

WALK INTO A HEAVENLY ART WORLD

Museum of Art

Shaghayegh Fazel

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in partial fulfillment of the requirements for the degree of

Master of Architecture
in
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Wellness, Washington DC

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Abstract

Living in the new and unreal world of technology and computers, we realize how much humans are separated from nature, which means the actual connection between our soul, brain, and body to the real and touchable environment and experiencing in-person connections.

Since birth, we have a special connection with nature and so we realize that nature gives us feelings of peace and happiness. Staying close to nature makes us feel alive from the inside and it reduces stress, depression and, negative emotions and it improves our mental, physical, and spiritual health condition., Ultimately, it gives us motivation and hope in life.

To explore the architectural implications of these ideas, I have designed a Museum of Art in Washington DC, beside the Kenilworth Aquatic Gardens of water lilies. In my project, I propose how to stay in touch with nature as a visitor who is walking through each part of the museum. From each exhibition room to the next, there is a break to a special view of nature and water to take a deep breath of fresh air. This also makes the viewer understand the artwork inside before entering each room. Bringing outside nature to the inside and creating a connection between the viewer, view, and artwork, gives the visitors a break from the world of technology and makes them connect to the blue and green world which is integral with human nature. The connection between the site and the building makes the viewers feel at home when they are exploring the exhibition rooms to see the artworks since nature is our first home. This is how my design explains my thesis as you are walking through this heavenly art world.

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General Audience Abstract

Living in the new and unreal world of technology and computers, we realize how much humans are separated from nature, which means the actual connection between our soul, brain, and body to the real and touchable environment and experiencing in-person connections.

Since birth, we have a special connection with nature and so we realize that nature gives us feelings of peace and happiness. Staying close to nature makes us feel alive from the inside and it reduces stress, depression and, negative emotions and it improves our mental, physical, and spiritual health condition., Ultimately, it gives us motivation and hope in life.

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Acknowledgements

I would like to express my deepest gratitude to my committee chair Paul Emmons and my committee members Marcia F. Feuerstein and Paul Kelsch for helping me out in this journey of learning and improving my thesis project. Your great feedback has taught me a lot to ameliorate my project in a more detailed way. Thank you that you guided me everytime I felt lost in the design process and you shaped my idea when it was hard to make some design decisions.

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Chapter 1: THESIS

- Introduction
- Nature psychology effects on human
- Attention restoration theory
- Outdoor space affects people's social life
- Do not destroy nature, create it!

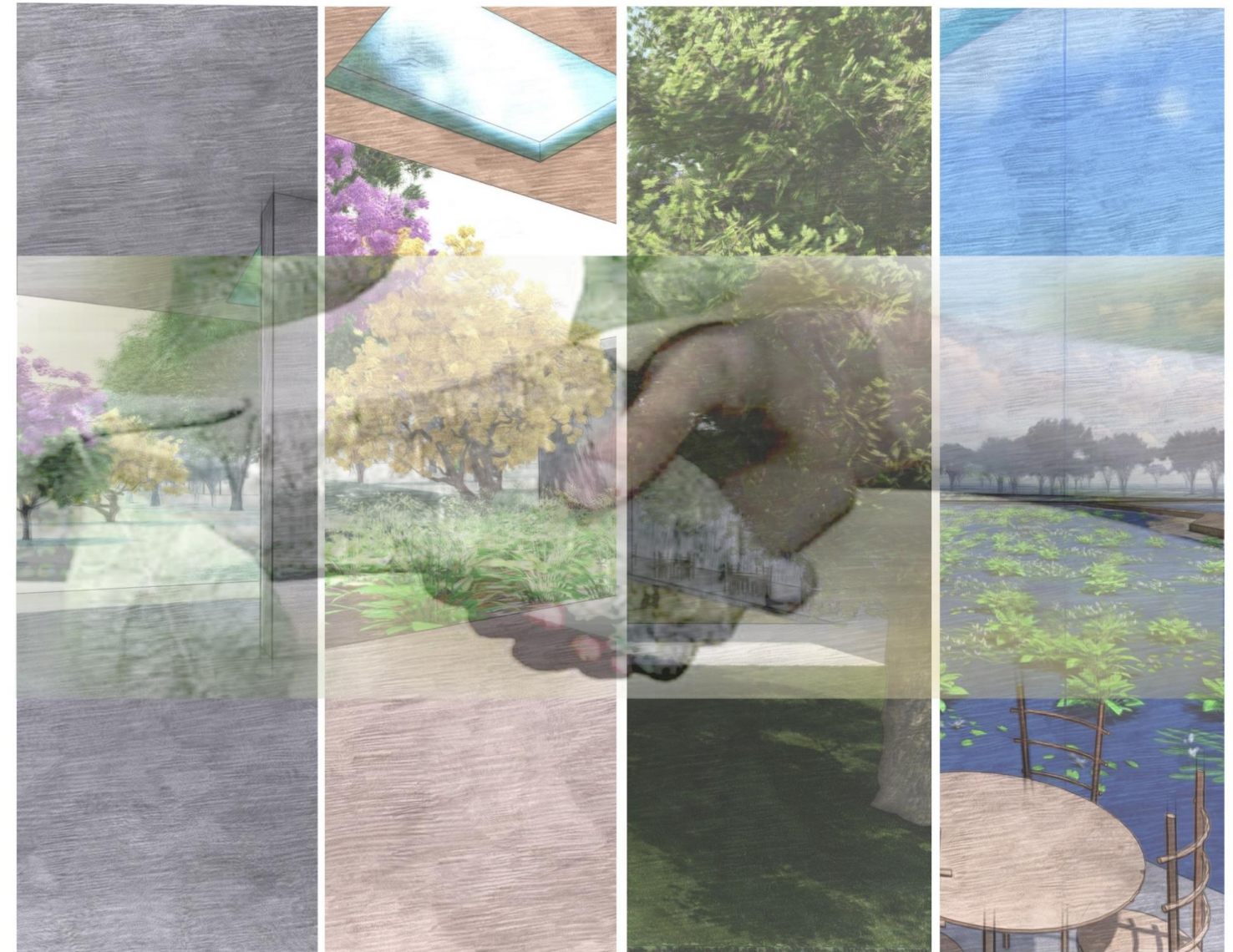
INTRODUCTION

I would begin my thesis by focusing on nature and its effects on human life. Many of us spend our working days using computers in an enclosed space such as an office or home, then we go home and spend the rest of our day relaxing and watching TV, but research shows that it's necessary to devote some time to nature because it's beneficial for our well-being and necessary for our physical and mental health. There was a study on 20,000 participants by Mathew White for Environment & Human Health at the University of Exeter that showed the people who spend 2 hours in nature are healthier psychologically.

“It’s well-known that getting outdoors in nature can be good for people’s health and well-being, but until now we’ve not been able to say how much is enough, Two hours a week is hopefully a realistic target for many people, especially given that it can be spread over an entire week to get the benefit.”¹

Mathew White

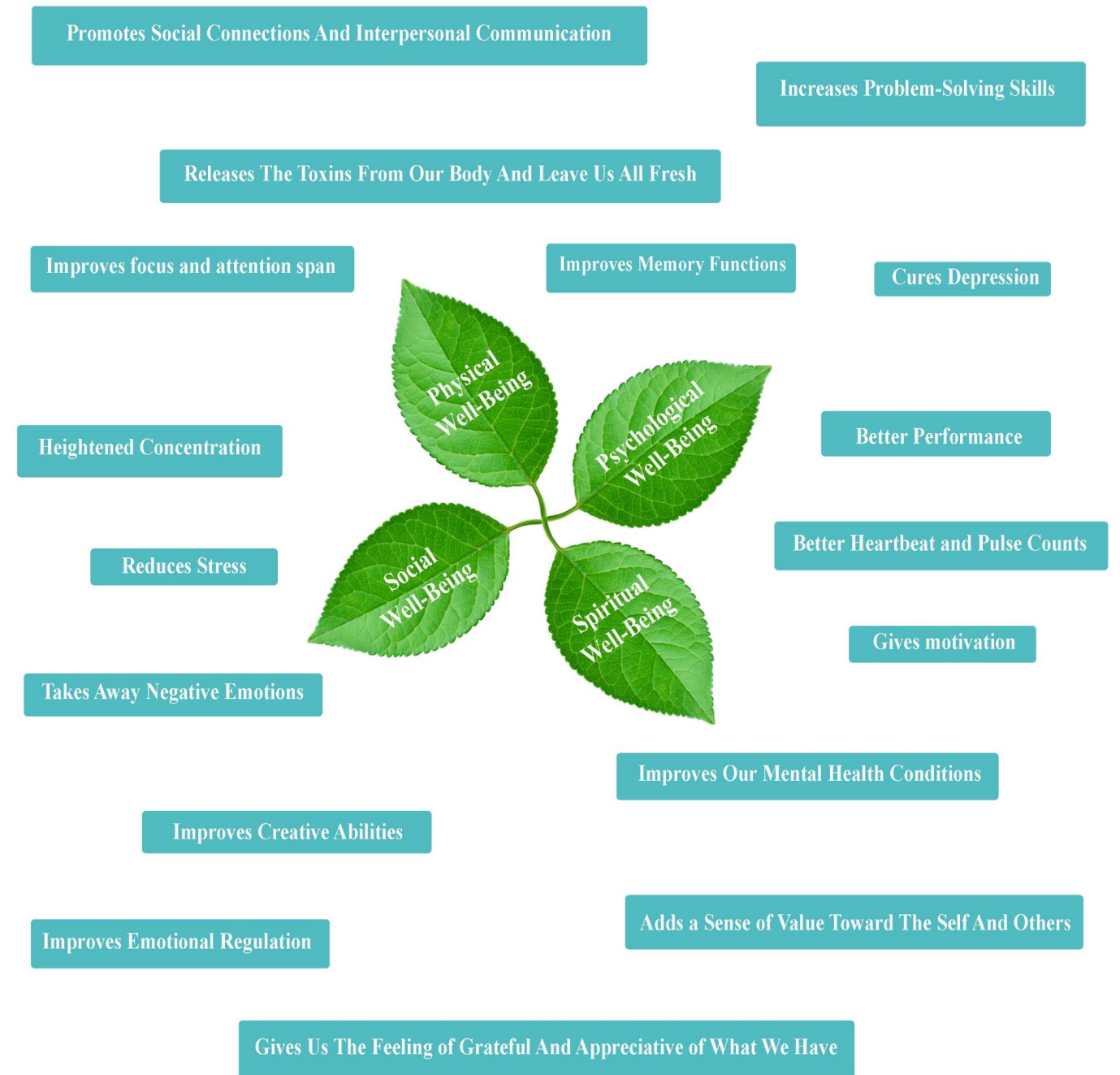
Human psychology and nature are connected, and architecture plays an essential role to bring nature back to the human daily routine. We spend most of our time in an enclosed building and we do not have much time to work on our spiritual well-being by spending time in nature. However, as architects we can bring greenery and water into our design to have a special connection with nature even in working or studying hours. In my project, I would show how I made a connection between architecture and nature.



PSYCHOLOGICAL EFFECTS OF NATURE ON HUMANITY

When we go on a nature holiday to see mountains, trees, beaches, and seas, our goal is to relieve the pressures of everyday life. Nature works as a natural pill to help us get rid of the stress of our routine life and make us calm down. Nature provides enough oxygen for our body and gives us the ability to think better to deal with life issues.

Nature brings many benefits to the soul and psyche. Staying close to nature on a regular and daily basis, reduces depression, anxiety and, the stress in our life more than any other type of pill. Constantly going to nature provides us peace of mind. According to research, walking in nature three times a week would eliminate our depression. In addition, being in nature gives us a sense of joy and vitality.



ATTENTION RESTORATION THEORY

ART or Attention Restoration Theory was proposed by Rachel Kaplan and Stephen Kaplan (1980). This theory indicates 2 types of attention:

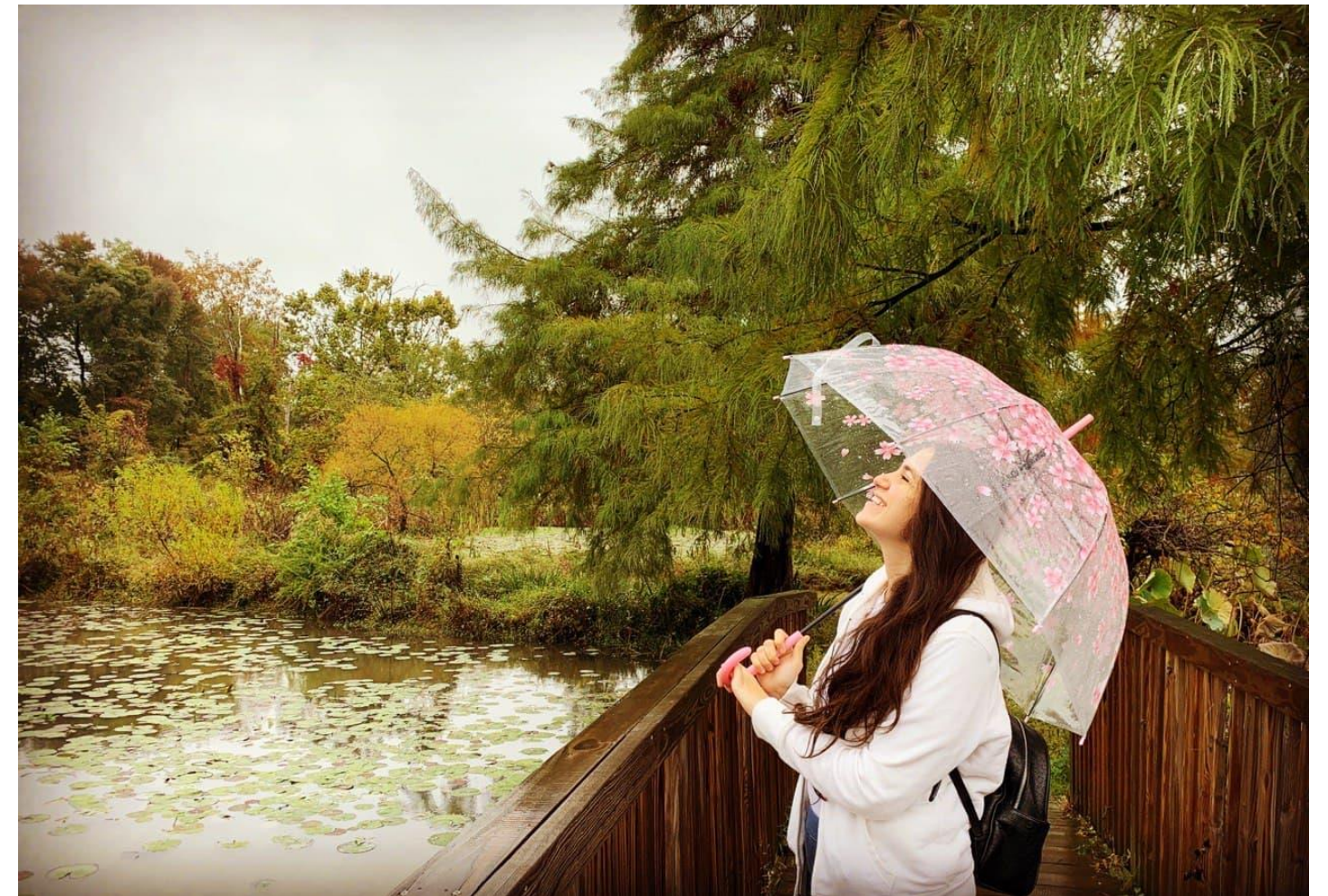
Voluntary attention: When we intentionally focus on something and spend our mental energy on it.

Involuntary attention: When we unconsciously pay attention to something

There was a study on two groups of employees to examine their performance after the holidays by doing things that require a lot of attention. One group spent the holidays in an urban area and the other in a desert area. The team learned that people who spent their holidays in a desert area, performed better than before the holidays, while the other group performed lower than before.

Nature is involuntary attention, when we stay close to nature, we do not have to put energy into attending and paying attention to it, our brain and soul would find an amazing connection to nature with no effort. Below are some examples of how nature would unconsciously concentrate our attention on it.

- A view of a natural environment outside our window can help us recover faster with fewer medications.
- Staying close to nature, even hearing it, or hanging a nature painting on the wall allows patients to have a more flexible and less painful bronchoscopy.
- Watching movies that show beautiful nature reduces pain and anxiety in burn patients.
- Older people in a nursing home who were exposed to nature for one hour a week, experienced better attention compared to the other people who stayed indoors.
- Employees who can see nature through their window compared to the ones who do not have a view to outside, reported more job satisfaction and fewer physical problems.



OUTDOOR SPACES AFFECT PEOPLE'S SOCIAL LIFE

“There need to be places and times for re-unions, which shall be so attractive ... that the rich and the poor, the cultivated and the well bred, and the sturdy and the self-made people shall be attracted together and encouraged to assimilate.”²

Rok Seong

In urban elements such as nature, park or generally an open space or a seating area such as grass for doing a picnic with family and friends, people from different levels, income and race get together, and it has psychologically positive effects on people in their social life.

When children go to an open space or a green environment, they would like to play with other kids in their age group, so they find friends. In this case, they learn how to be socially active and make connections with people and strangers at a younger age. This makes them gain self-confidence and not be shy so, open spaces affect people's social life at any age.



DO NOT DESTROY NATURE, CREATE IT!

Site Repair:

- 1- Minimize damage to nature
- 2- Improve the natural landscape

How to place a building to improve the landscape do not exist yet? Build new structures in those parts of the site which are least pleasant. The building must always be built on those parts of the site which are the worst conditions, not the best.

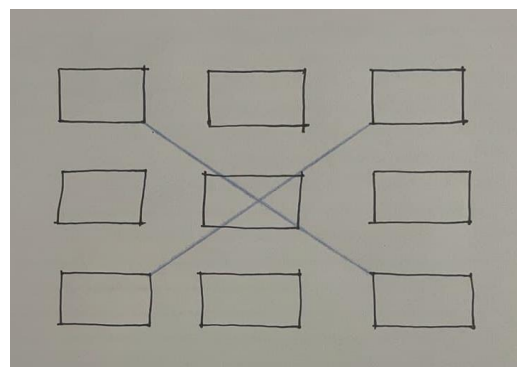
Garden growing wild: Leave the outdoors in its natural state as much as possible

Where to choose the site: I should choose the site somewhere that not only it does not damage the nature and landscape, but also, it helps repairing and improving the site.

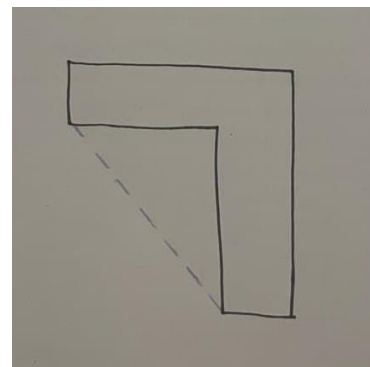
South: outdoor space – most important outdoor space on sunny days

North: Building

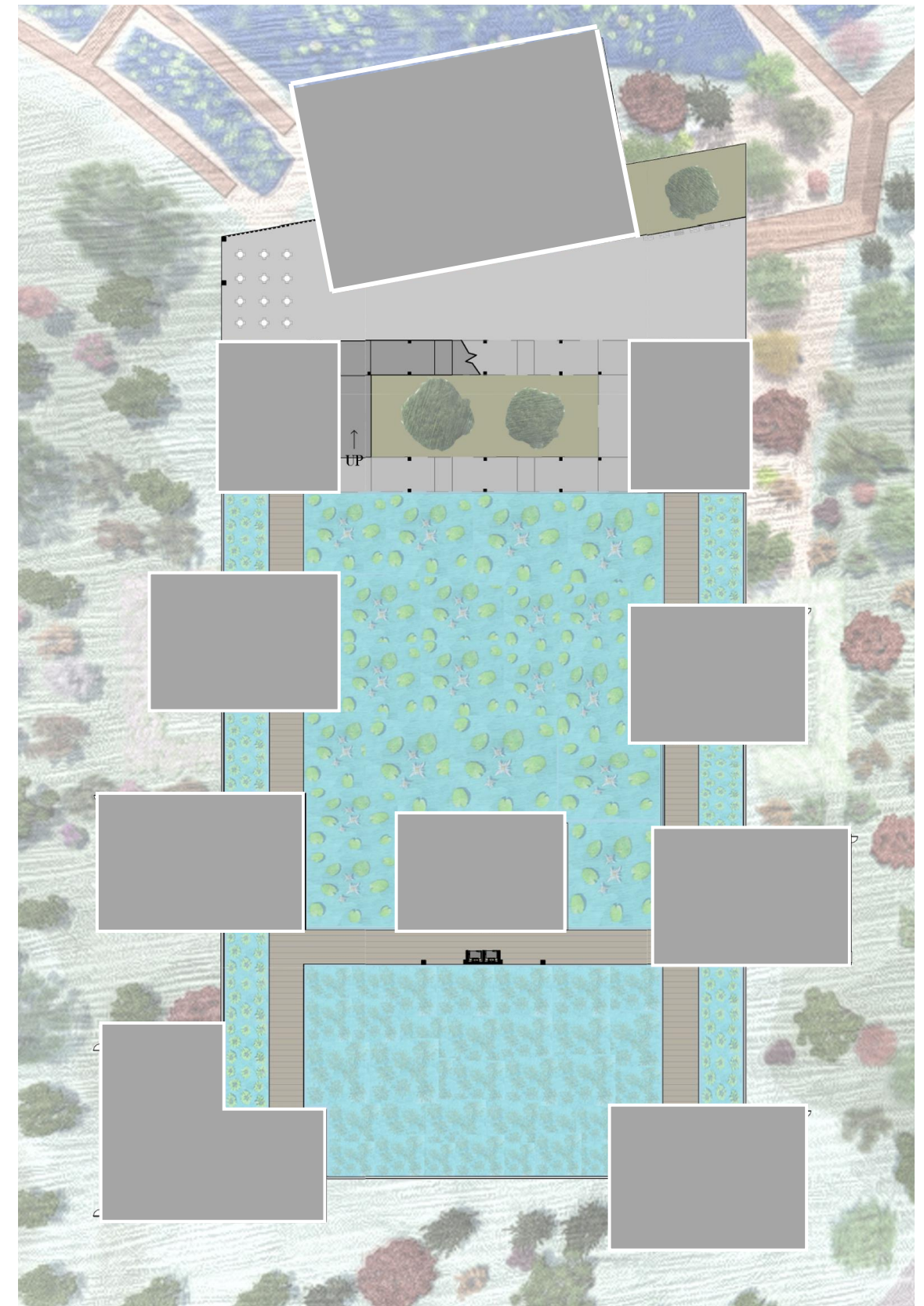
Positive outdoor space: Shape space in such a way that each place becomes positive. To feel comfortable, people need enclosure around them and feel enclosed, but not too much.



Negative outdoor space



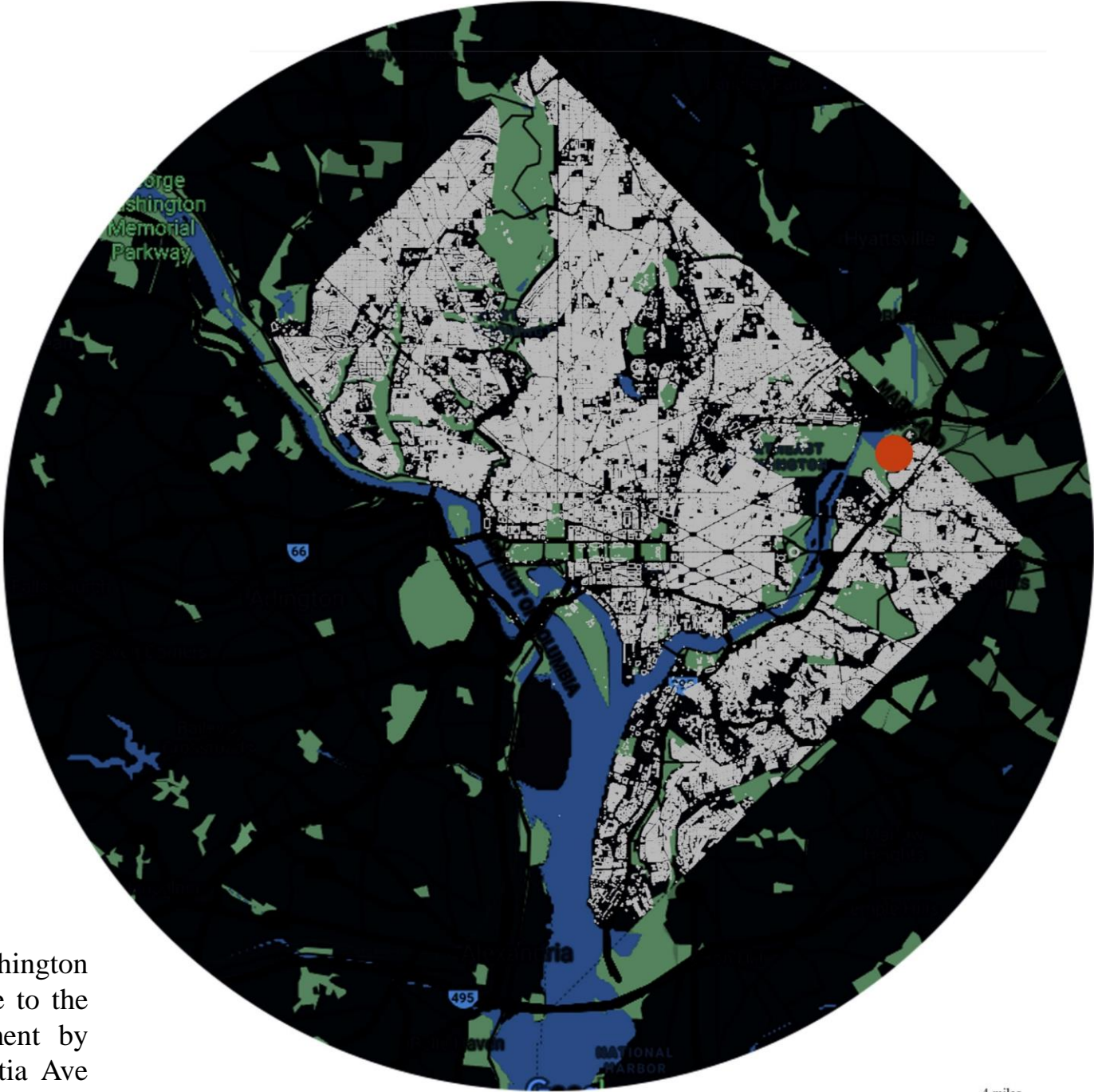
Positive outdoor space



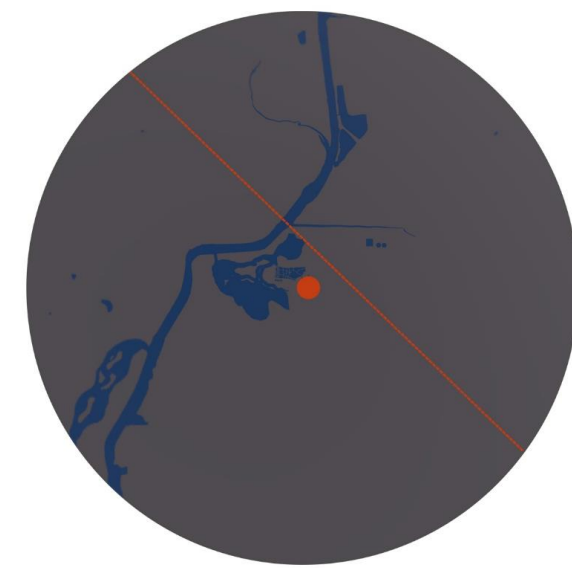
Chapter 2: SITE ANALYSIS

- Site location
- Lakes & wooden walking path
- Site photos
- Foundation

SITE LOCATION



My site is at Kenilworth Aquatic Garden in Washington DC, United States of America. The site is very close to the edge of Maryland in a beautiful natural environment by Anacostia River. The site is located at 1550 Anacostia Ave Northwest, Washington DC, This site was discovered by Walter Shaw in 1880 and after his death in 1921, his daughter Helen, took responsibility to take care of it.



When I was choosing the site for my thesis and project, there were some factors important to me. I would like to mention them as the reason I decided to choose this site.

The site is not so close to the buildings and the reason is that the roads are where the buildings are so, I chose my site a bit far from the buildings to stay away from the crowd and to feel isolated by the beauty of nature.

Roads are full of sounds and to be able to hear water and nature, I needed to choose a location that would not be so close to the roads but would be easy to access by cars. so, the museum is surrounded by nature from three sides and accessible by car from one side, but there are trees in between the road and my building as an acoustic wall.

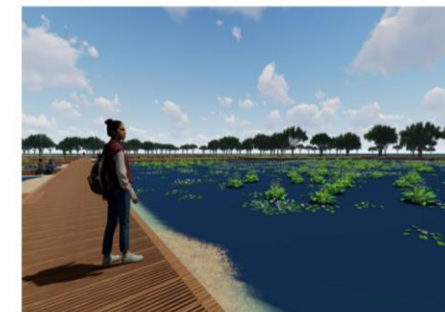
The landscape was the most important factor for me while I was choosing the site. A beautiful landscape with a very special view for my building really helped me to bring and create the same nature and water into my design.

The other important factor to choose this site was being close to water, this site has special lakes of water lilies, and it is close to Anacostia river. I wanted to have a special view of the lakes and water from the first and top floors of the building.

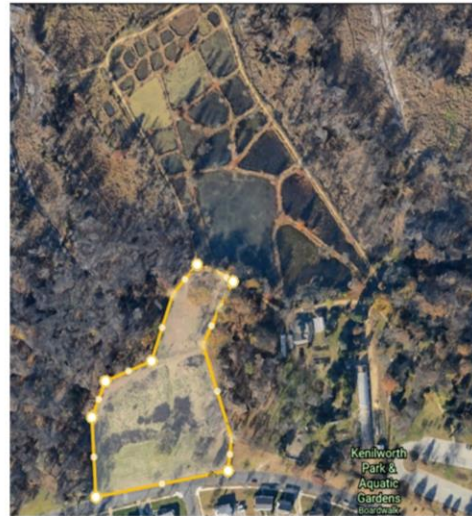
LAKES & WOODEN WALKING PATH

The site is covered by almost 34 lakes of water lilies, and you can enjoy the beauty of them by walking in between the lakes. The bigger lakes are closer to the street and as you get closer to Anacostia River, the lakes become smaller. The exact location of my museum is by the bigger lakes and closer to the street for the visitors to have easier and faster access.

Between the lakes, there are paths for people to walk and enjoy the view of the lakes when they are surrounded by them. I went to the site a couple of times, on rainy days and sunny days. The paths are not cleaned up and especially when it is rainy, they are muddy so, I decided to design wooden paths on the walkways in order to create a nicer and cleaner environment.



SITE PHOTOS



FOUNDATIONS

Types of Foundations

A- Shallow Foundations

B- Deep Foundations

Deep Foundations

1- Pile foundations

2- Cofferdam

3- Well foundations or caisson

Classification of Piles

Based on Function

1- Bearing piles or end bearing piles

2- Friction piles or skin friction piles

3- Compaction piles

4- Anchor piles

5- Batter piles

6- Fender piles

7- Sheet piles

8- Tension piles or uplift piles

Based on the material and composition:

1- Timber pile

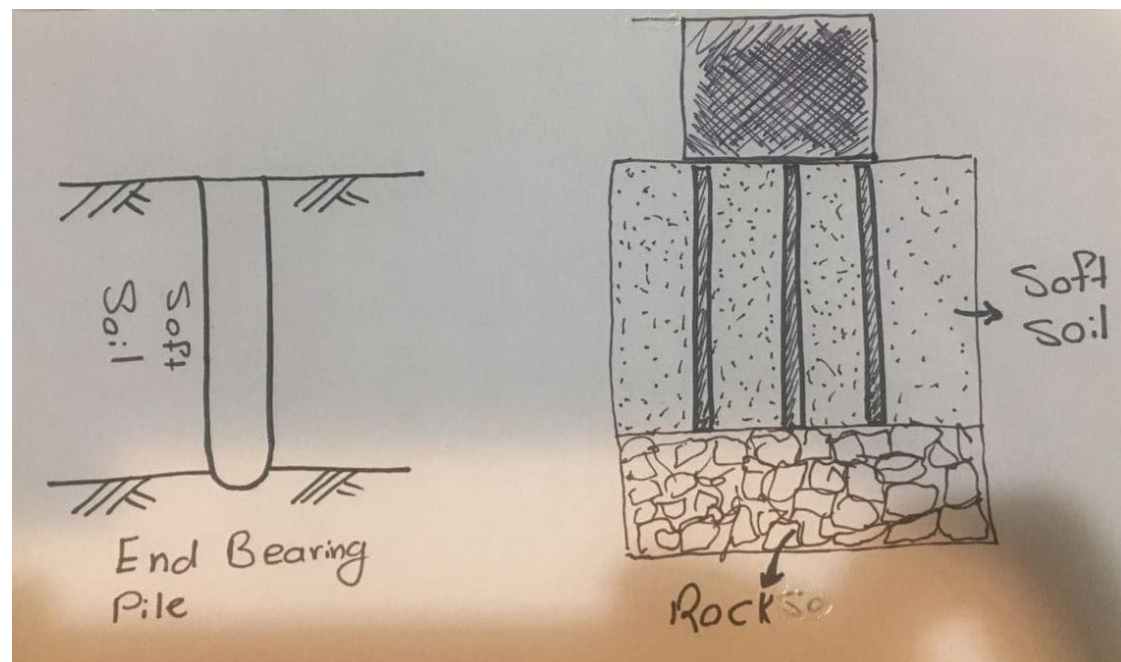
2- Concrete pile

3- Composite pile: concrete & timber, concrete & steel

4- Steel Pile

Bearing piles or end bearing piles

Driven into the ground (soft soil) until a hard stratum is reached
They do pillars supporting job to transmit the load through water or soft soil to the stratum ground



Concrete pile

- Durability is independent of ground water level
- Can be cast to any length, size or shape
- Material for manufacture is easily available for large size and greater bearing power

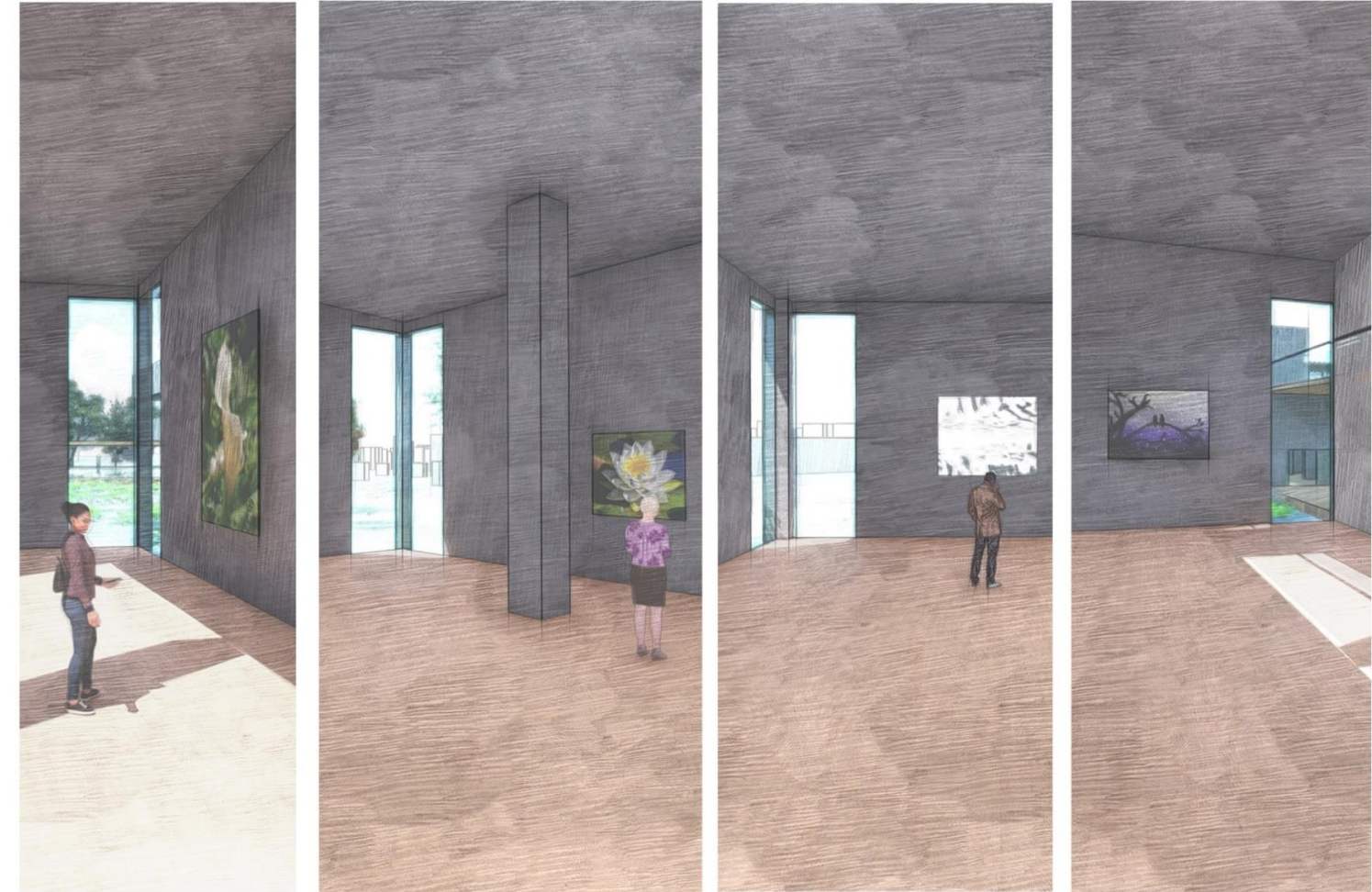


Chapter 3: FINAL DESIGN

- Design concept # 1
- Landscape – Pools
- Water lilies
- Viewer / View / Artwork
- Design concept # 2
- Programming
- Collection
- Floor Plans
- Sections
- Elevations
- Section – Column & Water
- Material
- Gutter
- Rain Music
- Perspectives

DESIGN CONCEPT #1

The design concept is the connection between the viewer, view, and the artwork in each exhibition room in the museum. Each exhibition room has small windows to the view outside to the landscape and inside to the water lily garden, the viewer sees a special connection between the artwork inside the museum and the view, whether it is the color of the paintings and landscape or the type of the collection that has been used for each exhibition room. I will explain further on the next pages.



LANDSCAPE - POOLS

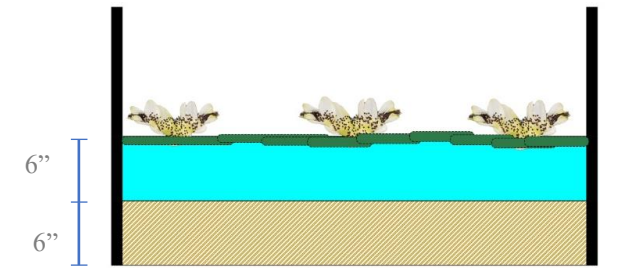
- 1- White water plantain
- 2- Purple water plantain
- 3- Water hawthorn
- 4- Water lily

In order to make a connection to the artworks in each exhibition room, I designed 8 pools of aquatic flowers surrounded by smaller buildings and I proposed 4 types of water lilies (white water plantain, purple water plantain, water hawthorn, and water lilies). To do that, I needed to learn how deep the soil and water should be for each kind of aquatic flower.

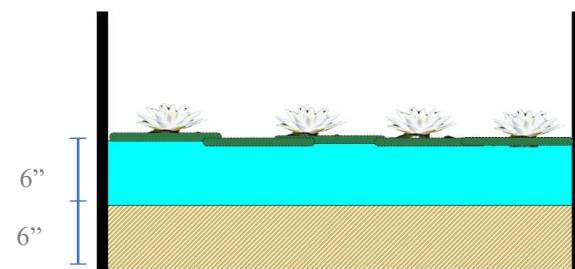


WATER LILIES

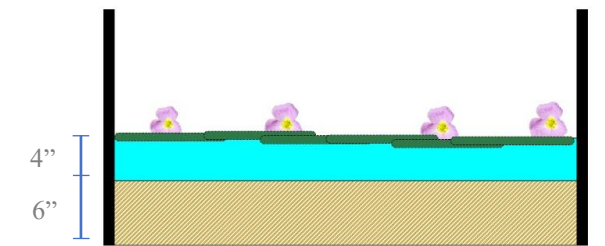
WATER HAWTHORN:



WATER LILY:



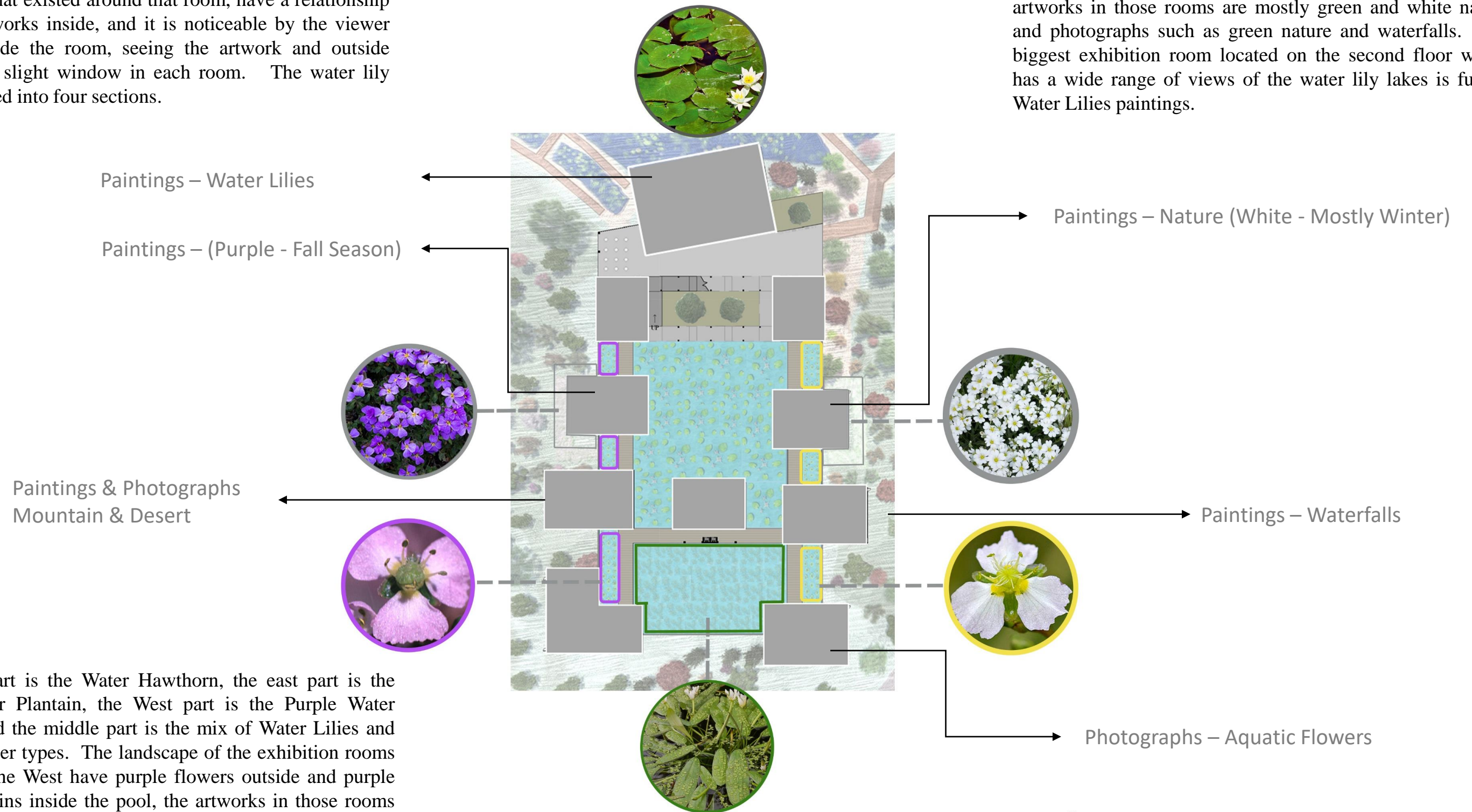
WATER PLANTAIN:



VIEWER, VIEW, ARTWORK

In this project, I proposed a relationship between the viewer, view, and the artwork. The landscape outside each exhibition room which is the trees and the flowers, and the color of the water lilies that existed around that room, have a relationship with the artworks inside, and it is noticeable by the viewer standing inside the room, seeing the artwork and outside view from a slight window in each room. The water lily pool is divided into four sections.

The landscape of the exhibition rooms on the East has white flowers outside and white water plantain inside the pool, the artworks in those rooms are mostly green and white nature and photographs such as green nature and waterfalls. The biggest exhibition room located on the second floor which has a wide range of views of the water lily lakes is full of Water Lilies paintings.



the south part is the Water Hawthorn, the east part is the White Water Plantain, the West part is the Purple Water Plantain, and the middle part is the mix of Water Lilies and the three other types. The landscape of the exhibition rooms located on the West have purple flowers outside and purple water plantains inside the pool, the artworks in those rooms are mostly spring and fall paintings and photographs such as pink and purple color nature, sunset, and mostly the more colorful artworks.

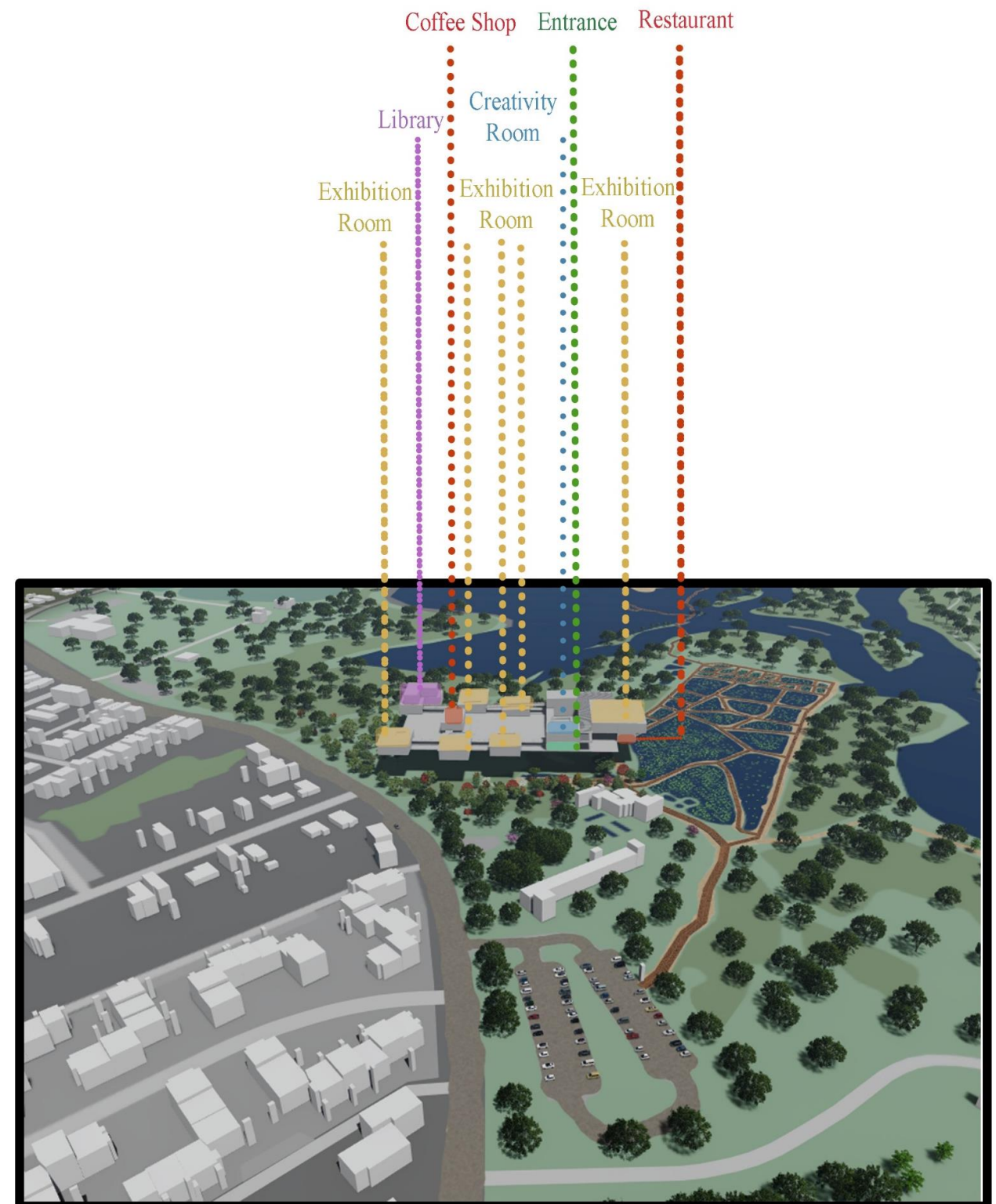
DESIGN CONCEPT #2

From to exhibition room to another, there is a bridge in the open space that connects them together. For the viewers to exit a room and enter a new room, they need to walk on the bridges. This is a break for the viewers to not only enjoy the view, but also take a quick break of the paintings they saw in the previous exhibition room, get some fresh air and, get ready to see the new artworks.



PROGRAMMING

- There are 5 museum rooms connected to each other by the bridge on the south side of the site
- A coffee shop in the middle of the water lily pool
- A library on one corner that has direct access to the coffee shop
- A bigger museum room on the second floor on the north side of the site that has a view to the water lily lakes
- A restaurant on the first floor close to the entrance on the north side of the site that has a view to the water lily lakes
- A creativity room on the second floor
- Seating areas in closed and open spaces

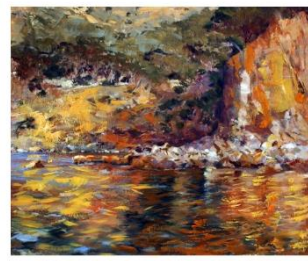


COLLECTION - Paintings

Barbara Jaskiewicz



Cati Gelabert Niell



Claude Monet



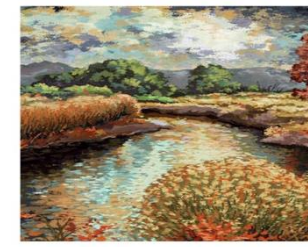
Donna Tuten



Elena Bond



Hans Neuhart



Kevin Hill



John Constable



COLLECTION - Photographs

Ansel Adams



David Muench



Eliot Porter



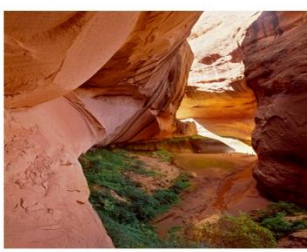
Carleton Watkins



Galen Rowell



Philip Hyde



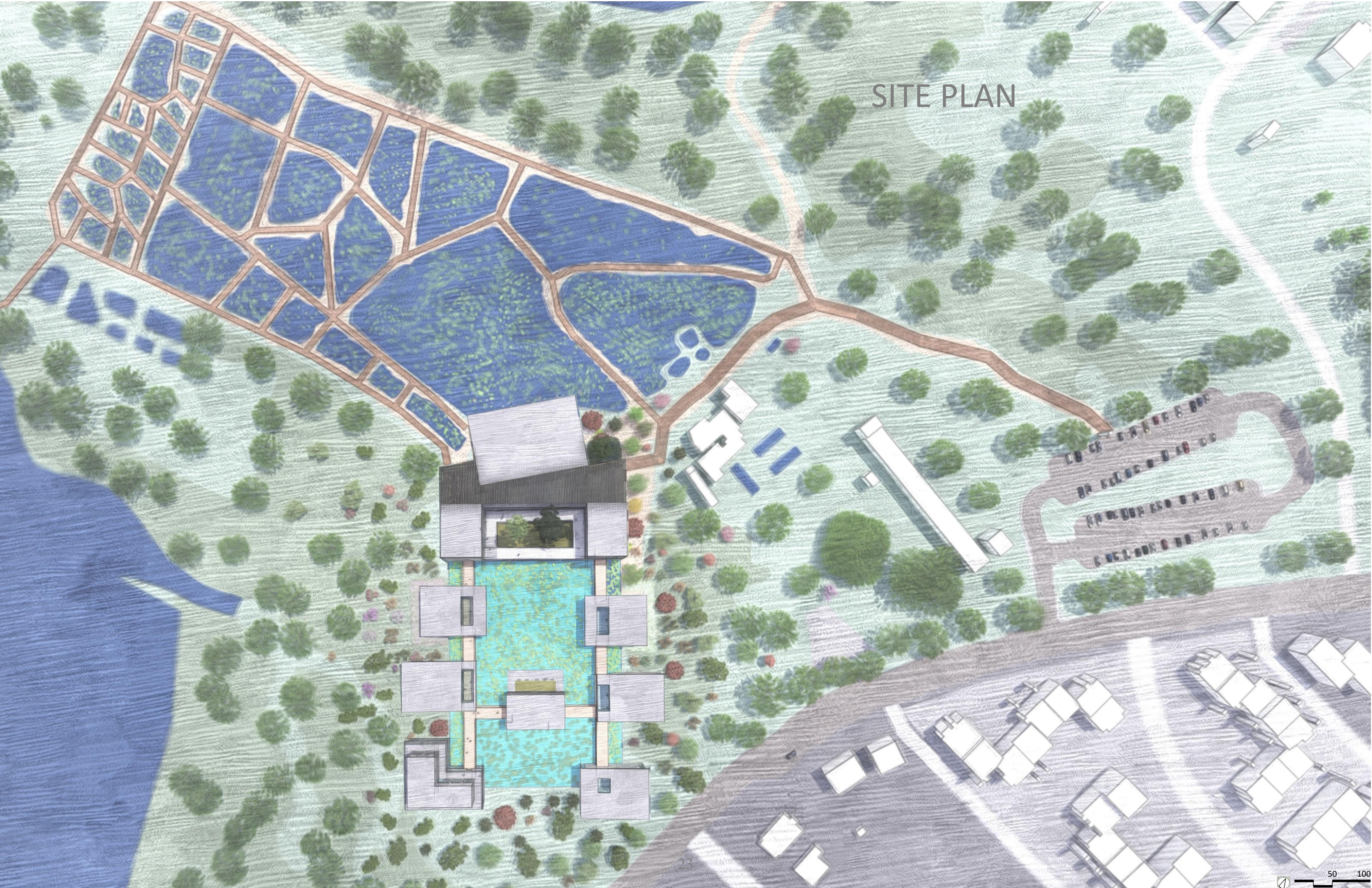
William Henry Jackson



Robert Glenn Ketchum



SITE PLAN



FIRST FLOOR PLAN

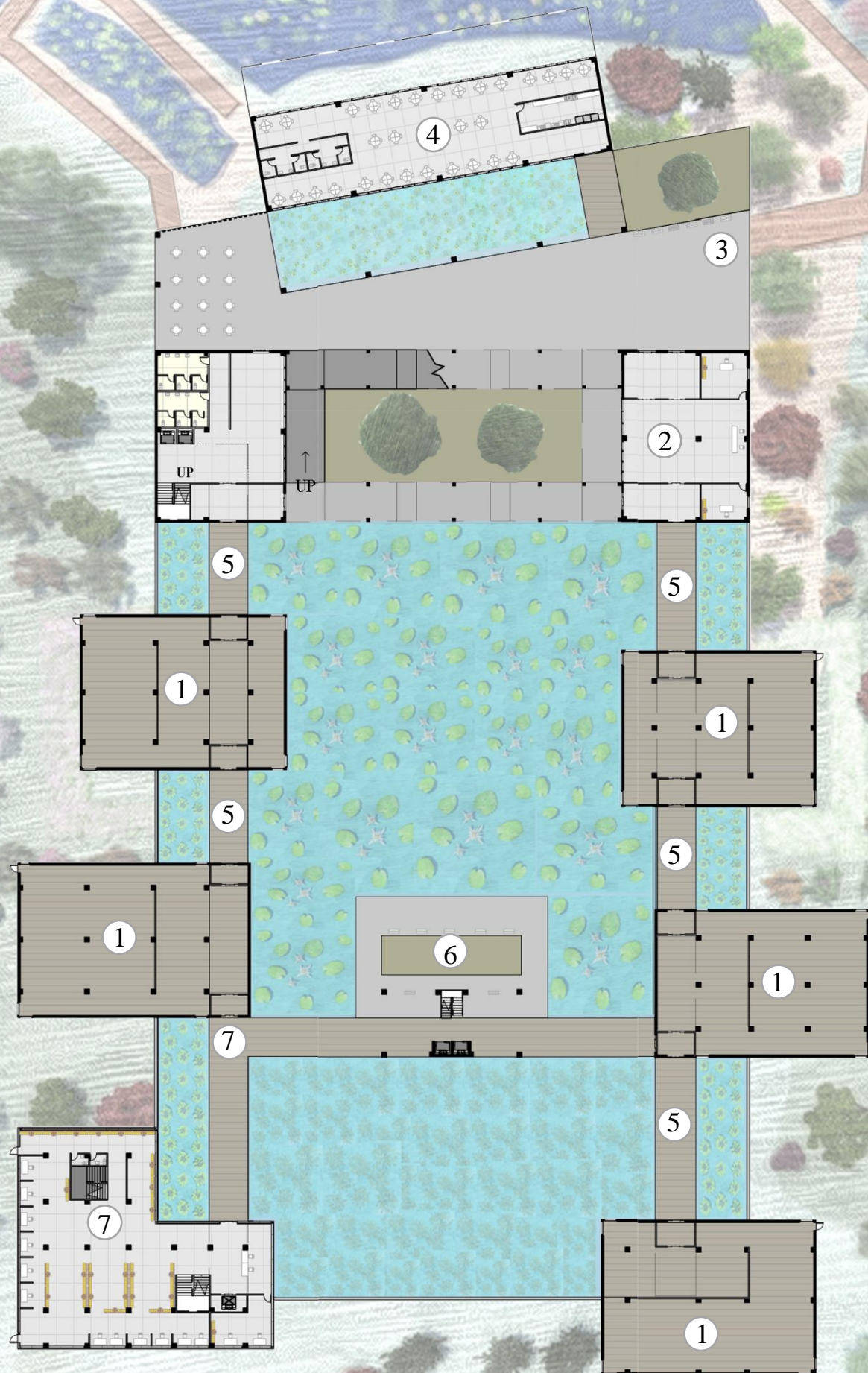
There is a 3-minute walk from the parking lot to the entrance of the museum. Once you enter, there is a restaurant on the right side that is open to the public or you can go to the left to the exhibition rooms.

There are 5 exhibition rooms on the first floor. They are seated on the pool and the ground to have a view of the water lily pools and the landscape. There are small windows in each exhibition room to a different view in order to get enough light and create a special moment for the viewers connecting to the artworks and the view.

Exhibition rooms are connected by some bridges in order for the visitors to make a connection to the view before entering each exhibition room because the artworks in each room are related to the view. Having the visitors getting out of the space to walk on the bridge before seeing more artworks also helps them to take a break and fresh air and get ready to enjoy seeing more artworks.

There is an open space seating area in the middle of the water for the visitors to enjoy a special view of the water lily pools and the floating buildings.

A library is also located on the first floor on the left corner to read books while you are enjoying the landscape.

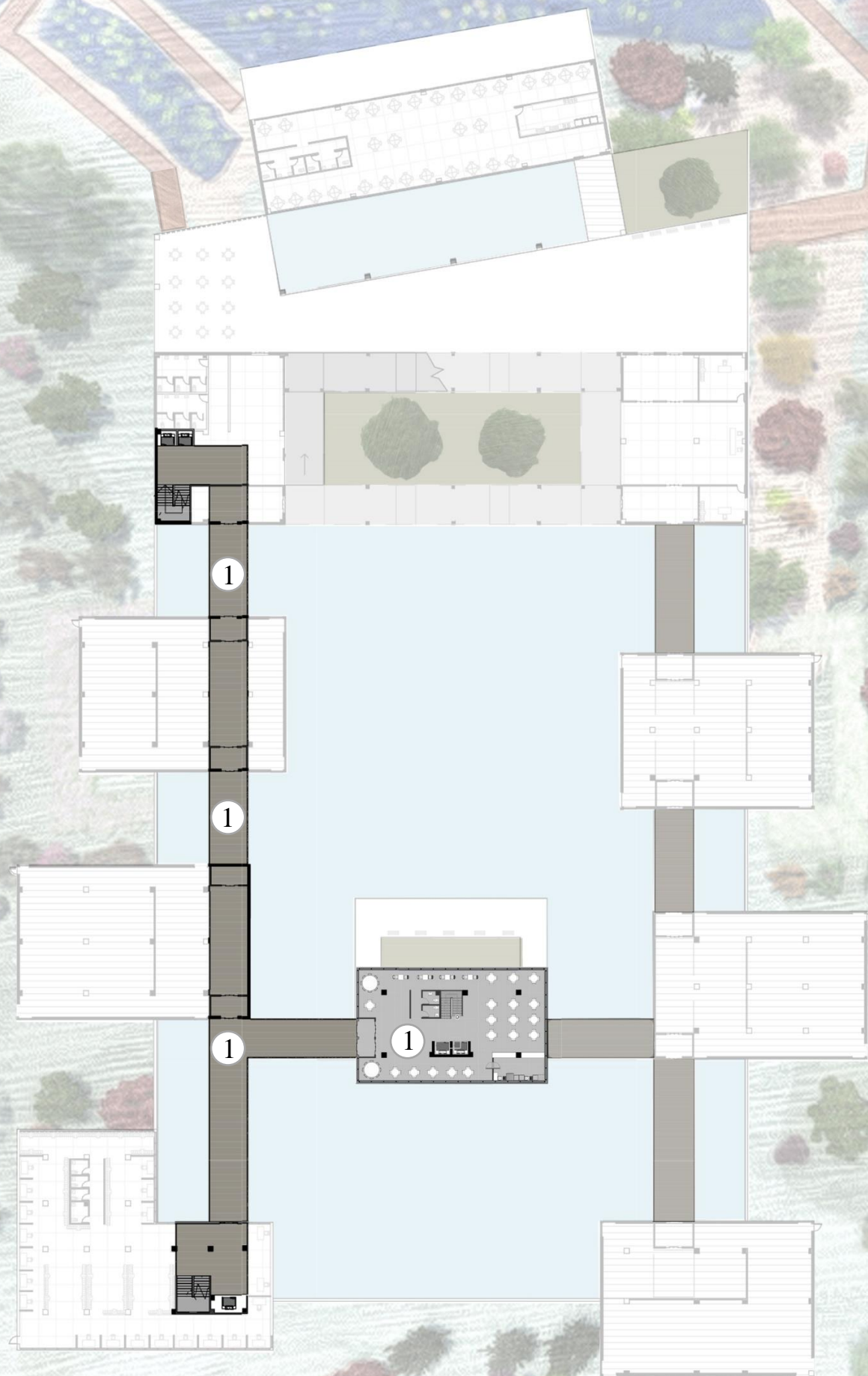


- 1- Exhibition room
- 2- Lobby
- 3- Entrance
- 4- Restaurant
- 5- Bridge
- 6- Open space seating area
- 7- Library



COFFEE SHOP FLOOR

10 feet above the first floor, there is a bridge that takes the public to the library and coffee shop. The bridge takes the people to pass through the closed space of the 2 exhibition rooms to enjoy some artworks on the wall and have a view down to the paintings and photographs.



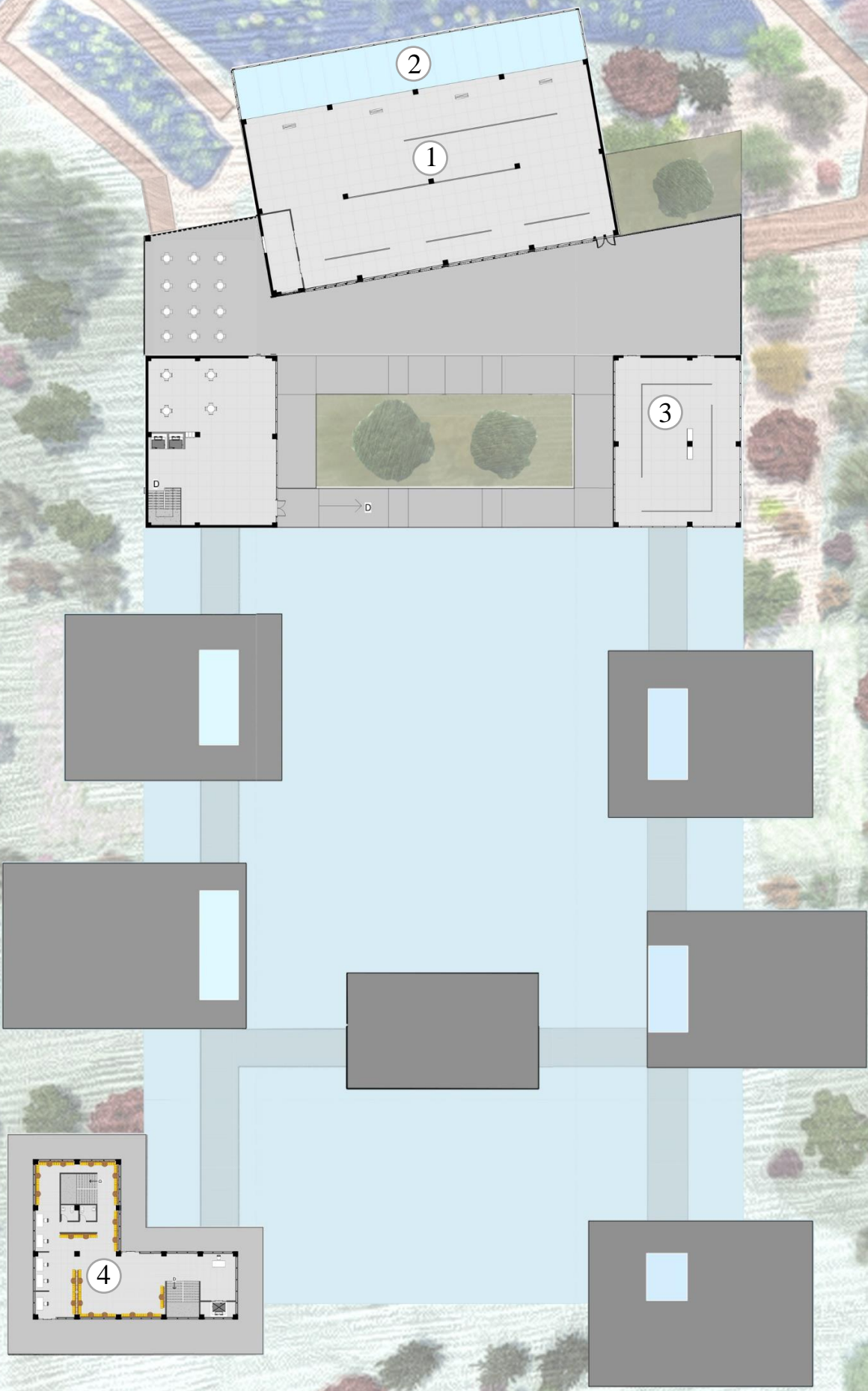
- 1- Bridge
- 2- Coffee Shop



SECOND FLOOR PLAN

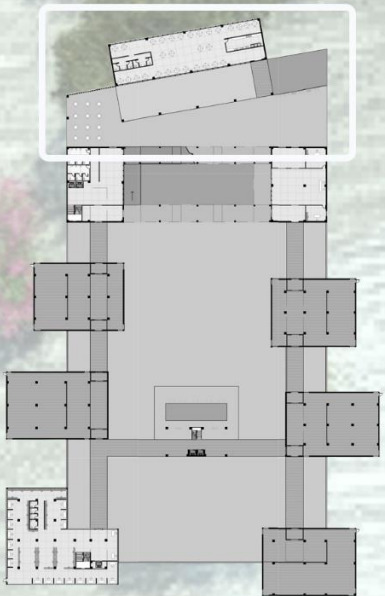
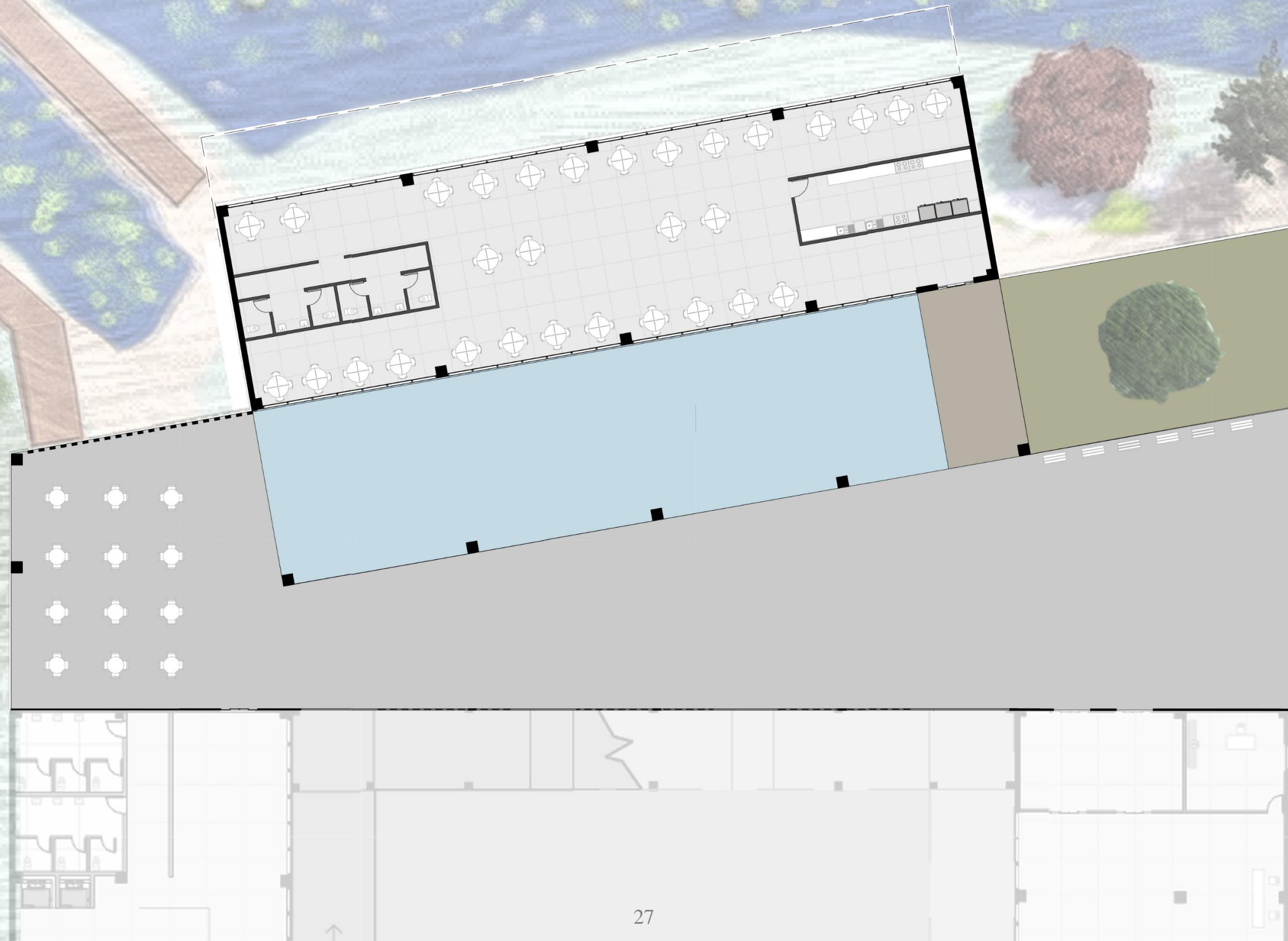
The biggest exhibition room is in the north part of the building. Unlike all the other 5 exhibition rooms which have smaller windows to have a slight view to outside, the north part of this exhibition room is made of glass to have a wide range of view to the natural water lily lakes. The floor of that part is made of glass, in this case, when the visitors are looking down, they can see the bigger natural lake below.

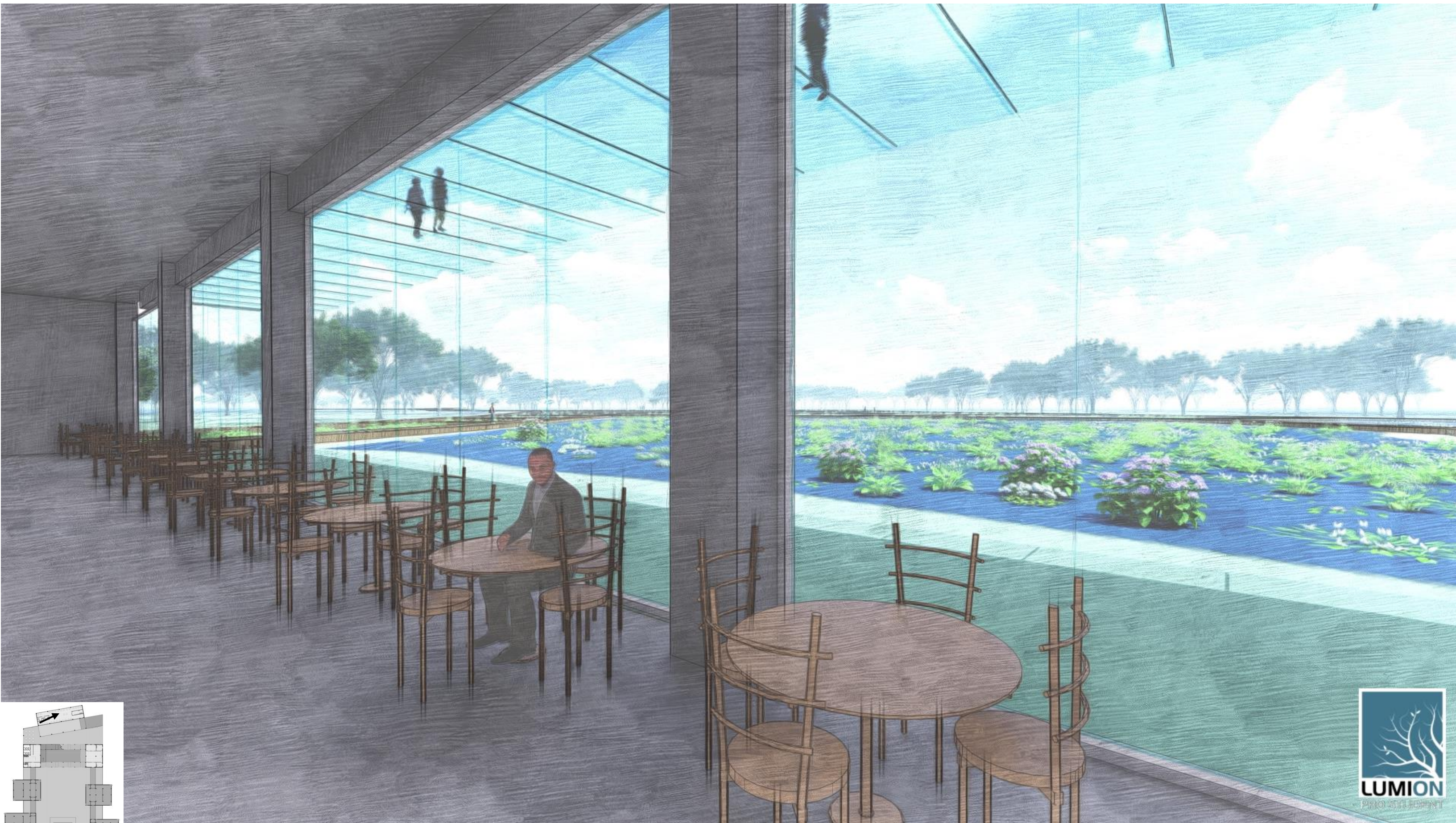
There is also a creativity room on the corner on this floor for people to paint and draw on the white walls.



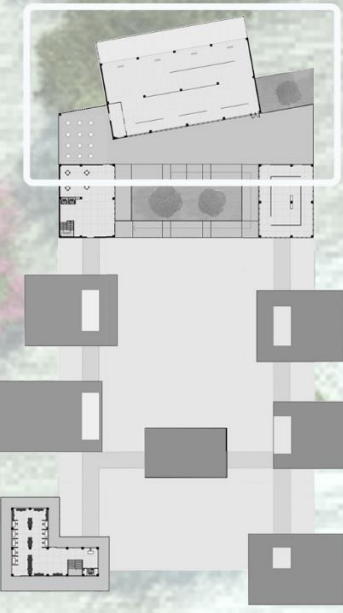
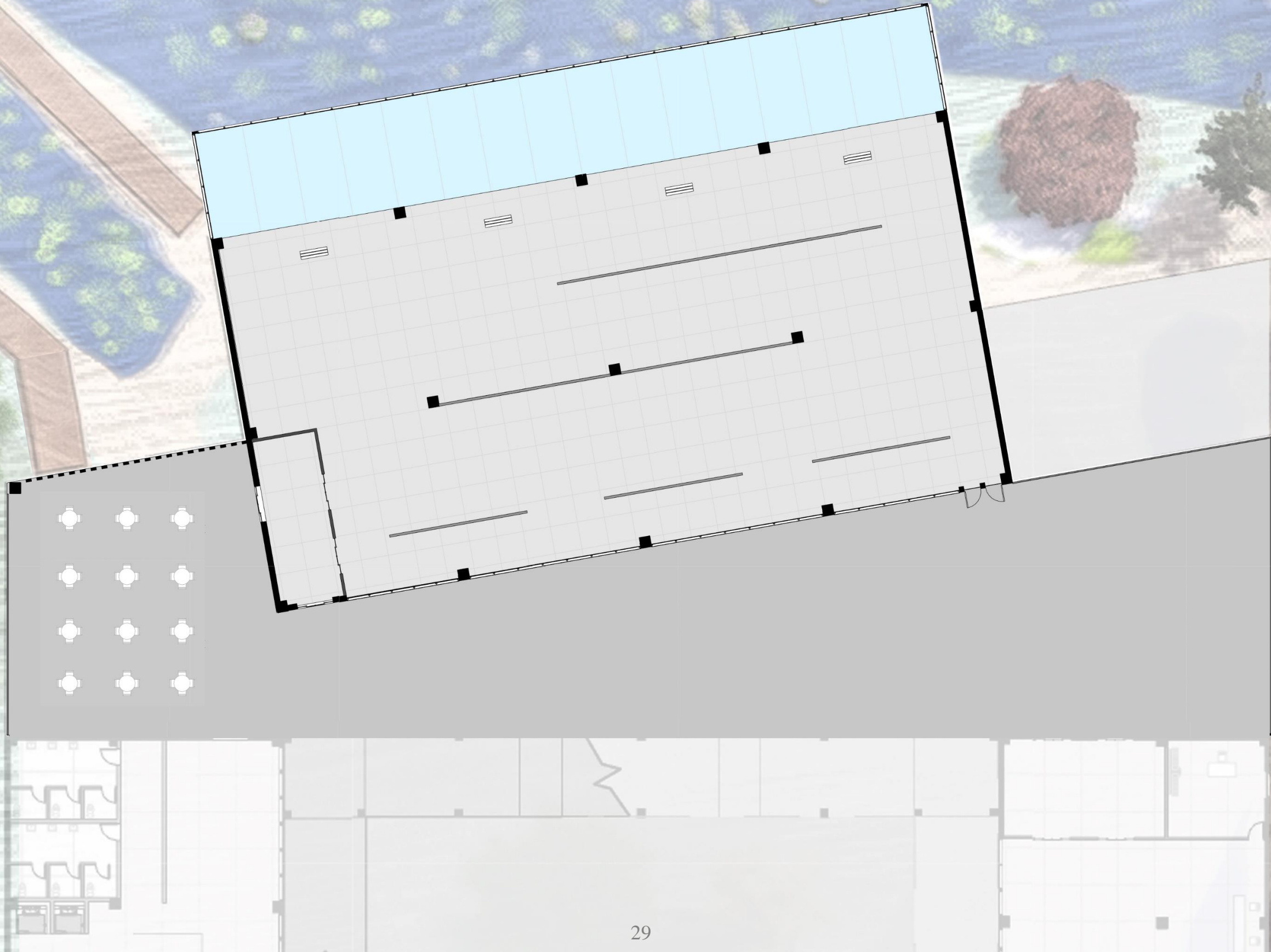
- 1- Museum
- 2- Glass walking space
- 3- Creativity room
- 4- Library

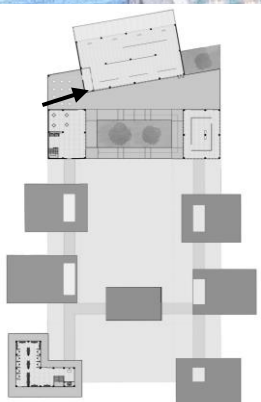
RESTAURANT- FIRST FLOOR PLAN

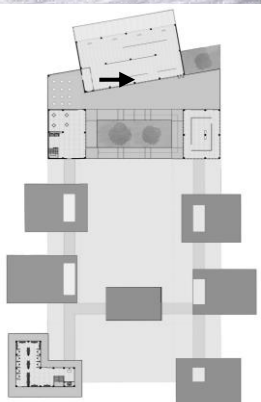


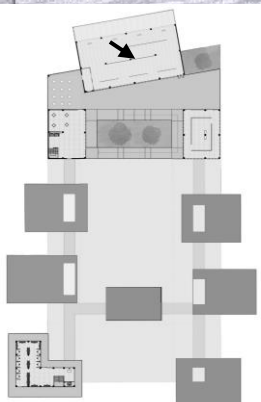


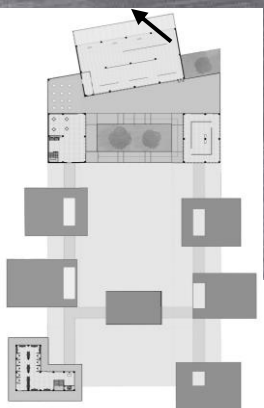
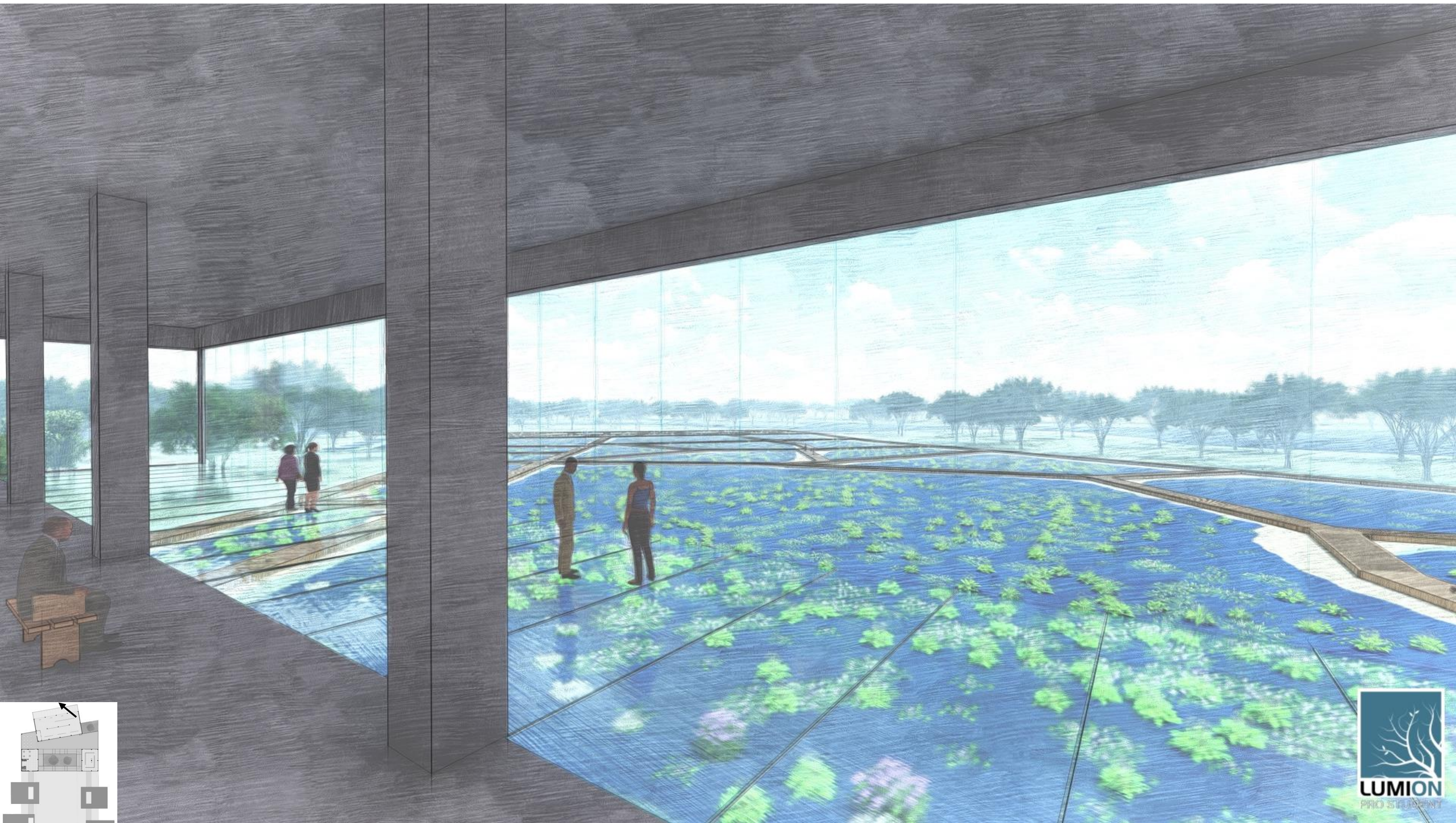
EXHIBITION ROOM – SECOND FLOOR PLAN



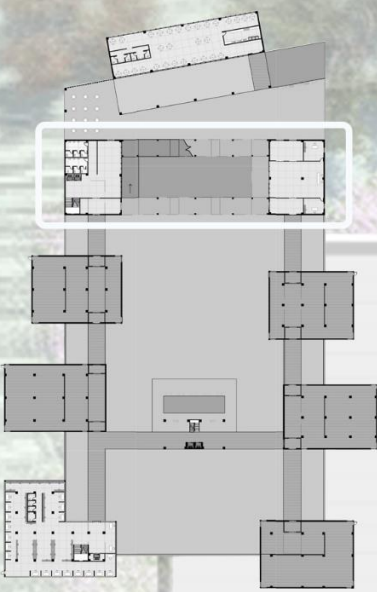
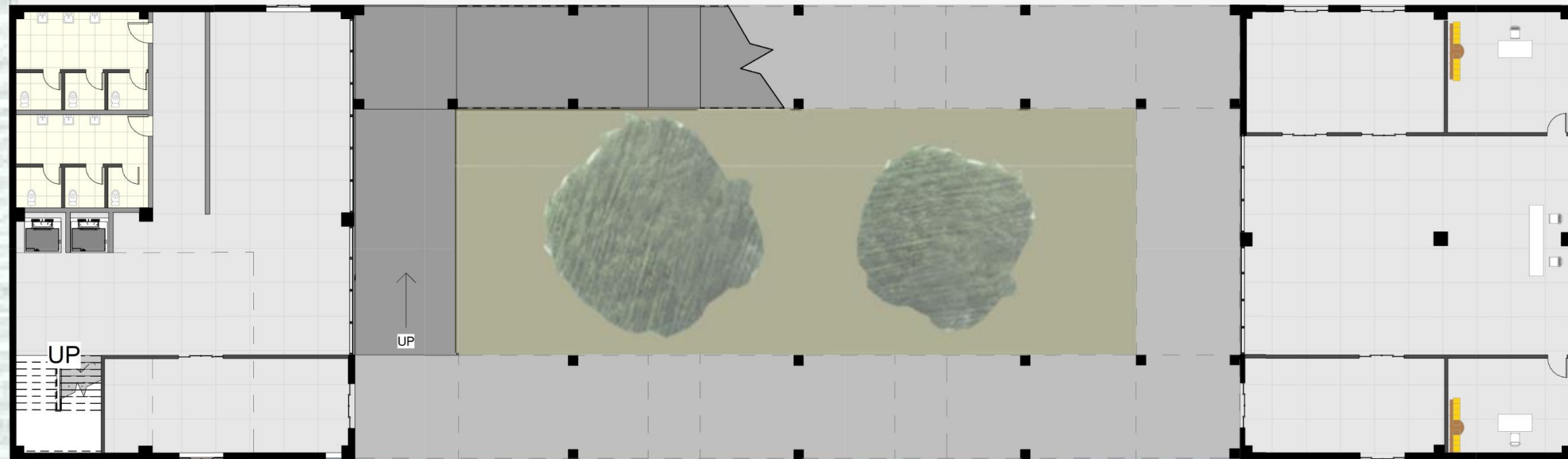


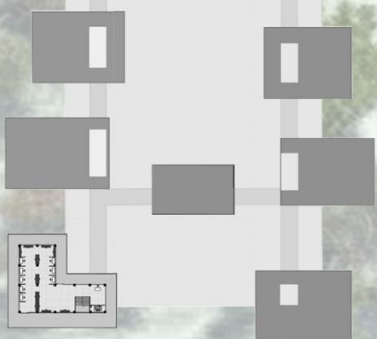
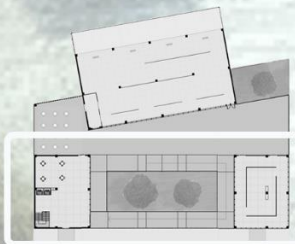
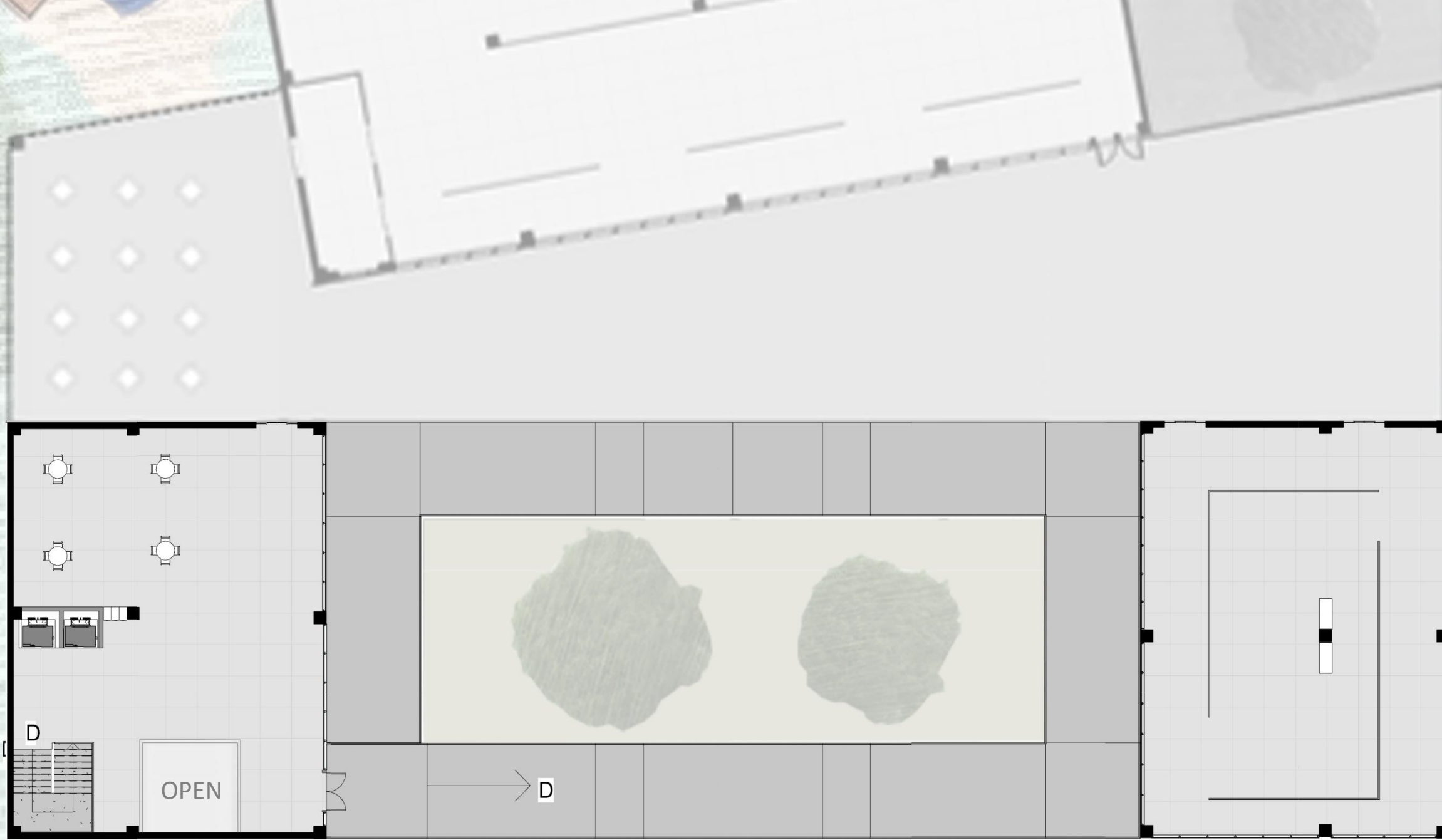


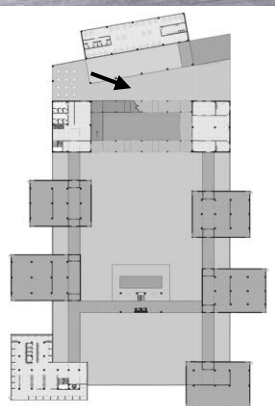
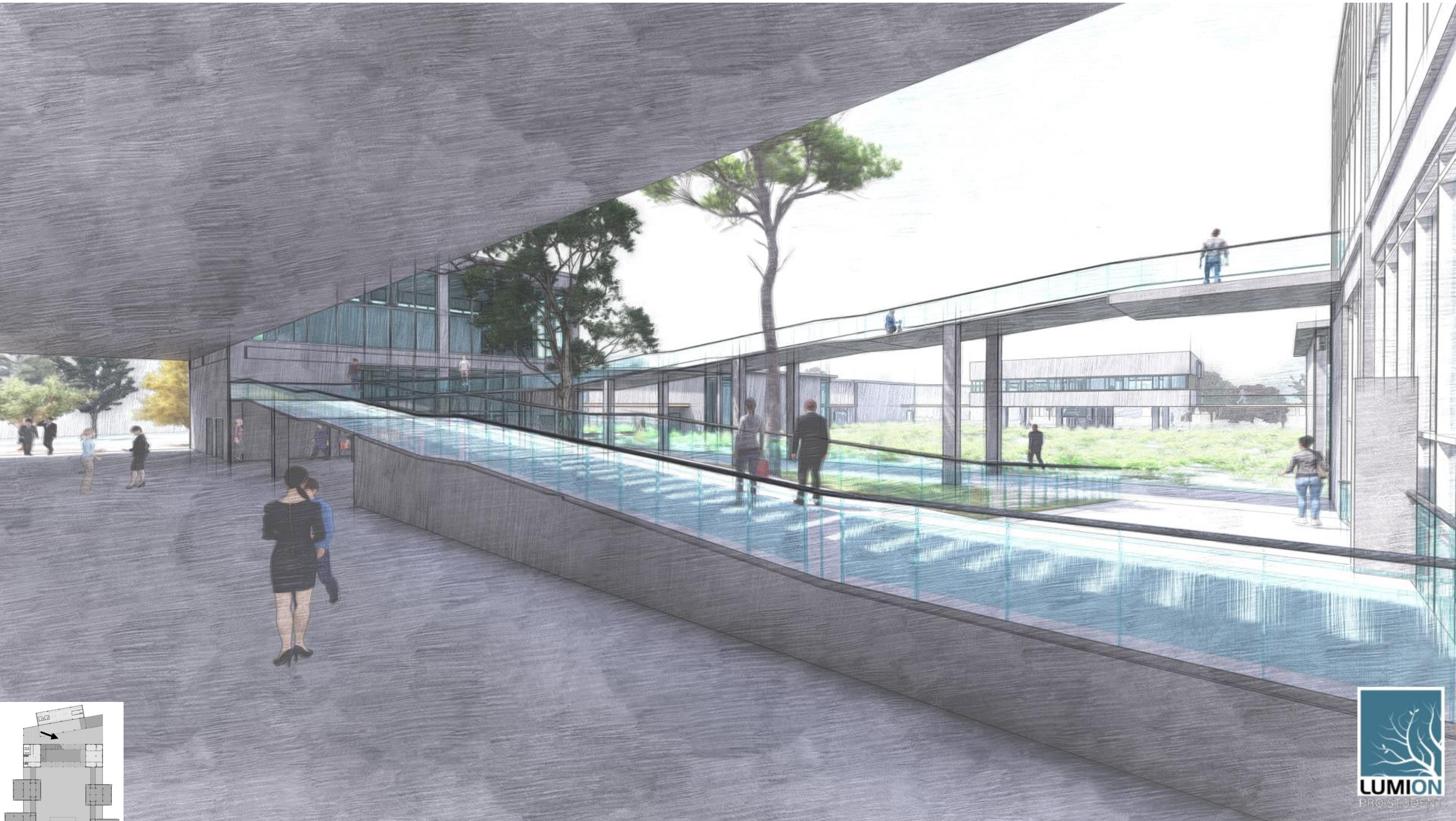




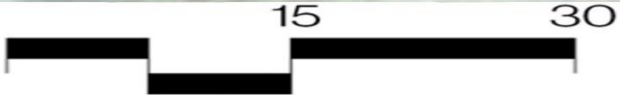
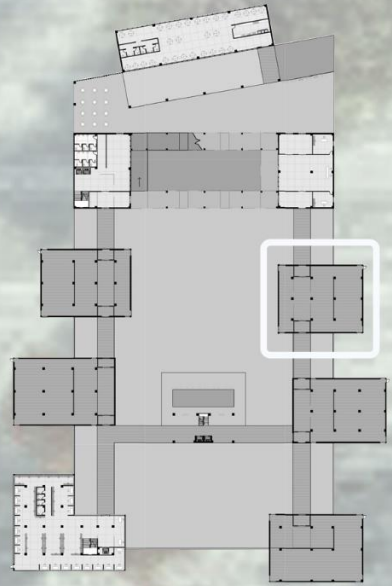
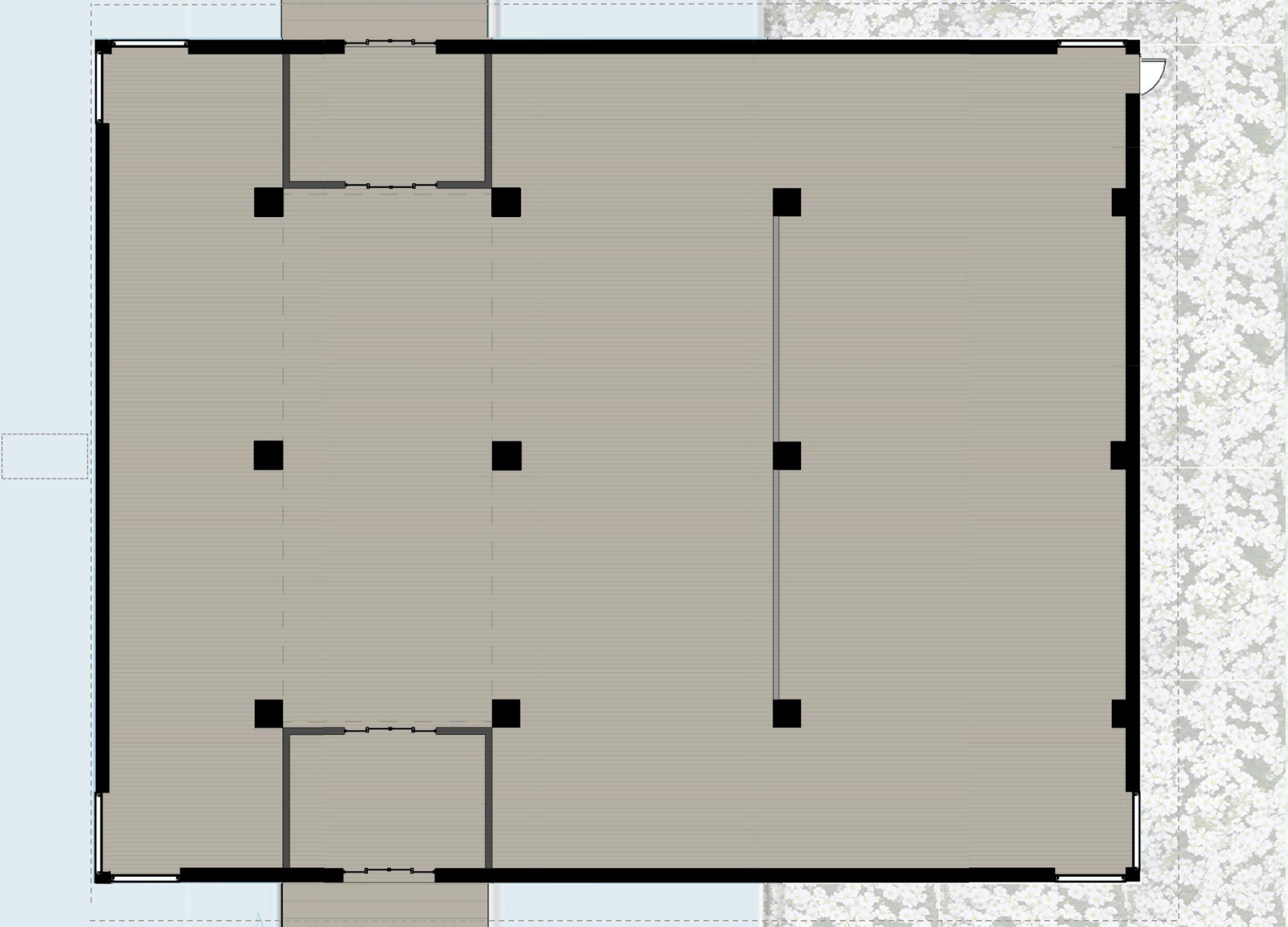
ENTRANCE & RAMP – FIRST FLOOR PLAN

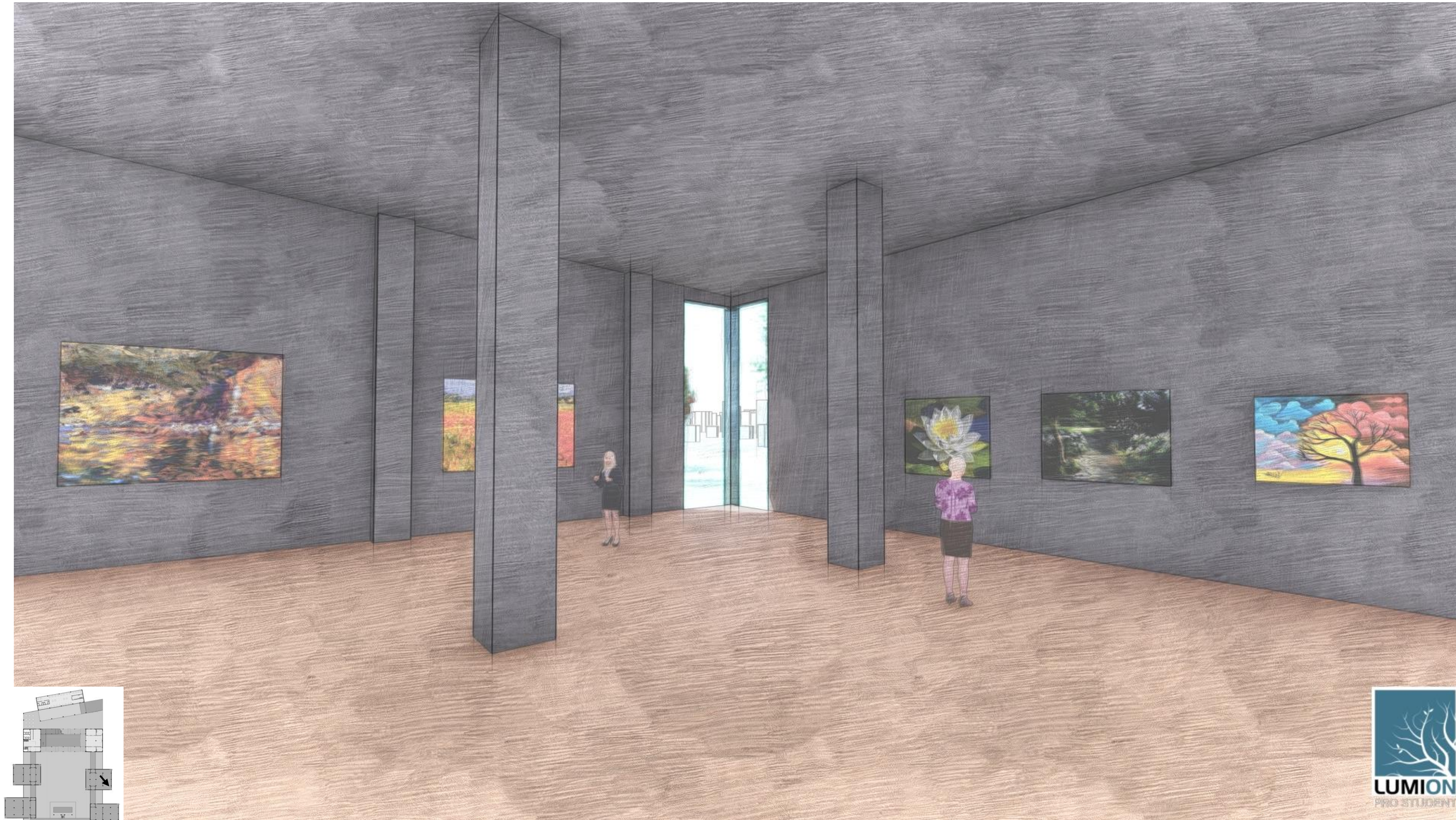




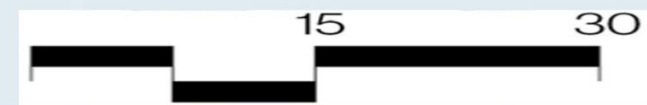
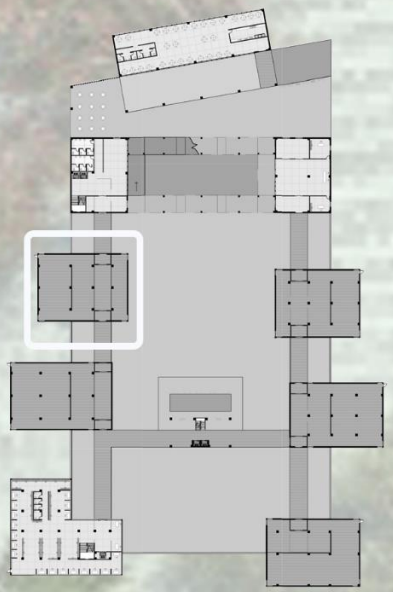
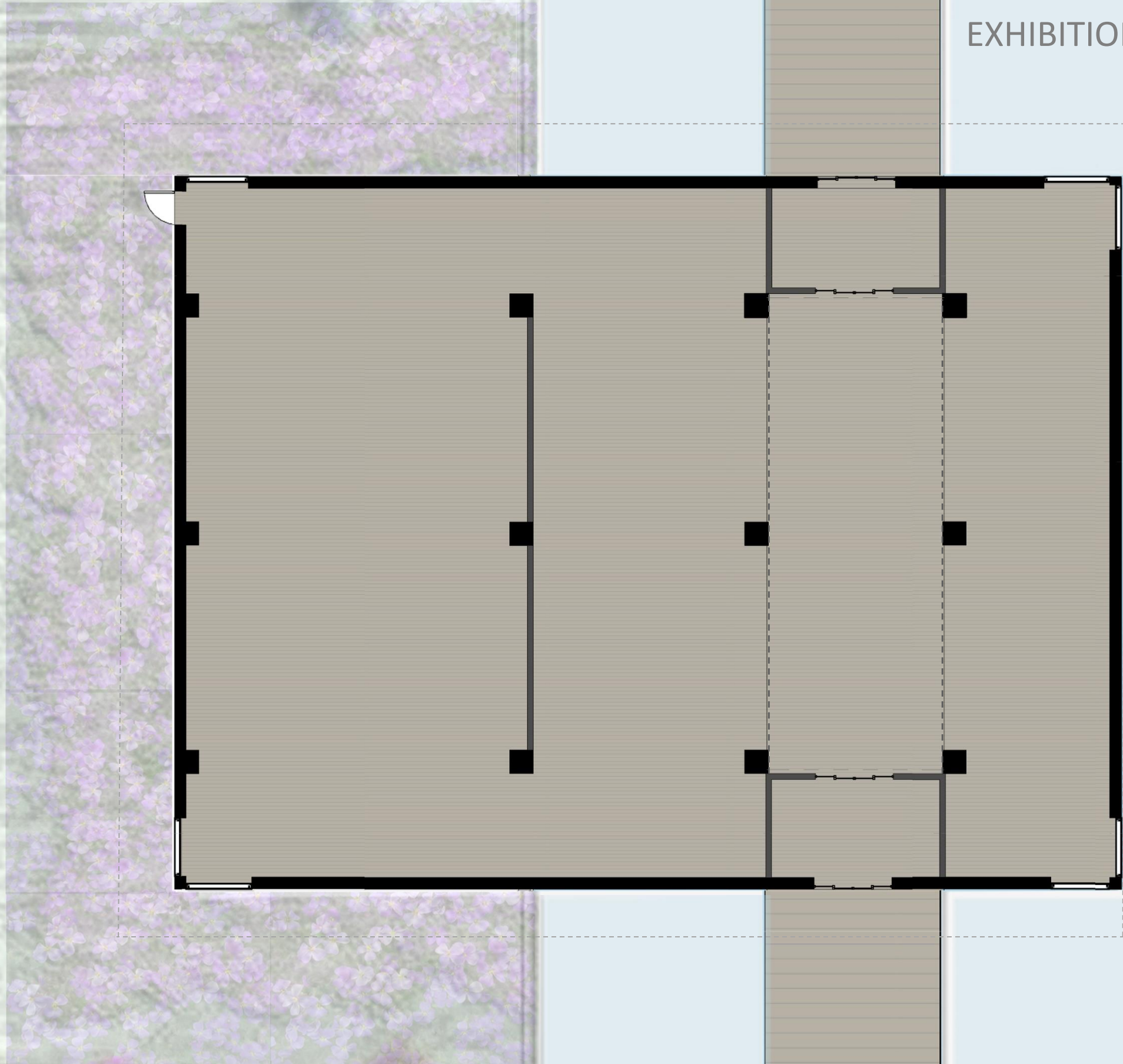


EXHIBITION ROOM –FIRST FLOOR PLAN

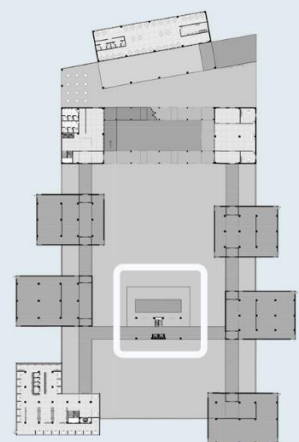
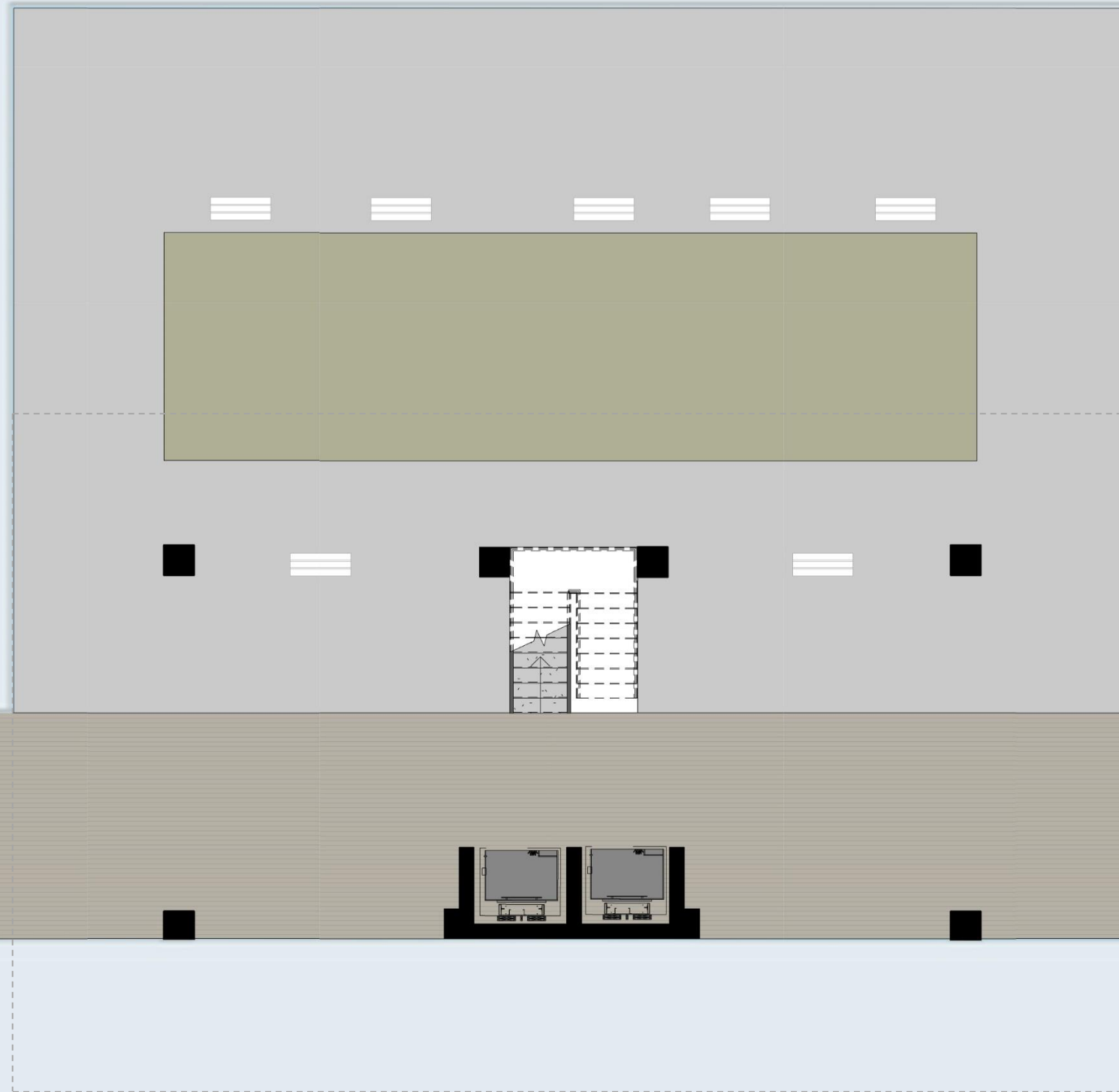




EXHIBITION ROOM – FIRST FLOOR PLAN

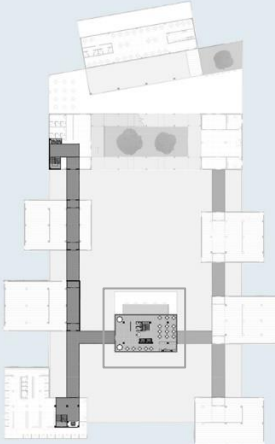
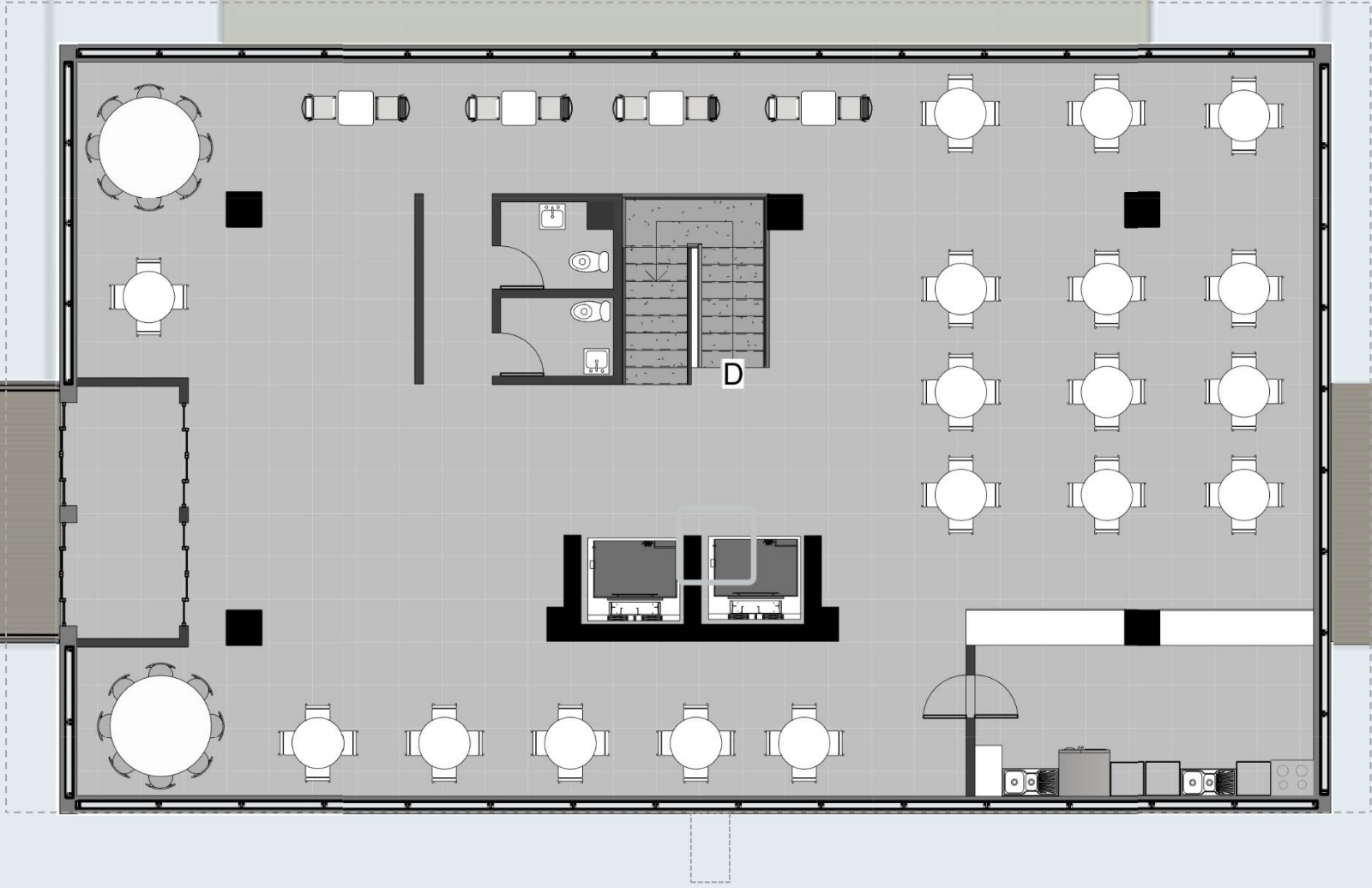


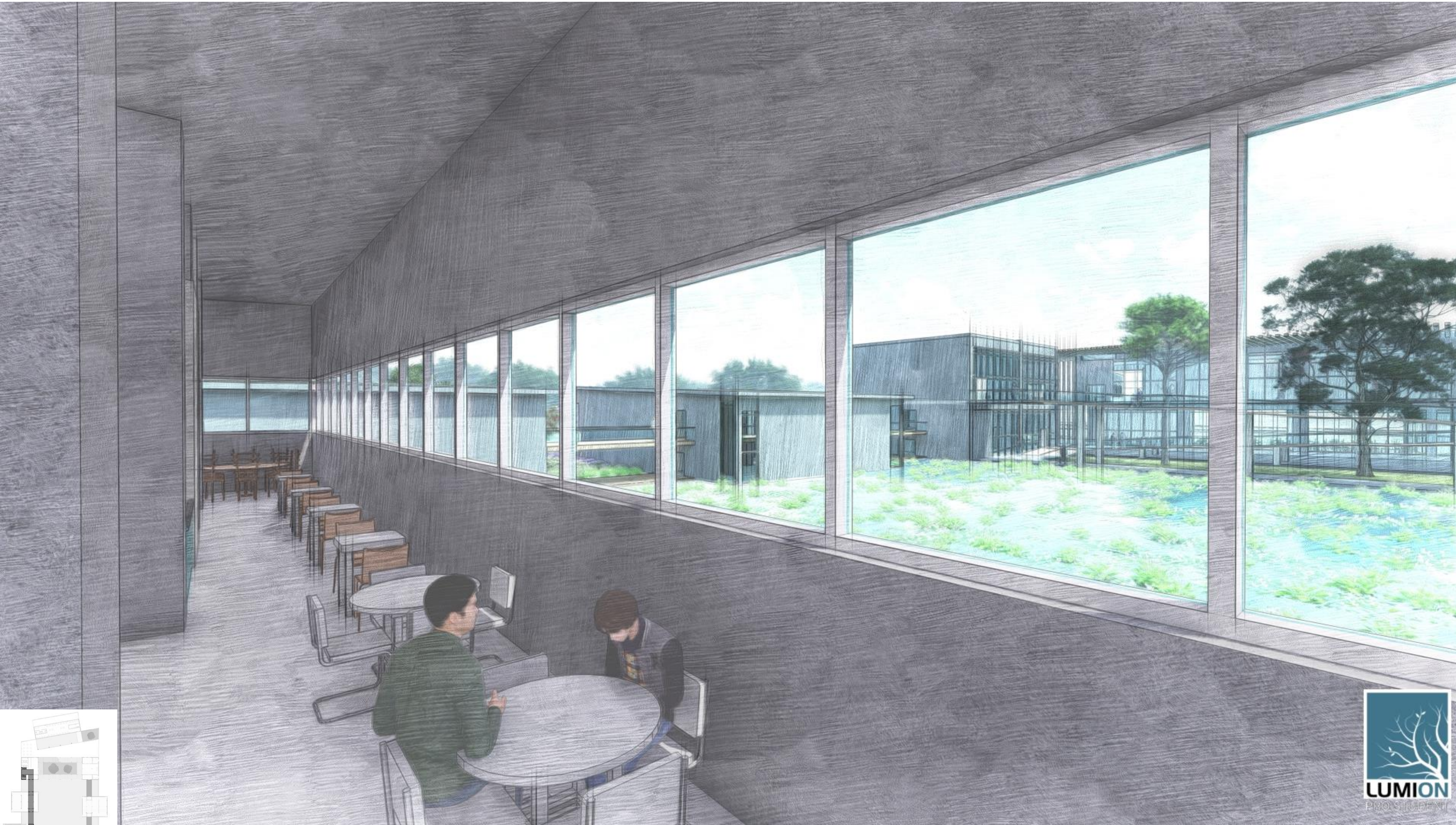
OUTDOOR SITTING AREA – FIRST FLOOR PLAN



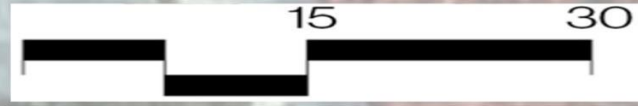
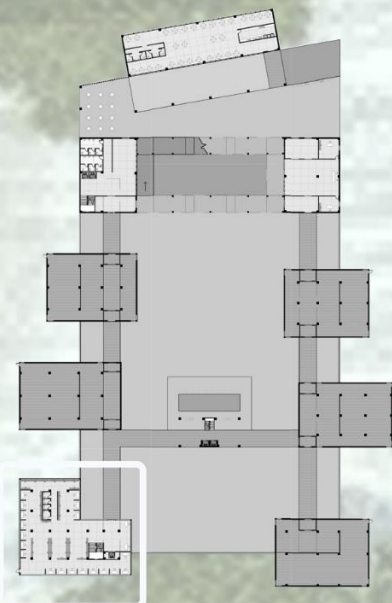


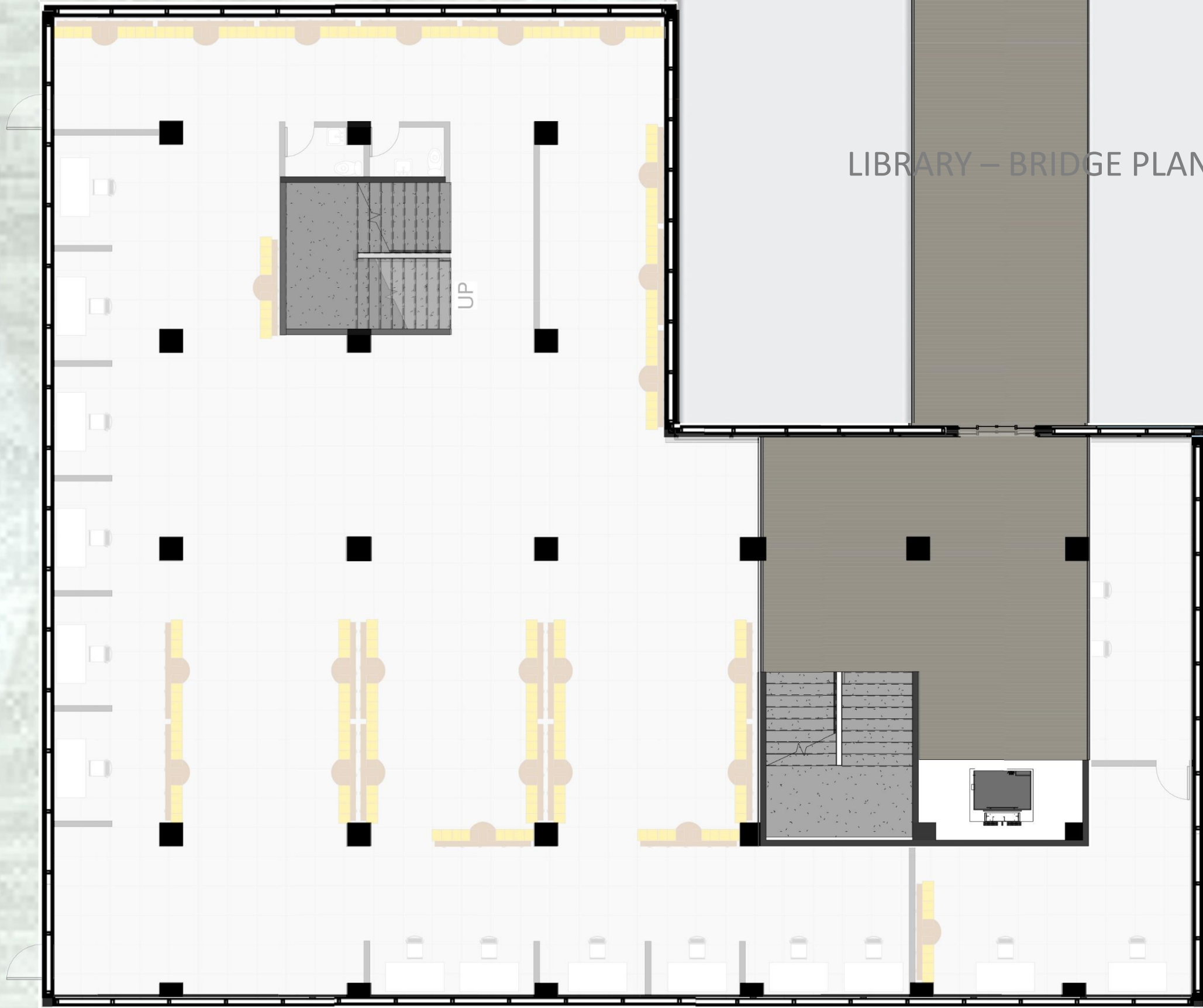
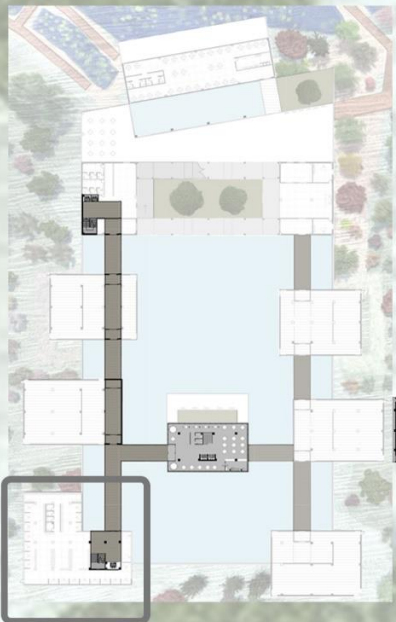
COFFEE SHOP (+10')



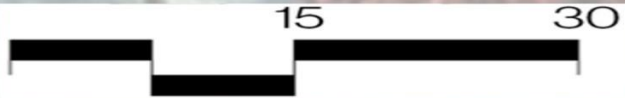


LIBRARY – FIRST FLOOR PLAN

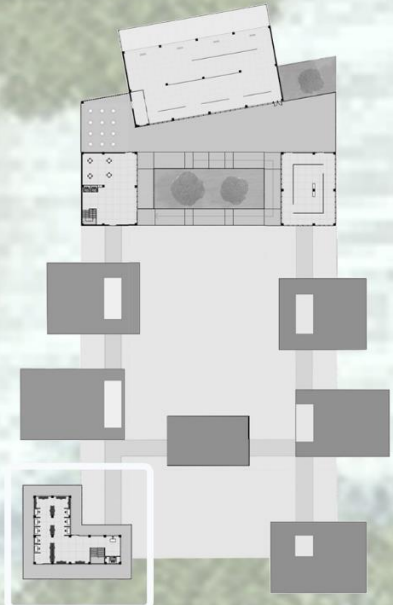


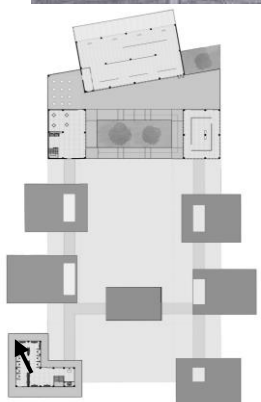


LIBRARY - BRIDGE PLAN (+10')



LIBRARY – SECOND FLOOR PLAN





SECTION



Glass Railing Panels

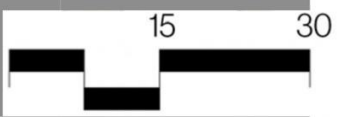
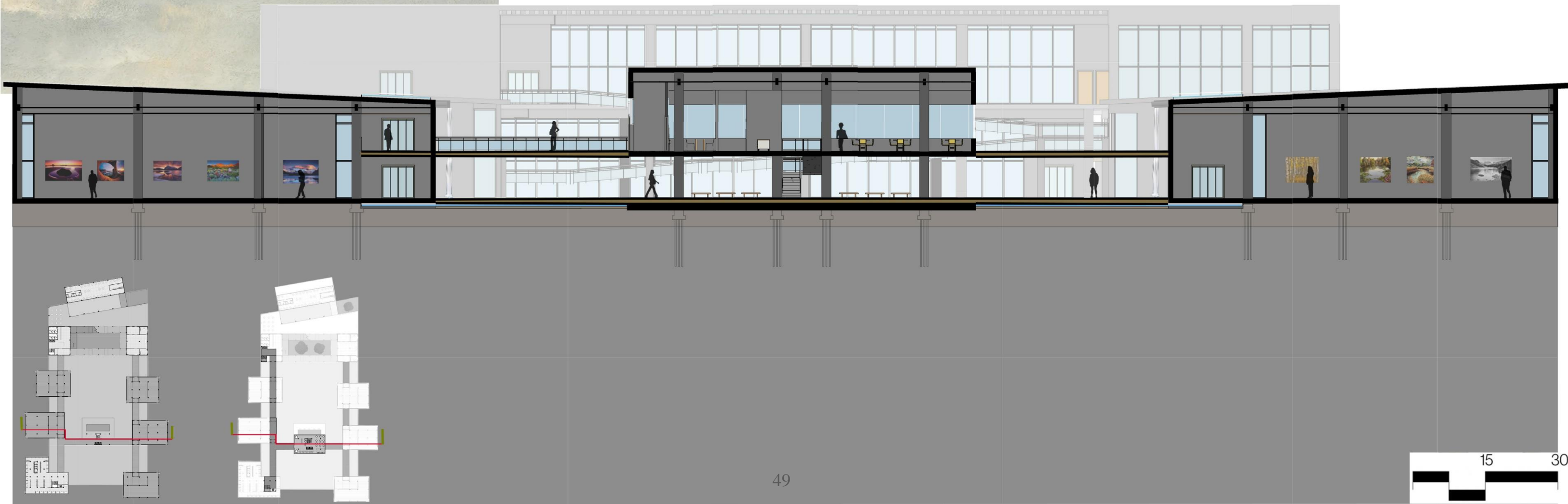
Concrete

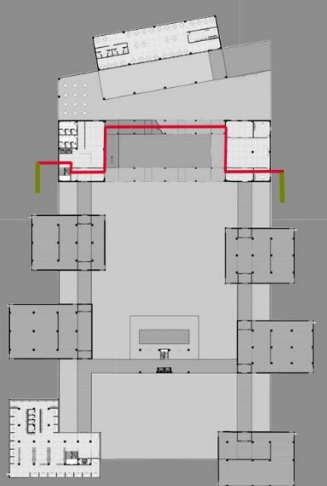
Wood

Curtain Wall Glazing Panel

Ceramic

SECTION



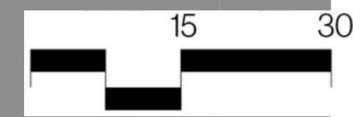
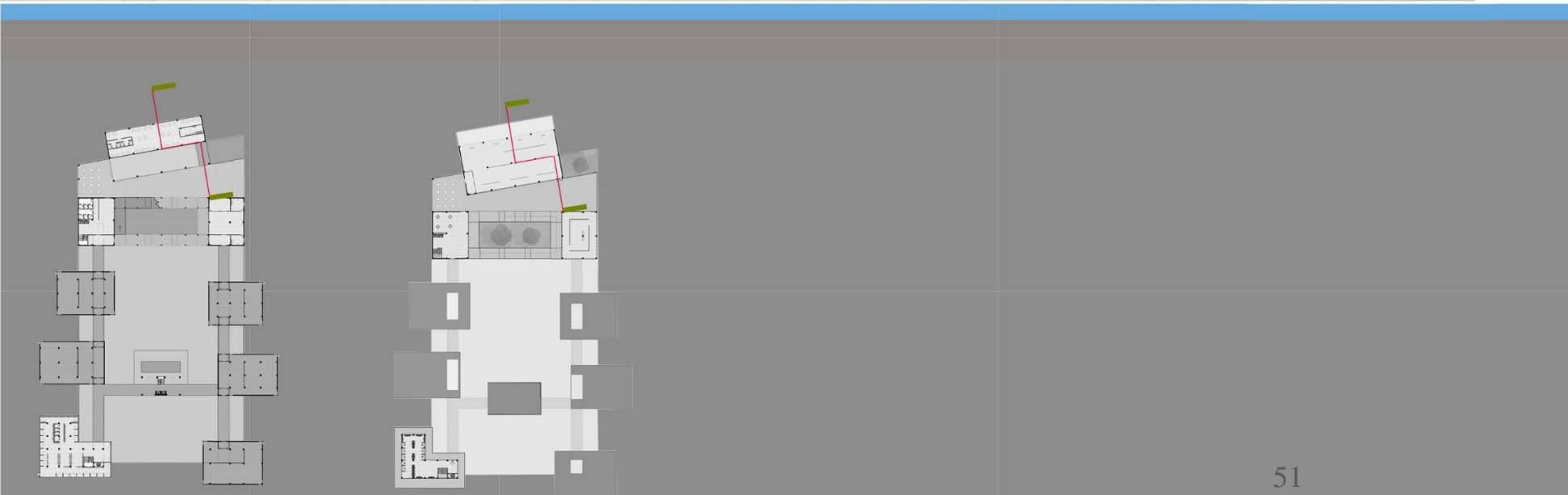


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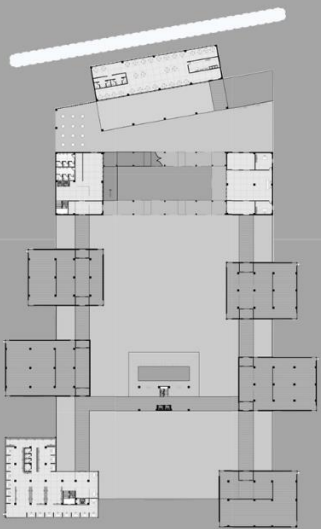




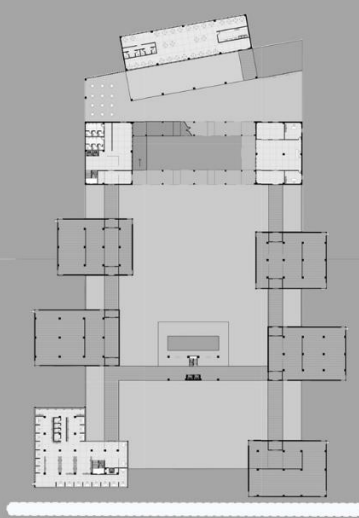
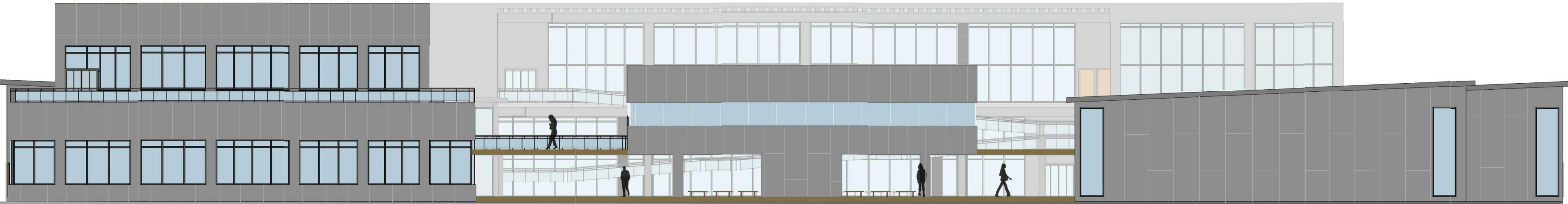
SECTION



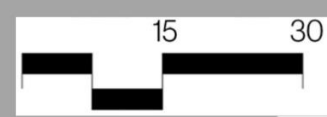
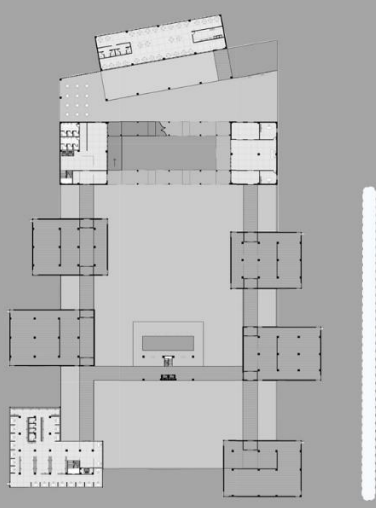
NORTH ELEVATION



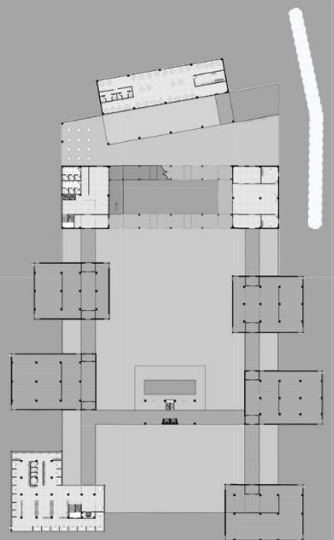
SOUTH ELEVATION



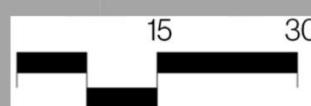
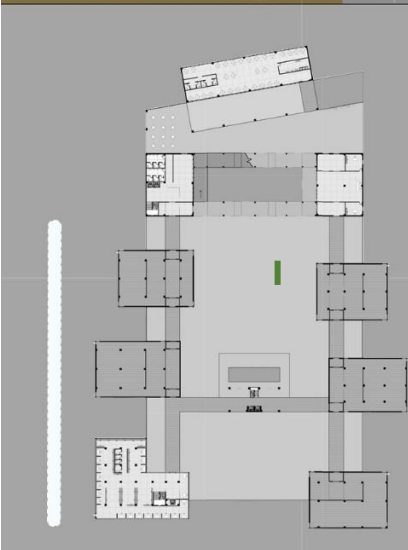
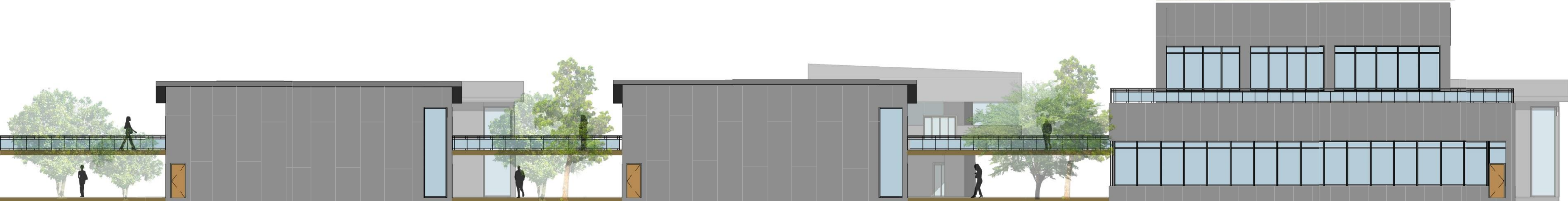
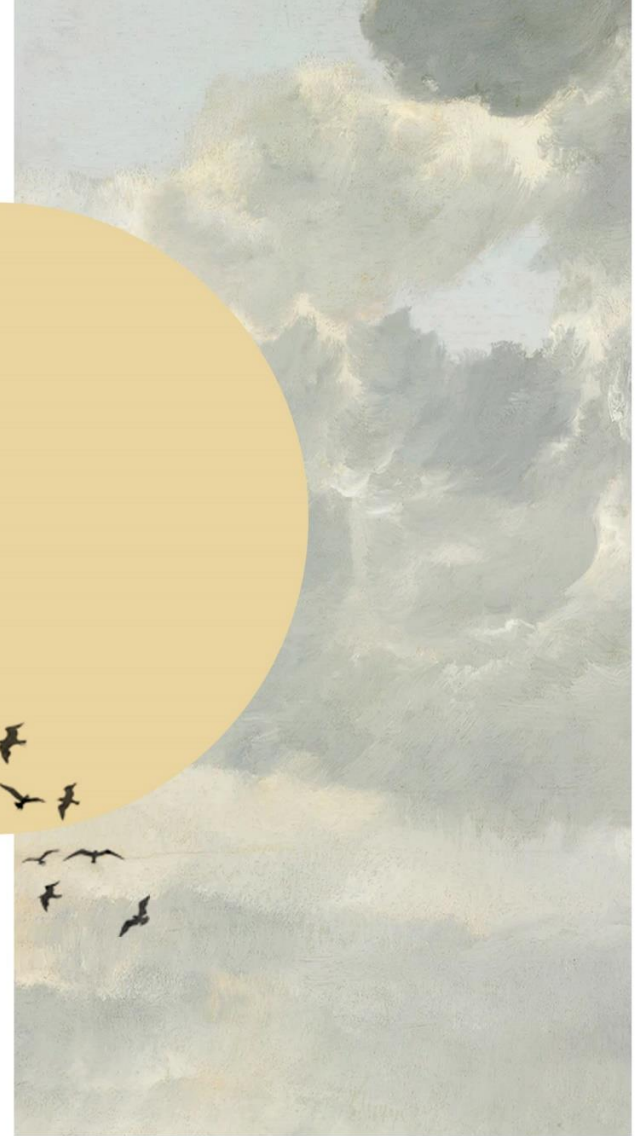
EAST ELEVATION



EAST ELEVATION



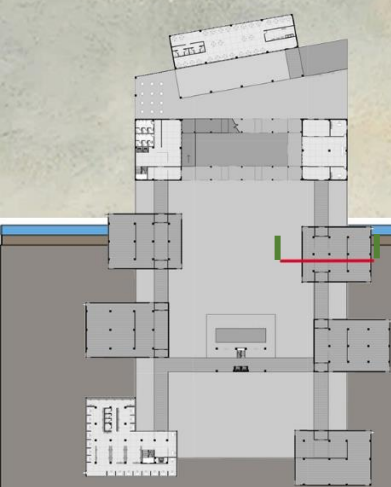
WEST ELEVATION





SECTION – Column & Water

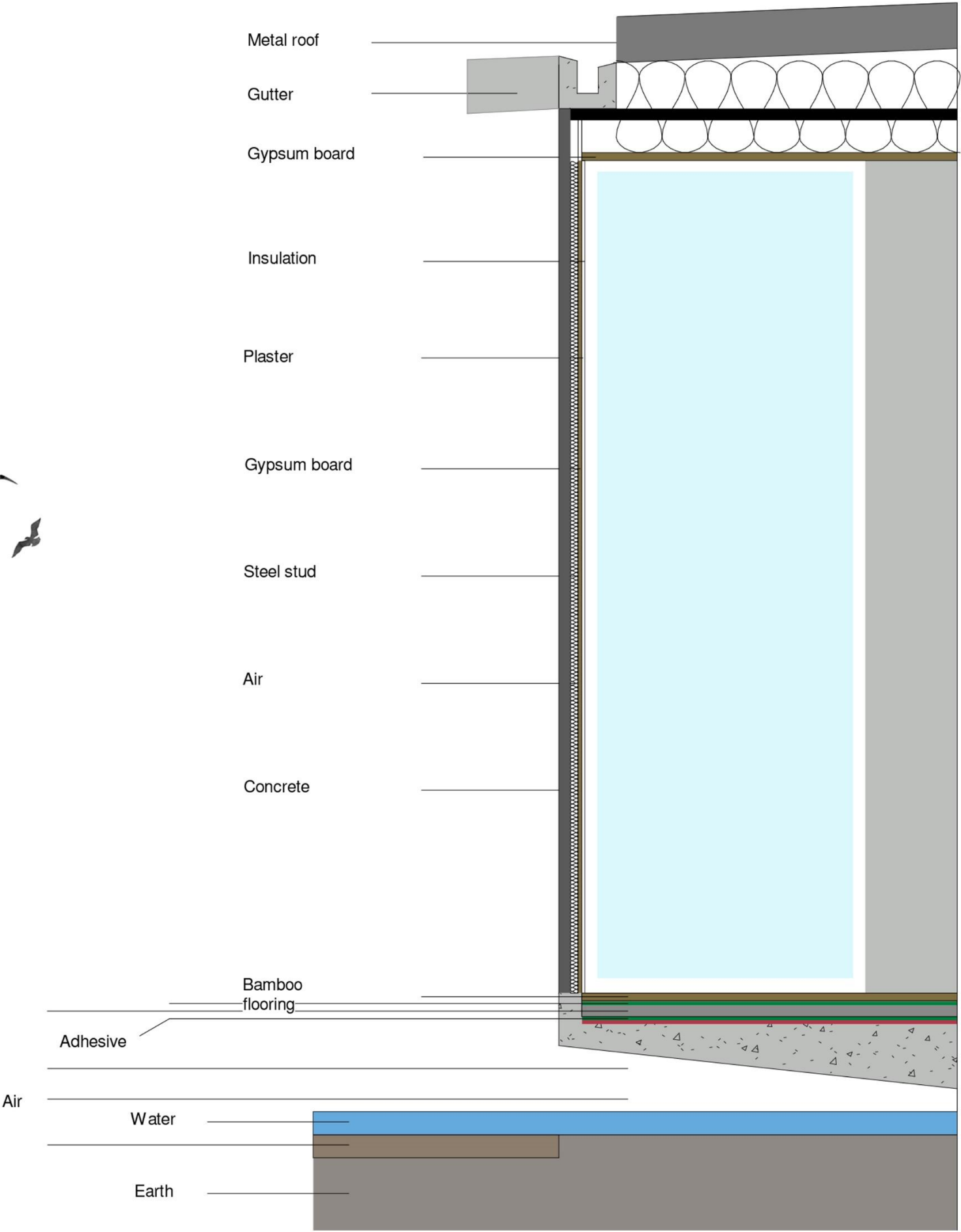
I have thought about how the buildings sit on the water to look like it is floating. As we see on the section some part of the building is on the water and the rest is on the ground. The water floats under the building from the edge to the first column, then the rest of the building is on the the ground. In this case, the visitors see the building is floating on the water.



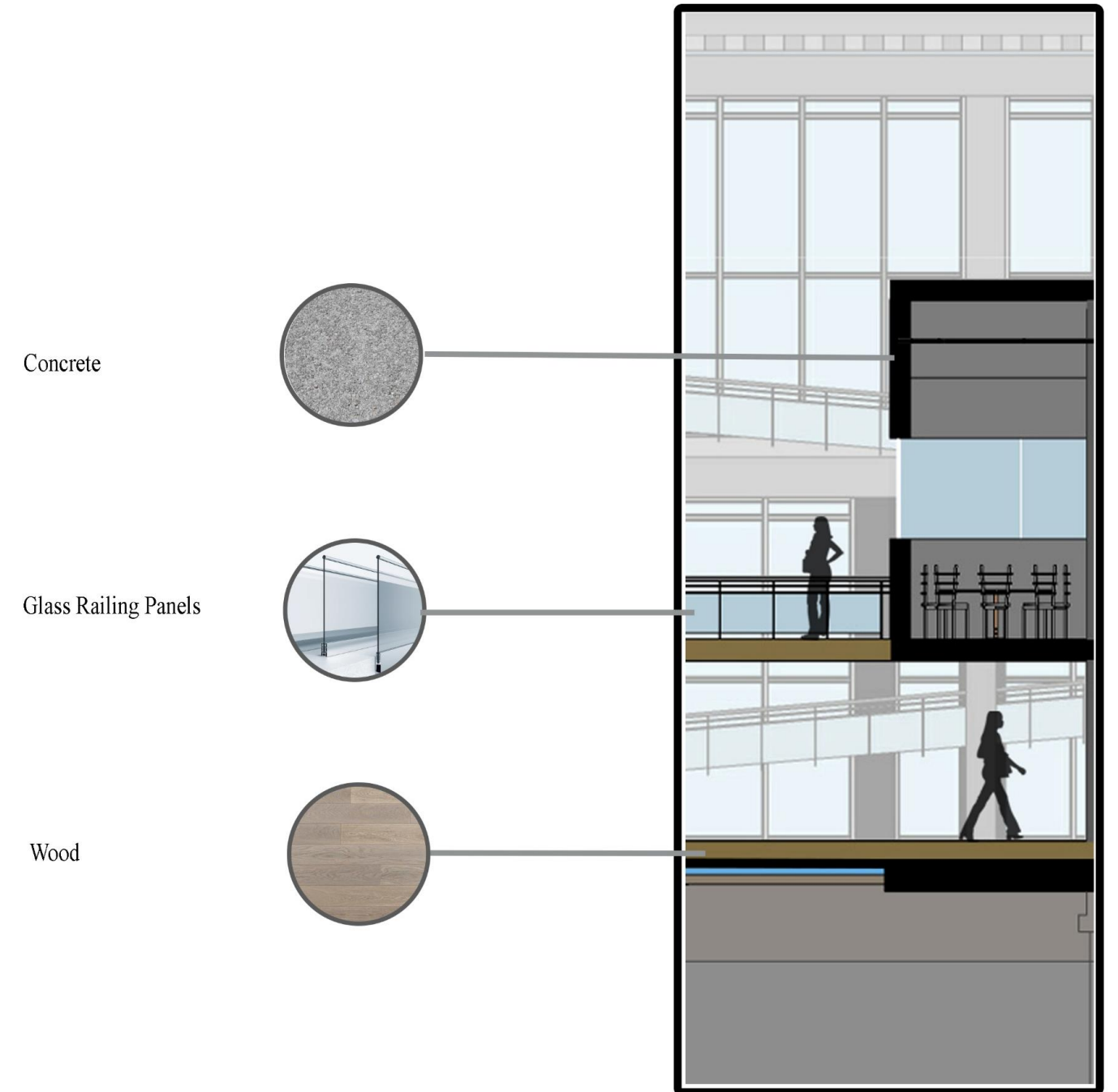
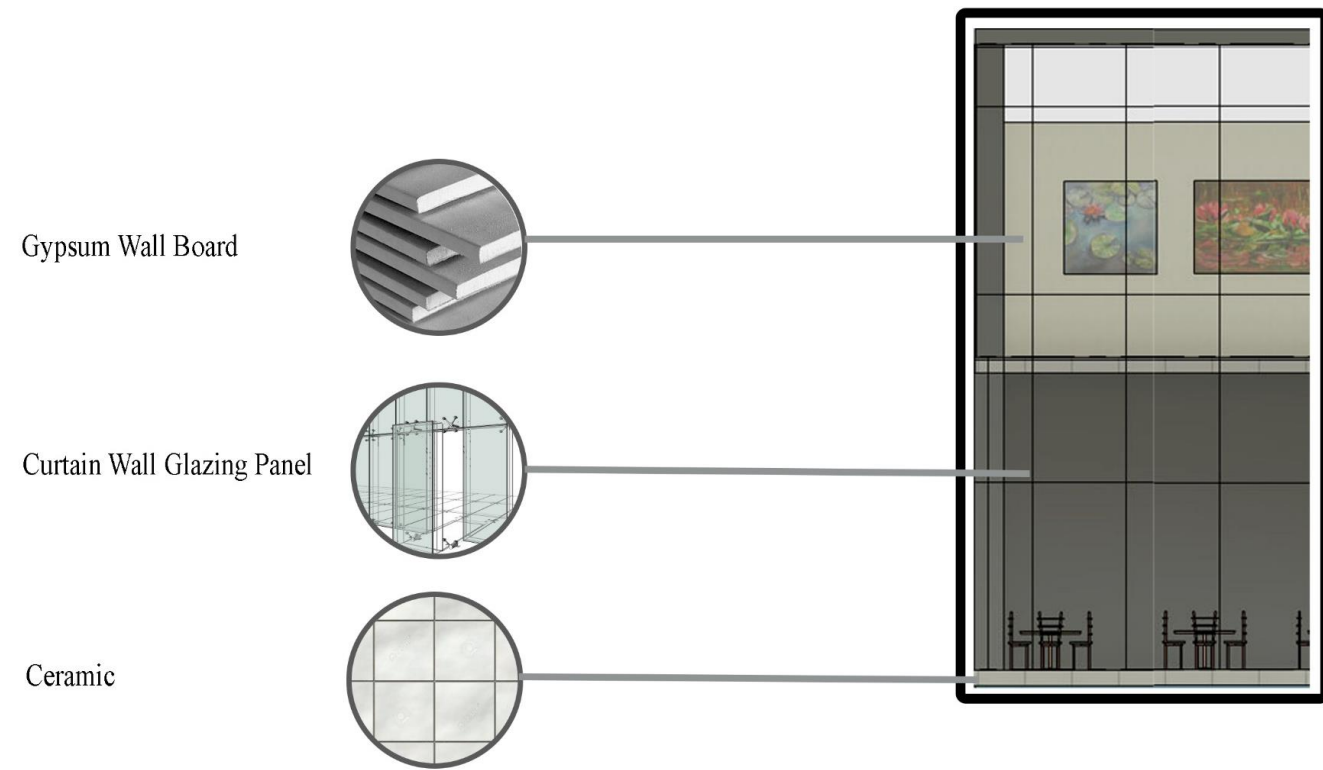
DETAIL SECTION - Materials

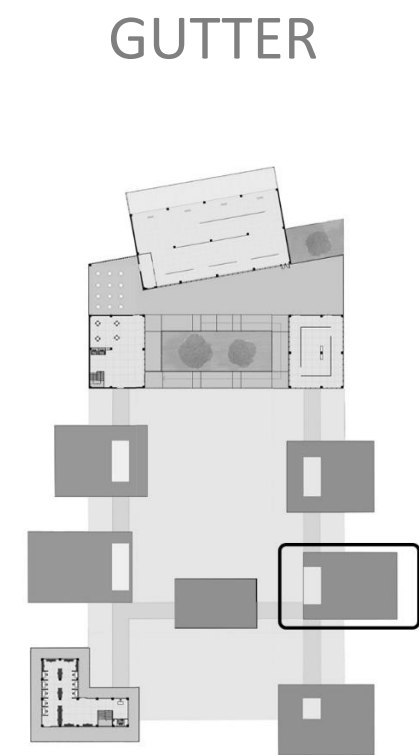
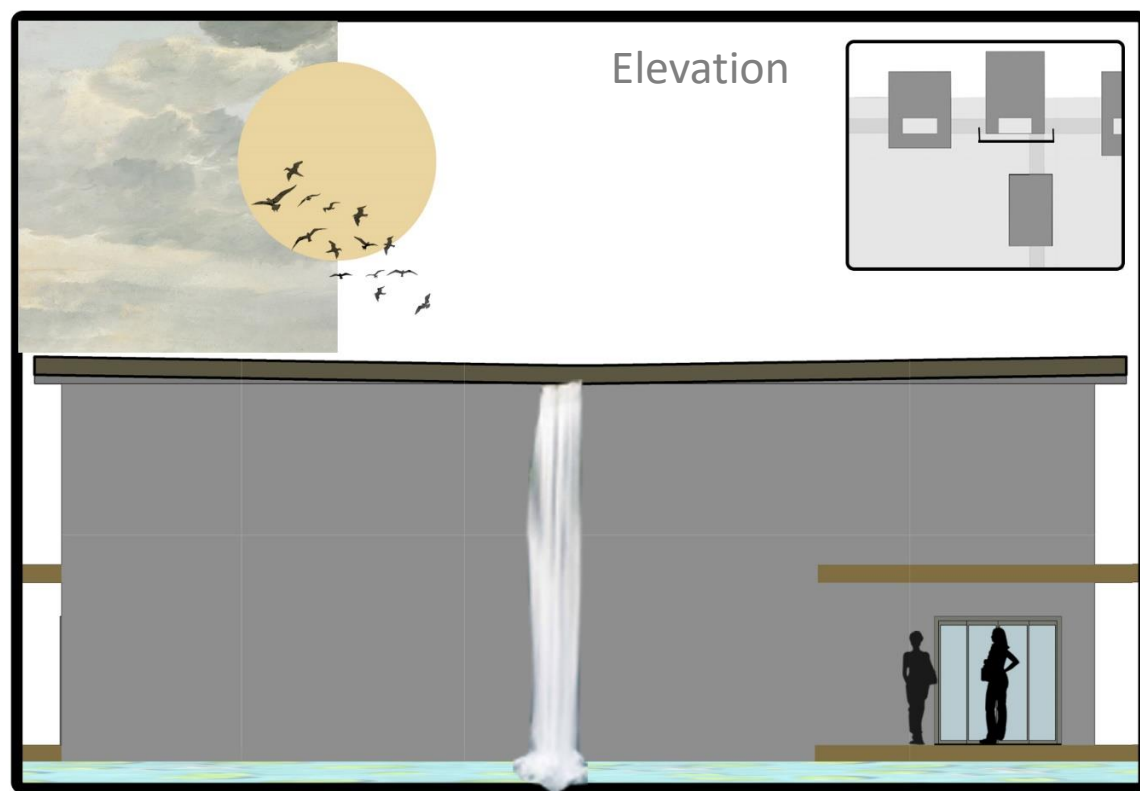
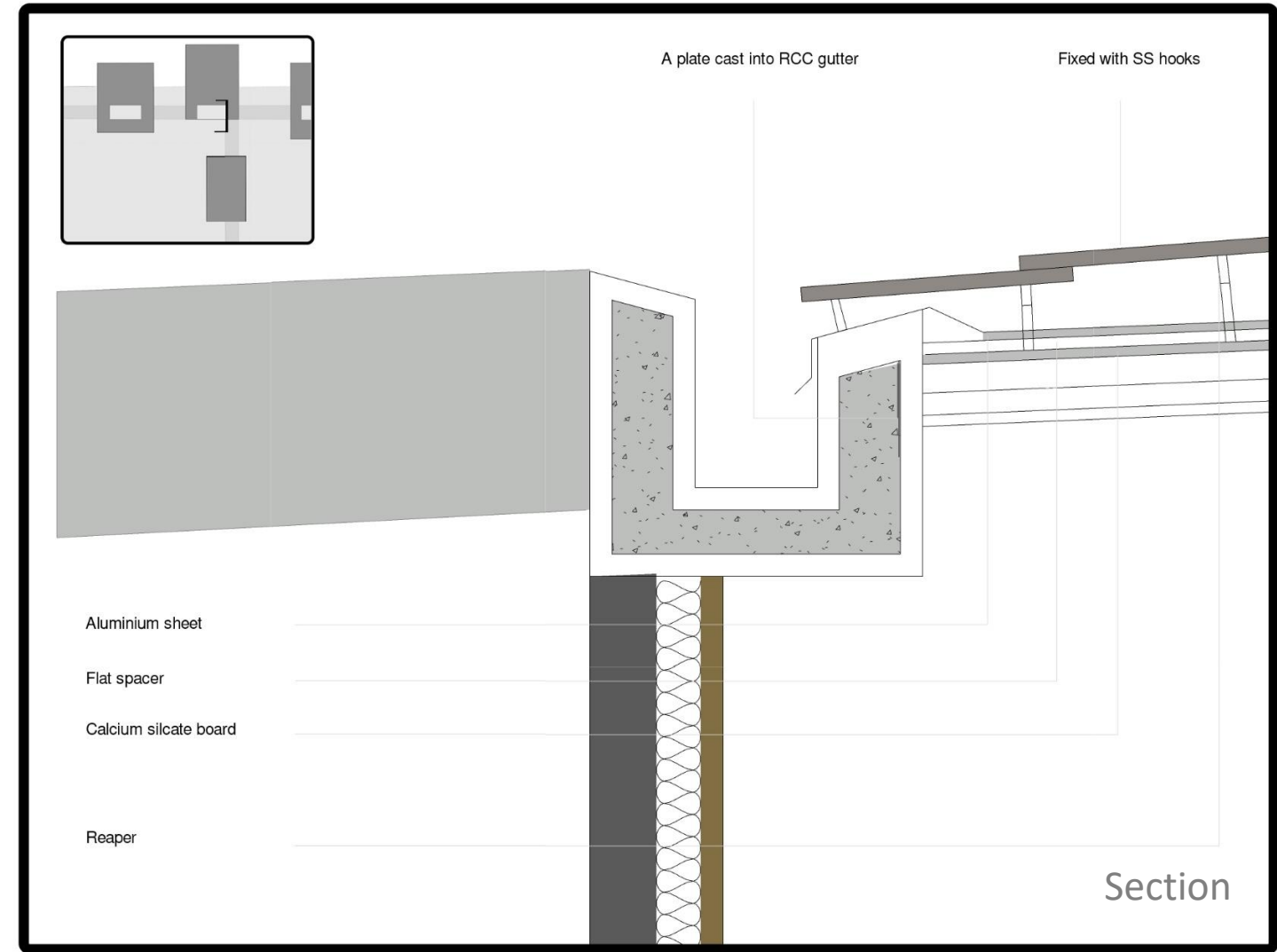
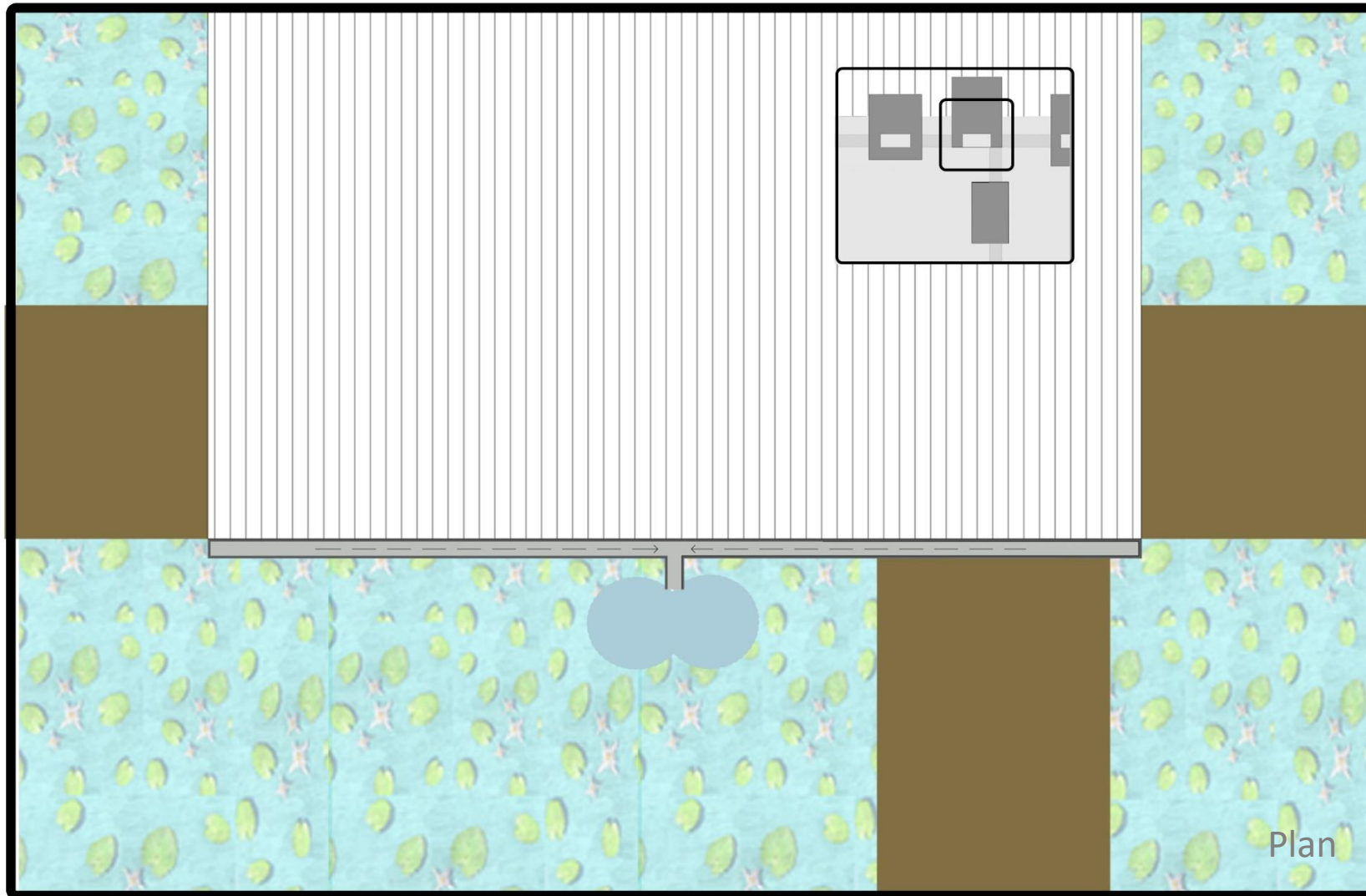


Underlay DamTech Standard
 Reinforced concrete slab
 Water Lily soil (6")



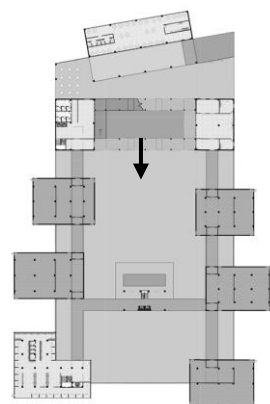
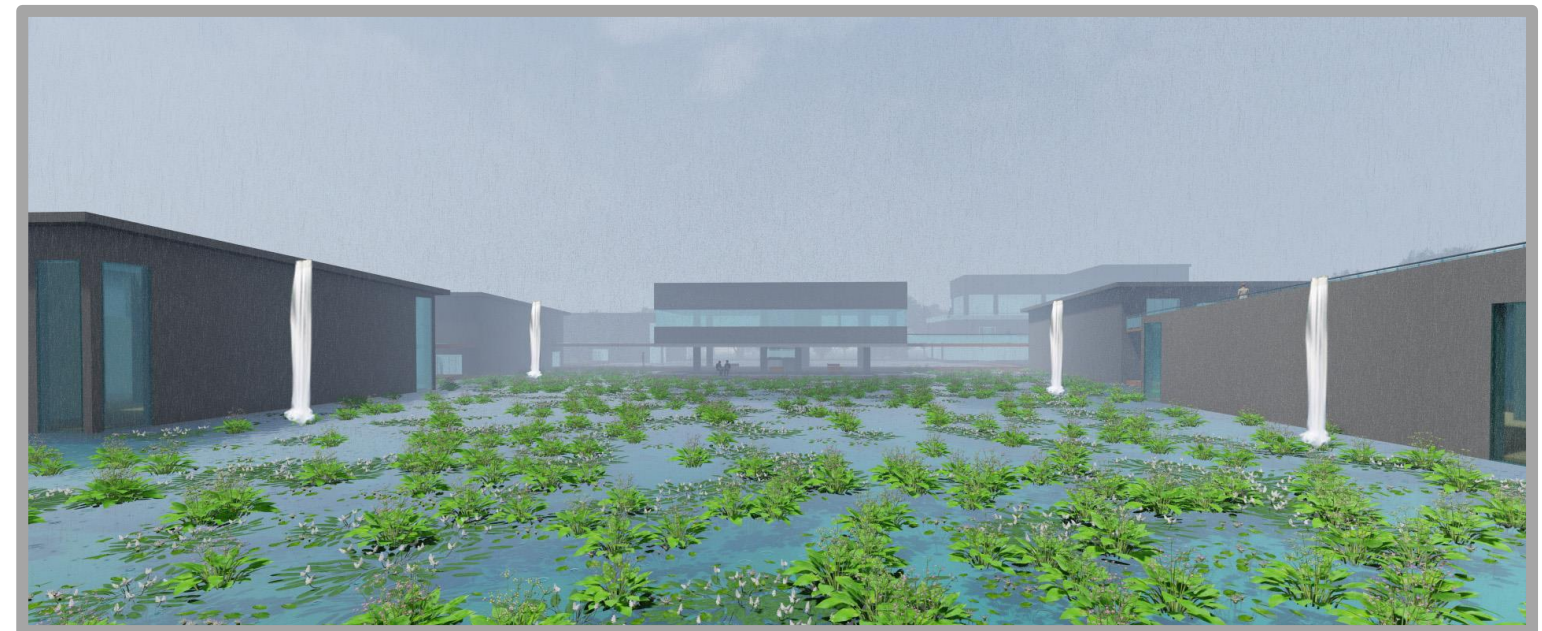
MATERIAL



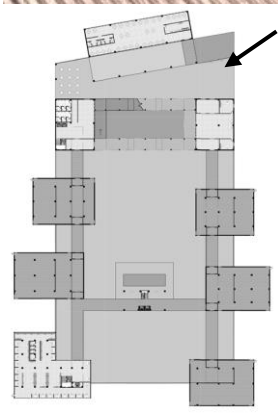


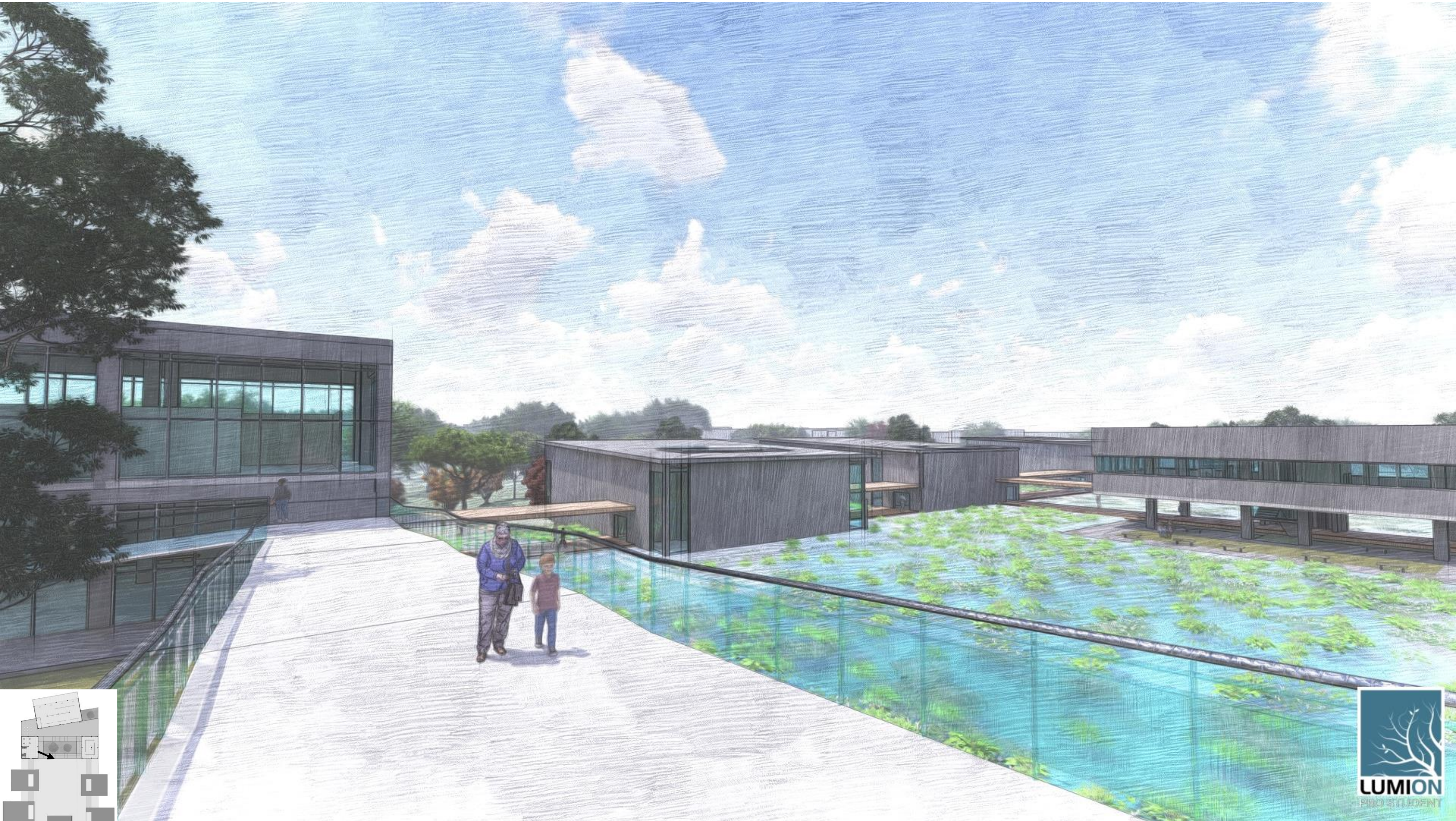
RAIN MUSIC

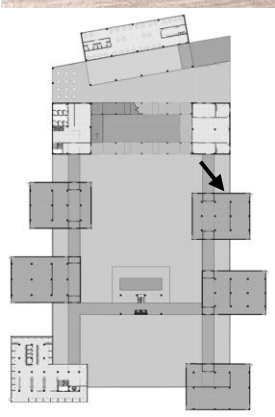
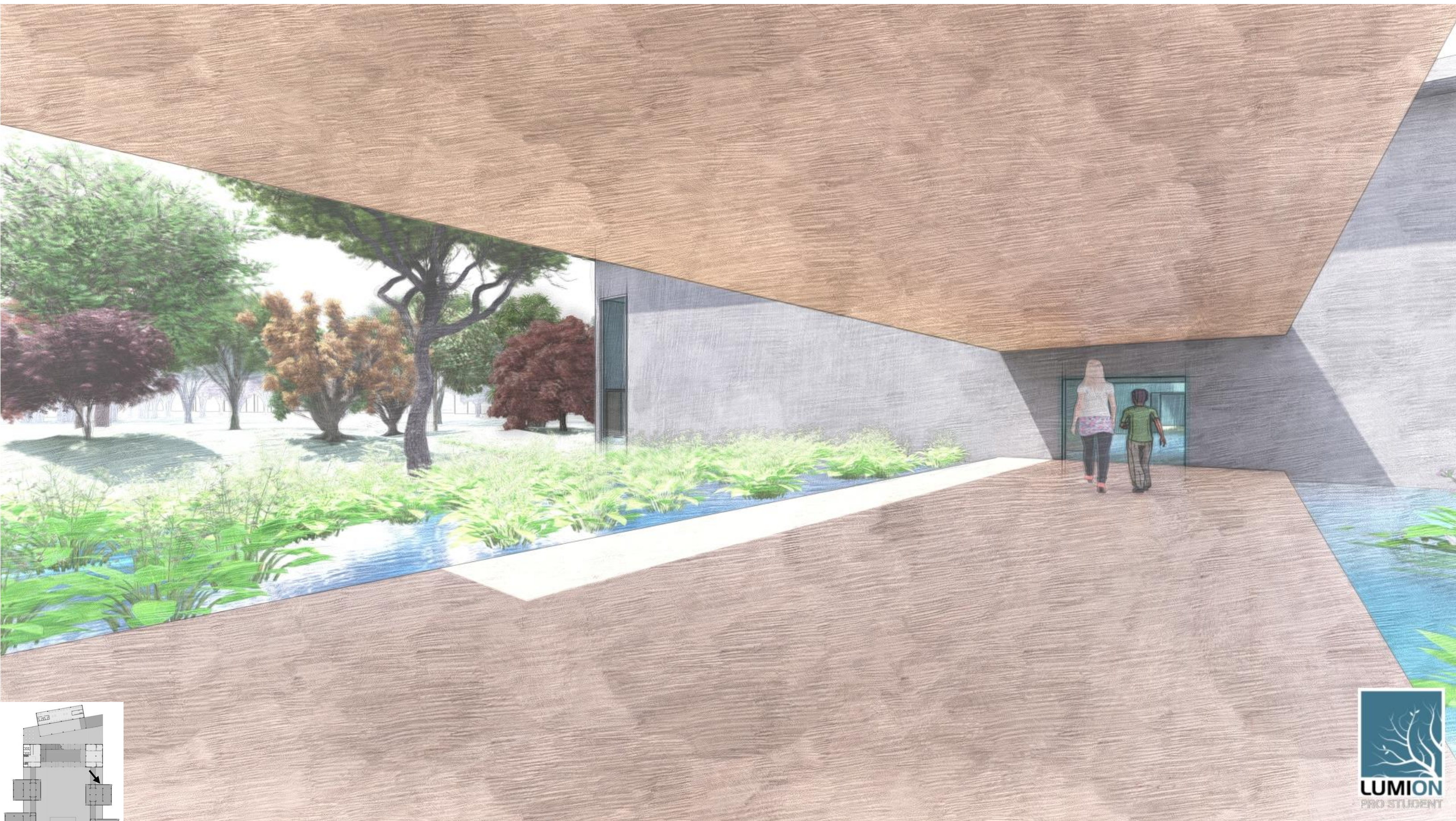
Some of the roofs are sloped toward the water lily pools to create a louder and nicer rain sound when it is raining. This makes the space more special for the visitors and it makes them enjoy the space not only on sunny days but also on rainy days.

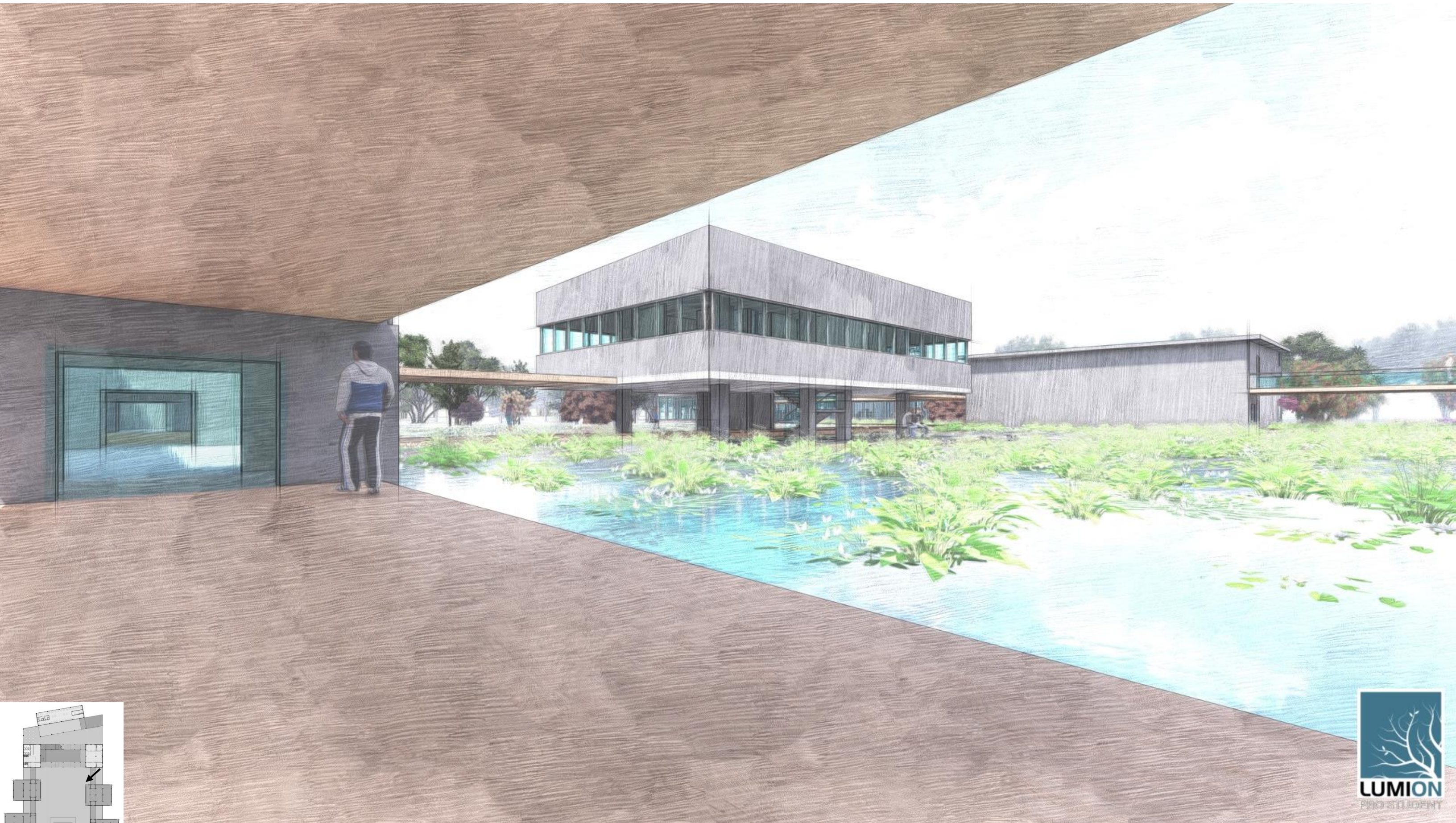


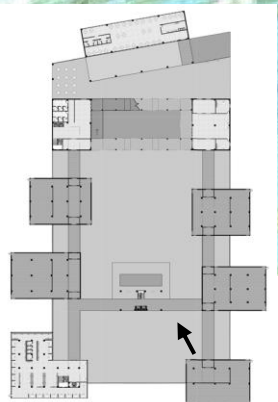
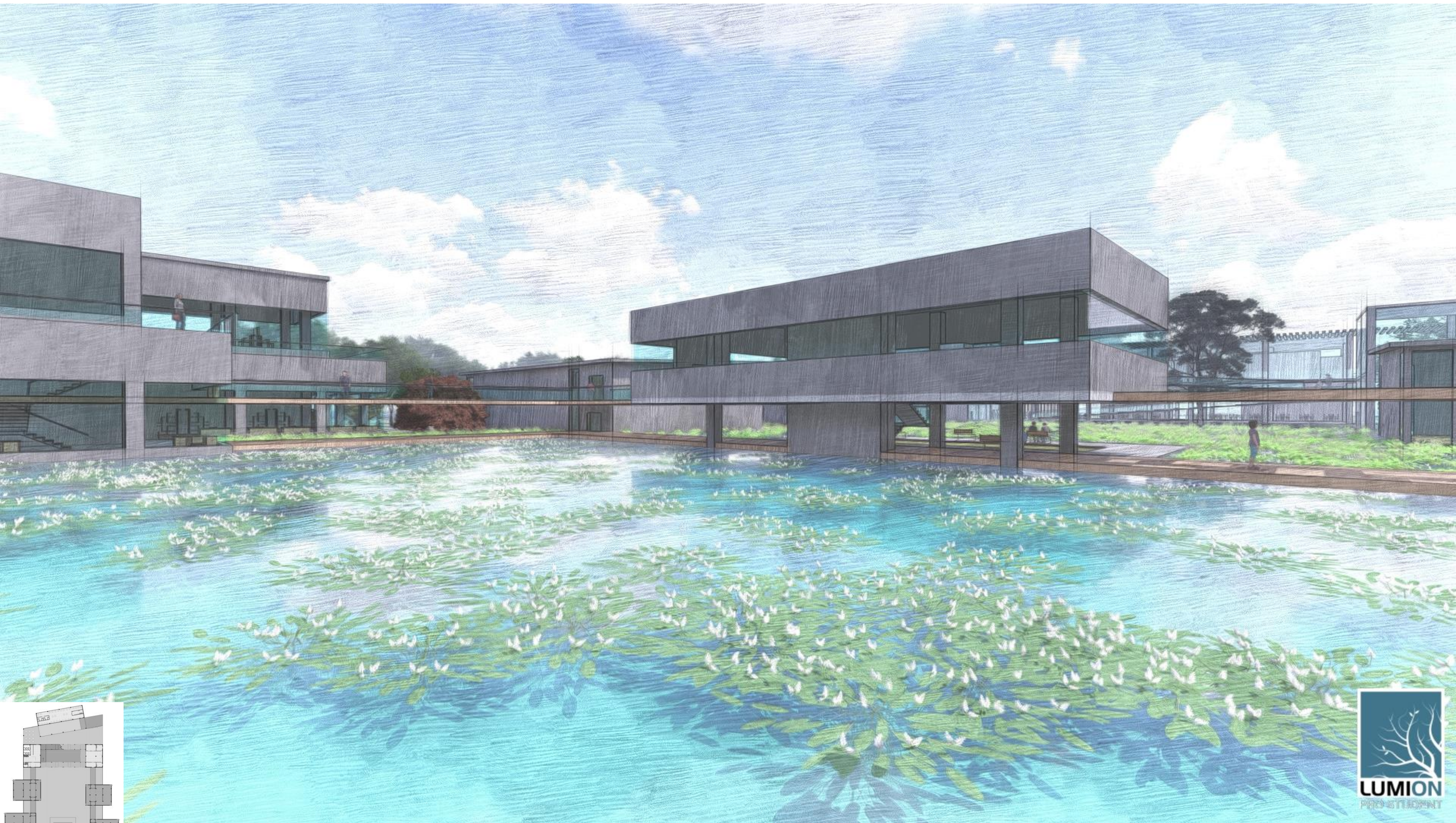
PERSPECTIVES

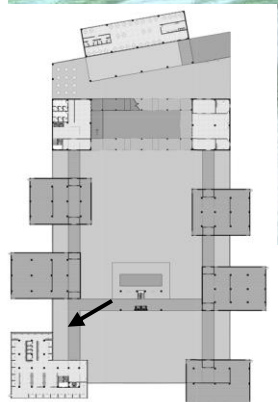
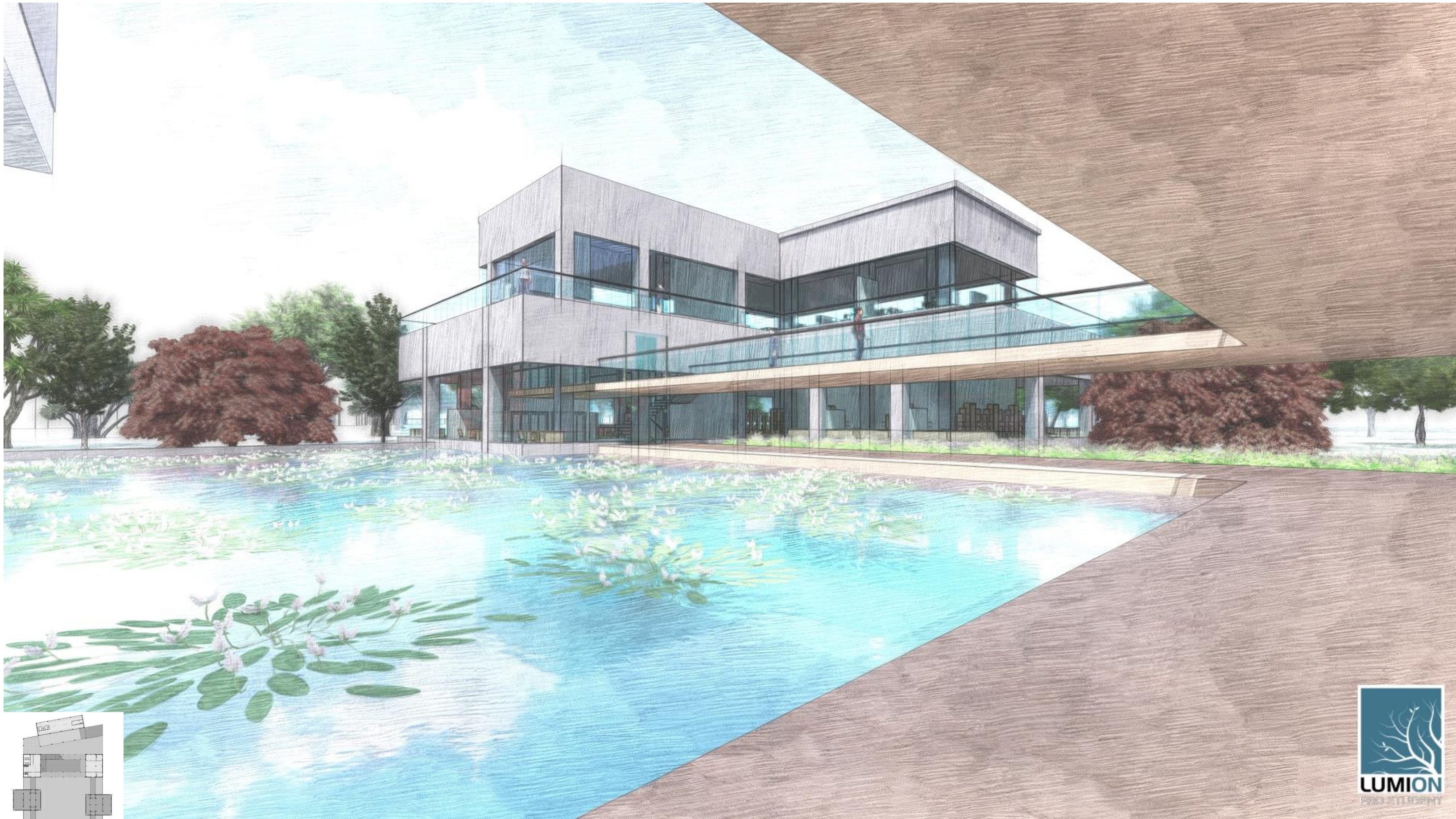


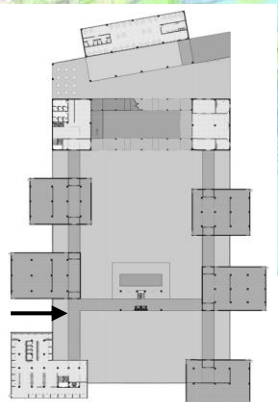
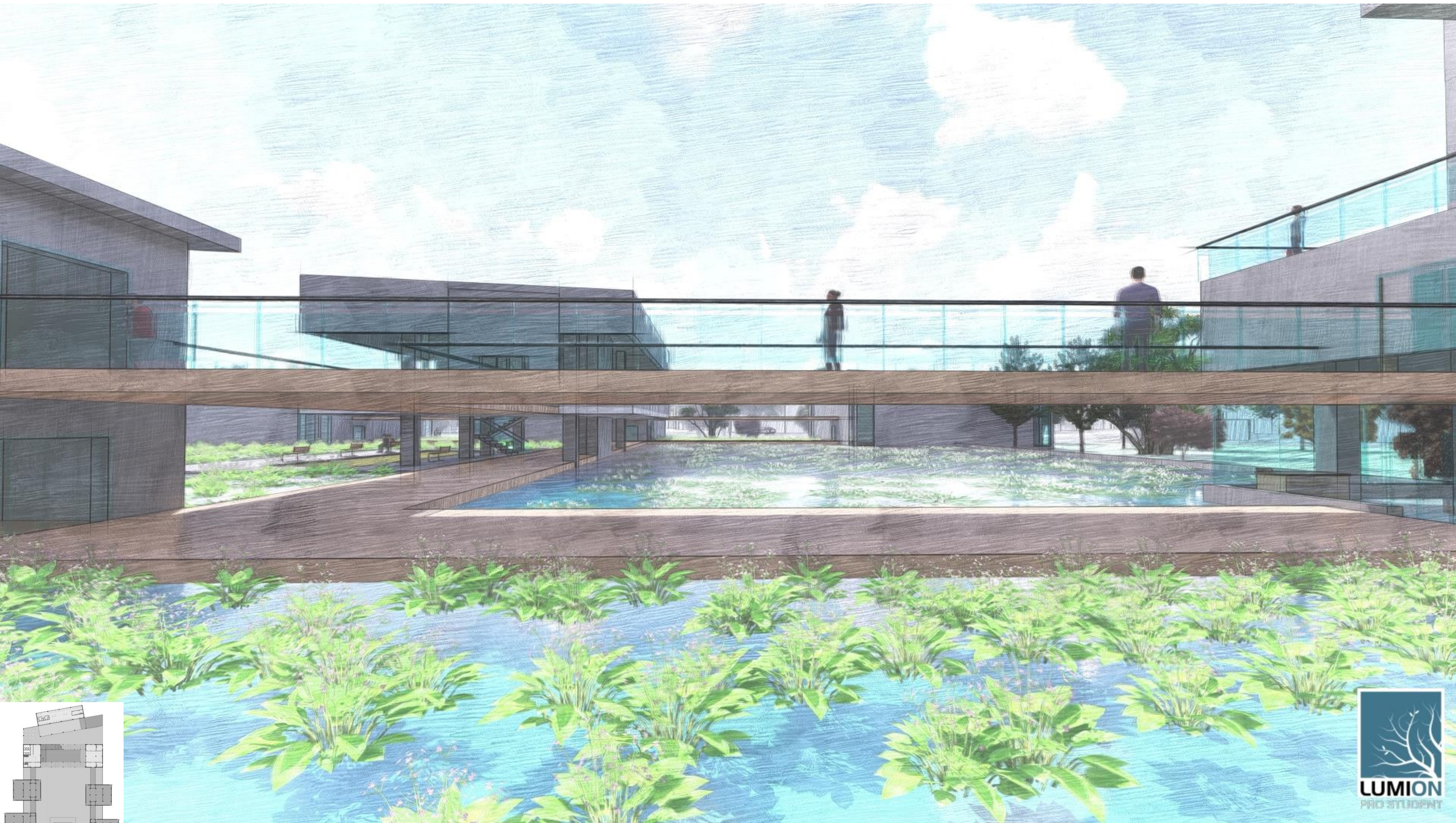


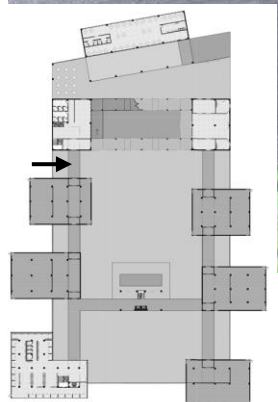


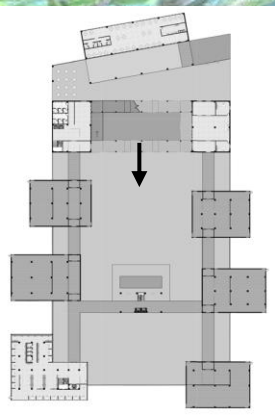
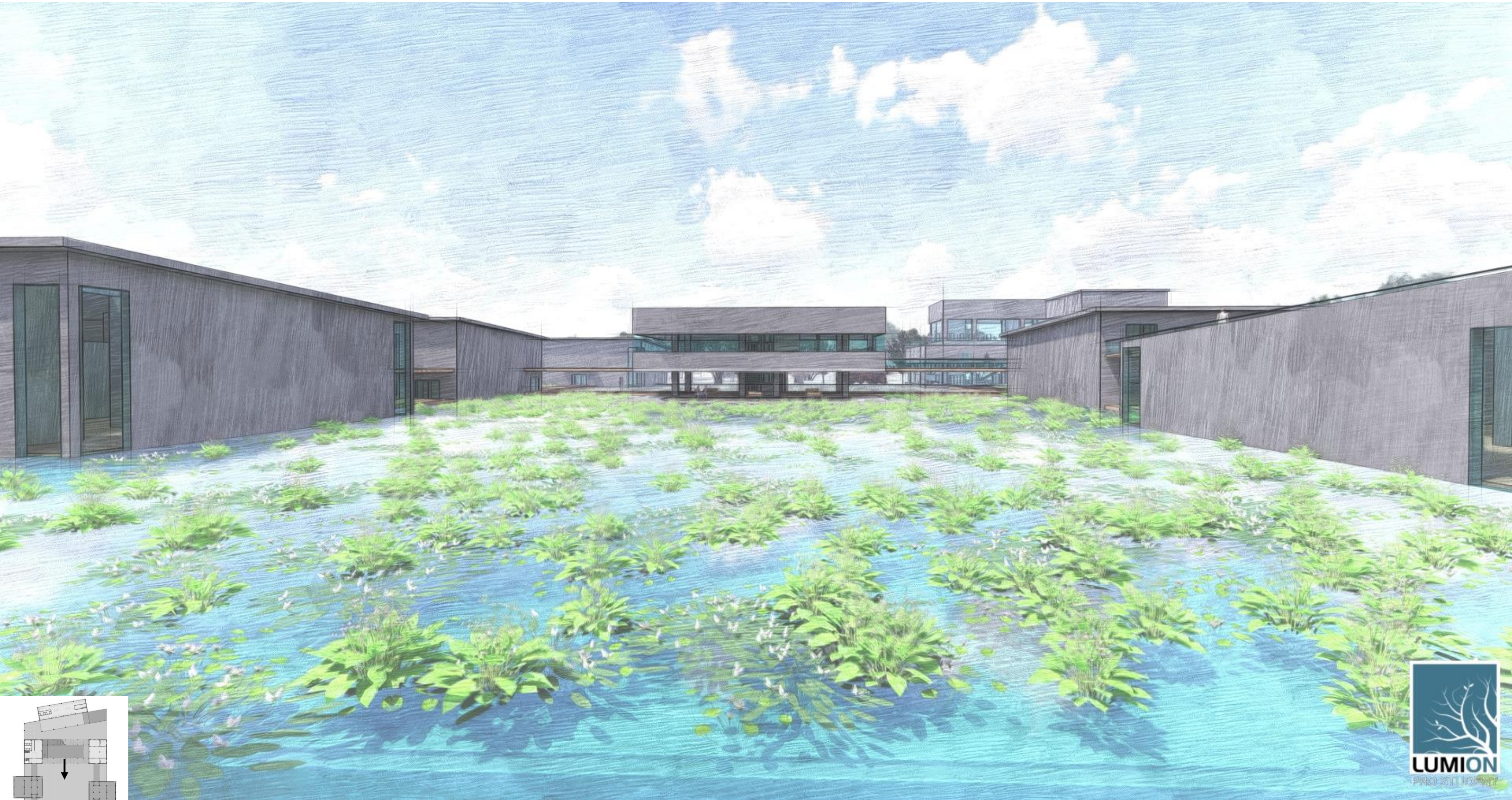


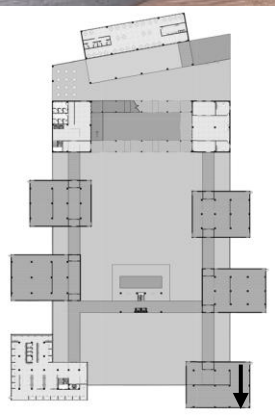
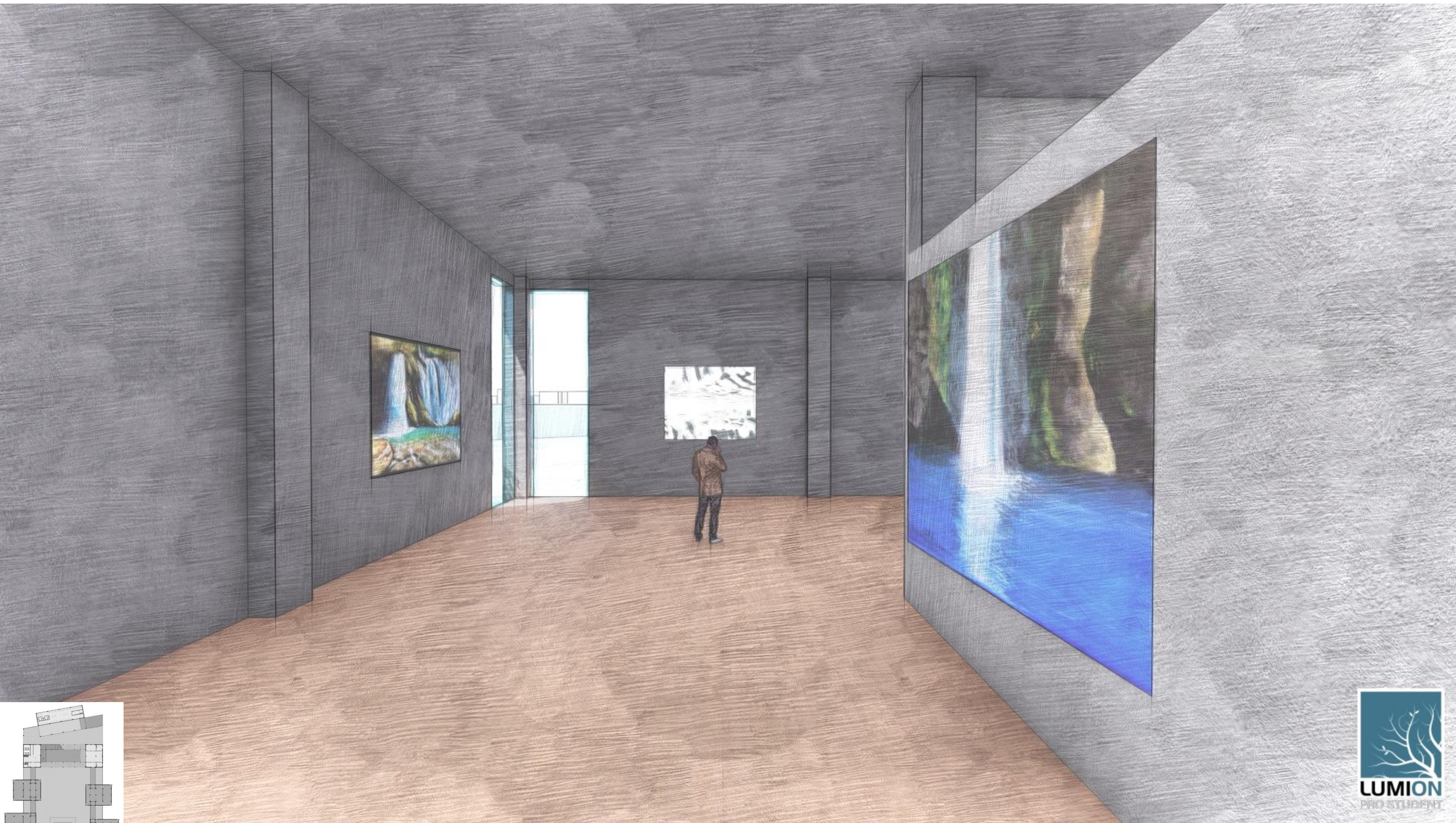


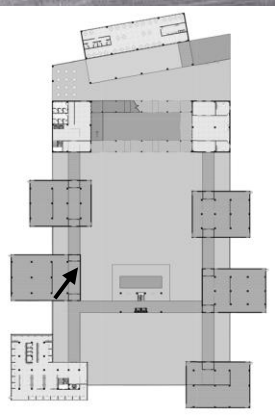


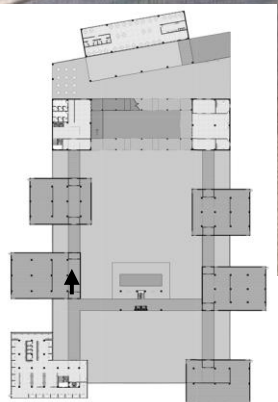


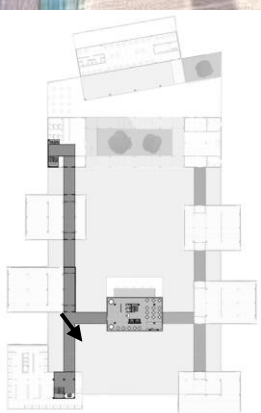
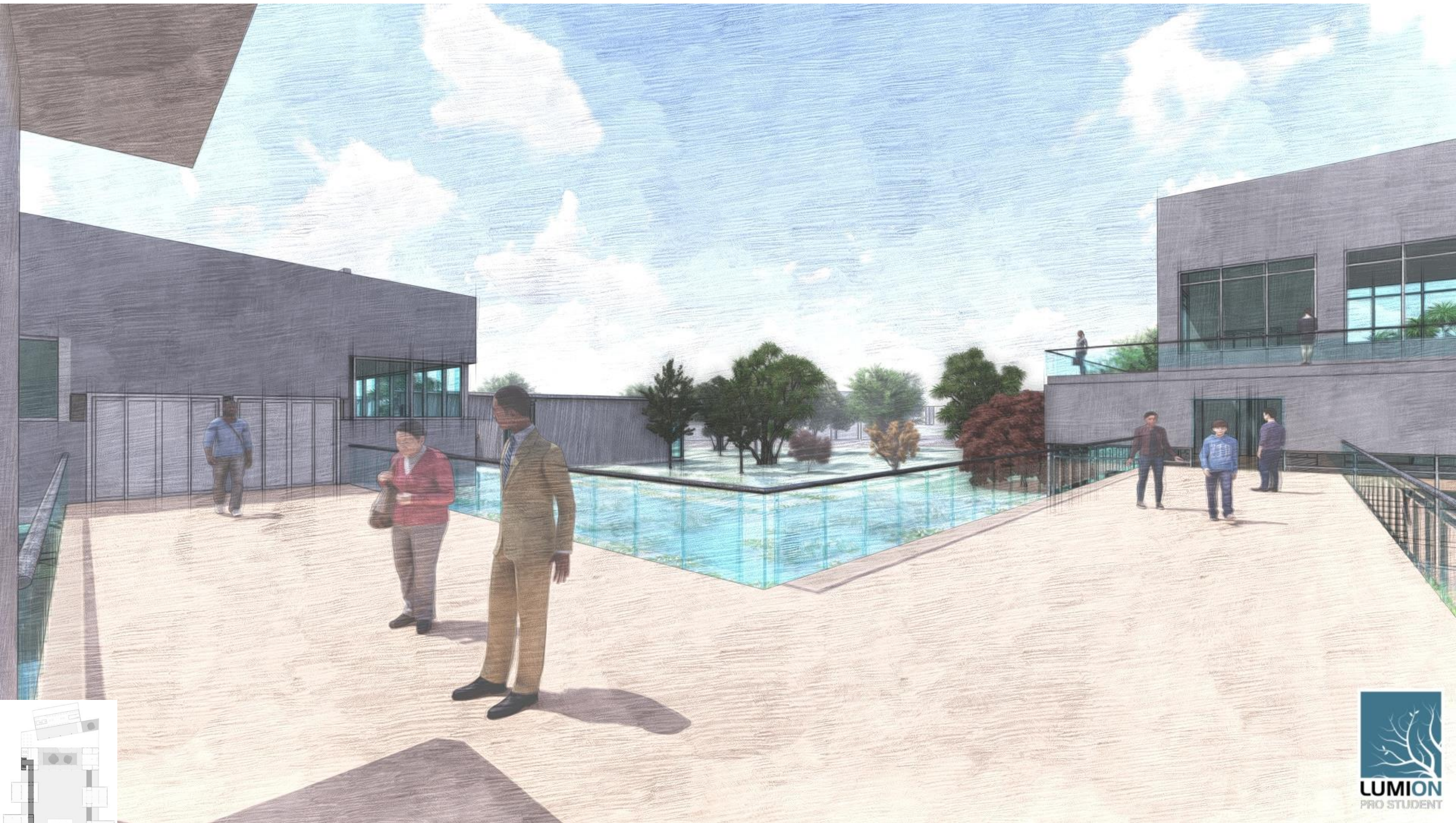


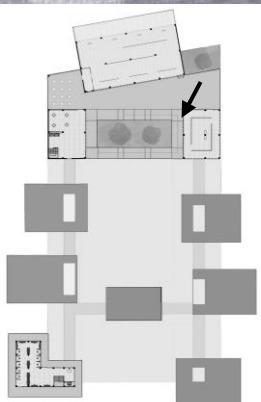
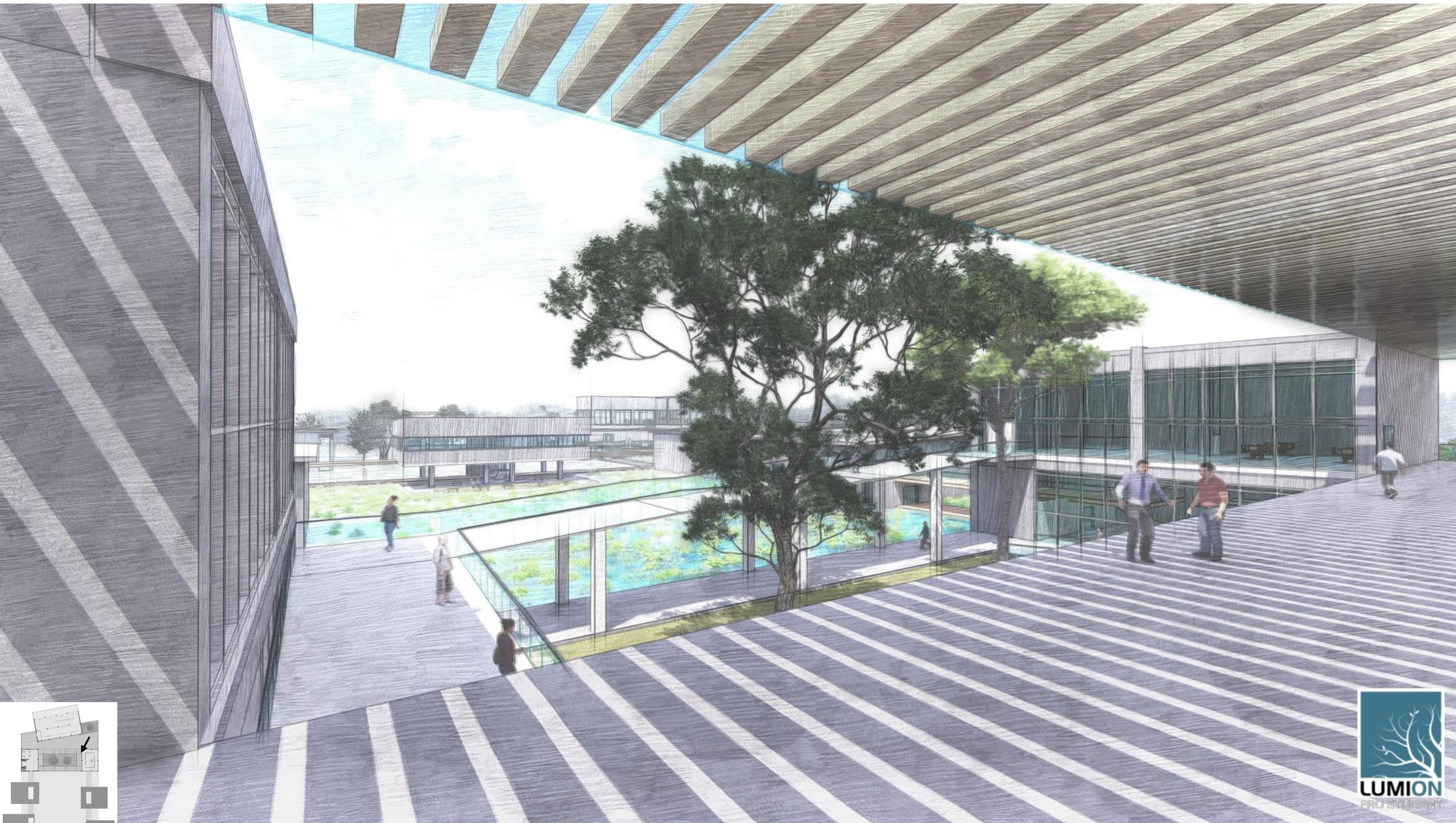


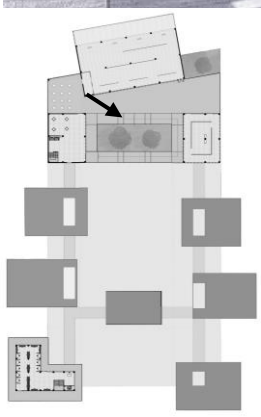
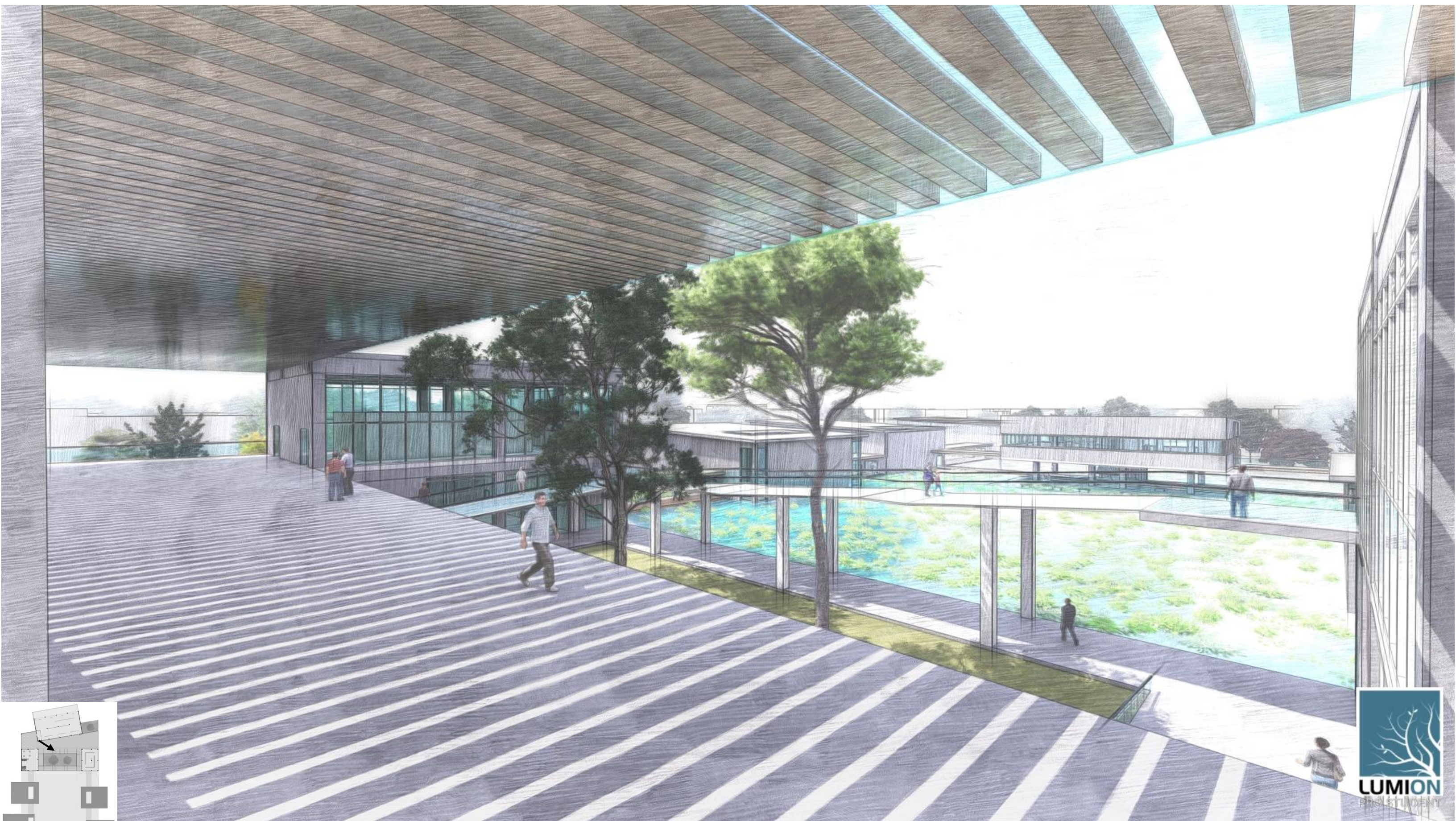














BIBLIOGRAPHY

Figure References

All images by author unless/otherwise noted

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Pg 1 , Figure 1:

<https://www.beverly-hanks.com/>

<https://www2.amazingco.me/>

<https://www.nytimes.com/>

Pg 13 , Figure 2: The images are from different articles

<https://www.mkhbuild.com/>

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- Jiang, Cunbei. "Museum Design As A Tool For A City." (2019).
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- Seong, Rok. "An Urban Park Pavilion as a Sense of Place: A Community Theater and Water Taxi Terminal at the Foot of King Street". Diss. Virginia Tech, 2016.
- <https://theconversation.com/in-confederate-statue-debates-common-values-can-bring-meaningful-resolution-143881>
- <https://theconversation.com/should-architecturally-significant-low-income-housing-be-preserved-131820>
- <https://www.nytimes.com/2018/03/08/insider/overlooked-obituary.html>
- <https://www.nytimes.com/spotlight/overlooked>
- <https://positivepsychology.com/>
- <https://www.takingcharge.csh.umn.edu/>
- <https://gharpedia.com//blog/foundation-if-water-is-present/>

Endnotes

- Pg 2: White, Mathew. The Healing Power of Nature
- Pg 5: Seong, Rok. An Urban Park Pavilion as a Sense of Place: A Community Theater and Water Taxi Terminal at the Foot of King Street. Diss. Virginia Tech, 2016.