

THE HEAVEN MOUNTAIN

BURAK ERYILMAZ GRADUATION PROJECT

THE BACKGROUND



THE CONTEXT



THE BACKGROUND



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THE CONTEXT



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THE BACKGROUND

SITE ANALYSE



LITERATURE REVIEW



CASE STUDY



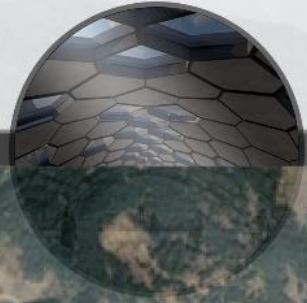


LOCATION OF SITE

THE BACKGROUND

-  SITE ANALYSE
-  LITERATURE REVIEW
-  CASE STUDY





THE BACKGROUND



SITE ANALYSE

1- SITE AREA

2- EXISTING SMALL VILLAGES

3- RIVER

4- EXISTING ROADS

5- WILDLIFE





THE BACKGROUND



SITE ANALYSE



LITERATURE REVIEW



CASE STUDY





THE BACKGROUND



SITE ANALYSE



LITERATURE REVIEW



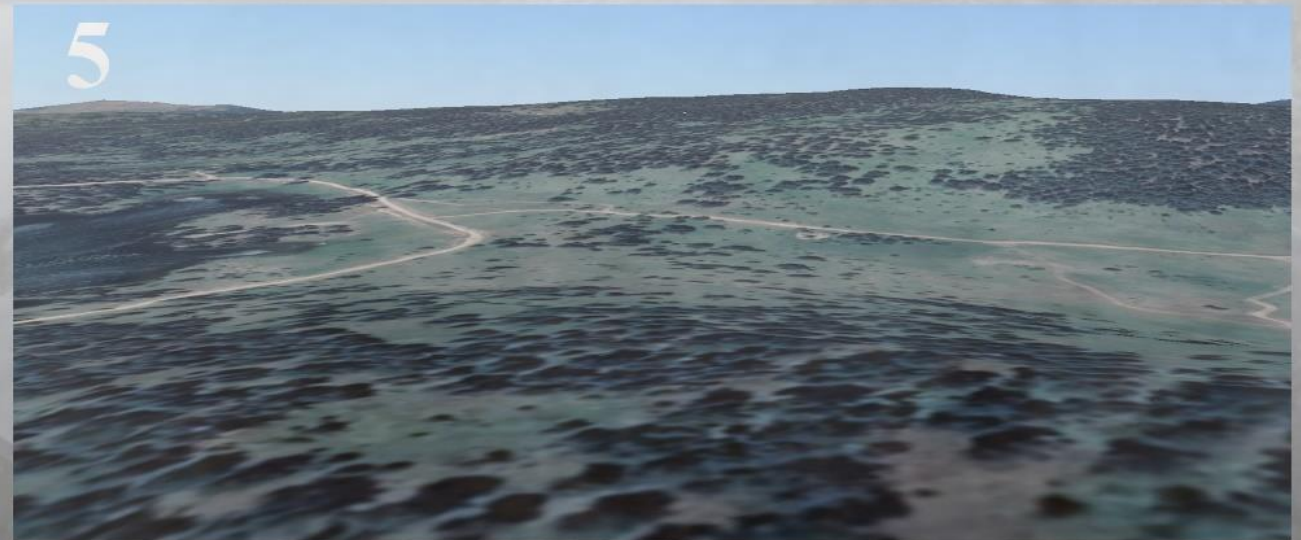
CASE STUDY





THE BACKGROUND

-  SITE ANALYSE
-  LITERATURE REVIEW
-  CASE STUDY





THE BACKGROUND



SITE ANALYSE



LITERATURE REVIEW



CASE STUDY





SITE PROBLEMS

THE BACKGROUND



SITE ANALYSE



LITERATURE REVIEW



CASE STUDY



NO STREAM FLOW FOR LAKE WATER
SELF-CLEANING

NOT ENOUGH JOB OPPORTUNITIES



POLLUTION



THE BACKGROUND

● ● SITE ANALYSE

LITERATURE REVIEW



● ● CASE STUDY





SUSTAINABLE ECOTOURISM

THE BACKGROUND



SITE ANALYSE



LITERATURE REVIEW

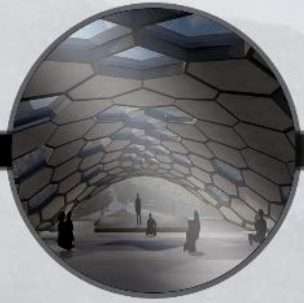


CASE STUDY

Ecotourism is a sustainable form of natural resource-based tourism that focuses primarily on experiencing and learning about nature, and which is ethically managed to be low-impact, non-consumptive, and locally-oriented (control, benefits, and scale). It typically occurs in natural areas, and should contribute to the conservation or preservation of such areas. Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities." "Sustainability principles refer to the environmental, economic, and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability.

Socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability





THE BACKGROUND



SITE ANALYSE



LITERATURE REVIEW



CASE STUDY

WASTEWATER TREATMENT FOR REUSE

Living Machine Wetland Cells - Stage 1

Wastewater from Primary Treatment enters the Tidal Flow Wetlands. Energy-efficient pumps alternately fill and drain the cells, thereby drawing in atmospheric oxygen, promoting rapid oxidation of nutrients.

Primary Tank + Components

Untreated wastewater enters this baffled tank where coarse solids are retained and bacteria begin the treatment process. Wastewater is screened before entering the flow equalization chamber and then is pumped to Stage 1 Wetland Cells.

Living Machine Wetland Cells - Stage 2

Partially treated wastewater from Stage 1 Wetland Cells is pumped here. Tidal cycles complete and nitrification and solids removal.



Polishing Module

Treated wastewater is polished with dual-stage filtration and UV (ultraviolet) and/or chlorine disinfection.

Plants

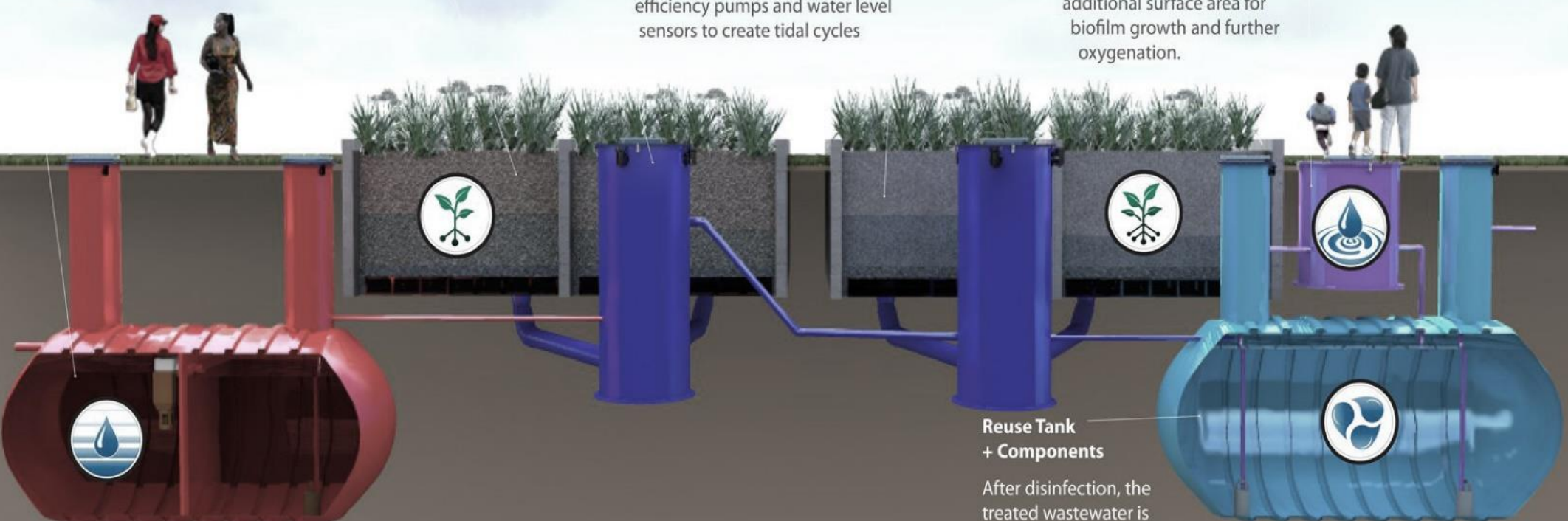
A variety of native or ornamental species can be planted. Plant roots provide additional surface area for biofilm growth and further oxygenation.

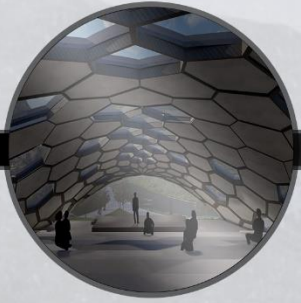
Tidal Module

Inside the tidal flow wetland cells contain automated valves, high efficiency pumps and water level sensors to create tidal cycles

Reuse Tank + Components

After disinfection, the treated wastewater is stored for irrigation, toilet flushing and other non-potable uses.





THE BACKGROUND



SITE ANALYSE



LITERATURE REVIEW



CASE STUDY





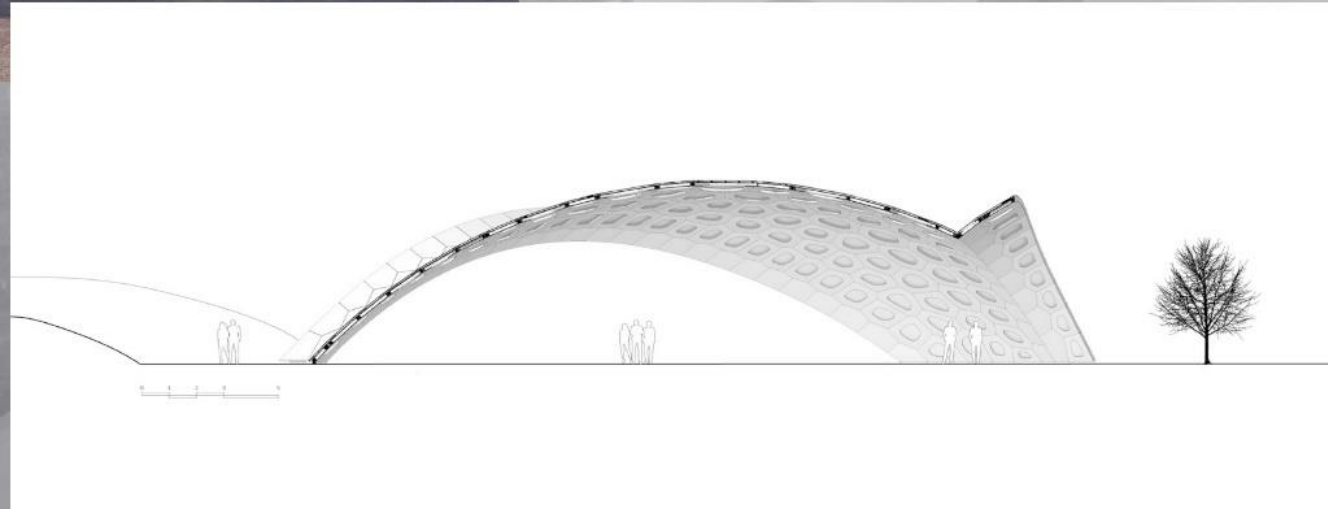
BUGA Wood Pavilion

THE BACKGROUND

-  SITE ANALYSE
-  LITERATURE REVIEW
-  CASE STUDY



The BUGA Wood Pavilion celebrates a new approach to digital timber construction. Its segmented wood shell is based on biological principles found in the plate skeleton of sea urchins, which have been studied by the Institute for Computational Design and Construction and the Institute for Building Structures and Structural Design. As part of the project, a robotic manufacturing platform was developed for the automated assembly and milling of the pavilion's 376 bespoke hollow wood segments.



This fabrication process ensures that all segments fit together with sub-millimetre precision like a big, three-dimensional puzzle. The stunning wooden roof spans 30 meters over one of BUGA's main event and concert venues, using a minimum amount of material while also generating a unique architectural space.

Facade Panels

Larch 3-Ply

Battens in Direction of Water Flow

Polenitstrips 40x60mm

Waterproofing Membrane

EPDM, 2mm

Top Plate

Spruce Laminated Veneer Lumber, 33mm

Cassette Beams with applied glue interface and angled pockets for bolt washers

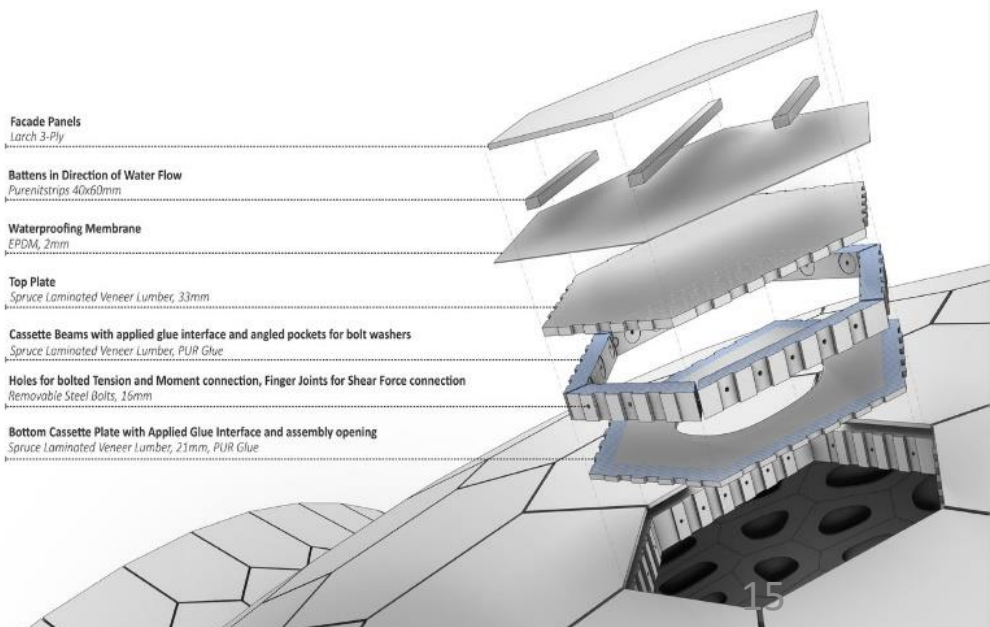
Spruce Laminated Veneer Lumber, PUR Glue

Holes for bolted Tension and Moment connection, Finger Joints for Shear Force connection

Removable Steel Bolts, 16mm

Bottom Cassette Plate with Applied Glue Interface and assembly opening

Spruce Laminated Veneer Lumber, 23mm, PUR Glue





The Loopvillage / MAaP

THE BACKGROUND



SITE ANALYSE

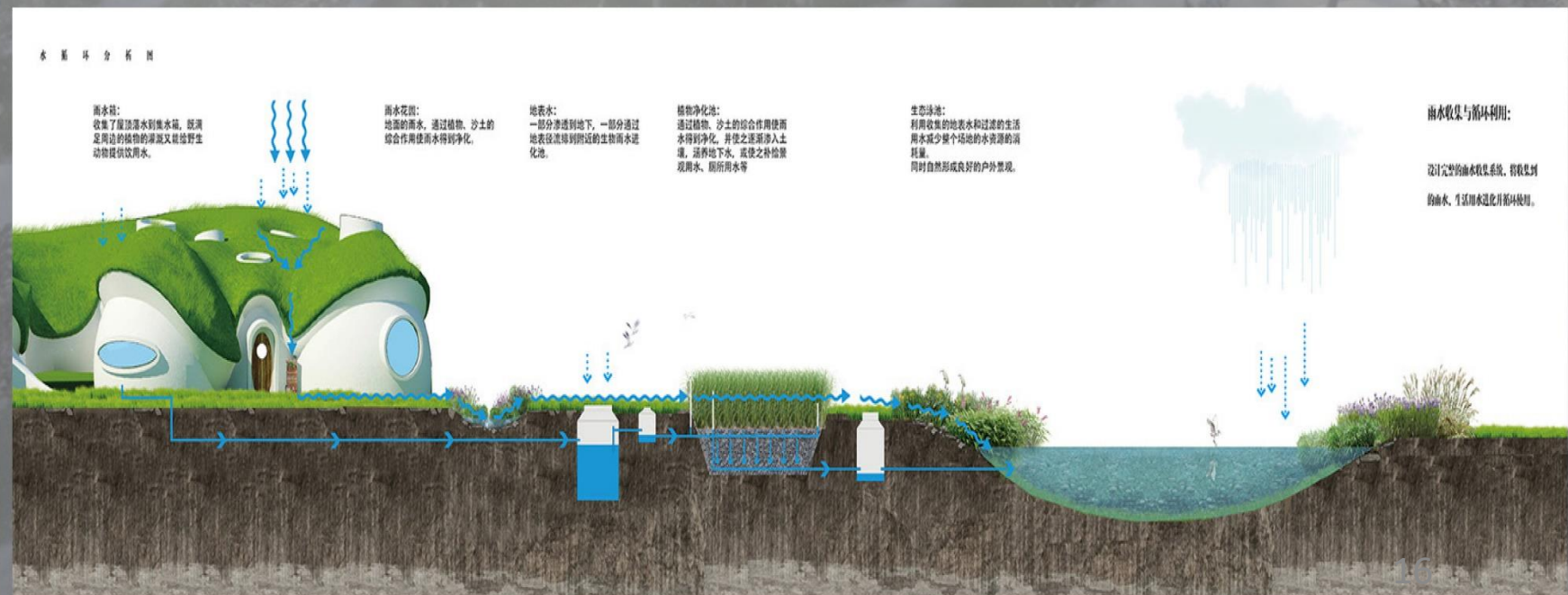


LITERATURE REVIEW



CASE STUDY

The Loop Village Resort Hotel project is located in the bamboo forest valley of Miaoshan Village, Miaoxi Town, Wuxing District. The construction area is about 2,000 square meters, mainly composed of earth-covered buildings, combined with the slope valley landscape to form a small resort with an area of 35 acres and 13 super large suites. The outdoor lifestyle embraced by the loop village project is not the outdoor extreme sport of survival in the wilderness. It is more inclined to be a relaxed weekend outdoor life, the starting point of the novice's yearning for nature, or a kind of scene conversion needed by urban youth.





GLUE LAMINATED STRUCTURE

THE BACKGROUND

-  SITE ANALYSE
-  LIT REVIEW
-  CASE STUDY



Glued Laminated Wood (Glulam) is a structural material manufactured through the union of individual wood segments. When glued with industrial adhesives (usually Melamine or Polyurethane resin adhesives), this type of wood is highly durable and moisture resistant, capable of generating large pieces and unique shapes.



THE CONTEXT

MASTER PLAN



SITE PLAN



DIAGRAM DRAWINGS





RENDERS

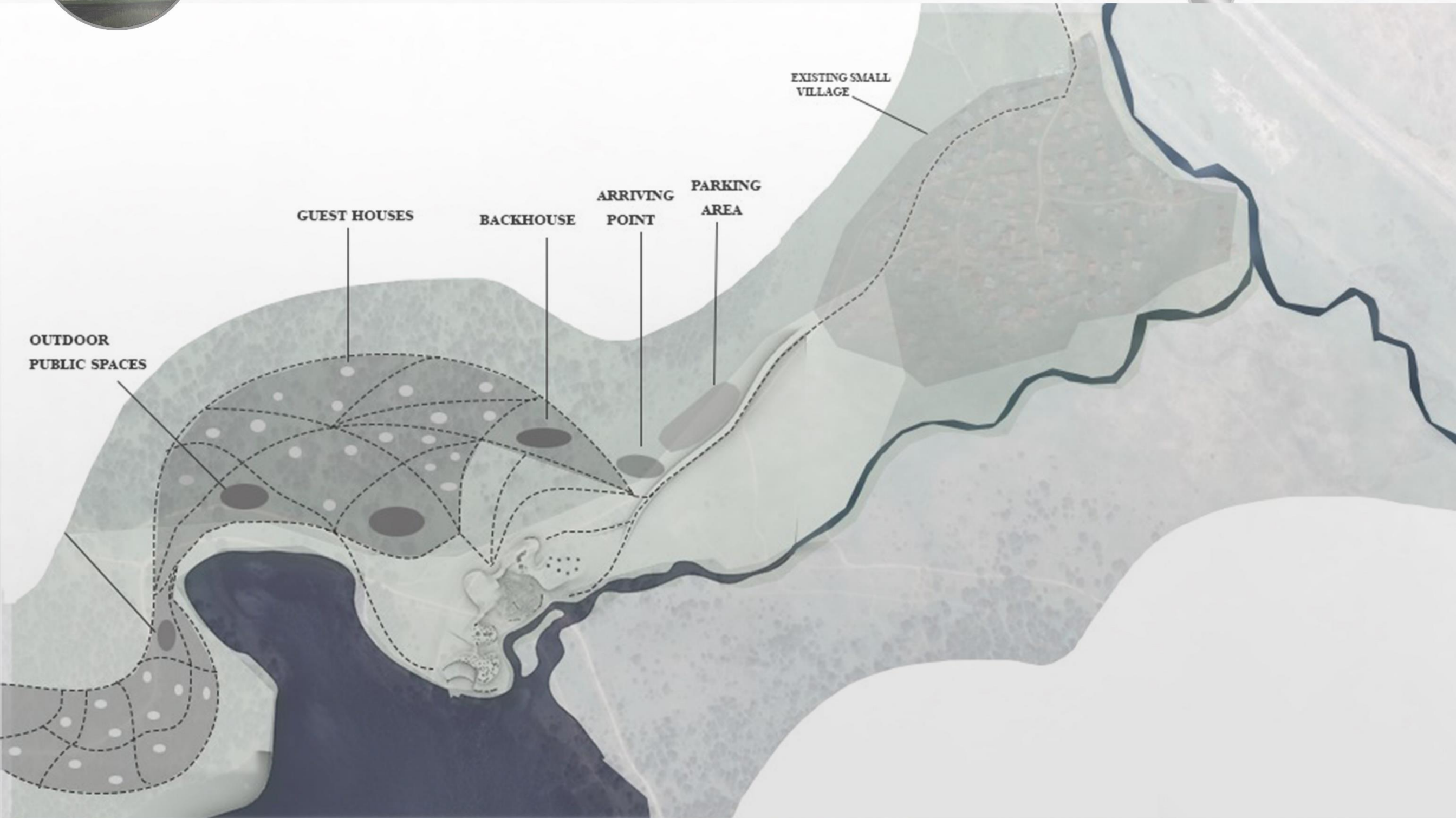




MASTER PLAN

THE CONTEXT

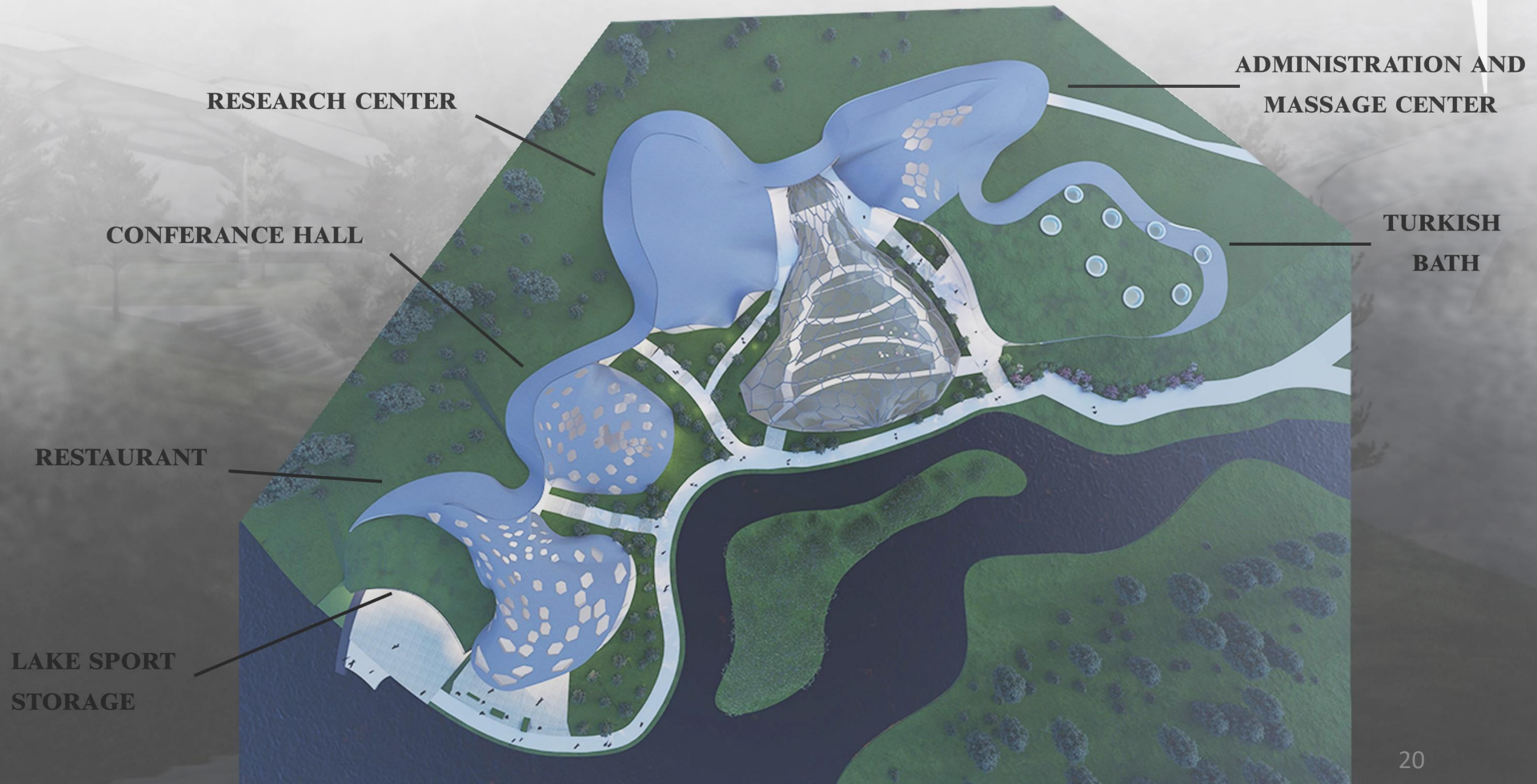
-  THE MASTER PLAN
-  SITE PLAN





THE CONTEXT

-  THE MASTER PLAN
-  SITE PLAN
-  DIAGRAM DRAWINGS
-  RENDERS

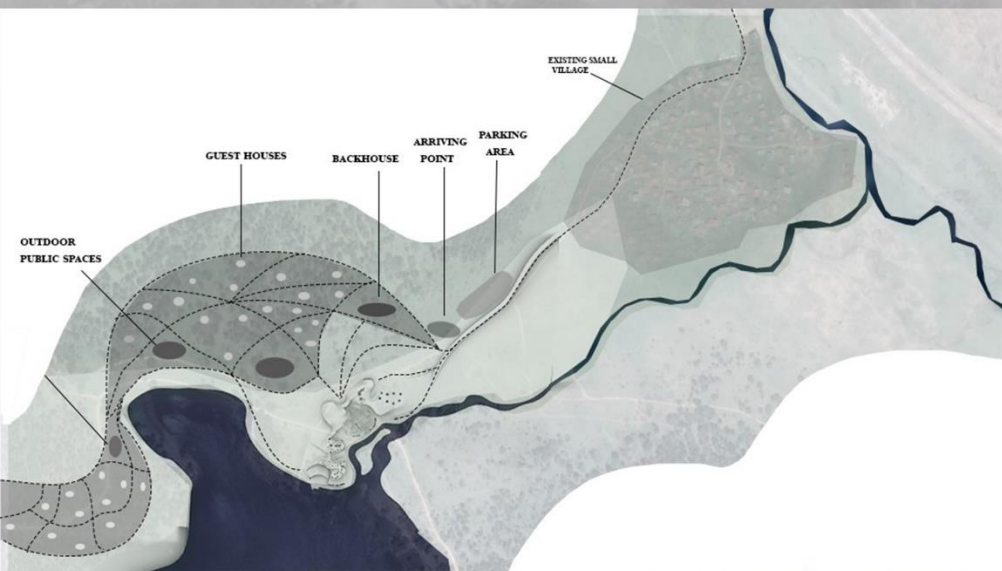




PROCESS DIAGRAM

THE CONTEXT

- THE MASTER PLAN
- SITE PLAN
- DIAGRAM DRAWINGS
- RENDERS

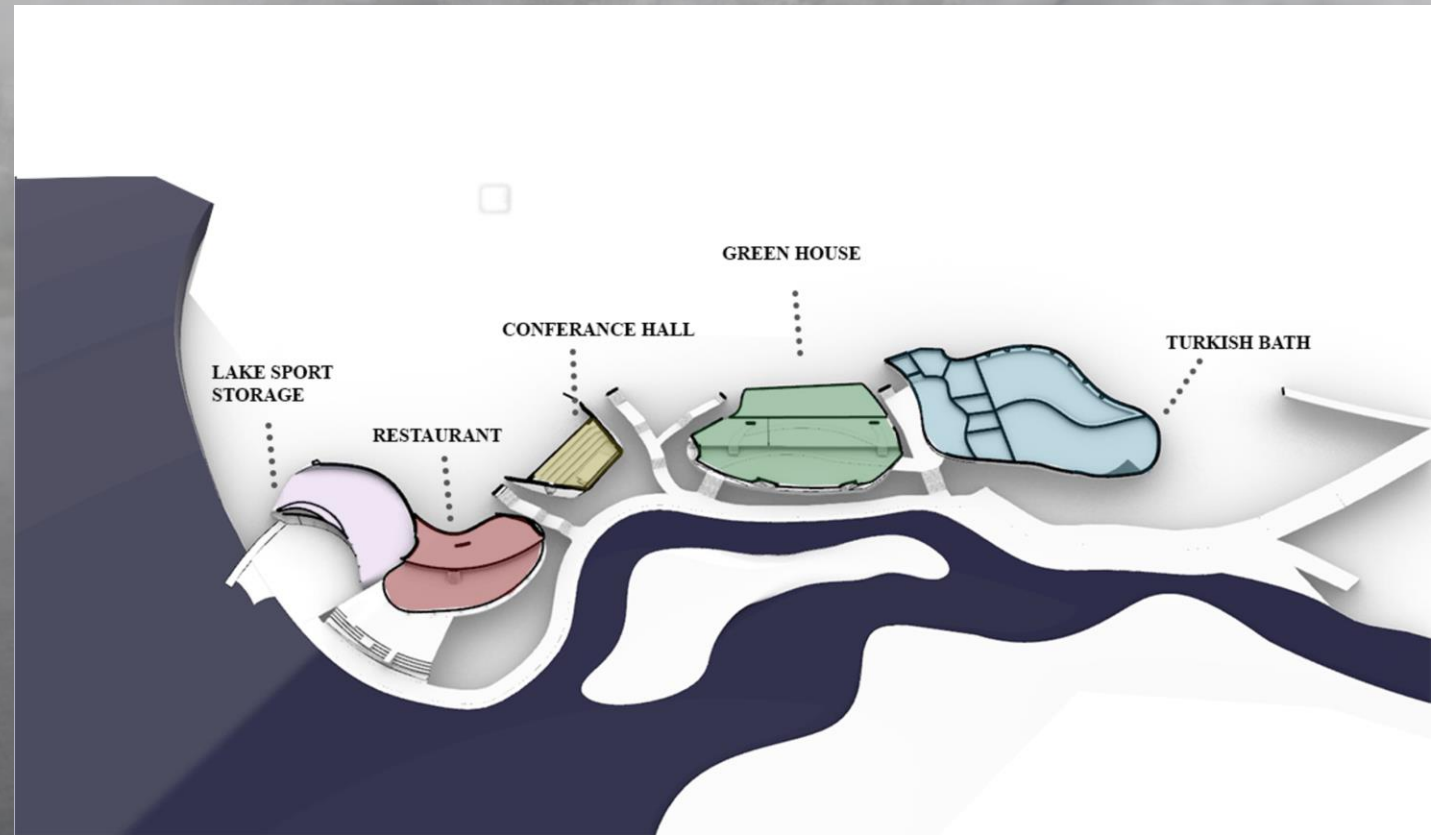
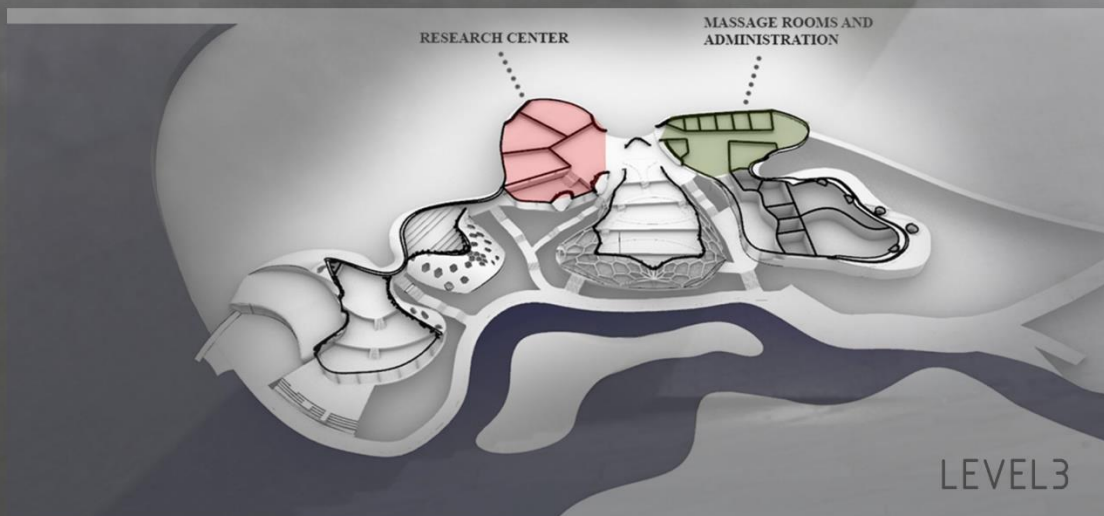
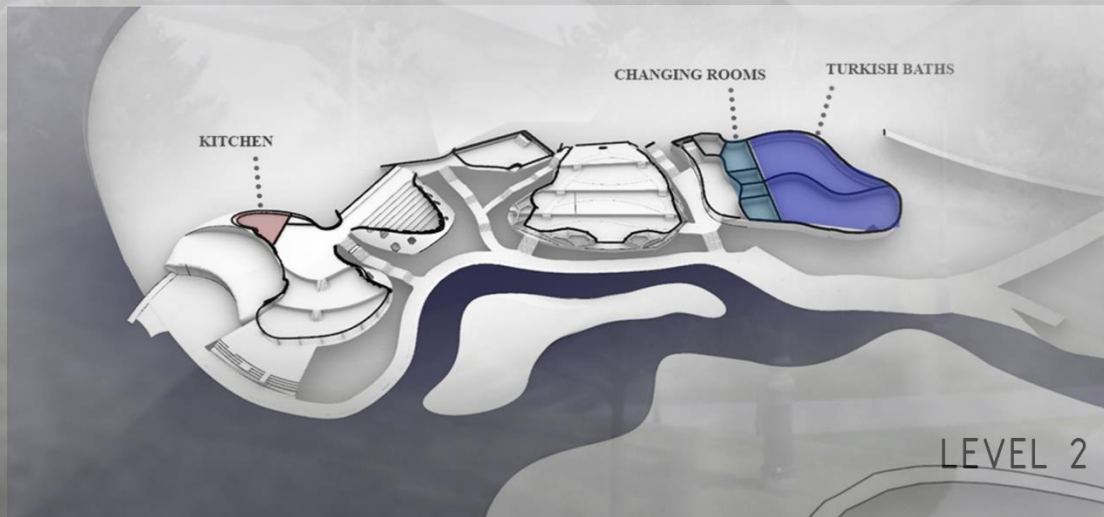
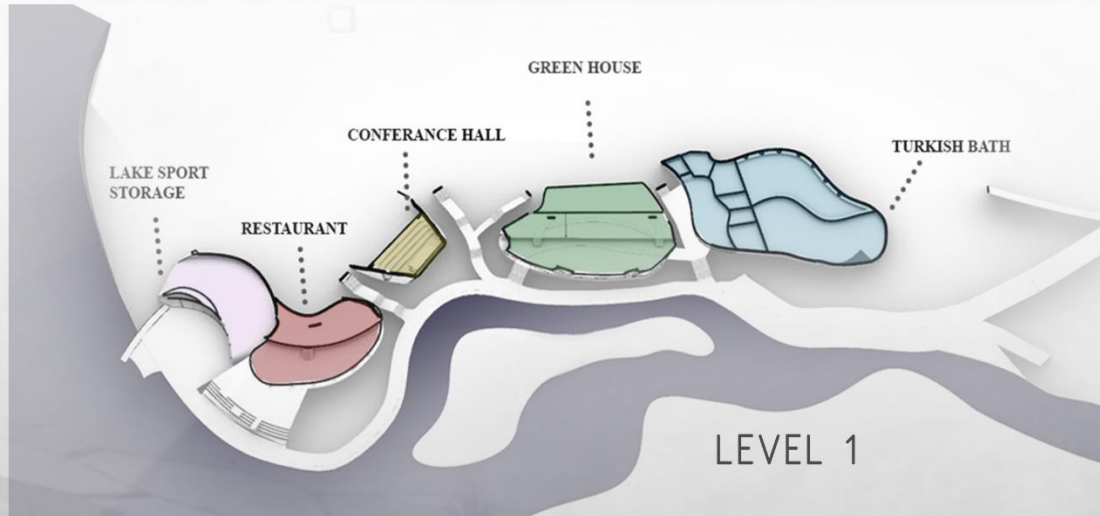




PLANS

THE CONTEXT

- THE MASTER PLAN
- SITE PLAN
- DIAGRAM DRAWINGS
- RENDERS





THE CONTEXT

- RAIN WATER COLLECTION POINTS
- WASTERWATER TREATMENT

- MASTER PLAN
- SITE PLAN
- DIAGRAM DRAWINGS
- RENDERS

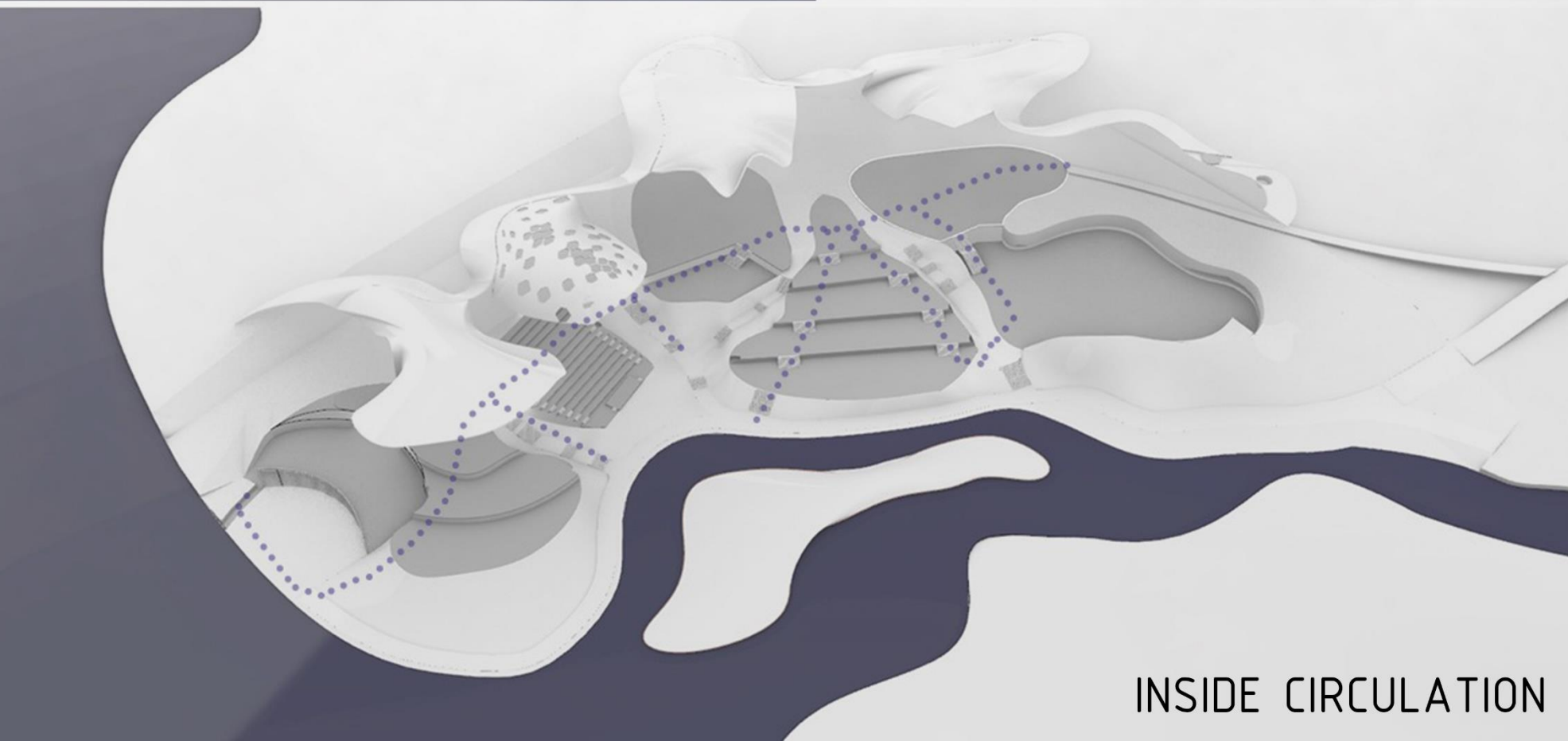
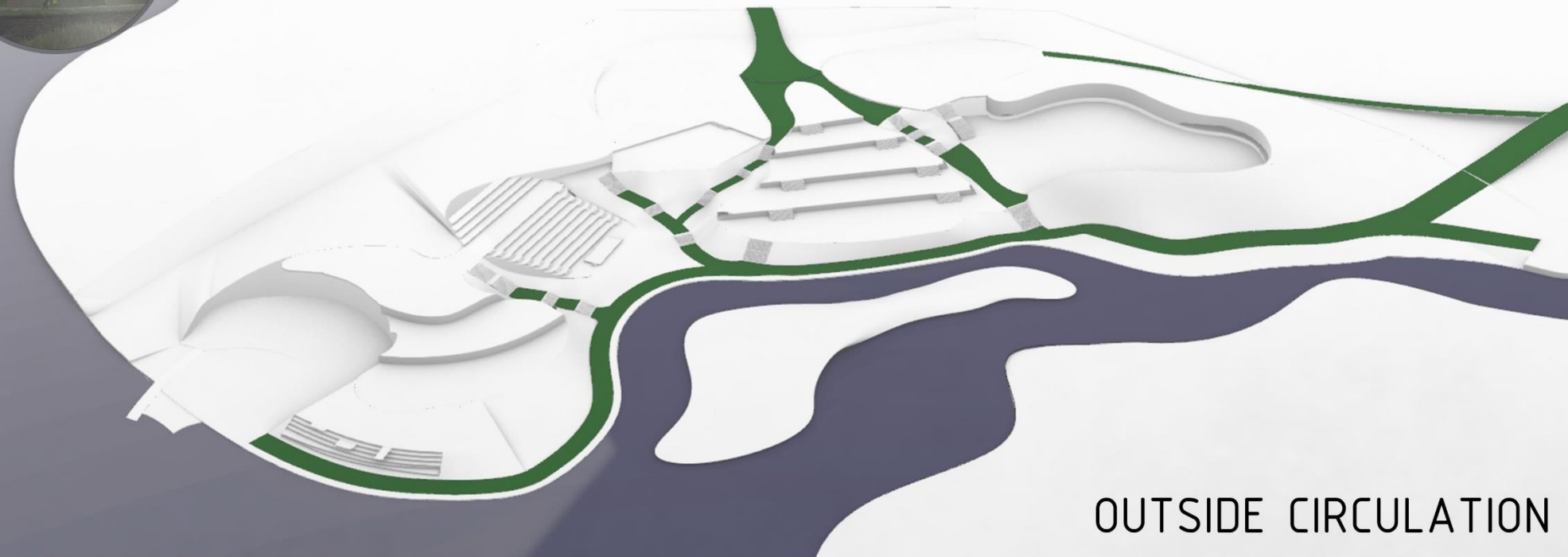




CIRCULATION

THE CONTEXT

- THE MASTER PLAN
- SITE PLAN
- DIAGRAM DRAWINGS
- RENDERS

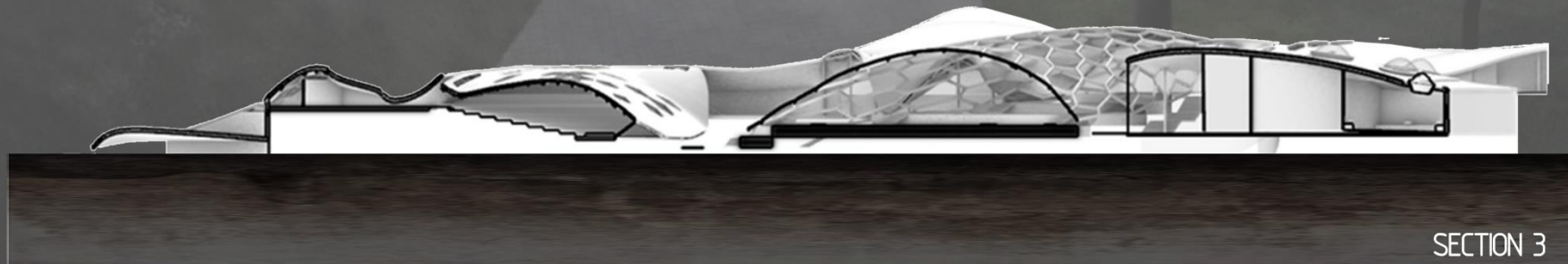
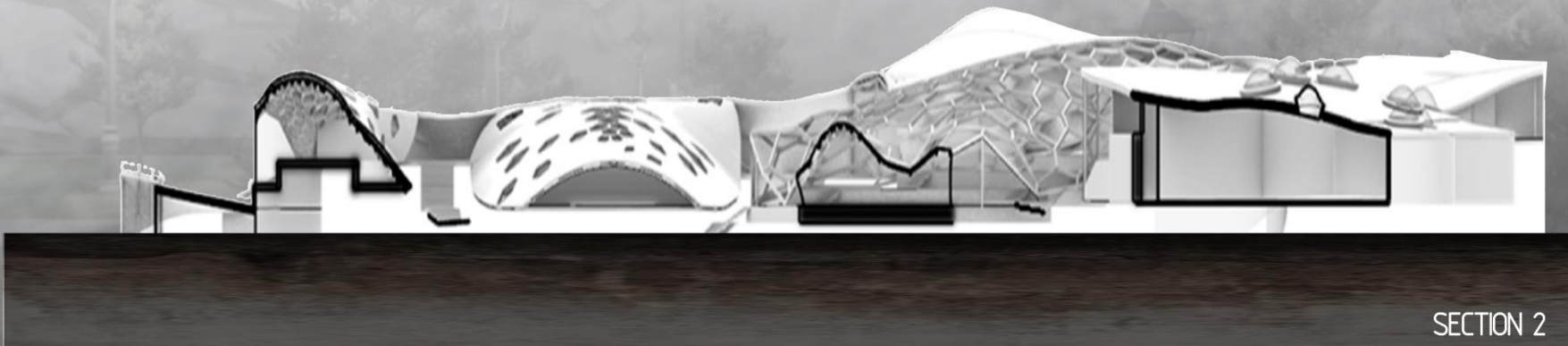
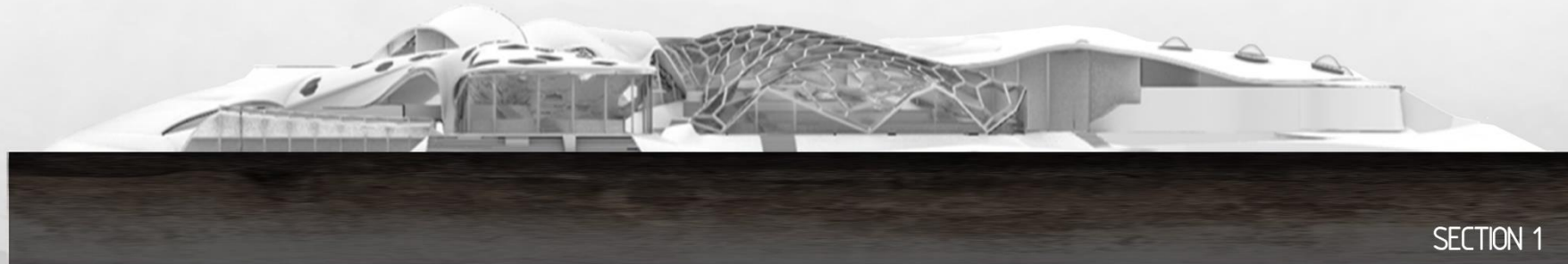




THE CONTEXT

SECTIONS

- THE MASTER PLAN
- SITE PLAN
- DIAGRAM DRAWINGS
- RENDERS





SECTION DIAGRAM

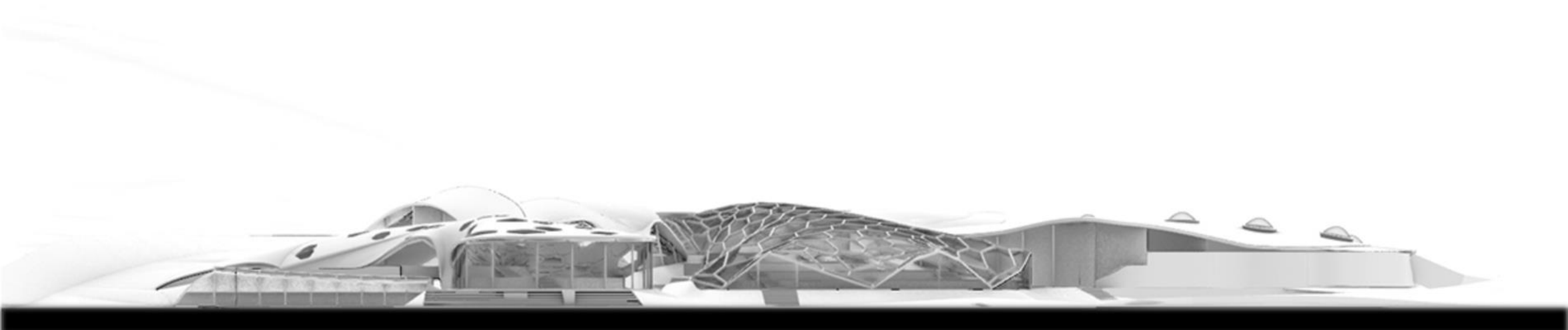
THE CONTEXT



THE MASTER PLAN



SITE PLAN





STRUCTURAL DIAGRAM

THE CONTEXT



THE MASTER PLAN

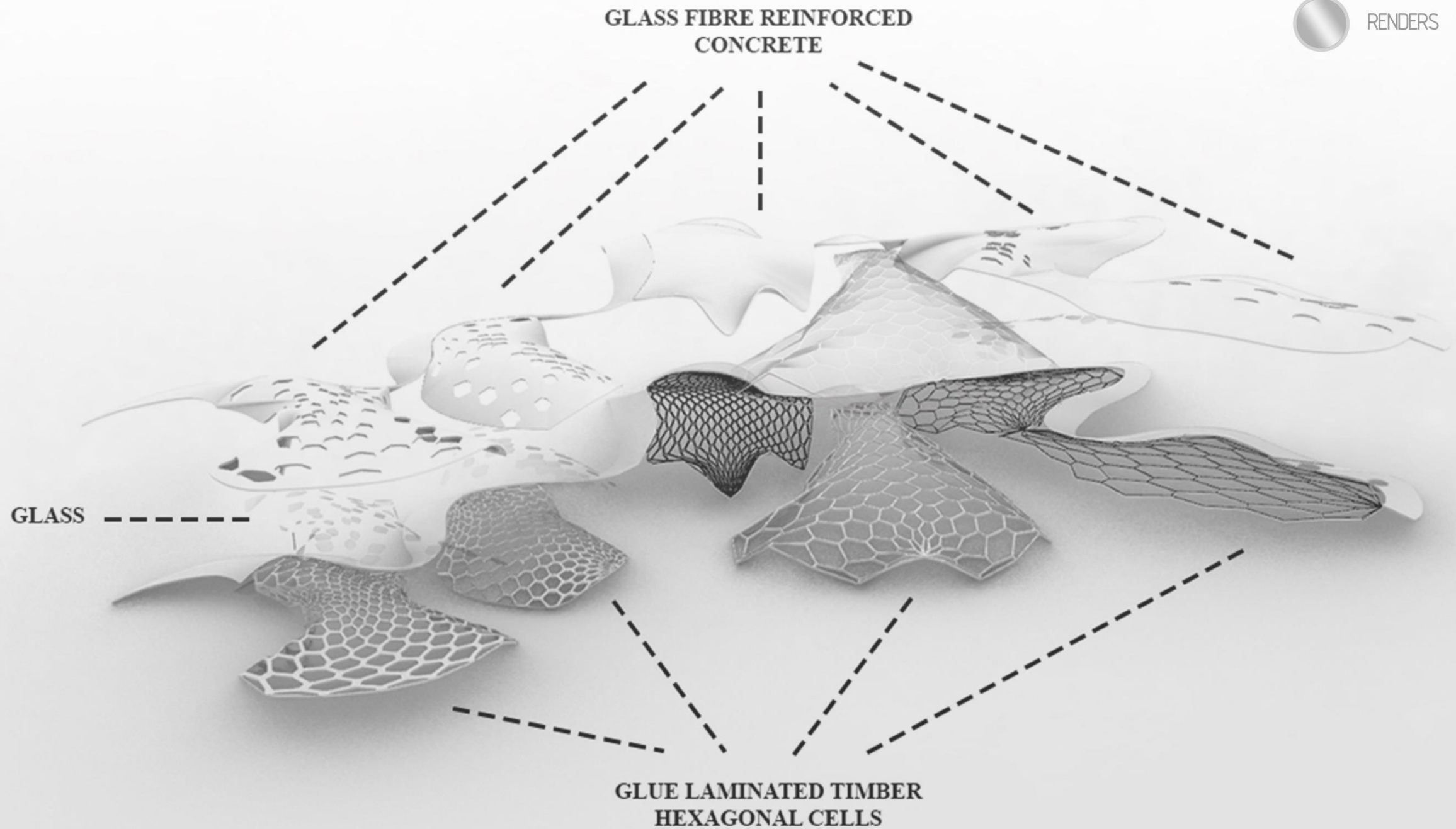
SITE PLAN



DIAGRAM DRAWINGS



RENDERS





THE CONTEXT

- ● MASTER PLAN
- ● SITE PLAN
- ● DIAGRAM DRAWINGS
- RENDERS ●





RENDERS

THE CONTEXT



THE MASTER PLAN



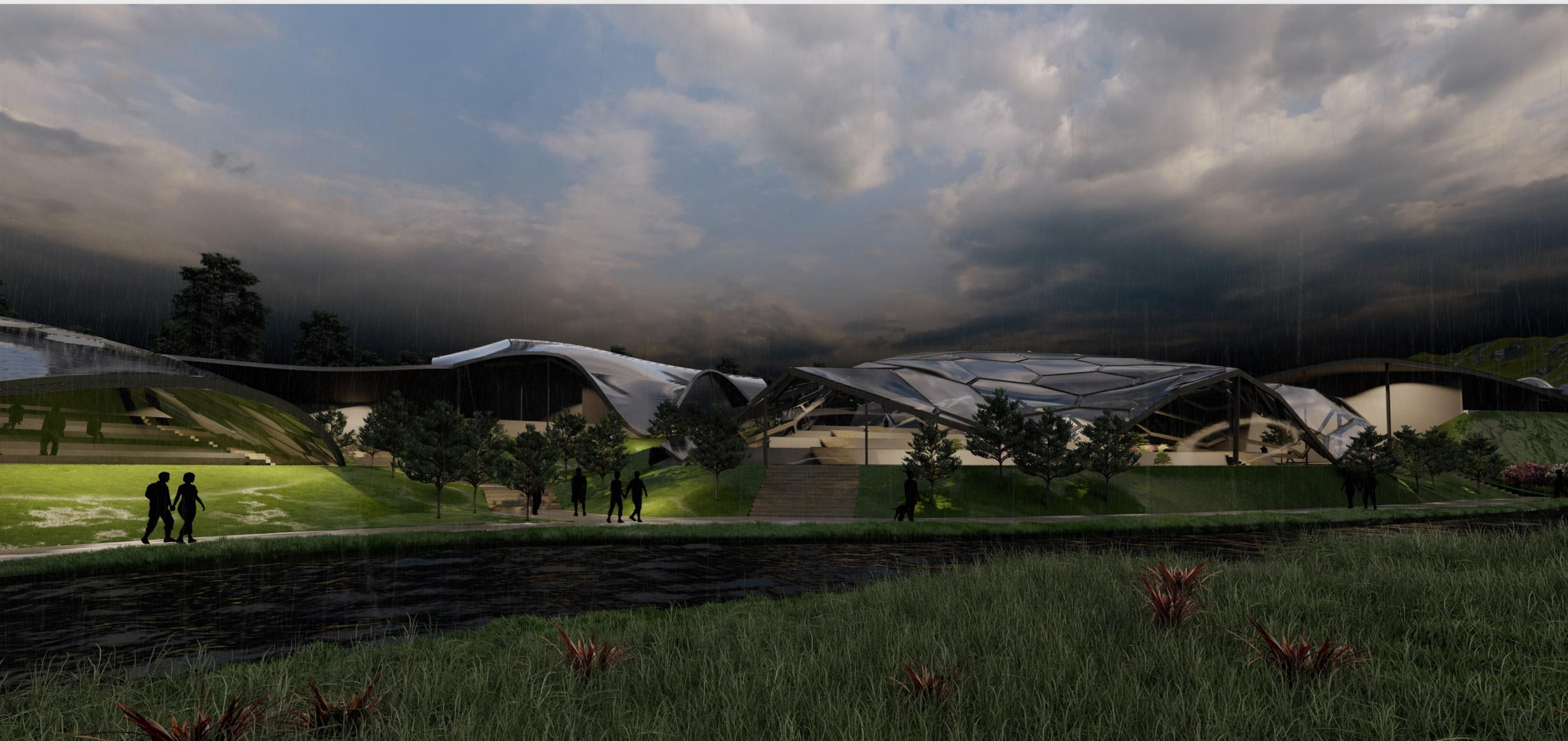
SITE PLAN



DIAGRAM DRAWINGS



RENDERS





RENDERS

THE CONTEXT



THE MASTER PLAN



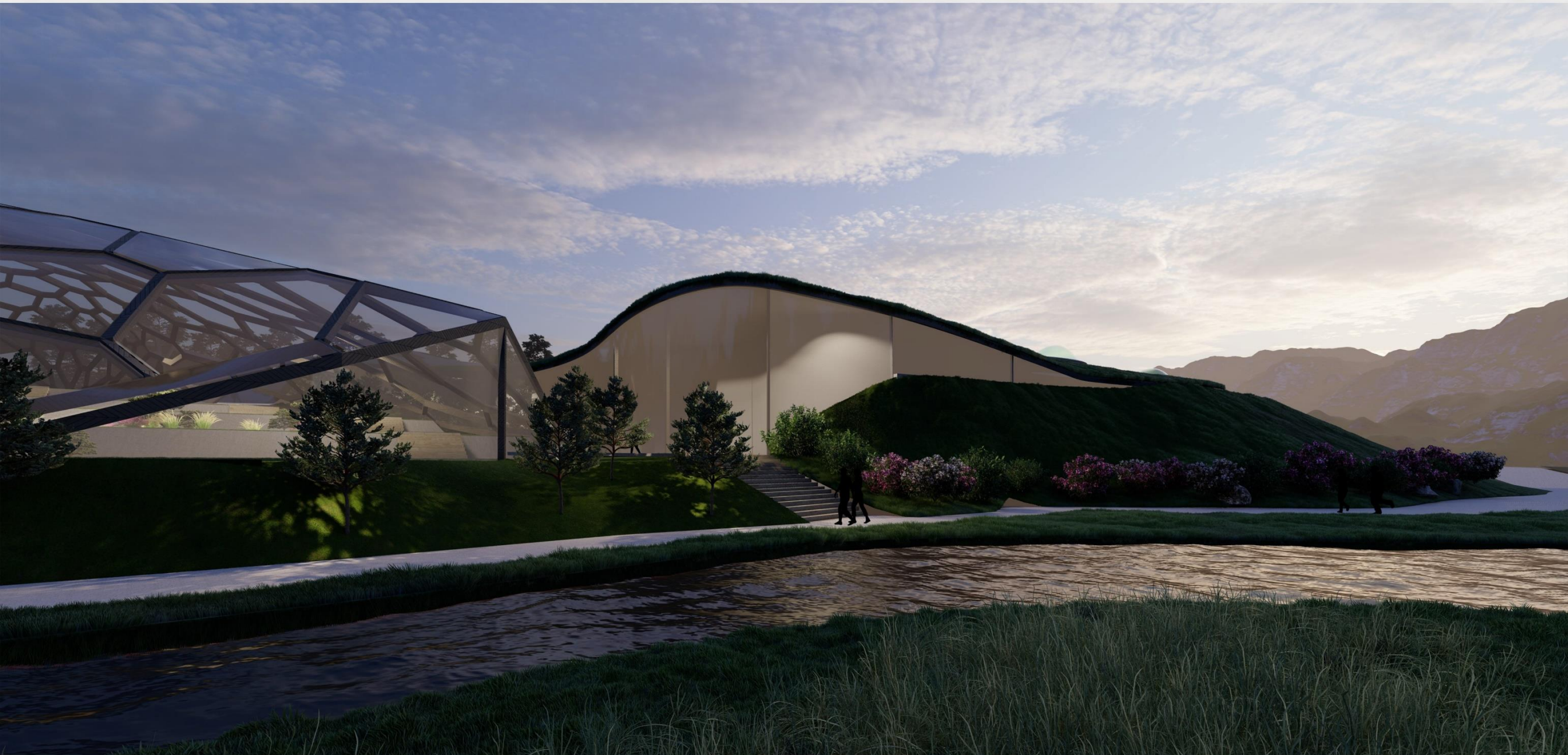
SITE PLAN



DIAGRAM DRAWINGS



RENDERS





RENDERS

THE CONTEXT



THE MASTER PLAN



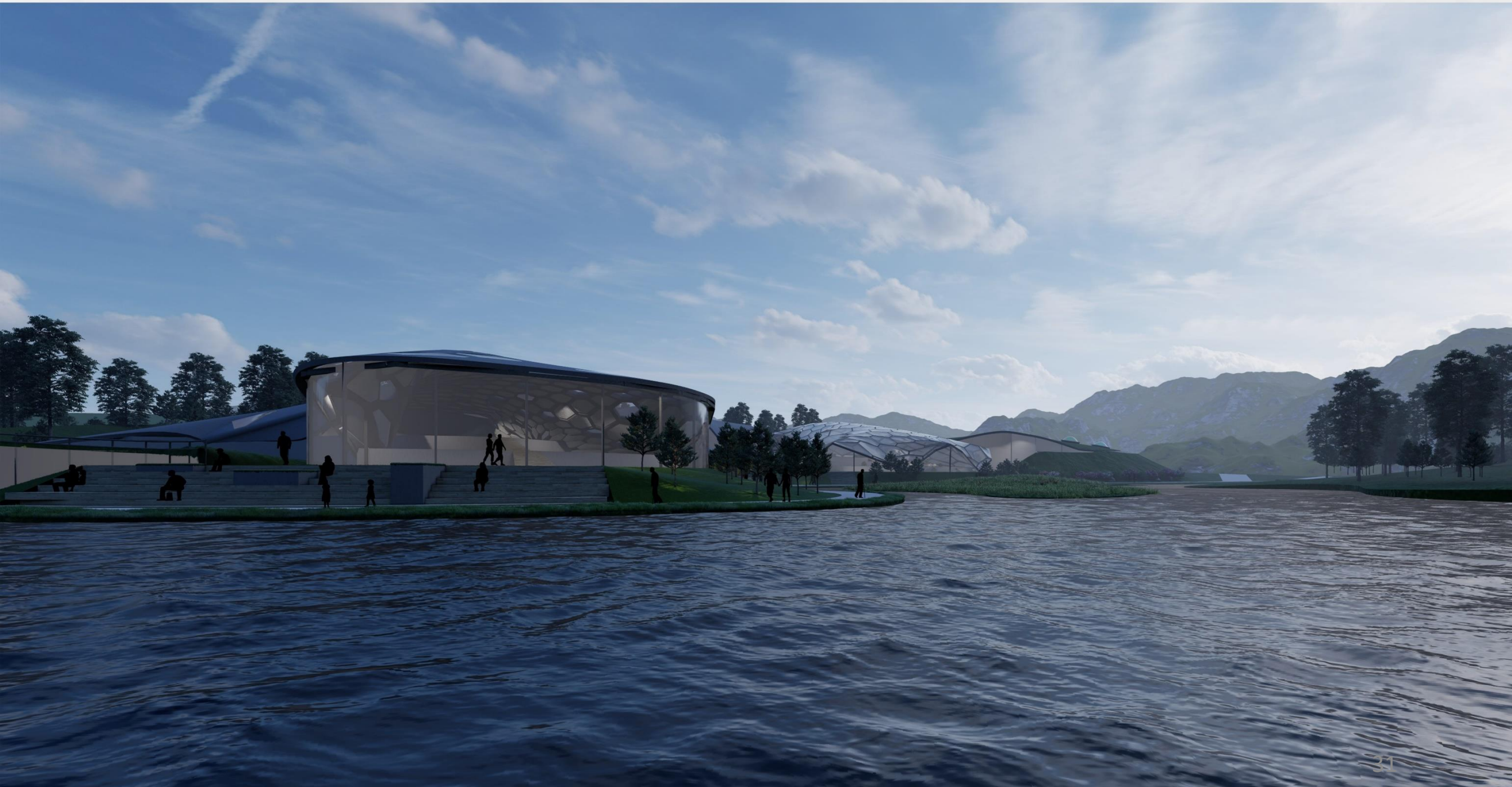
SITE PLAN



DIAGRAM DRAWINGS



RENDERS





RENDERS

THE CONTEXT

-  THE MASTER PLAN
-  SITE PLAN
-  DIAGRAM DRAWINGS
-  **RENDERS**

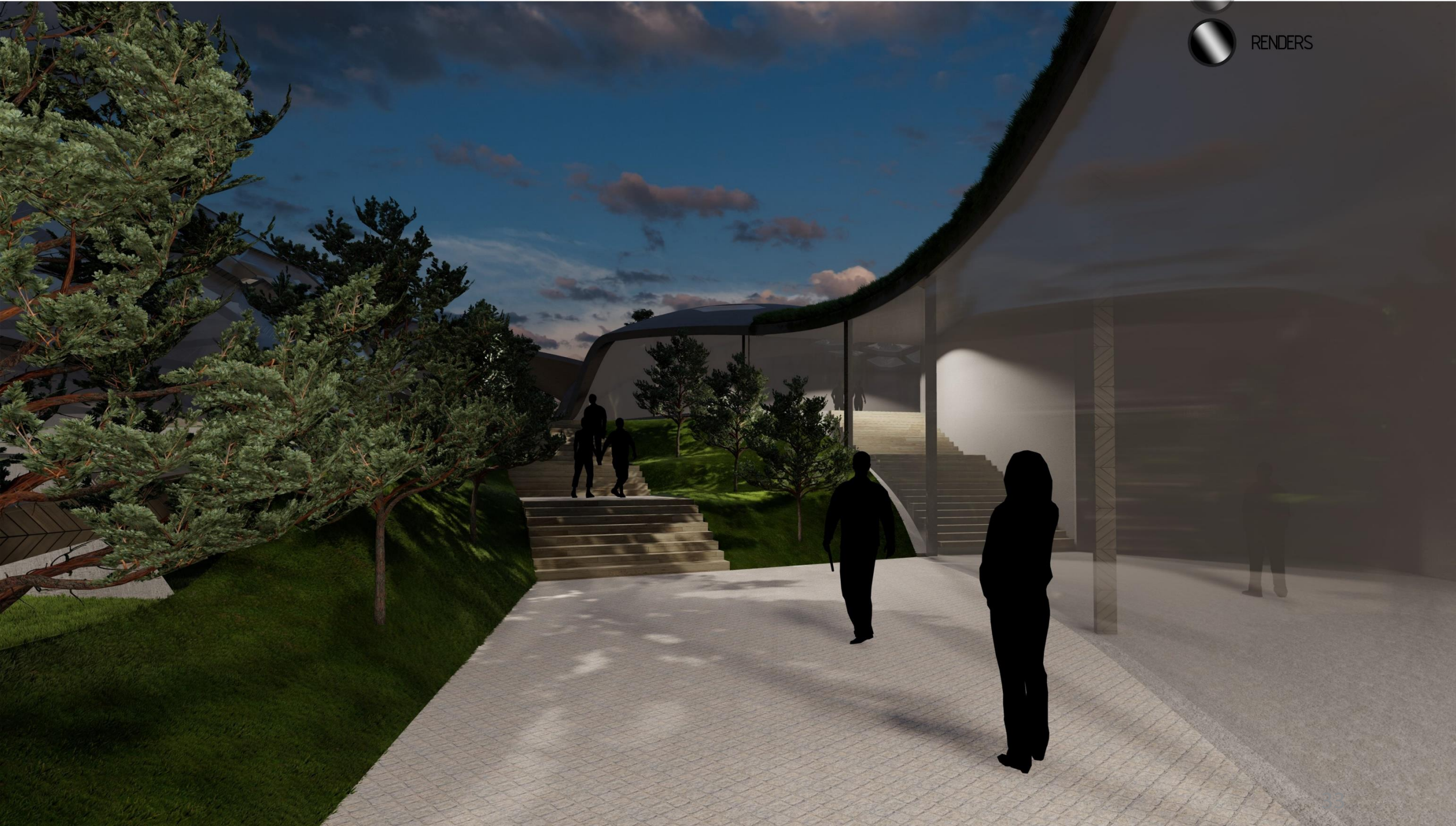




RENDERS

THE CONTEXT

-  THE MASTER PLAN
-  SITE PLAN
-  DIAGRAM DRAWINGS
-  RENDERS





RENDERS

THE CONTEXT

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-  RENDERS

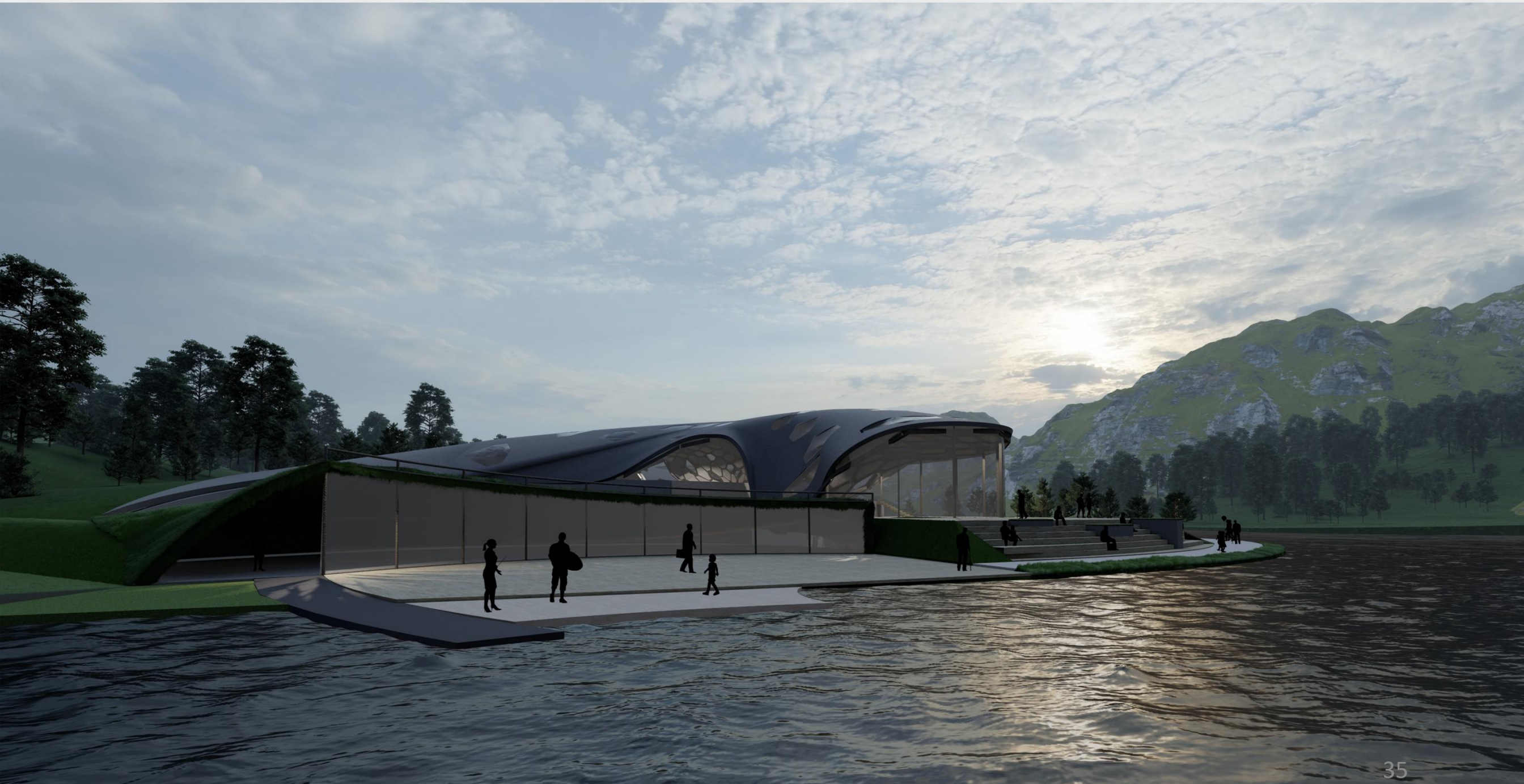




RENDERS

THE CONTEXT

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-  DIAGRAM DRAWINGS
-  **RENDERS**

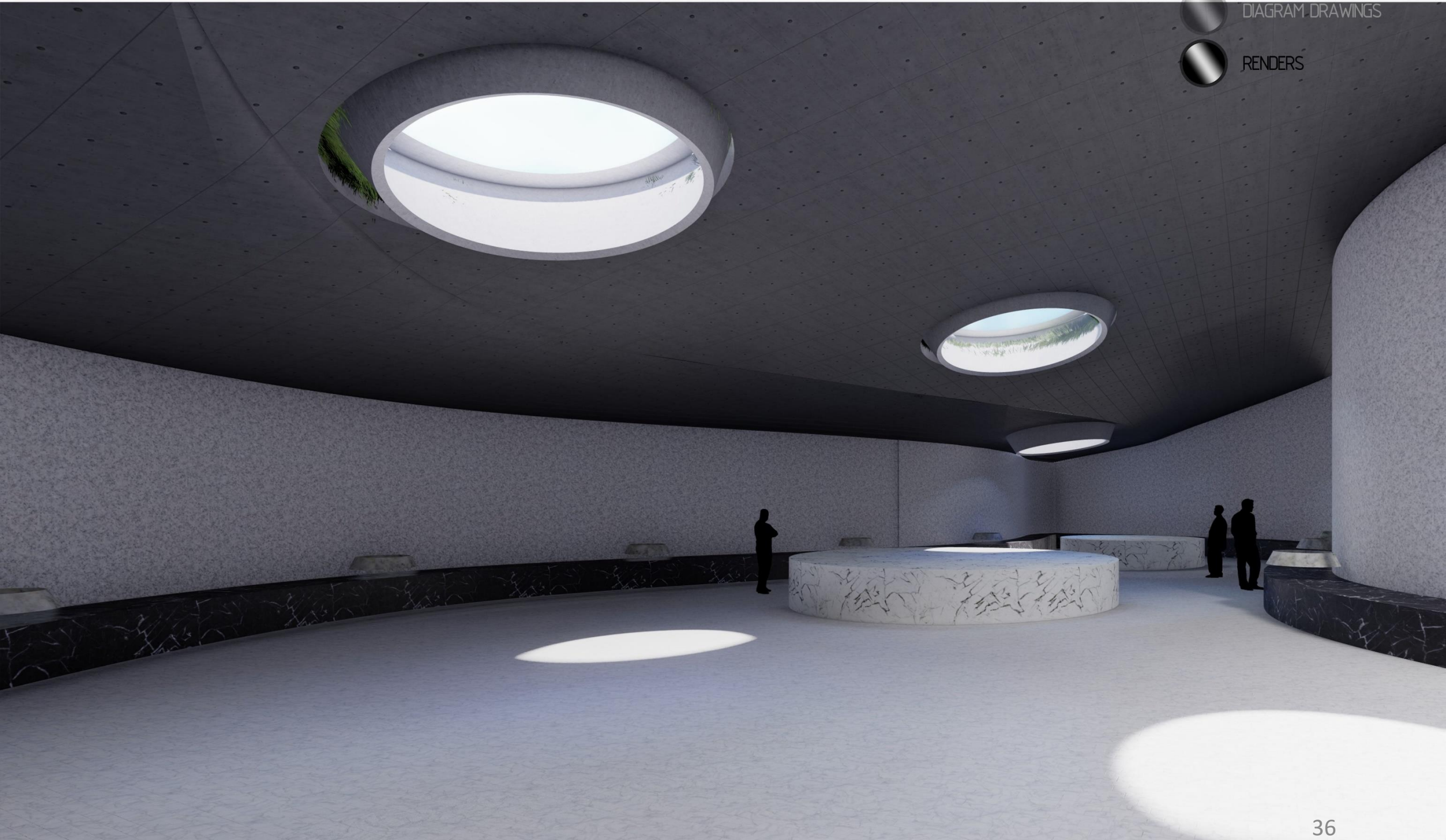




INTERIOR RENDERS

THE CONTEXT

-  THE MASTER PLAN
-  SITE PLAN
-  DIAGRAM DRAWINGS
-  RENDERS

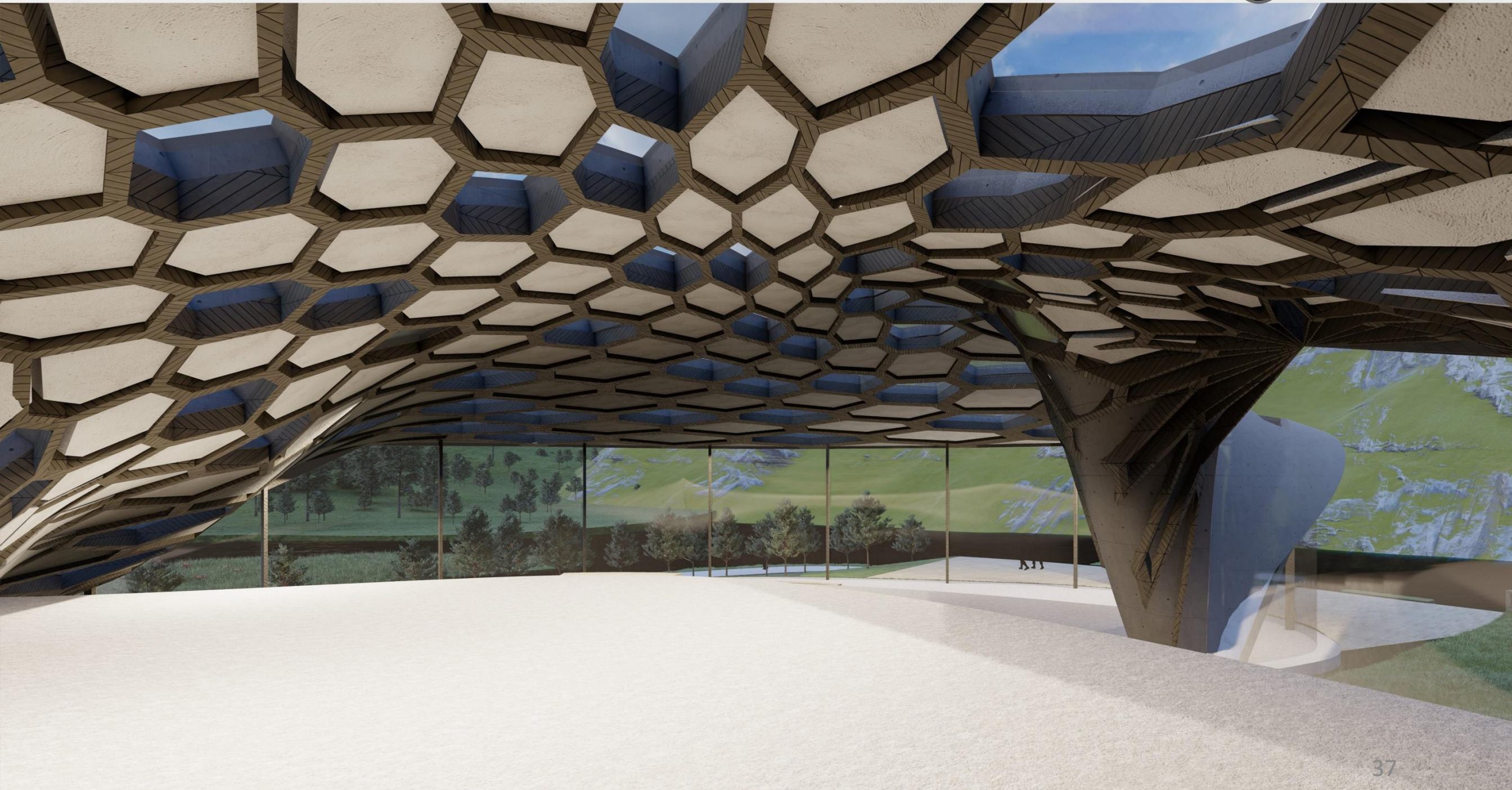




INTERIOR RENDERS

THE CONTEXT

- THE MASTER PLAN
- SITE PLAN
- DIAGRAM DRAWINGS
- RENDERS





INTERIOR RENDERS

THE CONTEXT

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- RENDERS

