# DAVID TAUSER

ARCHITECTURE PORTFOLIO
SELECTED WORKS | 2025

# RESUME

## DAVID TAUSER

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davidtauser@gmail.com

**EDUCATION**

The University of Kansas School of Architecture and Design
Master of Architecture - May 2025
Graduate Certificate in Urban Design
Cumulative GPA - 4.0

**HONORS**

Thayer Medal Recipient - Top of Master of Architecture Class (2025)
The University of Kansas Merit Scholarship Recipient (2020 - 2024)
The University of Kansas Dean's List (2020 - 2025)
The Honor Society of Phi Kappa Phi Member (2022 - 2024)
AIA Kansas Excellence in Design Award Recipient (2024)
AIA St. Louis Scholarship Fund Recipient (2022 - 2024)
KU Architecture Student Portfolio Award Recipient (2023 & 2024)

**ACTIVITIES**

AIAS Member (2023 - 2025)
Design Build Studio - The University of Kansas (Fall 2022)
Studio Student Mentor - The University of Kansas (Spring 2024)

**SKILLS**

**3D Digital** - SketchUp, Revit, Rhino
**2D Digital** - Adobe Suite, AutoCAD, GIS, Microsoft Office
**Rendering** - Enscape, Lumion, V-Ray
**Physical** - Hand drawing and model making

**EXPERIENCE**

**DLR Group** - Overland Park, Kansas (May, 2024 - May, 2025)
Architectural Intern - Hospitality & K-12 Education

- Develop and design digital site models and master plans.
- Conduct and organize conceptual research for various projects.
- Create and label detail drawings.

**First Watch** - Lawrence, Kansas (July, 2023 - May, 2024)
Server and Host

- Partake in a team based environment that supports others.
- Serve patrons with food and beverages in a positive and friendly manner.

**REFERENCES**

**Jae D. Chang, PhD**
Professor of Architecture
The University of Kansas School of Architecture and Design
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**Kapila Silva, PhD**
Professor of Architecture
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kapilads@ku.edu



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## UNITED STATES EMBASSY IN JAPAN

Partner: Hanna Hissa
Spring 2024 | Professor Kapila Silva
Tokyo, Japan - 400,000 sq ft.

**A secure complex that houses the United States' diplomatic representatives in Japan and demonstrates the foreign relations between the two countries.**

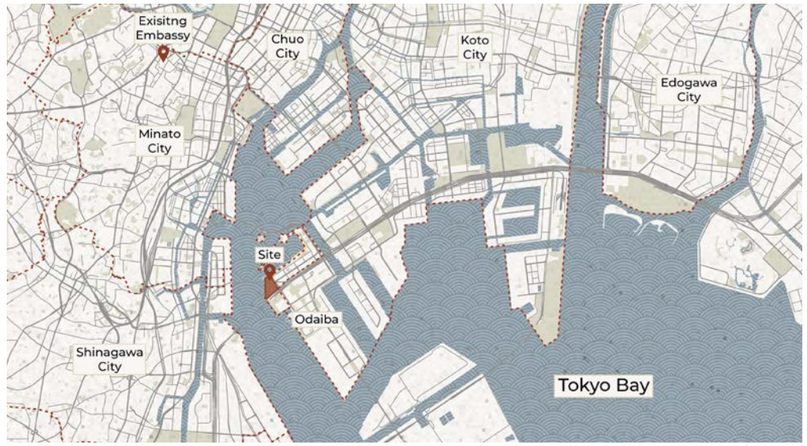
In recent history, the U.S. Department of State Bureau of Overseas Buildings Operations (OBO) has made it their mission to relocate existing U.S. embassies away from city centers with regards to security. The current U.S. Embassy in Japan is located within a densely populated business district in Tokyo. In accordance with OBO's efforts, the embassy has been relocated to the island of Odaiba, a man-made island in the Tokyo Bay that hosts many American tourists. The embassy acts a reflection of the foreign relations between the U.S. and Japan. It showcases the technological advancements of the U.S. while respectfully representing the Japanese culture. Sustainability is at the forefront of OBO's current work and the design of this embassy reflects that with measures taken to reduce carbon emissions and defend against possible natural disasters.

AIA Kansas Design Award 2024

Render by Hanna Hissa



## Site and Concept

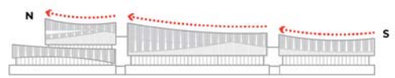



Tokyo, Japan

The site is located on Odaiba island, a tourist dense area that is situated away from the city center. Overlooking the Tokyo skyline, the site was previously a public park that hosted temporary events including the 2021 Tokyo Summer Olympics. The organization of the current site responds to the immediate urban context of Odaiba island, as well as its preexisting infrastructure. Measures were taken to counter the effects of disasters such as earthquakes and typhoons. Stormwater management and collection systems as well as solar harvesting were put in place to help meet OBO's net-zero guidelines for future embassies.

Taking inspiration from the vernacular and traditional architecture of Japan as well as the natural landscape, the form and materiality of the buildings took shape. Swooping curves represent historic roof lines and mountains complimented by a curated material pallet.

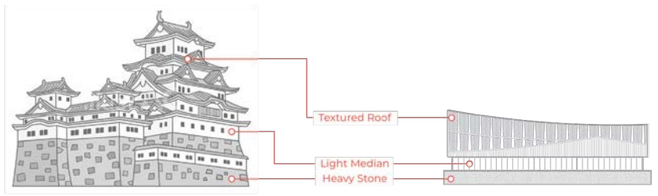




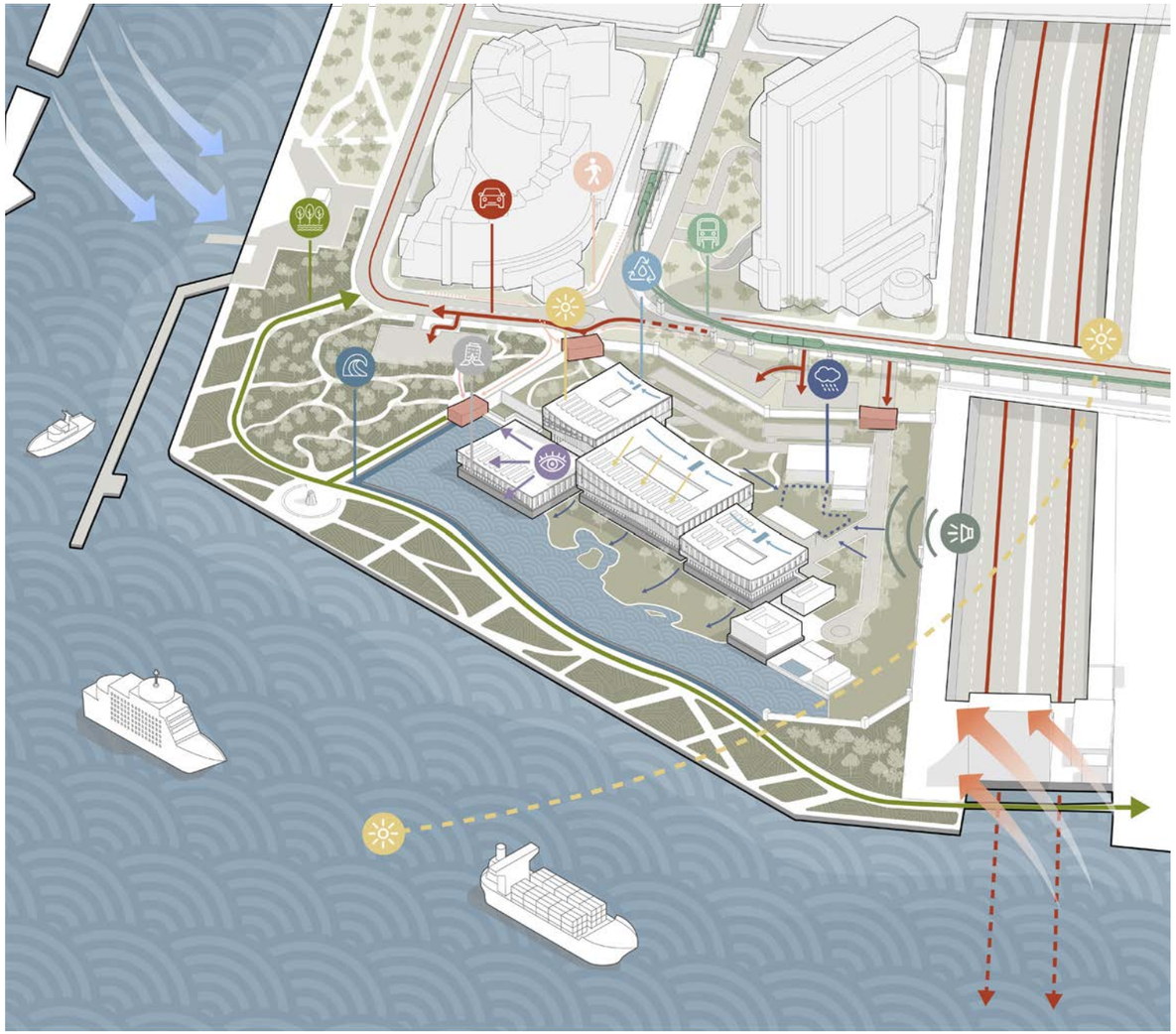

Historical Representation



Natural Representation




Materiality



Embassy Site Analysis

Vehicular Access Points and Local Roads

Pedestrian Access From Train Line and into Park

Daiba Elevated Train Line Connection to Mainland

Preserving the Existing Public Infrastructure and Building it Up

Highlight the North Views Towards Greater Tokyo

Noise Buffer Via Southern Vegetation

Southern-Oriented Solar Panels and Sun Path

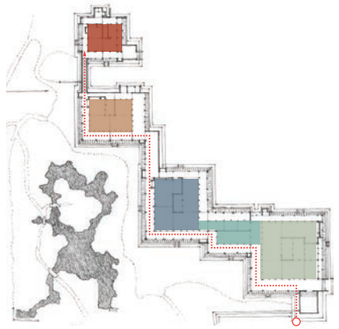
On-Site Rainwater Harvesting Garden Area

Rainwater Harvesting Via Roof Slope System

Storm Surge and Tsunami Water Collection Area

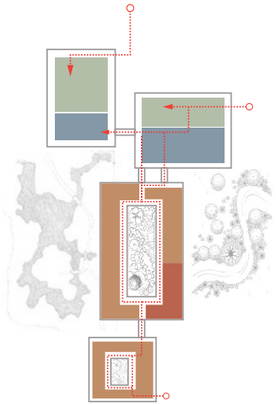
Seismically Isolated Foundation

## Hierarchy of Security

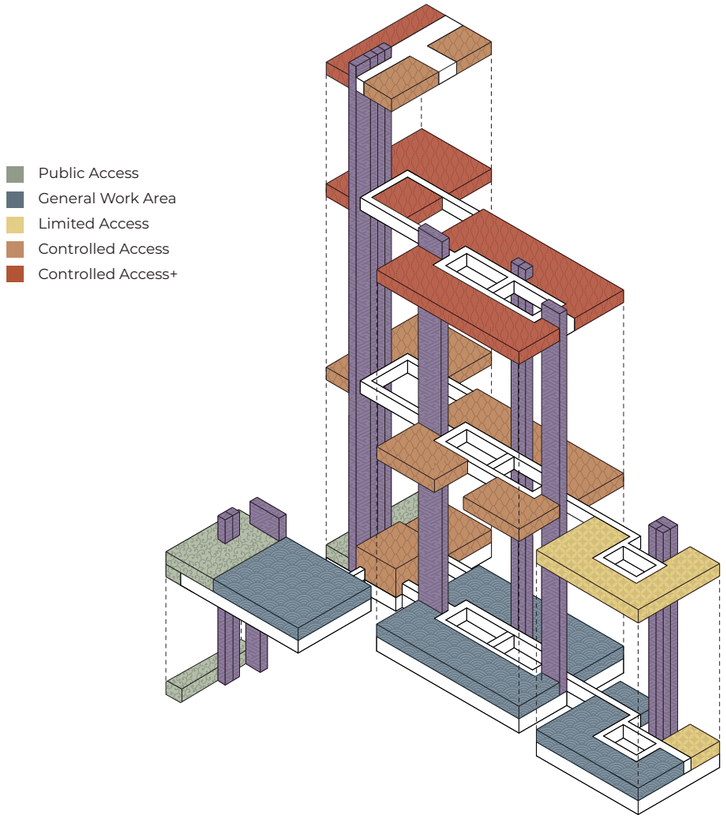


Analysis of historic Nijo Castle layout shows external circulation patterns with progressively more secure program modules

Translate organization principles



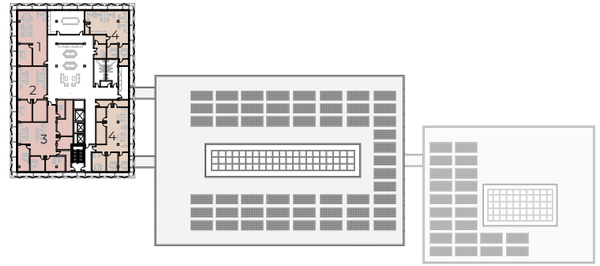
Internalize circulation for a more secure circulation pattern and maintain nature outlooks





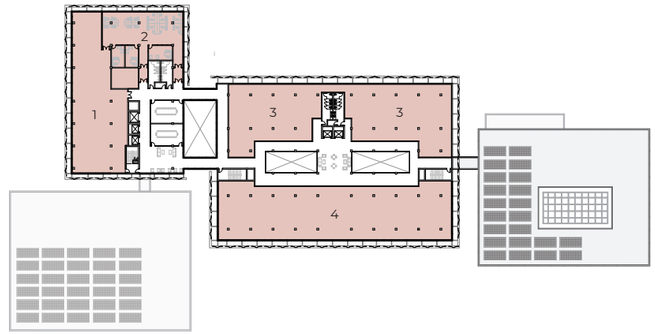

### FLOOR 04

1. Drug Enforcement
2. FBI
3. Citizenship Services
4. Diplomatic Security



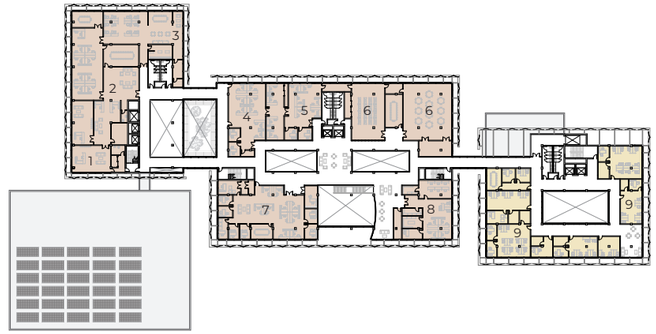
### FLOOR 03

1. RTSU Offices (Classified)
2. Immigration and Customs
3. Post Communications (Classified)
4. Regional Affairs (Classified)



### FLOOR 02

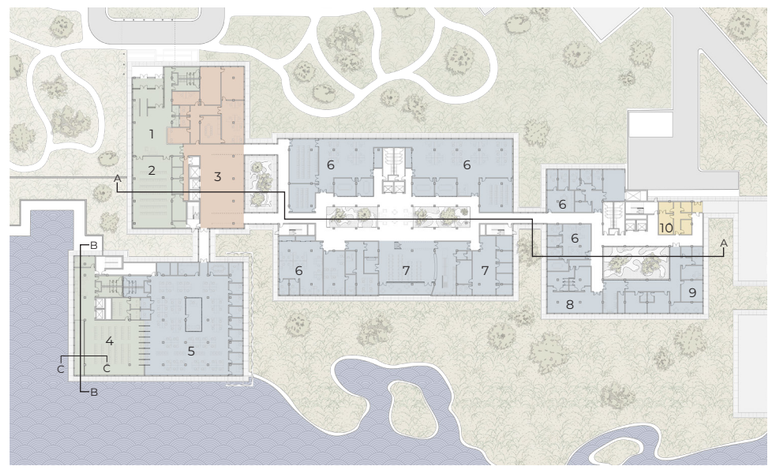
1. Ambassador's Suite
2. Executive Suite
3. Body Guards
4. Political Suite
5. Economic Suite
6. Large Meeting Rooms
7. Department of Defense
8. IRM Offices
9. Support Offices

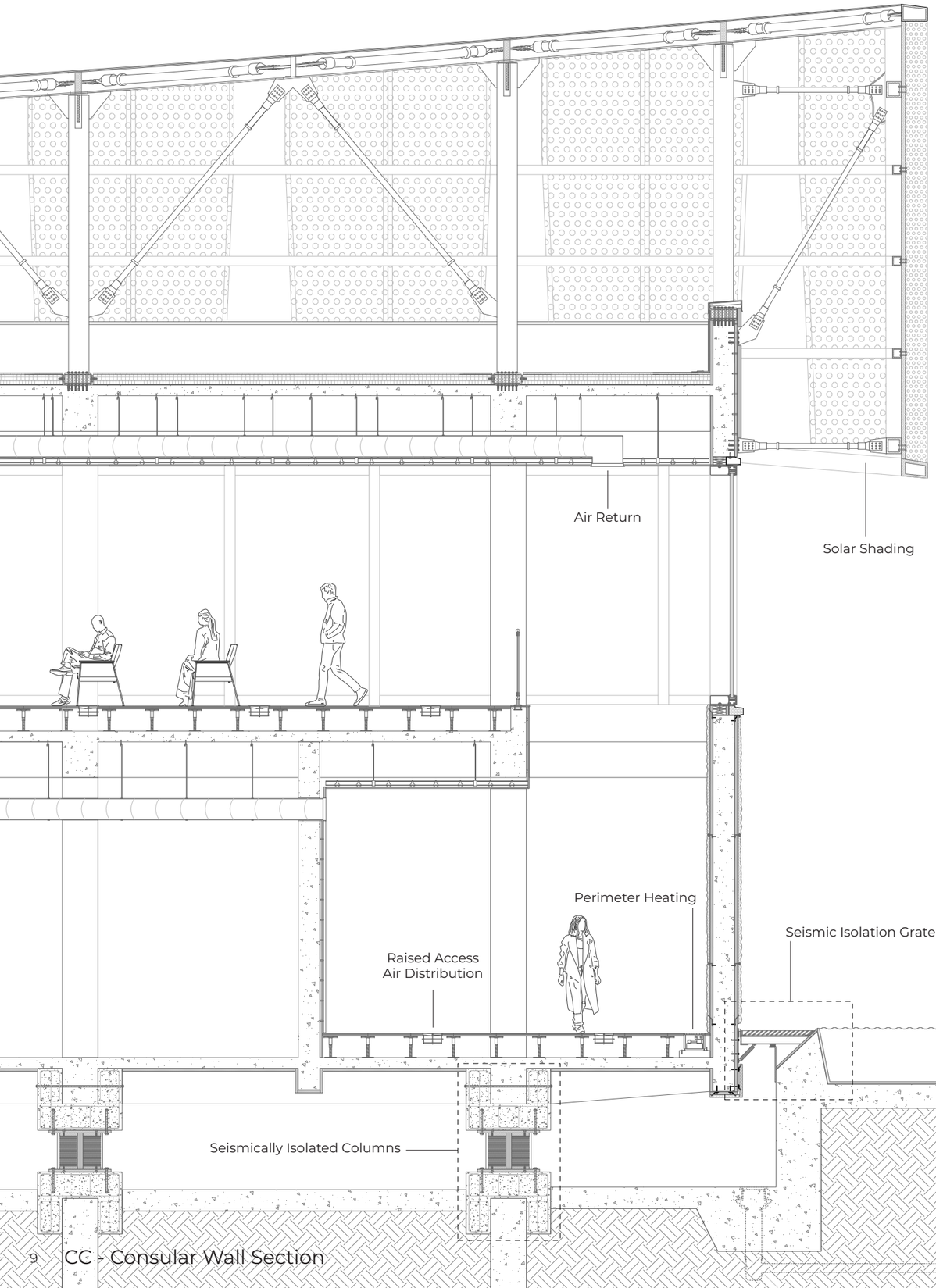


### FLOOR 01

0 20 40 80

1. Main Lobby
2. Multi-Purpose Room
3. Gallery
4. Public Waiting Room
5. Consular Services
6. General Work Areas
7. Cafeteria
8. Employee Gym
9. Health Unit
10. Mail Room

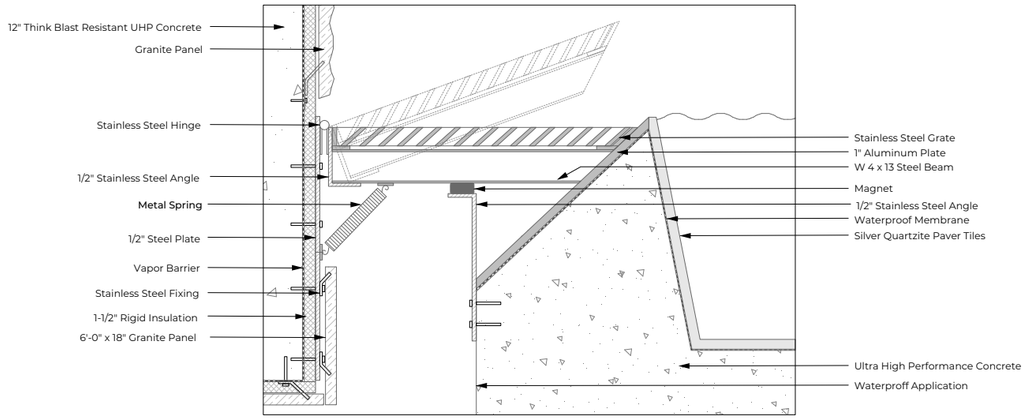




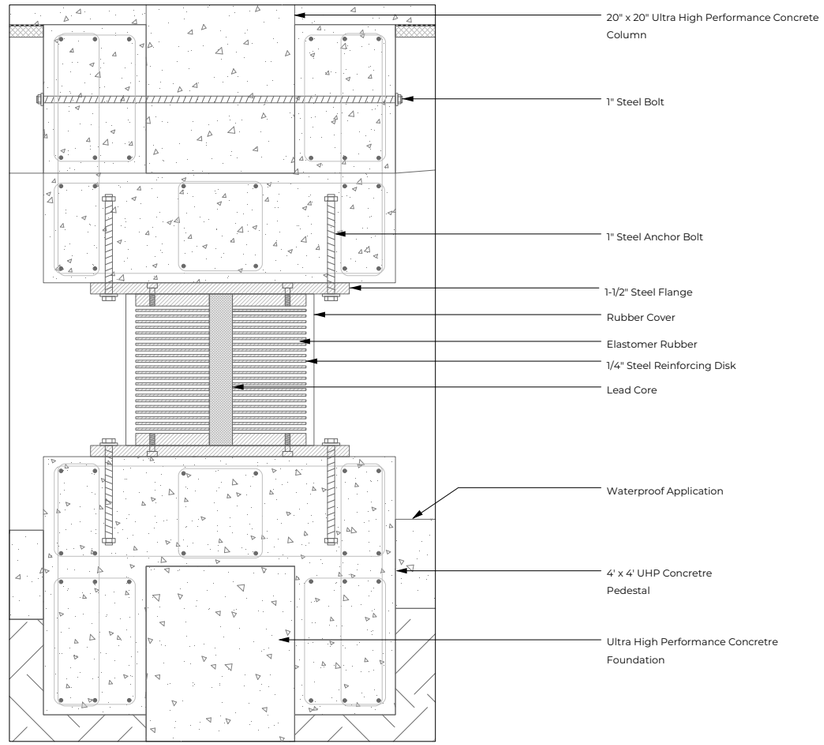

CC - Consular Wall Section

## Disaster Protection

To ensure the building is resistant to Japan's frequent earthquakes, the isolation of the buildings structure from the foundation was designed to allow movement separate from the ground in the event of seismic activity. The cavity below the building also acts as a flood prevention system to redirect water that reaches the building.




Seismic Isolation Grate



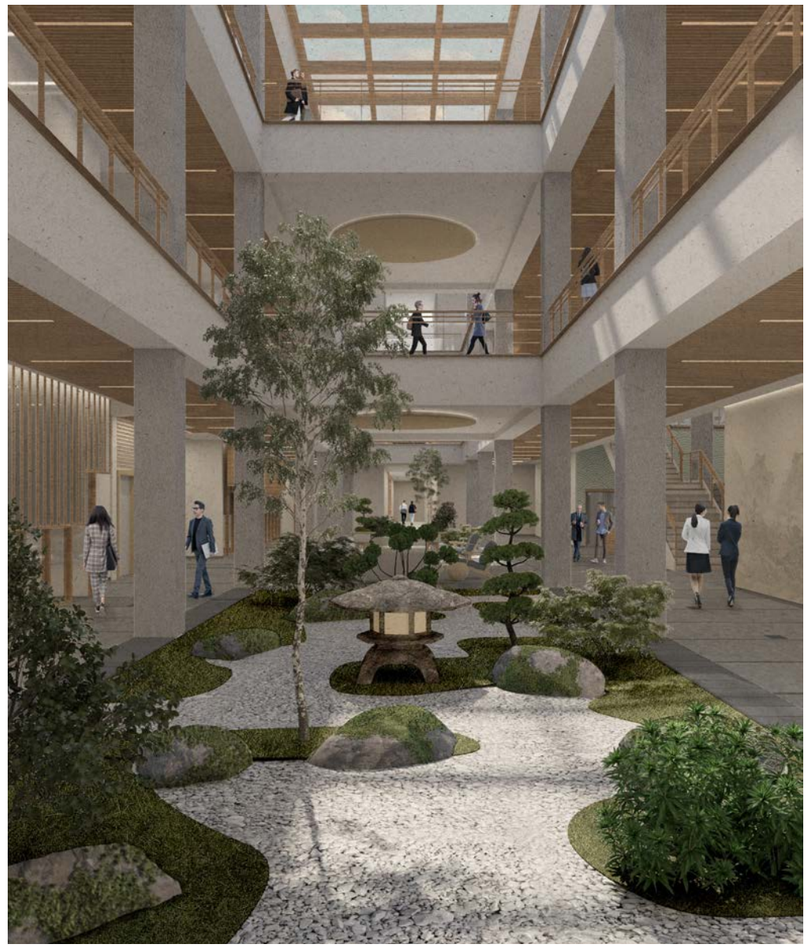

Seismically Isolated Columns



Main lobby and employee entrance.



Ambassador’s Suite with a view of the Tokyo skyline.



Central gardens of the Chancery.



AA - North to South Section of Chancery - by Hanna Hissa

0 10 20 40 80



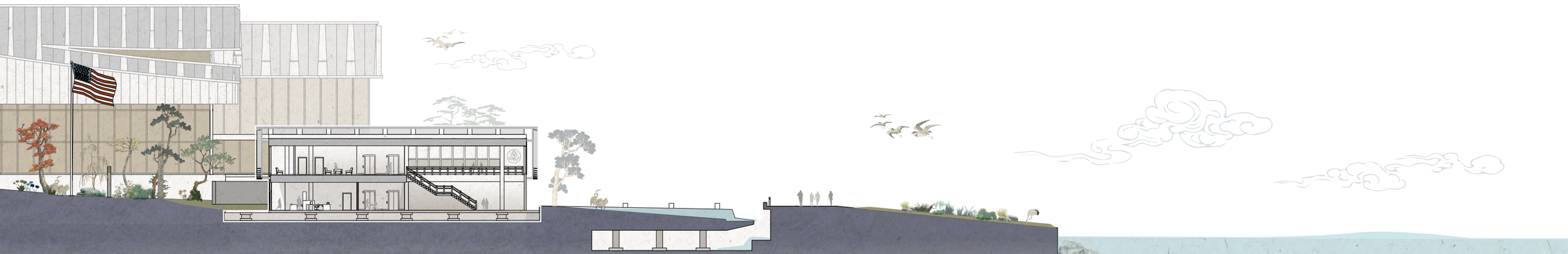
Public waiting room in the Consular. Render by Hanna Hissa.



Public entrance to the Consular.

## Invisible Barrier

All US embassies require a physical barrier between the public and the internal complex. The western edge of the site overlooks a public park and the Tokyo Bay; two valuable views. Instead of using a towering wall that obstructs these views, a large gap separates the reflecting pool surrounding the embassy from the public park. This space also acts as a first defense system for capturing any water that may spill over from the bay in the event of storm surge or a tsunami.



BB - East to West Section of Consular and Water Overflow Collection - by Hanna Hissa

0 10 20 40 80



View from Tokyo Bay. Render by Hanna Hissa.

### Award Recipient

Our design for a new US Embassy of Japan was awarded the 2024 AIA Kansas Excellence in Design Award thanks to the help and guidance provided by Professor Kapila Silva, The US Bureau of Overseas Buildings Operations, BNIM, Burns & McDonnell, and AirFixture.

AIA Kansas
Design Award 2024

## CONFLUENCE: CLEVELAND WATERFRONT REIMAGINED

Spring 2025 | Professor Andrew Moddrell
Cleveland, Ohio - Urban Master Plan

**A synthesized master plan that redevelops the connections between Cleveland's industrial waterfront, existing communities, and recreational landscapes.**

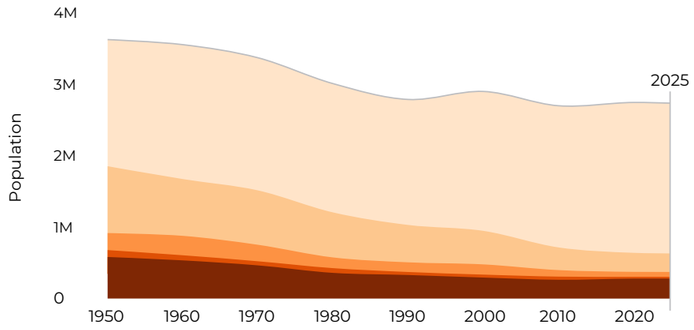
As an American legacy city with a declining population, Cleveland is in desperate need of major changes that encourage growth and improve the quality of life for its citizens. A prominent industrial past has plagued its waterfronts and surrounding communities with pollution, misuse, and injustice. An in-depth investigation of the city pin pointed the Lakeview Terrace neighborhood as an area of opportunity that is disadvantaged and deserving of redevelopment.

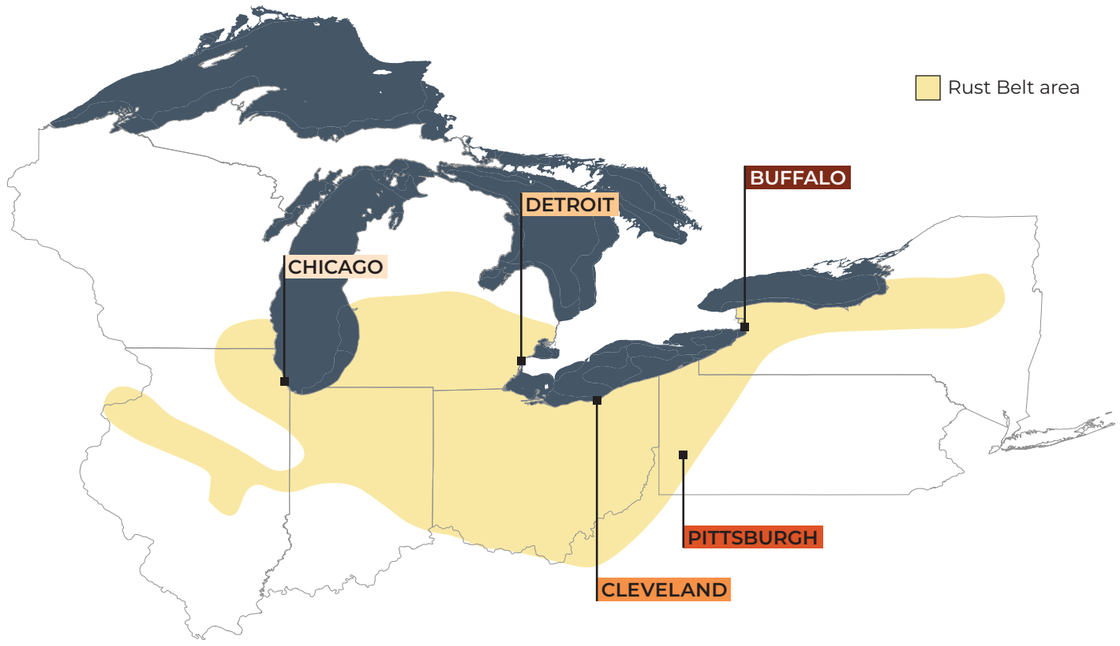
Through this proposed master plan, the ultimate goal to connect residents to their surrounding community and recreational waterfronts is at the forefront. Industrial land and buildings is transformed to better serve citizens while new developments invite people to the area. Existing buildings are updated and modernized to ensure the safety and dignity of their residents.



## History | The Rust Belt

The Rust Belt was a region in the United States that was dominated by manufacturing in the early half of the 20th century. After manufacturing reached its peak in the 1950s, the Rust Belt area experienced economic decline, and the populations of the cities that defined its history have decreased ever since giving them the term legacy cities. In recent decades, the decrease of these cities' populations has begun to plateau giving hope for the region.




## City | Cleveland

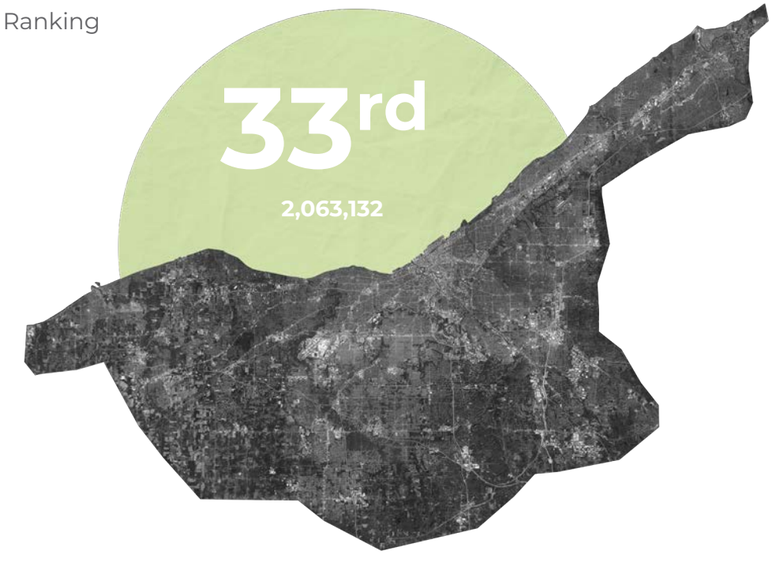
Among the legacy cities, Cleveland has experienced a devastating decrease in its population over the last 75 years. The city that was once the 7th most populated city in the U.S. is now ranked at 54. However, the population of the entire metropolitan area ranks 33rd in the country. These growth patterns are directly caused by citizens leaving the city center to live in more suburban neighborhoods.




1950 Population Ranking




2025 Population Ranking

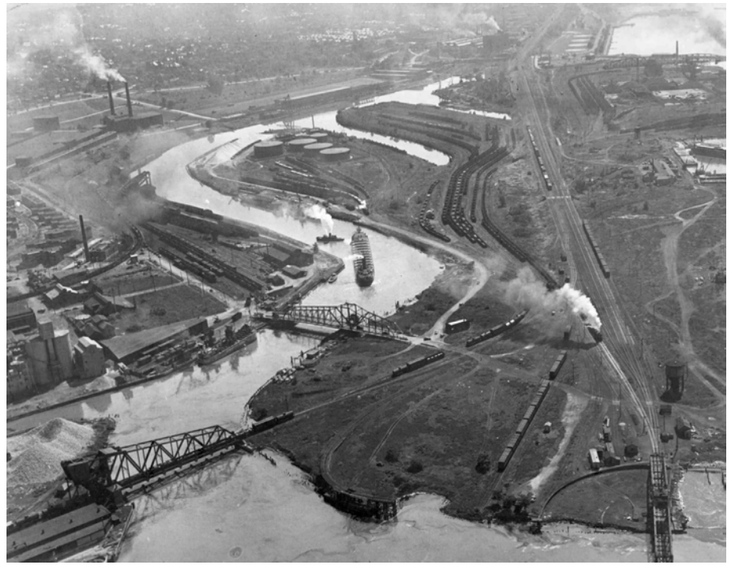



2025 U.S. Metro Ranking

## Whiskey Island And Old River

While the confluence of the Cuyahoga River and the Old River would seem to be a premium location for redevelopment of the waterfront, this part of Cleavland has few concrete plans for the future while other areas do.

Located on Whiskey Island, Wendy Park is an important lakefront amenity isolated from the surrounding area by industrial properties. Residential units are stuck between a limestone plant and Cleveland Memorial Shoreway. This area is in desperate need of change, but focus has been placed elsewhere.



Aerial view of Whiskey Island (1950)









Advertisement for Lakeview Terrace created by the Work Projects Administration (WPA, 1937)

## Lakeview Terrace

Following major population growth in the first two decades of the twentieth century, many residents of Cleveland were living in slums as quality housing was scarce. The Cleveland (now Cuyahoga) Metropolitan Housing Authority (CMHA) was formed in 1933 to accommodate those in need of housing. In the same year, Franklin D Roosevelt's New Deal allocated $150 million for government subsidized housing. The CMHA's head at the time, Ernest J. Bohn, stated that Cleveland would serve as the U.S.'s "housing laboratory" and soon after, three public housing developments were completed in Cleveland in 1937 including Lakeview Terrace.

Today, after almost 90 years, each of these developments still stand and are in operation by the CMHA. However, their history is plagued with inequality and injustice as were other public housing projects in the U.S.



Aerial view of lakeview terrace (1937)

## Lakeview Connects

In 2023, Ohio City Inc commissioned a $100,000 study called Lakeview Connects to “better integrate Lakeview Terrace with the Ohio City and Flats neighborhoods” and “promote equity though increased access, safety, connectivity and inclusive redevelopment.” An analysis of the area was produced and meetings with the residents of Lakeview Terrace were held the same year. However, news of the project moving forward has not been released.



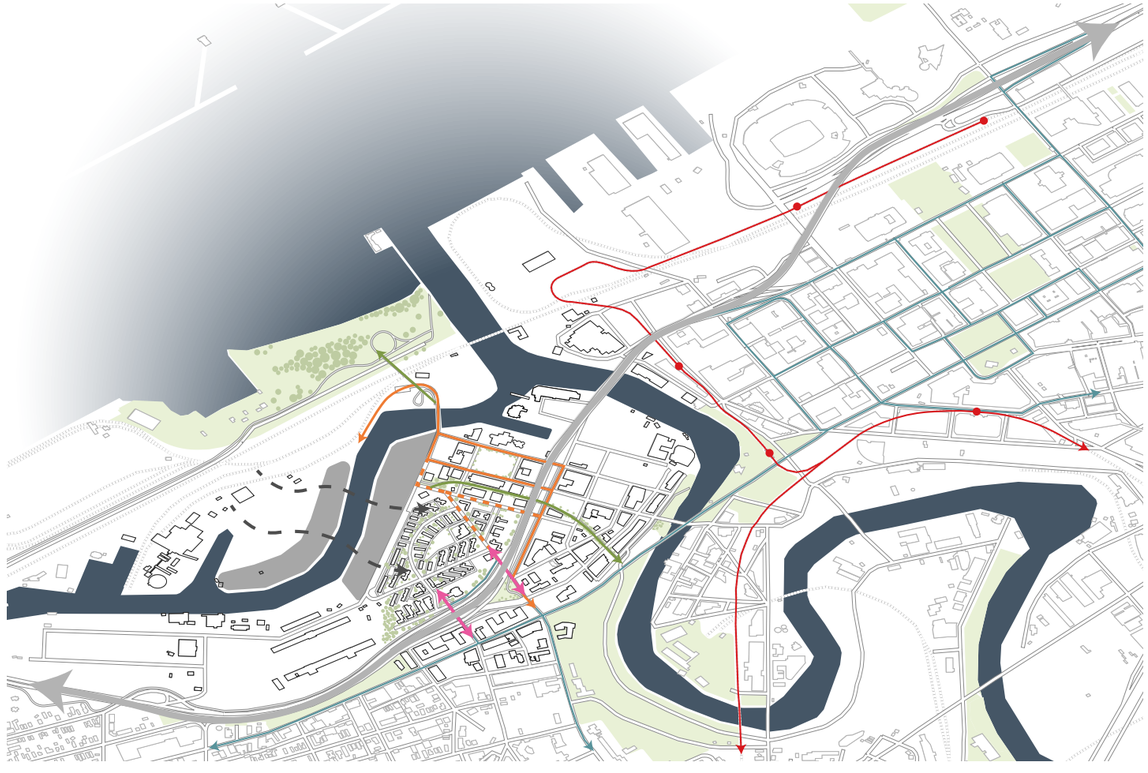
Eastern edge of Lakeview Terrace along Cleveland Memorial Shoreway. (2023)

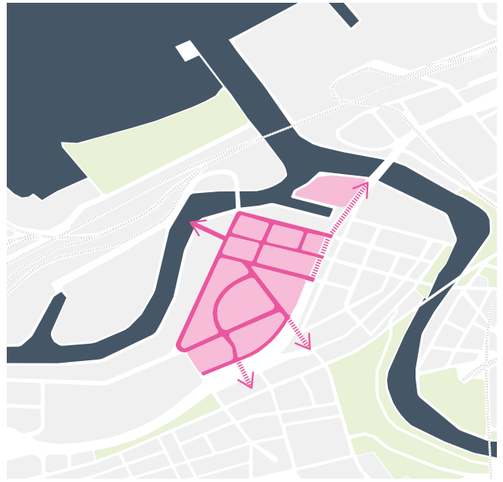


Western edge of Lakeview Terrace along a limestone distribution plant. (2023)

**Map Key**

- RTA Rail Station
- RTA Rail Line
- Bus Route
- Truck Route
- Community Connection
- Industrial Pollution
- Cleveland Shoreway
- River and Lakefront Access
- Green Space
- Trees



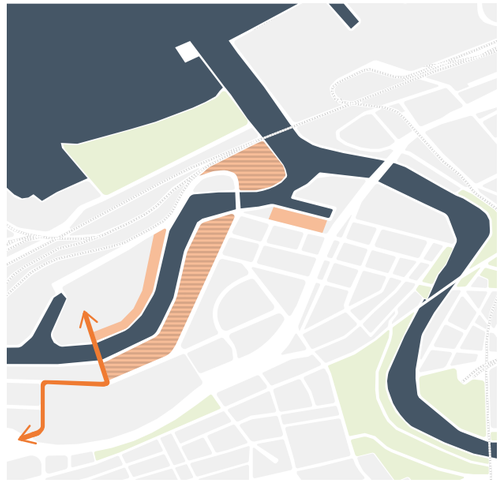


### RECONNECT RESIDENTIAL

- Maintain affordable housing
- Improve community connections
- Increase grocery and retail options

Renewed Residential or Commercial

Strengthened Connections



### TRANSFORM INDUSTRIAL

- Reduce industrial pollution
- Manage industrial truck traffic

Renewed Industry

Relocated Industry

New Truck Route



### ACTIVATE RECREATION

- Increase waterfront access
- Improve connections to recreation

New Green Space

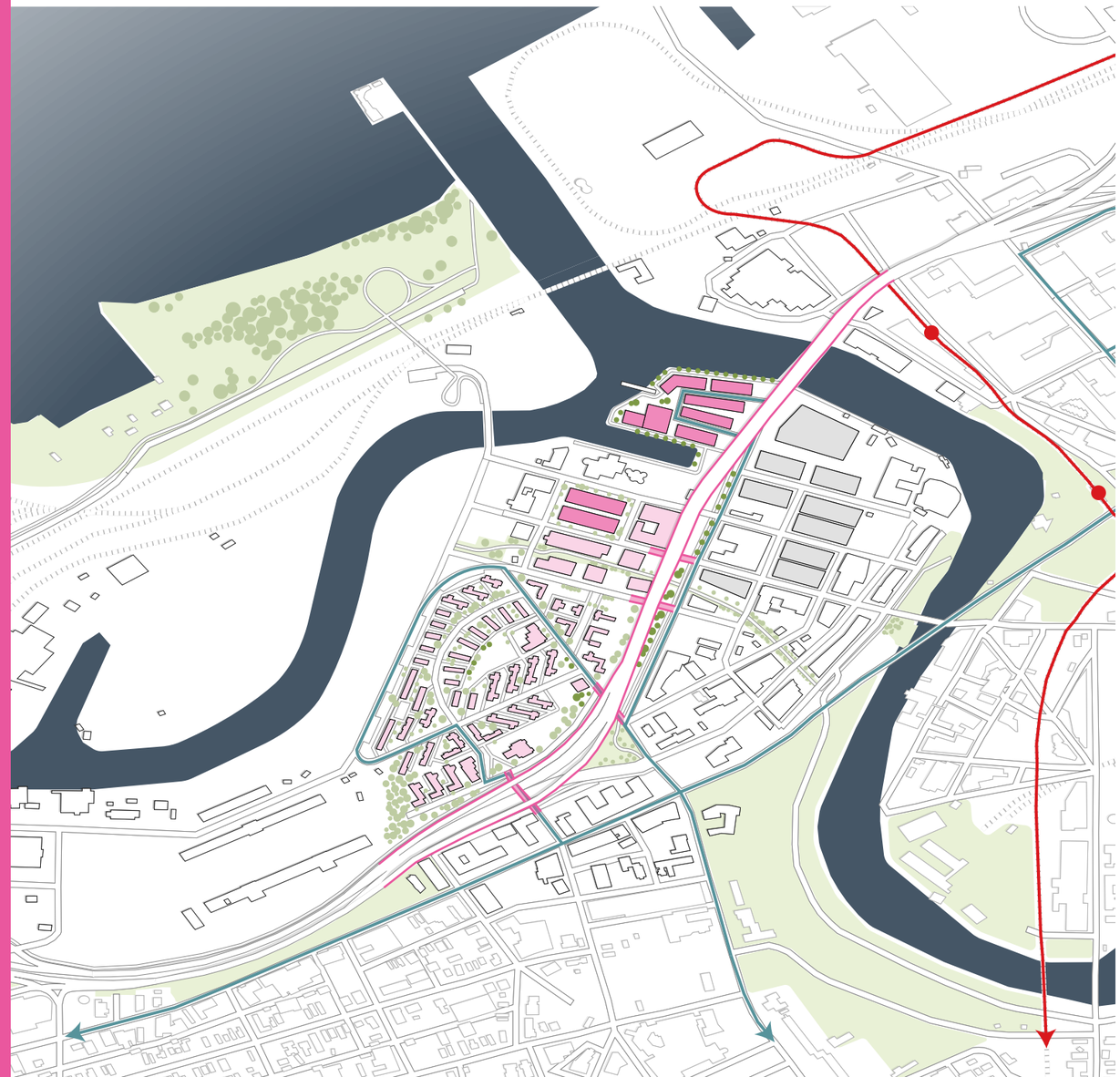
Strengthened Connections

## RECONNECT RESIDENTIAL

Improve the relationship between Lakeview Terrace and surrounding areas and introduce new mixed-use residential districts that benefit existing residents.

### Map Key

- Existing Green Space
- Existing Trees
- RTA Rail Routes
- RTA Rail Stop
- Bus Route
- Pedestrian Connection
- Renovated Building
- New Building
- Shoreway Improvement
- Potential Buildings





### Revitalized Spaces

Unused land and parking lots under the Cleveland Shoreway are transformed into public event spaces. Surrounding buildings are renovated and reused to serve members of the community.



### Shoreway Improvements

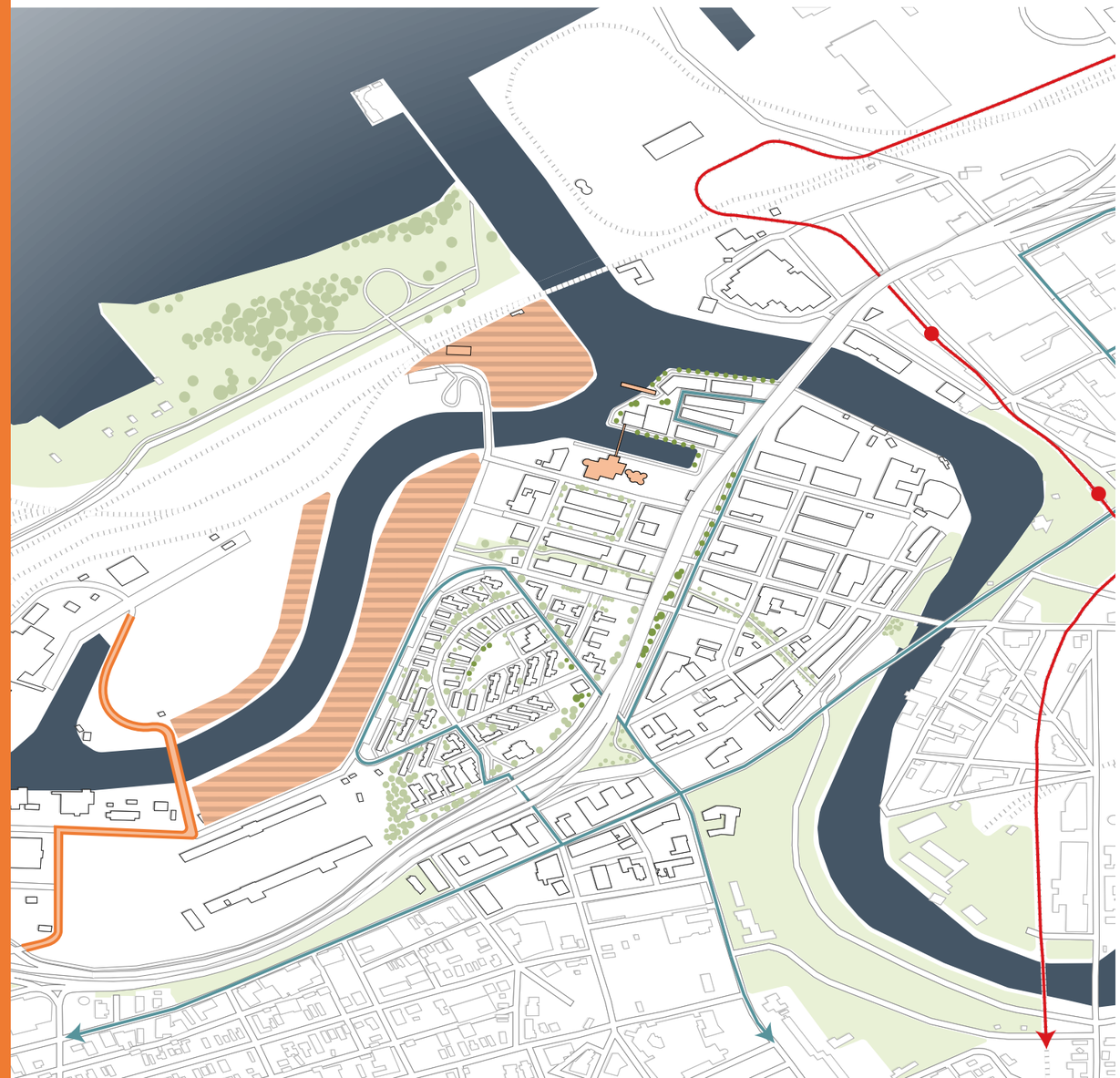
Pedestrian tunnels below the shoreway are updated to improve connections to surrounding neighborhoods. A noise barrier is built along its sides to reduce noise pollution from traffic

## TRANSFORM INDUSTRIAL

Relocate industrial land to improve the health of residents, reroute industrial access away from neighborhoods, and redevelop existing buildings if possible.

### Map Key

- Existing Green Space
- Existing Trees
- RTA Rail Routes
- RTA Rail Stop
- Bus Route
- Industry Access
- Improved Industrial Building
- Relocated Industrial Land






### Cuyahoga Industrial Museum

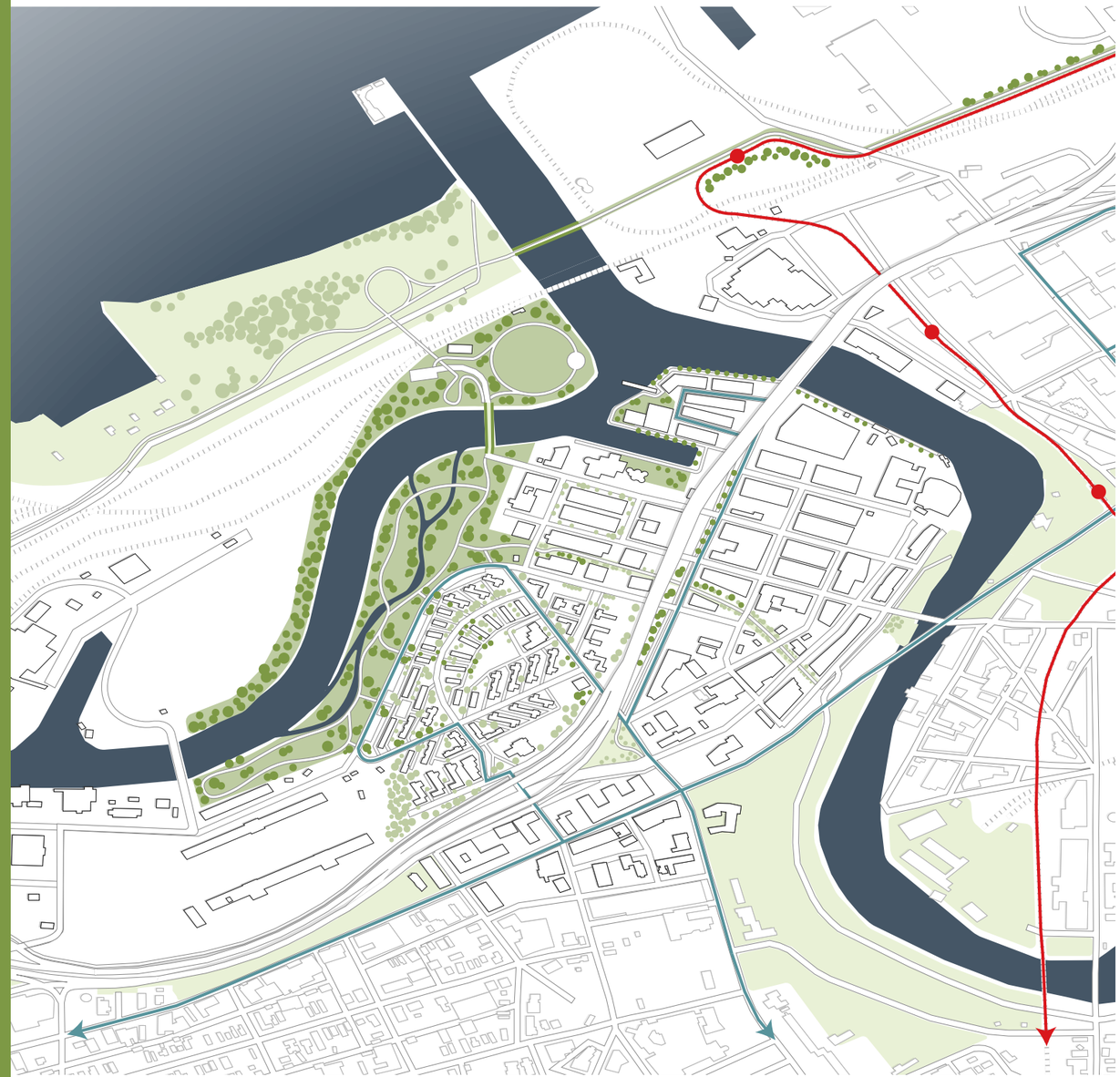
Through adaptive reuse, an existing concrete plant near Lakeview Terrace is transformed into a museum that showcases the industrial history of the Cuyahoga River Valley.

## ACTIVATE RECREATION

Transform waterfront industrial land into public space and parks and emphasize relationships between green spaces and public waterfronts.

**Map Key**

- Existing Green Space
- Existing Trees
- RTA Rail Routes
- RTA Rail Stop
- Bus Route
- Recreation Access
- New Green Space
- New Trees






### Confluence Park

On industrial land located where the Cuyahoga meets Old River, Confluence Park is created acting as a recreational connection towards Lake Erie offering unobstructed views of Cleveland's skyline.



### Lakeview Park

The existing limestone distribution plant is transformed into a riverfront park that directly connects Lakeview Terrace residents to recreation and nature.

## A WATERFRONT RECLAIMED

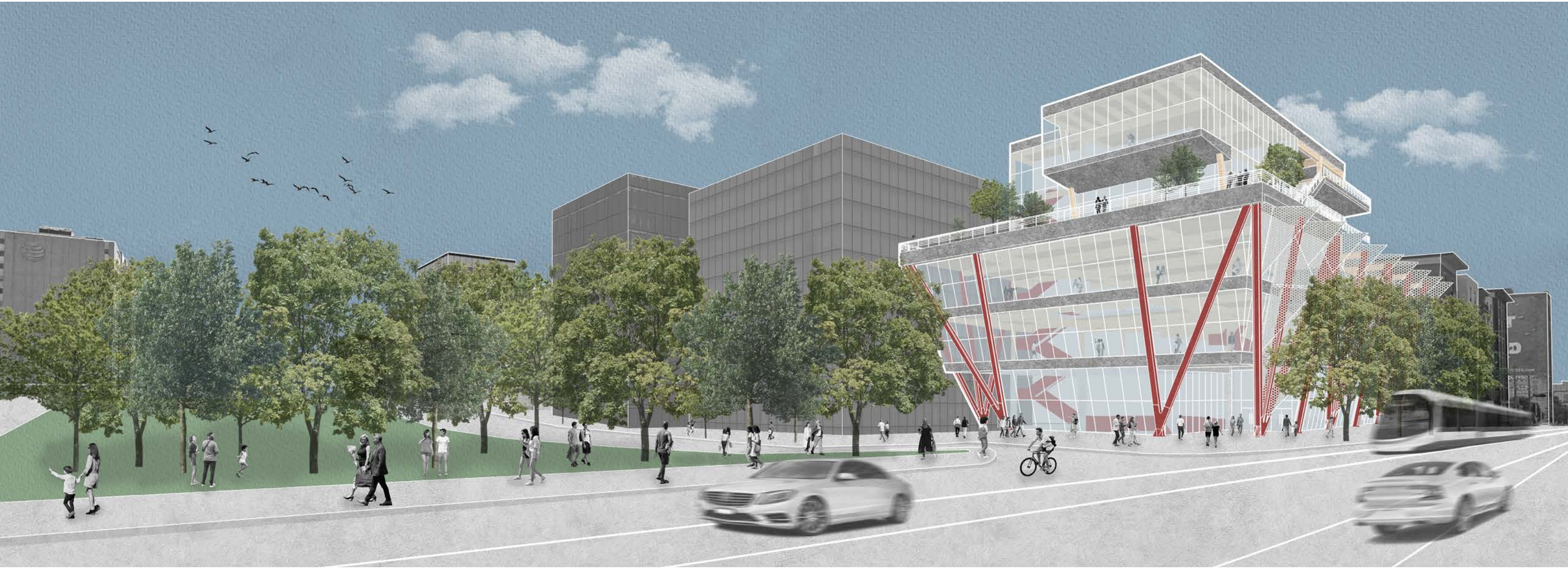
A once barren, industrial waterfront transforms into an activated community offering dignity and pride to the residents of Lakeview Terrace. With recreational, residential, and cultural additions, this new dialogue between city and shore brings opportunity for the future of Cleveland as and American legacy city.

## HYBRIDUS DESIGN CENTER

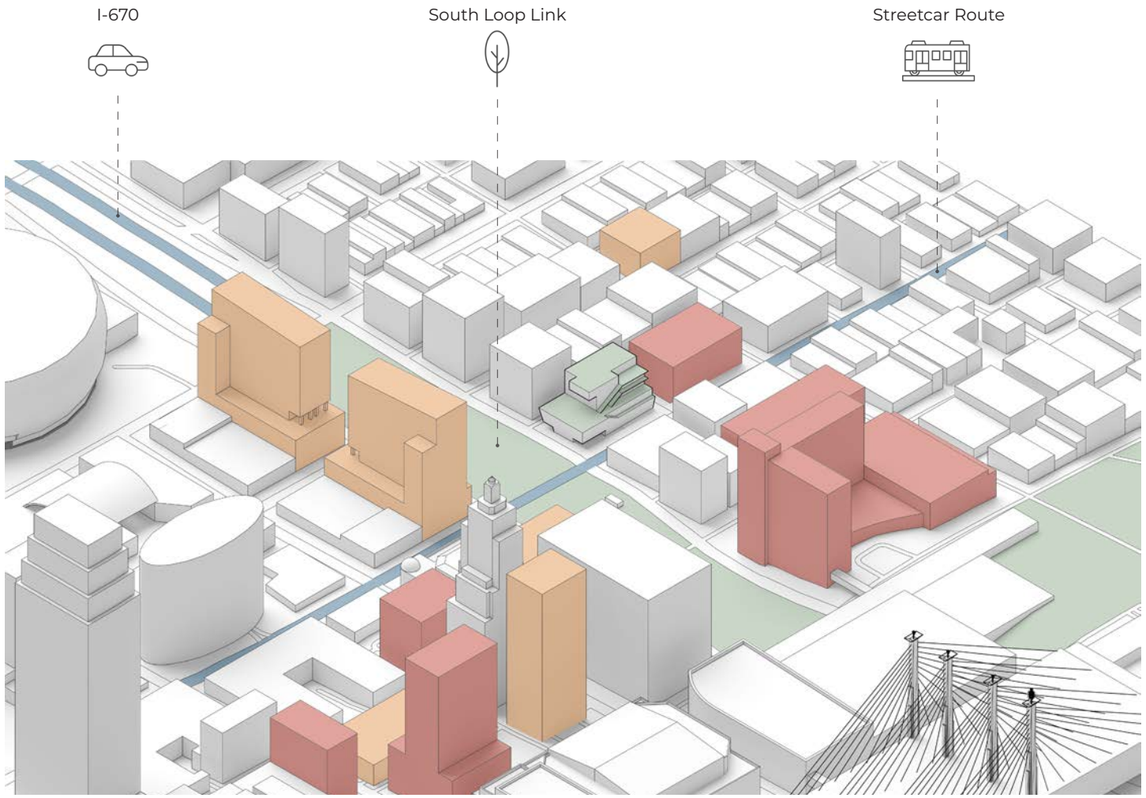
Spring 2023 | Professor Jae Chang
Kansas City, Missouri - 120,000 sq ft.

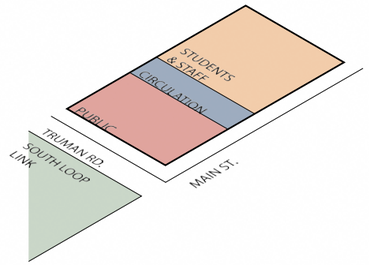
**An education center and museum that showcases the growing architecture, engineering, and construction industries of Kansas City.**

With a program including permanent and temporary galleries, a versatile student center, offices, and event space, Hybridus acts as a valuable resource and attraction for both Kansas City residents and visitors. The site sits just south of a proposed capped overpass of Interstate 670, the South Loop Link. This addition at the junction of the Power & Light District and the Crossroads District of Kansas City is expected to bring an influx of activity in the area surrounding the design center, as well as multiple residential buildings within the next few years. Furthermore, the site is in proximity to the Kansas City Convention Center, a major draw for Kansas City outsiders. There are 4,600 hotel rooms that help accommodate the convention core of Kansas City. The biggest question that must be dealt with is “how can Hybridus stand as a world class design center while still serving the Kansas City community and visitors outside of its regular programming?” The answer to this is creating flexible spaces that are not limited by specific programming. These spaces are offered to citizens of Kansas City as well as visitors year-round to encourage the use of unoccupied space in an area that is in high demand. The purpose of the Hybrid Design Center is to engage the potential users of the building by reaching beyond the initial programming.

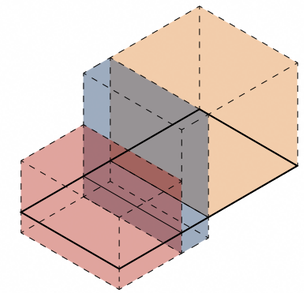


## Site and Concept

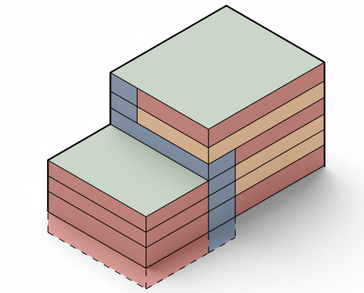


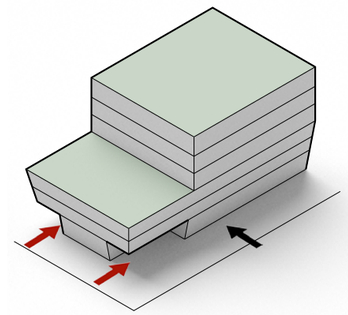

The site is separated between public and private spaces connected by circulation.



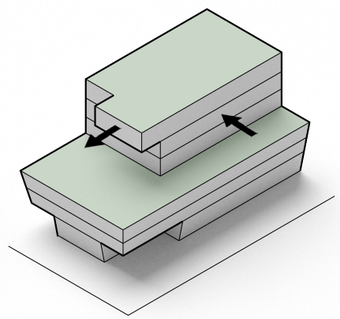
Volume is given to separate programs while the public spaces expand below ground level.



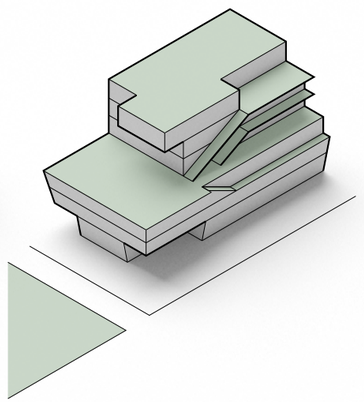
The different programs are separated by floor. Shared programs become public, and rooftops become greenspaces.



The ground level is drawn away from the sidewalk and main entrances become covered.



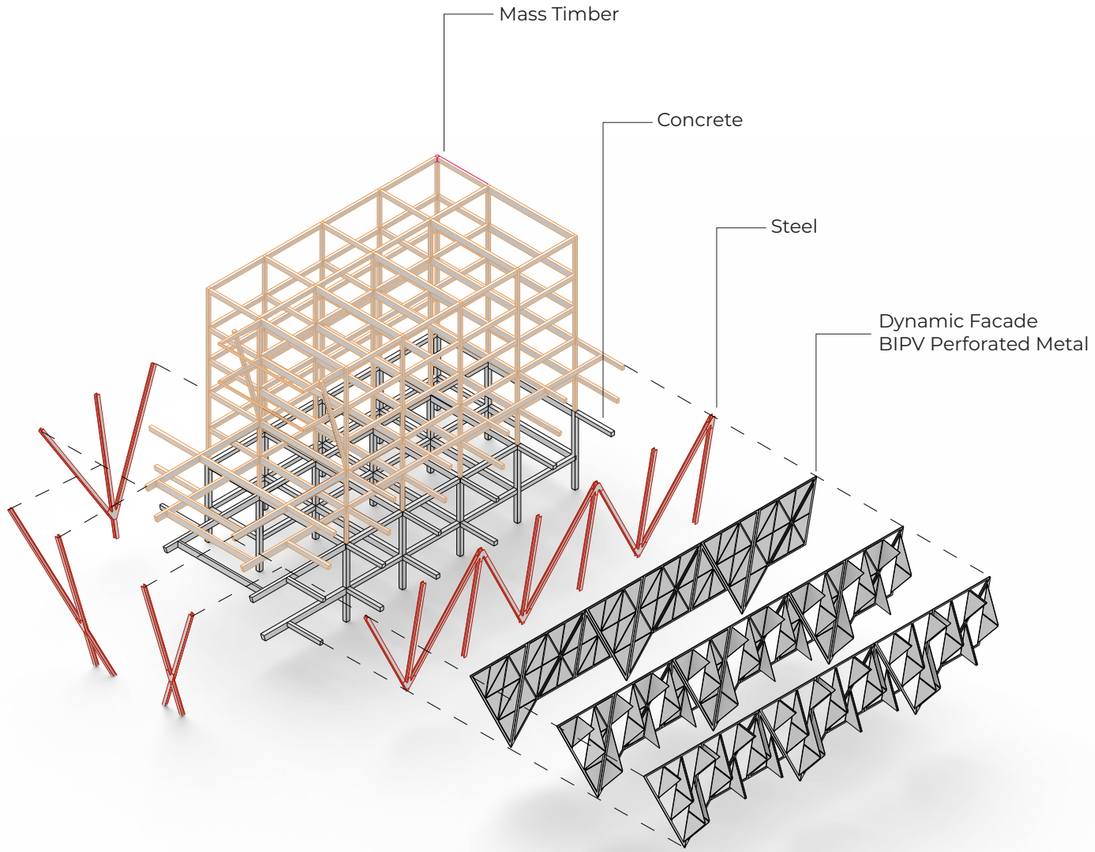
The west facade is pushed back to extend greenspace along Main Street. The highest floor is pulled out to optimize views.



Exterior circulation is formed to connect floor 3 through 6 to the greenspace.

## Structure

As a hub for architecture, engineering, and construction in Kansas City, the structure of the Hybridus Design Center explores the use of mixed structural materiality. Visitors and students will experience the varied materials of the accentuated structure to better understand the possibility in the three fields that drive the building. A dynamic facade is also attached to the steel structure on the west facade to mediate afternoon sunlight.




### FLOOR 06
1. Flexible Auditorium
2. Event Support Spaces
3. Event Balcony

### FLOOR 05
1. Office Space
2. Private Office
3. Conference Room

### FLOOR 04
1. Temporary Gallery
2. Public Balcony

### FLOOR 03
1. Global Reach Gallery
2. Model Lab
3. Study Spaces
4. Staff Offices

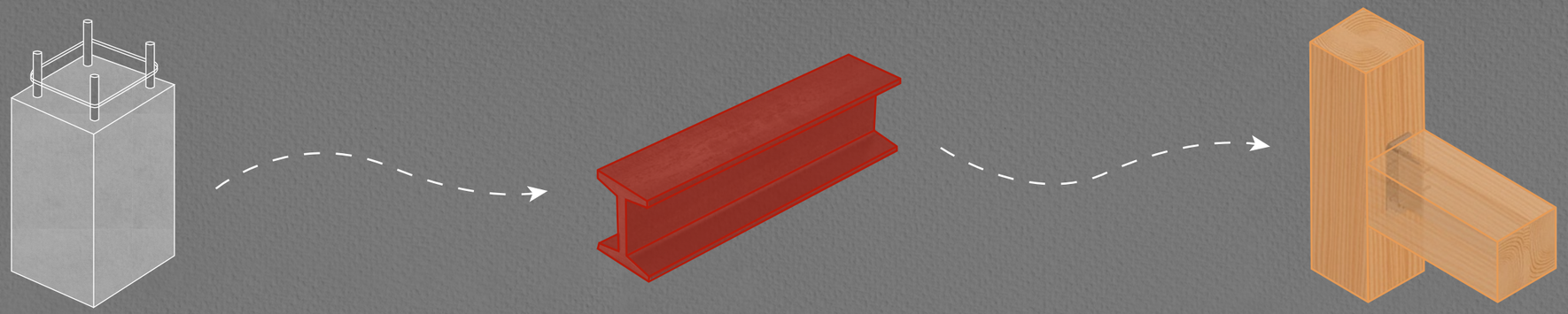
### FLOOR 02
1. National Reach Gallery
2. Studios
3. Pin-Up and Review Spaces

### FLOOR 01
1. Restaurant
2. Gift Shop
3. Cafe

### FLOOR 00
1. Kansas City Gallery
2. Flyover KC Theater
3. Mechanical

## Journey Through a Timeline

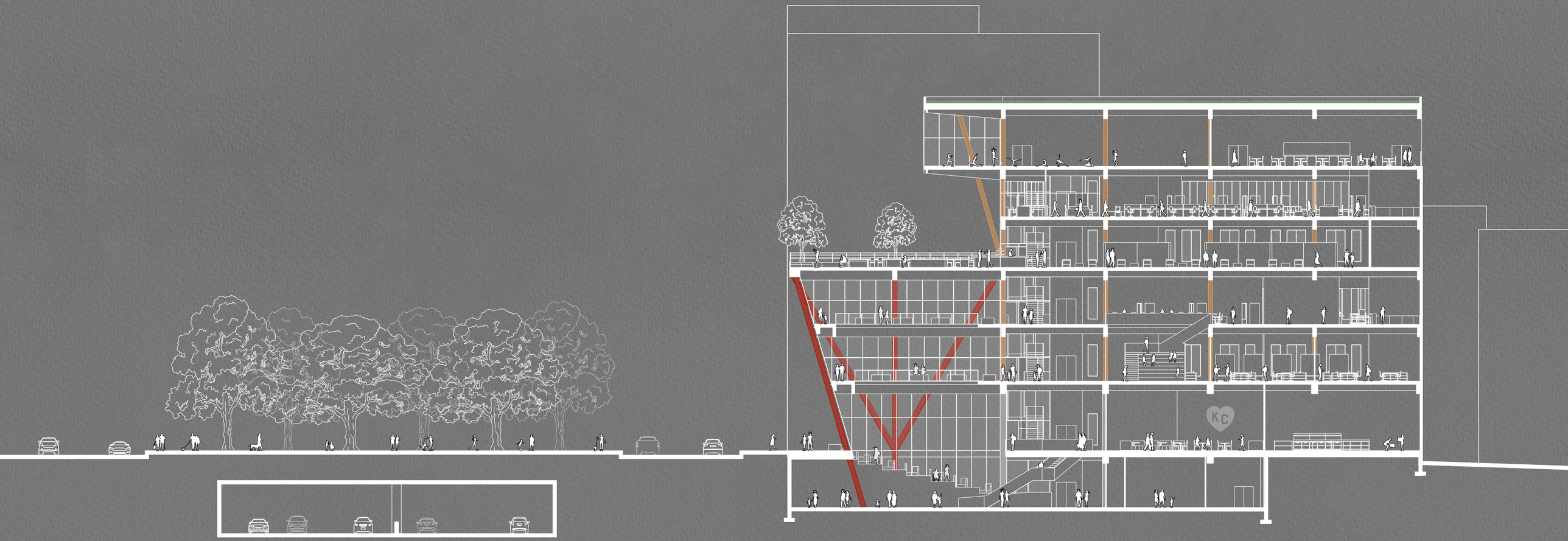
As visitors make their way through the public galleries, they encounter different exposed structural materials: concrete, steel, and mass timber. The various structural forms not only represent the possibilities of construction types but tell the story of the history of Kansas City architecture which began on concrete and steel. As visitors reach the third floor, mass timber columns are exposed to showcase the new frontier of architecture and construction.



Reinforced Concrete
Introduced to Kansas City in 1904

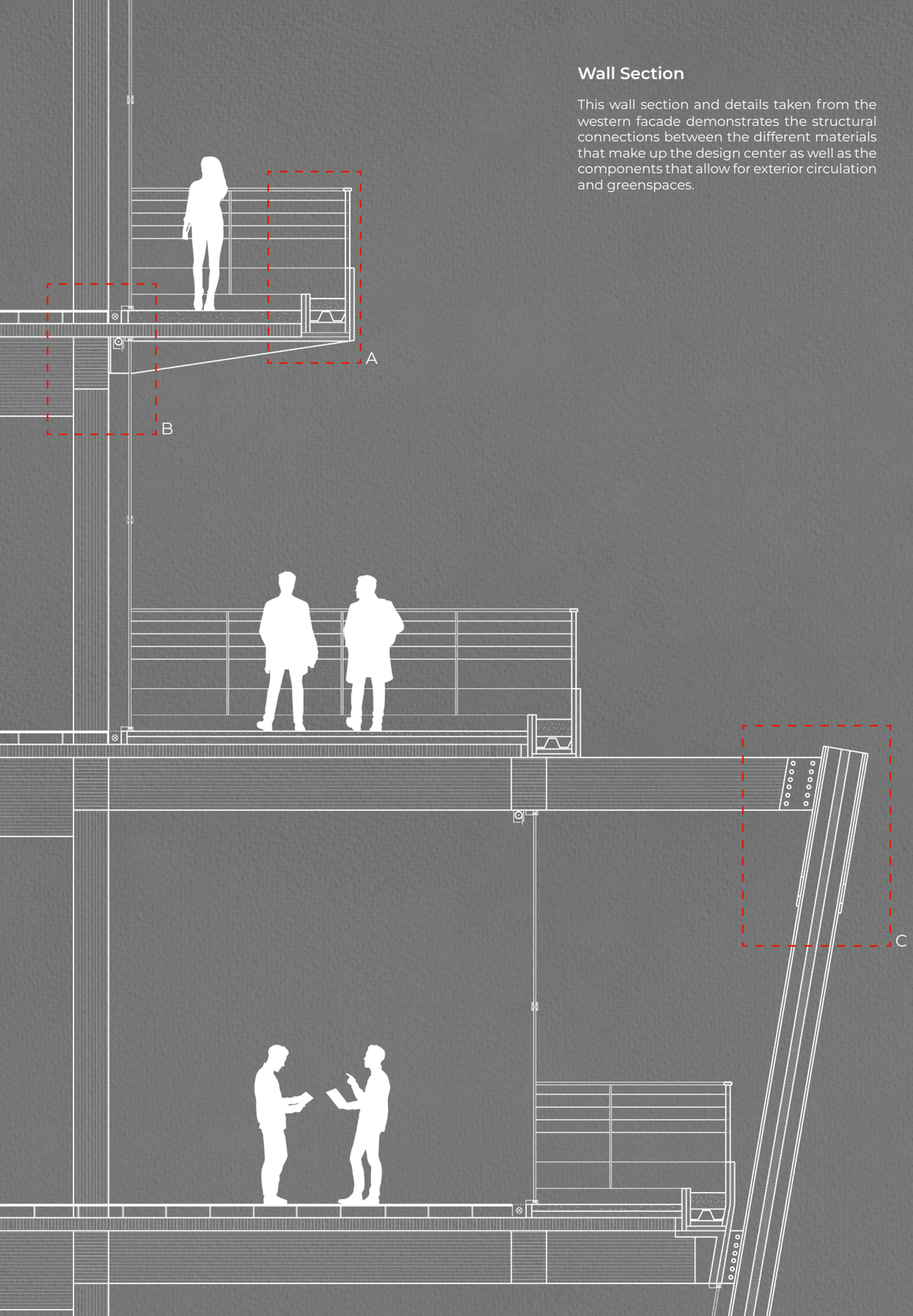
Steel
Introduced to Kansas City in 1907

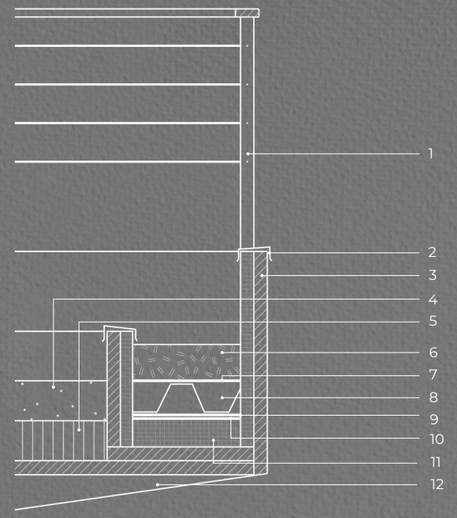
Mass Timber
New Frontier of Kansas City Construction



## Wall Section

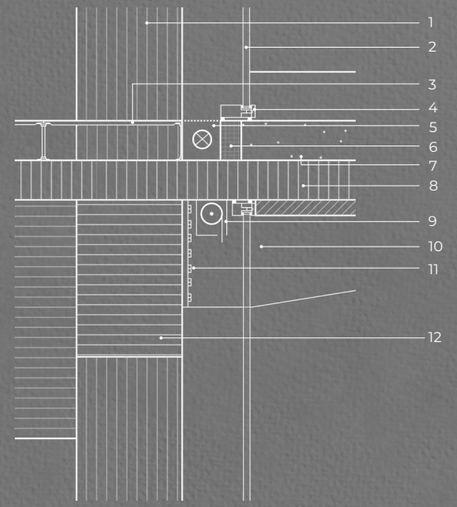
This wall section and details taken from the western facade demonstrates the structural connections between the different materials that make up the design center as well as the components that allow for exterior circulation and greenspaces.



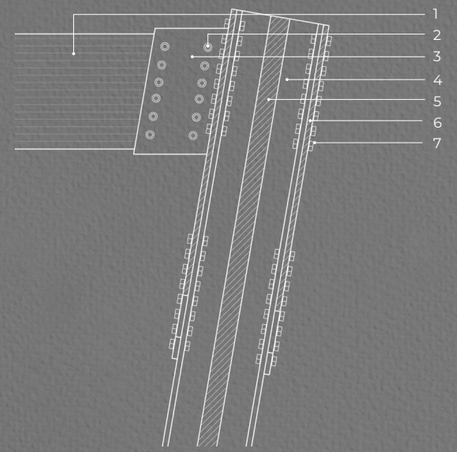

### Detail A - 1/2” = 1’

1. Steel Cable Railing
2. Flashing
3. Acid-Washed Steel Cladding
4. Concrete Decking
5. 5-Ply Cross Laminated Timber
6. Growth Medium
7. Filter Fleece Layer
8. Drainage Layer
9. Root Barrier
10. Waterproof Membrane
11. Waterproofing System
12. Steel Beam




### Detail B - 1/2” = 1’

1. Glue Laminated Timber Column
2. Insulated Galss
3. Raised Access Flooring
4. Mullion
5. In-FLoor Perimeter Heating
6. 2” Rigid Insulation
7. Concrete Decking
8. Moisture Barrier
9. Roller Blind
10. Steel Beam
11. 8” Structural Steel Bolts
12. Glue Laminated Timber Beam




### Detail C - 1/4” = 1’

1. Glue Laminated Timber Beam
2. 8” Structural Steel Bolts
3. Steel Hanger Plate Connection
4. Steel Column
5. Dynamic Facade Steel Framing
6. 2” Steel Connection Plate
7. 5” Structural Steel Bolts

## Flyover KC Theater

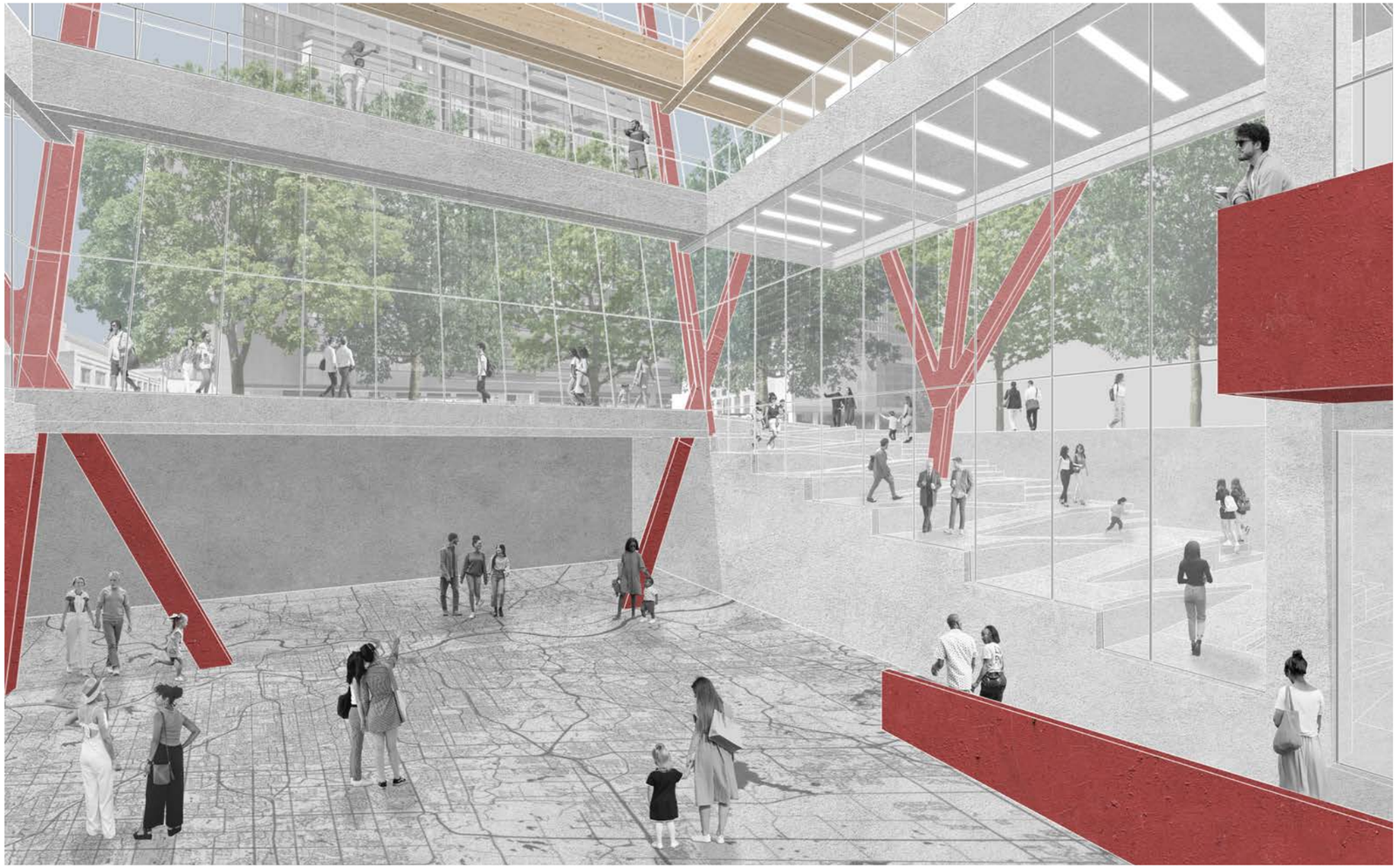
Connected to the Kansas City Gallery, the Flyover KC Theater features a short film that takes visitors on a bird's eye view journey of Kansas City. The story of the A.E.C. Industry will be presented throughout the city's earliest history up to the prospective future.





## Studio Pin-Up

The flex space between the open-plan studios allows for cocktail style reviews to occur in proximity to all students. This encourages students to offer feedback on projects as well as find inspiration from the work of others.



## Kansas City Gallery

The permanent gallery series of the Hybridus Design Center begins with the Kansas City Gallery set below ground level. Visitors can enter the gallery from the Northeast accessible entrance. Upon arrival, visitors are met with the first two structural materials of Hybridus: concrete and steel. A map of Kansas City is engraved onto the floor that can be viewed from the atrium space above.



Closed

Partial

Open

## Dynamic BIPV Perforated Metal Facade

To mediate the afternoon sun, the western facade of Hybridus incorporates a dynamic perforated metal facade. Private users of the building are able to adjust the various settings of the metal screens to fit their lighting needs.



## Public Balcony and Event Space

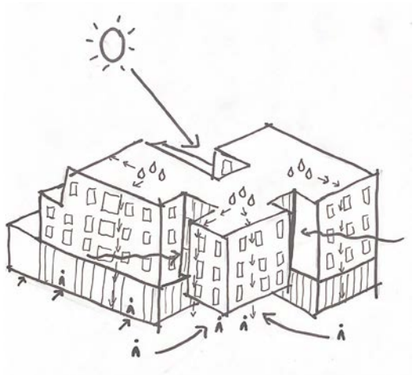
The public balcony overlooking the South Loop Link is accessible by means of exterior circulation between the third and sixth floor. Visitors in the top floor event space are able to experience a 270 degree, uninterrupted view of the Kansas City skyline.





## Global Reach Gallery

The permanent gallery series ends with the Global Reach Gallery showcasing scale models of buildings that the Kansas City A.E.C. industry has taken part in across the globe. Here, visitors are able to view the map of Kansas City from a new perspective as well as all three structural elements of the design center.



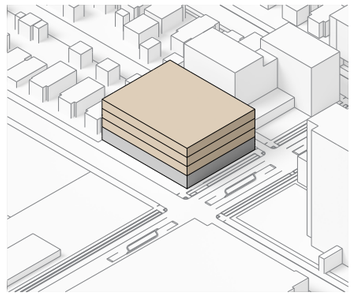
## THE PATH

Fall 2023 | Professor Shannon Criss
Denver, Colorado - 40,000 SF

**A mixed-use building that prioritizes the mobility, activity, and health of its residents and the community of the West Colfax neighborhood in Denver, Colorado.**

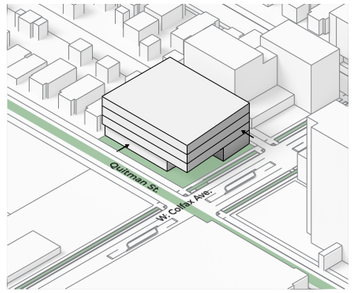
Denver receives 15 inches of precipitation each year, about half of the United States' average annual precipitation. To demonstrate the importance of rainwater in the ecosystem, The Path manages stormwater runoff in such a way that connects the community with this scarce natural resource. Complete with a community garden, recreation center, mobility hub, and 20 residential units, the spaces created within The Path combine the natural forces of light, water, and air to promote the health and activity of residents and the public.

## Form Diagram



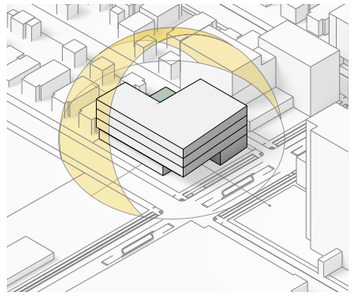
**01 | Occupy the Site**

Create a form that adheres to podium-style construction guidelines with wood-framed construction atop a concrete base.



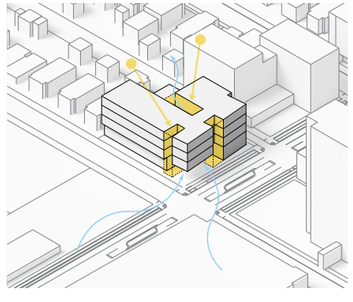

**02 | Make Space for Mobility**

Push the building away from sidewalks and dedicate a covered area to the mobility hub at the corner of West Colfax Avenue and Quitman Street.



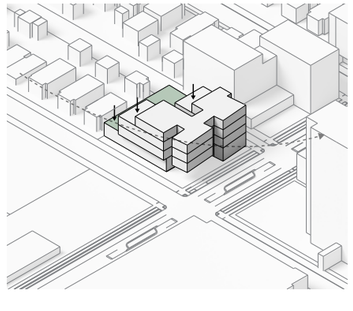
**03 | Maximize Daylight**

Remove a portion of the building on the southwest corner to ensure daylight reaches all residential units.



**04 | Invite Natural Forces**

Carve voids into the residential floors to bring natural light and air further into the building.

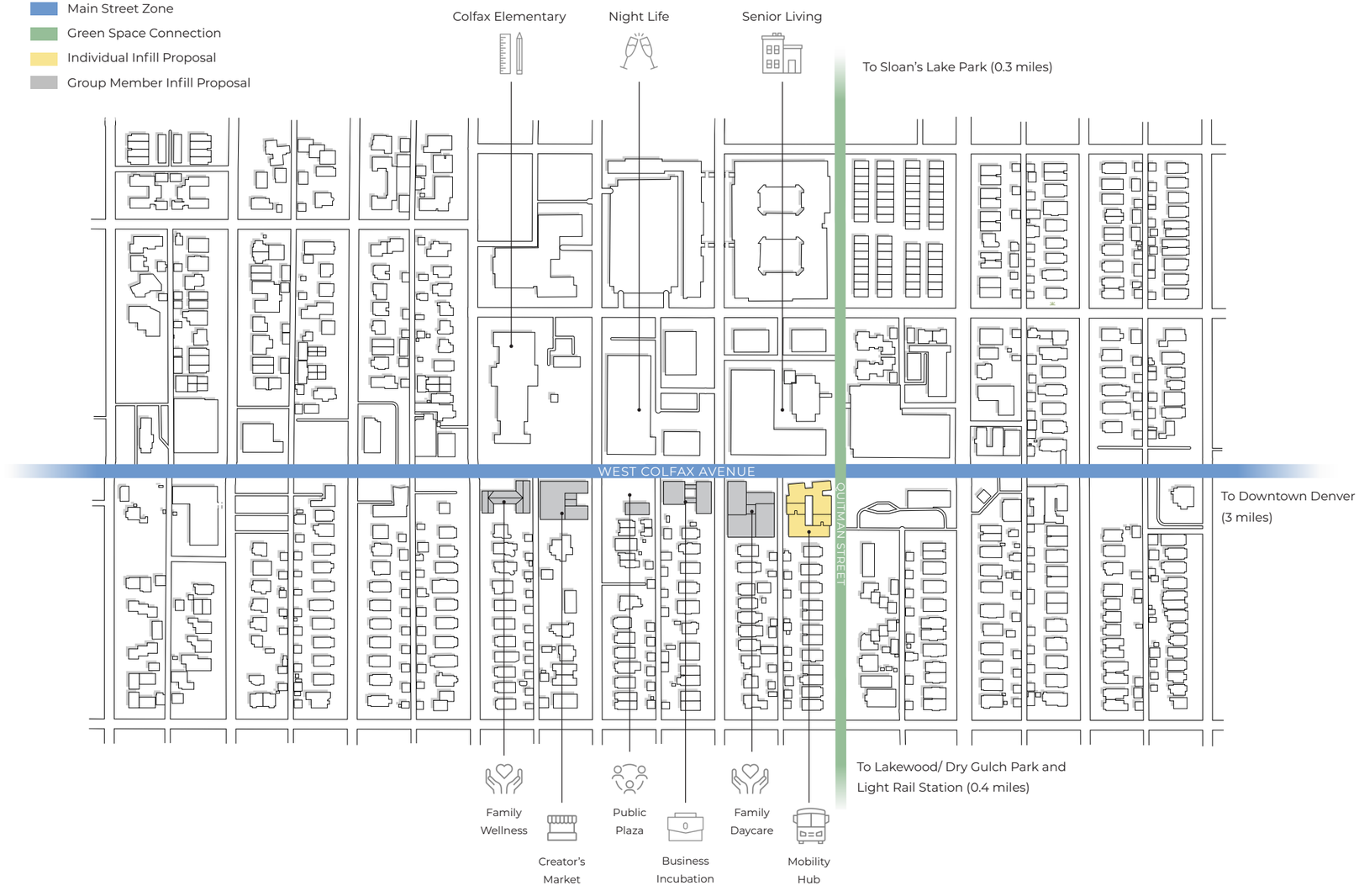


**05 | Respond to the Context**

Push down the residential floors along the southern edge of the building to reflect the change in height of surrounding buildings.

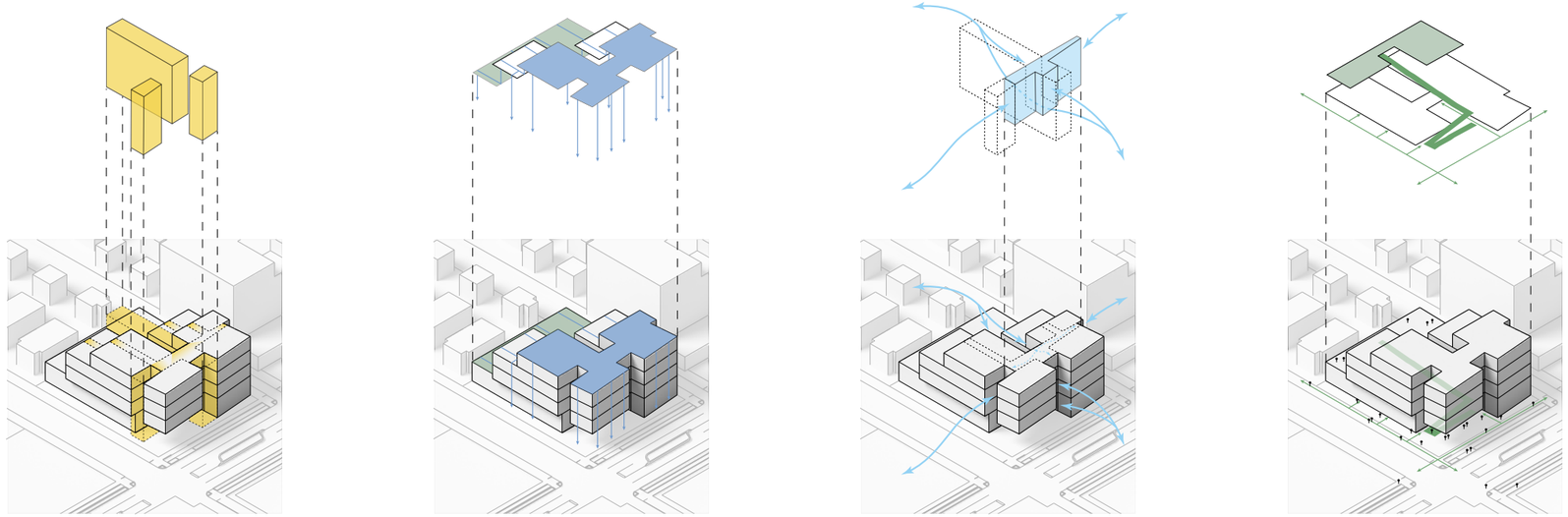
## West Colfax Masterplan

- Main Street Zone
- Green Space Connection
- Individual Infill Proposal
- Group Member Infill Proposal




## Rethinking West Colfax

The West Colfax neighborhood lies east of Downtown Denver, Colorado connected by Colfax Avenue, the longest commercial street in the country. While this street played a major role in the development of this neighborhood, its fast-moving traffic adjacent to pedestrian sidewalks acts as a major divider that separates the community. As a group of five, my classmates and I redesigned West Colfax Avenue to create a safe roadway that promotes pedestrian and cyclist use to active street life. Two major parks are located north and south of the neighborhood with no formal connection. Quitman Street, which leads to both parks as well as a Light Rail station, is dedicated to act as this green space connector that encourages safe travel between parks. Finally, our infill projects were strategically situated across the street from Colfax Elementary and a recently redeveloped area. This location is also adjacent to the midway point of the proposed green space connection street.






**Light**

Light wells allow for light to get further into the core of the buildling to enlighten circulation corridors and residential units.

**Water**

Water is retained on a blue roof and directed towards the community garden for irrigation or biofiltration planters on the ground floor.

**Air**

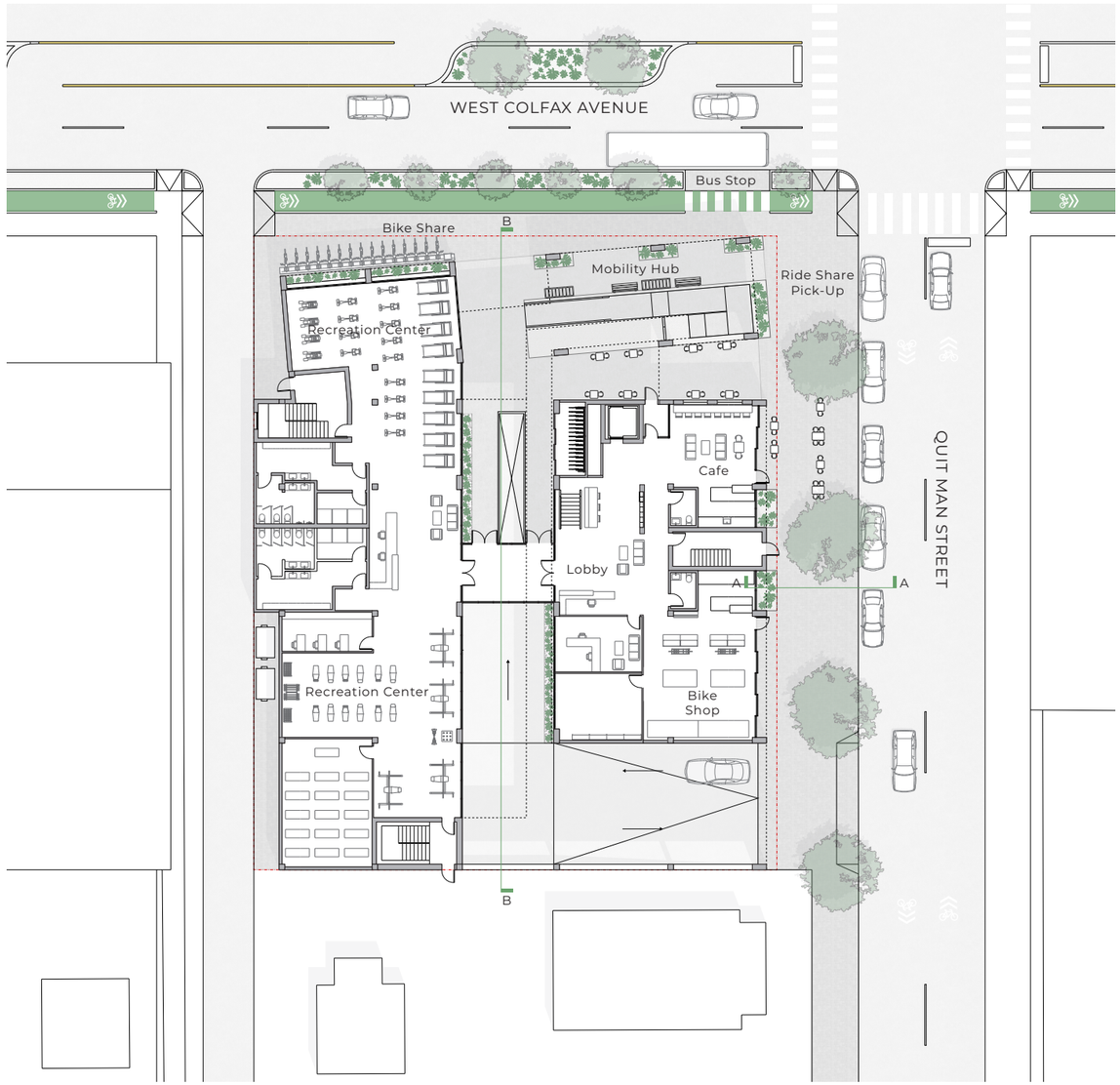
The cross-ventilation of corridors and the mobility hub is made possible by the use of user-operable windows and breezeways on the ground floor.

**People**

The circulation of residents and the public is encouraged by voids in the form that lead people to a community garden and other amenities.

## Carving The Path

The final massing form of The Path is influenced by and emphasizes the paths that the natural forces and people that encounter the building follow.




## Site and Floor 1

The programming of the ground floor aids in the intent of providing opportunities for activity within the West Colfax community. The covered mobility hub triangulates travel by bus, bike, and car in a space adjacent to a recreation center and cafe to promote safe public transportation.




## Quitman Street Section A

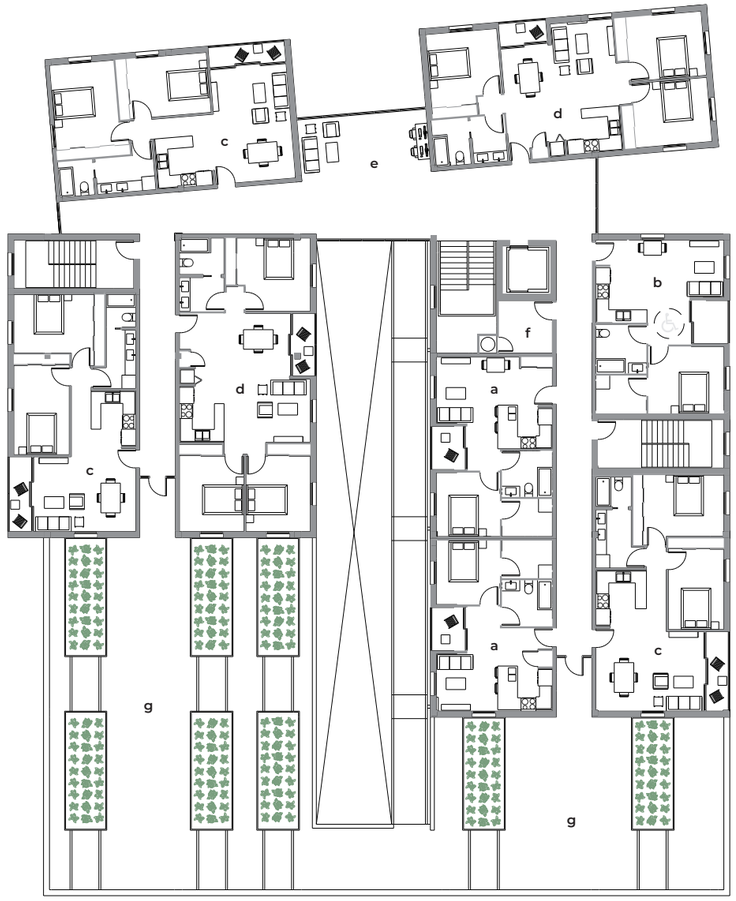
To avoid stormwater runoff on the site, sidewalks around the building are made with permeable pavement. Furthermore, water retained on the blue roof is released through a wall-integrated gutter system that leads water to biofiltration planters on the ground floor.

## Floor 2 & 3

(community garden relative to Floor 2 only)

0’ 10’ 30’

- **a** one bed unit
- **b** one bed unit (ADA)
- **c** two bed unit
- **d** three bed unit
- **e** amenity space
- **f** trash room
- **g** community garden

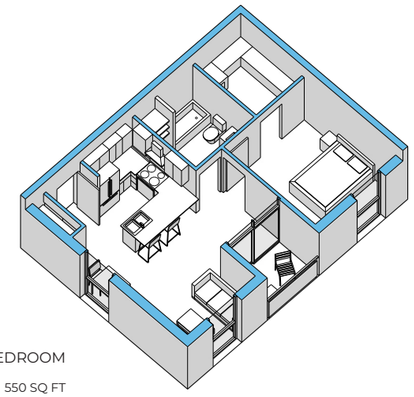



## Floor 4

0’ 10’ 30’

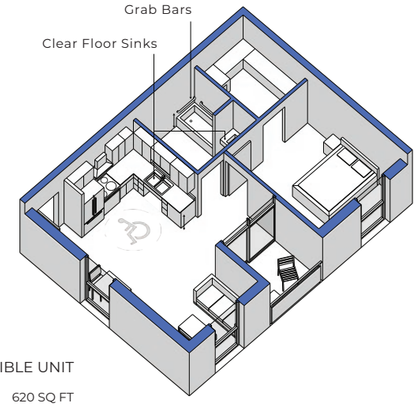
- **a** one bed unit
- **b** one bed unit (ADA)
- **c** two bed unit
- **d** three bed unit
- **e** interior amenity space
- **f** trash room
- **g** outdoor amenity space



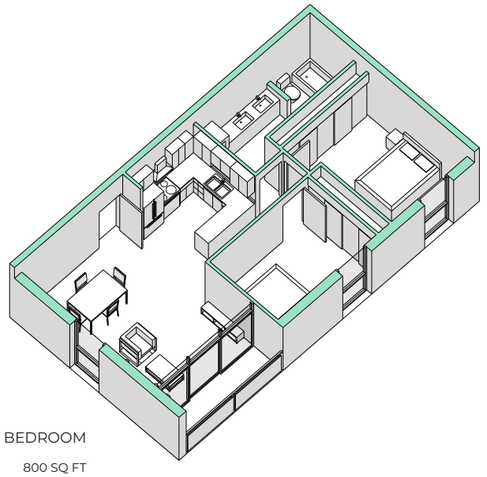
ONE BEDROOM

550 SQ FT



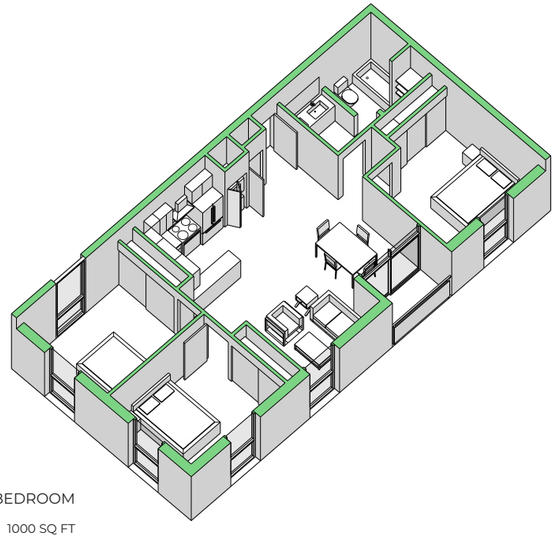

ACCESSIBLE UNIT

620 SQ FT



TWO BEDROOM

800 SQ FT



THREE BEDROOM

1000 SQ FT

## Section B






Mobility Hub



Residential Common Space



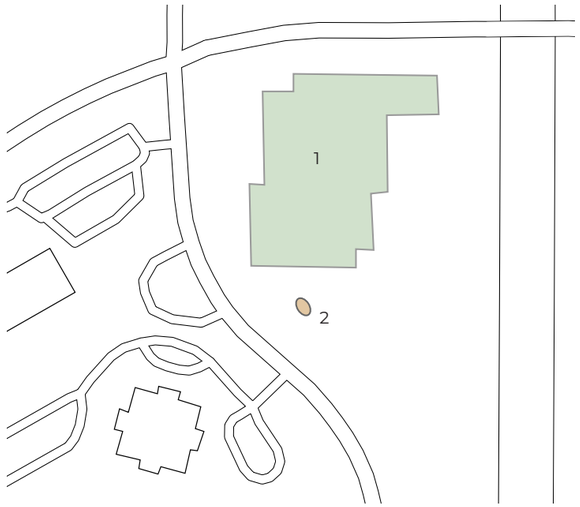
Community Garden

## VOYAGER CHAPEL AT PIONEER CEMETERY

Fall 2021 | Professor Kent Spreckelmeyer
Lawrence, Kansas - 800 sq ft

**A non-denominational place of contemplation for students, staff, and visitors of the University of Kansas.**

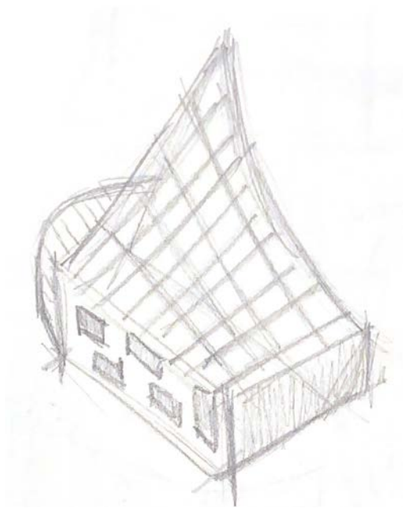
On the west campus of the University of Kansas, Pioneer Cemetery acts as a resting place for celebrated heroes of the Civil War and honored staff of the university. To accompany this location, this non-denominational chapel was designed to offer a place of contemplation for all. Constructed solely out of timber, the chapel is located just south of the cemetery in an open field.

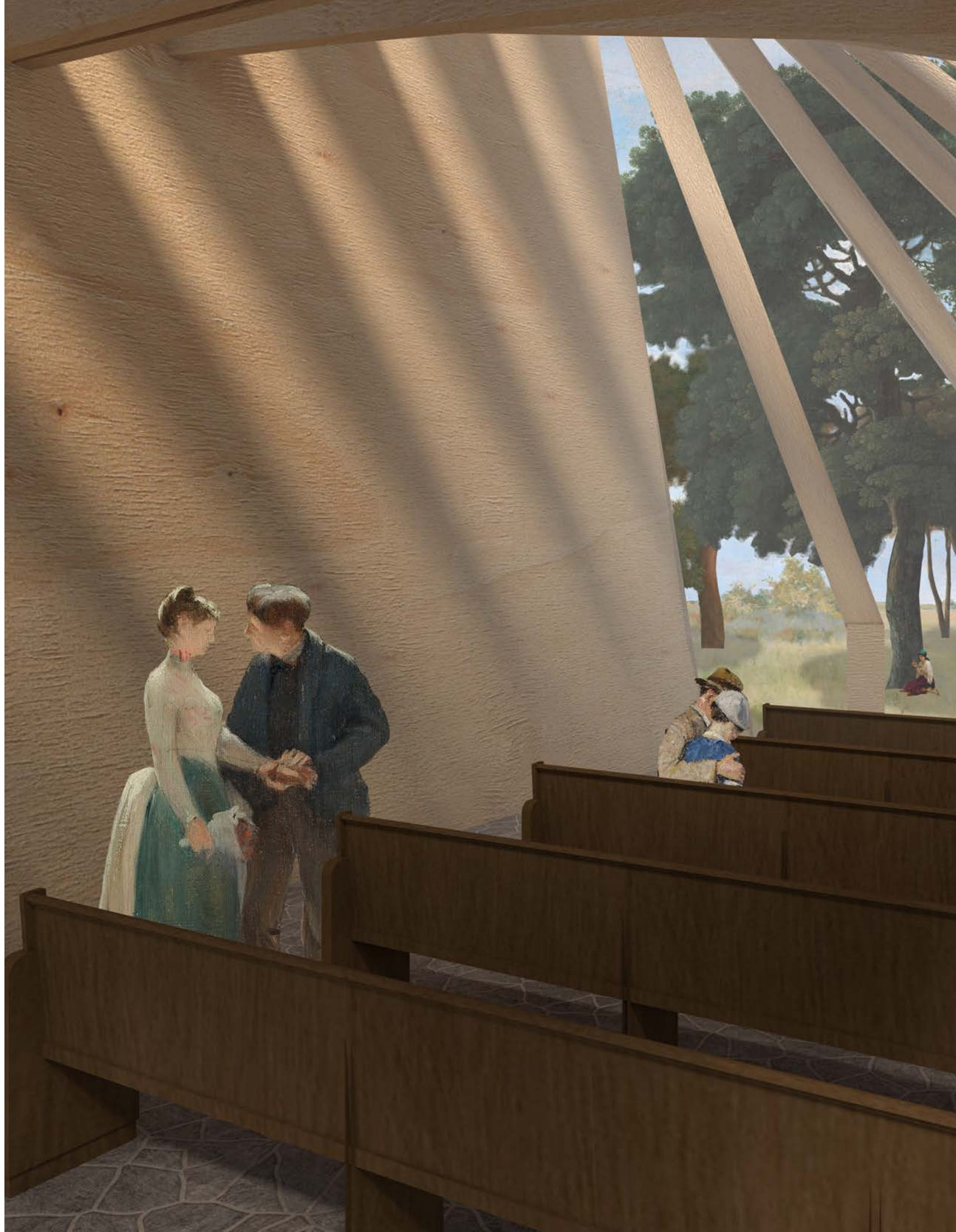



University of Kansas, Lawerence, KS

100'

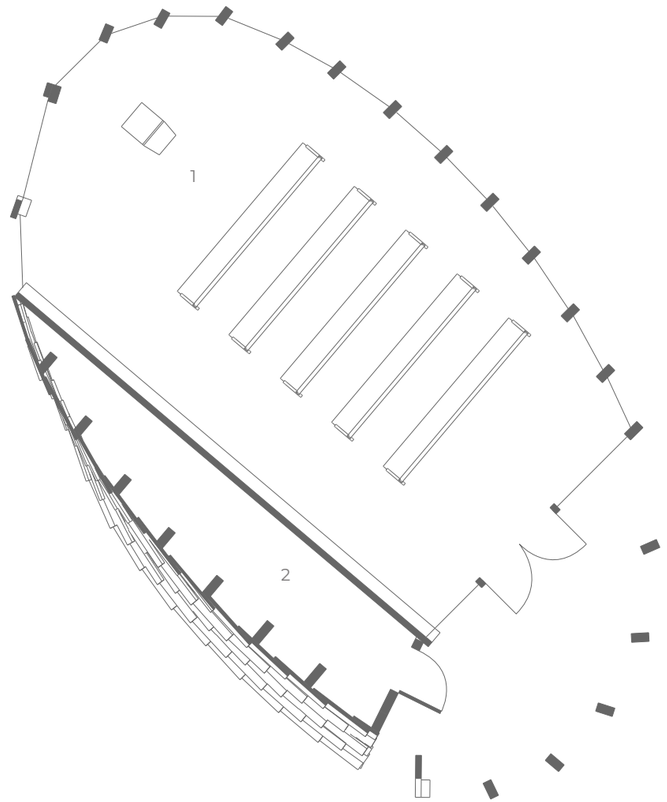
1 Pioneer Cemetery
2 Voyager Chapel





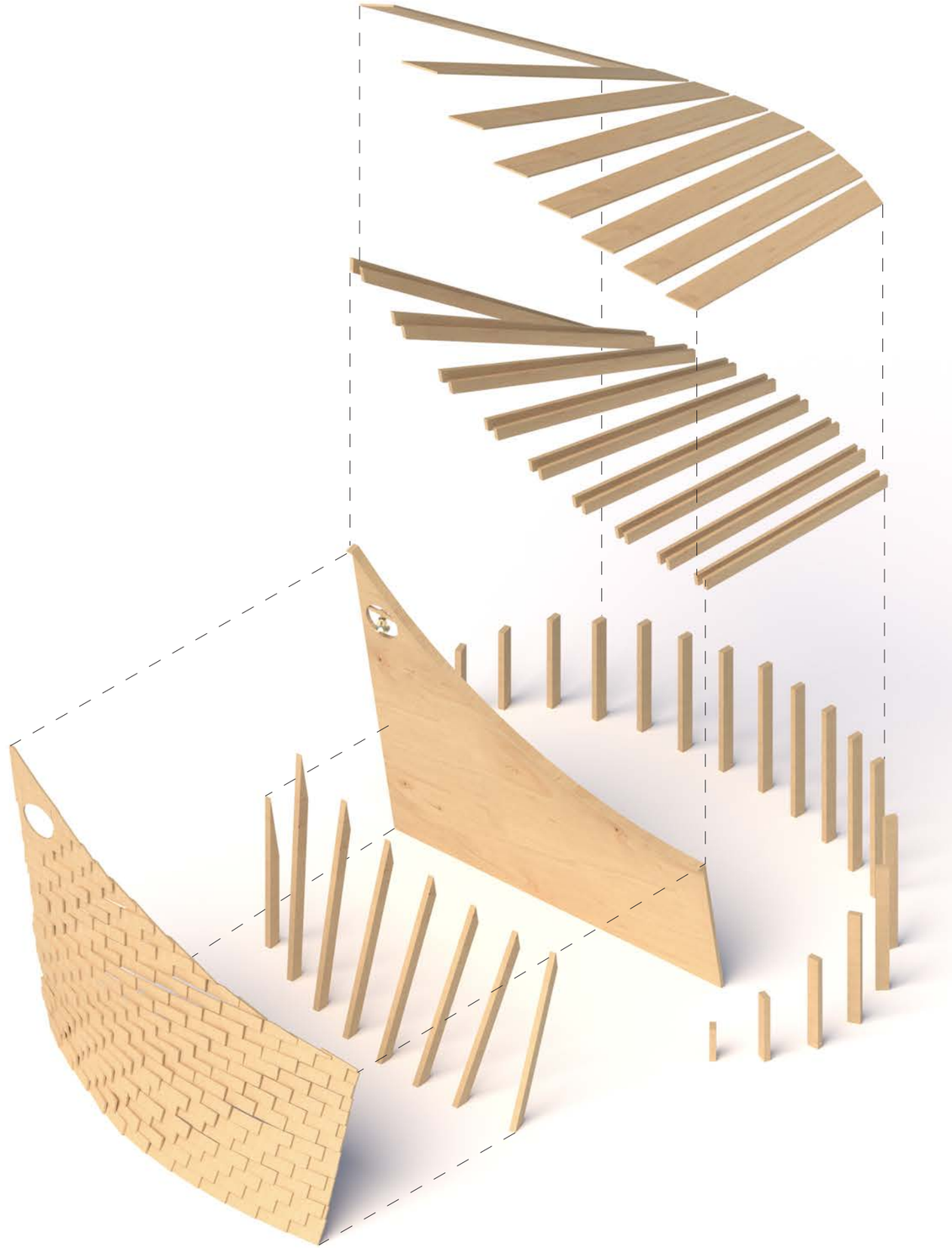
## Plan and Structure

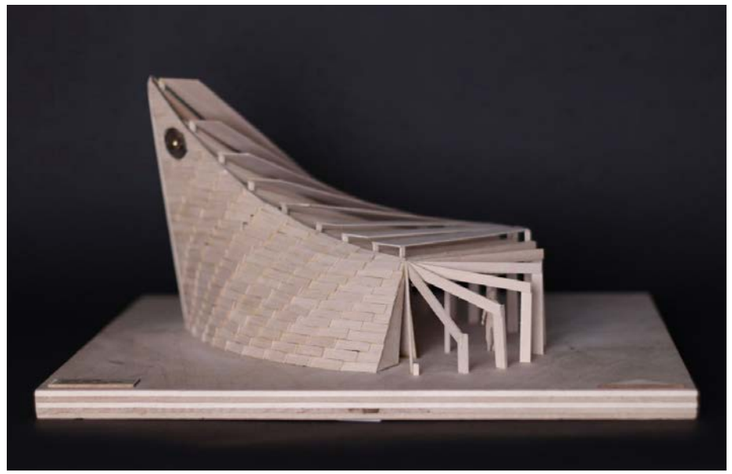
Following an elliptical plan, the chapel consists of two main spaces: a service room for mechanical needs and the main congregation hall. Separating the two spaces is an angled load-bearing wall. The service room is clad with wooden planks inspired by the structure of a wooden ship. Columns that vary in height surround the congregation hall. A clerestory roofing system allows afternoon light to reach interior spaces. Finally, at the highest point of the chapel, a bell sits inside the load-bearing wall.

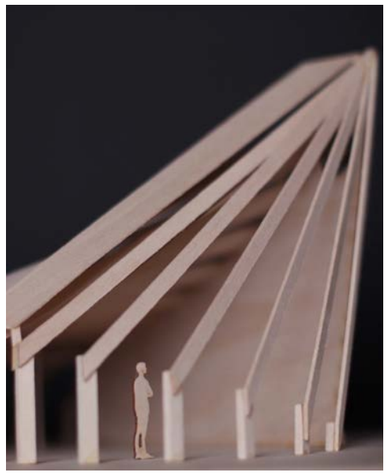



0’ 5’ 10’

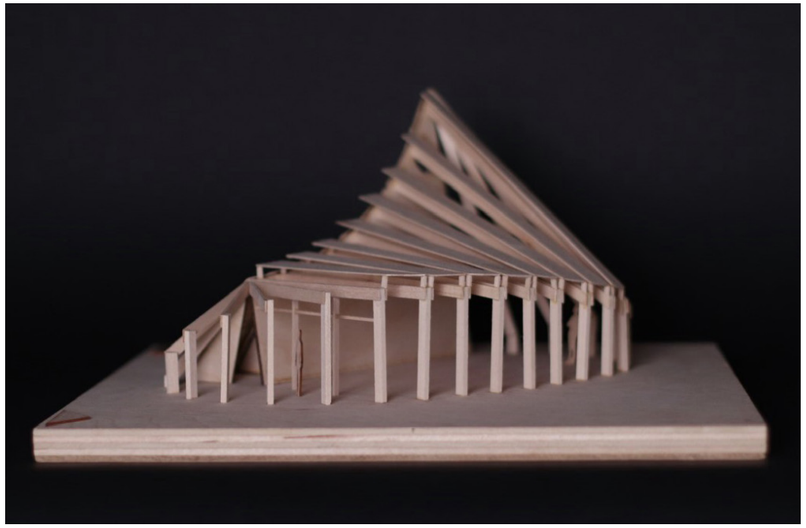
1. Congregation
2. Service Room

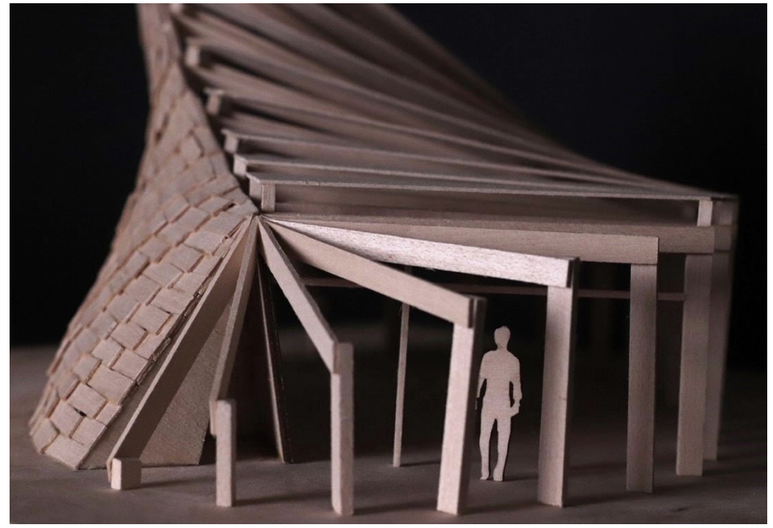












**Physical Model**

Basswood
1/4” = 1’ 0” Scale
Photos taken by Sophia Lail

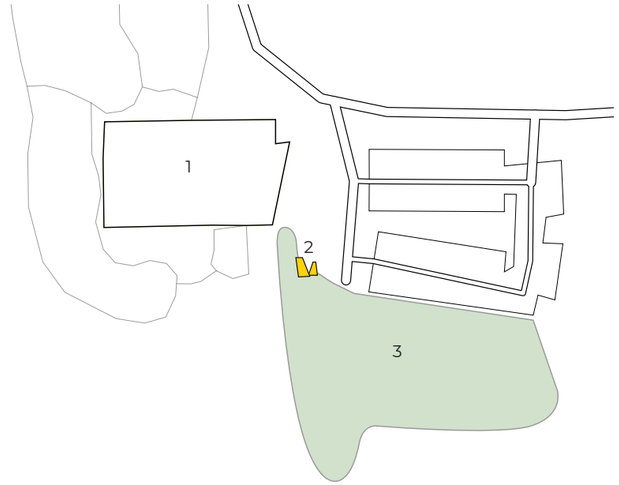


## POLLINATOR PAVILION

Fall 2022 | Professor Keith Van de Riet
Topeka, Kansas - Shade Pavilion

**A shade structure that acts as a gateway entrance to a prairie landscape on the site of the Kansas Children's Discovery Center in Topeka, Kansas.**

This semester-long design-build project tasked me and my classmates with fully designing and constructing a shade structure for the Kansas Children's Discovery Center in Topeka, Kansas. The museum encourages educational exploration in tactical and immersive environments for its young visitors. A prairie is located on the site of the museum that previously did not have a formal entrance. As a class, we created a transitional structure that prompts visitors to discover the natural elements that lie within the prairie. The process was documented beginning with initial concepts up to the moment of completion.




Kansas Children's Discovery Center, Topeka, Kansas

50'

1 Children's Museum
2 Pollinator Pavilion
3 Prairie



## Conceptual Development

During the first weeks of the class, the students were split into three groups of four to develop a cohesive design to present to the museum. My team researched elements found within the abundance of prairies in Kansas. This research included taking a walk through the museum's prairie as well as investigating online resources.









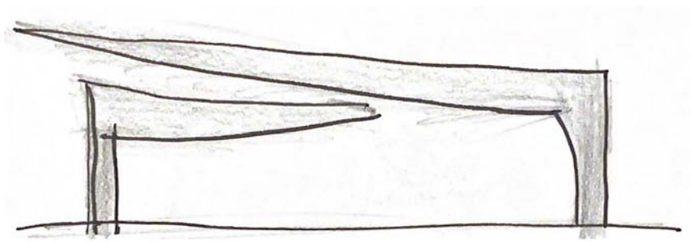
Images from the on-site prairie.

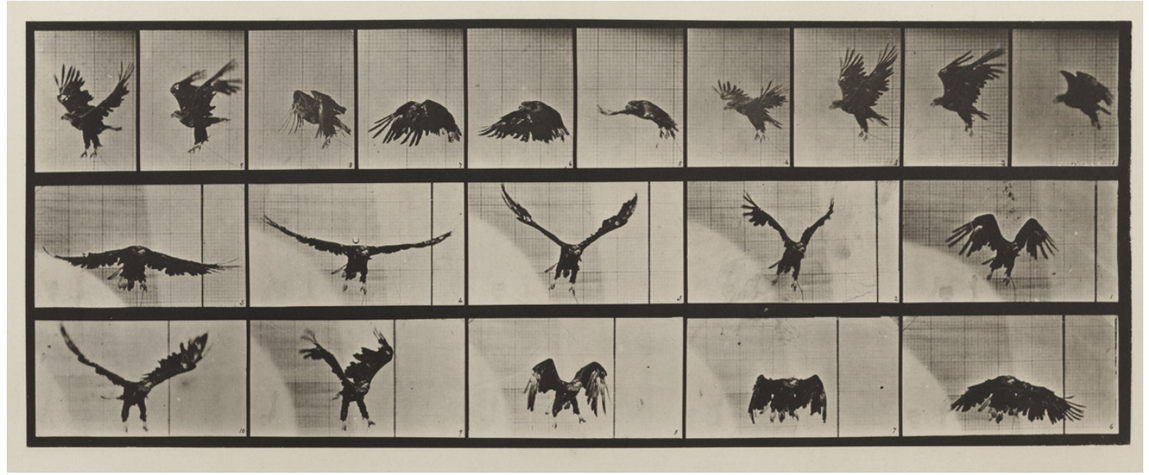




## The Meadowlark

Through research on Kansas prairies, I discovered the Western Meadowlark, a species native to the Midwest and the Kansas state bird. We decided to focus our conceptual designs on the flight of this bird as well as the patterns created by the feathers of the wings. This led our group to design a pavilion that consisted of two wing-like structures independent of each other.





## Animal Locomotion

My group was led in the direction of examining the shape of a bird and its wings during flight. The best resource we found that captured this phenomenon was Eadweard Muybridge's photography series of a bird in flight titled Animal Locomotion. We analyzed the various positions of the wings in relation to the bird's body and tried to represent their dynamic movement in our models.

## Final Model

1/4” = 1’ 0” Scale

The final model I created with Emme Schatz was made entirely of metal to better represent the true materials that would eventually be used. Metal rods were used to create the structure while a mesh was used for the roof tiling. The creation of this model broadened my experience with model making as I learned how to weld and work with materials I had not yet explored.





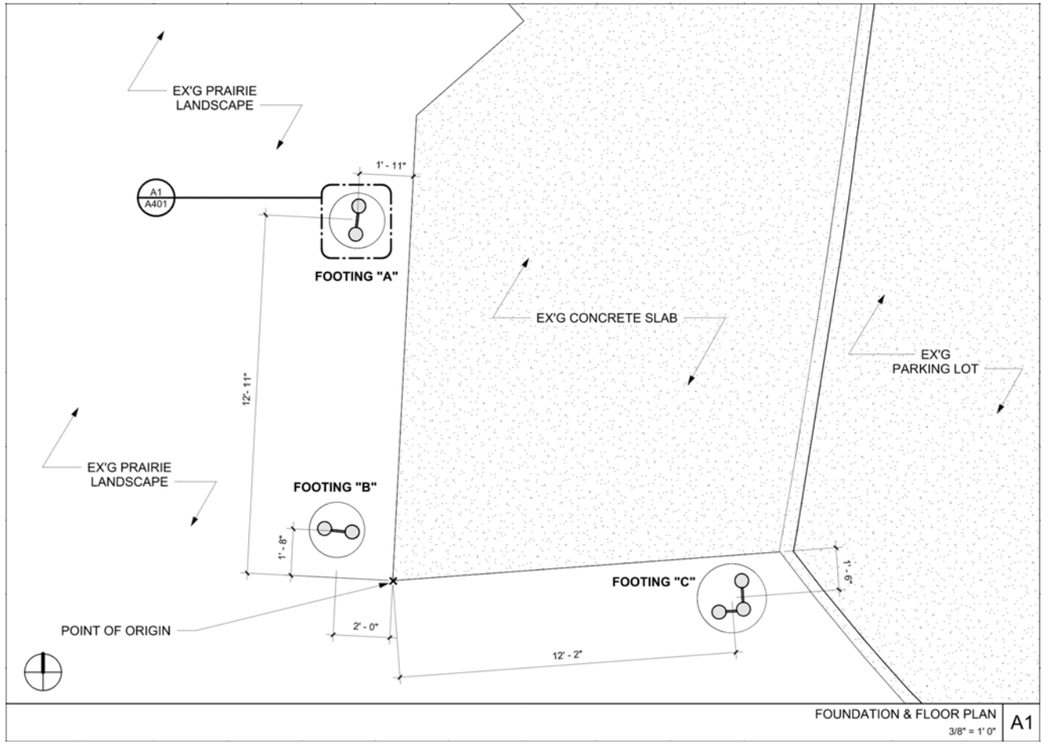



## Composite Renders

By overlaying photos of the model onto images taken at the site, we were able to develop a sense of scale of the project and its relationship with the context.

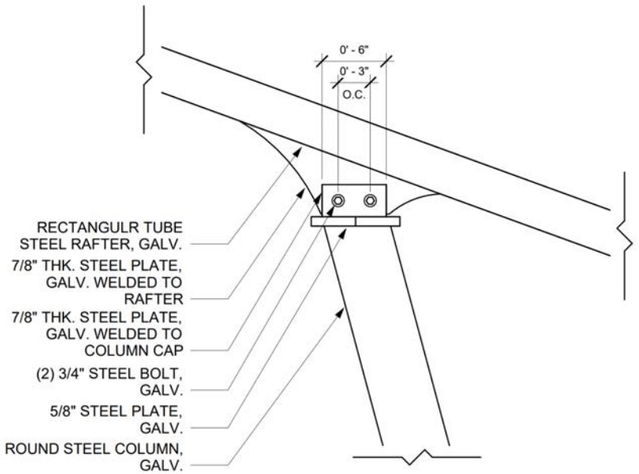
## Construction Documentation

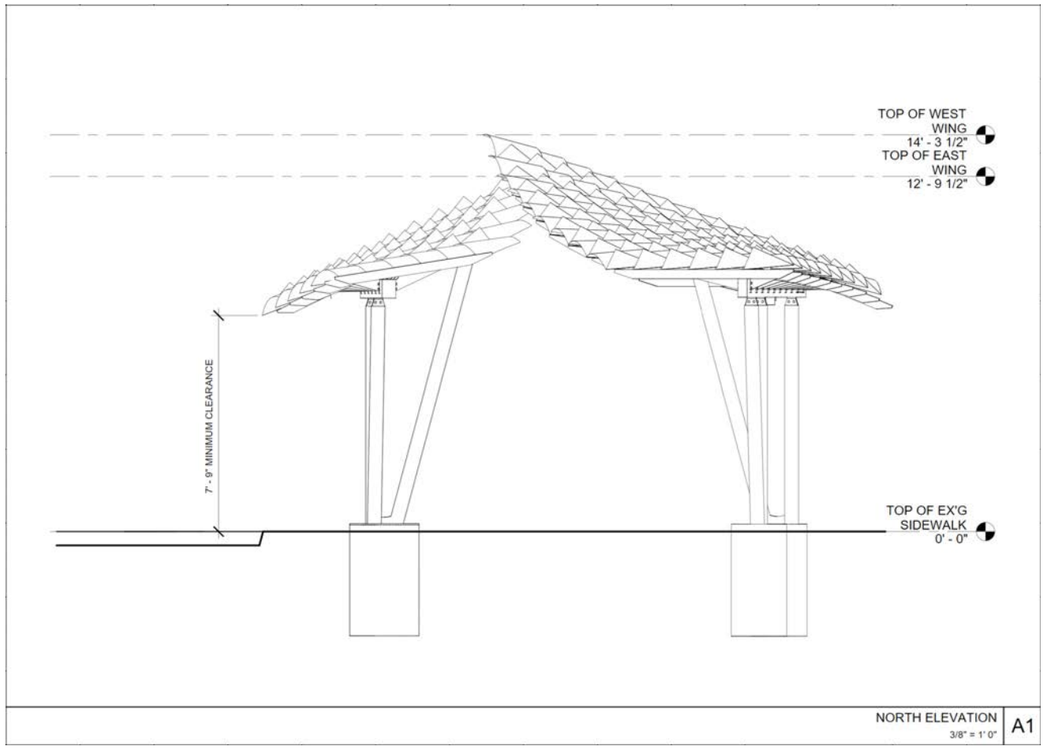
After presenting our proposal to the museum, the class came to an agreement to move forward with our group's design. The class was divided again to deal with the various tasks that came along with creating a final, fully developed project design. I chose to join the group that focused on construction documentation. Using Rhino and Revit, we curated a series of documents that would aid in fabrication and construction of the project as well as allow us to obtain a permit from the city of Topeka to build the project.




## Detailing

Working closely with the digital model, I established a sense of understanding for the most precise components of the project. These drawings verified the accuracy of the fabrication process and ensured that hardware purchased was at the correct specifications. Overall, having a hand in the construction documents solidified my awareness of the working parts of the structure.





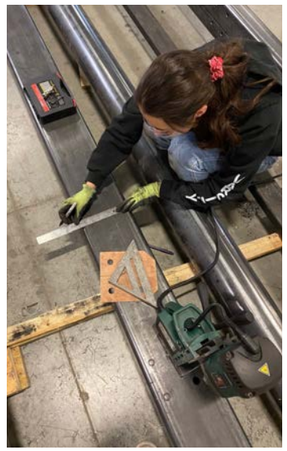


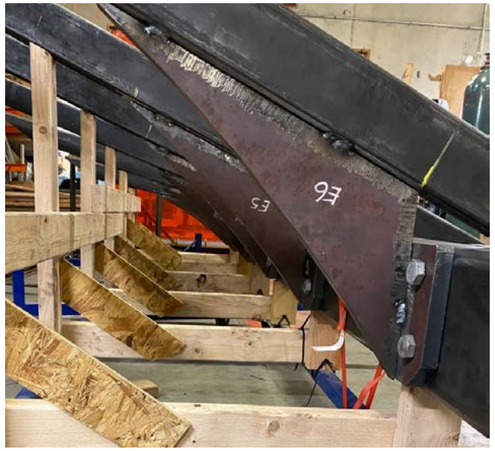


## Fabrication and Construction

Using the construction documents and Rhino models, we prepared the entirety of the structure in our university's warehouse. During this process we learned to use a variety of equipment and tools that are essential for the fabrication process. This hands-on experience offered a chance to better understand how design ideas translate into tangible, working parts that require meticulous attention.

Simultaneously, my classmates and I made frequent visits to the site to prepare for the addition of the pavilion. This process included excavation, setting rebar, pouring concrete, and assembling the structure. I gained knowledge about managing a construction site and developed an understanding of how physical and digital models translate into real world applications.


















## Finalization

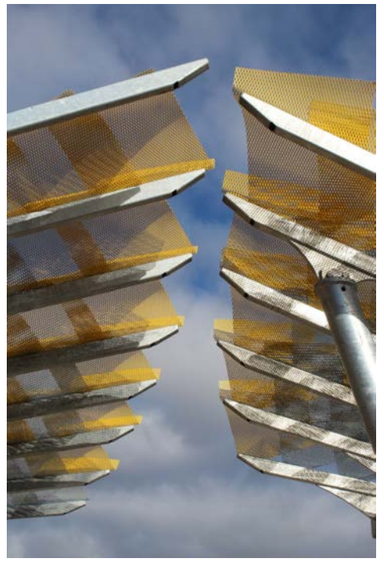
The Pollinatior Pavilion opened to the public in December 2022. The final product includes yellow powder coated roof tiles to further reinforce the Meadowlark inspiration. Limestone boulders native to Kansas are used to offer a resting place for guests upon entering and exiting the prairie.

Instructor: Keith Van de Riet

Students: Ashlyn Caldwell, Landon Dinkel, Katie Drummond, Cole Erlemeier, Cameron Ernst, Emily Flachs, Tianyi Han, Hanna Hissa, Emme Schatz, Yuchuan Shi, Sophey Shutt, David Tauser

Final photos taken by Hanna Hissa.







## Award Recipient

The Pollinator Pavilion received the America Galvanizers Association 2023 Excellence in Hot-Dip Galvanizing Award in the Civic Contribution sector.





## COLLAGES

2021 - Present

**Colorful compositions of various forms of media.**

After joining a friend at our university's Zine Club, I discovered a new creative outlet to express myself. Zines are small booklets that communicate social issues created by cutting up pieces of magazines and pasting them to the pages. I took what I learned from the club and translated my ideas into collages not limited by size. I find joy in searching for images and layering them to create a hierarchy throughout the collage. Zine collages also allow me to give forgotten images, books, and magazines a new purpose. This skill goes hand-in-hand with architectural representations as I have gained a better understanding of the relationship between elements within the images I create.



*6 Rexington Avenue Local*, 2024
Magazine collage




*The Birthday Party*, 2023
Magazine collage

## PHOTOGRAPHY

Winter 2024

**Collection of images from Asia study abroad trip.**

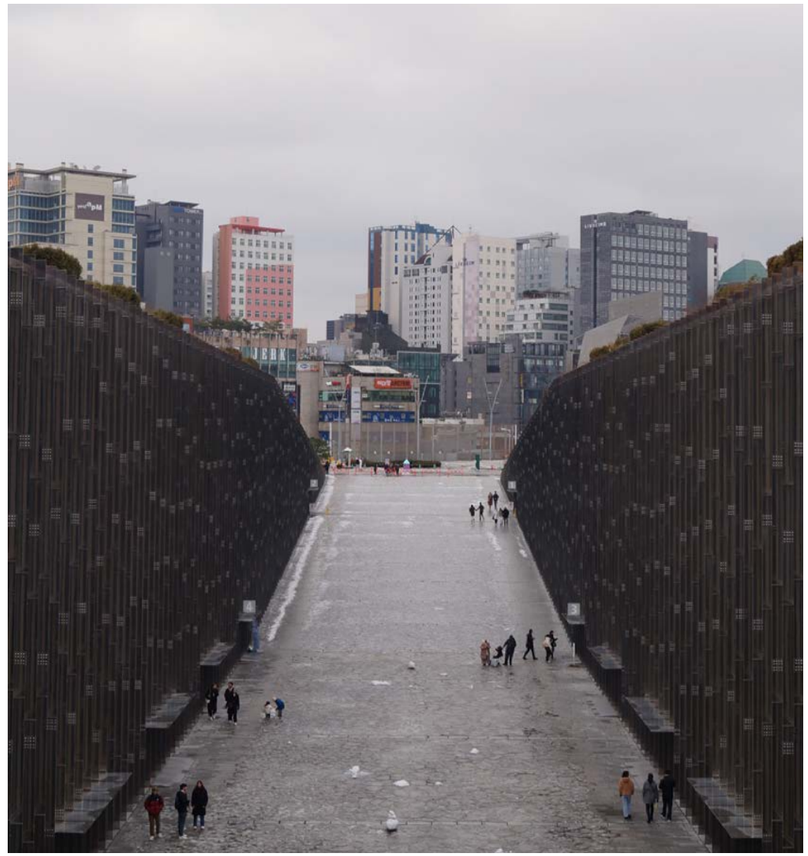
During the winter break of my fourth year in college, I took a study abroad trip to South Korea and Japan. The only assignment we had during this trip was to document the architecture of the host countries we visited. I decided that I would make the most of my time abroad by purchasing a DSLR camera and taking as many pictures as I could. This is a select collection of those images.



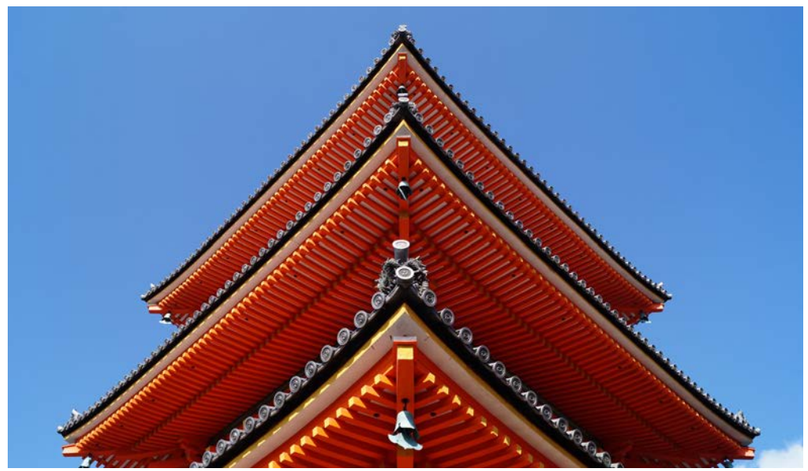
Nijo Castle Grounds - Kyoto, Japan



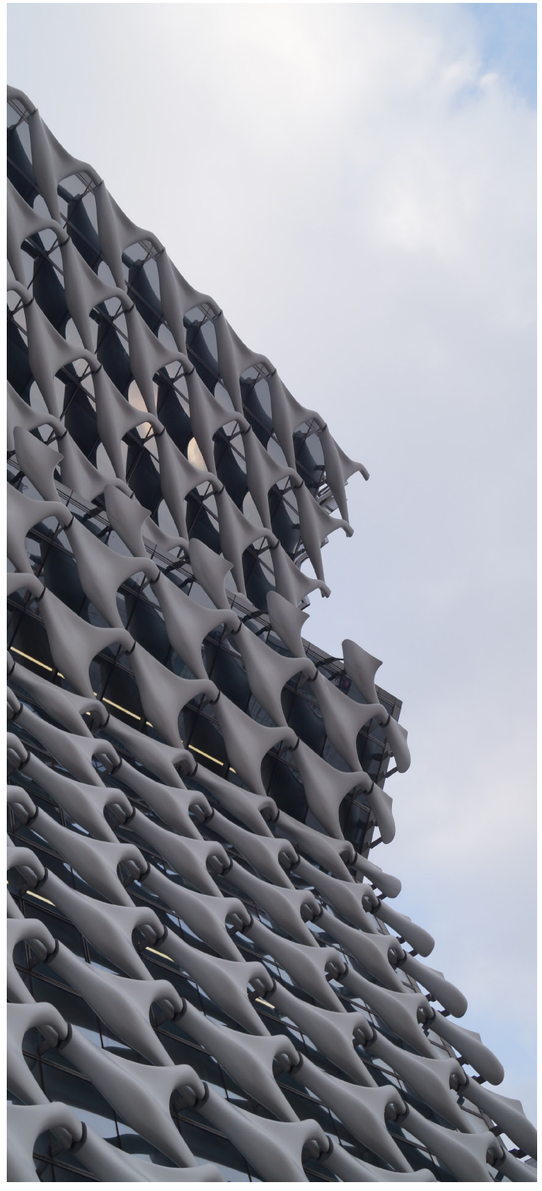
Yasaka Kamimachi - Kyoto, Japan

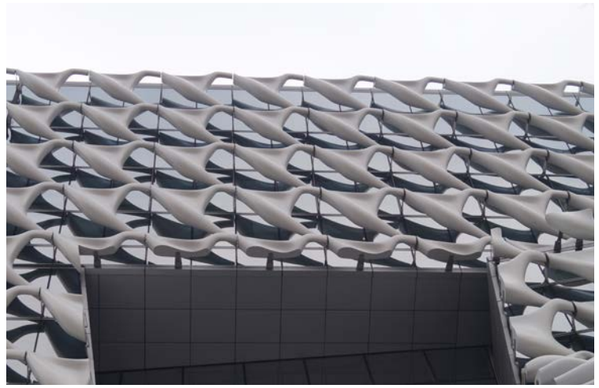


EWHA Womans University Campus Complex - Seoul, South Korea

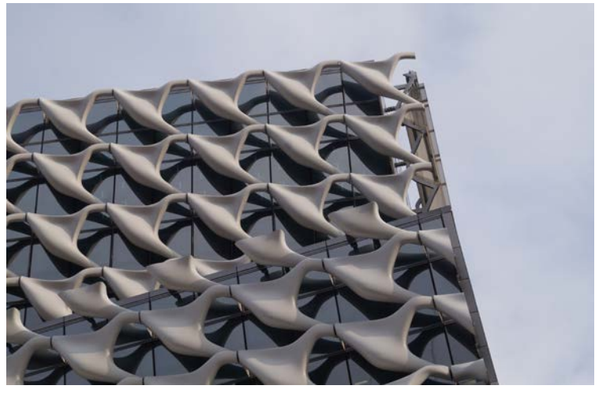


Kiyomizu-dera Koyasunoto - Kyoto, Japan

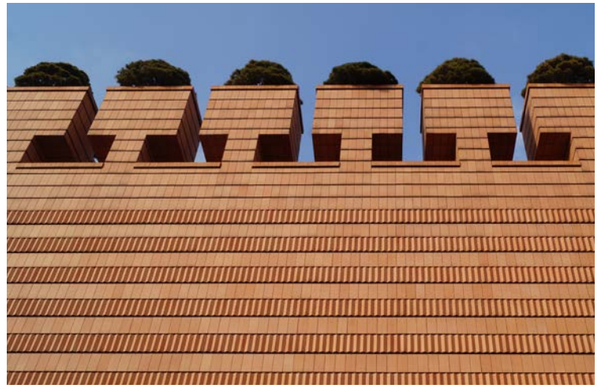


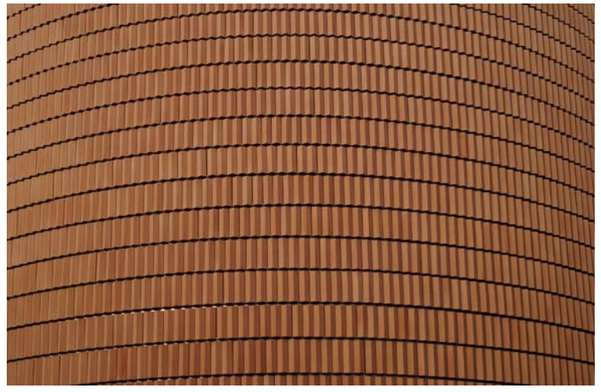




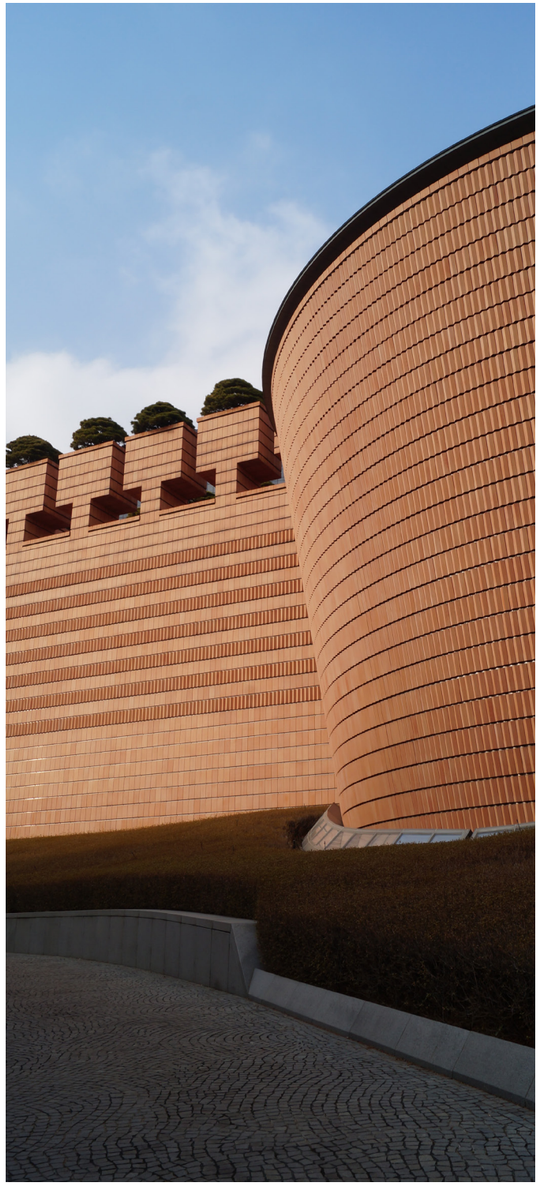


Kolon One & Only Tower - Seoul, South Korea









Leeum Museum of Art - Seoul, South Korea

