

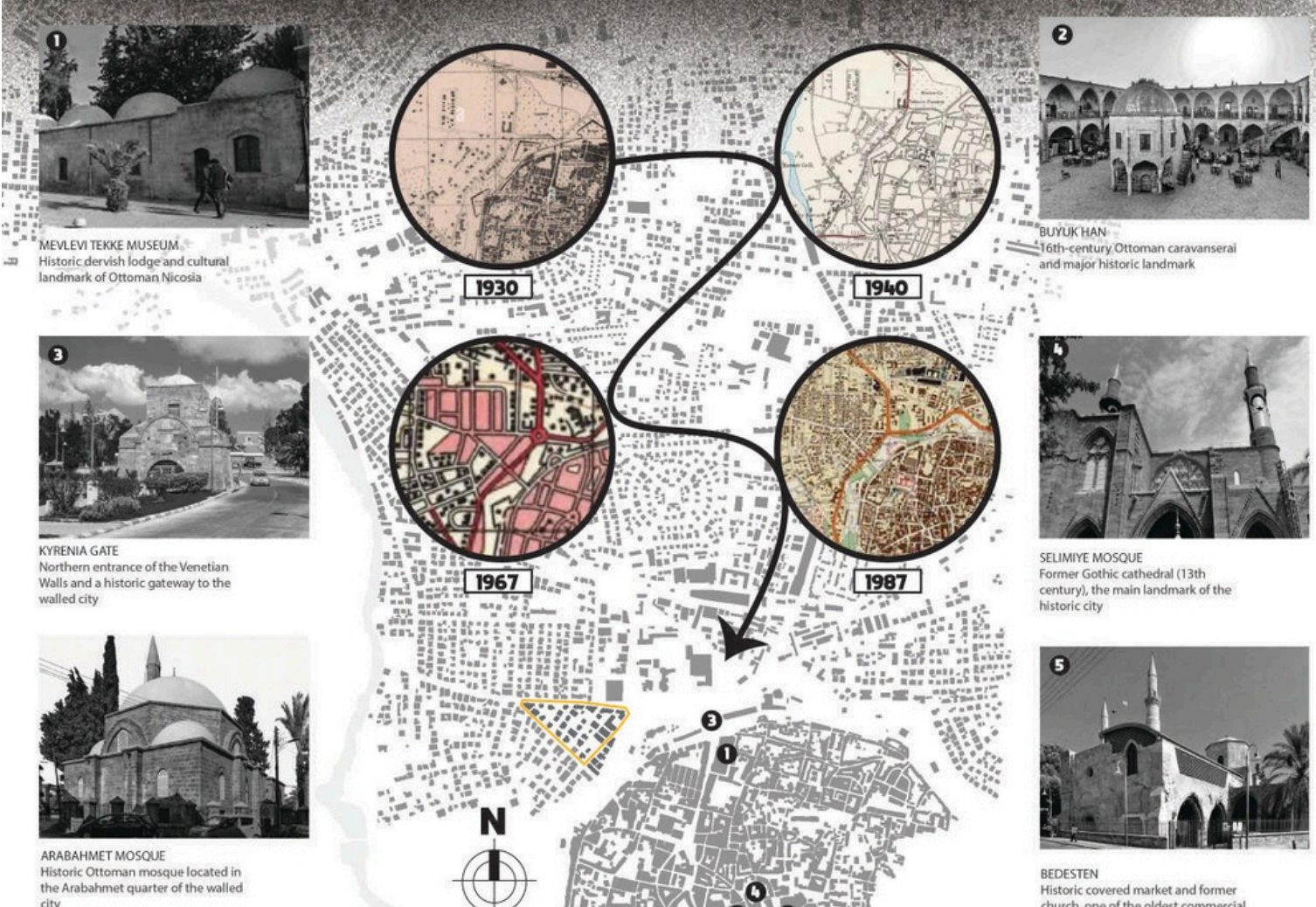
ARCH421-Architectural Design Studio V
NATIONAL LIBRARY IN NICOSIA: TODAY AND FUTURE

FIU-ARCH
Spring Academic Semester 2025-2026



Historical Layers & Civic Identity

Scale 1 : 10000
City Level Analysis



Urban Mobility & Accessibility

Scale 1 : 5000
City Level Analysis



HIGHWAYS & REGIONAL ROADS:
Lefkoşa is connected to other major cities (Kyrenia, Famagusta, Morphou) via arterial highways.

LOCAL ROADS:
The municipality manages dense urban streets, including Dereboyu (Mehmet Akif Avenue), which is a key commercial corridor.

ONGOING WORKS:
Current projects include sewage pipeline renewal and resurfacing, which affect traffic flow and road availability.

LEGEND
Primary Road
Secondary Road
Tertiary Road
Bus Station
Parking Place
Water

STREET PATTERN
[Thick line]
[Medium line]
[Thin line]

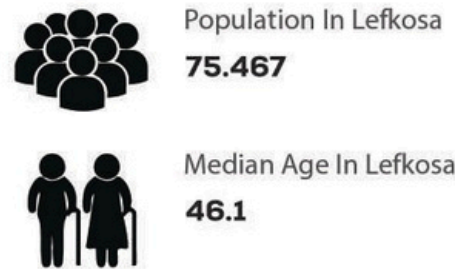


Scale 1 : 2000
Neighborhood Level Analysis

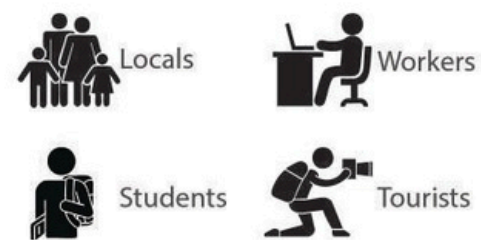
- Wind
- Existing Buildings
- Surrounding Buildings
- Sun Path
- Site Boundaries
- Greenery



Demography



Main Users



Vegetation

Limited Vegetation
Small Green Areas
Atrreets Trees

Fauna

Small Urban Fauna
(birds, stay cats, insects)

Climat

Hot Climate Need For
Shade Mediterranean
Climate

Human flows

Locals roads: Osmanpasa ,
Bedreftin Demirel, Girne
Ave (kyrenia gates...)

Social Needs

More green public
spaces pedestrian
areas, community
Spaces

Activities

Mix of turkish , cypriots,
students (lefkosa turk
lises) families and
workers

Population

Mix of turkish , cypriots,
students (lefkosa turk
lises) families and
workers

Social interaction

Kyrenia Gates , Dervis Pasa
Museum, Selimeye Mosque,
Local coffee

Scale 1 : 3500
City Level Analysis



S

Strategic Location

- Located at major urban intersection
- High visibility from multiple directions

Historic Proximity

- Close to Girne Kapısı (symbolic landmark)
- Strong cultural identity



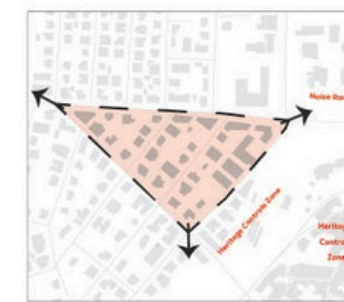
W

Triangular Geometry

- Irregular form complicates planning
- Harder to organize internal circulation

Traffic Pressure

- Roundabout creates noise
- Heavy vehicular flow



O

Create Civic Landmark

- Reinforce entrance to historic city
- Strengthen urban identity

Public Space Creation

- Potential plaza facing gate
- Transitional urban forecourt



T

Climate Impact

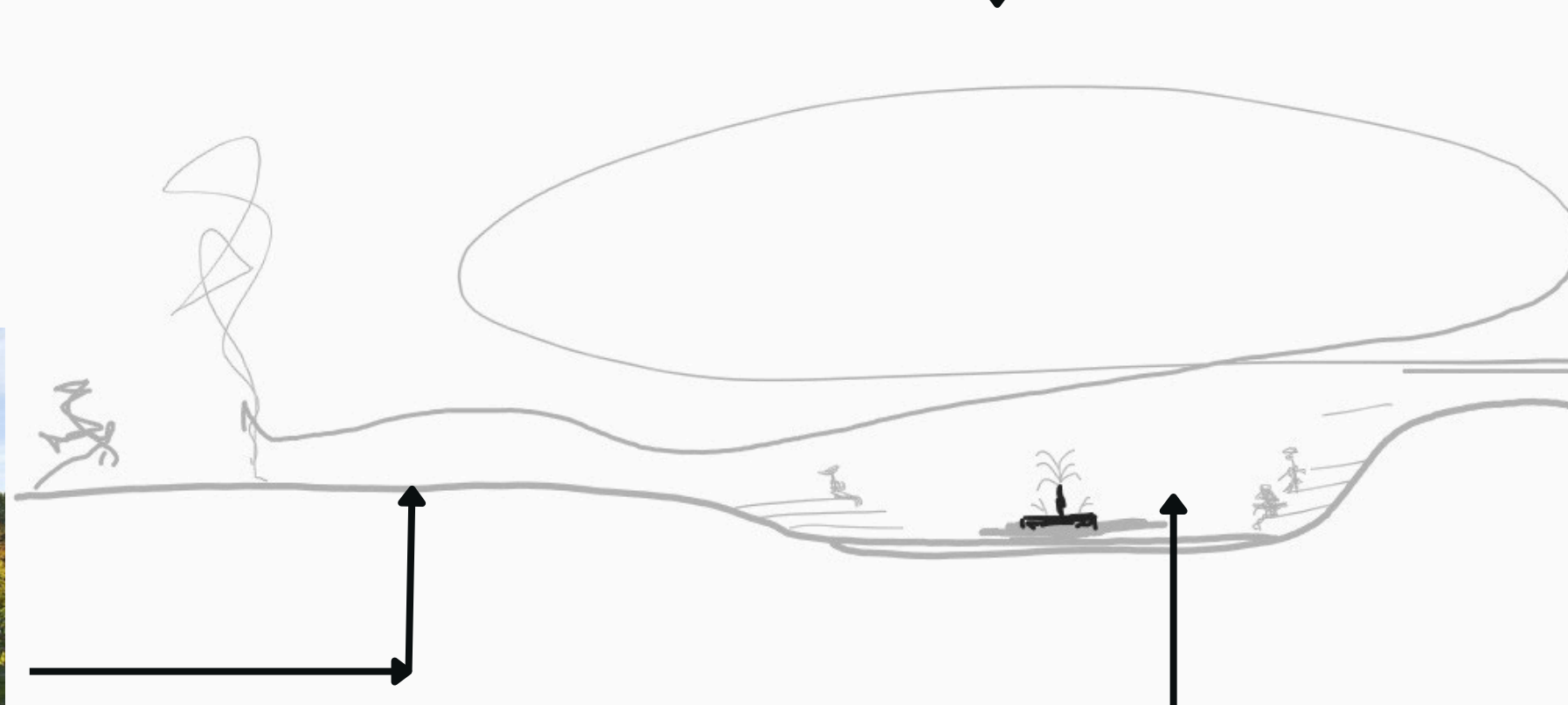
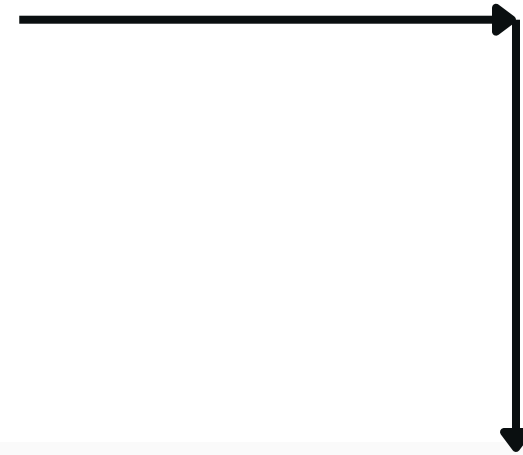
- Harsh sun exposure
- Heat island effect from asphalt roads

Overpowering Historic Context

- Excessive height or massing
- Disrupting skyline near gate



Main building elevated with pedestrian access to the outside amphitheater



entrance define by the landscape

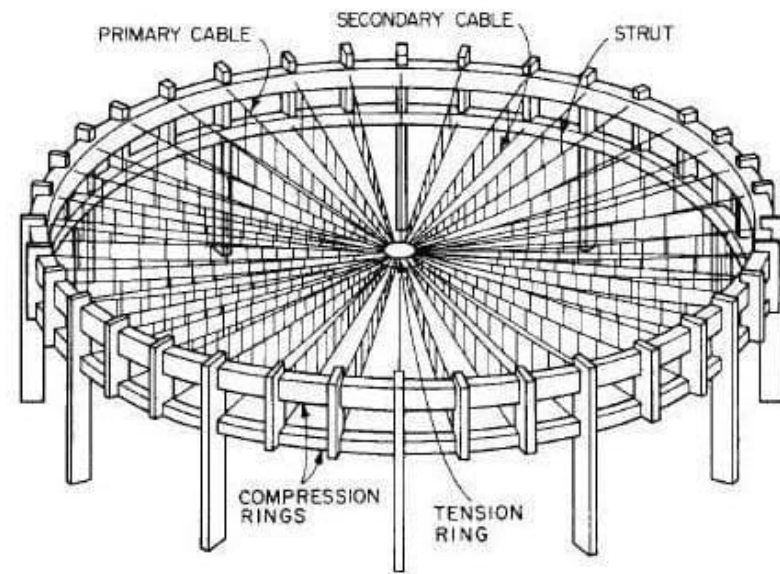
outside amphitheater

ARCH. CONCEPT

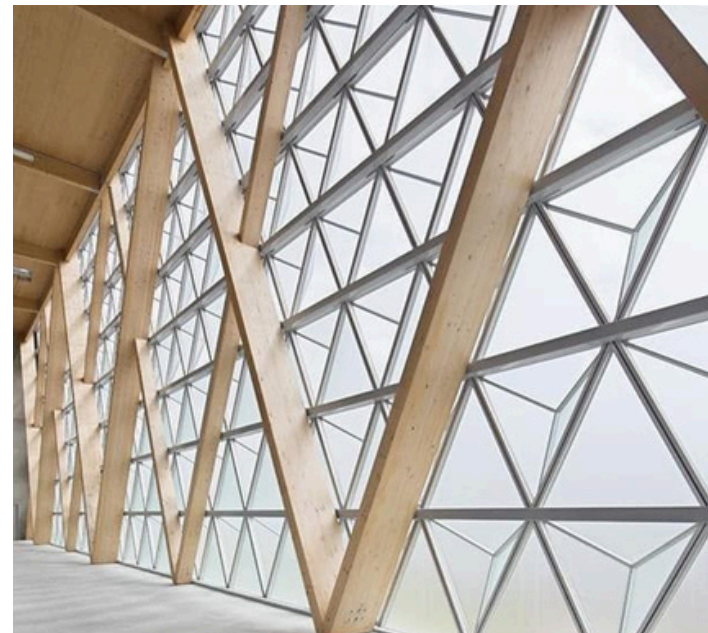
Scenario

bicycle wheel

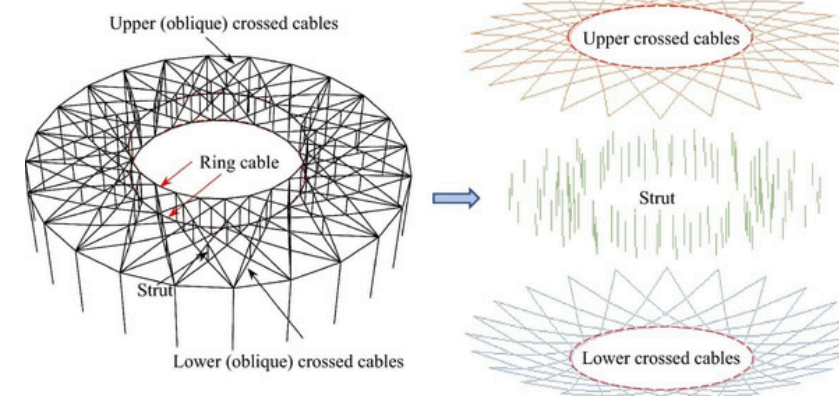
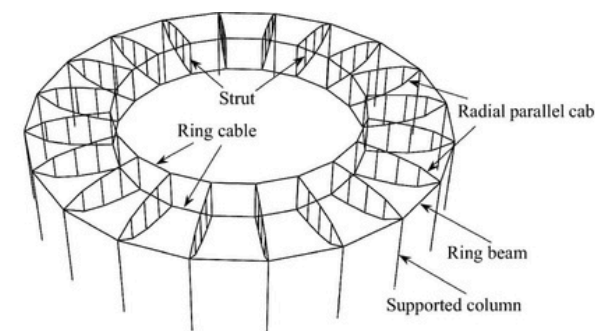
<u>Factor</u>	Impact on Span
Material choice	Steel cables allow ~40–60 m; advanced composites can
Structural redundancy	More cables increase stability
Load distribution	Uniform radial tension maintains balance; uneven



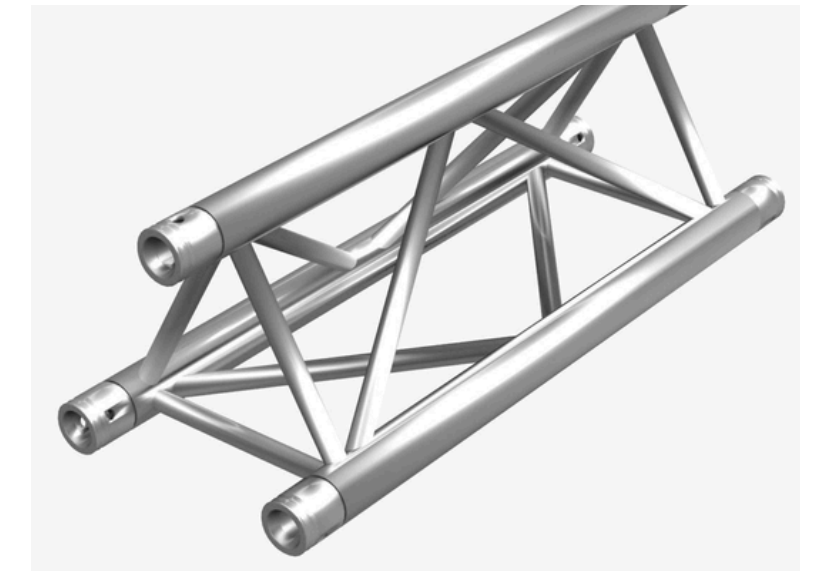
grid system



external glass grid system for the facade of the building



3d truss system



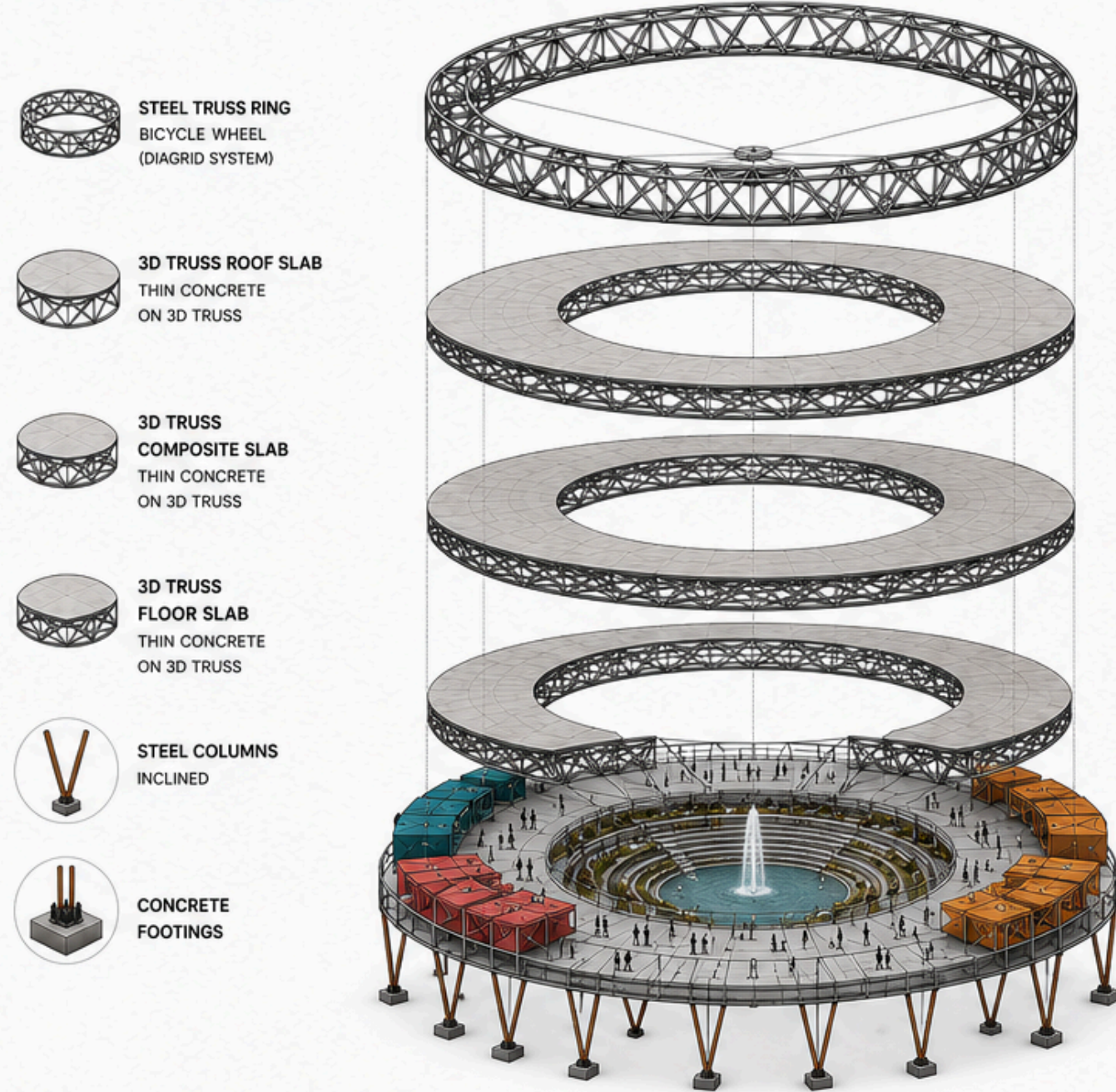
Advantages for Long Spans

- Column-free space:
- Lightweight efficiency:
- Triangulated geometry resists bending and deflection
- good for libraries: Supports heavy book loads while keeping open layouts.

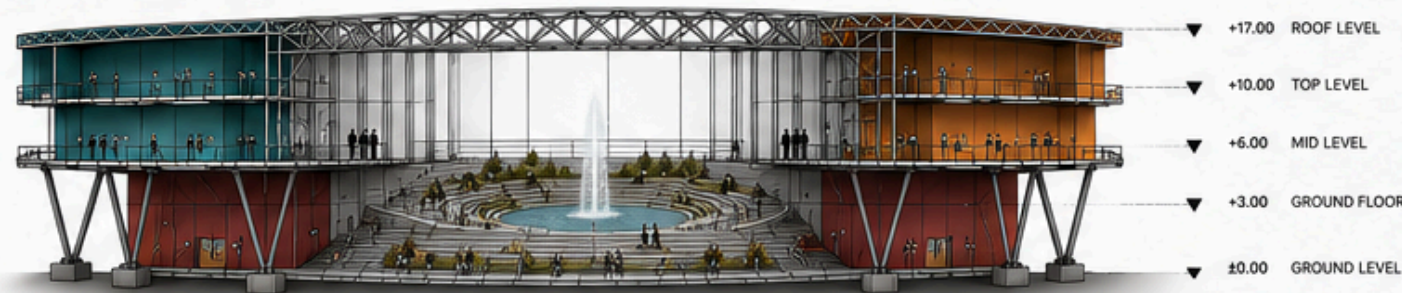
ARCH. CONCEPT

Structural/Technical Solutions and Systems (Diagrams and Cases of Structural Alternative Approaches)

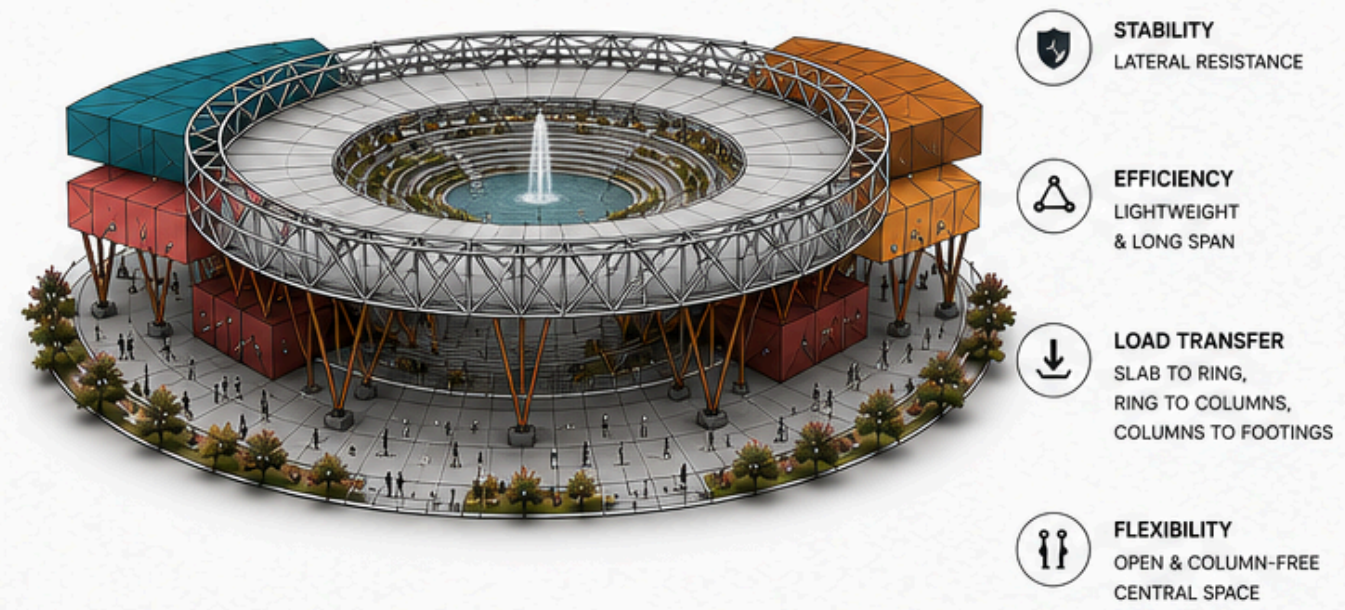
STRUCTURAL DIAGRAM



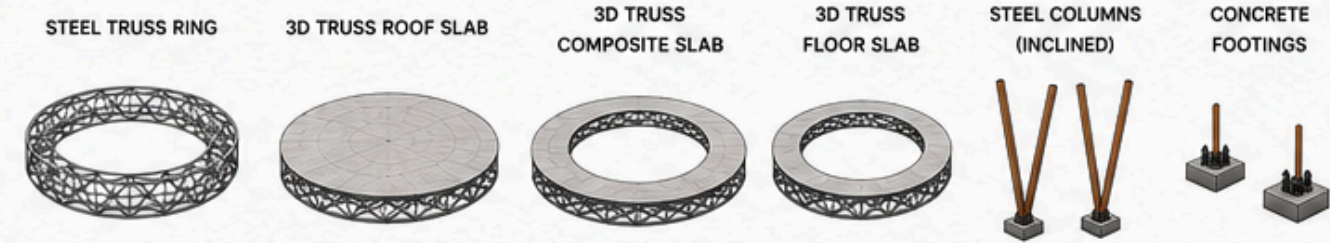
STRUCTURAL SECTION



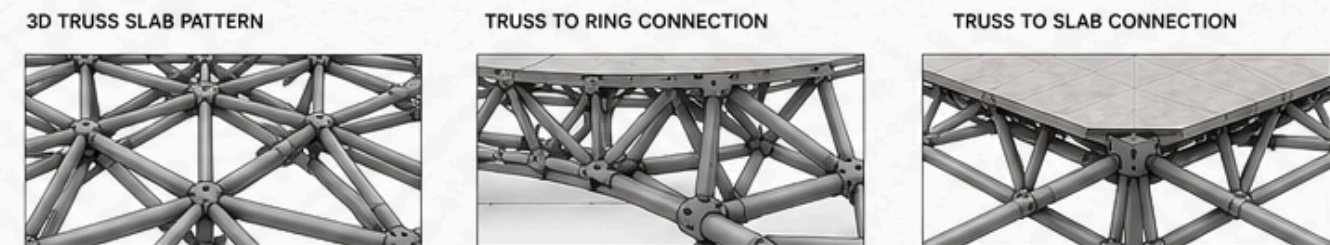
STRUCTURAL SYSTEM



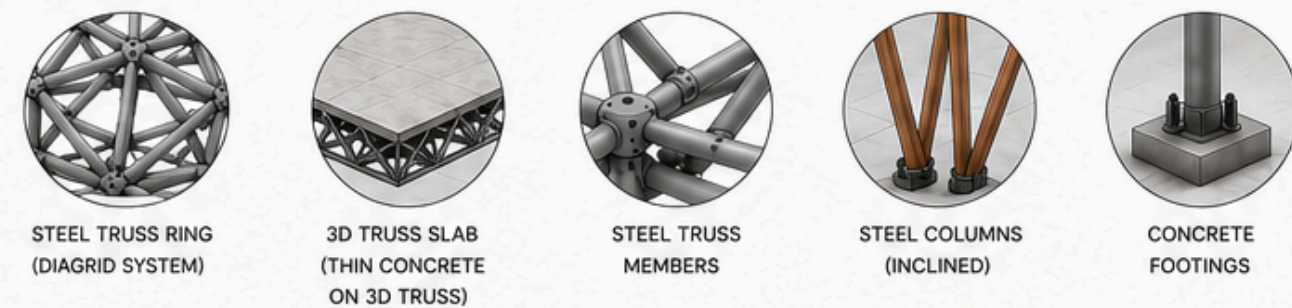
STRUCTURAL COMPONENTS



TRUSS DETAILS



STRUCTURAL MATERIALS



SHAPE FORMATION DIAGRAM

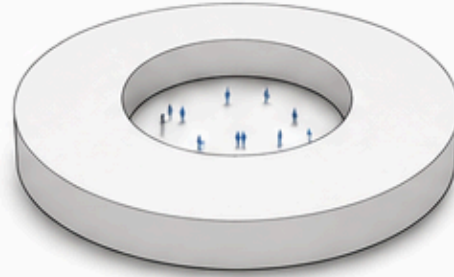
FROM CIRCLE TO LIBRARY

01 PURE CIRCLE



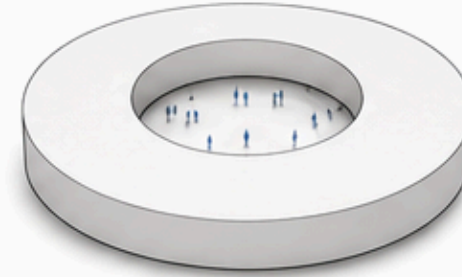
A pure circle represents continuity, unity and knowledge.

02 CENTRAL VOID



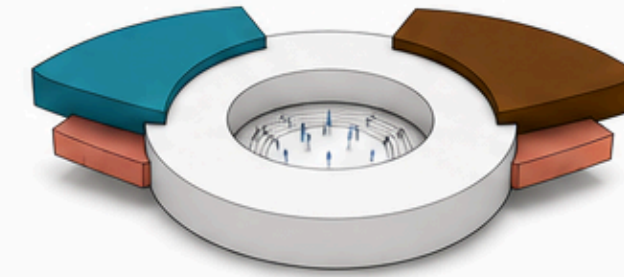
A central void is carved to create the heart of the project.

03 MAIN CIRCULAR BUILDING



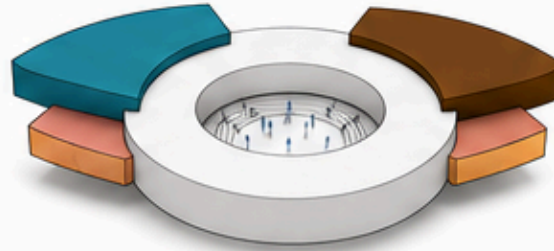
The circle becomes the main building ring, establishing continuous movement and visual connectivity.

04 INSERT TOP-LEVEL VOLUMES



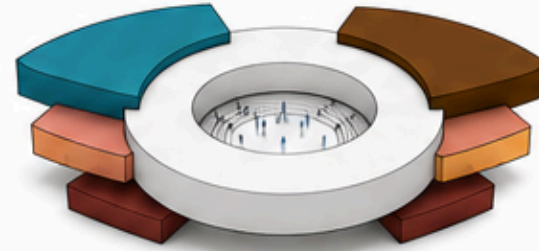
Top-level program volumes are inserted and slightly extend outward.

05 INSERT MID-LEVEL VOLUMES



Mid-level program volumes are inserted, partly inside the ring and slightly extended outward.

06 INSERT LOWER-LEVEL VOLUMES



Lower-level program volumes are inserted below the ring.

07 ADD SUPPORT COLUMNS



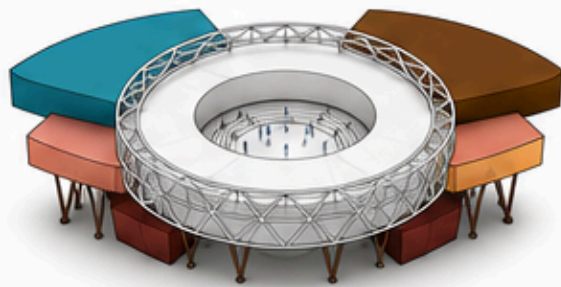
The building is elevated on columns to create shaded public space and improve accessibility.

08 APPLY 3D SPACE TRUSS



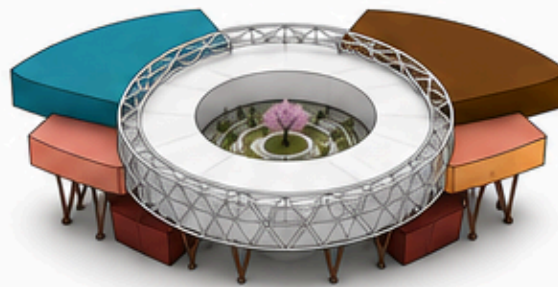
A 3D space truss wraps the circular ring structure, providing strength and long-span efficiency around the ring.

09 APPLY X-GRID SKIN



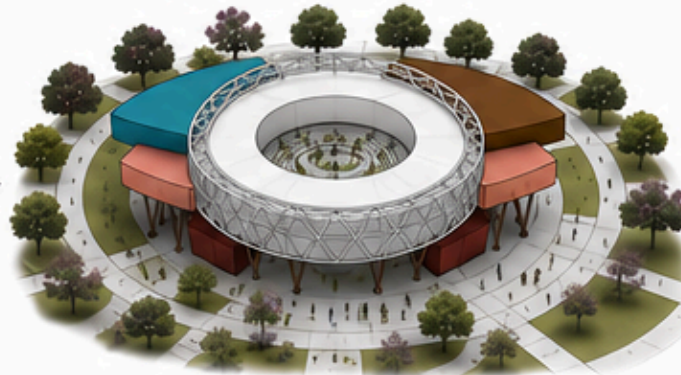
An X-grid façade is applied to the truss, creating transparency, shading and structural expression.

10 CREATE CENTRAL COURTYARD



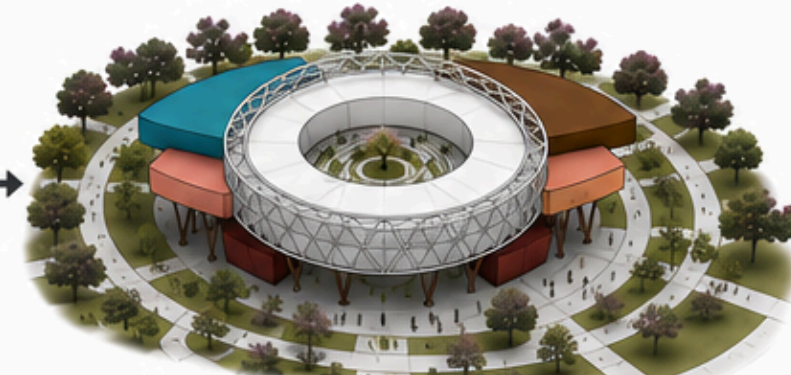
The central courtyard is landscaped to bring light, nature and ventilation into the heart of the building.

11 LANDSCAPE & CONTEXT



The library is integrated with the landscape, connecting the community, open spaces and environment.

12 FINAL ARCHITECTURAL FORM



Final form: A circular library that integrates knowledge, community, structure and landscape.

CIRCLE



VOID



RING



TOP LEVEL



MID LEVEL



LOWER LEVEL



COLUMNS



TRUSS



X-GRID



COURTYARD



LANDSCAPE

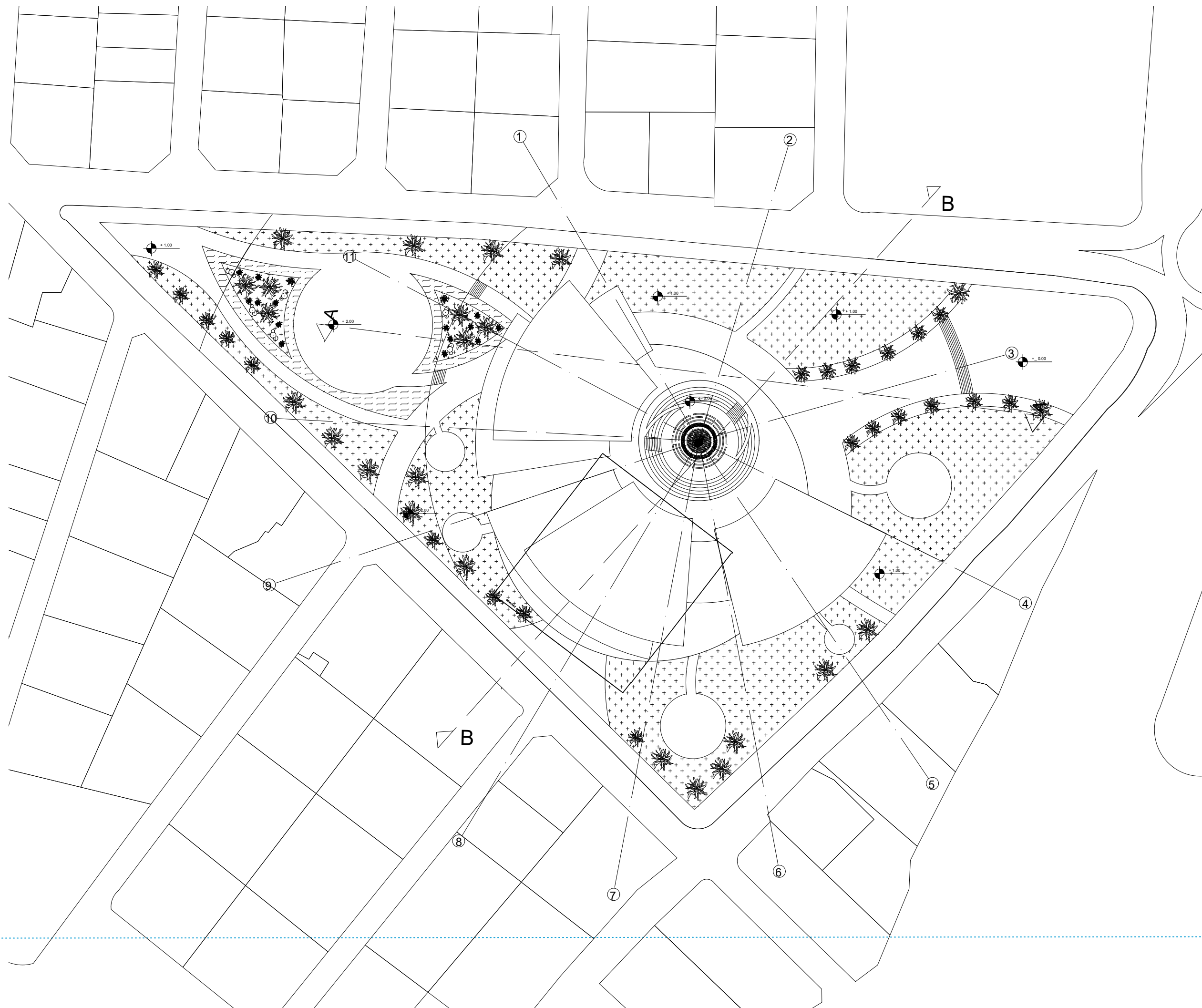
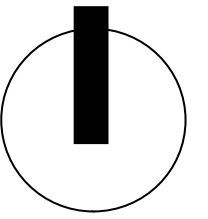


FINAL FORM



ARCH. CONCEPT

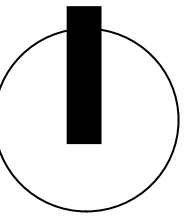
Concept Diagrams-Sequential Diagrams on the Issues of Site Planning and Generation of Form-Structure



SITE PLAN
Scale 1:500

Legend of Spaces

- 1. PRIVATE ACCES AND CAR PARKING
- 2. STAFF ACCESS
- 3. PUBILC ACCES AND CAR PARKING
- 4. MECHANICAL ROOMS AND STORAGES

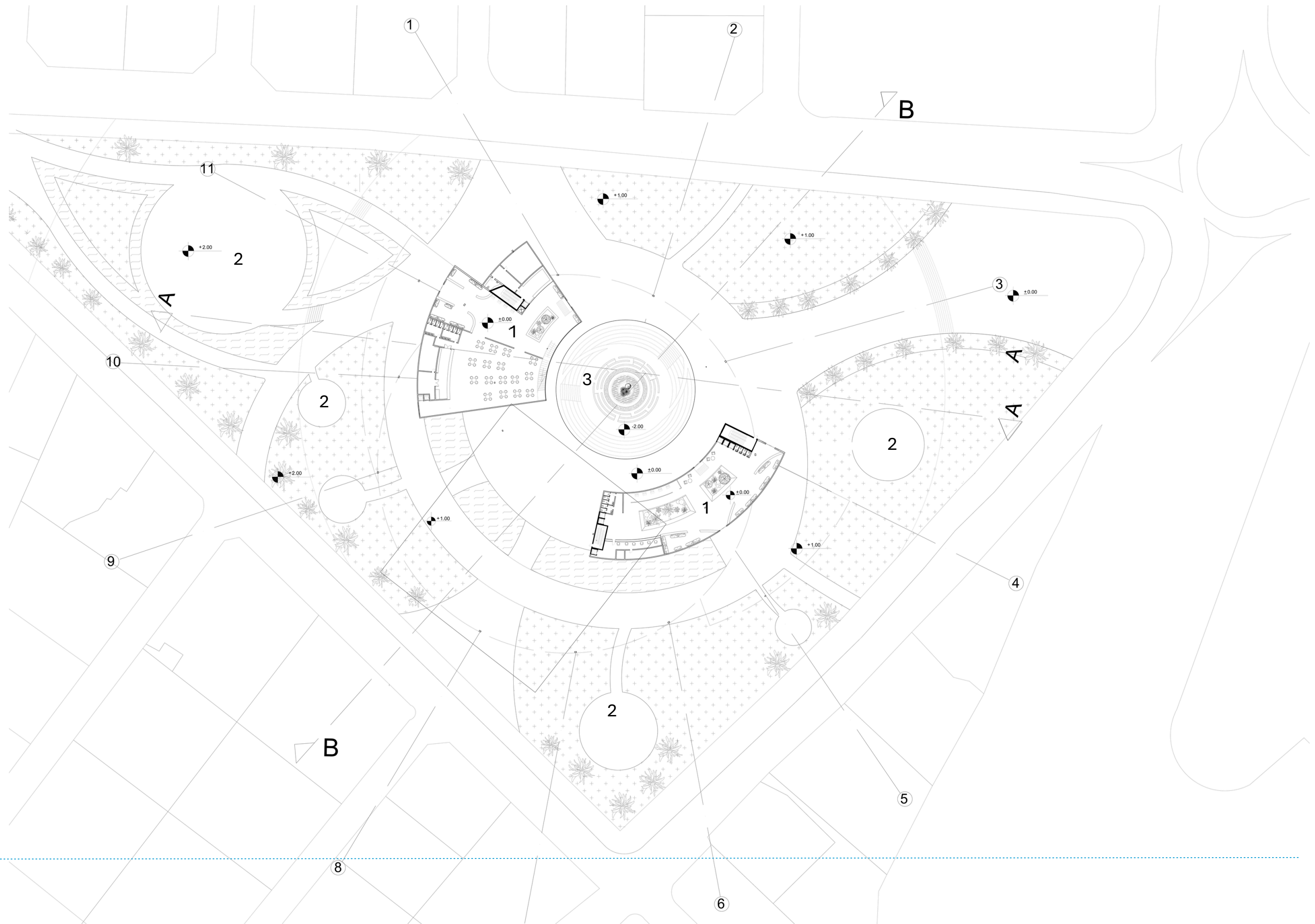
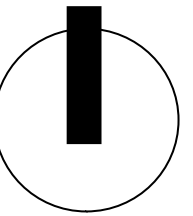


PLAN LEVEL -5.00

Scale 1:200

Legend of Spaces

- 1. MAIN ENTRANS
- 2. OUTDOOR READIN AREA
- 3. AMPHITHEATER

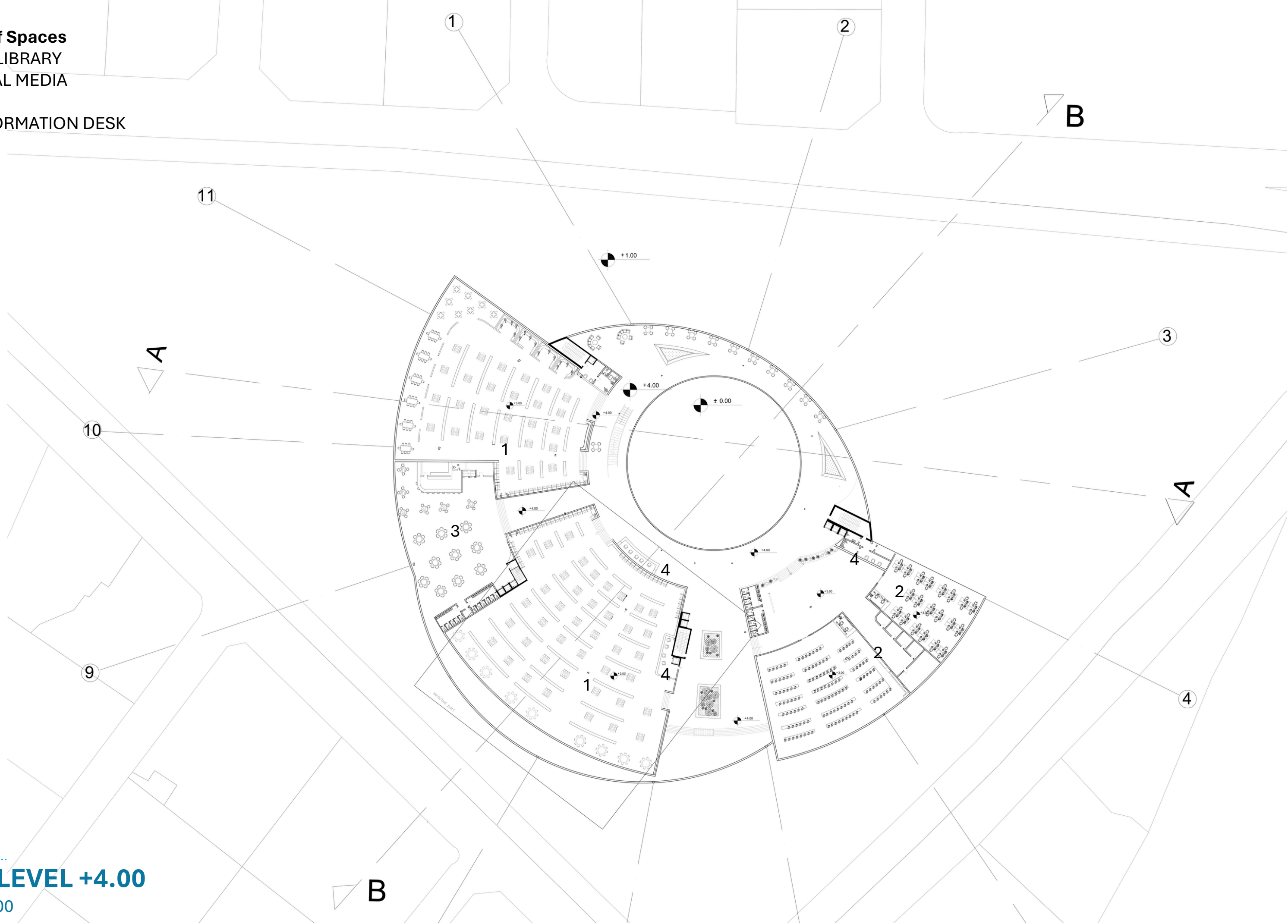
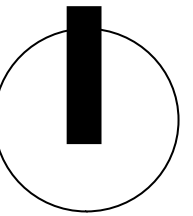


PLAN LEVEL 0.00

Scale 1:200

Legend of Spaces

- 1. MAIN LIBRARY
- 2. DIGITAL MEDIA
- 3. CAFFE
- 4. INFORMATION DESK

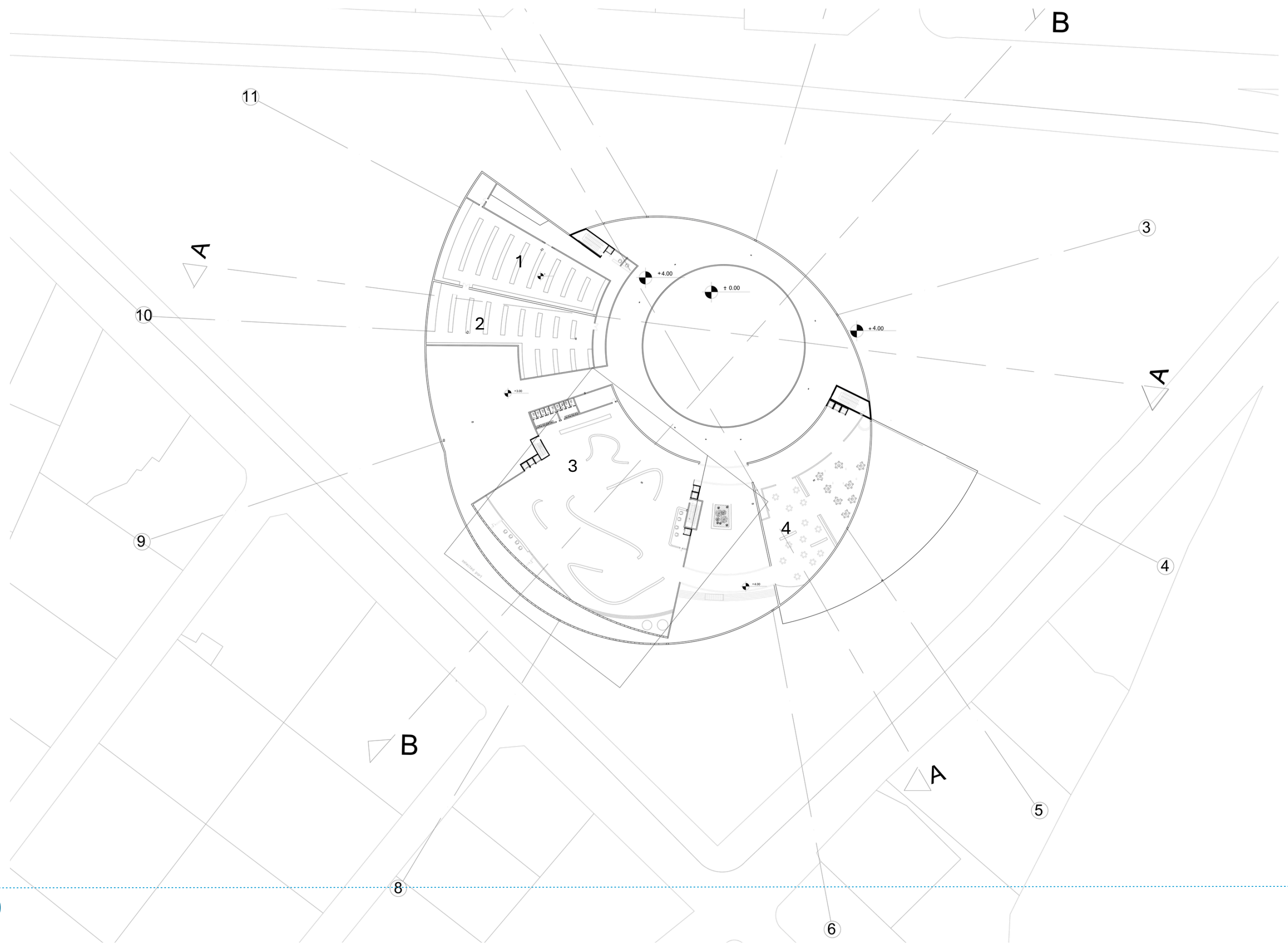
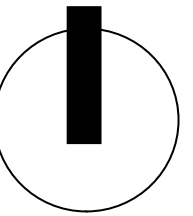


PLAN LEVEL +4.00

Scale 1:200

Legend of Spaces

- 1. Archive
- 2. weathr controlled archive
- 3. exhibition area
- 4. kids reading zone

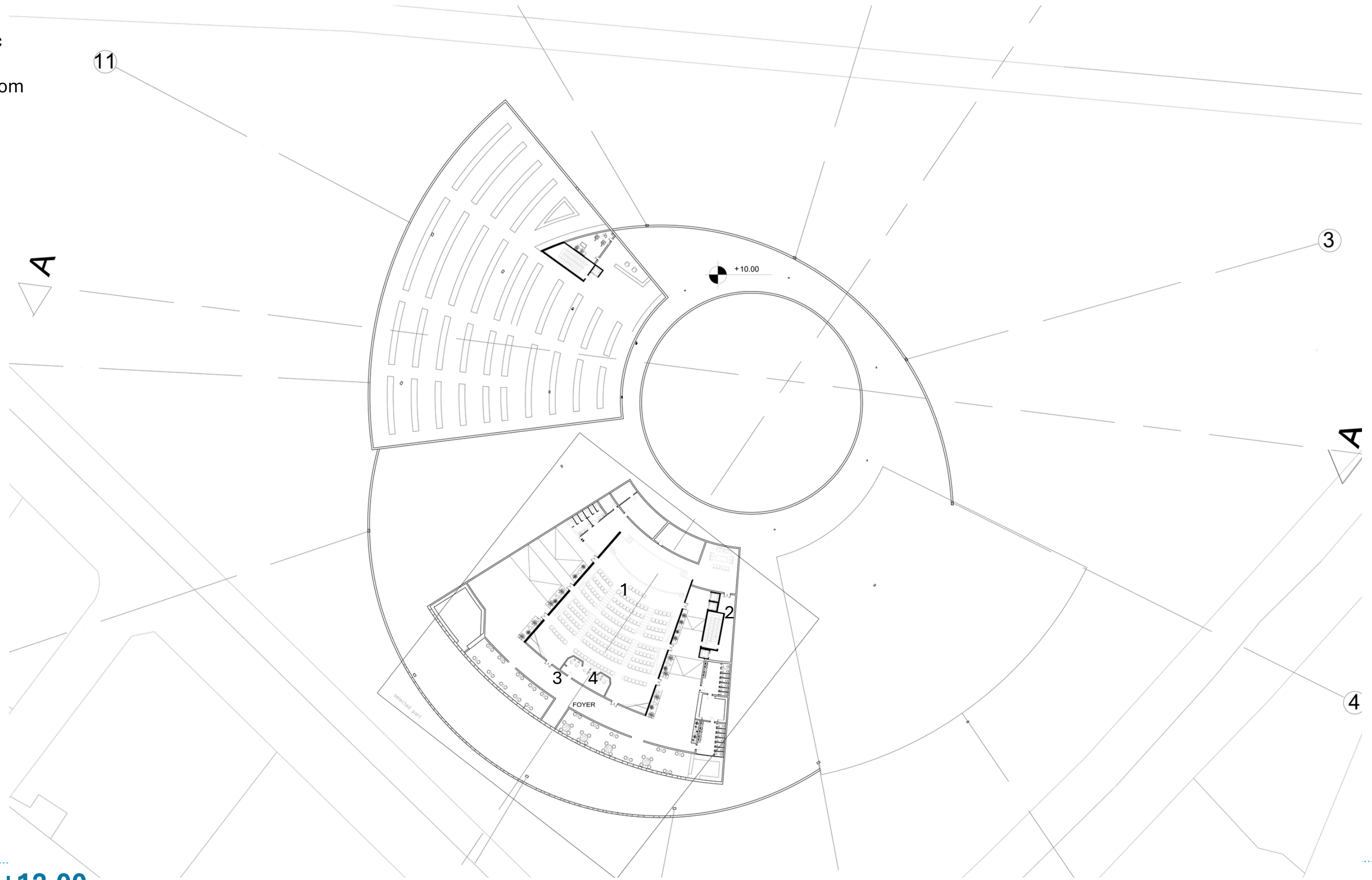
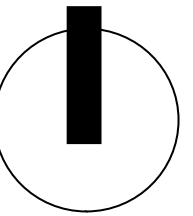


PLAN LEVEL +8.00

Scale 1:200

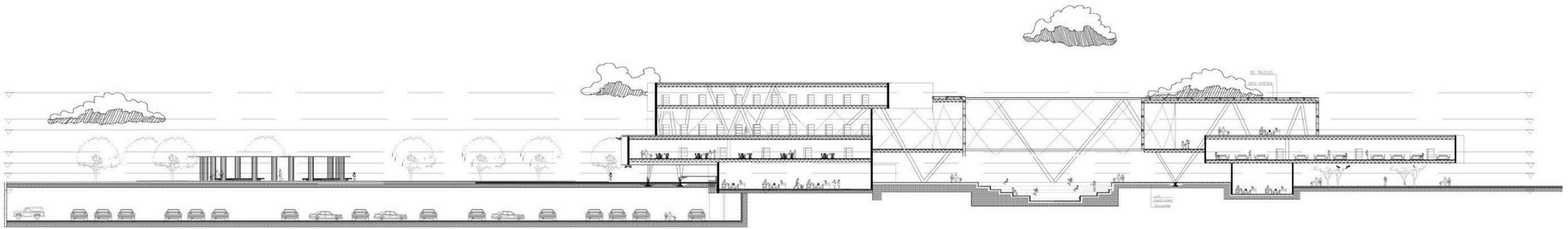
Legend of Spaces

- 1.confrenc hall
- 2.backstage accec
- 3.foyer
- 4.digital display room

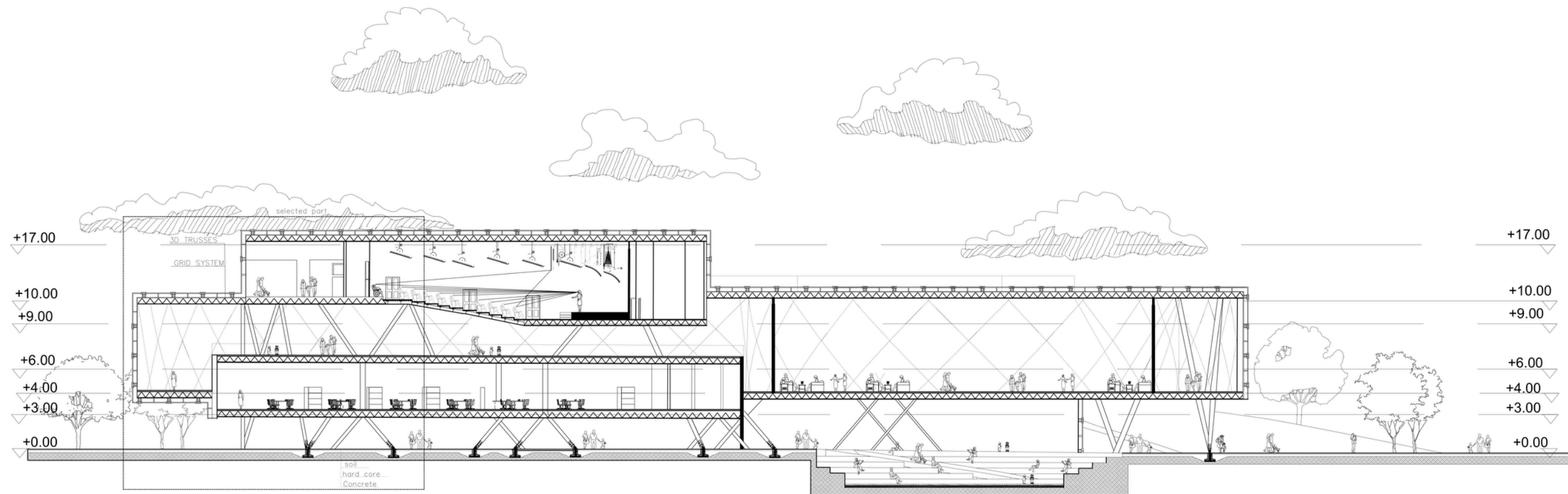


PLAN LEVEL +12.00

Scale 1:200



SECTION A A

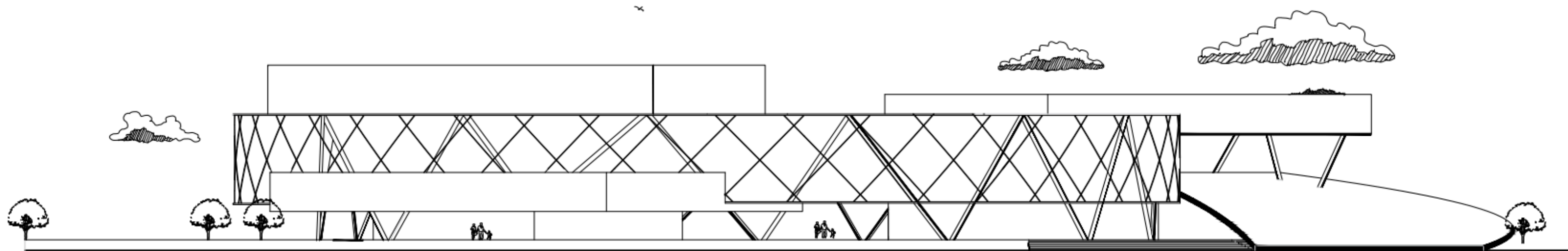


SECTION B-B

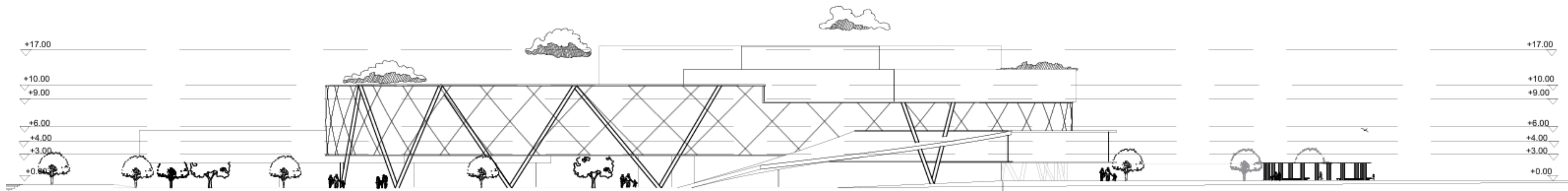
section

SECTIONS A-A & B-B

Scale 1:200



North elevation



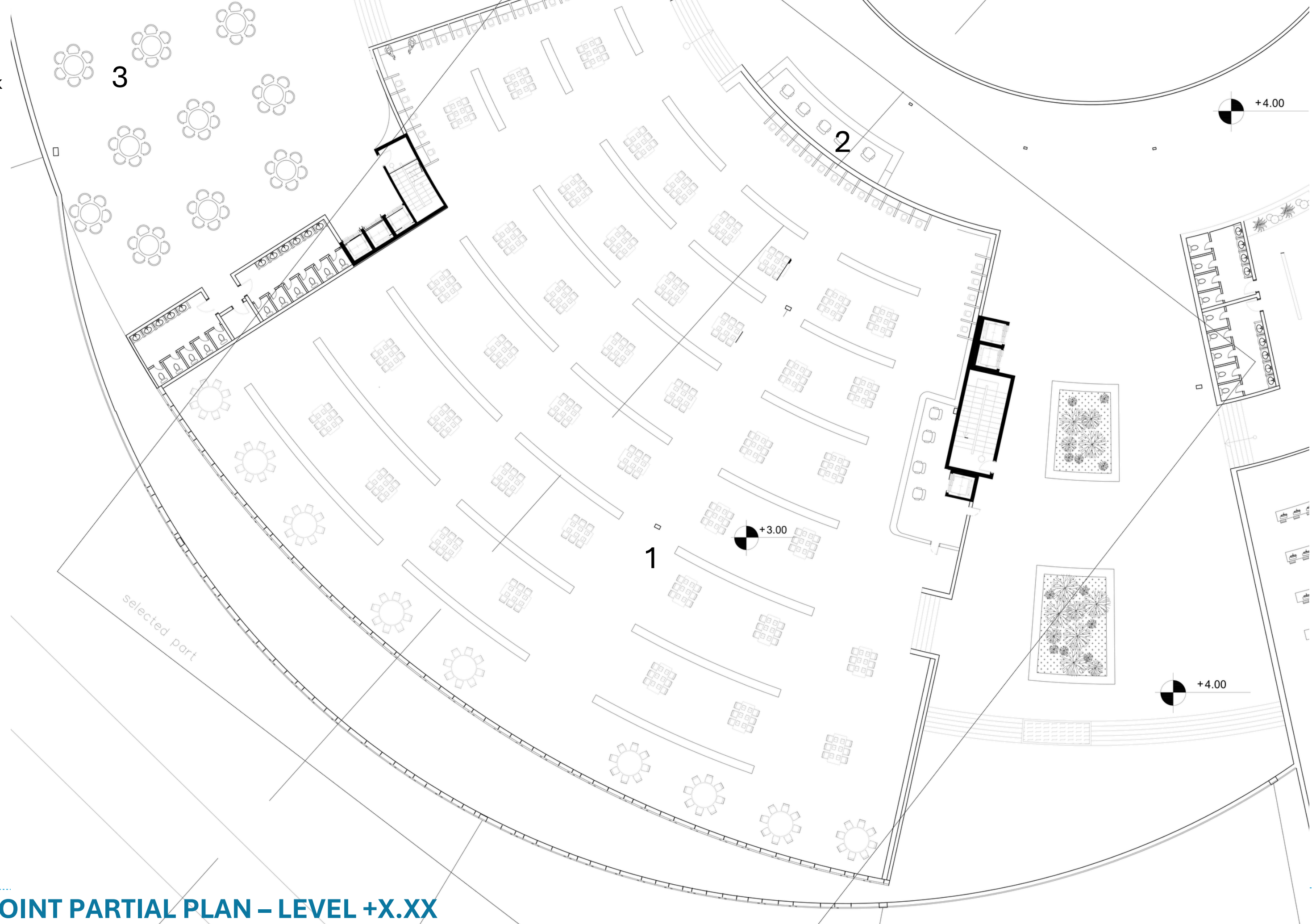
SOUTH ELEVATION

ELEVATIONS

Scale 1:200

Legend of Spaces

- 1. main library
- 2. information desk
- 3. cafeteria

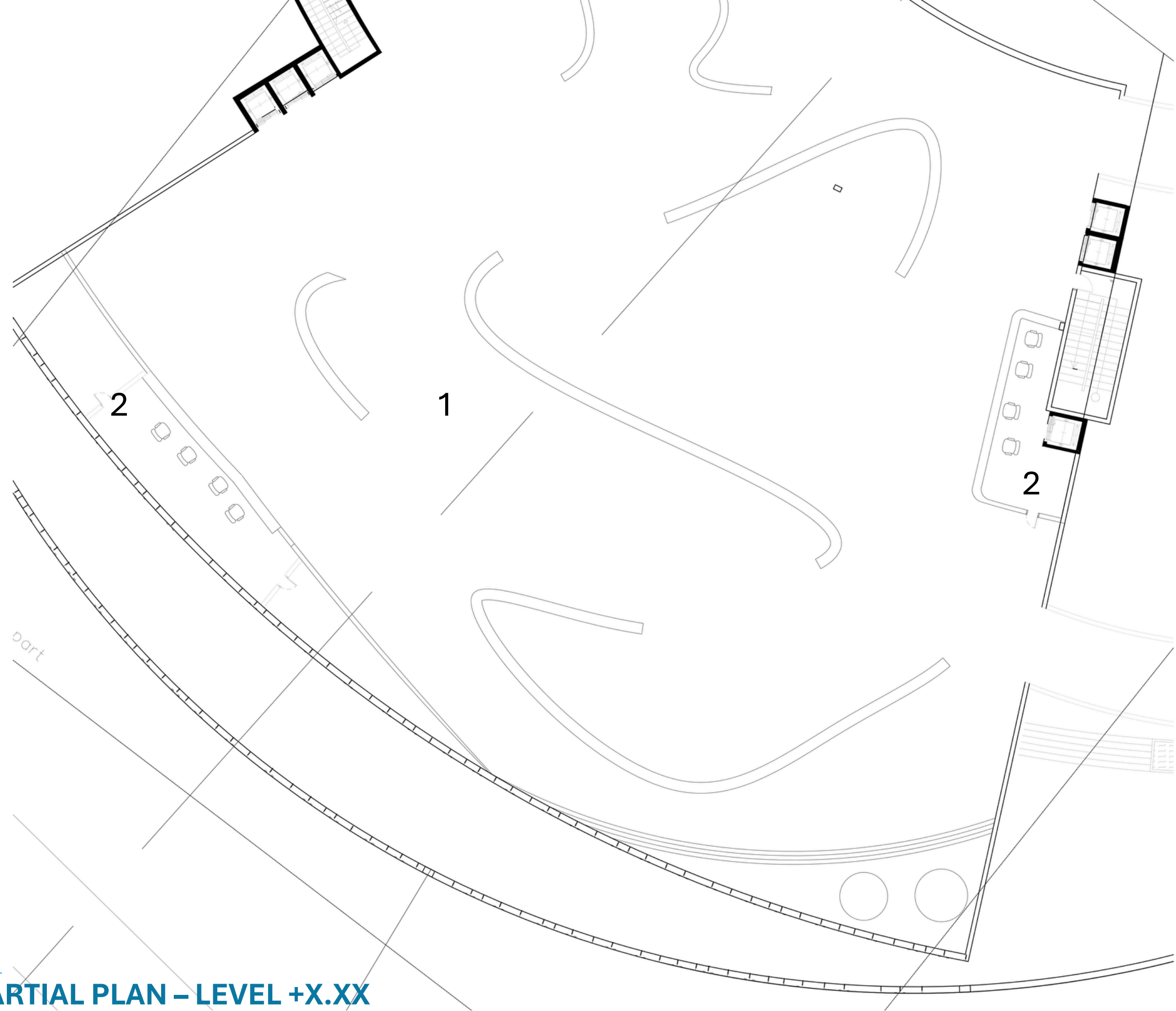
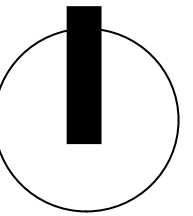


SELECTED POINT PARTIAL PLAN – LEVEL +X.XX

Scale 1:100

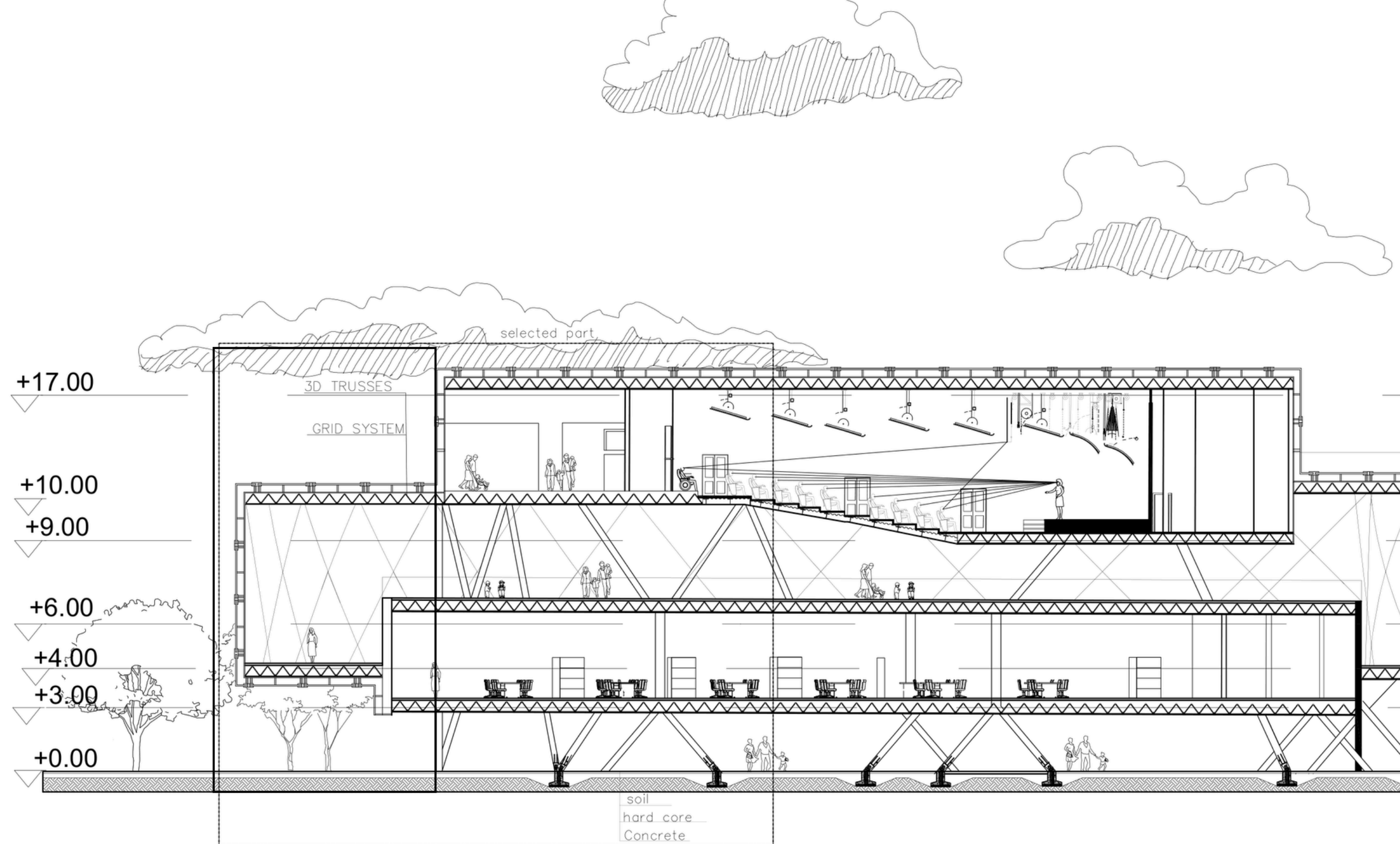
Legend of Spaces

- 1. exhibition area
- 2. information desk



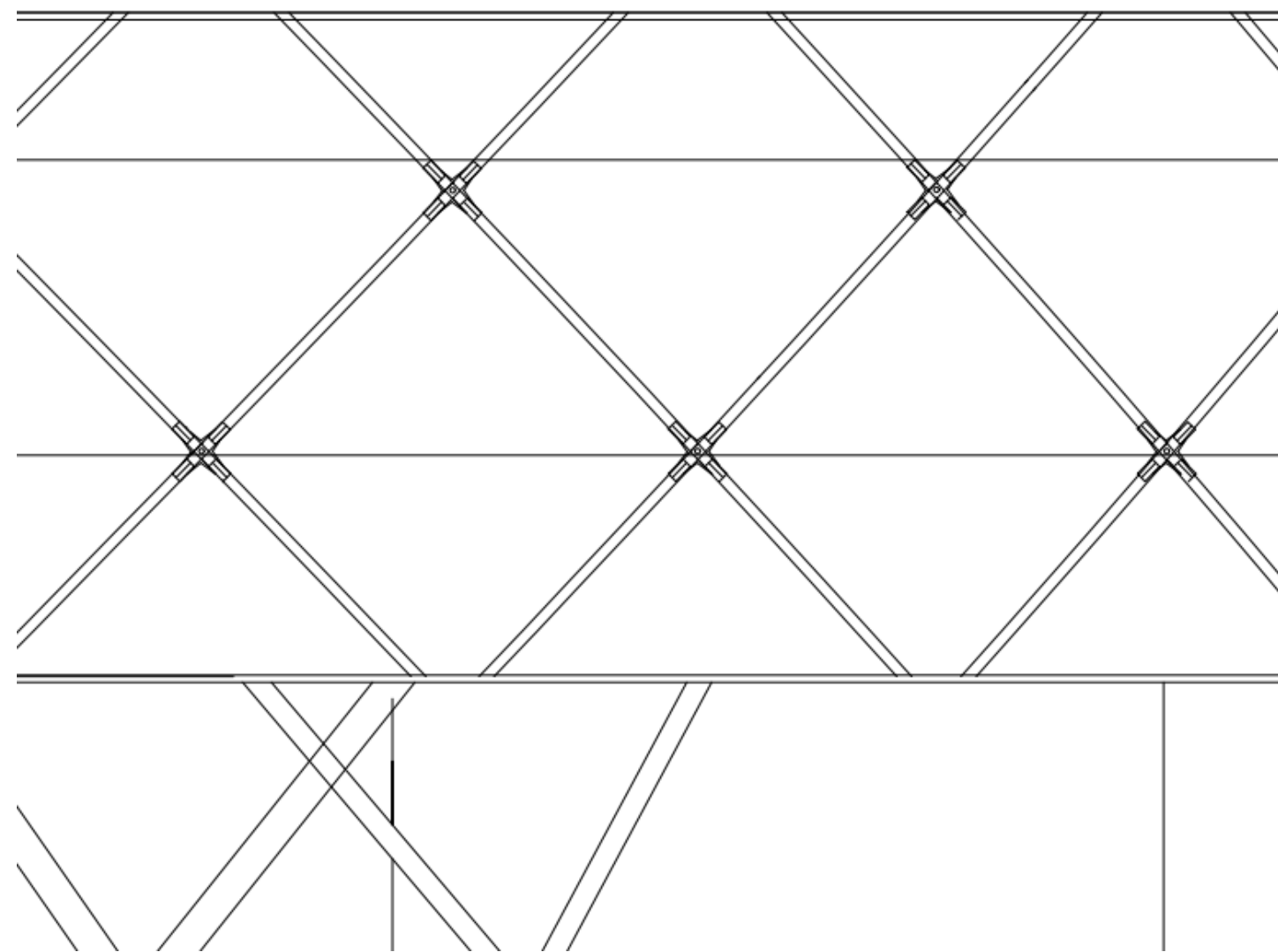
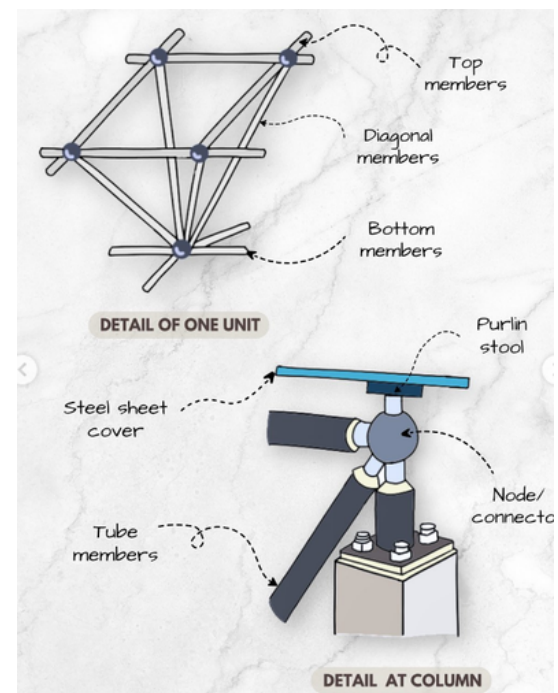
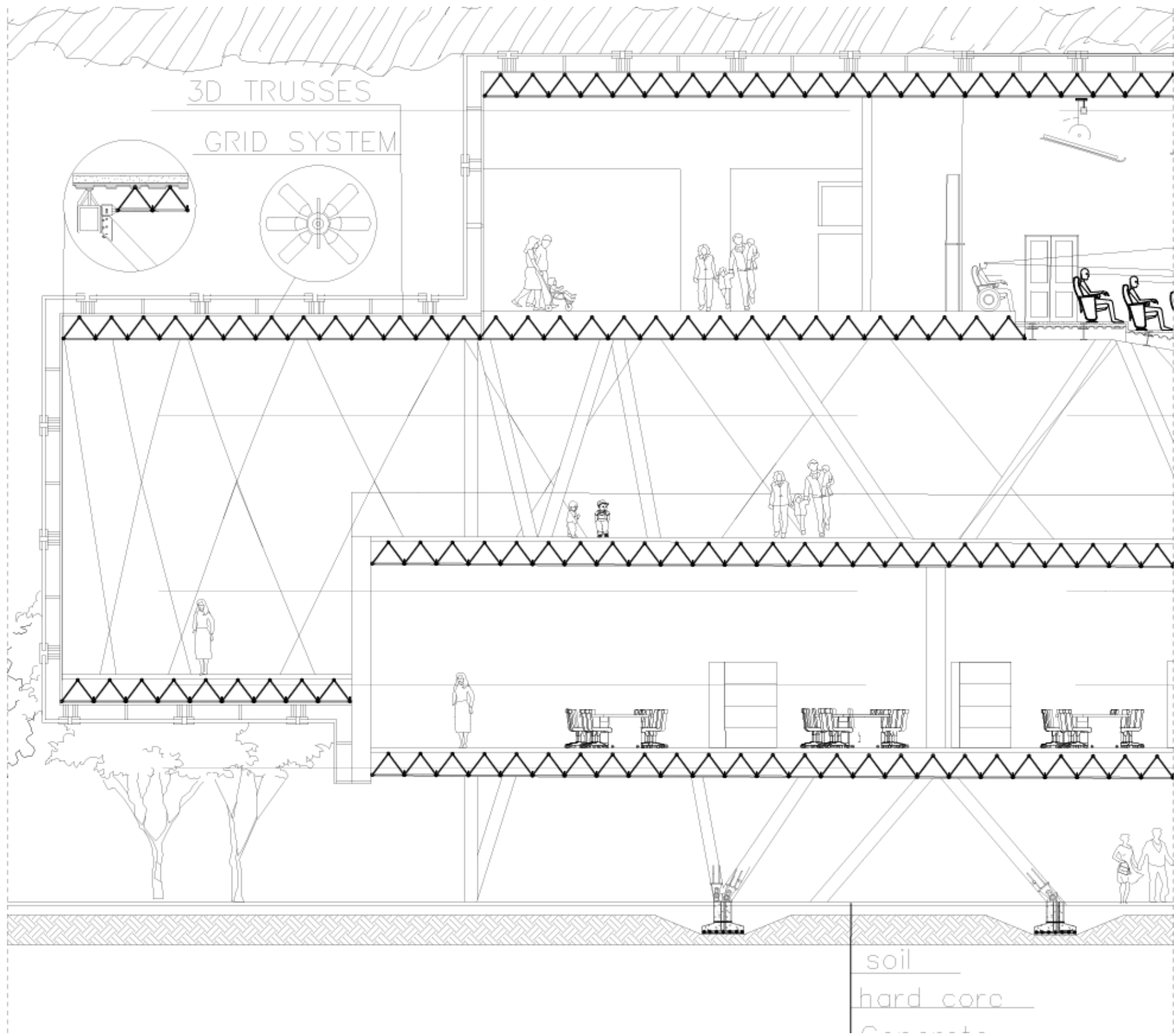
SELECTED POINT PARTIAL PLAN – LEVEL +X.XX

Scale 1:100



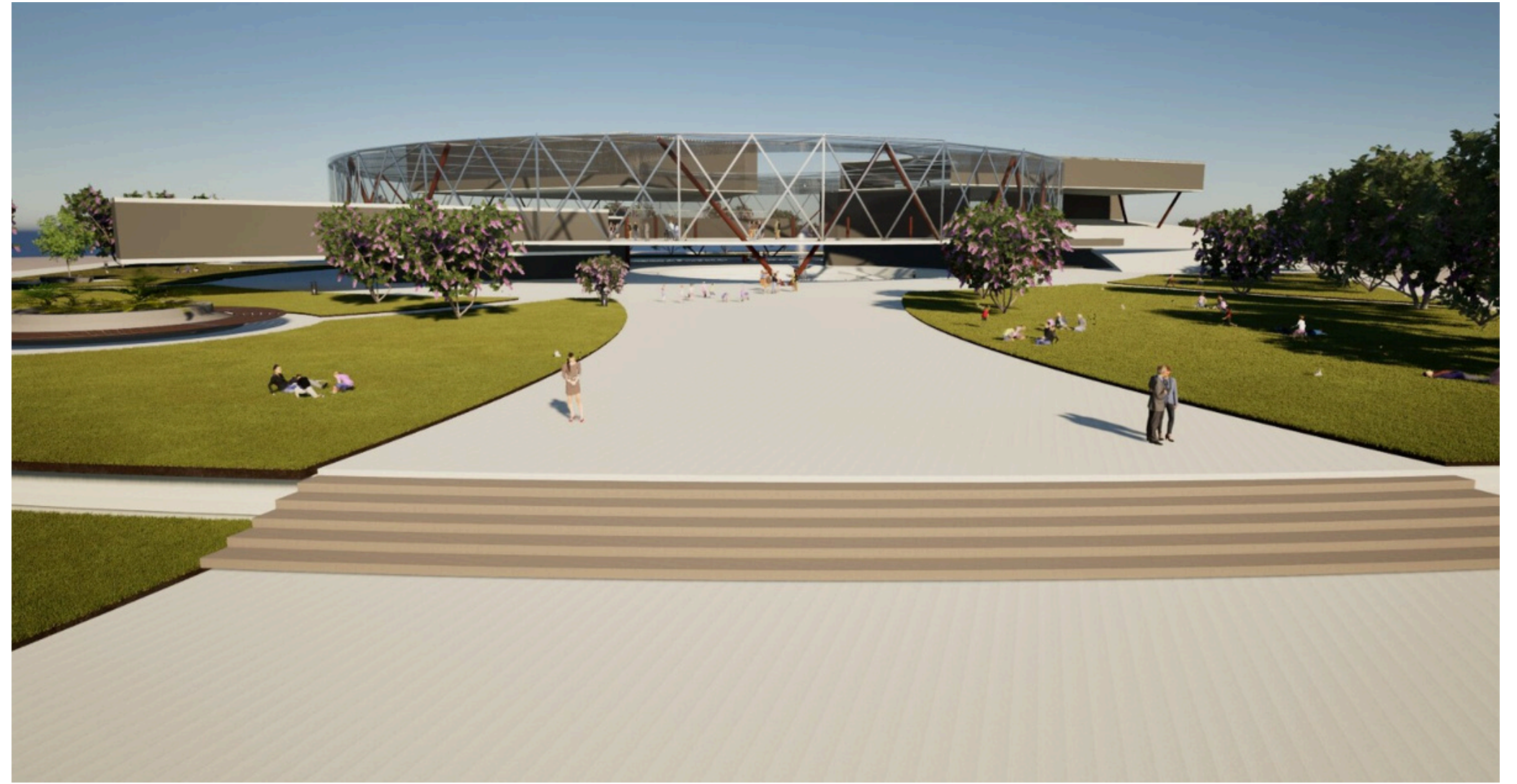
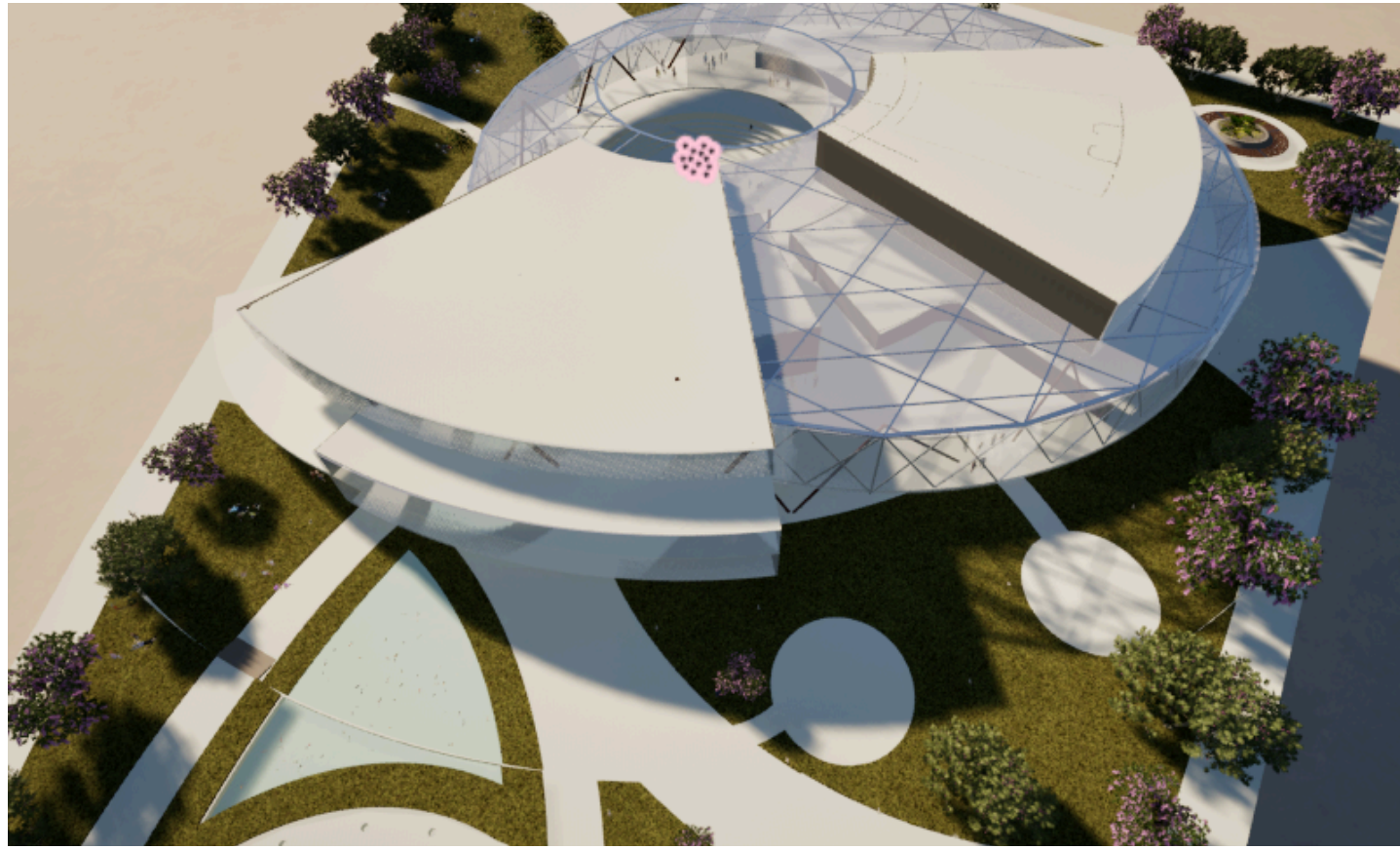
SELECTED POINT PARTIAL SECTION & ELEVATION

Scale 1:100



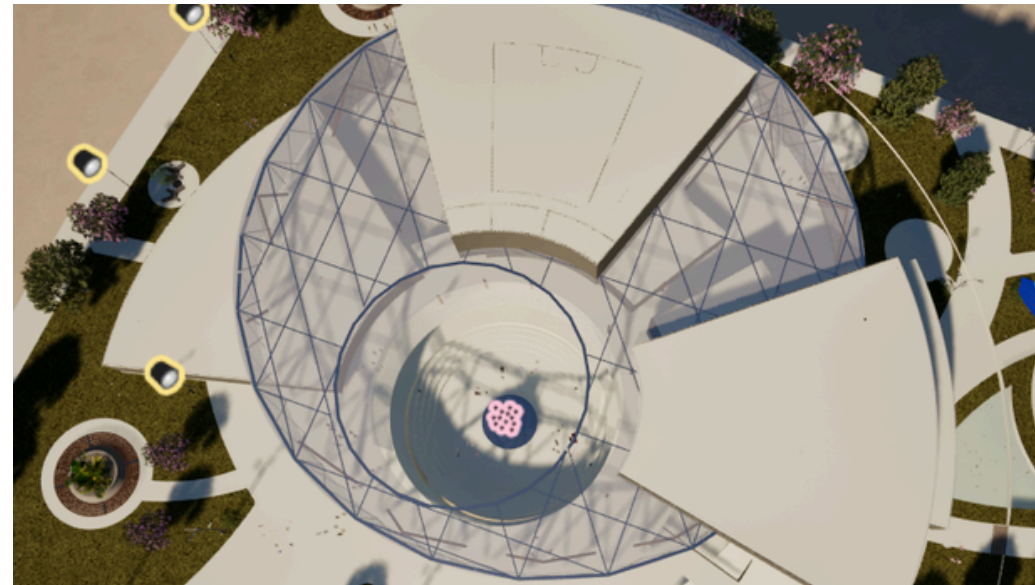
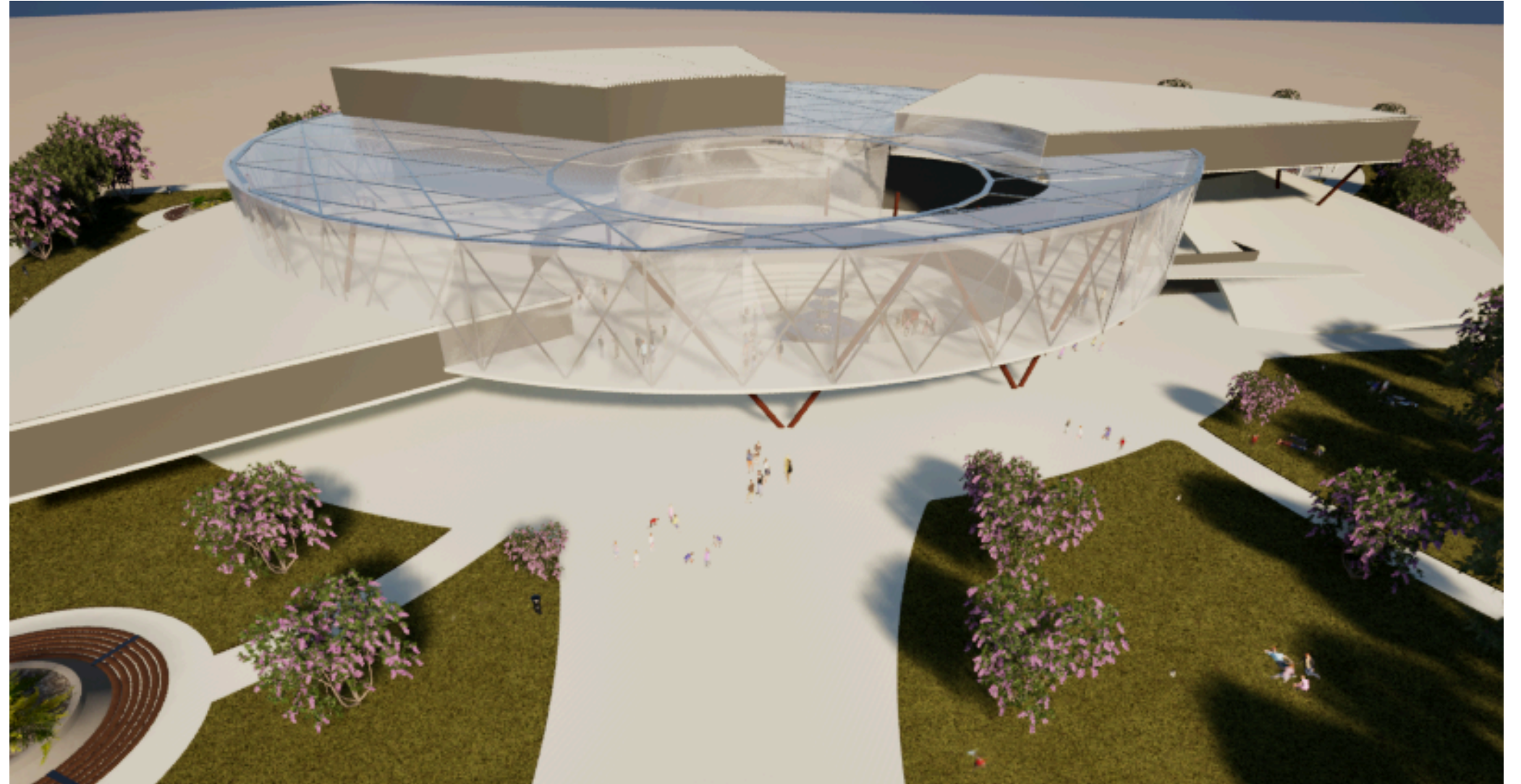
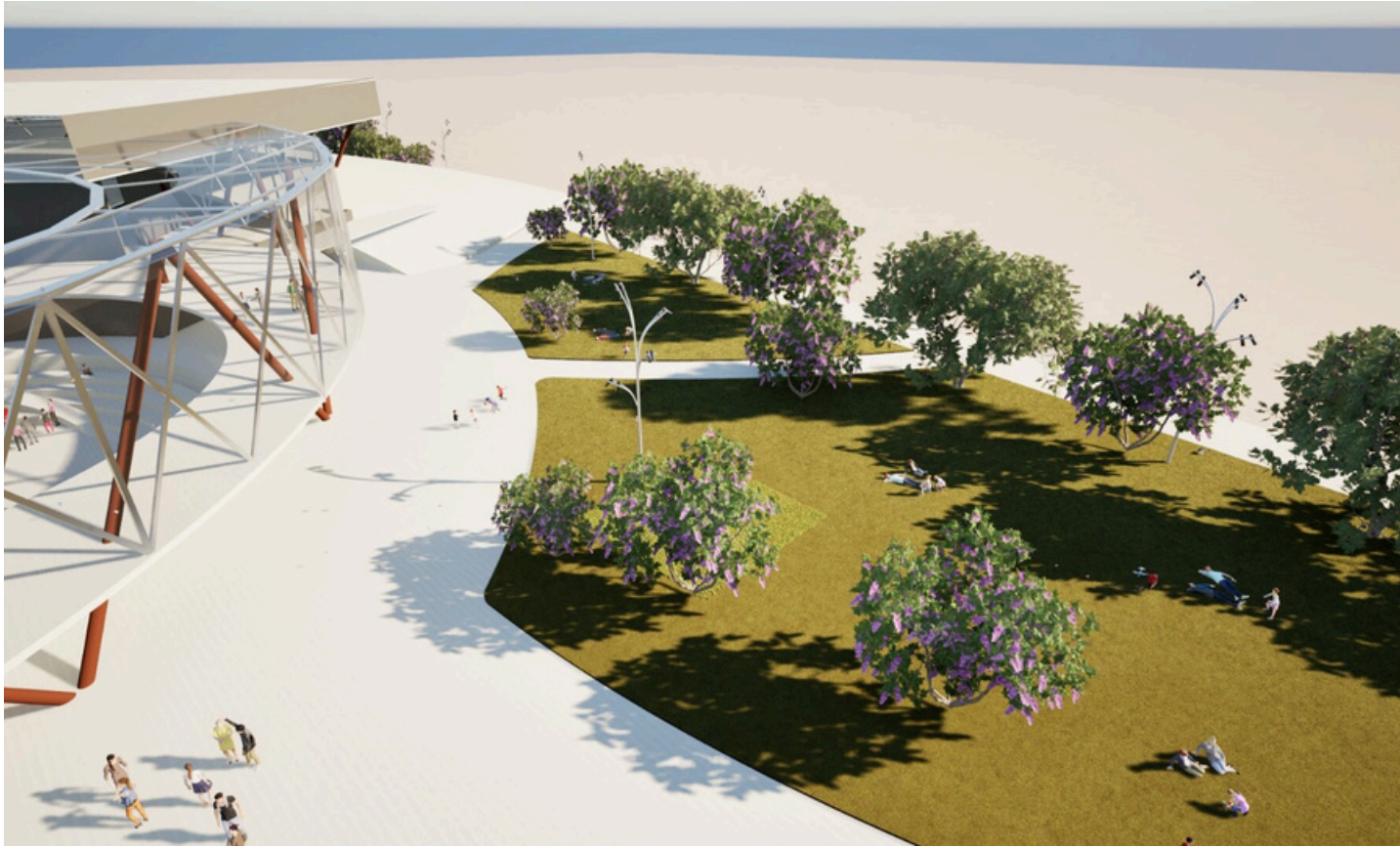
SELECTED POINT SYSTEM DETAILS

Scale 1:20 or 1:10



VIEWS AND PERSPECTIVES

Outdoor (Public/Open) Views



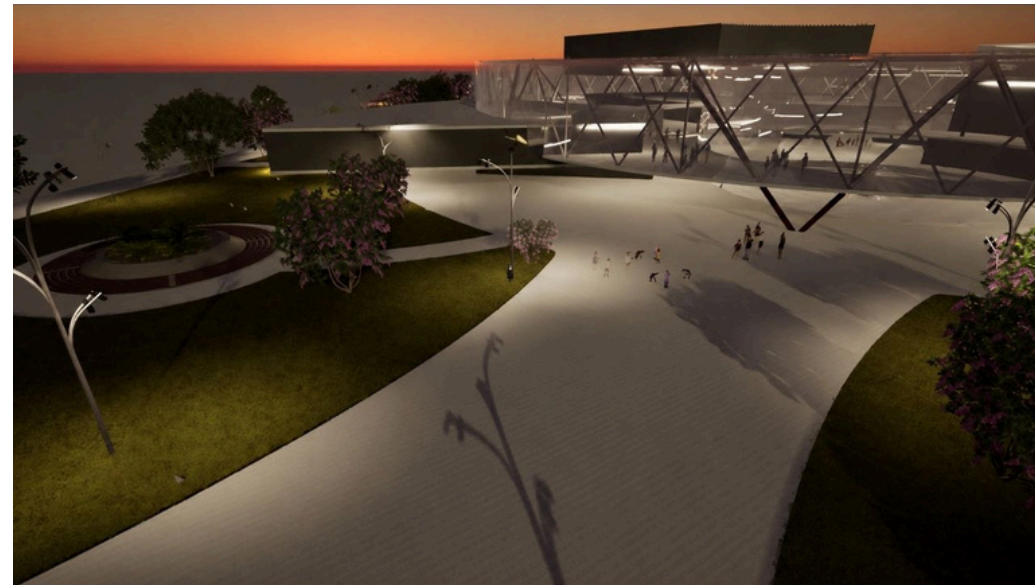
VIEWS AND PERSPECTIVES

Outdoor (Public/Open) Views



VIEWS AND PERSPECTIVES

Outdoor (Public/Open) Views



VIEWS AND PERSPECTIVES

Outdoor (Public/Open) Views

THANK YOU

ARCH401/421-Architectural Design Studio V
NATIONAL LIBRARY IN NICOSIA: TODAY AND FUTURE