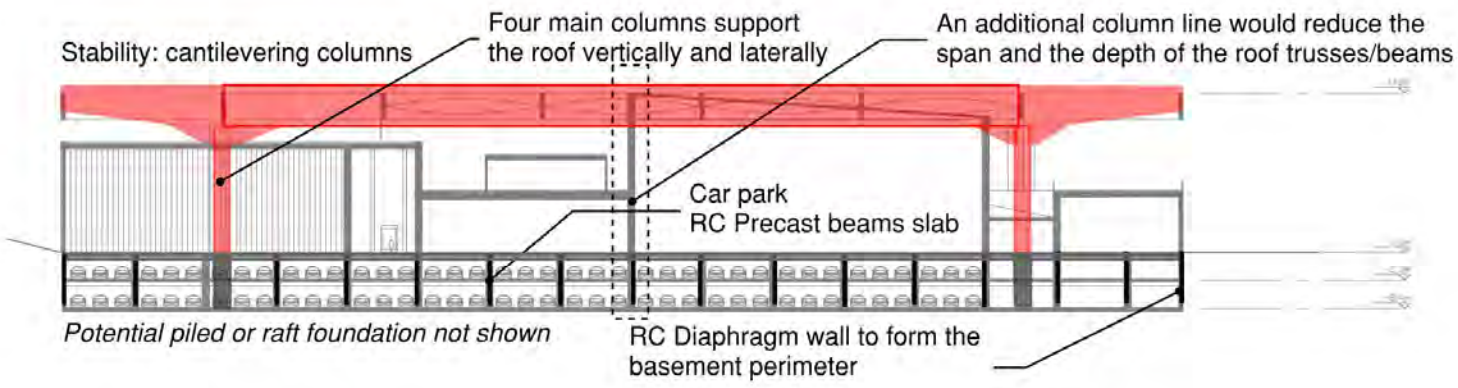


Figure 6 Sector IV.

SPACE PROGRAM

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 Plot Area (I) = 39.397,11 m² Plot Area (II) = 16.339,68 m²			SECTOR III Plot Area = 20.034,00 m²		SECTOR IV Plot Area = 13.971,22 m²		SECTOR V Plot Area = 58.900,71 m²		TOTAL Plot Area = 161.769,04 m²	
		Proposed by Competitor (SECTOR I)	Proposed by Competitor (SECTOR II)	Programme Requirements (SECTOR I & II)	Proposed by Competitor	Programme Requirements	Proposed by Competitor	Programme Requirements	Proposed by Competitor	Programme Requirements	Proposed by Competitor	Programme Requirements
A. General Metrics												
A1	Above Ground GFA (m²)	37.896	9.135	max 48.500	26.360	max 26.750	16.093	max 16.500	240	max 250	89.724	max 92.000 excl. preserved bldgs
A2	Below Ground Parking use GFA (m²)	28.476	0	-	22.913	-	19.634	-	0	-	71.023	-
A3	Below Ground other Aux uses GFA (m²)	15.339	2.443	-	9.380	-	6.297	-	0	-	33.459	-
A4	Net Floor Area NFA (m²)	37.301	9.077	-	25.233	-	15.648	-	228	-	87.487	-
A5	Building Coverage ratio (%) & Area (m²)	51% - 19.933	54% - 8.856	-	49% - 9.727	max 60% - 12.020,40	97% - 13.614	-	0.5% - 268	-	32.4% - 52.398	max 45% - 64.000 excl. AAMTH – pres.bldgs
A6	Gross Volume above Ground (m³)	363.362	110.986	-	200.707	-	176.391	-	1.080	-		-
A7	Foundations Footprint (m²)	25.626	8.755	-	18.766	-	13.685	-	240	-	-	-
A8	Façade (m²)	16.236	4.746	-	19.756	-	6.860	-	253	-	-	-
A9	Exterior Openings (m²)	502	153	-	2.351	-	423	-	36	-	-	-
A10	Accessible Roof surface (m²)	0	0	-	1.380	-	5.444	-	0	-	-	-
A11	Inaccessible Roof surface (m²)	20.089	8.755	-	9.087	-	7.666	-	268	-	-	-
A12	Green Roof surface (m²)	0	0	-	990	-	1.180	-	0	-	-	-
A13	Balconies / Open Covered Areas (m²)	0	0	-	1.175	Hotel: max 40% of GFA	0	-	0	-	-	-
B. Programme Area												
B1	Exhibition Center Area (m²)	36.345	9.135	47.000	-	-	-	-	-	-	-	-
B2	Administration Offices Area (m²)	1.551	0	1.500	-	-	-	-	-	-	-	-
B3	Hotel (m²)	-	-	-	7.810	7.250	-	-	-	-	-	-
B4	Commercial Complex / Retail–Recreation (m²)	-	-	-	6.923	9.000	-	-	-	-	-	-
B5	Commercial Complex / Offices (m²)	-	-	-	6.783	7.000	-	-	-	-	-	-
B6	Multi-purpose Hall (m²)	-	-	-	4.844	3.500	-	-	-	-	-	-
B7	Conference Center Area (m²)	-	-	-	-	-	10.364	10.500	-	-	-	-
B8	Luxury Exhibition Hall Area (m²)	-	-	-	-	-	5.729	6.000	-	-	-	-
B9	Cafeteria (m²)	-	-	-	-	-	-	-	240	250	-	-
B10	Underground Parking Area (m²)	28.476	0	12.500	22.913	25.000	19.634	15.000	-	-	-	-
B11	Underground Storage Area (m²)	10.826	2.062	12.000	6.890	3.500	4.293	2.000	-	-	-	-
C. Open Areas												
C1	Provide Area of Roadways (m²)	-	-	-	-	-	-	-	-	-	-	-
C2	Provide Area of Pedestrian Pathways (m²)	-	-	-	3.300	-	-	-	14.800	-	-	-
C3	Provide Area of other Hardscape (m²)	-	-	-	700	-	-	-	21.000	-	-	-
C4	Provide Area of green Landscape without underground buildings (m²)	-	-	-	3.800	-	-	-	29.800	-	-	-
C5	Provide Area of green Landscape over underground buildings (m²)	-	-	-	-	-	-	-	-	-	-	-
C6	Provide Area of other Landscape (m²)	-	-	-	-	-	-	-	790	-	-	-
C7	Provide Area of Water Features (m²)	-	-	-	-	-	-	-	1.990	-	-	-
C8	Provide Area of other structures (m²)	-	-	-	-	-	-	-	290	-	-	-

Notes on part C.Open Areas

1. The Park Boundary, which is provided by the competition, has been slightly extended to include the area defined as the new communal area.
2. The Park extends in Sector III. This area has been counted separately and the information provided in the relevant cells.
3. The sidewalk around ConfEx Park is not included.
4. The Pedestrian Pathways (C2) include the main axes and all the paths of the Park and the Museum Garden.
5. The Hardscape areas (C3) include Syntrivaniou Square, YMCA Square, the plateau around OTE Tower, the Bicycle Lane, small plateaus in the Park and some other areas close to the buildings that are not considered pathways.
6. Other Landscape Area (C6) includes the Playgrounds' areas with gravel mulch.
7. The Water Features (C7) do not include the existing water feature, which is part of the sculpture of MMCA.
8. Other Structures (C8) include the Canteen, seating benches and the berms/seating areas in the Great Lawn and the Museum Garden in front of the MMCA.
9. The hardscape and softscape areas in the Lower Level of the Hebrard Circle are included.

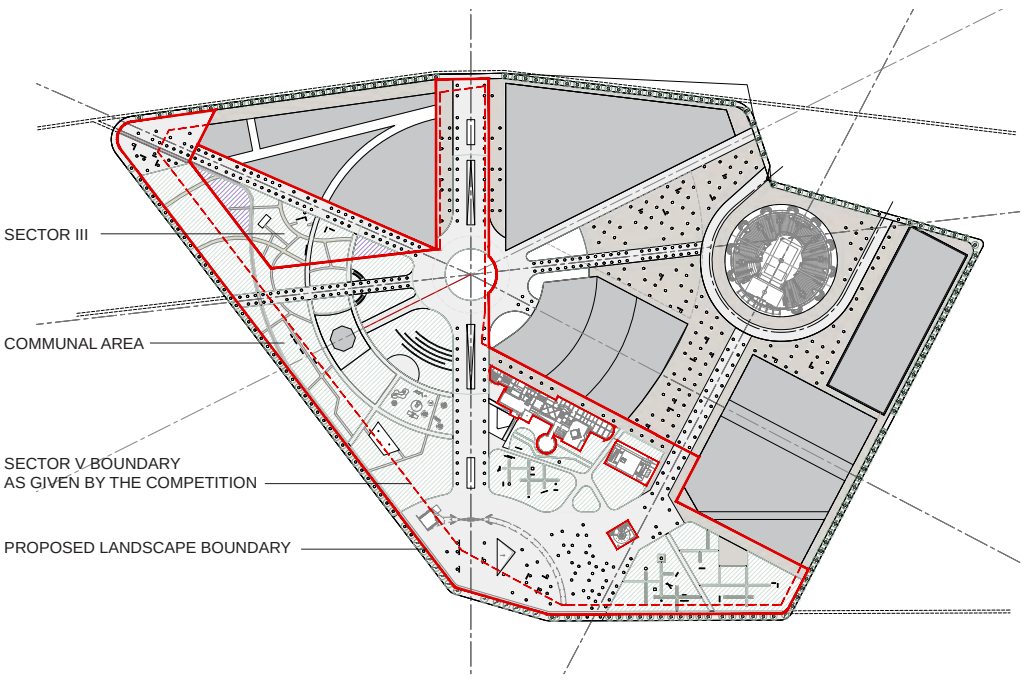


Figure 1 Landscape Boundaries.

Proposed landscape boundary including Sector III and extension into communal area.

Competition boundary Sector V

01 Site Plan

Our proposed masterplan seamlessly integrates the site with the historic center of Thessaloniki and its eastern expansion through the reinstatement and enrichment of the 1918 urban plan for the city by Ernest Hébrard.

Site
The position of the site for the Thessaloniki International Fair (TIF) sits at a pivotal junction within the greater city, between the western historical center and the eastern expansion. The site, at the narrowest point between the Central-Western and Central-Eastern Sectors of Thessaloniki, is currently a bottleneck. A physical impediment to pedestrian flow, with controlled and limited access.
By breaking down this urban barrier, the new ConfEx Park Project will play a pivotal role in redefining the center of the city, becoming a central metropolitan zone for business, culture, recreation, exhibition, and congress.

The position of the site within the Direct Impact Zone of the city additionally provides the opportunity for ConfEx Park to be a key connector. Our scheme marks and celebrates the epicenter of the site sectors, which are immediately relative to the surrounding cultural, educational and heritage use.

Hébrard's Plan
Thessaloniki is a city that produces and resonates with history: an important economic and political hub in Roman Macedonia, Byzantium's second city, a major Ottoman metropolis, and gateway to the Balkans. The 20th century transition of the Ottoman Empire into nation-states is manifest in Ernest Hébrard's plan for the city following the catastrophic 1917 fire. Key interventions were the grid pattern opening to the sea, monumental axes linking historic landmarks, preservation of the old town in Ano Poli, and the preservation of a green ring. .
Remnants of Hébrard's plan are evident in the current TIF – Helexpo Fairgrounds. Built loosely following the urban plan as conceived by Hébrard, only the polygonal shape of the site and the main axis through the site from Egnatias Street to Stratou Avenue remain. Conceived in the urban plan largely as a park, the site as intermittently open fairgrounds has never met it's fully envisioned potential.

Axes / Circle
Our proposal rematerializes Hébrard's plan and reconnects the city, redefining the ConfEx site as a new metropolitan center. Fundamental to this is the reintroduction of the axes, connecting major historical and archaeological sites.

- The "Hébrard Axis" conceptually connecting Seikh Su forest with the Thermaikos Gulf and Mount Olympus.

- The north to south 'Hagia Sofia' axis, an extension of Alexander Svolou reconciles the site with the city realm.

- The Rotonda – Square axis connects the Arch of Galerius/Rotonda to Sintrivaniou Square and 'propels' the urban fabric towards the site;

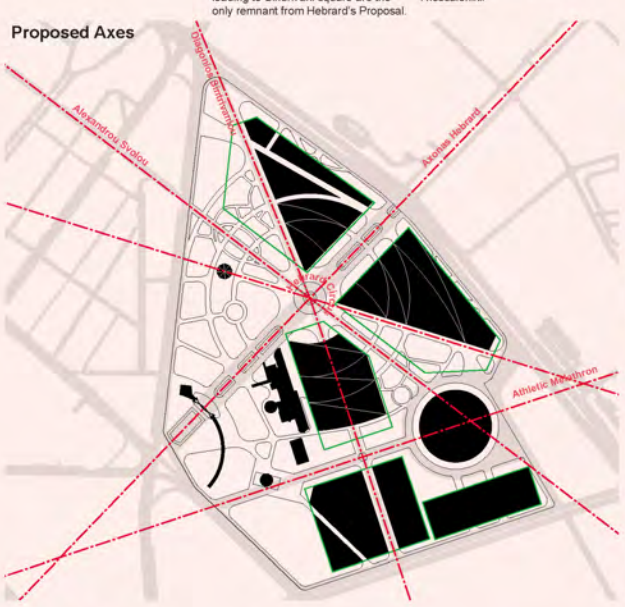
- The Tower-Melathron axis connects two city landmarks: the White Tower and Alexandreio Athletic Melathron of Thessaloniki;
At the center of the site is "Hébrard's Circus", linking 4 sectors of the site at a major landscape intervention, further reflected in the roofscape of the new buildings.

The Hebrard's Plan for Thessaloniki 1919. TIF-Helexpo Site inhabits part of the Hebrard's plan.

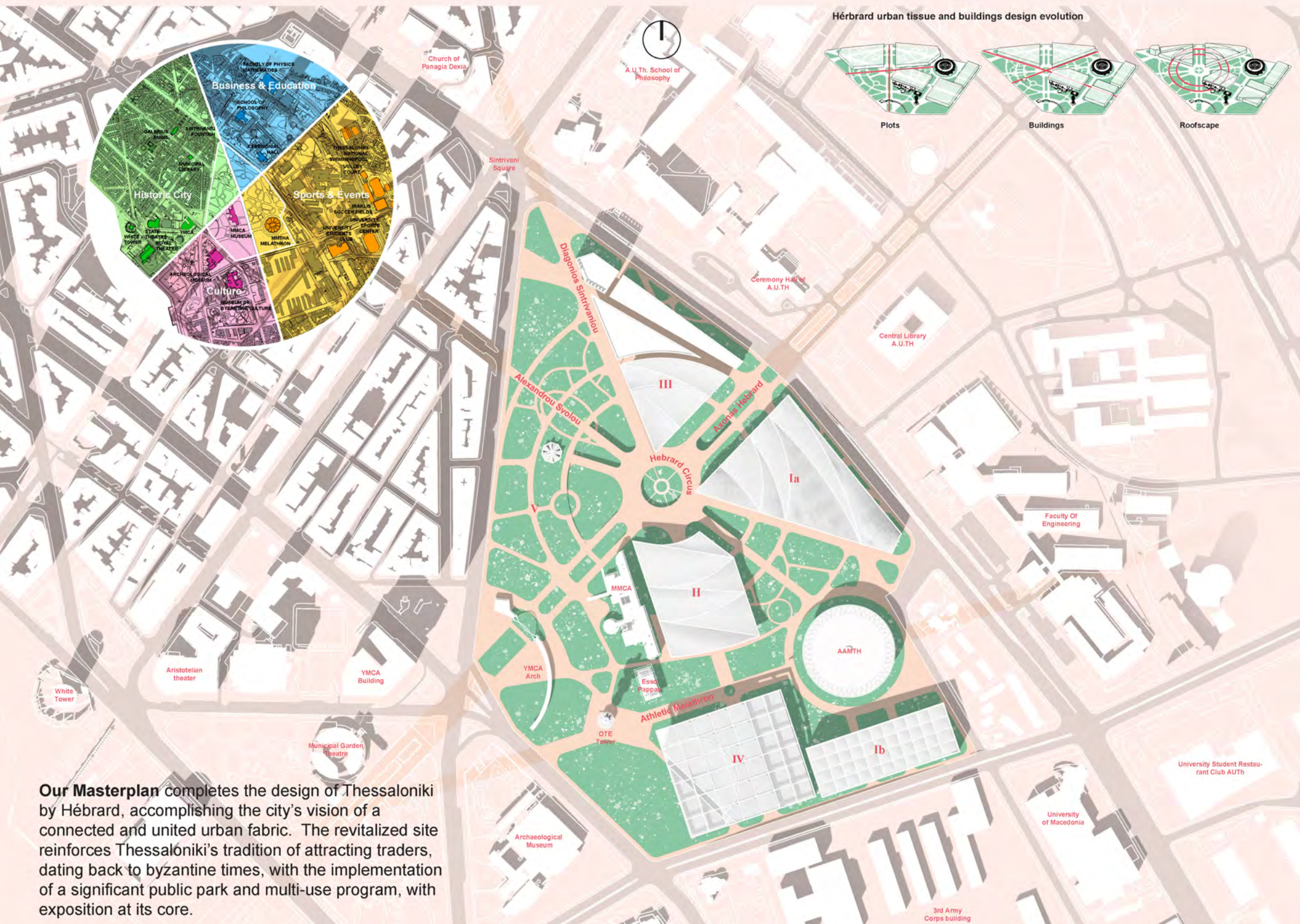

1918 Hebrard's Plan for Thessaloniki


Current Street Layout
The Vertical Axis and the Diagonal leading to Sindrivani square are the only remnant from Hebrard's Proposal.


Design Competition Proposal embracing Hebrard's Plan for Thessaloniki.




Aerial perspective from the YMCA square



Our Masterplan completes the design of Thessaloniki by Hébrard, accomplishing the city's vision of a connected and united urban fabric. The revitalized site reinforces Thessaloniki's tradition of attracting traders, dating back to byzantine times, with the implementation of a significant public park and multi-use program, with exposition at its core.

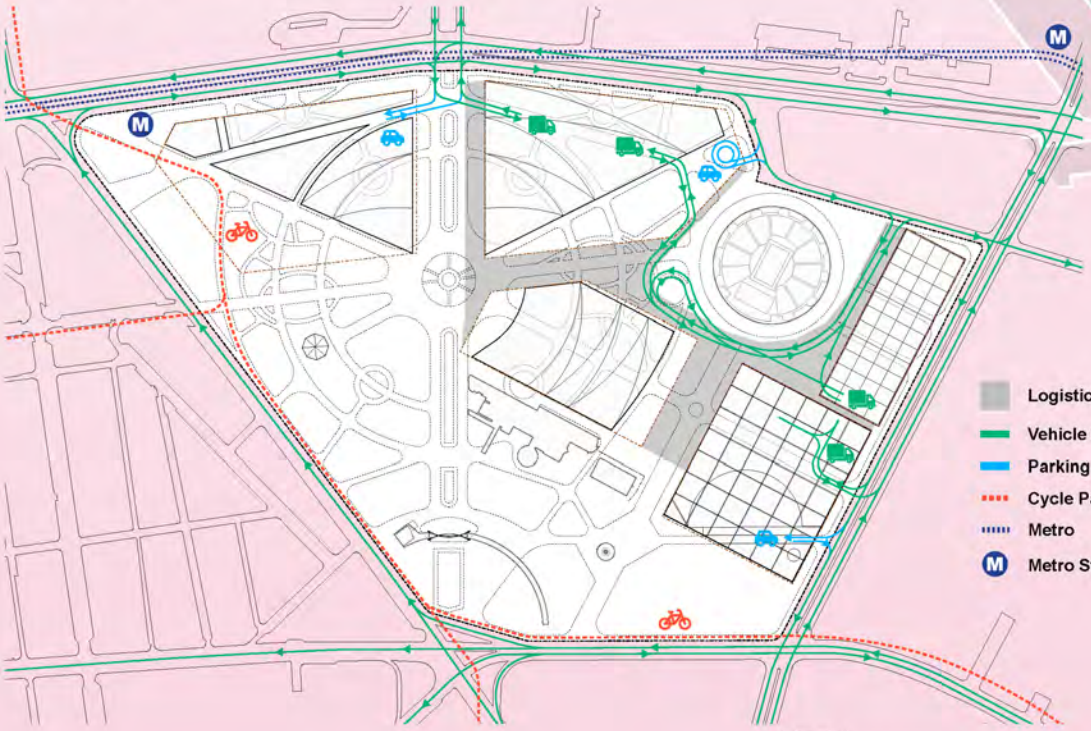
02|Ground Floor Plan

The ground floor plan explicitly denotes the reinstatement of the Hébrard plan for the site, where the key axes are visible and reinforced. These continue where appropriate through buildings as interior thoroughfares and cross pollinate the defined sectors. The concentric circles additionally delineate routes through the public realm as well as building edges.

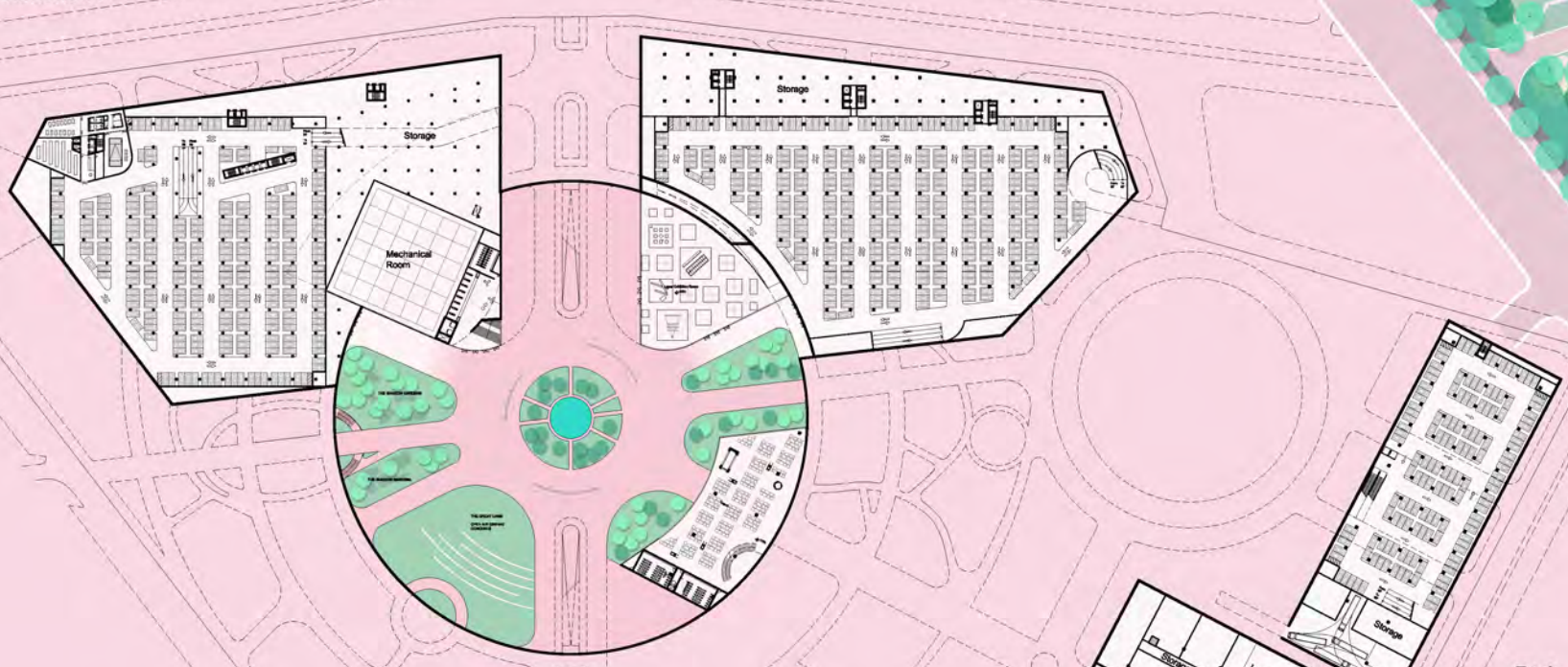
Program

Vehicle Access and Loading

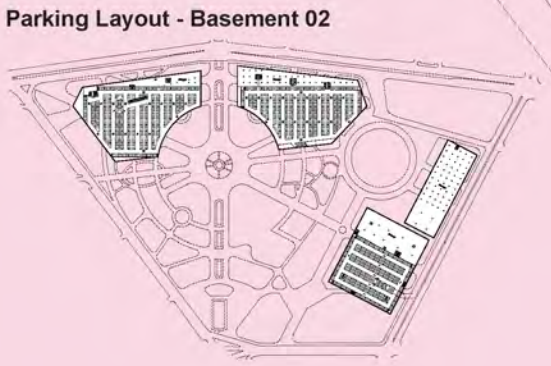
Primary access into the site is facilitated via Egnatia Street and the other on the extension of Lambraki Street. For sector IV an access/exit point is located on the 3rd September street.
Loading and logistics have been consolidated around the Alexandrion Athletic Melathron, facilitating vehicular axes for cars and delivery trucks. Logistics are also considered underground at Sectors 1b and IV.



Parking Layout - Basement 01



Parking Layout - Basement 02



Parking

Each sector has dedicated parking located at the lower ground floor(s) of the perimeter buildings and accessed from the adjacent streets, utilizing level differences across the site to arrive below ground level. The park and landscape will therefore be car free, enhancing the pedestrian connectedness of the site. The parking structures have been considered in phases, which allows for flexibility in implementation as car parking strategies change in the future course of the development.

Total number of vehicles: 2141

Sector	IA	IB	II	III	IV
B01	326	146	-	260	474
B02	365	-	-	382	334
Total	691	146	-	642	808

03|Ground Floor Plan

Preserved Buildings
The Alexandrion Athletic Melathron of Thessaloniki (AAMTH), Macedonian Museum of Contemporary Art (MMCA) , Agricultural Bank PAVILION with the OTE Towers, and the YMCA Arch are proposed to be maintained and are complemented with adjacent new buildings and public realm. The Athletic Melathron punctuates the OTE Tower-Melathron axis.

EGNATIA STREET

Exhibition Centre
Sector Ia

Open Air
Exhibition Space

LAMBRAKI STREET EXTENSION

Exhibition Centre
Sector II

Exhibition Centre
Sector Ib

Luxury Exhibition
Hall

3RD SEPTEMBER STREET

Luxury Exhibition
Hall

Congress Centre

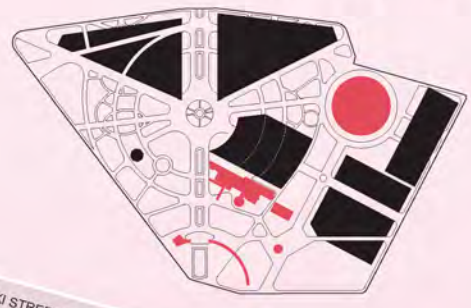
Museum Gardens

Entrance
Grove

Museum Gardens

STRATOU AVENUE

Preserved Buildings



Open Space
The landscape strategy suggests three distinct landscape organizations across the site.

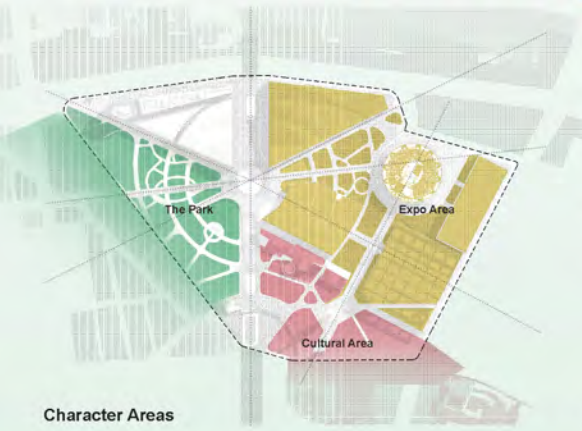
- At the eastern sector II & IV which hosts the existing cultural and Congress buildings, the open areas are structured in a systematic orthogonal grid, facilitating practical uses, access, mobility and site logistics.

- The western part of the site, the Urban Park, follows an organic organization, recalling landscape forms encountered in nature of various densities and character. It will host varied landscape typologies including “Recreational Land” and “Productive Land” in agricultural zones.

- In the southeast area, where the site is connected with the city and the museums, the Museum Garden, the Cultural sector, is articulated as a transition between the structured landscape and the free/organic layout of the Park.

At the center of the site, Hébrard’s Circus is embossed into the ground, interconnecting adjacent 4 sectors (I,II&III,V) as a dynamic cultural, exhibition, recreational and professional hub and point of reference for locals and visitors. The circus will have a direct connection to the metro network through the Sintrivani station on the north edge of the site, and with the underground car park for sectors I &III.

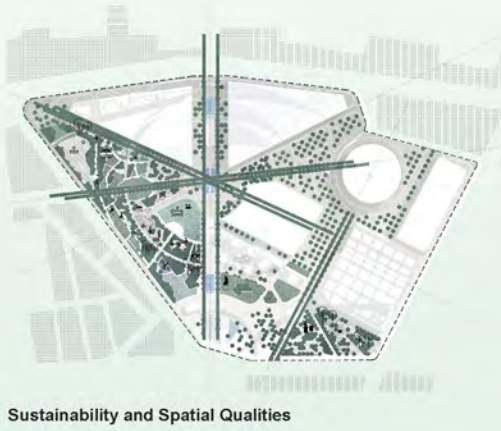
04|Landscape Design- Sector V



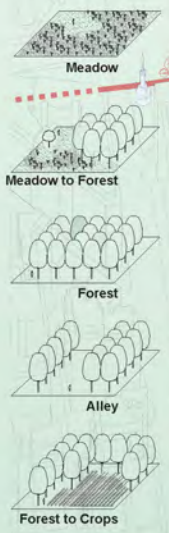
Character Areas

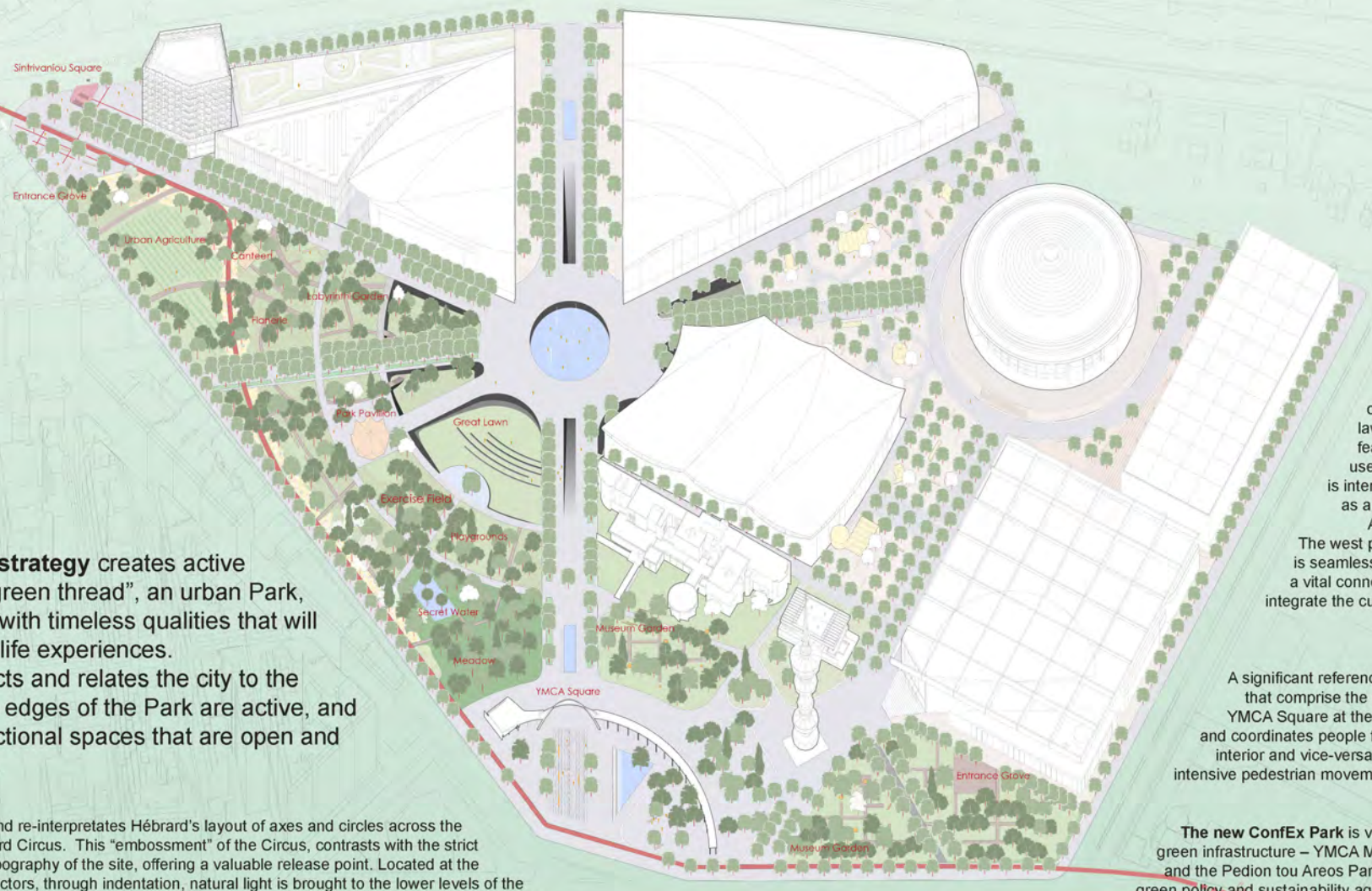
Landscape Destination


Resilience and Water Management


Sustainability and Spatial Qualities

Place making Strategies





The landscape strategy creates active open space, a “green thread”, an urban Park, as a destination with timeless qualities that will enrich everyday life experiences.
The Park connects and relates the city to the fairgrounds. The edges of the Park are active, and provide multifunctional spaces that are open and accessible to all.

The Circle
The landscape follows and re-interpretates Hébrard’s layout of axes and circles across the site. At the core is Hébrard Circus. This “embossment” of the Circus, contrasts with the strict geometry and natural topography of the site, offering a valuable release point. Located at the epicenter of 4 out of 5 sectors, through indentation, natural light is brought to the lower levels of the Exhibition Center and Multipurpose Hall, transforming these into ground floor spaces. Visitor circulation is seamlessly connected from the foyers of these buildings, as well as the parking areas, straight to the heart of the scheme and to the Urban Park.

The Urban Park
The Urban Park is the predominant landscape element, implementing a series of interventions of active open air public spaces across the site, with distinct landscape typologies that can be referenced as Recreational and Productive Land. The Recreational Land comprises a series of open-air spaces, lawns, pavilions, playgrounds and water features that can be adapted to different uses and activities. The Productive Land is intended for urban agricultural and for use as a teaching laboratory, following on from AGROTICA, hosted on site from 1985. The west part of the Business Center (Sector III) is seamlessly integrated into the Park to allow for a vital connection with the city. Museum Gardens integrate the cultural institutes on and adjacent to the site.

The YMCA Square
A significant reference point for the site is a set of Squares that comprise the major entrance points to the site. The YMCA Square at the south-western part of the site attracts and coordinates people flow, directed from the city to the site’s interior and vice-versa, while Sintrivaniou Square directs the intensive pedestrian movement from the adjacent Metro Station to or away from the site.

The new ConfEx Park is vitally connected with the city’s existing green infrastructure – YMCA Municipal Park, the Beach Promenade, and the Pedion tou Areos Park – adding to and enhancing the city’s green policy and sustainability agenda. Green infrastructure, landscape dynamics, adaptability, accessibility and the creation of social places where people can meet and exchange is the strategy of the ConfEx landscape and the new urban Park for the citizens and the visitors.


Landscape Section along Hébrard Axis
Scale1:500


Aerial Perspective (View from the southwest YMCA square)

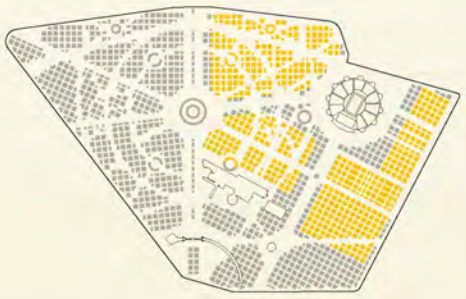
05|Exhibition Buildings - Sector Ia

Types of Exhibition Landscapes. Studies on Hebrard's Plan

Current Expo Areas - Layouts

Meandering - 6m wide modules

Ribbon - 3m wide modules



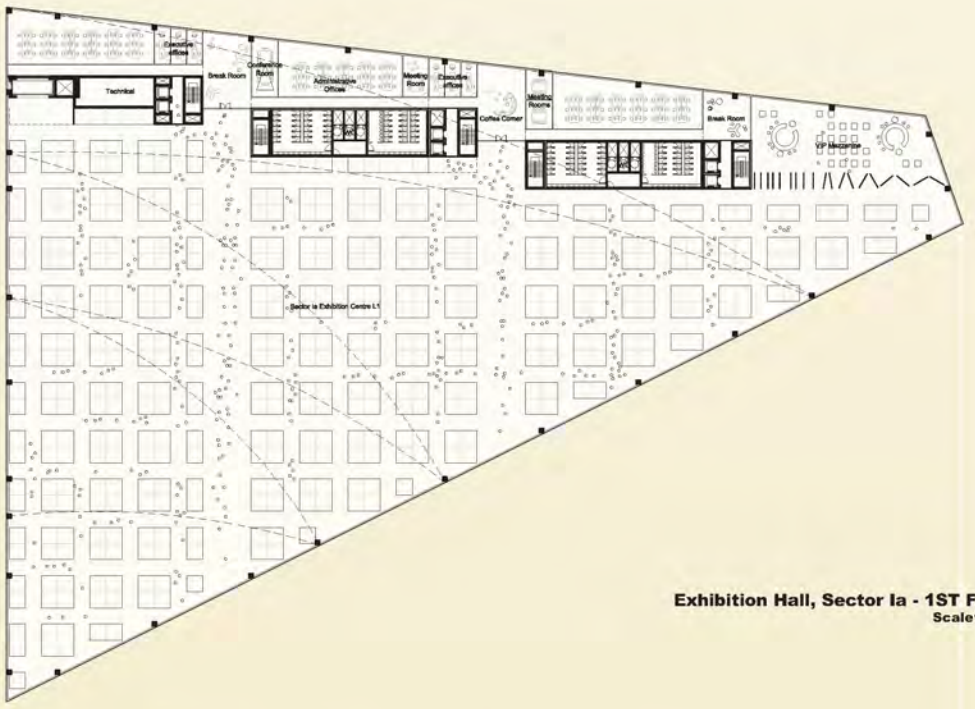
Grid - 3x3m modules

The Expo program is expressed in three distinct Exhibition halls. Hébrard's diagonals define the massing of these exhibition halls, while at Sector II, the axis has been interiorized as a boulevard through the exhibition areas.
All exhibition halls are designed to minimize structural components, and maximize flexibility. The ground floors are planned on a 18x18m Grid while the exhibition spaces on the 1st floors are column free, facilitating spaces for circulation and movement. Layouts are spacious and the spans between columns are wide, providing the necessary flexibility and versatility required for exhibition purposes. The clear heights of the ground floor is set to 8.5m while the halls above the ground floor level are provide a clear minimum height of 5m. Each exhibition hall includes allocation of reception and control areas, cafeterias, and an adequate number of WCs. The roof profiles of the exhibition halls are conceived to reinforce the concentric circles of Hébrard's plan, emanating from the water fountain at the epicenter.

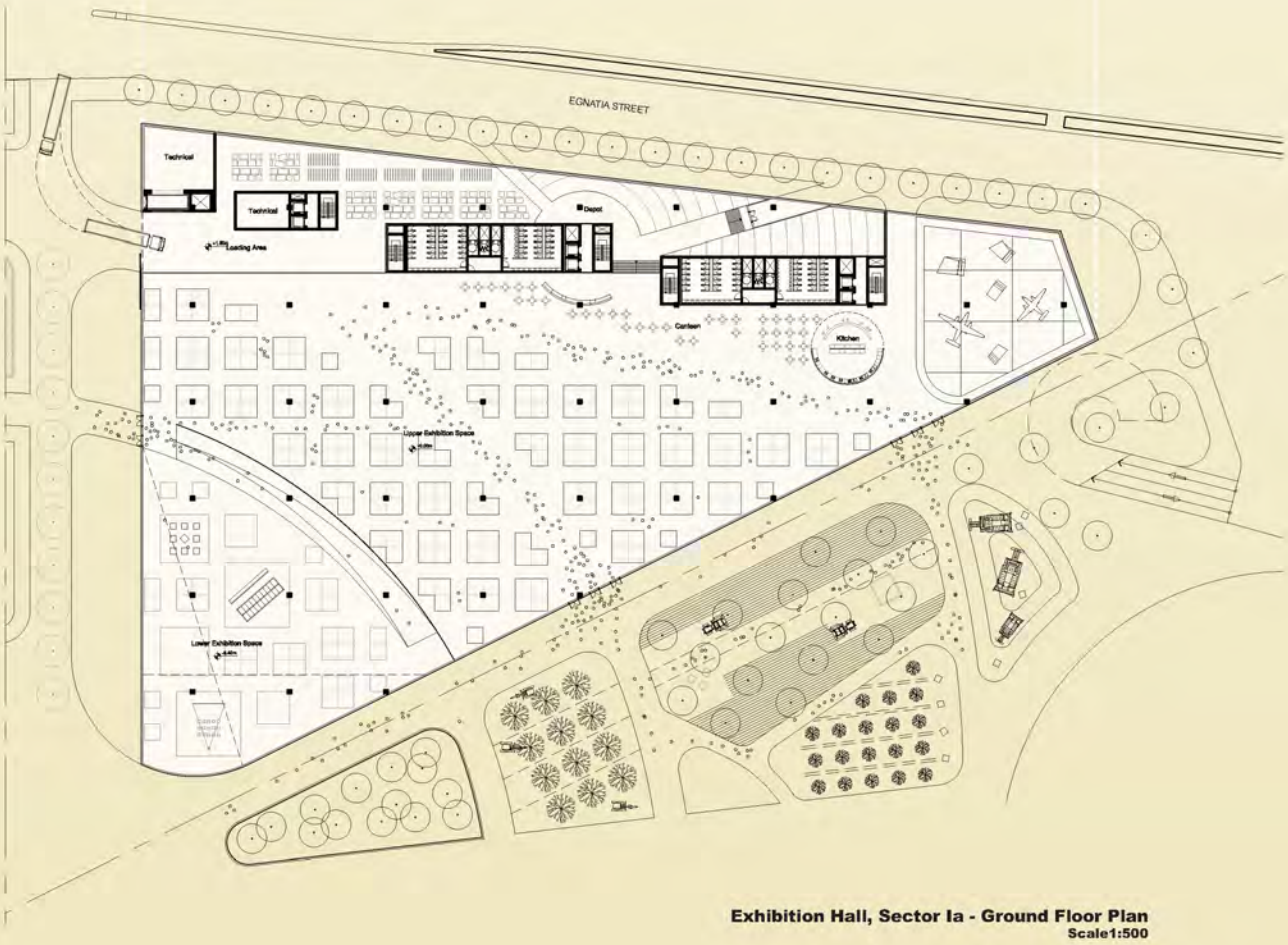
The open spaces between sectors I and II are planted with green and directly connected to the exhibition spaces. The open space will host outdoor exhibitions in loose arrangements within tree clusters that enable open views and visual corridors across the site.

More than just defining the entrance to the exhibition buildings, the open spaces of sector I, II and IV are designed as an urban plaza with an open exhibition space. It is directly connected with the city via the Alexandrion Melathron axis attracting public life outside of trade fair times.

Outdoor Exhibition Space

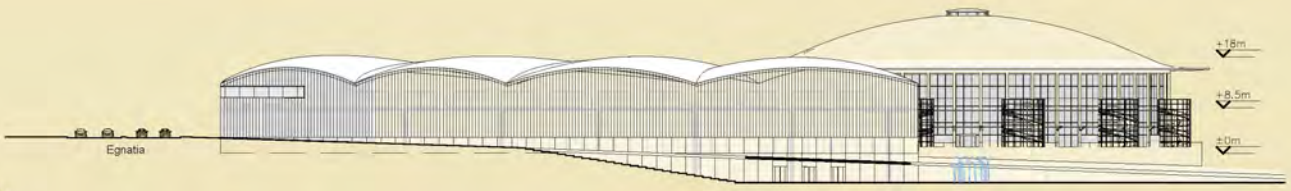


Exhibition Hall, Sector Ia - 1ST Floor
Scale1:500

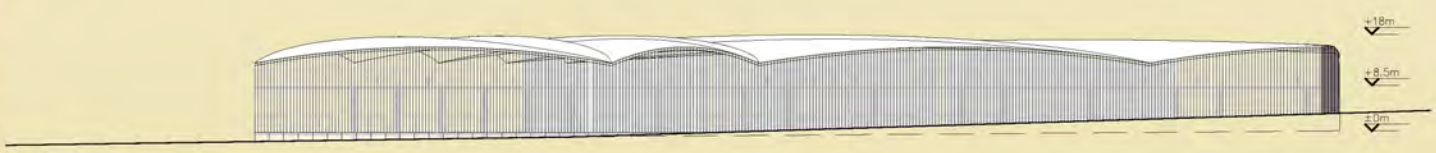


Exhibition Hall, Sector Ia - Ground Floor Plan
Scale1:500

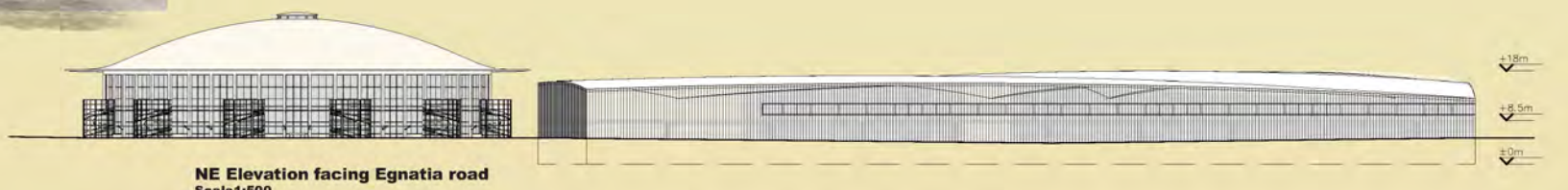
Outdoor Exhibition Plaza- Landscape



North Elevation
Scale1:500



SW Elevation
Scale1:500

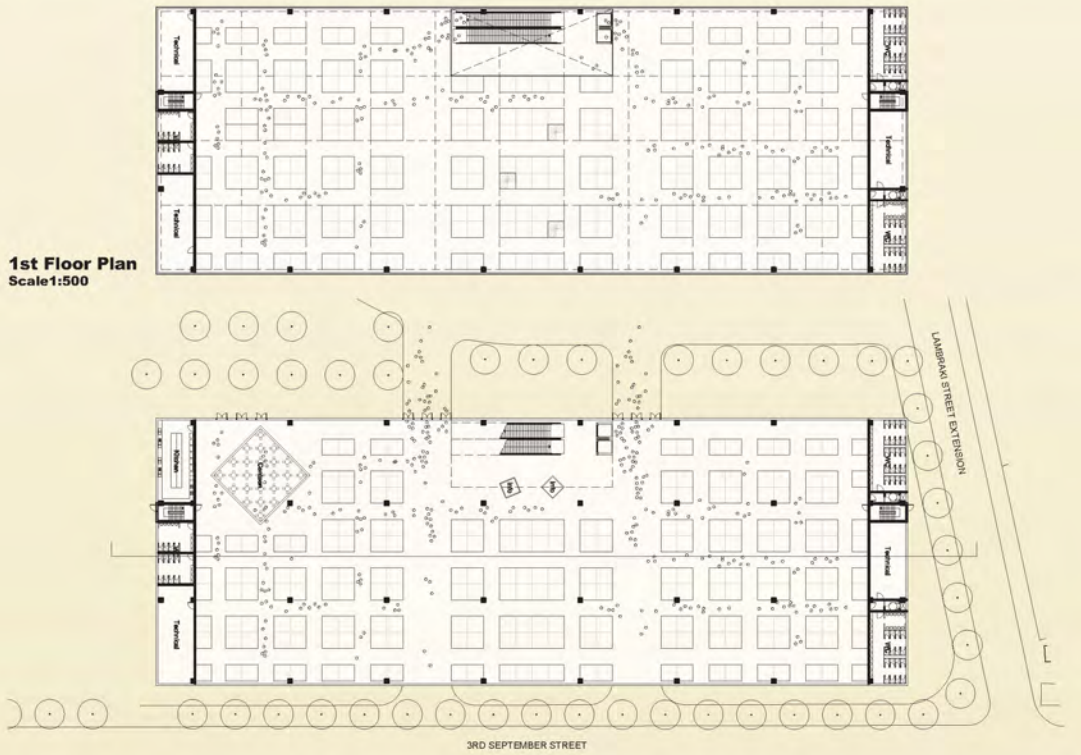


NE Elevation facing Egnatia road
Scale1:500

06|Exhibition Buildings- Sector Ib&II

Sector IA - Exhibition Hall (Interior view)

North Elevation facing Alexandreio Melathlon
Scale1:500

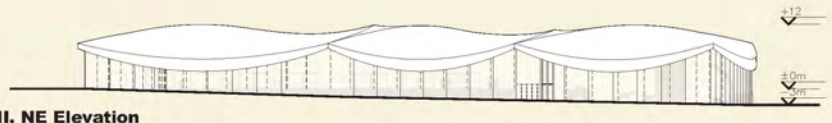


1st Floor Plan
Scale1:500

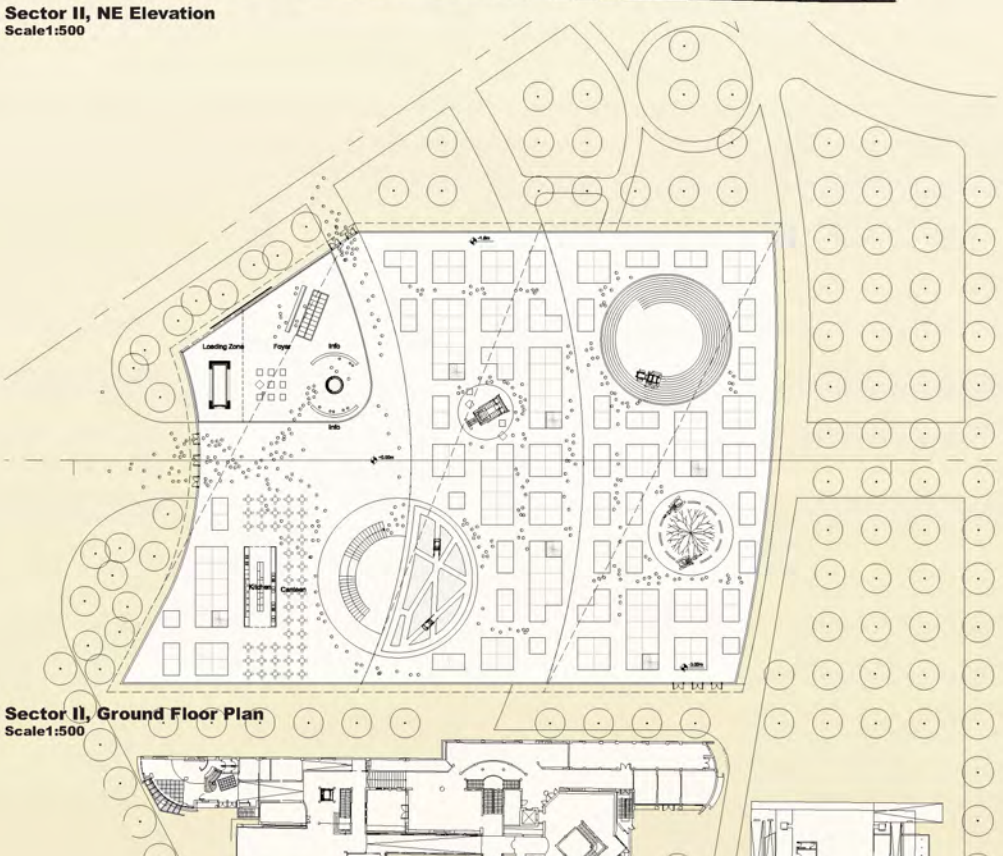
Ground Floor Plan
Scale1:500

Longitudinal Section
Scale1:500

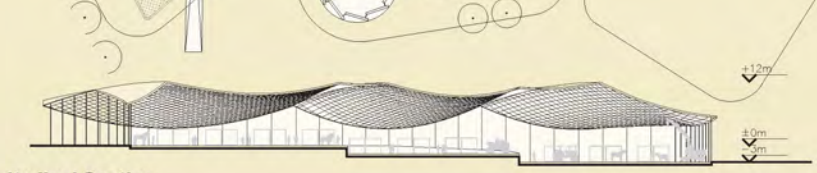
Sector II - Exhibition Hall (Interior view)



Sector II, NE Elevation
Scale1:500



Sector II, Ground Floor Plan
Scale1:500



Sector II, Longitudinal Section
Scale1:500

Exhibition Buildings - Aerial View

07|Congress Centre IV

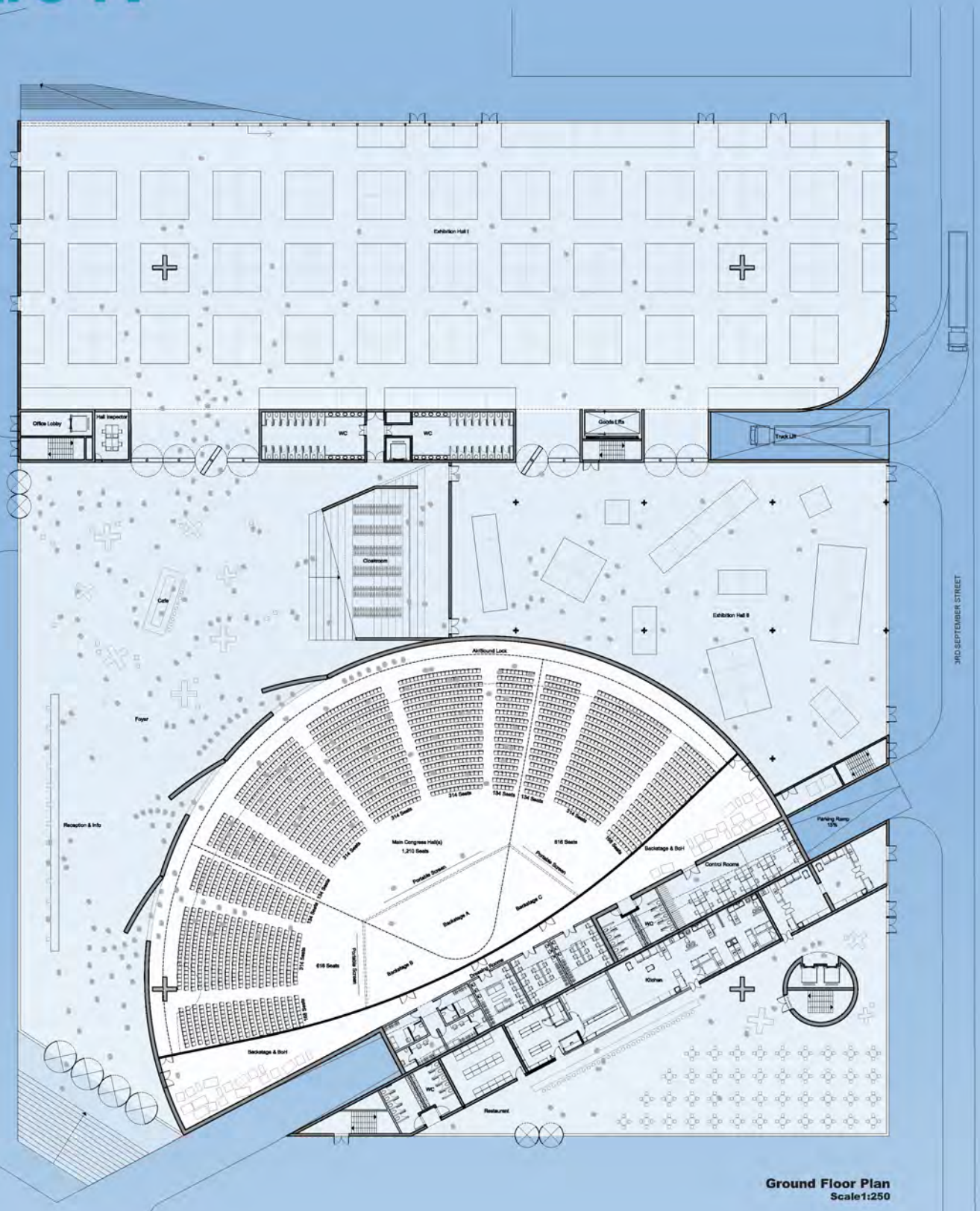
The Congress Center located in Sector IV at the southern part of the site is in proximity to the intersection of 3rd Septemvriou and Stratou avenues.

The Congress center is bordered to the east by the new park of sector V and to the north and west by the new exhibition halls of sector I and II. Further to the east the site overlooks the Archaeological Museum and to the south the Byzantine Museum as well as the green area of the 3rd Army Headquarters forecourt. The expression of the congress hall is simple, minimal and rectilinear, and sympathetically complements the adjacent modernist building of the Archaeological Museum, designed by Patroklos Karantinos. Together with the Byzantine and the Archeological museums, these buildings complete a trilogy, setting up Sector IV as the epicenter of the cultural district.

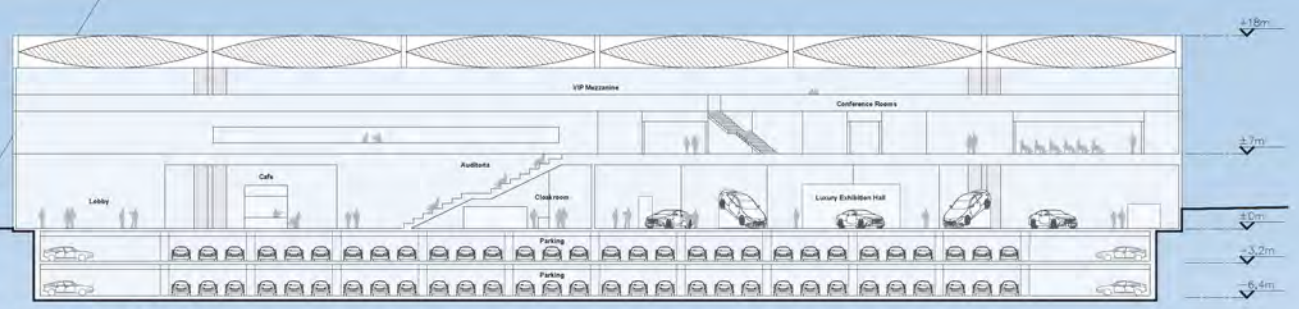
Hébrard's axis connecting Sindrivaniou square with the congress hall extends within the building. The access leads directly to the Foyer of the Congress Hall and divides the floor into 2 programmatic entities. The Event Hall, and the Luxury Exhibition space. A grand stair departing from the main Foyer leads to the 1st floor, where the conference rooms are located.

The intent is to create a unique and attractive multifunctional venue that is able to programmatically complement major events taking place at the Exhibition Center (sectors I and II), while also operating independently with an emphasis on business and science events.

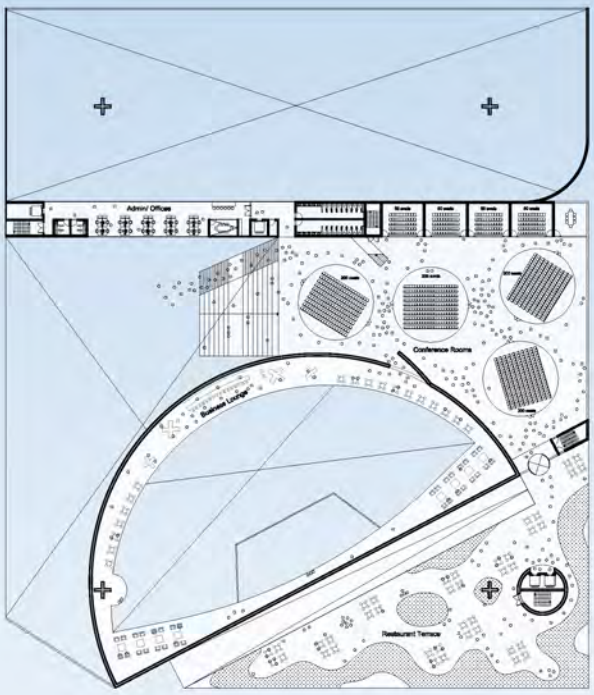
The restaurant with its outdoor roof terrace facing Stratou avenue overviews the Archaeological museum, providing an idyllic panoramic view towards the gulf of Thermaikos and mount Olympus.



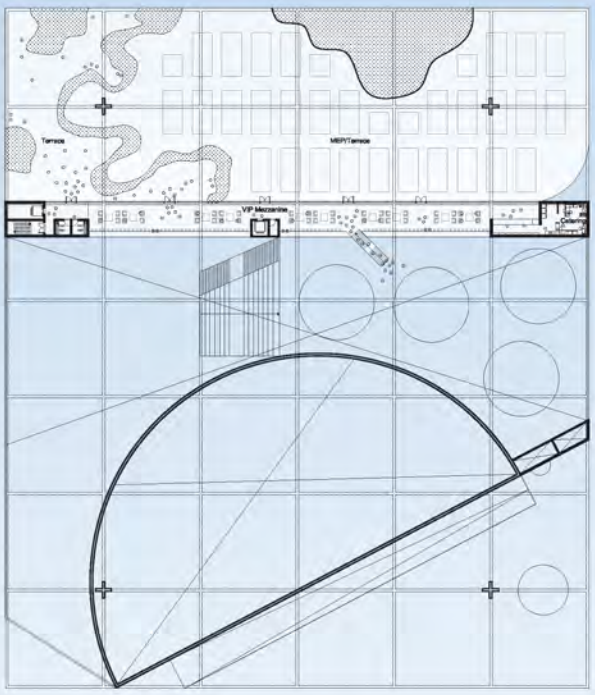
Ground Floor Plan
Scale1:250



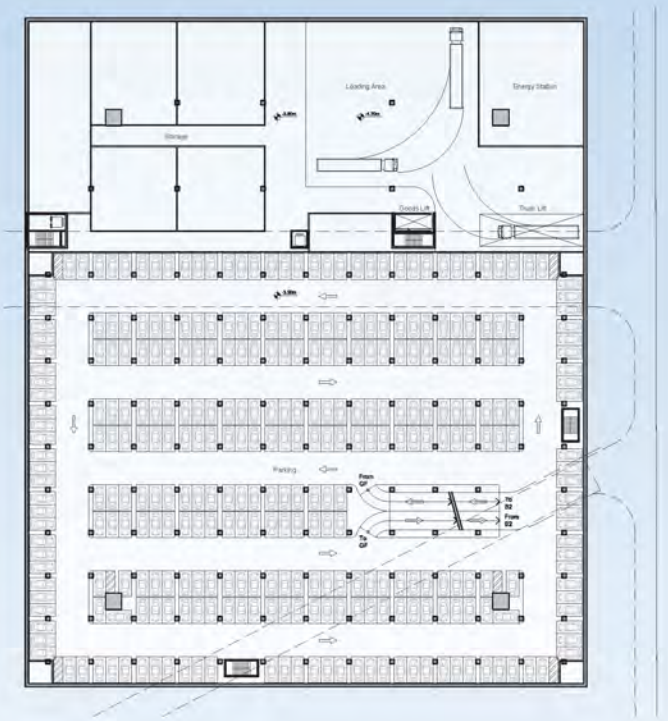
Section along Hebrard's Axis
Scale1:250



1st Floor - Conference Rooms
Scale1:500



VIP Mezzanine
Scale1:500

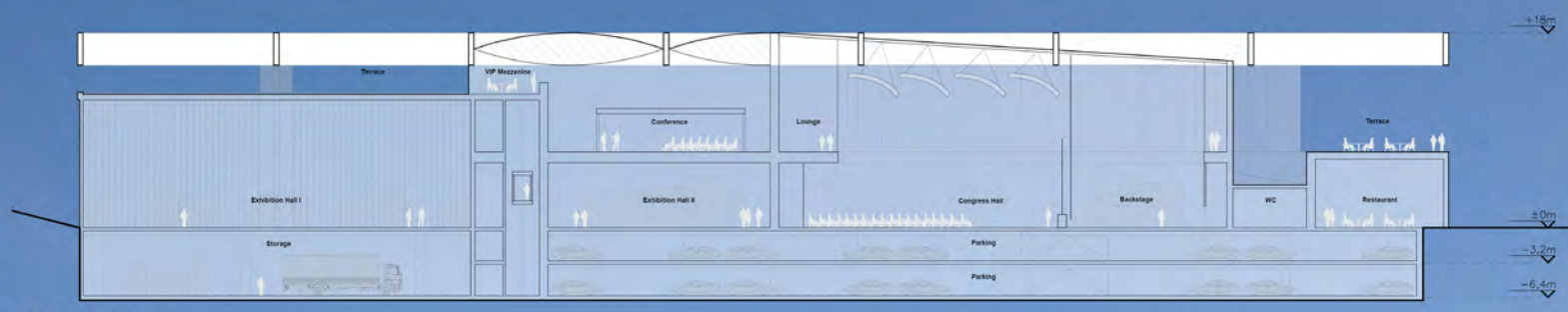


1st Basement - Parking
Scale1:500

08|Congress Centre IV

Special attention is given to the connection of the new Congress Center with the Urban Park of sector V, and the way its relationship with the iconic OTE tower. Between the tower and the multipurpose hall, a new square is proposed that establishes direct access and connectivity to those 2 buildings with the city.

Sector IV, West Elevation facing Stratou Avenue
Scale1:250



Sector IV, Longitudinal Section
Scale1:250

The Museum Garden - Cultural Sector

Congress Centre Foyer- Interior view

09|Business Centre III

The business sector (Sector III) integrates a complementary mix of uses including hotel, leisure and recreation as well as office, retail and events spaces. Sector III is positioned at a sensitive urban site, adjacent to the historic city centre. Here the blocks differ in size, relating typologically to the urban grain of the city as implemented per the 1921 Plan, thus providing a seamless continuation of the urban tissue towards the Exhibition site.

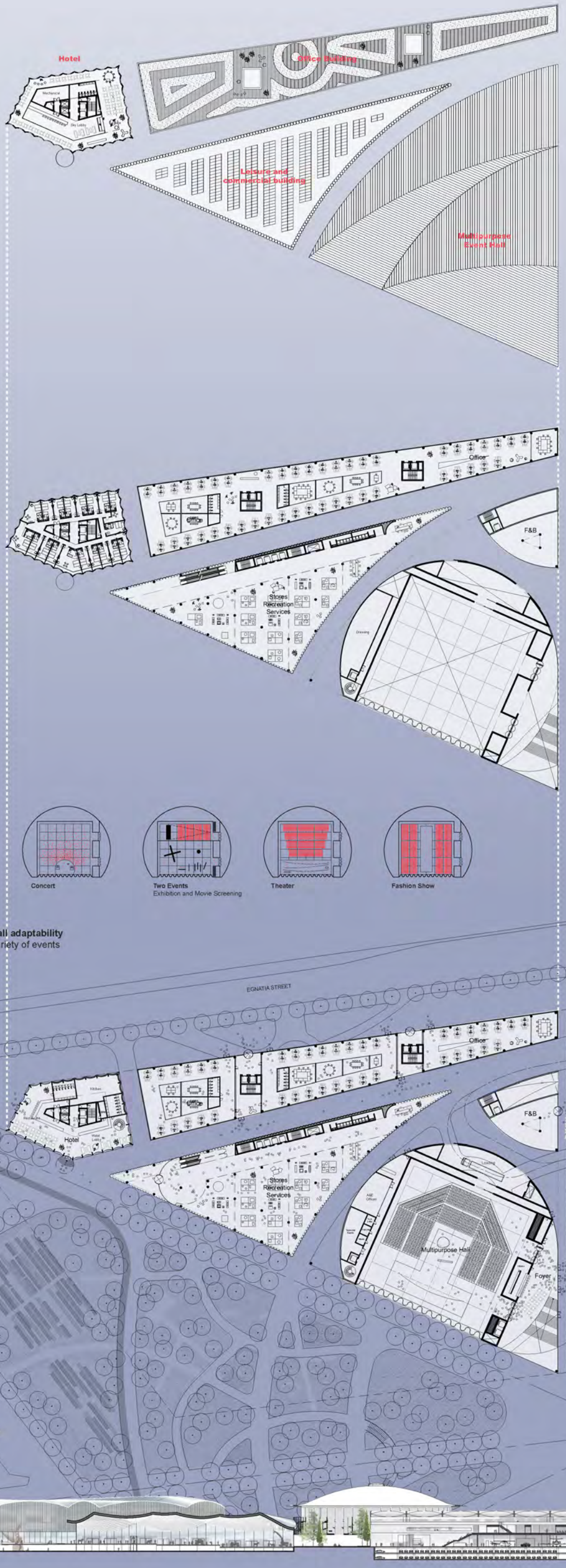
The Business Sector is a prominent building complex that visibly marks the north entrance to the ConfEx Park from a distance, while blending into the built environment as naturally as possible. It is designed as a public and dynamic quarter between city and park, easily accessible by the adjacent Sindivaniou Metro station. The direct connection to the metro via the proposed 'Diagonios Sindrivaniou' axis will improve the pedestrian experience, and enhance the accessibility to the site. This connection facilitates the transition between metro station to Hébrard's Circus, where the entry to the exhibition sector is located.

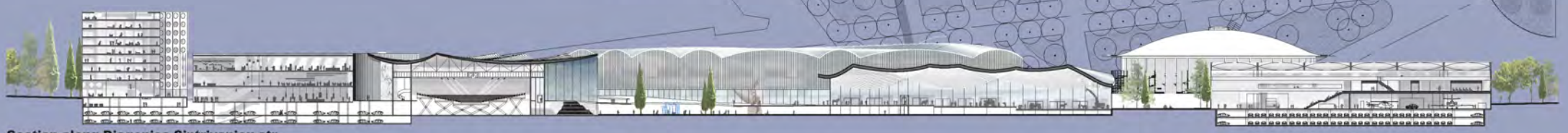
The hotel sitting at Sindrivaniou Square echoes the footprint and height of adjacent city blocks; the office building along Egnatia is paired with the north-west of the university's modernist buildings ; and the Event Hall with it's curved roof enriches the roofscape across the site. The leisure/commercial use unites the diverse buildings of the business sector into a cohesive yet unique urban cluster.

Hotel Rooftop

The Event Hall - Interior

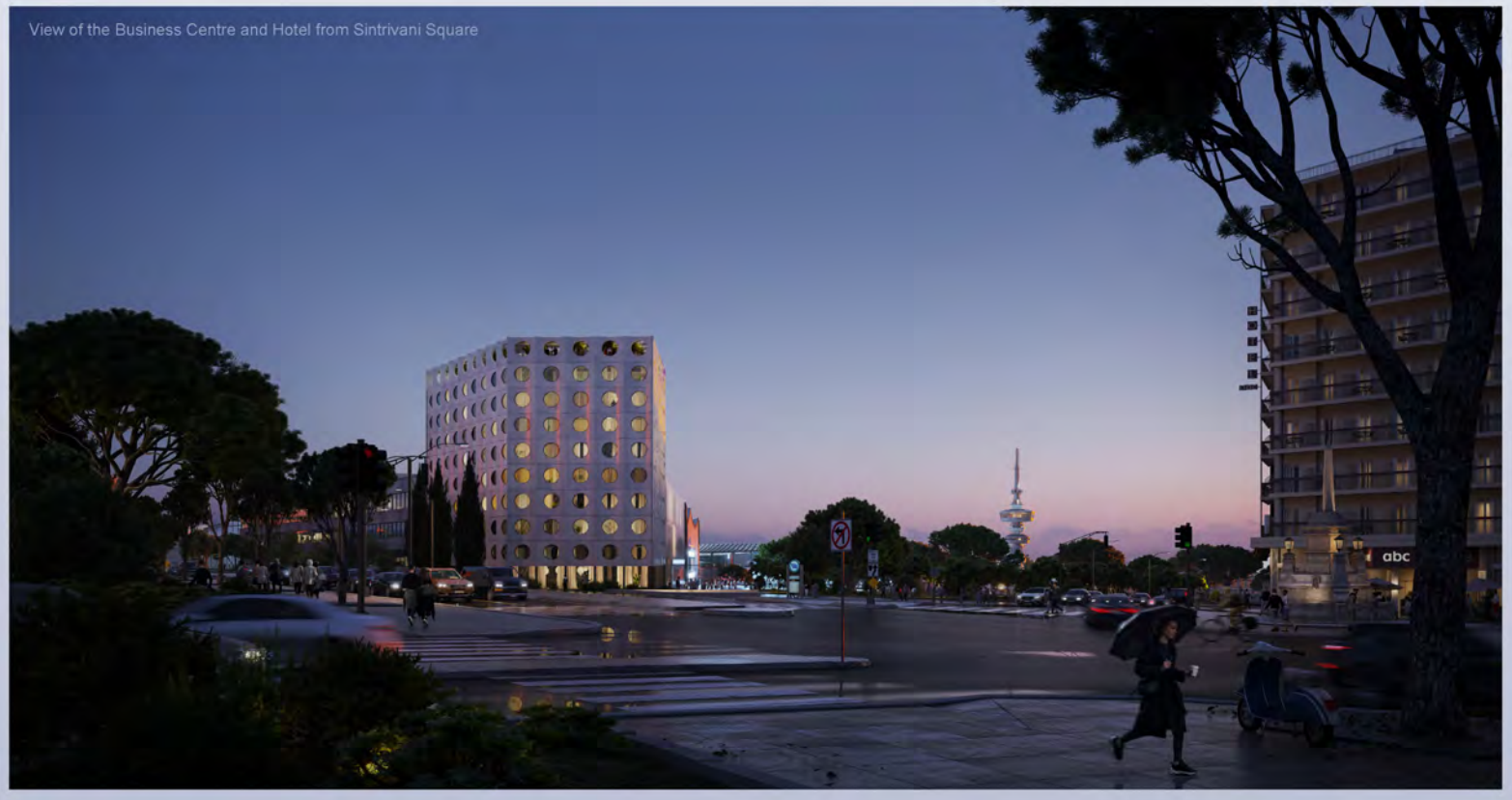
The Park - Business Sector



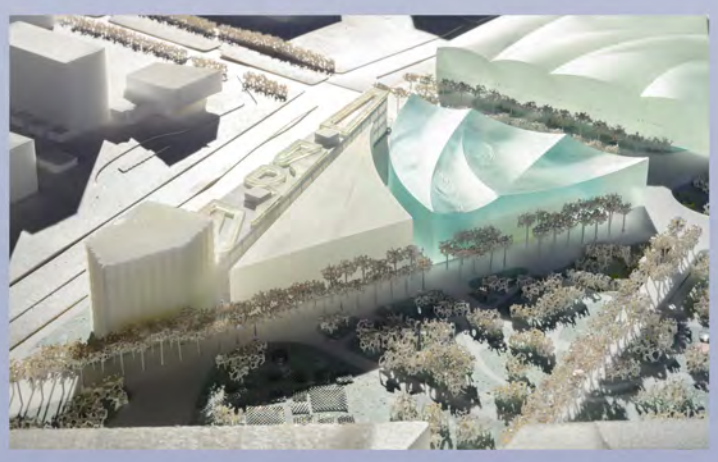


Section along Diagonios Sintrivaniou str.
Scale1:750

10|Business Centre III



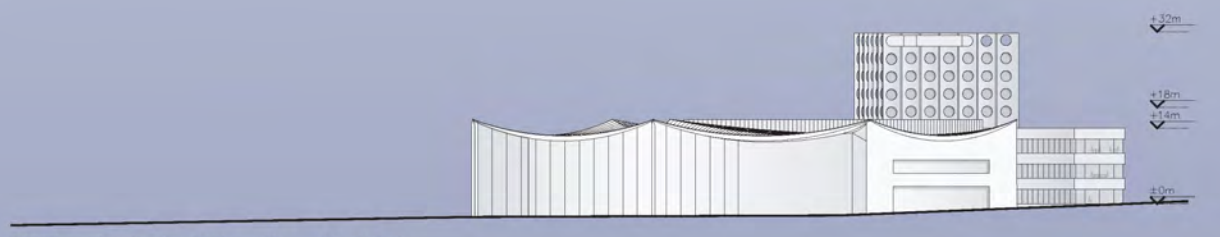
View of the Business Centre and Hotel from Sintrivani Square



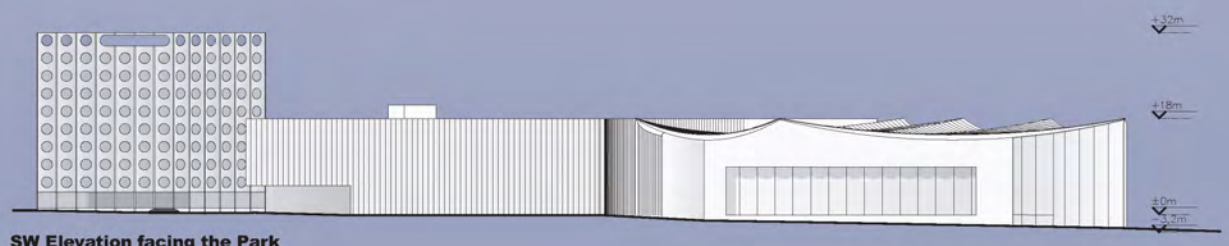
Positioned at the key crossroads at the northern tip of the site, where Egnatia Avenue intersects the junction of Aggelaki and Ethnikis Aminis Streets, the hotel serves as a visual landmark for ConfEx Park within the urban fabric of the city. The massing, orientation and height provide key views towards the Byzantine walls of the Ano Poli at northeast and the Nea Paralia towards Thermaikos at the south.

The design proposals, preserve and highlight the axis view to the roman monument of Rotunda re-establishes the visual connection between the Rotunda, Hébrard's Circus, and the new park to the south.

NE Elevation facing Egnatia Road
Scale1:500



SE Elevation facing Hebrard's vertical Axis
Scale1:500



SW Elevation facing the Park
Scale1:500