## Site Plan



## Concept

Our concept is to place the public park at the heart of the Thessaloniki ConfEx Park, to ensure that this is an open, engaging public space in Thessaloniki and not an Exhibition and Conference Centre that the public can sometimes access.

We have taken inspiration from the old City grid pattern and sought to re-imagine it in our design, combined with the main 'nodes' of our proposal we have pulled to park over the central exhibition hall 2 - literally pushing it down and bringing the public green space into the centre and heart of the ConfEx Park. We propose extending the landscape to connect with the Archaeological museum, creating a new, connected, cultural park.

We have modelled the footprints of the central Halls, 1 and 2 and the Business centre around a central water oculus, a sequence of radius



A new, connected sensory landscape at the heart of the ConFex Park.



A landscape that connects through to the 'cultural quarter' at the south.



Framed vistas and connected 'nodes' create a sequence of legible plazas and gardens.



The design seeks to unearth the old City plan and reconnect the park to the sea to the south and the university to the north.

facades that promote a fluid and permeable space.

The ConfEx Park is split into 2 main levels. An upper landscape level connects all the main entrances to the key buildings and spaces. The diagram allows the Park to be completely permeable or, on an event day, for ConFex elements to be securely managed without the requirement for perimeter fencing.

A lower landscape level connects the bottom floors of the main halls and the exhibition hall. This is both a service level on a 'non-event' day and a public space on 'event' day, providing covered links between all main spaces. This is not an undercroft - it is connected to the landscape above. This level shares the outside concourse space of the arena, giving this venue a new and vibrant and connected landscape plaza.



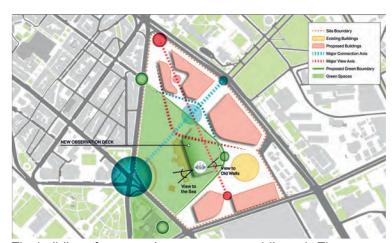
The memory of the old city plan has been overlaid. This history informs the footprints of our proposed buildings.



The primary routes and avenues across the site set out the key nodes of the design.



These connected nodes define the main vistas across the site and the connections we want to make.

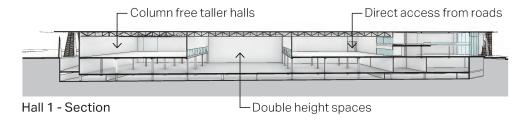


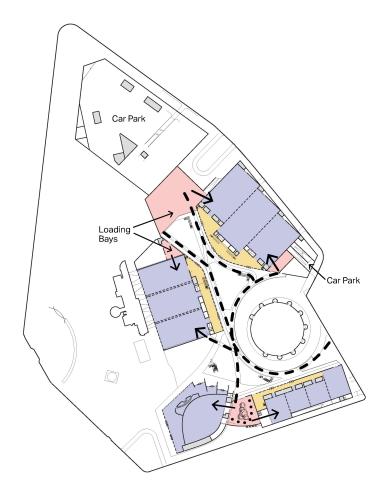
The buildings form a perimeter to a new public park. The landscaped roof of Hall 2 is a new promontory for celebrated views out towards Alexander the Great.

## **Function**

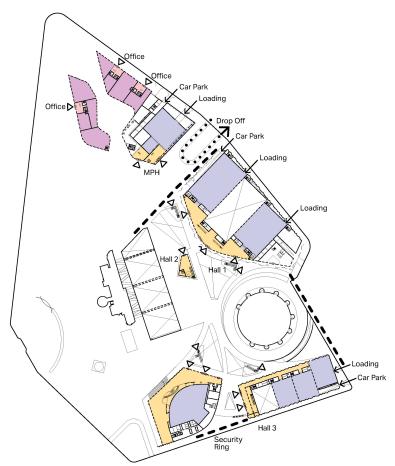
Our proposals provide a variety of volumes and adjacencies across the Exhibition Halls that deliver an optimum mix/possible permeations of spaces for events.

We have placed the smaller, 6 metre high spaces at the lower level. This means the bigger, 9 metre high halls are column free and can be serviced directly from the perimeter roads, and accessible from the main pedestrian landscape realm.





The lower level of the halls is the connected 'service' level with the main loading bays placed between the halls. This level is permeable, the lower park flowing through to the arena.



The upper levels are connected through the transparent lobbies that are physically and visually connected to the landscape. Our section design, placing the lower height spaces at the lower levels means all the halls can be serviced directly from the perimeter roads, eliminating the need for expensive truck lifts.

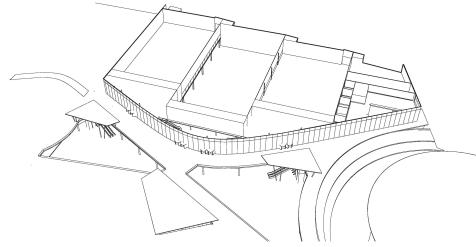
### **Exhibition Halls**

The footprints of the main halls have been modelled to create curved facades that to open up the landscape and create a fluid movement between the main spaces, while opening up vistas between the key buildings.

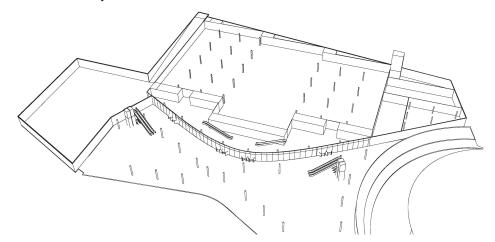
The halls are a combination of double height spaces and two storey spaces. They are a mix of unit sizes to ensure a wide range of possible offers.

Hall 2 is the 'buried' hall at the centre of the Park. This has a dramatic concrete roof structure and is a clear, single span space - the premium hall in the Park.

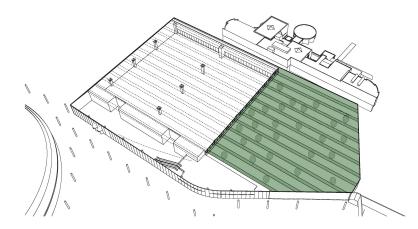
All halls seek to maximise potential for daylight into the spaces if required by the operator.



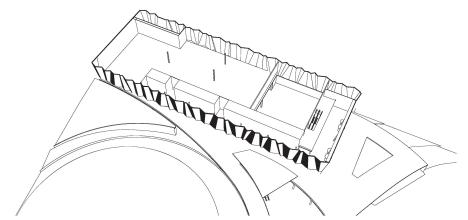
Hall 1 upper level with glazed foyer off landscape. The proposed double height, 16 metre high hall can be placed to the centre or to the side. Upper halls are accessible directly from the road.



Hall 1 lower ground level is a contiguous space that pulls light in through the double height central hall. The foyer opens up to the 'exhibition garden'.



Hall 2 lower ground level is a premium single volume, under the dynamic concrete structure that supports the landscape roof above. The hall opens to the rear of the art gallery to what could be a dramatic 'winter garden' gallery space.



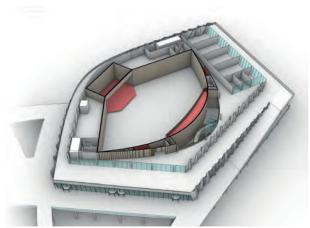
Hall 3 upper ground level is a diagram that provides many permeations for use with an open, permeable facade that addresses both the Arena and the Conference Centre.

#### Conference Centre

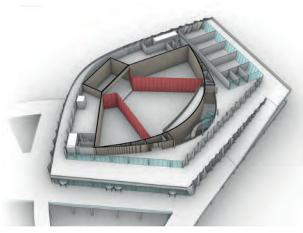
The Conference Centre is a fluid space, flowing with the landscape and the movement across the park. The exhibition hall is placed at the lower level and gives a clear, open through-route from the Arena to the Archaelogical Museum at the south of the Park.

We have placed a fan-shaped auditorium at the upper level. Using clever, but simple spiral lift floor technology, this flat floor space can be reconfigured to a 'traditional' raked floor auditorium that can also be simply sub-divided.

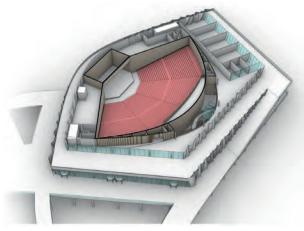
The upper level of the Conference Centre is the main space for meeting rooms and break out spaces and also the upper foyer when the auditorium is in 'raked' floor mode.



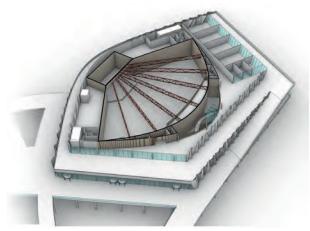
A flat floor, fan shaped auditorium.



Divisible into smaller fan-shaped auditoria.



A spiral-lift floor mechanism allows the space to be transformed into a 'traditional' auditorium.

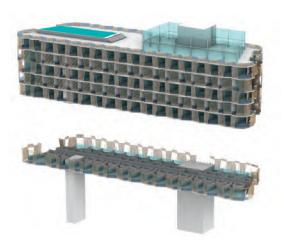


The upper level becomes the foyer for the raked auditorium mode.

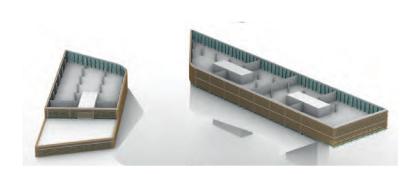
## Hotel

The Business Centre is conceived as a series of volumes arranged around a central courtyard that frames the views to the ConfEx Park from the new Metro Station.

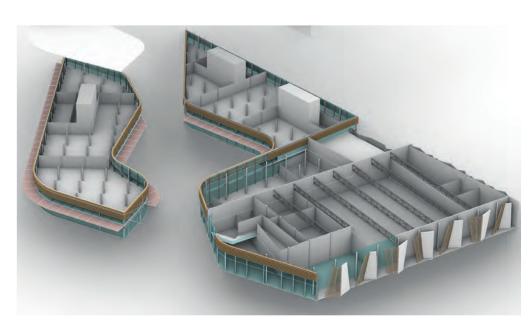
The Multi Purpose Hall is accessible directly from the main ConFex plaza or from the hotel lobby. It shares the same architectural language as the Exhibition Halls. The hotel spans this opening, a dramatic block that faces towards the sea. The Multi-purpose hall is connected to the hotel lobby, providing direct links to the hotel and its functions. The office blocks sit over double storey retail units that frame the courtyard. These are flexible spaces that can be simply subdivided into smaller tenancies.



Hotel block orientated to park and views south. Roof top bar and pool. Hotel frames vista to Conference Centre from metro station.



Flexible commercial office space with individual foyers and access to roof terraces.



Retail and hotel foyer framed around courtyard garden. Multi purpose hall with direct link to hotel foyer and hotel kitchen.

## Landscape

We asked ourselves what would be the landscape able to condense a level of effortless sophistication while expressing a sense of being rooted in Thessaloniki. The conclusion was that the landscape would feed on the natural qualities of the site; the traces of the past, the urban grain embedded in the old planning of the city, the Mediterranean sun, the waves hitting the coast, the blue sky, the sounds of the sea. All the elements; material and ethereal configuring our perception of the site. The landscape in essence will be: the rays of the sun filtering through the Pine Trees while you walk through the sinuous sky-walks, the lush Subtropical Gardens with mist while you walk across the park in a break from an exhibition or escaping the hassles of the city, the flowering orange trees... the landscape of senses. We will reinterpret these 'common' elements as a mosaic, re ingraining the park with the city, creating memorable moments and exciting design solutions; delivering a sophisticated planting palette and the sensation of walking around a landscape well apart from conventionalism.

Thus, the park will not only complete a missing piece of the puzzle connecting this area to the wider green infrastructure of the city but it will become a destination in its own right, a delight for the locals but also for regional and international visitors.

The landscape scheme comprises different areas with very distinctive characters:

**The North – West Gardens** are defined by the use of a Mediterranean planting palette with accents of subtropical species and succulents; aiming to express closeness with its design; with areas for resting, shaded seating and small plazas within the gardens. It is in a certain way a landscape rooted in the context where the cultured is expressed through the subtlety of the mosaic pattern and the shadows cast by the Pine Trees;

**The Central Plaza**, a dry and wet landscape display serving as: an articulation for the pedestrian movement, a reflective pool, an aid for the heat in the summer months. It is a versatile space able to be a beautiful fountain and an area for events if it is dried up;

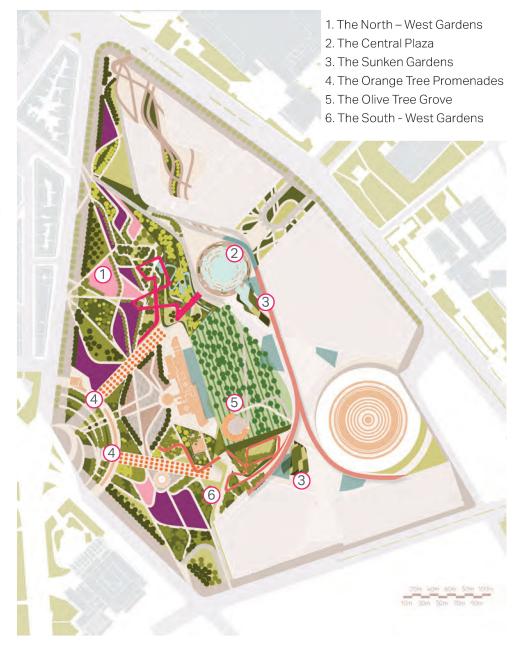
**The Sunken Gardens** in between the Exhibition Halls at level +20.00 are little 'jewels' that are found along the architectural experience and as such they provide exuberant gardens with water features in various forms; from cascading water walls to misty areas. Configured by terraces the gardens enlighten the pedestrian experience at different levels, while its sheltered location allows for a more controlled planting palette with tropical vibes, combined with F&B amenities.

**The Orange Promenades** embroider the Gardens with the Exhibition Halls and Hotel area, providing direct connections to key destination by emphasizing pre-existing axial walkways in the urban planning. The use of the Orange Trees brings back the familiar feeling and smells of the old Greek Streets.

**The Olive Tree Grove** is a celebration of the place and with its circular viewing platform frames the views to the sea, delivering a sense of endless overture; a calming serene experience.

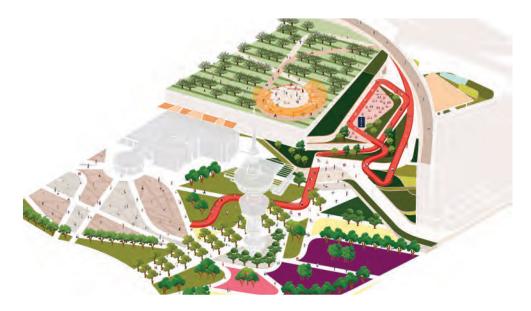
**The South – West Gardens** comprises large Mediterranean Aromatic Gardens and a twisting ramp with a café and planted terraces to access level +20.00. The main characteristic is the colour of the planting palette making the flowers and the smells a key component of the sensorial experience; a very particular atmosphere; an ethereal beauty.

A Landscape for the senses.





The North - West Gardens



The South-East Gardens



The Central Plaza - Fountain Scenario

The Central Plaza - Dry Scenario

Olive Tree Grove and Viewing Platform









## Environmental

The approach to the design of the buildings has been to develop a servicing and sustainability strategy that provides a robust flexible approach whilst simultaneously minimising the resource consumption of the site. The buildings that form the components of the site are proposed to be inherently sustainable in their approach, with performance supplemented by a number of site wide strategies that work in harmony with the buildings to deliver an overall and building level near zero energy development.

## Large Volume Spaces

The large volume conference and exhibition halls are proposed to be conditioned by overhead VAV systems with supplied from heat recovery air handling units with air side economiser cycle and adiabatic evaporative cooling. Thermal loads are to be met by building local chillers and air source heat pumps. The use of air source heat pumps allows for direct reuse of cooling energy into domestic hot water loads in the hotter months, whilst provide the low heating demands in the cooler months. To further improve the efficiency of the chillers and the heat pumps it is proposed to configure the air systems to discharge over the thermal systems to further recover energy from waste air streams. Within the halls a service grid of power and water supplies will be provided to enable flexibility of use.

The high-level services will distribute within the structural zone supporting the roof either connecting from plant located at roof level in a service trough. To enable a fully accessible roof to Building 2 the plant is located at one end of the building and distribute through a below grade service tunnel with the services rising to high level at the beam lines to match the structural voids created. The use of low level plant within Building 2 allows the air equipment to connect to pipes buried under the foundations of the building to take intake air through, using the grounds natural stable temperature to cool incoming air.

The roof designs have been developed to cantilever over the facades of the buildings. This move has been developed to solar control to the buildings whilst also providing shade to the walkways encouraging pedestrian movement around the site. The south facing facades have been developed with addition shading screens to manage daylight access and to allow the foyers to be securely naturally ventilated in mild periods.

## Conventional Height Spaces

Conventional height spaces will be typically services by a heat recovery ventilation system and local fan coil units mounted on soffits.

The hotel will use heat pump technology to recycle heat between the high thermal load areas of the building and adjacent complex, for example IT and AV rooms, into the domestic hot water loads of the building.

#### Other Energy Considerations

The non-habitable roofs are a key environmental asset. The roofs harvest rainwater for use in both the buildings and site wide usage, alongside housing significant photovoltaic arrays to generate renewable power.

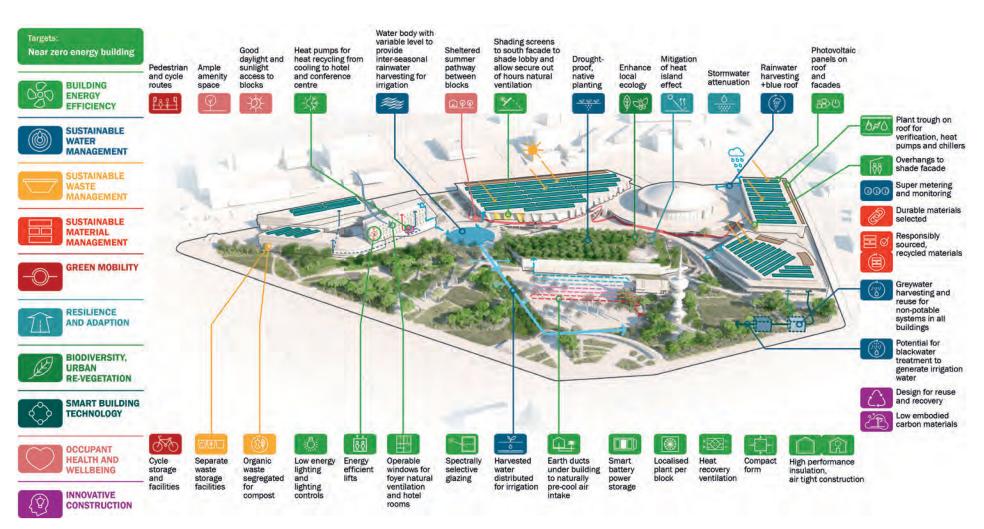
All lighting will be provided as low energy LED systems with automatic daylight harvesting. Inside the large halls, apart from Building 2, roof lights have been proposed to provide daylight that is shaded by the photovoltaic panels, to minimise the need for electrical lighting systems to be used during set up and strike of events.

Smart controls and meeting will eb deployed throughout. These systems will help the building performance automatically optimise to both user behaviour and building response to minimise energy and other resource consumption.

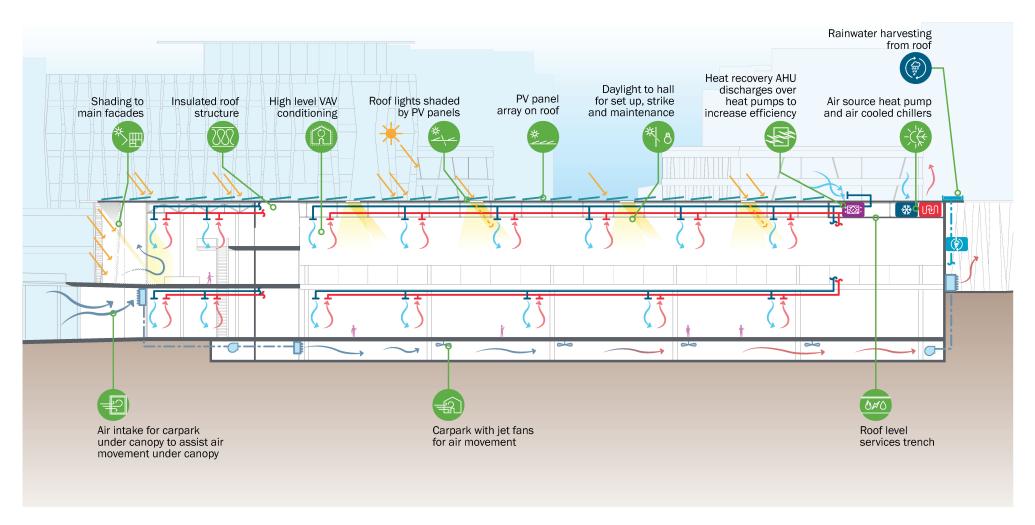
## Water Systems

Efficient fixtures and fittings will be specified throughout the development. All buildings will incorporate local grey water harvesting for re-use in non-potable systems such as WC flushing. The option of using black water harvesting and local treatment will also be explored to provide local irrigation water to the buildings.

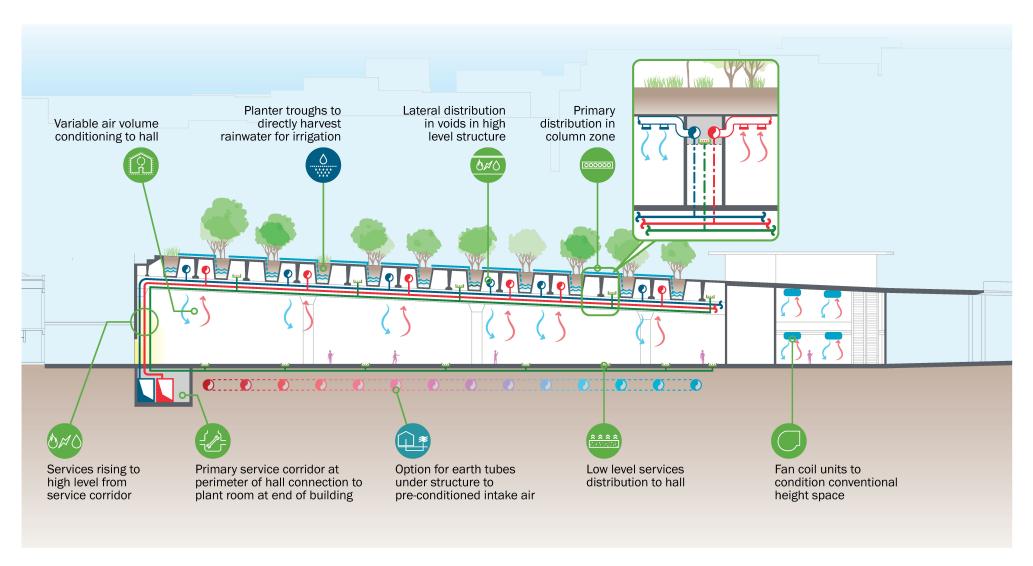
As a proposal a significant green space is proposed for the development. The planting selections will be local or adapted vegetation to minimise their need for irrigation, and where irrigation is required it will be provided by subsoil drip irrigation. To ensure that the planting can be supported in a sustainable manner a site wide approach to rain water harvesting and supply for irrigation has been developed. The building roofs and other hard surfaces will harvest rain water and direct it to a central water body, which will also provide storm surge resilience. The water body levels will change with the seasons and preliminary calculations have been developed to ensure that the water body is adequate for the site wide irrigation loads through a typical year.



Site wide strategy



Environmental section through Hall 1.



Environmental section through Hall 2.

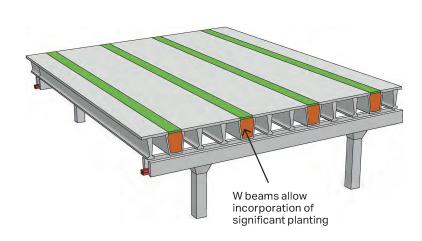
## Buildability

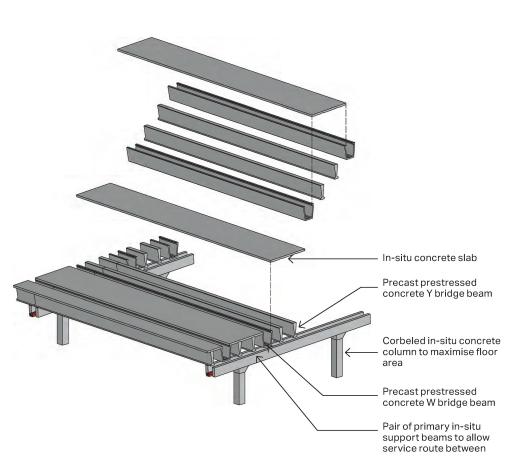
#### **Building 2**

How do you efficiently achieve heavily loaded long spans in a building? The answer is to borrow technology from the masters, the bridge industry. Precast prestressed concrete bridge beams offer the following advantages over in-situ construction:

- · Extremely efficient span to depth ratios.
- · Rapid installation on site.
- No formwork is required, significantly reducing material wastage during construction.
- Factory controlled manufacture gives a better quality finish.
- Curing off site allows the use of cement replacements to reduce carbon dioxide emissions without delaying programme on site.
- W beams come with a ready made trough to allow planting of larger species.

The beams will sit on pairs of supporting beams, separated to allow simple integration of services. Corbeled columns below will maximise floor space. The elements combine to form an elegant and distinctive structure that is driven by structural efficiency.





## Buildings 1 and 3

The non-accessible roof of Buildings 1 and 3 have been designed to be lightweight and efficient whilst allowing flexibility for event rigging and services. The 2m deep structural zone allows full integration with services. The structural grid spacing of 4m has been shown in previous exhibition halls to provide ample flexibility for rigging points. The column grid below has been designed to balance long column free spans with structural efficiency. The result is both functional and materially efficient.

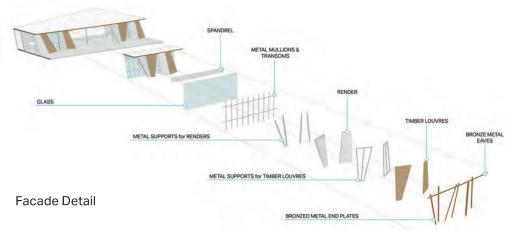
The floor slabs utilise post-stressing, enabling the maximum possible economic span between columns and minimising disruption to the exhibition spaces below.

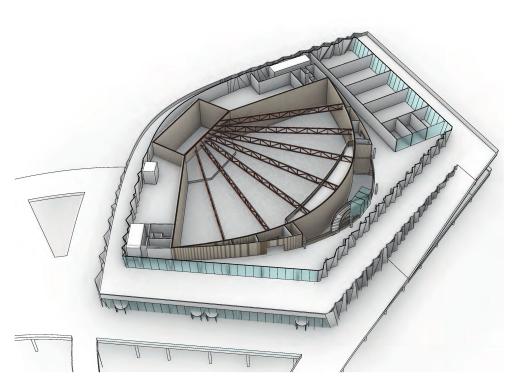
## **Conference Building**

The wedge layout of the conference building auditorium lends itself to a radial grid layout, minimising spans whilst maintaining a column free space. A series of roof trusses focus on a primary truss spanning across the stage. The span of the more heavily loaded auditorium floor structure is split into two by luxury exhibition, reducing the structural depth and materials required. The structural grids have been carefully considered alongside the programme to give layouts that are not functionally restricted by columns.

### Facade Detail

The façades have been developed as a unifying element – a series of pleated panels that mix opaque, translucent and transparent elements. The facades of the main exhibition halls, multi-purpose halls and conference centre that face onto the internal landscape are a common element – a folded trapezoid with one face a simple rendered wall panel, the other panel of horizontal timber slats with a bronze colour perimeter accent. These Folded trapezoids project beyond the glazed elevations to create perimeter colonnades, covered and shaded spaces that flow from one building to the next. We believe this is a dynamic, yet cost effective proposal.





Auditorium radial truss structure achieves column free space.

## Space Program



# International Architectural Design Competition for the Thessaloniki ConfEx Park Data Sheet for the evaluation of the Economy of the Project

			SECTORS I & II		SECT	SECTOR III	SECT	SECTOR IV	SECT	SECTOR V	01	TOTAL
:		Plot Area (I) = 39.3	Plot Area (I) = $39.397,11 \text{ m}^2$ Plot Area (II) = $16.339,68 \text{ m}^2$	II) = 16.339,68 m <sup>2</sup>	Plot Area =	Plot Area = $20.034,00 \text{ m}^2$	Plot Area = 1	Plot Area = $13.971,22 \text{ m}^2$	Plot Area = 5	Plot Area = $58.900,71 \mathrm{m}^2$	Plot Area = 1	Plot Area = $161.769,04 \text{ m}^2$
Š	Description	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. G	A. General Metrics	,										
A1	Above Ground GFA (m²)	36.565	11.740	max 48.500	26.650	max 26.750	16.275	max 16.500	250	max 250	91.480	max 92.000 excl. preserved bldgs
A2	Below Ground Parking use GFA (m²)	14.740*	-	-	27.400*	-	17.950*	-	-	-	*060.09	-
A3	Below Ground other Aux uses GFA (m²)	6.925	4.980	-	2630	1	1905	-	-	-	16,440	ı
A4	Net Floor Area NFA (m²)	34.736**	11.153**	-	25.318**	-	15,461**	-	237**	-	86.905**	-
A5	Building Coverage ratio (%) & Area (m²)	89% -23.736	95% -12.000	ı	60% - 12.012	max 60% - 12.020,40	56% - 7885	•	250	1	39% -55,883	max 45% - 64.000 excl. AAMTH – pres.bldgs
A6	Gross Volume above Ground (m³)	328.328	120.713		171.234		119.961		1000			
A7	Foundations Footprint (m²)	582	292	1	1052	1	915	1	40		1	1
A8		12.233	3.290	1	14.236		5.742		280		1	1
A9	Exterior Openings (m²)	561	118		950	1	321		25		1	1
A10	Accessible Roof surface (m²)	1	ı	ı	4.290	-	2.500	1	-	•	ŗ	ı
A11	Inaccessible Roof surface (m²)	26.945	734	1	4.490		6.875	•	-		1	1
A12	Green Roof surface (m²)	1	10.700	1	3.050	1	1	-	250	-	ī	ı
A13	Balconies / Open Covered Areas (m²)	4.900	250		1700	Hotel: max 40% of GFA	1.690	1	-	1		ı
B. P.	B. Programme Area											
B1	Exhibition Center Area (m²)	35.100	11.740	47.000	-	-	ı		-	-	1	1
B2	Administration Offices Area (m²)	1465	-	1.500	-	-	-	-	-	-	-	-
B3	Hotel (m²)		-	-	7.188	7.250		-	-	-	1	1
B4	Commercial Complex / Retail–Recreation (m²)	-	-	-	8.932	9.000	-	-	-	-	-	1
B5	Commercial Complex / Offices (m²)	-	-	-	7.010	7.000	-	-	-	-	1	1
B6	Multi-purpose Hall (m²)	-	-	-	3.520	3.500	-	-	-	-	-	-
B7	Conference Center Area (m²)	-	-	-	-	-	9.710	10.500	-	-	ī	1
B8	Luxury Exhibition Hall Area (m²)	1	-	-	-	-	6.565	9:000	-	-	-	-
B9	Cafeteria (m²)	ı	-	-	-	-	ı	-	250	250	1	1
B10	Underground Parking Area (m²)	14.740*	-	12.500	27.400*	25.000	17.950*	15.000	-	-	-	-
B11	. Underground Storage Area (m²)	6.925	4.980	12.000	2630	3.500	1905	2.000	-	-	ī	1
c. 0	C. Open Areas											
C1	Provide Area of Roadways (m²)	-	-	-	-	-	-	-	1.000	-	ī	-
C2	Provide Area of Pedestrian Pathways $(m^2)$	-	-	-	-	-	-	-	20.650	-	-	-
8	Provide Area of other Hardscape (m²)	ı	-	1	1	1	ı	1	4.950	1	ī	ı
C4	Provide Area of green Landscape without underground buildings (m²)	1	-	-	•	-	,	1	36.562	1	1	1
C5		-	-	-	-	-	-	-	8.420	-	-	1
90	Н	-	-	-	-	-	-	-	-	-	-	-
C2	Provide Area of Water Features (m²)	-	-	-	-	-	-	-	3.306	-	-	1
8	Provide Area of other structures (m²)	ı	ı	ı	1	1	ı		-	-	1	,

\*Basement carpark areas were based on the target number of carpark spaces

 $<sup>^{**}</sup>$  NFA has been calculated at 95% of the GFA excluding walls and struct

## **Ground Plan**



Section BB 1:500



## Site



Site Plan 1:1500



TIF-HELEXPO, Thessaloniki

SW Aerial View

Our concept is to place the public park at the heart of the Thessaloniki ConfEx Park. We have taken inspiration from the old City grid pattern and sought to re-imagine it in our design, combined with the main 'nodes' of our proposal we have pulled to park over the central exhibition hall 2 - literally pushing it down and bringing the public green space into the centre and heart of the ConfEx Park.



Site with preserved buildings



Historic city masterplan by Hebrard overlaid on to sit



New masterplan constraints overlaid



Insertion of new 'nodes of activity'. Physical and visual links



nodes'



Hall 2 buried & lanscape of sector V extended on top of it maximizing the Park area.



The roof of Hall 2 becomes an extension of the park, accessible to the public. Viewing platform is placed on the SW corner creating new vistas towards the waterfront and the old walls.

# Landscape Design









Hardscape, Tone A Multi-purpose Plaza Hardscape, Tone B Multi-purpose Plaza Elevated North - West Walkway Existing Building on Site

Mediterranean Gardens Subtropical Gardens Succulent Gardens

Gardens

Specimen Trees

## A Landscape for the Senses

The landscape is inspired by nature and deeply intricate with the climatic conditions. It particularly aims to create a sensorial and atmospheric array of ambiences. It achieves that by creating distinctive gardens; from subtropical gardens suited to the Mediterranean climate, dry gardens to a Mediterranean forest with a skywalk from level +13.00 to +20.00. The landscape arrangement offers a hierarchy of spaces and uses across the site, providing a sequence of quite different environments, characters and functions to encourage use and enjoyment by the city inhabitants.



Immersive View of South - East Gardens

North - West Gardens





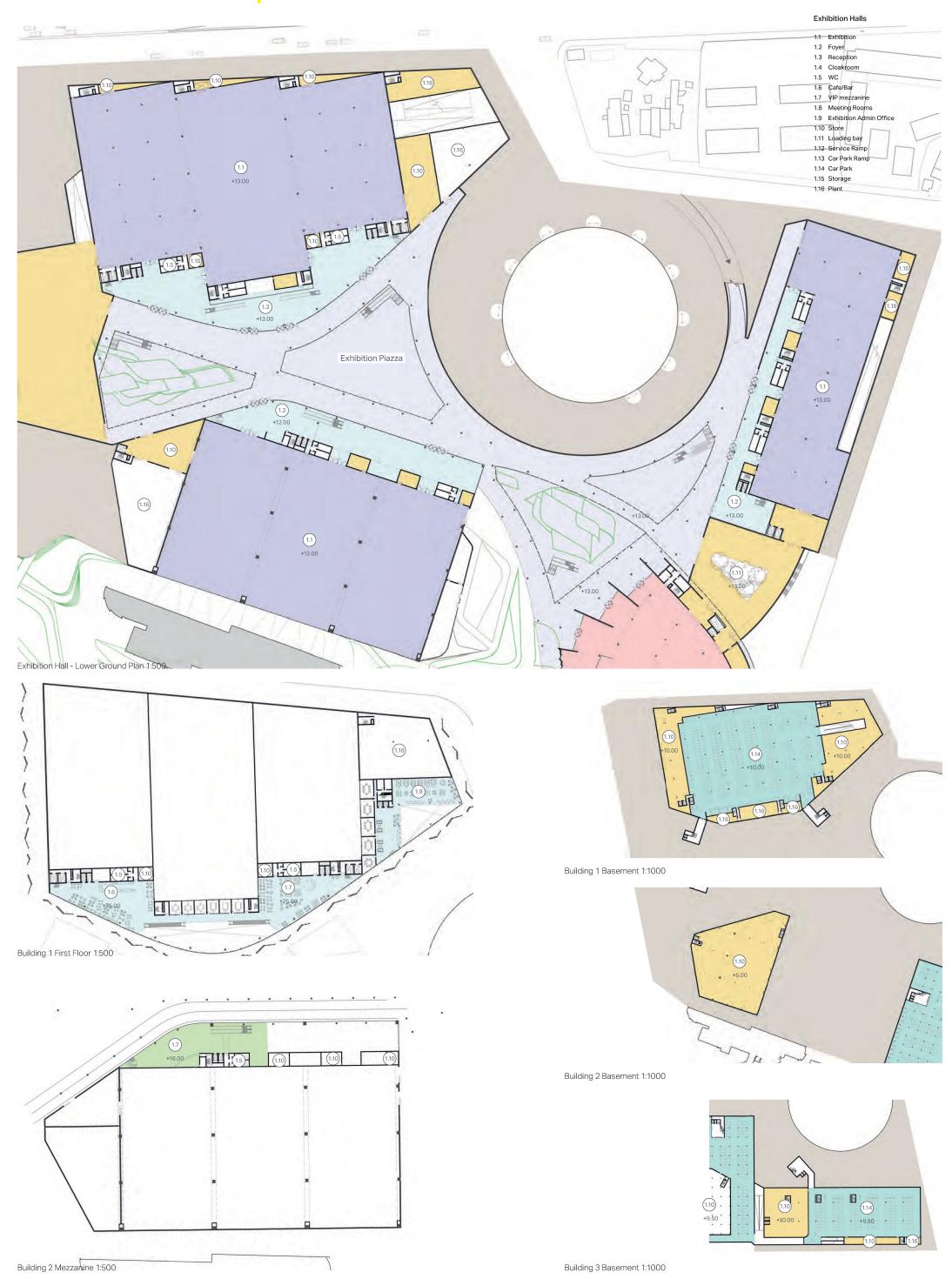
South - East Gardens

Viewing Platform

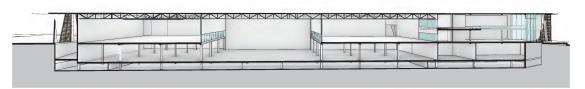


TIF-HELEXPO, Thessaloniki

## Exhibition Hall | Plans



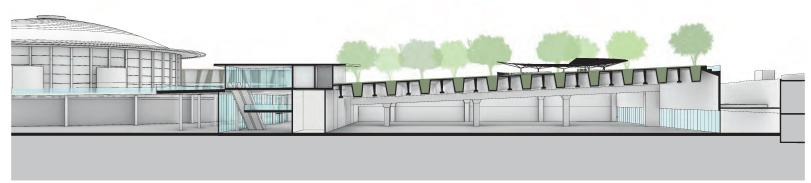
# Exhibition Hall | Sections & Elevations



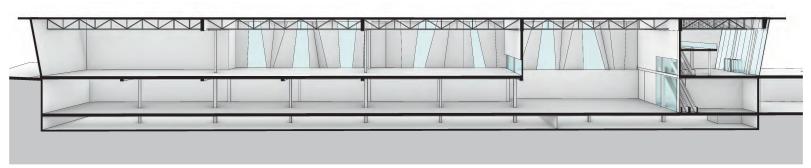
Exhibition Hall 1 Section 1:500



Exhibition Hall 1 Elevation 1:500



Exhibition Hall 2 Section 1:250

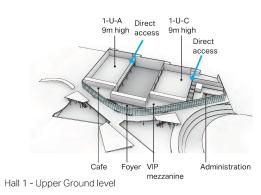


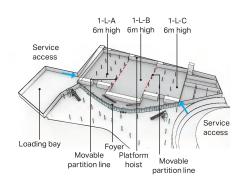
Exhibition Hall 3 Section 1:500



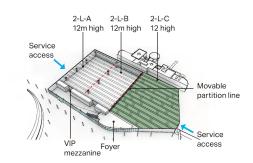
Exhibition Hall 3 Elevation 1:500



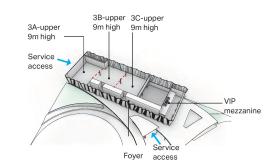




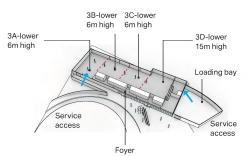
Hall 1 - Lower Ground level



Hall 2 - Lower Ground level



Hall 3- Upper Ground level

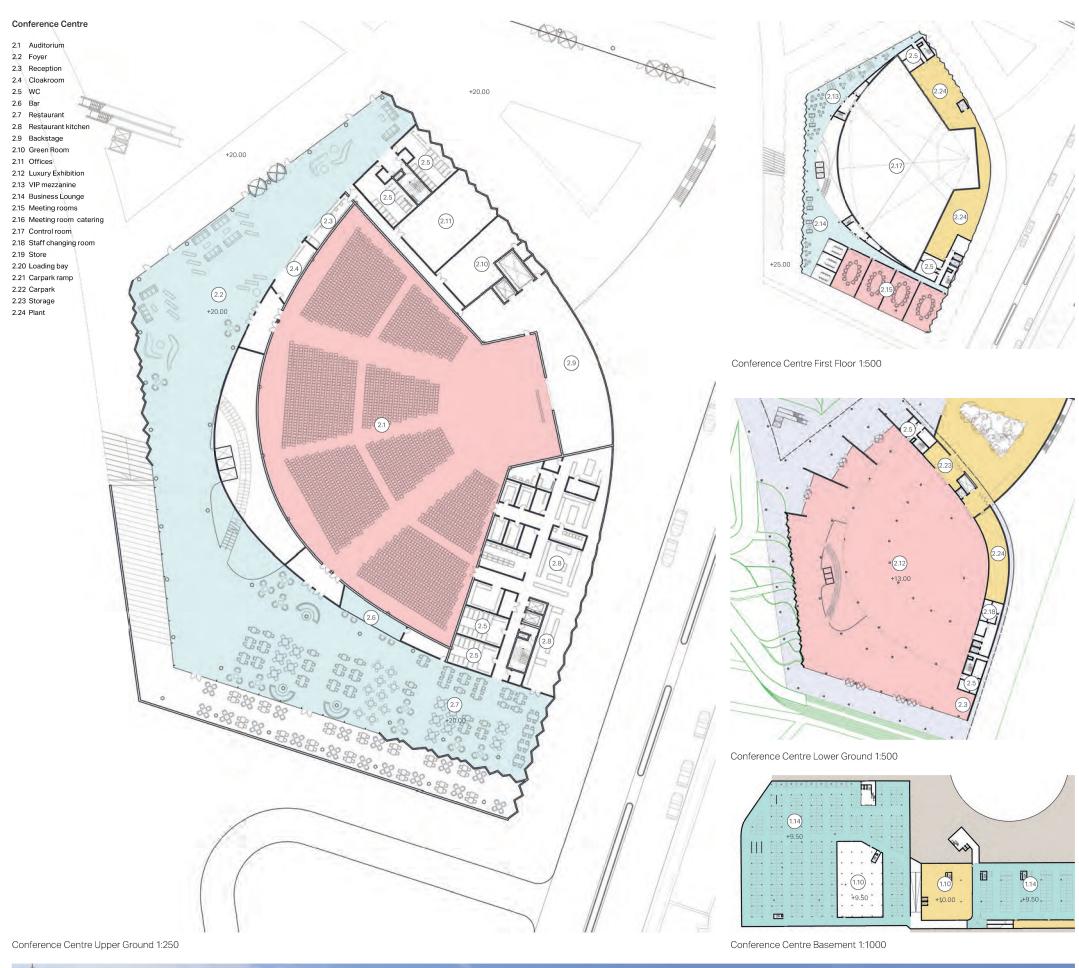


Hall 3- Lower Ground level

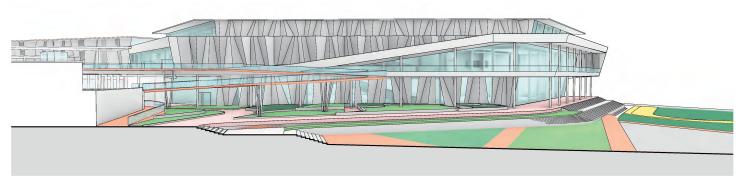


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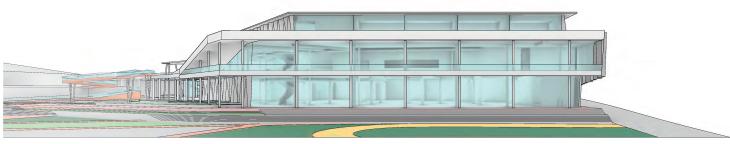
# Conference Centre | Plans



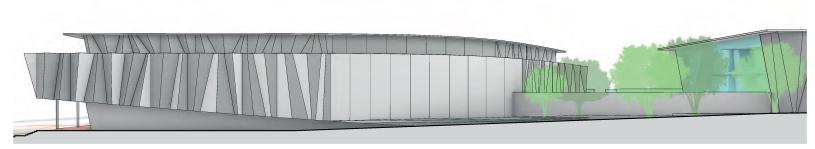
# Conference Centre | Sections & Elevations



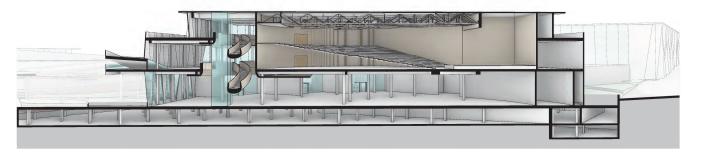
Conference Centre Elevation 1 1:250



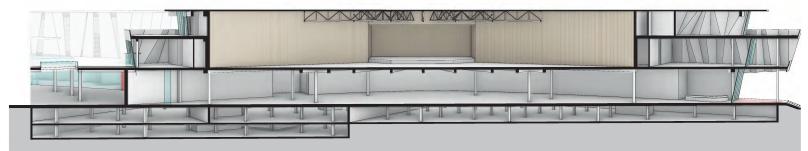
Conference Centre Elevation 2 1:250



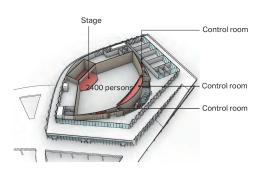
Conference Centre Elevation 3 1:250



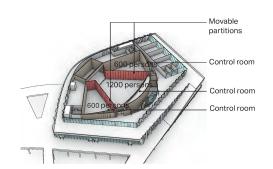
Conference Centre Short Section 1:250



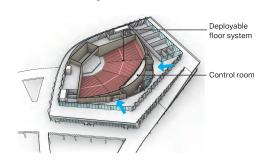
Conference Centre Long Section 1:250



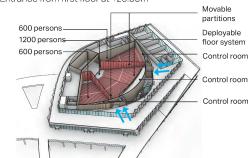
Flat floor big auditorium mode - 2400 persons capacity Entrance from main foyer at +20.00m



Three flat auditoria mode - 1200 & 600 persons capacity Entrance from main foyer at +20.00m



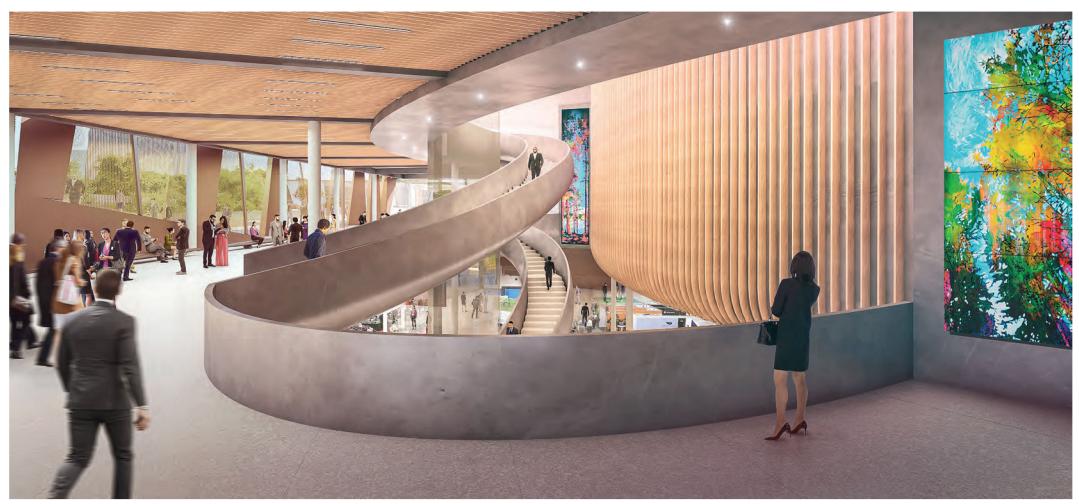
Raked floor big auditorium mode - 2400 persons capacity Entrance from first floor at +26.00m



Three flat auditoria mode - 1200 & 600x2 persons capacity Entrance from first floor at +26.00m

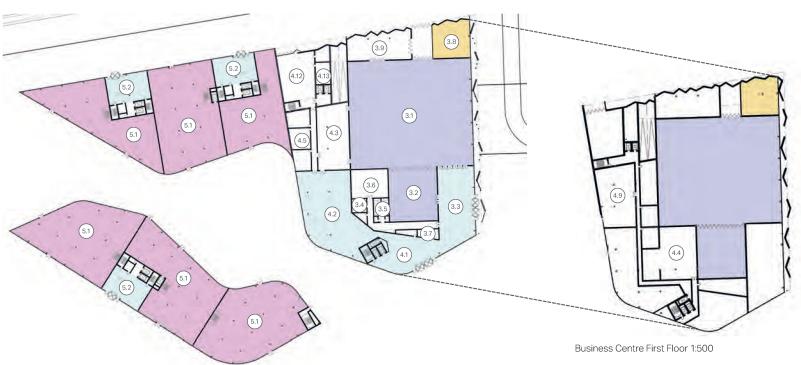


Auditorium radial truss structure achieves column free space



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# Business Centre | Plans



Business Centre Ground Floor 1:500

## **Business Centre**

- 3.1 Main Multipurpose Hall
- 3.2 Small Multipurpose Hall
- 3.3 Foyer
- 3.4 Cloakroom 3.5 WC
- 3.6 Dressing rooms 3.7 Administration & Event offices
- 3.8 Loading bay

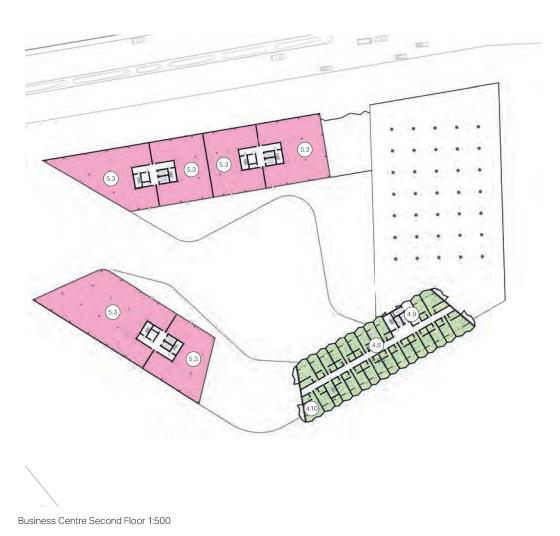
#### 3.9 Storage

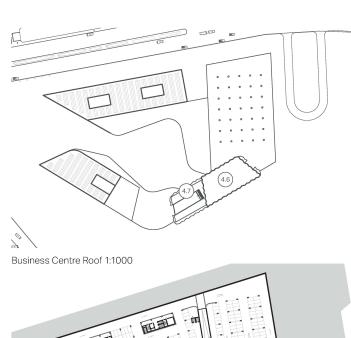
Hotel

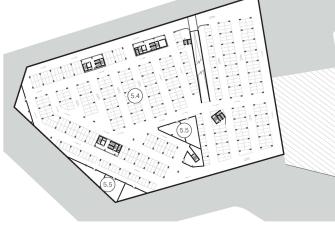
- 4.1 Hotel reception
- 4.2 Hotel restaurant
- 4.3 Kitchen 4.4 Gym
- 4.5 Hotel Admin
- 4.6 Rooftop Bar
- 4.7 Pool
- 4.8 Hotel 4.9 Laundry
- 4.10 Loading bay
- 4.11 Storage

#### Commercial Complex

- 5.1 Retail/Recreational/Services
- 5.2 Office Lobby
- 5.3 Office
- 5.4 Carpark
- 5.5 Storage



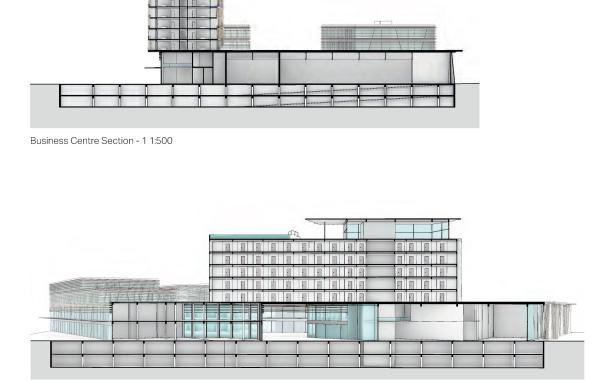


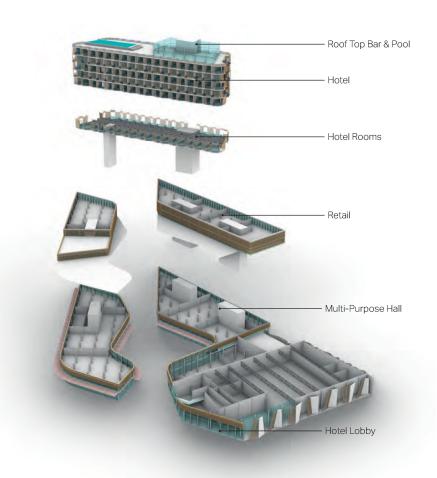


Business Centre Basement 1:1000

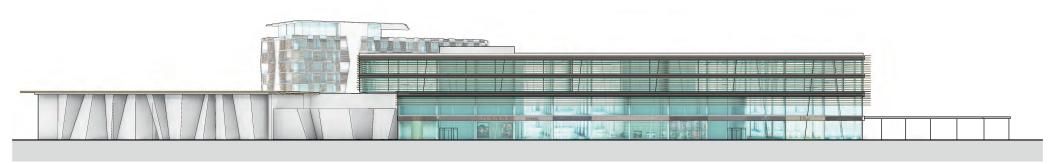


# Business Centre | Sections & Elevations

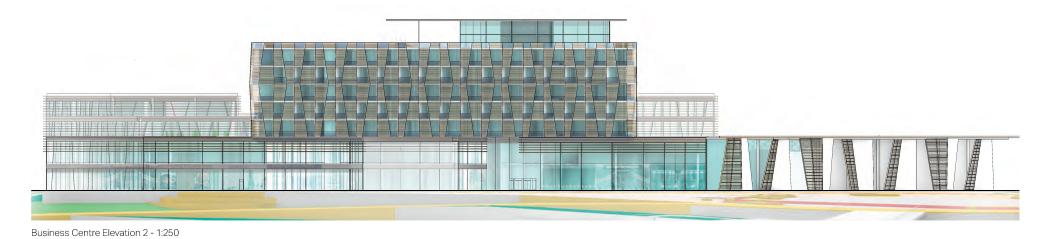




Business Centre & Hotel - Expolded Axonometric



Business Centre Elevation 1 - 1:250





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