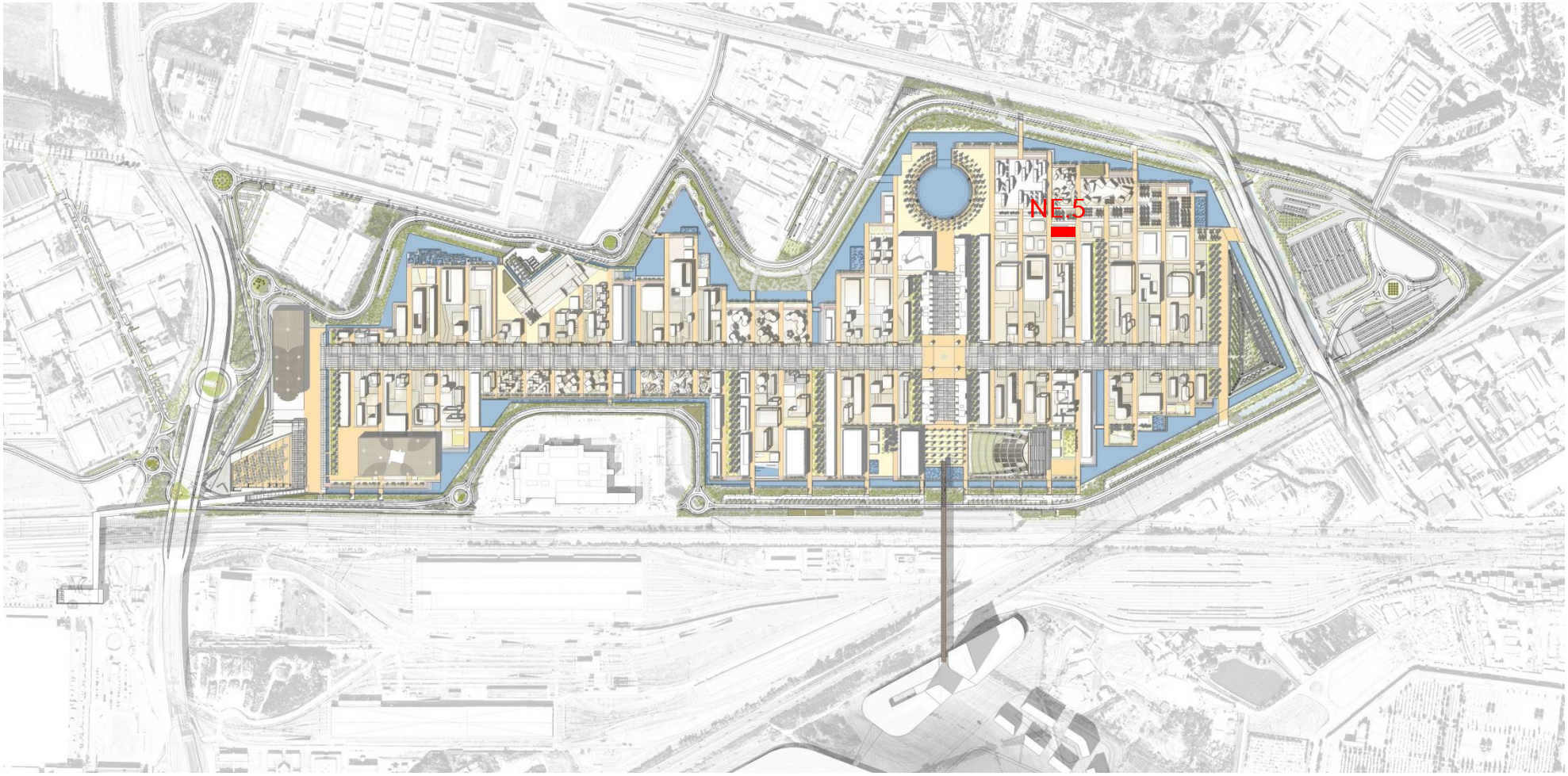
EXPO 2015 S.p.A.

Lot NE5

February 2014

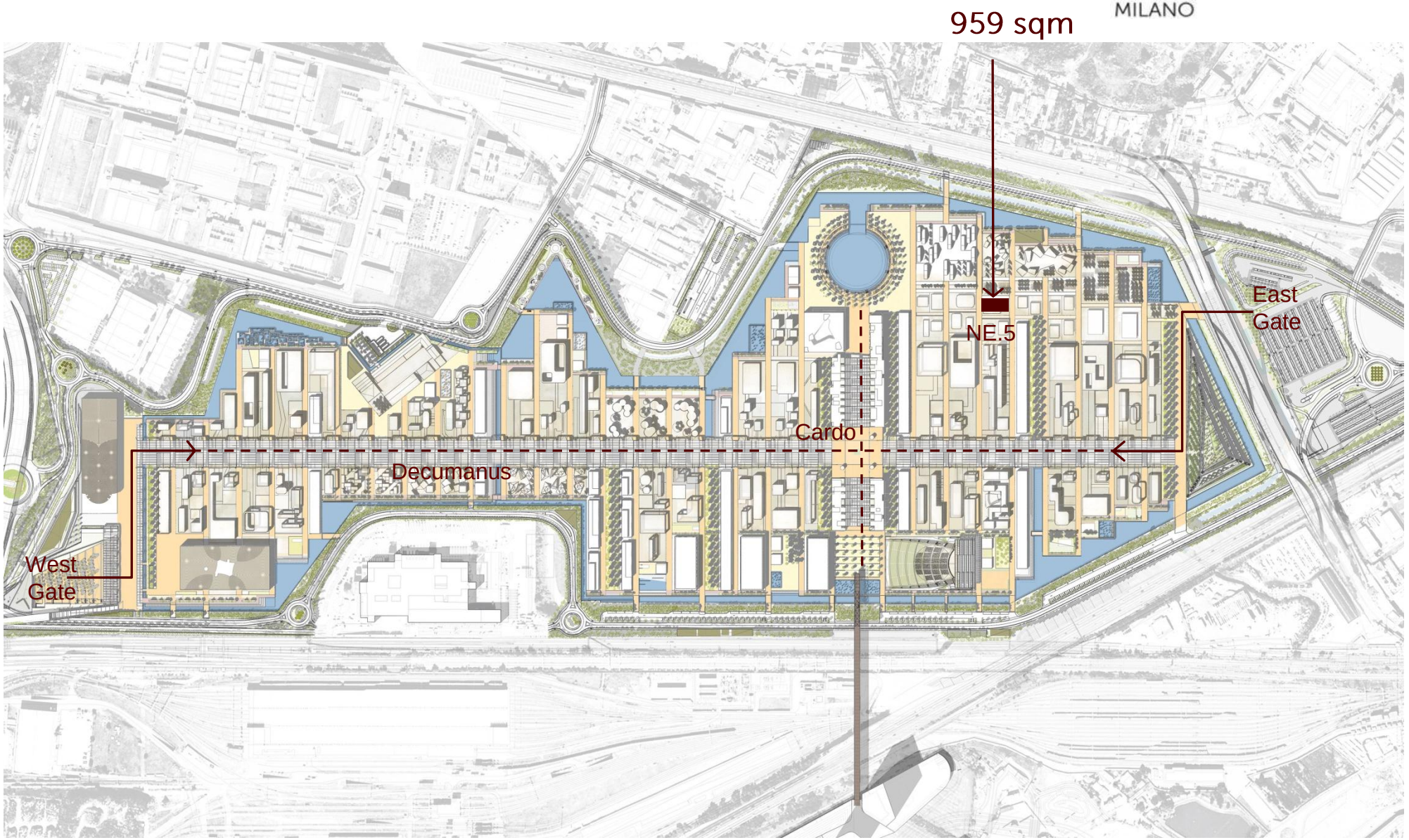
Location in the Expo Site

Suggested placement: **LOT NE.5**



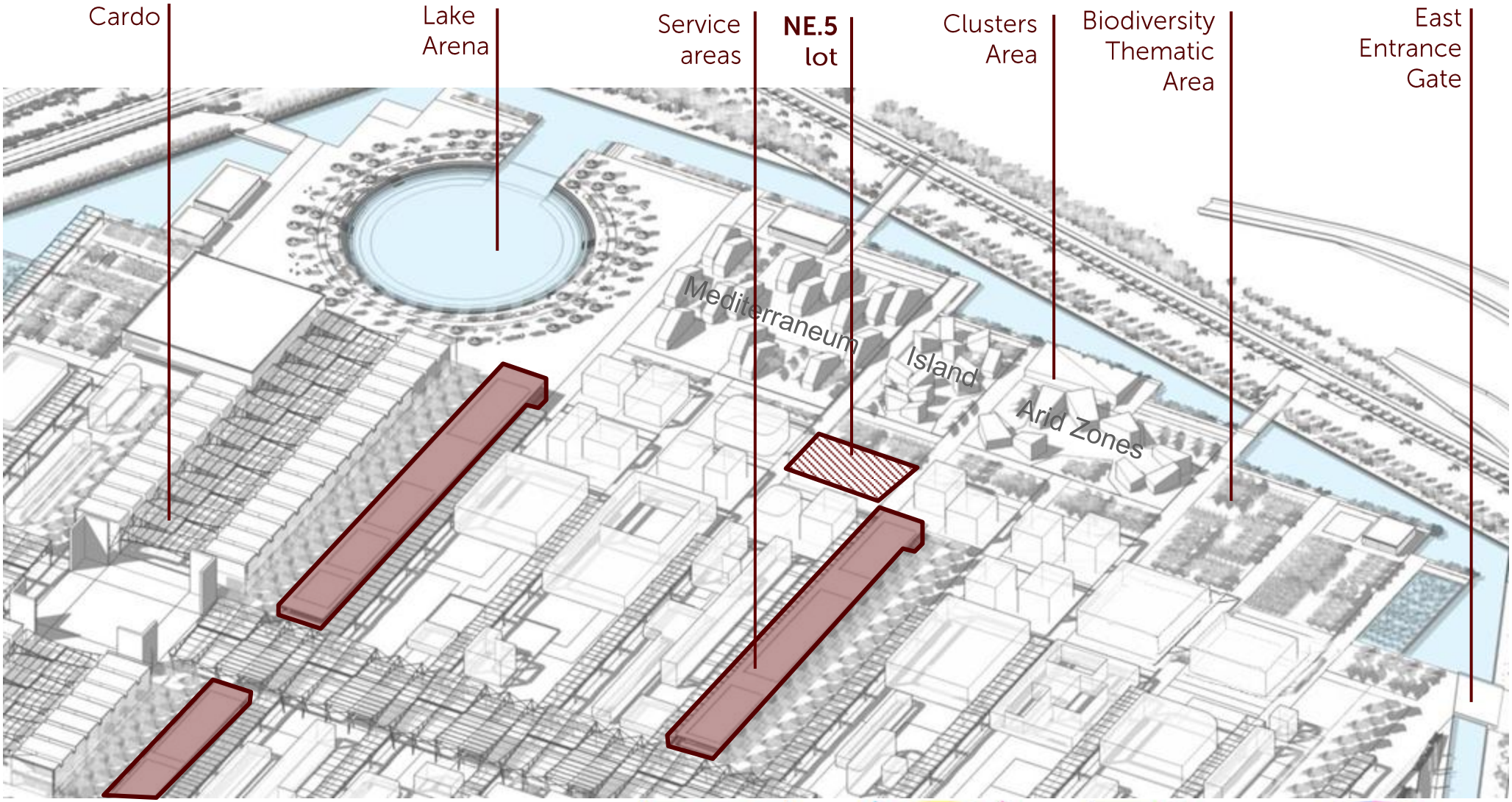
Location in the Expo Site

The lot **NE.5** is located near to the **Cardo**.



Location in the Expo Site

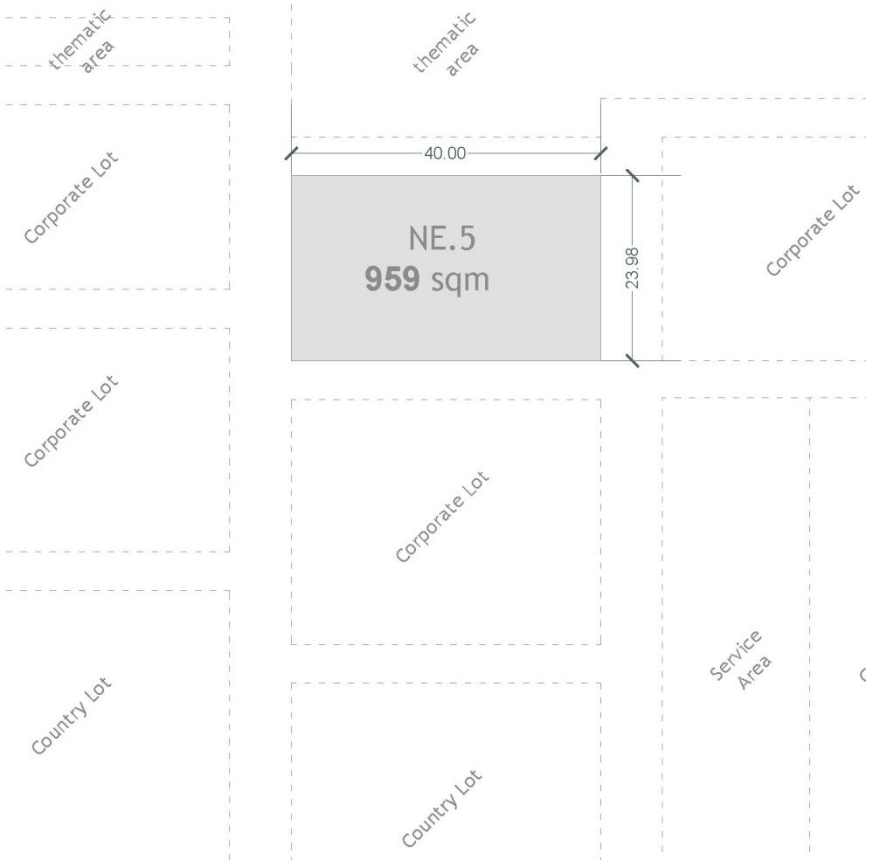
- The lot NE.5 is located **near the Lake Arena, the Biodiversity Thematic Area, the Mediterranean Hill, the Mediterraneum, Island and Arid Zones Clusters.**
- The **Cardo** is located at a **short distance**



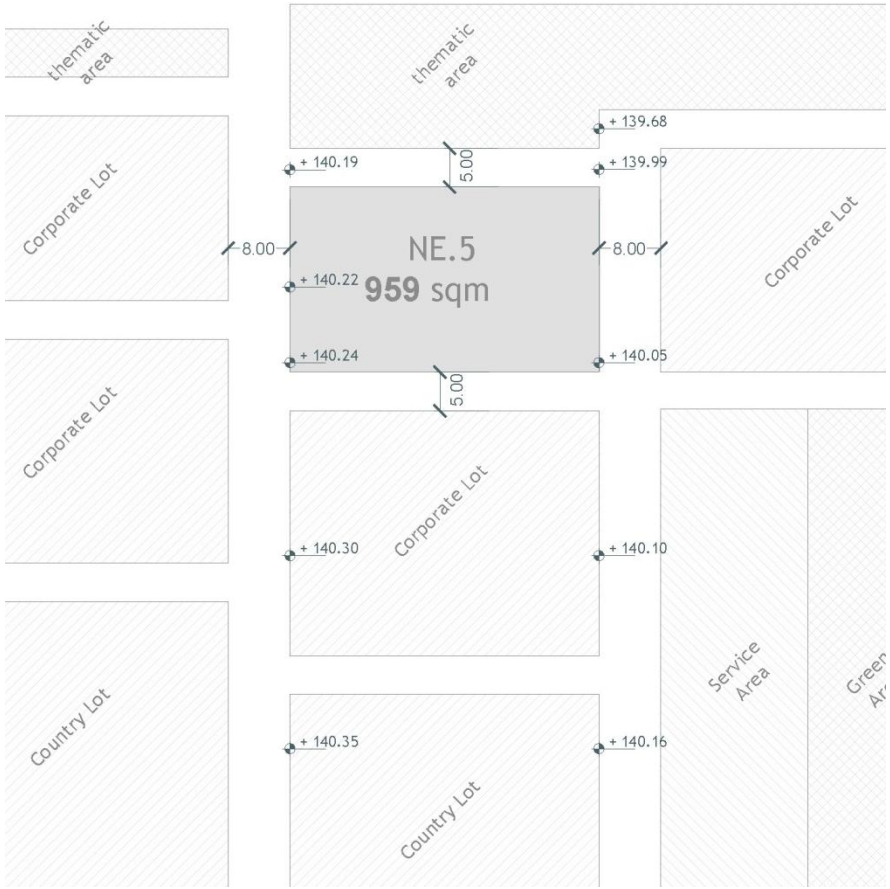
Lot number – NE.5

Lot Surface* – Lot Dimensions

* Rounded value ± 0.5

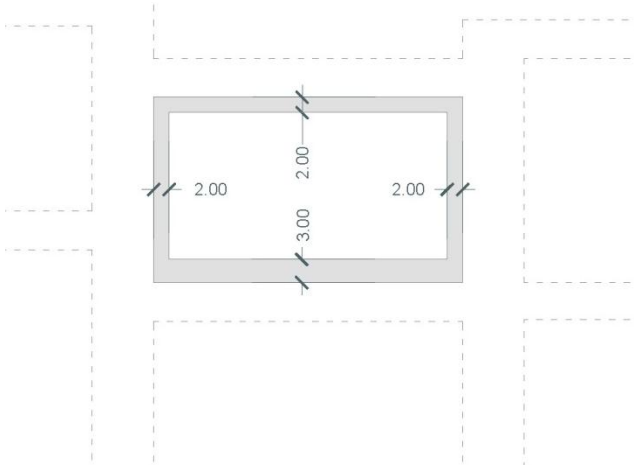


Surface Levels



Lot number – NE.5

Setbacks – Buildable Area – Green and Open Area



- Lot area* 959 sqm
- Buildable Area (Lot Area minus the required setbacks): 683,19 sqm

* Rounded value ± 0.5

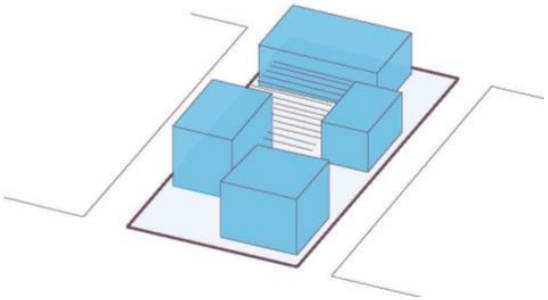
Using the maximum Buildable Area (683,19 sqm), the Participant may decide to build:

- **more than one building** (covered exhibition space)
- **and more than one level**

Covered Exhibition Spaces are buildings or enclosed structures containing exhibition areas or other spaces (including all overhanging upper floors or balconies)

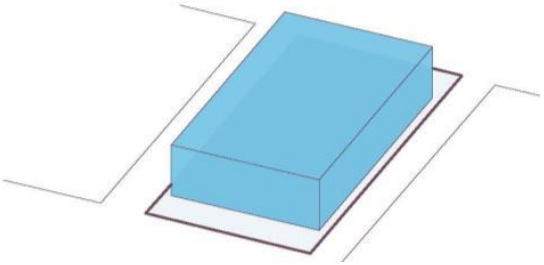
Volumetric Scenario A

The lot can be designed as a sequence of indoor and open-air exhibition spaces.
It is possible to use all the available volume to realize more than one building in order to create an expositive landscape.



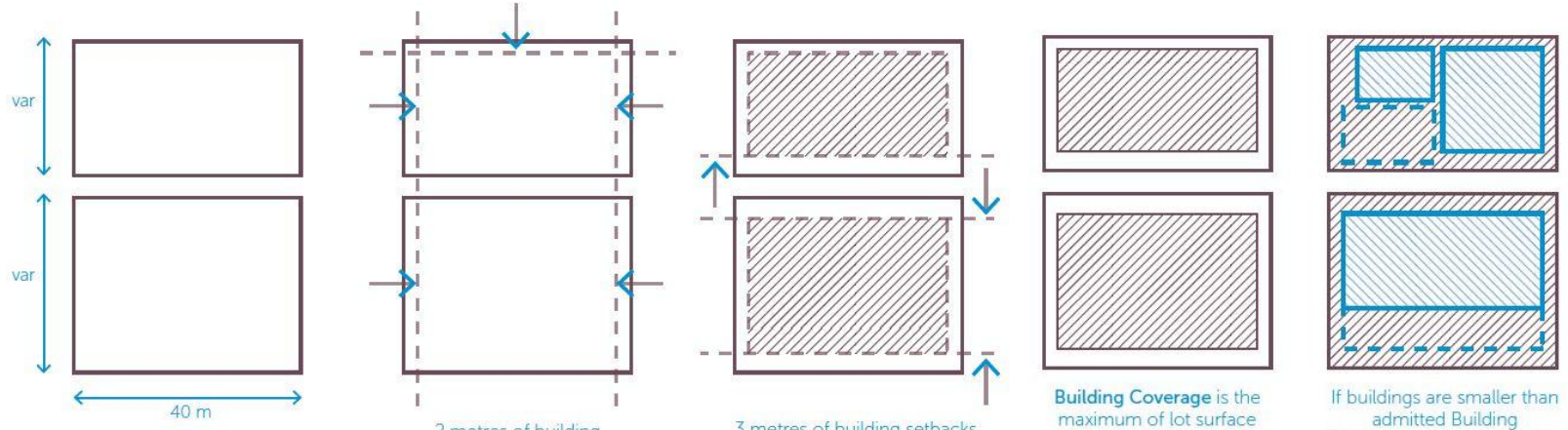
Volumetric Scenario B

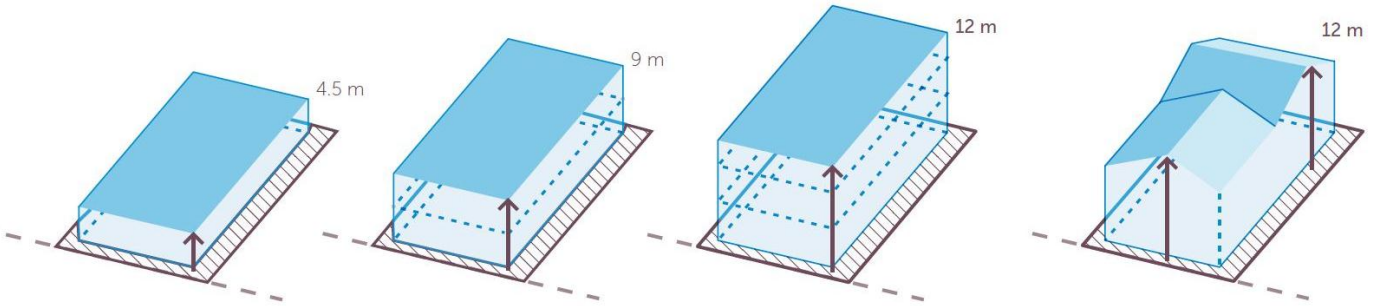
The lot can be designed as a classic Expo pavilion.
All the available volume can be used to realize a single indoor exhibition space that will have a strong relation with the resulting open-air exhibition space.



General Guidelines and Criteria
for the construction of the Exhibition Spaces

General Guidelines and Criteria: Basic Rules





Participants may decide to build more than one level within the Building Coverage, the maximum building height is fixed on **12 meters.**

Volumetric scenarios

Volumetric Scenario A

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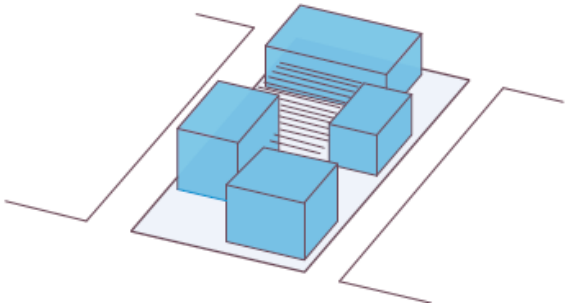
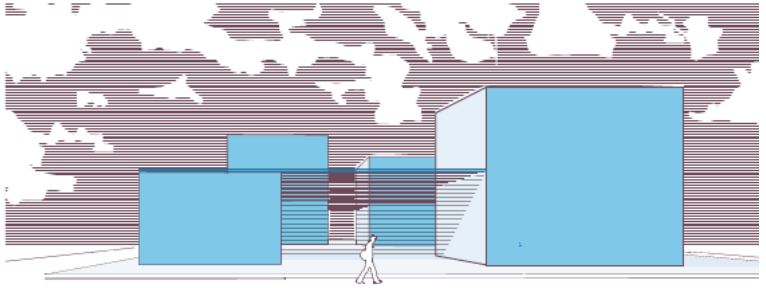
It is possible to use all the available volume to realize more than one building in order to create an expositive landscape.





Volumetric Scenario B

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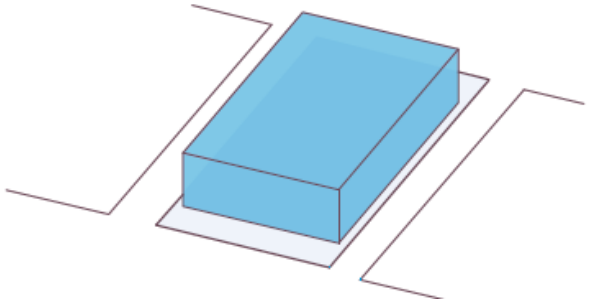
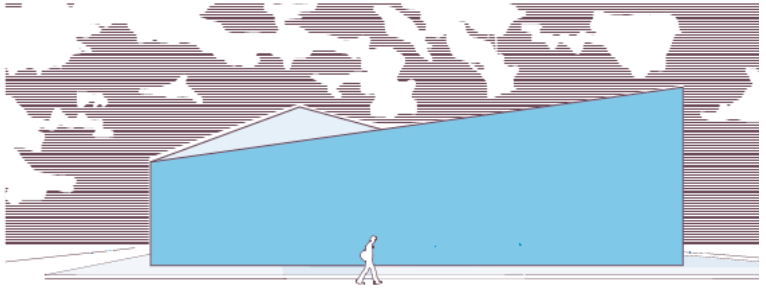
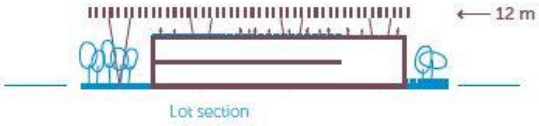




General Guidelines and Criteria

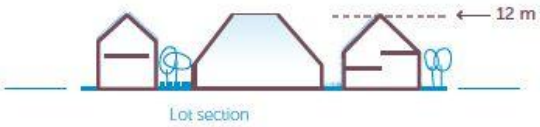
Number of levels

Participants are free to decide to build more than one level within the Building Coverage, according to:
- the maximum building height, fixed on 12 metres;
- 3 meters minimum floor-to-ceiling height for indoor spaces, referring to Italian laws and ordinances.



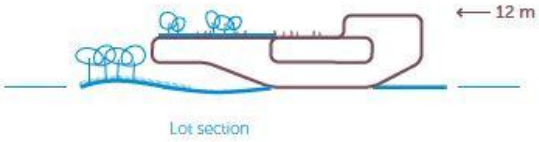
Building Height

The Building Height must be less than 12 metres.
The height limit for any additional architectural elements (such as skylights, roof elements, vertical connections to the roof, sunscreen protections, signals...) is 12 metres .



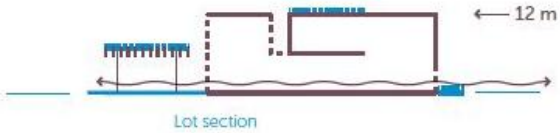
Building Height - Roof Design

Even if the buildable volume is split into more than one volume the height limit for parts or any architectural elements, portions of the building is 12 metres.



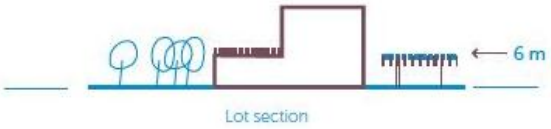
Roof Design

The covered part of Exhibition Space may have roof terraces for visitors.
The greening rate of roofs shall not be lower than 50%.
Rooftop facilities or structures must comply and integrated with the landscape design requirements of the rooftop.



Permeability

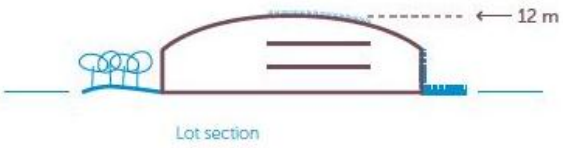
The indoor Exhibition Space must ensure the permeability of the indoor/oudoor exhibition system



Light structures

Roofs, awnings, canopies, greenhouses, and open-sided patio roofs.can also be built.

These structures cannot be higher than 6 metres; structures may abut directly on squares, greens, streets and public spaces.



Subsurface Structures

No underground level or basement are allowed.

According to the rules of the BIE and the common practice of the previous Exhibitions, all Country pavilions are temporary structures.

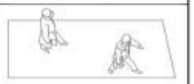
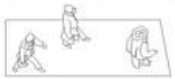
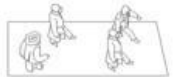
"MAXIMISE PERMEABLE (POROUS) GROUND AREAS"

According to the rules of the BIE and the common practice of the previous expositions, all Country pavilions are temporary structures.

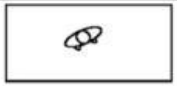
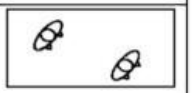
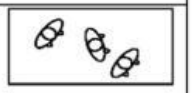
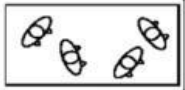
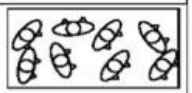
It means "both ground surface and subsurface has to be restored as to their original condition"

Crowd Level Indicators
LOS

The presence of many people, following the same paths or standing in same waiting areas or events, can be measured by the Level Of Service (LOS), which is a scale of values representing space occupancy, mobility ease and user comfort.

LEVEL OF SERVICE	Flow features	Pedestrian space [sqm/ped]	Pedestrian flow [ped/min/m]	
A	Free	< 5.6	< 16	
B	Free, less space	3.7 – 5.6	16 - 23	
C	Stable	2.2 – 3.7	23 - 33	
D	Conditioned	1.4 – 2.2	33 - 49	
E	Forced	0.75 – 1.4	49 – 75	
F	Congested	<0.75	variable	

Pedestrian level of services in pedestrian paths.

LEVEL OF SERVICE	Pedestrian space [smq/ped]		
A	≥ 1,20	You can move in the waiting area without disturbing the people standing in queue.	
B	0,90 - 1,20	Although the space available is less, it is still possible to cross the area without disturbing standing people.	
C	0,60 - 0,90	At this level of service can happen to disturb some waiting pedestrians. However, the density in the waiting area guarantees still personal comfort.	
D	0,30 - 0,60	It is impossible to wait without interfering with other people; circulation within the area is heavily restricted and the crossing is only possible in a group. The density causes discomfort.	
E	0,20 - 0,30	It's inevitable physical contact with other pedestrians; circulation within the area is impossible. This density cannot be sustained for long without serious discomfort.	
F	≤ 0,20	All people in the waiting area are in physical contact. density gives a sense of extreme discomfort and cannot move. There is the possibility of panic.	

Level of service in pedestrian waiting areas.

The Organizer has used the dynamic simulation software *Legion Studio®,* widely used in transport analysis for check of complex buildings, underground stations, airports as well as LOS analysis of some Olympic Games area in London.

1. Fruin, John J., *Pedestrian planning and design,* New York, Metropolitan association of Urban Designers and Environmental Planners, 1971

2. AA.VV., *Highway capacity Manual,* Washington D.C., Transportation research Board, 2000

The crowd level indicator should ot exceed D level or a restrictive fire-laws level