

"Phantasm" - Aviary and Bird Conservation Center

Problem - statement

Time is short, but it is not too late to stop the imbalance between the life cycle. Our evergreen 'mother earth' is today suffering major natural resource crises and environmental issues as a result of various factors posing a challenge to survive the race of life. The ever-increasing urban sprawl has had a significant impact on various aspects of this cycle. This involves everything from the extinction of countless species to the impact of climate change on human mental health. As per the research by National Wildlife Federation almost 539 species have gone extinct in the United States. Diverse plants, wildlife, and fish provide invaluable benefits to us, from providing lifesaving drugs to preserving natural ecosystems. Thus, conserving these endangered species has become a global responsibility to avoid human-made crises.

As architects, we play a vital role with a strong vision in shaping the future of our planet. Our ideas and skills help us create a suitable and comfortable environment for all living species. Thus, to solve the global issue of extinction and maintaining the balance, the project focused on creating different natural environments to protect and conserve 'BIRDS' (one of the major entities of the life cycle). According to a study published in the journal Science, about 3 billion birds have died in the last half-century, resulting in the extinction of 529 species in the United States alone. All of this is attributable to a variety of human actions, including overhunting, habitat degradation, and drastic climate change.

It aroused many questions, such as if we need to build settings that are lively and healthful? Or just create a favorable enclosed artificial atmosphere. Do we design spaces which birds can call home? In response to these inquiries, a solution was developed to create a natural home for such bird species, where they could be cared for and observed. Thus a program was designed to build an aviary at the Lincoln Park Zoo. The project majorly focused on 4 categories which were exhibition, conservation, education and public amenities.

The project started with a study of the existing bird house at the zoo, studying its pros and cons. The existing bird house was just a small cuboidal space segregated into small climatic zones for the birds. It lacked a strong connection between birds and nature. This was the major criteria to be thought of where the birds and visitors experience an open outdoor space ode-to nature. The second key constraint was whether, aside from native birds, other species of birds would survive Chicago's hard winter climate, will we end up again designing the same enclosed glass boxes leaving birds to struggle for their survival.

The programme focused on creating a variety of spaces, ranging from small cages where birds could be adequately viewed and studied to massive hangers that could be used as free-flight zones. It was also critical to educate people about the necessity of bird conservation and how to go about doing so. For the same, various discussion rooms and lecture halls were proposed. It was critical to examine both users (birds and humans) because their behavioral habits are vastly different.

The project's final goal was to create a habitable and comfortable space for birds to dwell in peace in this newly designed microclimate, in a way that all the visitors can experience and observe how birds reciprocate organically.



Design - concept

Architecture has the ability to solve its own spectacle challenge by offering a different illusion. Can birds and humans meet, engage, and enjoy nature in this world of illusion? **PHANTASM** was the concept we chose to advance this illusory idea. How do we define phantasm? The use of visual illusions to experience different settings and scenarios by going through the sequences of a building or a specific building unit in order to elicit the user's feelings in that space. The passive act of perceiving can pique your interest in knowing more about what you see or assume you see covered with artificial rock.

Taking this concept further, the objective was to build a light and airy structure that represented birds. Using the site's existing topography the idea was to give the impression that the structure is erupting from the earth. To create an illusion by alternating between spaces where people surround birds and spaces where birds surround people. To produce a striking depiction of nature and how these various species coexist.

The concept was to transport a person through an underground tube that serves as the primary spine corridor for circulation, with additional services such as conservation and education on the opposite end of the tube. The upper floor, on the other hand, was entirely dedicated to cages and free-flight spaces. The form evolved in such a way that three light-weight spines were set perpendicular to the central corridor floating from the ground on the top level, providing the illusion of the bird's spreaded wings. The top level spine is cantilevered, with the front half of the spine overlooking the pond.

The ground level is built of raw concrete, giving it an earthy atmosphere, with a grand staircase at the entry and corridors on either side. This serves as a transitional corridor with numerous thresholds and multiple experiences, ranging from an indoor-free flight area to over-looking cages, from open to all class-rooms that run all the way down to the conservation space. The corridor has skylights on top that bring in natural

light and accentuate the passageways from the other places. The indoor free-flight area on the lower level is a double-heighted space that serves as a large lightwell where visitors can observe various bird activities at various levels.

The upper level functions as a large light box since it is enclosed with perforated screens along glass panels, allowing maximum light to enter. A blanket of green cover covers the floating free-flight regions on either side. It resembles little micro-climate modules in which birds can reside. It creates the image of birds in wide nature, producing a sense of endless nature. These free-flight zones are covered with a perforated sheet that creates a variety of shadow patterns throughout the day. On the upper floor, at the cantilevered end of the spine, has a cafeteria with a view of the pond.

When a user enters this mass, he will only view birds through various methods. It offers the illusion of being in a natural enclosed setting. The concept of phantasm is practiced to the highest extent by constructing settings that excite human senses through perception, leaving behind pleasurable memories. Birds can be seen flying from one level to the next, from one end of the floating cages to the other.

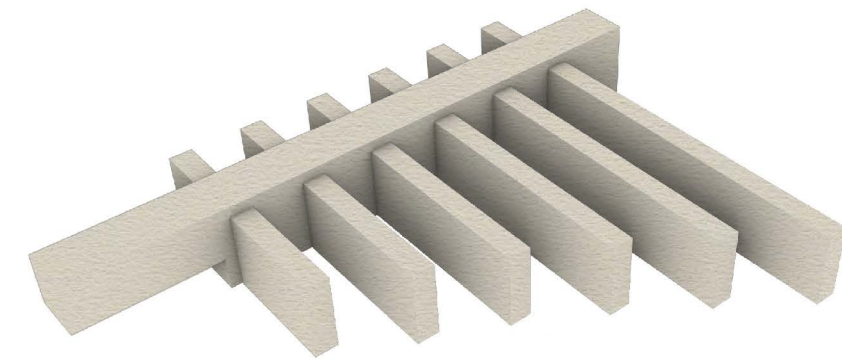
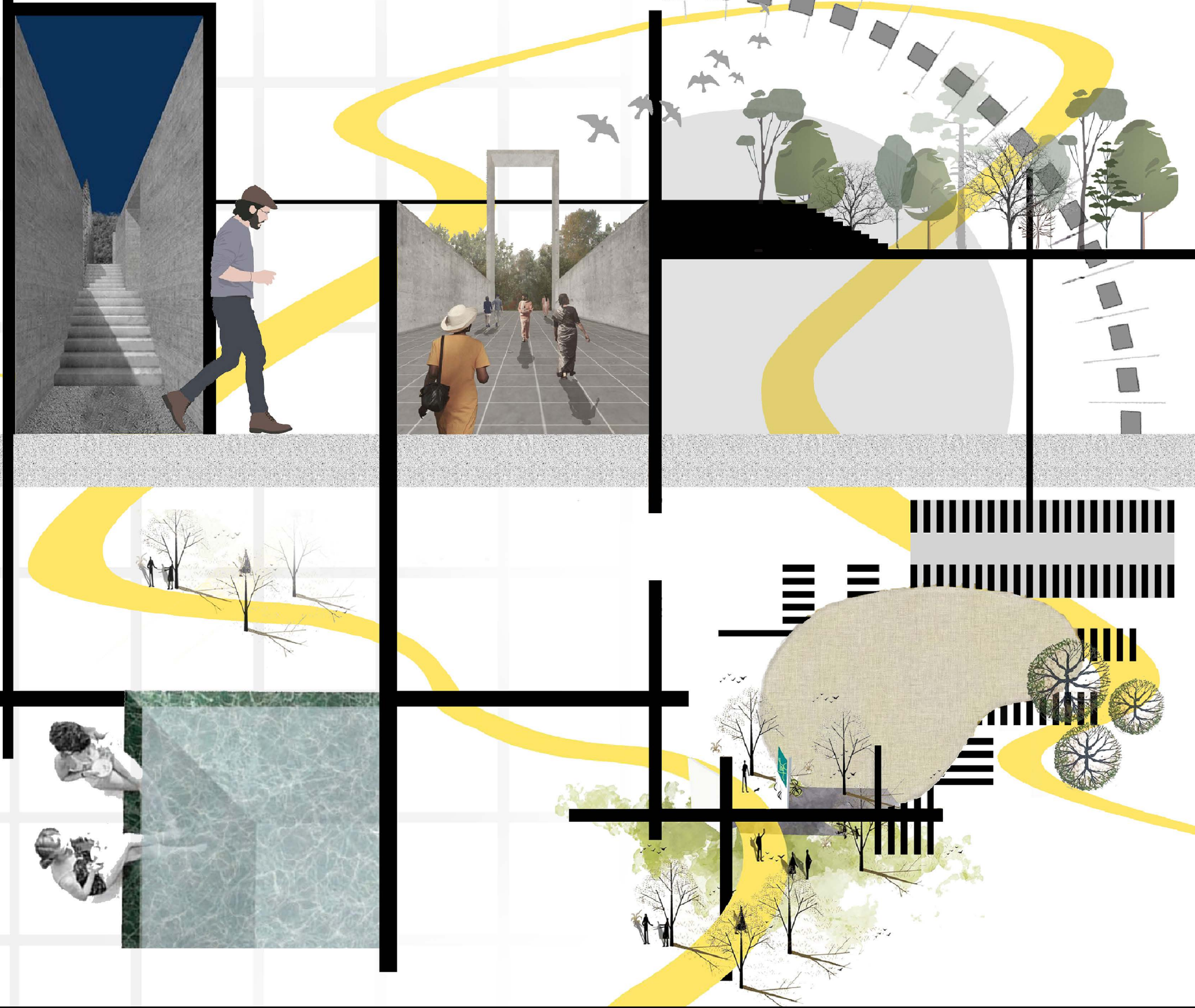




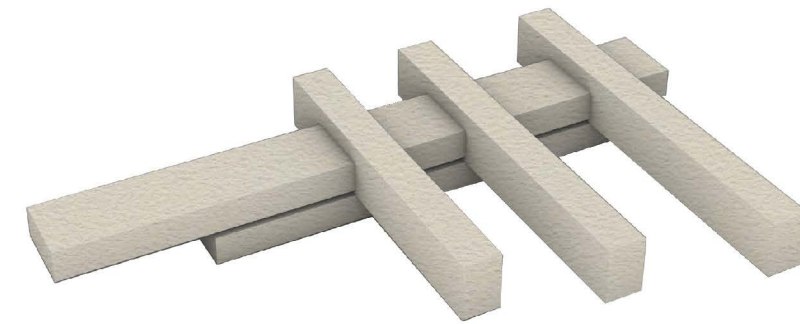
Phantasm - the world of illusion

Form Development

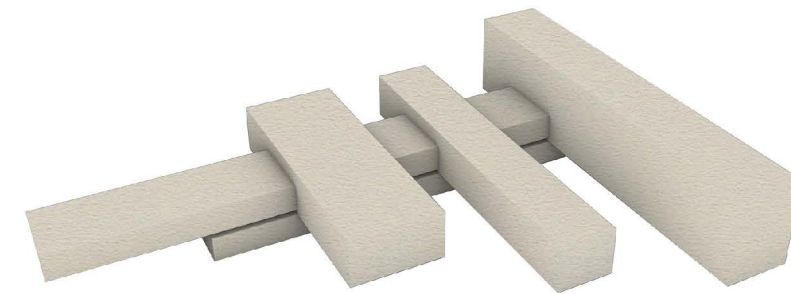
Concept Collage



Central spine as the dominant element



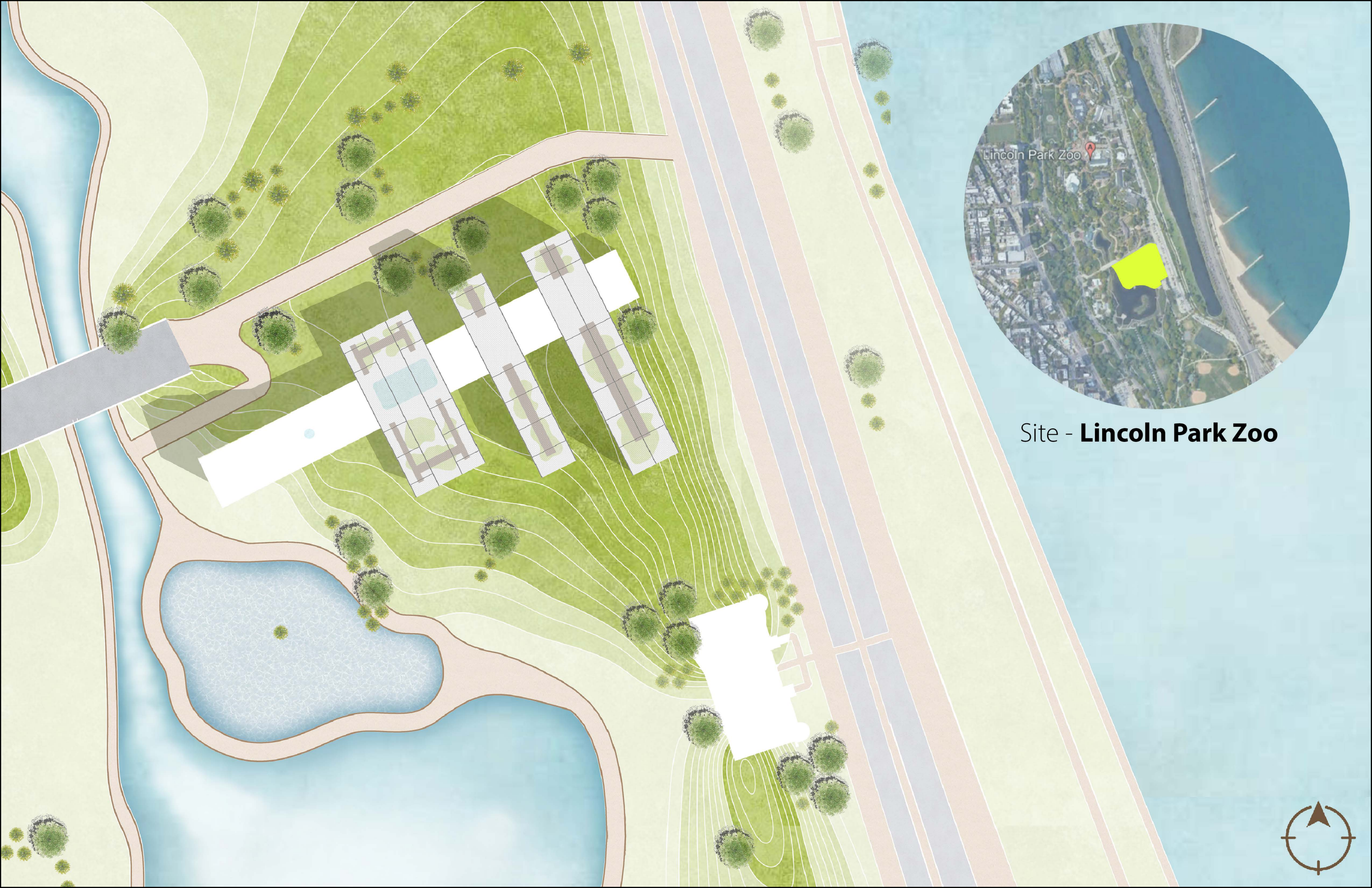
Central spine is lowered to celebrate the cages



Exhibition spaces are elevated to create an illusion



Final Form

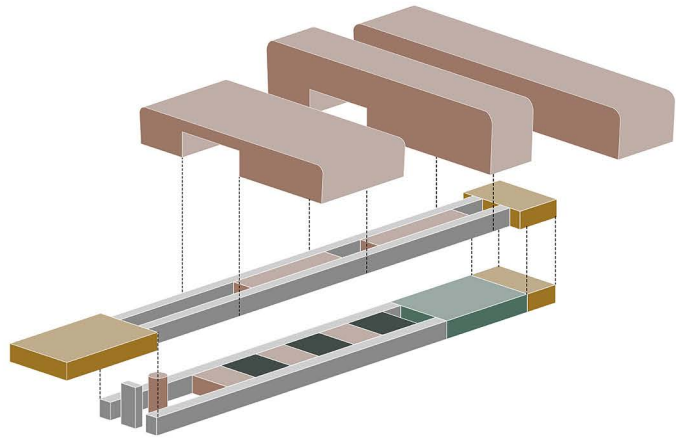


Lincoln Park Zoo

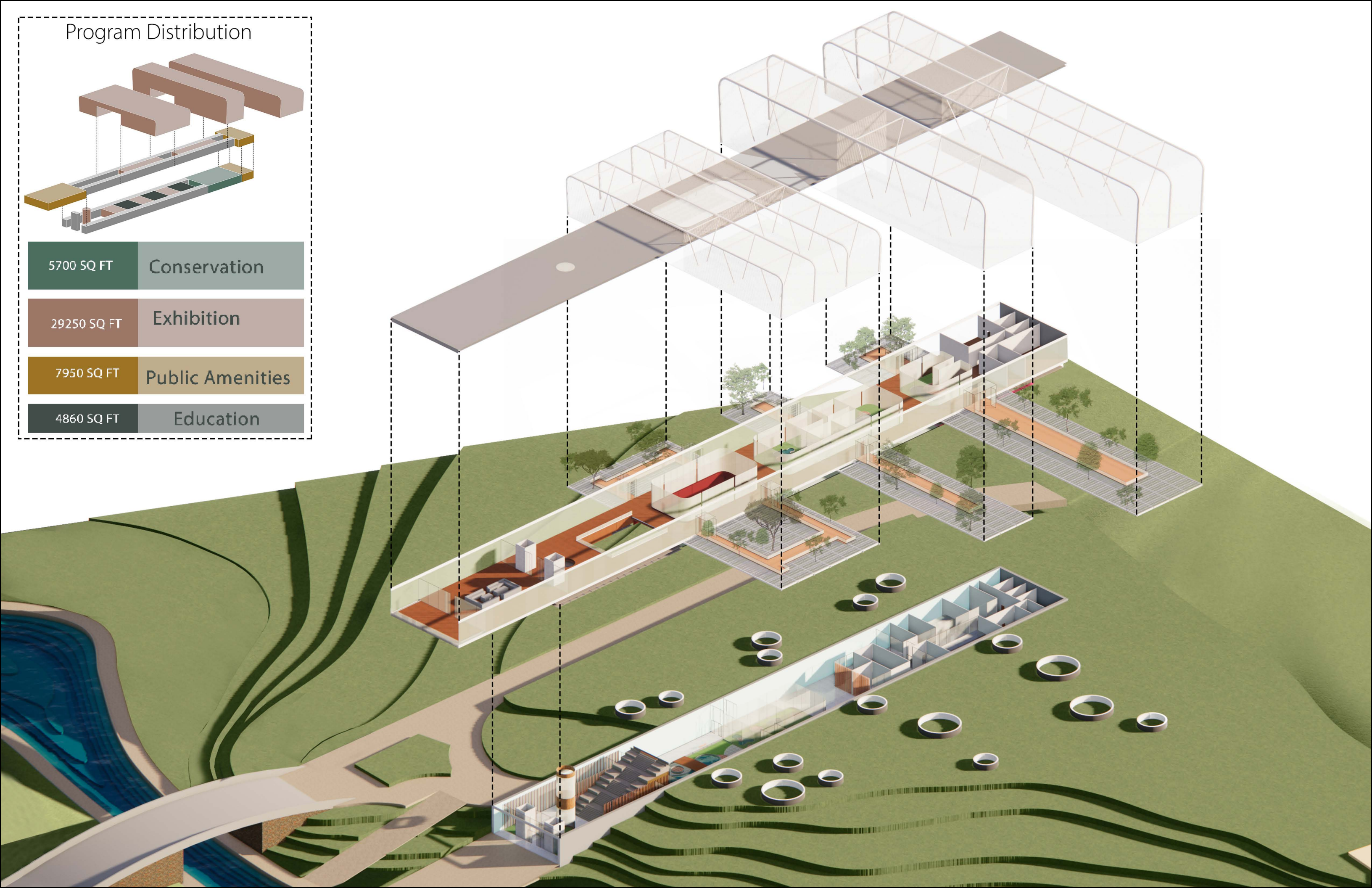
Site - **Lincoln Park Zoo**



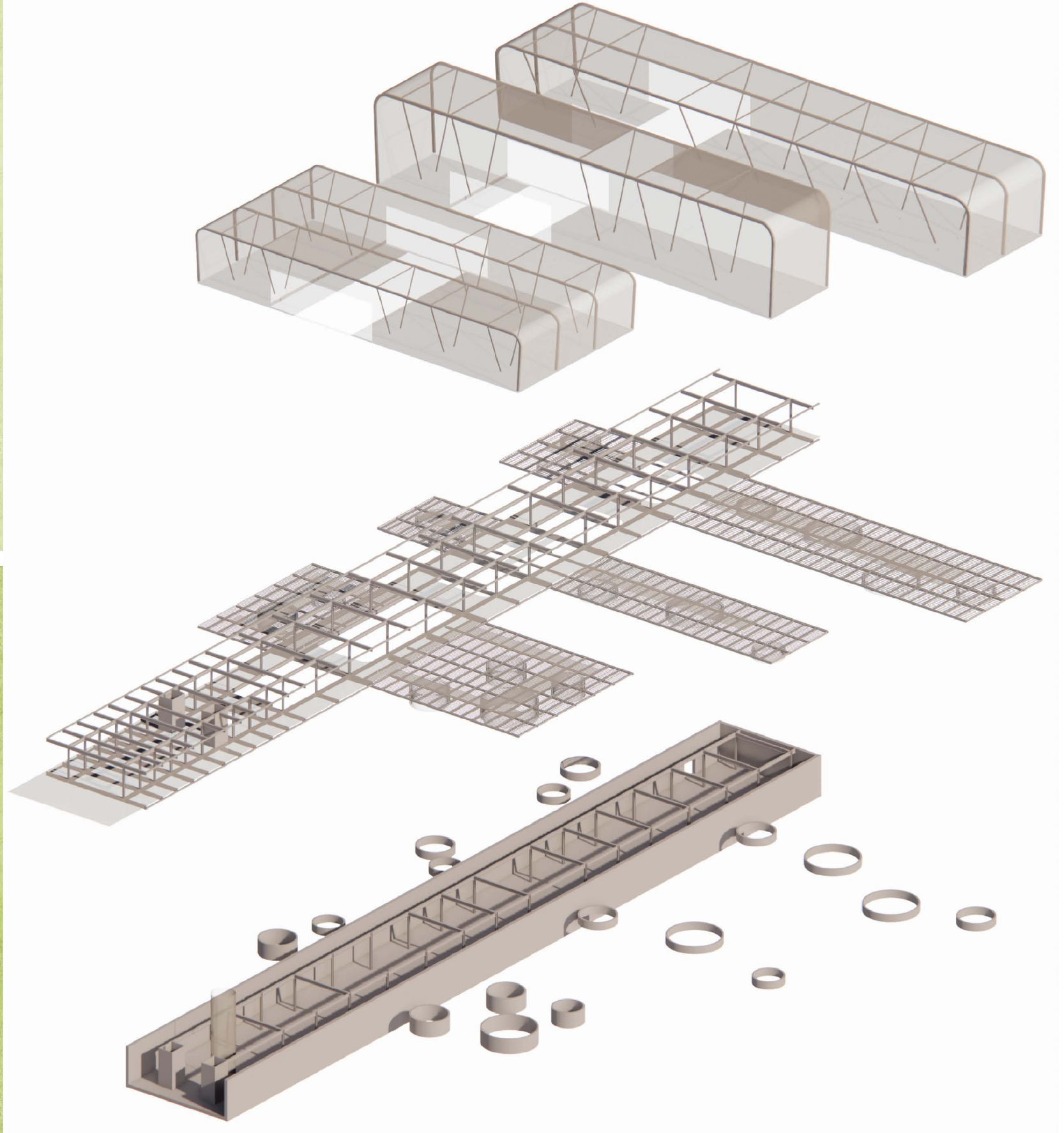
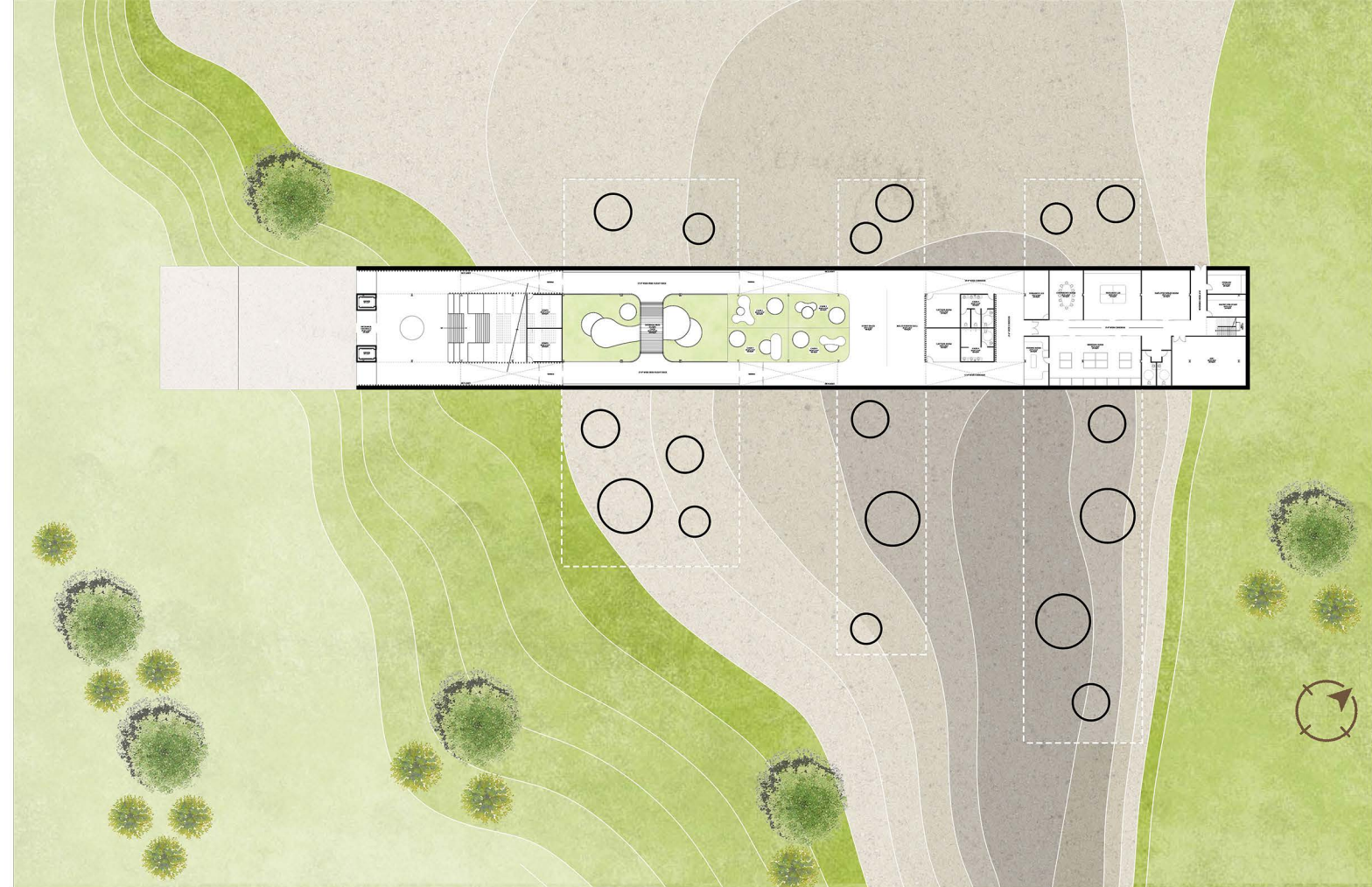
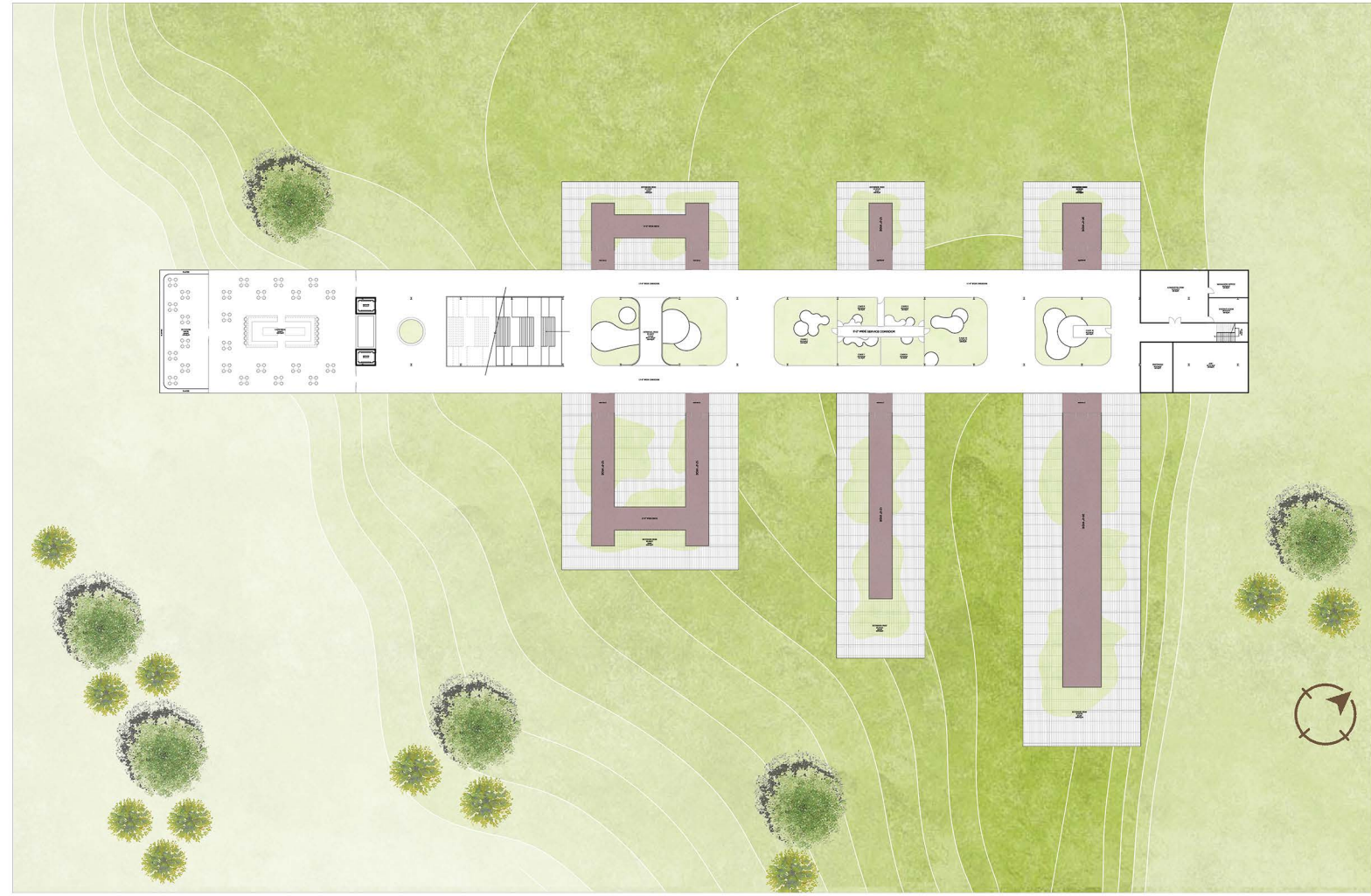
Program Distribution

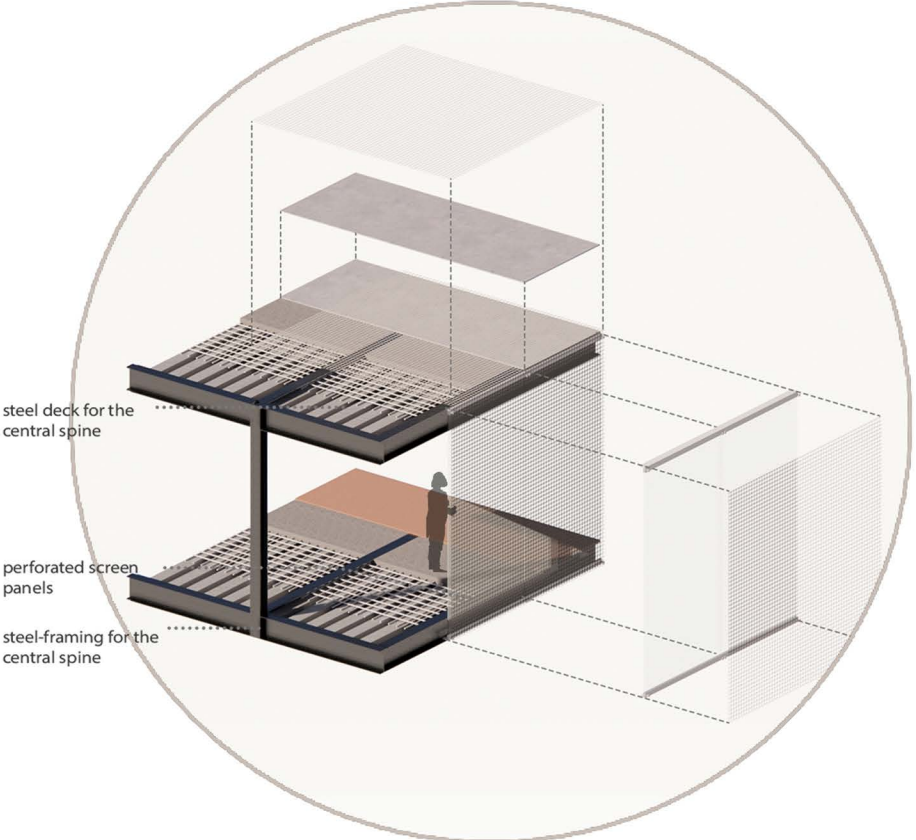
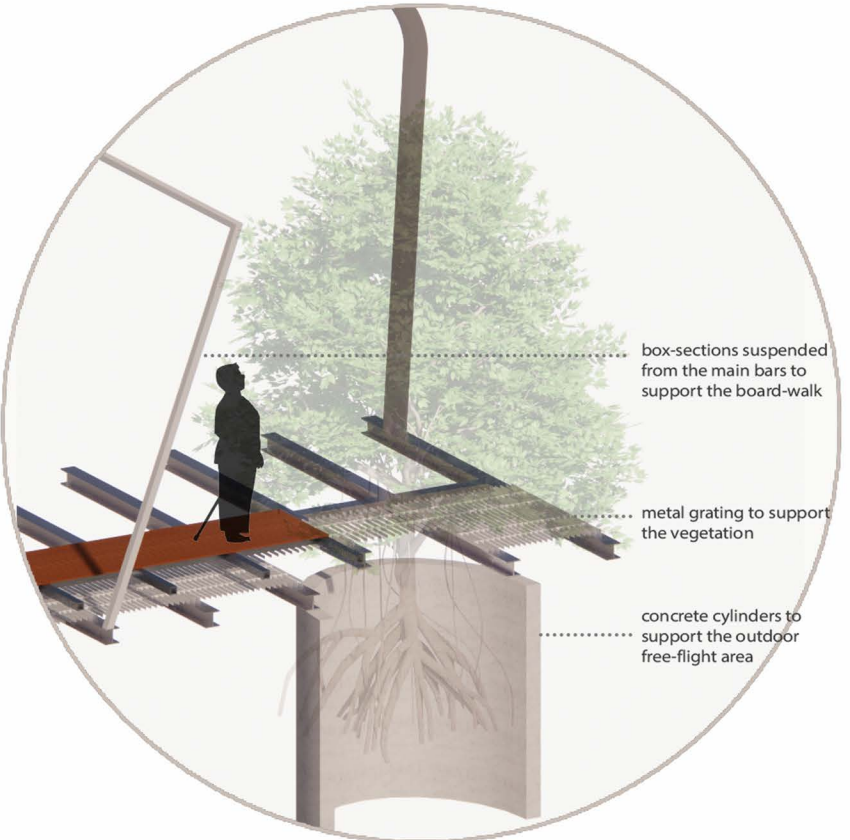
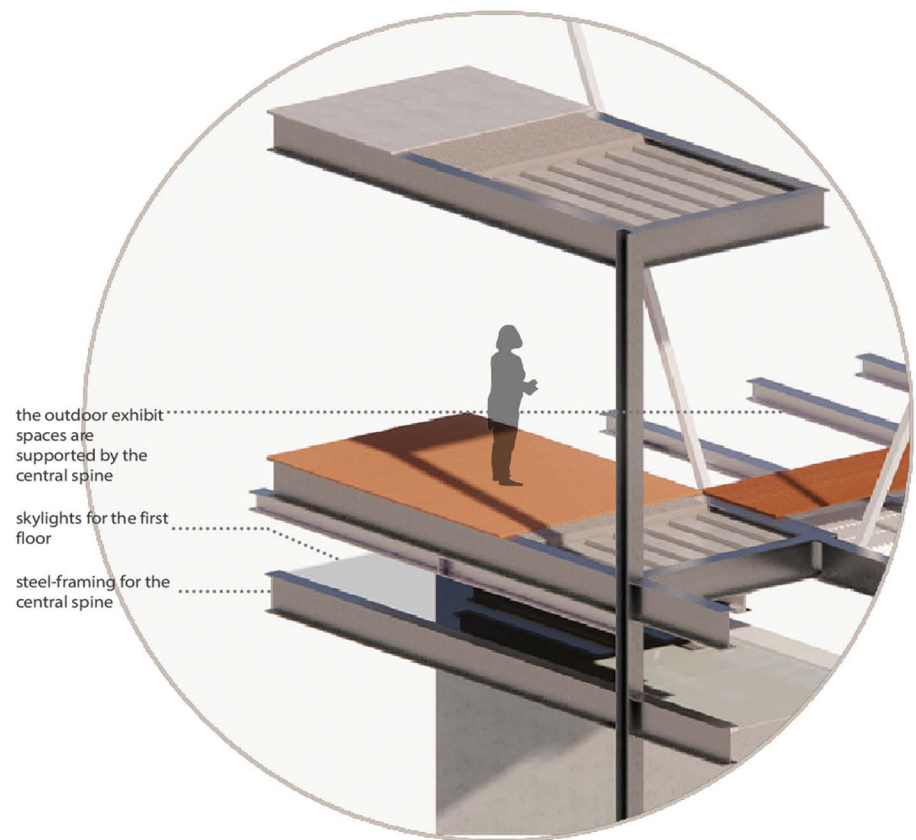


5700 SQ FT	Conservation
29250 SQ FT	Exhibition
7950 SQ FT	Public Amenities
4860 SQ FT	Education



Structural System









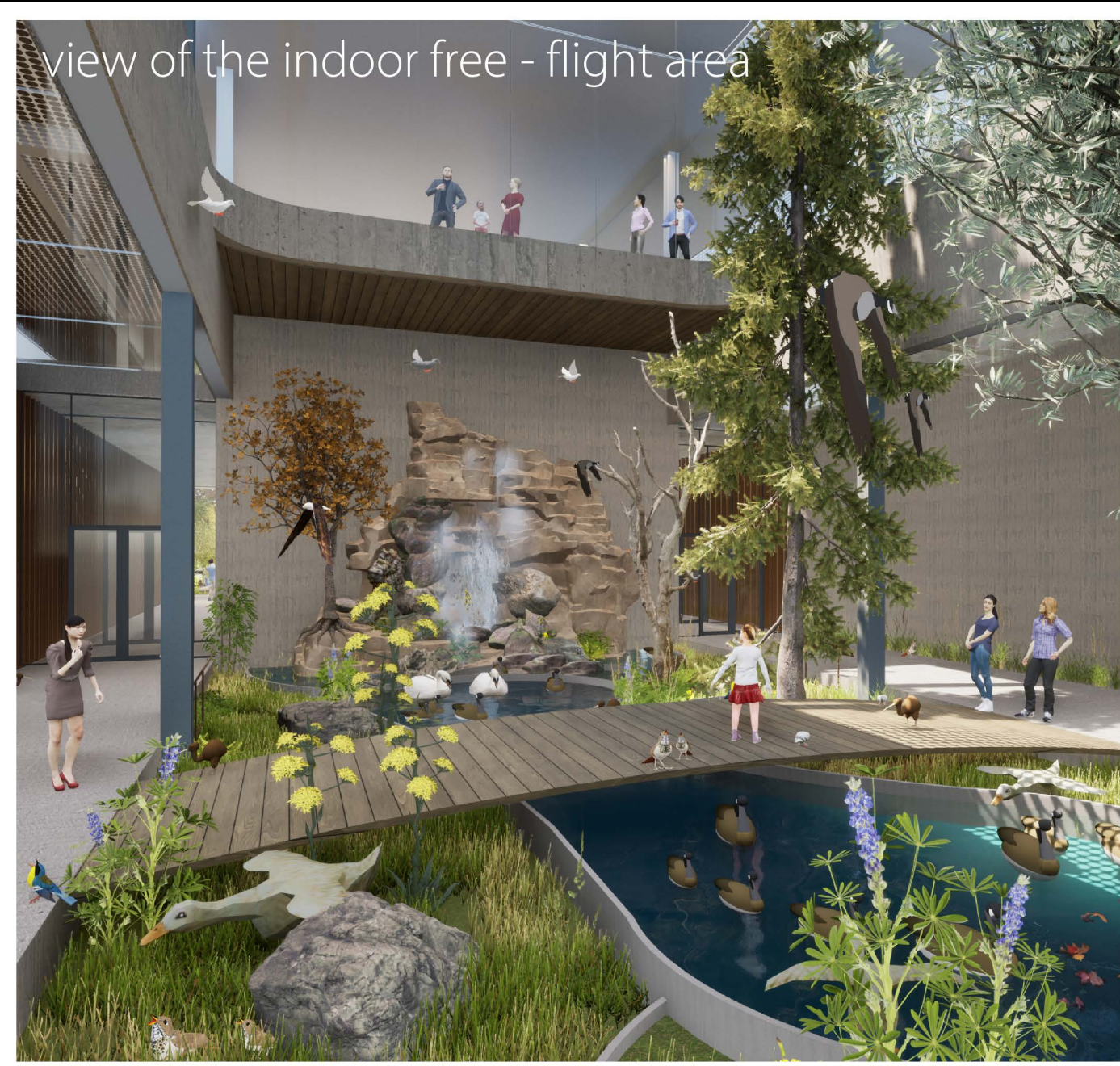
view of the indoor free-flight area from the 2nd floor with out-door free-flight areas on either sides



view of the outdoor free-flight area



view of the cafe



view of the indoor free - flight area



view of the internal cages



QR code for the walk - through