

SITE PLAN



The Theatre of Trees

A new radial landscape carves its way through the scheme, implanting a new landmark identity for the expo park, creating vibrant centres of activity to explore.



A Unique Landmark Park for Thessaloniki

Our proposal focuses on providing the city with what it so dearly needs, a new generous public park that serves as an attractor to the expo centre and establishes a new landmark for the city.

Rather than a generic park design, our contextual response looks at the retained heritage structures as anchors in the scheme, creating intersection points from the site's existing axial connections. This not only connects a green corridor from the waterfront and beyond, but expands out from the allotted landscape zones into the wider scheme.

The confluence of these moments is celebrated in a dramatic carved landscape, a topographical, explorable route through theatres of trees: a radial array of landscape. These carved facades offer more public realm back to the visitors and reveal a series of feature cliff moments that allow the exhibition halls within to express themselves in the landscape, as well as create distinct entrances around the AAMTH.

A Holistic Vision that celebrates its Moments

The scheme also looks to maximise the buildable area, creating the largest and most flexible free-spanning exhibition halls possible in a logical manner. These simple volumes allow us to take an economical approach to the design, by focusing our energy on feature moments where they are most memorable, allowing the rest of scheme to be calm and functional where required.

The business hub and congress hall emerge from a holistic vision to create a stronger landmark imprint on the scheme.

The Business Centre has the most dramatic expression in the park, creating a dual identity between the carved landscapes of the Park and a cascading form along Syntrivani Square linked by a new grand arcade to the centre of the scheme. These features allow the programme to benefit from the best views, great daylighting and dynamic street frontage.

The congress hall creates a seamless connection to the approach of the other expo buildings with its main hall jewel emerging like a beacon in the landscape, giving a panoramic impression out to the park and waterfront beyond.

A Public Facing Hub of Activity

The intersections of the site create three distinct hearts in the scheme:

The main green heart that acts as a central gathering space and entrance into the expo park;

The cultural heart that connects some of the heritage buildings with artistic installations and pop up activity;

The expo heart that circles the AAMTH, creating not only an outdoor exhibition space, but a radial promenade connecting the main entrances to each of the halls.

This simple and clear gesture allows our proposal to contain a wealth of diversity that allows for explorable moments throughout the park.

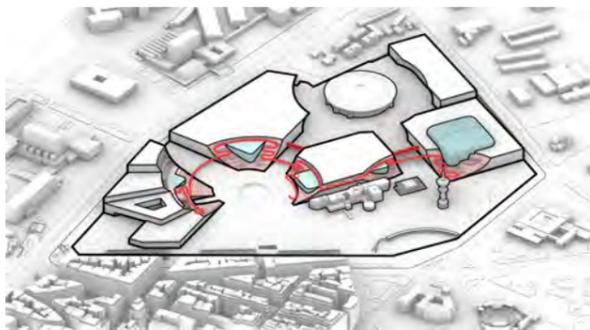
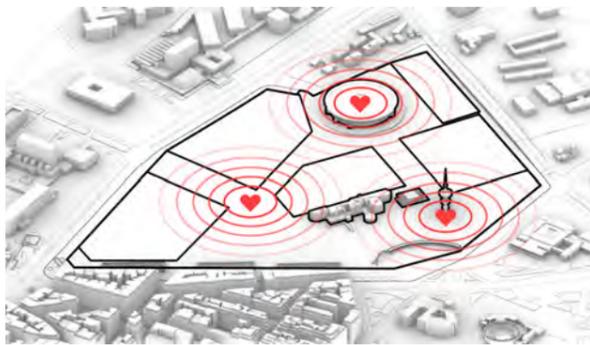
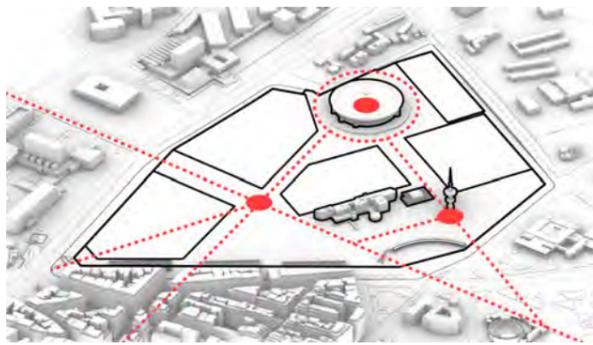
A Link to the Past, A Vision of the Future

Using the existing buildings as anchors, the scheme introduces three main intersection points. These form the base circulation network that echoes key moments of the Hébrard masterplan layered on the city's fabric, as well as creating a clarity between the seemingly scattered placement of the heritage structures and a clear flow through the new plots.

A meandering walkway winds its way through the landscaped terraces to create a winding linear park through the carved façades, leading to raised plazas and viewing decks, acting as a nod to the walks through the city's historic Roman walls.

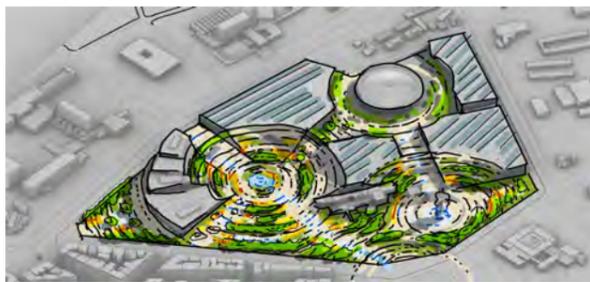
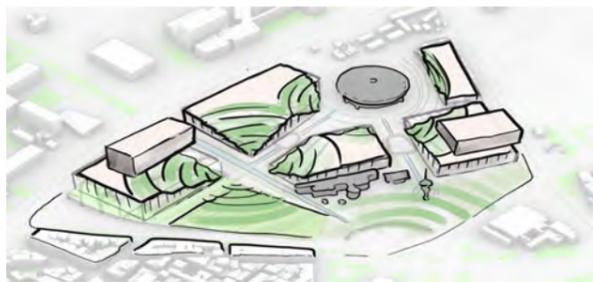
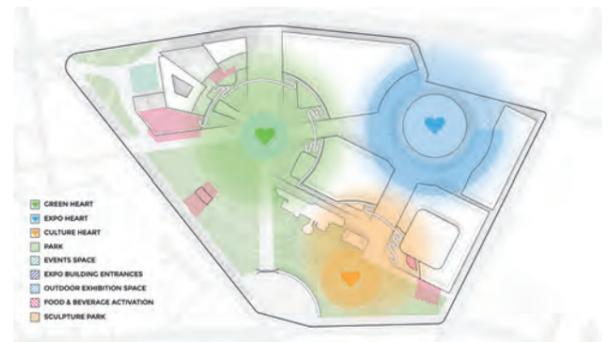
Three Axes, Three Hearts

A clear wayfinding system connects the disparate heritage buildings and new expo centre together in a compelling and contextual manner.



Overall Approach

The proposed design connects the surrounding green spaces and carves back the buildings to create three distinct hearts of activity at the intersections of historical axes between the seafront, the mountain and the city centre. These spaces introduce a generosity of green space, a variety of inspiring public and outdoor expo spaces that provide program flexibility and seamless integration to the city fabric.



The Green Heart

The focal point of the scheme sits at the intersection axes from Alexander the Great Statue and Agia Sofia. Its space is an informal amphitheatre of vegetation that allows people to gather or take a meandering walk through layers of greenery. Cliff moments invite visitors to stop and enjoy the views. A dry water feature emphasises the center of the space, providing a cooling off spot with event programming flexibility.

The Expo Heart

This space unfolds around the modernist landmark of OTE Tower next to the ESSO Pavilion and the Museum of Contemporary Art. It features a radial array of pathways and stopping points for pavilions, sculptures and pop up installations, providing an area of cultural exploration under the shade of trees. It also functions as backdrop of the congress centre and the expo building carve-out stepped landscape that offers views to its centre.

The Cultural Heart

A wayfinding space that hosts outdoor exhibitions. The space benefits from the shade of a lightweight canopy and the overhangs of the expo buildings that frame a circular promenade.

The circular curve that shapes the overhang responds to the AAMTH round geometry. Under the overhangs, the Expo facades feature protruding glass boxes that visually connect interior with exterior and break down the scale.

A Green Transformation

The scheme looks to maximise the impression of the park whilst balancing the needs of the expo area



Landscape types



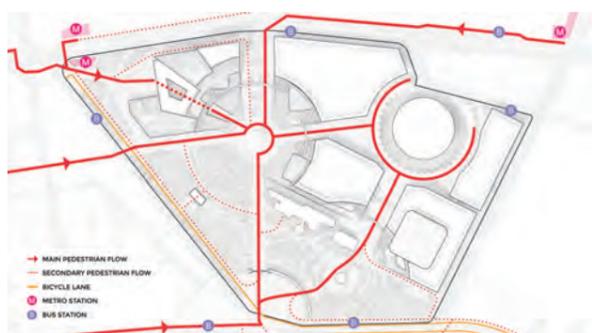
Tree Species



Ground Level Planting



Water Management



Pedestrian and Bicycle Routes



Exhibition Security Strategy

Maximizing green space

Valuable green space has become more important than ever; By pushing the planting areas beyond the designated zones and onto the building carve-out slopes, the scheme maximizes its potential for better and more comfortable outdoor spaces, increased biodiversity and heat absorption in a concrete dominated city. The stepping volume of the business centre offers additional planted terraces that reflect the principle of maximising green space.

Sustainable Planting Design

The planting concept aims to, on the one hand, reduce maintenance, increase biodiversity and create stunning moments and amazing views on the other. High maintenance lawn areas are placed strategically and kept mainly around the green heart to allow for activities and events. These are balanced by large low maintenance areas of beautiful, diverse and native shrubs, grasses and woodland plants.

Rings of Trees

Every Tree is its own small ecosystem and brings advantages like habitat for birds, natural shading or air filtering, but also social, recreational and cognitive benefits to name just a few. Every Tree species brings its own unique set of benefits to the space. Our concentric tree layout creates distinct and unique space to remember and revisit, an informal and natural wayfinding system and a journey through the beauty of Greek nature.

Water Use

The large roof areas are ideal for harvesting large amounts of rainwater which will be stored in underground tanks and can be used for the sustainable irrigation of the extensive landscape features, as well as being treated and being used for toilet flushing. Greywater recovery and treatment will be explored to top up irrigation water levels during dry periods.

To mitigate flooding at the south tip of the park we want to establish rainwater storage ponds seamlessly integrated into the landscape design and the shaded woodland Areas. On rainy days, the surface run off becomes partly visible through open paving channels and rain garden cascades following the natural flow directions. The storage ponds can be used to lower the cost for irrigation and if the water is treated it can also be used to run the interactive water features.

Flexible & Versatile Entrance Strategy

Security has become one of the most important factors for successful and sustainable developments. An increased number of incidents related to terrorism, extremists, bomb threats, vehicle attacks etc. has taken place in such areas over the last decade, posing a threat to the owners, property managers, employees, and customers of those facilities. Suitable and state of the art relevant infrastructure and equipment will be incorporated in the designs, taking advantage of the rapid growth of modern technologies, providing the property management with the necessary tools to utilize and use by implementing relevant procedures.



Small exhibition event



Exhibition events in Expo Buildings



Site-wide exhibition events



Alternative Facade Materiality Studies

Deep Materiality

Using locally sourced materials, the facade system balances a future facing approach with the warmth and tactility of a human centric design.

We endeavour to prioritise the use of locally and sustainably sourced materials and to employ economic and efficient building systems in order to minimise embodied energy. We are aiming to minimise excavation on site and attempt to re-use a maximum amount of soil on site, whilst still retaining a minimal impact on this very important landscape.

Economical & Memorable

The volumes are by and large simple in their form and construction, creating large spanning flexible environments. However, by focusing our energy on feature facade areas, we are able to create more distinctive impressions around the main public plazas that not only gives the buildings their landmark appearance, but seamlessly integrates the architecture into the landscape that surrounds it.

Distinctly modern & human facing

The clean volumes and crisp metal edge detail echo the modernist structures of the site, with current sustainable technology to produce a future facing vision. The buildings are edged by a metal bull nose capping that frames a number of different facade types for each of the building uses, creating a holistic identity that celebrates the scheme's variety, using a mixture of glazed, timber and planted screen systems.

The roof system offsets the outer perimeter cladding with a service trench. The large spanning roofs are created from a lightweight photovoltaic panel system that opens up to allow for north light to enter into the expo halls below.

Thermal Performance

Highly performing building envelopes with regards to insulation will be provided. For glazed areas thermally broken framing using triple or double glazed units will be utilised incorporating high performance neutral solar control coatings and low emissivity coatings. For the solid areas thermally broken framing will also be utilized with high performance non-combustible insulation.

Shading fins will provide additional shading from oblique solar gains though will be strategically located to allow natural light. The design of the fins varies between the various buildings to respond to their orientation and exposure.

Robustness and durability

The envelope systems will be designed to resist the loads and movements imposed by wind and earthquake actions. Glass for will be specified for its appropriate use for example such as overhead, sloped glazing and for barrier loads. Laminated glass will be used to ensure safe post fracture characteristics and enhance occupant safety. Facade materials and their framing will be specified to be durable and highly resistant to the local marine corrosion environment. Using light colours the will reduce thermal expansion and contraction which will help maximise the life of the facade assembly.

Buildability and maintenance

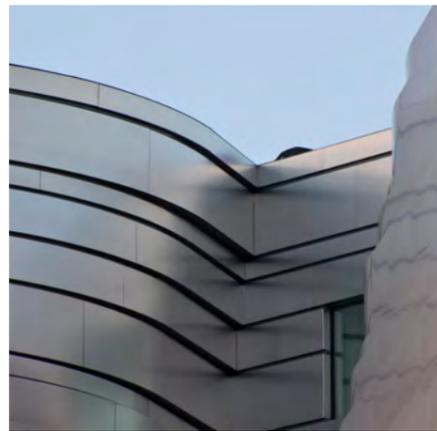
The facade concepts have been developed considering ease of manufacture, installation and construction. The design promotes modularisation and standardisation of the cladding components offering opportunities for prefabrication with minimum material wastage to ensure high quality standards, optimised programme and construction sequence. The systems will be designed allow for ease of access during cleaning procedures and for replacement of failed components. Individual cladding panels will be easily replaced without the need to remove adjacent cladding.



Building Materiality



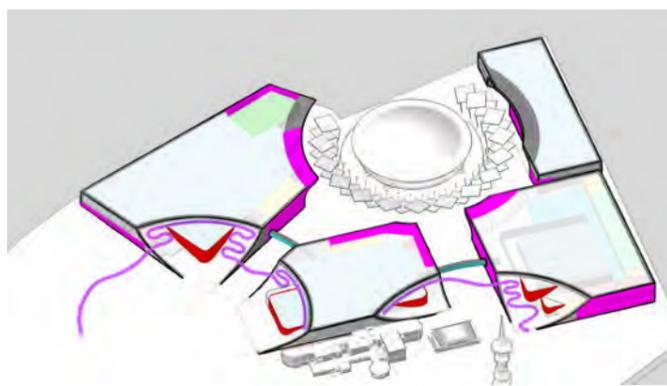
Timber Cladded Facades



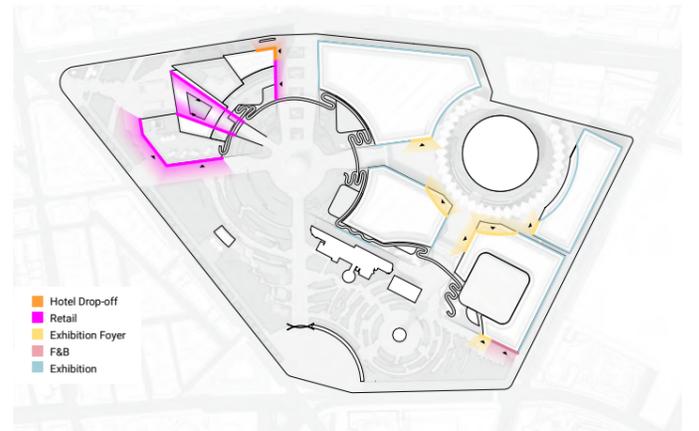
Metal Edging



Roof PV Panels



Active Façade Types Within the Expo Area



Active Façades Diagram



Alternative Facade Materiality Studies

Environmental Strategy & Sustainability

Our human centered approach to the sustainability of the scheme combines experiential qualities with having a strong positive effect on the wider city.

Key Sustainability Features

Key sustainability opportunities for Helexpo include:

- Going beyond regional, national, and global sustainability aspirations to become a global commercial development leader
- Becoming a leader in tracking and minimizing embodied carbon
- Embracing circular economy principles through design, construction and operation
- Focus on health and wellbeing for visitors and staff
- Designing for the creation of a welcoming and comfortable thermal microclimate
- Designing for nature-inspired water and energy performance

Comfortable Environments

The comfort of the visitors and staff at the site is our priority. We will balance good light distribution with solar protection, control temperature and humidity to maximise comfort as appropriate. This will extend to the external areas where we will harness active and passive shading systems in conjunction with green spaces and water features to provide oases of comfort to maximise the use of the site.

We balanced the range of available technologies with a consideration for the Whole Life Cycle cost and operation of the site, and selected the technologies most suitable for the site.

Our analysis shows that, due to the large roof area of the exhibition hall buildings, the integration of Photovoltaic Panels will benefit significantly to the energy performance of Helexpo, for a contribution towards a low carbon operated development.

Energy Strategy

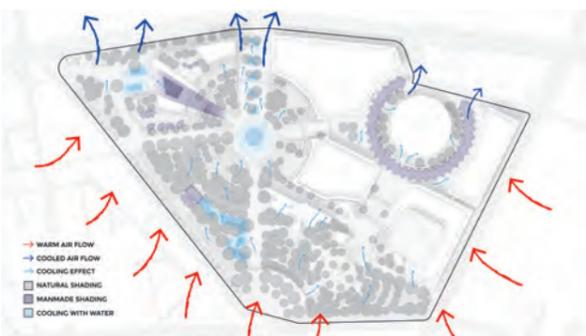
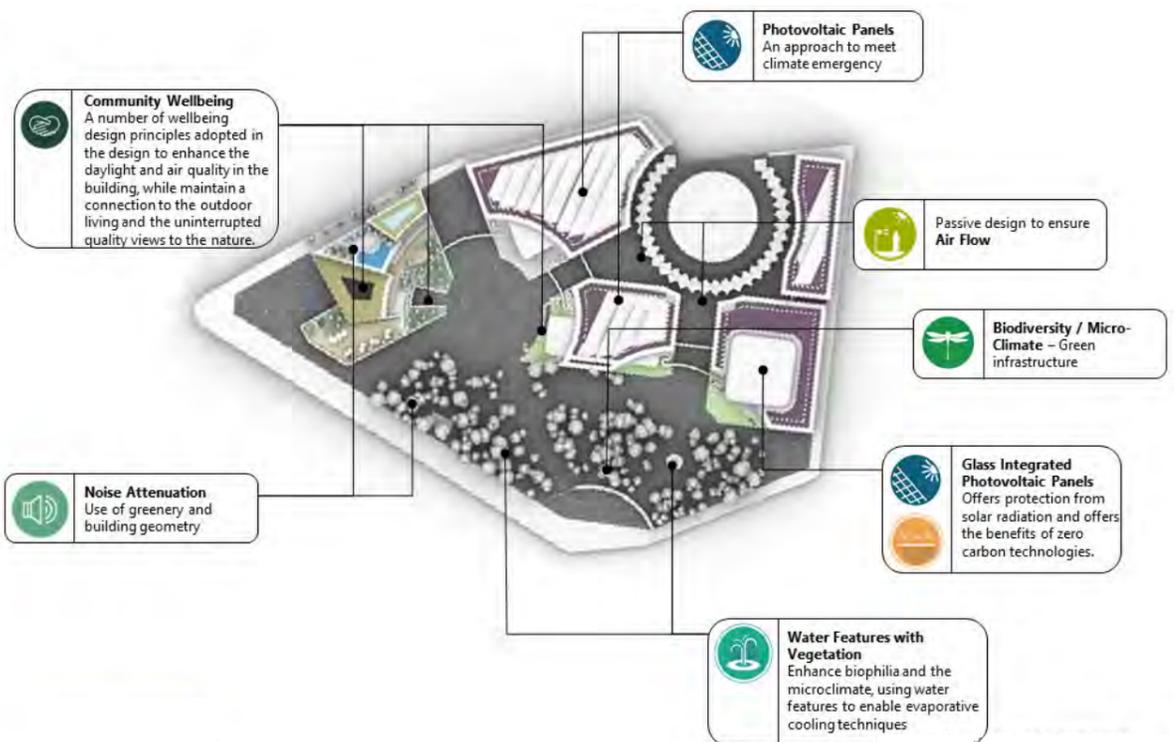
Energy consumption will be minimised by including external shading and thermal mass to limit heat gains into the building combined with a high-performance façade. We will implement the natural resources in our design approach. Installing energy efficient active plant and equipment combined with the use of smart controls systems ensures operational efficiency for the completed project.

Noise Pollution

Acoustic comfort considerations include acoustic insulation, absorptive surfaces, a variety of acoustic conditions in different spaces and ambient noise levels. Optimum background noise levels vary for different space types and activities. The Design Team will ensure during the next design stages that spaces are designed to appropriate industry standards for the relevant space types.

Lighting Pollution

Light will be responsibly used in order to protect the environment, highlight the natural beauty of this region during the hours of darkness and allow the visitor to have a profound connection with nature, religion and culture. In line with local and international standards of recommended luminance levels the proposal will limit obtrusive light to minimise the consequent adverse effects of uncontrolled light in the nocturnal environment and the human health and wellbeing.



Optimal Outdoor Comfort

Our goal is not just to improve the outdoor comfort in the site but being able to have long lasting positive effect on the neighboring districts and to contribute to a better city environment. In our strategy the large tree zone in the west and south absorbs heat from the neighboring districts by cooling it through natural shading and shaded water surfaces. Canopies provide shading in areas with less trees and the water features at the green heart and hotel radiate additional cool air.

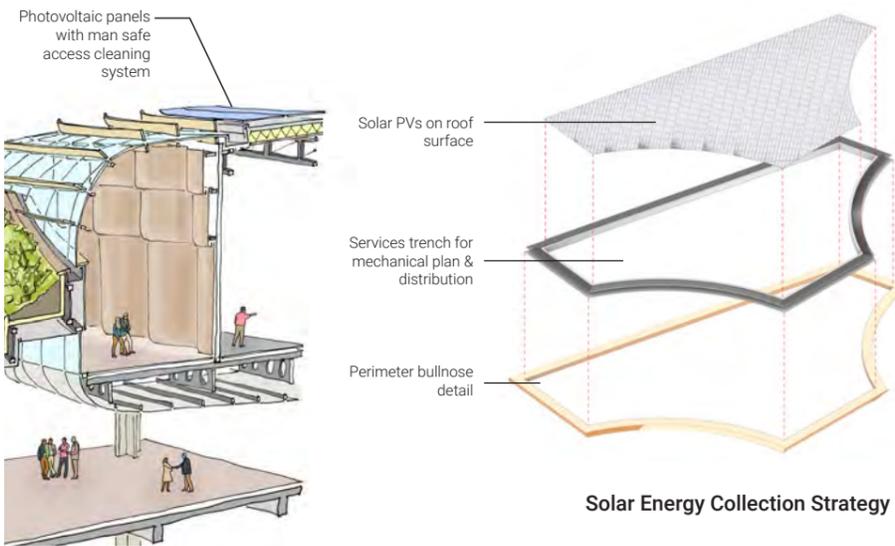
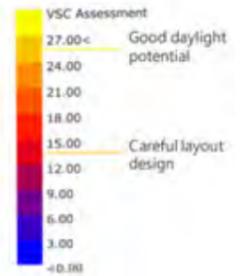
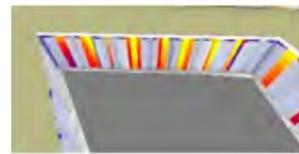
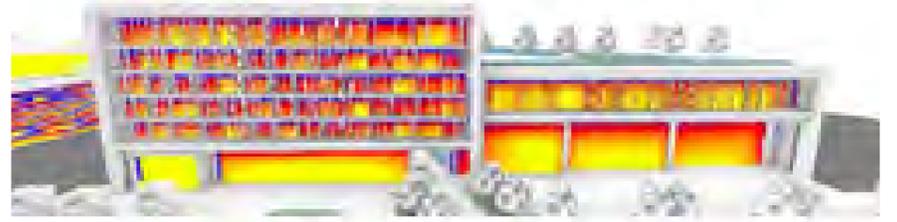
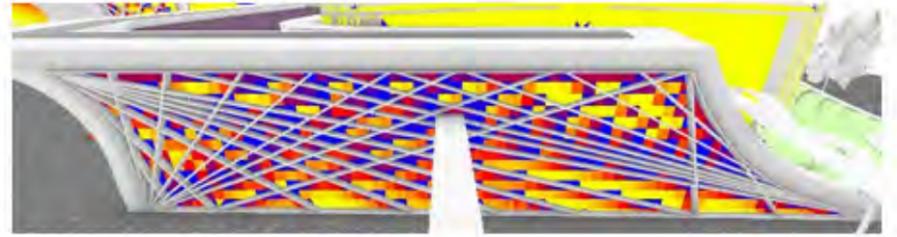
Solar Radiation Analysis

During summer season, the Hotel areas are generally shaded due to the inset nature of the façade and vertical shading towards the south east and west of the façade. The areas behind the south and south-east façades receive a considerable amount of solar radiation. The inset façade help minimising the high angle of solar radiation during most of the day when the sun is high in the sky.

The south east business centre façade are protected by additional vertical shading elements that further reduce the exposure to high levels of solar radiation in particular towards the high levels of the hotel.

The south west facades are sheltered due to the building massing of the exhibition space toward the east and the combination of horizontal and vertical shading.

The North-West and North-East façades are less exposed to direct solar radiation which the vertical shading further reduce the exposure to high radiation levels.



Building Environment Strategy

The proposed Building Environment strategy seek to balance efficiency and capital cost with creating a comfortable and pleasant environment for visitors and staff within the development. The systems will complement the architectural vision for the scheme, sensitive to the special nature of the site and its surroundings.

We investigated a number of technologies available and suitable to the site. However taking into consideration the Whole Life Cycle cost and operation of the site, certain technologies dimmed not suitable for Marina Galleria. Our analysis shows that the integration of Photovoltaic Panels will benefit significant the energy performance of Helexpo, due to the large roof area of the exhibition hall buildings which could integrate PVs, for a contribution towards a low carbon operated development.

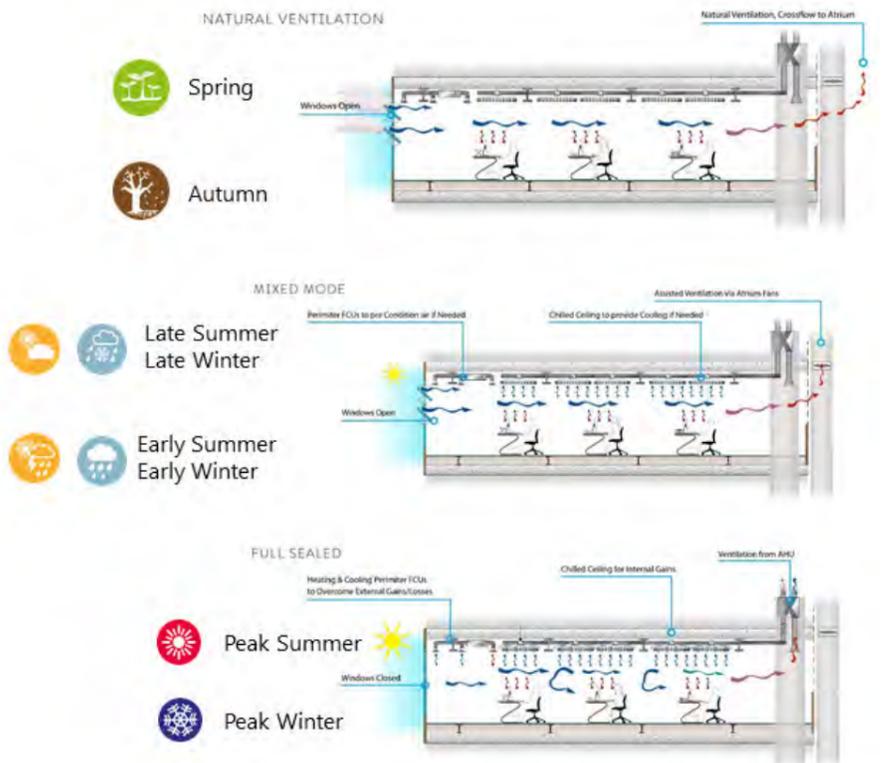
Daylight Study

The Vertical Sky Component (VSC) results for the façades shows that a majority of the glazed areas has good daylight potential with values above 27%. Where the glazing has a deep position in the façade and shading louvers have been added, lower VSC values occur in localised areas.

For areas with a VSC-value above 15%, an adequate amount of daylight can still be achieved with careful layout planning. The glazed areas with VSC values below 15% also have part of the area achieving a higher amount of daylight which suggest the access to daylight can be improved in a similar way.

For the exhibition buildings, the majority of the glazed areas receives VSC levels of 27% or above illustrating a generally good daylight potential.

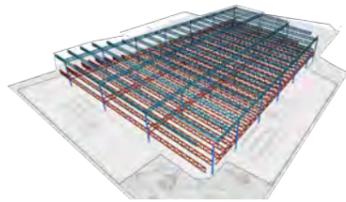
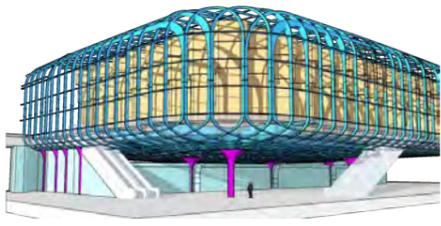
For these buildings added window frames/louvers partially reduce access to daylight in localised areas behind those facades. Further to those areas the glazing areas below inset façades receive levels of VSC below 18%, which is expected based on the deep horizontal shading above.



Office Ventilation Strategy for Energy Economy and COVID Response

Technical - Facade detailing, Structure & MEP

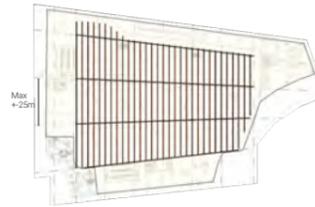
Established construction methods alongside future facing strategies create an innovative but achievable design.



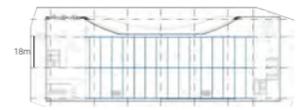
Structure

We are proposing cost efficient regular geometry for majority of building that can be coordinated with carve-out geometry and can achieve up to 25m column-free spans. The Congress Hall roof could be developed

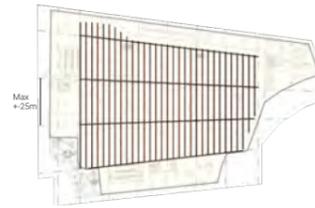
to work as either a cable truss system or quadrilateral gridshell minimising structural depth &/or material. Alternately 2-way beam/truss solutions could apply. The girders will be 'hidden' within floor/behind façade envelope.



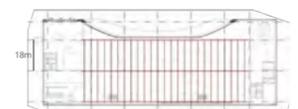
I1 1st Roof Plan



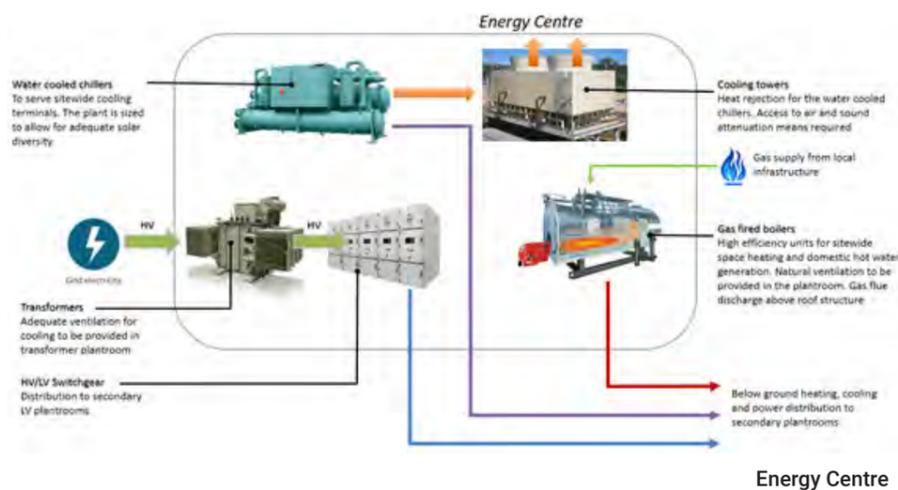
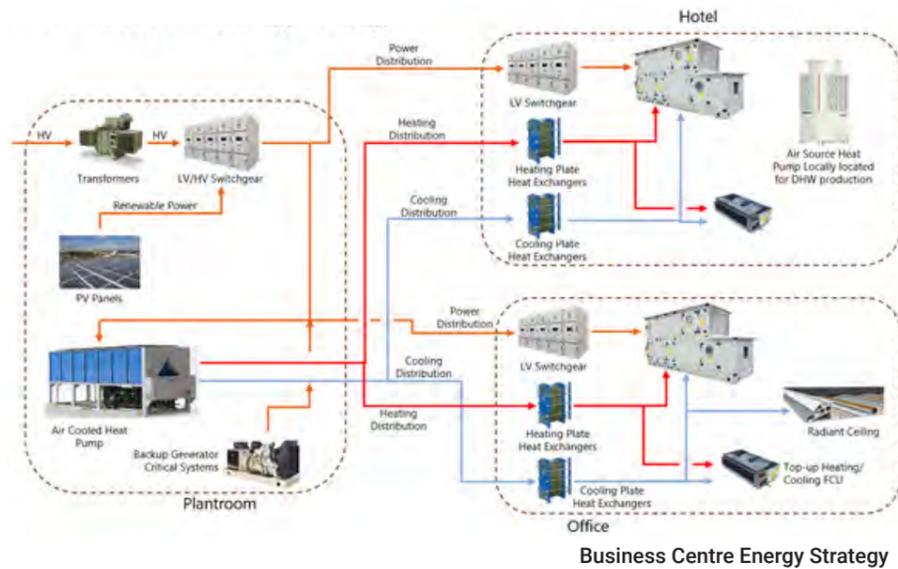
I2 Roof Plan



I1 1st Floor Plan



I2 1st Floor Plan



Building MEP

The proposed MEP systems seek to balance efficiency and capital cost with creating a comfortable and pleasant environment for the visitors and staff within the Helexpo site and buildings. The systems will complement the architectural vision for the scheme, sensitive to the sustainability aspirations of the development.

We have proposed a combination of centralised and decentralised plant to achieve a scale-able, flexible and affordable MEP solution. Centralising chilled water and heat generation allows advantage to be taken of the diversity of uses across the site. Decentralising ventilation allows the flexibility to respond to each operational use and the differing time-schedules for each space. This also simplifies services distribution keeping large ductwork in local areas.

As well as flexibility, our strategy considers resilience. We provide redundancy within systems and back-up power generation to key systems on the site.

The cooling and heating strategy aims to achieve a high-level of thermal comfort in all the areas within the buildings.

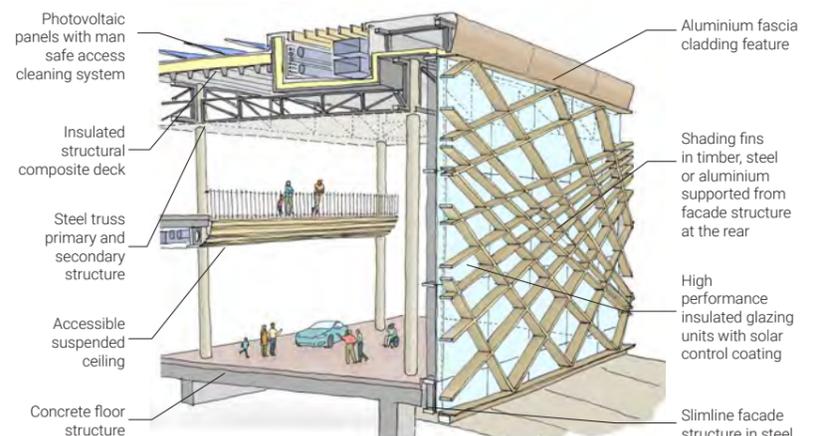
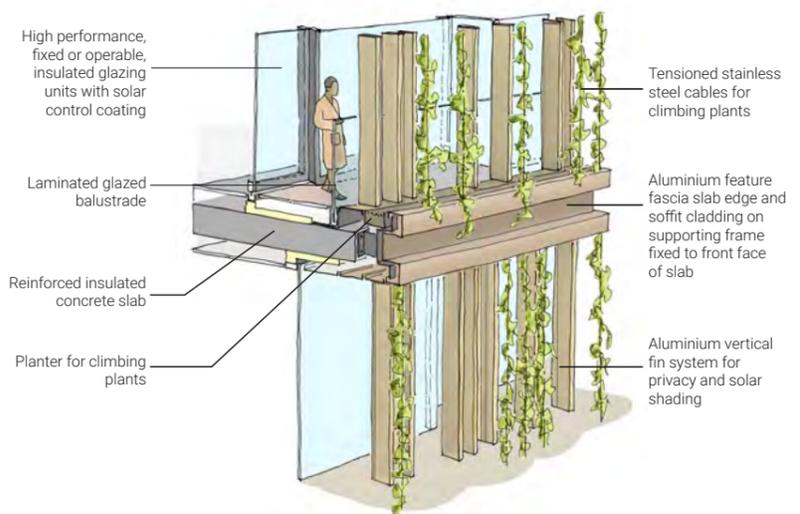
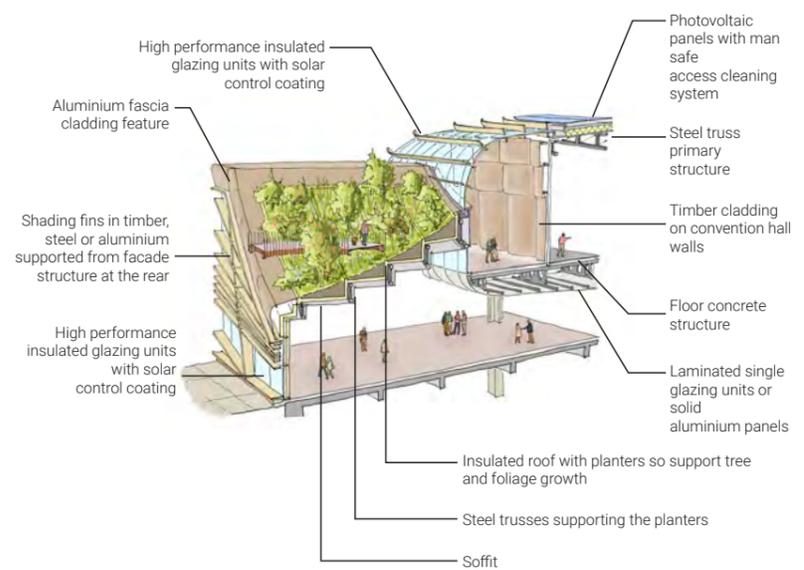
The cooling and heating strategy starts from a passive approach. The architectural scheme incorporates extensive shading to reduce the intense solar gain to the external envelope. This combined with carefully configured envelope help to minimise the cooling and heating demands whilst maintaining comfort within each of the occupied spaces.

A chilled water and heating circuit will run around the site at basement level connecting the main load centres with air-cooled chillers and boilers located in a sub-merged, partially covered plant area adjacent to the road.

For the Business Centre due to the multiple tenants and for the continuous demand for heating and cooling, a centralised air source heat pump system has been proposed. The systems will offer the flexibility required by the different users, but also aim to the reduction of energy operational footprint.

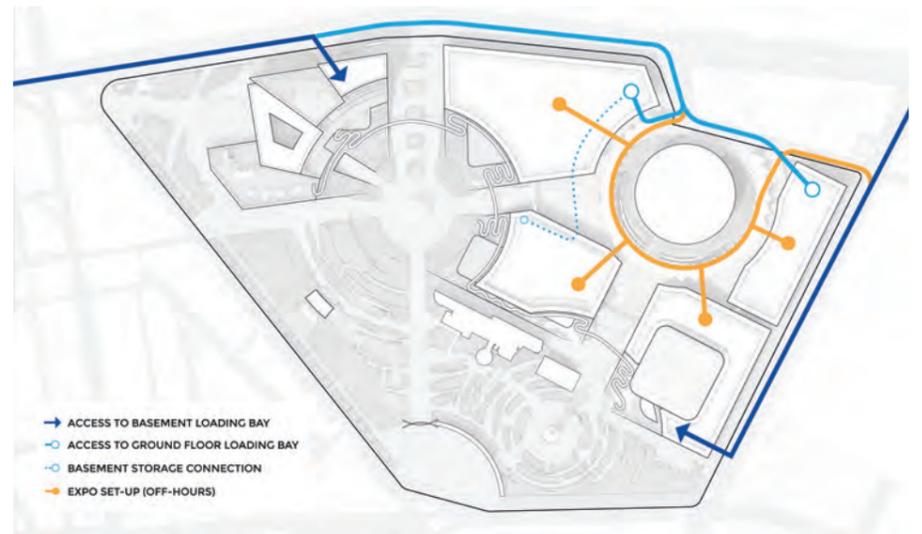
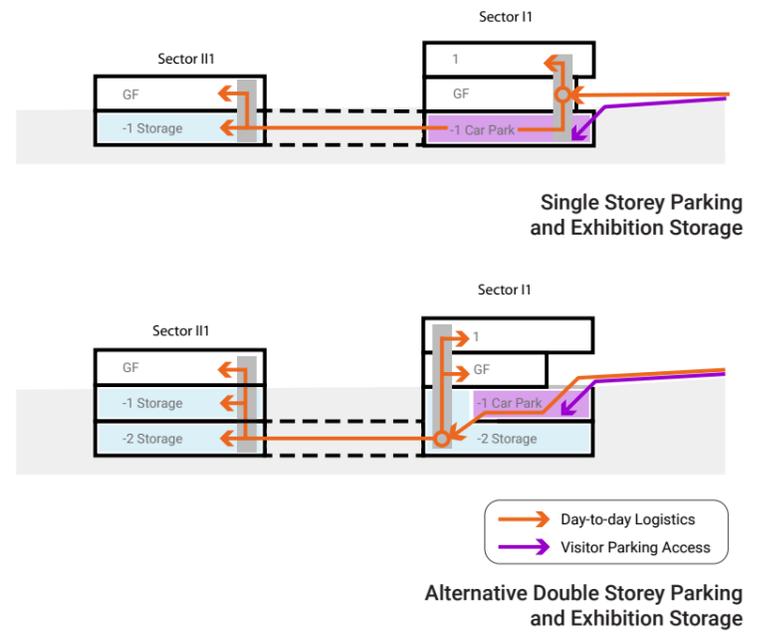
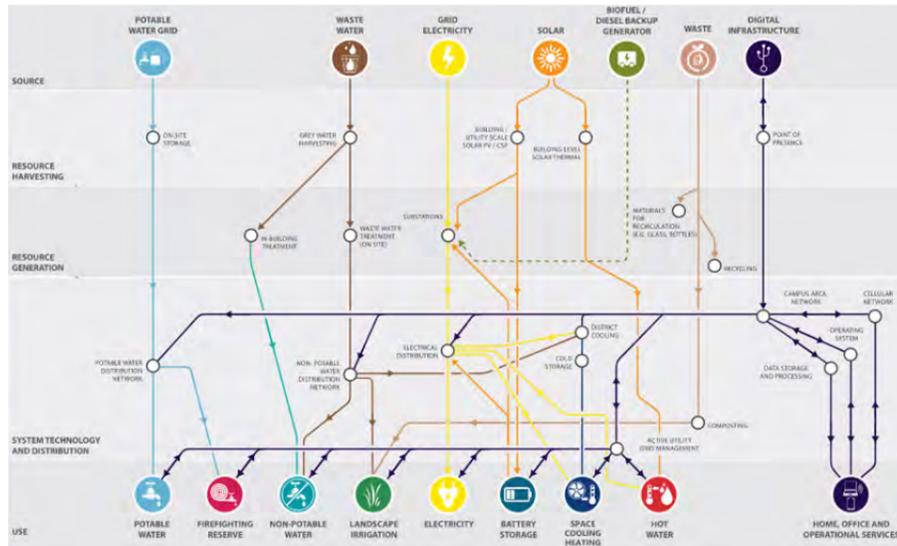
Our building services strategy aims to maintain a calm and comfortable environment for working, maximising the passive performance of the building structure and envelope and carefully choosing active systems suitable for the space.

Facades



Project Economy & Logistics

With practicality, flexibility and affordability in mind, the scheme focuses its energies where it matters to produce an iconic design.



Project Economy

The conceptual design has been fine-tuned and optimized in many ways such as special spatial programming, gross to net ratios, proposed openings, selection of materials, open spaces, landscape elements etc. without compromising the anticipated quality. With reference to the environmental factor and consequently the sustainability of the development, our proposed methodology and approach is cost efficient not only for the construction phase but also during the operation. In conclusion we do consider that our design is feasible and can be implemented within the proposed construction budget. The overall design has been significantly optimized to achieve the maximum economy in terms of construction cost. A low to fair budget has been targeted despite the numerous project constraints.

dwelling time and driving circulations, while strengthening key parts of site's visitors experience. Our digital design intend is based on the human experience, structuring how different digital layers and different digital approaches within the development can create a unique ecosystem that is modular and expandable by centralizing data and experience, while providing new tools for improving how the visitors journey will influence operational approaches. Digital placemaking will closely follow the development purposes, while also engaging the destination experience in long term. Unmissable futures, landmarks of activation, flexible platforms, pop ups, dynamic identity elements & well design wayfinding strategies will celebrate the unique spirit and context of the site reinforcing our projects narrative.

Adherence to Project Budget

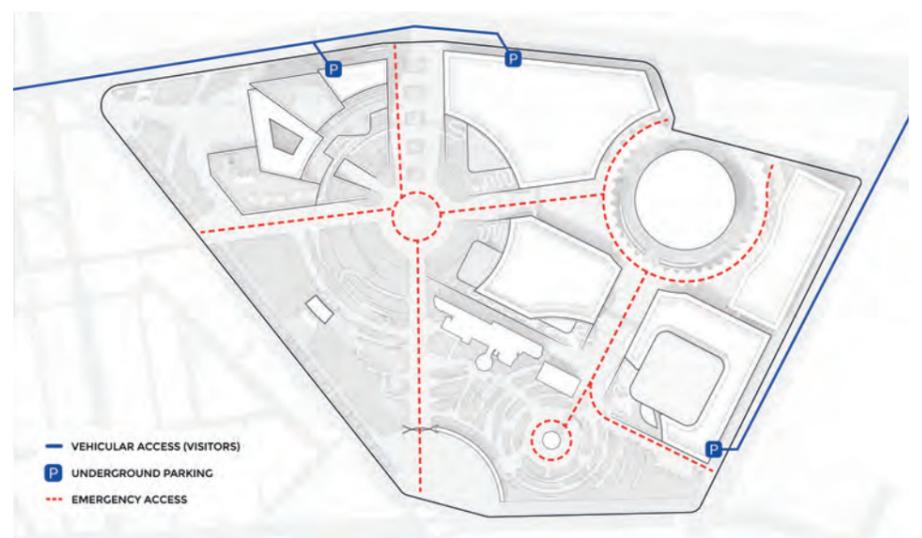
Our scheme takes an economical strategy, focusing on simple volumes and established construction techniques, but placing quality and "specialness" in key moments that attract the most attention. In this manner we are able to respond to the briefs three key tenets: balancing the project's needs of flexible architecture that the expo programme requires ensuring the large scheme is affordable, whilst producing a landmark design.

Safety & Health

Our proposal will incorporate in the design many relevant modern technologies and equipment but also the valuable design team experience gained throughout the operation of similar big-scale facilities. New technologies will be used, while the smart system installed will be of utmost importance both during daily ordinary operation but also during incidents evolution, providing guidance to the operation staff and performing automatic safety actions, in order to minimize the chance of human mistakes, and thus guaranteeing and safeguard operations.

Digital Strategy

The Theatre of Trees digital strategy aims to define and structure a series of different approaches for attracting visitors, increasing



Logistics and vehicular access

The logistics strategy has been shaped to minimize circulation within the site. For exhibition loading and unloading, all expo buildings are directly serviced from a proposed "ring road" around the Expo heart. The ring road entry and exit points are through the Lampraki street, away from the busy main roads, to allow the trucks to manoeuvre with safety. Additional vehicular access to the loading bays for day-to-day logistics are proposed at Egnatia and 3is Septemvriou streets to allow for maximum

logistics flexibility. For visitor access, three underground parking spaces are proposed on site; an independent parking for the hotel, one for the Congress Centre and a general one for the expo. For emergency purposes, we have strategically placed the paving as to allow the emergency vehicles to reach all the areas of the site.

Space Program & Area Schedule

The scheme has been optimised to achieve maximum economy combining spatial efficiency with cost efficient material, construction, operation and maintenance solutions.

The concept design has been developed to achieve optimal spatial programming, gross to net ratios, proposed openings, selection of materials, open spaces, landscape elements etc without compromising the anticipated quality .

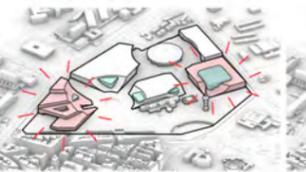
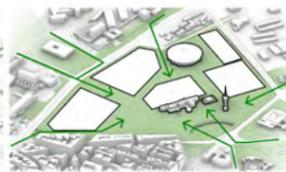
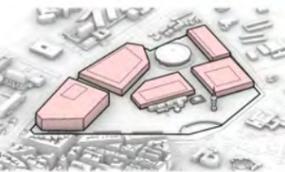
With reference to the environmental factor and consequently the sustainability of the development, our proposed methodology and approach is cost efficient not only for the construction phase but also during the operation.

In conclusion we do consider that our design is feasible and can be implemented within the proposed construction budget.

No	Description	SECTORS I & II Plot Area (I) = 39.397,11 m ² Plot Area (II) = 16.339,68 m ²			SECTOR III Plot Area = 20.034,00 m ²		SECTOR IV Plot Area = 13.971,22 m ²		SECTOR V Plot Area = 58.900,71 m ²		TOTAL Plot Area = 161.769,04 m ²	
		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 (m ²)	40500	8000	max 48.500	26.700	max 26.750	16.485	max 16.500	242,45	max 250		max 92.000 excl. preserved bldgs
A2	Below Ground Parking use GFA (m ²)	16.120	0	-	24.870	-	15100	-	0	-	-	-
A3	Below Ground other Aux uses GFA (m ²)	6.580	10.112	-	5200	-	2.500	-	0	-	-	-
A4	Net Floor Area NFA (m ²)	33800	6200	-	22250	-	13750	-	0	-	-	-
A5	Building Coverage ratio (%) & Area (m ²)	(63%) 24980	(70%) 11515	-	(60%) 12015	max 60% - 12.020,40	(98%) 13770	-	0	-	-	max 45% - 64.000 excl. AAMTH – pres.bldgs
A6	Gross Volume above Ground (m ³)	363765	114160	-	204345	-	166645	-	0	-	-	-
A7	Foundations Footprint (m ²)	29975	13820	-	19960	-	16525	-	-	-	-	-
A8	Façade (m ²)	15000	4095	-	10890	-	6255	-	45,30	-	-	-
A9	Exterior Openings (m ²)	355	50	-	220	-	210	-	23,50	-	-	-
A10	Accessible Roof surface (m ²)	3200	3640	-	12025	-	1921	-	0	-	-	-
A11	Inaccessible Roof surface (m ²)	15400	8200	-	1400	-	11700	-	242,45	-	-	-
A12	Green Roof surface (m ²)	3465	4355	-	9.176	-	2560	-	242,45	-	-	-
A13	Balconies / Open Covered Areas (m ²)	2.245	440	-	2.985,8	Hotel: max 40% of GFA	310	-	0	-	-	-
B. Programme Area												
B1	Exhibition Center Area (m ²)	36350	10600	47.000	-	-	-	-	-	-	-	-
B2	Administration Offices Area (m ²)	1250	250	1.500	-	-	-	-	-	-	-	-
B3	Hotel (m ²)	-	-	-	10.850	7.250	-	-	-	-	-	-
B4	Commercial Complex / Retail-Recreation (m ²)	-	-	-	9.800	9.000	-	-	-	-	-	-
B5	Commercial Complex / Offices (m ²)	-	-	-	6.980	7.000	-	-	-	-	-	-
B6	Multi-purpose Hall (m ²)	-	-	-	3.442	3.500	-	-	-	-	-	-
B7	Conference Center Area (m ²)	-	-	-	-	-	10.462	10.500	-	-	-	-
B8	Luxury Exhibition Hall Area (m ²)	-	-	-	-	-	6.020	6.000	-	-	-	-
B9	Cafeteria (m ²)	-	-	-	-	-	-	-	242,45	250	-	-
B10	Underground Parking Area (m ²)	16.120	0	12.500	24.870	25.000	15.100	15.000	-	-	-	-
B11	Underground Storage Area (m ²)	0	17.500	12.000	3.520,24	3.500	2.500	2.000	-	-	-	-
C. Open Areas												
C1	Provide Area of Roadways (m ²)	-	-	-	-	-	-	-	1.400	-	-	-
C2	Provide Area of Pedestrian Pathways (m ²)	-	-	-	-	-	-	-	18.977	-	-	-
C3	Provide Area of other Hardscape (m ²)	-	-	-	-	-	-	-	0	-	-	-
C4	Provide Area of green Landscape without underground buildings (m ²)	-	-	-	-	-	-	-	24.104,5	-	-	-
C5	Provide Area of green Landscape over underground buildings (m ²)	-	-	-	-	-	-	-	0	-	-	-
C6	Provide Area of other Landscape (m ²)	-	-	-	-	-	-	-	242,45	-	-	-
C7	Provide Area of Water Features (m ²)	-	-	-	-	-	-	-	1.795	-	-	-
C8	Provide Area of other structures (m ²)	-	-	-	-	-	-	-	0	-	-	-

The Theatre of Trees

The new Expo Centre offers Thessaloniki a new green heart that celebrates Greek nature and embraces the culture and history of the city. A new radial array of trees and park landscape carves its way through the exhibition halls and surrounding functions binding them to the heritage structures with landscape. This grand gesture populates the scheme with a variety of intimate moments to explore. Theatres of trees and provide centres for activity creating a unique landmark and more human scale experience to the expo park.



Extrude the maximum buildable area
The scheme looks to maximise the buildable area, creating the largest and most flexible free-spanning exhibition halls possible in an logical manner. These simple volumes allow us to take an economical approach to the design, by focusing our energy on feature moments where they are most memorable, allowing the rest of scheme to be calm and functional where required.

Create the maximum impression of park
At the same time the scheme attempts to create the largest amount of public park space possible. This not only connects a green corridor from the waterfront and beyond, but expands out from the allotted landscape zones into the wider scheme.

A clear network through old and new
Using the existing buildings as anchors the scheme introduces three main intersection points. These form the base circulation network that echoes an original masterplan for the city as well as creating a clarity between the seemingly scattered placement of the heritage structures and a clear flow through the new plots.

A public hub of activity
These intersections create three distinct hearts to the scheme, from the main green heart that acts as a central gathering space and entrance into the expo park, to the cultural heart that connects some of the heritage buildings with artistic installations and pop up activity, to the expo heart that circles the AAMTH, creating not only an outdoor exhibition space, but a radial promenade connecting the main entrances to each of the halls.

Carve out volumes to create slopes and cliffs
The three hearts create an exciting moment where the expo meets the park landscape. This carves a radial imprint across the scheme that creates a landmark park and a strong visual coherence within the scheme and with the heritage structures. These spaces reveal a series of feature cliff moments that allow the exhibition halls within to express themselves in the landscape, as well as create distinct entrances around the AAMTH.

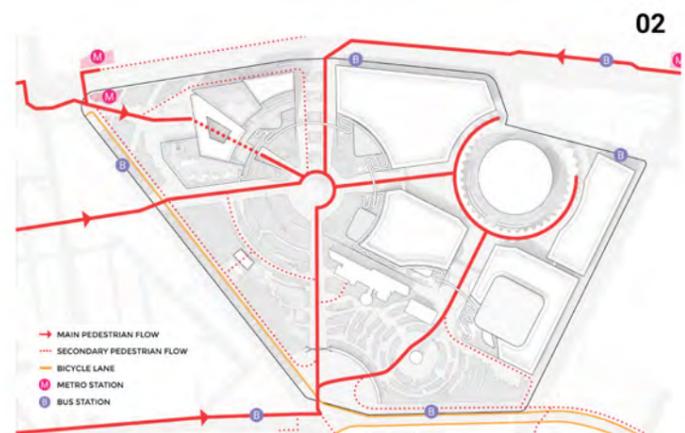
Celebrate the hero buildings
The business hub and congress hall emerge from the holistic vision to create a stronger landmark imprint on the scheme. The former creates a contextual and sensitive relationship to Syntagma square, whilst creating a strong impression and great views over the landscape. The latter exposes the main congress hall as a jewel in the landscape, creating a panoramic experience from within.

Introduce connective paths that link the carve-outs
A meandering walkway winds its way through the landscaped terraces to create a winding linear park through the carved facades leading to raised plazas, viewing decks that is a nod to the walks through the city's historic Roman walls.



Three Axes Three Hearts

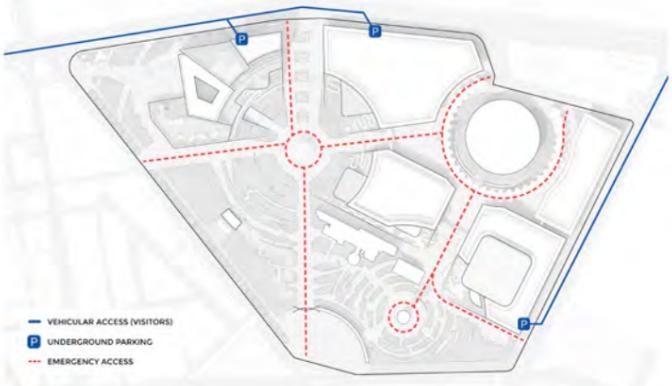
The proposed design connects the surrounding green spaces and carves back the buildings to create three distinct hearts of activity at the intersections of historical axes between the seafront, the mountain and the city centre. These spaces introduce a generosity of green space, a variety of inspiring public and outdoor expo spaces that provide program flexibility and seamless integration to the city fabric. A clear logistics and security strategy are integrated into the public realm design in a seamless manner to create the impression of promoting a public space first, whilst acknowledging the functional requirements of the expo centre.



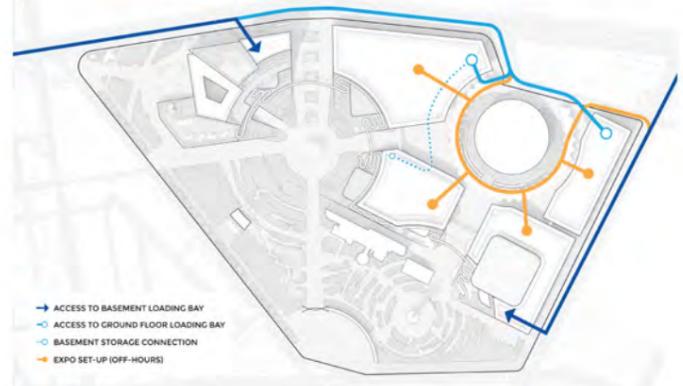
Programme

Pedestrian and Bicycle Routes





Vehicular Access



Logistics



Security



Overall Ground Level Plan_1:500

A Green Transformation

The scheme balances the needs of the expo with the city's desire for a grand new public space. The three hearts are flanked by a wealth of park space, creating a variety of experiences, connected through a winding an elevated accessible walkway. This allows visitors take a shaded journey through the beauty of Greek nature, affording views into the park and beyond, as well as bringing the public closer to the exhibition and cultural spaces within.



The Green Heart

The focal point of the scheme sits at the intersection axes from Alexander the Great Statue and Agia Sofia. Its space is an informal amphitheatre with low planting and trees on the slopes that allows people to gather or take a meandering walk through layers of greenery. Cliff moments invite visitors to stop and enjoy the views. A dry water feature emphasises the centre of the space, providing a cooling off spot with event programming flexibility. The generosity of space has the capacity to transform into a large amphitheatre like environment, using the focal point as its centre stage.



The Cultural Heart

This space unfolds around the modernist landmark of OTE Tower next to the ESSO Pavilion and the Museum of Contemporary Art. It features a radial array of pathways and stopping points for pavilions, sculptures and pop up installations, providing an area of cultural exploration under the shade of trees. It also functions as backdrop of the congress centre and the expo building curve-out stepped landscape that offers generous views to its centre.



The Expo Heart

The Expo Heart functions as a wayfinding space that hosts outdoor exhibitions. The space benefits from the shade of a lightweight canopy and the overhangs of the expo buildings that frame together a circular promenade. The circular curve that shapes the overhang responds to the AAMTH round geometry. Under the overhangs, the Expo façades feature protruding glass boxes that visually connect interior with exterior and break down the scale.



Landscape Considerations



Maximizing green space
Valuable green space has become more important than ever. By pushing the planting areas beyond the designated zones and onto the building curve-out slopes, the scheme maximizes its potential for better and more comfortable outdoor spaces, increased biodiversity and heat absorption. The stepping volume of the business centre offers additional planted terraces that reflect the principle of maximizing green space.

Sustainable Planting Design
The planting concept aims at, on one hand reducing maintenance and increasing biodiversity, and on the other, at creating stunning moments and amazing views. High maintenance lawn areas are strategically limited and kept mainly around the green heart to allow for activities and events. These are balanced by large low maintenance areas of beautiful, diverse and native shrubs, grasses and woodland plants.

Rings of Trees
Every Tree is its own small ecosystem and brings advantages like habitat for birds, natural shading or air filtering, but also social, recreational and cognitive benefits to name just a few. Every Tree species brings its own unique set of benefits to the space. Our concentric tree layout creates distinct and unique spaces to remember and revisit, an informal and natural wayfinding system and a journey through the beauty of Greek nature.

Water run-off Management
To mitigate flooding at the south tip of the park we propose rainwater storage ponds seamlessly integrated into the landscape design and the shaded woodland Areas. On rainy days, the surface run off becomes partly visible through open paving channels and rain garden cascades following the natural flow directions. The storage ponds can be used to lower the cost for irrigation and with water treatment it can also be used to run the interactive water features.

Outdoor Comfort
Our goal is not just to improve the outdoor comfort in the site but being able to have long lasting positive effect on the neighbouring districts and to contribute to a better city environment. In our strategy the large tree zone in the west and south absorbs heat from the neighbouring districts by cooling it through natural shading and shaded water surfaces. Canopies provide shading in areas with less trees and the water features at the green heart and hotel radiate additional cool air.



SW-NE Section through the main axis_1:750



A Vibrant & Flexible Hub

The simplicity and practicality of large exhibition hall "boxes" are exposed through large radial "carved" landscapes that reveal the activity within. These gestures not only respond to the contextual relationship but create clear wayfinding around the park as well as feature moments in the landscape.



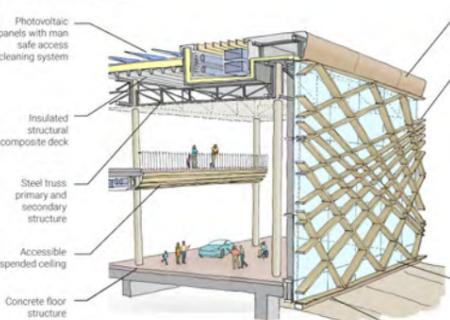
Prioritising flexibility
The expo halls contain the exhibition "boxes", the structural system of which allows for maximum height clearance and programme flexibility. The lobbies wrap around the main boxes and interface with the curves creating special moments and connecting interior with exterior.

Memorable Avenues
The carved gateway façades create the entry impression along the main expo avenues. The raised bridges form natural queue management locations, with the enclosed bridge between the buildings marking the location for an integrated secure gateway into the expo heart. When closed, they form a minimal impression under the bridges, and create a natural security and checking point for each of the main avenues. Framed by planting and tree shading the routes are flanked by the lattice facade of the main halls create glimpses into the lobbies and exhibition spaces within. Glazed façades behind that are operable in favourable weather conditions create an indoor outdoor feeling to the halls.

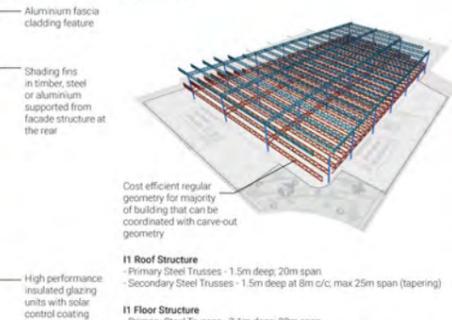
The Canopy Ring
The overlapping lightweight canopies around the AAMTH create a circular space that connects the arena geometry to an intuitive wayfinding system that allows for thousands of visitors who meander around.

Internal Character
The internal halls are simple and flexible as required, with a touch of distinction to make them memorable. The facade system allows dappled light to enter, as well as roof openings provide indirect light that floods the space when needed. The feature cliff moments create the opportunity for internal gathering places, creating a landscaped backdrop to talks, events and announcements.

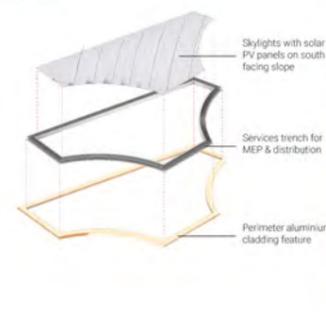
Key Facade Perspective Section



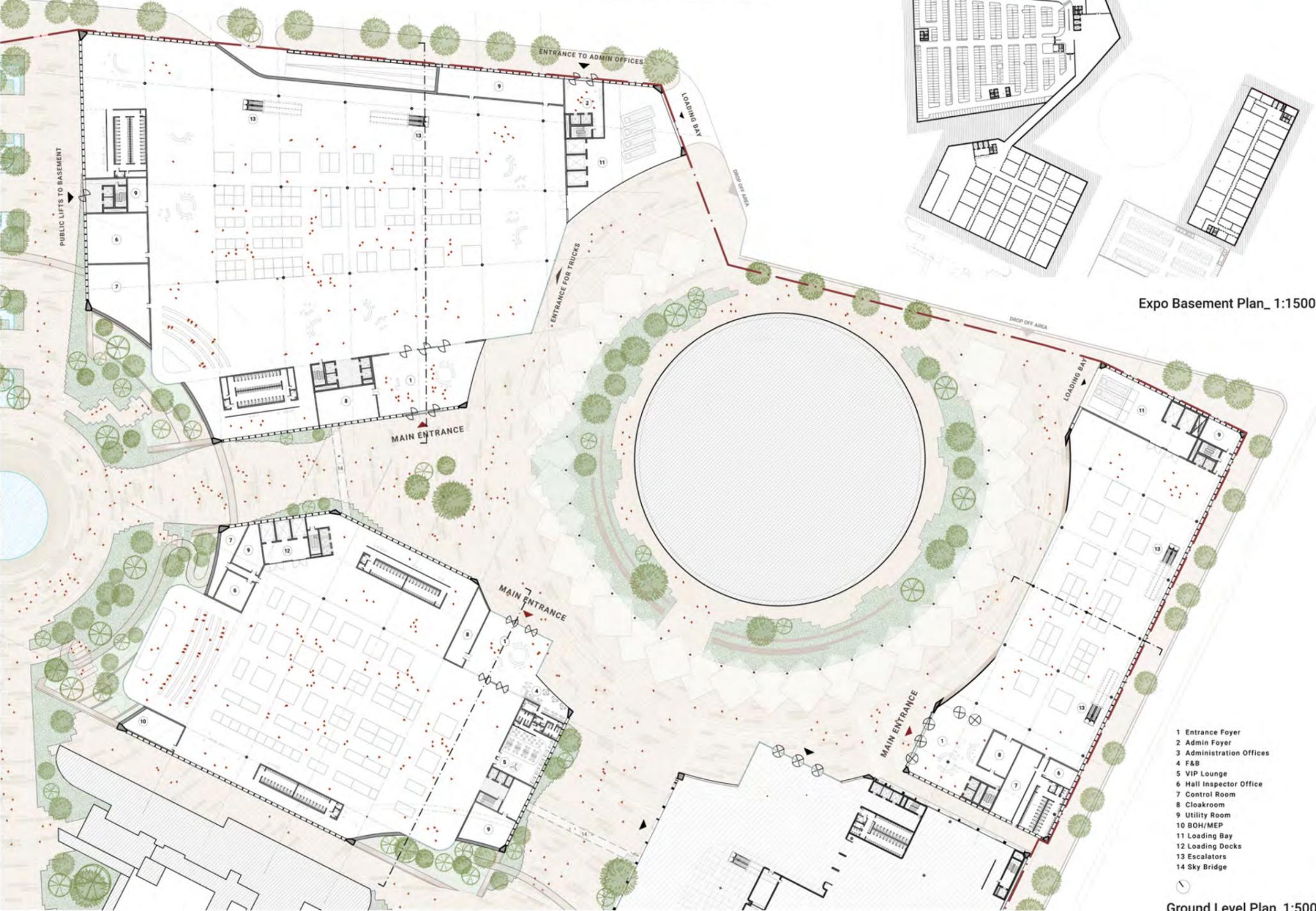
Structural Design



Roof Design

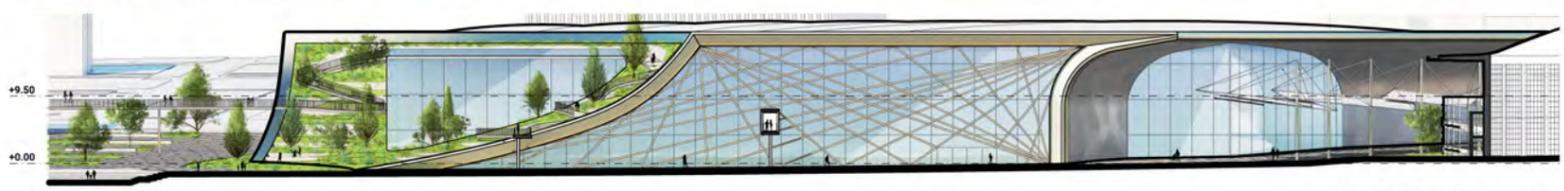


- I1 Roof Structure**
- Primary Steel Trusses - 1.5m deep, 20m span
- Secondary Steel Trusses - 1.5m deep at 6m c/c, max 25m span (tapering)
- I1 Floor Structure**
- Primary Steel Trusses - 2.1m deep, 20m span
- Secondary Steel Trusses - 2.1m deep at 4m c/c, max 25m span (tapering)
- I2 Roof Structure**
- Primary Steel Trusses - 1.5m deep, 20m span
- Secondary Steel Trusses - 1.5m deep at 6m c/c, max 25m span (tapering)
- I2 Floor Structure**
- Primary Steel Trusses - 2.1m deep, 20m span
- Secondary Steel Trusses - 2.1m dp at 4m c/c, max 25m span (tapering)



Expo Basement Plan_ 1:1500

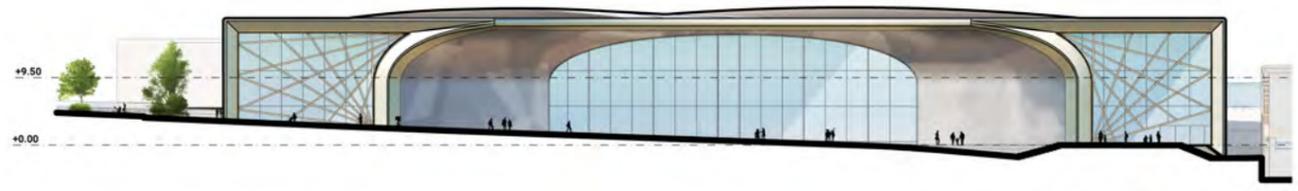
Ground Level Plan_1:500



I2 SW Elevation_1:500



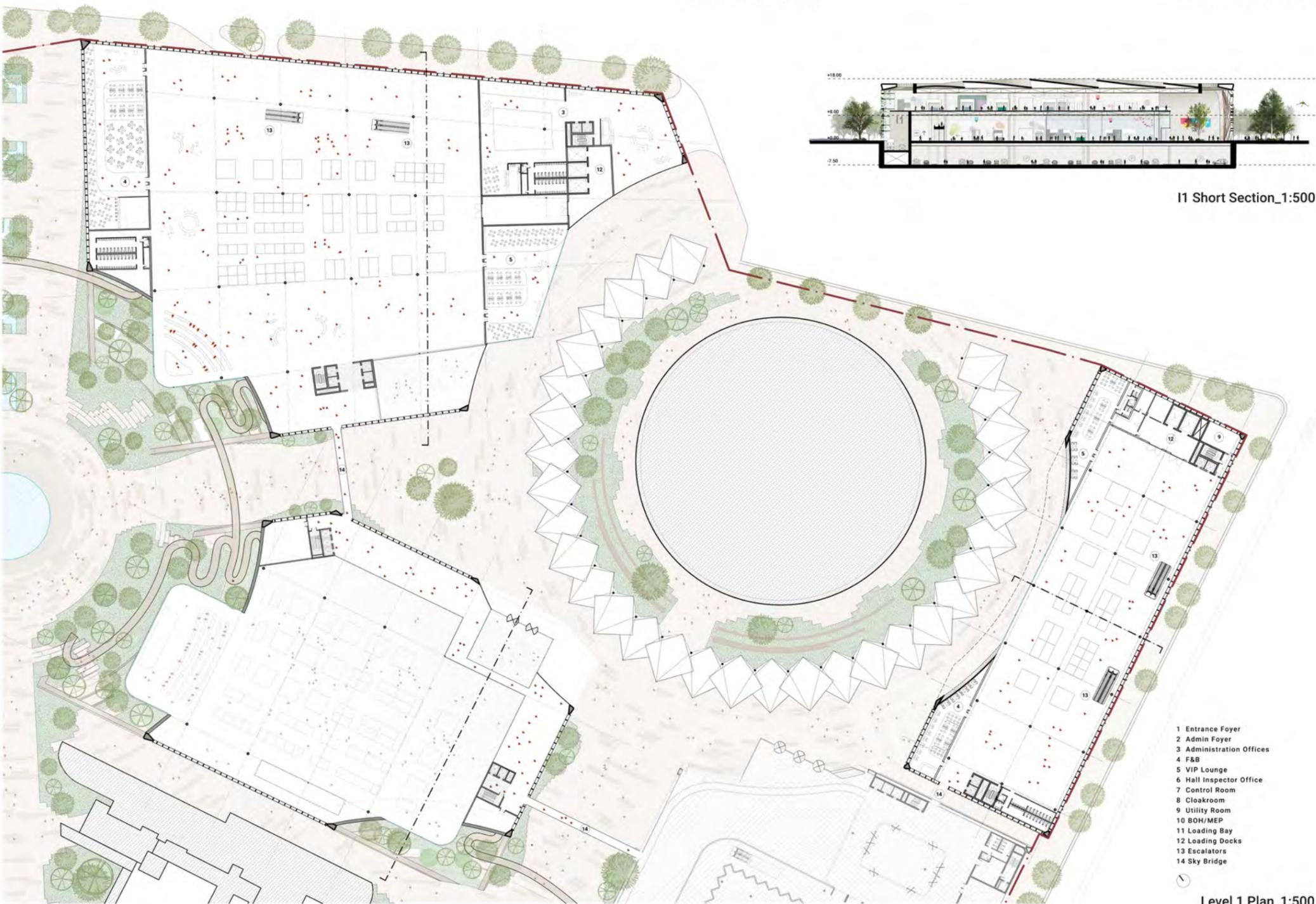
I2 Short Section_1:500



I2 NW Elevation_1:500



I11 Short Section_1:500



I1 Short Section_1:500

- 1 Entrance Foyer
- 2 Admin Foyer
- 3 Administration Offices
- 4 F&B
- 5 VIP Lounge
- 6 Hall Inspector Office
- 7 Control Room
- 8 Cloakroom
- 9 Utility Room
- 10 BOH/MEP
- 11 Loading Bay
- 12 Loading Docks
- 13 Escalators
- 14 Sky Bridge

Level 1 Plan_1:500

A Jewel for the City

The Congress Centre extends from the holistic approach of the expo buildings but establishes itself as a landmark by exposing the inner convention hall as a hovering volume internally and breaks through the landscape to reveal itself to the exterior as a beacon for visitors.



Holistic Independence
In response to the brief, the congress hall creates a seamless connection to the approach of the other expo buildings. By maximising the envelope, we carve away the south facade facing the cultural heart to create a public podium from which the main hall jewel emerges like a beacon in the landscape. It becomes the centerpiece of not only this plot, but the main node of the halls, connected externally and internally via elevated walkways.

Framed around the Jewel
The convention hall sits atop of the luxury expo space. This overlapping relationship creates a clear entrance into the expo space below, as well as a cantilevering "canopy" formed underneath the convention hall jewel for the main lobby space. The smaller conference halls, office and VIP mezzanine are wrapped around the convention hall, echoing the terraced landscape beyond. The restaurant benefits from access to outdoor space across multiple levels, activating the south facade and spilling out into the park and even extending onto the main carved landscape as a feature terrace.

The Jewel Facade
The glazed convention hall creates a panoramic impression out to the park and waterfront beyond. When all interior divisions are opened up, it can create a palatial interior space and feature ceiling. The lowered facade wraps around the jewel providing daylight control and creating a distinct expression within the holistic design approach.

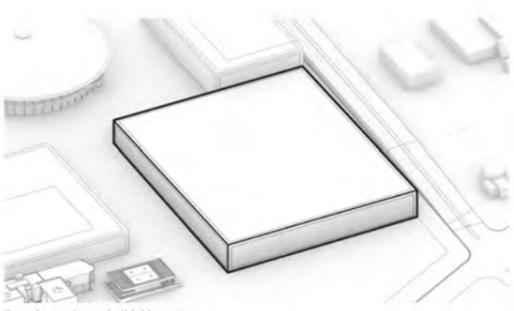
A Journey through the Expo
The generous double height lobby features an elevated path that connects the bridges from I1 to I2, creating a clear internal link between all of the expo halls and the main convention jewel.



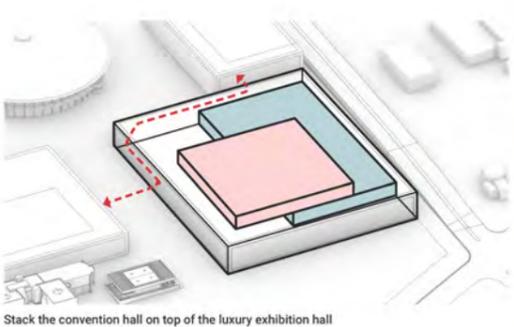
Section A-A_1:250



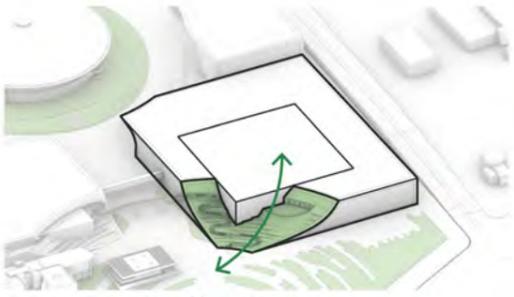
Section B-B_1:250



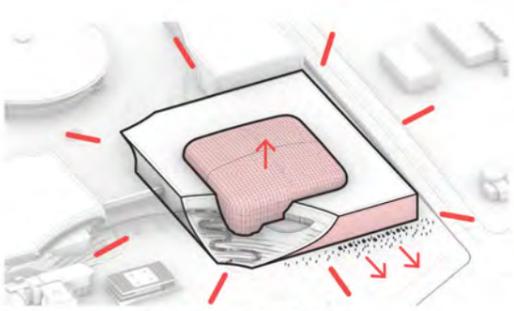
Extrude maximum buildable area



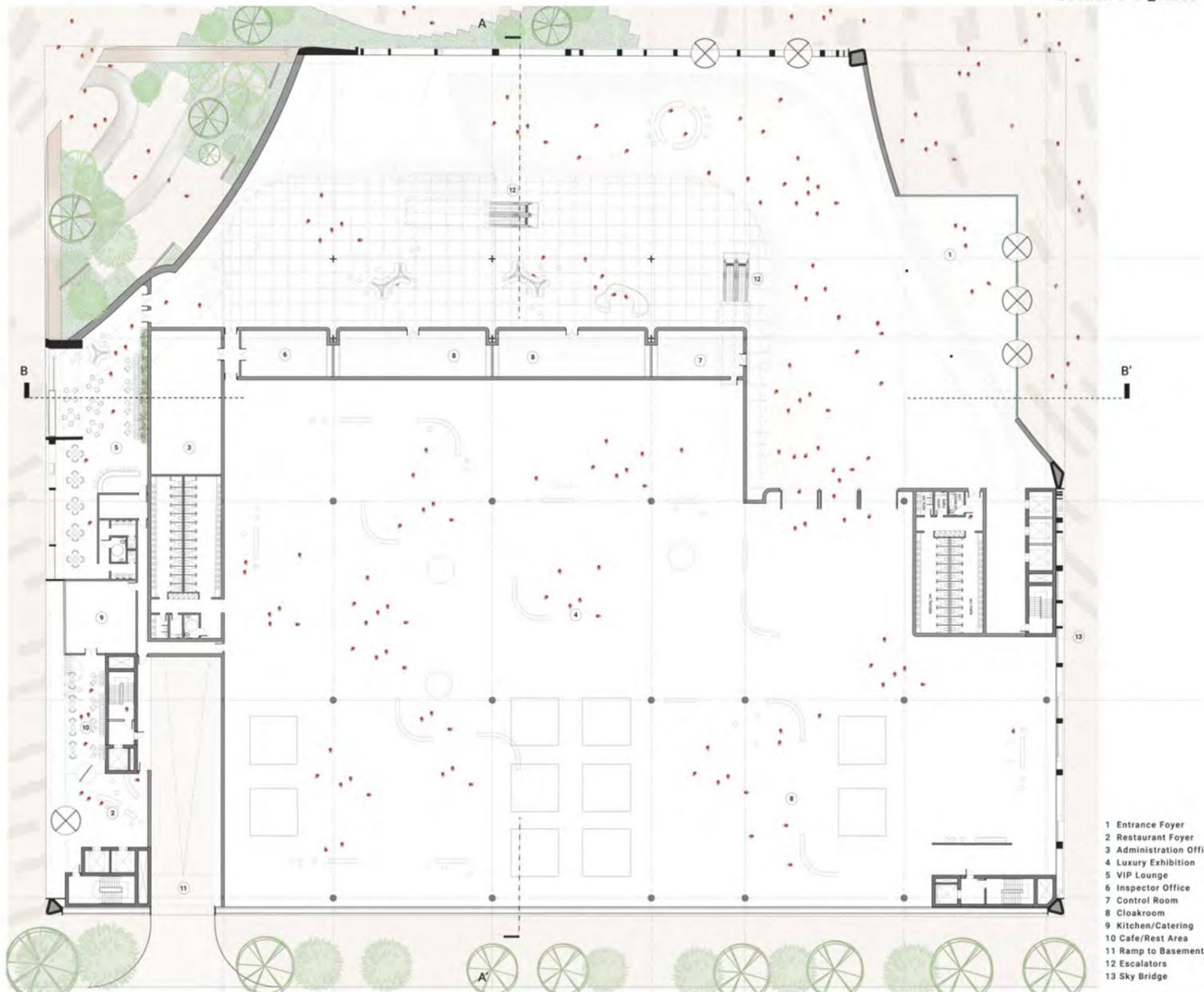
Stack the convention hall on top of the luxury exhibition hall



Carve out green spaces and reveal the corner

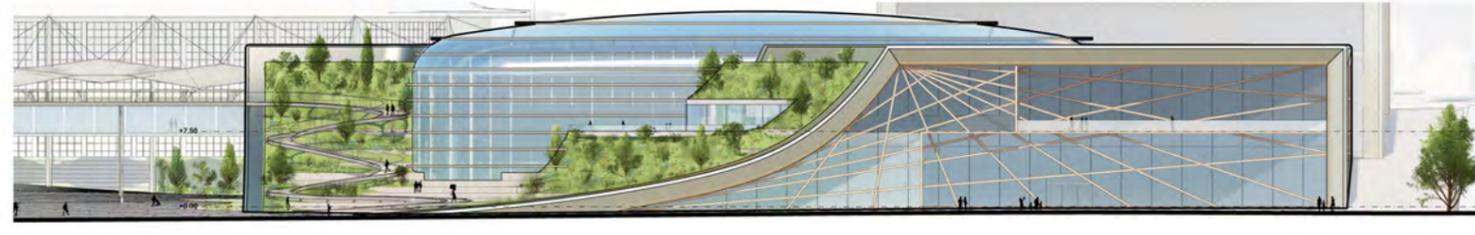
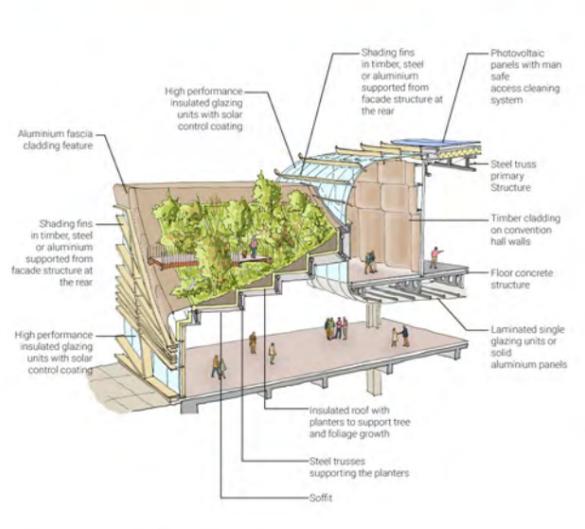


Celebrate the convention hall and allow for restaurant frontage

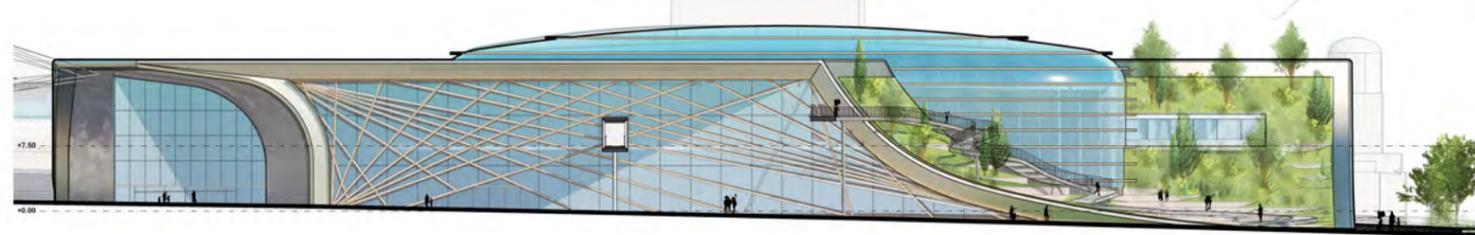


- 1 Entrance Foyer
- 2 Restaurant Foyer
- 3 Administration Office
- 4 Luxury Exhibition
- 5 VIP Lounge
- 6 Inspector Office
- 7 Control Room
- 8 Cloakroom
- 9 Kitchen/Catering
- 10 Cafe/Rest Area
- 11 Ramp to Basement
- 12 Escalators
- 13 Sky Bridge

Ground Level Plan_1:250

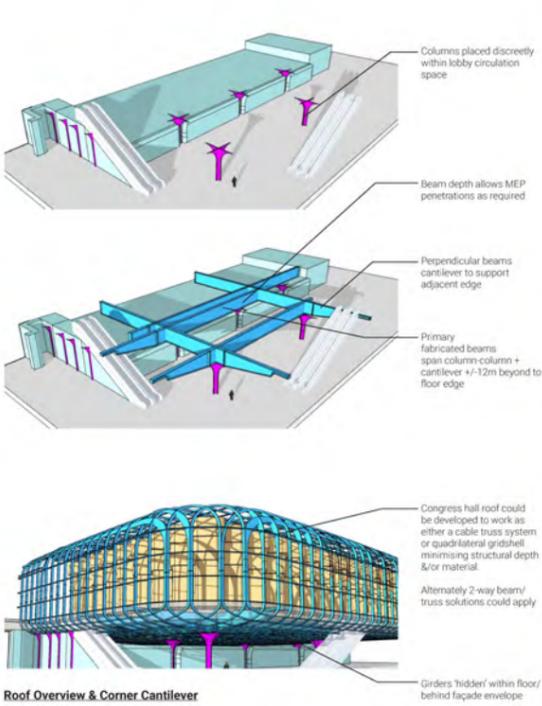


SE Elevation_1:250

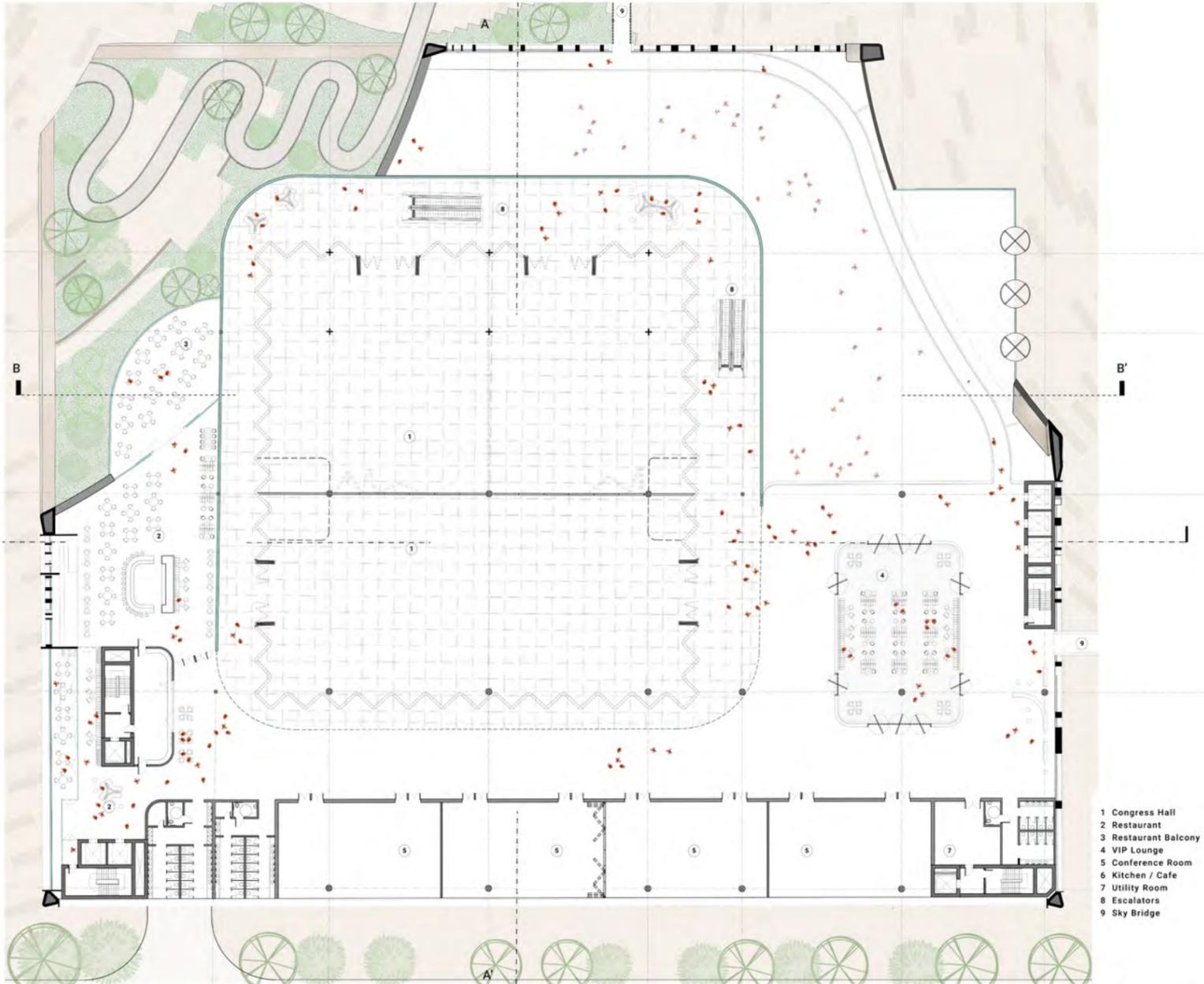


NW Elevation_1:250

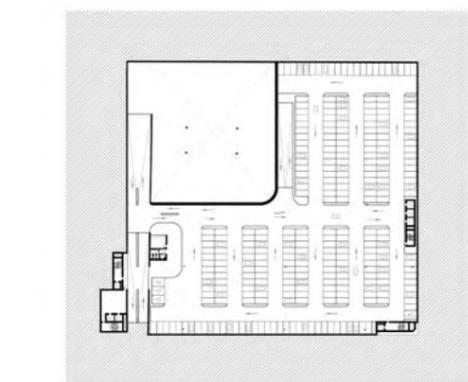
Key Facade Perspective Section



Roof Overview & Corner Cantilever Structural Design



Level 1 Plan_1:250



Level -1_1:1000

Parkside

The Business Centre has the most dramatic expression in the park, creating a dual identity between the carved landscapes of the Park and a cascading form along Synttrivani Square linked by a new grand arcade to the centre of the scheme. These features allow the programme to benefit from the best views, great daylighting and dynamic street frontage.



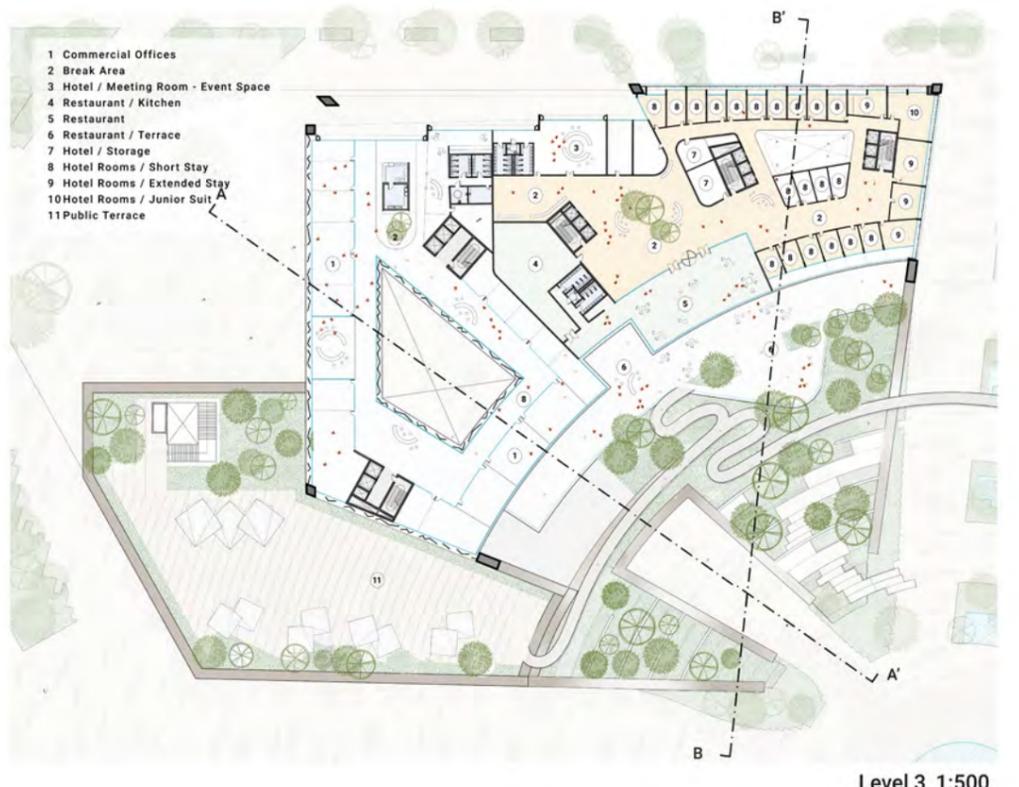
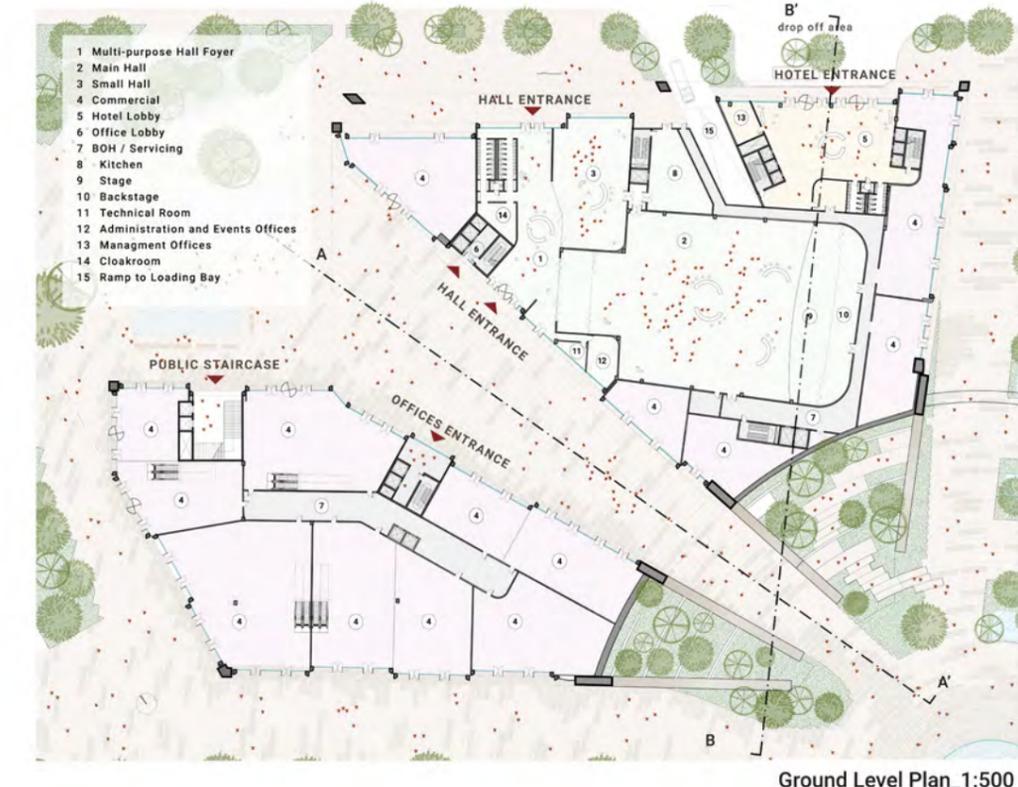
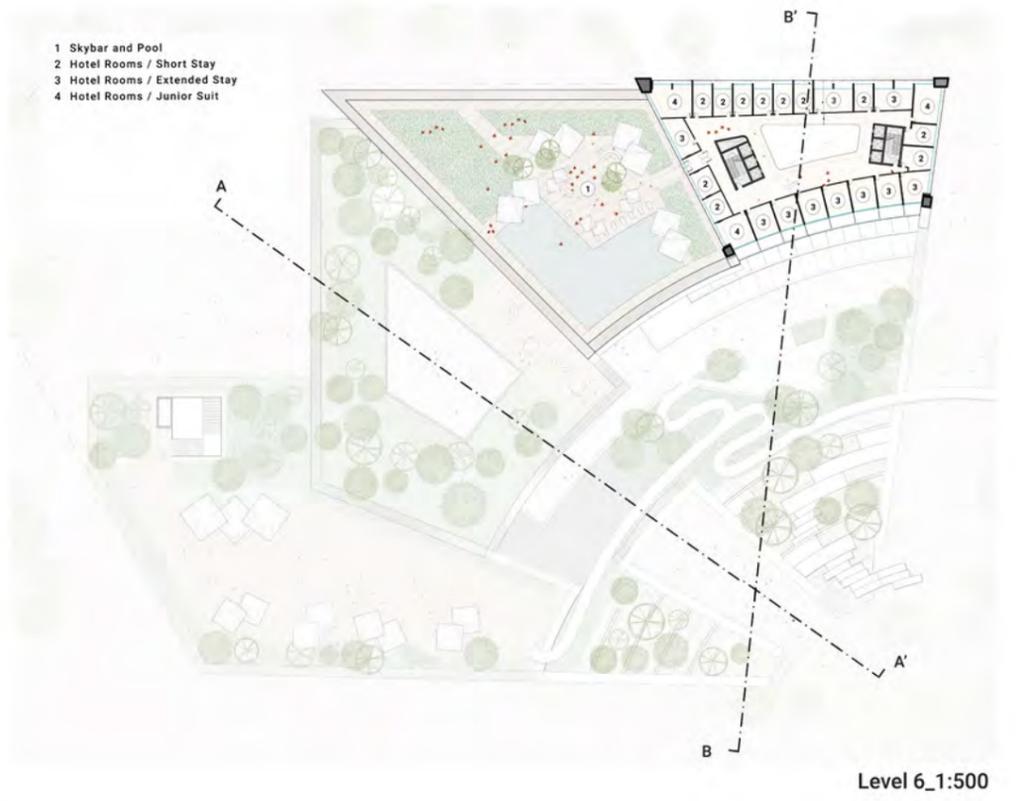
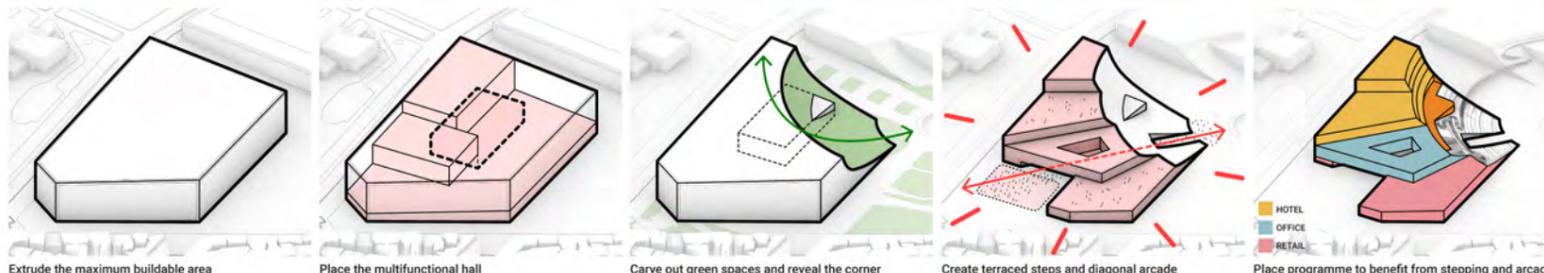
A Cascade of Activity
The overall form has been derived from stacking the functions in a logical manner, and cascading the volume sympathetically with its context, creating a dramatic impression from the park and a mix of activities from Synttrivani Square. The "carved" radial facade not only connects the scheme visually, but provides landscaped balconies at all levels. The form gently cascades to allow each of the functions benefit from a dedicated terrace space including a generous raised public viewing terrace.

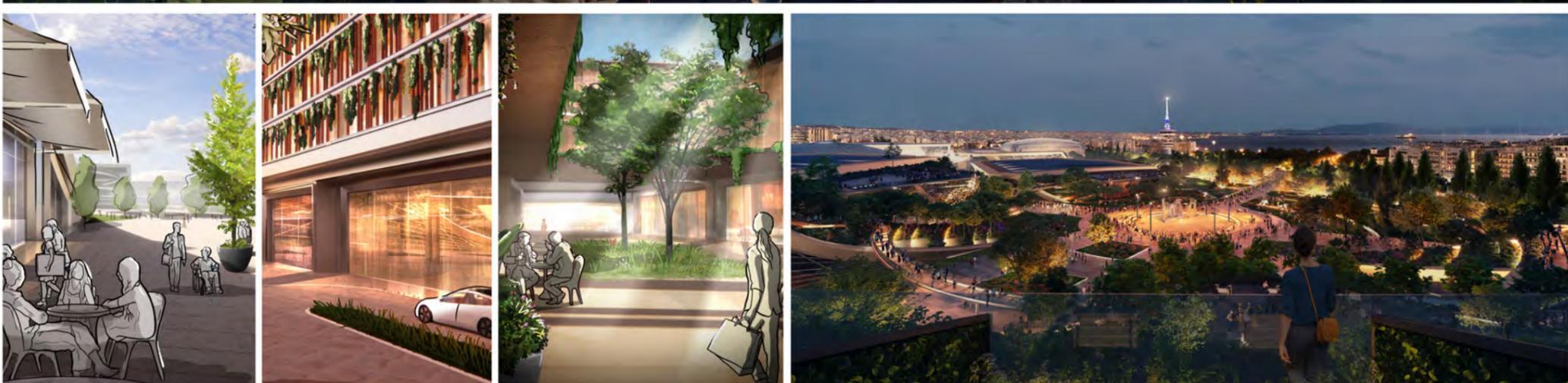
Prioritising Programme
The building takes the complex array of functions and looks to place them in a logical manner that benefits from the cascading approach. In this way each function is given its own dedicated entrance and expression within the building. The hotel is placed near the axis to create a long south facade to provide the best views from the rooms to the north and south. A drop off creates a more private entrance. Screened facades create further privacy to the north facing rooms, with the south rooms benefiting from generous planted balconies that view into the theatre of trees below.

The workspace is placed with the centre of the building, creating an efficient floorplan around a central courtyard that for daylight as well as framing the arcade below. The multifunction hall is nestled within the building, to functionally connect its logistics and lobby space to accessible ground floor areas. A corner of the hall extending into the landscape to create a feature restaurant terrace for the hotel.

The retail surrounds the main arcade, drawing visitors through its spill out activity to the main expo plaza. It also wraps the west and south facade, connecting to the local streets and creating an anchor corner facing Synttrivani Square, with the southern units spilling out activity into the park.

Public Connection
A new plaza faces Synttrivani Square, creating a welcoming entrance to a grand public arcade, framing spill out activity from local retailers, drawing interest as visitors pour towards the expo centre and park beyond.





Level -1_1:1000

Facade Design
The frame design that is utilized throughout the scheme is also adopted for the business centre. This outlines a variety of different facade types, depending on the function of each programme, which creates a mosaic of different types of activity. They appear as a series of planting boxes, creating a varied composition within the holistic shell.

Future Flexibility
The Retail spaces are designed with tenant flexibility in mind, allowing for a variety of sizes, or combinations of units. The hotel rooms as well as developed across a standard module that can be combined as necessary to make larger units depending on market changes.

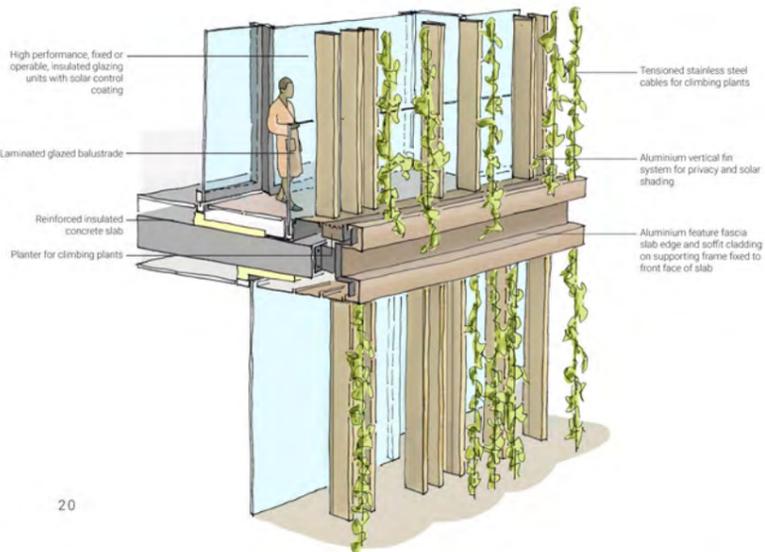
The Hotel facades adopt a planted timber screen for privacy, whereas the office levels benefit from generous glazing. The retail facades are designed to allow for flexibility within each of their boxes. The southern curved facade reveals a number of planted balcony spaces, from generous terraces of the office and hotel restaurant levels, to the individual bays for each of the hotel rooms.



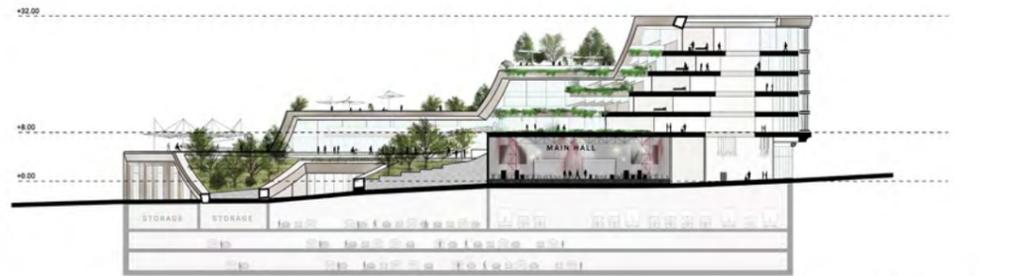
NE Elevation_1:500



SW Elevation_1:500



Hotel North Facade Perspective Section



Section B-B'_1:500



Section A-A'_1:500

