

Siona

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Sea to Sea: Salt Landscapes

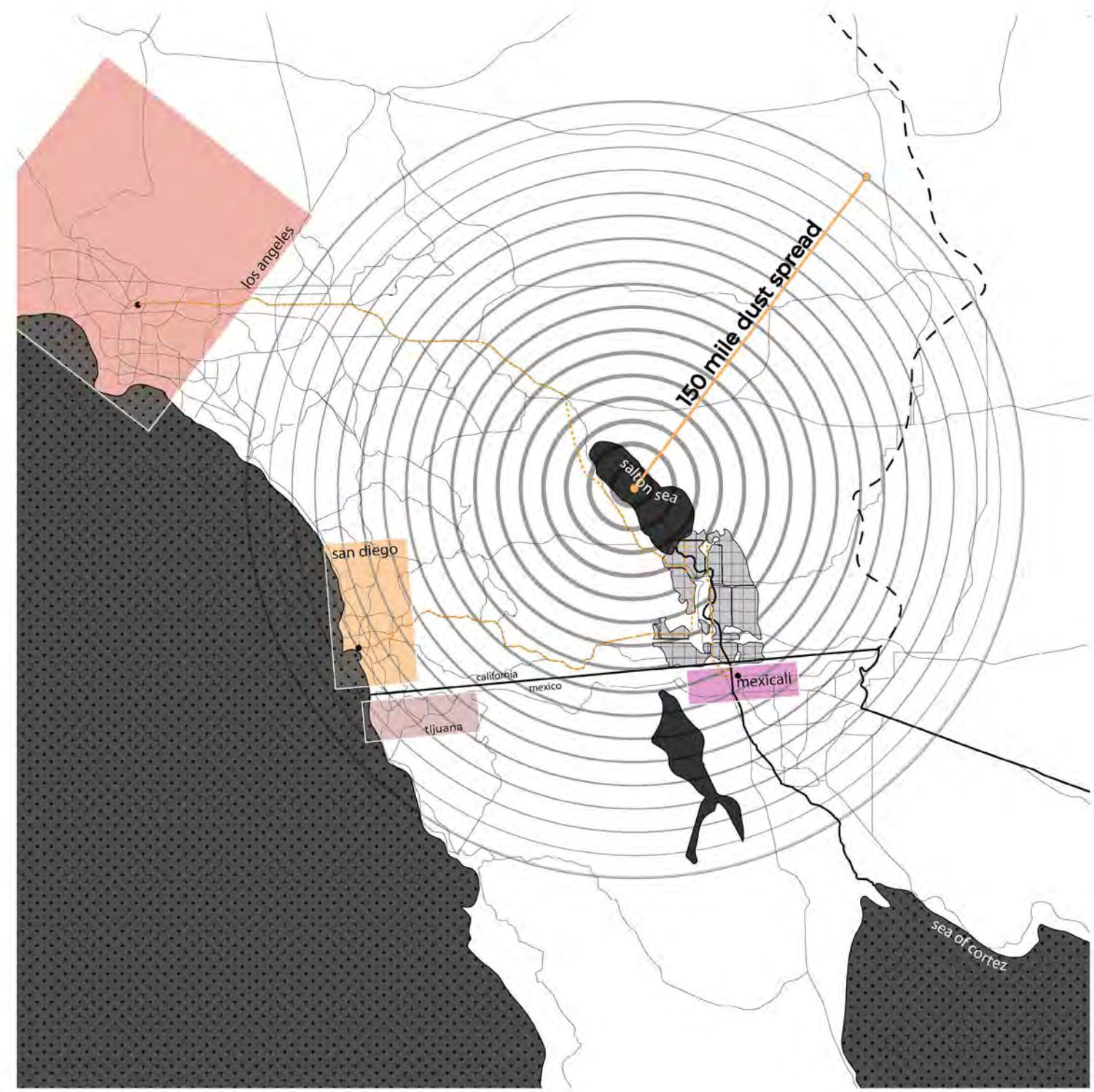
Sea to Sea explores the revitalization of the Salton Sea, which for a long time has been seen as an epicenter of environmental collapse. The land-locked sea is being heavily polluted by many sources, primarily by the New River brimming with agricultural run-off and Mexicali's industrial and municipal discharge. But the New River, which flows north from its origin just miles from the coast of Baja California -can also become the source of the Salton Sea's future transformation.

Anticipating the Sea of Cortez spilling into New River in the next 50 years, the Salton Sea's revival will bring coastal life inland, away from the ocean. The project explores this scenario in terms of salt-water practices, materialities, and sensual experiences - creating spaces for an environmental transition from a dying sea to a thriving inland Saltwater Commons.

Seaweed farming is the focal element here. Serves as a method of weaving land and sea together to create a new emerging landscape typology. Performative and experiential qualities of seaweed are developed architecturally as a marker of change in the landscape.

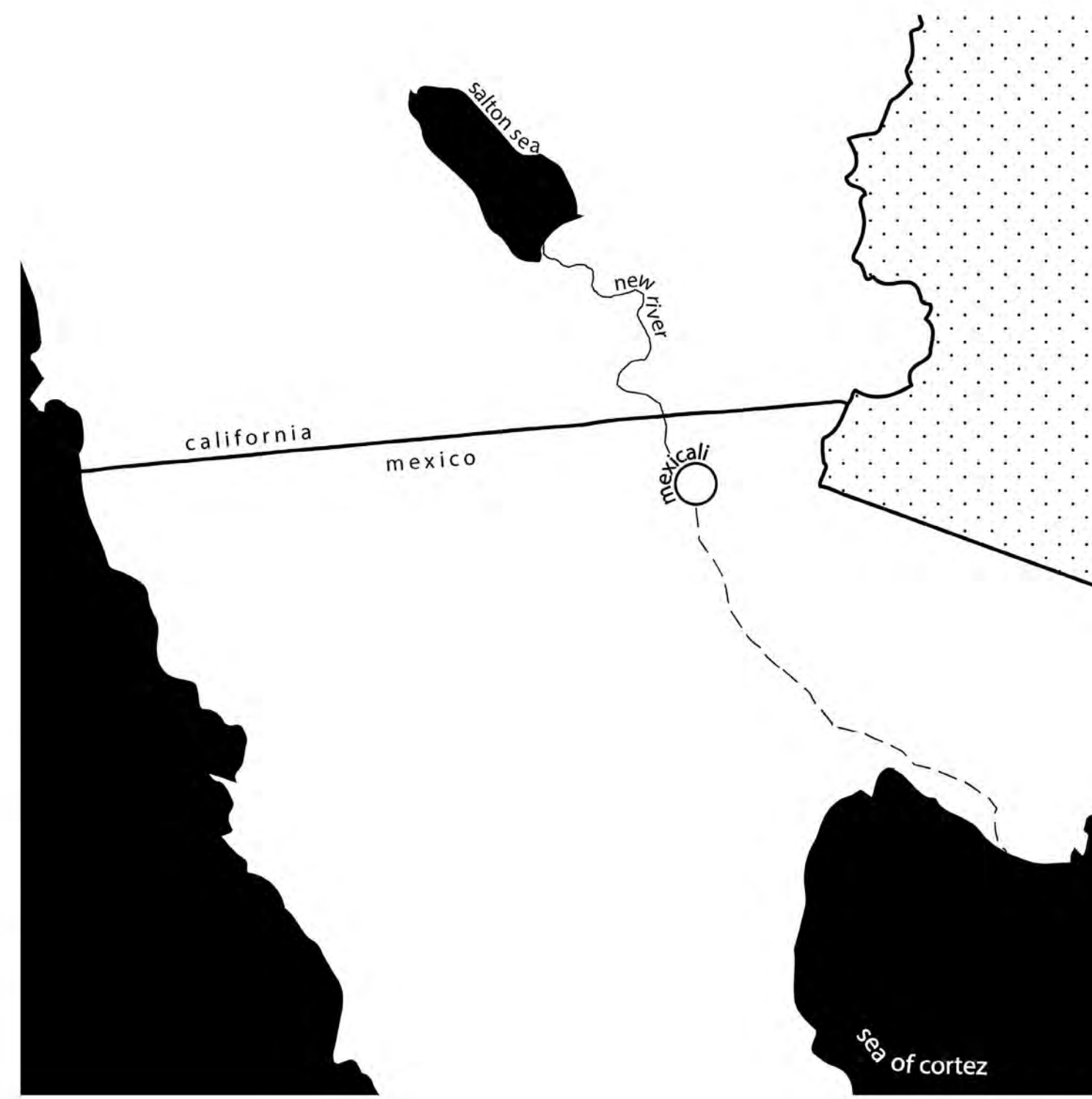
1





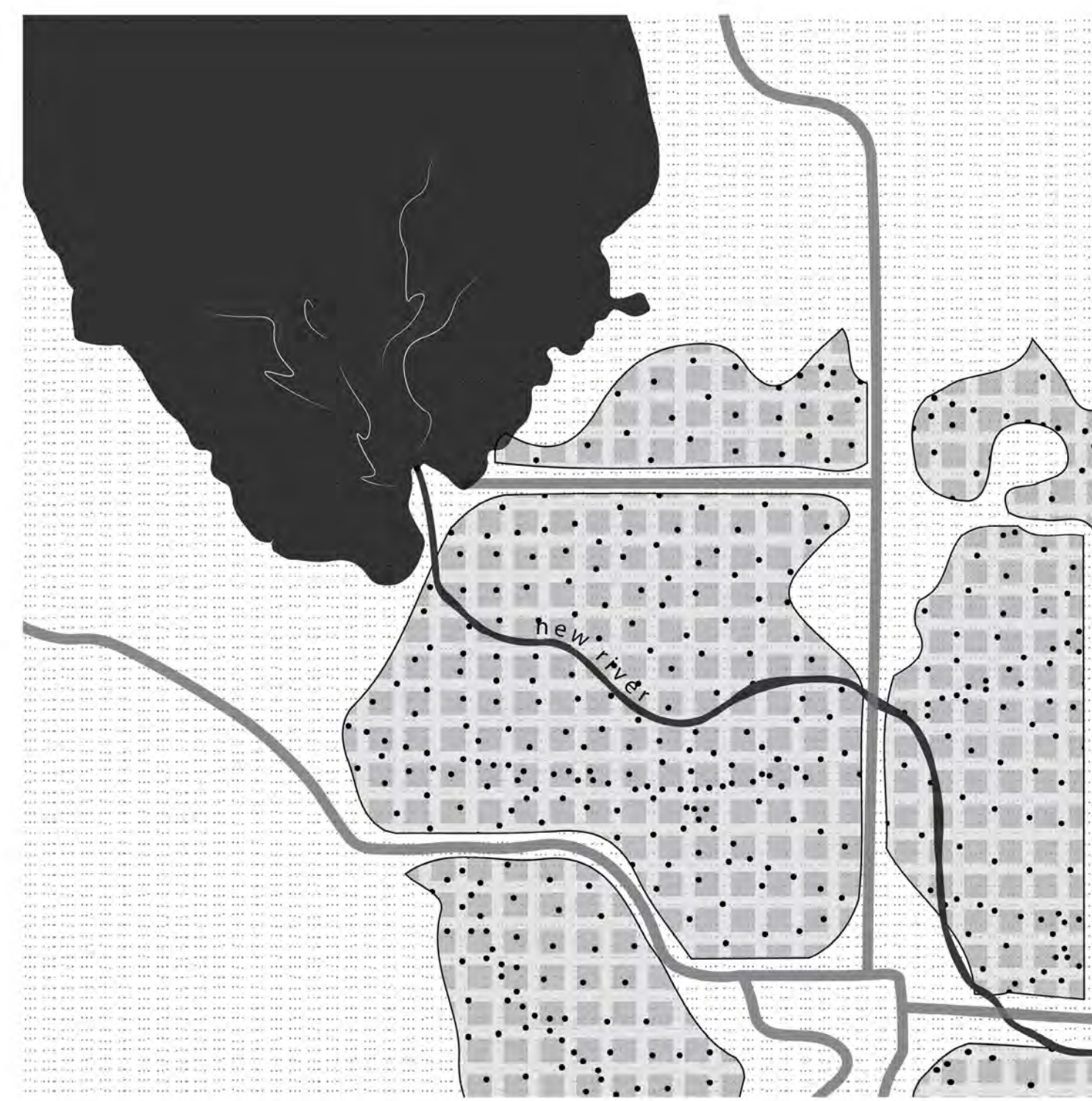
XL

Salton Sea's conditions can be contagious in the soon future. Dust storms from the Sea can currently travel 125 miles radius from its rapid rate of disintegration. The close proximity to major cities in the area can cause serious health issues, increasing the likliness of asthma in both kids and adults.



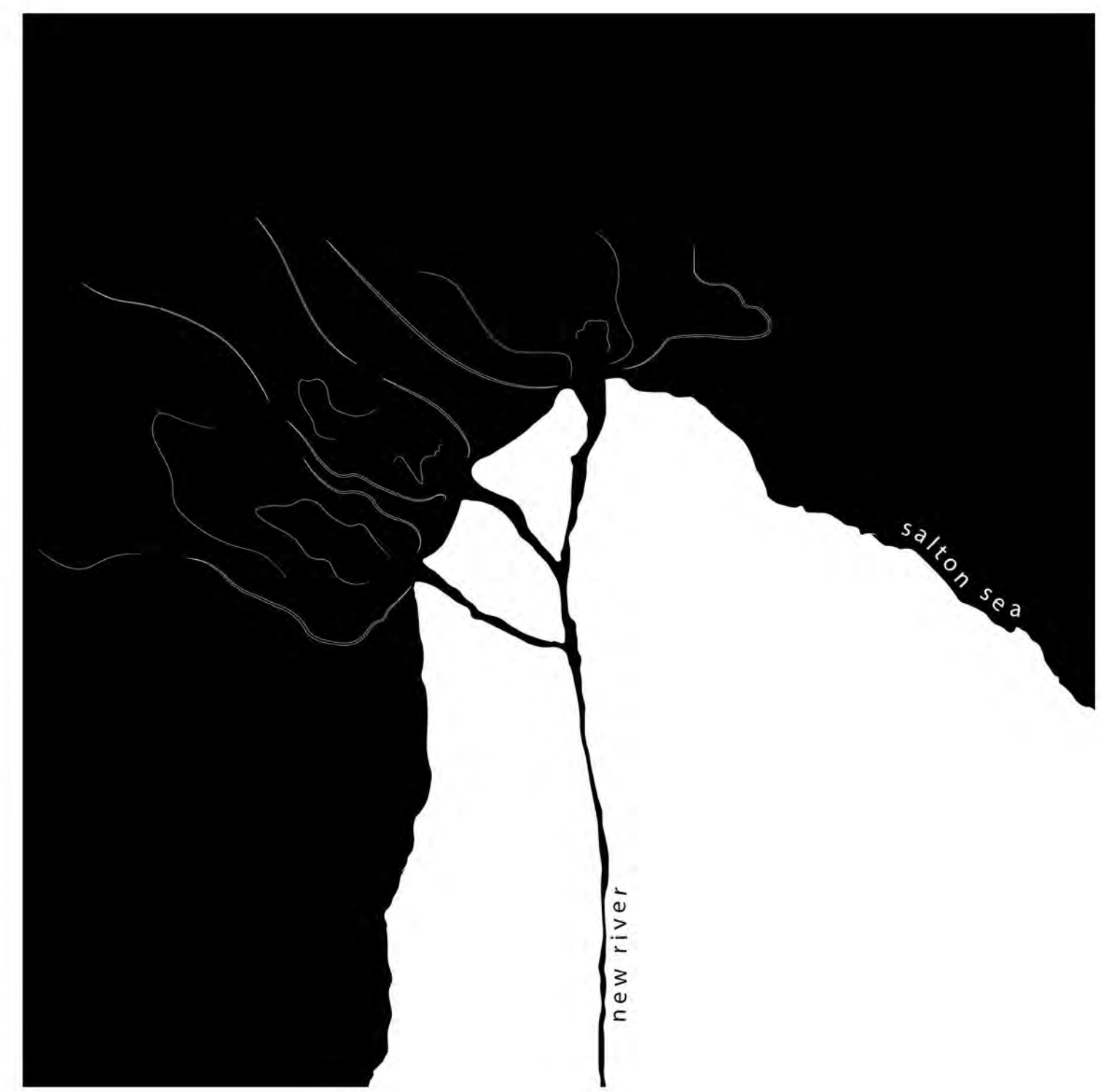
L

New River is sourced in Mexicali, rushing industrial runoff in an upward stream into Salton Sea. The proposal questions New River being extended to connect the seas.



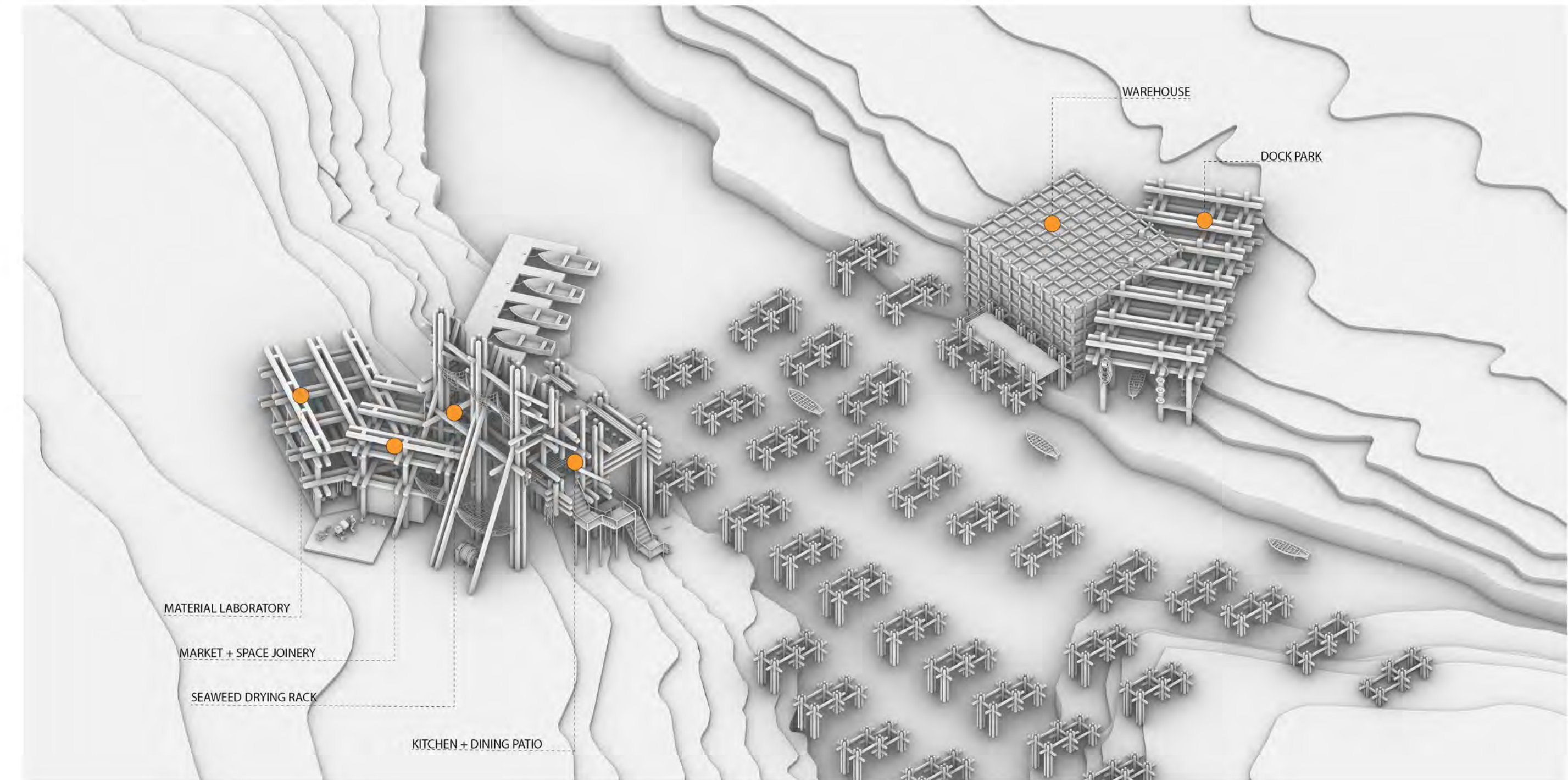
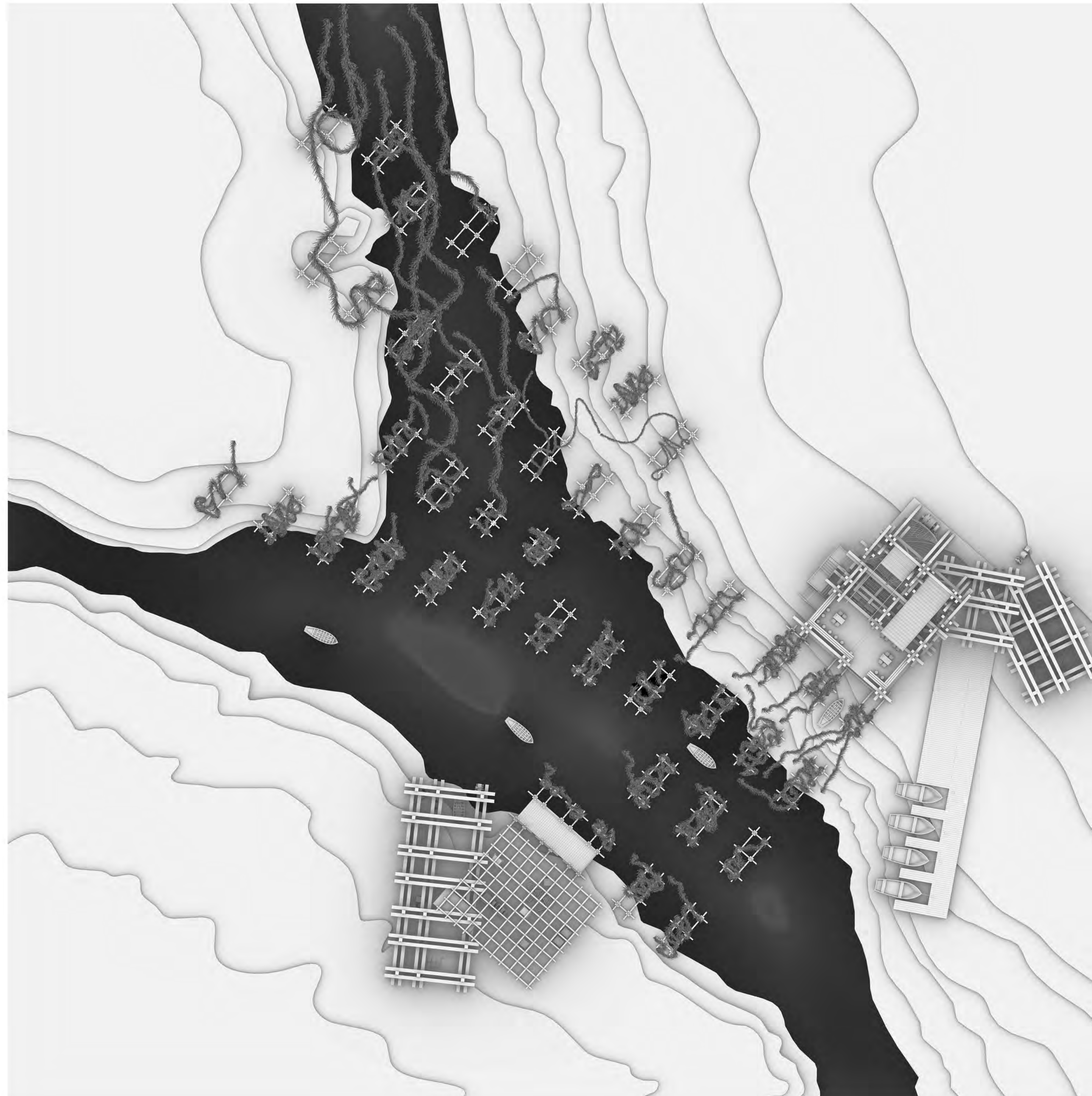
M

A closer look examines the river connection in the agricultural scale. With the Sea to Sea proposal, agriculture can begin to rely on water from the river and plan towards a future of sustaining water usage through saltwater practices.



S

Through the lack of an outlet in the region, New River releases elevated bacterial levels and large algal blooms to the Salton Sea. The river's dubious mouth varies day by day. The proposed site sits by the river before the distributary channels in order to allow for seaweed to filter any additional water in connection from Sea of Cortez to Salton Sea.

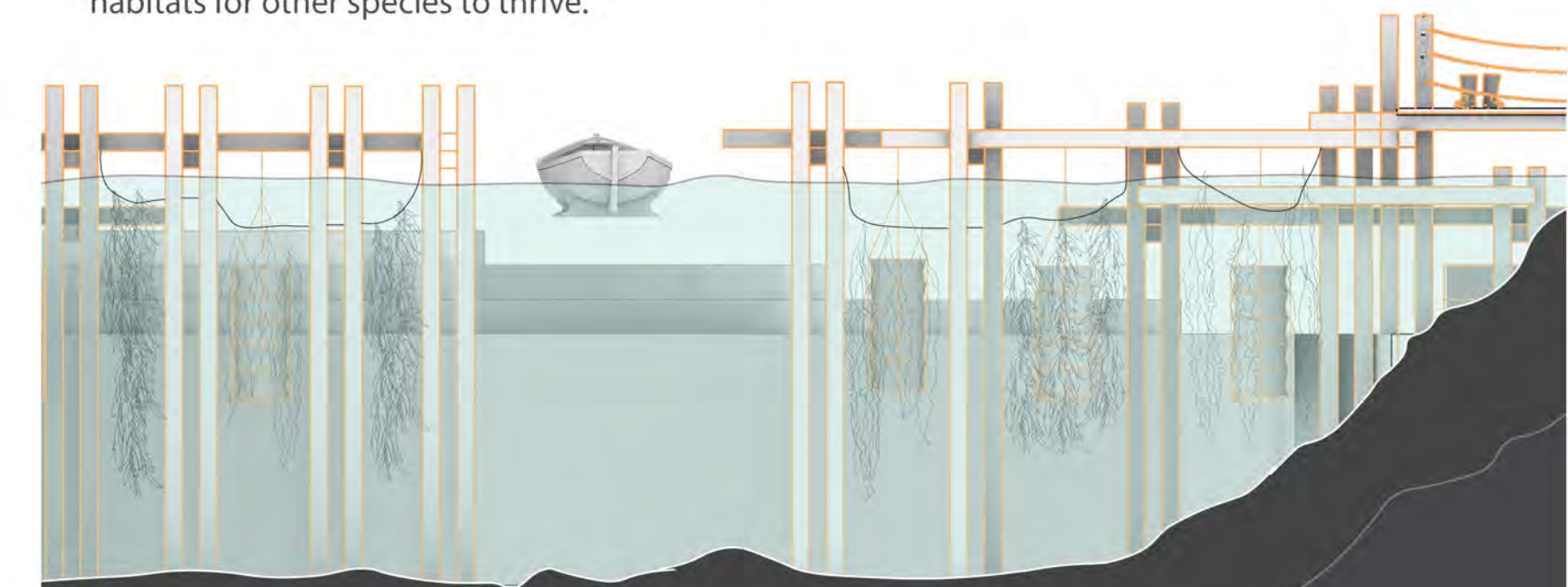


Since 2000, the Salton Sea's surface elevation has dropped more than 10 feet, and more than 15,000 net acres of dry lakebed, known as playa, have been exposed. USA Today



Just as seaweeds remove inorganic nutrients from water; clams, mussels, and their relatives filter organically bound particles rich in nutrients.

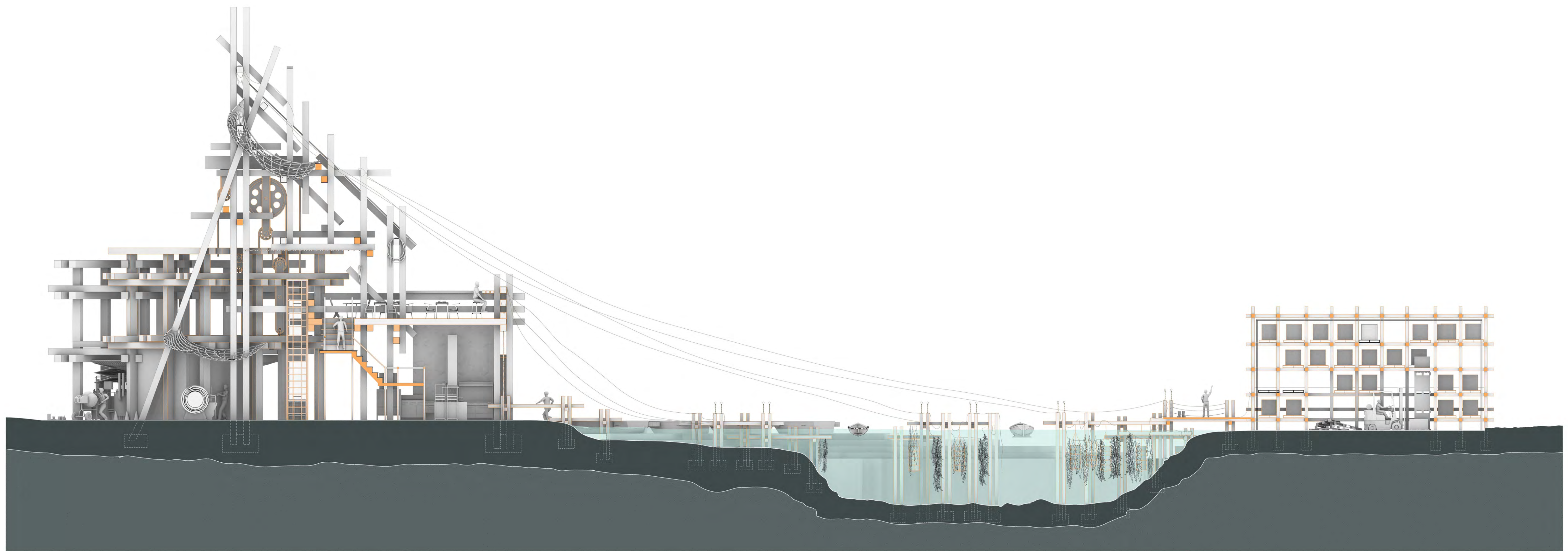
An adult oyster can filter up to 50 gallons of water per day- filtering nitrogen. Seaweed removes carbon and nitrogen- creating habitats for other species to thrive.

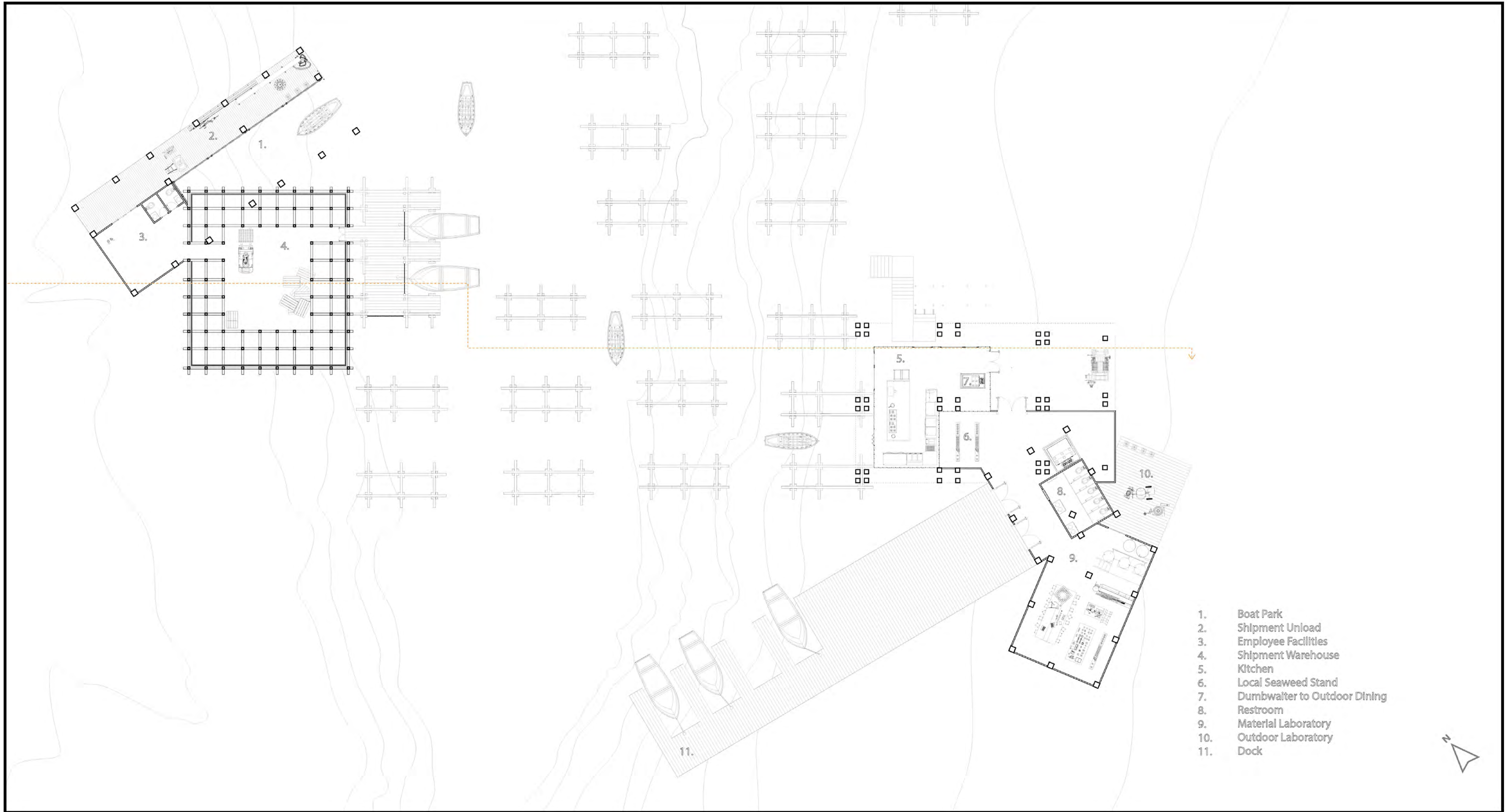


Farming seaweed has been shown to potentially have a negative carbon footprint, absorbing 20% more carbon dioxide than it produces.

If ocean farmers devoted a little less than 5 percent of U.S. waters to growing seaweed, they could clean up an estimated 135 million tons of carbon and 10 million tons of nitrogen.

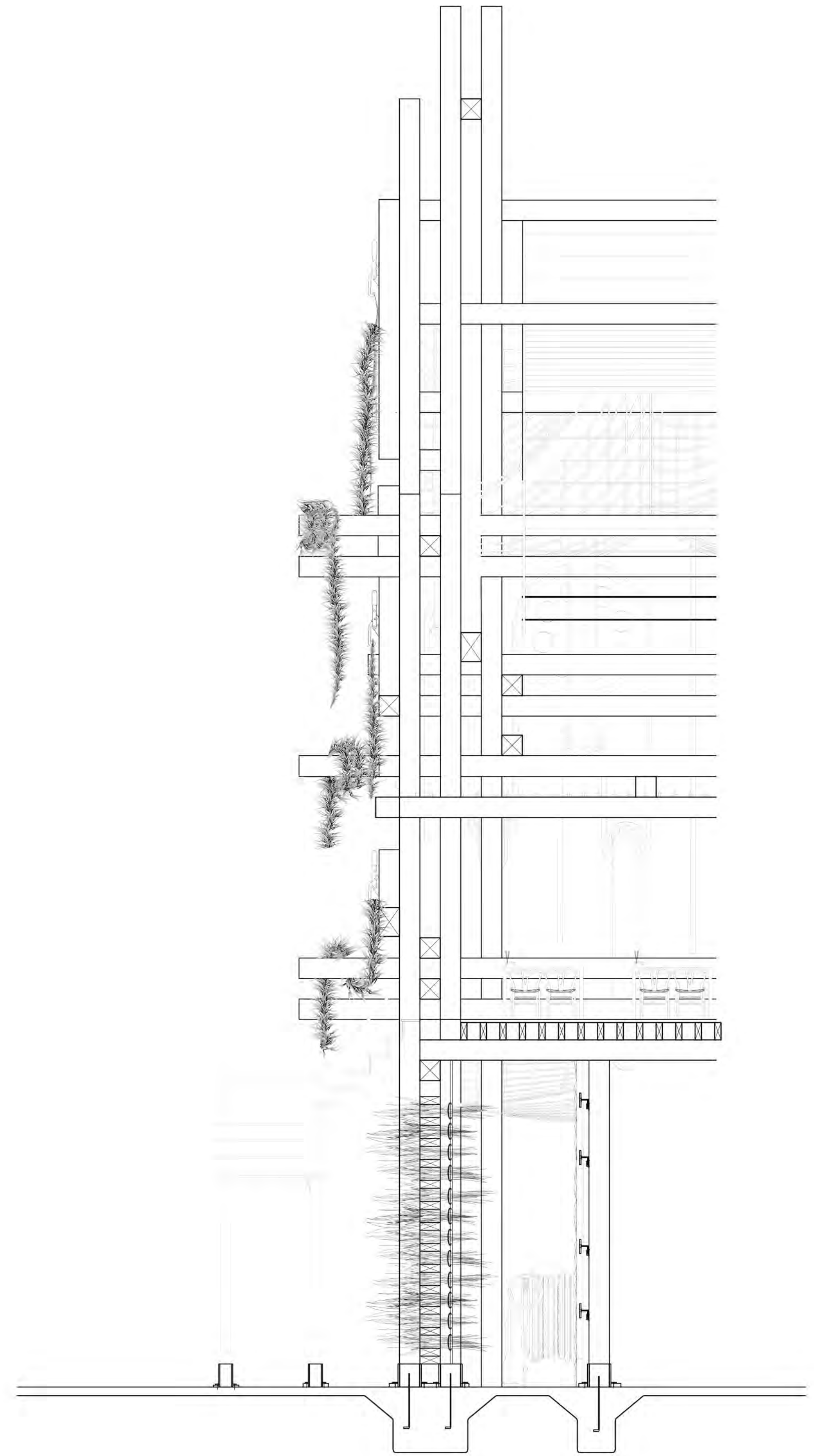
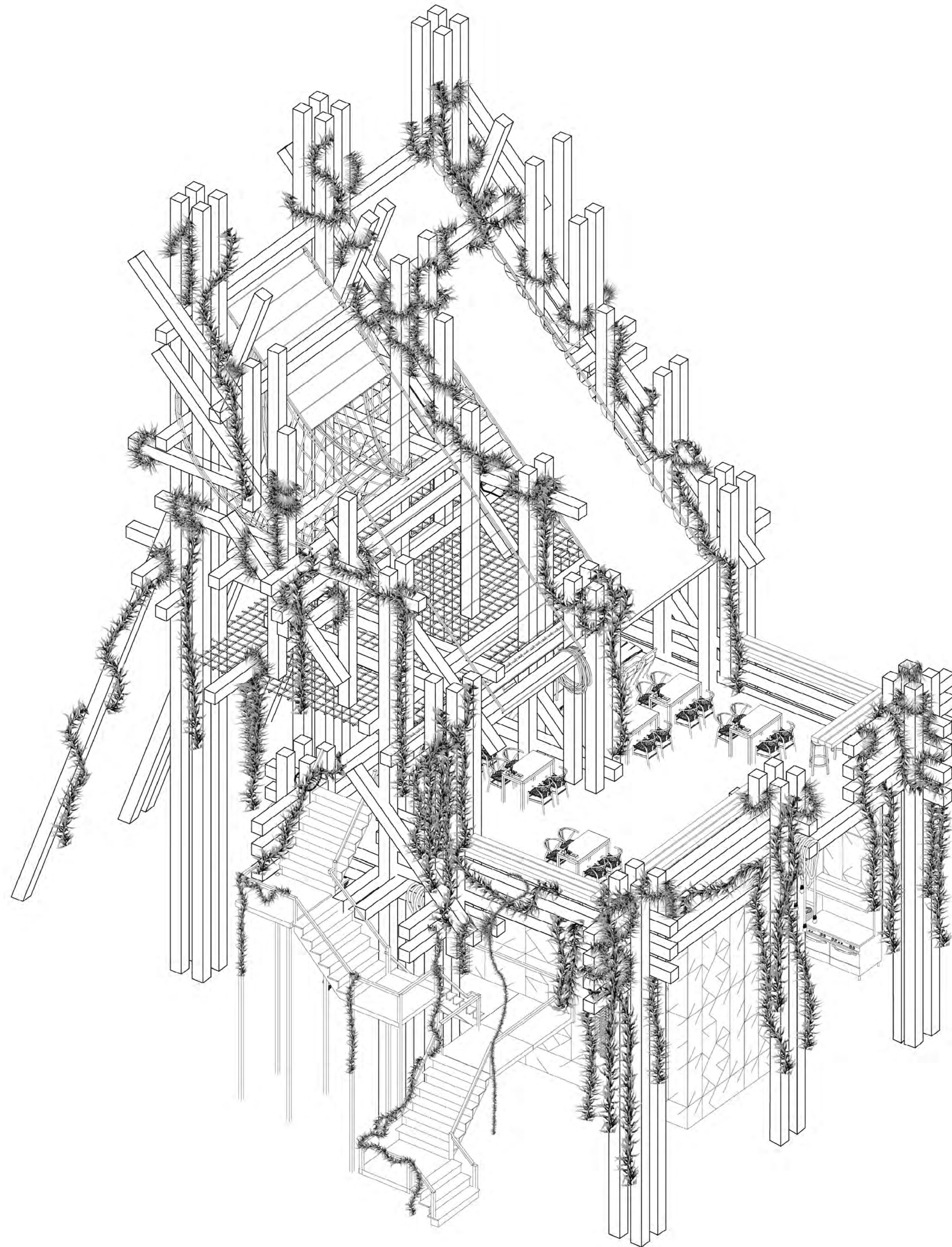
-World Bank





- 1. Boat Park
- 2. Shipment Unload
- 3. Employee Facilities
- 4. Shipment Warehouse
- 5. Kitchen
- 6. Local Seaweed Stand
- 7. Dumbwaiter to Outdoor Dining
- 8. Restroom
- 9. Material Laboratory
- 10. Outdoor Laboratory
- 11. Dock





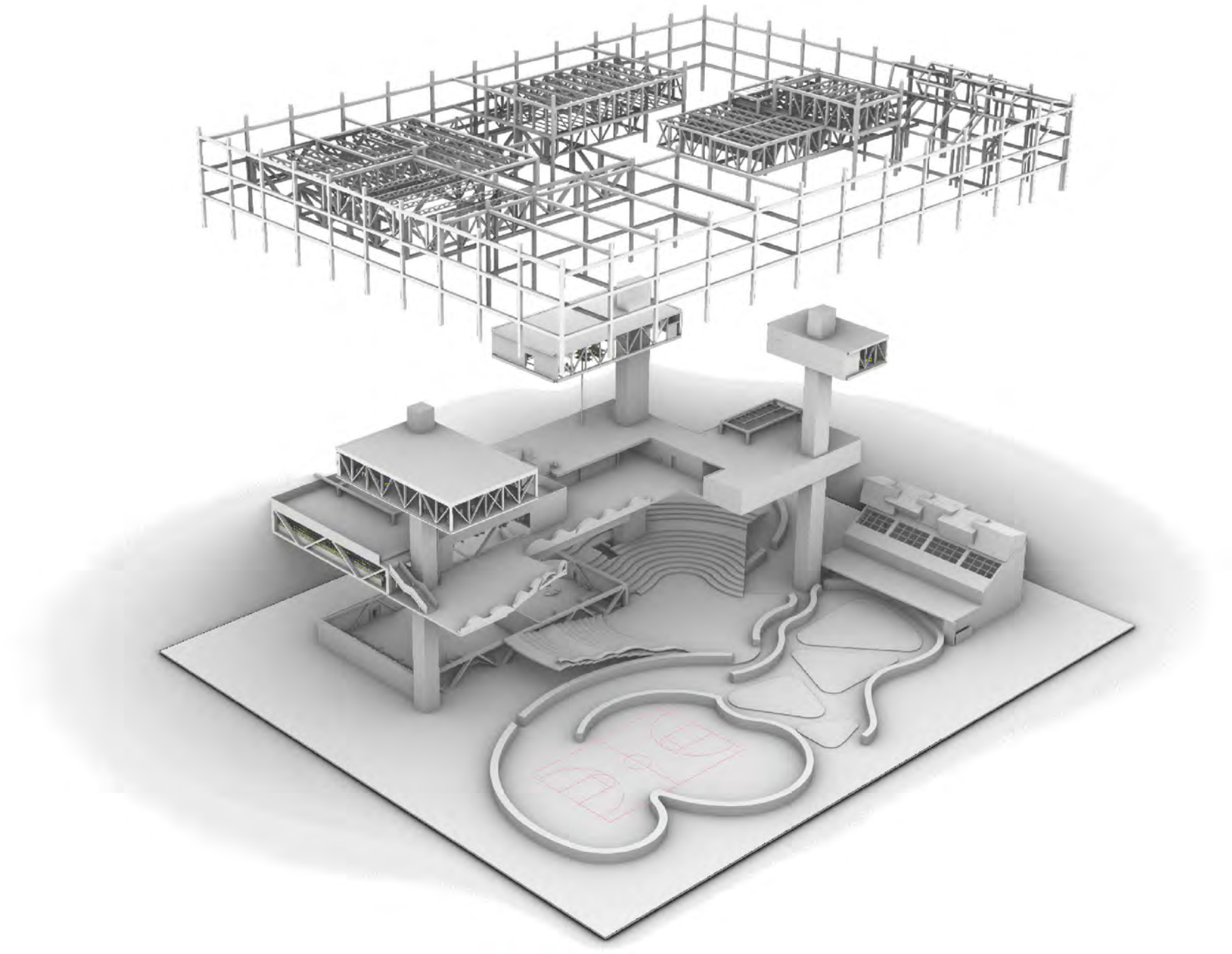
Detail Drying Rack
1/4" = 1'-0"

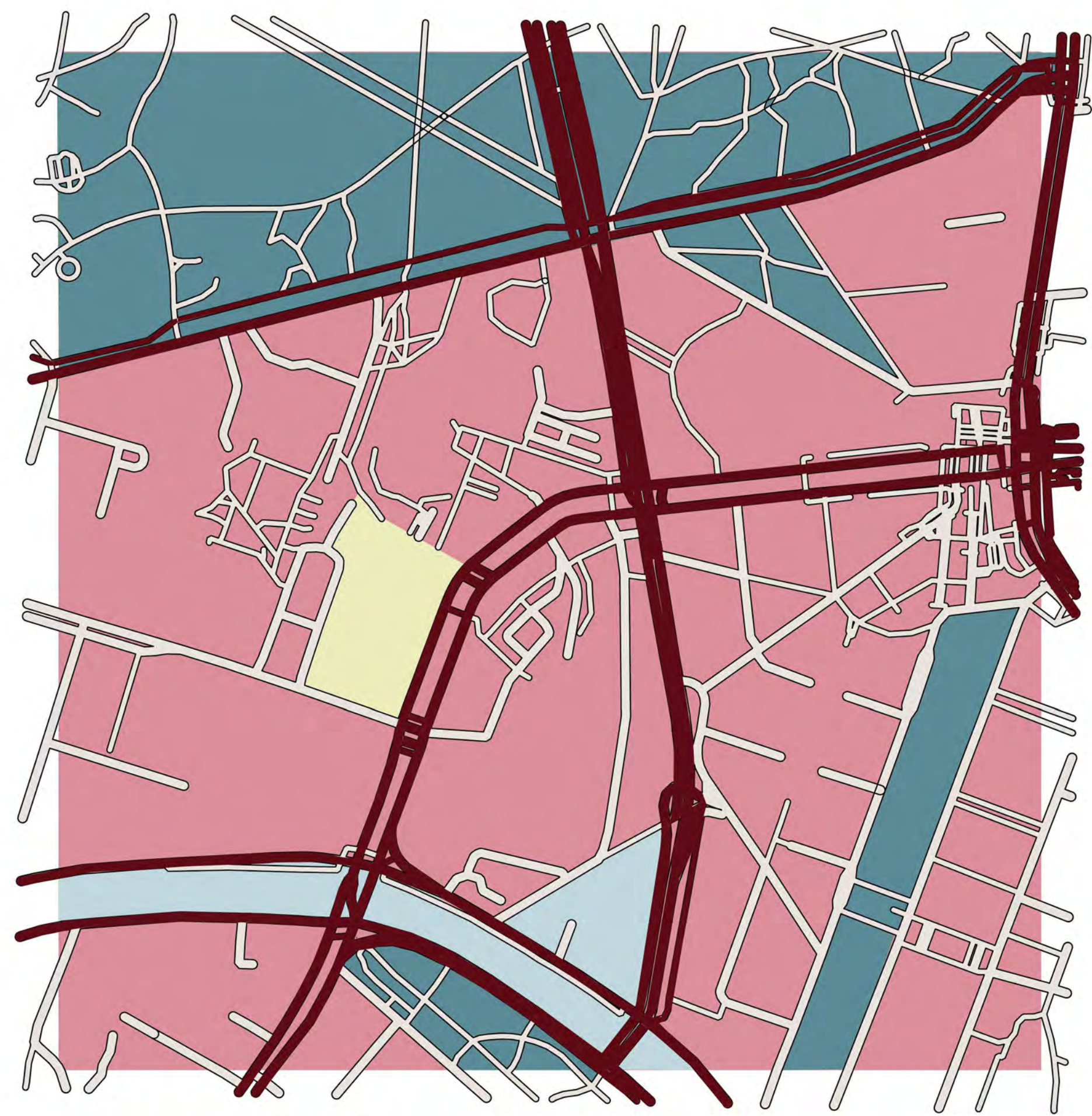
Tiergarten School

Partner: Nevrik Navasartian

Located in the heart of Berlin the school is framed through the structure, creating confinement to hold the buildings and activities. The programs are categorized through means of security in which the first floor is reserved for the community while the second and the third floor are for educational purposes. The structure is beneficial in holding the volumes in place while providing a visual aesthetic. The gardens and the circulation mesh together to create a compositionally appealing experience when blended with the monumental surrounding structure.

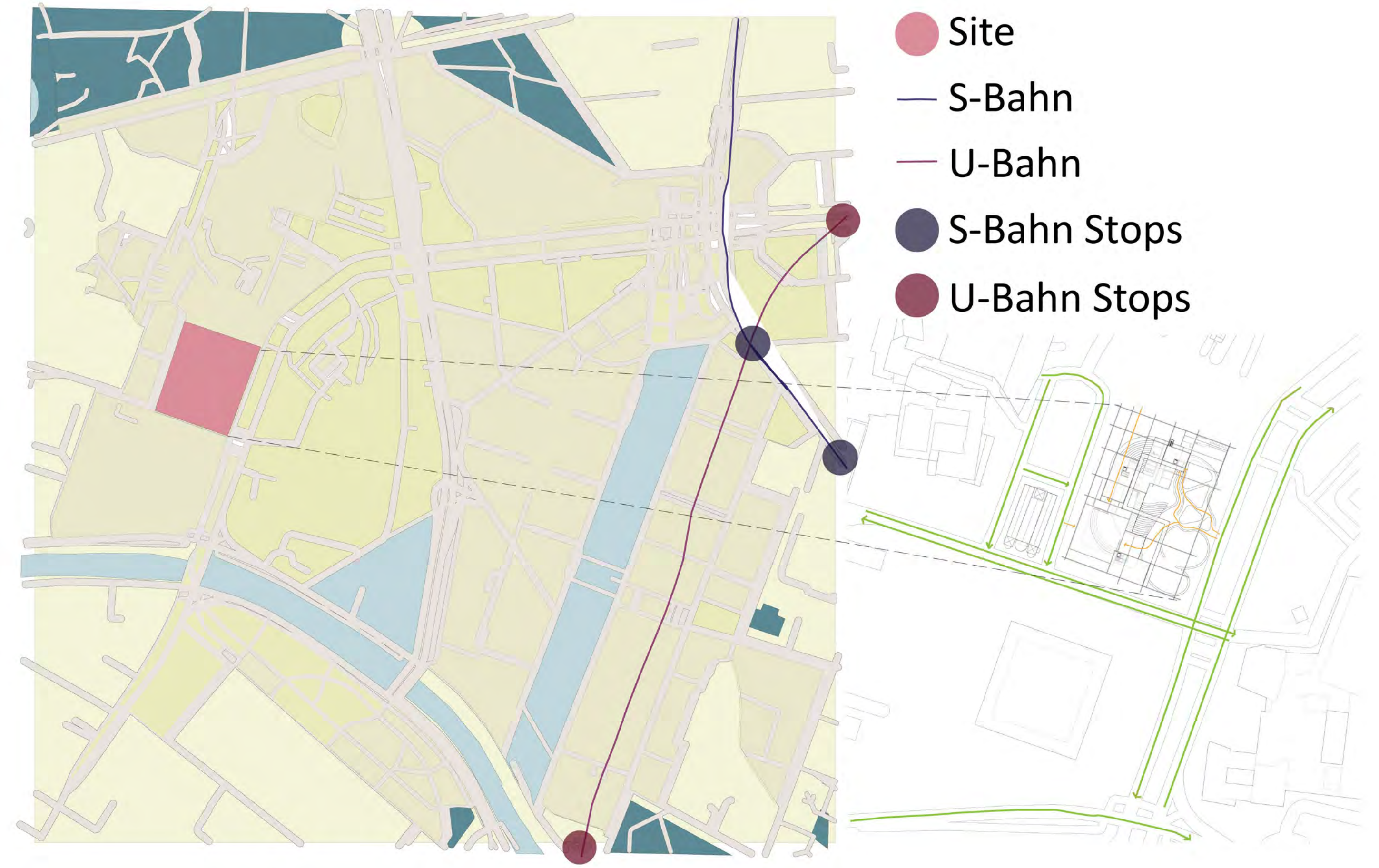
Forming to the needs of the young students and those in the community the structure develops its own playful attributes.





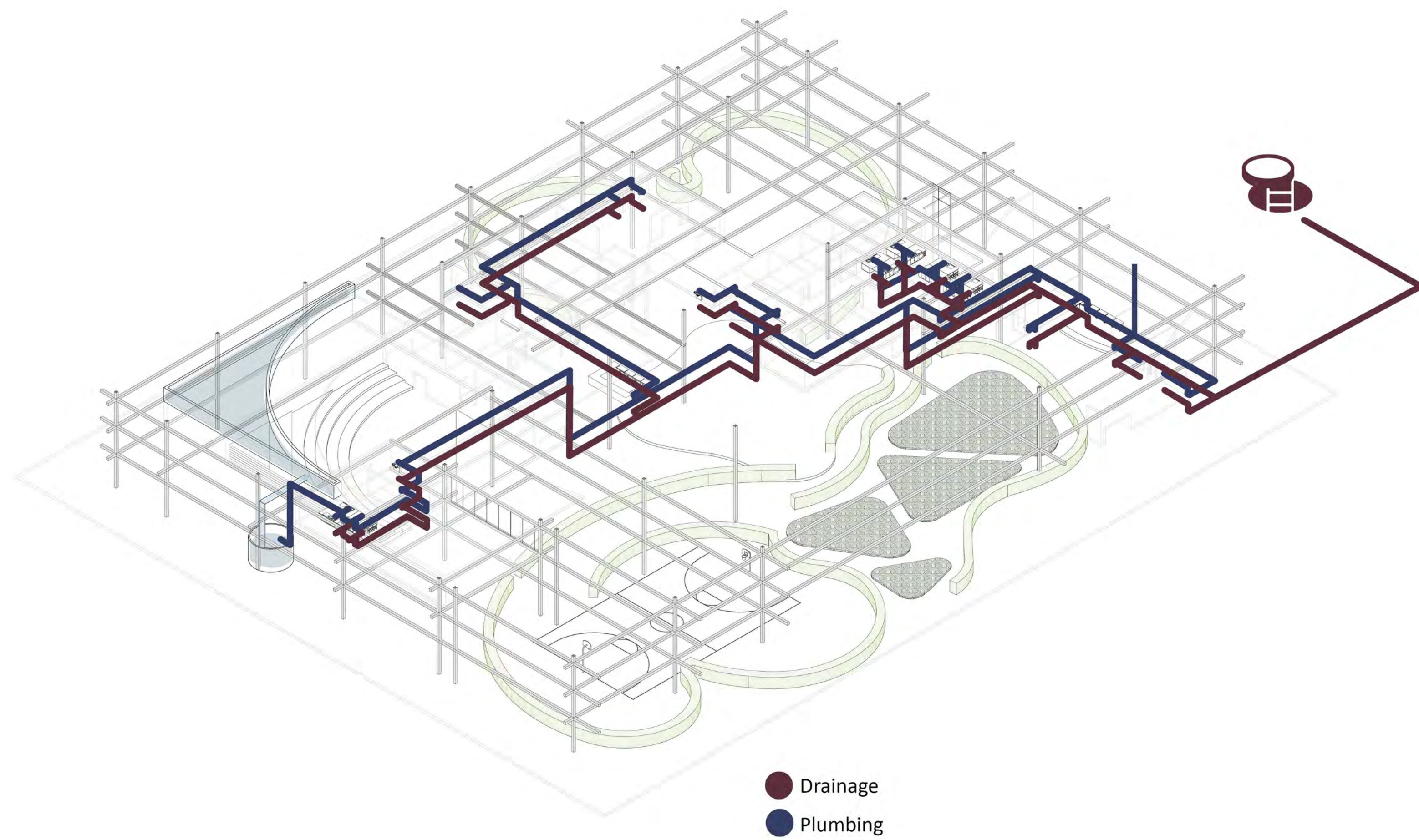
Program Context Diagram

- Site
- Public
- Green Space
- Water
- Traffic Flow

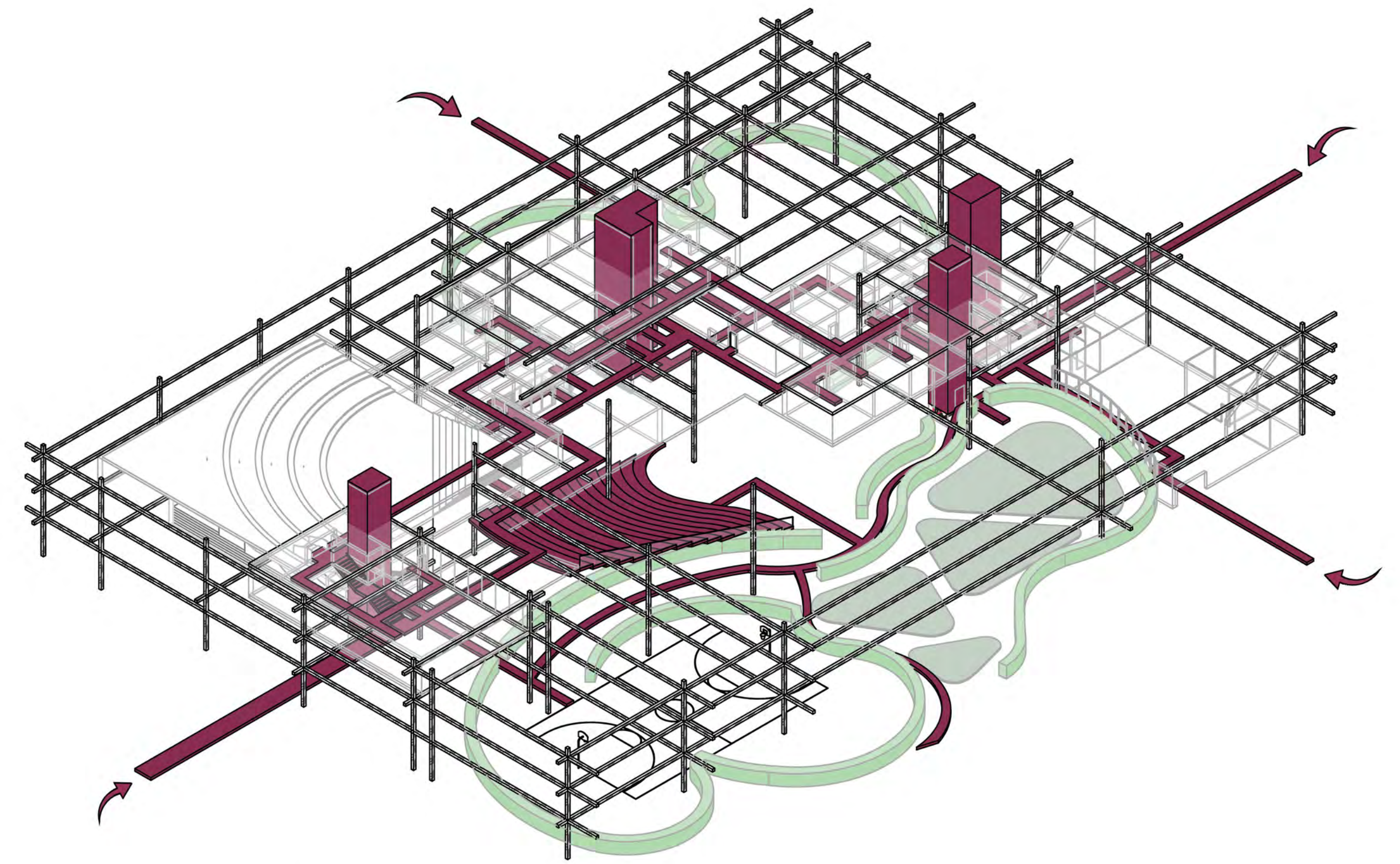


Transportation Diagram

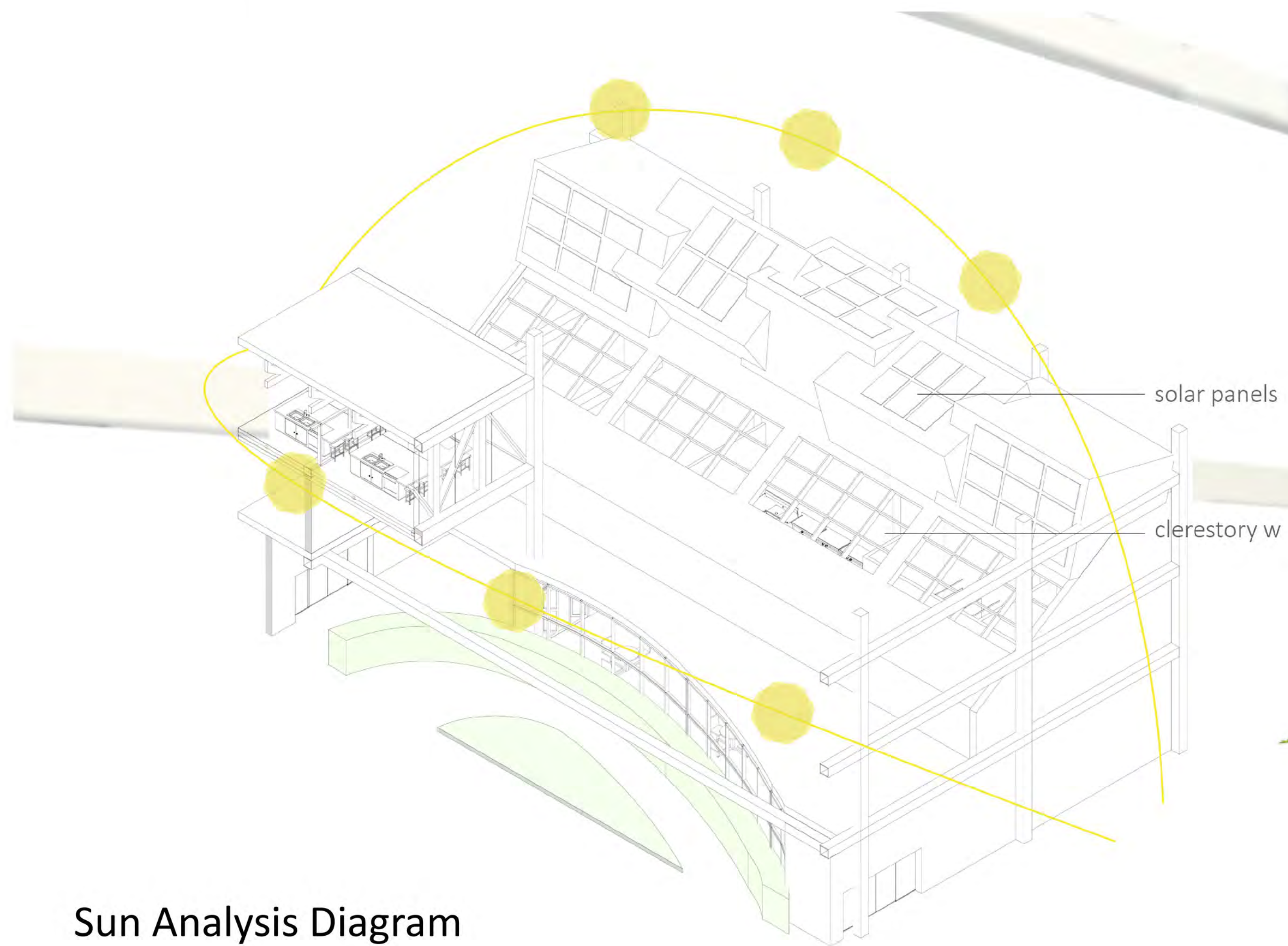
- Site
- S-Bahn
- U-Bahn
- S-Bahn Stops
- U-Bahn Stops



Plumbing and Sewage Diagram

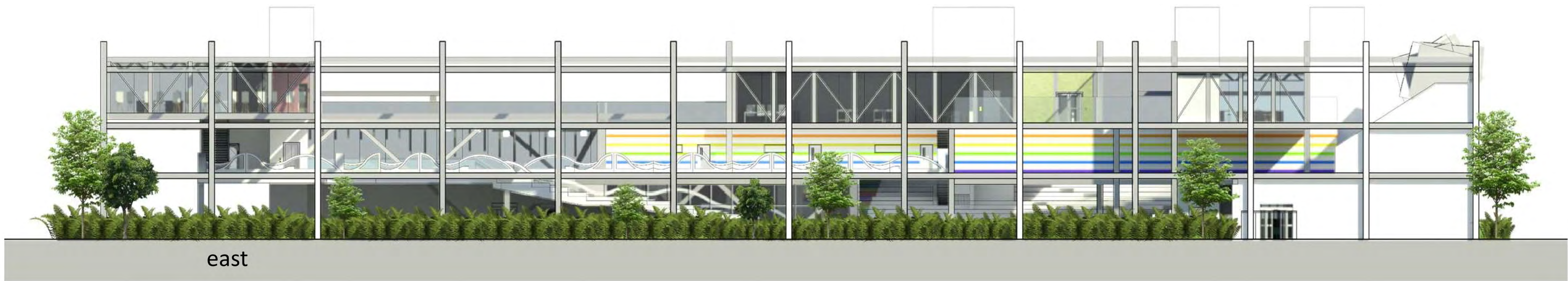


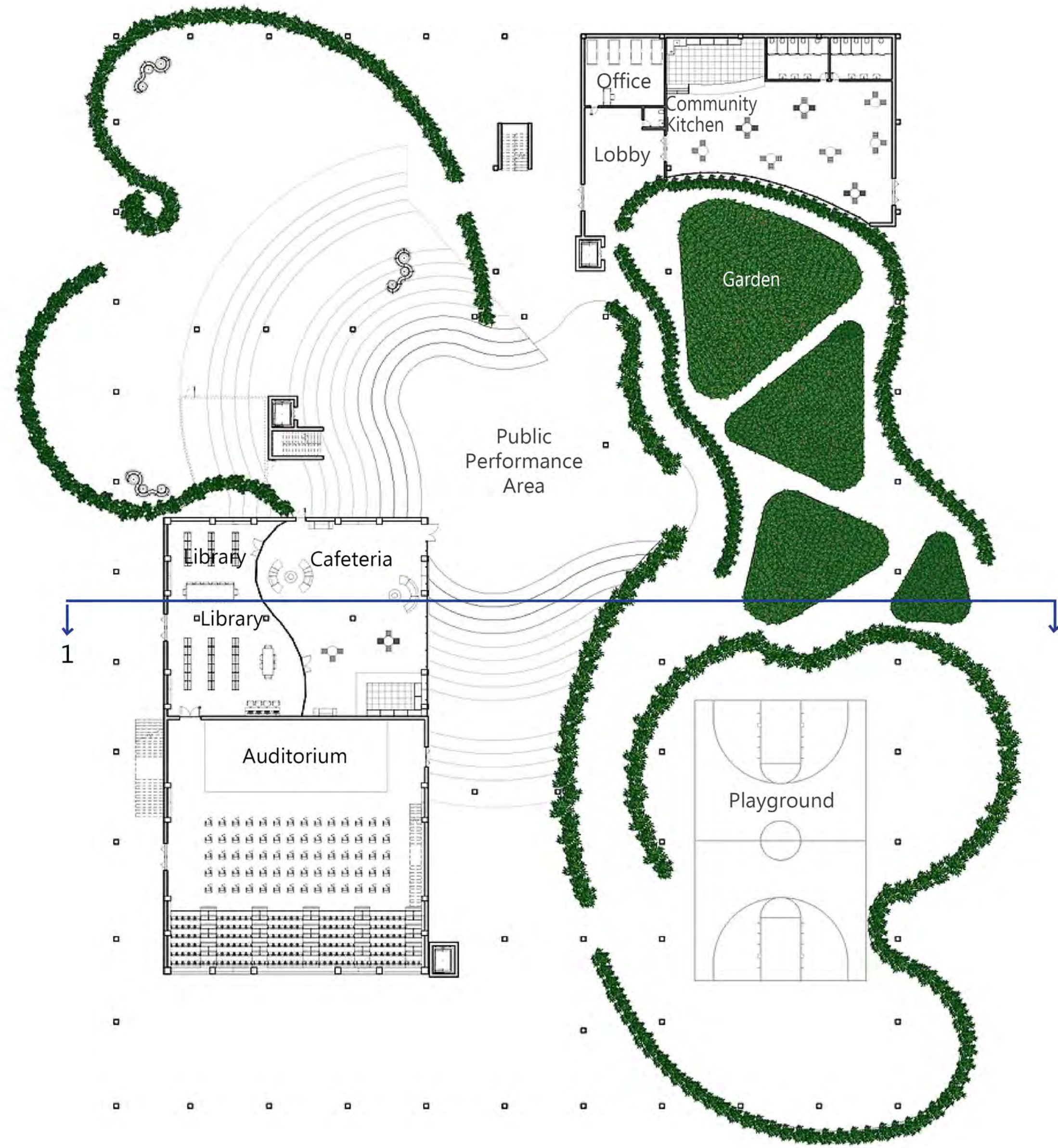
Circulation Diagram



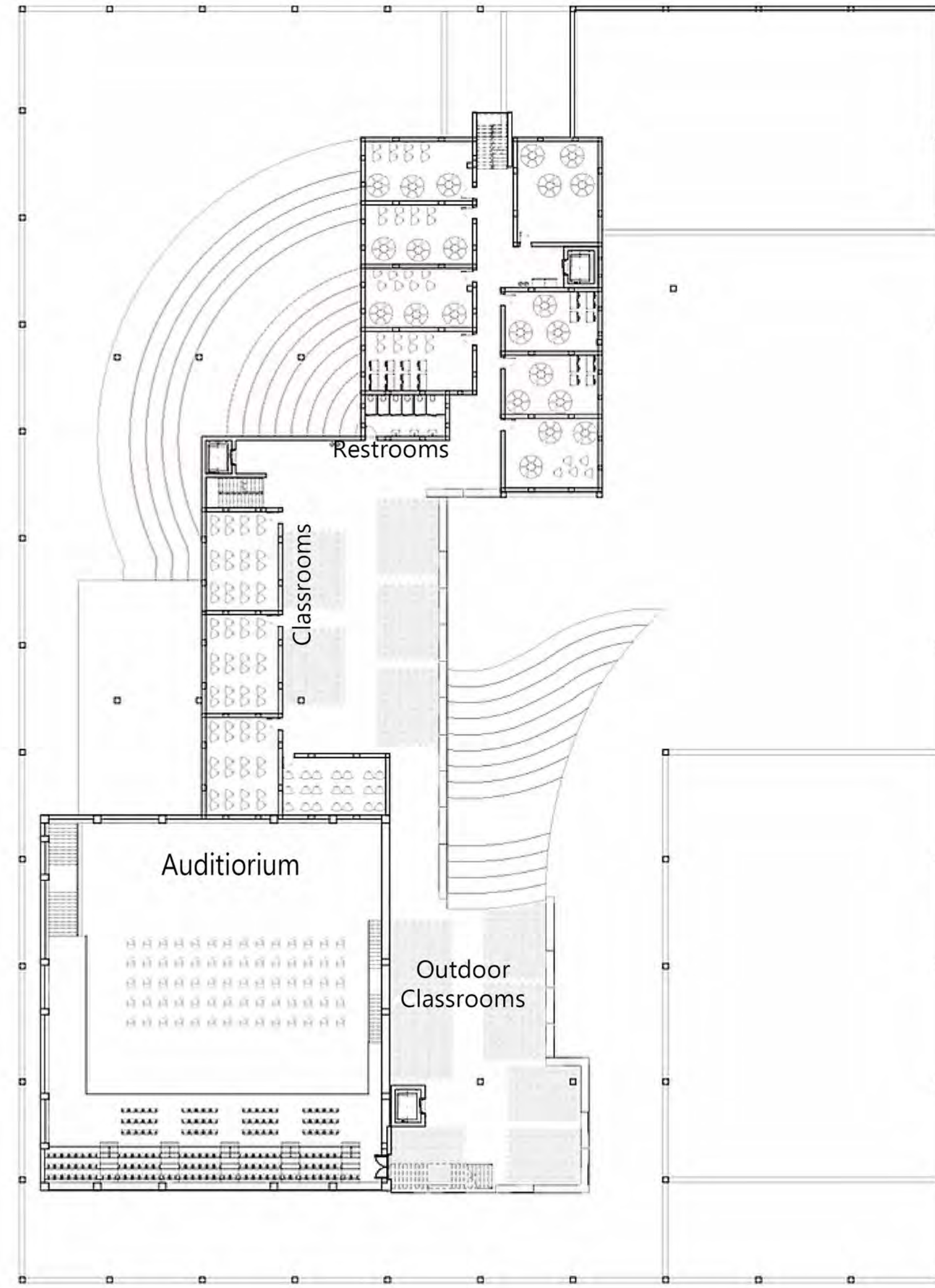
Sun Analysis Diagram



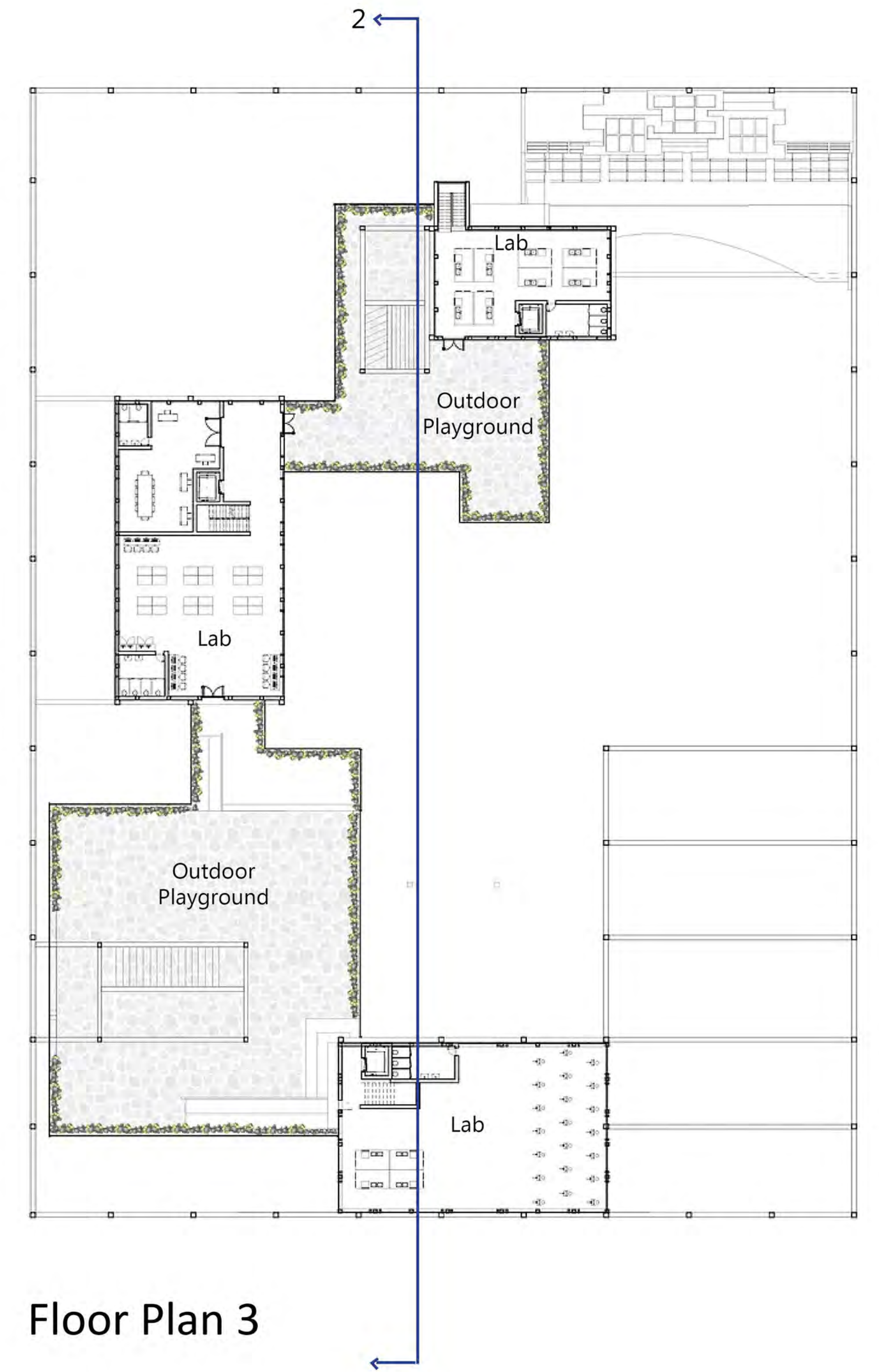




Floor Plan 1

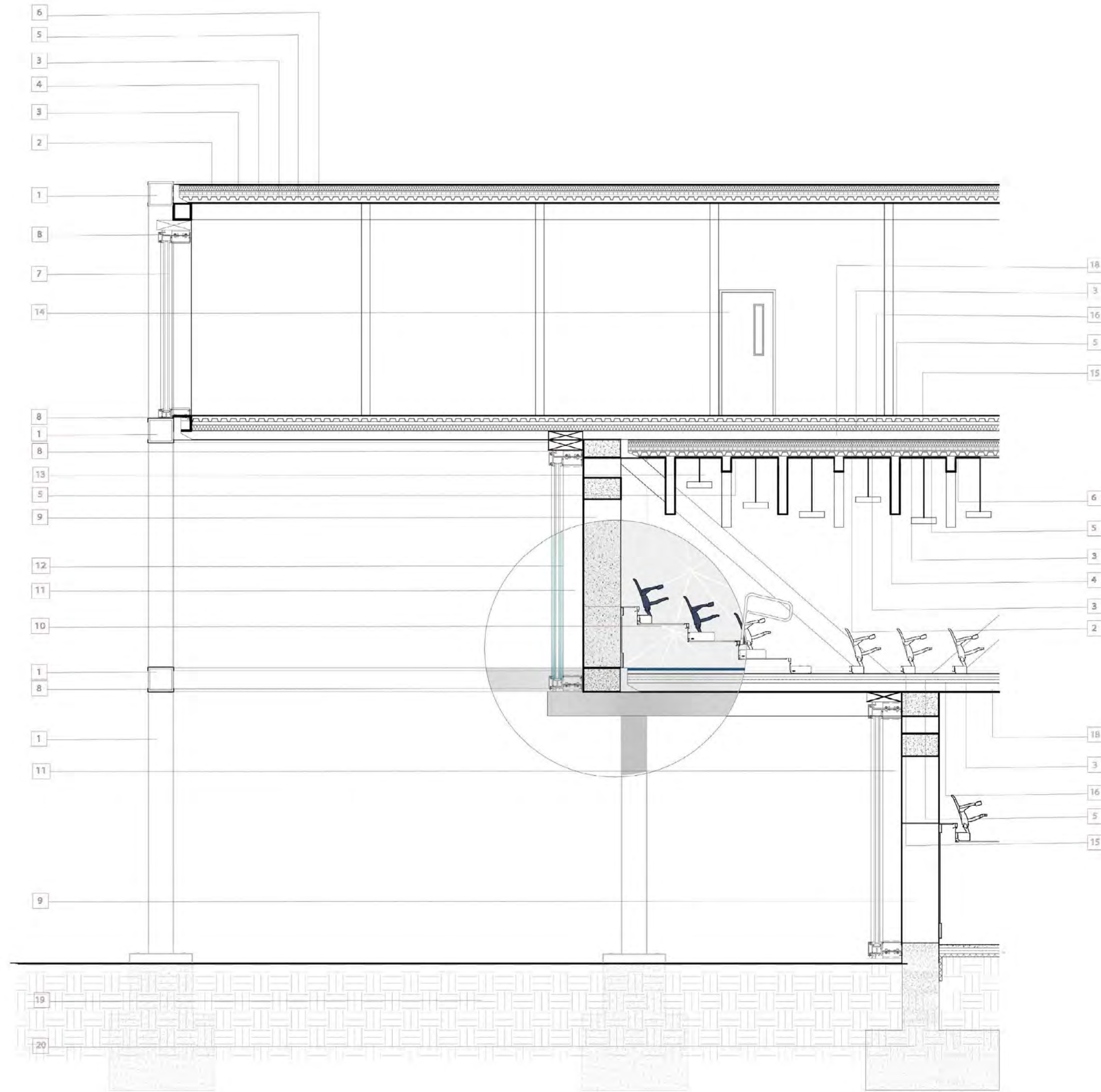


Floor Plan 2



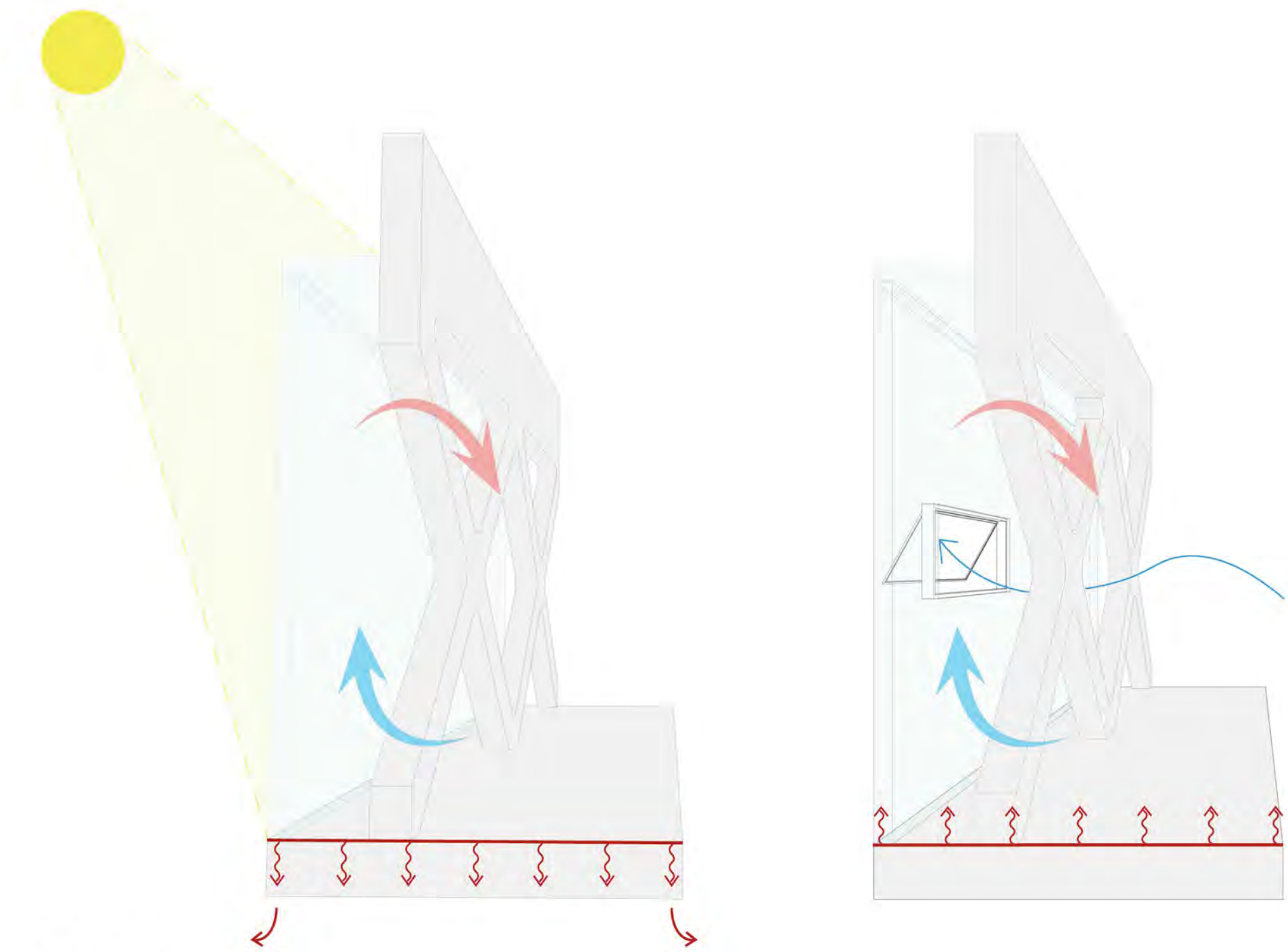
Floor Plan 3

Trombe Wall Details

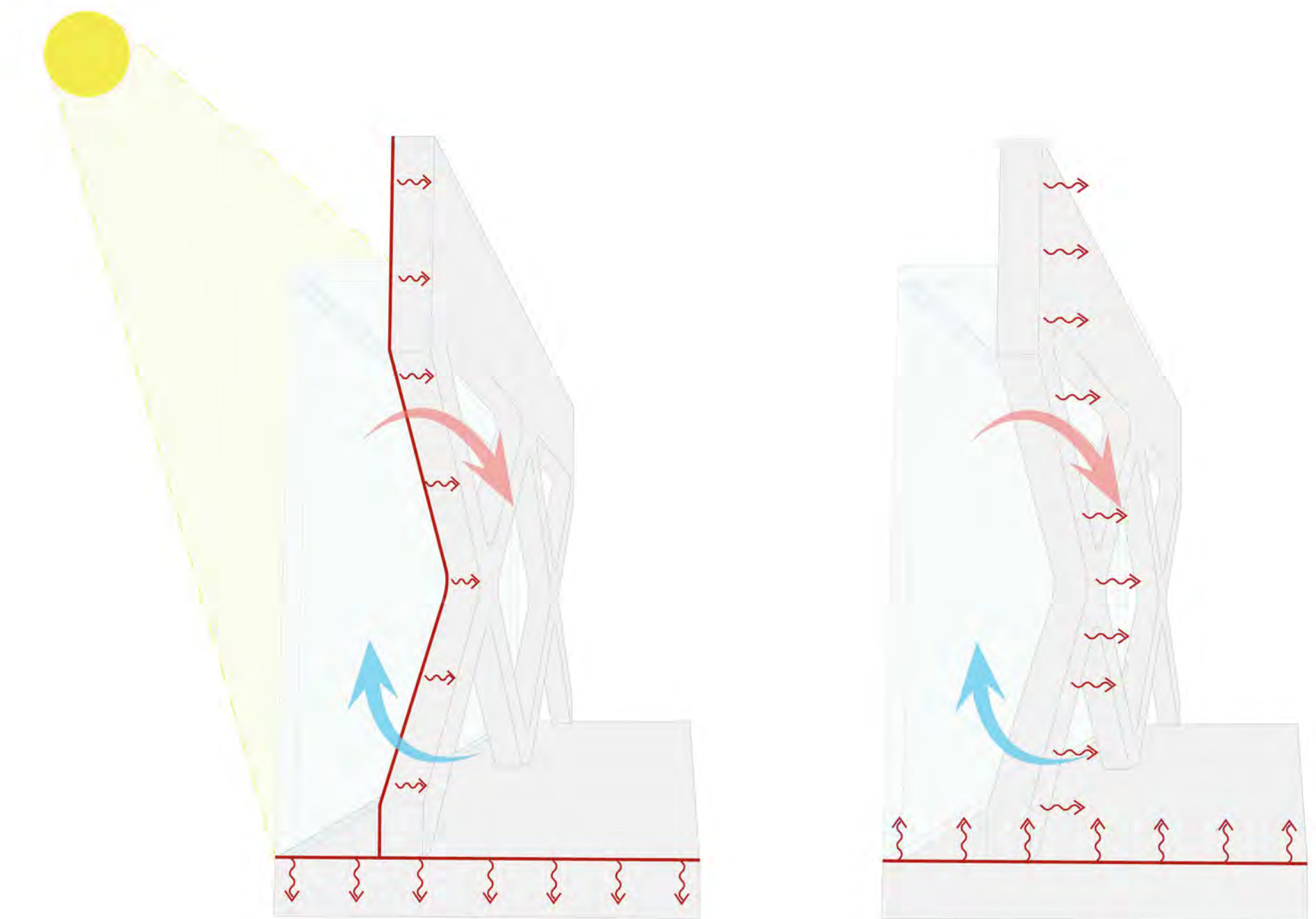


1. 05100 Structural Metal Framing
2. 07500 Membrane Roofing
3. 07200 Thermal Insulation
4. 07500 Vapor Retarder Membrane
5. 05300 Metal Decking
6. 09500 Acoustical Ceiling Treatment
7. 08900 Glazed Curtain Walls
8. 05090 Metal Fastening (Attachment System)
9. 03400 Precast Concrete Column
10. 12600 Multiple Seating (Bleachers)
11. 15800 Air Distribution (Ventilated Air Layer)
12. 08900 Glazed Curtain Walls (Trombe wall)
13. 16500 Lighting
14. 08100 Metal Door & Frames
15. 09600 Flooring (Concrete)
16. 09000 Stucco
17. 07200 Insulation
18. 09220 Gypsum Panel
19. 02300 Earthwork
20. Foundation with steel reinforcement

Summer

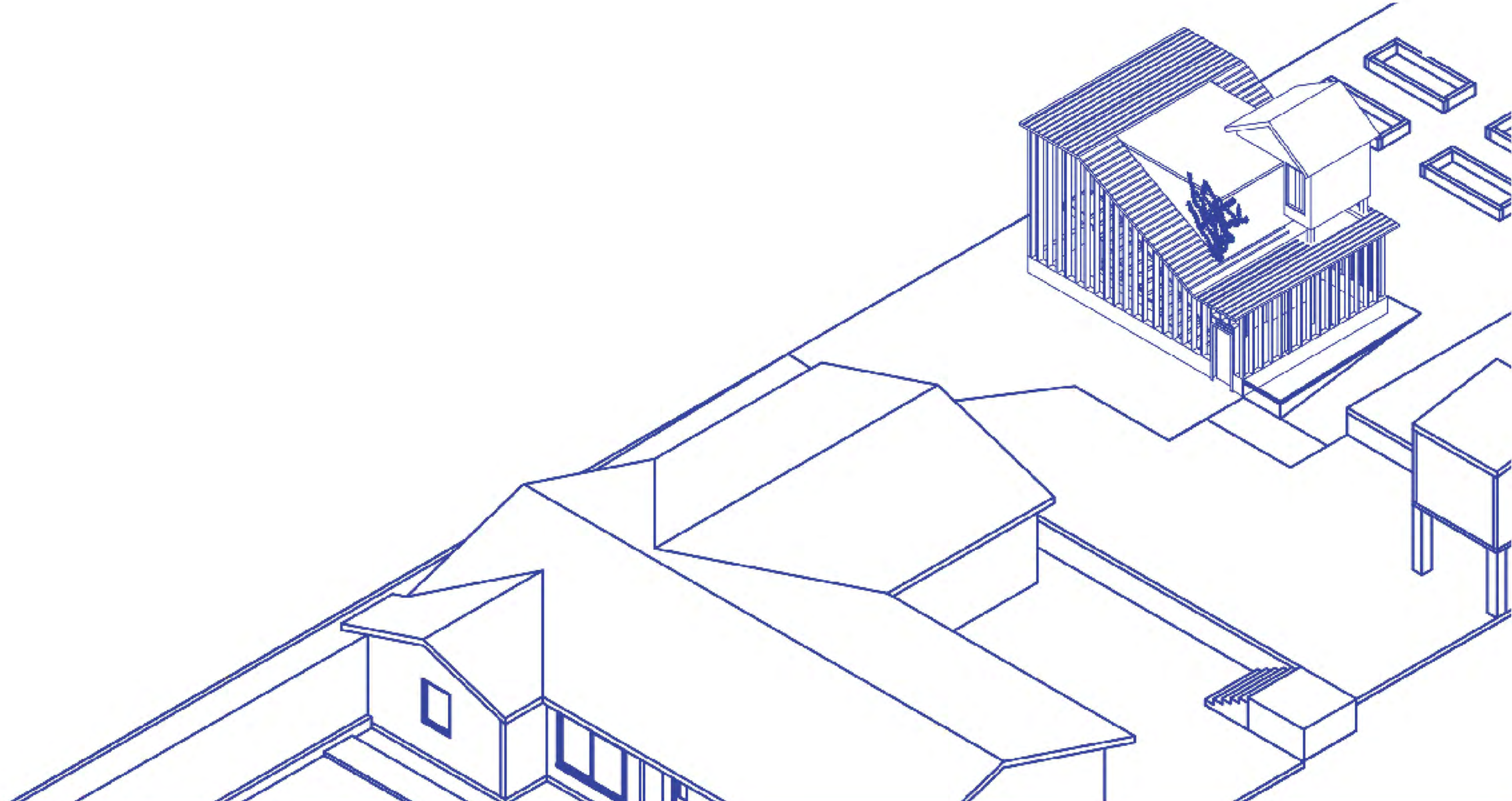


Winter



Picket Gardens

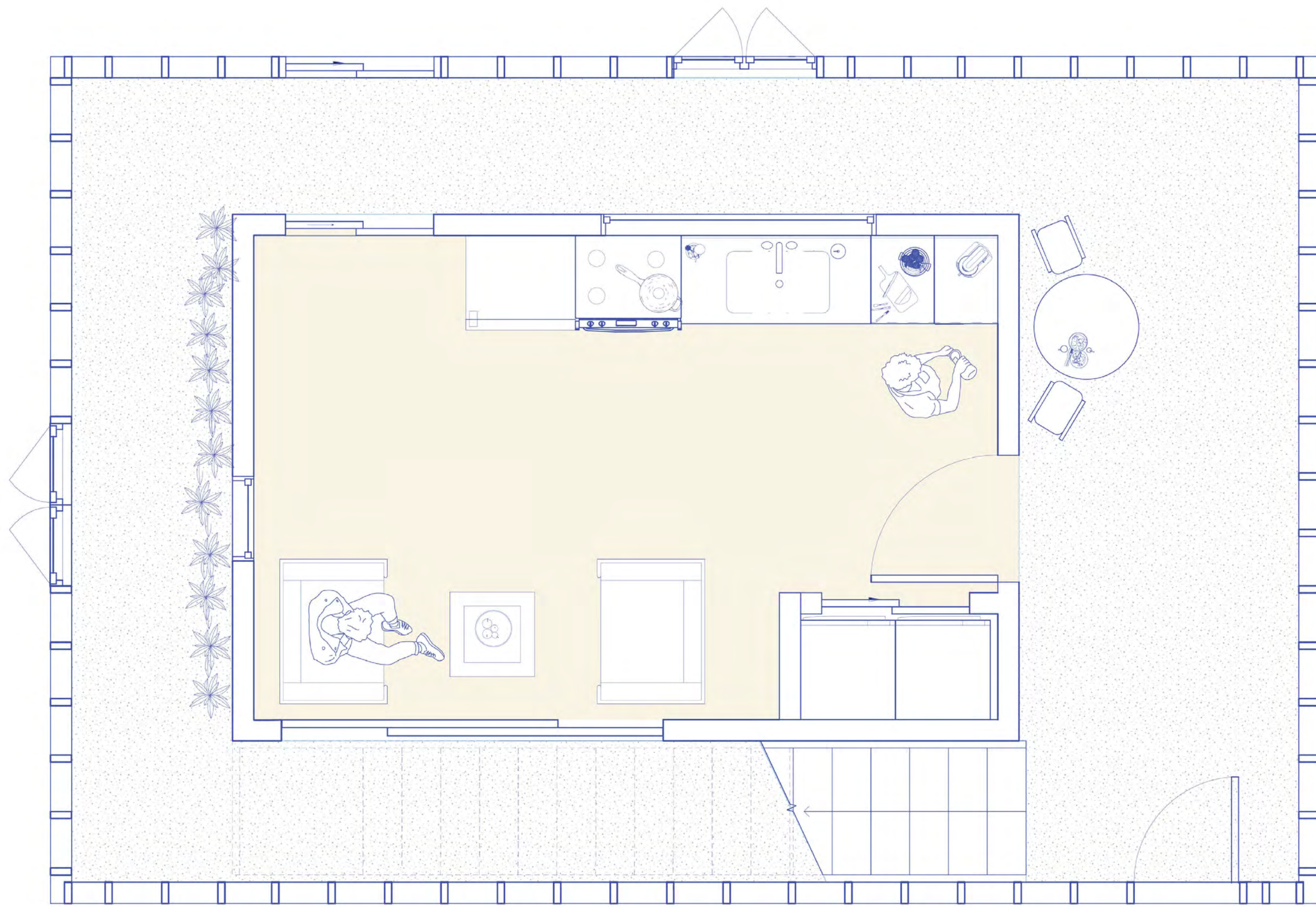
In this project, the focus was on the white picket fence that is commonly associated with suburban settings. The project's design intents are led by creating a more comfortable ADU experience that considers privacy for the indoor and outdoor environment.



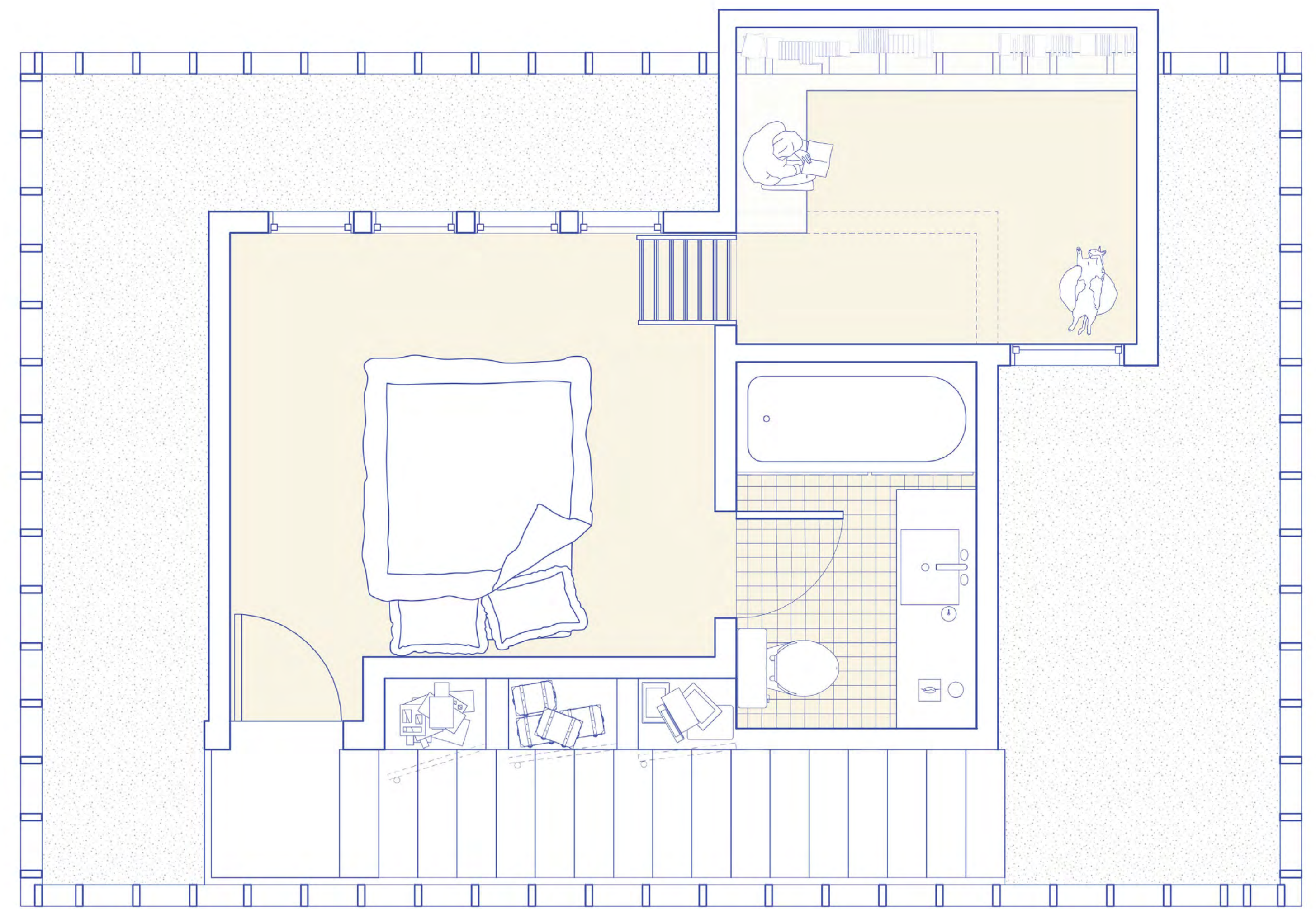
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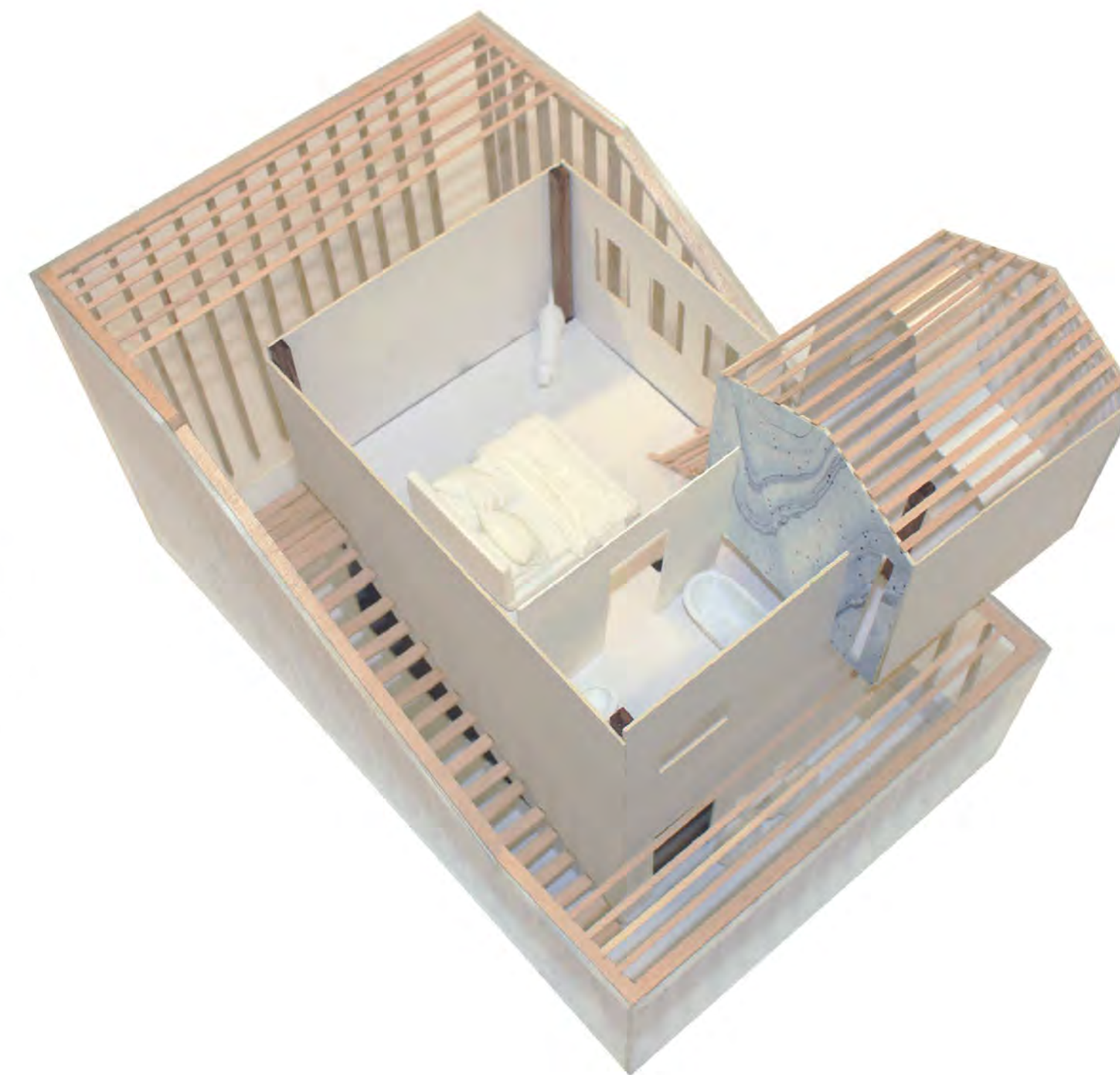
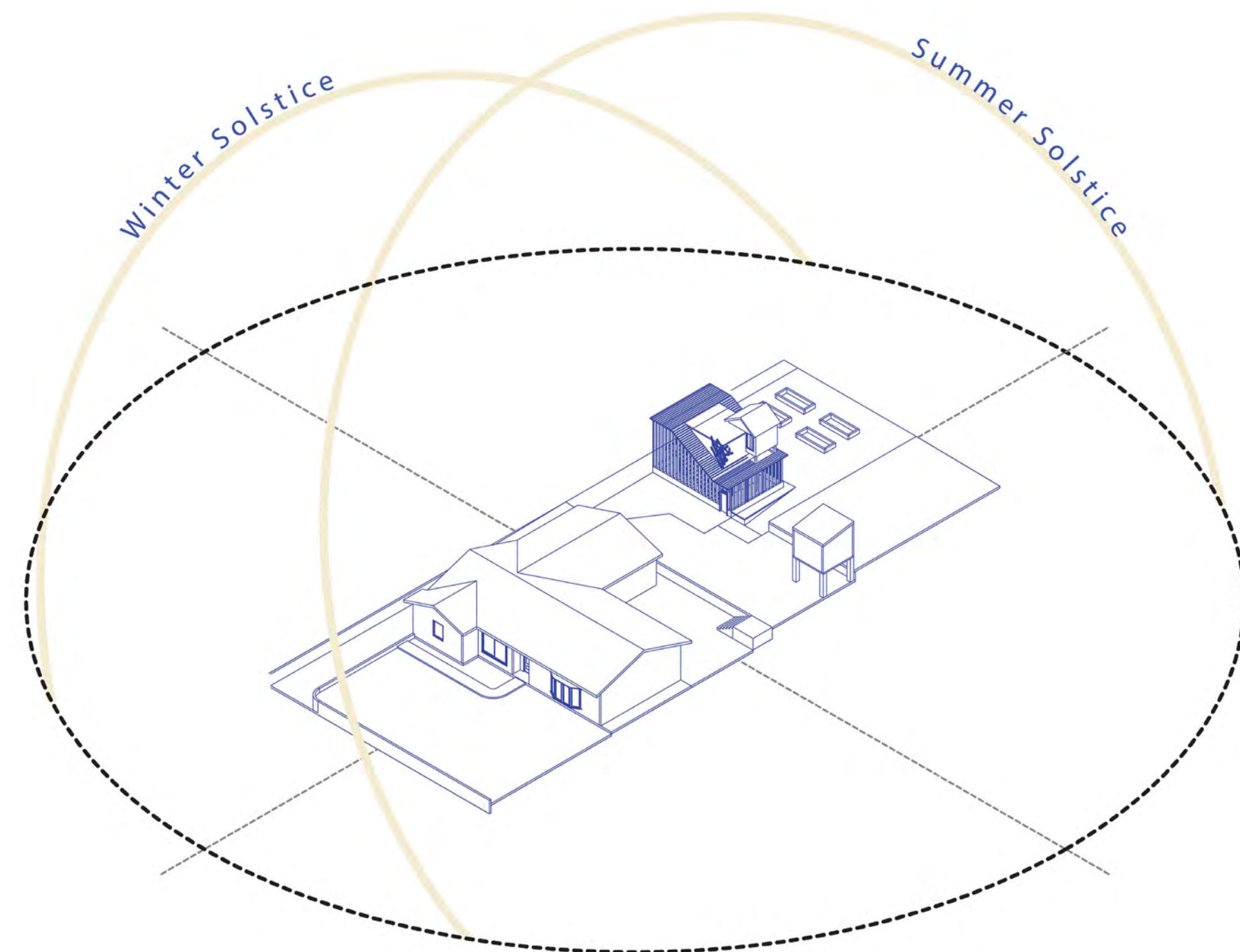
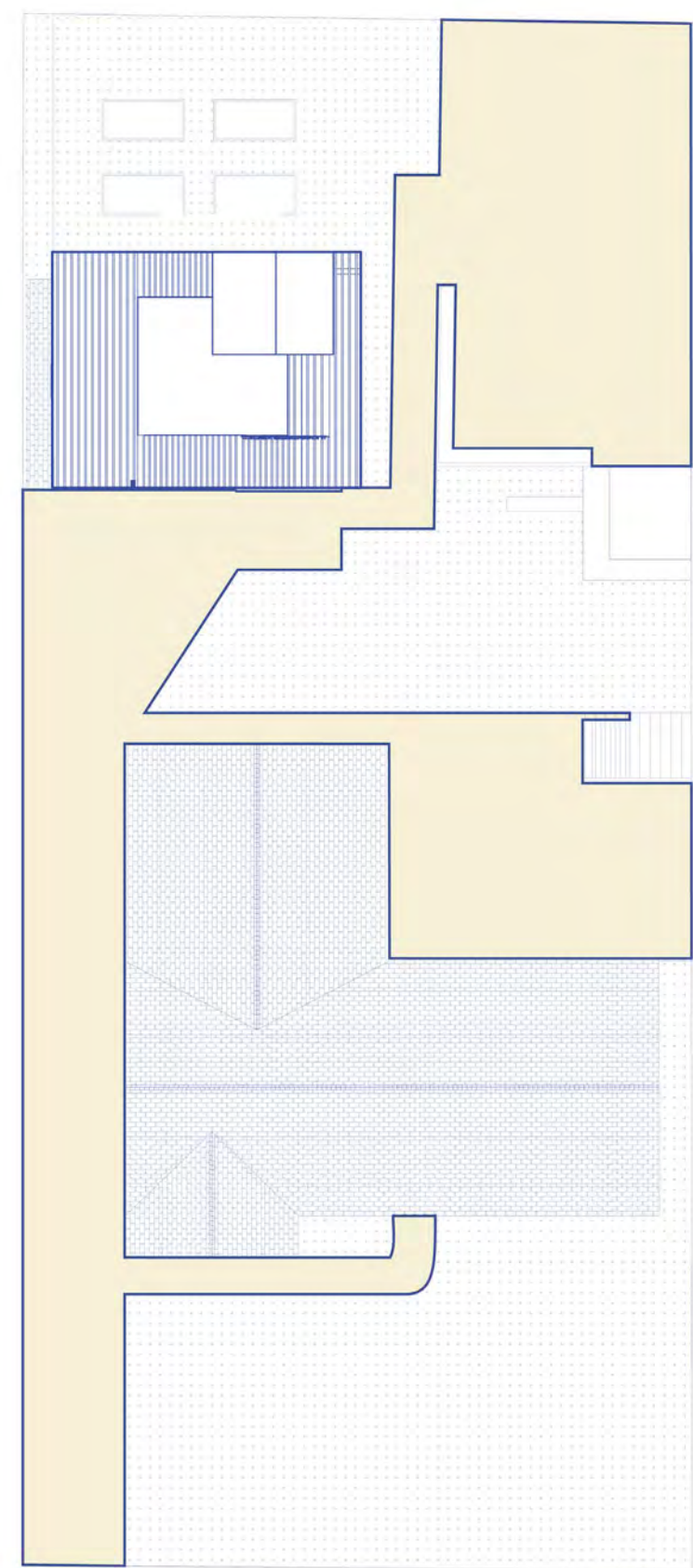
Transverse Section

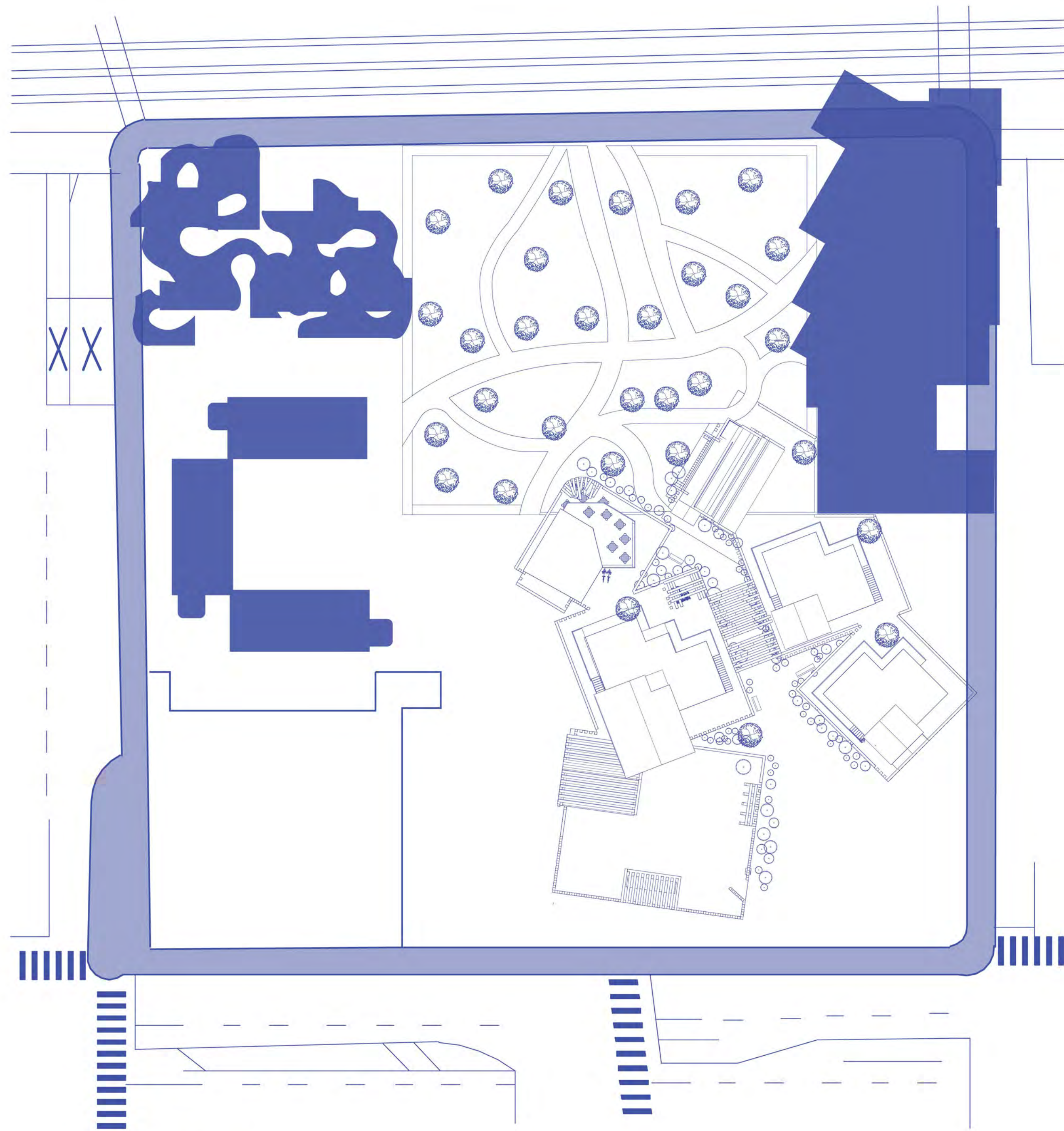


Floor Plan 1



Floor Plan 2





Shared Site Plan

Merging the ADU design to a living complex, a group of four was formed in class to organize a shared central courtyard for our site, each member designing their own building.

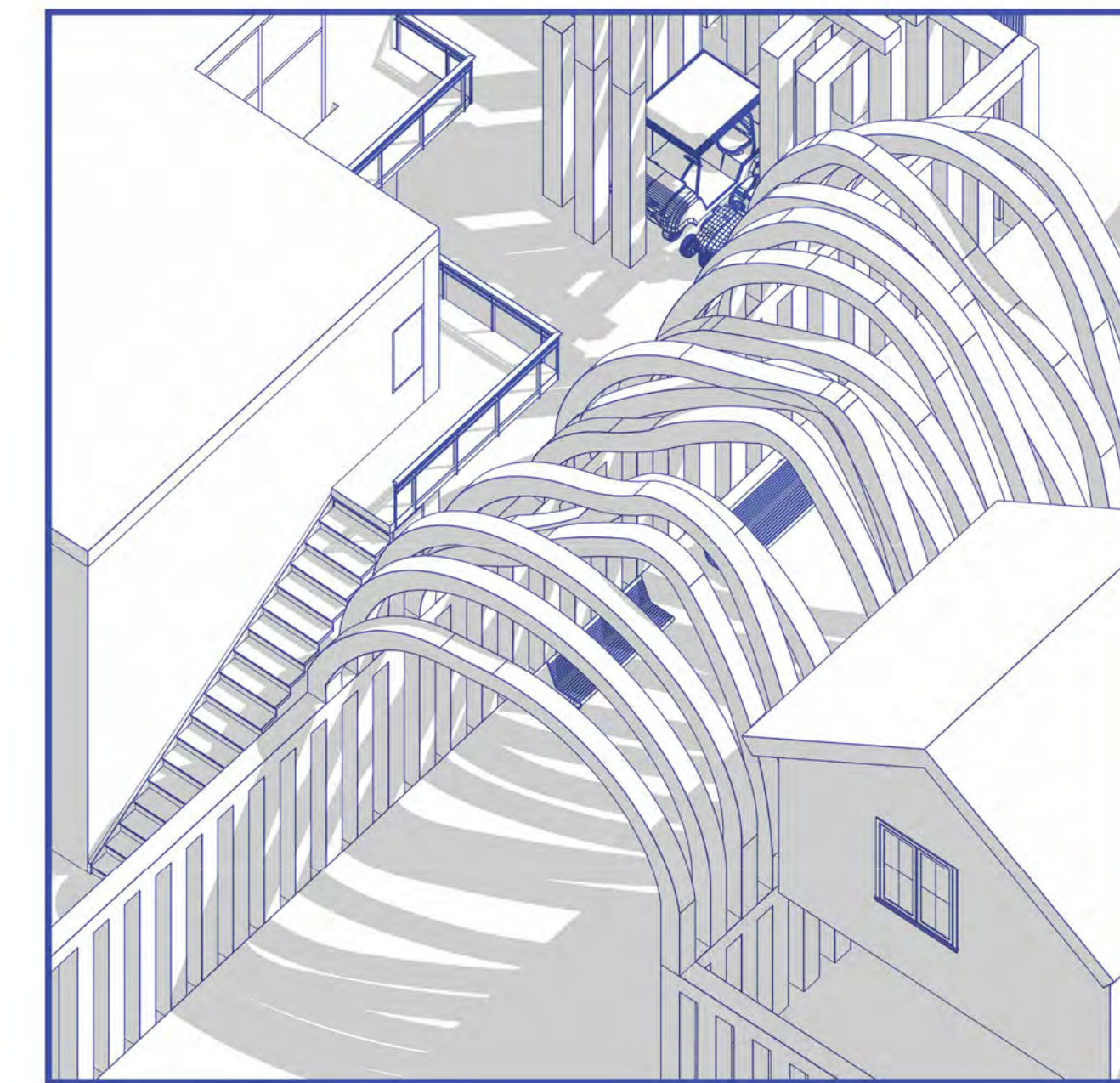
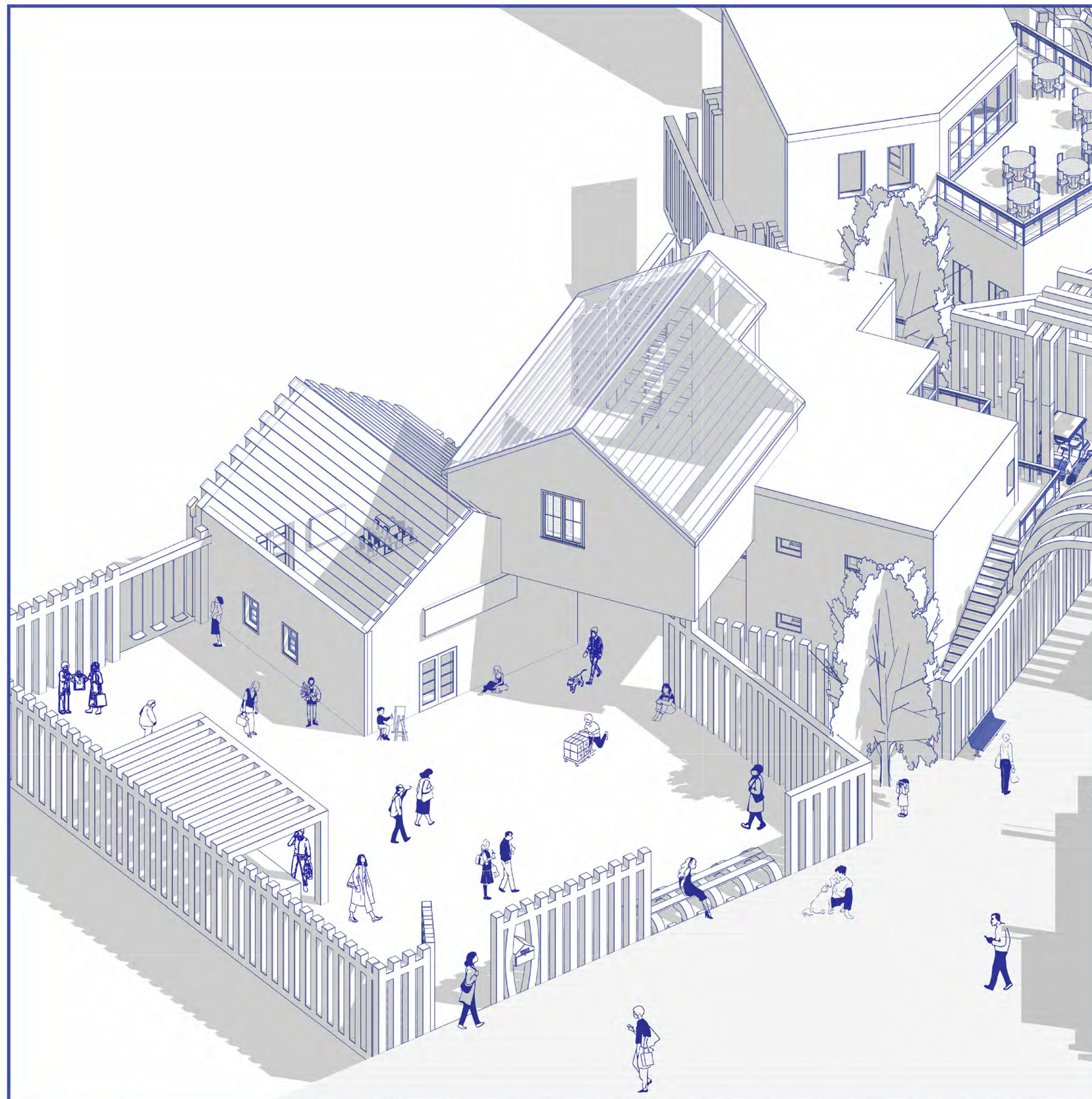
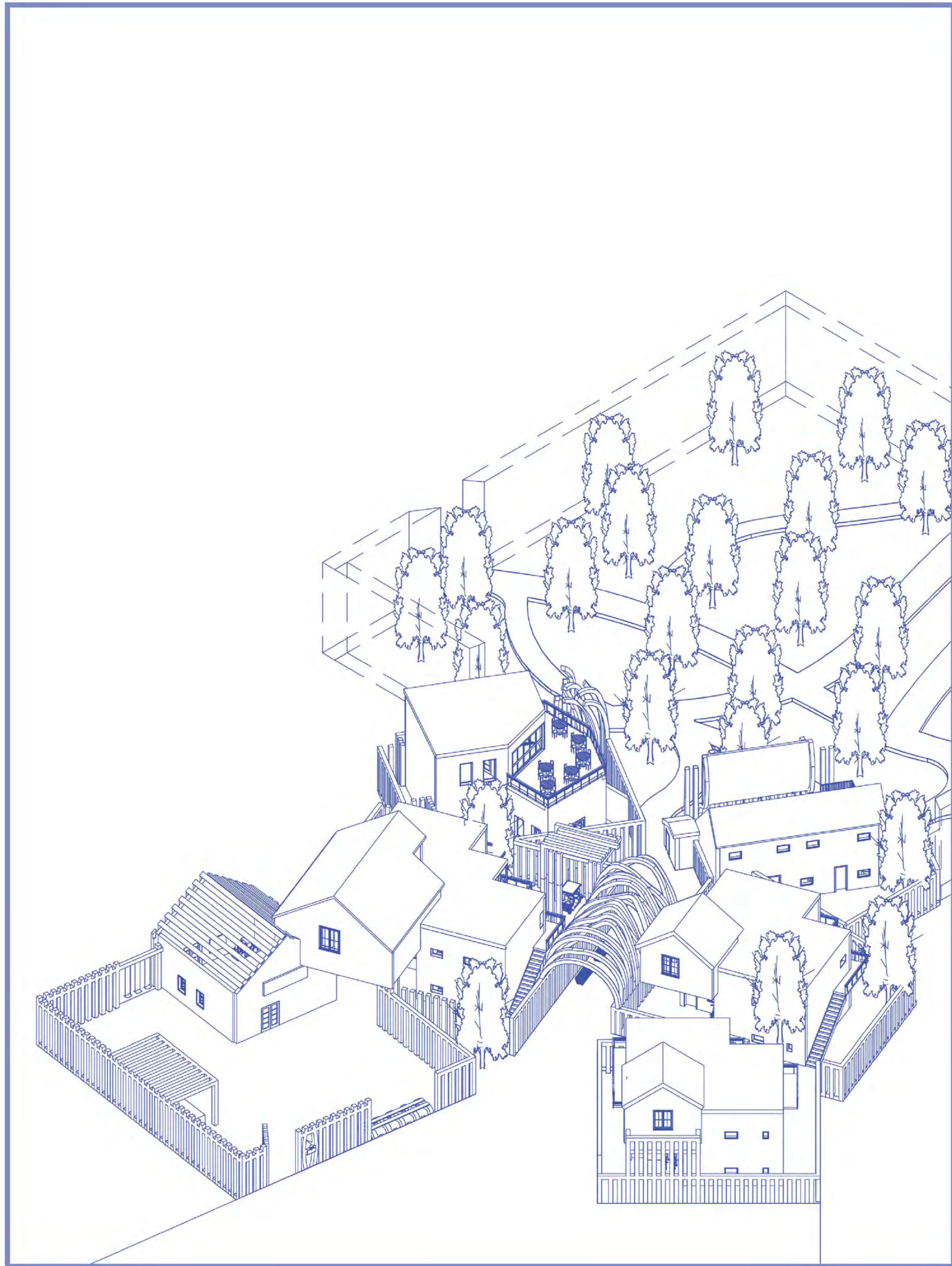
This part of the assignment pushed for including activities and spaces for the people of Highland Park. The fence design from the ADU rolled over to something that could defy between public and private, contradicting the ADU.

This environment is for creatives whom wish to live amongst other creatives, developing a loose outdoor barrier amongst neighbors and on weekends opening its fence design to bring in locals to sell art, nurturing a work and home dynamic within the surrounding.

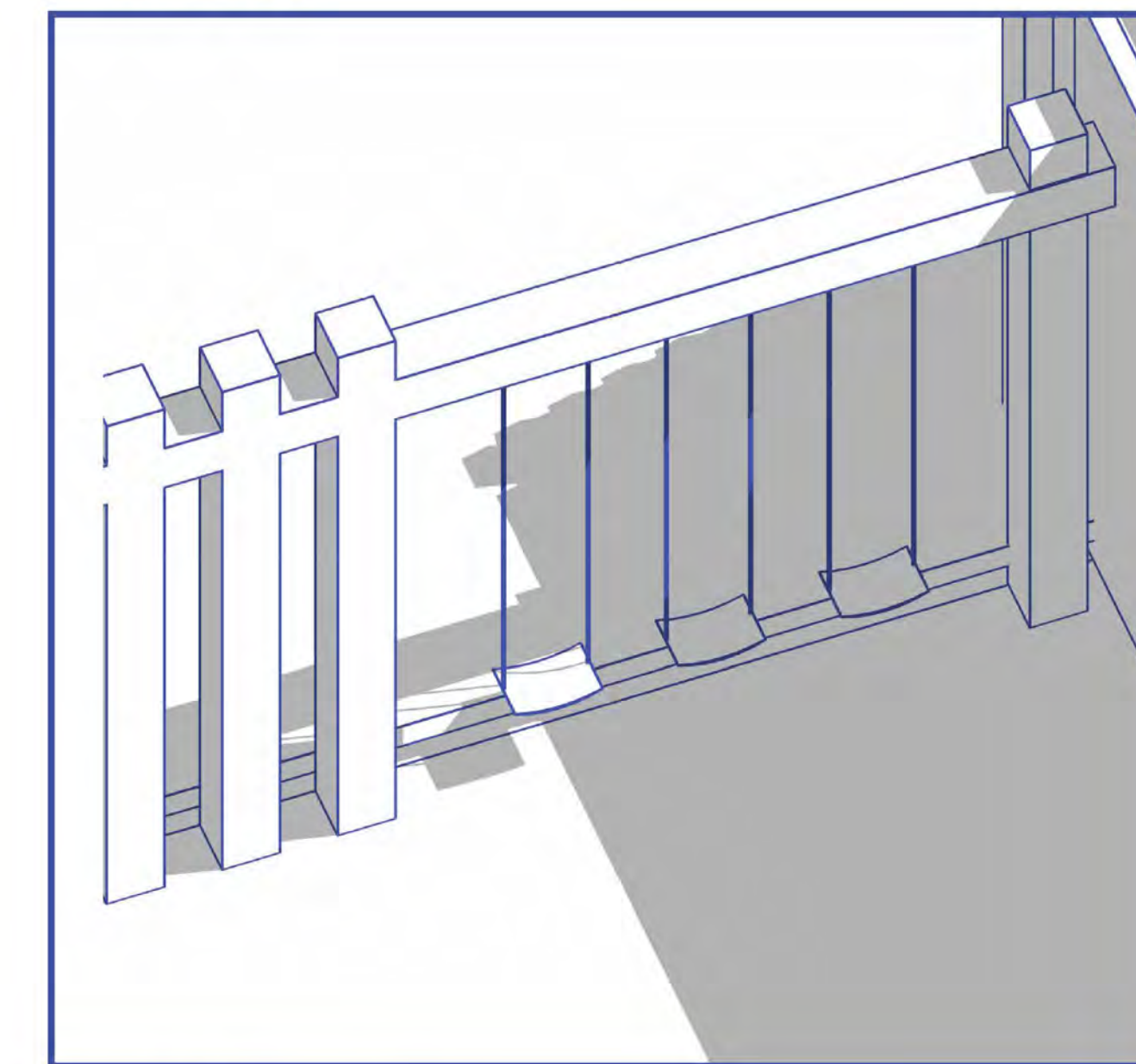


Level 1





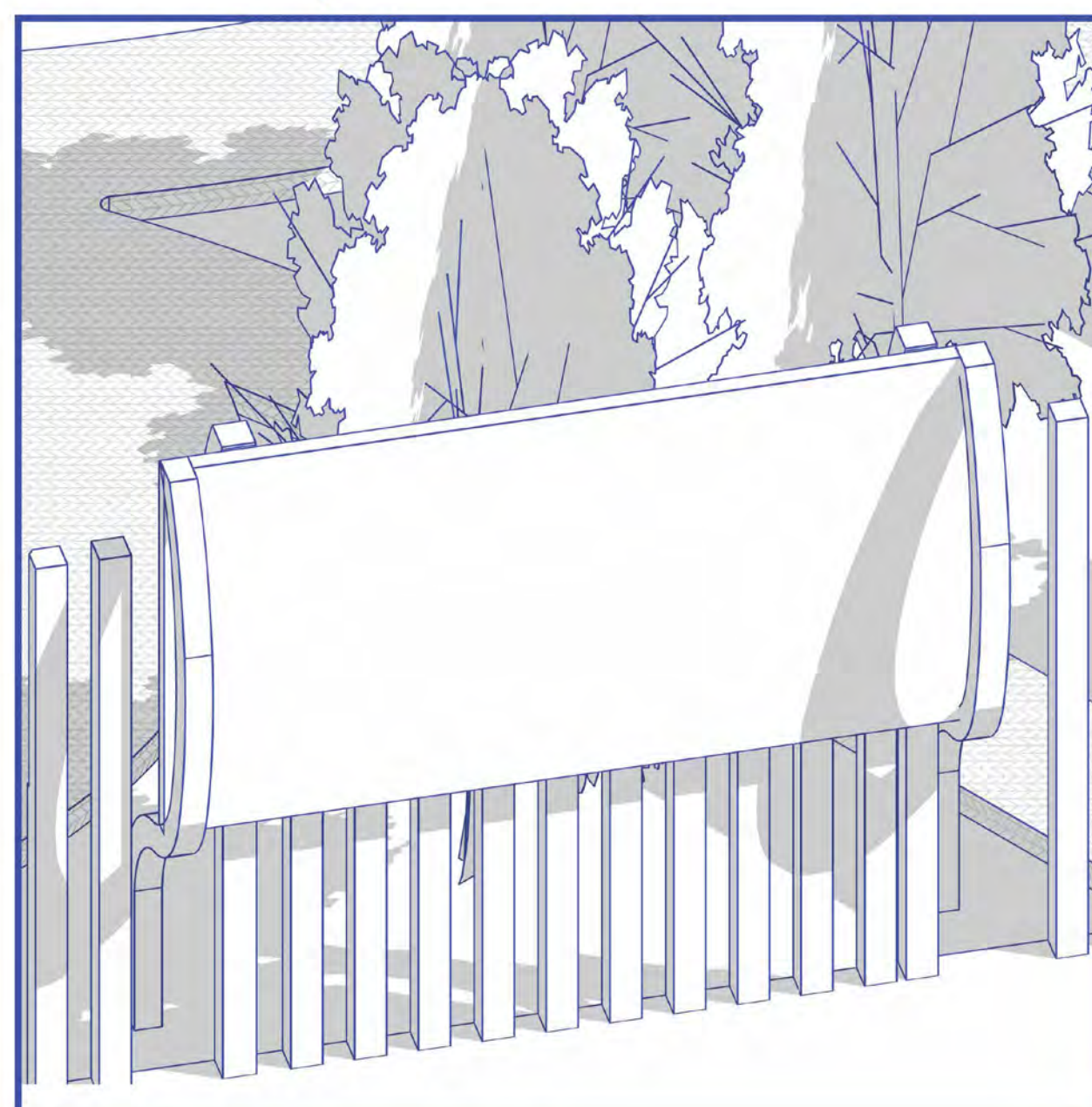
Fentrance



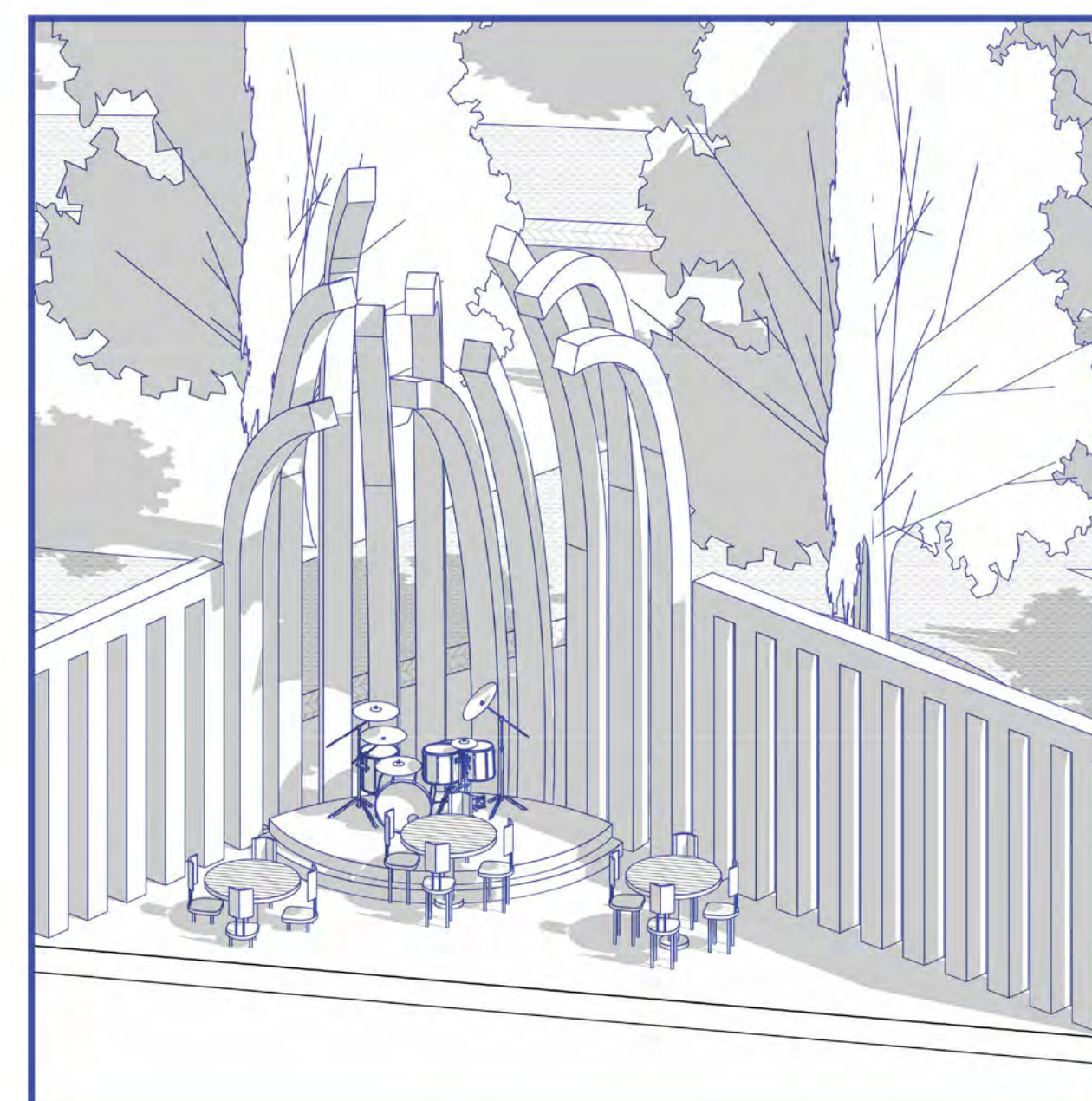
Fence Swings

Stemming from the forming recursions presented in the ADU design, houses blossom inside houses. The fencing merely allows for a loose public and private relation of the courtyard design. Opening up to the public during weekly farmers markets and closes during the weekdays for creative outbursts within the artists and designers living in this area. This built environment not only allows for housing, but has a cafe, theater, and gallery area which are open daily.

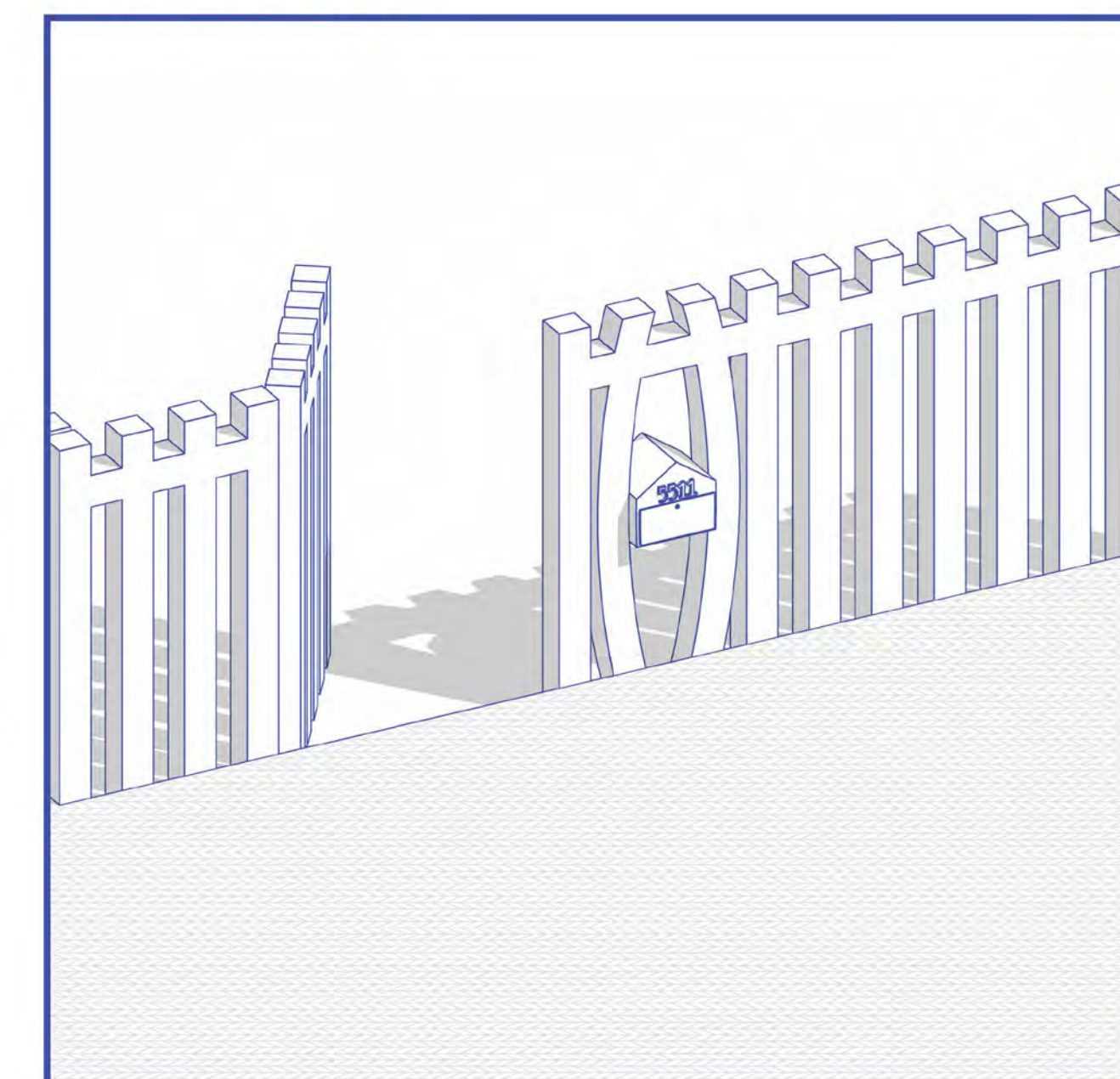
Market Day



Fence Theater



Performance Area



Mailbox in Fence

Powers of Three

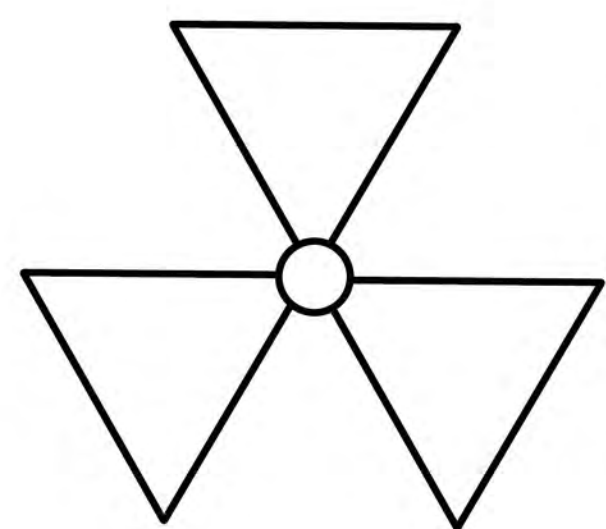
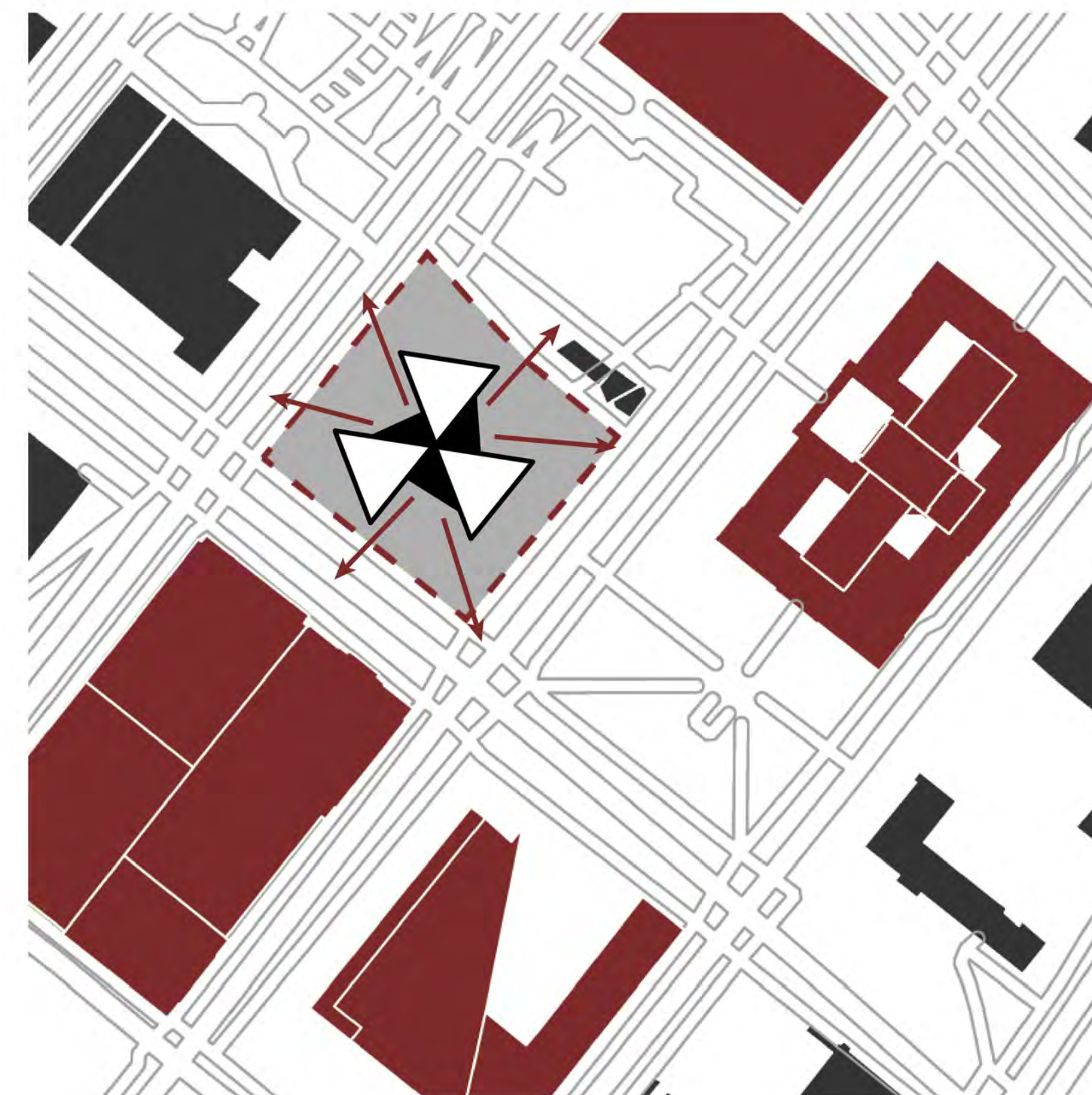
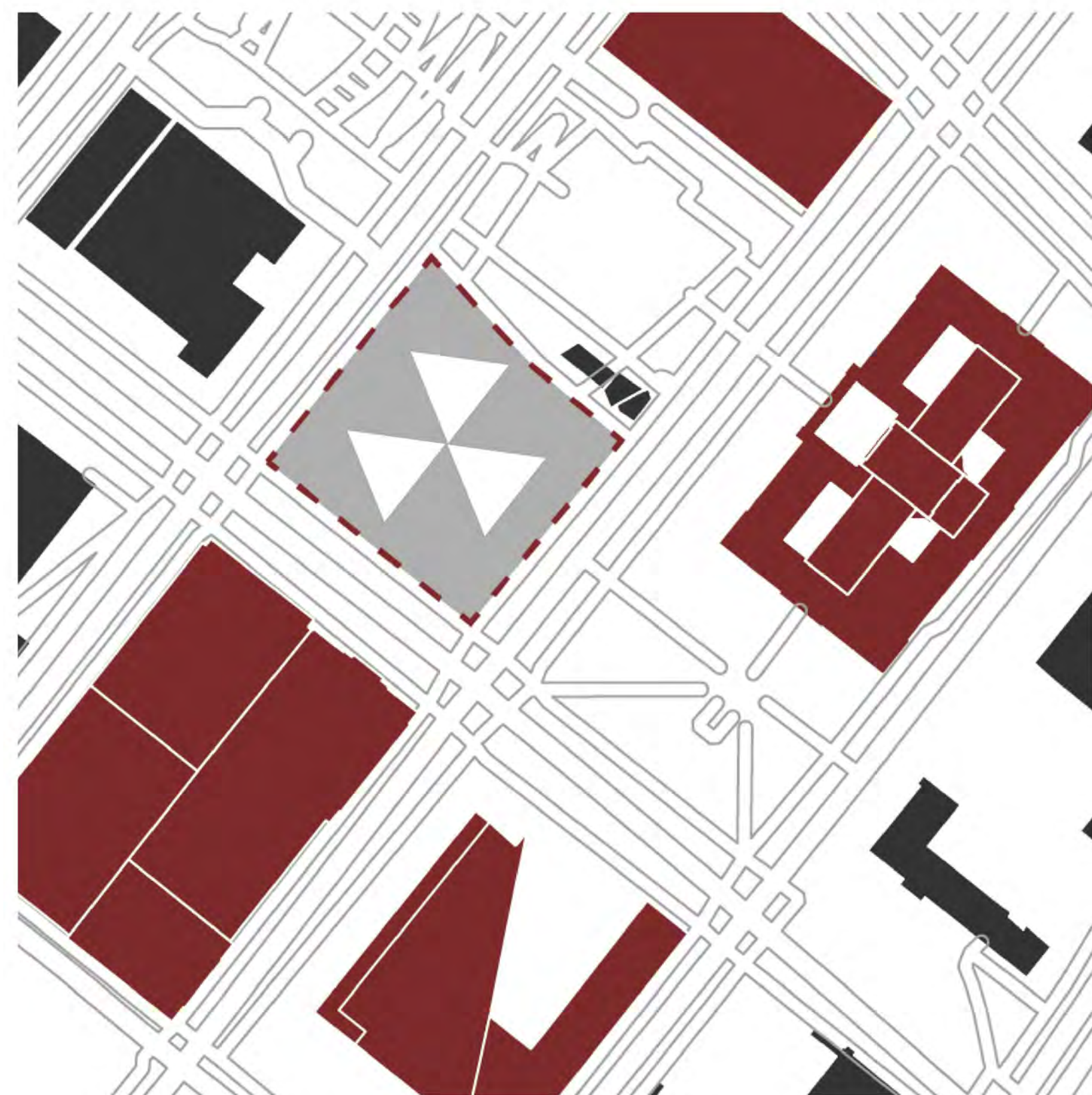
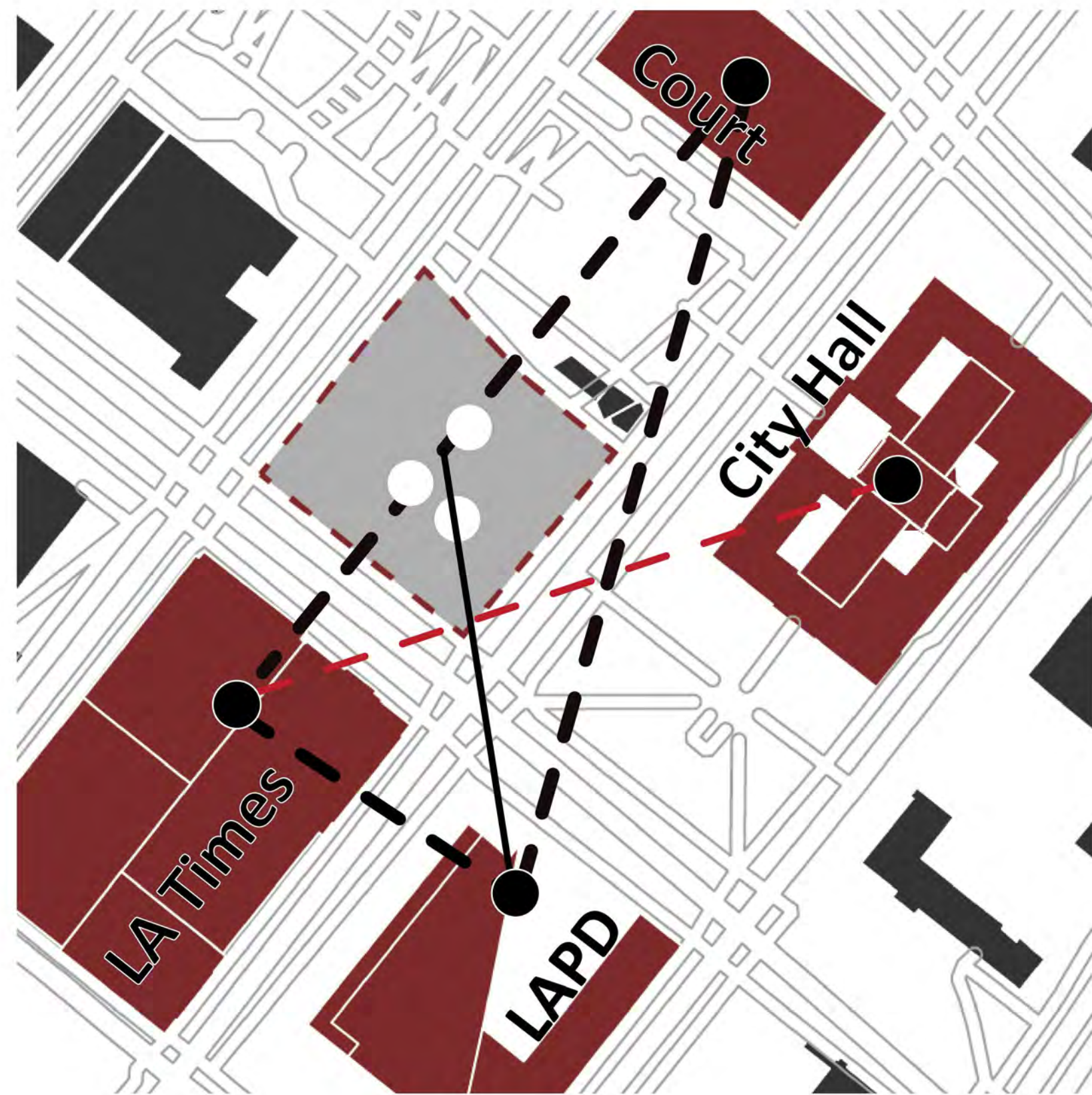
Partner: Misael Pleitez

The Powers of Three calls to order the three branches of the surrounding official buildings, which begin to question constitutional education. The referential points surrounding the site propose the articulation of the amendments to continuously remind and exercise civil integrity. Officials are known for reacting upon action, here, the space begins to react to the notion of accountability.

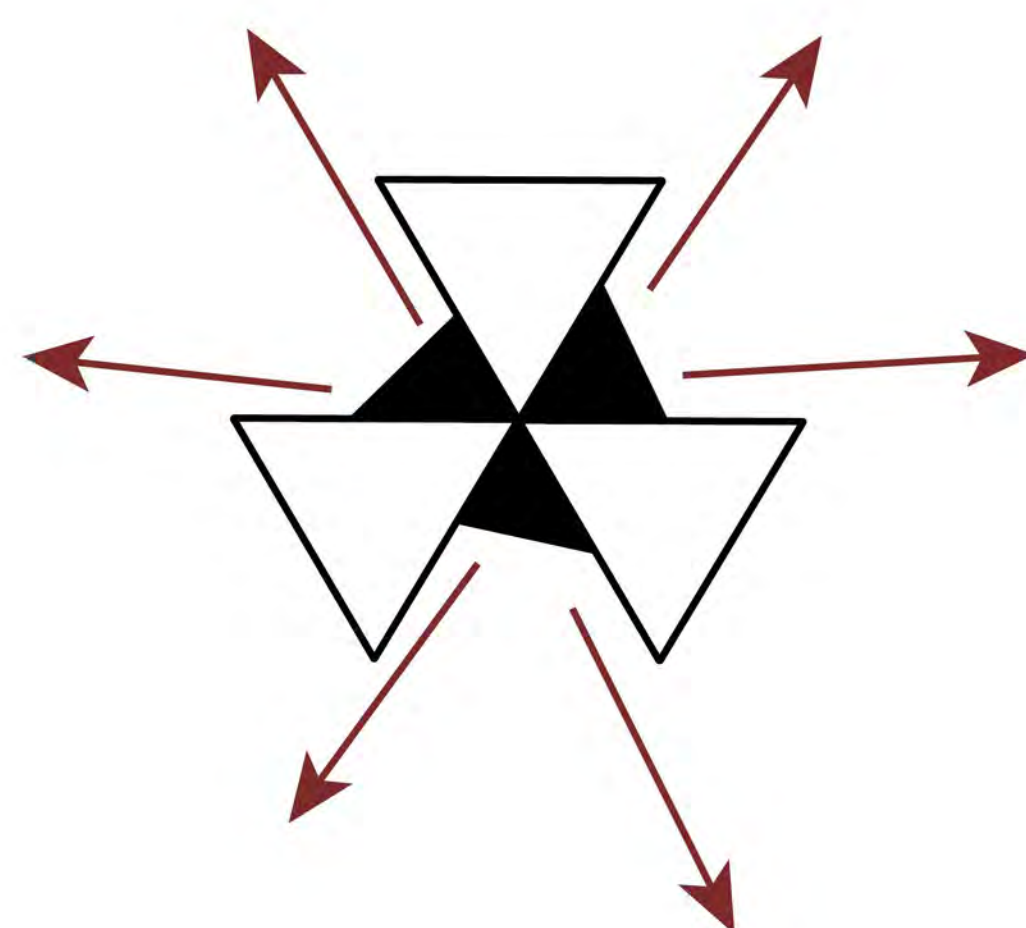
amendment

1	4	6
s	r	j
p	e	u
e	s	s
a	p	t
k	e	i
	c	c
	t	e





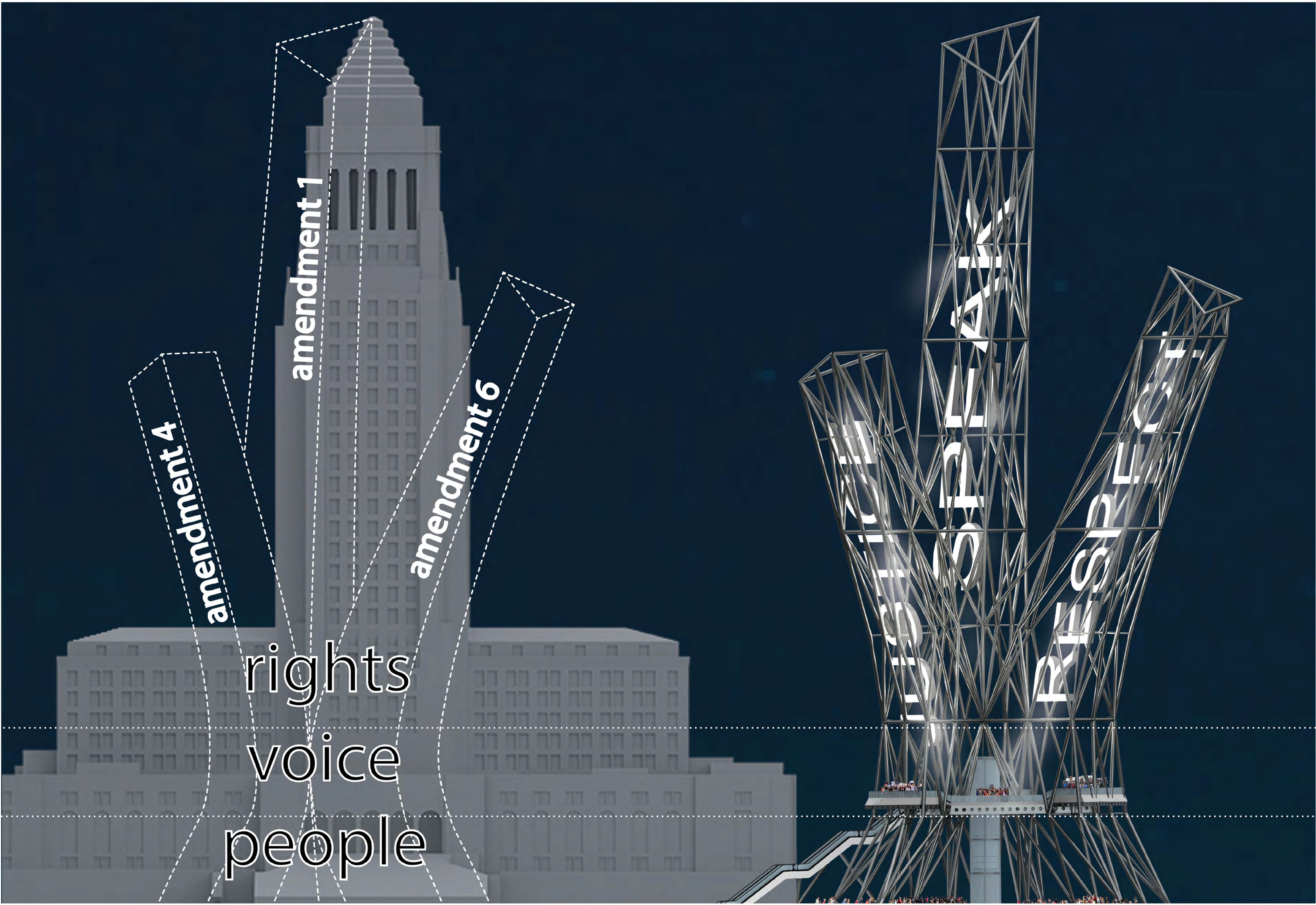
Radioactivity:
rays or particles that
are given off when
atoms break apart.



→ rays of reference

▲ platform of voices

⚠ amendment
monuments



amendment 1

amendment 4

amendment 6

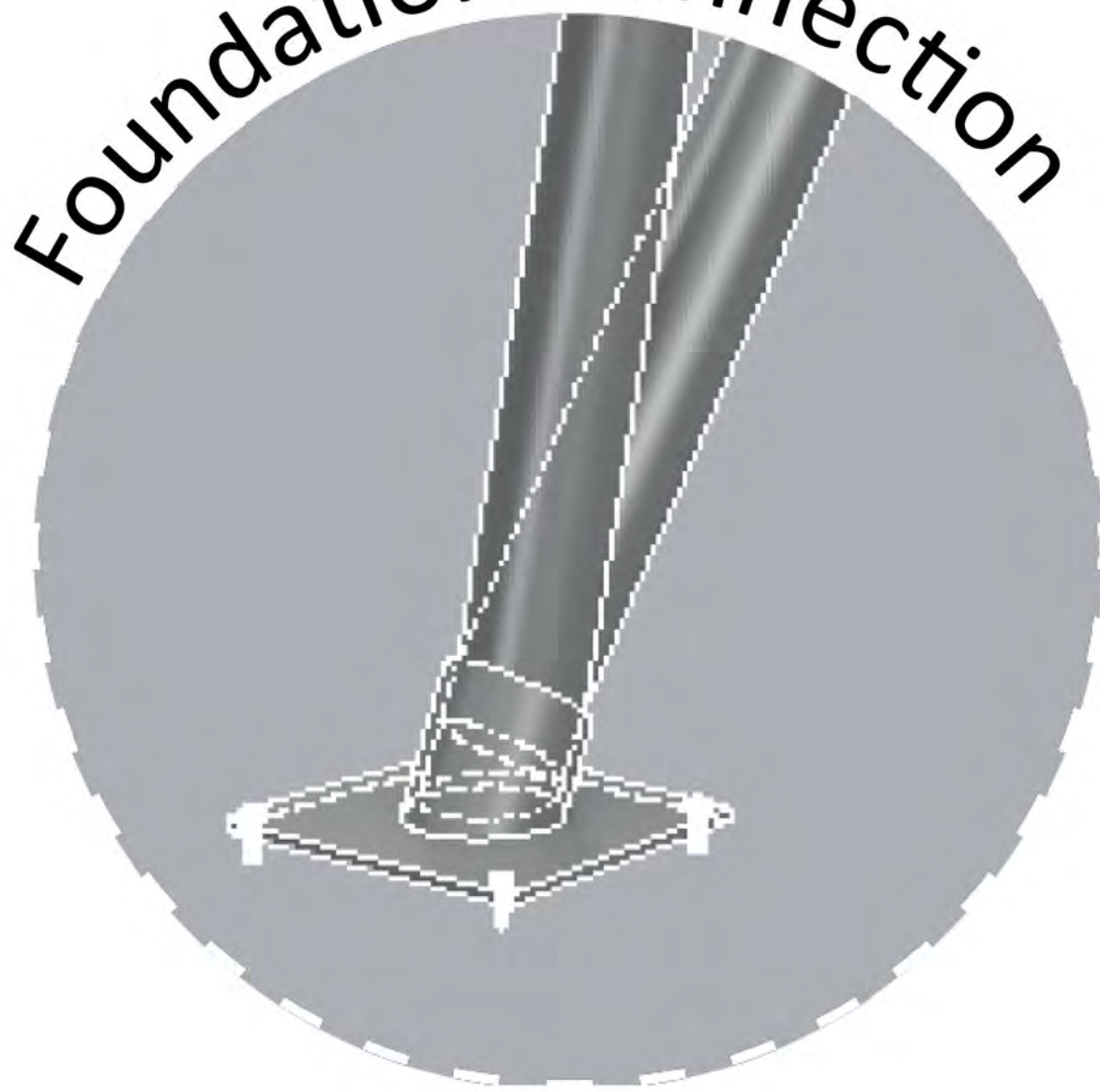
rights
voice
people



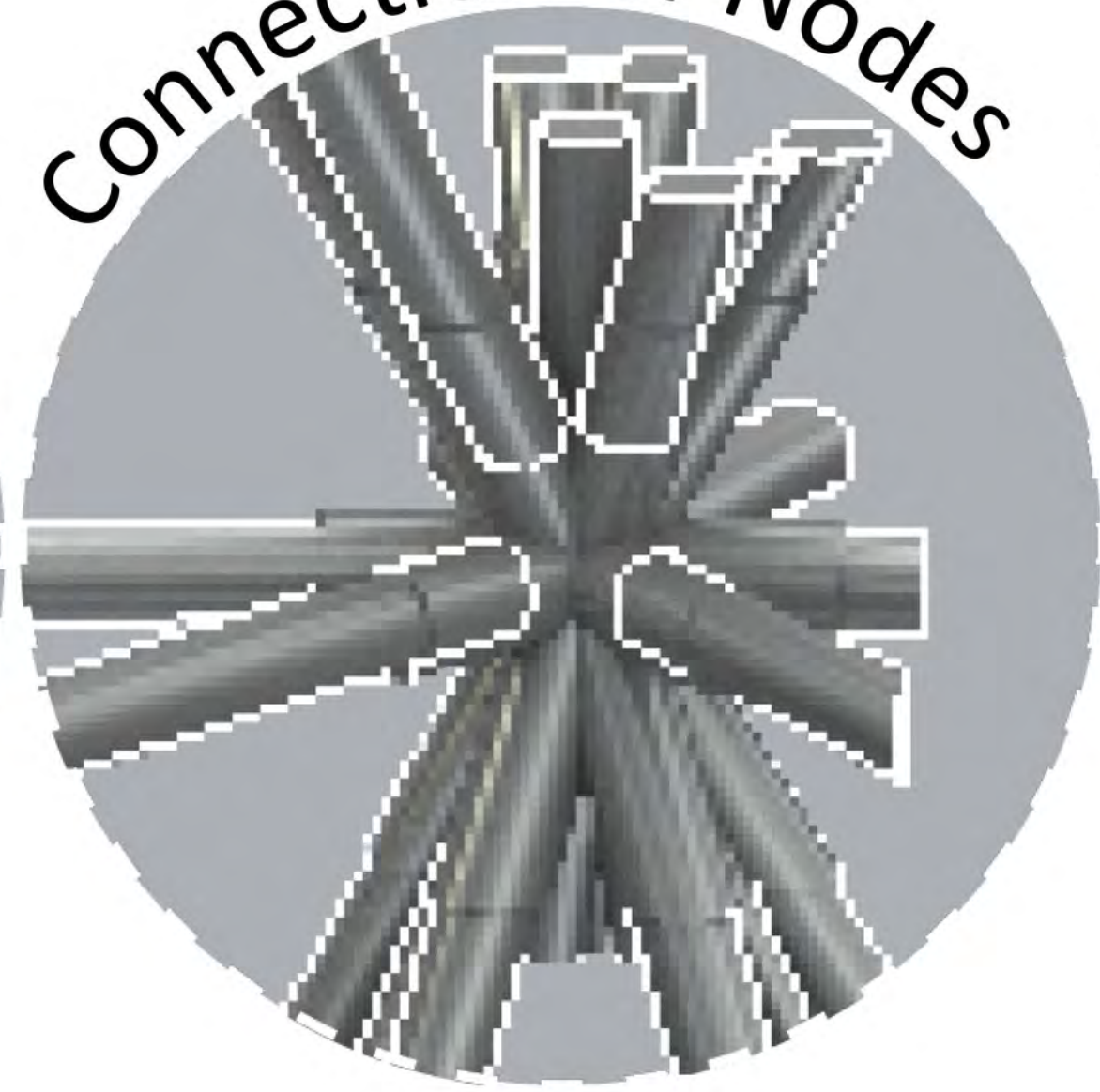
Demonstration Event



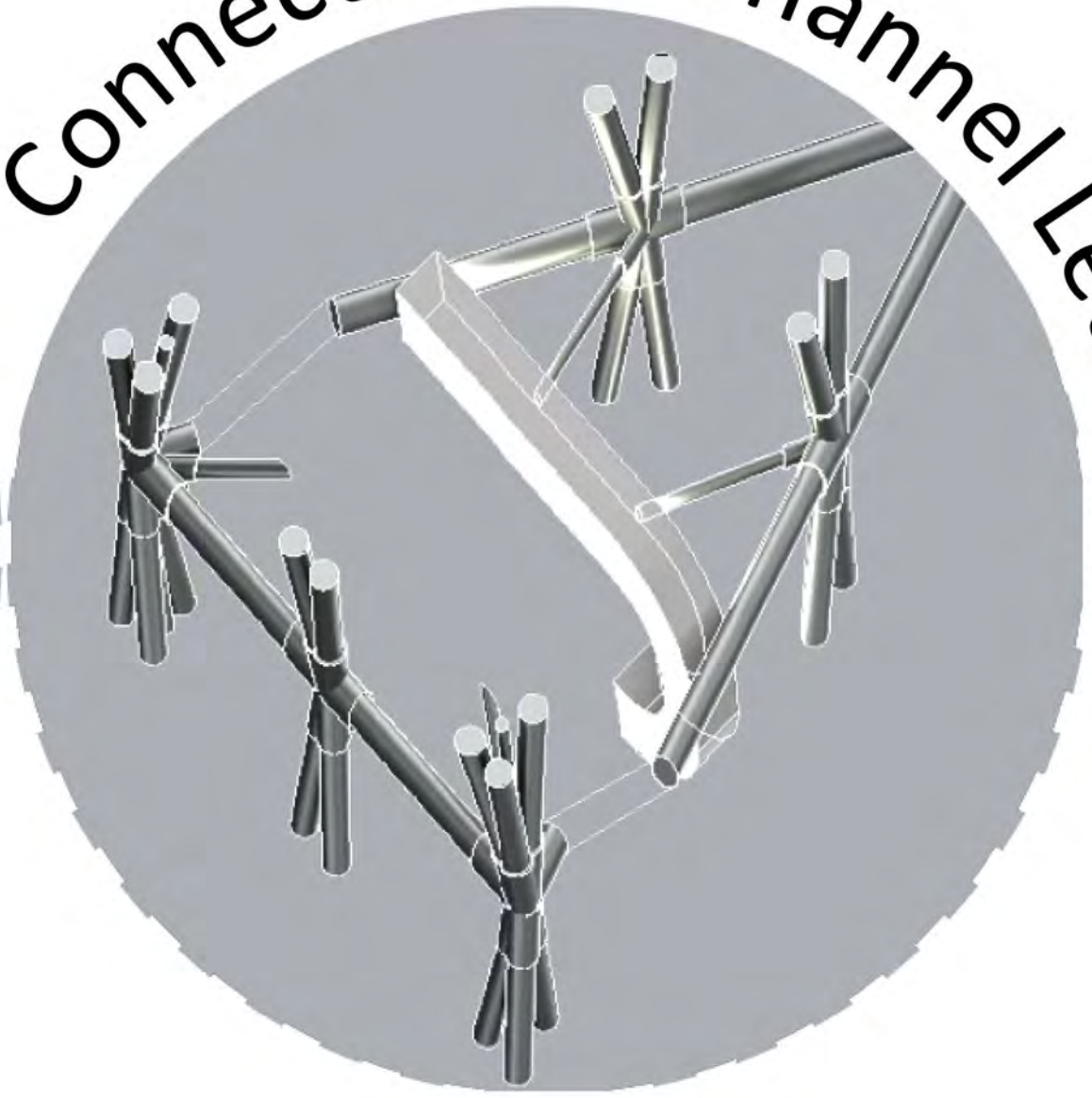
Foundation Connection



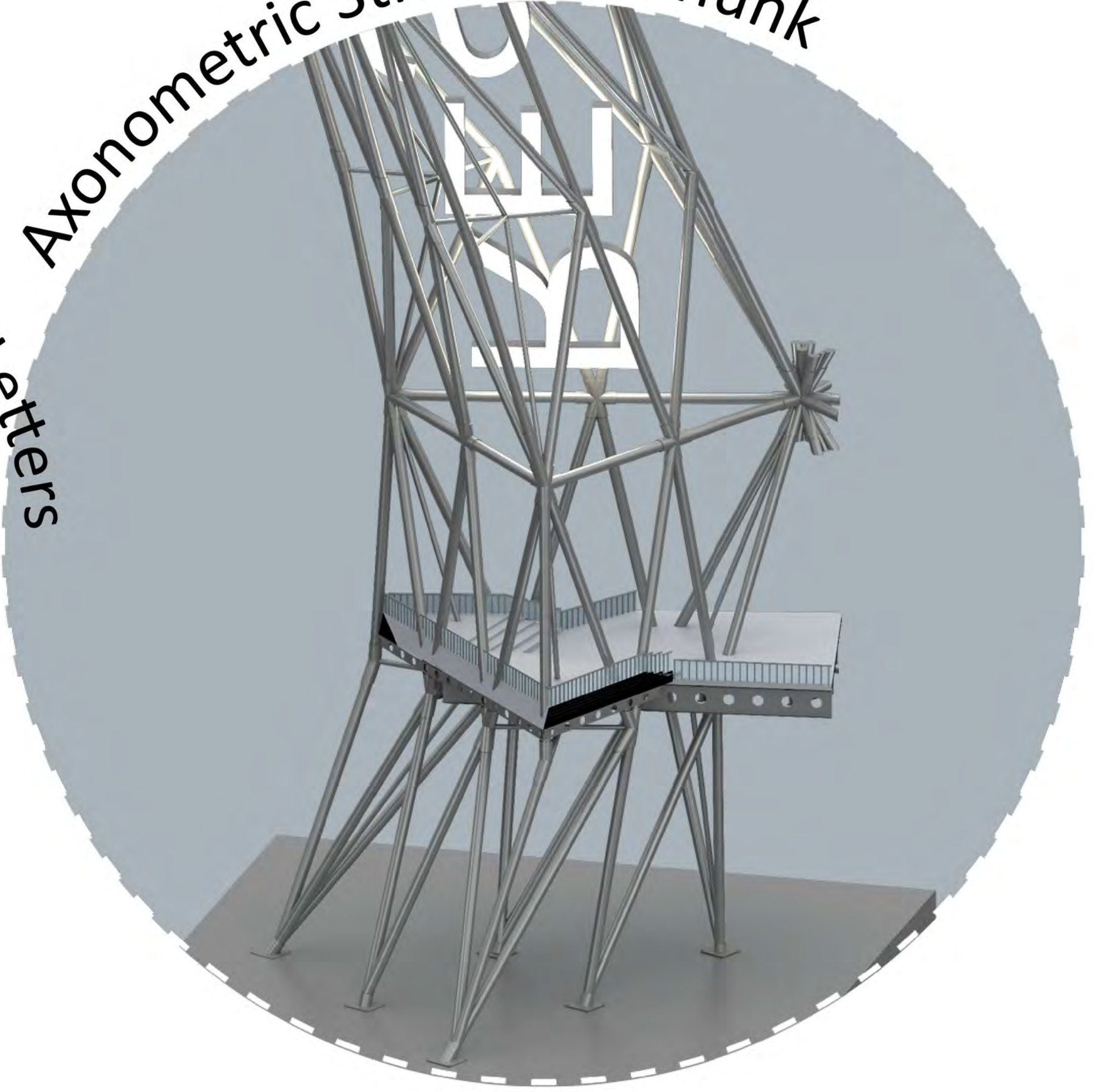
Connection of Nodes



Connection of Channel Letters



Axonometric Structural Chunk





Platform Demonstration Area

Thank You

additional work can be found on:
sionapetrosian.com