

# portfolio

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Columbia University  
Masters of Science in Advanced Architectural Design

RADHA D. KAMDAR

# content

## design

- 1** | Accessibility  
Well-Being, Waterfront, and History  
*Summer Semester*
- 2** | Housing Landscapes  
Housing for all  
*Fall Semester*
- 3** | Wood and Plants  
The extension to Avery  
*Spring Semester*

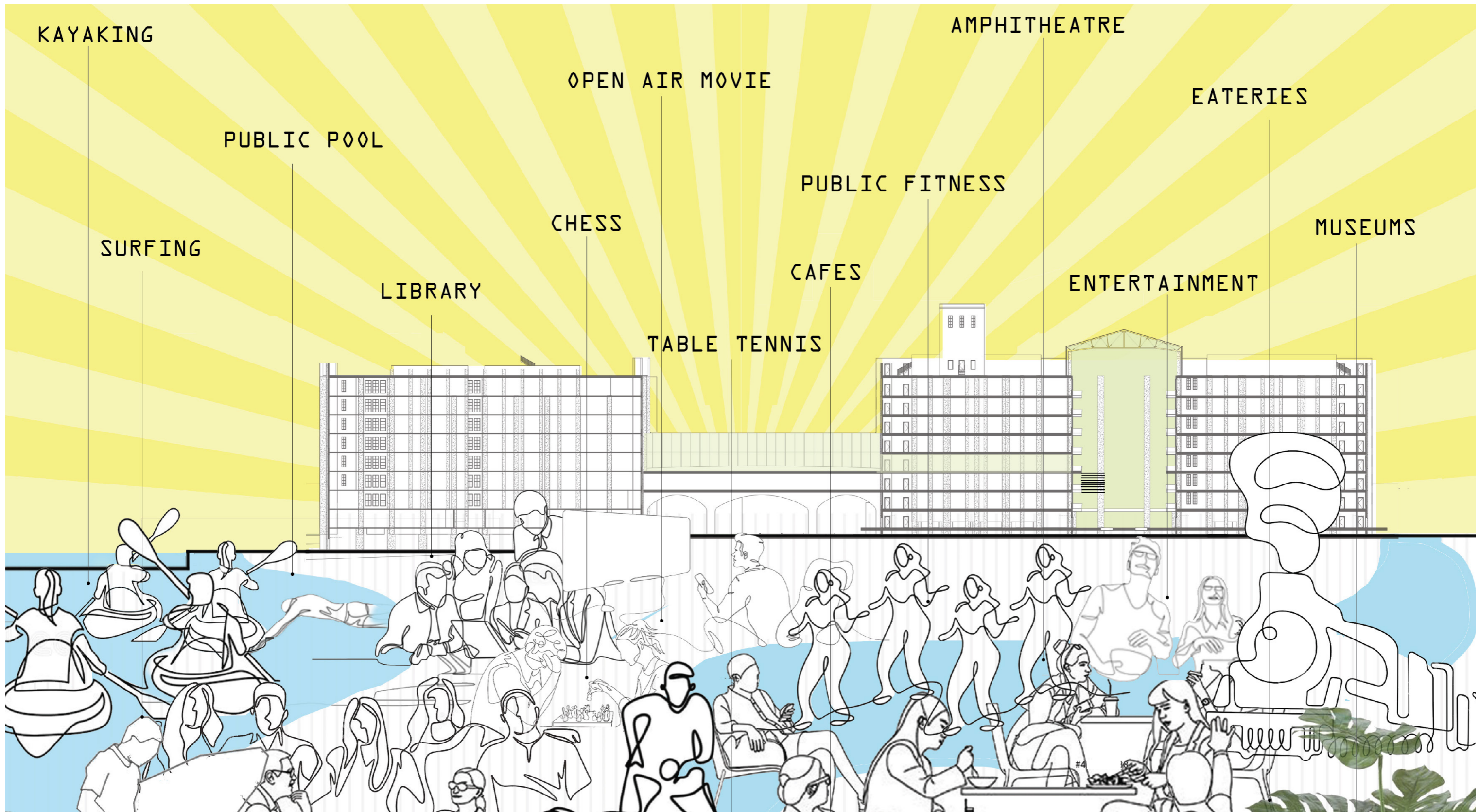
## writings

- 4** | Arguments  
Architectural Arguments and discussions  
*Summer Semester*
- 5** | New York Rising  
History of development of NYC  
*Fall Semester*

## electives

- 6** | Re-Immersion  
Techniques of Ultrareal Renders  
*Fall Semester*
- 7** | Facade Detailing  
Understanding of construction details  
*Spring Semester*
- 8** | Project Management  
Life cycle of a project  
*Spring Semester*

**design**



# 01 ACCESSIBILITY

MENTOR : Prof. Laura González Fierro

SITE : Brooklyn Army Terminal, Brooklyn

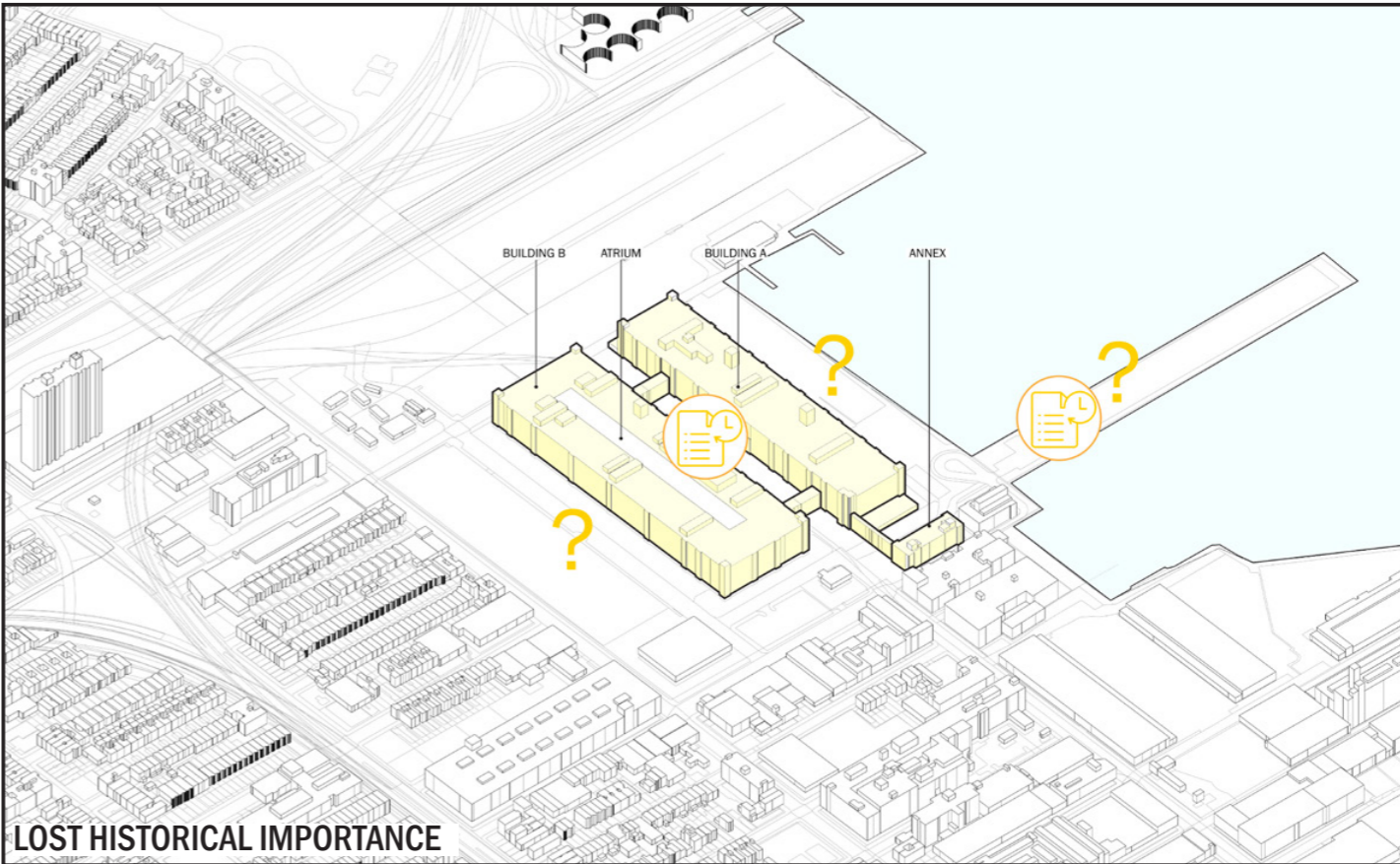
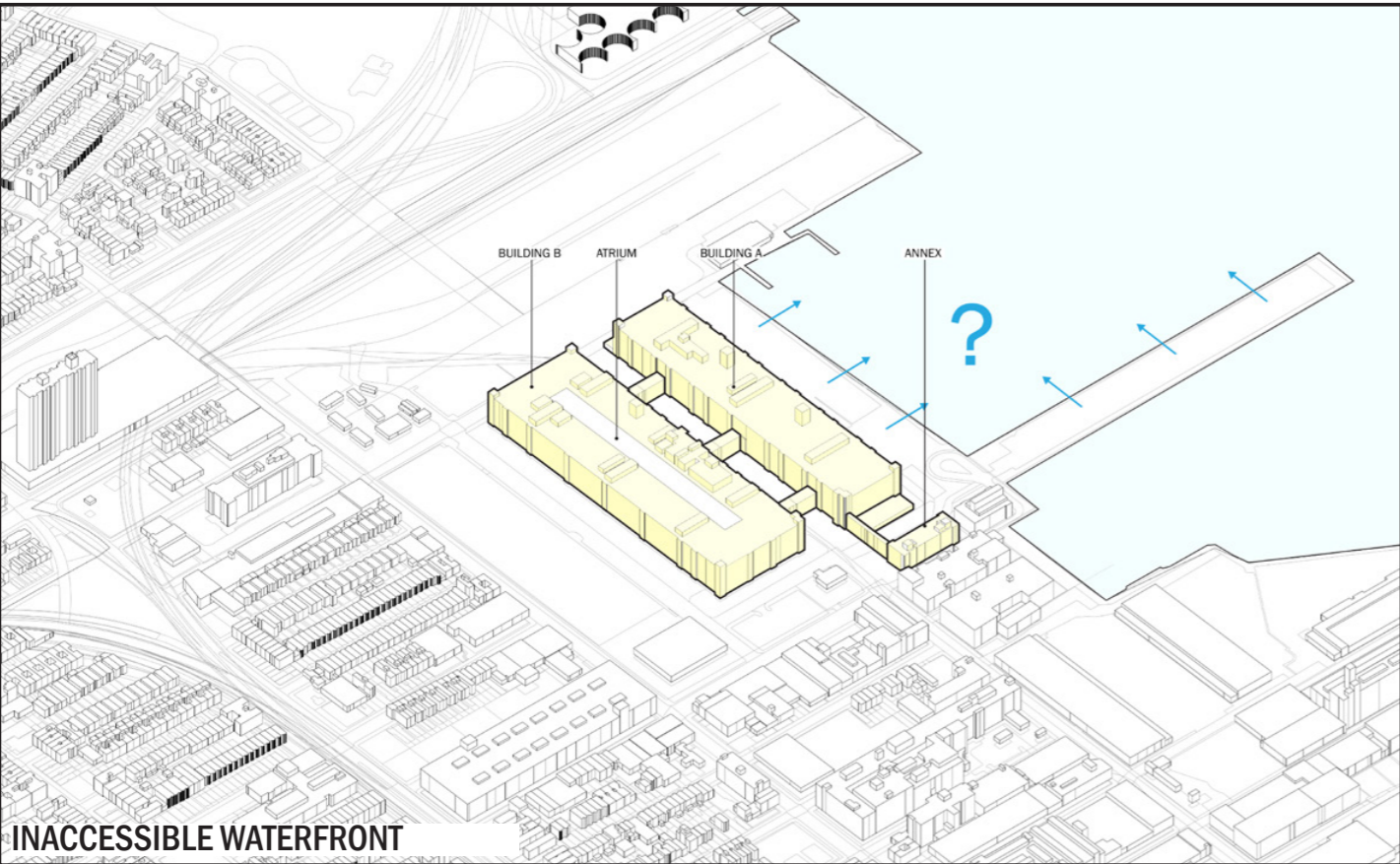
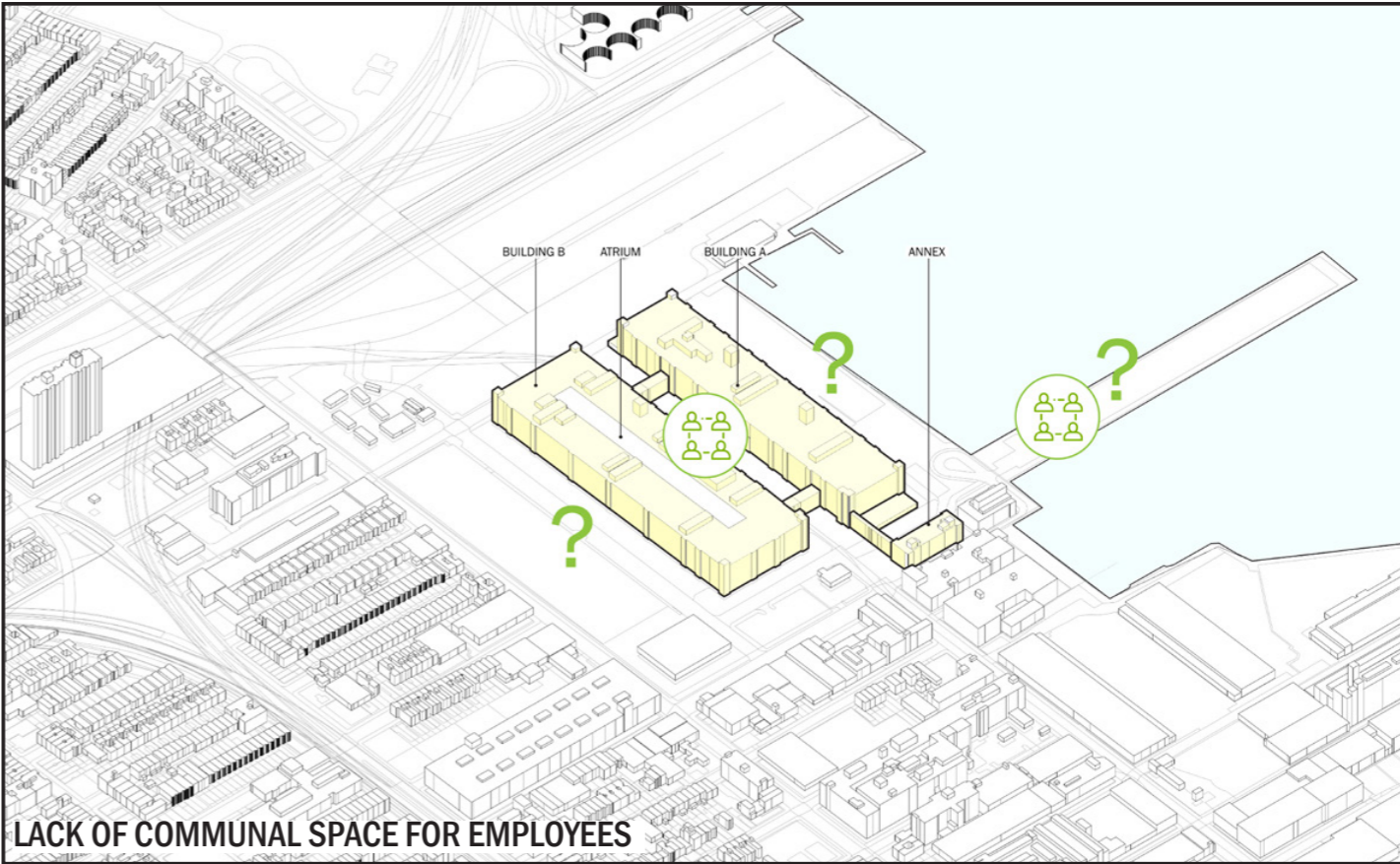
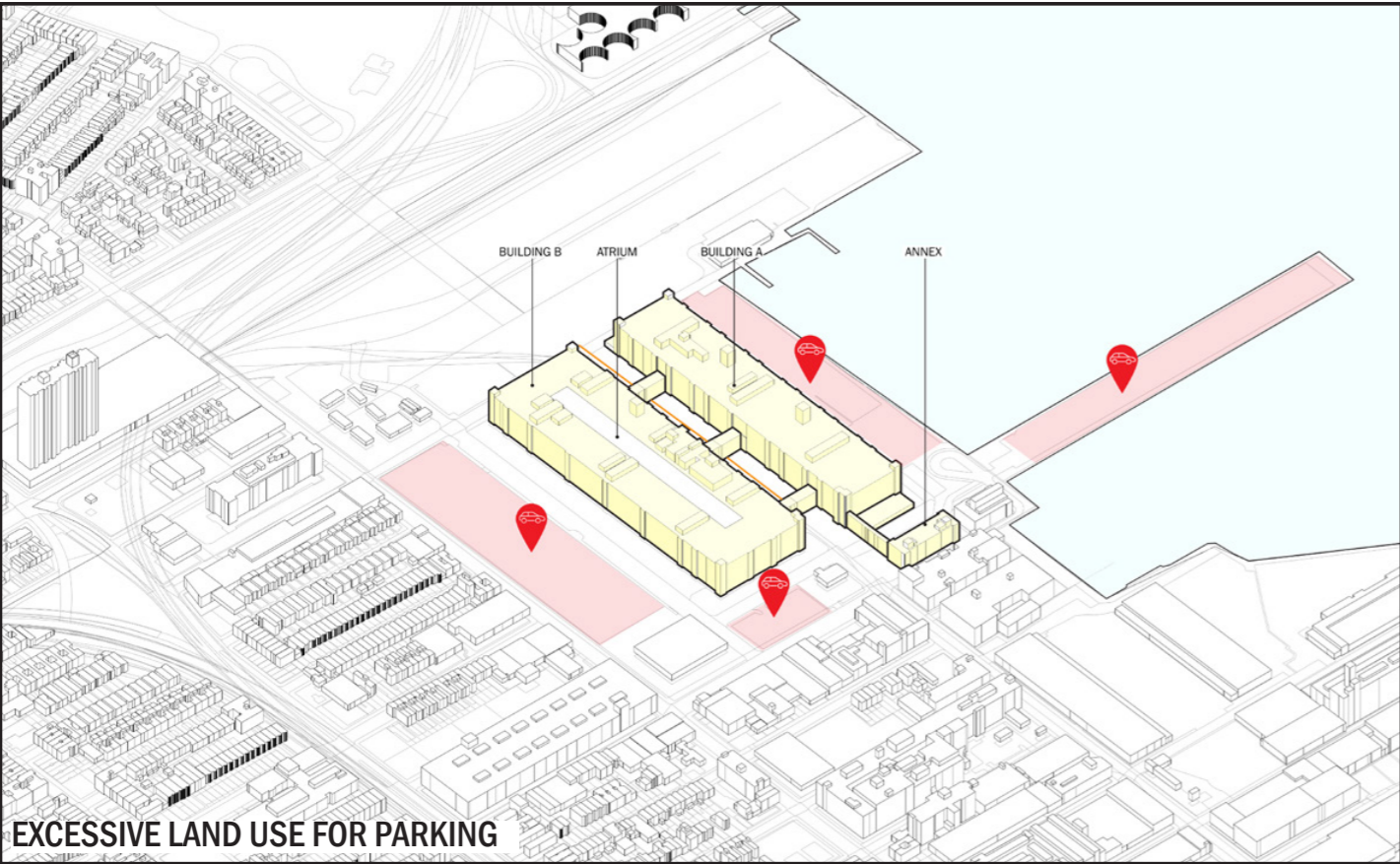
**DESIGN INTENT :** The studio provided a space to re-think the concept of accessibility. What new and additional layers of participation can we incorporate in the project's agenda to be more inclusive? The studio aimed to investigate new ways of dealing with limits, divisions and ruptures within the urban fabric of Sunset Park Waterfront and transform the environment of the Brooklyn Army Terminal— using design as a way to transform conditions of exclusion into possibilities

of building community. We questioned how to expand on the products of the architectural practice and discourse at large into a more solid social construction that ultimately brings back a vibrant civic life.

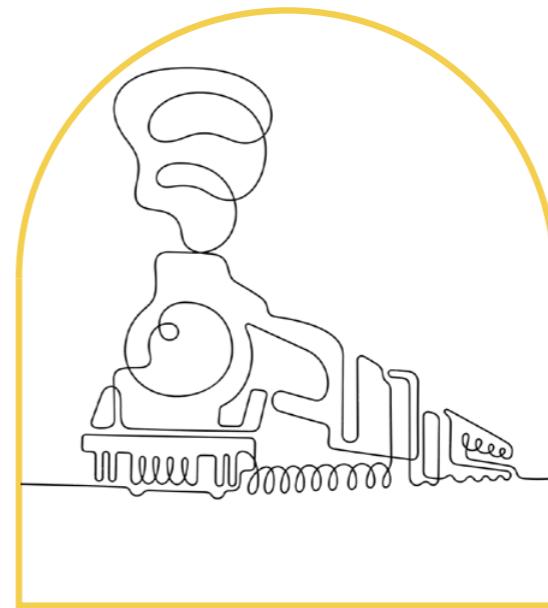
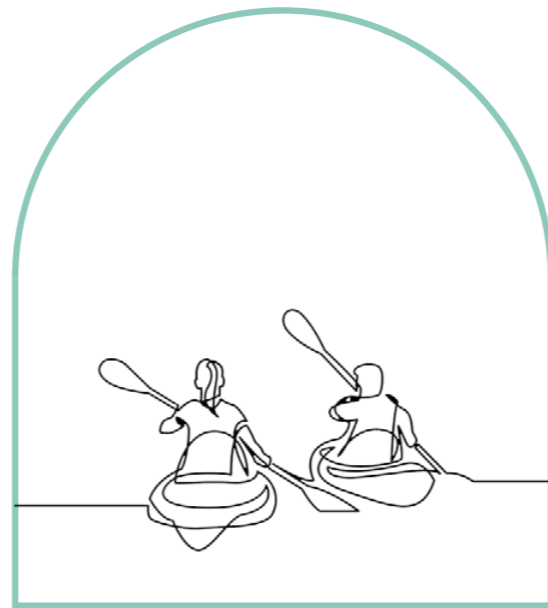
I chose Well-being, Waterfront and History as my topics of accessibility. Brooklyn Army Terminal. The site had a beautiful 1000 year old history that has been neglected and forgotten. The long serene waterfront remains inaccessible because of excessive parking at the waterfront. The design addresses these concerns.



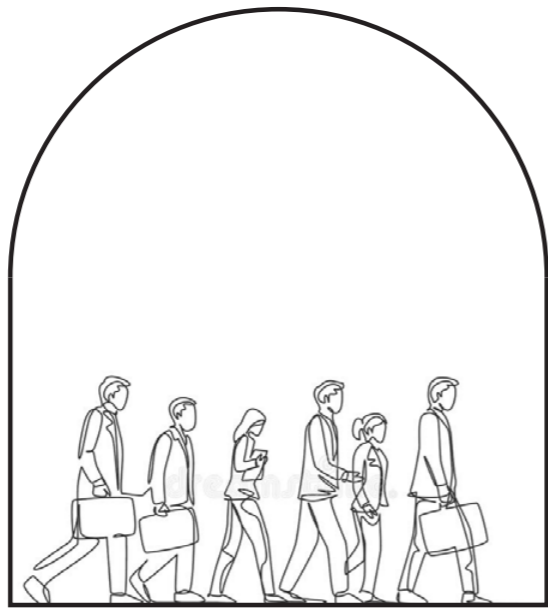
Site Analysis



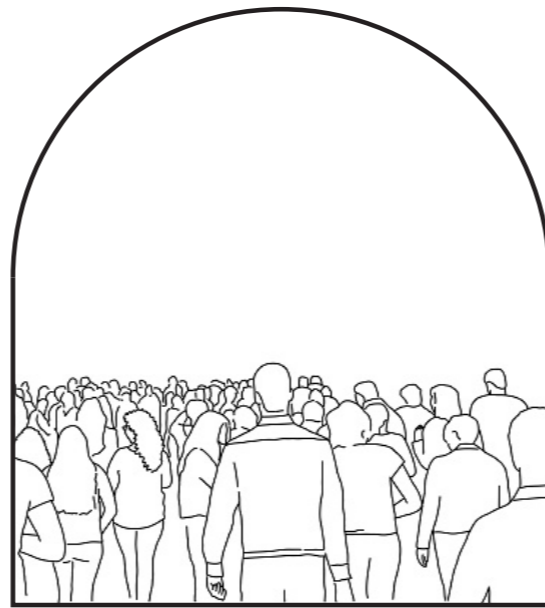
ACCESSIBILTY TO WELL-BEING  
ACCESSIBILTY TO WATERFRONT  
ACCESSIBILTY TO HISTORY



WHO ARE WE DESIGNING FOR ?



BROOKLYN ARMY TERMINAL TENANTS



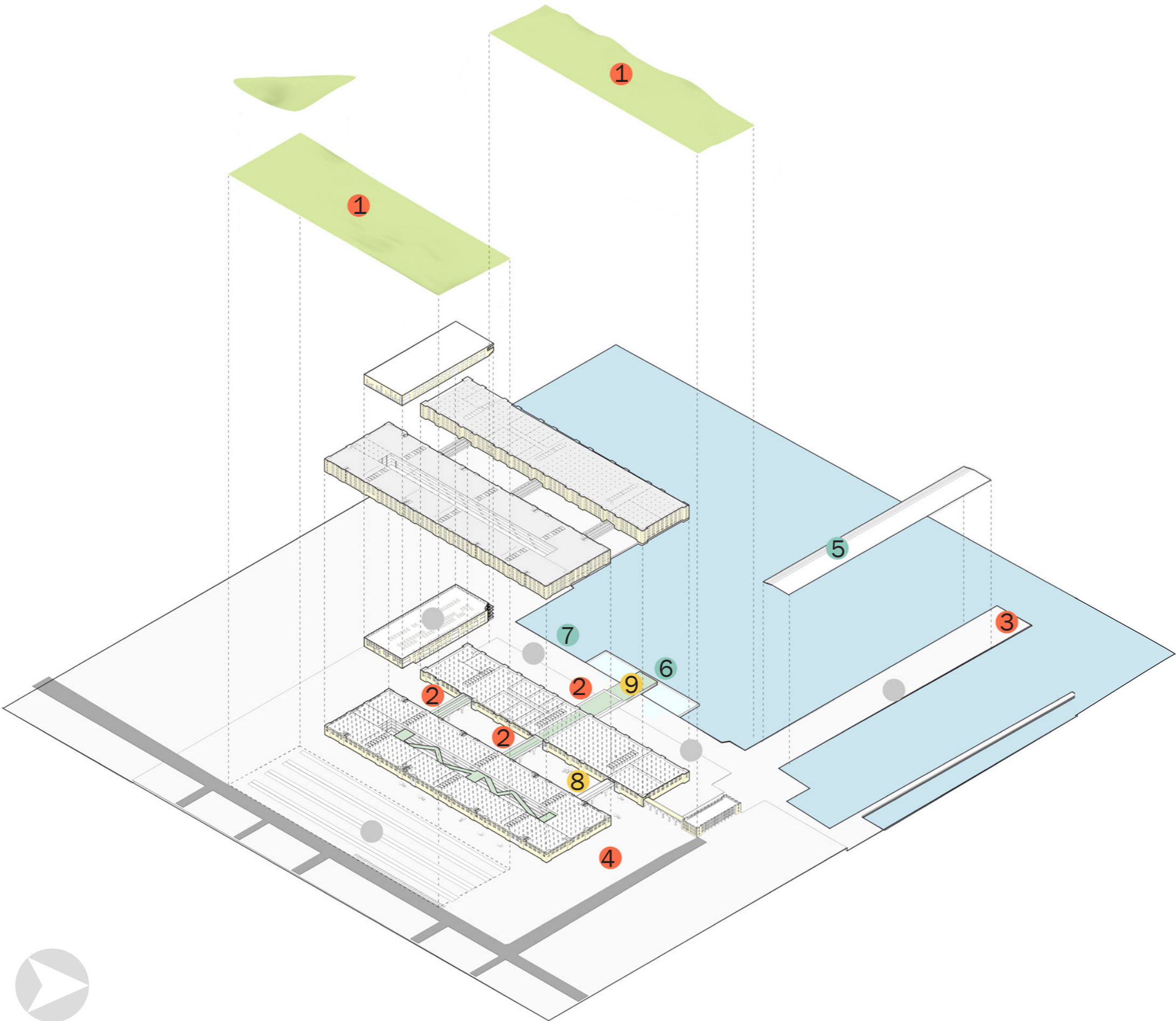
ADJACENT COMMUNITIES



NEW YORKERS



Design Elements



**PARKING:**

EXISTING: 1700  
ADDITIONAL: 2900

**WELL BEING:**

- 1. LANDSCAPE MOUNDS:
- 2. CONNECTION BRIDGES
- 3. OUTDOOR WORKOUT AND YOGA
- 4. DOG PARK

**WATER FRONT**

- 5. STEPPED SEATING
- 6. PUBLIC POOL
- 7. WATER ACTIVITIES

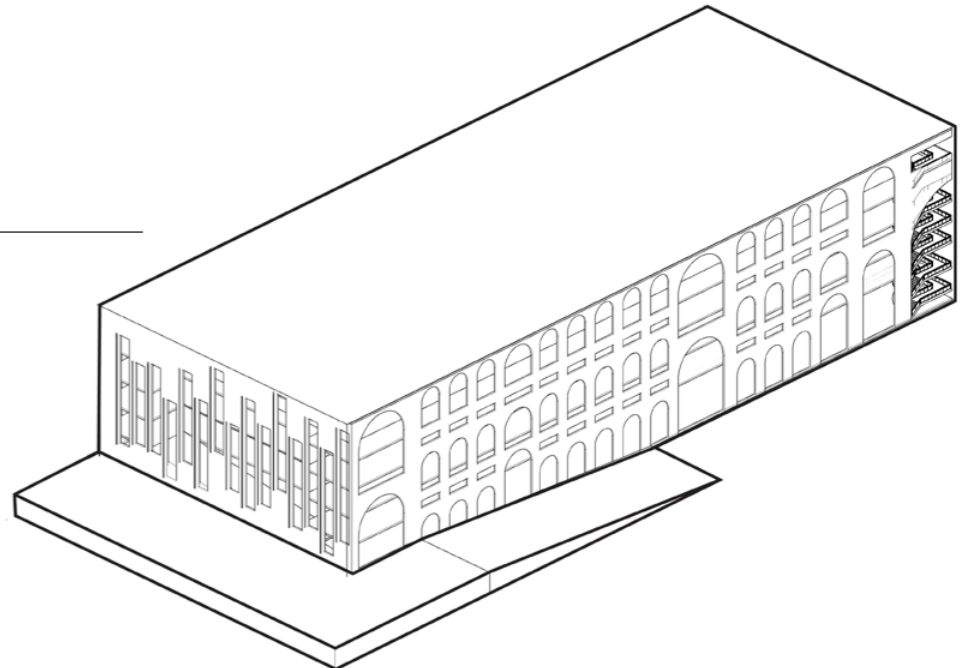
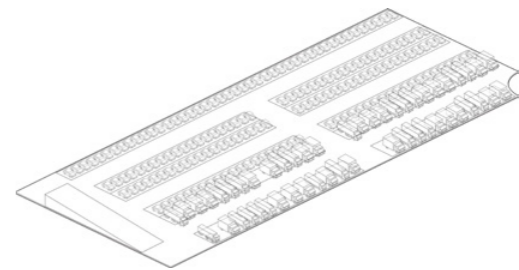
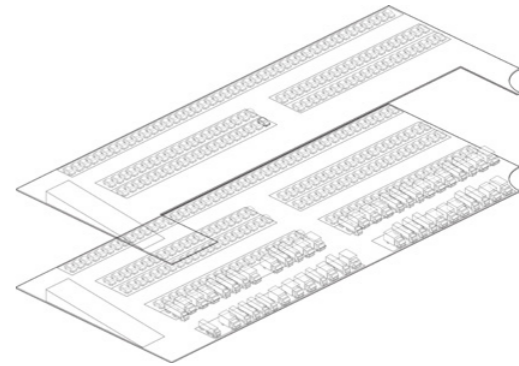
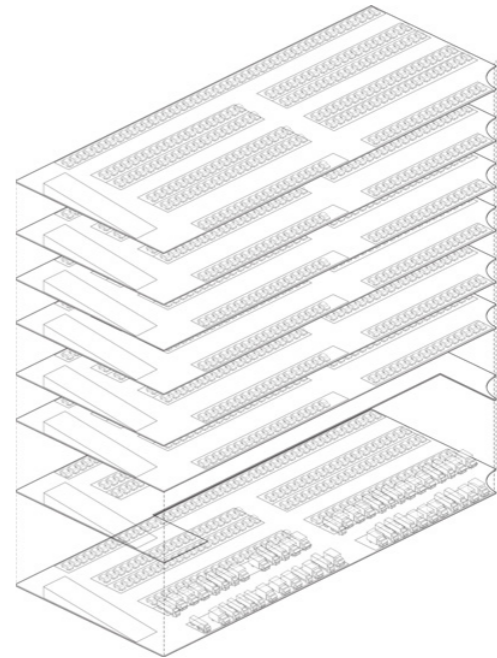
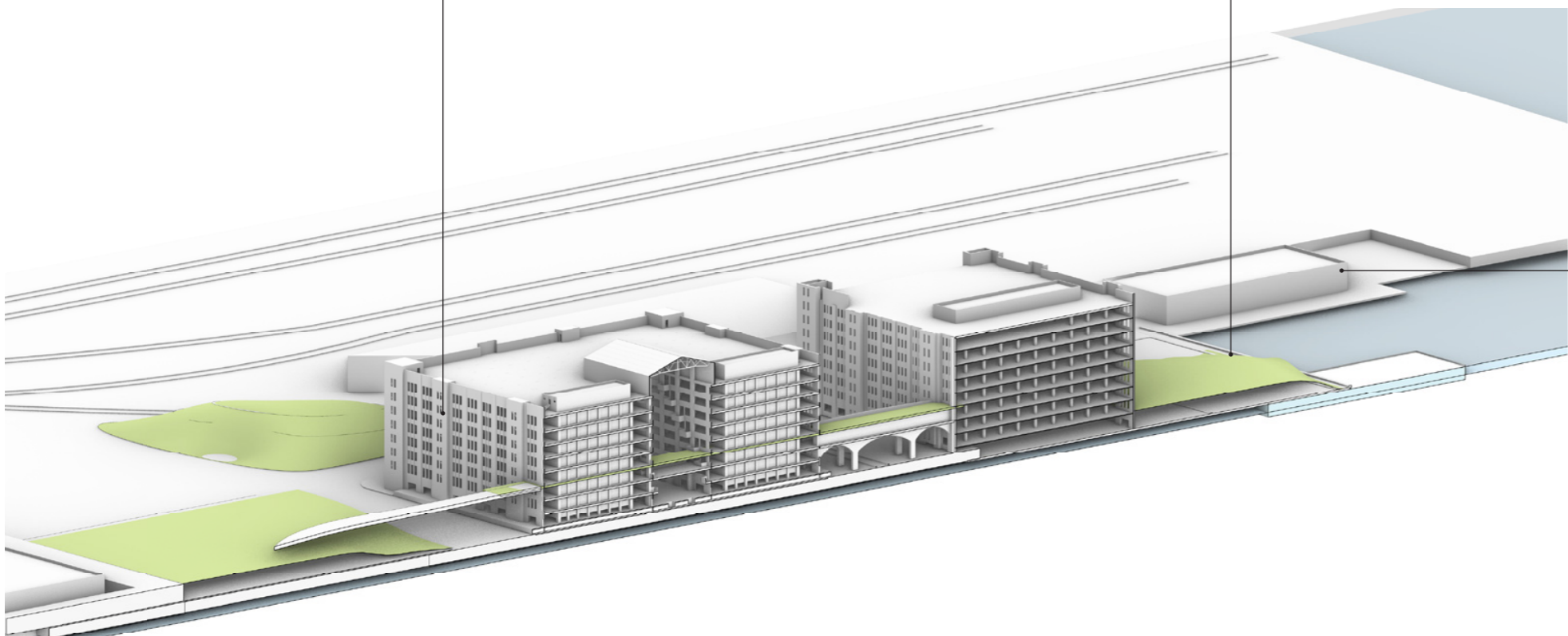
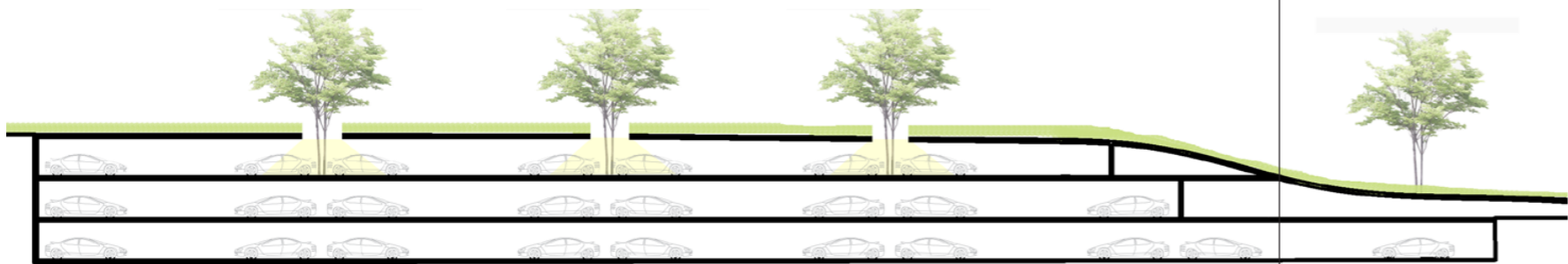
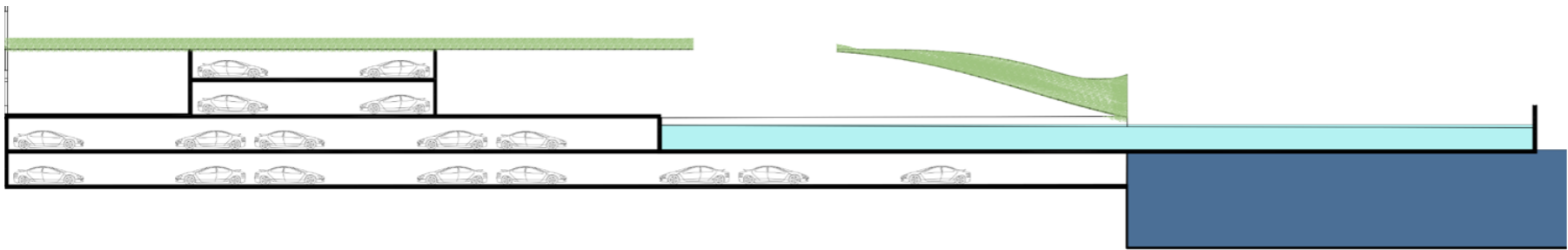
**HISTORY**

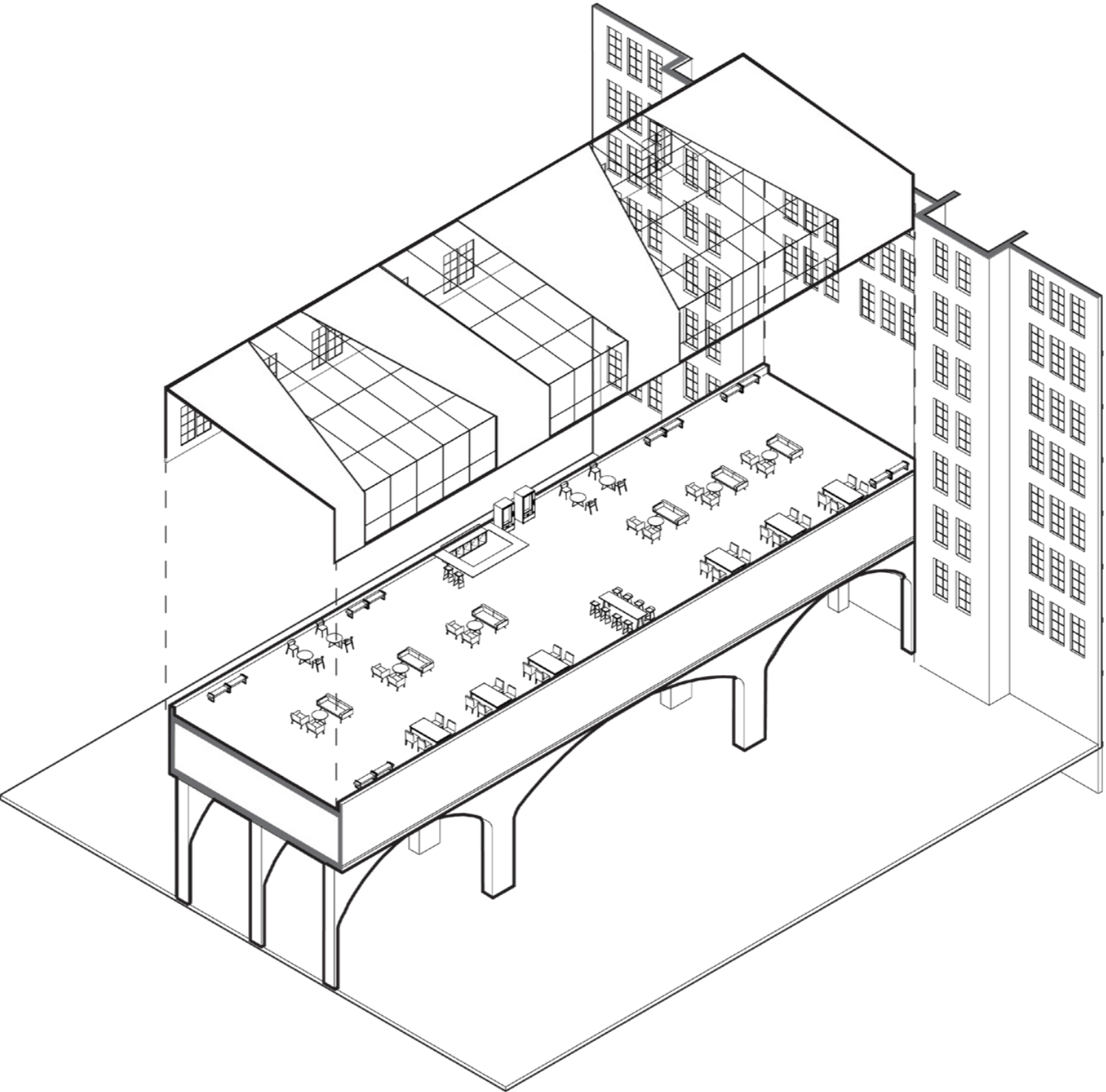
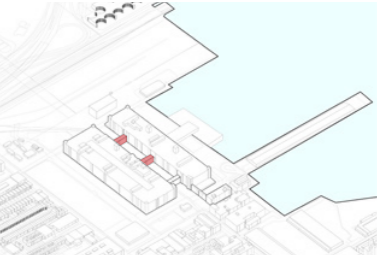
- 8. HISTORY MUSUEM
- 9. LIBRARY





Parking Facilities

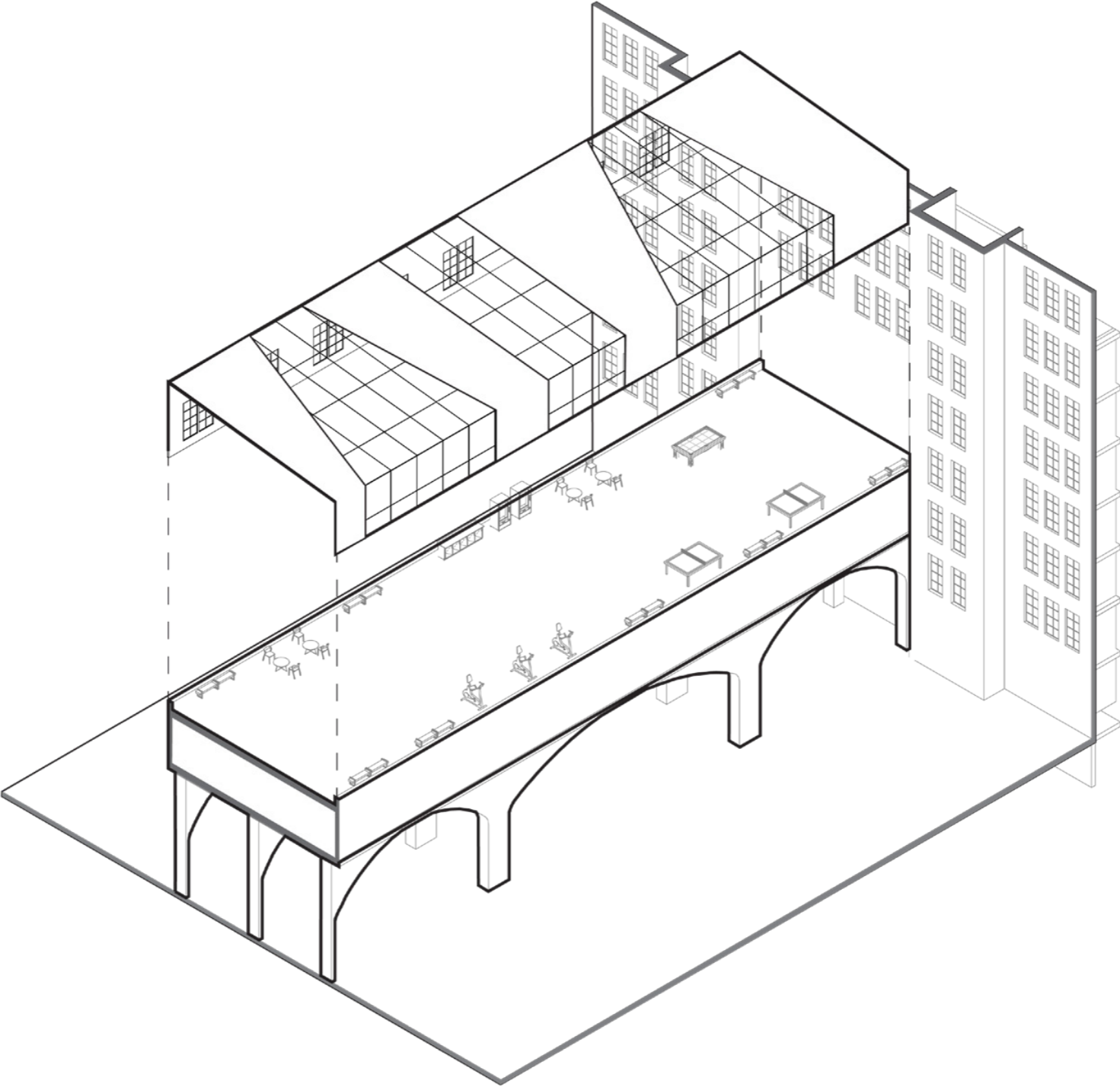
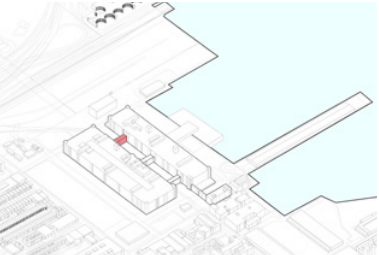










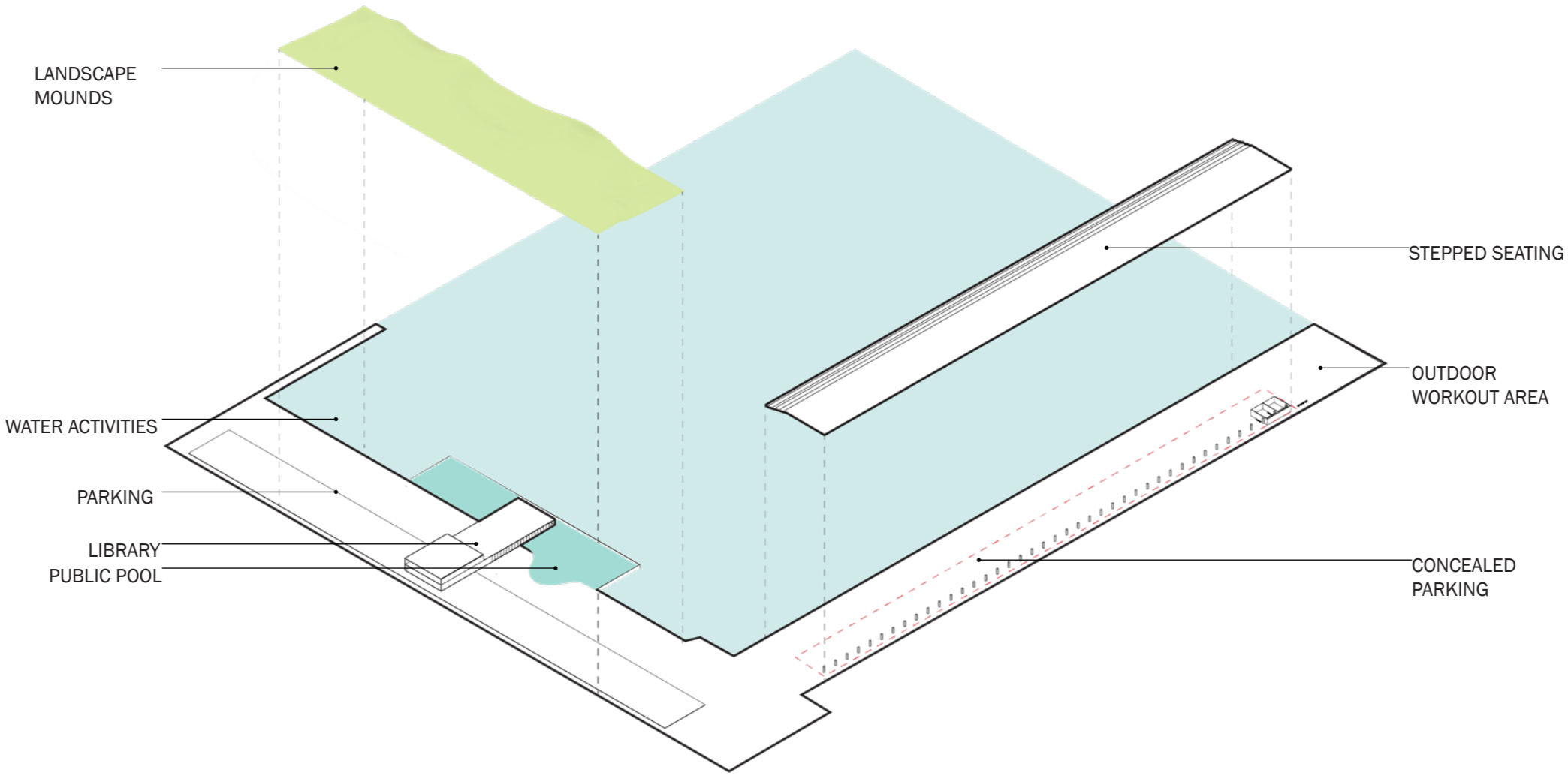
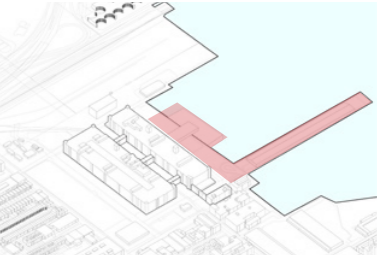




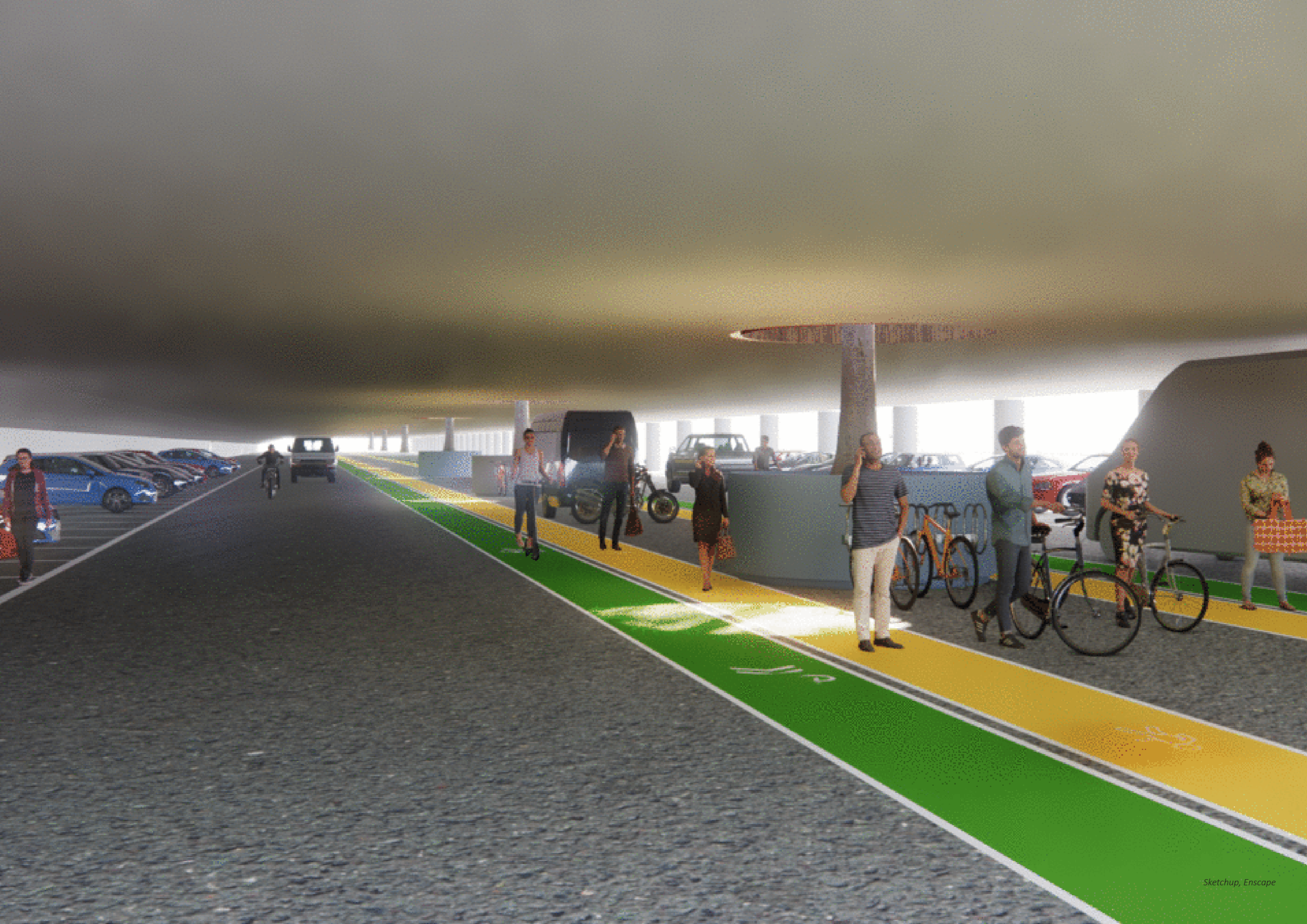




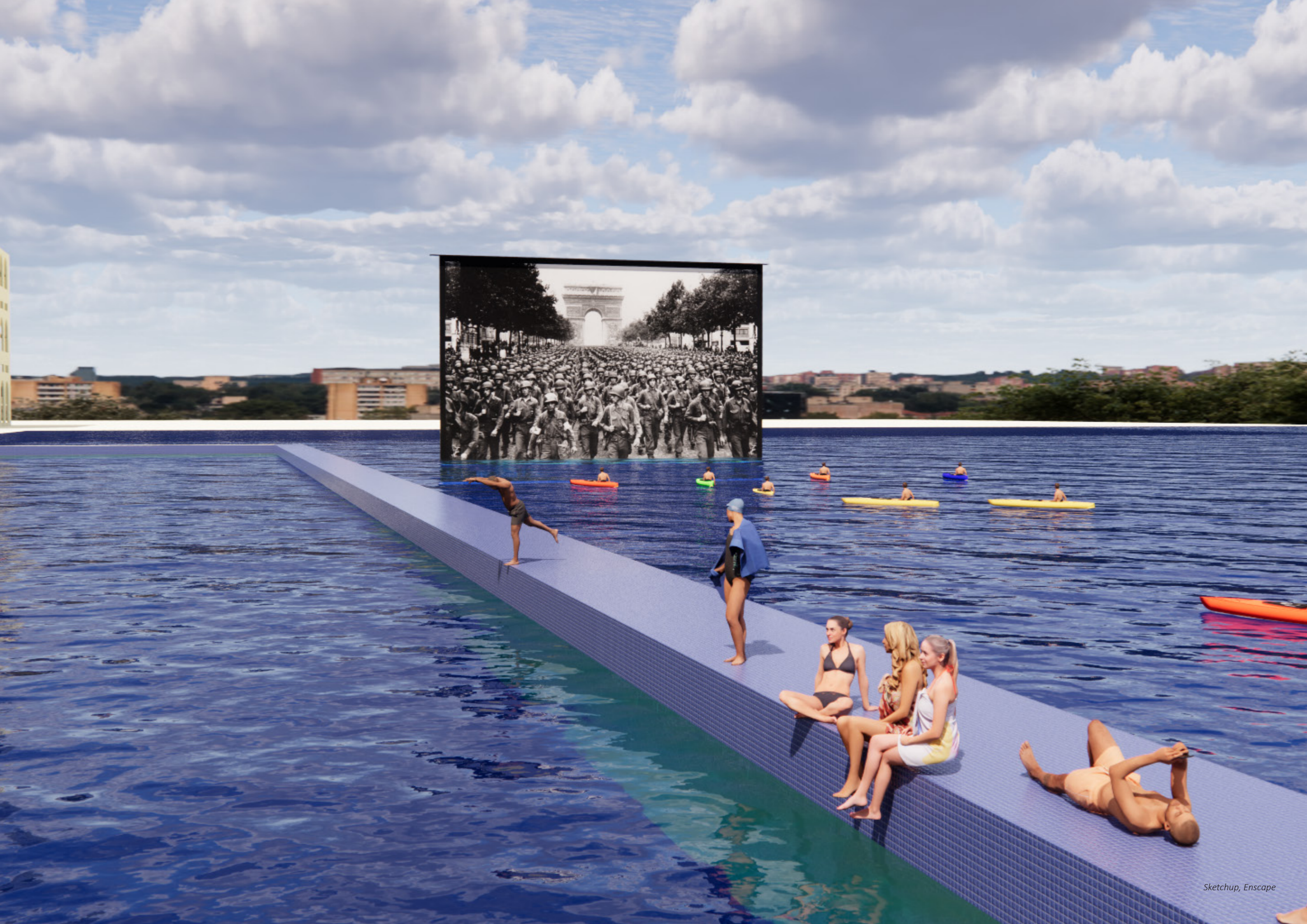
# Waterfront Proposal



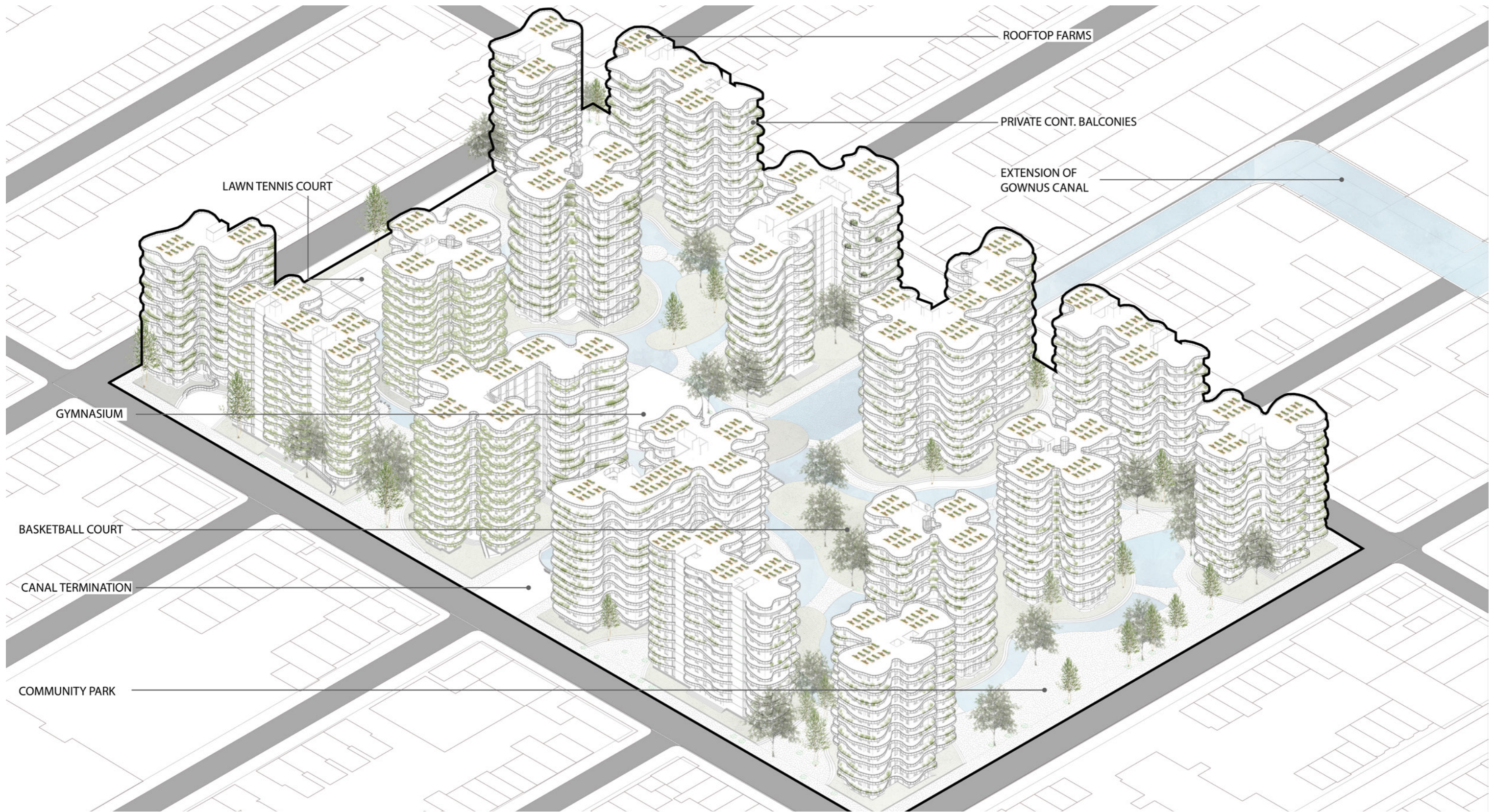












MENTOR : Mr. Stephan Burks

SITE : NYCHA, Gowanus, Brooklyn

DESIGN INTENT : Public housing has always been designed to accommodate maximum FAR without taking into consideration the requirements, comfort, and aesthetics. Housing and architecture have always been treated as two different things specially when it comes to public housing. The idea is to bridge this gap that has been created between architecture and housing to create welcoming, homely and comfortable places for the residents of public housing.

Our site, Gowanus Housing by NYCHA, is planned with almost 65-70 percent green spaces. However, these green spaces are not designed to create relaxing, refreshing, usable and playful outdoor spaces for the residents. The central idea of my proposal is to utilize these open spaces to the advantage of the residents and create a landscape envelope that reactivates these open spaces. The landscape design will be welcoming and enjoyable, to improve the quality fo life for people at NYCHA, create a mixed income housing with facilities that benefit all, increase the porosity of the neighbourhood on site and create a fine experience for the users of this space.

*SketchUp, Photoshop*

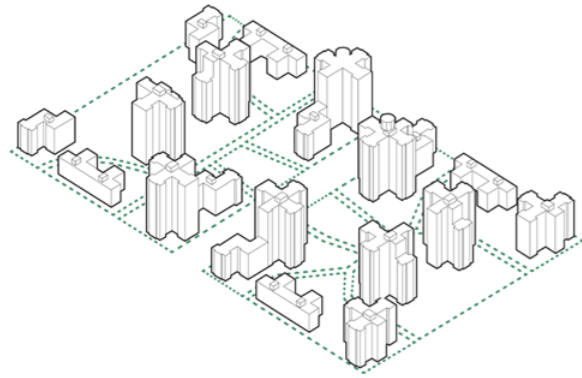
# 02

## HOUSING LANDSCAPES



SITE OBSERVATIONS

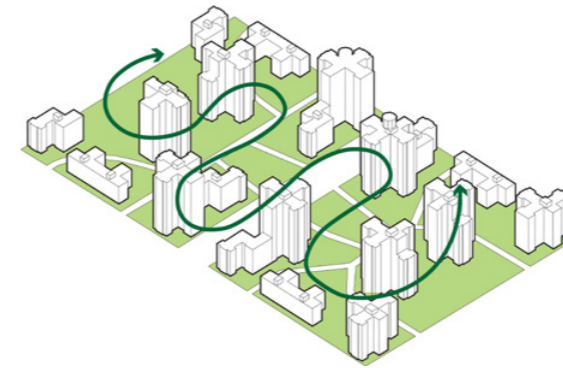
SITE GOALS



unused open spaces



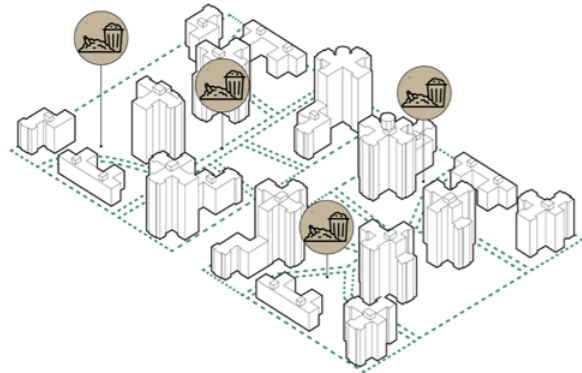
excessive fencing



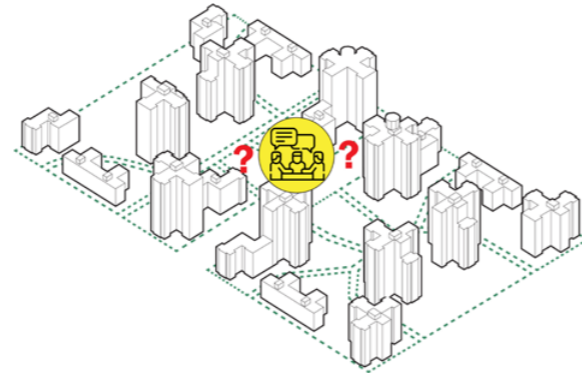
reactivate open spaces



create a sense of community



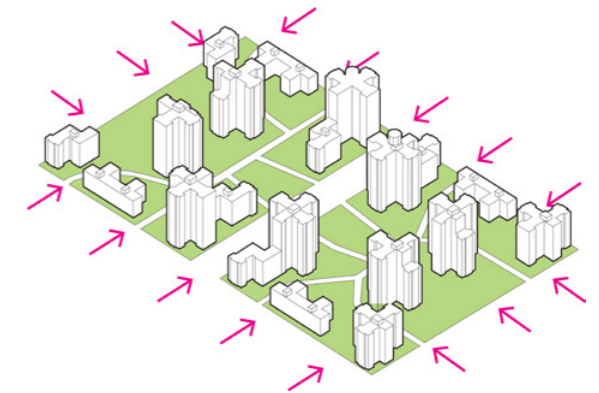
unmaintained common areas



banal community spaces



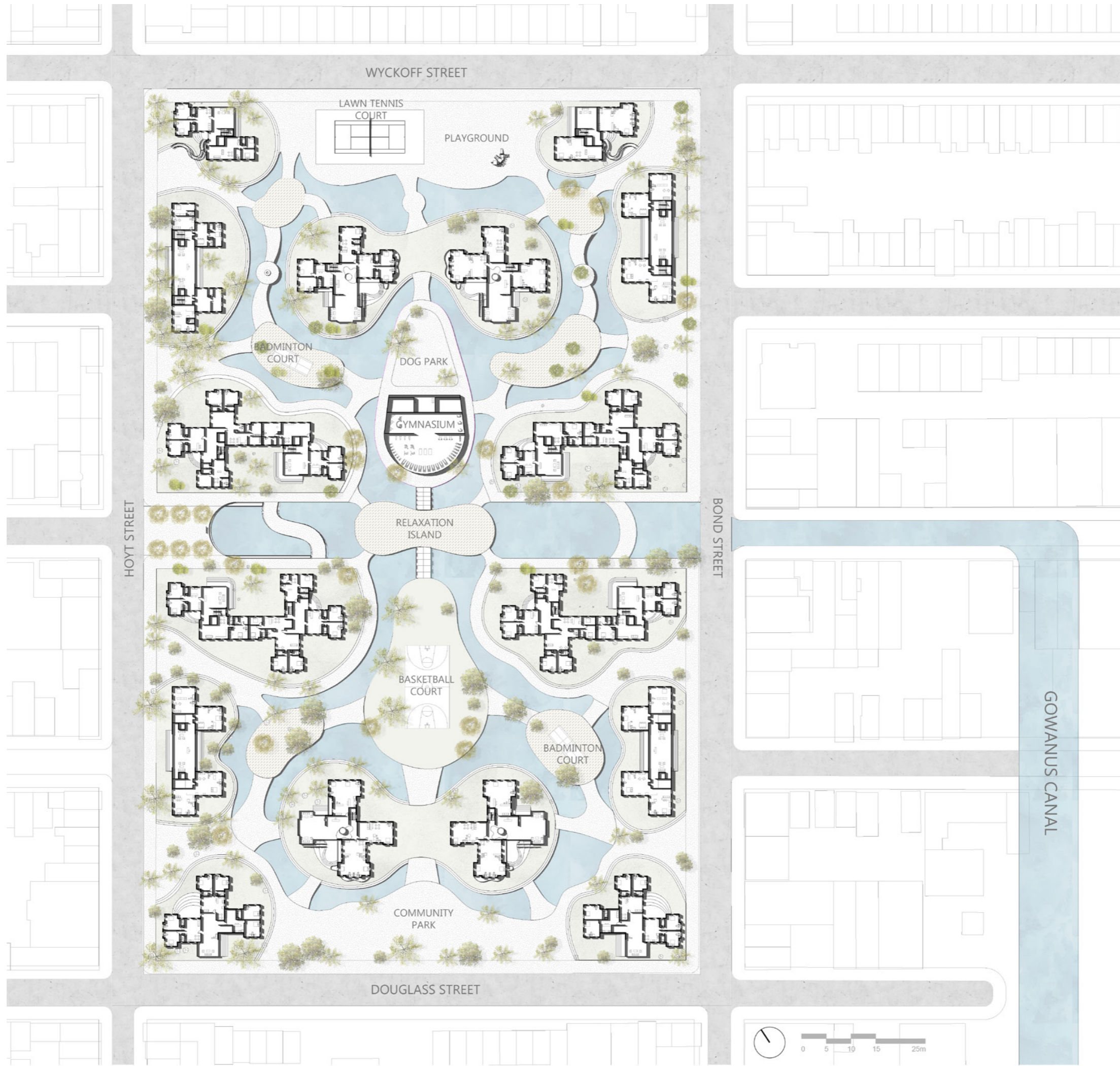
housing for all



increase the porosity on site







WYCKOFF STREET

LAWN TENNIS COURT

PLAYGROUND

BADMINTON COURT

DOG PARK

GYMNASIUM

RELAXATION ISLAND

BASKETBALL COURT

BADMINTON COURT

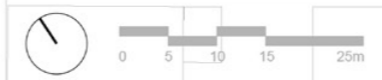
COMMUNITY PARK

DOUGLASS STREET

HOYT STREET

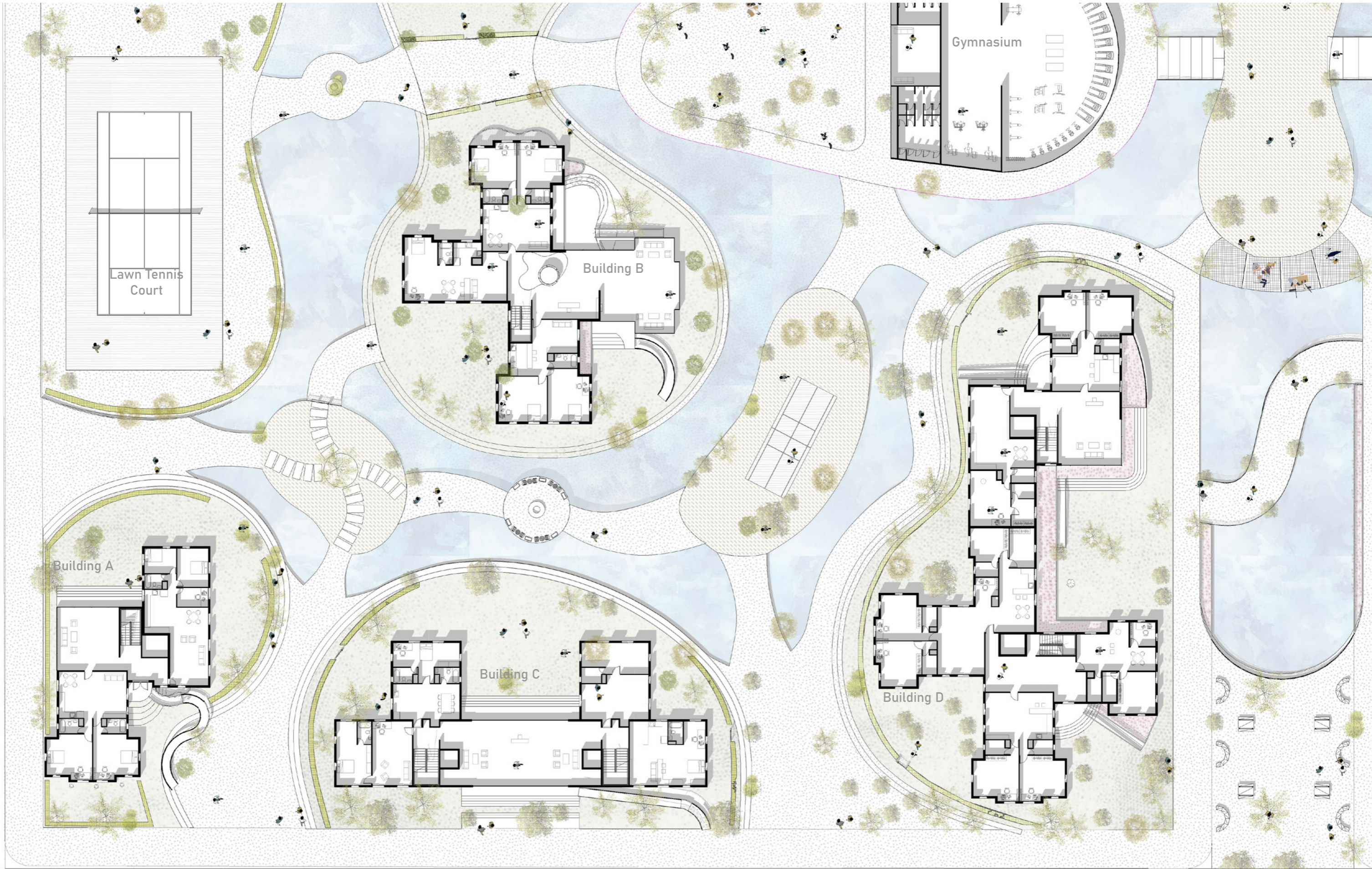
BOND STREET

GOWANUS CANAL





Detailed Plan

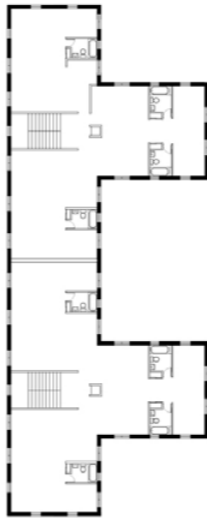




Building Layout Development



Existing layout



Cleared layout  
(ducts and washrooms retained)



Proposed Lobby Layout



Existing layout



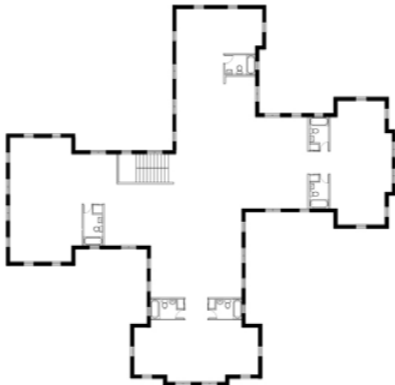
Cleared layout  
(ducts and washrooms retained)



Proposed Lobby Layout



Existing layout



Cleared layout  
(ducts and washrooms retained)



Proposed Lobby Layout



Proposed layout A



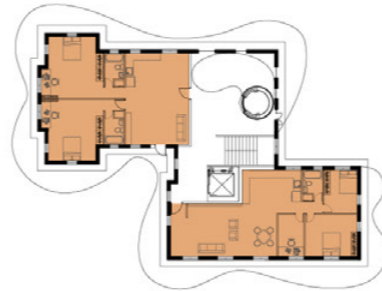
Proposed Layout B



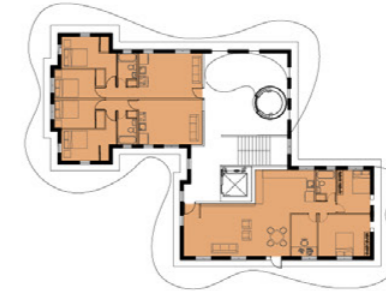
Mixed Layout of existing and proposed



Proposed layout A



Proposed Layout B



Mixed Layout of existing and proposed



Proposed layout A



Proposed Layout B

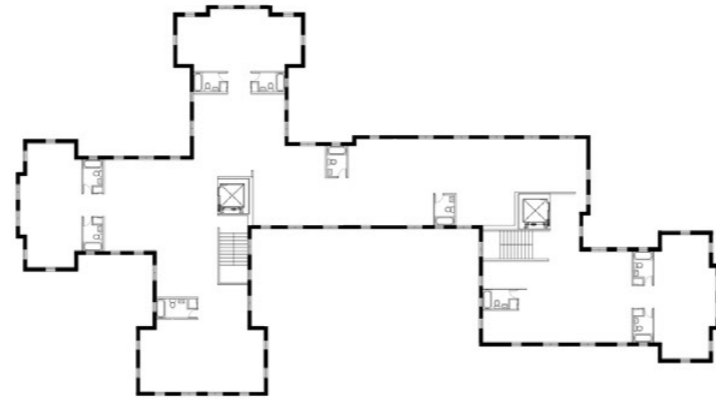


Mixed Layout of existing and proposed





Existing layout



Cleared layout  
(ducts and washrooms retained)



Proposed Lobby Layout



Existing layout



Cleared layout  
(ducts and washrooms retained)



Proposed Lobby Layout



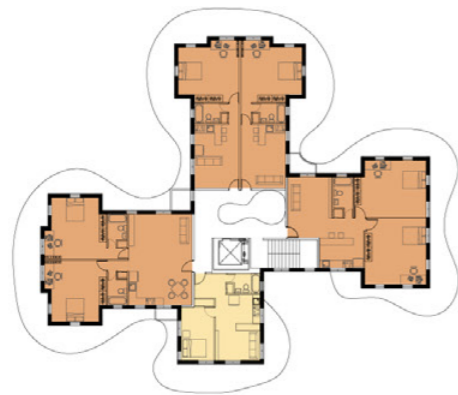
Proposed layout A



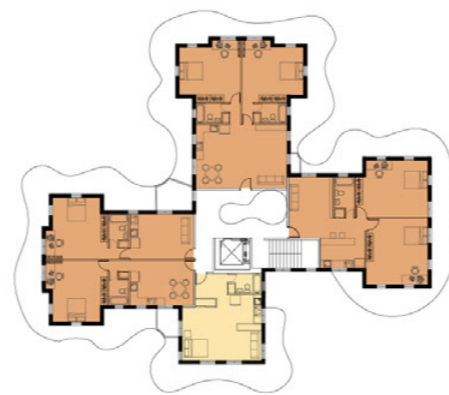
Proposed Layout B



Mixed Layout of existing and proposed



Proposed layout A



Proposed Layout B



Mixed Layout of existing and proposed





GOWANUS - C













# 03

## WOOD AND PLANTS

MENTOR : Prof.Andres Jaque

**INTENT :** The course interrogates the way architectural devices and architectural practices gain collective relevance by participating in the making of contemporary realities; by facing current environmental, technological and representational challenges; and by being part of ongoing interactions, collaborations, disputes and coexistences. Organized around a series of case-studies—half of them coming from the field of architecture, half of them brought by speakers who approach architecture from non-architectural fields—this course has

as a main goal to interrogate the way architecture is part of the shared concerns that shape the evolution of the world's societies and ecosystems; that is to say, to explore what is the way architectural practices are shaped by confronting and being part of shared concerns. In brief, the course scrutinizes agendas, tools and methodologies and the way in which they take part in the forms of political engagement architecture participates in. cts, post processing software, and 3rd party plug-ins. We explored different means of composition, including sketching and photography.



# Plants



## SNAKE PLANT

|              |                                      |
|--------------|--------------------------------------|
| Family       | Asparagaceae                         |
| Plant Type   | Evergreen, perennial                 |
| Mature Size  | Six inches to 12 feet tall           |
| Sun Exposure | Shade to partial sun                 |
| Soil Type    | Sandy, well-drained                  |
| Soil pH      | Slightly acidic to slightly alkaline |
| Bloom Time   | Spring (blooms are rare)             |
| Flower Color | White                                |
| Native Area  | West Africa (tropical)               |

## ALOE VERA

|              |                               |
|--------------|-------------------------------|
| Family       | Aloe barbadensis miller       |
| Plant Type   | Succulent                     |
| Mature Size  | 1-2 feet tall                 |
| Sun Exposure | Indirect sunlight             |
| Soil Type    | Sandy                         |
| Soil pH      | 7.0-8.5                       |
| Bloom Time   | Summer                        |
| Flower Color | Yellow, red, or orange        |
| Native Area  | Africa, the Arabian Peninsula |



## PEACE LILY

|              |  |
|--------------|--|
| Family       | Araceae                                  |
| Plant Type   | Flowering tropical plant                 |
| Mature Size  | 1-3 ft. tall; up to 6 feet tall outdoors |
| Sun Exposure | Partial shade                            |
| Soil Type    | Moist but well-drained                   |
| Soil pH      | Acidic                                   |
| Bloom Time   | Spring                                   |
| Flower Color | White or yellow                          |
| Native Area  | Central America, Asia                    |

## BAMBOO PALM

|              |   |
|--------------|---|
| Family       | Bamboo  |
| Plant Type   | Perennial, clustered parlour palm, reed palm, |
| Mature Size  | 4-12 ft. tall, 3-5 ft. wide                   |
| Sun Exposure | Partial, shade                                |
| Soil Type    | Moist but well-drained                        |
| Soil pH      | Acidic, neutral                               |
| Bloom Time   | Spring, summer                                |
| Flower Color | Yellow, orange                                |
| Native Area  | Central America                               |



## SPIDER PLANT

|              |                             |
|--------------|-----------------------------|
| Family       | Asparagaceae                |
| Plant Type   | Herbaceous, perennial       |
| Mature Size  | 1-2 ft. tall and wide       |
| Sun Exposure | Partial, shade              |
| Soil Type    | Loamy, well-drained         |
| Soil pH      | Neutral                     |
| Bloom Time   | Flowers regularly           |
| Flower Color | White                       |
| Native Area  | Central and Southern Africa |

## GOLDEN BAMBOO

|              |  |
|--------------|--|
| Family       | Bamboo                                 |
| Plant Type   | Perennial, shrub                       |
| Mature Size  | 8-15 ft. (outdoors), 2-4 ft. (indoors) |
| Sun Exposure | Full, partial                          |
| Soil Type    | Loamy, moist, well-drained             |
| Soil pH      | Acidic                                 |
| Bloom Time   | Nonflowering                           |
| Flower Color | Nonflowering                           |
| Native Area  | China                                  |



## Sashimono - Japanese Joinery

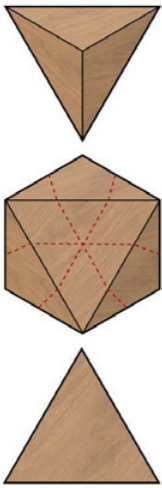
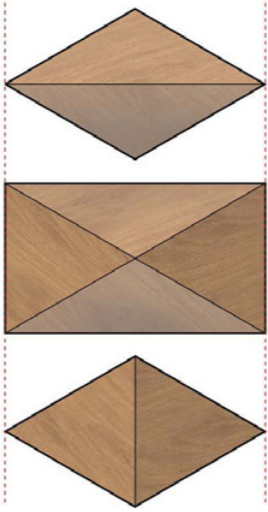
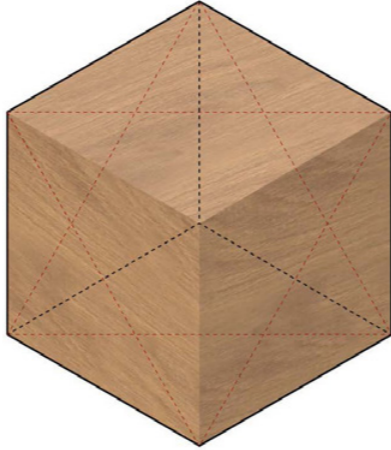
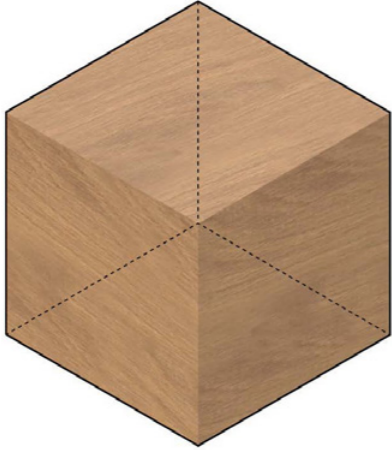
“Sashimono” is a technique for assembling furniture and other wooden items without nails, using both simple and highly complex wood joints. Mortises or grooves called ‘hozo’ are carved into the wood in order to join two boards in a blind joint that’s not visible from the surface.

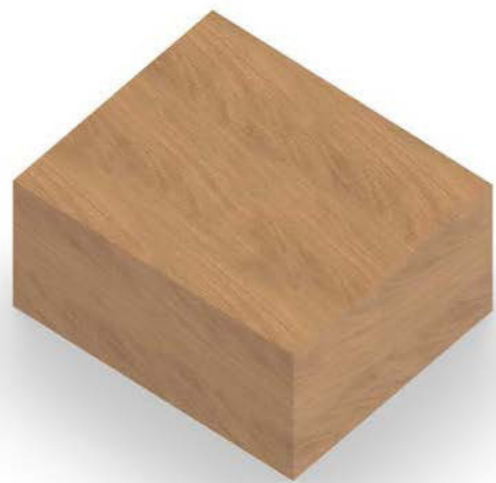
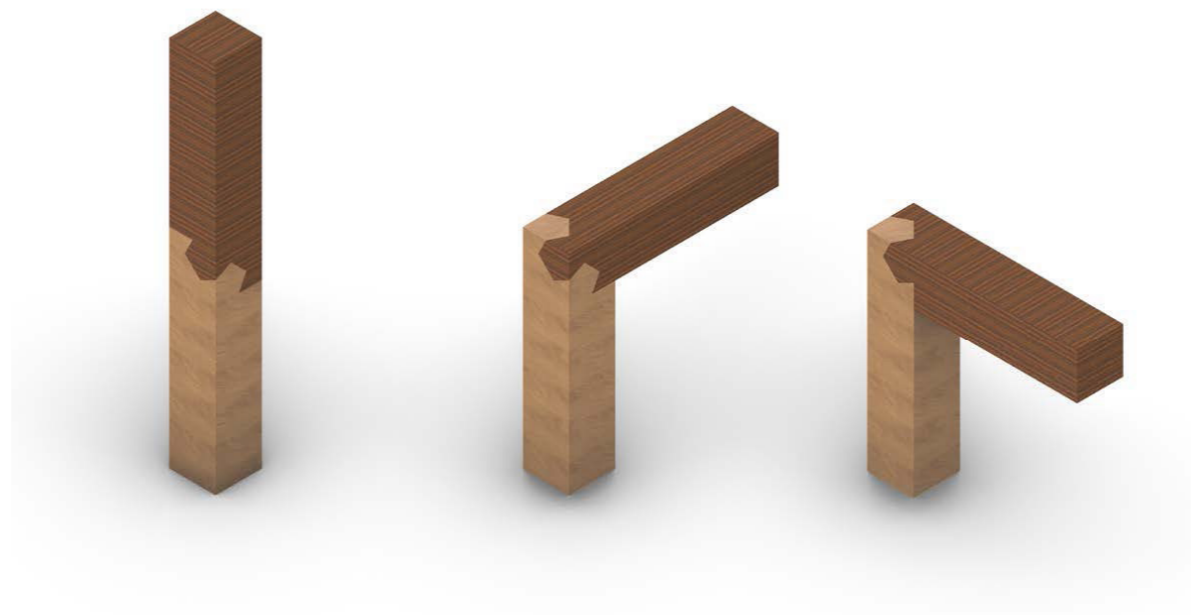
The term “Sashimono” derives from the traditional practice of using a woodwork ruler called a “monosashi” to carefully measure timber materials.



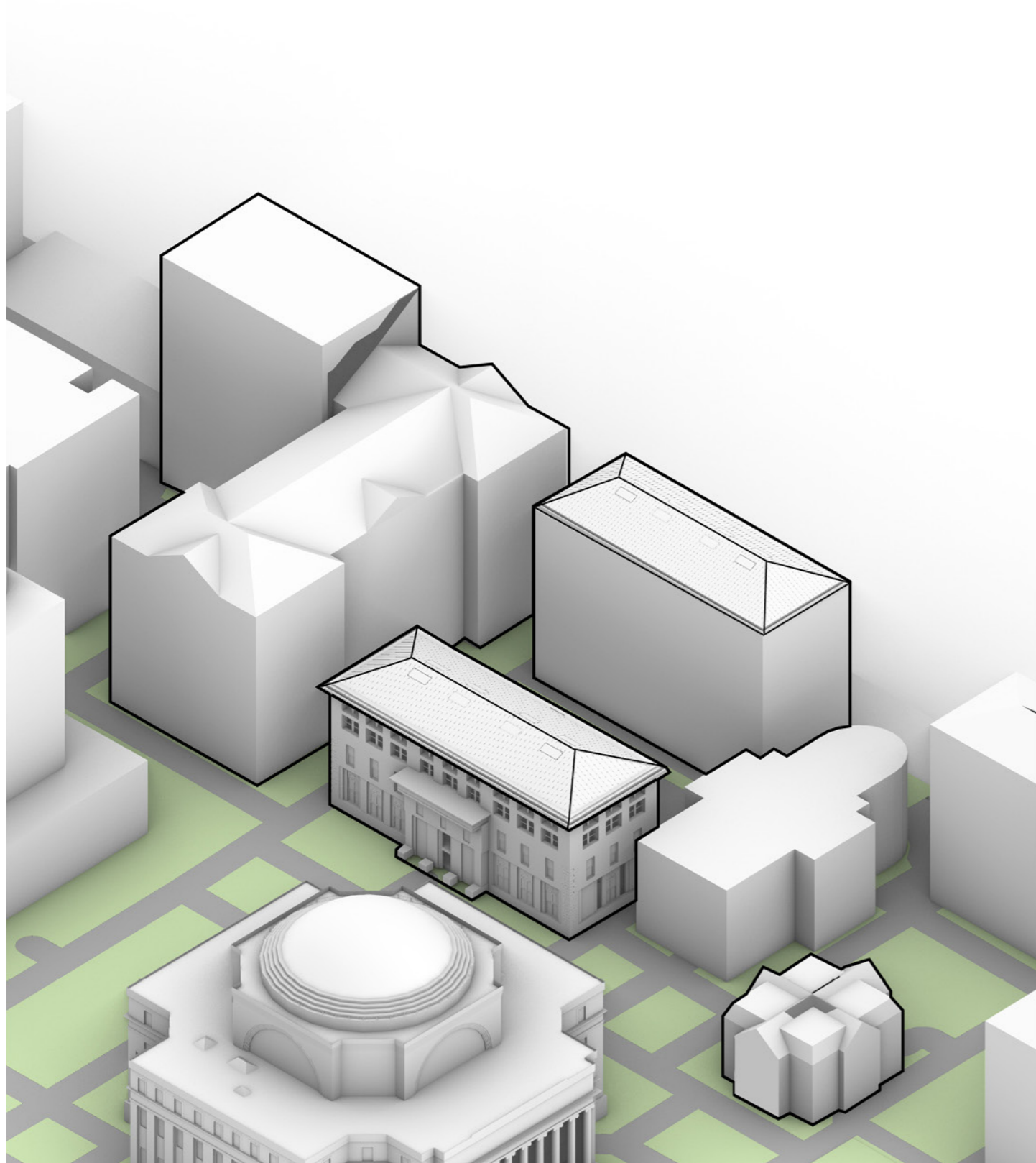
# Kawai Tsugite

The Kawai-tsugite connection was created in the 1980s by Professor Naohito Kawai when he was a student at the University of Tokyo. Kawai-tsugite is not a typical joint in Japan due to its complex geometry, and it was created primarily to test woodworkers' craftsmanship skills; thus, information and details about this specific joint are lacking in Japanese joinery books. In the name, Kawai comes from the creator of the joint, Naohito Kawai, and tsugite is the name commonly given to describe a splice joint in Japanese.









## **Scheremhorn Hall**

*Maker Space*

## **Fayweather Hall**

*AUD Studio  
UP Studio  
Real Estate Studio  
Historic Preservation*

*Offices*

*Classroom*

## **Avery Hall**

*MSAAD Studio  
M.Arch Studio*

*Library*

*Classroom*

*Auditorium*

*Offices*

*Bathrooms*

*Cafe and Kitchen*

*Utilities*

## **Beull Hall**

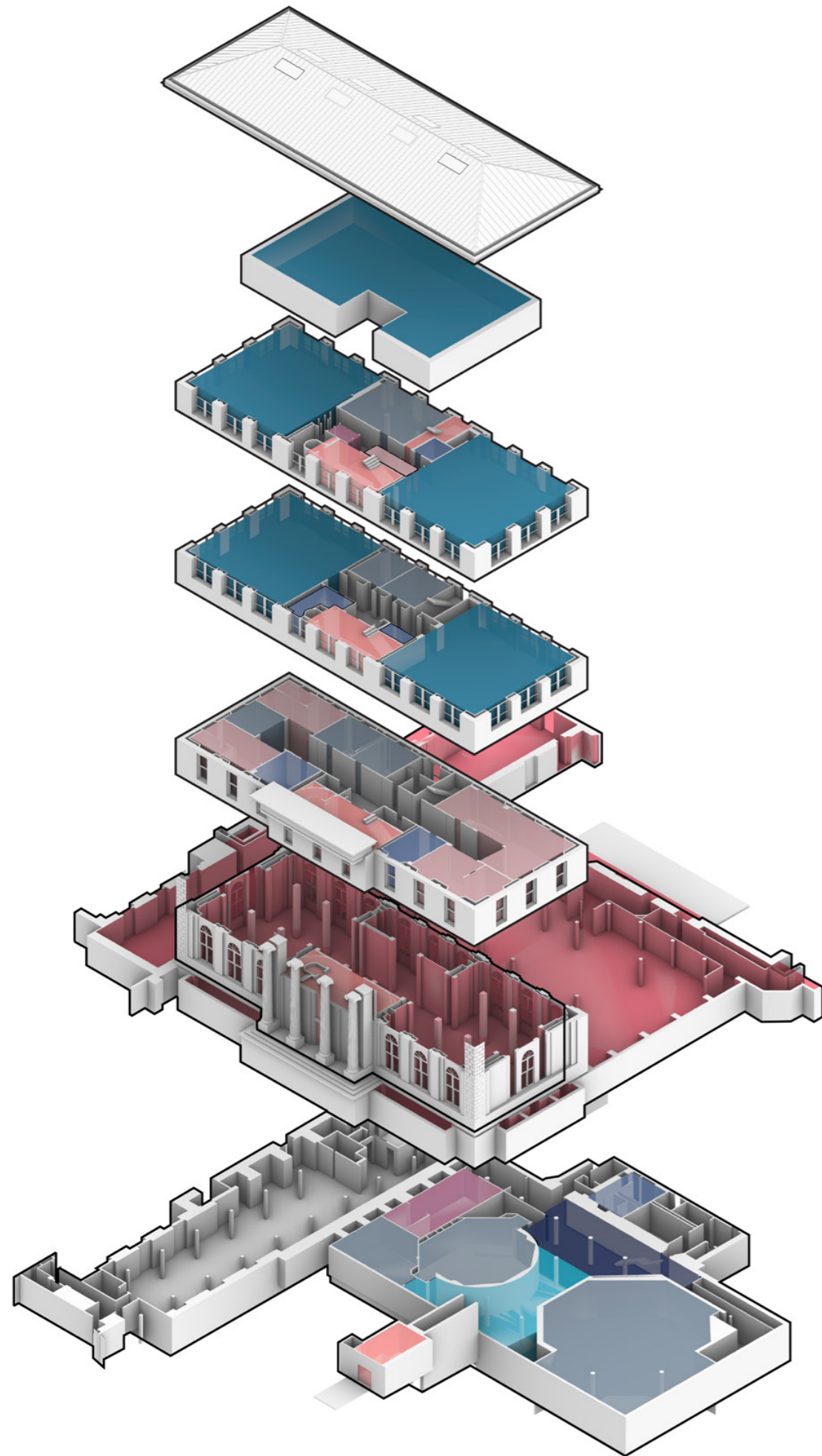
*Exhibition Space*

*Classroom*

*Offices*

*Bathrooms*

Avery Area Distribution



|   |  |  |  |
|---|--|--|--|
| <span style="display:inline-block; width:15px; height:15px; background-color: #c0392b; border:1px solid black;"></span> Library | <span style="display:inline-block; width:15px; height:15px; background-color: #f08080; border:1px solid black;"></span> Core         | <span style="display:inline-block; width:15px; height:15px; background-color: #95a5a6; border:1px solid black;"></span> Classrooms | <span style="display:inline-block; width:15px; height:15px; background-color: #009682; border:1px solid black;"></span> Exhibition Space |
| <span style="display:inline-block; width:15px; height:15px; background-color: #d9ead3; border:1px solid black;"></span> Offices | <span style="display:inline-block; width:15px; height:15px; background-color: #2c3e50; border:1px solid black;"></span> Kitchen/Cafe | <span style="display:inline-block; width:15px; height:15px; background-color: #00728f; border:1px solid black;"></span> Studio     | <span style="display:inline-block; width:15px; height:15px; background-color: #34495e; border:1px solid black;"></span> Bathrooms        |

|                 |       |             |
|-----------------|-------|-------------|
| Bathrooms       | 600 m | 200         |
|                 | 600 w | 200         |
|                 | 500 m | 175         |
|                 | 500 w | 175         |
|                 | 400 m | 120         |
|                 | 400 w | 120         |
|                 | 100m  | 140         |
|                 | 100 w | 140         |
| <b>TOTAL: 8</b> |       | <b>1270</b> |

|                 |      |             |
|-----------------|------|-------------|
| Classrooms      | 115  | 625         |
|                 | Ware | 625         |
|                 | 504  | 300         |
|                 | 505  | 300         |
|                 | 408  | 300         |
|                 | 409  | 300         |
|                 | 412  | 250         |
|                 | 300  | 250         |
| <b>TOTAL: 8</b> |      | <b>2950</b> |

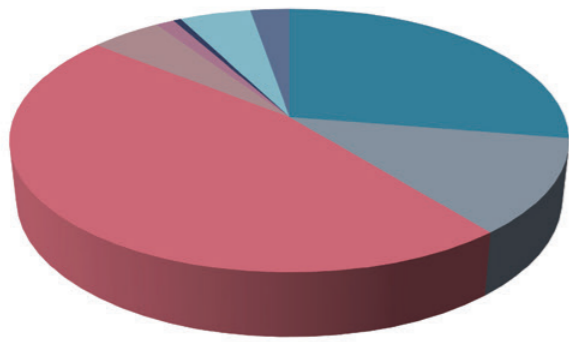
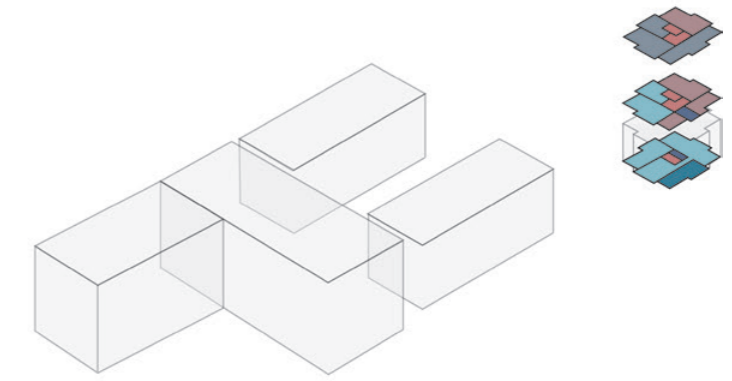
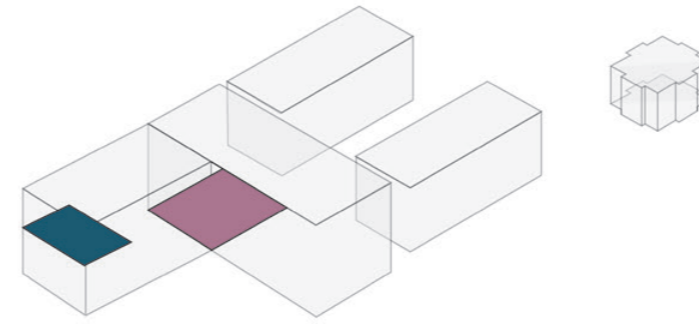
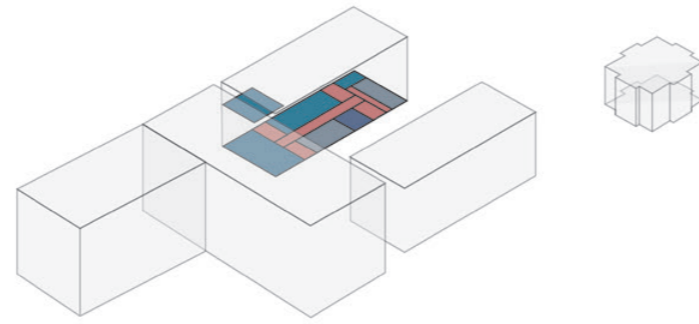
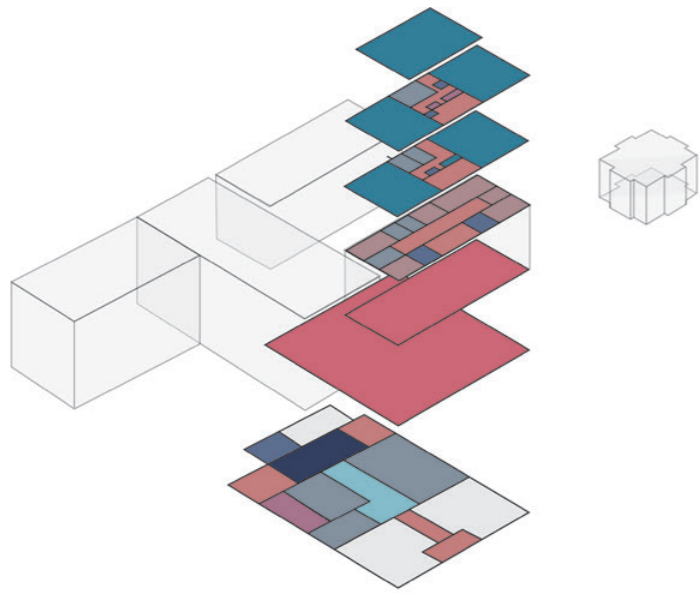
|                 |       |               |
|-----------------|-------|---------------|
| Studios         | 500 s | 2,300         |
|                 | 500 n | 2,300         |
|                 | 600 s | 2,300         |
|                 | 600 n | 2,300         |
|                 | 700   | 2,600         |
| <b>TOTAL: 5</b> |       | <b>11,800</b> |

|                 |                   |             |
|-----------------|-------------------|-------------|
| Offices         | IT/AV             | 175         |
|                 | 400 s (4 offices) | 1,500       |
|                 | 400 n (2 offices) | 600         |
| <b>TOTAL: 5</b> |                   | <b>2275</b> |

|                 |                            |             |
|-----------------|----------------------------|-------------|
| Other           | Kitchen                    | 220         |
|                 | Exhibition // Cafe Seating | 2250        |
|                 | OPS                        | 680         |
|                 | Wood Auditorium            | 4000        |
|                 | 114 Auditorium             | 1200        |
| <b>TOTAL: 5</b> |                            | <b>8350</b> |

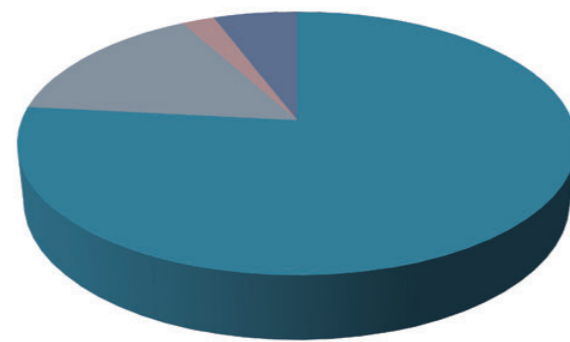


GSAPP Area Distribution



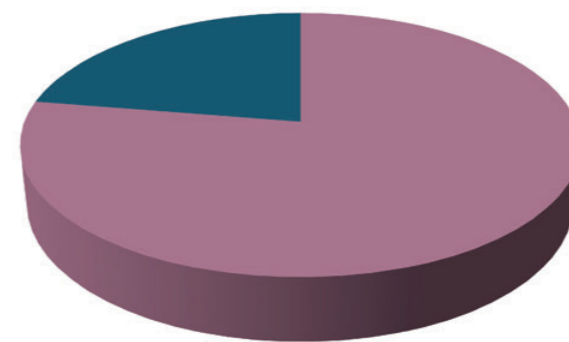
Total built area: 27000

- Avery Hall
- Avery Library
- Utilities
- Offices
- Cafe and Kitchen
- Exhibition space
- Studios
- Classrooms
- Classrooms



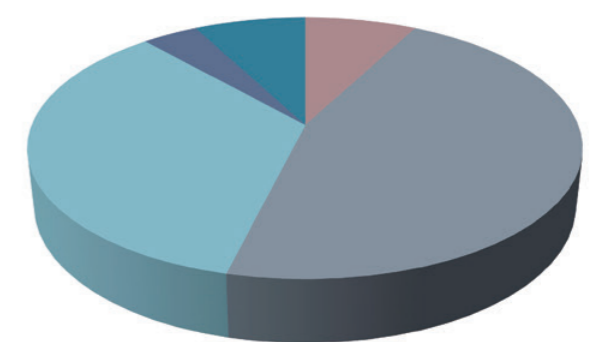
Total built area: 7500

- Fayweather Hall
- Studios
- Classrooms
- Offices



Total built area: 4200

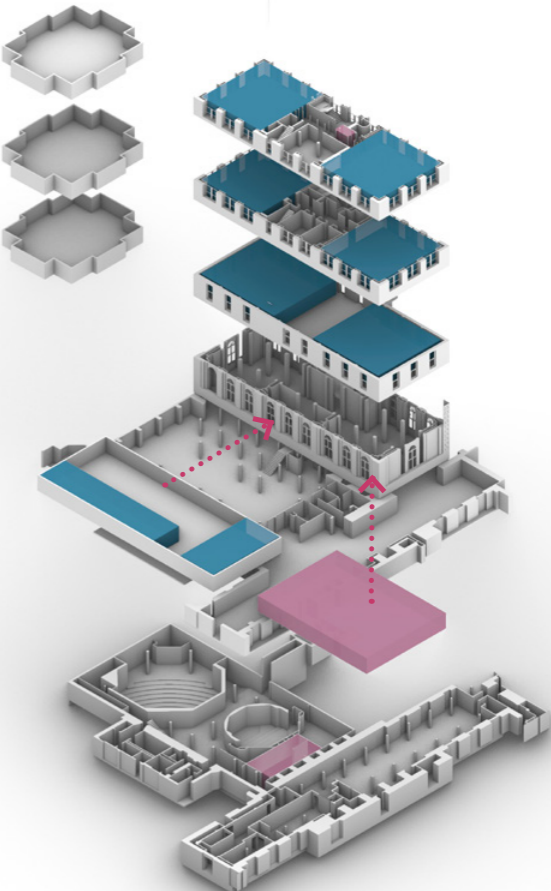
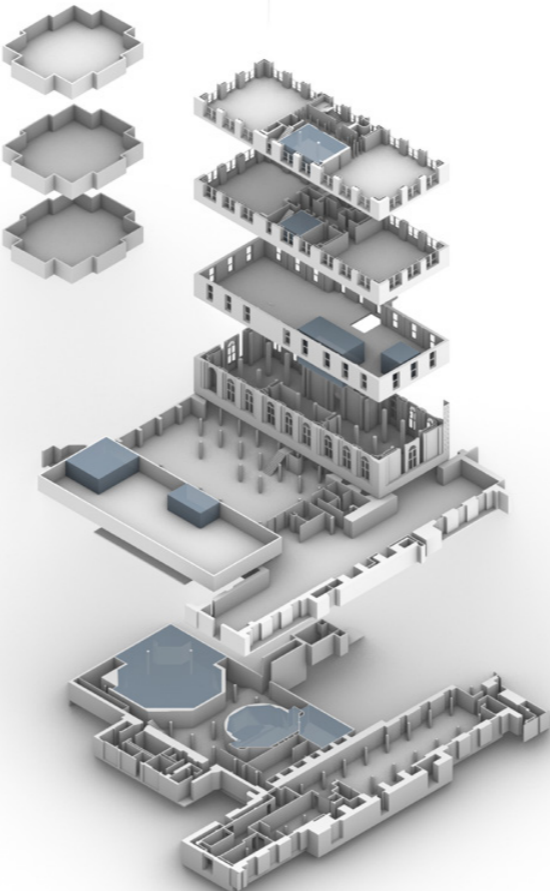
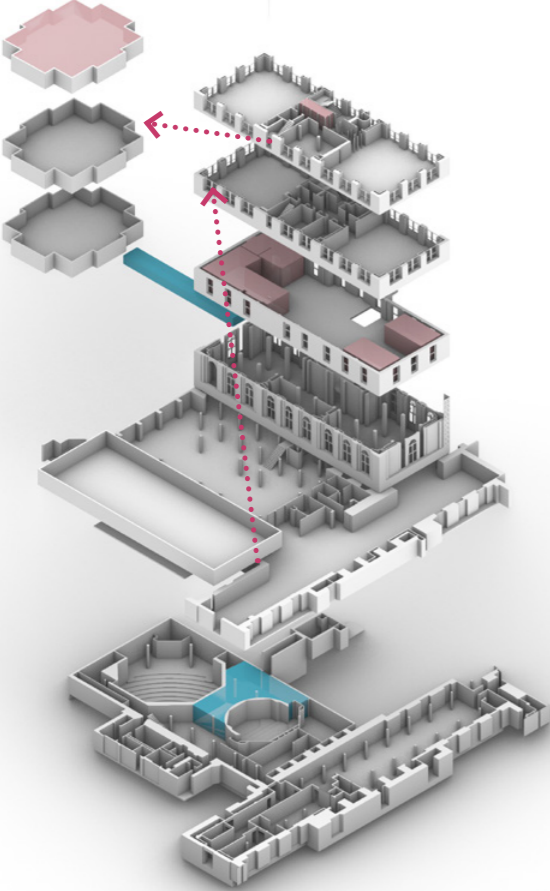
- Schermerhorn Hall
- Utilities
- Preservation Lab



Total built area: 12000

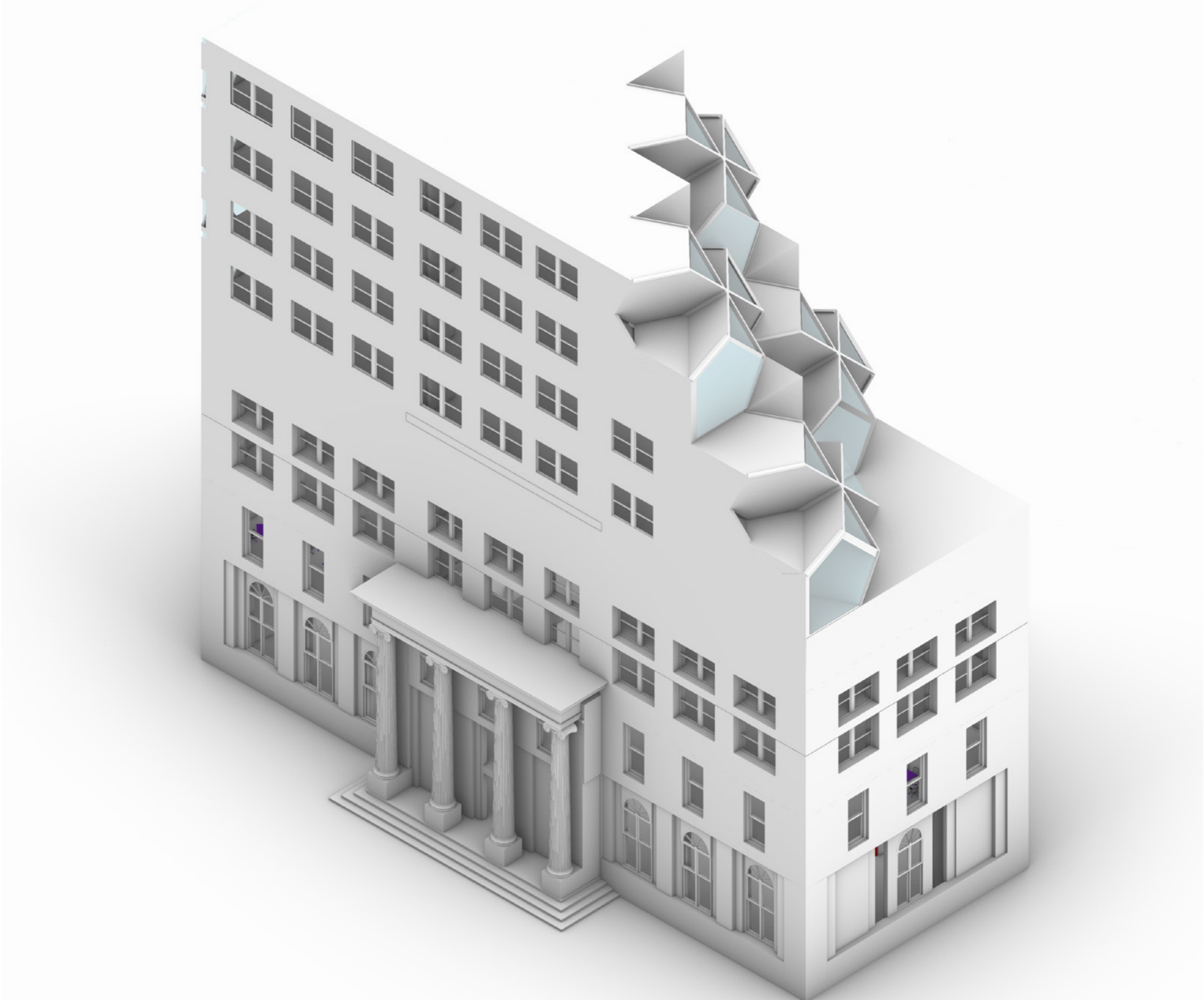
- Beull Hall
- Exhibition space
- Classrooms
- Offices

Area Re-allocation and addition



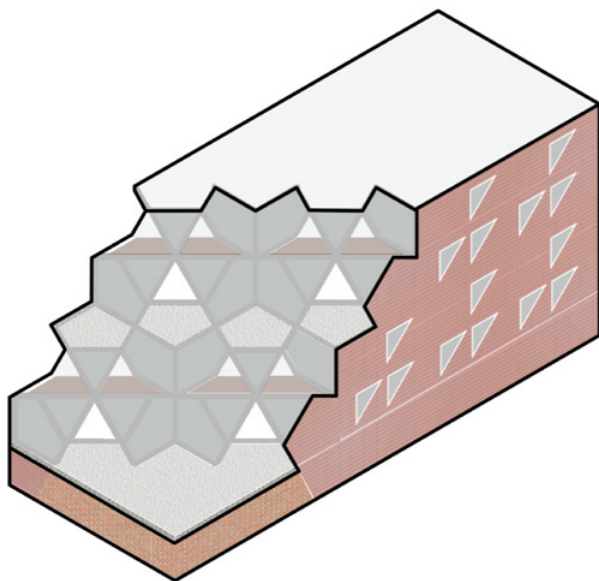
- Library
- Offices
- Core
- Kitchen/Cafe
- Classrooms
- Studio
- Exhibition Space
- Bathrooms



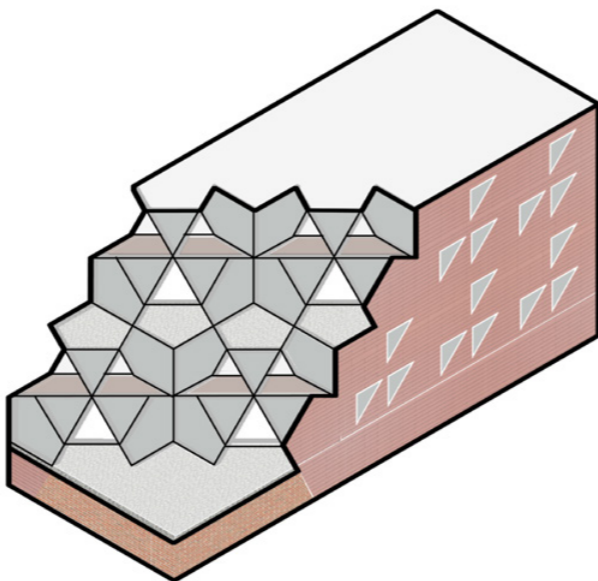




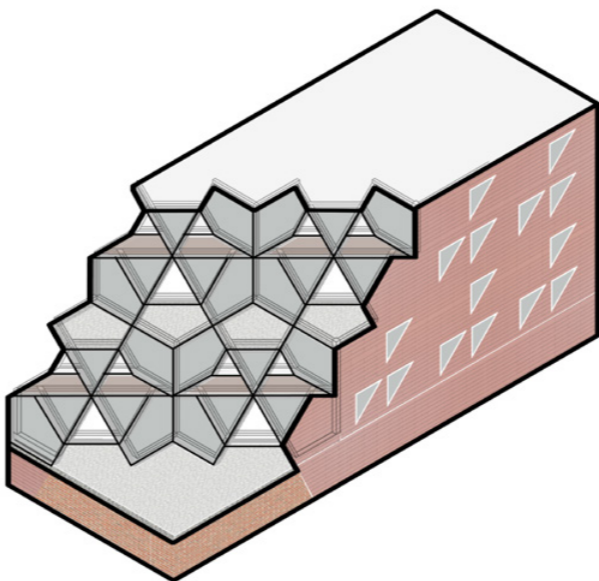
Structure



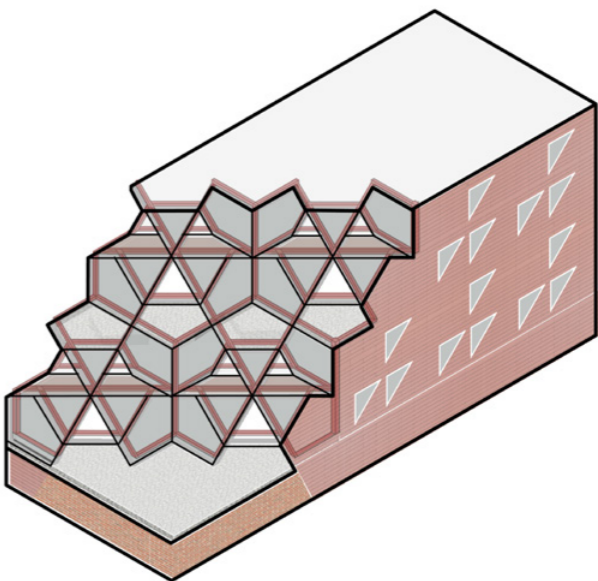
Terracotta Tile clad facade



Mullions for glazing



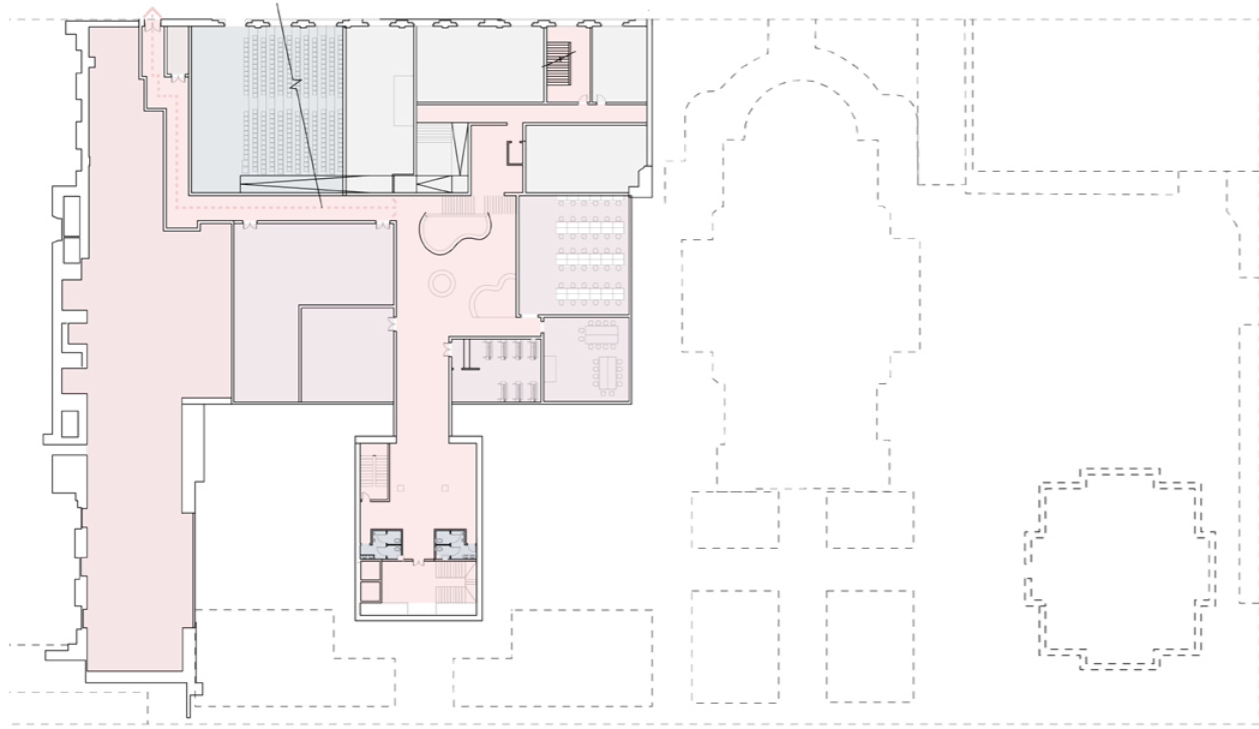
Structure offset from facade



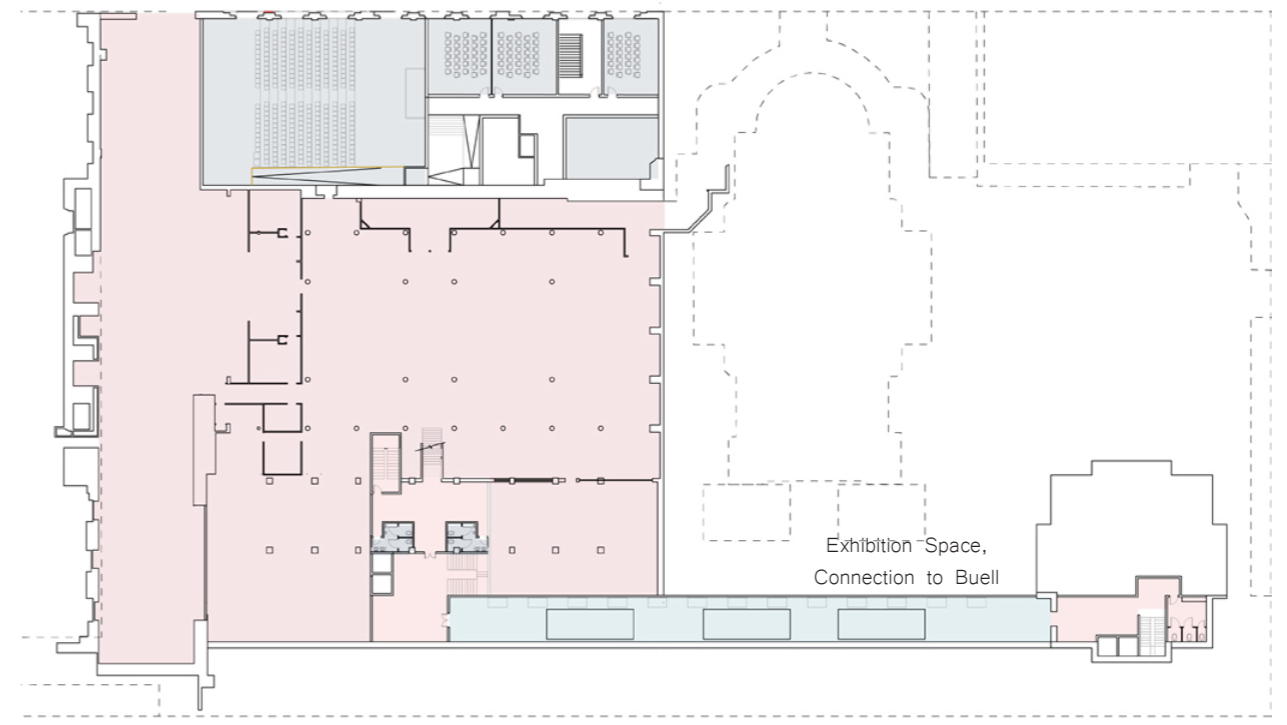
CLT Structure with Kawai Tsugite joinery



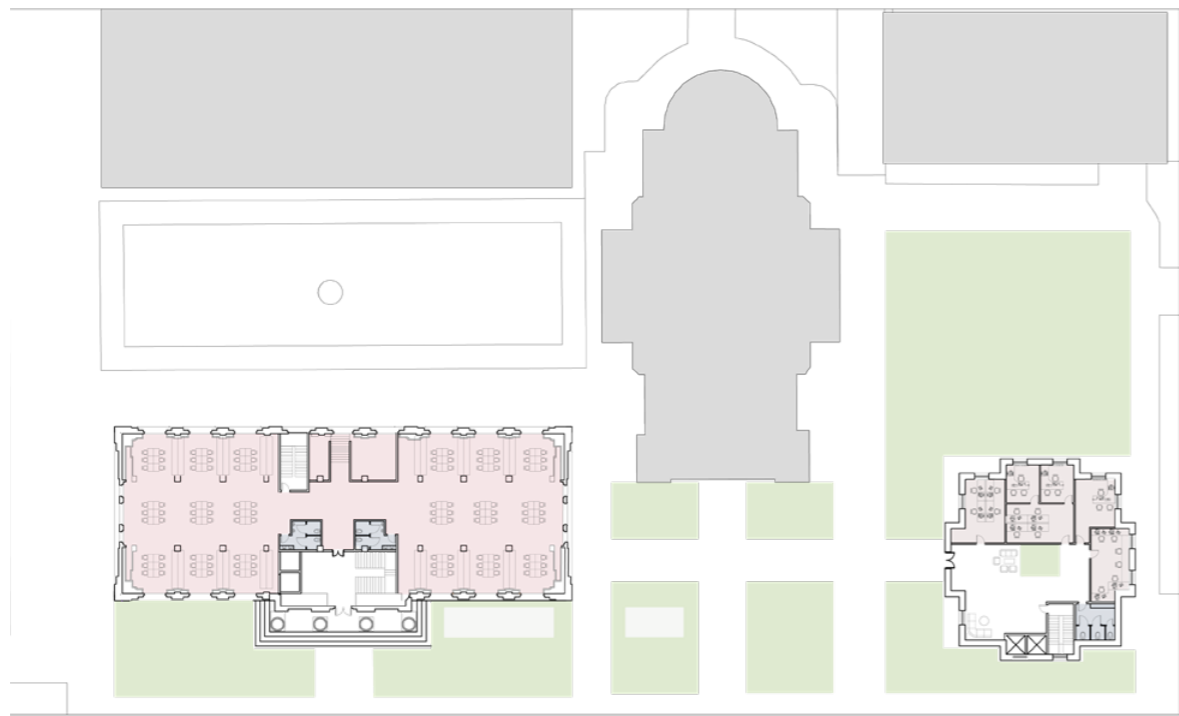
Plans



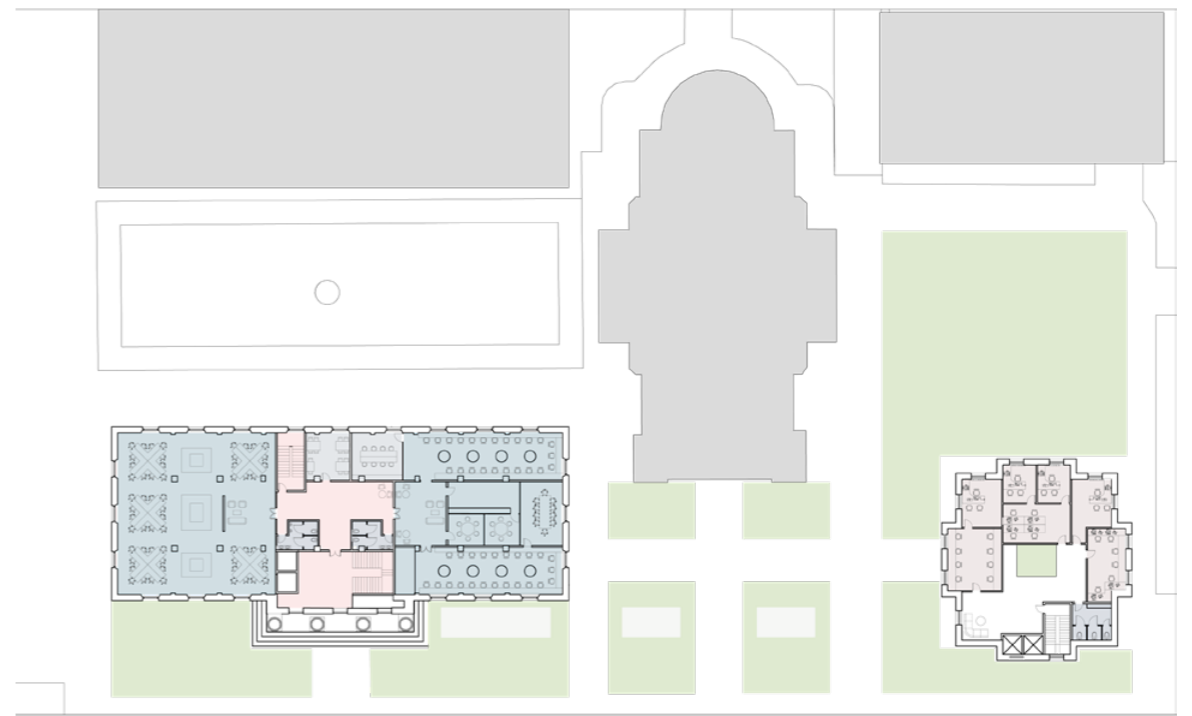
Level 100: The Maker Zone  
Wood workshop, Maker Space, OPS, 24X7 Room, Preservation Lab  
Direct connection to Amstrerdam Ave, Connection to Fayeweather



Level 200: The Library and Exhibition Space  
Connection to Buell Offices via the Exhibition Tunnel



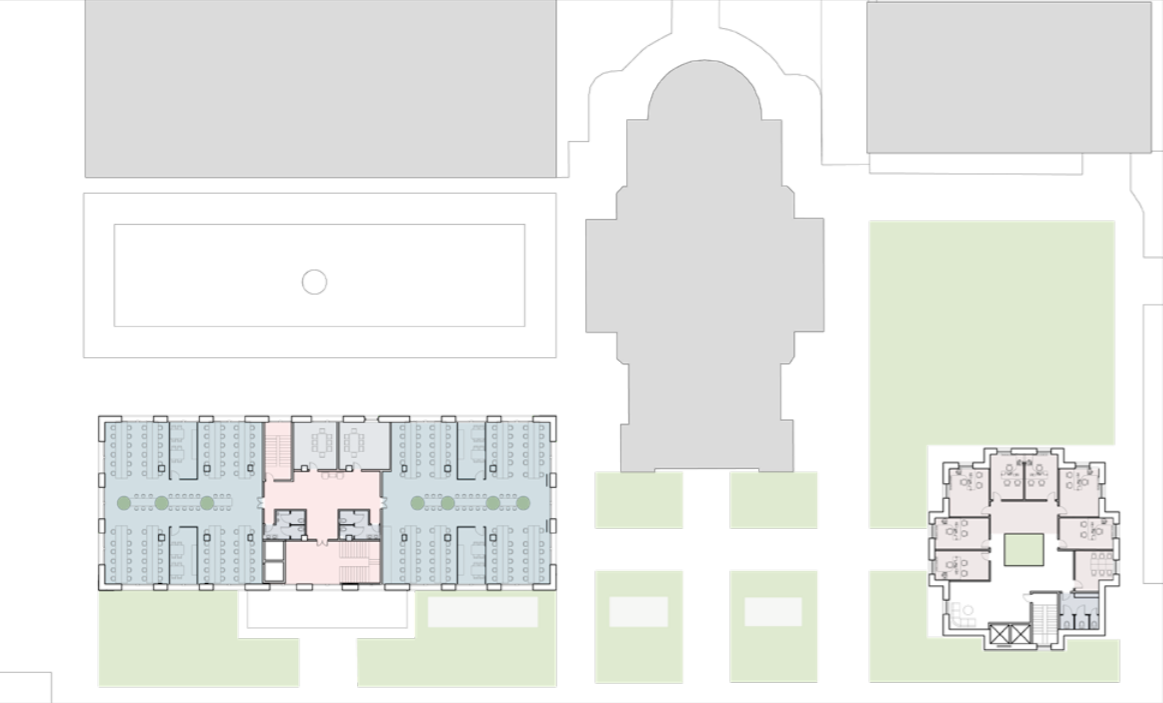
Level 300: The Avery Library, Entry Level



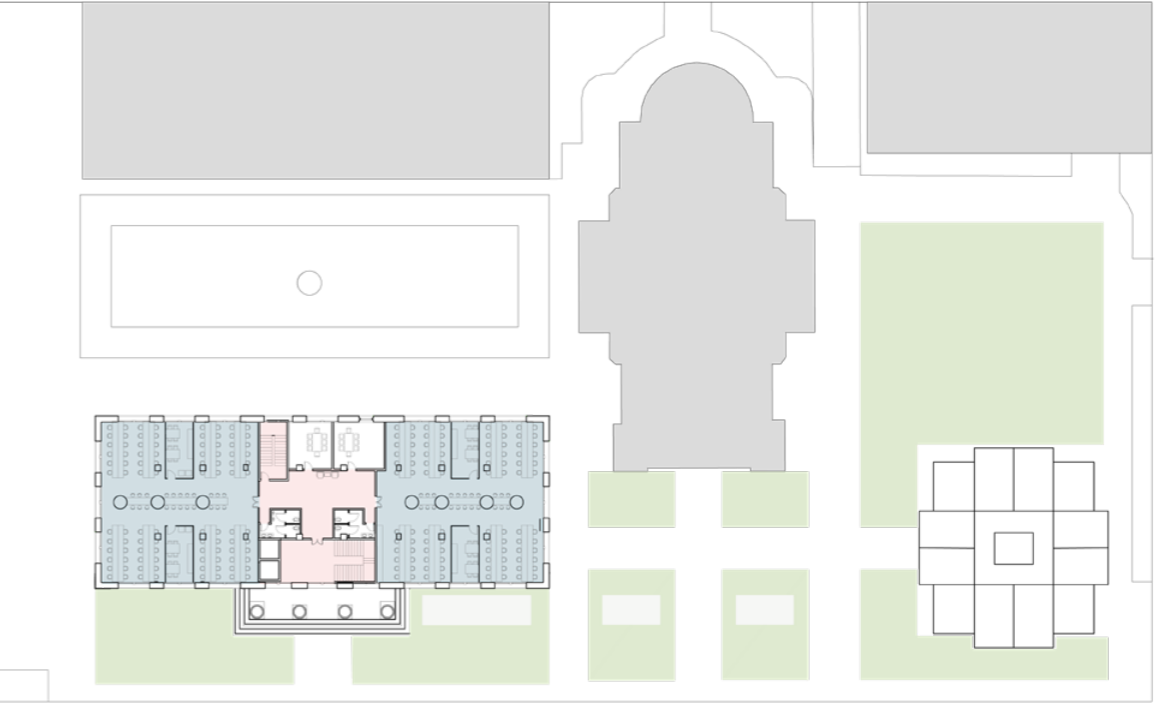
Level 400: The Urban Planning studio, Real esate studio, Buell offices



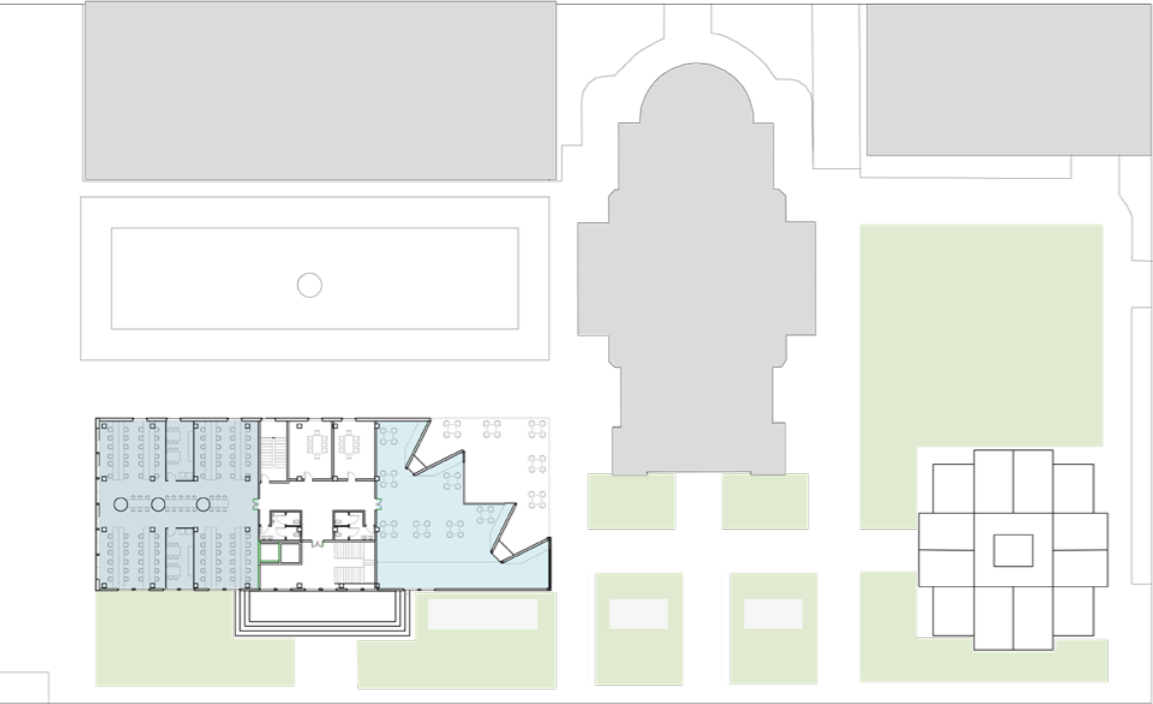
Plans



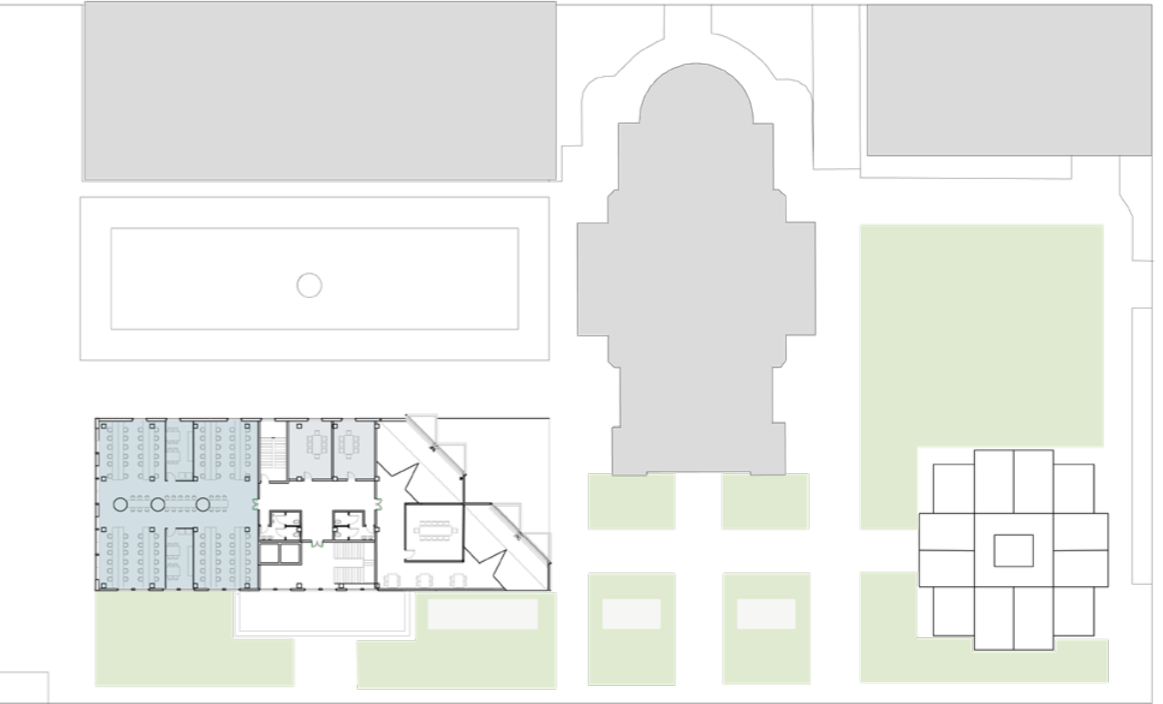
Level 500: M.Arch Studios  
Studio space, breakout rooms  
Offices at Buell



Level 600: MSAAD Studios  
Studio space, breakout rooms



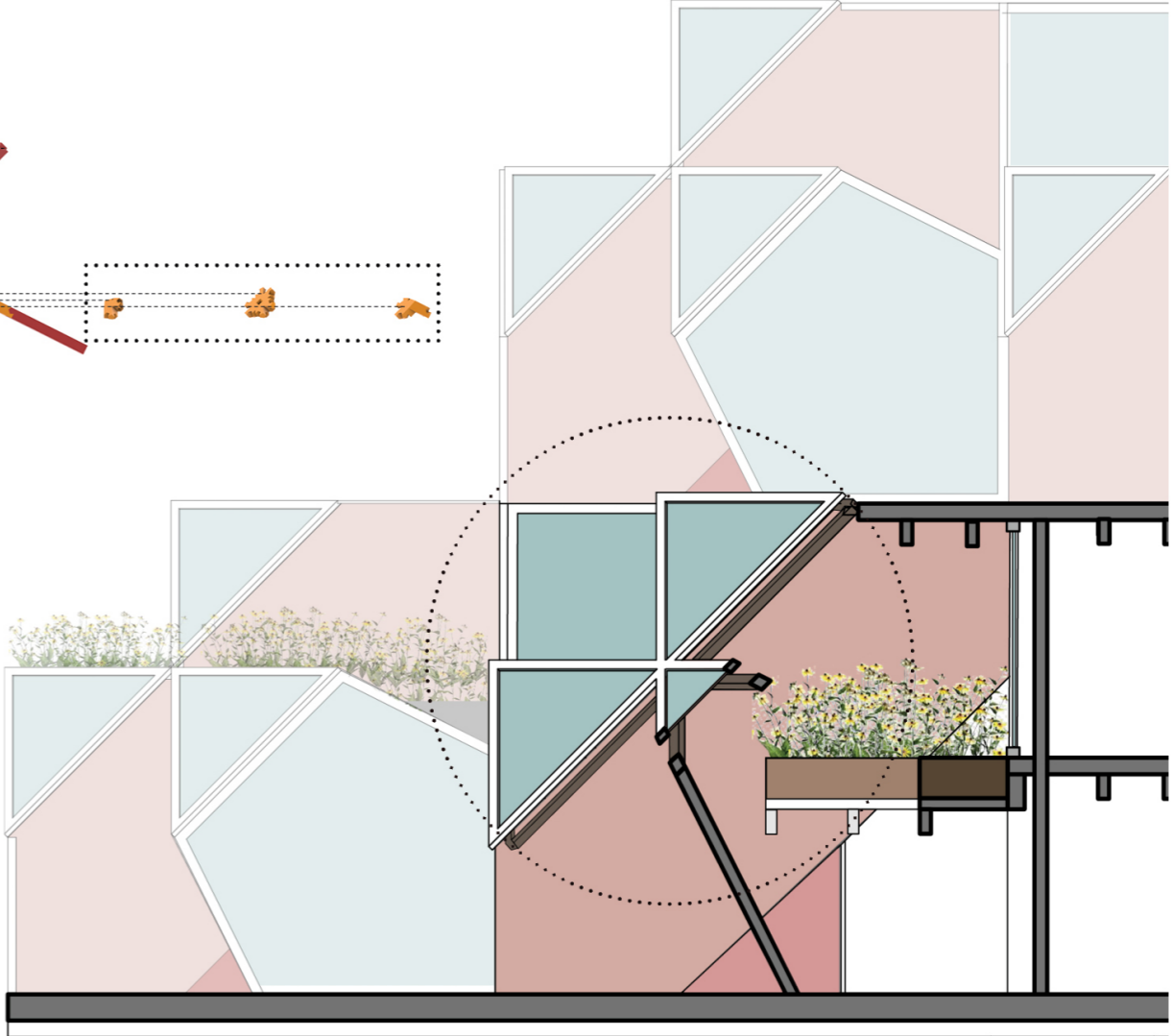
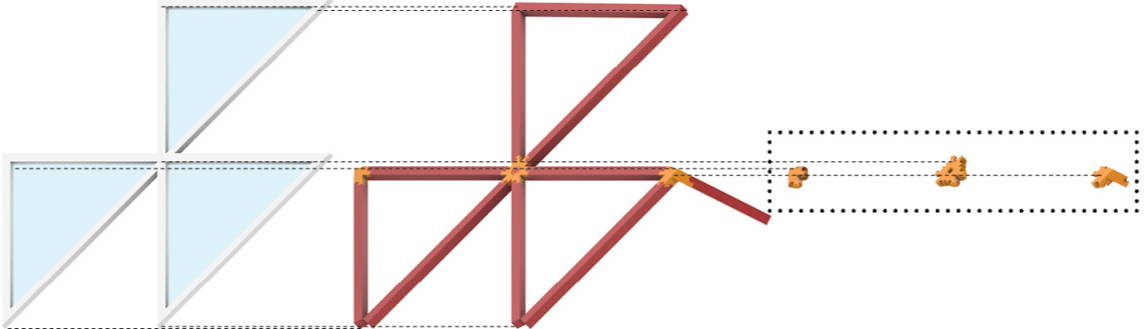
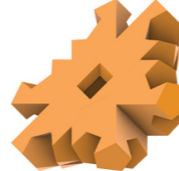
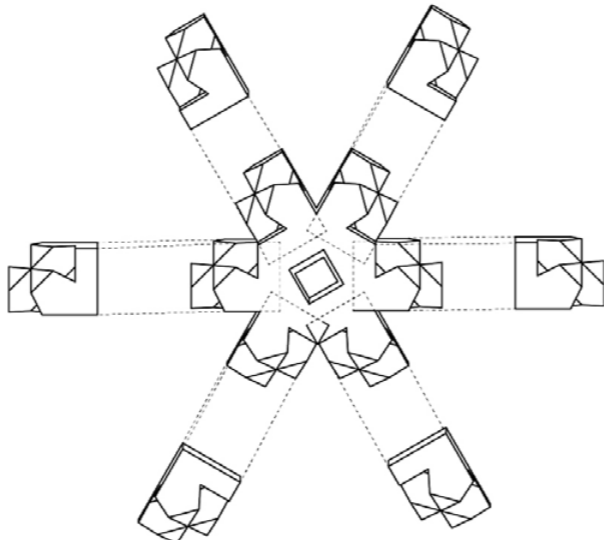
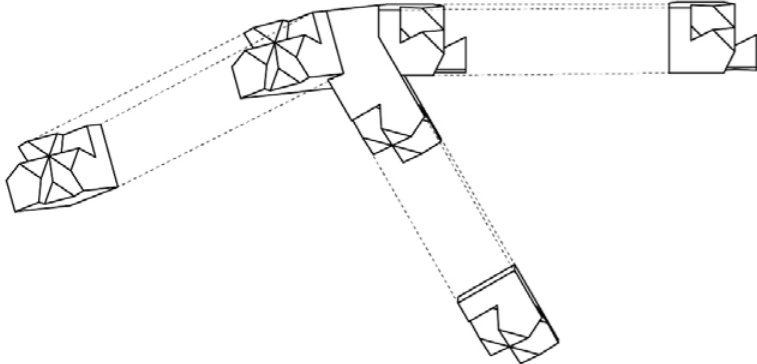
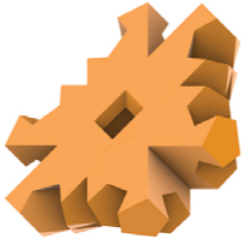
Level 800: The MSAAD Studio Space  
Cafe and Eating Space



Level 900: MSAAD Studio Space  
Breakout rooms



Joinery Modification and Detail











RED  
CCCP



**writings**





# 04

ARGUMENTS

MENTOR : Prof.Andres Jaque

INTENT : The course interrogates the way architectural devices and architectural practices gain collective relevance by participating in the making of contemporary realities; by facing current environmental, technological and representational challenges; and by being part of ongoing interactions, collaborations, disputes and coexistences. Organized around a series of case-studies—half of them coming from the field of architecture, half of them brought by speakers who approach architecture from non-architectural fields—this course has

as a main goal to interrogate the way architecture is part of the shared concerns that shape the evolution of the world's societies and ecosystems; that is to say, to explore what is the way architectural practices are shaped by confronting and being part of shared concerns. In brief, the course scrutinizes agendas, tools and methodologies and the way in which they take part in the forms of political engagement architecture participates in. cts, post processing software, and 3rd party plug-ins. We explored different means of composition, including sketching and photography.



# DANIELLE WOOD

Danielle Wood  
Media Lab, Massachusetts Institute of Technology (MIT)

Prof. Wood is a scholar of societal development with a background that includes satellite design, earth science applications, systems engineering, and technology policy. In her research, Prof. Wood applies these skills to design innovative systems that harness space technology to address development challenges around the world.

'Creating our Sustainable Development goals for Mars' is a paper by Prof. Wood that talks about the 17 Sustainable Development Goals created by the UN, and how we should carefully plan our actions to create a better future for us on Earth and in Space. The sustainable Development Goals, curated by the United Nations, offer immediate vision and goals for making a secure and equitable society on Earth. Space technology offers one set of tools to assist the Sustainable Development Goals. We must co-operatively and coherently work to propose a vision for just communities beyond Earth as humans prepare to live as an interplanetary society.

In the session, my curiosity and investigation were towards the following two questions:

Q1. The SDGs provide a holistic description of the progress that the global community must make to ensure equitable access to health care, economic opportunity, and political enfranchisement. It states that we want to carefully plan our future cities and prevent making grave, irreparable mistakes. But how can we already identify all the repercussions of all these 17 SGDs?

Q2. Since the year 2000, an international agreement between Russia, Canada, Japan, the United States, and several European countries has allowed people to live continuously on the International Space Station (ISS), which currently serves as the primary human destination in space. This means that the superpowers / developed nations have major control over all space activities and can monitor the whole world with the data they collect. How is this creating an equitable future for all countries?

In response to my questions, Prof Wood gave an answer that I personally feel doesn't create equitable futures for the people. Her response sort of contradicts the very purpose of anticolonialism. The space station has been operating since 2000 with people living on it, but the decision to have a space station started several decades earlier because of its complexity to build. The initial ideas of space station began in the early 1980s by the government of USA. They built positive relationships and collaboration with other countries and decided to do this as a joint effort. Right after the cold war and the Fall of the Berlin Wall, USA reached out and collaborated with Russia.

Twenty years before we have people living on the space station, there has been a long history of people collaborating and forming political relations, designs and debates. Twenty countries are involved with a treaty that is guiding the international space station. It is important to note that ISS is a publicly operated station, which means it is operated by the government, paid for by the tax payers and therefore is a public facility rather than a commercially driven facility. The question is what have the governments of different countries involved in this treaty decided to do? Over hundred countries have contributed or played some role in some way to the International Space Station activities [1]. Official set of countries own and operate the ISS. However, for other countries to access the ISS, right now, they require non owner countries of ISS to have politically positive relationships with the official countries. In other words, either by paying or having positive relationships with the member countries, request from any non-member country to access the ISS, can be granted by the member countries. But in cases where there are political relations are not amicable between countries, like China (USA has direct legislation that says that NASA cannot collaborate with China), it is not possible to access the ISS.

Overall, given that 500 years ago when the colonial era started, there was massive inequality of resources, power constraining in capitalist fashion, before the space station was designed, Danielle doesn't expect to see equal access or power over space station. But given how unequal the role is, she is surprised that there are many ways for countries worldwide to access the space station, for example the UN office of Outer Space Affairs, created programs where various countries could gain access to ISS with permission from the UN, which often acts as a conduit to ISS accessibility, and member countries. There are many doors, however how many would work is the question, because various member countries could deny permission to access the ISS. In the future what will be seen is a combination of government owned and operated space stations and public-private partnership space stations. But none of them are absolute solutions for accessibility.

From this response, I have two conclusions. First being, that the paper talks about creating equitable access and sustainable practices, however there is really no equitable access to the data and information in space and equitable resources and knowledge to practice sustainable goals. The privileged are getting more privileged while the developing countries are still struggling to even meet with basic necessities of life. The only thing that matters today is becoming a superpower, controlling the others and maintaining an upper hand over the rest of the countries. It becomes very important to be politically correct rather than doing something that is actually correct and rightful in the long term.

Although, Prof. Wood dodged my second question, I feel that there is no way we can create a set of guidelines for our future life in the space or for the interplanetary life. There is definitely no way we as humans can control this without everyone even experiencing space fully yet. Each action will some kind of reaction. Even if we carefully plan our way forward, we cannot make a fool proof guideline that will have very specific positive and negative impacts. There will always be something that can go amiss. [2]

Moreover, when we talk about space-enabled designs, it requires tremendous research, prototyping and experimenting to find a design and material that would support in such different environmental conditions. This would need a large-scale funding- which means again only the super powers can afford it. The developing nations are still struggling to meet up with basic needs like housing for all, electricity, water etc. Also, by creating settlements and a living system in space or on other planets, we are trying to colonize - which is against the whole idea of the anti-colonial mindset.

To sum it up, the theory of creating equitable futures with an anti-colonial mindset a pursuing the Sustainable Development Goals is a weak argument. In the current scenario, where each country is competing to become a superpower, no one is paying attention to these long-term benefits and solutions to the climate crisis as a whole. Also, what is the basis, research or experimentation for these Sustainable Goals and how effective is it for everyone? Guidelines can be made but we cannot be sure of all the repercussions and in that process, we might end up making things way worse than what they are.





# 05

## NEW YORK RISING

MENTOR : Prof.Andres Jaque

INTENT : The course interrogates the way architectural devices and architectural practices gain collective relevance by participating in the making of contemporary realities; by facing current environmental, technological and representational challenges; and by being part of ongoing interactions, collaborations, disputes and coexistences. Organized around a series of case-studies—half of them coming from the field of architecture, half of them brought by speakers who approach architecture from non-architectural fields—this course has

as a main goal to interrogate the way architecture is part of the shared concerns that shape the evolution of the world's societies and ecosystems; that is to say, to explore what is the way architectural practices are shaped by confronting and being part of shared concerns. In brief, the course scrutinizes agendas, tools and methodologies and the way in which they take part in the forms of political engagement architecture participates in. cts, post processing software, and 3rd party plug-ins. We explored different means of composition, including sketching and photography.



An 1811 plan designed by three men, including the headstrong Founding Father Gouverneur Morris, called for dozens of parallel avenues crossing at right angles with many dozens of parallel streets in an undisturbed and continuous grid. The grid rendered invisible hills and valleys, rivers, ponds, forests, and swamps, as well as country villages, roads, farms, and estates. It would all disappear as the mesh fabric of the grid engulfed the island.

At the point when the lattice plan was declared, New York was just shy of 200 years of age, a congested town at the southern tip of Manhattan, an infamous mix of roads laid at the impulse of landowners. With a monolithic grid, the street planning commission brought order to the island after it had descended into chaos.

But what if the Grid layout was not designed? What if the city expanded and thrived organically without the planning? Would it still become the social, monetary, and media capital of the world, fundamentally impacting commerce, amusement, research, innovation, instruction, governmental issues, the travel industry, workmanship, design, and sports, and is the most captured city on the planet?

The city could have expanded in any format had the New York state not appointed a committee to plan and design the island north of Canal Street. Growing organically and sporadically - like the city of Mumbai - New York could have had an irregular, chaotic and unorganized road network. The rise in the population and the ever rising economic and maritime commerce could possibly develop an uneven growth, with maybe higher density around the coasts where the maritime trade and business occurred, while lesser density in zones with lesser economic development.

Moreover, the residential development would vary as per the income levels and would lead to certain segments being lavish, hygienic and maintained, while some developments being unsanitary, poorly maintained and lacking other basic necessities. With major migrants moving into the city for better opportunities, the development of slums would be impossible to stop - leading to poor health and sanitation - leading to spread of diseases. For example, Dharavi (the largest slum in Asia) in Mumbai started taking shape with a major influx of migrants to Mumbai in search for a better lifestyle. However, the city is too expensive and lavish to maintain a decent quality of life.

Higher density would also need larger recreation space for the mental health and well-being of individuals. With the unplanned and disorganized growth, there is a possibility to have options to create and develop open spaces and recreational grounds around these dense residential settlements. In the grid layout, there is provision for smaller open spaces (which may not be sufficient for that kind of density), and a huge chunk of development got ripped off for the Central Park after William Bryant made recreational

space his personal crusade. However, with the 'go with the flow' development, there could be a possible planning for larger open spaces near denser communities. Additionally, the waterfront (that was not given up for recreation) could have become a hotspot for development of parks, refreshments and leisure.

The advantage of this hypothetical and imaginary possibilities of development, is that the city could possibly have a disorganized yet evenly distributed land use for business and residences creating multiple zones all across the city that accommodate business, education, residence and recreation within a 15 minute walk, unlike the current system where all major businesses and offices are downtown and residential zones started midtown and uptown. Nonetheless, this random and sporadic growth could also result in inaccessible and irregular commute lines. The public transport would be difficult to accommodate in an organically growing city leading to higher road traffic and lesser accessibility to far out places.

To conclude, the grid layout may be called unsuccessful, but it also has quite a few advantages that make New York what it is today.



**electives**





# 06

## RE-IMMERSION

MENTOR : Prof. Joseph Brennan, Prof. Phillip Crupi

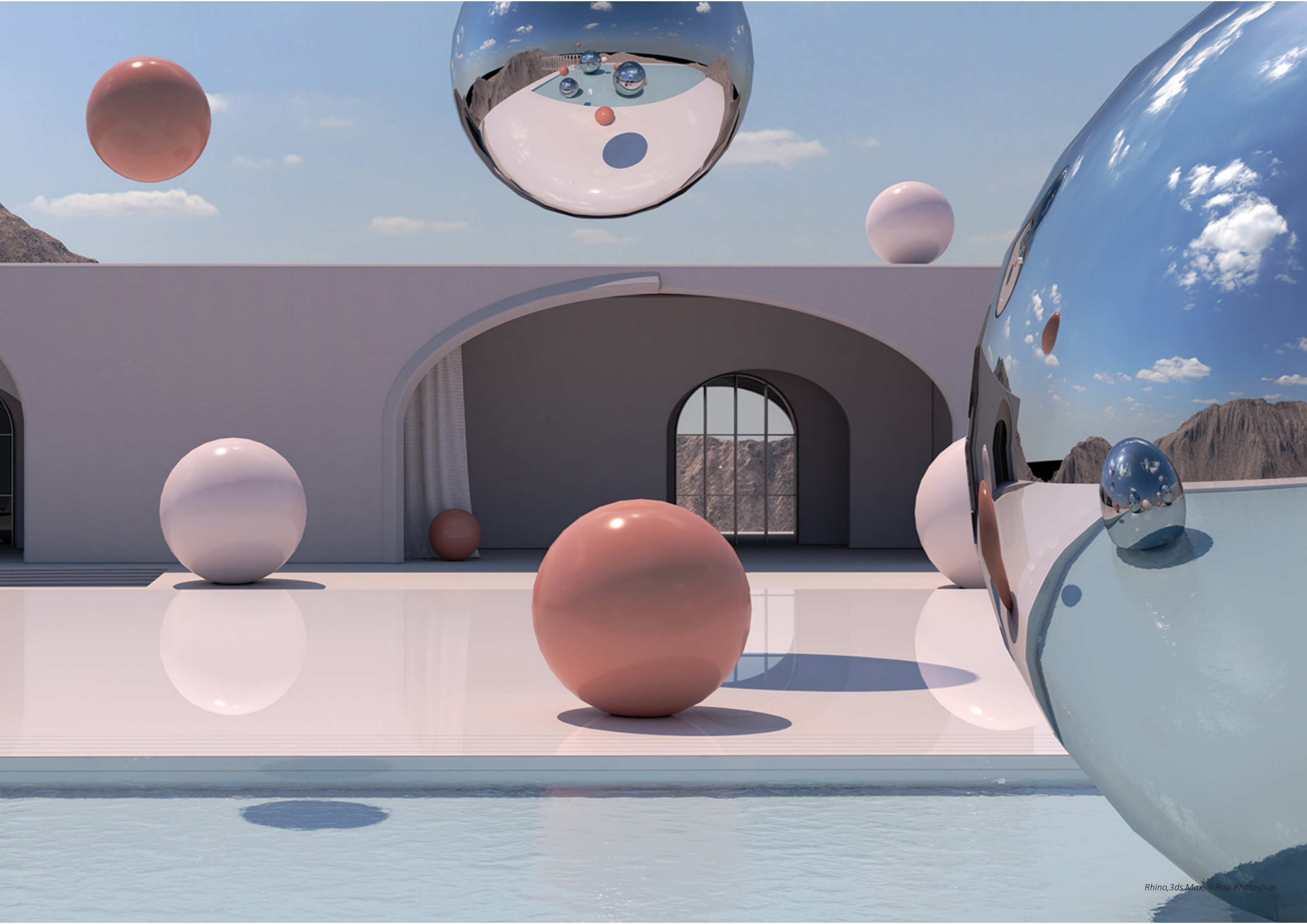
TEAM: Radha, Ece, Malvina, Katerina

DESIGN INTENT : The use of perspective and rendering is often an afterthought. With the plethora of 3D modeling software and the ability to see every angle of a project quickly, renderings are frequently considered of as a last minute tool for representation. This seminar challenged the students to not only consider of rendering as a way of presentation, but also a tool for design. The class focused on color

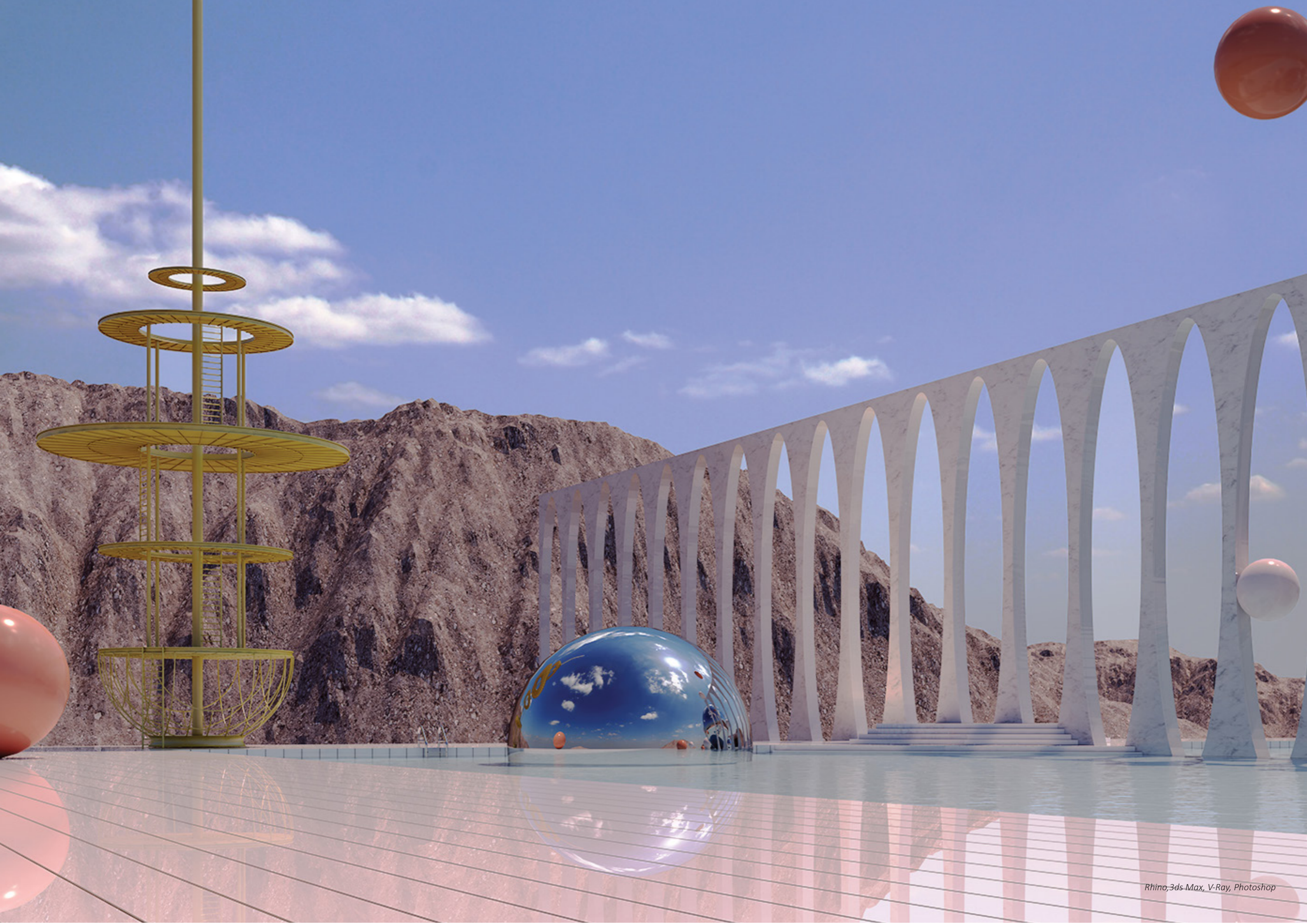
light, material, context, reflection, and opacity throughout the duration of the entire design project.

The class used V-Ray for 3D Studio Max as the main engine for exploration, but also encouraged the use of additional modeling products, post processing software, and 3rd party plug-ins. We explored different means of composition, including sketching and photography.





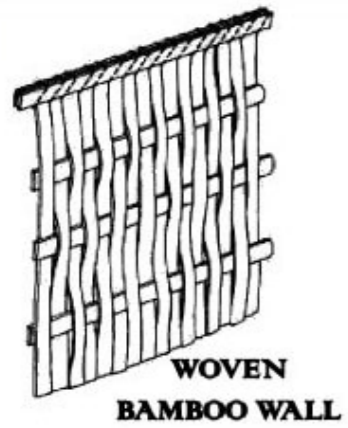




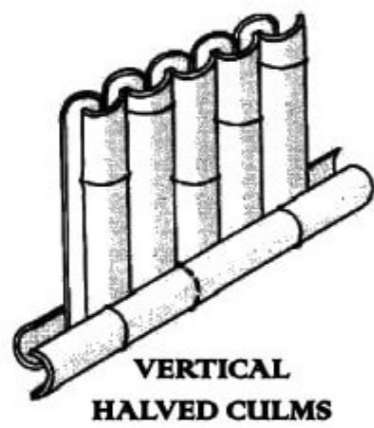




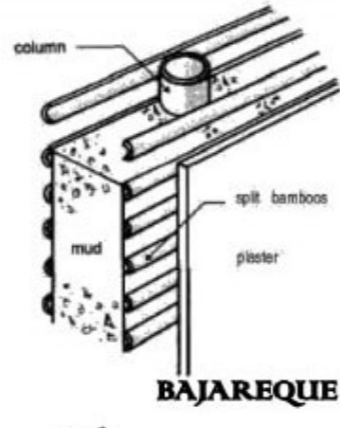




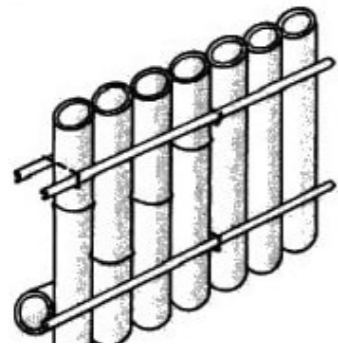
**WOVEN BAMBOO WALL**



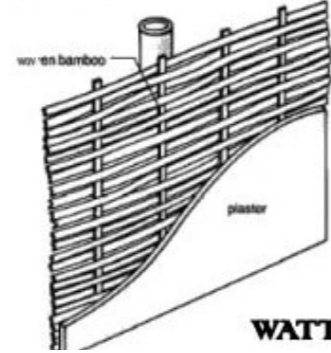
**VERTICAL HALVED CULMS**



**BAJAREQUE**

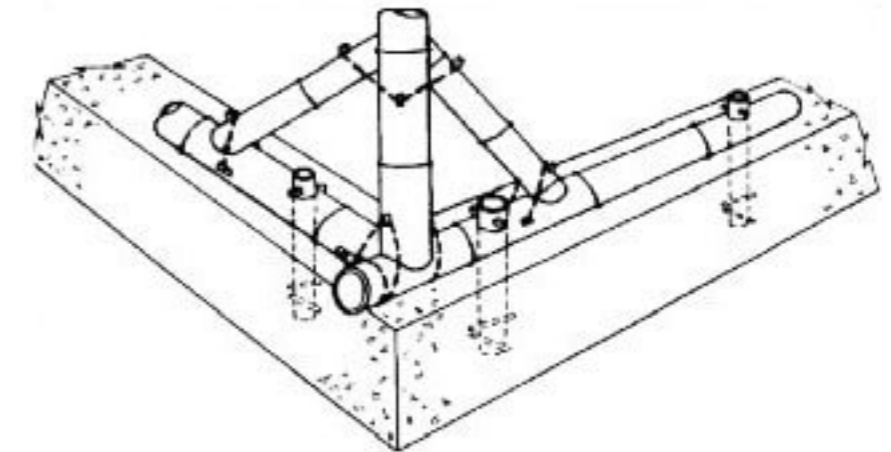
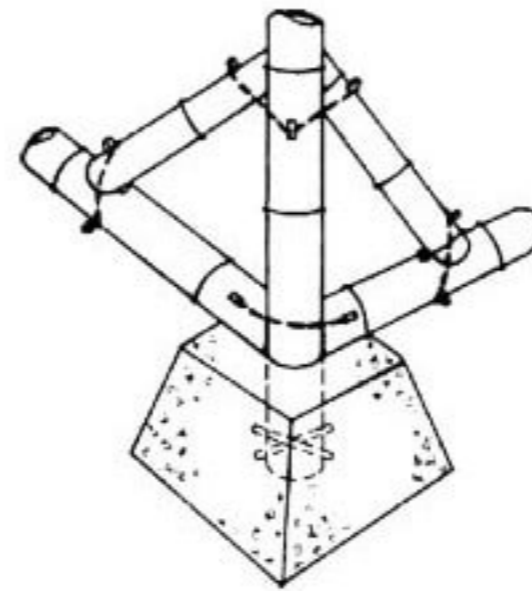
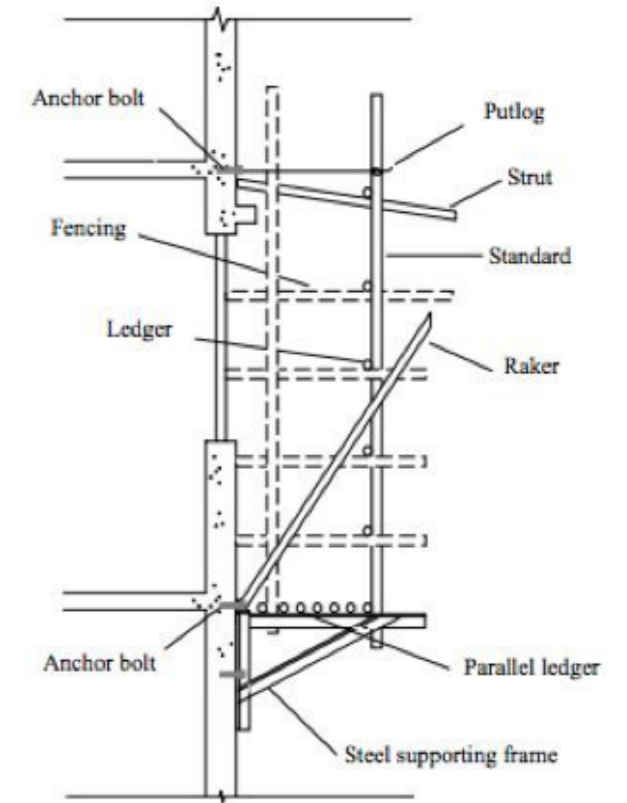
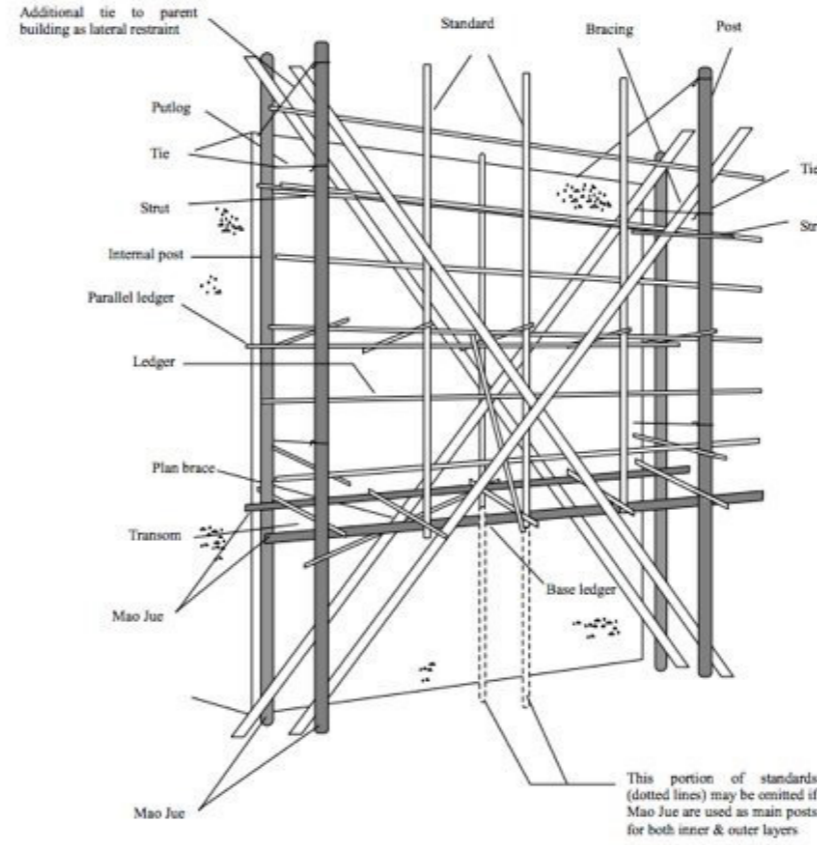
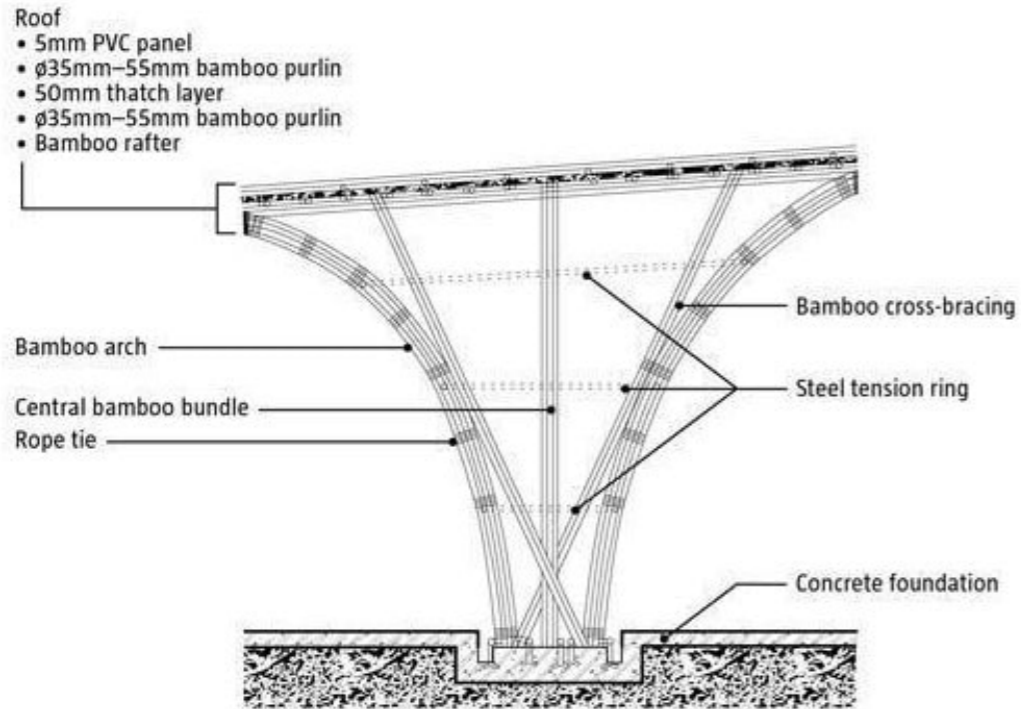


**WHOLE BAMBOO CULMS**



**WATTLE AND DAUB**

**Column Section**



**07  
FACADE DESIGN**

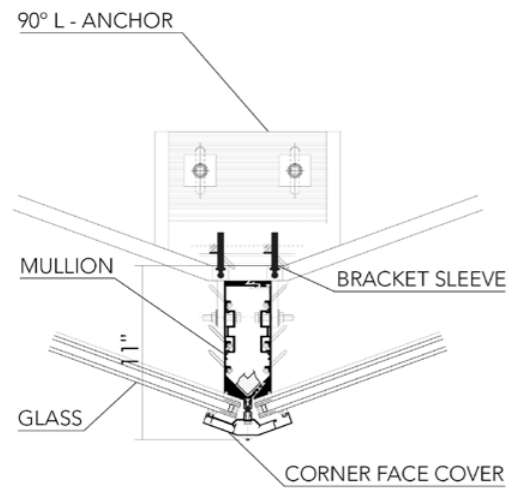
MENTOR : Prof. Kevin Schorn

TEAM: Radha, Mickealla, Zenah

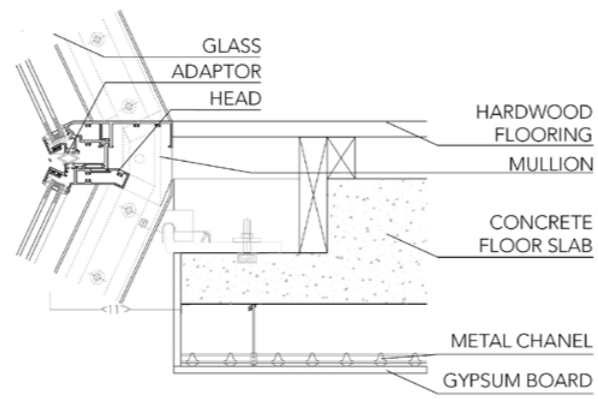
DESIGN INTENT : This course focuses on the specific design of building cladding based on an understanding of materials and their physical qualities. Students will learn about the implications and potential of their design choices for a building's outside cladding at the construction document level of resolution. There will be a focus on hand sketching details at huge scales (typically 1:1) to ensure a

thorough grasp of everything involved at the interface between the interior and outside environments, as well as the other relevant building systems. After completing the course, students will have a thorough understanding of various cladding materials as well as what it takes to maintain command of the full building process, from design concept to completed work.

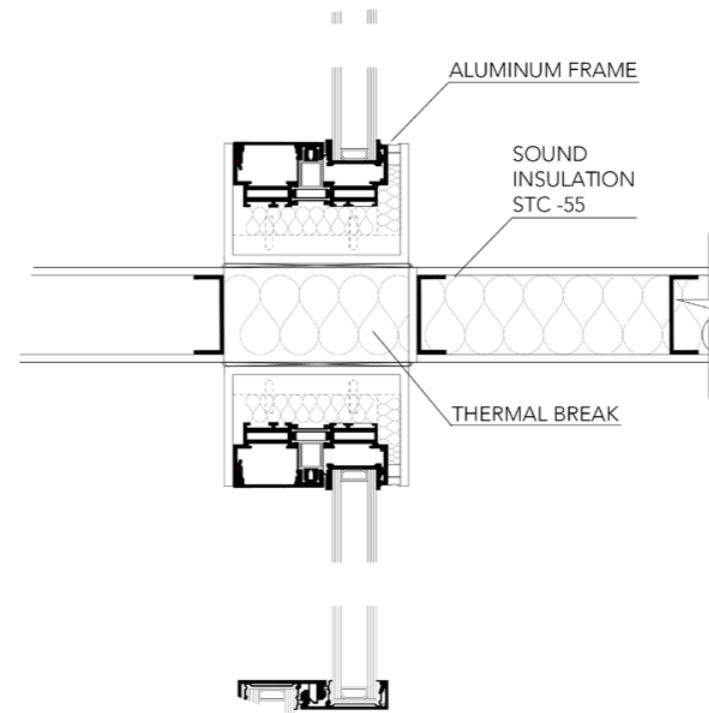




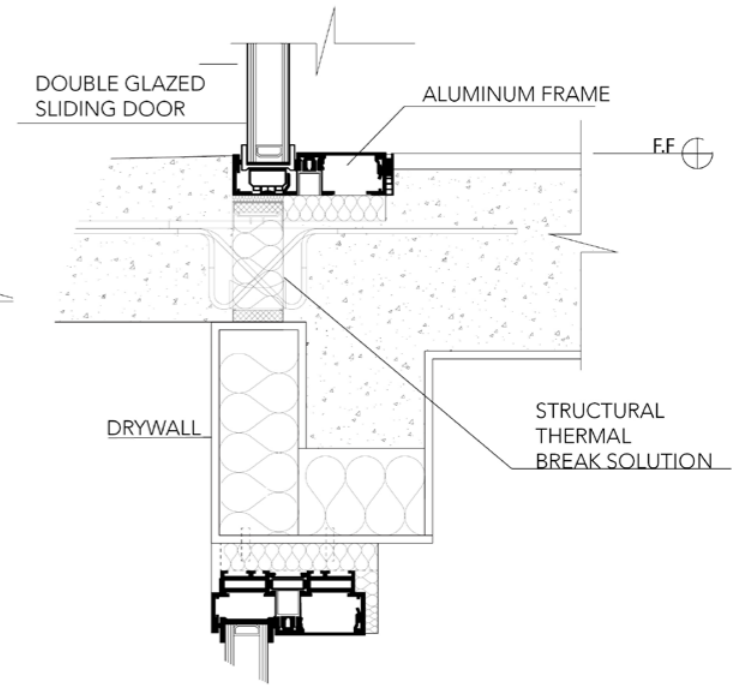
**DETAIL A PLAN**  
3"=1'-0"



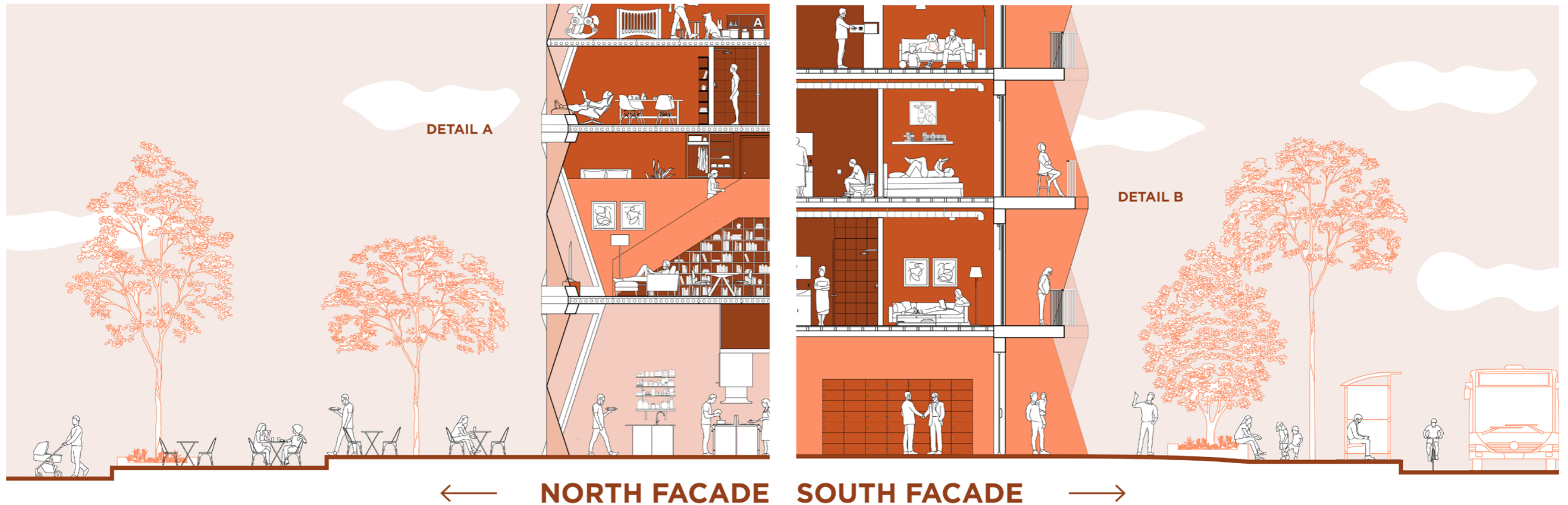
**DETAIL A SECTION**  
3"=1'-0"



**DETAIL B PLAN**  
3"=1'-0"



**DETAIL B SECTION**  
3"=1'-0"







# 08

## PROJECT MANAGEMENT

**MENTOR :** Prof. Douglas Woodward

**TEAM:** Radha, Shreya, Mollye, Jiabao

**PROJECT INTENT :** This practitioner-led course introduces students to key project management ideas as well as the behavioral skills required to create, lead, and realize the advantages of projects across industries. Planners, designers, policymakers, real estate developers, and people in related industries are frequently in a position to lead, support, or influence projects and initiatives with many moving parts.

Sometimes an individual is openly in control, and other times a project manager must achieve success without influence – and find ways to draw resources and stakeholder support from individuals who are not directly under her/his authority. To achieve favorable results, skilled project managers handle resources, schedules, scope, risks, and both internal and external elements.



# WTC Site 5

Response to RFP  
Avery Consultants

## RESPONSE LETTER

PROPOSAL REFERENCE: WTC-123456  
TITLE: WTC Site 5, Project Management Consultancy

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CONFIDENTIAL AND PROPRIETARY

April 22nd, 2022

RESPONSE TO REQUEST FOR PROPOSAL (RFP)  
PROPOSAL REFERENCE NO. WTC-123456  
WTC Site 5, World Trade Center, New York City, NY, United States

Dear Sir or Madam,

Avery Consultants is pleased to submit a response to WTC Site 5 Request For Proposal (RFP) for the competitive design and development of WTC Site 5 as Project Managers. The proposal is attached hereto and should be consulted for details of the Project Management Consultancy (as such term is defined in the Contract). The consulting fees are to be priced on a reimbursable basis as further described.

Attached to this cover letter are documents collectively, responding to “ WTC Site 5 RFP”:

Acknowledgement of RFP

1. Response to the RFP
2. Communication Plan
3. Project Schedule
4. Risk Management
5. Project Budget

We invite you to confirm your receipt of this RFP answer and express your willingness to proceed with our Proposal by reverting back to the undersigned contact information when the results are declared. If you do not intend to pursue this Proposal, you may delete this RFP response or email the completed Acknowledgement of Response back, formally denying our proposal.

All information contained in this response is the confidential and proprietary information of Avery Consultants and must not be used for any purpose beyond its attempt to respond to the WTC Site 5 RFP. Our firm would like to thank you for your time and consideration.

Yours truly,  
Avery Consultants



## PROJECT BACKGROUND

The original World Trade Center was a large complex of seven buildings in the Financial District of Lower Manhattan, New York City, United States. It was opened on April 4th, 1973, but was partially destroyed in 2001 because of the September 11 attacks. Currently, sprawled on a 16-acre campus, the World Trade Center campus has served as the nexus between being New York City's (NYC) iconic offerings and an experiential destination for visitors across the world. Located in Lower Manhattan in NYC, the campus provides programmatic functions consisting of public and private spaces. Ranging from a mix of public spaces and parks, eateries, retailers and commercial amenities, office towers along with supporting educational and historical points of interests. The campus encompasses the promising partnership of regional Agencies, stakeholders, business partners and tenants collaborating in their efforts to honor and preserve campus's status as an international landmark.

The World Trade Center is home to the Oculus, One World Trade Center, 3 World Trade Center, 4 World Trade Center, 7 World Trade Center, the 9/11 Memorial & Museum, One World Observatory, Liberty Park, and the future Saint Nicholas National Shrine, Ronald O. Perelman Performing Arts Center, 2 World Trade Center, with the most recent addition in development being the 5 World Trade Center.

As the last remaining property awaited to be developed within the transformed WTC campus, the World Trade Center 5, positioned in Site 5 presents a much anticipated opportunity to actively engage eminent partnerships between the campus's core stakeholders and the communities in NYC in bringing a "new mixed-use tower will bring the first residential property to the World Trade Center campus with 25 percent designated as permanently affordable."

Recommendations of this proposal focus on the improvement of community public space, diverse social impacts, and environmental awareness. Based on these, the quality of open space and infrastructure are enhanced with more multi-used open space included and complete urban infrastructure provided. Besides, the diverse and dynamic community is promoted with lower unemployment rate, better socioeconomic activities, and more public engagement.

## PROJECT OVERVIEW

As of February 2021's official announcement Site 5 - located across Liberty Street, south of the main 16-acre campus - will be developed as a 1.56 million square foot skyscraper by developers,, unanimously voted by The Lower Manhattan Development Corporation ("LMDC") and The Port Authority of New York and New Jersey ("PANYNJ").

The WTC 5 tower will be a 1.345 million ZSF development which includes 150,000 ZSF of convention space, as well as up to 45,000 ZSF of retail, 50,000 ZSF hotel, and 1100,000 ZSF office building. As the promissory development goal, the designated co-developer partnership, Site 5 is envisioned to involve great attention to sustainability and design, a deep commitment to affordability and a lasting commitment to the Lower Manhattan community as its beneficiaries.

As key custodians of implementation of these project goals, prioritizing the Environmental, Social and Governance (ESG) program management of Site 5 becomes imperative to the cross-organizational strategy of all the stakeholders involved. Introducing ESG as a program addition to the WTC 5 project development ensures the monitoring and evaluation of maintaining environmental sustainability and social impact standards. This project aims to build consensus around a shared inclusive, sustainable, energy-efficient vision for the future of the World Trade Center Site 5.

## PROJECT GOALS

Avery Consultants vision as the WTC 5 project's ESG Program Managers aims to integrate the efforts of all stakeholders to accomplish the deep commitment towards sustainability and social responsibility steered towards community benefit.

Our project goals are inclined towards accomplishing:

**Sustainable, Environmental-friendly, and Energy-efficient:** it is important to raise awareness of the public and ensure environmental consciousness in order to build a collective sustainable community. Also, the energy aspect should not be overlooked with consideration of climate change and justice.

**Diversity and Social Development:** Diversifying the functions of land to generate more activities and opportunities for this area with various stakeholders while at the same time promoting social development and community engagement.

**Proper and Feasible Vision and Action Plan with ESG (environmental, social, and governance) management:** Suitable vision plan is the basis for future implementation of the proposal and can reduce the future risks and uncertainties.



## PROJECT SITE

The development site is a block bounded by Albany Street to the south, Greenwich Street to the east, Washington Street to the west, and Cedar Street Old Bed to the north. The damaged Deutsche Bank building formerly on the development site was decontaminated and demolished in 2011. When the National Memorial and Museum opened on September 11, the platform at the south end of the development served as a waiting area for memorial visitors before entering the plaza through security; this part of the site is now a temporary public space. The remainder of the development site is currently occupied by construction trailers, which house the Port Authority Police Department's WTC Command Center. The larger project site, formerly the South site, was added to the World Trade Center site in 2003-2004. Portions of the project site that are not part of the above development sites are occupied by VSC and Liberty Park (located on VSC). The new Greek Orthodox Church of St. Nicholas is currently under construction at the east end of the project site, northeast of the development site. There are no historical building resources on the project site.





The northern part of the development site is currently guarded by the Port Authority Police Department (PAPD) Command Center in stacked construction trailers visible on the surrounding fence. The southern part of the site is now a temporary public square.

The project site includes the block of the former Deutsche Bank building damaged in the September 11, 2001 terrorist attack, and the small block to the west, which contains a church and a paved parking lot. The northern part of the project site was excavated for the construction of the now completed Vehicle Safety Center (VSC). Liberty Park is located on the VSC, and the new Greek Orthodox Church of St. Nicholas at its eastern end is under construction. When the National September 11 Memorial opened, the platform at the southern end of the development served as a queuing area; this part of the site is now a temporary public space. To the north, the development site is currently occupied by construction trailers, which house the Port Authority Police Department's World Trade Center Command Center.

The Special Lower Manhattan District was created to increase the vibrancy of Lower Manhattan, which includes not only New York City's oldest central business district, but also a growing residential community. Borough ordinances allow for the conversion of older commercial buildings to residential use, with the aim of encouraging dynamic mixed-use in the area while preserving the unique skyline and old street patterns. Buildings are governed by height and headroom regulations, with requirements for retail continuity, foot traffic and subway station improvements.



-  WTC Site
-  Project Site
-  Development Site (Site 5)
-  Study Area

0 400 FEET



## CLIENT INFORMATION

Owners:  
LMDC (Lower Manhattan Development Corporation), PANYNJ (Port Authority of New York and New Jersey)

Bidder(s):  
Designated Co-Developer: Silverstein Properties and Brookfield Asset Management

Project Managers:  
Avery Consultants

Project Designer:  
To Be Decided

Land Ownership:  
Currently LMDC and PANYNJ. Leased to Bidders for 99 years.

## AVERY CONSULTING - "ABOUT US"

Avery Consulting is a team of multidisciplinary experts. With several years of experience in New York City, our community-driven firm focuses on a deep understanding of each project's unique context through research, analysis, and sincere engagement. Our multi-lingual team's expertise ranges from project management, market analysis, mixed-use spaces, economic development, and community outreach. We are passionate about community building and developing successful and environmentally sustainable strategies.

We give specialized management assistance to external businesses. As a project management consultant, we will be your planner, advisor, and efficient team leader to design and implement solutions to your requirements.

We are an asset to any firm as we allow the stakeholders of a project to uncover and rectify inefficiencies in procedures and workflows. We often manage several diverse projects simultaneously, either enterprise-wide initiatives or business-specific projects.

## TEAM BIOS & EXPERTISE

### 1. Shreya Arora | Senior Project Manager (SPM)

Shreya is an urban planning consultant and project manager with ten years of industry experience. Her responsibilities included timely project delivery, and liaison with stakeholders and City Agencies in multiple large-scale urban development projects. She's previously worked as a consultant on numerous urban development projects and high-rise buildings and, in many cases, has overseen conceptual design delivery alongside client-facing engagement. She started Avery Consulting in 2017, which swiftly expanded into a team of multi-disciplinary professionals.

### 2. Mollye Liu | Project Manager (PM)

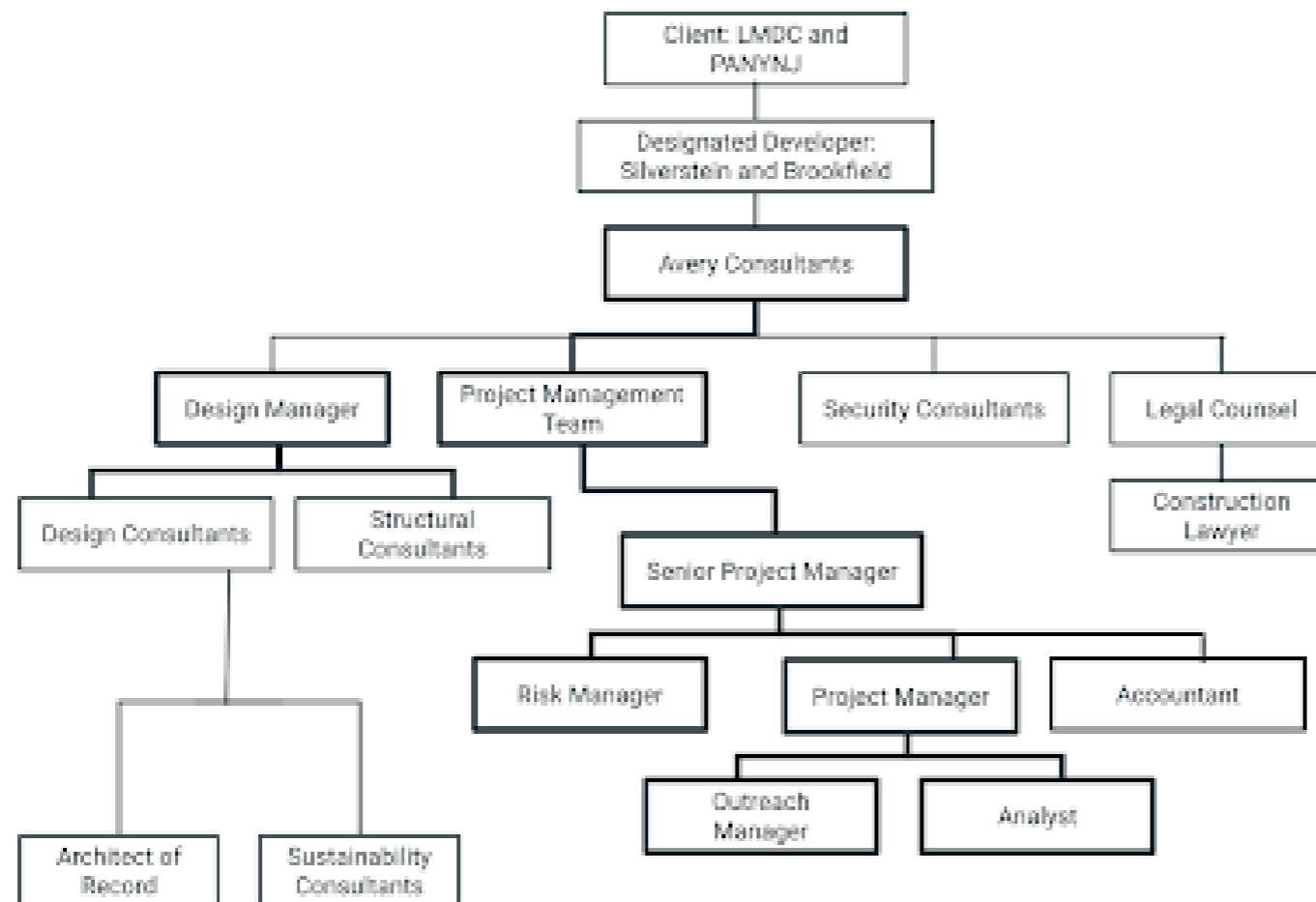
Mollye began her work as a practical urban planner with project management experience at SOM. Mollye got strong outreach and communication professional skills in the housing development area in the previous eight years. As a multilingual speaker and global citizen, her prior employment experience as a development consultant with a demonstrated history of working in the real estate, planning, and design industry trained her to be a professional project manager.

### 3. Radha Kamdar | Design Manager

Radha practiced architecture for two years, where she focused largely on large-scale projects, mixed-use developments, and hospitality projects. She has earned extensive experience working for an MNC design consulting organization in India, where she worked on institutions and hotels design for major Indian cities. After moving to New York City, Radha started working as a design manager for Avery consulting. She looks after the coordination between design team and structural team.

### 4. Jiabao Sun | Risk Manager

Jiabao is a full-time urban planning professor at the Massachusetts Institute of Technology specializing in land use, smart and inclusive cities, and cultural planning. Her studies focus on efficient and high-value land-use dynamics, big data planning platforms, and cultural districts with 6 first-author articles. She is responsible for leading planning projects, generating design guidelines, and providing risk-reduction and financial strategies. She previously worked at the New York City Department of City Planning, where she did the Comprehensive Waterfront project. Before that, she worked at the United Nations for The United Nations Educational, Scientific, and Cultural Organization and The World Tourism Organization. She did the Magical high-tech museum project in Switzerland. Her first job was as a Kohn Pedersen Fox private firm consultant.





## PROJECT SCOPE

LMDC and PANYNJ require a consultant to draft, coordinate and support a Design Proposal for Site 5 WTC. The proposal is expected to lay out a community-informed and endorsed strategy to minimize negative neighborhood impacts and maximize positive benefits by leveraging the investment of scheduled development over the next 5 years. Avery Consulting will develop and deliver a program that ensures capital investments will benefit the long-term users of WTC Site 5.

In support of this goal, Avery Consulting will design and execute a work plan that responds to the needs and priorities of the community. This will entail: collecting quantitative and qualitative data that help identify the greatest needs of the community, working closely with the Collaborative, articulating community priorities and aligning them with the scheduled developments, and formulating metrics to help match priorities with developments, among others. In addition to the work plan, Avery Consulting will deliver a data and evidence-based capital plan that advances the development and provides recommendations for implementation. Avery Consulting is devoted to designing and implementing a development plan that truly reflects the local community's demands. It is the firm's objective to include all stakeholders and people in order to produce the most comprehensive equality strategy. Special focus will be placed to the engagement of the most vulnerable and disadvantaged community members, such as the senior citizen, children, and disabled individuals, who are often left out of the design process and are generally the first to be priced out and uprooted during neighborhood urban renewal processes.

Avery Consulting will leverage all available resources to ensure that the long-term residents of WTC Site 5 reap the benefits in all areas of the developing process, including jobs, and overall improved quality of life.

## PROJECT KICKOFF

Avery Consulting's Assistant Project Manager (APM) will introduce the entire Avery Consulting team and the project's scope to everyone from LMDC, PANYNJ, and the designated developers for the designated developers of the WTC 5 Site. This will allow the project developers to familiarize themselves with the primary deliverables with Site 5. Avery Consultants will liaison with the designated developers who win the bid and their identified co-developers to organize the preliminary research and feasibility study required to establish the project due to diligence parameters. This process will consist of a meeting with the designated developers

on-site to conduct a site inspection and project scope evaluation to understand the requirements associated with identifying professional expertise required for the project.

This initial phase will create a detailed report of the municipal associated permissions required, financing, and lender options, along with conclusions derived from the project feasibility study. This will be immediately followed by the delivery methods agreement, where the APM and Project Coordinators will discuss specific needs. Avery Consulting will request data and information from LMDC, PANYNJ, Designated Developers, and their co-developer partners throughout the kick-off period.

## PHASE 1 | PROJECT PRE-DEVELOPMENT

Once the site evaluation and due diligence of the project have been completed, Avery Consultants will begin developing details and organizing critical approvals for the newly proposed commercial real estate development. This will ensure that the project team makes progress in the documentation and preparation of required agreements for municipal approvals as identified in the Kick-Off phase. Our finance experts will conduct a preliminary pro forma analysis and compare the projected financial investments needed for the designated developers towards:

- Project Associated Costs and Financing Requirements in quantifiable terms
- Hiring Professionals and Associated Expertise fees for the Real Estate Development
- A rough estimate of the financial returns and revenue-based earnings that the development of WTC 5 will incur.

The legal advisors at Avery Consultants will collaborate with the designated developer's legal counsel to ensure:

- Municipal related regulatory compliance and Zonal permit applications to various City Agencies for project pre-development approval
- Contracts preparation for professional hires and consultancy partnerships
- Review of pre-development loan and financing agreements

Avery Consultants will also conduct a Market Analysis and Feasibility Study of the proposed development of WTC 5, to determine the permits, understand potential challenges to develop a risk management plan and aspects involved in gaining approval from City Agencies and Lender Required Reports of the project development that will be processed in Phase 4 of the project. The initial feasibility study will include

- Site Investigation Report (SIR) detailing Zoning regulation Requirements. City Agency associated permits for approval and other permissions required for the project

- Environmental Assessment of WTC 5 Site, Geotechnical Study, and Property Survey of physical features required for NEPA and SEQRA approval as outlined in the RFP.

- NYC City Council, Department of City Planning's approval and public hearing if designated developers decide to renew or revise the GPP of the WTC Site.

Post the completion of the above tasks outlined in the pre-development project phase, Avery Consultants will get acquainted with the chosen Project Design Consultant to facilitate the design development process as the next phase transitions.

## PHASE 2 | PROJECT DEVELOPMENT

The goal of this phase in the project development is to ensure bringing all the key acting consultants such as architects, designers, civil and structural engineers, construction managers, and associated experts involved in the project to develop implementable plans required for project execution of the WTC 5 Site, within the decided development budget.

Avery Consultant's environmental and sustainability consultant and the project managers will be the active members contributing to this phase of the project.

The environmental consultant will oversee that the project is planned and designed to deliver the highest standards of sustainability-oriented design, low GHG emitting construction strategies, and following the required protocol required to develop the NEPA and SEQRA certification approval documents to be submitted. This will involve communicating with the project's landscape architects, sustainability consultants, and energy consultants.

Furthermore, the team's Research Analyst will create a carbon monitoring framework to ensure the recording and implementation of the green practices agreed upon at the onset of the project.

The project managers at Avery Consultant will be responsible for providing consolidated updates to LMDC, PANYNJ, designated developers, and co-developers through the various phases of the design process. The project managers will also facilitate the client meetings, conduct follow-up reviews, and ensure that the design development teams are working towards ensuring the viability of these development designs and processes of construction drawings are detailed with utmost clarity for the smooth execution of the WTC 5 Site Design. This will include overseeing and reviewing the site plans, building design and development schemes, working drawings for construction and logistics, and the operational plan required for the final plan submitted for approval by the clients and the designated developer. During the final docket revisions, the project managers will also review it on the basis of the legal advisory and project budget established to ensure compliance, and alignment of the designs to meet the City Agency standards mandated and agreed upon.



## PHASE 3 | PERMITS & CONSTRUCTION

A comprehensive implementation framework is critical to effectively launch and ensure the success of the Equitable Development Plan. Avery Consulting will ensure that the Equitable Development Plan takes into account all existing plans, regulations, and ongoing projects in WTC Site 5. Importantly, emphasis will be placed on transparency and accessibility to users of WTC Site 5.

The Avery Consulting team will develop a final version that will be finalized with a graphic designer. The Equitable Development Plan will be delivered in print and in an electronic file.

With the completion of the design development phase, Avery Consultants will assist in finalizing the project budget and financing schedule bringing all the project actors to an agreement. The finalized budget will take account of:

- Project Financial Projections and Detailed Financing Schedule
- Permits, Legal Fees, and Processing Fees to ensure Building Approvals
- Report on Lender's information and Insurance
- Soft & Hard Construction Costs and Forecasted Emergency Costs

Avery Consulting will be responsible for handling the coordination required to conduct the construction bids and selection of contractors for the project. The team will hire a Contractor Manager to ensure the monitoring of the project construction phase and regular site inspections, which will be weekly reported to the Assistant Manager who will then prepare a monthly inspection report that will be presented to the Client and Designated Developer, by the Senior Project Manager. The beginning of construction of the commercial development of the WTC 5 building on Site 5 will be marked by the Close of Escrow where the designated developers will transfer funds, along with the deed of trust to all involved parties.

The logistics and operational plan of the WTC 5 project will be implemented to begin the vertical development of the construction phase. This will entail laying the foundation, earthwork, padding the building foundation, and moving forward to the contractors collaborating with the structural and civil engineers to further the construction of the WTC 5 building development. The project managers from the design team, civil team, structural engineers, and the contract manager selected to manage the project's construction phase will conduct weekly inspections on site. Avery Consultants Project Executive and Senior Project Manager will ensure a monthly on-site inspection and will meet the team representatives for an updated summary that will be further developed as a briefing report which the Senior Project Manager will present to the designated developers and the project clients. Each section will have its creation period by Avery Consulting and a review/feedback period by LMDC and PANYNJ. Meetings will be

held by the Risk Manager after every review/feedback period to discuss changes and make adjustments. Inspections during the review will include:

- Structural Building Envelope and Roof Surface
- Plumbing, Electrical, HVAC
- Fire/Safety and Surveillance Locations Identified for security device installation
- Interior elements and heavy furniture positions allocated for operations phase

Towards the closing period of the construction phase, final inspections, following of building codes, ordinances, and arrangement of City Officials to inspect the building will be arranged by the Assistant Project Manager at Avery Consultants. Besides the construction of the building itself, the surrounding property will develop insuring Avery Consultants will be involved in:

- Coordination with landscape architects and project contractor for installation of landscaping and site grading
- Logistics and Operations team in ensuring proper disposal of materials and borrowed equipment, construction machines, cranes and other vehicular support have completed their utility work post-construction closure
- Off-Site work coordination with associated City Authorities in ensuring the infrastructural access to the property is supportive of the new development in Site 5.

## PHASE 4 | OPERATION & INSTALLATION

At the onset of the operation and installation phase, the closure of the WTC 5 building construction will involve developing a schedule of duties by Avery Consultants including

- reviewing the punch list and addressing any unresolved tasks before the final occupancy inspection by City Officials to ensure quality standards are met
  - building systems testing, to ensure the proper functioning of all internal civil installation
  - start-up procedures for occupancy preparation which will include marketing materials of commercial units developed, inventory of each programmatic vacancy along with the necessary lease or renting agreements drafted coordinated with the legal advisors.
- Once the project meets all inspection and building codes requirements, Avery Consultants will coordinate with the Clients, Designated Developers, and City Authorities to obtain the Certificate of Occupancy for the WTC 5 commercial property.

This step will enable the interior design team to begin the installation of the soft and hard furnishing of offices, partnering with the logistics and operations team. Avery consultants will also choose a Property Security Manager and provide oversight of

security surveillance installation at the decided building locations during this phase. A general property manager will also be introduced by the designated developers to the client and undergo the necessary training to begin their duties on-site. Avery Consultants will also liaison with the clients, project finance advisor, and legal advisors to review additional updates or proposals to obtain additional capital if required and establish the steady repayment of the project financing depending on the lender's payment plan.

## PHASE 5 | POST DEVELOPMENT EVALUATION & REPORTING

Avery consultants begin the project closure process by drafting out the final progress report of the World Trade Center 5 development project and evaluate the project delivery process. The project manager and assistant project manager will monitor the completion of the project documentation that needs to be handed over to the clients and the designated developers. Avery consultants will also ensure the timely completion of the SEQRA & NEPA adherence review and report the project's Carbon Offsets and Emissions report publicly. Given that the World Trade Center 5 must be an embodiment of the City's commitment to environmental consciousness, Avery Consultants will liaison with the project contractors and designers to complete the LEED and WELL certification process for the new development. As a commitment to the surrounding neighborhoods and the Client's request to integrate community involvement into the operations of the development, Avery Consultants will also produce a DE&I initiative and recommendation report as a part of the project handover process with implementable strategies that may be adopted by the Clients during the Move-In process. Lastly, the User's Manual will be developed in conjunction with an evaluation and assessment framework for the post occupancy review that may be administered by the designated developers and clients after 6-12 months of occupancy to measure overall development performance and project impact with respect to its immediate surroundings.

## PHASE 6 | HAND-OFF

Avery Consulting would like to ensure the continued success of this WTC 5 property development hand-off once our roles in the project come to an end. Avery will present to LMDC, PANYNJ, designated developers, and co-developers a summary of the WTC Site 5 project management along with a Detailed Project Report. The latter will be composed of recommendations and strategies for the client to ensure a successful transition of work and maintain the positive relationships formed with stakeholders in the community. The following components will be included in a Hand-Off Indexed Project Log Book upon project completion:

A description of where and how transferred data is stored will be discussed. This will allow the client to have a clear understanding of











the collection of files, images, data, and other information that was produced throughout the project.

A series of identified future opportunities and potential barriers will be presented. LMDC and PANYNJ will be informed of foreseeable setbacks that may arise after Avery Consulting is not present. They will also be briefed on advantageous opportunities that could further the success of the project.

## COMMUNICATIONS PLAN

### Main Point of Contact

- Your primary point of contact will be Mollye, our Assistant Project Manager (APM). Mollye will organize bi-weekly phone calls and collaborate internally to stay on top of any new developments.  
Email: mliu@averyconsulting.com  
Tel:(555)-555-555

### Communications Protocol

- Avery, LMDC, and PANYNJ | There will be regular face-to-face meetings between Avery, LMDC, and PANYNJ. We will send out email updates and, if necessary, will be available via phone. Events related to scheduling, information requests, report clarifications, and review/feedback would be confirmed through email by the corresponding coordinator and/or the APM for clarity and organization standards (see Organizational Chart and Contact-Information sheet for areas of expertise).
- Avery and Stakeholders | Throughout the project, Avery will conduct meetings. We'll send the client a spreadsheet containing contact information for all stakeholders and their roles in the project. Avery will also take part in monthly reviews of the client's online engagement platform and evaluate the level of community interaction with the help of Community Outreach & Communications. In bi-weekly meetings and/or phone calls, LMDC and PANYNJ will receive an update on the engagement.

### Meetings

We strive for a collaborative relationship with our clients.

- Consultants & Project Team Review Meeting: Bi-weekly phone or video conference sessions between/amongst required teams will be helped. The frequency of call will vary if and when required for any specific issues. The meeting can last anywhere between 20 mins to 1.5 hours.
- We will hold bi-weekly phone or video conference sessions to keep LMDC and PANYNJ up to date on our work and address any

new developments. Depending on the situation, these meetings can last anywhere from 20 minutes to an hour.

- Client review meetings: Reports will serve as drafts for the design development process, and will be sent to clients for review. A week after electronic submission, a meeting will be held in person at one of LMDC's offices. LMDC and PANYNJ will have the chance to ask questions, assess the deliverable, and provide input and feedback to Avery Consulting during this meeting.

### Information Sharing

To obtain the greatest potential results, we strive for transparency and open communication.

- In order to archive all information, all collective files and data should be uploaded to the shared drive. To avoid data loss, Avery Consulting recommends that files not be erased from the hard drive. We recommend that each file's creation date be clearly identified. During project KickOff, LMDC and PANYNJ will be given a methodology for file and folder naming and archiving systems. We would much appreciate it if comments and feedback on the work produced by Avery was delivered to us in a separate commented document by email. This will help Avery to quickly grasp any potential adjustments that need to be made to reports and drafts. Confidential information provided to the APM by email shall be designated as such in the subject line and throughout the document.

### Deliverables

Reports and design development drafts will be emailed and uploaded to the folder as PDF files. After the review periods, final report drafts will be distributed in print. On the drive, the final draft will be uploaded. Additionally, at the concluding meeting, professional prints will be supplied.

### External Communication

If a third party contacts Avery for information, Avery will not react and will forward the call or email to the customer. LMDC and PANYNJ will be in charge of the project's public relations approach.

## STAKEHOLDER MAP

We identified several key stakeholders within the project who will have a vested interest and certain expectations. Avery Consultants will manage all stakeholder outreach and communication.

### Stakeholder Management Plan

#### Public Agency

Avery Consultants will be the point of contact and hold responsibility for maintaining regular communication with all public agencies, including initial engagement and maintaining a point of contact. Avery Consultants will provide regular updates and involve these agencies in relevant parts of the project process.

#### Community Groups & Non-profit Organizations

Avery Consultants will be responsible for engaging and building relationships with these stakeholder groups, including reaching out, establishing a point of contact, and providing updates. These contacts will serve as a critical bridge to the community and ensure that the vision plan updates the community as much as possible.

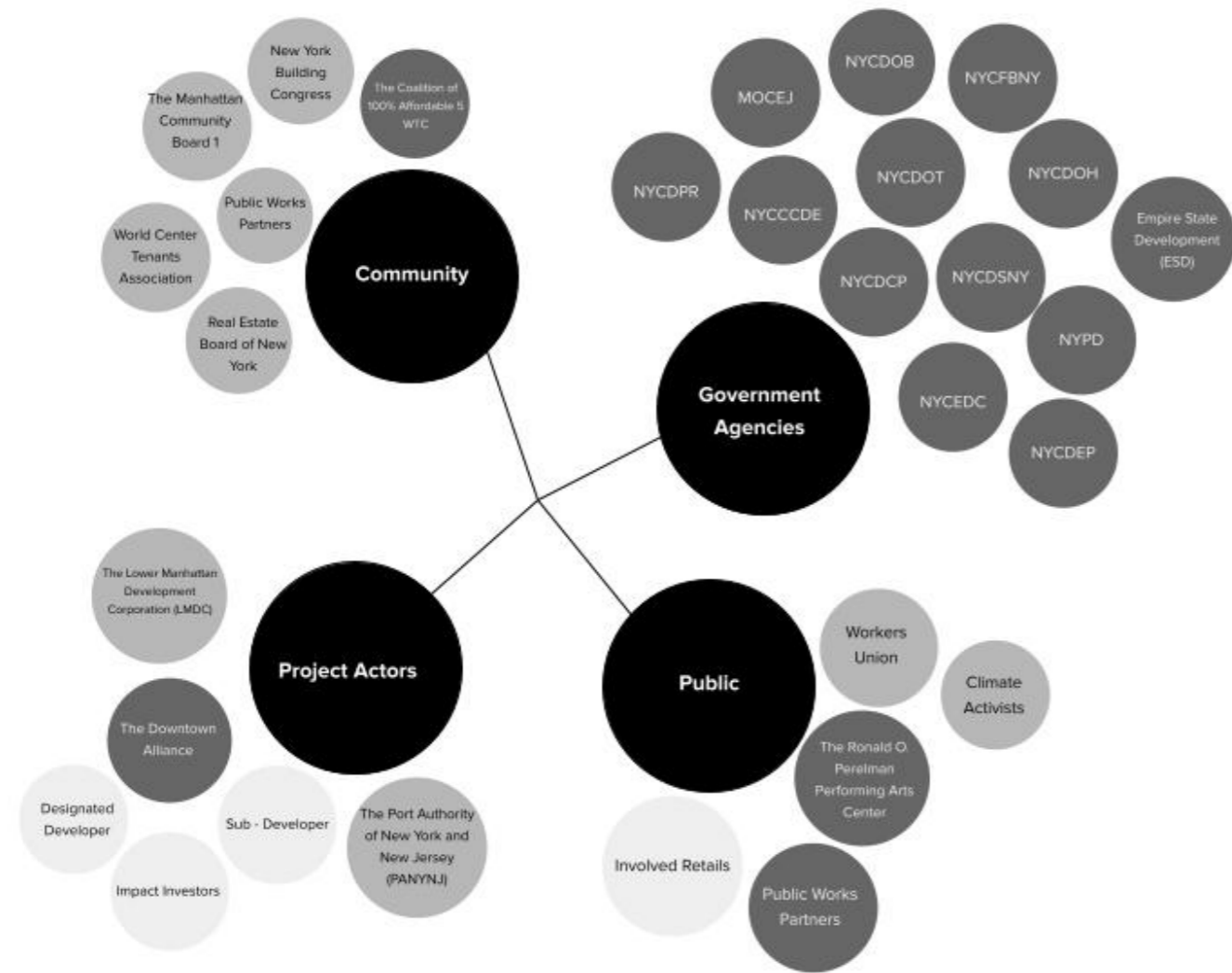
#### Publics

Residents and small businesses will have an opportunity to engage throughout the project. These opportunities include public meetings and online community forums available for those seeking to voice their concerns or ask questions. We will post All public meetings agendas and notes online.

#### Stakeholder Communication and Prioritization

All stakeholder groups can expect to receive bi-weekly project updates. Each stakeholder group will also be offered a 30-minute introductory meeting at the start of the project to establish contact and allow Avery Consultants to communicate the project's goals and how the stakeholder group can be involved throughout. These sessions will also enable Avery Consultants to learn more about the community and strategize with stakeholders on the most effective methods to conduct outreach based on specific community factors. In particular, these introductory meetings will be critical to building trust with local stakeholders who already have established credibility in the community. Avery Consultants will prioritize communication with certain stakeholders based on relevance to the project. This prioritization will be determined upon consultation. Any electronic communication made to Avery Consultants from stakeholders outside of scheduled meetings will have a response time of no more than three business days. Prioritized stakeholder groups can expect a response time of no more than one business day.





**Point of contact within Avery Consultants**

The primary point of contact with all stakeholder groups will be Jiabao Sun, the Community Liaison / Outreach Coordinator manager at Avery Consultants. She will be filling the role of Outreach Coordinator for this project.



**Radha Kamdar**

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[rk3160@columbia.edu](mailto:rk3160@columbia.edu) / [radhaa.kamdar@gmail.com](mailto:radhaa.kamdar@gmail.com)