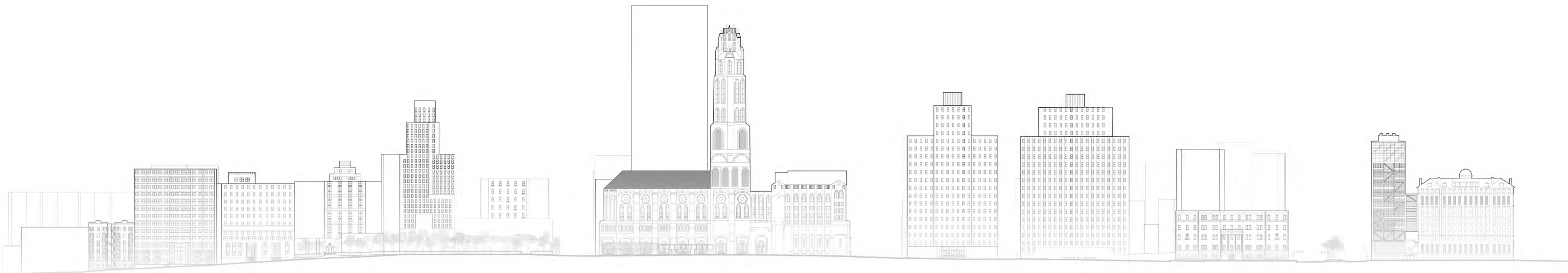


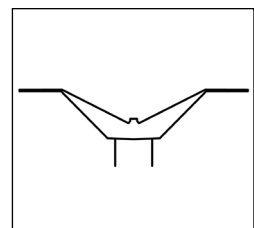
ARCHITECTURE PORTFOLIO



PEIZHAO Li

Selected Work | 2026





WHEELS OF RETURN

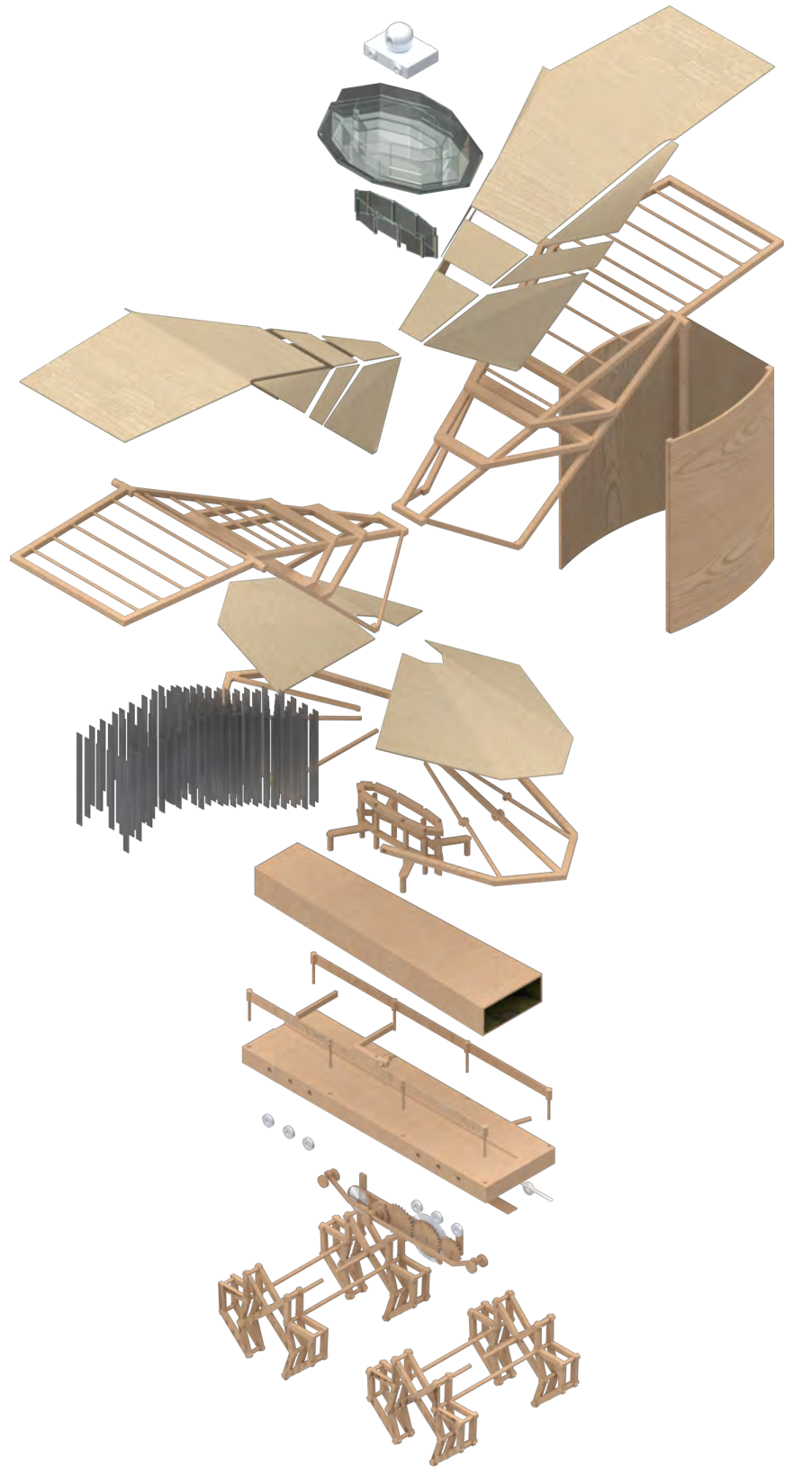
Fall 2023 | Collaborative | Columbia University
Instructor: Carlos Medellín

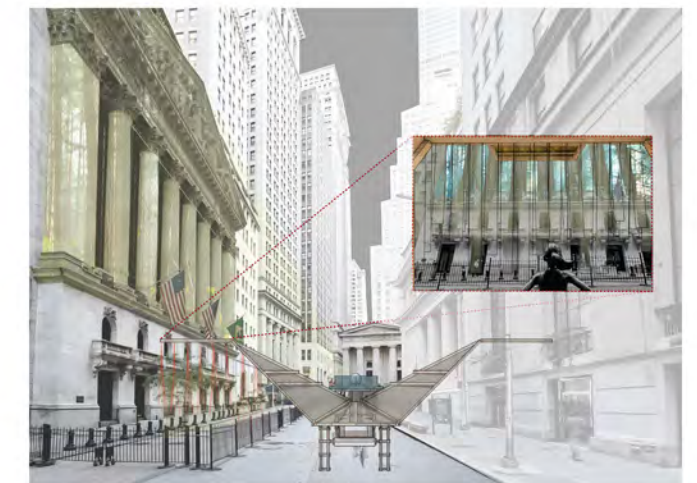
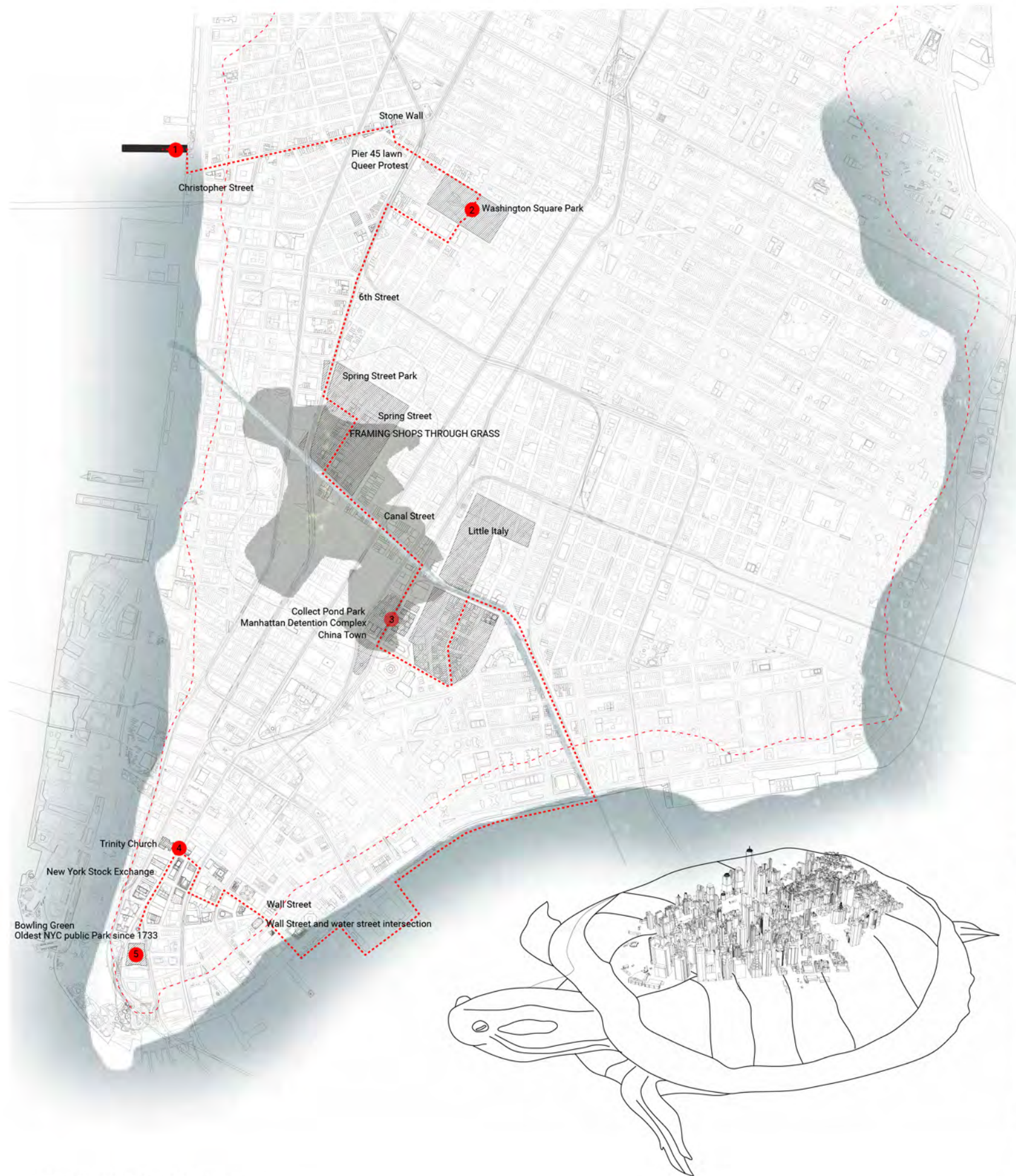
This project centers on a mobile architectural device designed to engage Manhattan's iconic landmarks in a dialogue with the land's pre-industrial past. Conceived as both an object and an event, the device moves through the city, inviting public interaction and participatory construction. Its presence is not static—it activates spaces, creates moments of reflection, and calls attention to the layers of history beneath the urban surface.

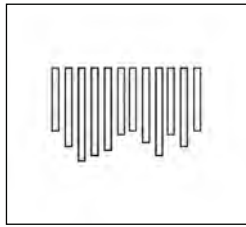
Rooted in a broader investigation of the Hudson River waterfronts, the project traces the transformation of the island from its Lenape origins to the industrial and modern era. By extending its inquiry from the river's edge to the interior of Manhattan, the design reconsiders what is often overlooked: the erased ecologies, displaced communities, and interrupted narratives that once defined the island.

Through performance, assembly, and site-specific engagement, the mobile architecture reclaims fragments of memory and offers a platform to acknowledge the land's heritage—reminding us that the city is not only built upon stone and steel, but also on forgotten ground.









CITY IN DISSONANCE

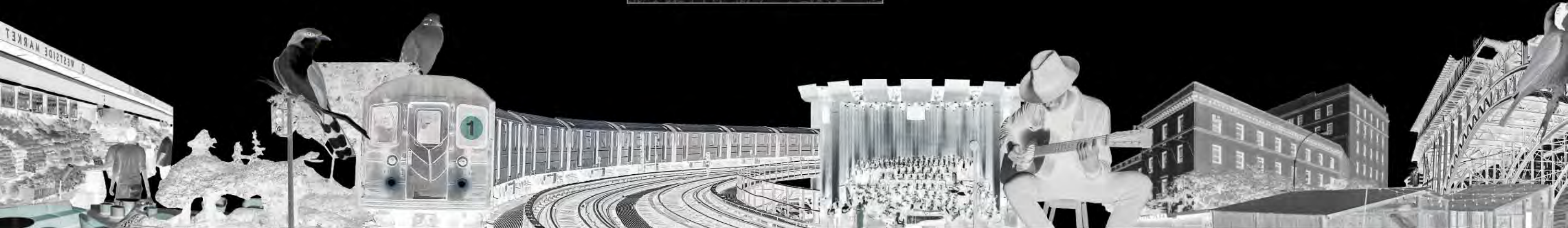
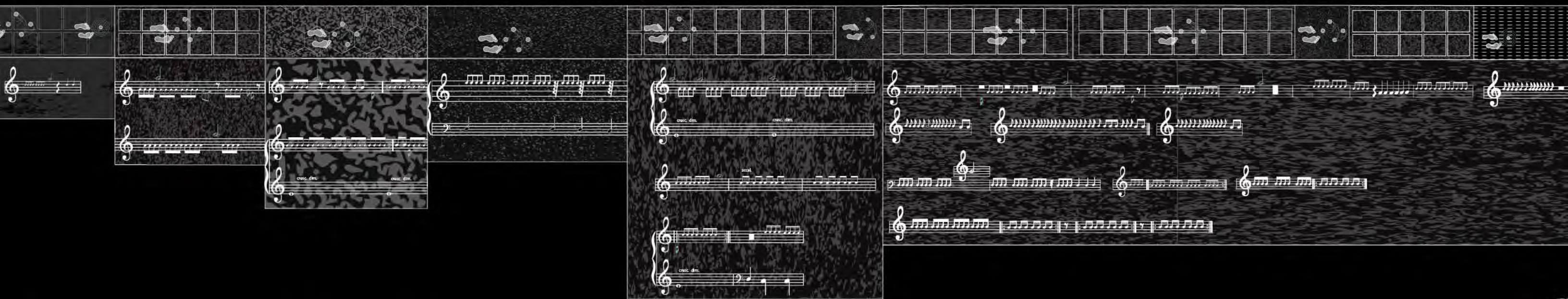
Spring 2024 | Individual | Columbia University
Instructor: Regina Teng

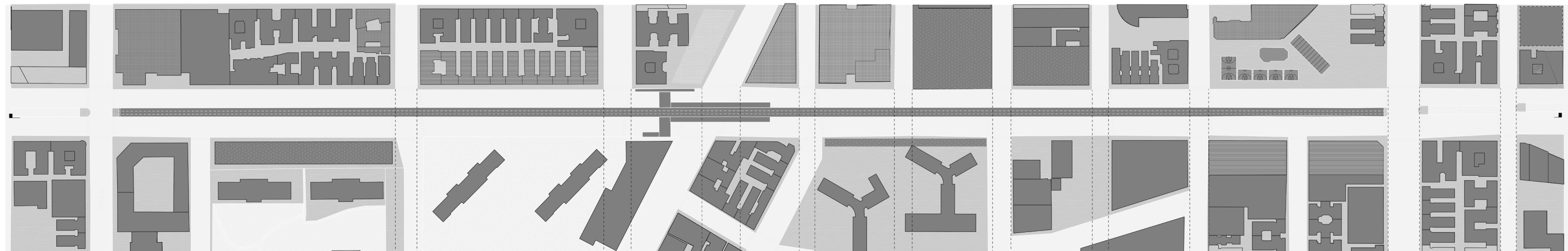
This project investigates damage control through the lens of sensory restoration and urban transformation. It begins with an experiential study of the visually impaired, translating their perception of space into sound. Through experimental walks and audio mapping, the city is reinterpreted as a musical composition—one where foot-steps, ambient noise, and tactile navigation form a sensory score.

From this foundation, the project moves into the urban fabric at varying scales. Everyday city elements—scaffolding, subway entrances, ventilation grilles—are subtly transformed into musical interfaces, inviting public interaction while generating a distinctive urban soundscape. These adaptive interventions aim not only to enrich the environment, but to challenge how we experience the city beyond the visual.

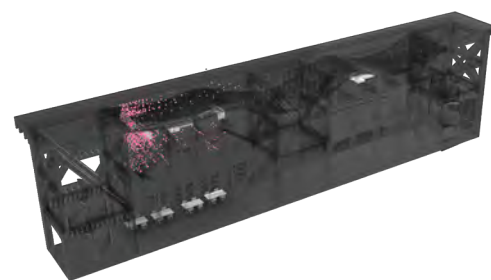
The proposal culminates at the 125th Street elevated subway bridge in Harlem. Reimagined as a controlled sound park, the structure becomes both a refuge and an acoustic filter. Instead of silencing the city, it reshapes its noise—turning chaotic vibration into rhythm, and disruption into design. Here, sound becomes a tool for both expression and healing, offering a new way to inhabit, understand, and repair the urban environment.







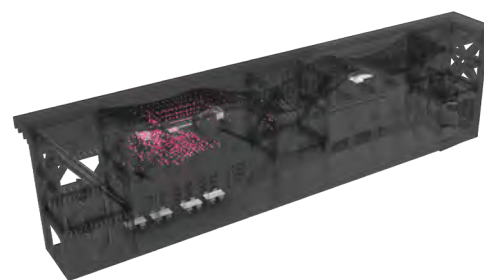
Urban Sound Corridor: 125th Street Acoustic Flow



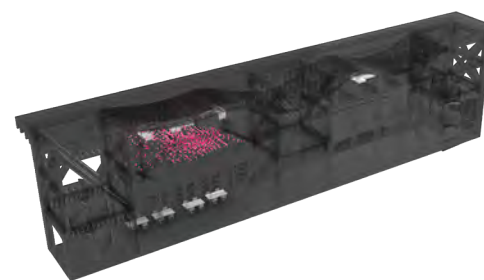
Timeline Sequence 01



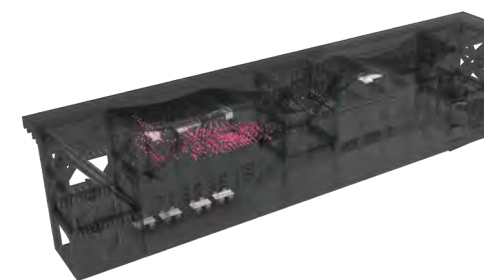
Timeline Sequence 02



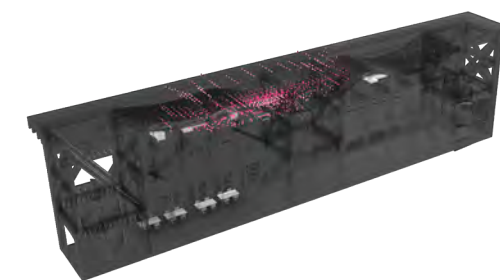
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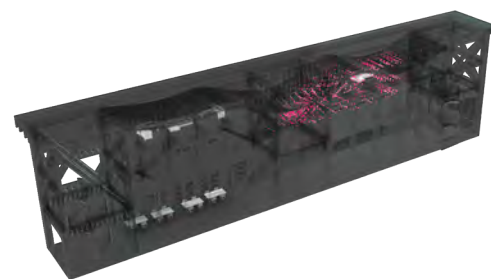
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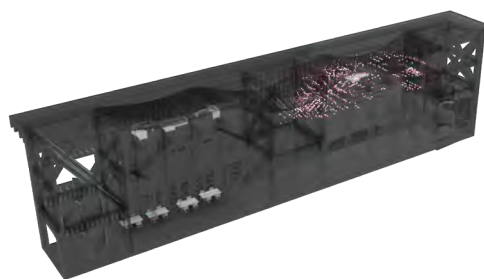
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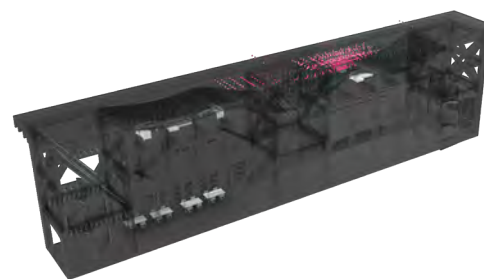
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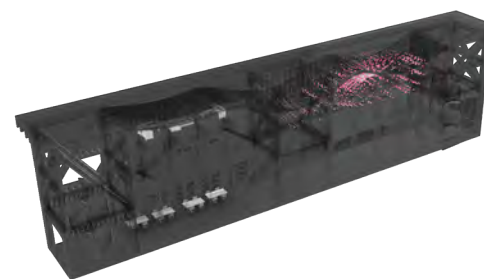
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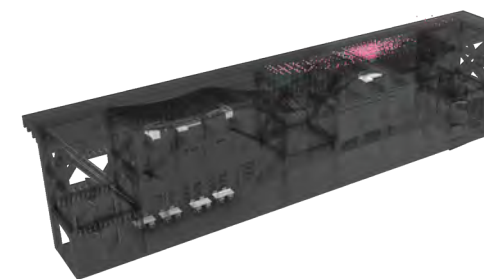
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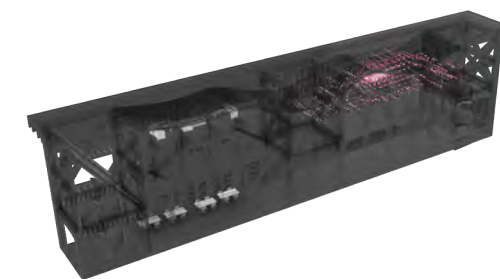
Timeline Sequence 09



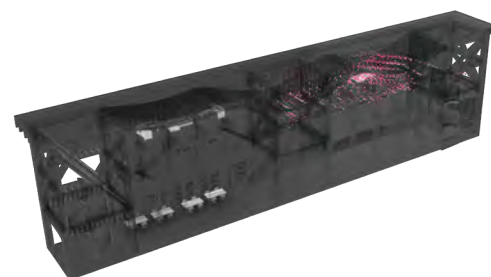
Timeline Sequence 10



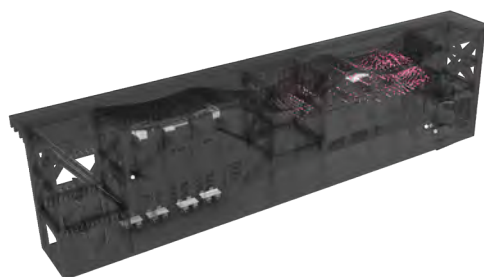
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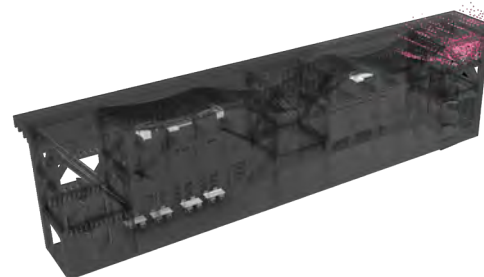
Timeline Sequence 12



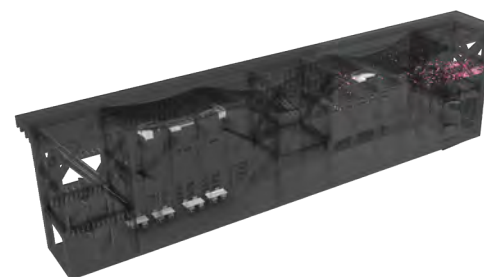
Timeline Sequence 13



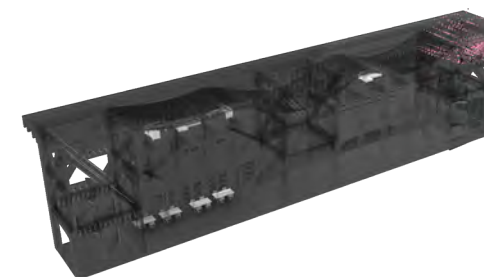
Timeline Sequence 14



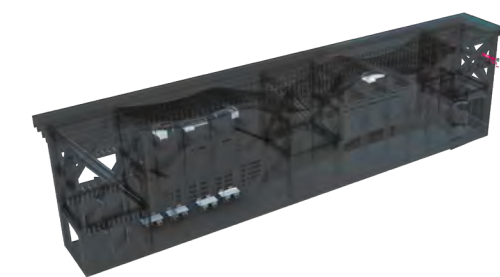
Timeline Sequence 15



Timeline Sequence 16

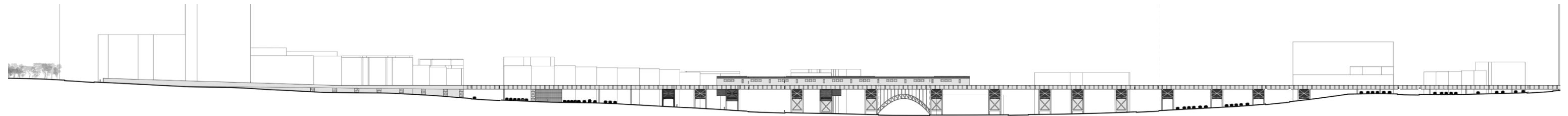


Timeline Sequence 17



Timeline Sequence 18

Sound Trajectory Study: Pachyderm Simulation Series



Acoustic Baffle Corridor

An elongated sound-absorbing passage runs along the track wall, redirecting subway noise into a controlled flow of resonance and silence — turning disruption into rhythm.

Listening Footbridge

A lightweight bridge spans across the tracks, serving as both a pedestrian connection and an "auditory stage" where one can experience the sound waves of passing trains.

Existing Condition



Vibration Filter Garden

Located near the station entrance, this landscape-based intervention filters and diffuses ground vibration through layered materials and topography, creating a transitional acoustic buffer between the subway and the city.

Resonance Wall Chamber

Using CLT panels and micro-perforated acoustic boards, this intervention forms an adjustable resonance cavity within the tunnel wall, reorganizing sound reflection and absorption.

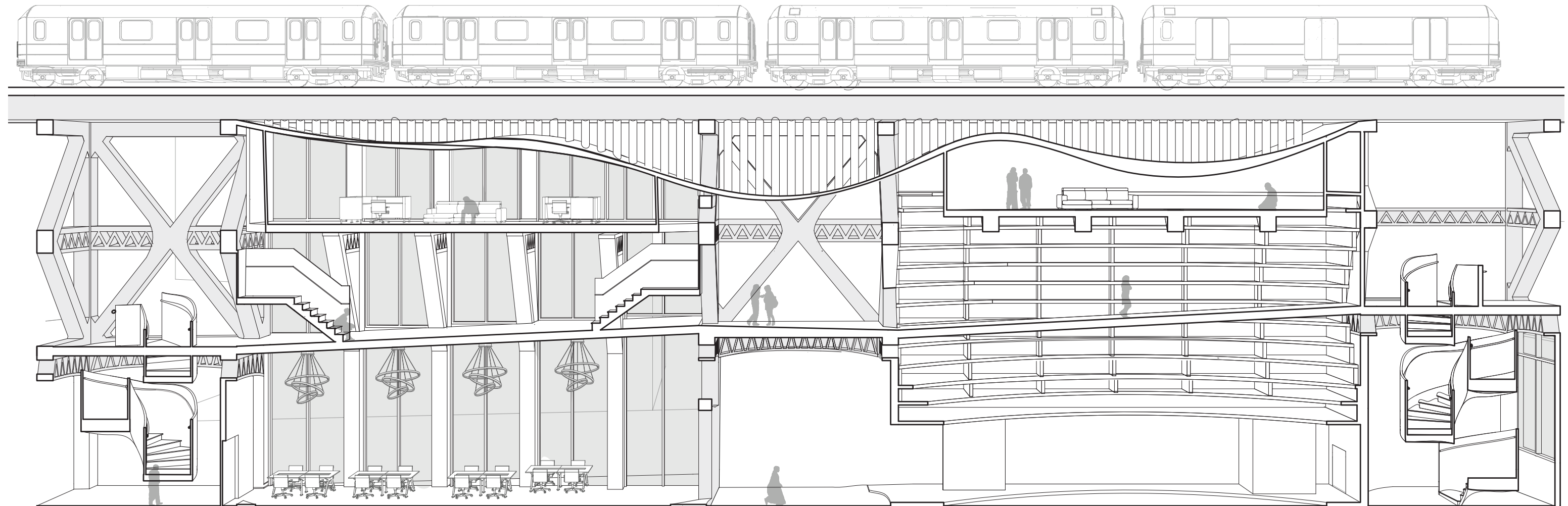
Vent Shaft Observatory

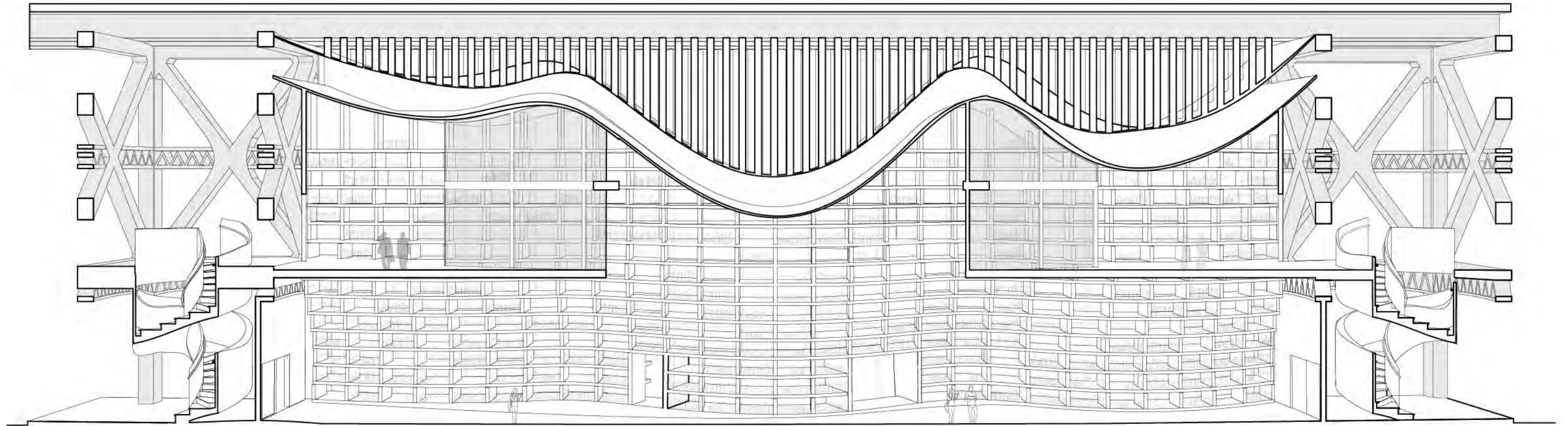
Existing ventilation shafts are transformed into vertical light-and-sound wells, guiding both airflow and resonance between the underground and street level.

Platform Extension Theater

At the end of the subway platform, an extended volume becomes a semi-public performance zone, transforming waiting time into collective spatial experience.

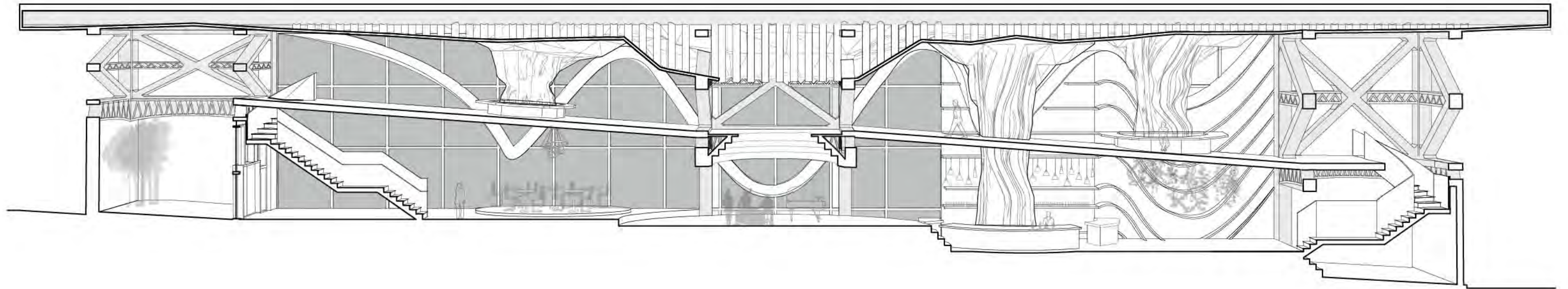
Purposed Structure





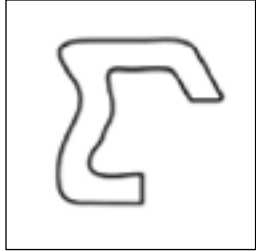
0' 5' 20'

Section 05



0' 5' 20'

Section 06



INTERMEDIATE

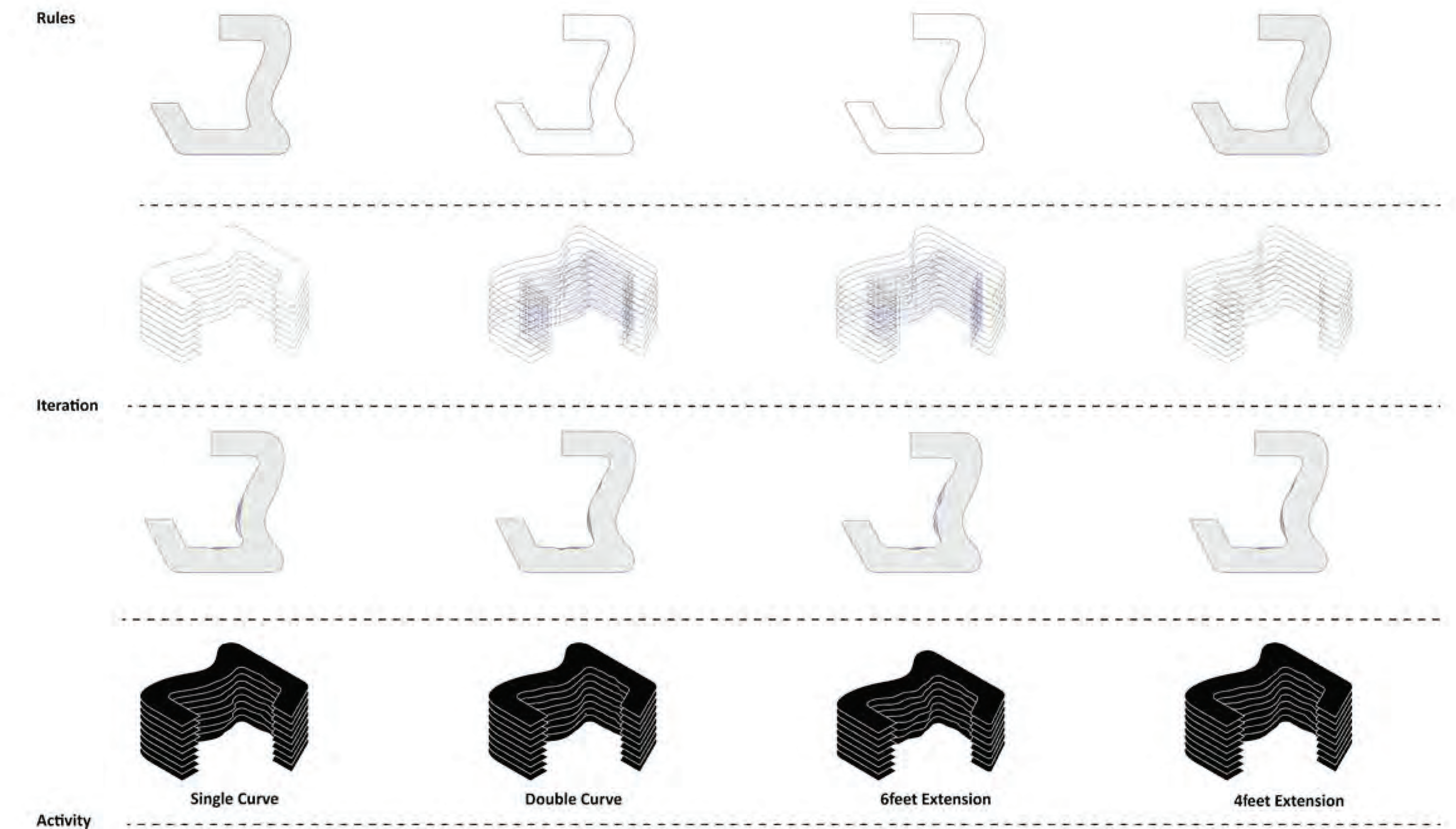
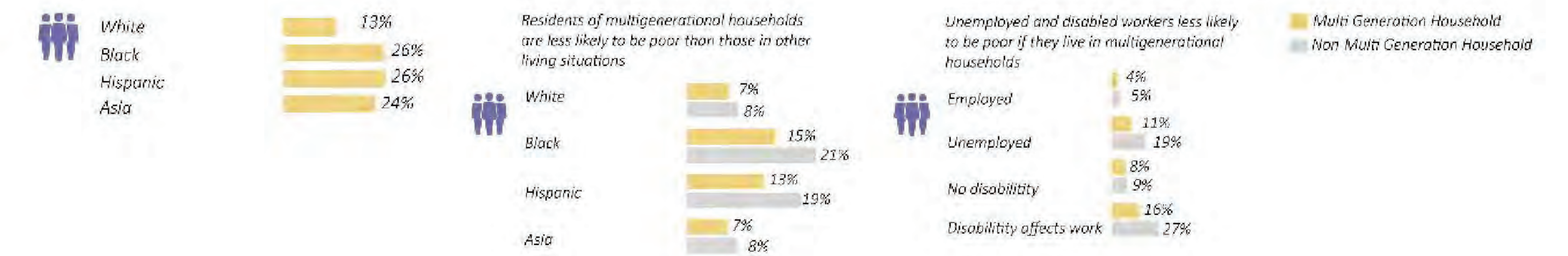
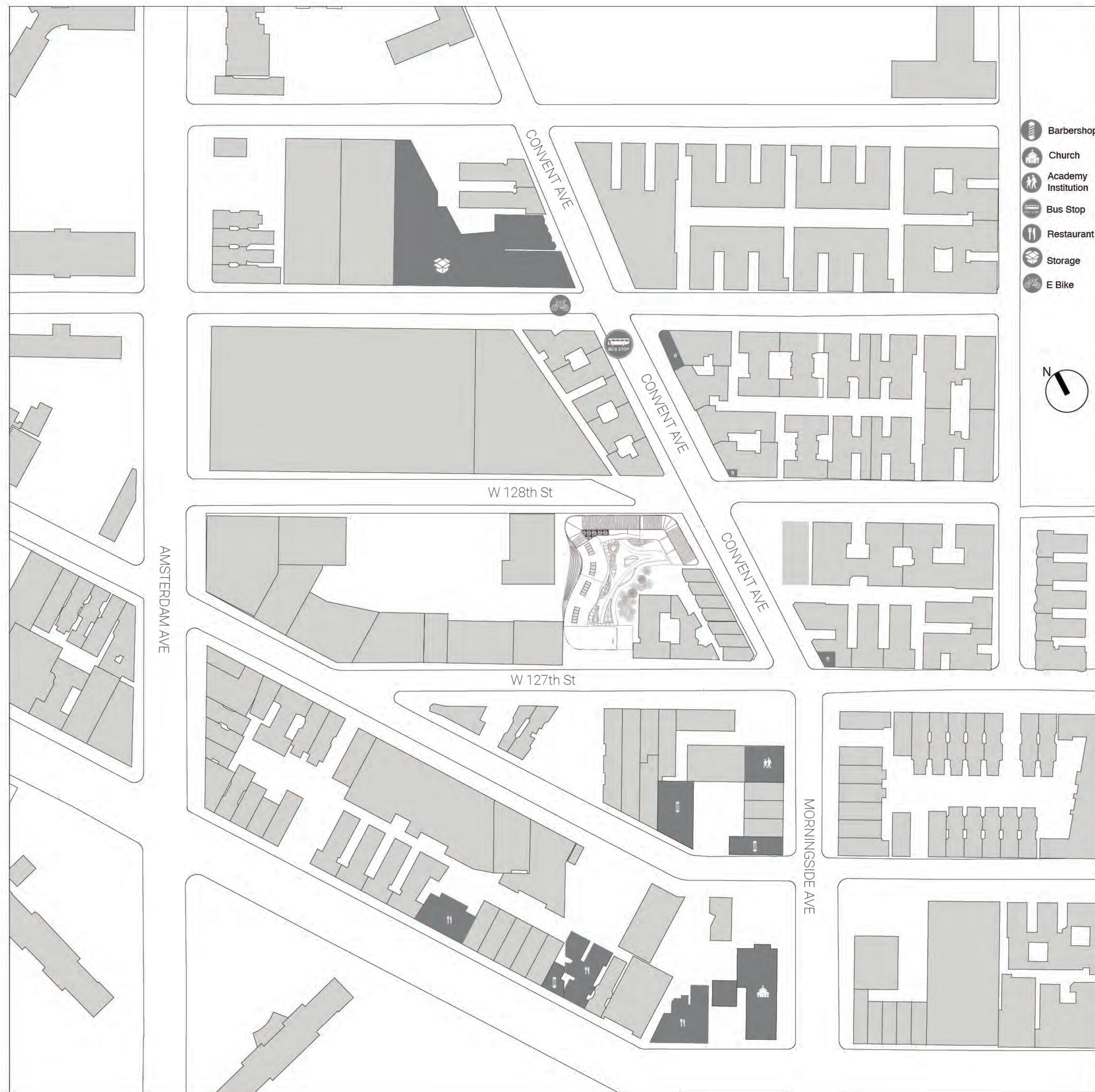
Fall 2024 | Collabrative | Columbia University

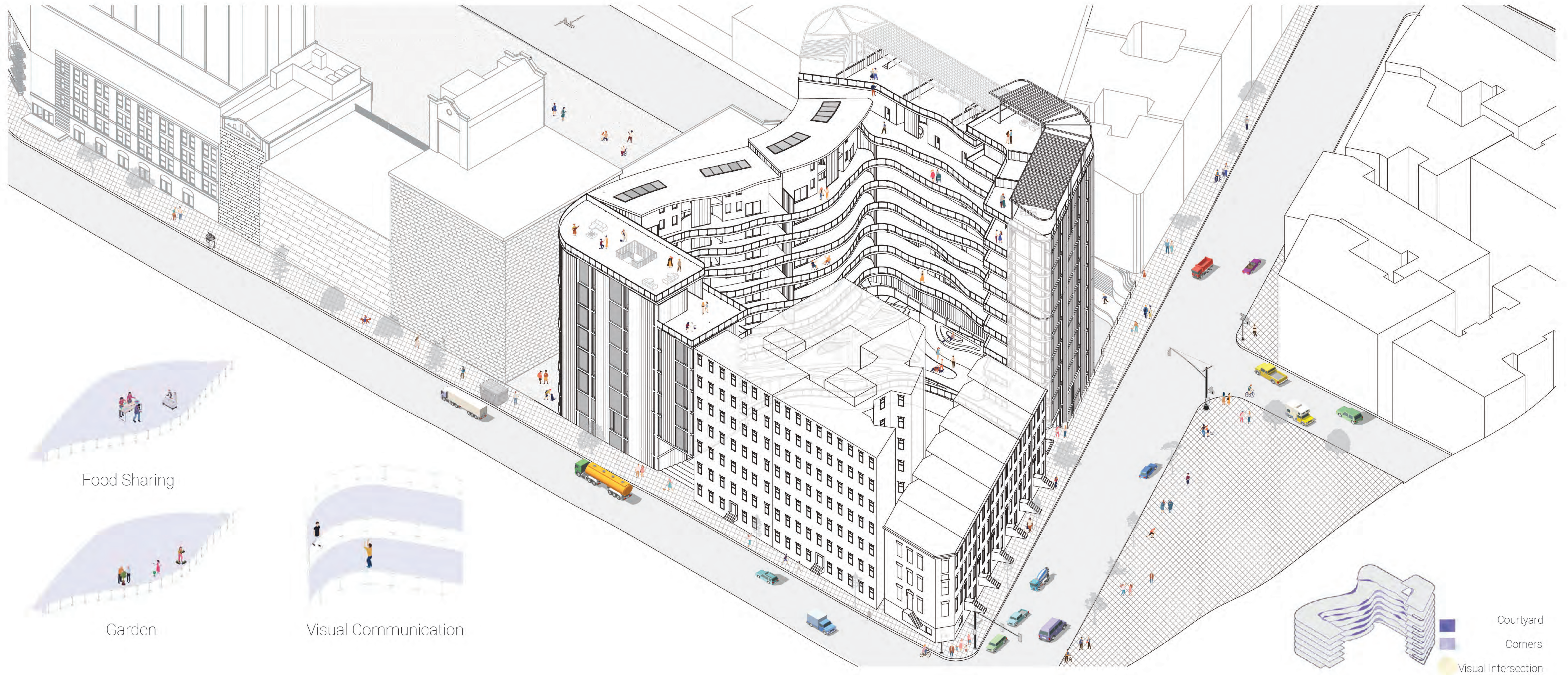
Instructor Galia Solomonoff

Located at the intersection of Covent St, 127th, and 128th, this multi-generational housing project explores the ideology of intimacy through architectural space. Comprising 103 apartments across 10 floors, it is situated in a diverse, multi-ethnic, and multi-generational neighborhood.

The design embraces various shared spaces at different scales—both within individual apartments and the broader community—to foster interaction among residents and cultivate a strong sense of belonging. By integrating “ping feng” as a soft barrier, the project dynamically balances the interplay between private and public spaces, enhancing both spatial and visual connectivity.





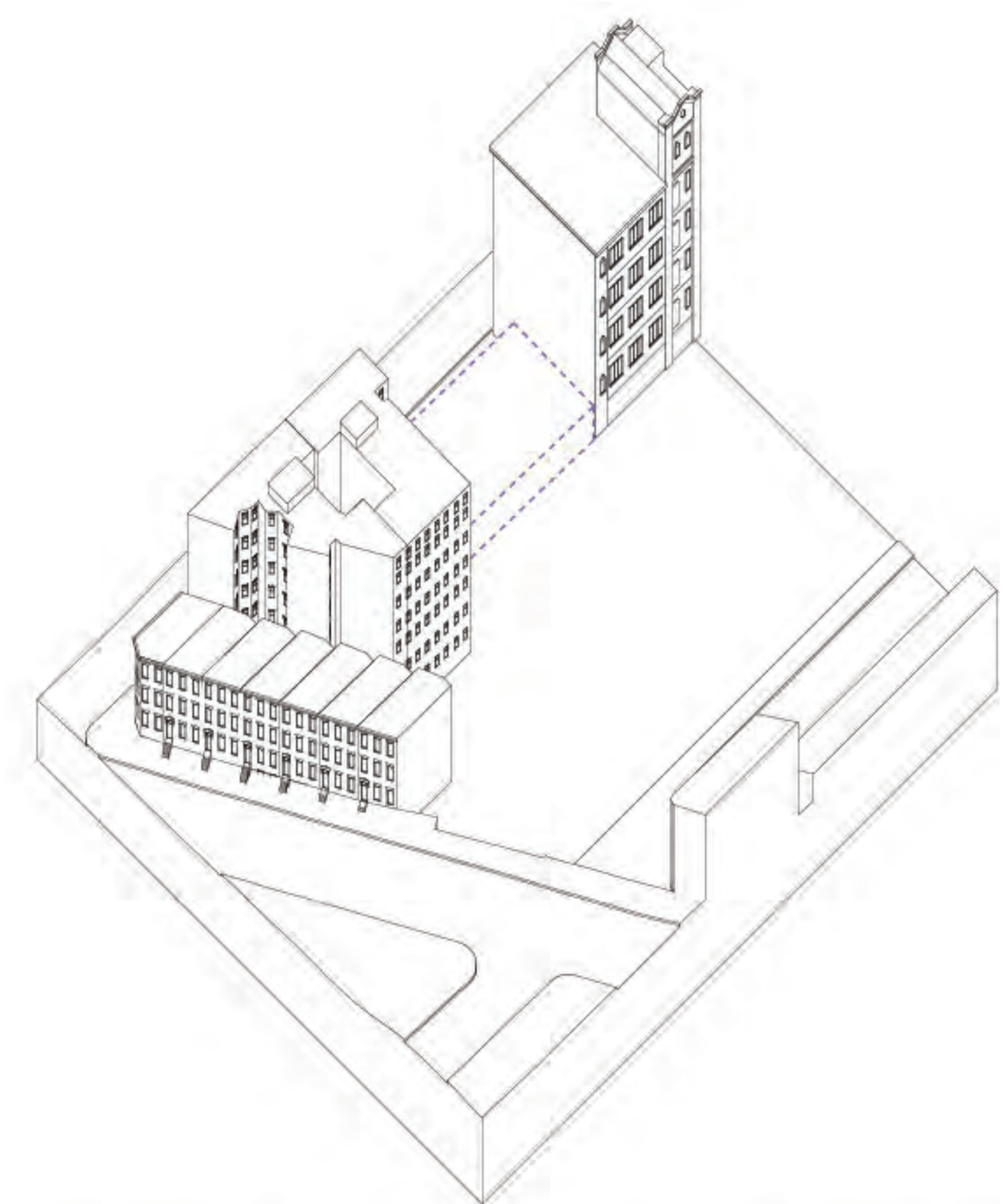


Food Sharing

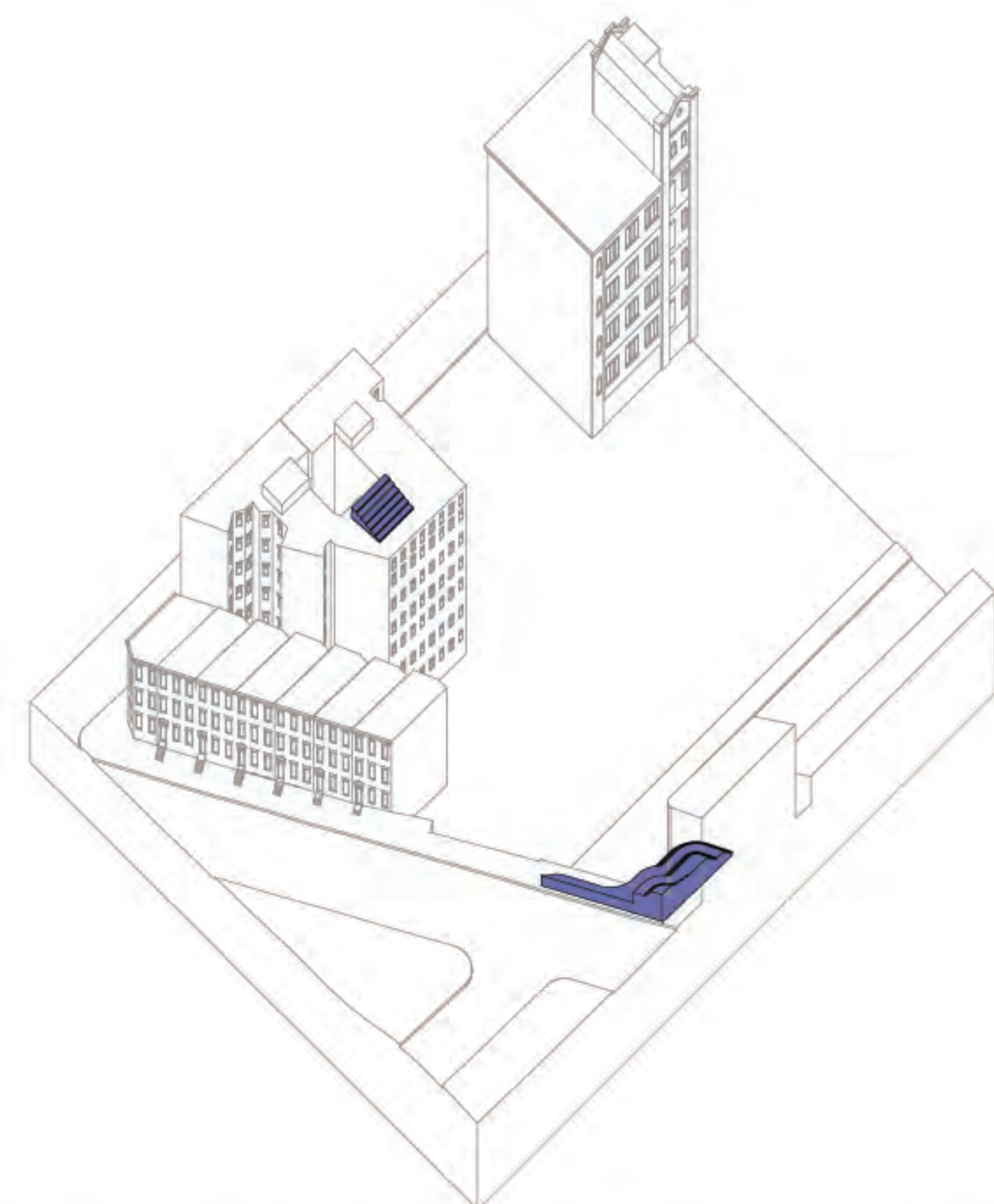
Garden

Visual Communication

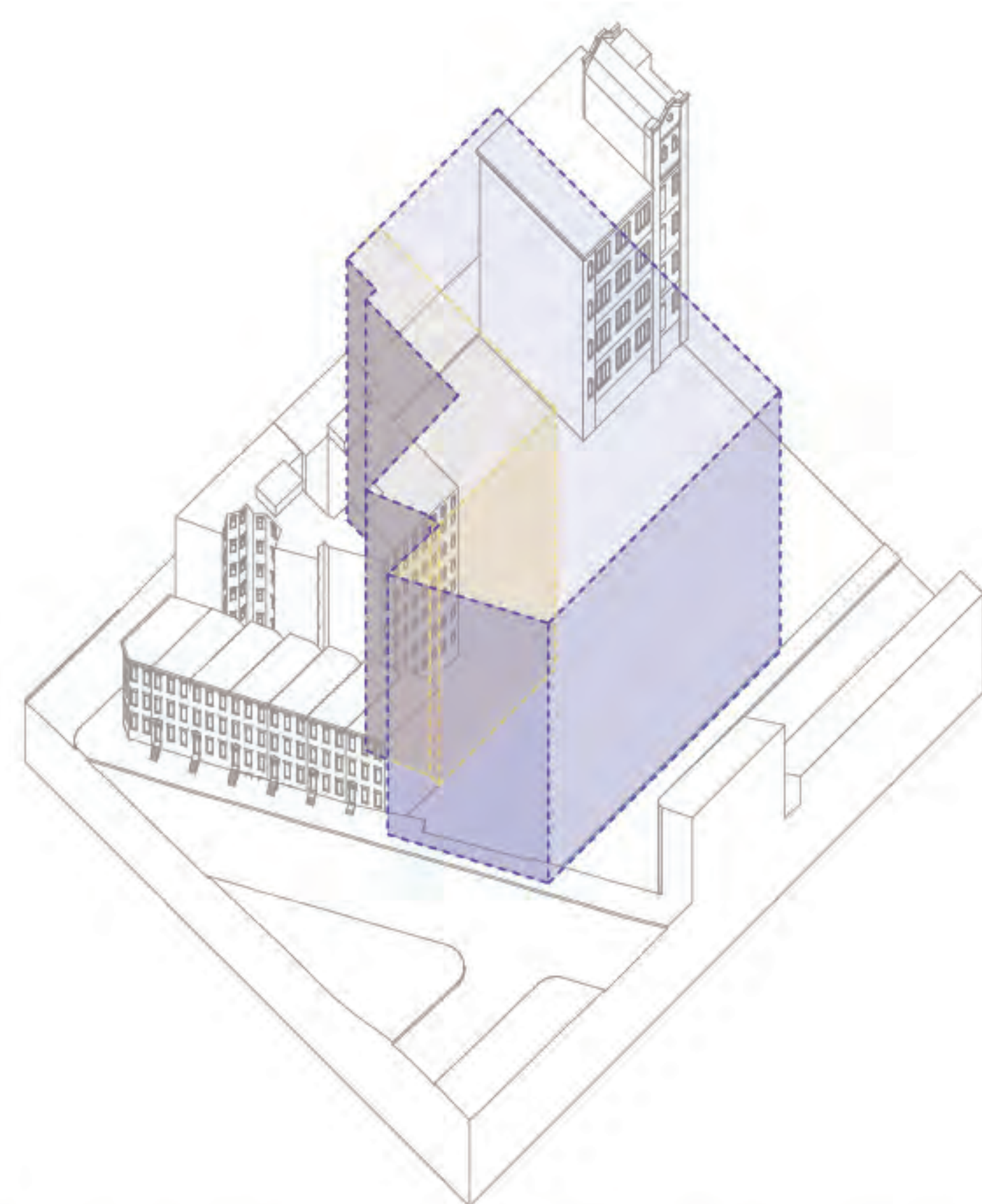
Courtyard
Corners
Visual Intersection



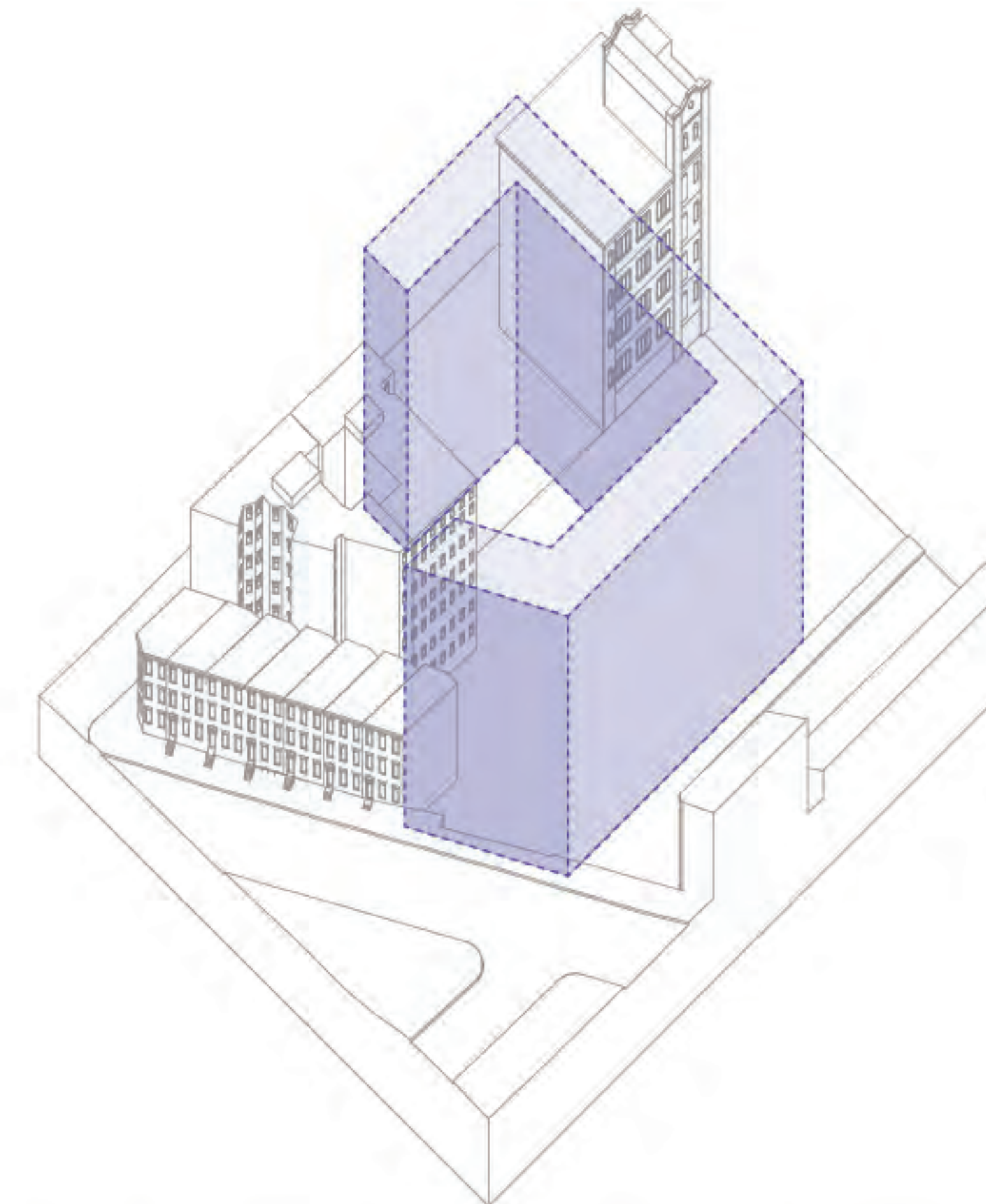
Remove the Northern block for better space utilization



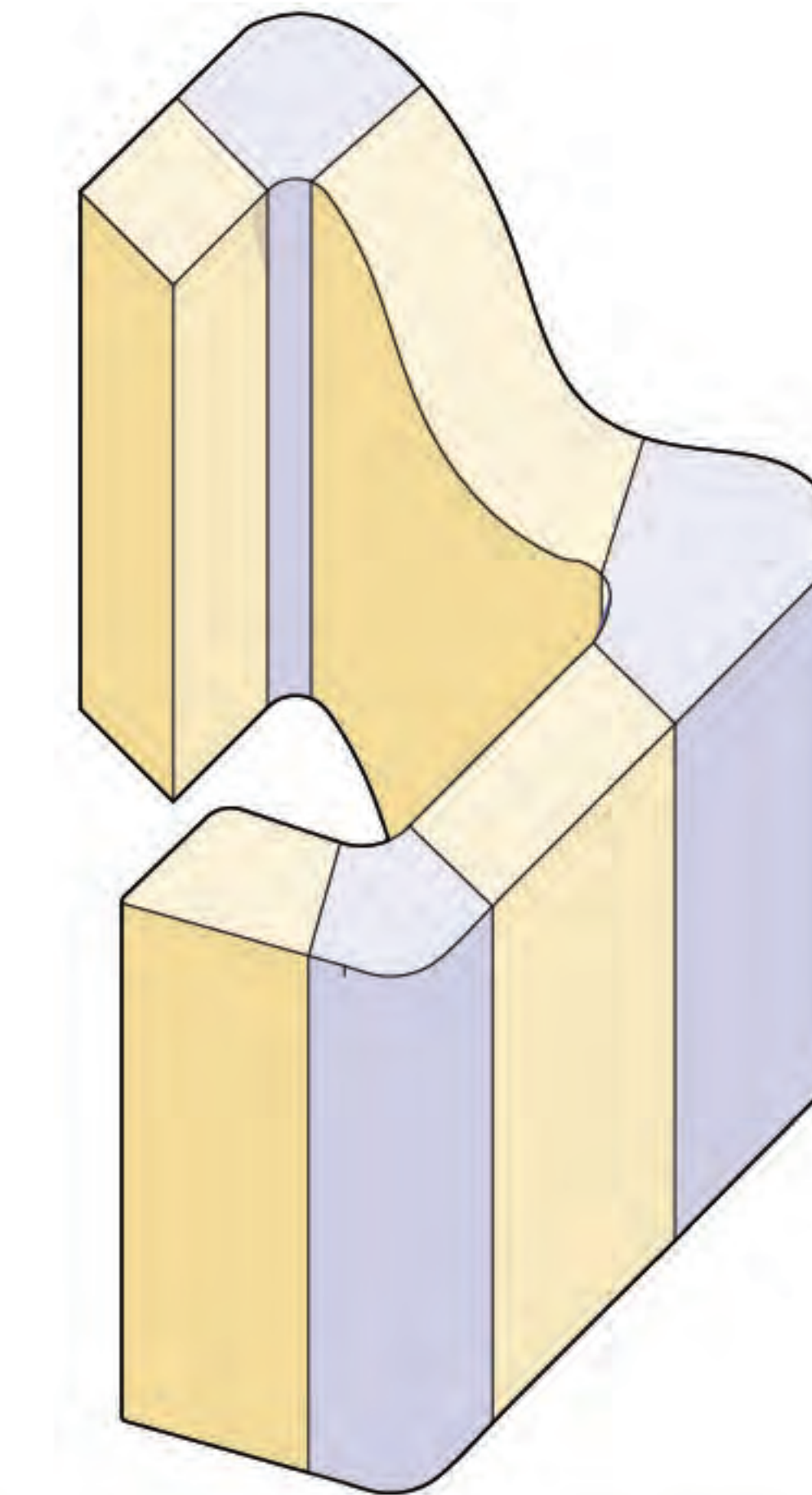
Activate pathways connecting Covent st. 127th and 128th



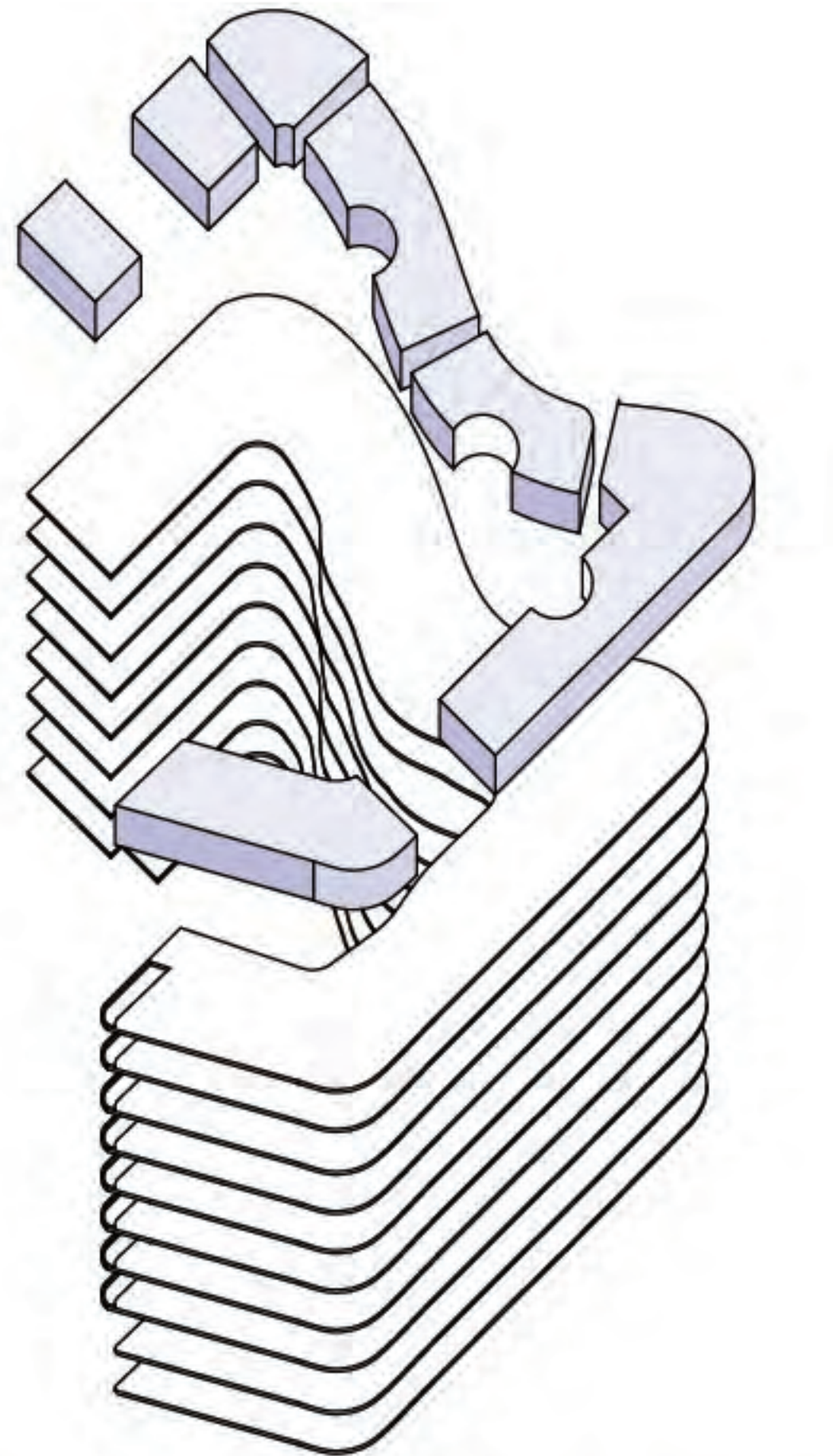
Maintain a 30-foot setback from neighbor window facades



Create courtyards for openness and natural flow



Strategically divide space to maximize value



Use partitions to define functional area

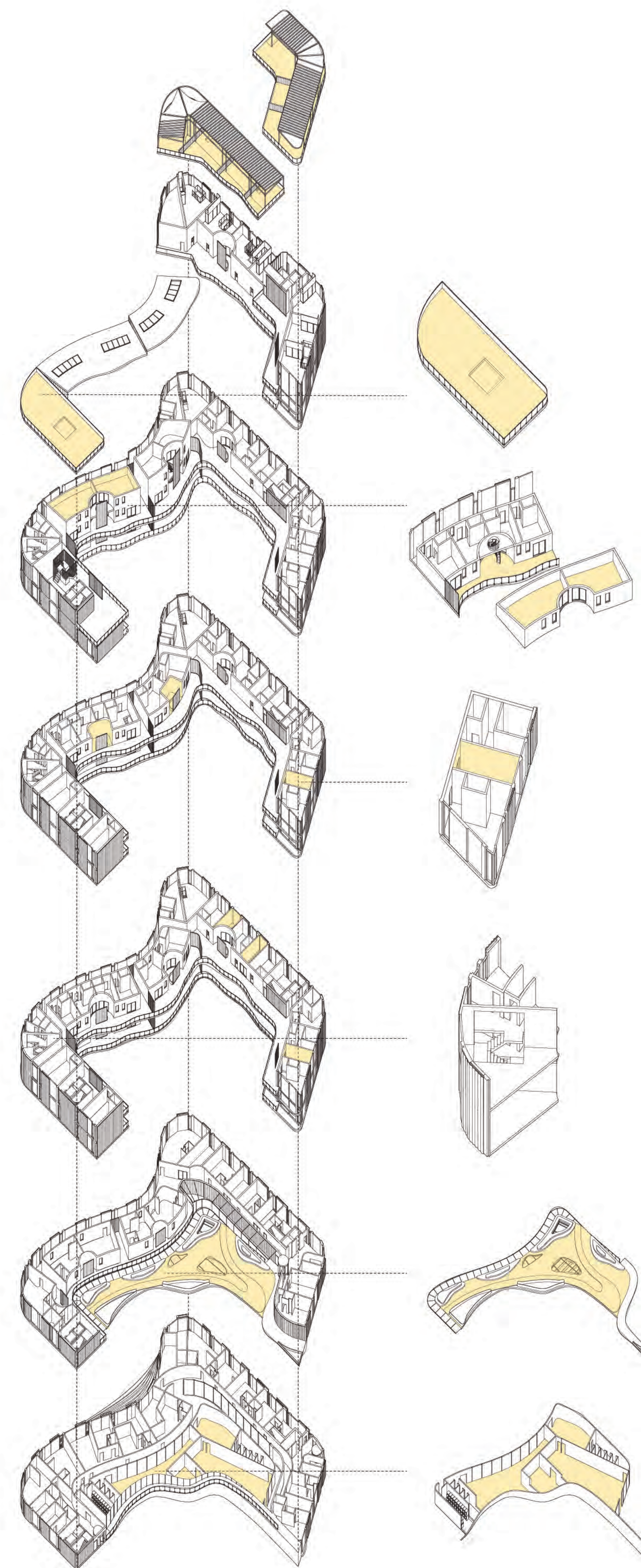


NS Section

1' 5' 10'



Ground Floor Plan



the 9th & the 10th Floor

Loft one Bed Room: **1**
 Loft Studio: **6**
 Three Generation Apartment: **2**
 Sharing Feature: **In Between Studio**
(Shared Roof Garden)

the 5th & the 6th Floor

Single Floor Studio: **16**
 Loft one Bed Room: **2**
 Loft Studio: **4**
 Three Generation Apartment: **2**
 Sharing Feature: **In Between Studio**
(Shared Kitchen, Shared Office Shared
Garden, Shared Attic)

the 5th & the 6th Floor

Single Floor Studio: **14**
 Loft one Bed Room: **2**
 Loft Studio: **4**
 Three Generation Apartment: **2**
 Sharing Feature: **In Between Studio**
(Shared Kitchen, Shared Office;
Shared Garden)

the 3rd & the 4th Floor

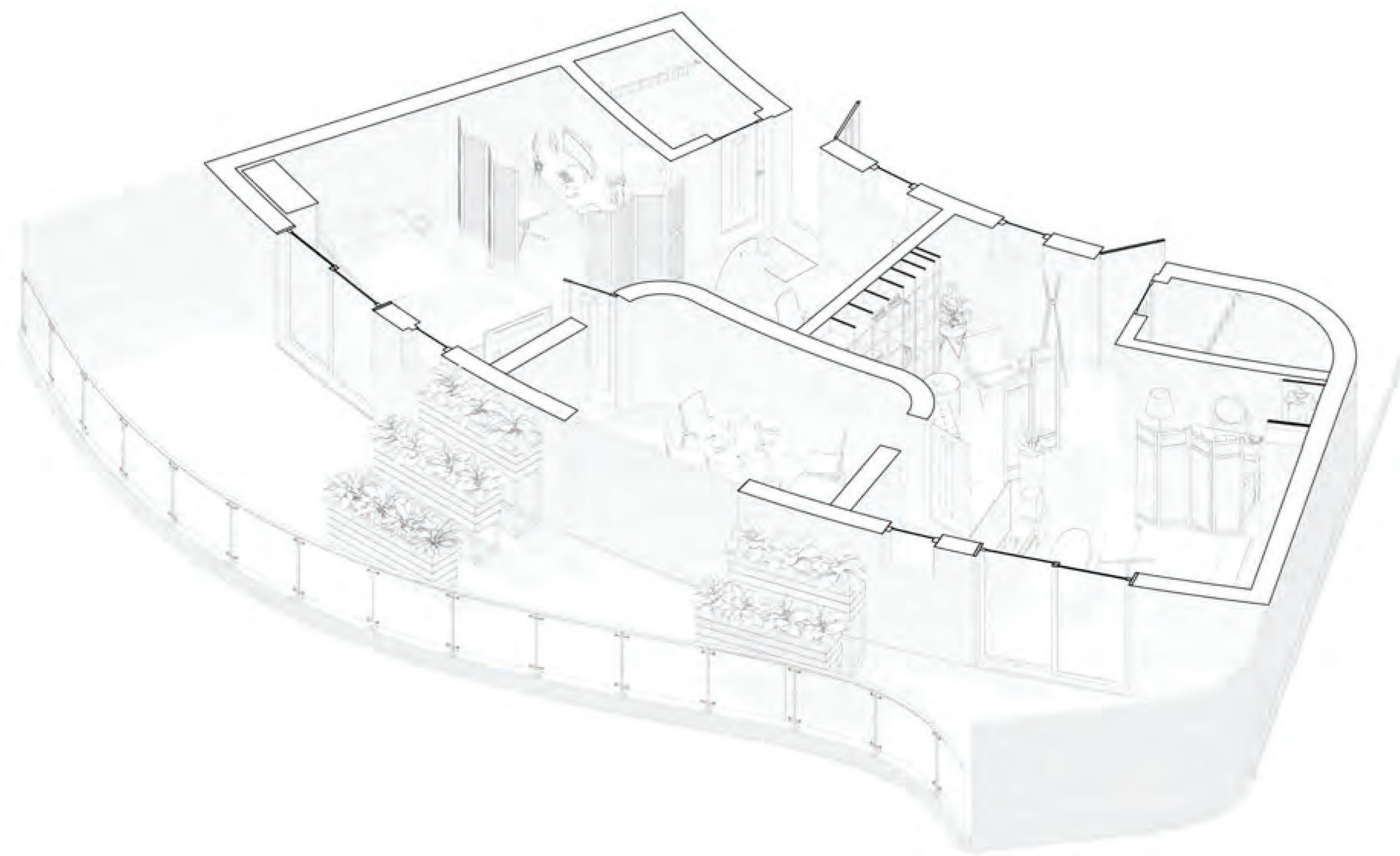
Single Floor Studio: **16**
 Loft one Bed Room: **2**
 Loft Studio: **4**
 Three Generation Apartment: **2**
 Sharing Feature: **In Between Studio**
(Shared Kitchen, Shared Office Shared
Garden)

the 2nd Floor

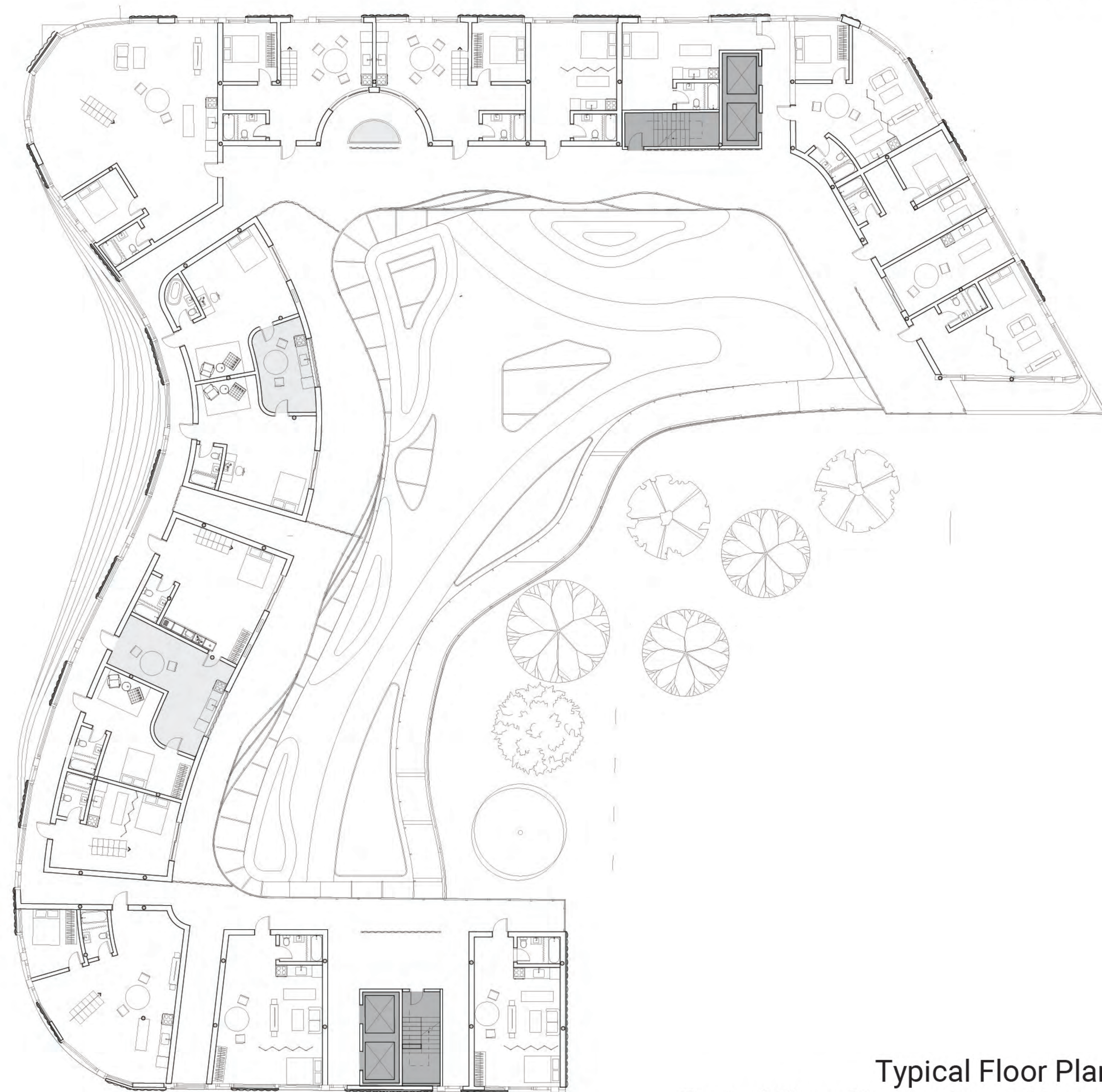
Single Floor Studio: **8**
 Loft Studio: **2**
 Sharing Feature: **Courtyard; In Between**
Studio (Shared Kitchen, Shared Office)

the 1st Floor

Single Floor Studio: **12**
 Loft Studio: **2**
 Sharing Feature: **Central Court (gym,**
laundry room, Mailroom, Even Room)



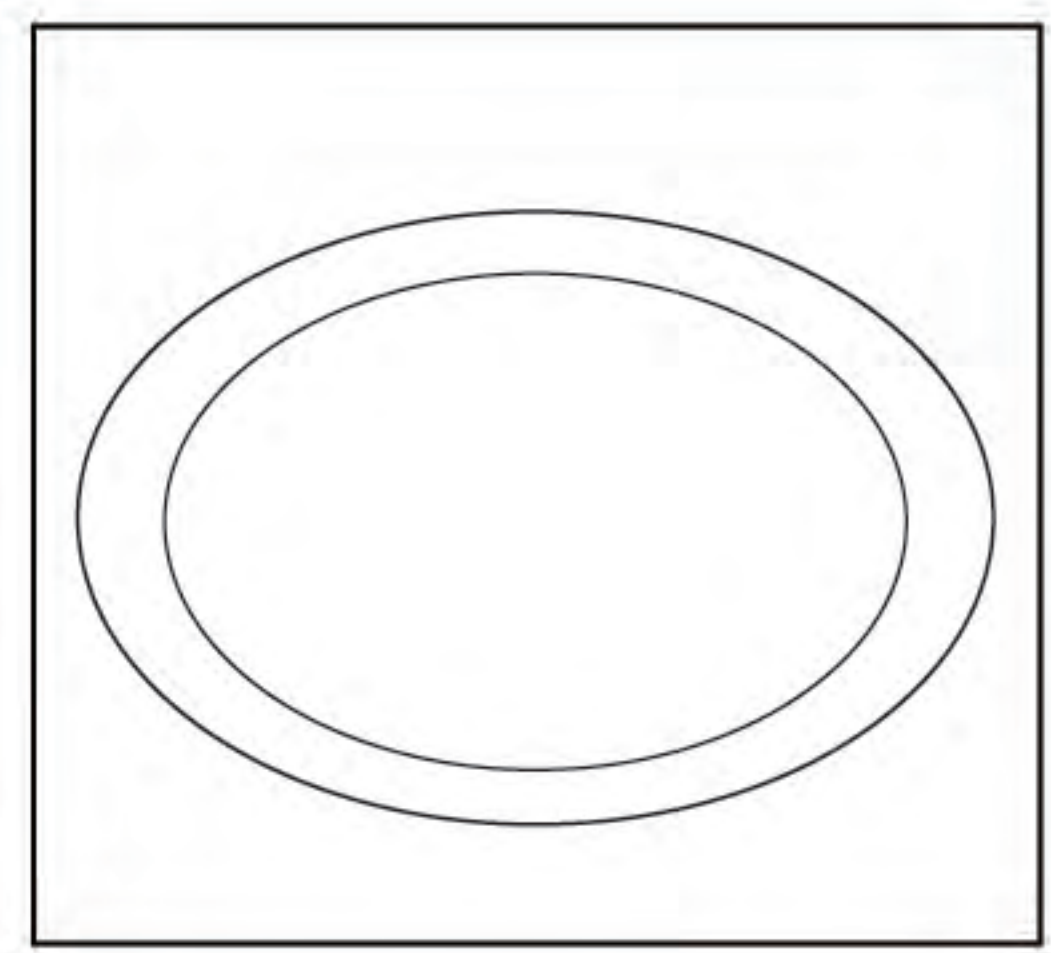
Typical Unit



Typical Floor Plan
Typical Floor Plan by Junge Huang





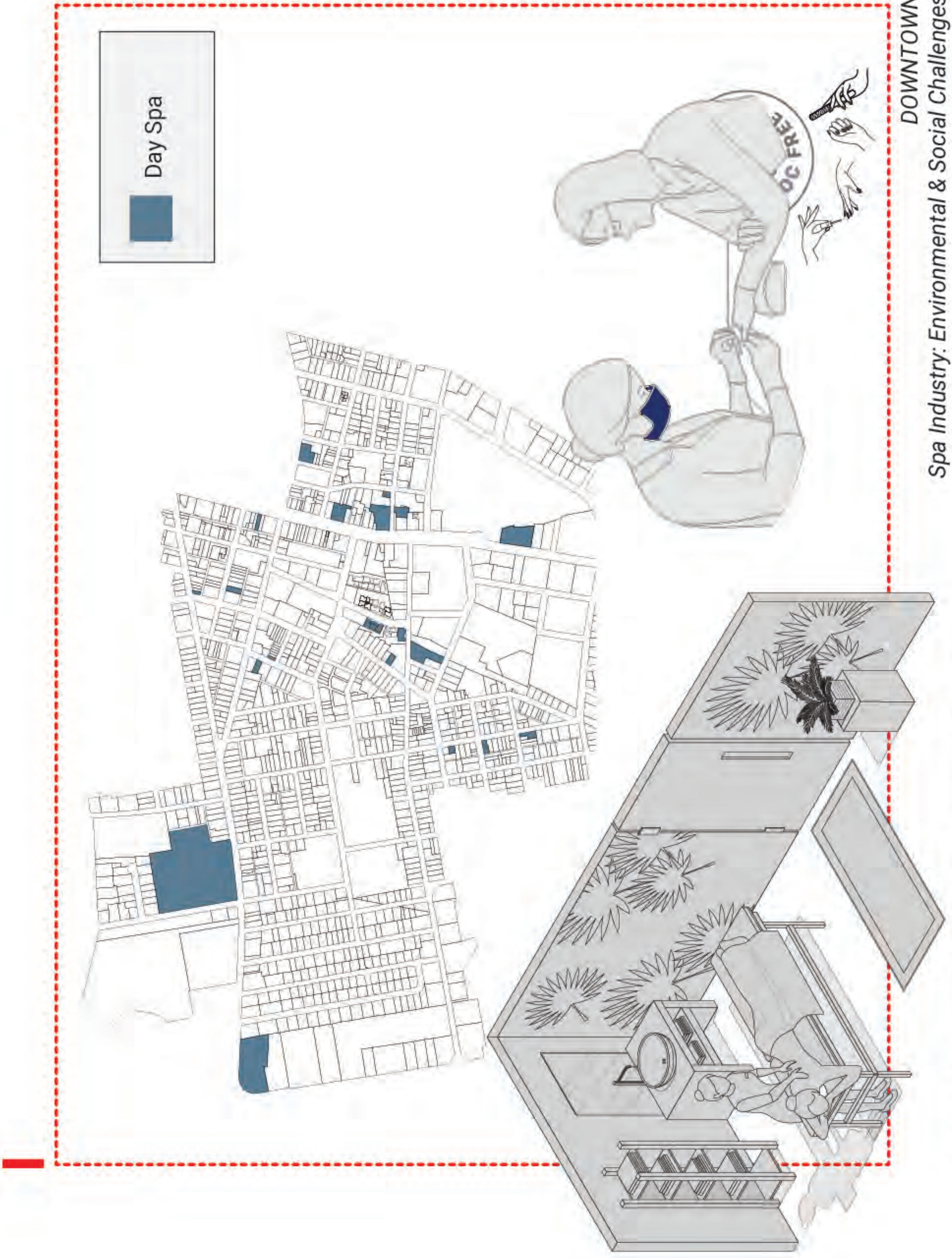


SHARED STRIDE

Spring 2025 | Individual | Columbia University
Instructor: Nahyun Hwang

This project reimagines the underutilized Oklahoma Training Track in Saratoga Springs as a shared sanctuary for humans and horses. Building on the region's deep-rooted equestrian heritage, the design attempts to address urgent contemporary challenges—an aging population, retired racehorses, and the precarious conditions faced by seasonal backstretch workers. The proposal introduces senior housing, open horse stables, therapeutic facilities, and a community compost garden nourished by equine manure. Instead of fences, the landscape is shaped by trees and topography, encouraging natural movement and visual continuity. Through shared paths, views, and routines, the site becomes a place of quiet coexistence and healing—transforming a space once centered on performance into a living environment of care, dignity, and mutual well-being.

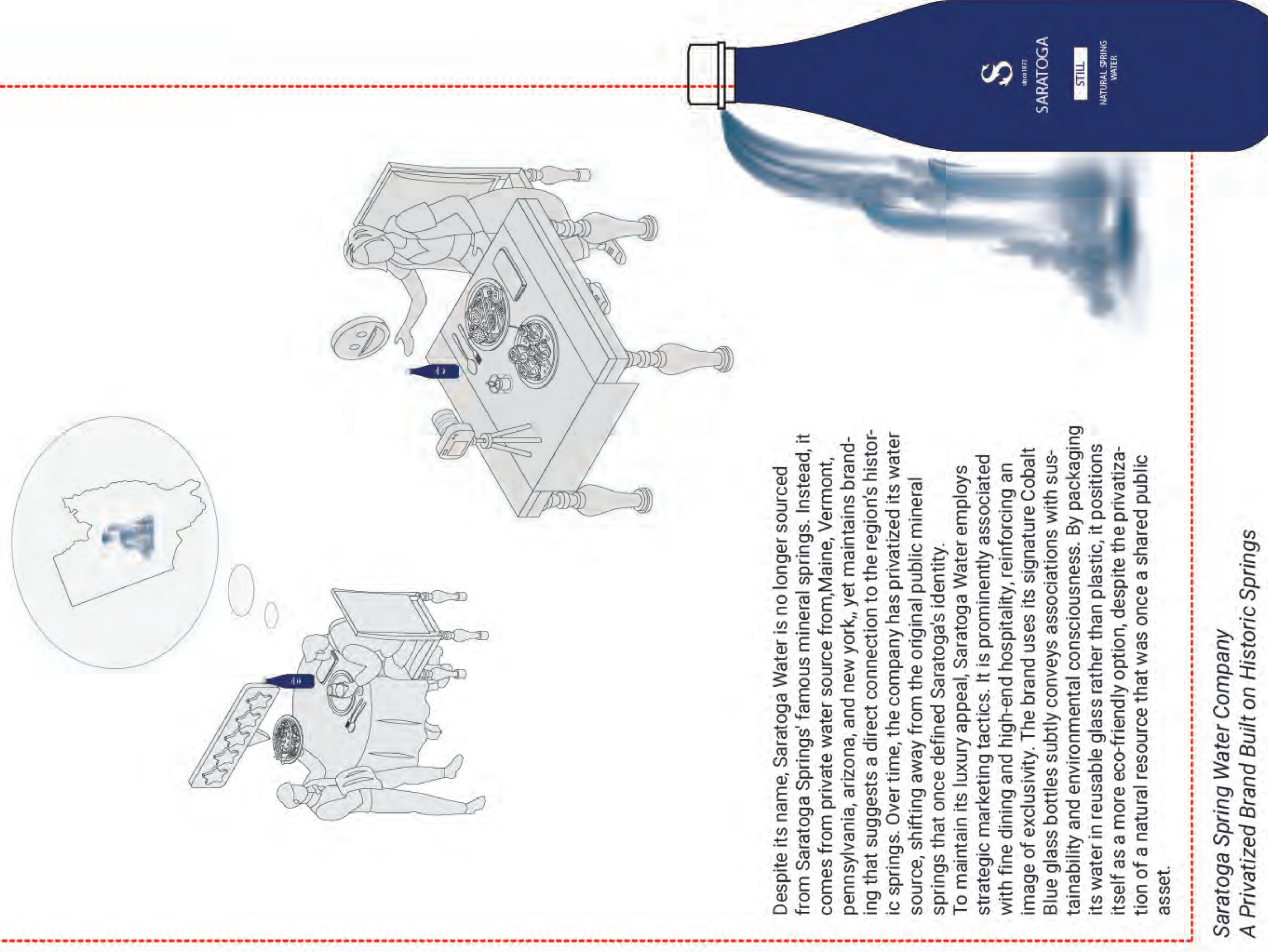
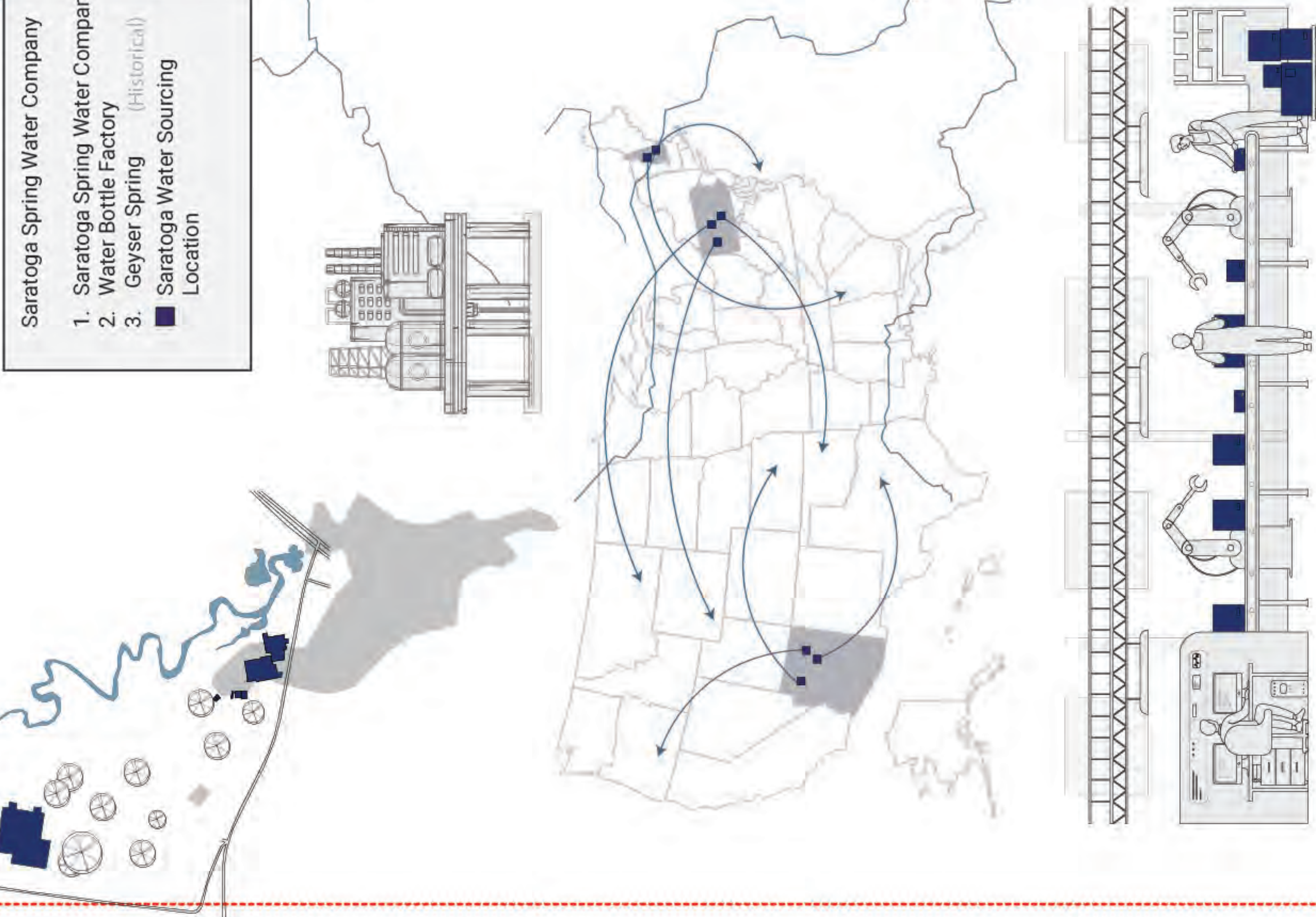




Spa Industry: Environmental & Social Challenges

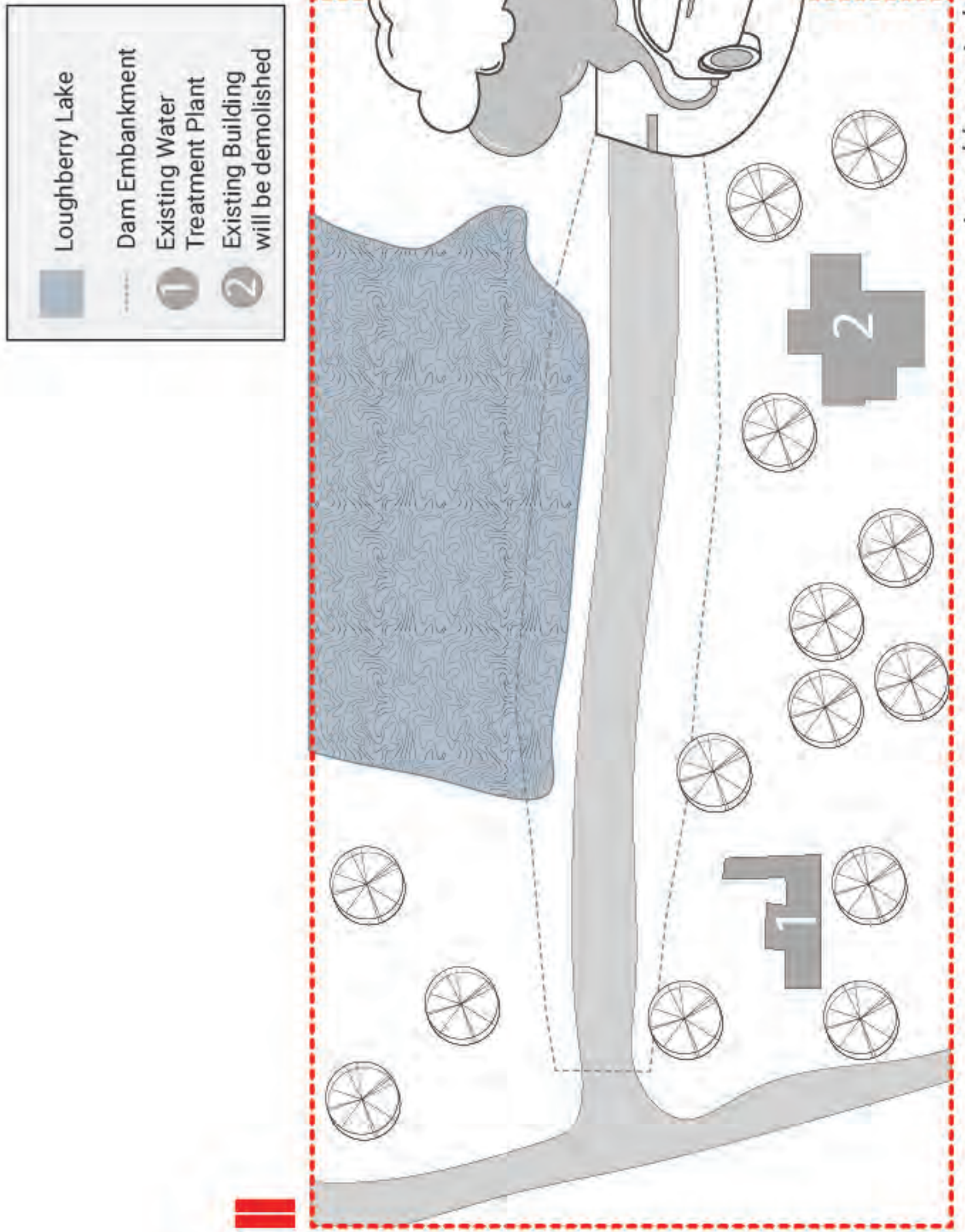
Home to 30 day spas, drawing visitors for mineral-rich waters. High Water Consumption: Mineral baths & treatments strain local water resources. Chemical Pollution: Treatment products may introduce pollutants if not managed. Waste Generation: Single-use towels, plastics, and beauty products contribute to excess waste. Labor Conditions: Long hours, low wages, and job insecurity for spa workers. Seasonal Employment: Tourism-driven demand leads to unstable job opportunities.

- Saratoga Spring Water Company
1. Saratoga Spring Water Company
 2. Water Bottle Factory
 3. Geyser Spring (Historical)
- Location



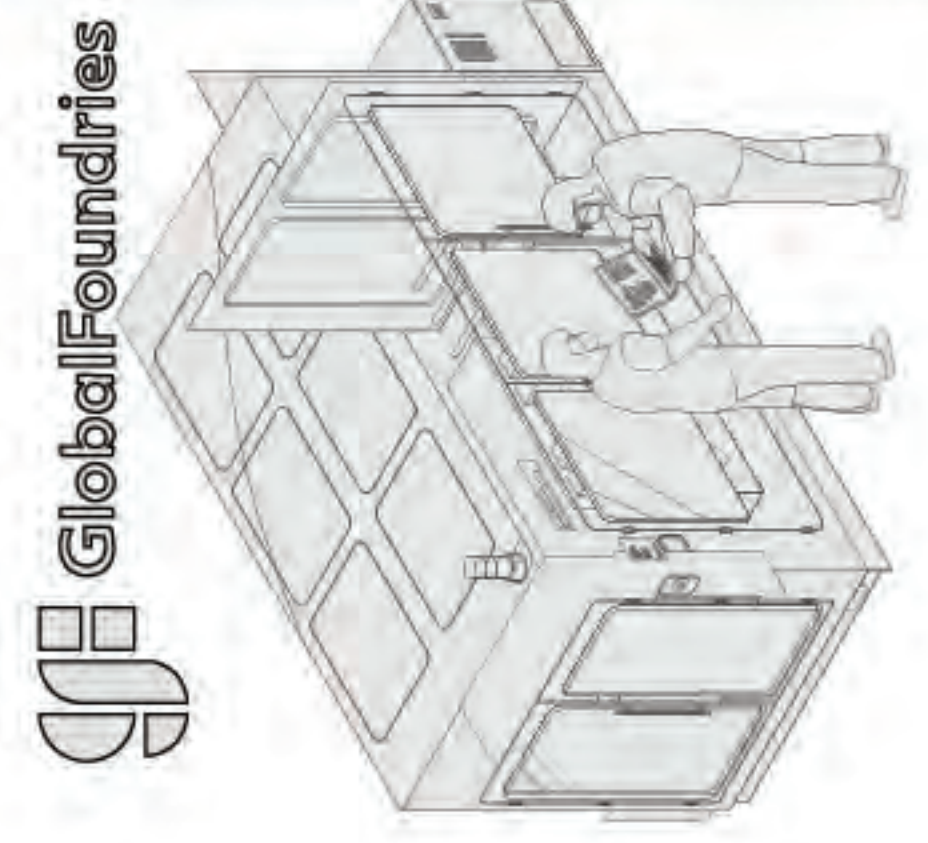
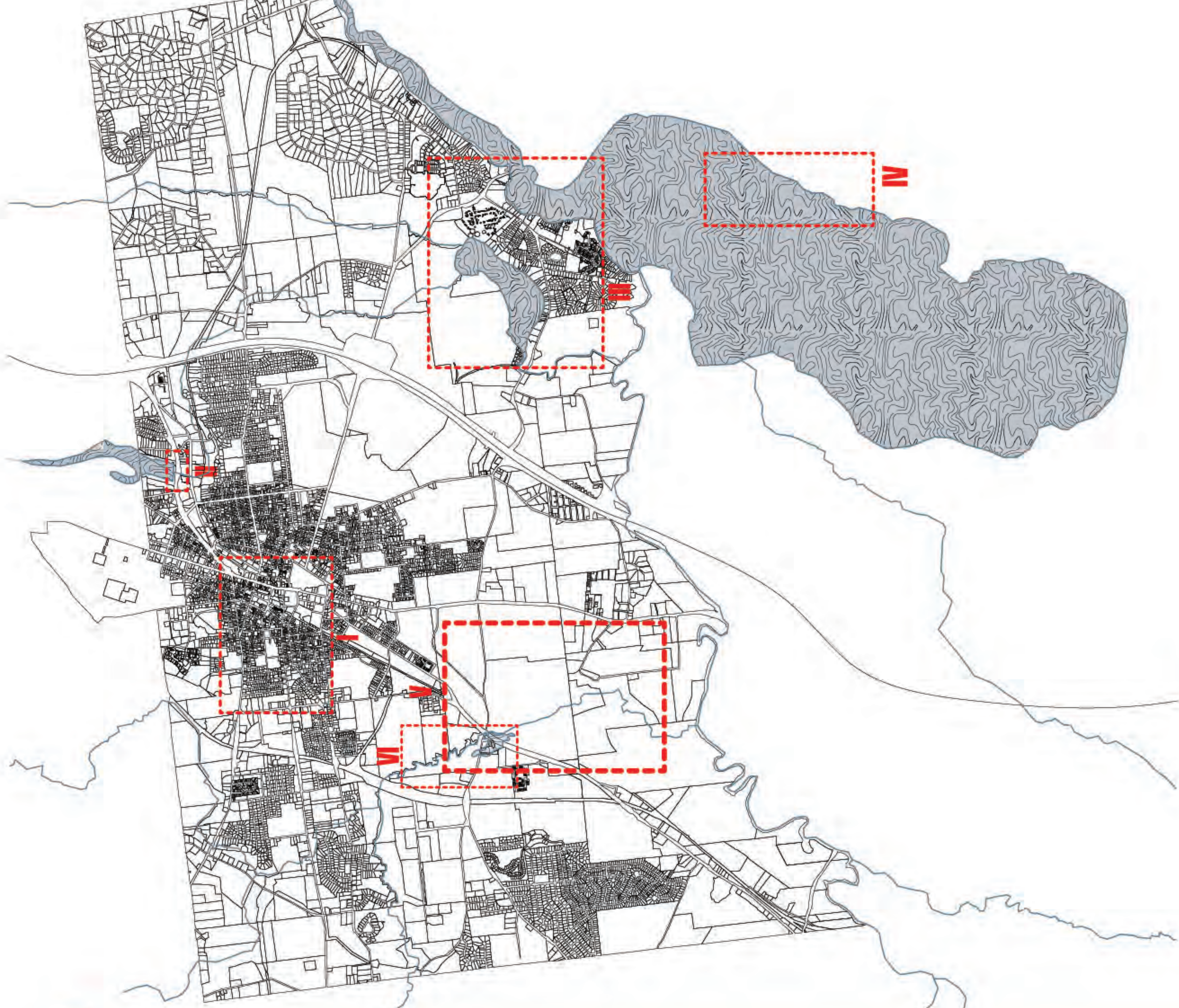
Despite its name, Saratoga Water is no longer sourced from Saratoga's original source. Instead, it comes from a private source from Maine, Vermont, Pennsylvania, Arizona, and New York, yet maintains branding that suggests a direct connection to the region's historic springs. Over time, the company has privatized its water source, shifting away from the original public mineral springs that once defined Saratoga's identity. To maintain its luxury appeal, Saratoga Water employs strategic marketing tactics. It is prominently associated with fine dining and high-end hospitality, reinforcing an image of exclusivity. The brand uses its signature Cobalt Blue glass bottles subtly conveys associations with sustainability and environmental consciousness. By packaging its water in reusable bottles, Saratoga Water positions itself as a more eco-friendly option, despite the privatization of a natural resource that was once a shared public asset.

Saratoga Spring Water Company
A Privatized Brand Built on Historic Springs

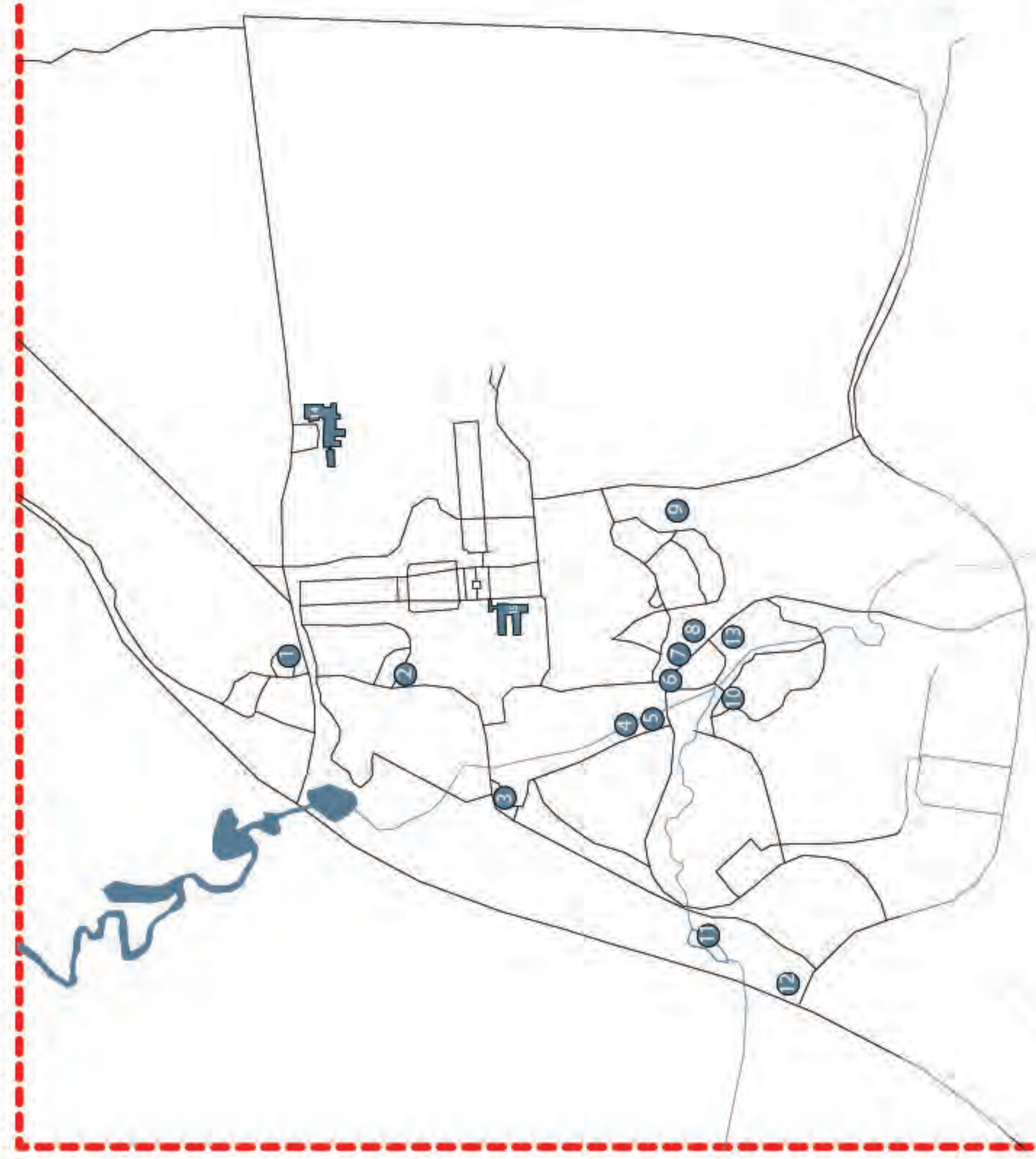


Safeguarding Saratoga Springs' Water Supply

Saratoga Springs is undergoing a \$9 million rehabilitation project to address aging infrastructure and safety concerns at Loughberry Lake Dam, the city's primary potable water source. The project was prompted by a High Hazard classification from the New York State DEC, driven by increased development that has heightened risk levels. The upgrades aim to restore the dam to safe working condition, ensuring water security while balancing urban growth and infrastructure resilience.



Saratoga Lake is a significant recreational and natural resource, supporting activities like boating, fishing, and swimming while hosting various fish species. The lake faces environmental challenges, including algal blooms, pollution, and agricultural runoff. Additionally, industrial expansion, such as GlobalFoundries' \$11.6 billion semiconductor plant investment in Saratoga County, may increase water demand, potentially affecting Saratoga Lake, the Hudson River, and nearby reservoirs.

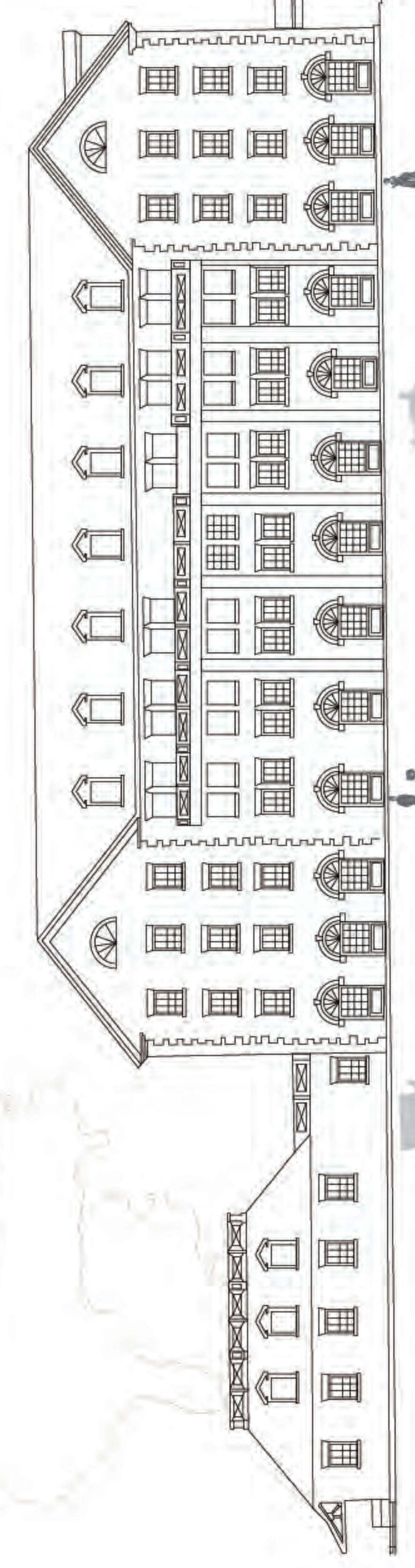


- Saratoga State Park Mineral Spring
1. State Seal
 2. Charlie
 3. Friend
 4. Ivy and Spouter
 5. Hayes
 6. State Seal
 7. Polaris
 8. #5
 9. Ferndell
 10. Karlsta
 11. Coeessa
 12. Hathorn #3
 13. Shorts
 14. The Gideon Putnam Resort & Spa
 15. Roosevelt Baths and Spa

1789-1802 - Putnam relocates to Saratoga Springs, New York. With earnings from logging, he purchases land in the wilderness near mineral springs, envisioning a thriving resort town.

1805 - Putnam begins construction of the Grand Union Hotel.

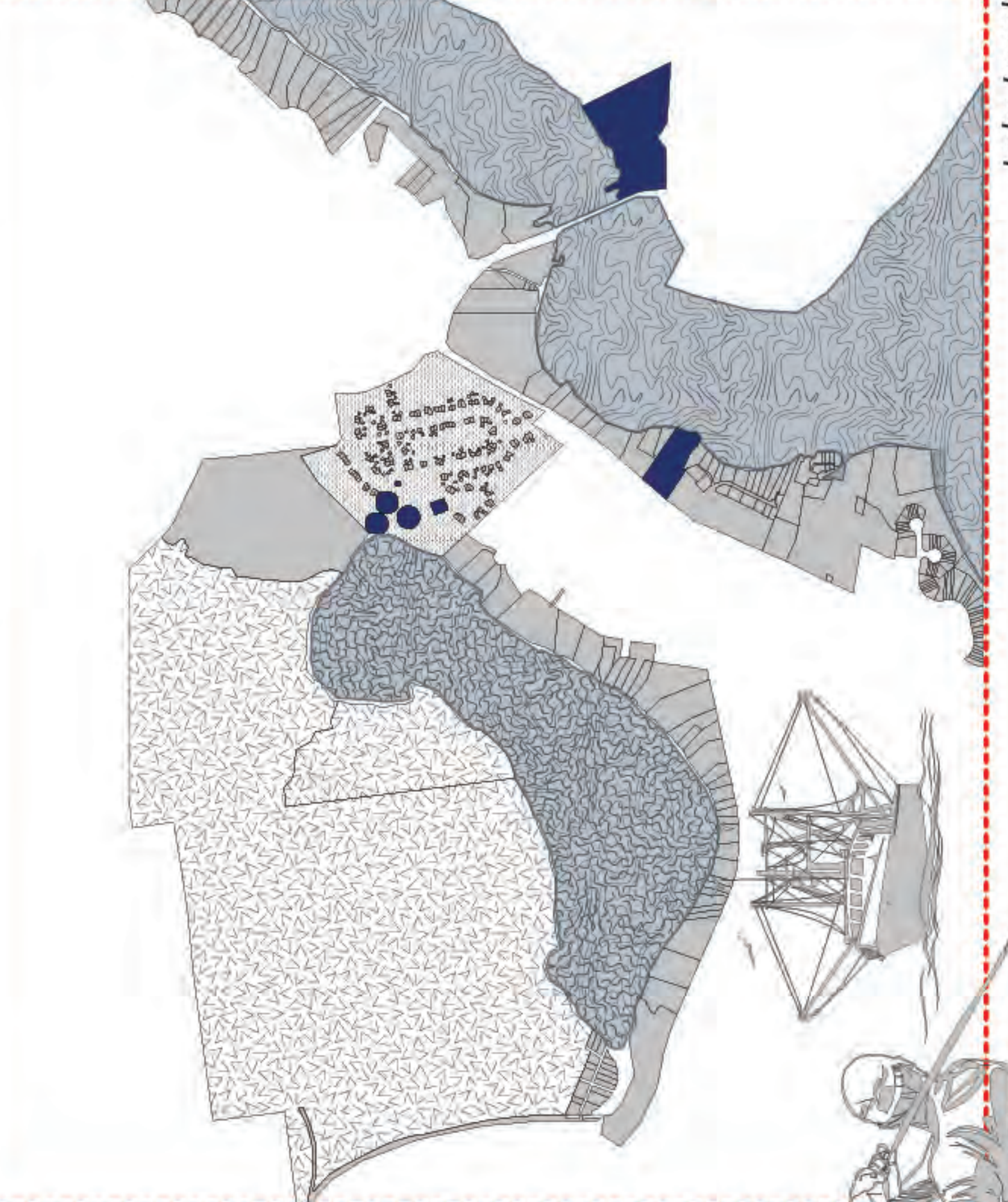
1811 - Putnam builds the Congress Hall Hotel.



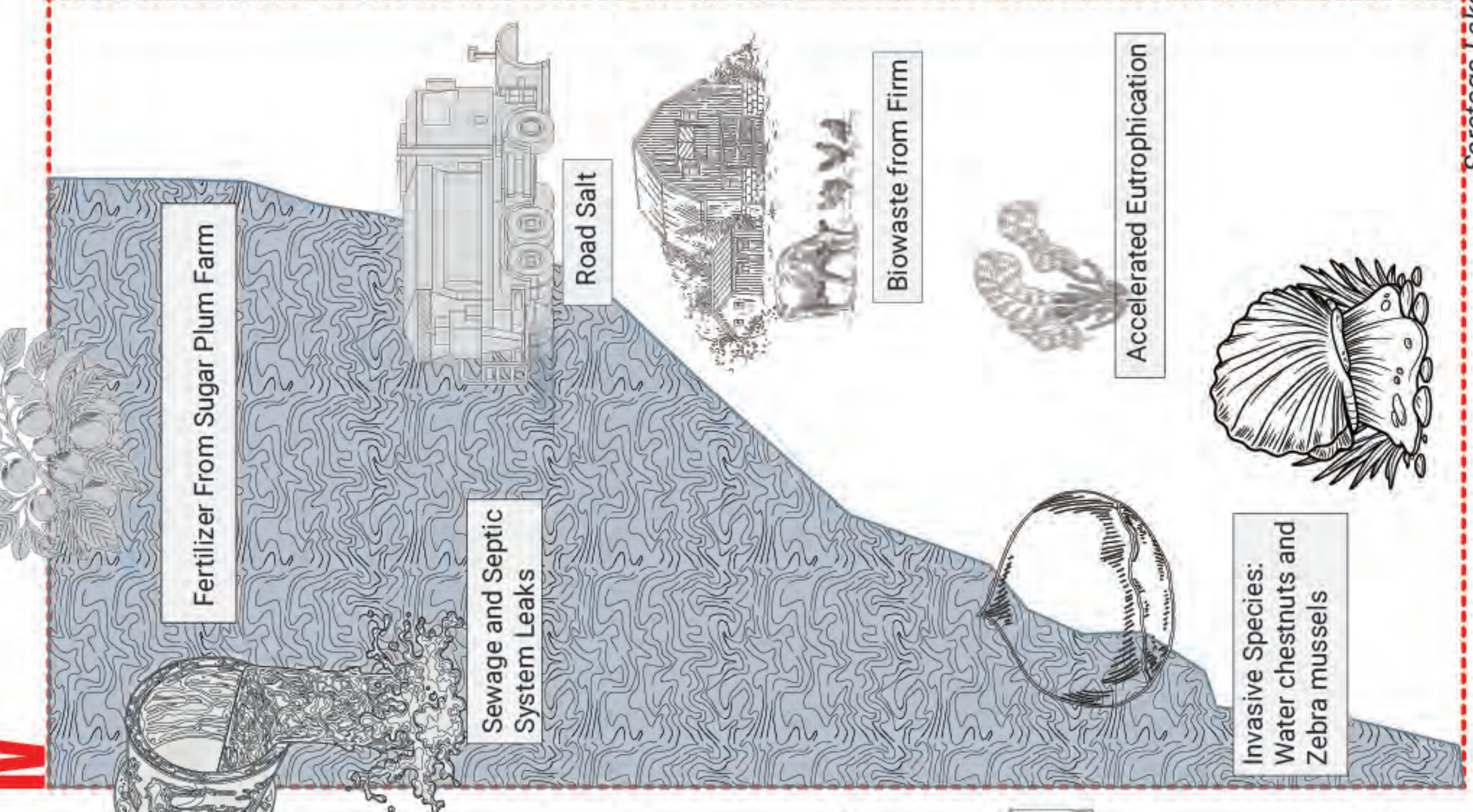
The Gideon Putnam Hotel and Roosevelt Baths & Spa, located in Saratoga Spa State Park, remain iconic wellness destinations. The hotel continues to offer historic charm and luxury accommodations, while the Roosevelt Baths provide mineral water therapy, a tradition dating back to the early 20th century. However, like many hospitality and spa facilities, they consume significant resources, necessitating sustainable practices and waste management.



Saratoga State Park
Luxury Spa Resort and Source Intensive Supply



Lake Lonely
Saratoga Lake
Saratoga Lake is a 136-acre lake in Saratoga Springs, NY, located just north of Saratoga Lake. Its northern shoreline is bordered swamps, while the southern edge is lined with private residences. The lake is privatized, primarily serving as a backyard retreat for private residences and country clubs.



Saratoga Lake Pollution

- Saratoga Lake Pollution
1. State Seal
 2. Charlie
 3. Friend
 4. Ivy and Spouter
 5. Hayes
 6. State Seal
 7. Polaris
 8. #5
 9. Ferndell
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 11. Coeessa
 12. Hathorn #3
 13. Shorts
 14. The Gideon Putnam Resort & Spa
 15. Roosevelt Baths and Spa

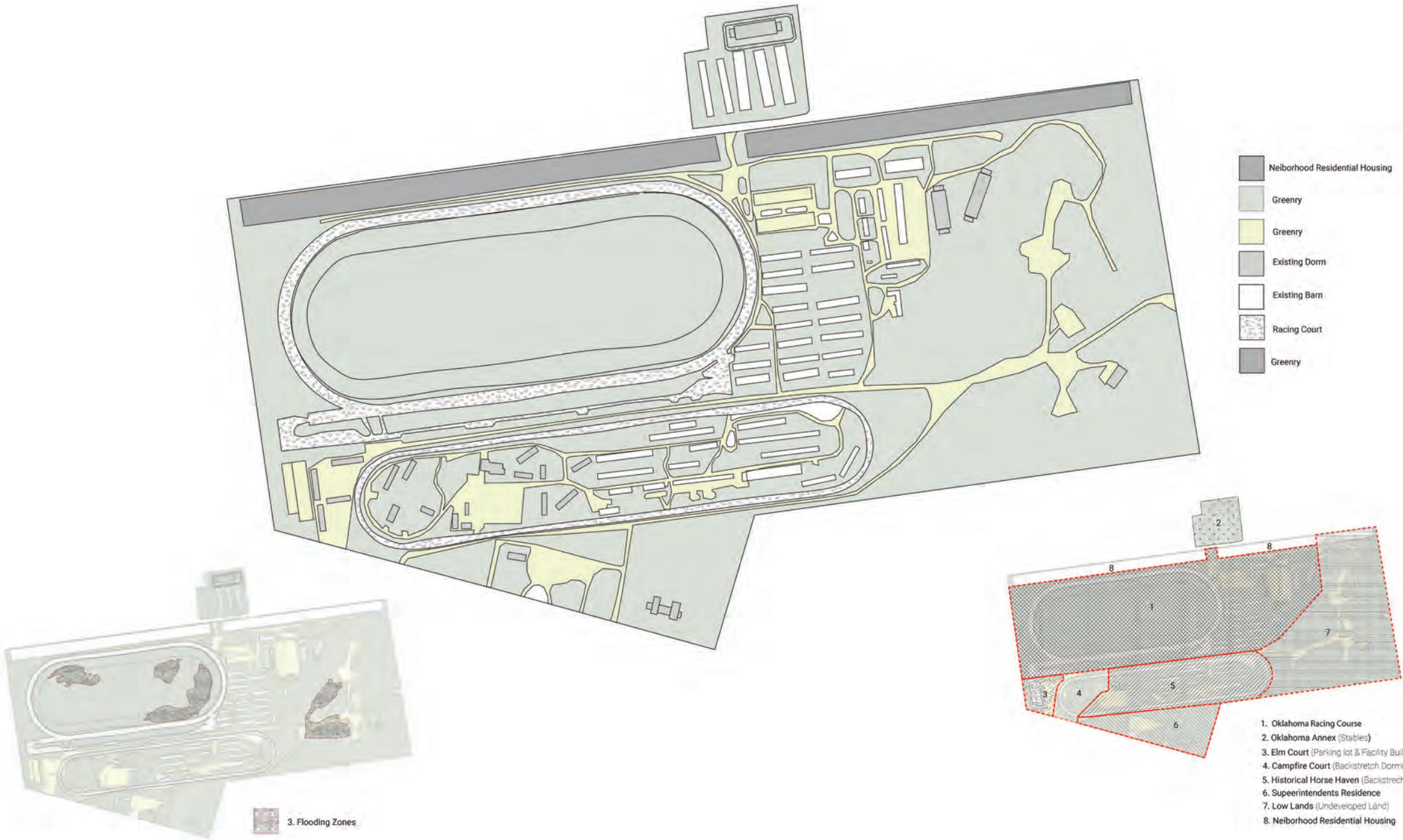
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Stereotypic Behaviours in Horses : Cribbing

Boredom or Stress
Horses in stalls for long periods with little stimulation or turnout are more likely to develop cribbing.

Dietary Factors
High grain, low fiber diets can increase the risk—cribbing may help horses cope with excess carbohydrates.

Stomach Discomfort
Linked to gastric ulcers or gut discomfort. Some horses use cribbing to relieve pressure or pain.



Stereotypic Behaviours in Horses : Weaving

Social Isolation
Horses are inherently social animals. Limited interaction with other horses can lead to stress-induced behaviors like weaving.

Confinement
Extended periods in stalls with restricted movement can contribute to the development of weaving.

Lack of Visual Stimuli
Inability to see other horses or the surrounding environment can increase stress levels, prompting weaving behavior.

Anticipation of Events
Horses may weave in anticipation of feeding times or turnout, especially if these events are highly predictable.



Stereotypic Behaviours in Horses : Box Walking

Confinement & Lack of Movement
Horses are naturally active, grazing and moving for up to 16 hours a day. Being confined in a stall for long periods can lead to frustration and repetitive behaviors like box walking.

Social Isolation
Horses are inherently social animals. Isolation from companions can cause stress and anxiety, leading to behaviors like box walking.

Lack of Mental Stimulation
Lack of mental stimulation can lead horses to create their own "entertainment," such as repetitive behaviors like box walking.

Anticipation
Horses may begin box walking in anticipation of events such as feeding or turnout, especially if these activities occur on a strict schedule.



Stereotypic Behaviours in Horses : Nodding

Confinement & Lack of Movement
Horses are naturally active, grazing and moving for up to 16 hours a day. Being confined in a stall for long periods can lead to frustration and repetitive behaviors like nodding.

Boredom & Mental Understimulation
Lack of mental stimulation can lead horses to create their own "entertainment," such as repetitive behaviors like nodding.

Social Isolation
Horses are herd animals. Separation from other horses can create anxiety, especially if they can't see or hear them.

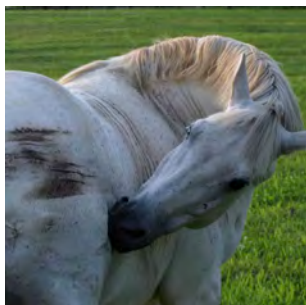


Stereotypic Behaviours in Horses : Pawing

Frustration or Impatience:
Horses may paw when restrained, such as being tied or confined, expressing a desire to move or engage in activity.

Boredom:
Lack of mental stimulation or physical activity can lead to pawing as a way for horses to entertain themselves.

Anticipation:
Horses might paw when awaiting feeding or turnout, especially if these events occur on a predictable schedule.



Stereotypic Behaviours in Horses : Pawing

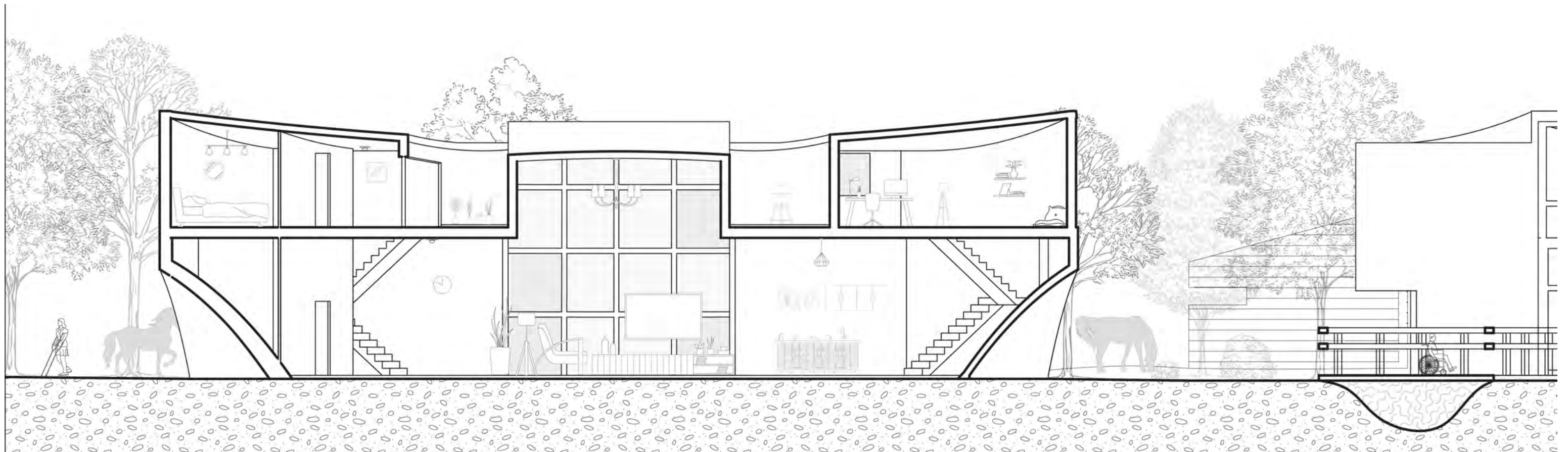
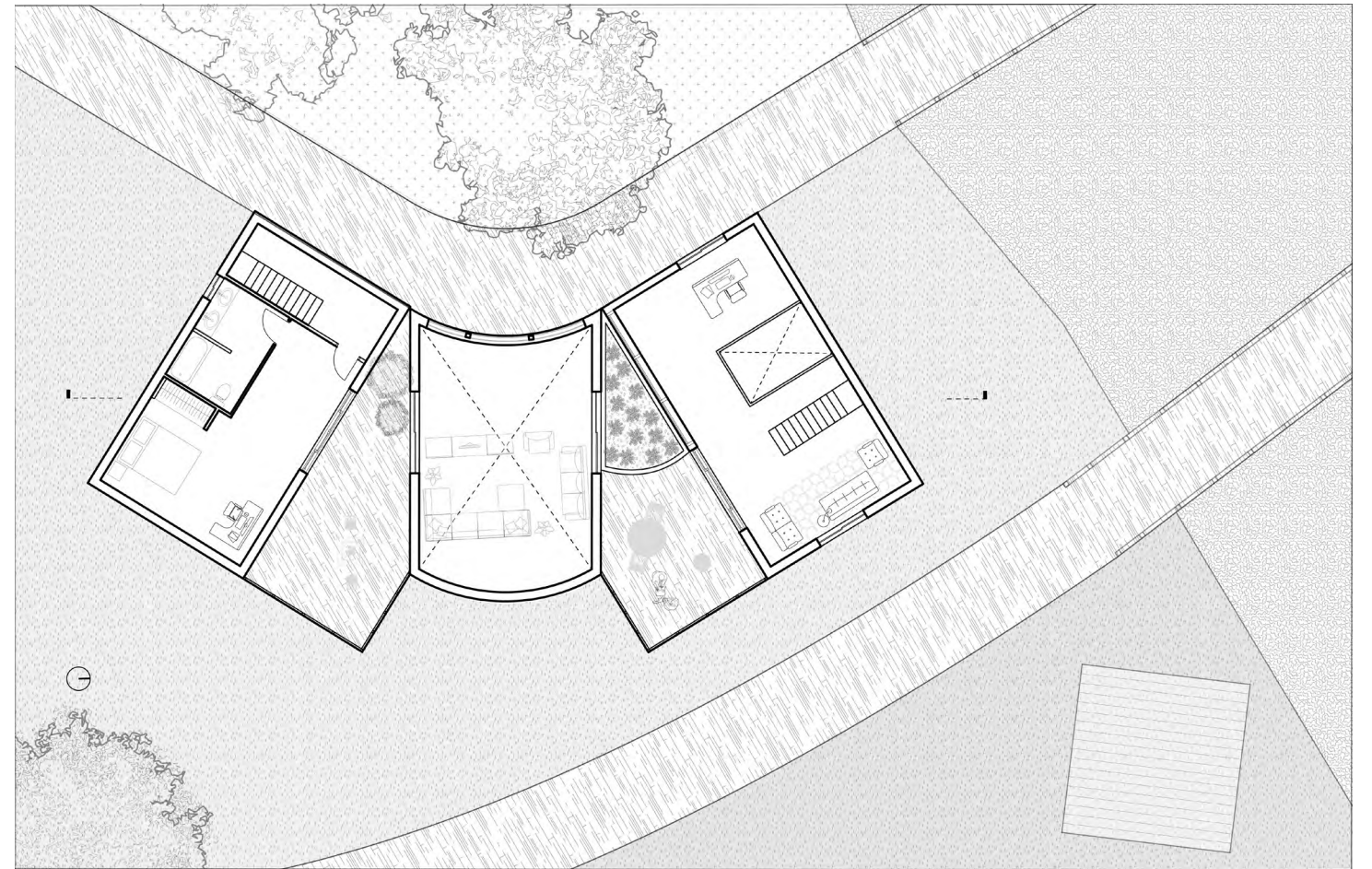
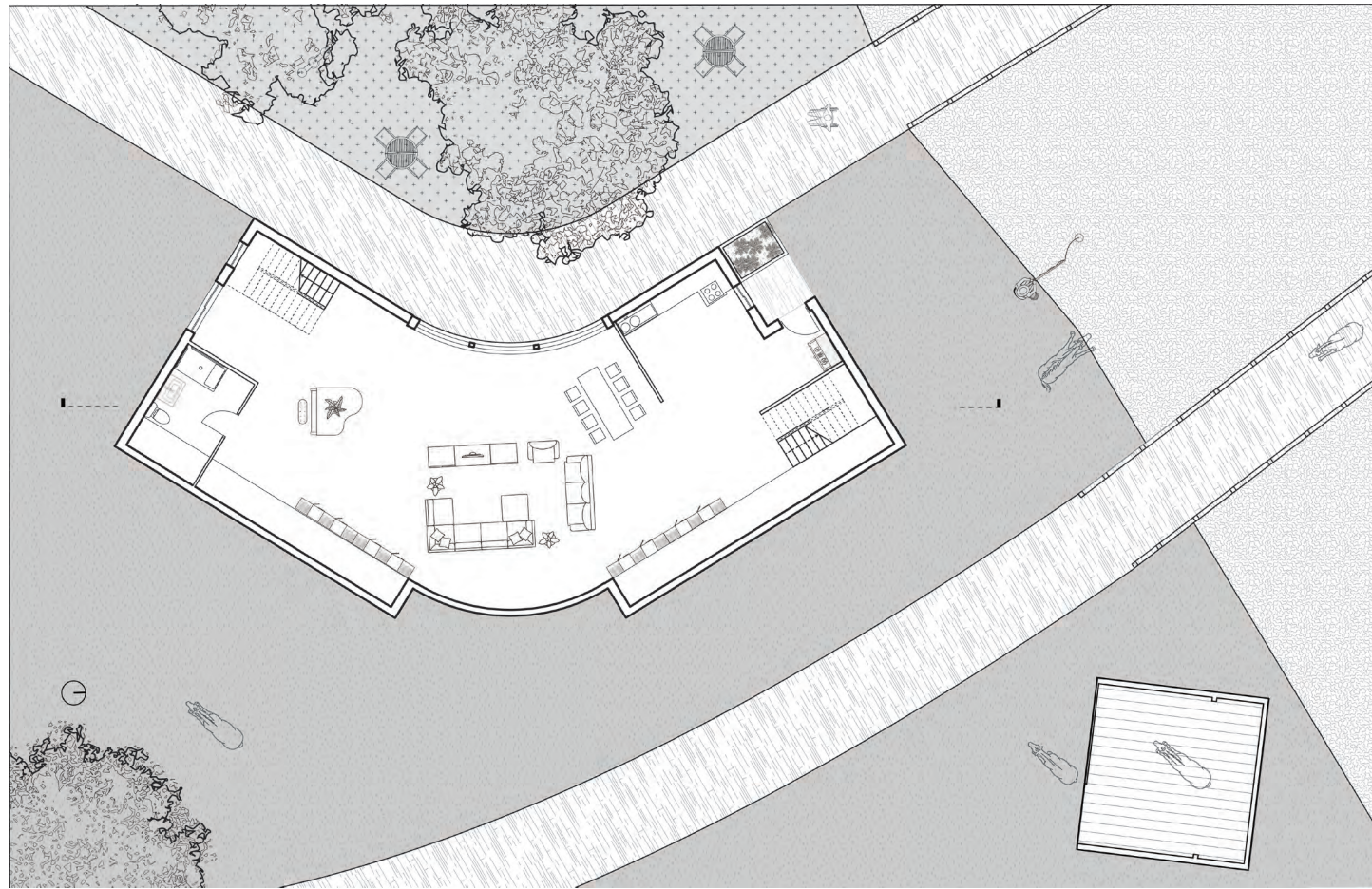
Medical Causes
Physical discomfort: Conditions causing chronic pain or discomfort, such as gastrointestinal issues or skin irritations, may lead horses to bite or kick at affected areas.

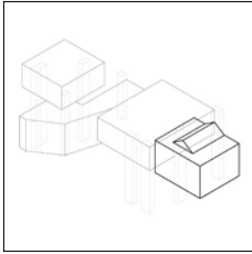
Behavioral Causes
Frustration and Stress: Horses experiencing environmental stressors, such as confinement, lack of social interaction, or insufficient mental stimulation, may develop self-mutilating behaviors as coping mechanisms.

Sexual Frustration
Particularly in stallions, the inability to express natural mating behaviors can lead to redirected frustration, manifesting as self-mutilation.

Neurological Factors
Stereotypic behavior: In some cases, self-mutilation becomes a stereotypic—a repetitive, invariant behavior with no apparent goal or function—often arising from prolonged stress or environmental deprivation.







Harlem Performing Art Center

Fall 2025 | Individual | Columbia University |
Instructor: Gary Bates

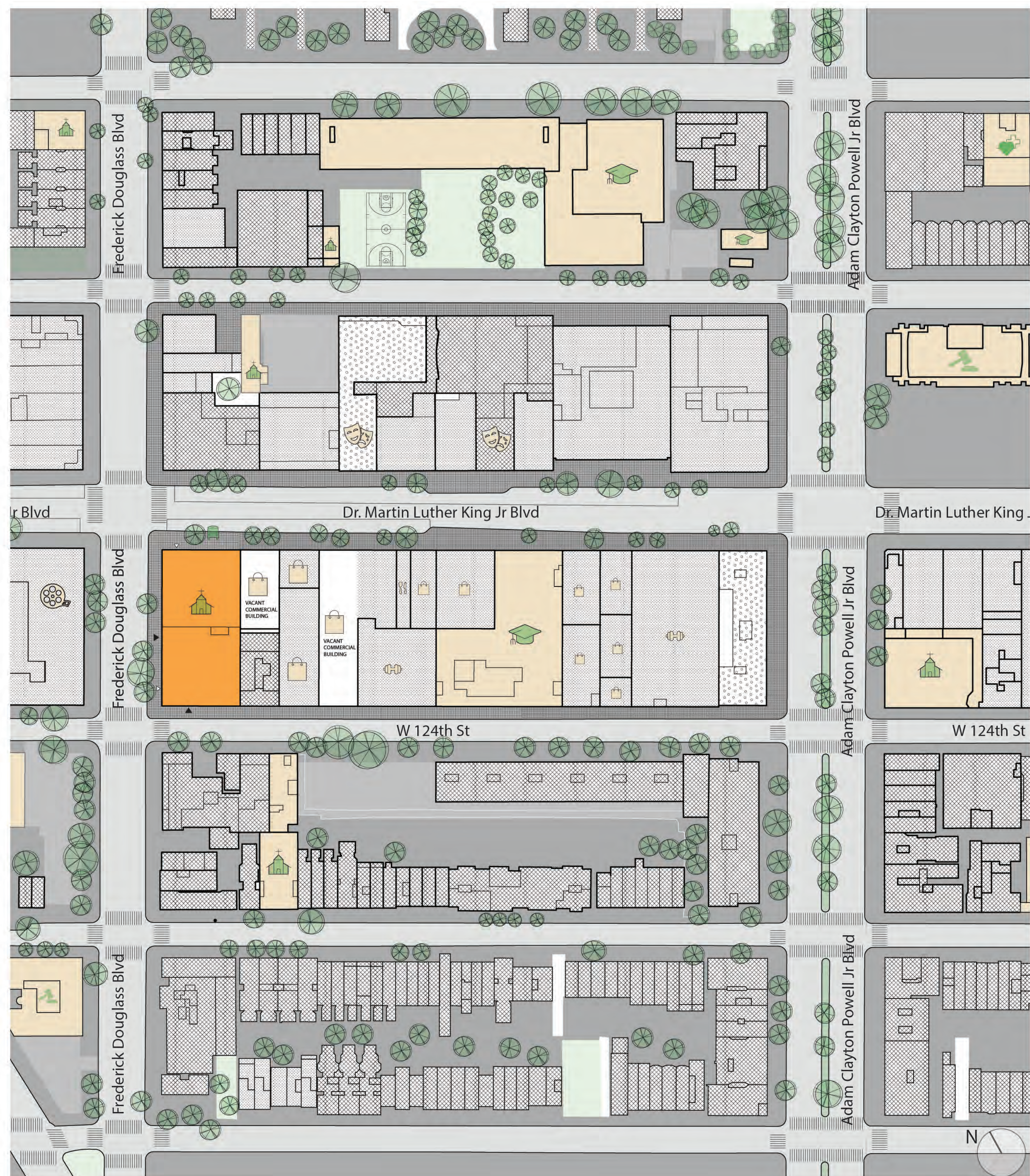
Harlem Performance Center is an adaptive reuse project based on the United House of Prayer, reimagining the performance building through the spatial logic of positive and negative space. Located on 125th Street in Harlem, a commercial corridor and emerging innovative district, the project engages the street as an active public interface.

Positive space is defined by highly controlled environments—including two theaters and a gallery—where acoustics, audience relationships, and technical demands require precision. In contrast, negative space is intentionally shaped as a spatial void of equal architectural quality, accommodating public performance, gathering, civic use, and everyday life. Rather than residual space, this void operates as a flexible public field where performance extends beyond the stage.

The juxtaposition of positive and negative space creates a productive tension between focus and openness. Lobbies, circulation, and shared areas form a continuous system of negative space that supports movement, pause, rehearsal, and informal assembly.

Interior and exterior are treated with the same spatial value, forming a civic continuum that keeps the building active and publicly legible during both performance and non-performance time. The project is conceived not as a monumental object, but as a public apparatus embedded in the everyday life of Harlem.

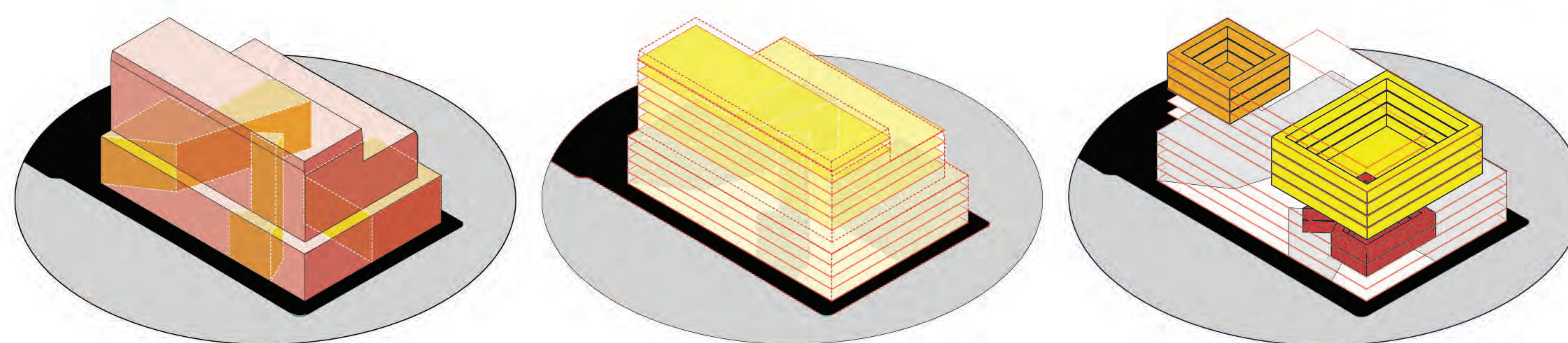




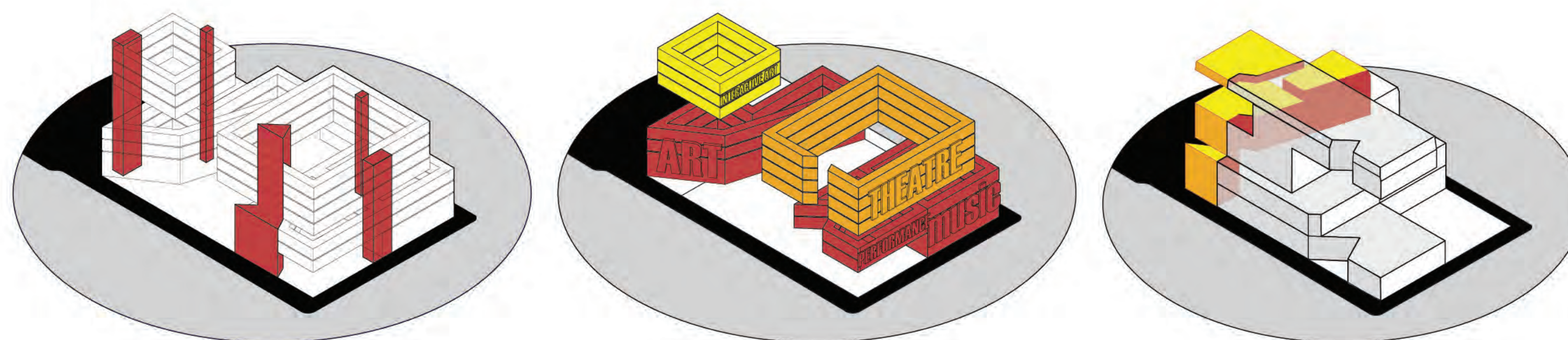
Site Map



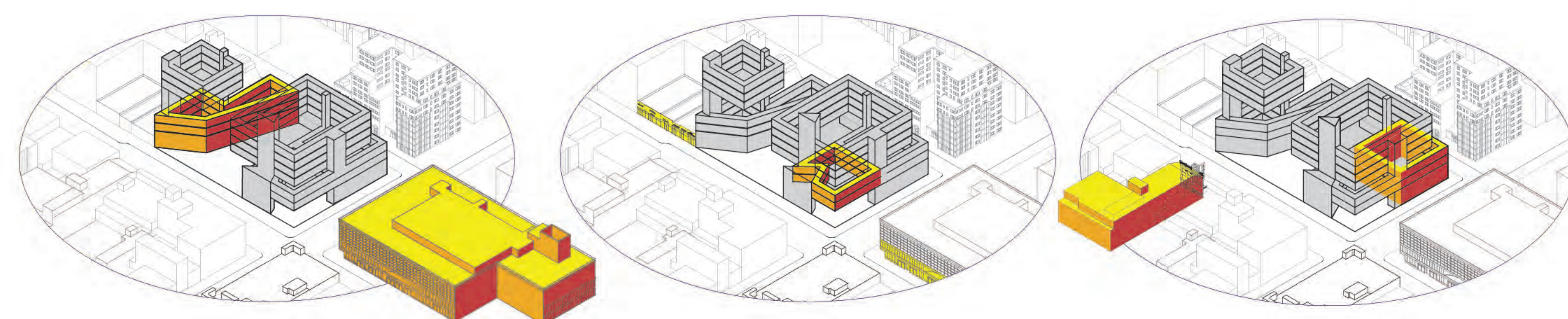
Site-driven carving of massing



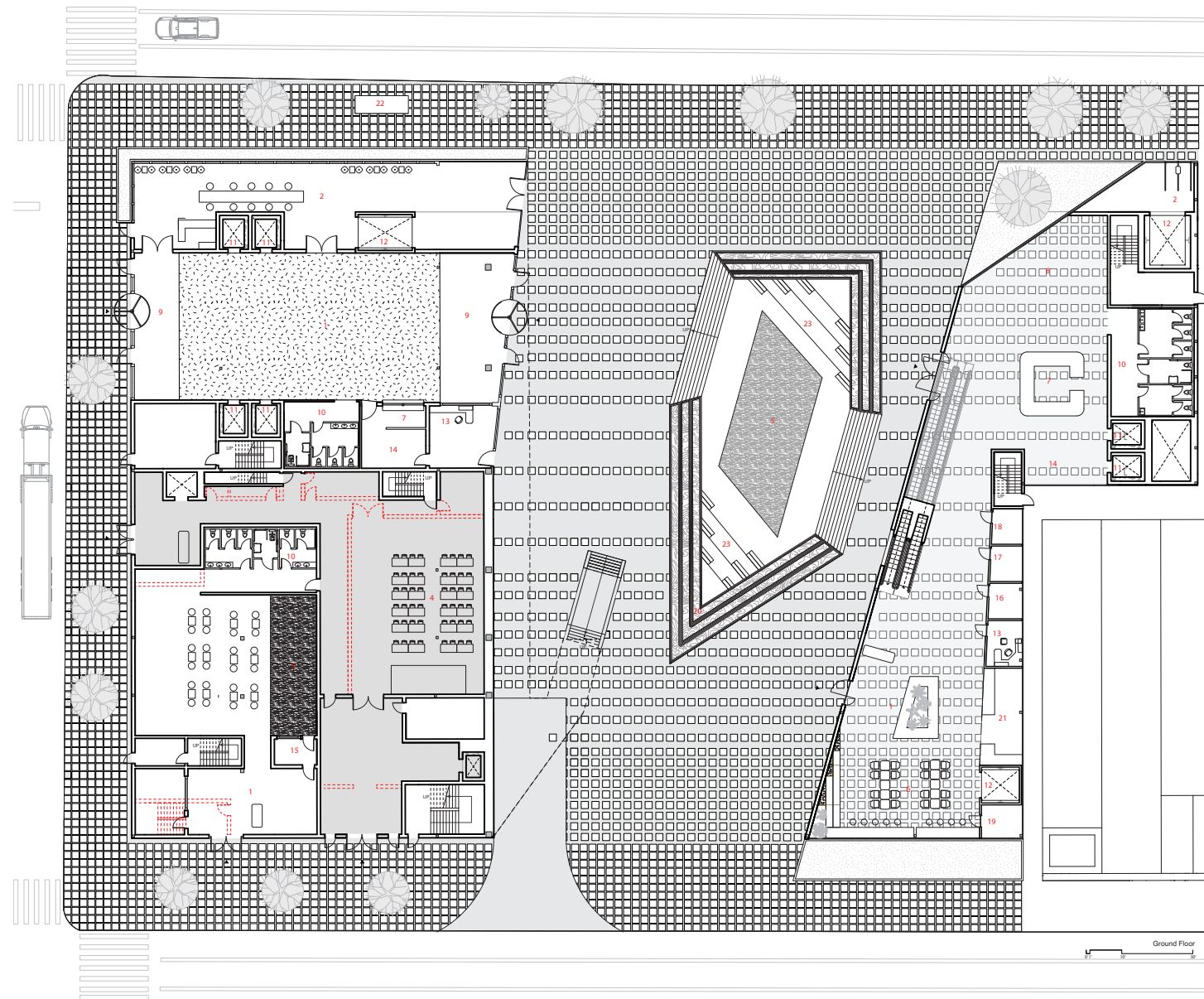
Zoning code-informed mass articulation



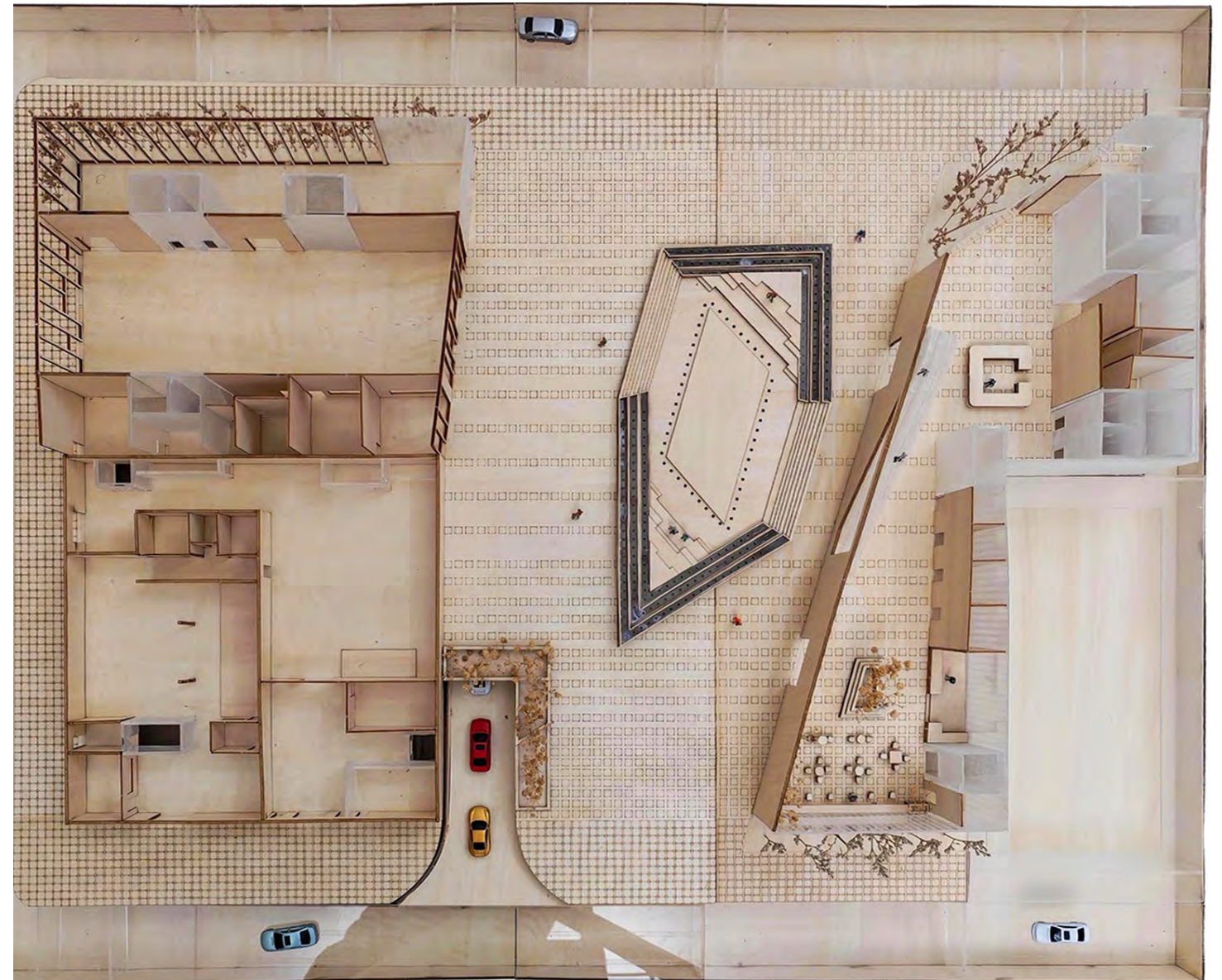
Circulation and service-based spatial structuring

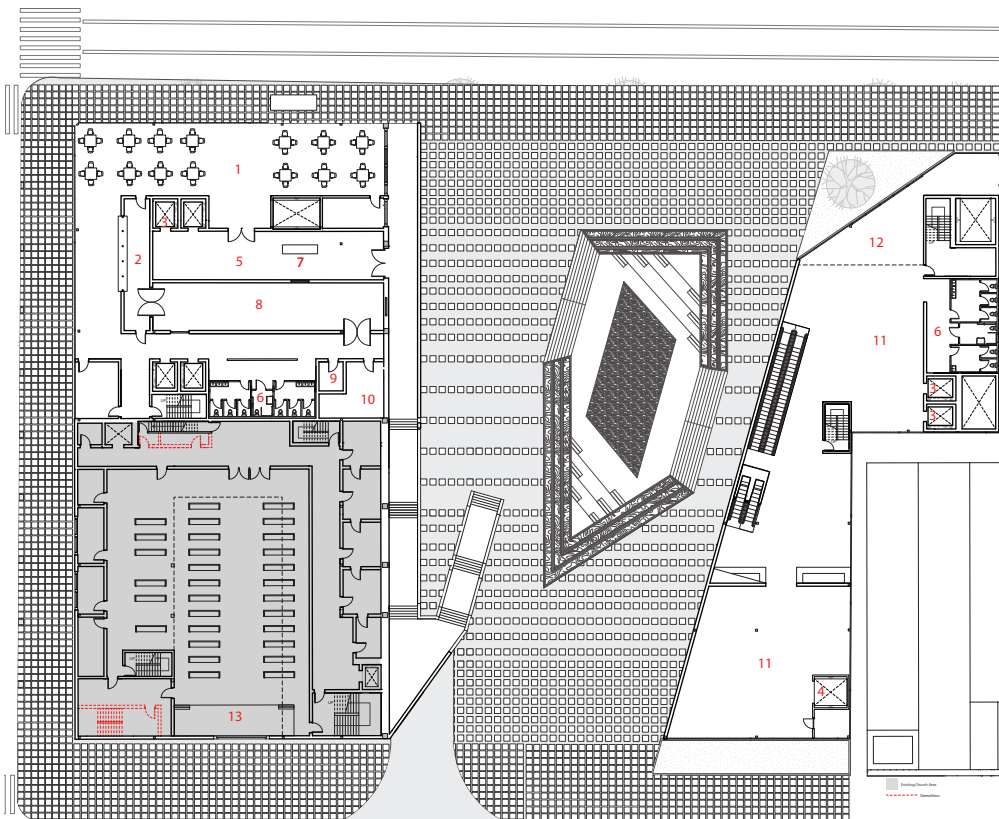


Program distribution in dialogue with the neighborhood

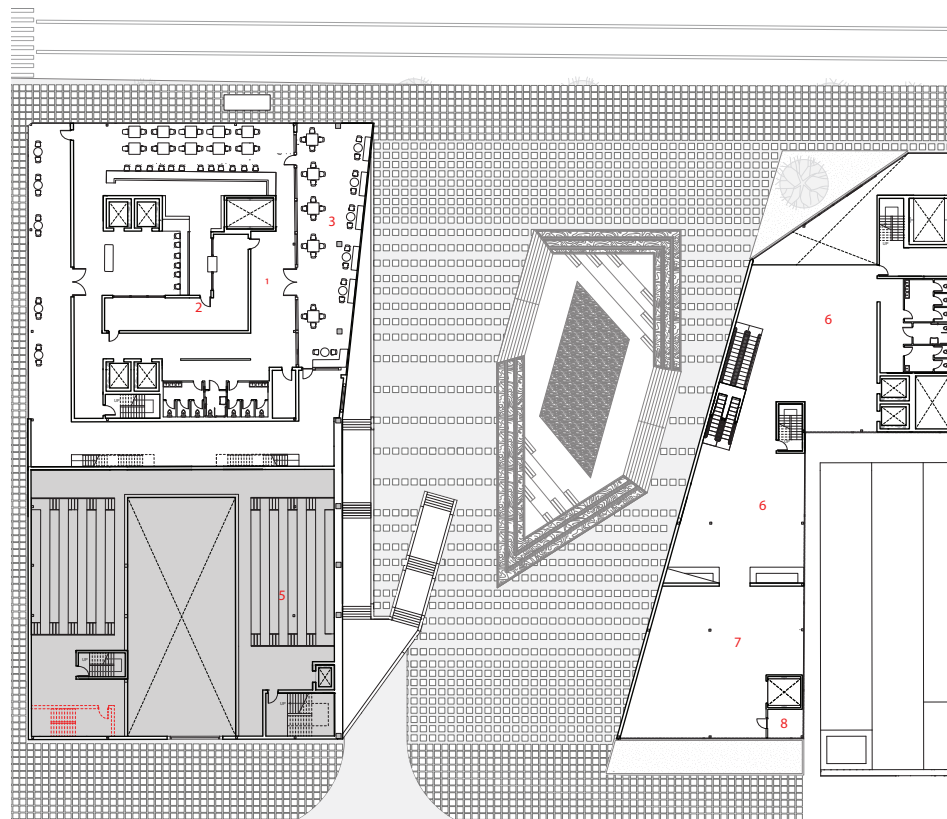


- | | | |
|---------------------------|------------------------------------|------------------|
| 1. Lobby | 11. Elevator- Visitor | 21. Gallery Cafe |
| 2. Performer Entry | 12. Elevator- Scene | 22. Bus Stop |
| 3. Public Performing Hall | 13. First Responder Room | 23. Seating |
| 4. Saturday Class Room | 14. Office | |
| 5. Stage | 15. AV Rack / IDF Room | |
| 6. Seating | 16. Plumbing Pumps and Valves Room | |
| 7. Reception Desk | 17. Electrical Room | |
| 8. Displaying Area | 18. Janitor Closet | |
| 9. Entry Landing | 19. Storage | |
| 10. Restroom | 20. Fountain | |

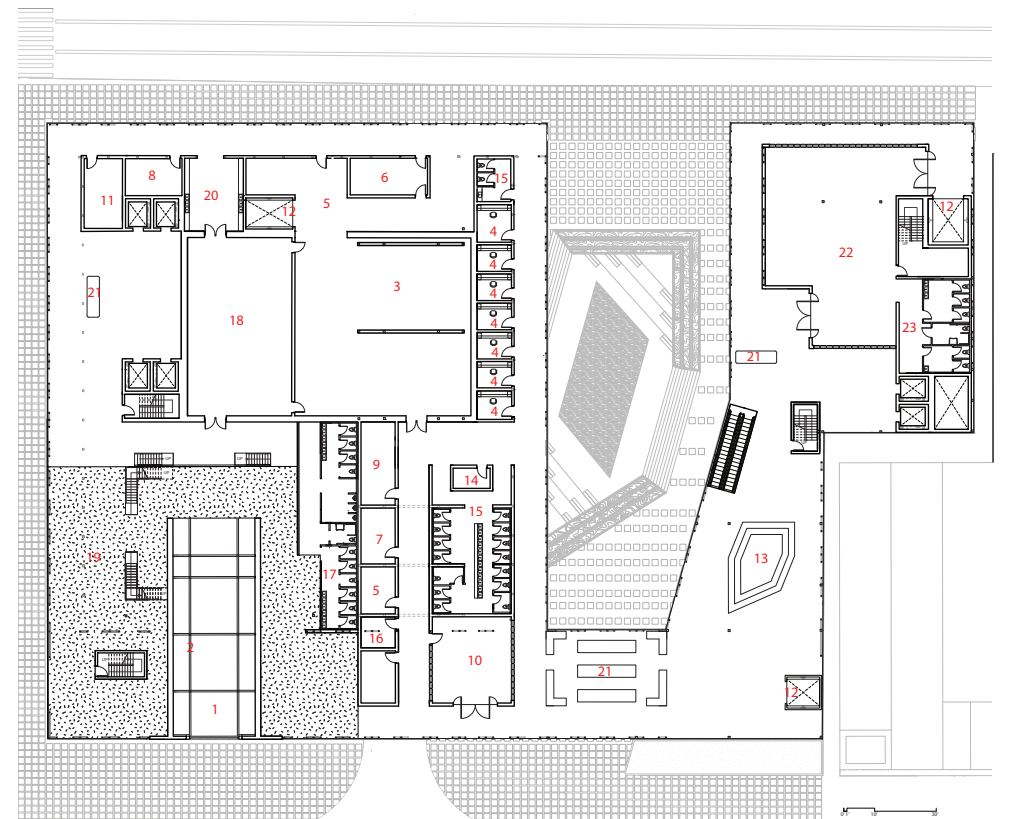




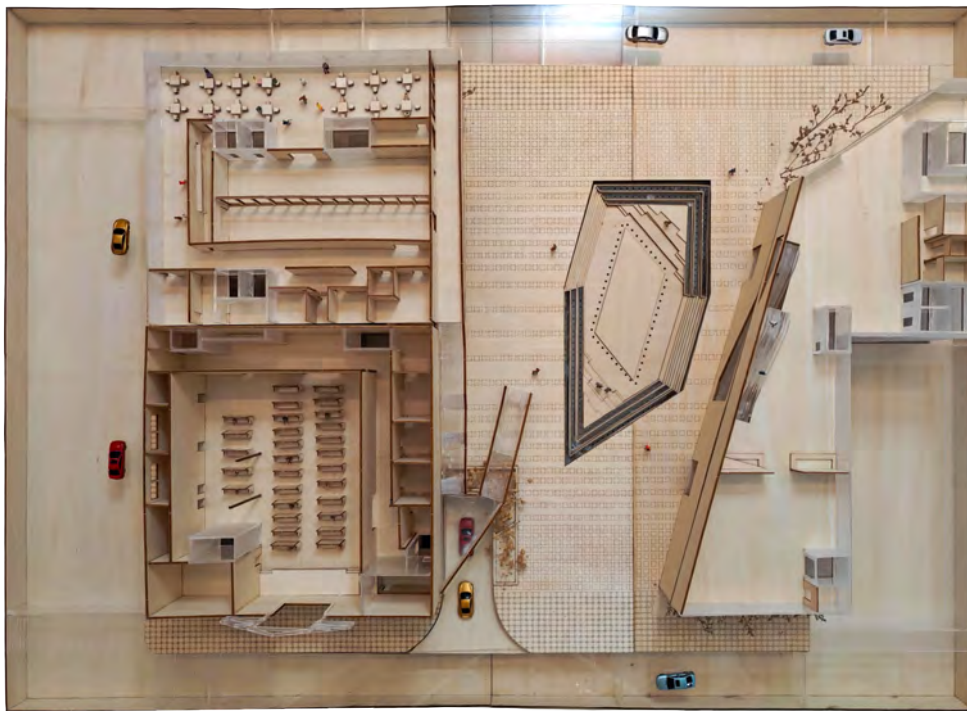
- | | | | |
|----------------------|-------------------|-------------------|---------------|
| 1. UHOP Dinning Hall | 5. Lobby | 9. Janitor Closet | 13. Sanctuary |
| 2. Food Counter | 6. Restroom | 10. Storage | |
| 3. Elevator Visitor | 7. Reception Desk | 11. Gallery | |
| 4. Elevator Scene | 8. Kitchen | 12. Display Area | |



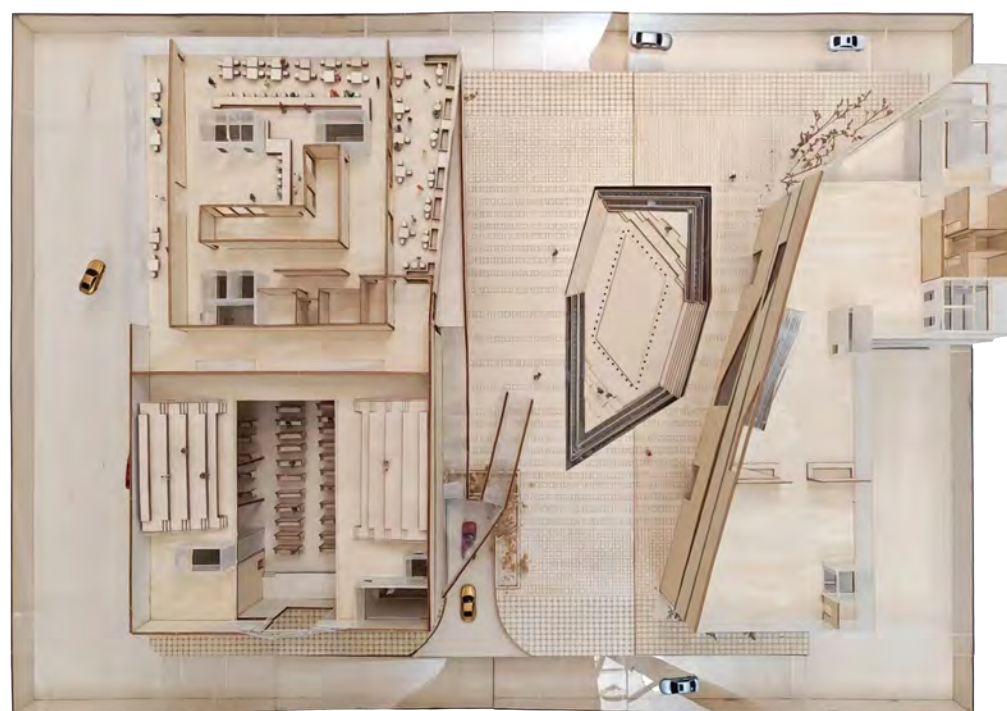
- | | |
|-------------------------------|---------------------------|
| 1. Restaurant | 5. UHOP Sanctuary Seating |
| 2. Kitchen | 6. Display Area |
| 3. Restaurant Balcony Seating | 7. Gallery |
| 4. Bar | 8. Janitor Closet |



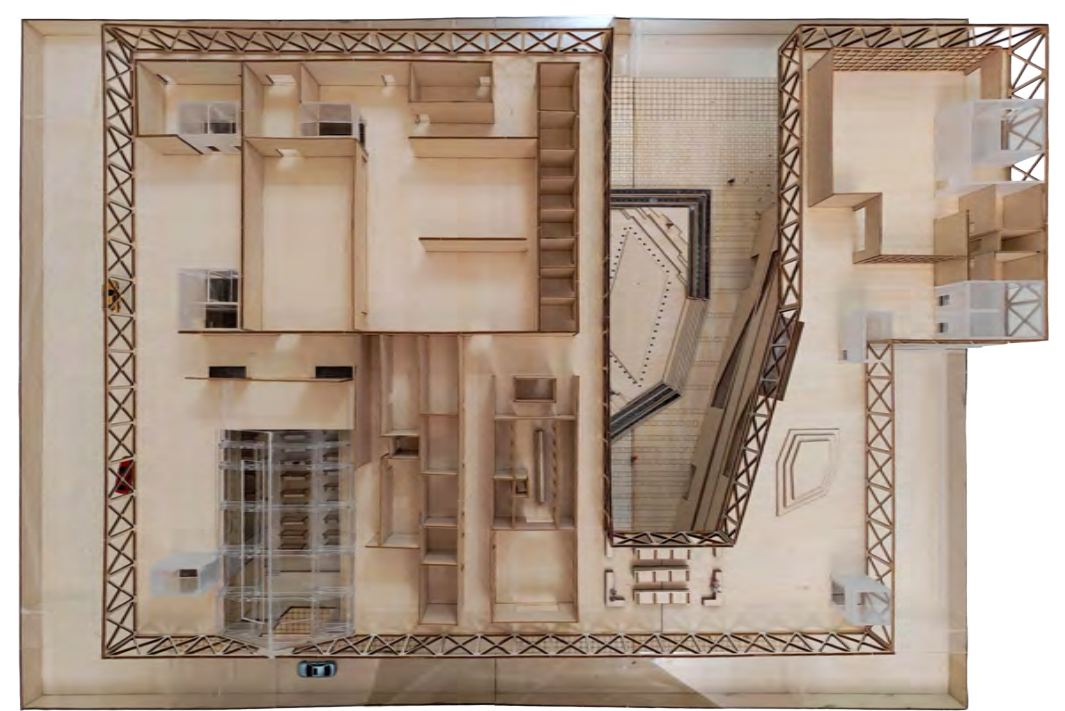
- | | | | | |
|-------------------|----------------------|-------------------------|------------------------|----------------|
| 1. UHOP | 5. Actor Assembly | 10. Costume Maintenance | 15. Performer Restroom | 20. Green Room |
| 2. UHOP Existing | 6. Storage | 11. Vocal Warm Up Room | 16. Wig Room | |
| 3. Wood Structure | 7. Mechanical Room | 12. Elevator Scene | 17. Visitor Resroom | |
| 4. Trap Room | 8. Crew Room | 13. Display Area | 18. Rehearsal Room | |
| 5. Dressing Room | 9. AV Rack/ IDF Room | 14. Janitor Closet | 19. Lobby | |



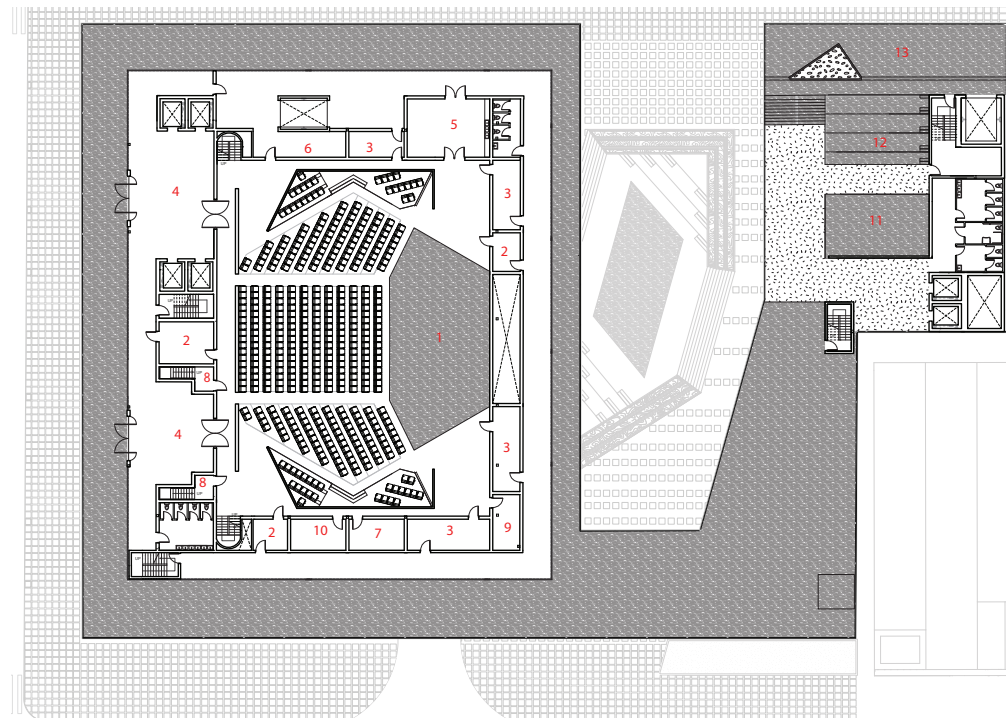
Second Floor



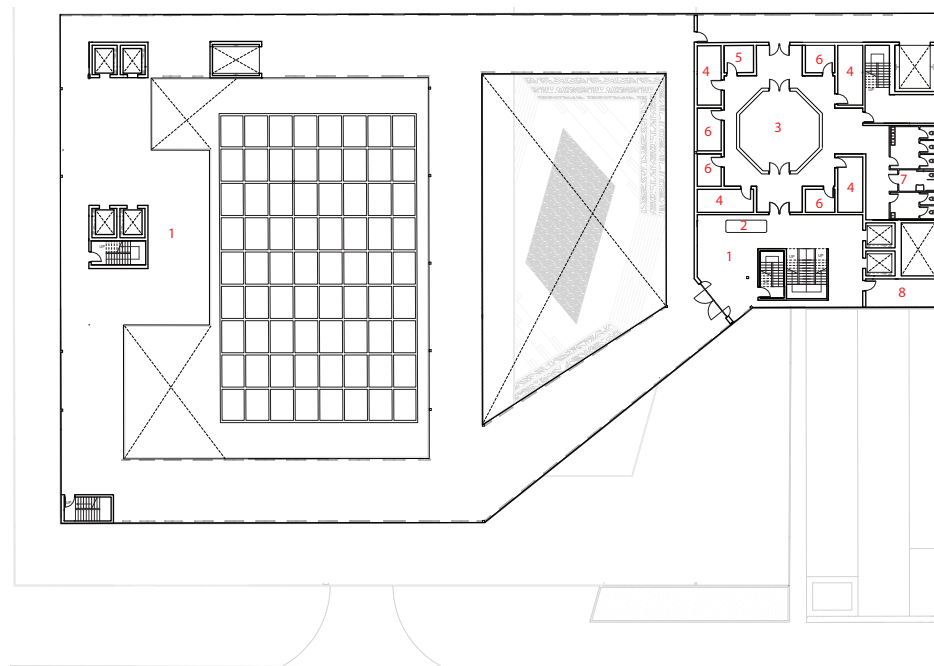
Third Floor



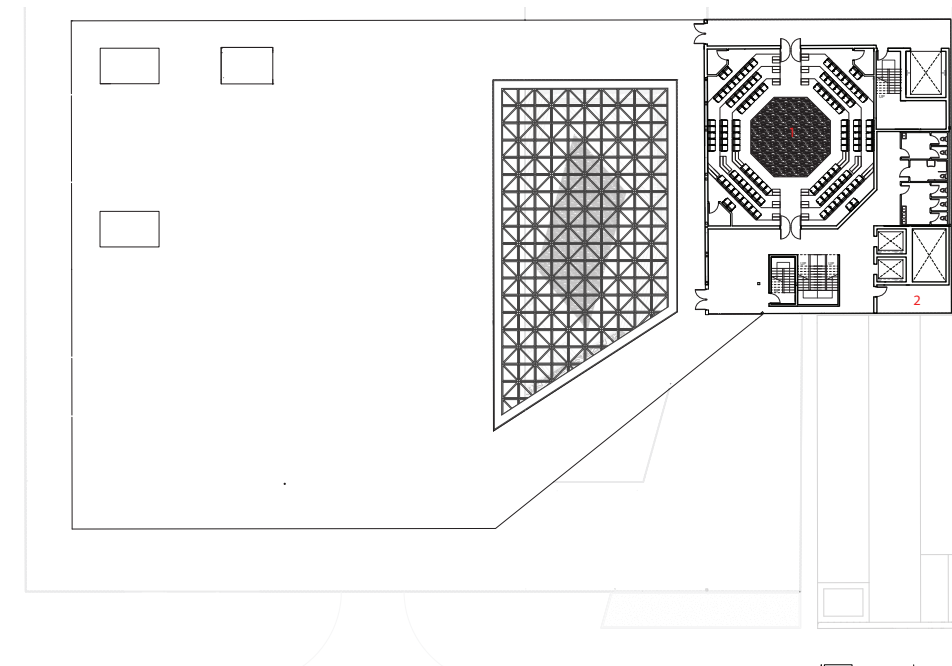
Fourth Floor: Muscial Play/ Concert Hall Level



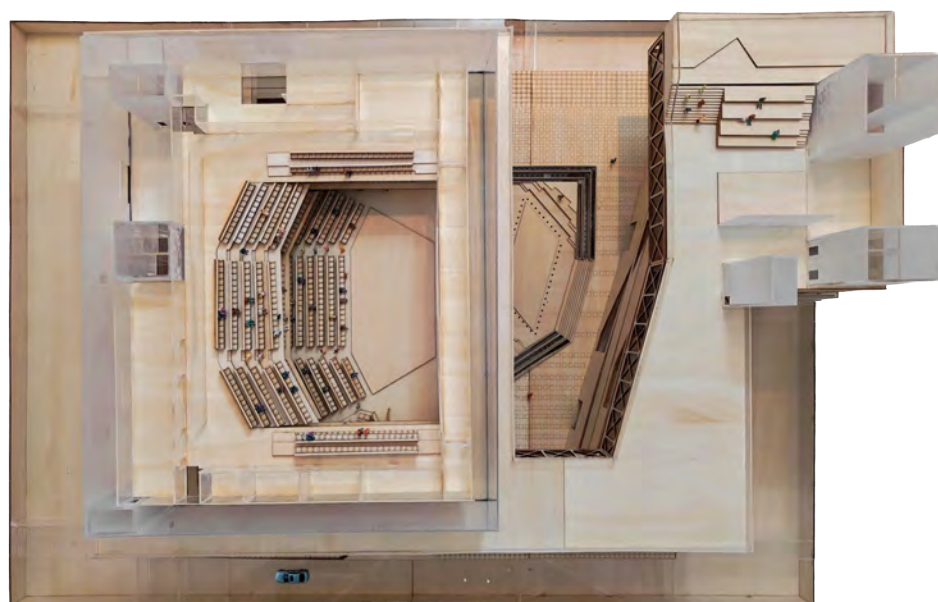
- 1. Concert Hall
- 2. Sound and Light Lock Room
- 3. Actor Assembly
- 4. Lobby
- 5. Actor Assembly
- 6. Storage
- 7. Mechanical Room
- 8. Visitor Exist
- 9. AV Rack / IDF Room
- 10. Electrical Room
- 11. Public Stage
- 12. Public Seating
- 13. Public Gather



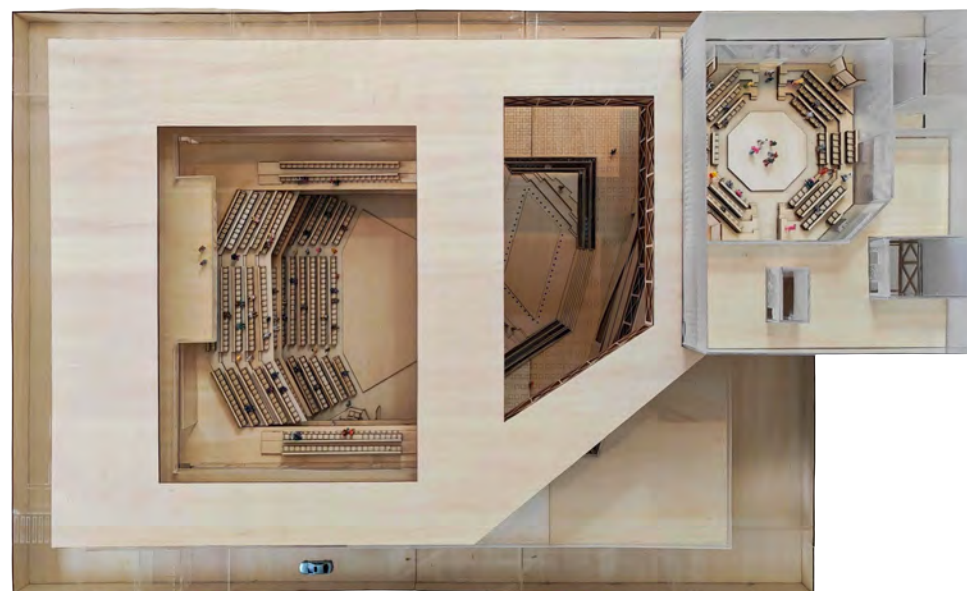
- 1. Lobby
- 2. Reception
- 3. Trap Room
- 4. Changing Room
- 5. Storage
- 6. Office
- 7. Performer Restroom
- 8. Mechanical Room



- 1. Black Box Theater
- 2. Mechanical Room



Fifth Floor: Performance Level

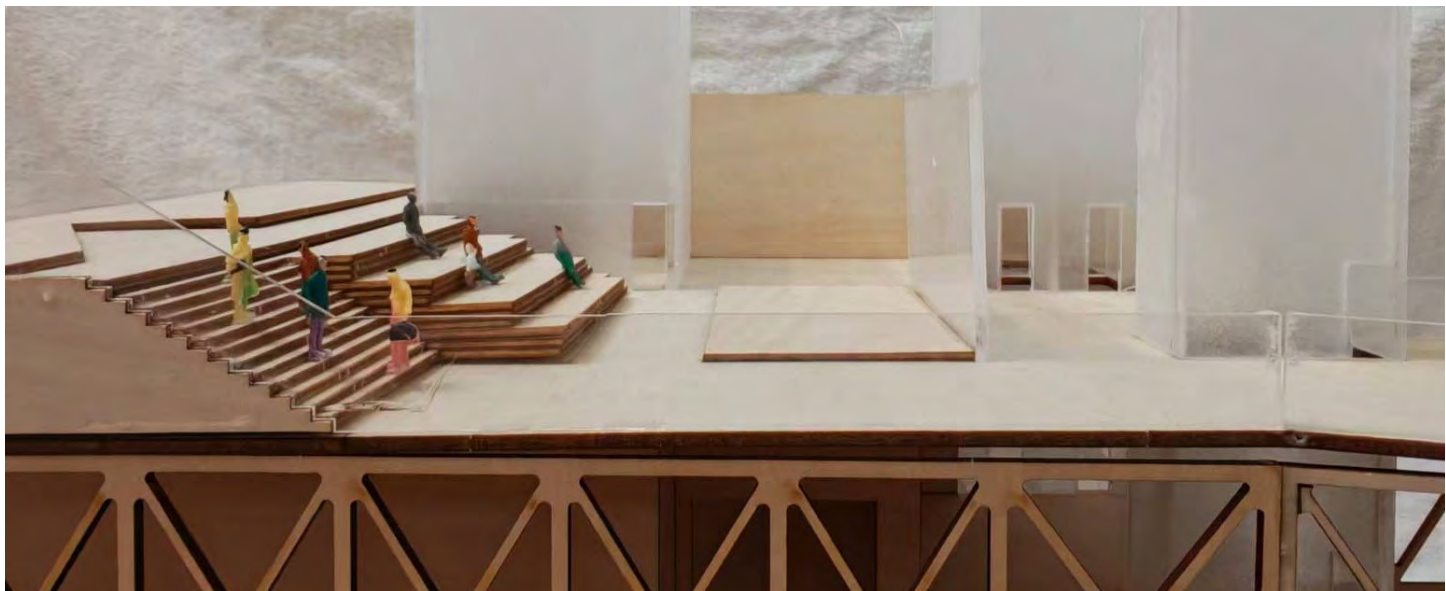


Sixth Floor: Black Box Theater Level

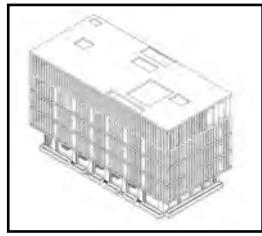


Roof Top









Floriography Clinic

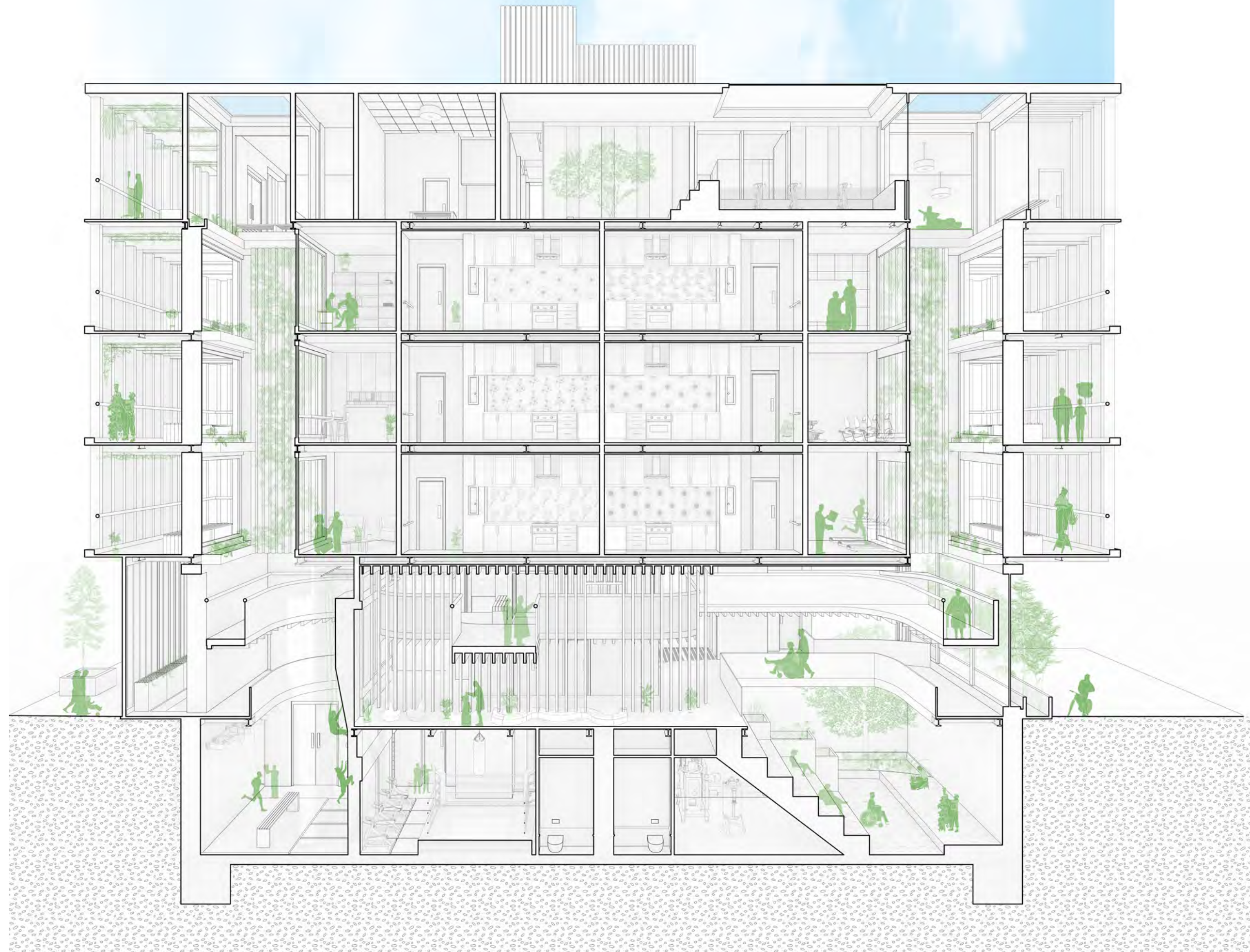
Spring 2026 | Individual | Columbia University
Instructor : Hilary Sample

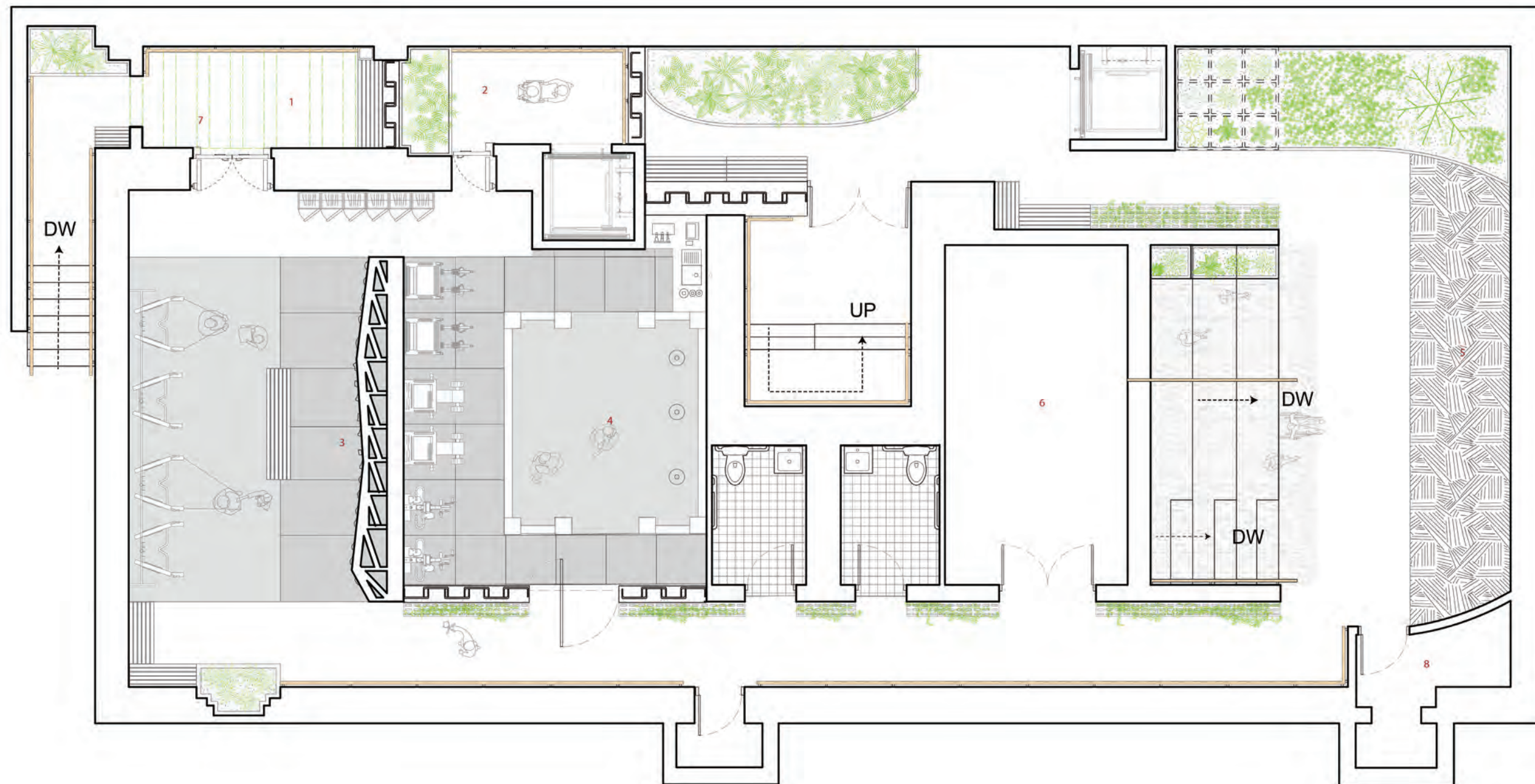
A clinic is a place of constant caring and tending. The project reinterprets this condition through a transspecies perspective, seeking coexistence between people, healing practices, and local greenery. Conceived as both a rehabilitation center and community garden, the architecture fosters physical recovery, social interaction, and ecological continuity, where care is understood not only as medical treatment but as an ongoing spatial and environmental condition.

Developed through the adaptive reuse of a former residential building, the project preserves the original structural framework while transforming it into a collective environment for care and recovery. Rather than erasing its domestic past, the existing building is reactivated as an expanded field of shared living and rehabilitation. Existing exterior shared balconies are reconfigured as porous thresholds between interior and landscape, becoming therapeutic extensions of the building. These elevated outdoor spaces allow short-term living patients to exercise, rest, and engage in rehabilitation activities within open-air communal settings, reinforcing a daily rhythm of recovery embedded in nature.

The architectural program integrates a physical rehabilitation swimming pool, massage therapy and regular health-check spaces, a climbing wall, lecture hall, and a series of therapeutic landscapes woven throughout the site. Vegetation is not treated as decoration but as an active participant in spatial experience, structuring movement, framing views, and shaping moments of pause and interaction. Through the interweaving of care infrastructure and cultivated ecology, the project constructs a continuous environment where human and non-human systems coexist, and where rehabilitation extends beyond the clinical into the shared life of the landscape.

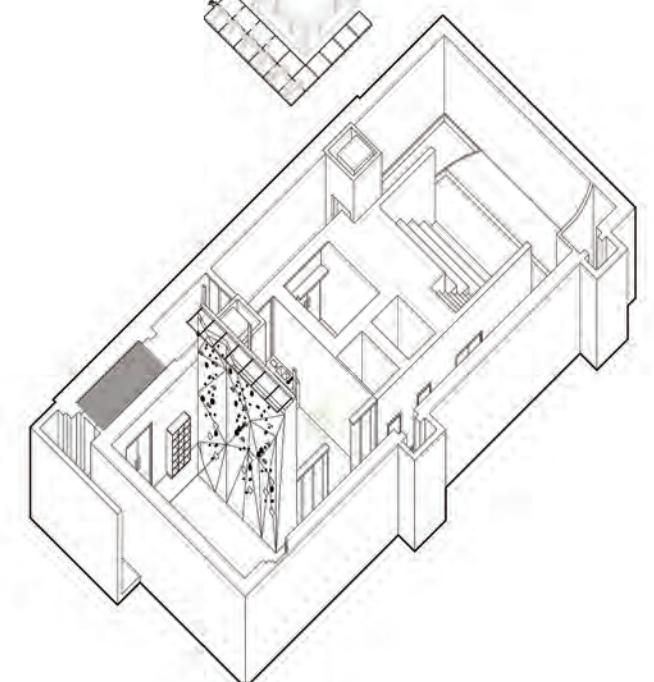
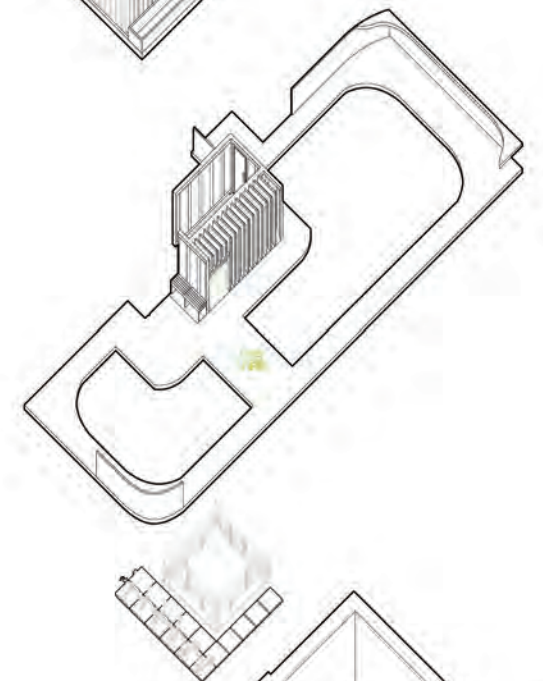
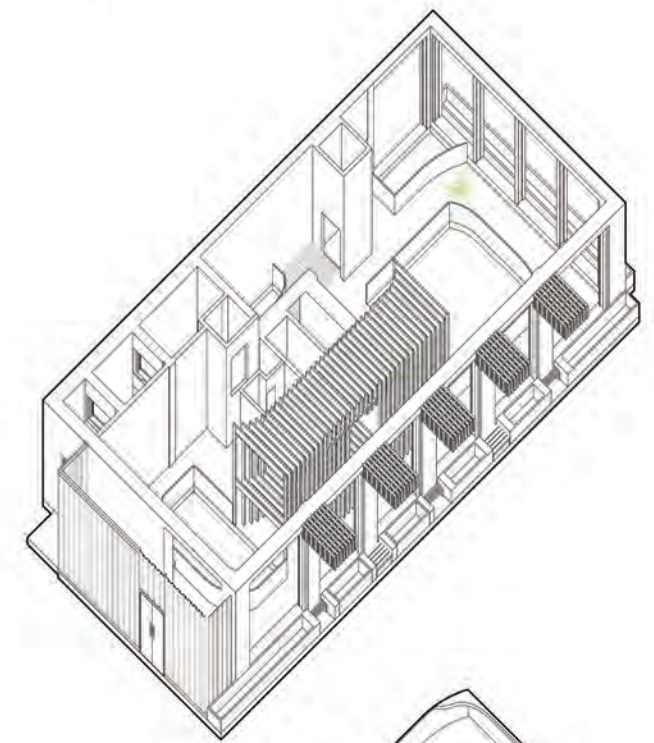
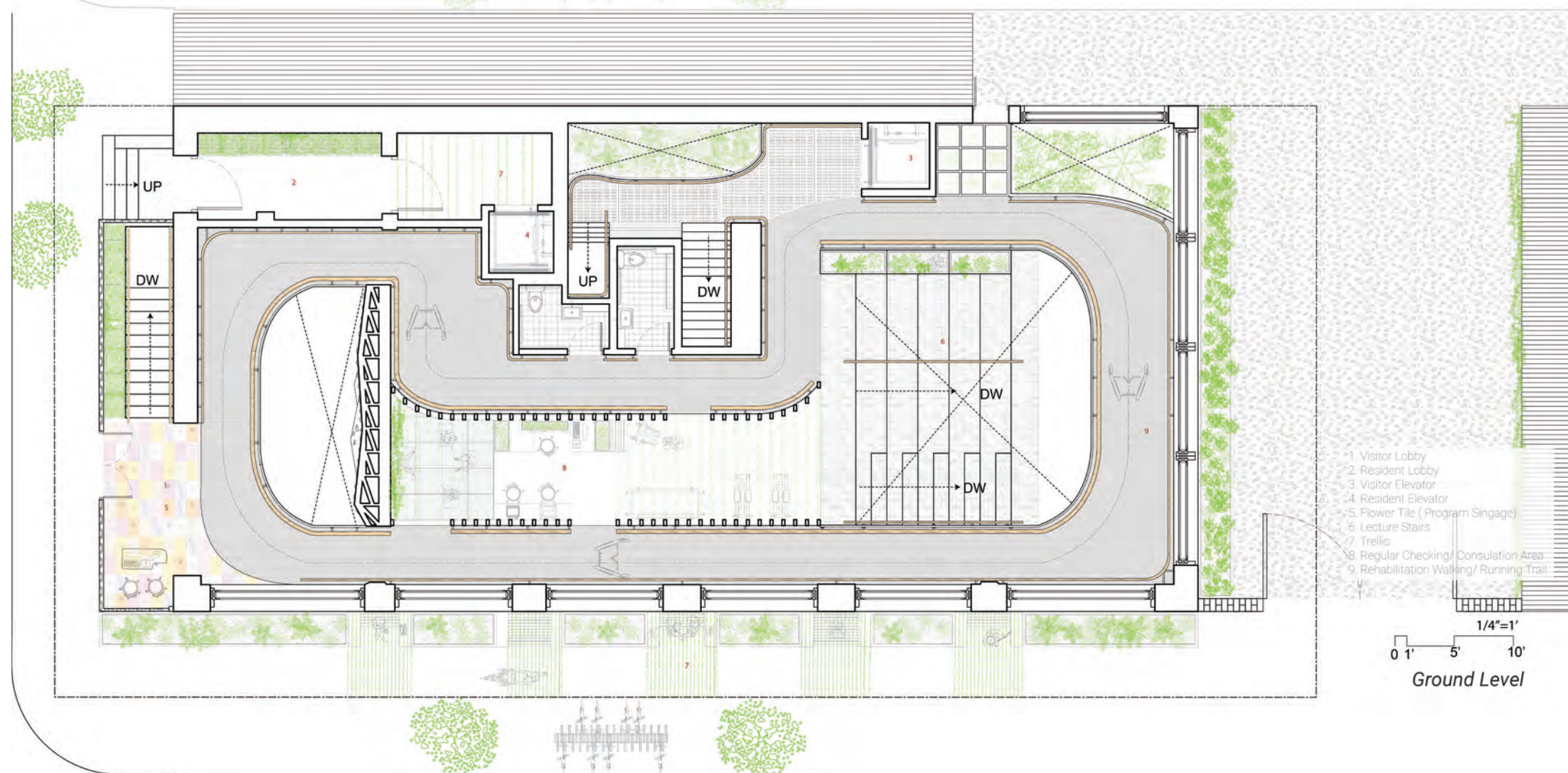
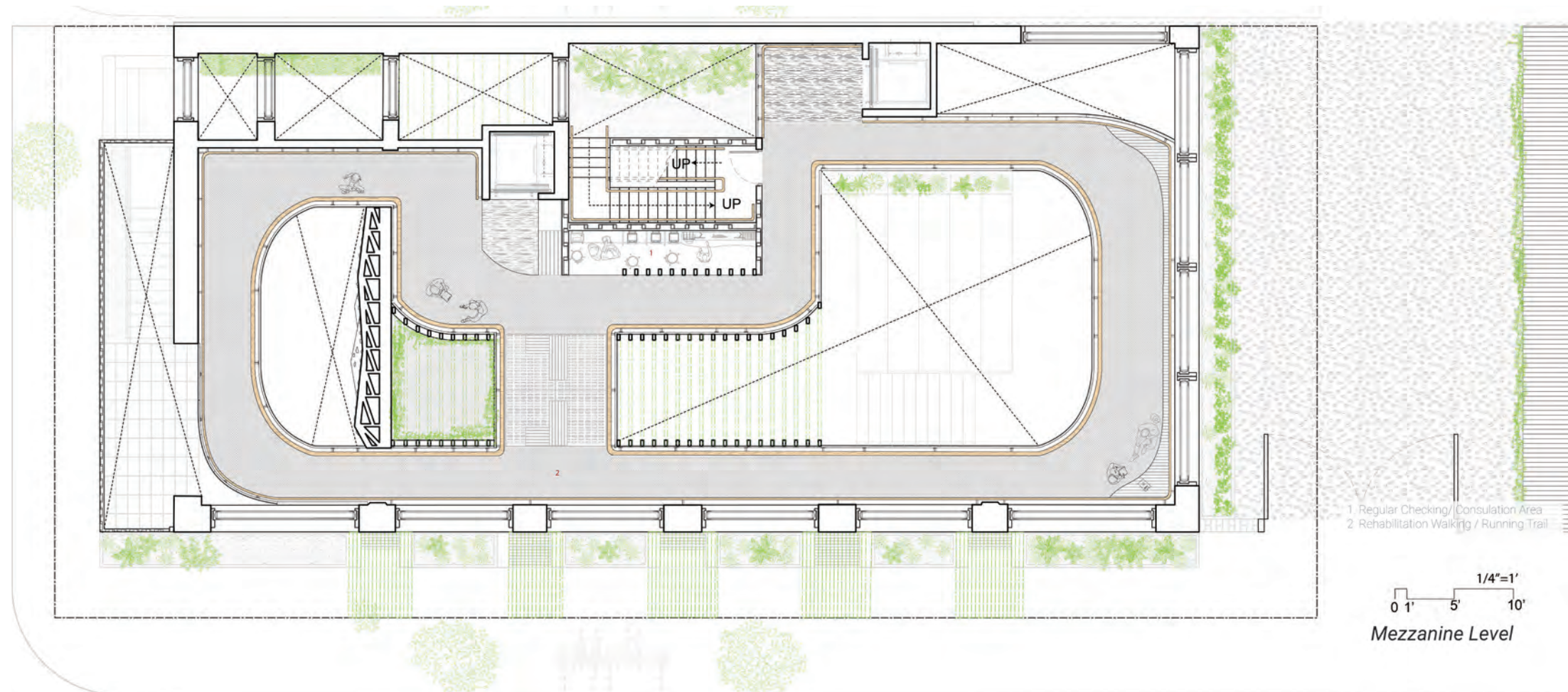


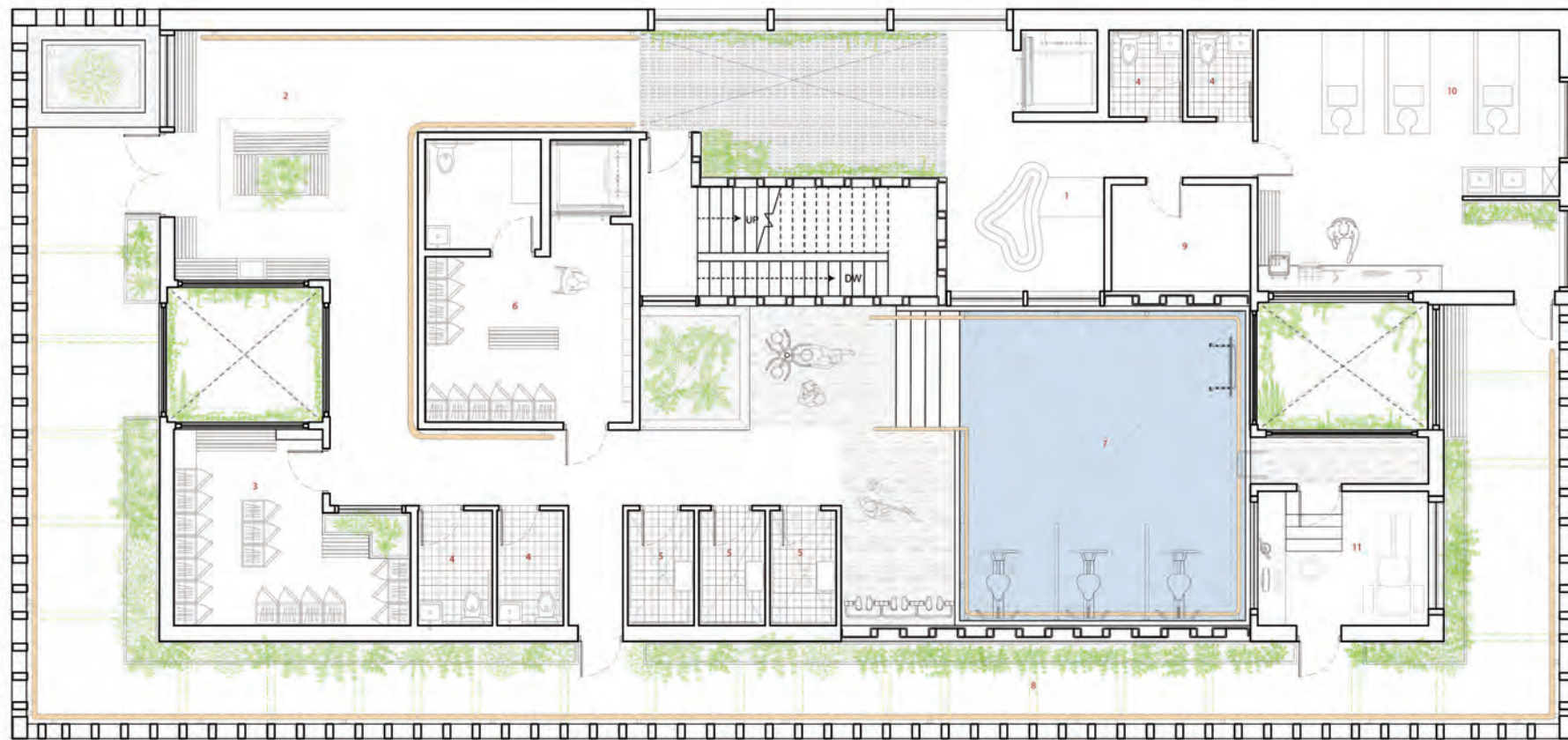




- 1. Visitor Lobby
- 2. Resident Lobby
- 3. Climbing Wall
- 4. Boxing
- 5. Lecture Stage
- 6. Mechanical Room
- 7. Trellis
- 8. Storage

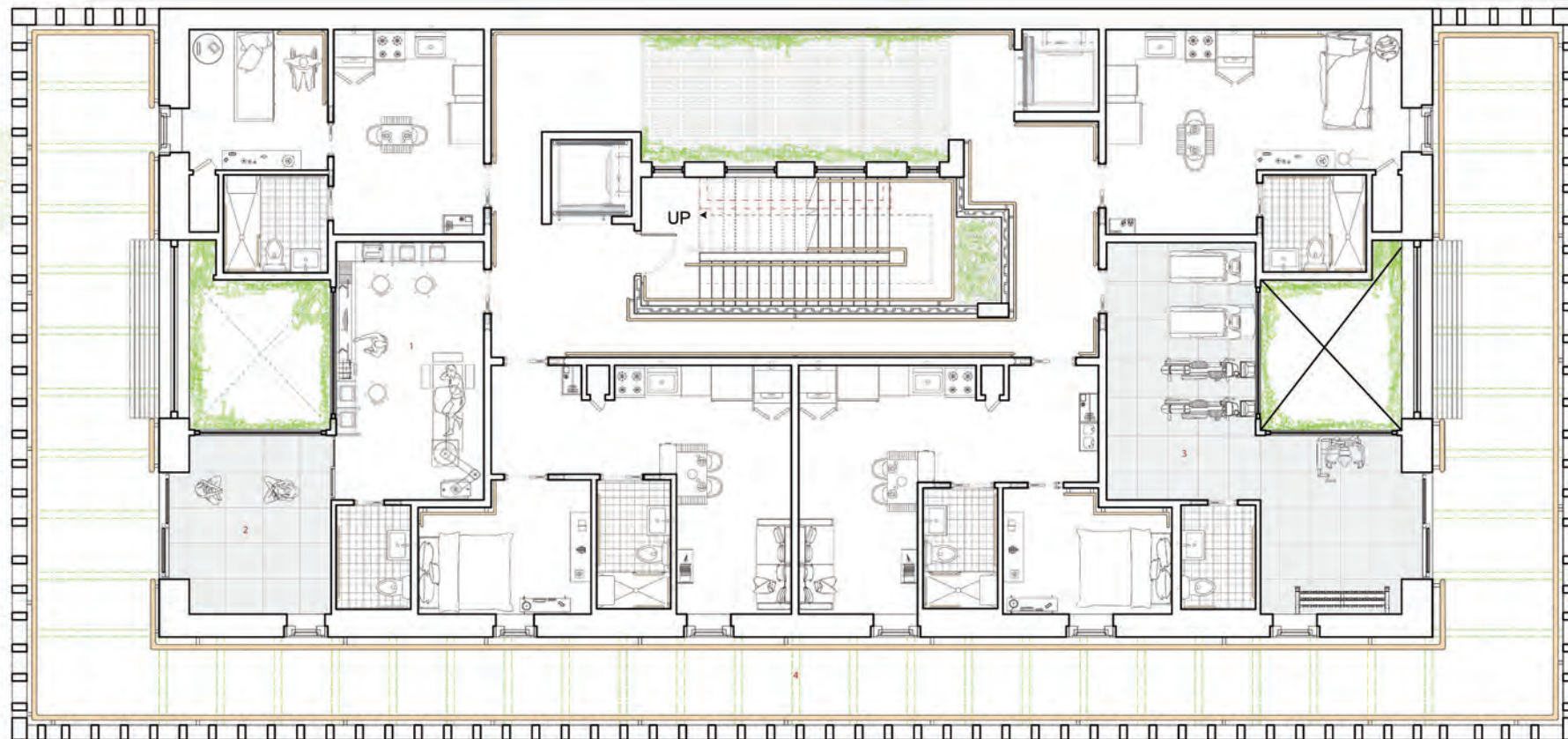
1/4"=1'
0 1' 5' 10'
Basement Level





1. Reception Desk
2. Lobby
3. Locker Room
4. Bathroom
5. Shower Room
6. Residential Locker Room
7. Swimming Pool
8. Trellis
9. Mechanical Room
10. Hydrotherapy Support Room
11. Office

0 1' 5' 10' $\frac{1}{4}"=1'$
Fifth Level



1. Regular Checking/ Consultation Area
2. PT Room
3. Residential Aerobic Room
4. Trellis

0 1' 5' 10' $\frac{1}{4}"=1'$
Fourth Level

