

PORTFOLIO

**JOHN PAUL MATA-COLLANTES**

My name is John Paul Mata-Collantes and this portfolio reflects my academic and professional works from my architectural career. It showcases my technical + physical proficiency and my sense of style.

As I progress through my career, my goal is to design culturally embracive projects that will benefit people and further expand my knowledge of the design world through collaborative projects while leaving an impact.

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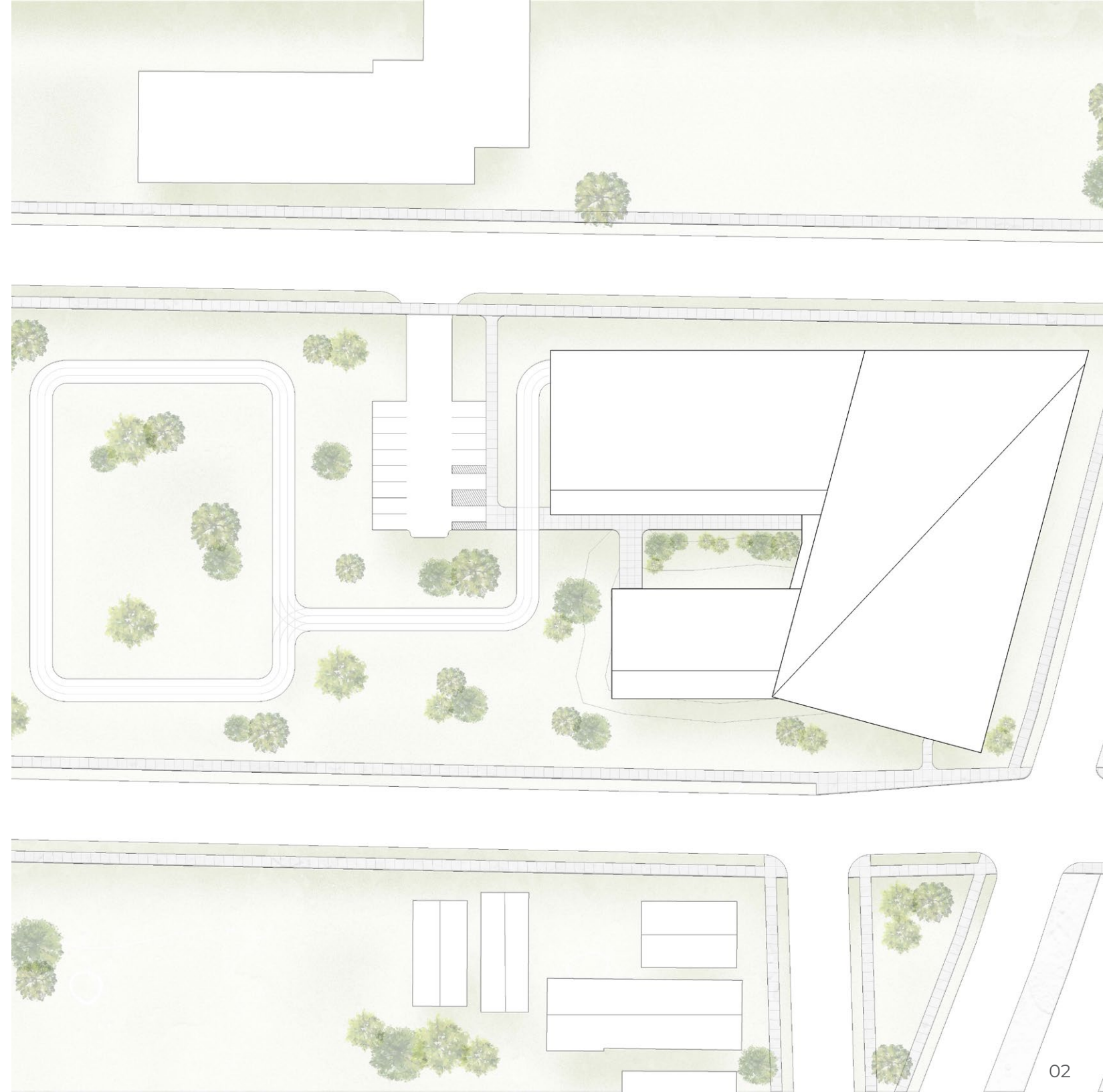
# WELLNESS HUB

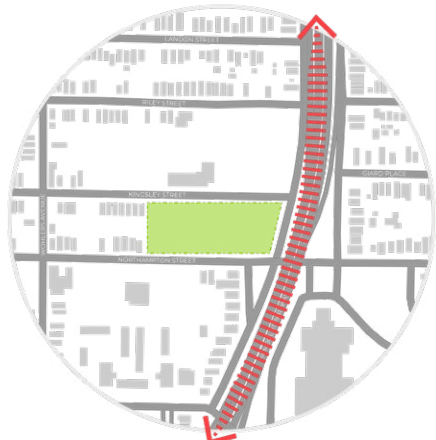
Inclusive Design Research Studio | Fall 2024  
Topic: Unbound - Design for Developmental Disability  
Instructor: Jennifer Oakley  
Program: Group Home + Wellness Center

Wellness Hub aims to improve health-related physical fitness in people with intellectual and developmental disabilities to help them perform daily activities and improve overall health. It addresses the lack of wellness facilities for physical activity in Buffalo, through the integration of a wellness center in tandem with the setting of a group home for the developmentally disabled.

The dynamic between both programs establishes a space to promote wellness through facilitation and access for this specific community. Activities for endurance, strength, and flexibility are translated into the program as essential components for physical wellness, emphasizing endurance through the circulation.

The addition of a wellness center in this specific area of the city creates the opportunity also to address the health disparities that are prevalent in this neighborhood related to the parkway that is East of the site. Appealing to both audiences' targets to normalize and empower the developmentally disabled and integrate them into society.

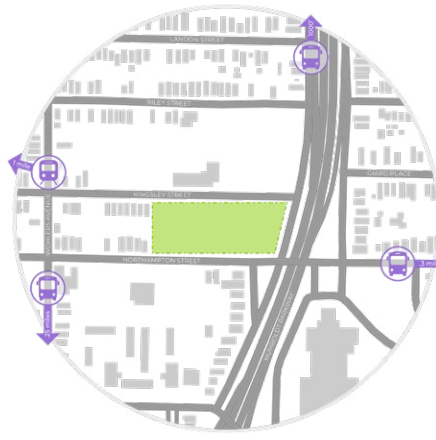




Prominent traffic from the parkway



Connection to site



Access via public transportation



Pin-pointing where current wellness centers exist in Buffalo, but they do not provide spaces for physical wellness.

STRENGTH



Weight Training

ENDURANCE



Running

FLEXIBILITY



Yoga



Cycling



Dancing



Resistance Training

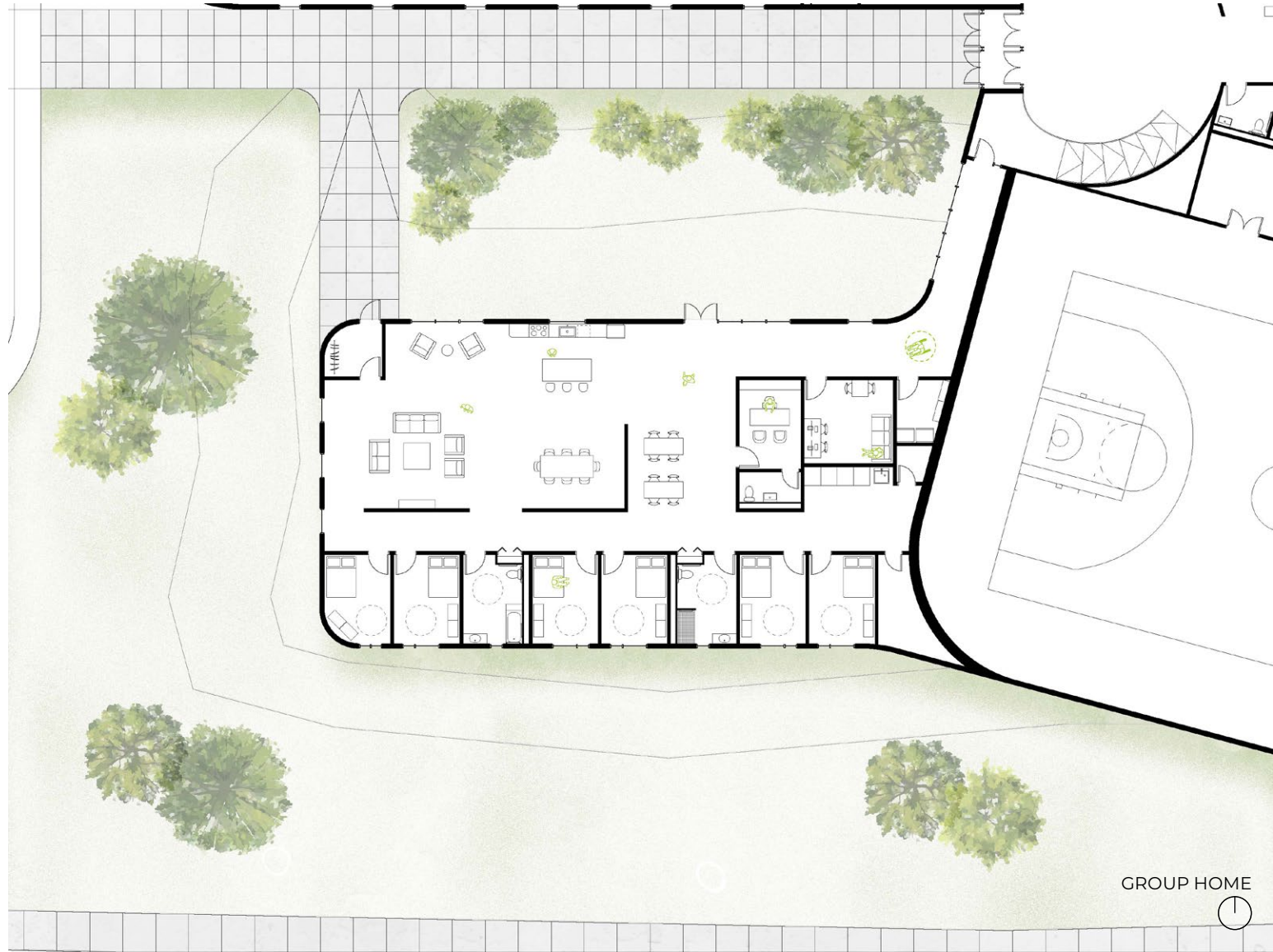


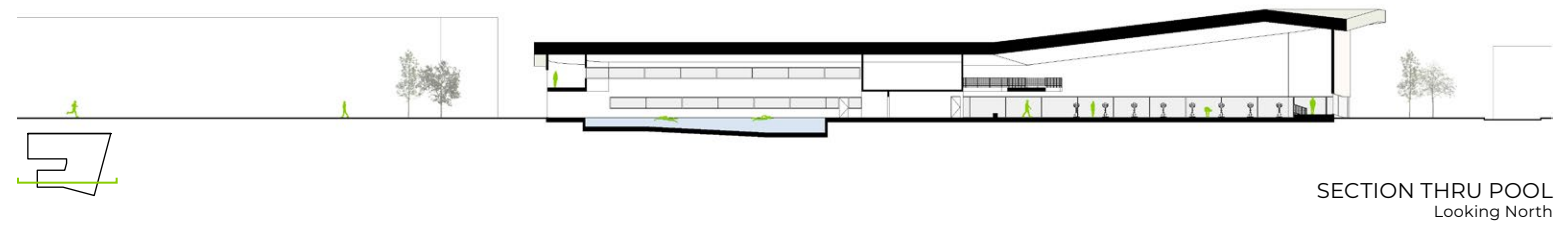
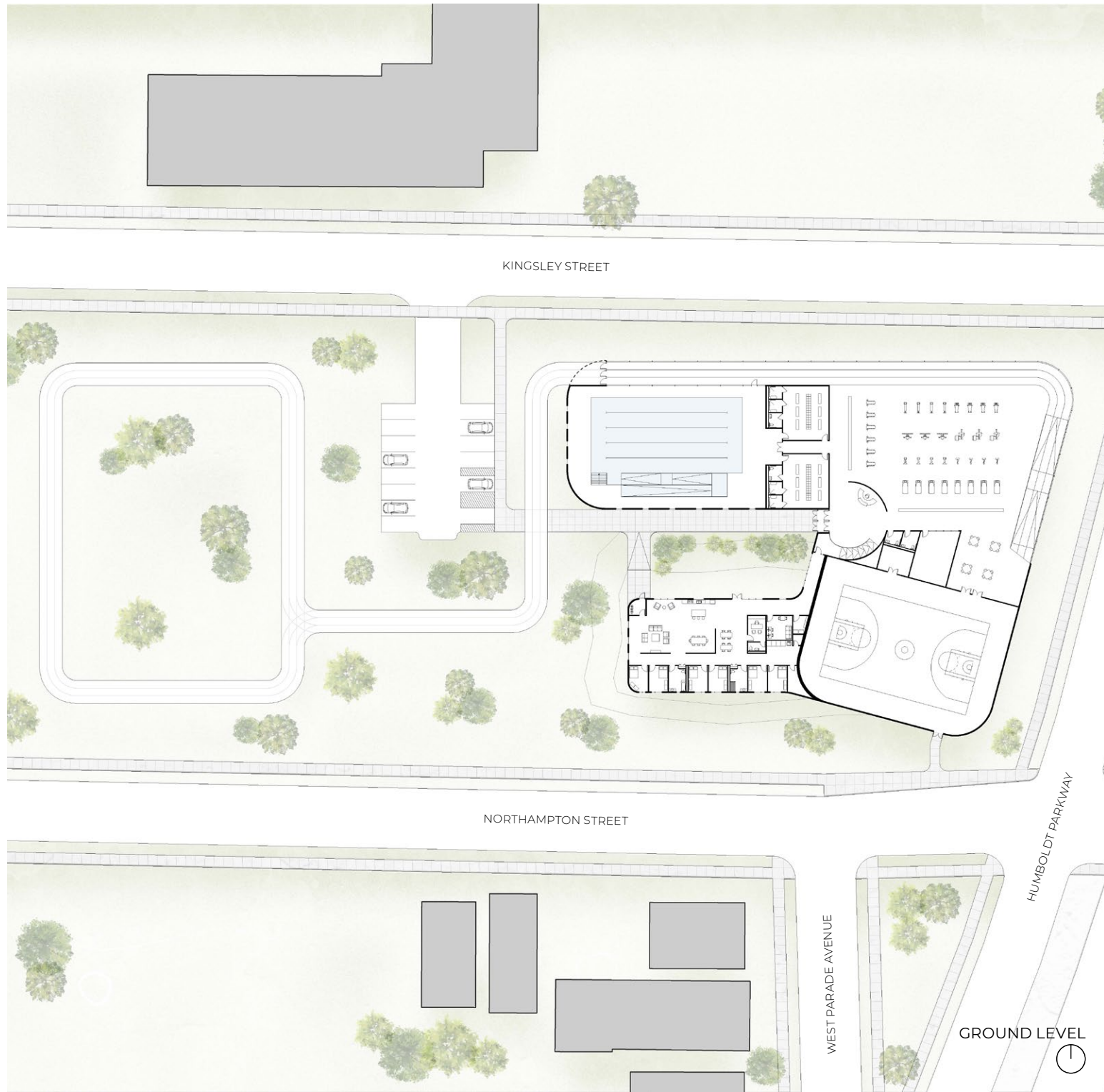
Swimming

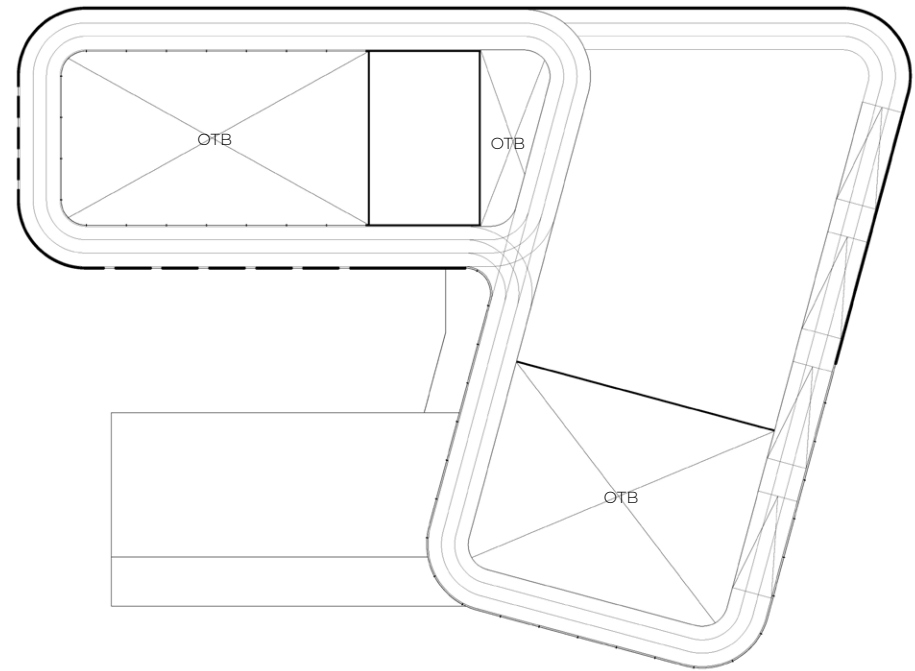


Tai Chi

Three categories from the ten week program are broken into specific activities to translate into program.







UPPER LEVEL  
⌚



# THE CARVE

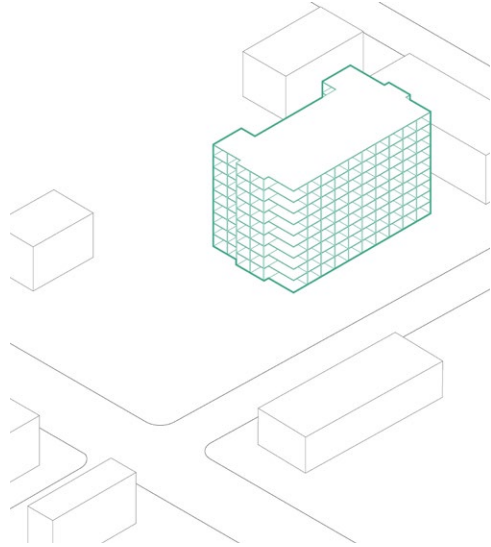
Architectural Design Studio 7 | Fall 2022  
Instructor: Bradley Wales  
Program: Affordable Housing  
Partner + Renderer: Sabri Hafiz Uddin

Buffalo is a city of landmarks. The Carve will be an addition to this along Olmsted's Richmond Avenue Parkway. A conceptual section carved into the existing Sedita building generated terraced landscapes. This would allow for social spaces to promote healthy living, community gardening, and farming, and create internal walking paths for residents.

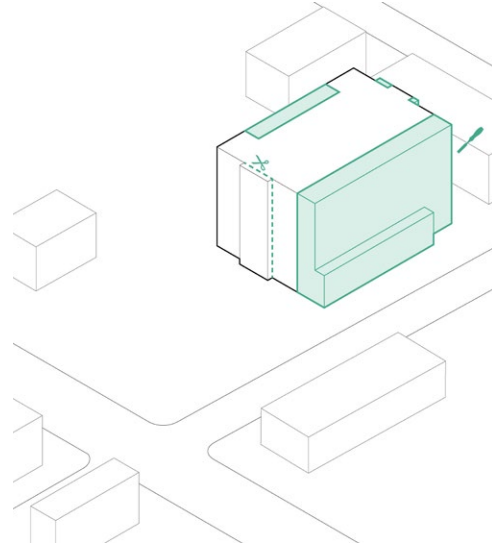
Both schemes are united through the greenway; an extension of the two carves and brings light into both. The greenway passes through Sedita, carved with stairways that lead residents to the rooftop. The greenery directs the user to explore the space and eventually reach social spaces in the uppermost area of the existing building.

The Carve offers all BMHA tenants the opportunity to reside on the upper floors of the new building on a three-year lease rotation. This way, many more people will be able to enjoy the location and views over the lifetime of this building. This strategy of providing high-quality affordable units is like strategies employed by David Adjaye in his multi-family housing. Our building is looking to provide people from all different backgrounds with high standards of living, eliminating any sense of discrimination based on income.

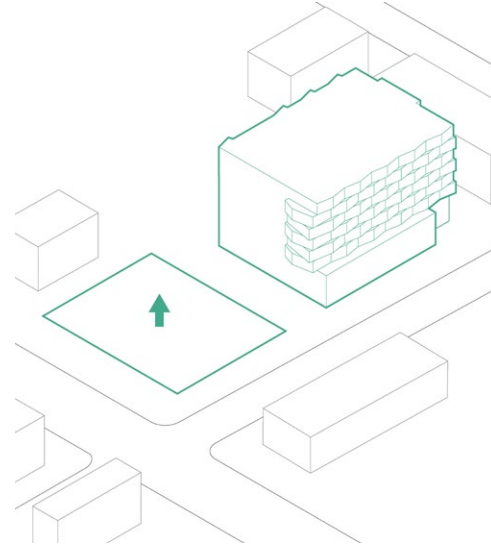




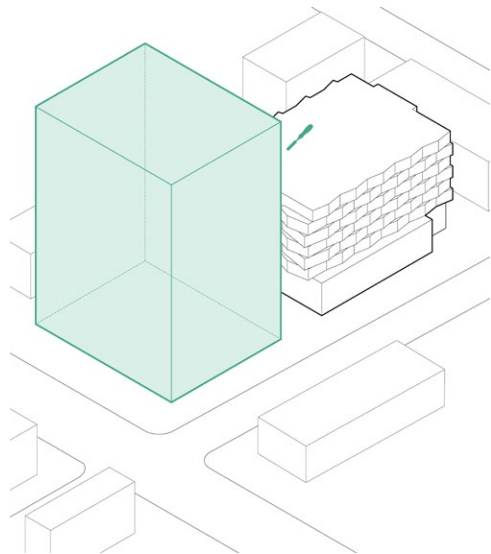
1. Existing honeycomb structure



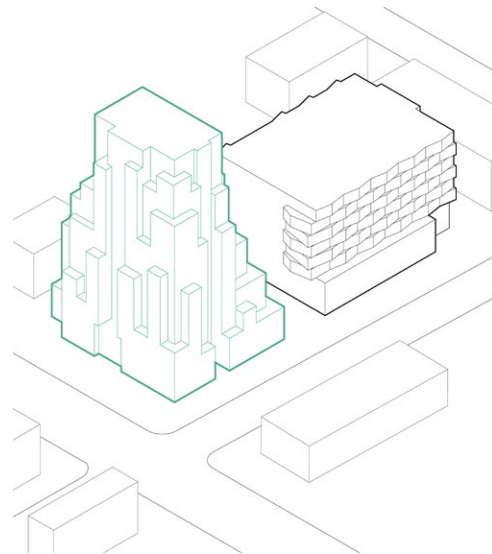
2. Adding to existing faces



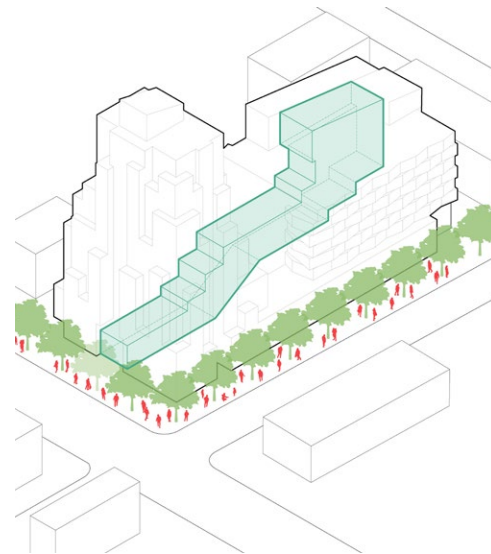
3. New footprint defined



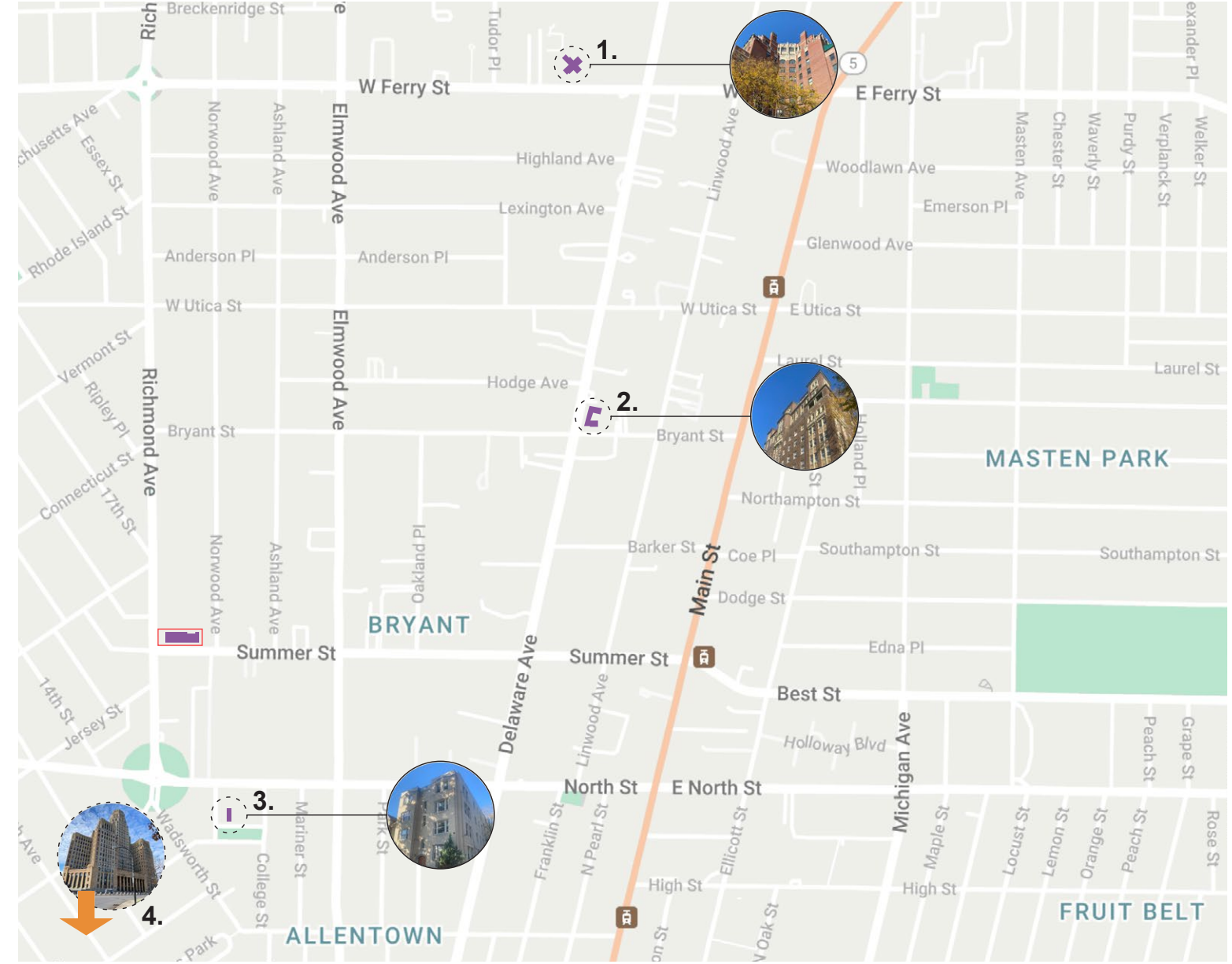
4. New mass



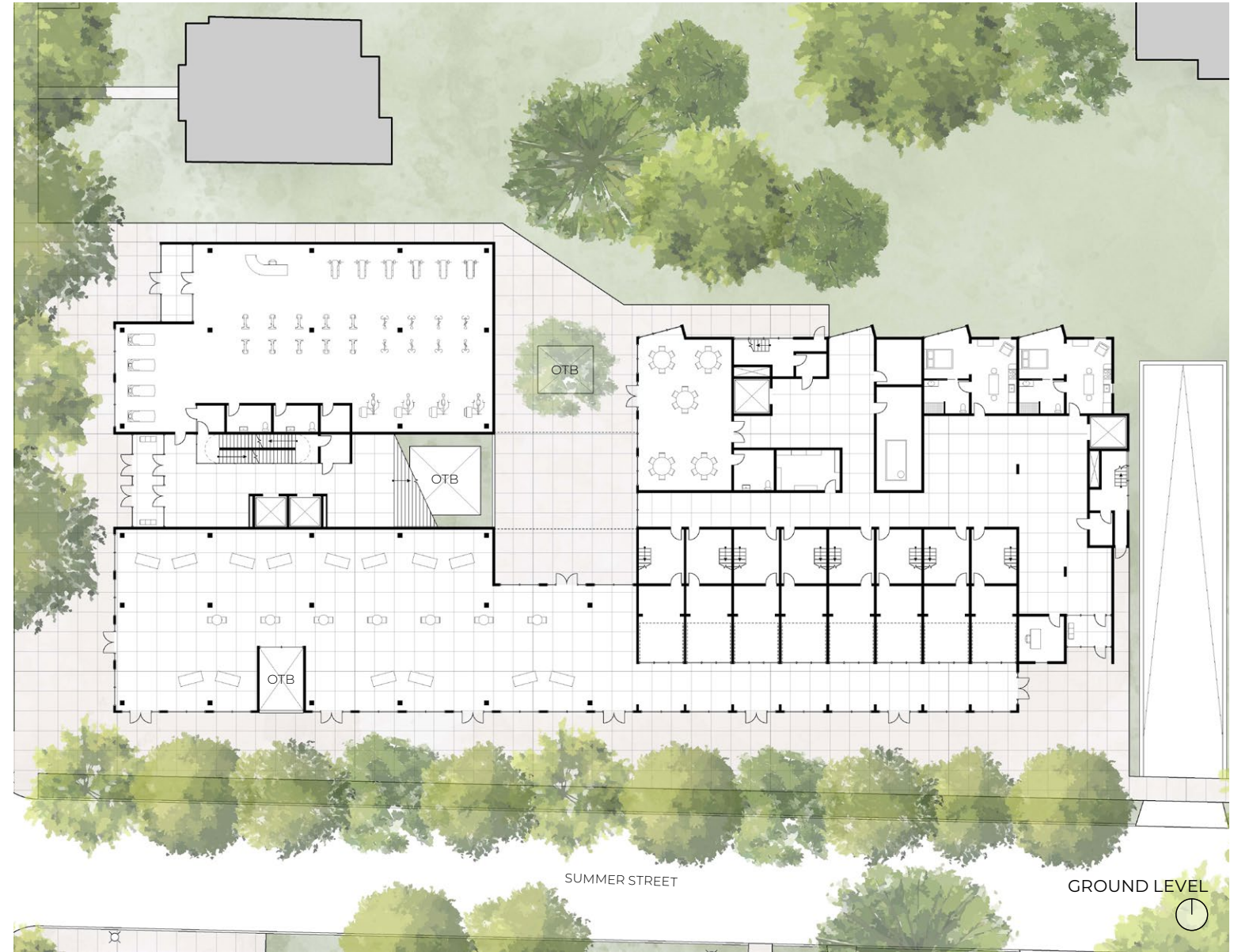
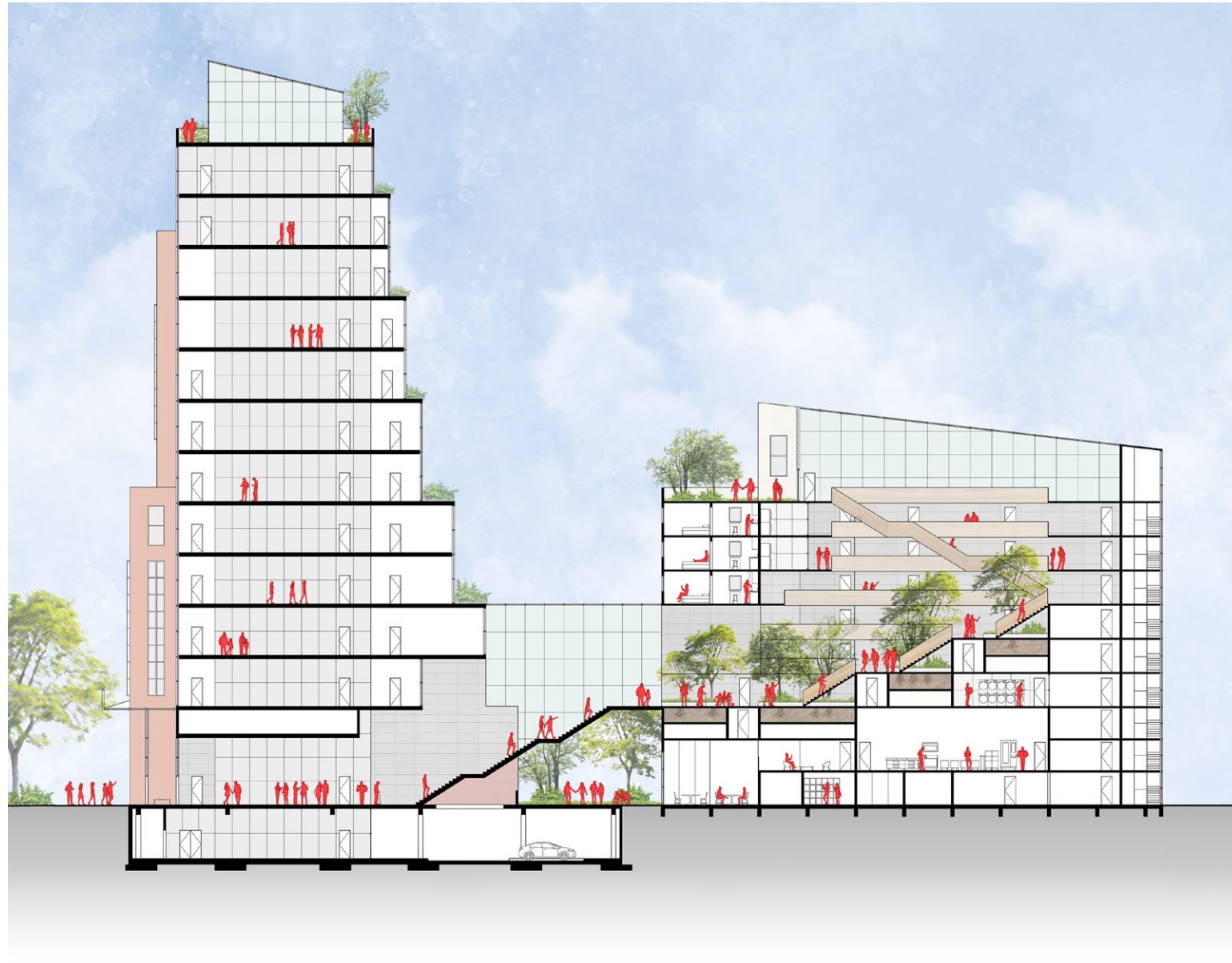
5. Carving away from faces



6. Carving through both masses



Locally renowned precedents in the West Side, similar to 1920s Hugh Ferriss sketches, accentuate the concept of carving.





THIRD-FOURTH LEVELS





EIGHTH LEVEL  
⌚



TENTH LEVEL  
⌚



TWELFTH LEVEL  
⌚

## THE HAUS

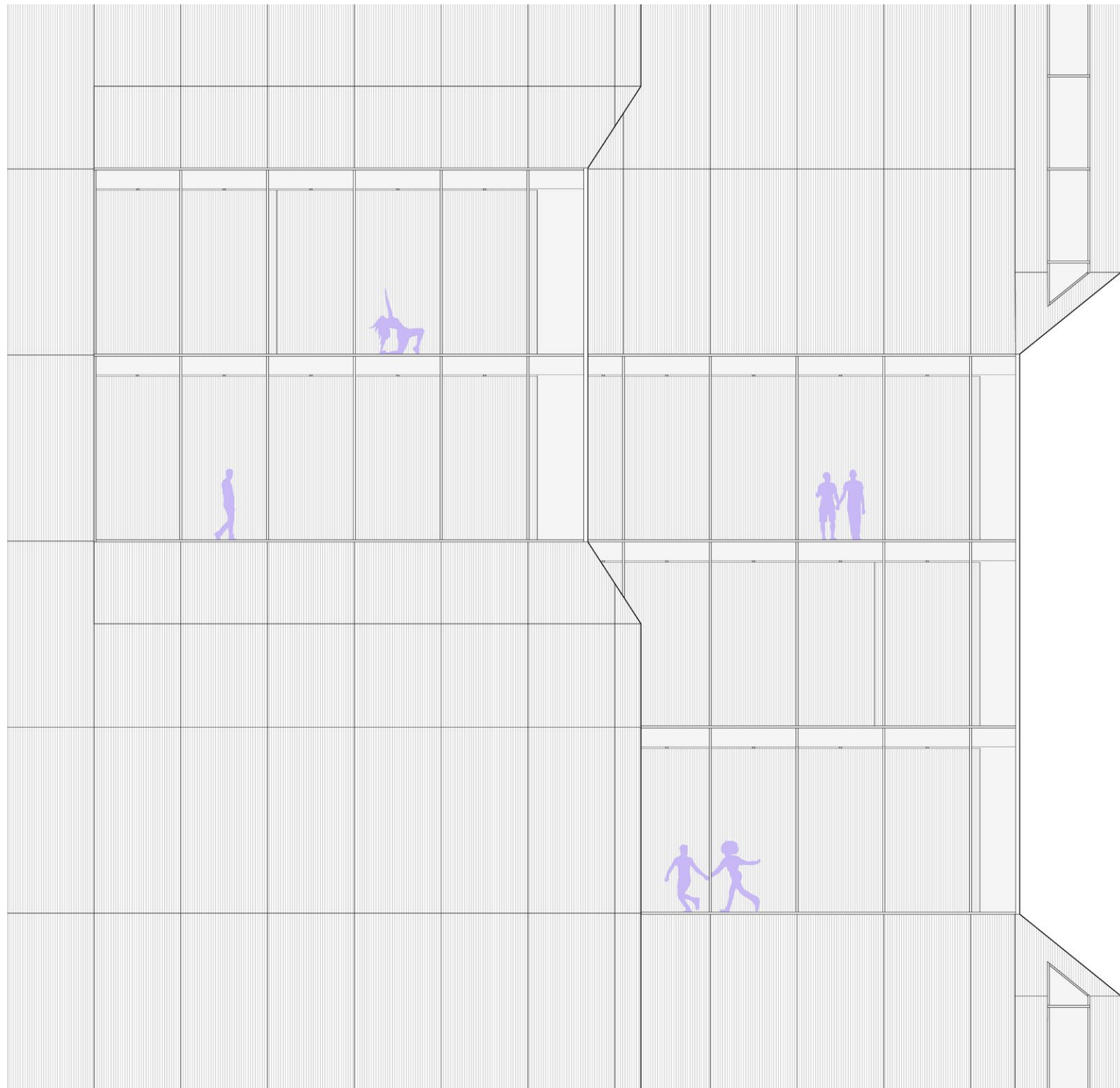
Inclusive Design Research Studio | Spring 2024  
Topic: Post Gay - On Containers and Contents  
Instructor: Adam Thibodeaux  
Program: Nightlife Venue

The method approached for 'queering' Buffalo's City Court was by exposing the interior of the building through the offsetting of the facade's concrete panels, revealing glass to the street. This method was then translated to program and reworked the interior.

The Haus is a newly implemented program embedded within the brutalist fortress known as Buffalo's City Court building. It is a safe space for the LGBTQ+ community that spans four floors on the southeast corner of the building, on the upper levels.

The Haus features many rooms that are defined by the user. Each room is adaptable by moving walls on a track system to accommodate several scales of gathering. The various degrees of pushing expose the interior conditions through the facade, exposing what happens behind the existing concrete facade. This becomes a metaphor for different LGBTQ+ identities through an architectural language as each spatial organization and combination are not the same.

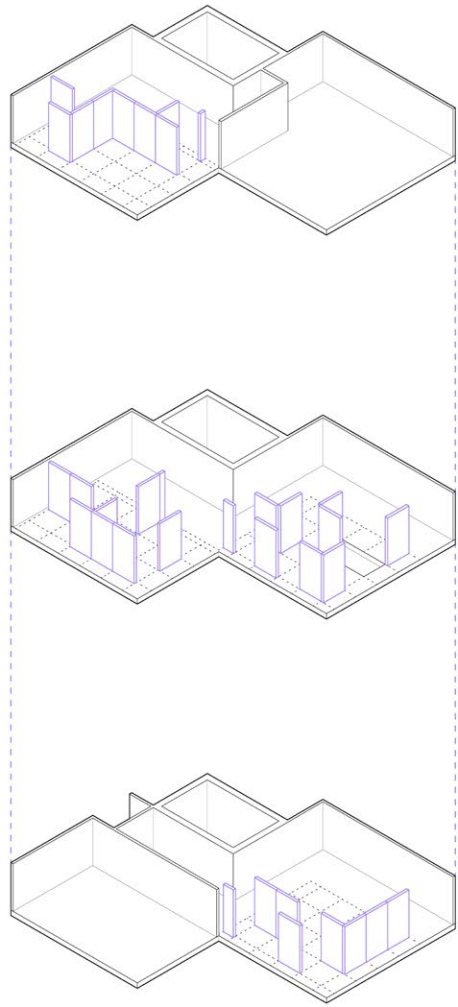




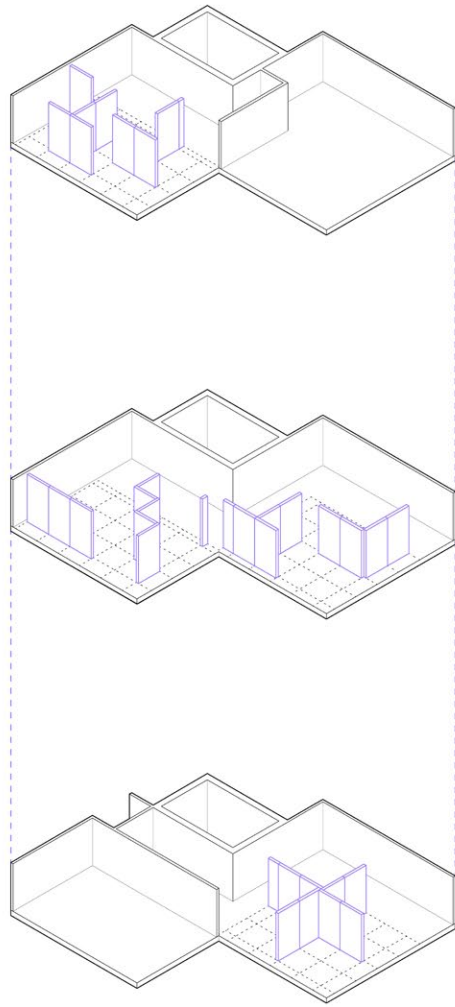
WEST EAGLE STREET ELEVATION



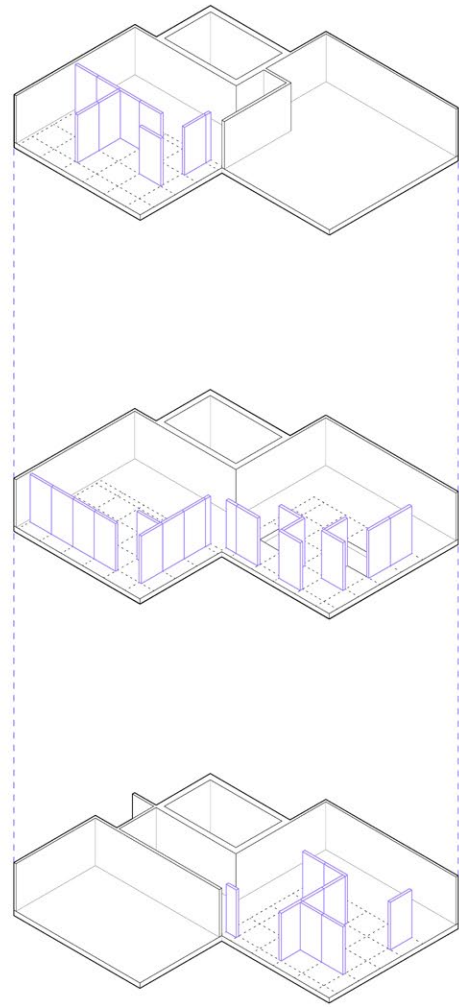
SEVENTH LEVEL (Option A)



Options A



Options B



Options C

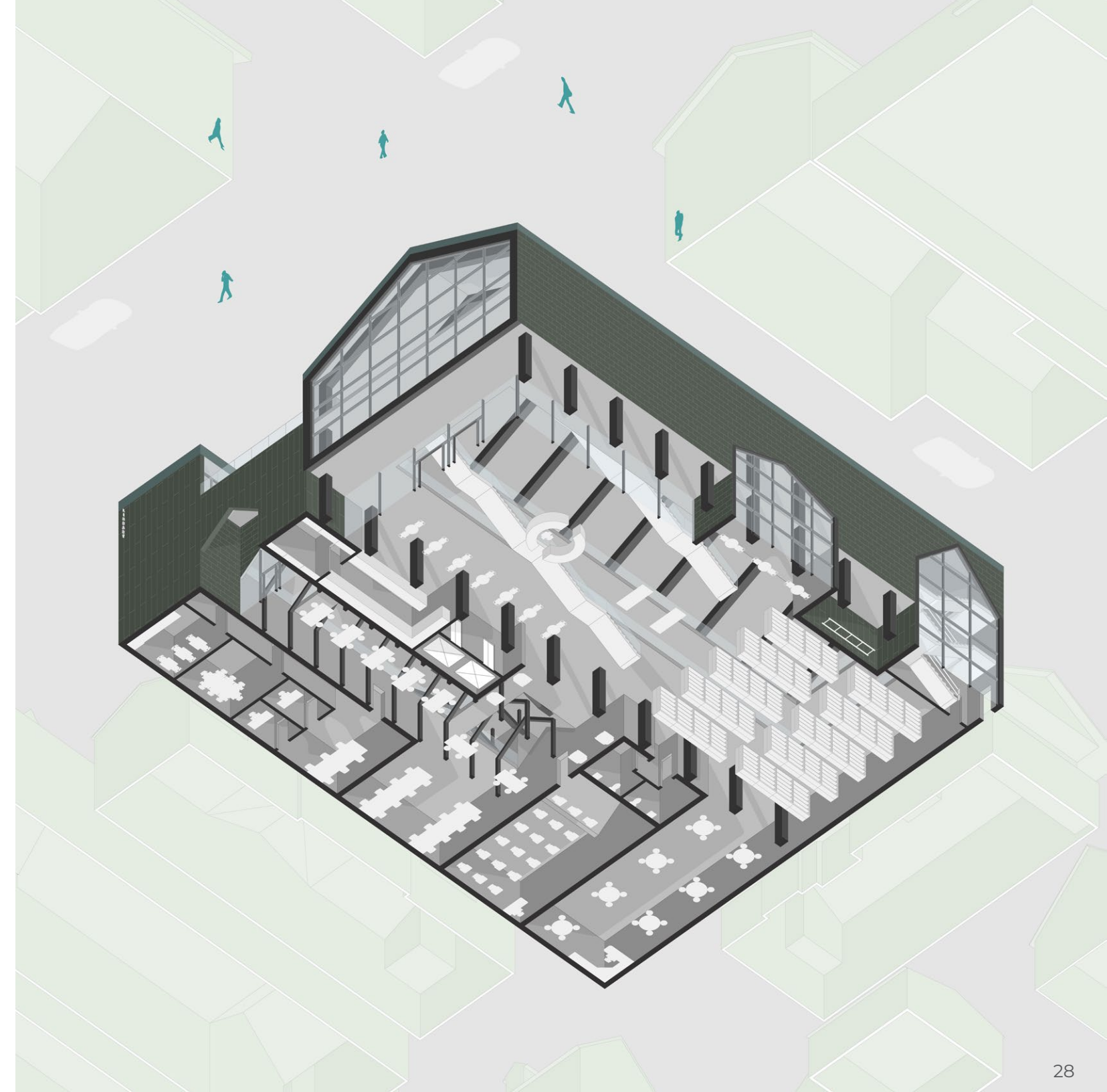


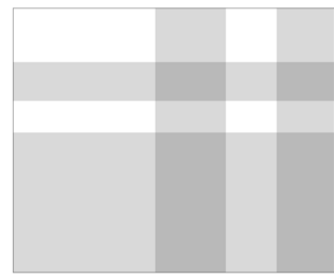
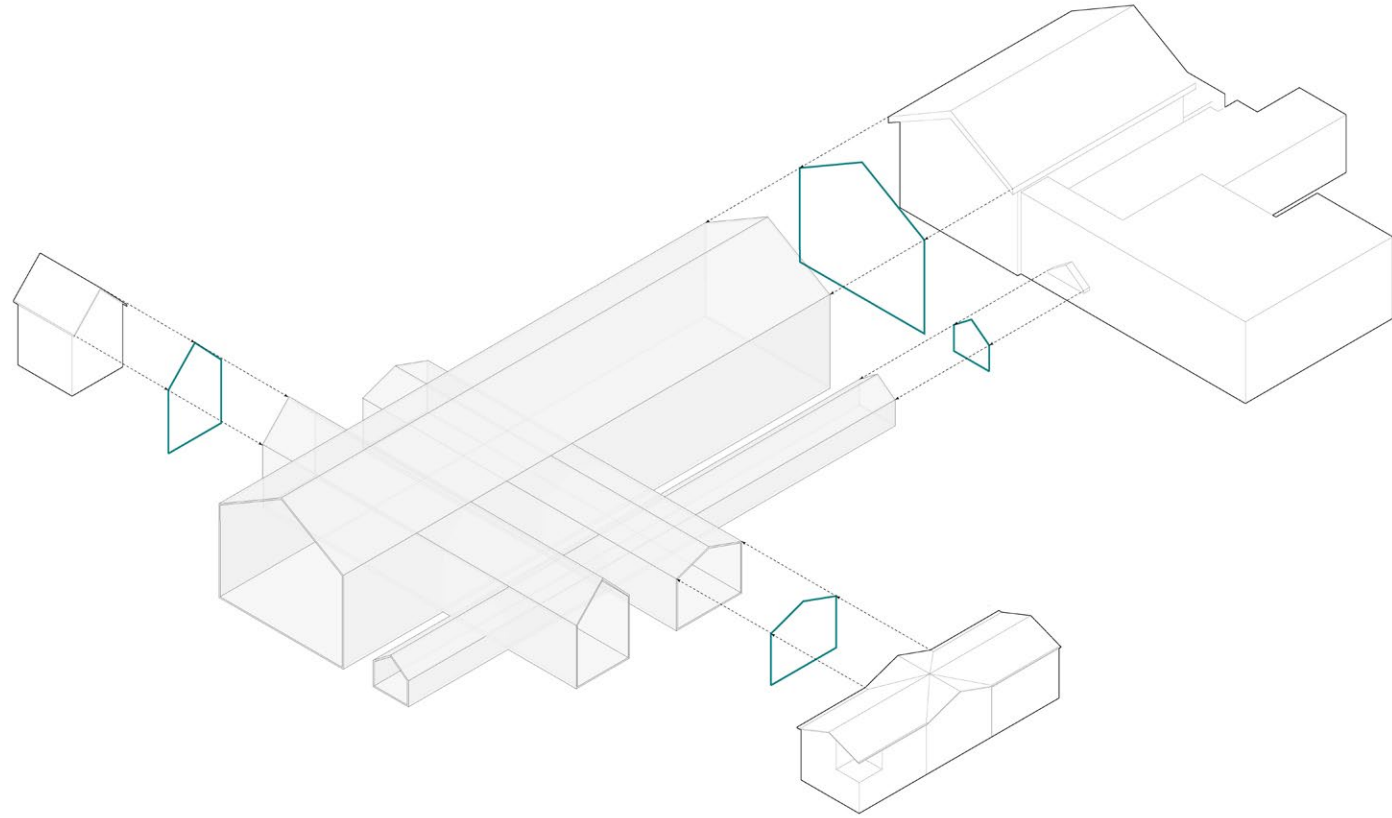
# VIRGINIA STREET LIBRARY

Architectural Design Studio 4 | Spring 2021  
Instructor: Jon Spielman  
Program: Neighborhood Library

Fitting into a neighborhood successfully can allow for a building to thrive in its context. The Virginia Street Library achieves this by extruding the facades of neighboring buildings to produce a direct translation of the neighborhood's context onto the exterior and interior of the building. Through these projections, several interesting spaces were generated that define a library.

In the interior, the intersecting nature of the design is further represented using rib-like structures at different scales. These structures allow for a direct translation of the intersecting facades into the interior without fully closing the space. This translation also creates an emphasis on the extrusions, in which the peaks formed in the interior generate double-height and triple-height spaces. The facade is also carved with the extruded pentagonal shapes of the neighboring buildings, which then serve as glass walls to see the rib structures from the exterior. In plan and section, it becomes clear to understand how everything interacts from one floor to the next.





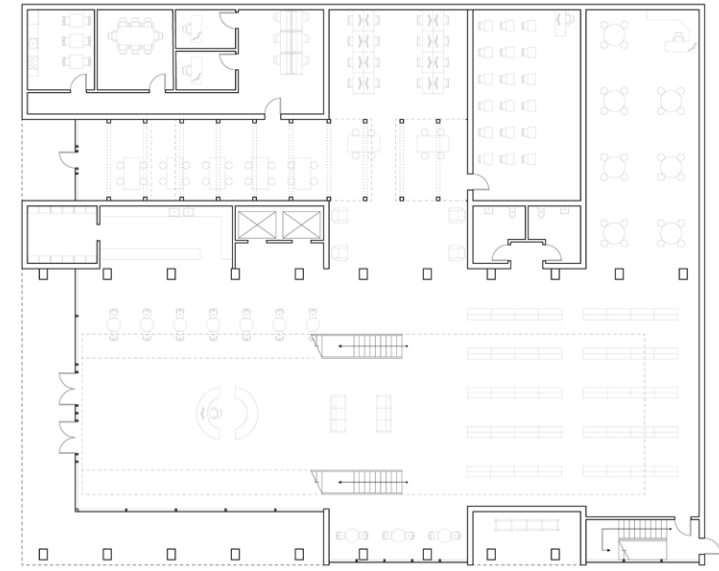
1. Overlapping extrusions



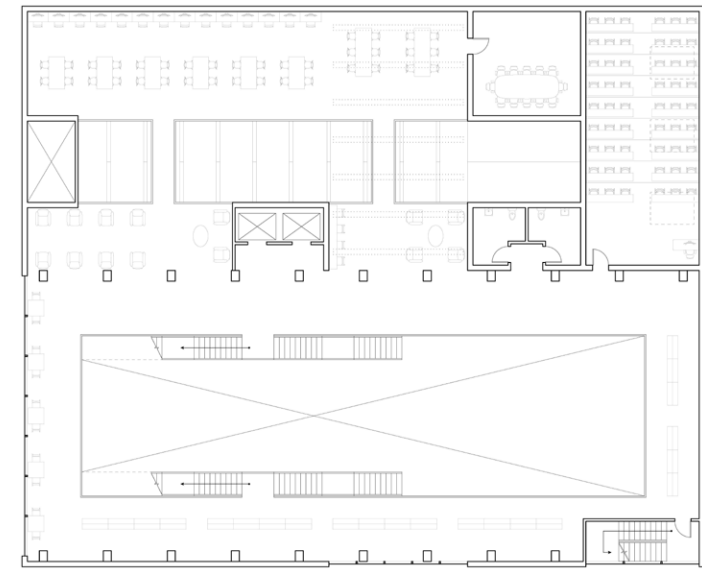
2. Positive



3. Negative

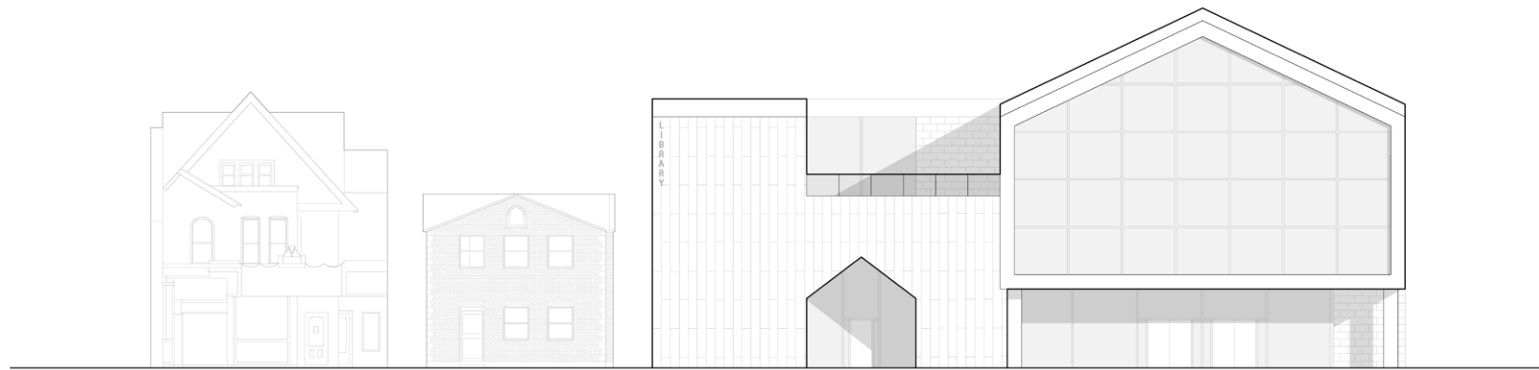


GROUND LEVEL



SECOND LEVEL

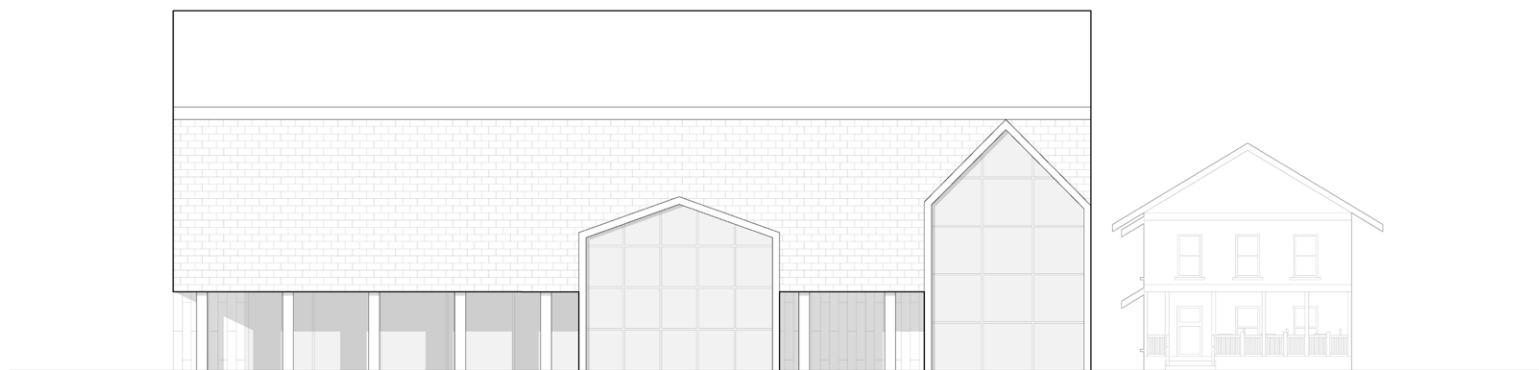




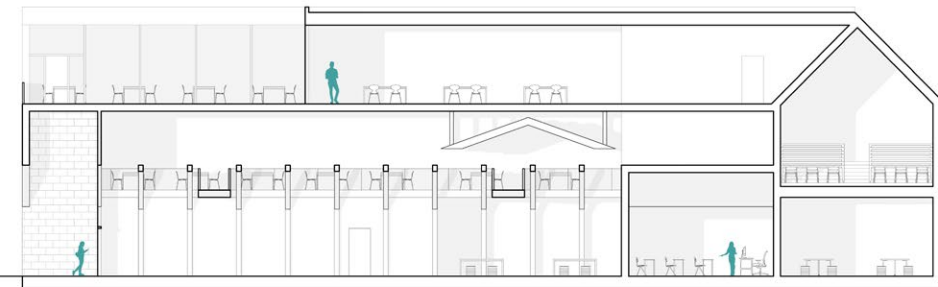
VIRGINIA STREET ELEVATION



TRANSVERSE SECTION  
Looking East



TENTH STREET ELEVATION



LONGITUDINAL SECTION  
Looking North

# INTERSTITIAL CONNECTIONS

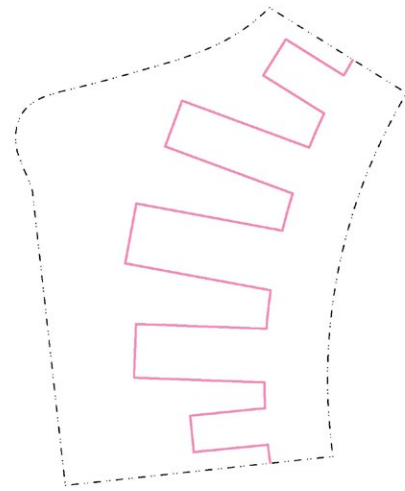
Graduate Design Studio Abroad | Summer 2024  
Instructor: Miguel Guitart  
Program: Cultural Campus  
Partner: Amanda Spidalieri

Interstitial Connections activates the city of Madrid. Conceptually, the building bridges the urban to the natural. It is intended to draw people in and create an active zone in a neutral area within the city of Madrid.

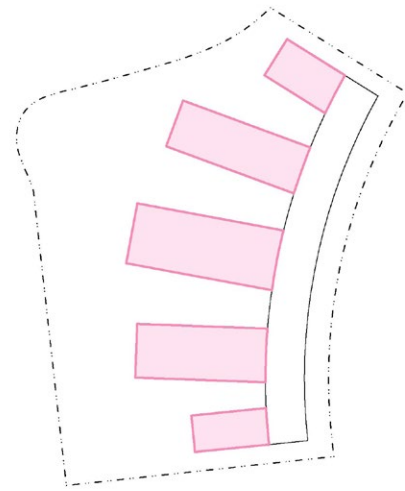
A spine that connects all programs, functions as an interior plaza. It serves as a communal space providing public interaction and cultural exchange. This connection allows visitors and users to access facilities such as an auditorium, a student center, an exhibition space, a café, and an administration office.

The curve of the spine mimics the site's boundary. This was then translated into the roof line, allowing for an emphasis on joining the urban and natural in section and elevation. Interstitial open spaces within the spine, serve the different programs and connect them to exterior courtyards and the greenery beyond the city.

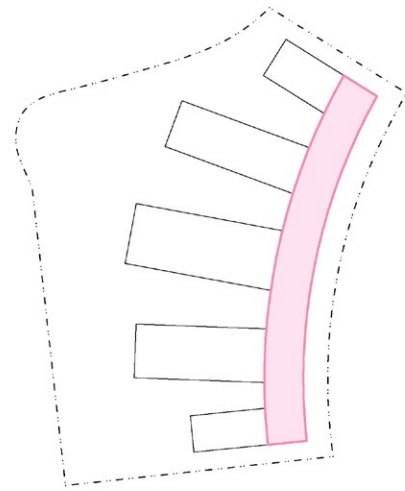




1. Boundary between natural and urban



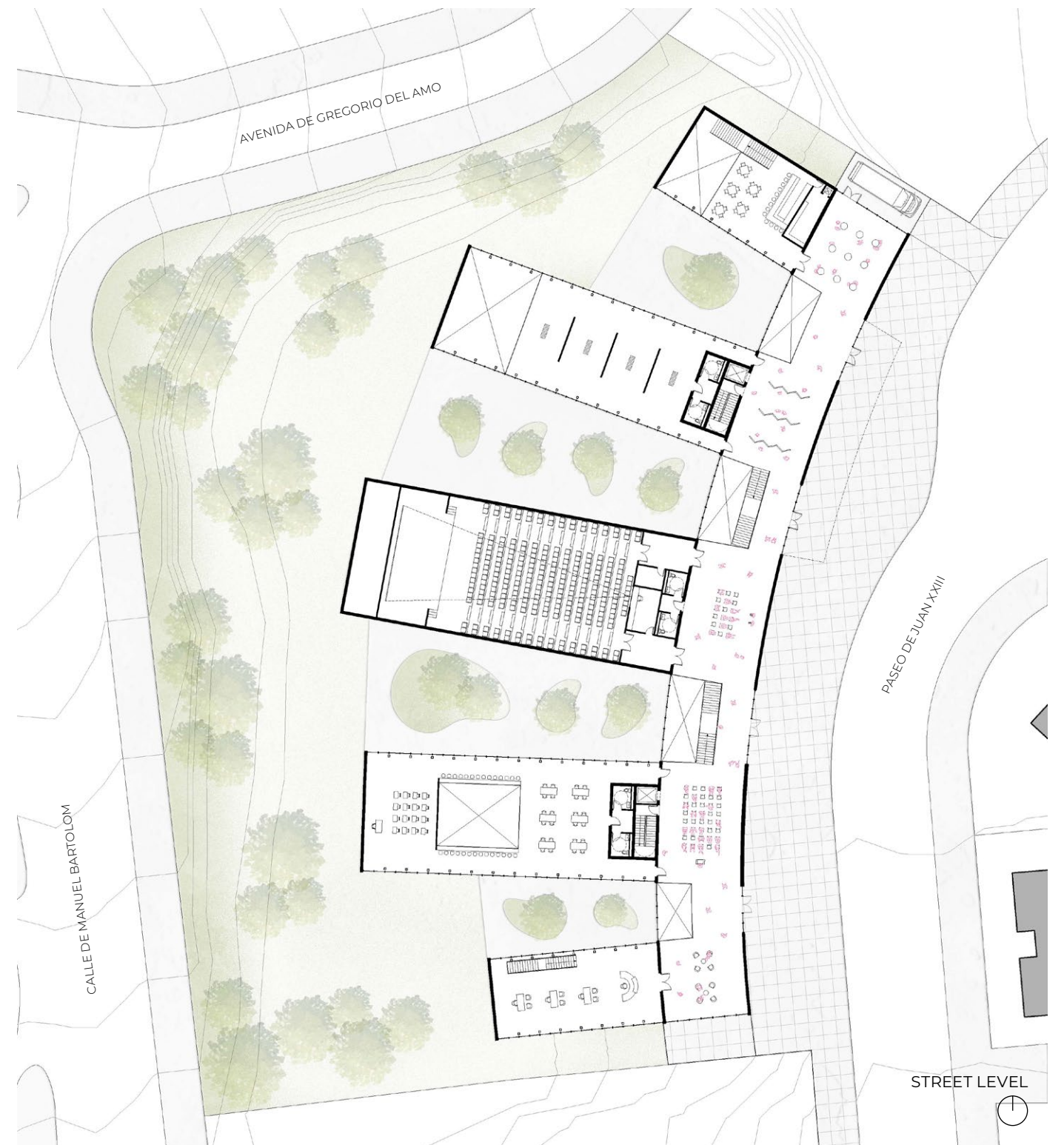
2. Five programs

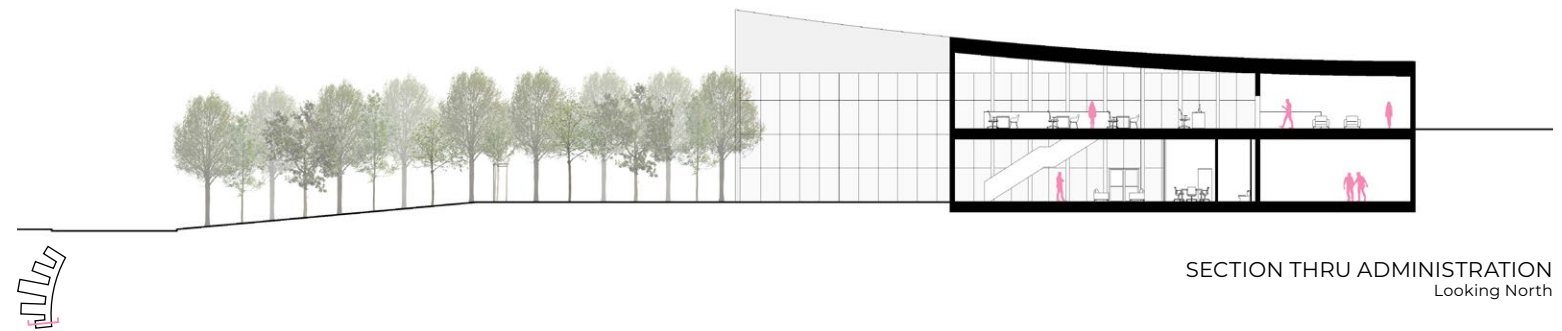
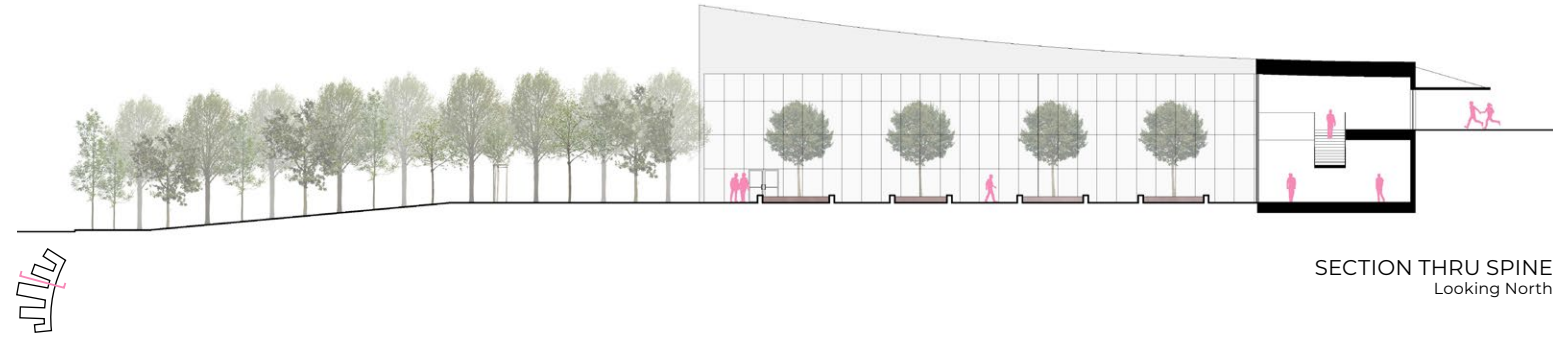
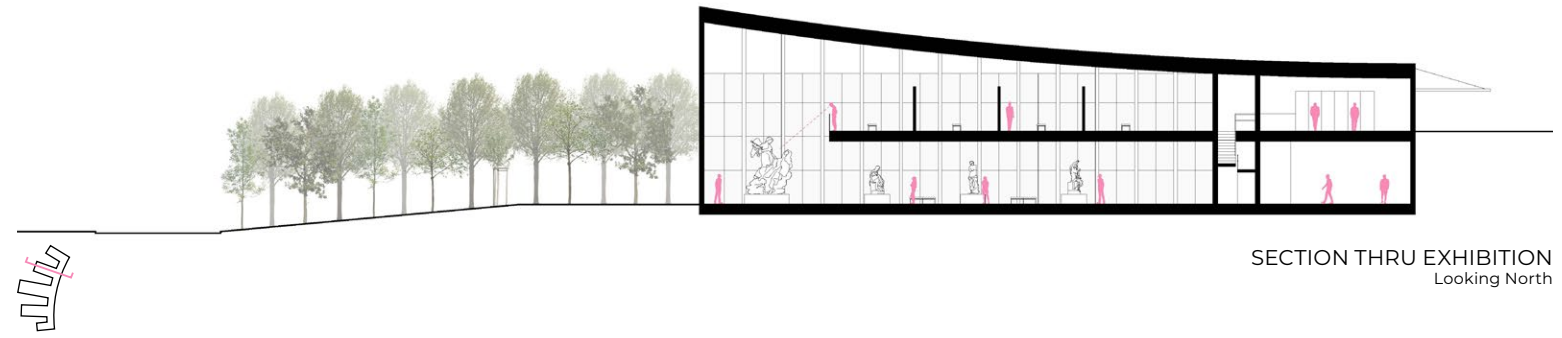


3. Connecting spine



4. Urban meets natural







# NEXUS

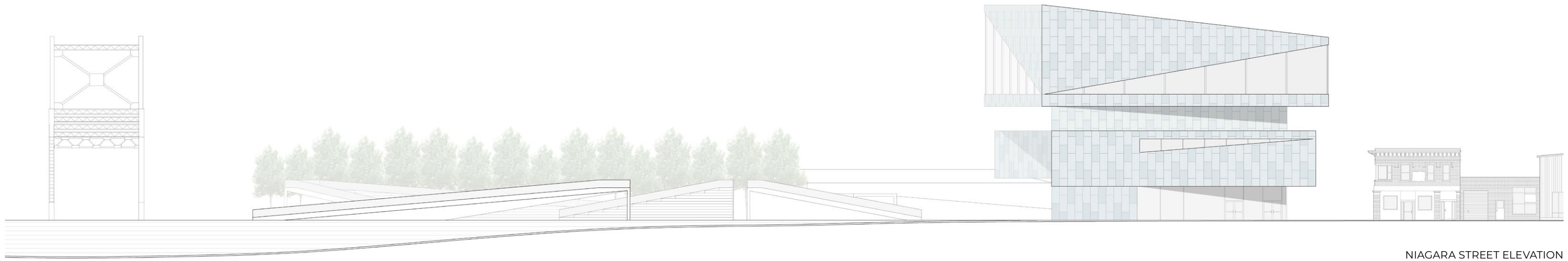
Architectural Design Studio 6 | Spring 2022  
Instructor: Elaine Chow  
Program: Community Center

Social infrastructure is an essential component that defines the framework of built environments. Eric Klineneberg defines social infrastructure as the physical places and organizations that shape the way people interact.

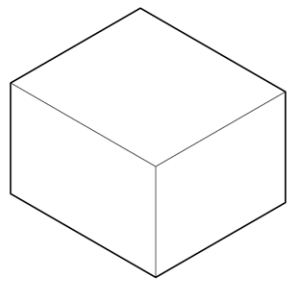
Social infrastructure is severely lacking in the Black Rock neighborhood. Nexus will serve as a community center to promote the lack of social interaction. This will allow the Black Rock community to thrive and gain the opportunity to have a cohesive community-oriented space.

The design of the building expresses public spaces through the built form. This is achieved by shifting and pulling the public programs out toward the different faces of the site to have them interact with the neighborhood. Program-wise, each program is organized by forms of interaction which are defined to be interdependent, interfaced, and physical. Although they are organized in this manner, an atrium cuts through the building to tie everything together visually. The vertical circulation that runs diagonally across the atrium, does this more literally to emphasize the interaction aspect of the building.

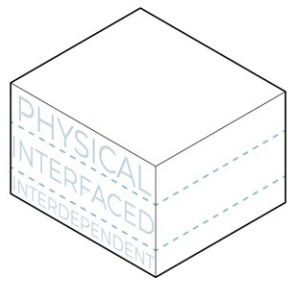




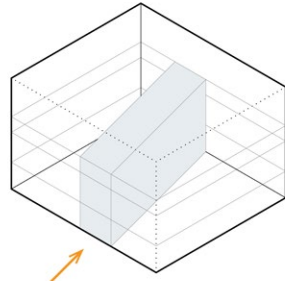
NIAGARA STREET ELEVATION



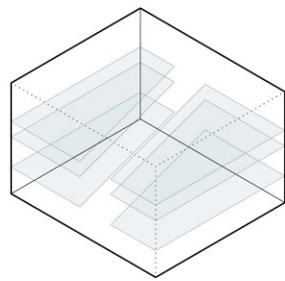
1. Mass



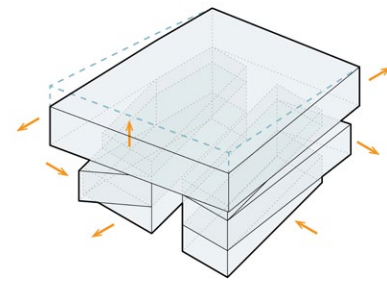
2. Dividing by forms of interaction



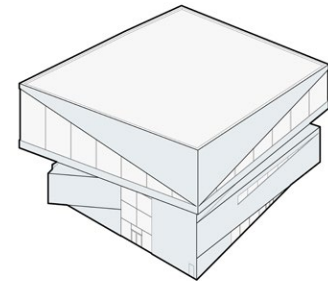
3. Defining a physical split



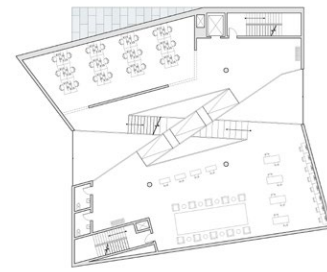
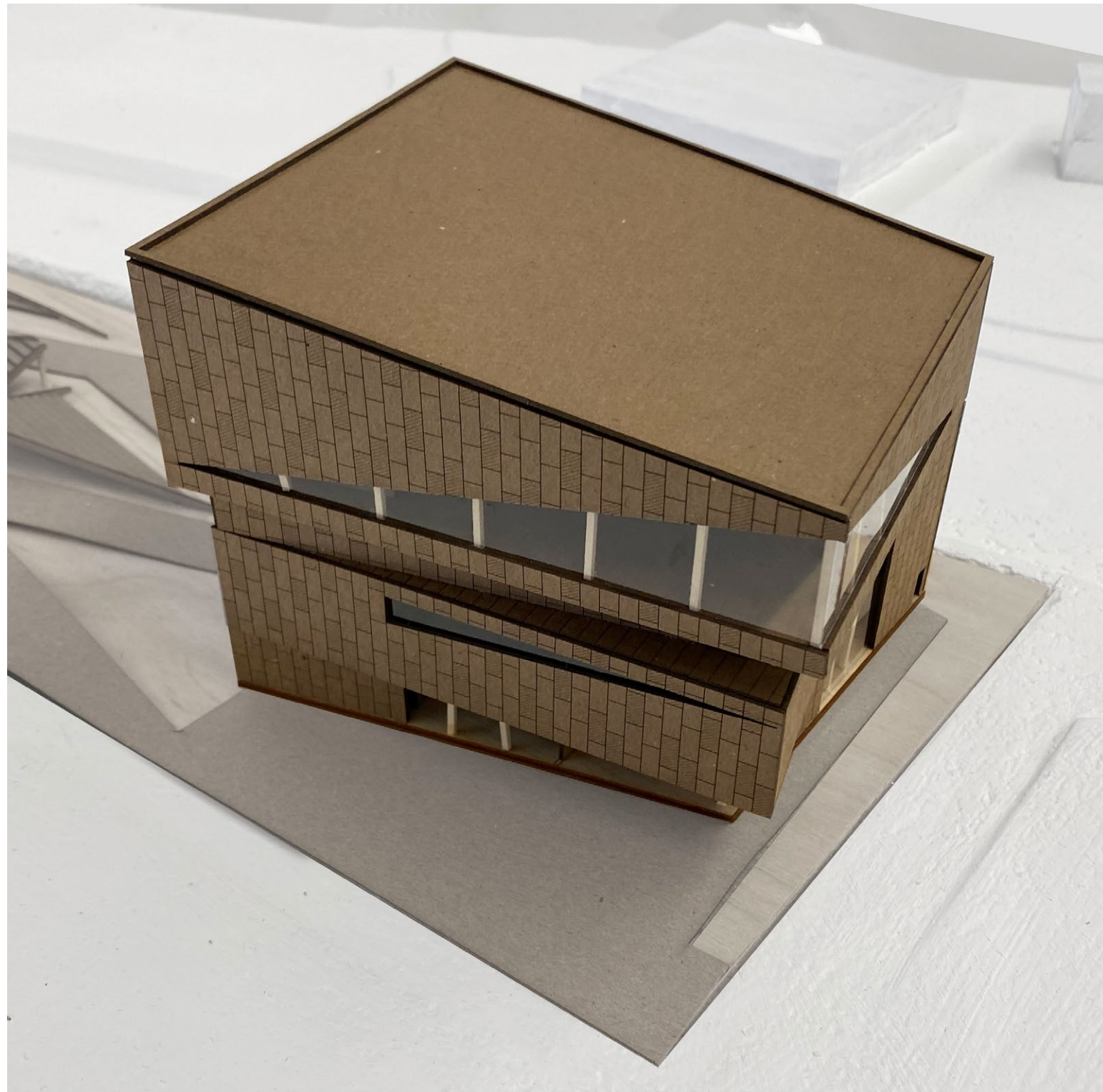
4. Implementing an atrium to visually tie spaces together



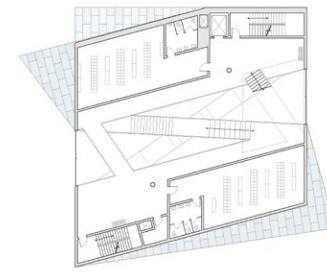
5. Pulling and shifting each level to physically interact with the site



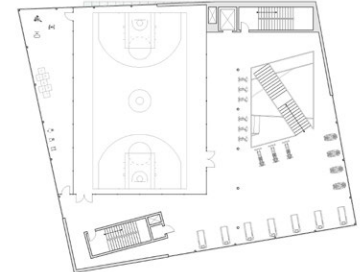
6. A community center that provides that promotes social interaction



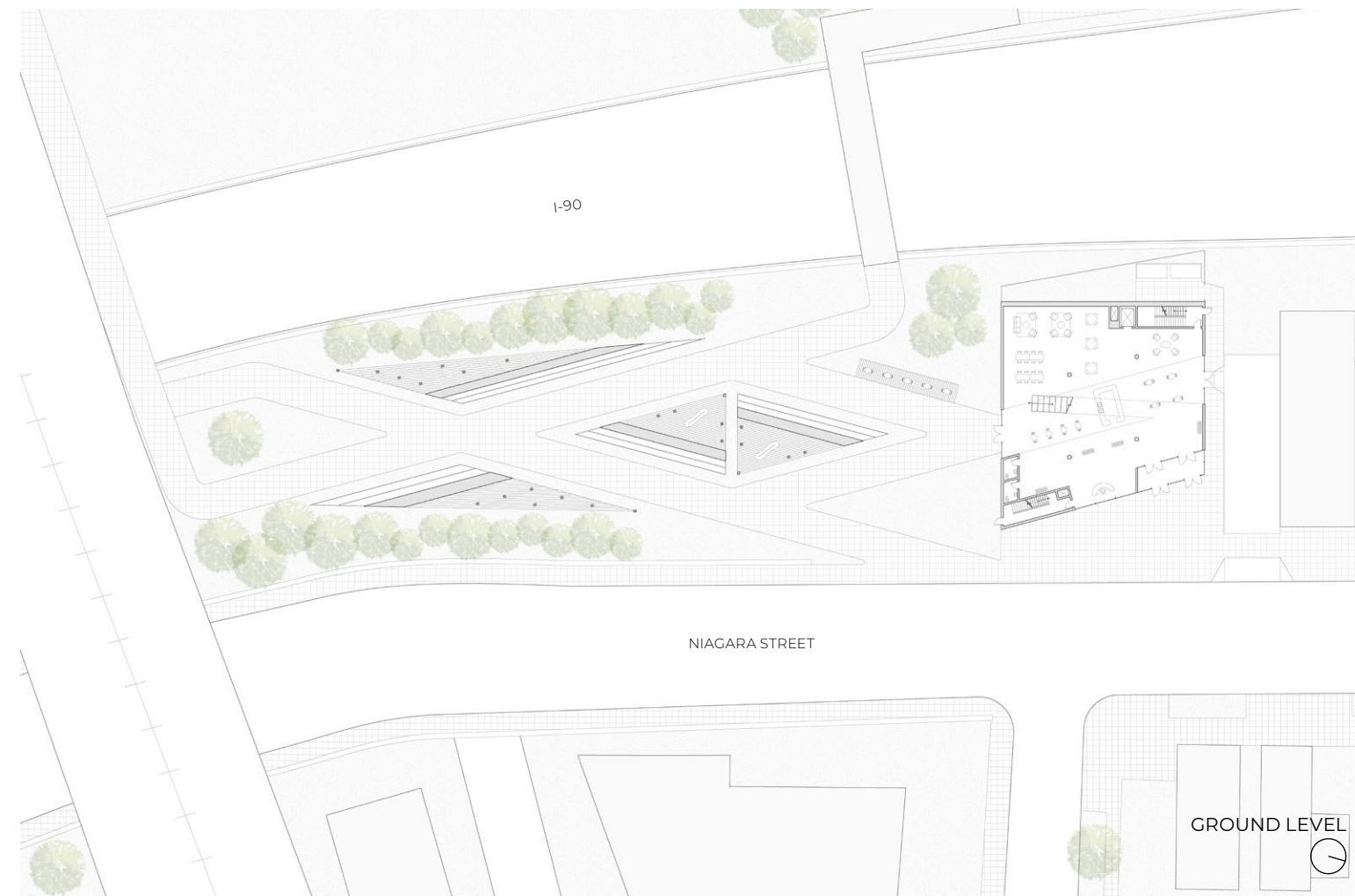
SECOND LEVEL  
⌚

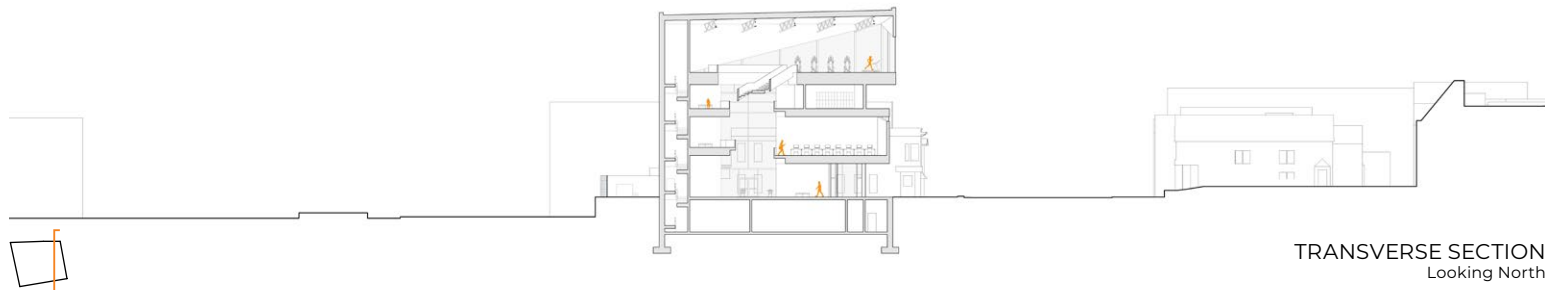


THIRD LEVEL  
⌚

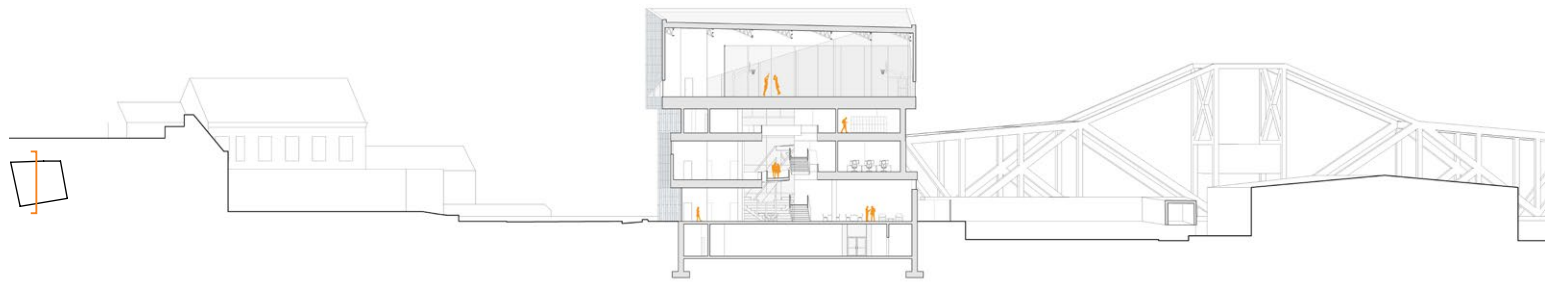


FOURTH LEVEL  
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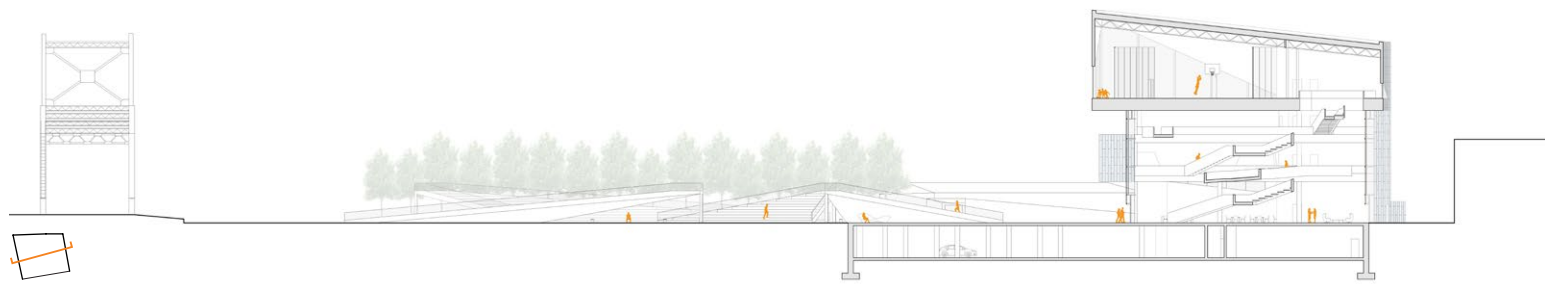




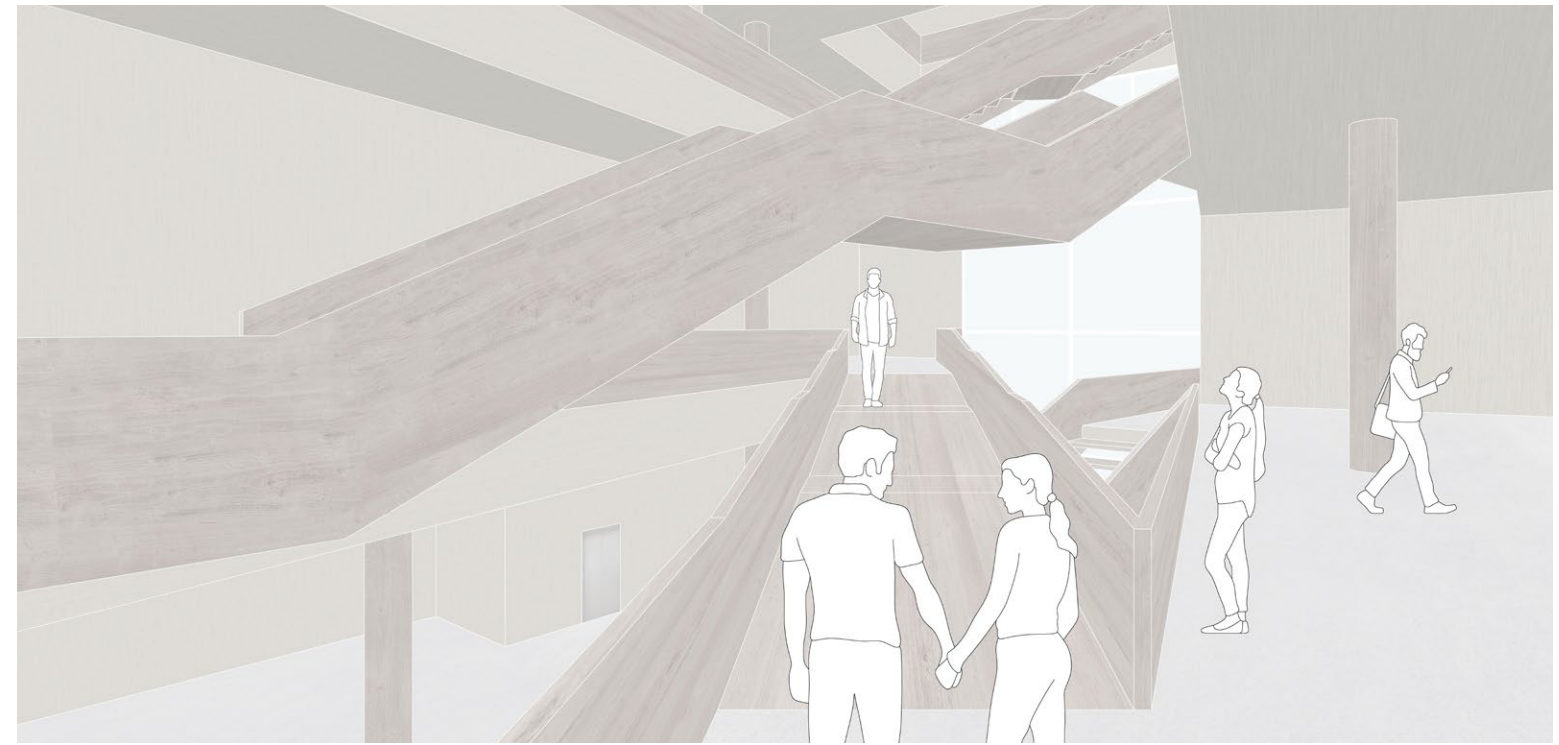
TRANSVERSE SECTION  
Looking North

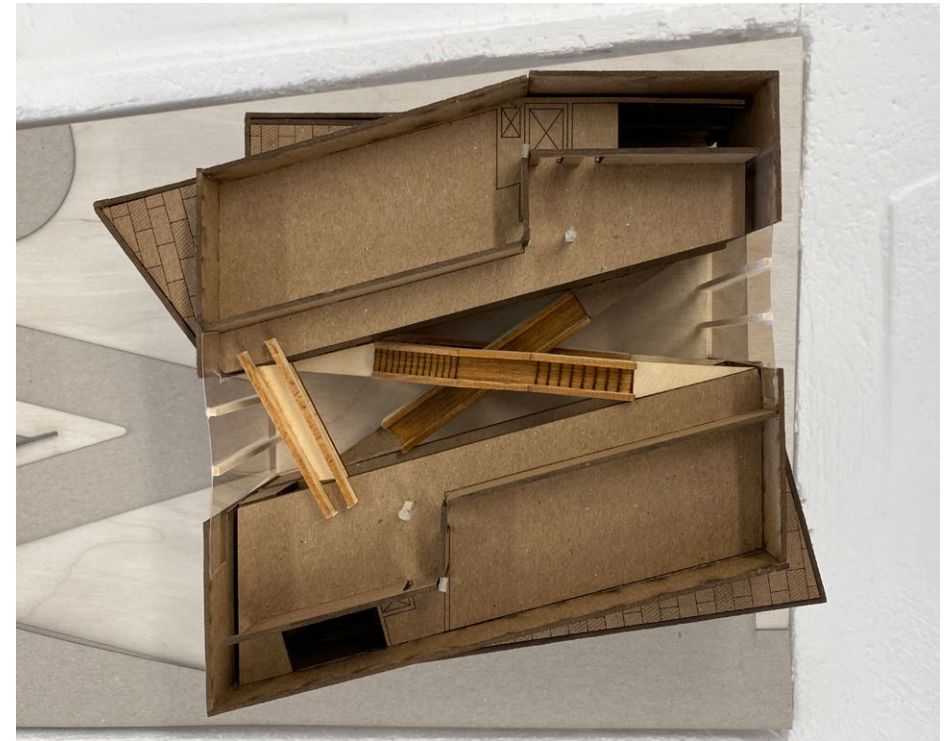
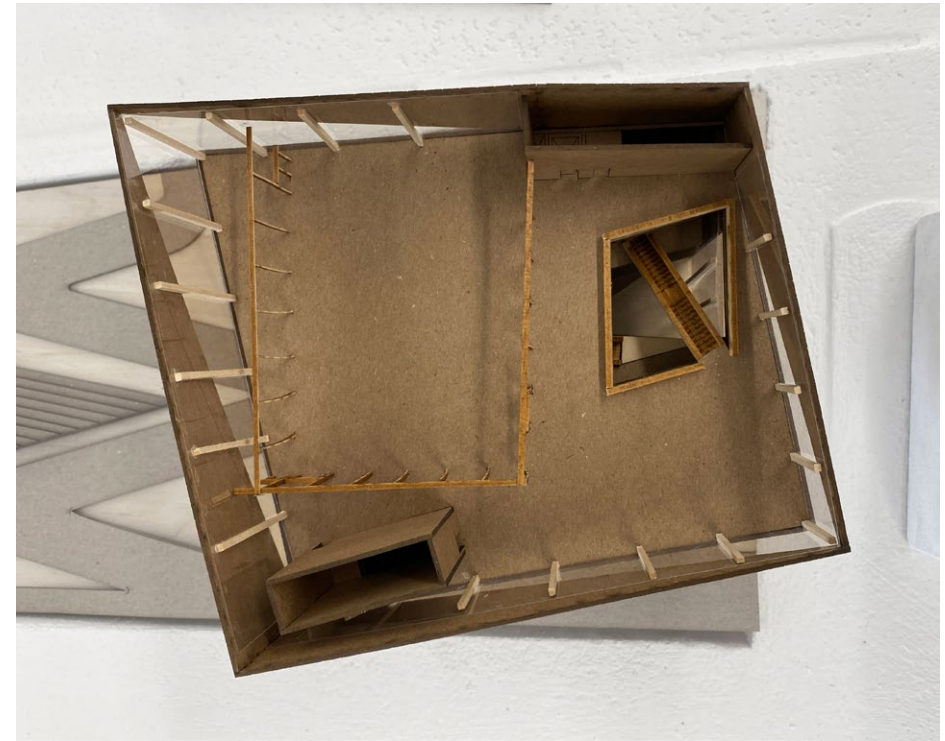
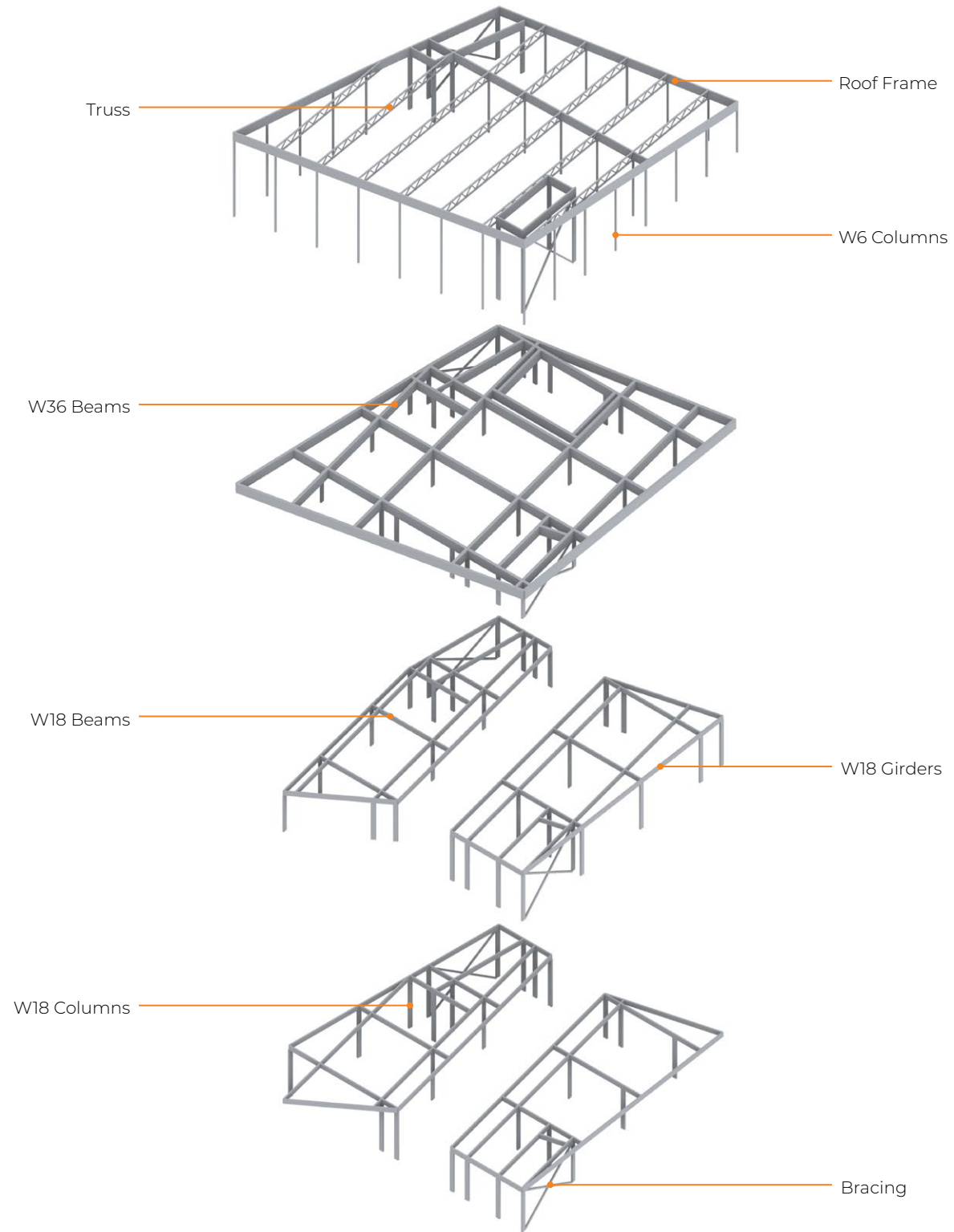


TRANSVERSE SECTION  
Looking South



LONGITUDINAL SECTION  
Looking West





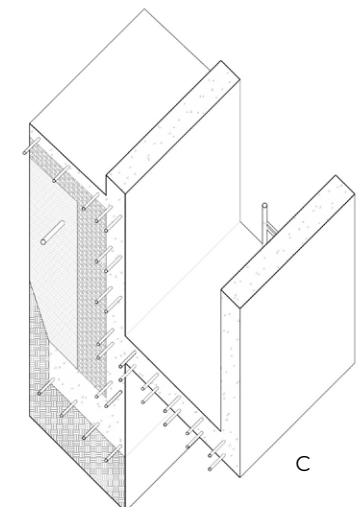
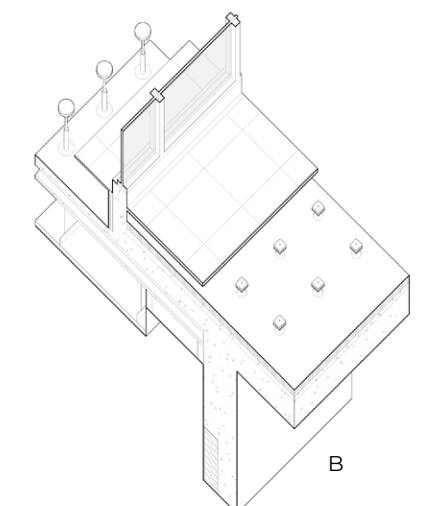
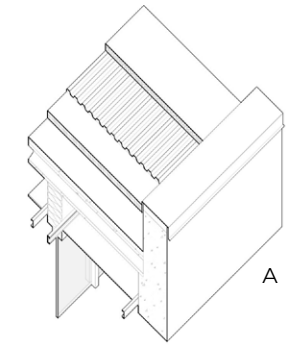
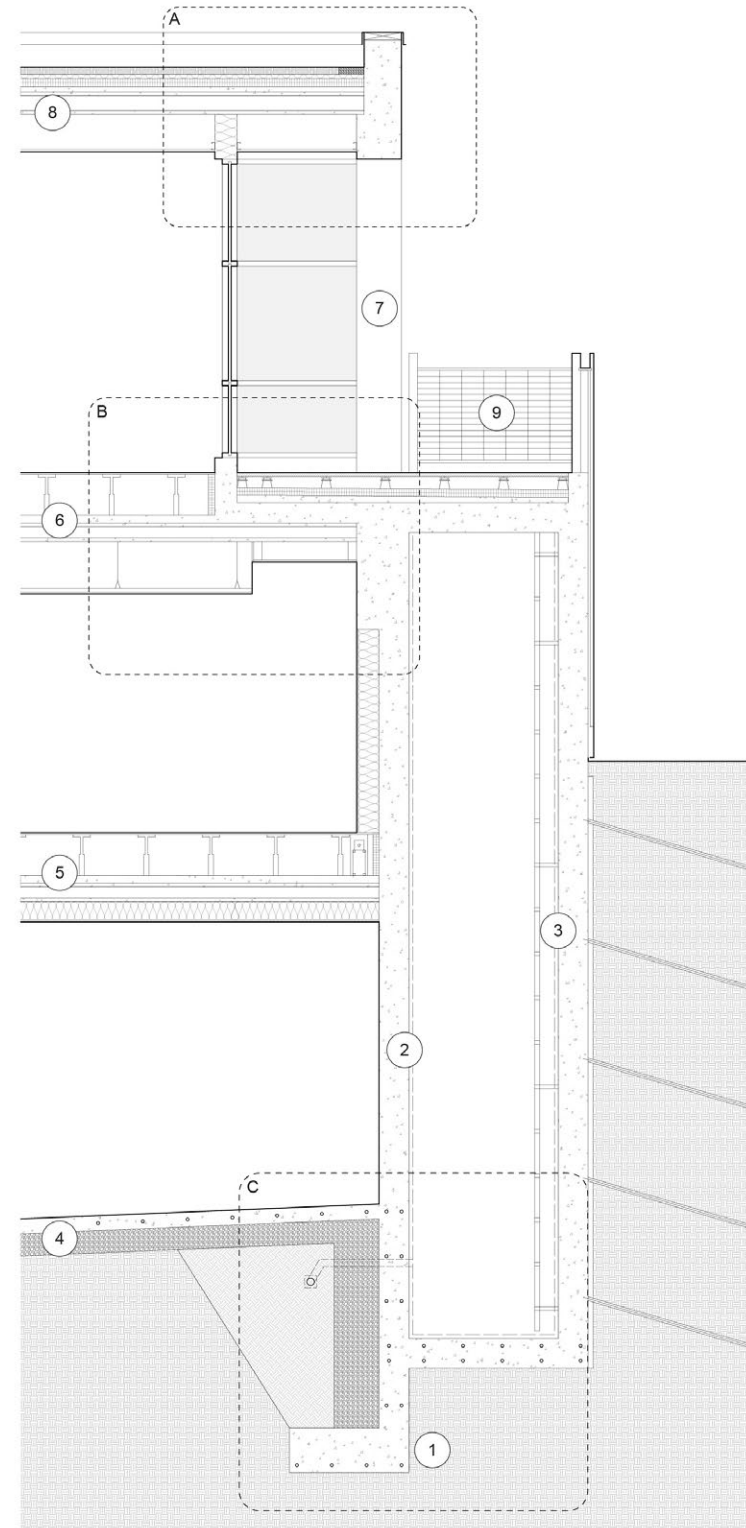
# DETAIL CASE STUDY

Construction Technology | Spring 2022  
 Instructor: Annette LeCuyer

An interpretation of existing drawings for the Kitsap County Administration Building by Miller-Hull Architects. A set of technical drawings were generated to convey the different layers utilized to construct the building but also to communicate how a building of this scale is built.

## Specification Notes

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <b>Foundation</b><br/>           - Conc footing and foundation w/ soil nail wall</li> <li>2. <b>Cistern (Interior Wall)</b><br/>           - Cast in place conc wall w/ elastomeric urethane coating on interior<br/>           - 1/2" air space<br/>           - 3/8" metal studs at 16" o.c w/ R-11 batt insulation<br/>           - 5/8" gyp wallboard<br/>           - Vapor retarding PVA primer</li> <li>3. <b>Cistern (Exterior Wall)</b><br/>           - Cast in place conc wall w/ elastomeric urethane coating on interior<br/>           - Waterproof membrane<br/>           - Protection board<br/>           - Full drainage mat</li> <li>4. <b>Ground Level Floor</b><br/>           - Geo-textile fabric<br/>           - 4" crushed rock<br/>           - 6" site cast conc slab on grade</li> <li>5. <b>Upper Level Floor</b><br/>           - Precast cellular concrete plank<br/>           - 2 1/2" concrete topping slab</li> </ol> | <ol style="list-style-type: none"> <li>- 2" rigid insulation at perimeter wall</li> <li>- Raised floor system</li> <li>- Carpet</li> <li>6. <b>Terrace/Deck Level Floor</b><br/>           - 8" thk cast in place reinforced conc slab<br/>           - Sloped conc topping slab<br/>           - Rubberized waterproofing membrane<br/>           - 4" rigid insulation<br/>           - Pedestals<br/>           - 2x2x2" conc pavers</li> <li>7. <b>Exterior Wall Above Grade</b><br/>           - Aluminum storefront system</li> <li>8. <b>Roof</b><br/>           - W-section steel structural beam<br/>           - Corrugated steel deck<br/>           - R-21 rigid insulation<br/>           - 3/4" perlite<br/>           - Modified bitumen roofing</li> <li>9. <b>Guardrail</b><br/>           - Galv steel tee posts bolted to conc wall<br/>           - Galv steel grating<br/>           - Galv steel channels bolted to tees<br/>           - 2x8 iron wood top rail</li> </ol> |
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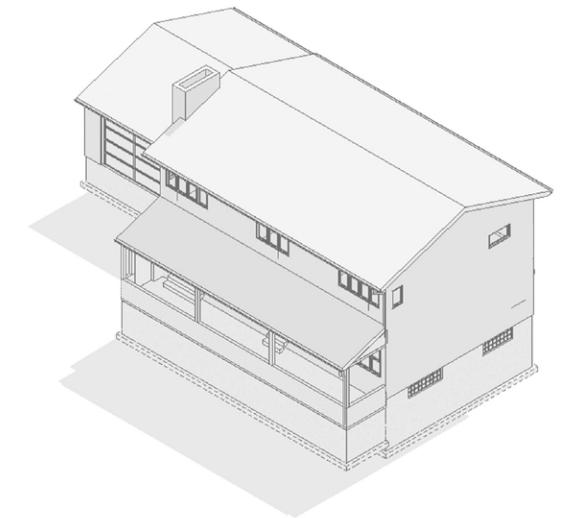
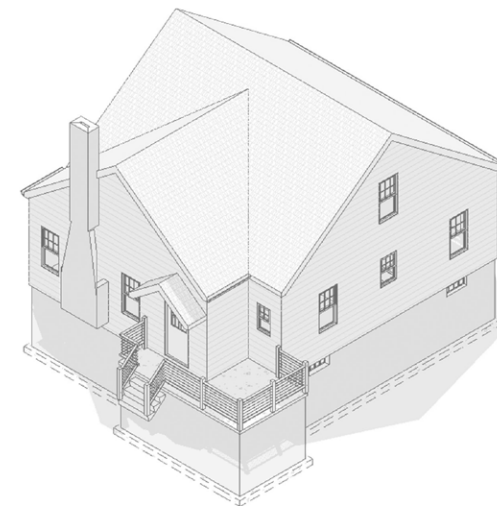
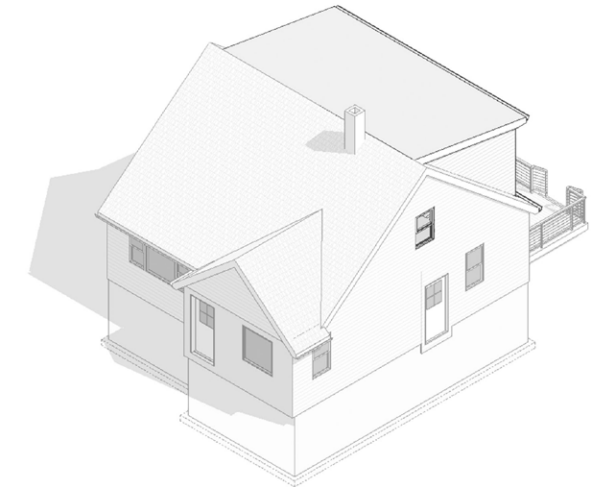
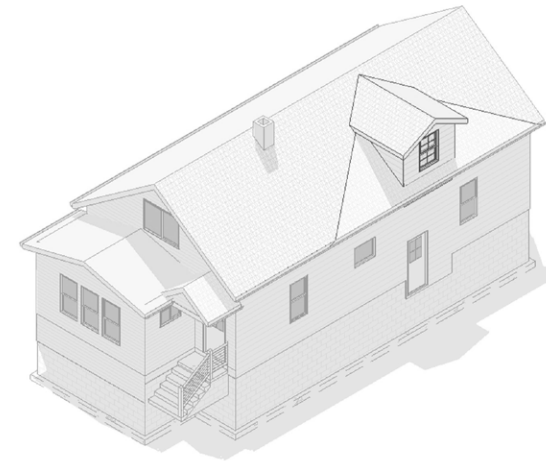


# BUFFALO HOMES

Abstract Architecture PC  
Buffalo, New York  
Advisor: Michael Anderson  
Seasonal Internship (June 2022 - Present)

Abstract Architecture's primary design type focuses on residential houses in the Western New York region. They showcase their expertise through home renovations and additions for both multi-family and single-family homes.

During my time at Abstract, I mainly modeled existing houses in Revit. Occasionally, I would model parts of commercial buildings as well. These were then utilized to propose home renovation or addition designs for various projects. Modeling houses has also allowed me to have an overall understanding of residential house construction but also become familiar with the typical housing typology found in Buffalo. Although my main focus was to model existing homes, I would also do basic sheet setup and create site plans based on surveys provided by the city.



# ONE ISLAND DRIVE

Kohn Pederson Fox  
 New York, New York  
 Advisor: Daniel Dadoyan  
 Summer Internship (2023)

One Island Drive is a luxury residential and hospitality project that features two towers and a resort-style podium. It will be a defining addition to Miami's skyline as it stands tall on the southern tip of the Brickell Key Island.

My collaboration on this project ranged in a variety of areas. My first set of tasks was for the 50%DD submission. For this submission, I focused on the hotel floors in the shorter tower, T2. I tagged plans, generated bathroom layouts, and created RCPs for these specific levels. I also drafted sections to study the spatial conditions at the top of T2. This then resulted in axonometric studies, which were then utilized for client/consultant meetings.

Towards the end of my internship, I learned how to 3D print which allowed me to fabricate the team's weekly design updates. This then enabled me to test methods of representing the gradient effect on the taller tower through 3D printing. I was able to resolve this to have the team be able to fabricate a 1/4" 3D printed gradient model, for their 100%DD submission in the Fall. (This project is partial NDA. Relevant drawings are private; images shown are public).



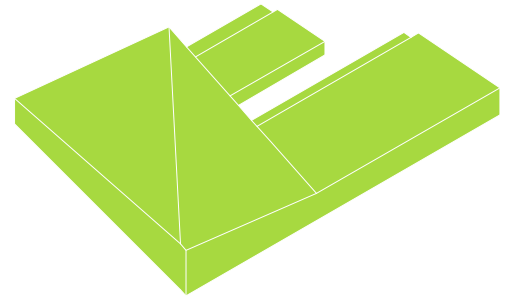
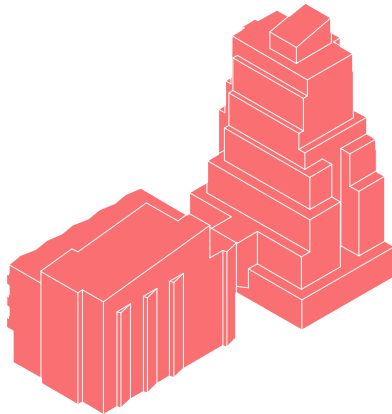
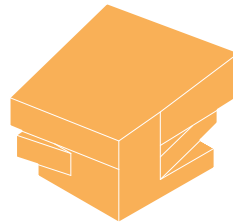
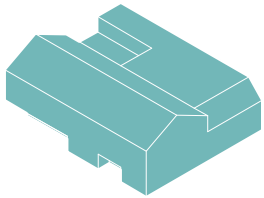
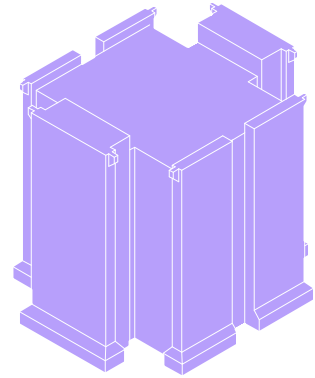
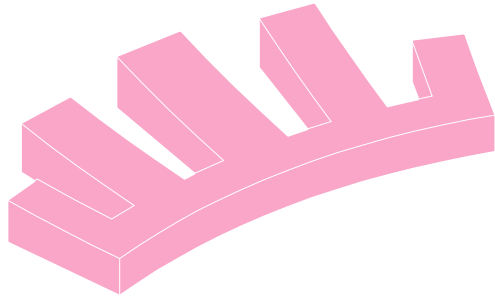
## 20 HUDSON YARDS

Kohn Pederson Fox  
New York, New York  
Advisor: Daniel Dadoyan  
Summer Internship (2023)

20 Hudson Yards will be transformed into 400,000 office spaces for Wells Fargo; complementing the company's existing offices at 30 Hudson Yards. This will be an addition to the shops and restaurants in the building that will remain.

My collaboration on this project mainly contributed to generating conceptual renders of the space; both interior and exterior. These renderings were produced simultaneously through 3D modeling in Rhino, rendering through Enscape, and touching-up in Photoshop. The renders were intended to show potential design options for the facade and to show how the existing retail space would be revived within the newly added program. (This project is partial NDA. Relevant drawings are private; images shown are public).





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