

**Architectural Mediation:
A Community Anxiety Center in
Alexandria, VA**

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Master of Architecture

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therapeutic space, urban space, community,
mental health*

ABSTRACT

Anxiety Disorders are the most common mental illness in the United States. While nearly 18% of Americans will experience an anxiety disorder within any given year, only one-third of those will receive treatment. Current mental health treatment facilities must navigate opposing needs for both awareness and access as well as privacy and respite.

This thesis explores the ability of architecture to influence emotion and mediate between opposites through the design of a community anxiety treatment center in the heart of Old Town Alexandria, VA. The building combines community services, outpatient treatment, and in-patient treatment under one roof. Rather than a treatment facility that is removed from the city, the center is placed within an urban community, creating increased awareness and access to treatment as well as an expanded care journey through community connectivity.

The building itself mediates between urban and therapeutic space, sequentially removing patients from urban stimuli as they move through increasing levels of treatment. As patients recover and begin to return to the city itself, the building gradually reintroduces them to the urban environment. Post-treatment, the location in Alexandria, VA allows patients to continue recovery through community support groups and activities.

ACKNOWLEDGMENTS

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I would also like to thank my family for supporting me throughout this thesis and my years of school. From childhood Legos through now, they have always loved me and encouraged me in my passion for architecture.

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RESEARCH

Anxiety Disorders

Anxious Space

Designing for Mental Health

ANXIETY DISORDERS

According to the Anxiety and Depression Association of America (ADAA), anxiety disorders are the most common mental illness in the United States. Although 18.1% of the U.S. adult population experiences an anxiety disorder every year, only 36.9% of those receive treatment, even though anxiety disorders are highly treatable.¹

Additionally, while 80% of Americans live in urban areas, living in a city increases anxiety disorders by up to 21%.² Even though Americans are living in cities surrounded by other people and activities, social anxiety affects 6.8% of the population, and 36% of those affected will have symptoms for 10 years before deciding to seek treatment.¹

While anxiety disorders may develop from a variety of physical, social, and experiential factors, the link between urban living and anxiety suggests that environment may also play a strong role.

18%

of the U.S. adult population
experiences and anxiety
disorder each year

36%

of people with an anxiety disorder receive treatment

21%

increased prevalence of anxiety disorders for people living in urban environments

ANXIOUS SPACE

Anxiety and Urban Environments

The early research process consisted of trying to understand what makes a space an anxious space. Some spaces are intuitively anxious, such as a dark alley or a haunted house. It is easy understand how a dark and confined space can make someone feel trapped and unsafe. However, other characteristics are more subtle.

The link between anxiety and urban space is not an entirely new concept. During the emergence of metropolis in the late 1800s, “spatial” diseases, such as agoraphobia and claustrophobia, first began to be classified. Psychologists of the time noted that these diseases were only present in the rapidly growing cityscape of large-scale and seemingly endless space, not in old European towns or in the countryside.³

In *Cognitive Architecture*, Ann Sussman and Justin Hollander theorize that the human discomfort in large, open spaces noted by psychologists during the late 1800s may be the result of a lack of spatial boundary. Sussman and Hollander note that people tend to “wall-hug” when moving into or through a new space. This allows people to feel protected and observe the people and activities in the space before stepping into it. Wall-hugging, or thigmotaxis, is related to the theory of prospect and refuge, which asserts that people want to be in a space that simultaneously offers safety and opportunity. Sussman and Hollander also write that spaces are more comfortable when proportioned for social distance, because humans are cognitively attuned to recognize faces.⁴

Overload Theory

Multiple theories have been suggested to explain the link between urban living and higher rates of anxiety, depression, and schizophrenia. One of these theories is Overload Theory. Overload Theory proposes that the large number of stimuli in the urban environment—people, cars, noise, trash, advertisements—become overwhelming for people, causing social withdrawal and emotional distress, such as anxiety and depression.⁵ In an urban world where everything is trying to communicate a message, finding rest from these stimuli is increasingly challenging.



Bound space in Piazza del Campo, Siena, Italy



Unbound space Boston City Hall plaza



Stimuli in Times Square, NYC⁶

Biophilic Design

An area of research dedicated to how environment affects human well-being is biophilic design. Biophilic design centers on the idea that connecting people to nature in the built environment will create healthier and happier people. Decades of research and numerous experiments, such as studies linking hospital rooms with views of nature to faster recovery rates, have supported this theory. Key elements of biophilic design strategies include: visual connection to nature, natural lighting, biomorphic forms and patterns, rhythm, order, complexity, natural materials, prospect-refuge relationship, and mystery.⁷

Cognitive Architecture

Recently, architectural researchers have been using advances in neuroscience and brain scanning to try to understand how people feel in the environments around them. Through this research and associated experiments, links between color, texture, and form can be linked to human emotional and physical responses. For example, in *Welcome to Your World*, Sarah Williams Goldhagen explains the human reaction to the color red:

“Humans respond to compositions dominated by sharp, irregular, angled forms with discomfort, even muffled

fear. The color red and red light stimulates people, but generally not in a pleasant way. We know that when infants or people suffering from mental illness are exposed to red light, anger and anxiety are heightened. An all-red environment shifts the human pituitary gland into high gear, raising blood pressure and pulse rate, increasing muscular tension, and stimulating sweat glands.⁸”

While José Javier Gallardo Ortega’s design for a psychiatric facility in Spain was intended to bring the asylum out of the shadows and energize the space, his choice of red, pointy forms may have a negative effect on the recovery and well-being of the patients. In contrast, the Clyfford Still Museum by Allied Works in Denver, Colorado was designed to be “an architecture of silence.” Situated next to Daniel Libeskind’s expressive and deconstructivist Denver Art Museum, the Clyfford Still museum invites people to pause and rest inside of its textured concrete walls. Natural light is abundant in the space, and wood accents add a comfortable level of warmth. Where the Denver Art Museum is energetic and exciting, the Clyfford Still museum is soft and calm. Unlike Ortega’s psychiatric facility in Spain, Allied Works’ museum gains attention through its relaxing presence in an otherwise busy, public space.



Psychiatric Facility by Jose Ortega⁹

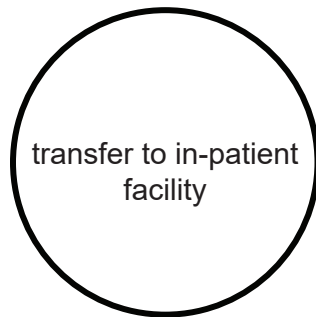


Clyfford Still Museum in Denver, CO¹⁰

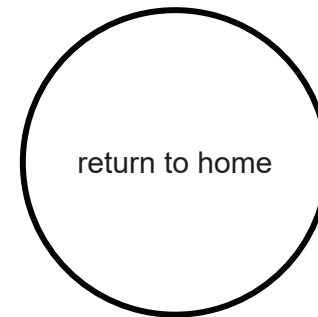
TRADITIONAL CARE EXPERIENCE



lack of awareness and access to resources creates a barrier to treatment

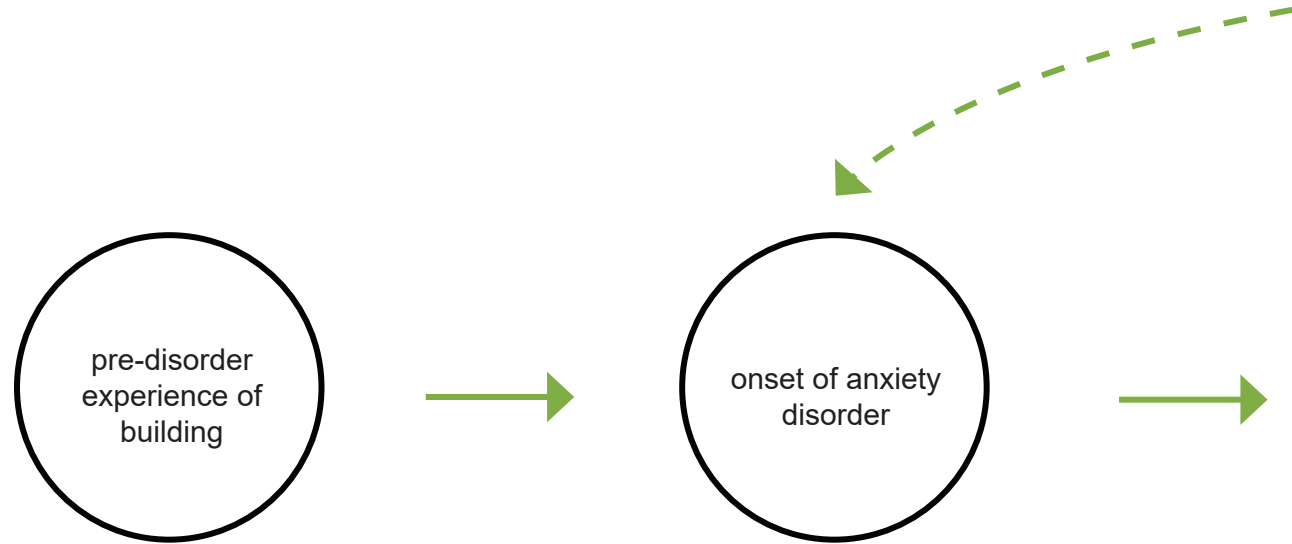


treatment is disrupted as the patient has to change locations and re-build relationship, trust, and vulnerability with a new care team



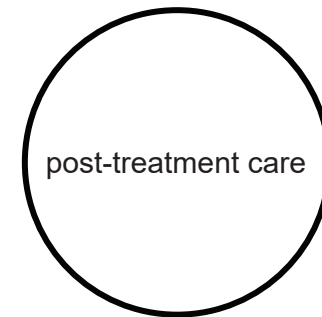
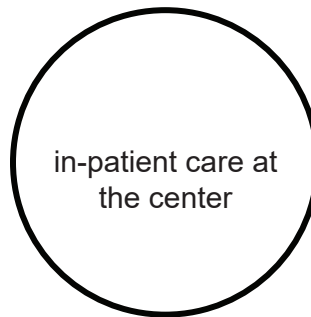
when the patient returns home, there is no local support or community to continue the care experience or help the patient with relapse

IMPROVED CARE EXPERIENCE



The patient knows where to access treatment, even before treatment is needed.

The building feels familiar and comfortable to the patient, should he or she ever need treatment.



The patient is able to skip the research step, expediting his or her ability to receive care.

The patient is able to keep the same therapist and care team, eliminating the need to re-establish trust and vulnerability with a new team.

The patient is close to friends and family, and is able to have visitors and the support of loved ones.

After the completion of care, the patient is able to return to daily life but also have a support system in place.

DESIGNING FOR MENTAL HEALTH FACILITIES

Mental healthcare facilities have unique design considerations and challenges. An increasing focus for designers of these facilities is providing a de-institutionalized and home-like environment that fosters patient dignity and autonomy. However, this need for de-institutionalization and autonomy can conflict with the need for patient security and safety. Through research on anxious space and mental healthcare facility design, five sets of opposing needs for the community anxiety center were identified.

PRIVATE ————— PUBLIC

BOUND ————— UNBOUND

VIEWS ————— SECURITY

PROSPECT ————— REFUGE

ORDER ————— COMPLEXITY



Watercolor of a window seat. Early in the research and design phase, the window seat emerged as a successful balance of prospect and refuge as well as views and security.

SITE

Site Selection

Views

Analysis

SITE SELECTION

While mental health facilities have traditionally been located on private, isolated sites or in conjunction with a hospital, the community anxiety center is located within Old Town Alexandria. The urban location creates awareness of and access to treatment for the people of Alexandria. Additionally, the location within a community allows a continued care journey through community support groups and events.

The site sits at the intersection of the urban grid of Alexandria and a recently redesigned community park that leads to the Potomac River. It is accessible by a variety of transportation methods, including walking, biking, public transit, and car.

The site also has a one-story grade change from the city side to the river side, creating an opportunity for the separation of opposing spaces in the section. The slope towards the river allows the higher portion of the site clear views to the Potomac and creates a noise and view buffer for the lower portion.





Site Plan N



Image from Google Earth



View 1
Northwest Corner



View 2
South Lee Street



View 3
South Lee Street to Water



View 4
Southwest Corner



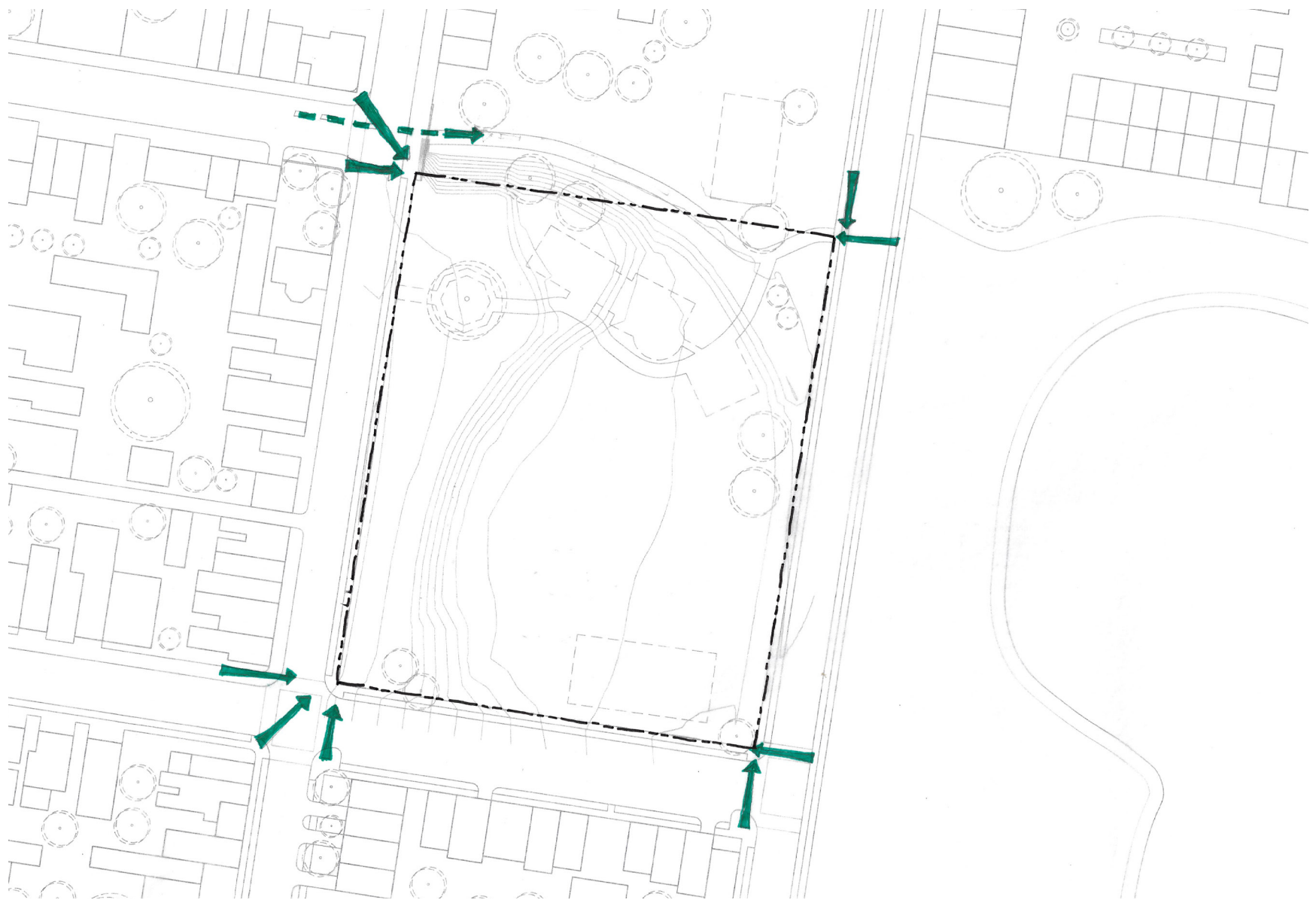
View 5
Southeast Corner



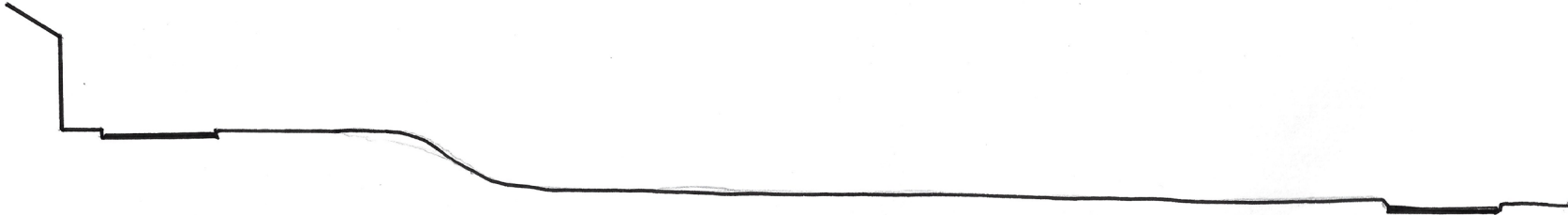
View 6
Northeast Corner



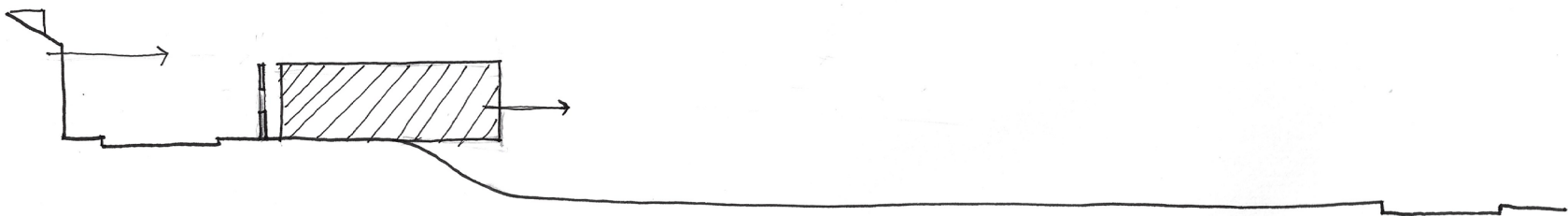
City Grid and Natural Edges



Primary Site Access and Views



Site Section



Initial Section Concept

DEVELOPMENT

Concept

Screen

Room Studies

CONCEPT

A question arose early on in the design process: Should the building continue the urban edge or remove itself off the street edge? While schemes that explored removing the building off the street edge made the building feel more private, the schemes also lost the connection of the building to the community, both visually and physically. Arranging the building along the street edge creates a public face for the building and visually connects it to the city fabric.

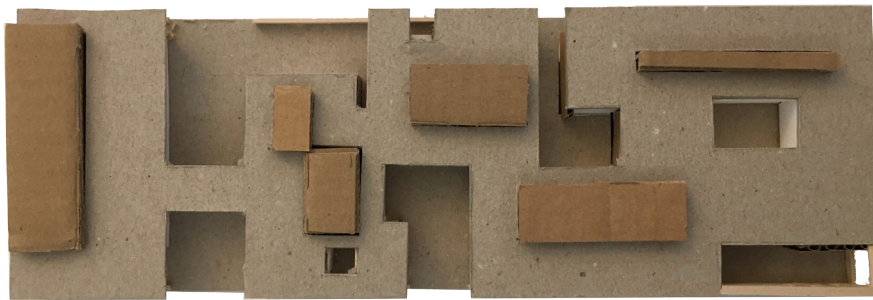
The building is organized linearly on the site as a sequential experience, moving visitors from public to private and from urban to therapeutic space. The removal of patients from urban stimuli is critical to creating a therapeutic space where patients can focus on recovery.

The public, semi-private, and private programmatic areas are linked by ramps that transition people between the spaces. As a person moves further into the building, they move higher up in elevation, creating a feeling of being above and away from the city. Courtyards further separate the private and public spaces, giving each space a unique view and creating moments of delight along the sequence. All of the programmatic areas are united under one community roof and bound by a screen wall.





CONCEPT DEVELOPMENT



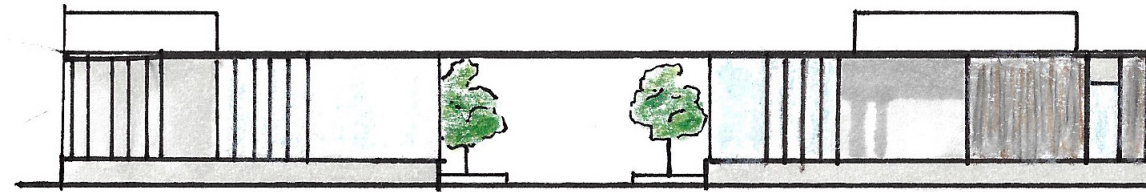
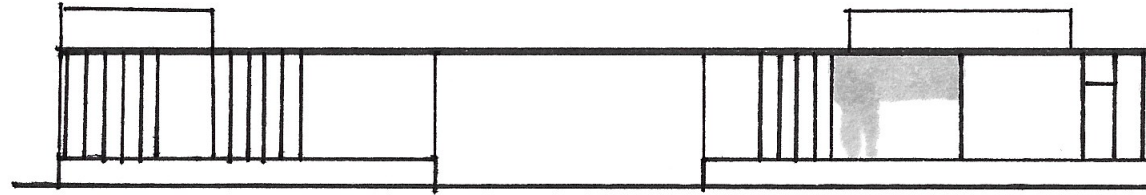
*Far left: Initial Concept
Top: Massing Model
Bottom: Form and Screen Model*

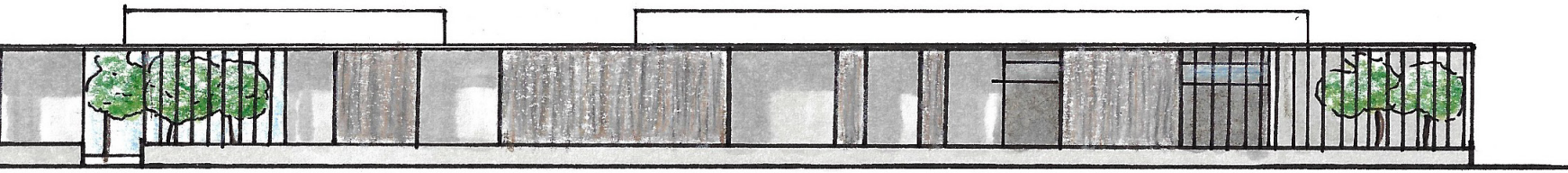
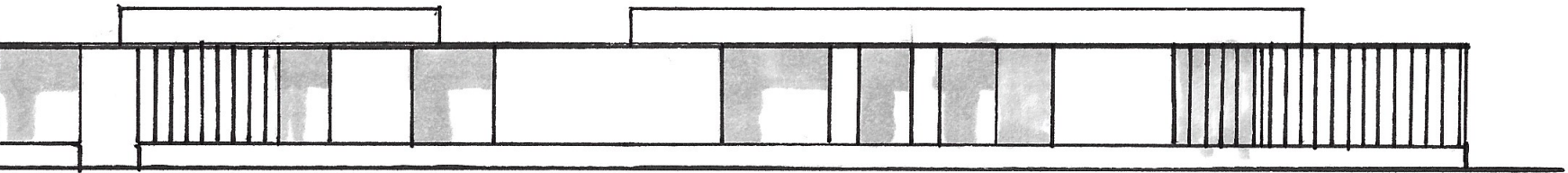
SCREEN

The screen wall ties all of the programmatic areas and courtyards together. It continues the urban edge and creates a sense of boundary on the site. The wall is composed of a board-formed concrete base and wood slats and panels. The concrete base reflects the prevalence of urban masonry walls in Alexandria. Throughout Alexandria, these masonry walls separate private entries and courtyards from the street edge. These walled spaces appear as little oasis spaces within the city, inviting people in while also creating privacy for the residents of the buildings. The wood slats control visibility into and out of the building, while also allowing in natural light and views to the Potomac.



Urban wall in Alexandria



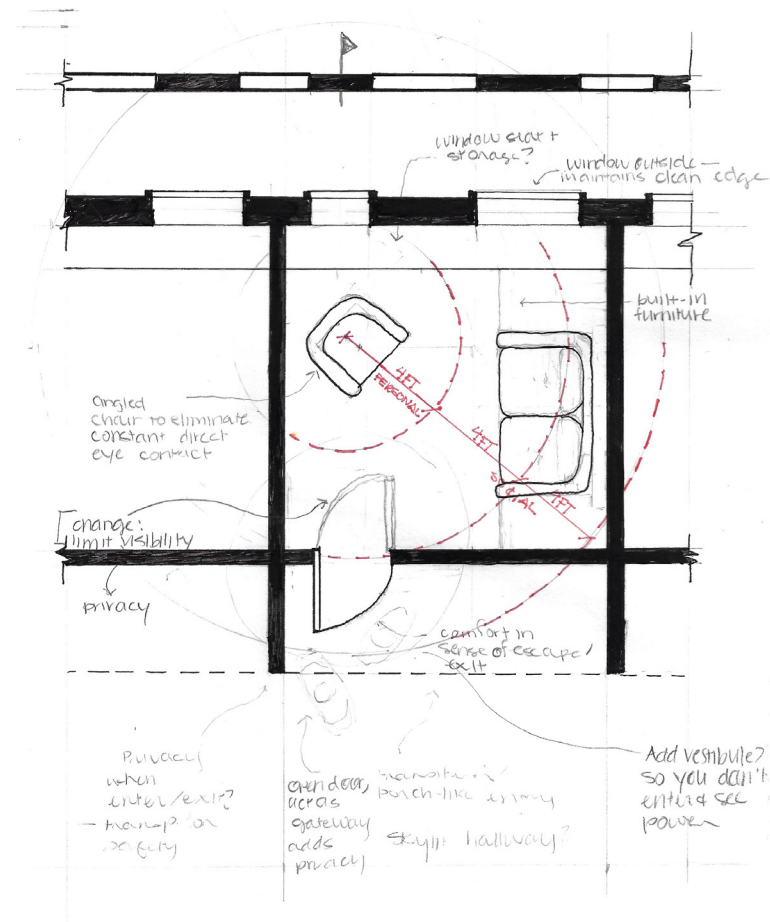


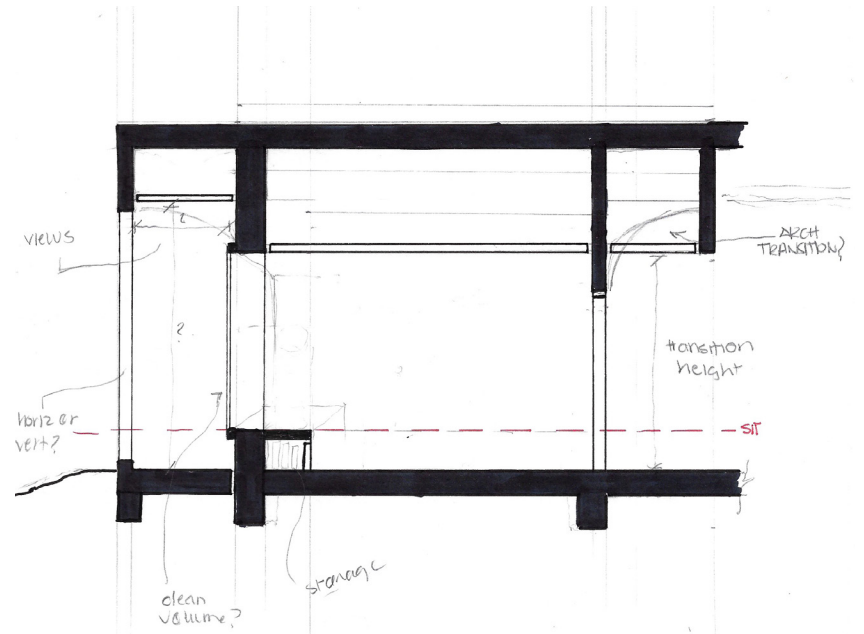
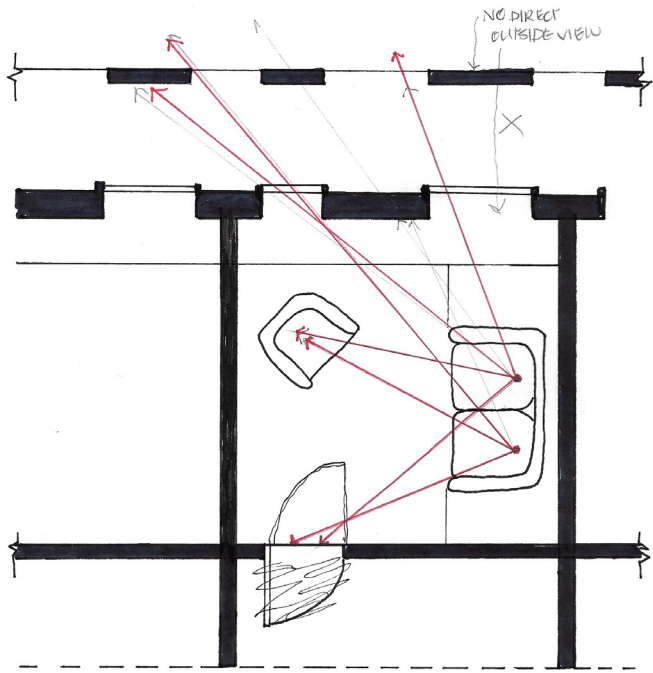
THE COUNSELING ROOM

The primary treatment space in the center is the counseling room. The counseling room needs to foster openness and vulnerability while also providing feelings of comfort and security.

The counseling room developed through an analysis of personal space and views. The proportion of the room is designed to place the client and counselor in the "social" space zone. This 4' - 8' zone is close enough for the client and counselor to have personal conversations while also far enough for the client to feel comfortable.

The concept of positioning in the project arose through the development of the counseling room. Positioning is how the user chooses to position himself or herself in a space relative to other people, objects, or views. Positioning allows the user a subtle choice to personalize the environment for their own comfort. Based on where the client sits on the couch, he or she can choose a closer personal space distance or a farther, more protected-feeling space. In conjunction with the window and exterior building skin, the client can also choose a direct view outside or a screened view.



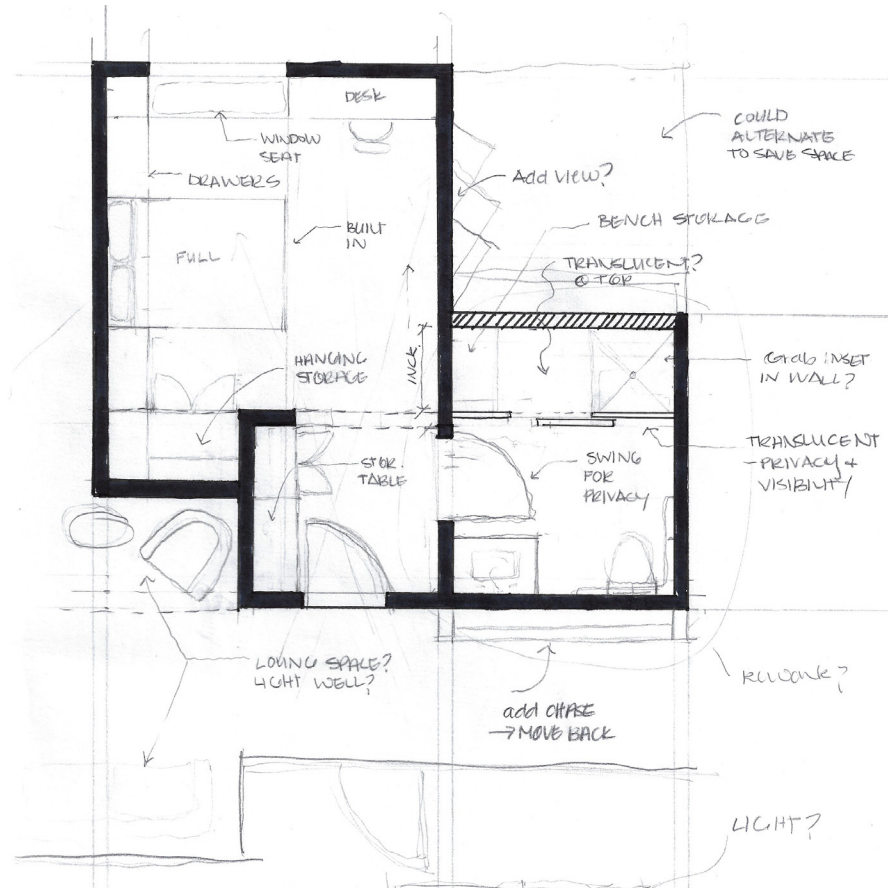


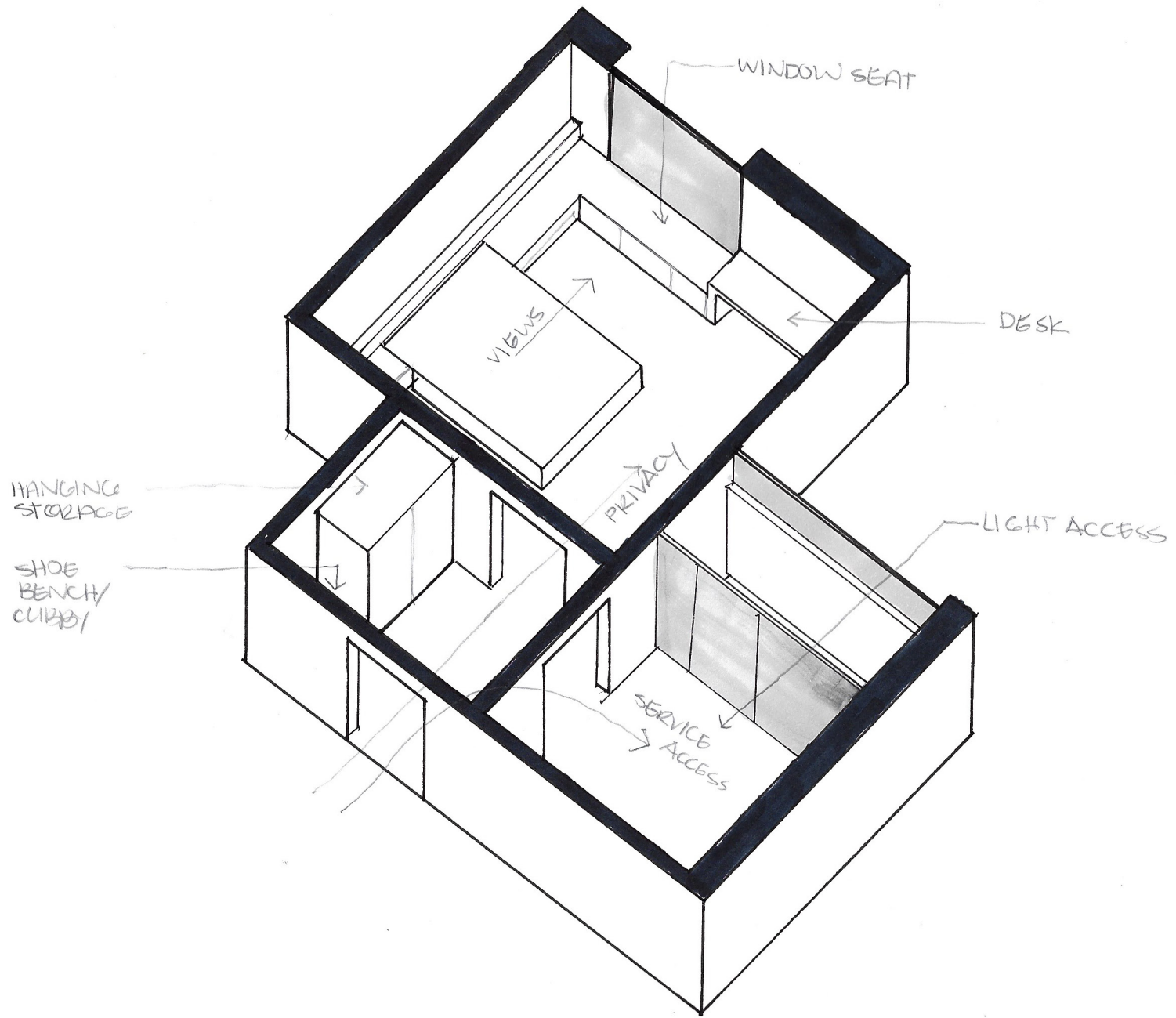
THE BEDROOM

The in-patient bedroom is designed to feel home-like, restful, and private for the patient while also providing appropriate access for staff. A vestibule creates an entry reminiscent of a house and allows for storage. This vestibule creates a transition that separates the bedroom from the treatment and shared living spaces. The staff are also able to access the bathroom for services without disrupting the patient in the bedroom.

The bathroom is designed for a feeling of privacy and comfort. Unlike typical hospital bathrooms, the bathroom is spacious and has a high window to allow light in. The frosted glass shower door allows the patient to not feel too enclosed.

The bedroom has a large window with clear views to the Potomac River. Built-in furniture maintains a continuous horizontal throughout the room, mimicking the horizon beyond. A window seat creates a comfortable prospect-refuge space for the patient to relax, look out the window, or read. Ample storage in the room allows the patient to personalize the space. The built-in furniture maximizes safety in the room by minimizing throwing hazards. The bed also has a view to the door, giving the patient a sense of security.





FINAL DESIGN

Diagrams

Plans

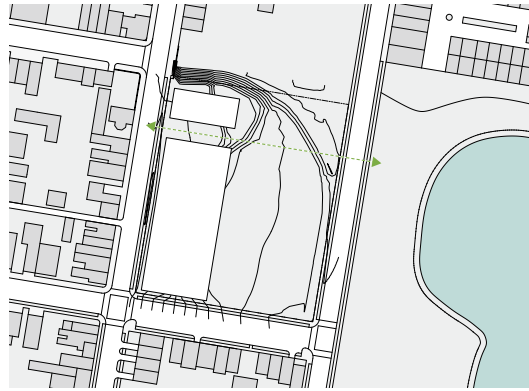
Elevations

Sections



Orientation

The building continues the urban edge, integrating it with the surrounding context. Its location at the street edge also creates a public view and awareness of the building.



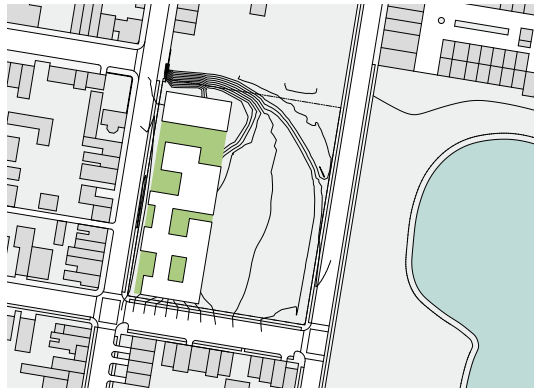
Access

The building mass was split at the northern end to allow access to the lower park. Visitors feel like they are inside the building while passing through a courtyard designed as an exterior room.



Sequence

The building is experienced as a sequential progression from public to private space as well as urban to therapeutic space. As people move through the building, they are sequentially removed from urban stimuli.



Views

Courtyards throughout the building create moments of delight and act as way finding spaces. The courtyards also provide a visual connection to nature and separate the viewer from the city.



Levels

Public, semi-private, and private zones are separated on levels and accessed by ramps. As a person moves through the building sequence, they move higher in elevation away from the city street.



Screen

A screen surrounds the building as a spatial boundary, tying the building parts together as a whole. The screen maintains the urban edge while also creating a sense of security and visual privacy.

SITE PLAN

1. Main Entry

The main entry into the screen and pass-through is located where the previous entry to the site was, maintaining a subtle memory of what was there before.

2. Drop-Off and Affordances

Openings in the screen allow people to enter off the street. Benches and planters create welcoming seating areas while visitors wait to be picked up by bus or car.

3. Staff Parking

Staff members are able to park in the designated parking lot. From this lot, they follow a tree-lined path to an entry staircase and elevator courtyard. Handicap parking is also available in this lot.

4. Connection to Park

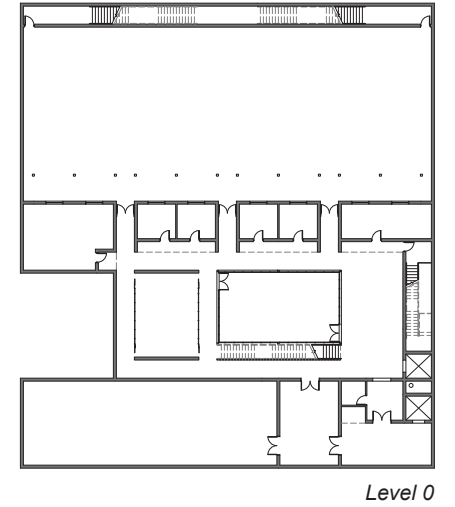
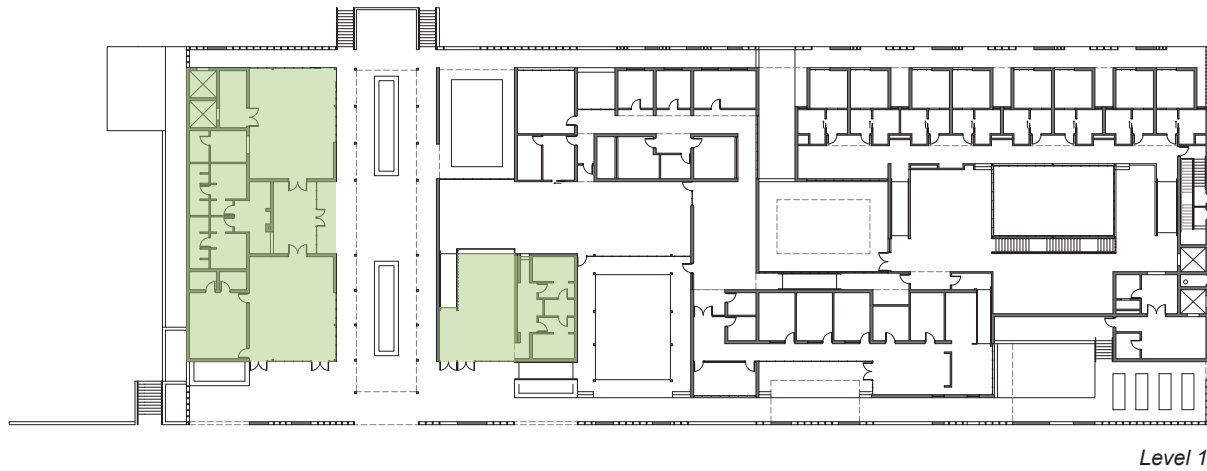
The building is split by a pass-through walkway that connects the upper site to the lower park. Staggered stair levels and seating create moments for pause and relaxation.

5. Connection to Tunnel

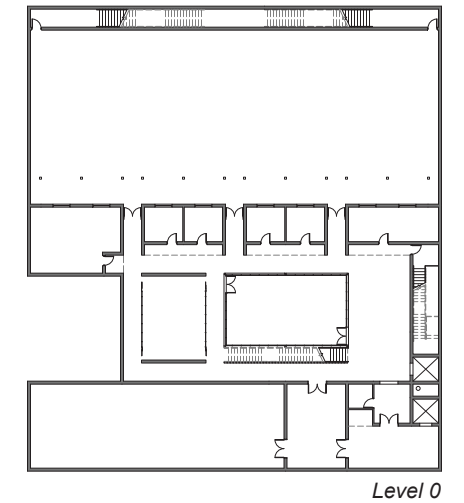
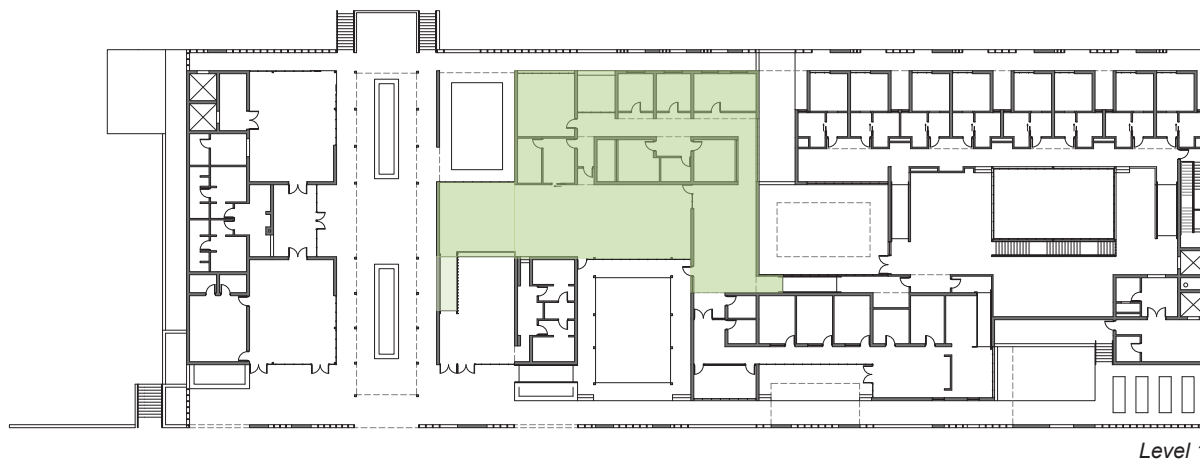
A curving path follows the natural slope edge and leads to an existing tunnel entry on the site. This curved path is a remnant from the existing site and keeps a sense of familiarity with the site for the community.



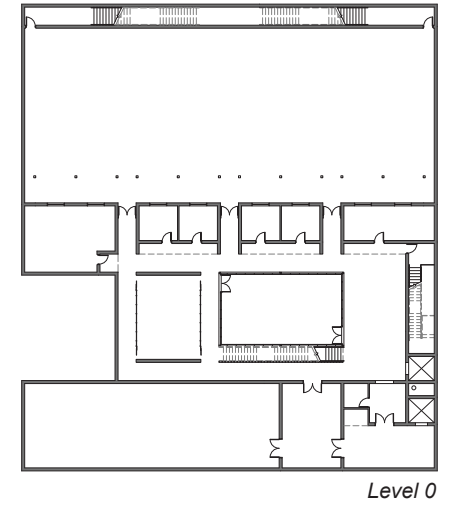
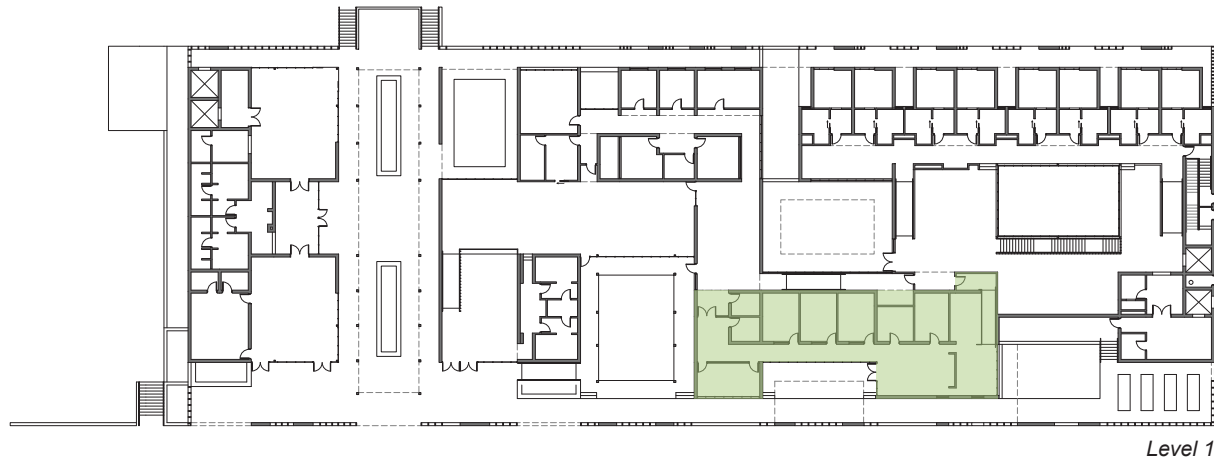
Public



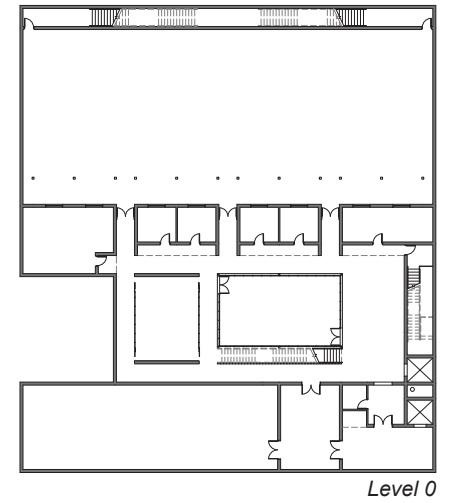
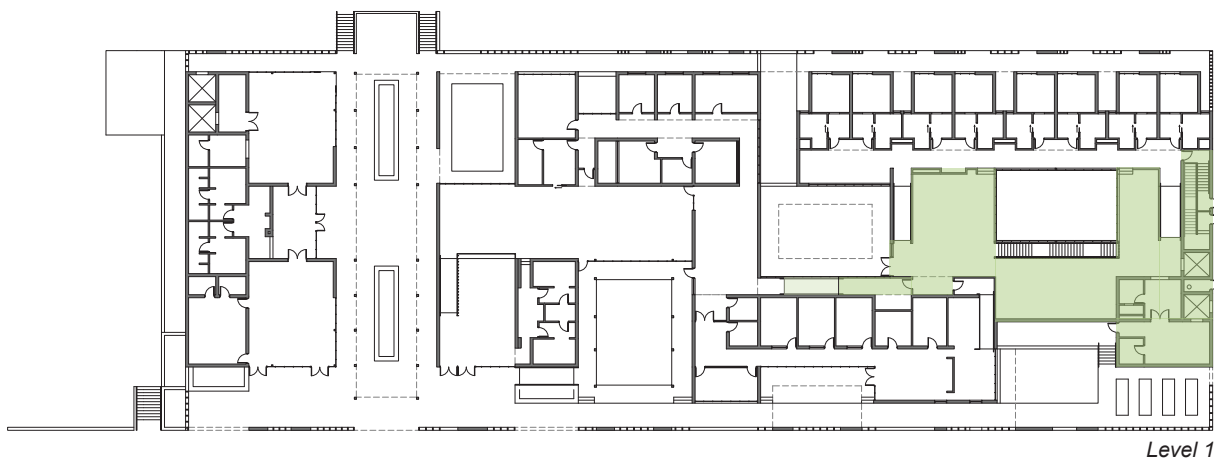
Semi-Private / Outpatient



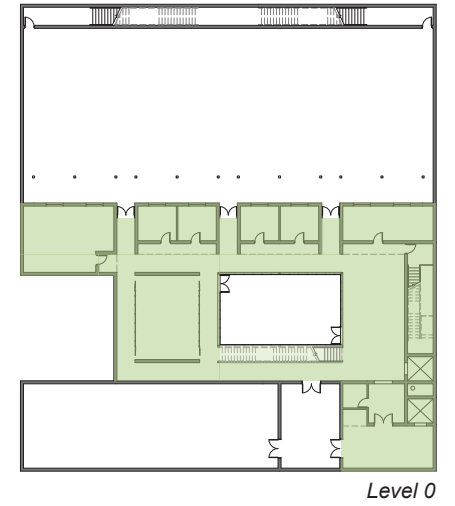
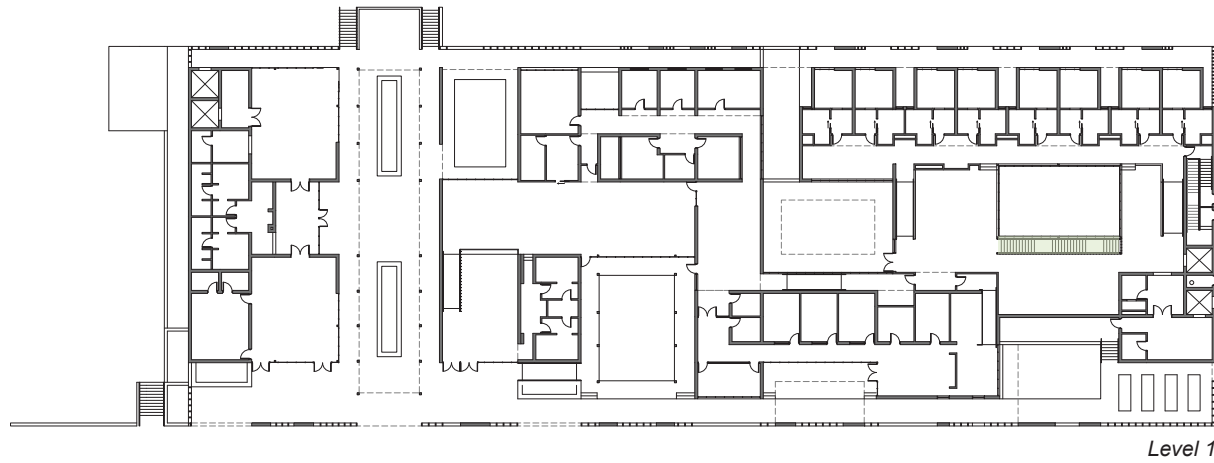
Staff



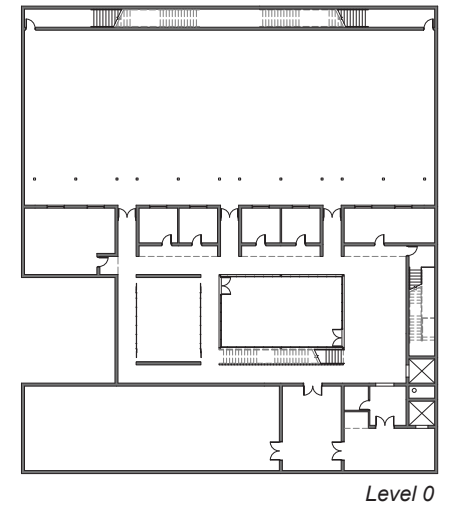
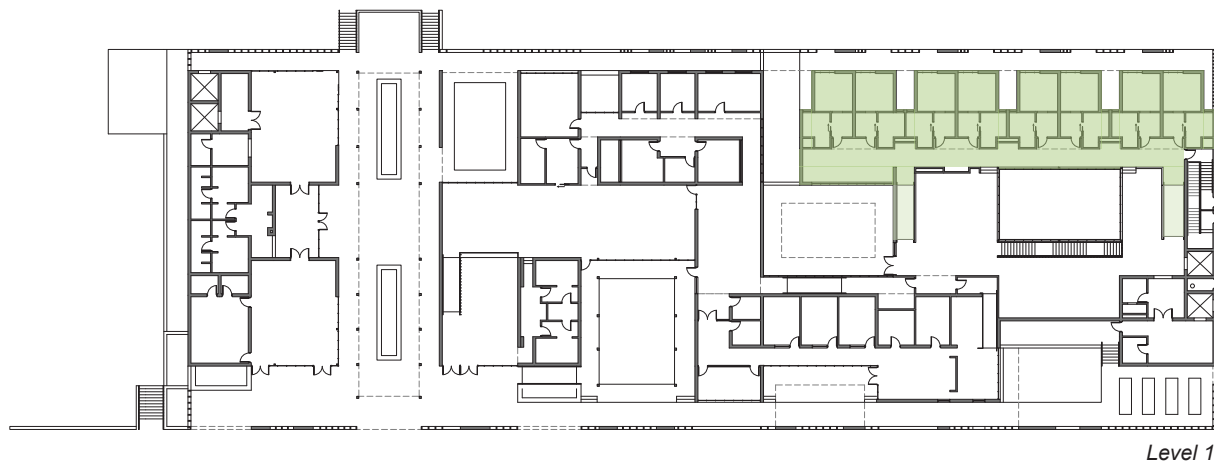
Inpatient - Living



Inpatient - Treatment

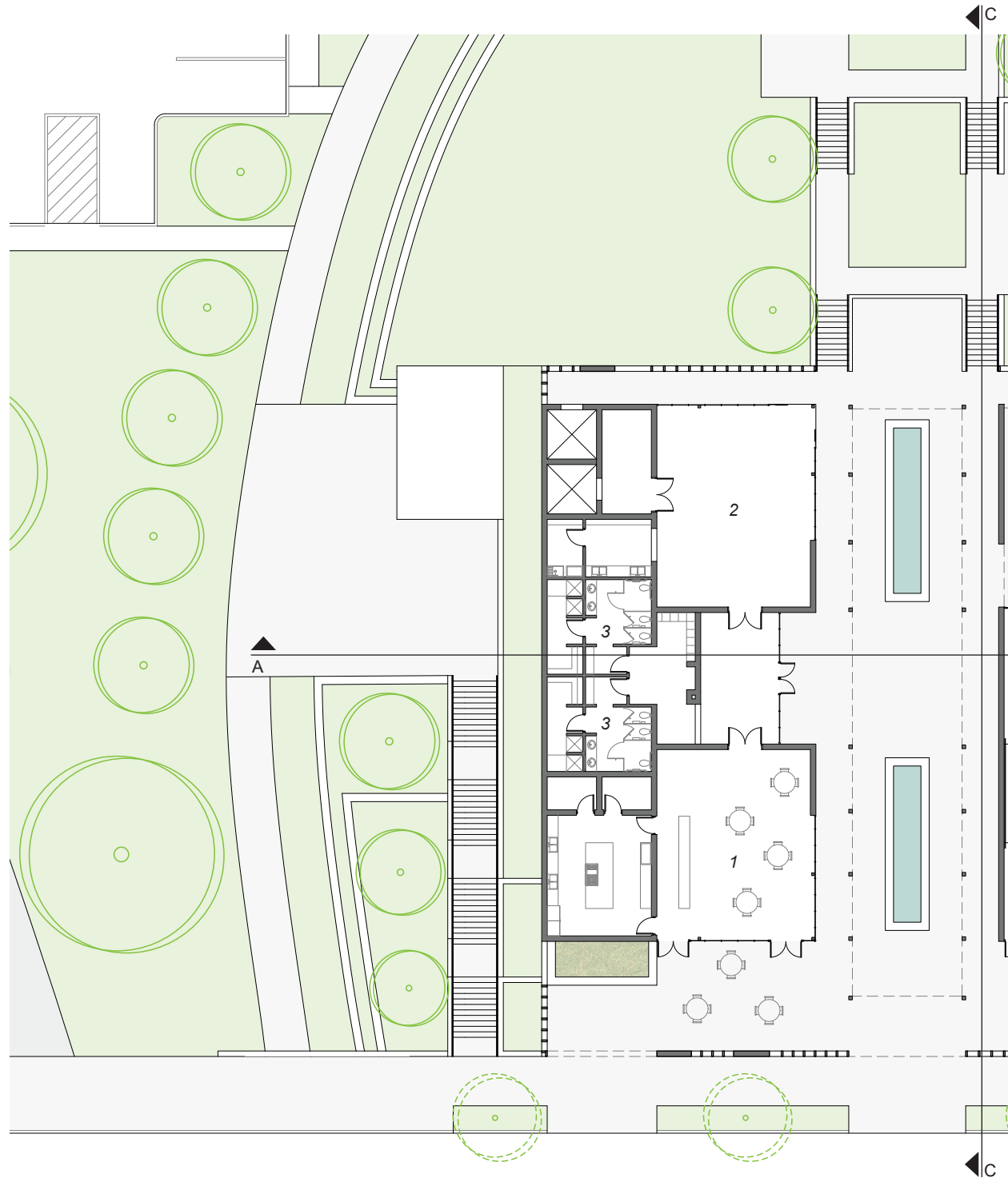


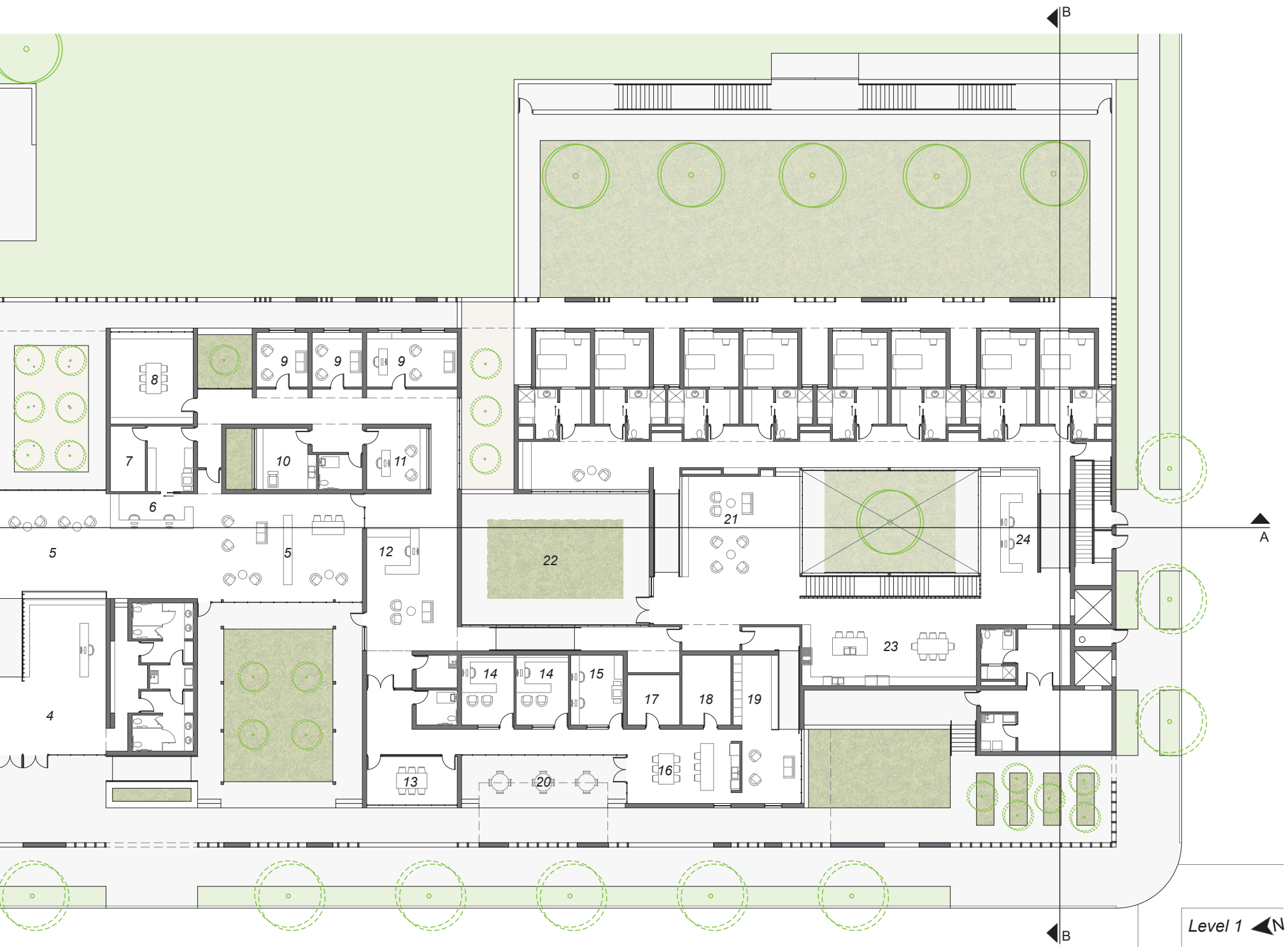
Inpatient - Bedrooms



PLAN

1. Cafe
2. Wellness Room
3. Locker Rooms
4. Lobby
5. Waiting Room
6. Counseling Check-in
7. File Storage
8. Group Counseling Room
9. Counseling Room
10. Intake and Exam Room
11. Consult Room
12. Check-Out and Secretary
13. Conference Room
14. Office
15. Records Room
16. Break Room
17. Electrical/I.T. Room
18. Storage
19. Staff Lockers
20. Staff Patio
21. Day Room
22. In-Patient Patio
23. Kitchen and Dining
24. Nurse Station

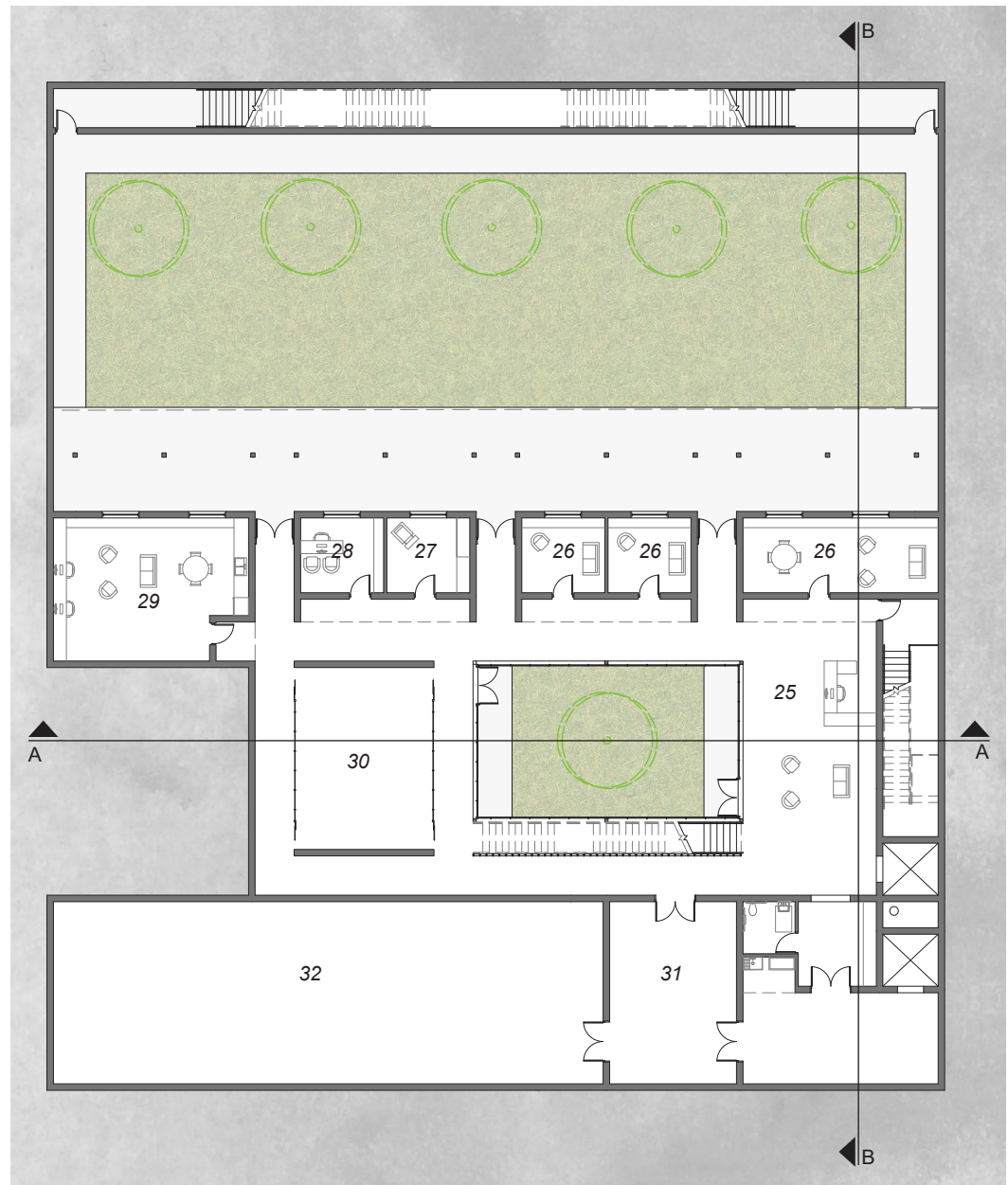





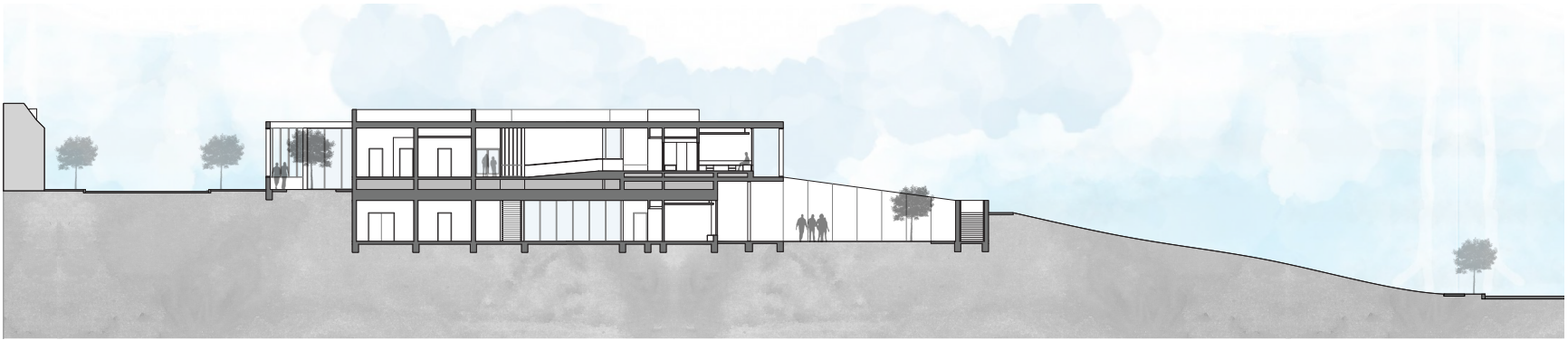
Level 1 

LEVEL 0

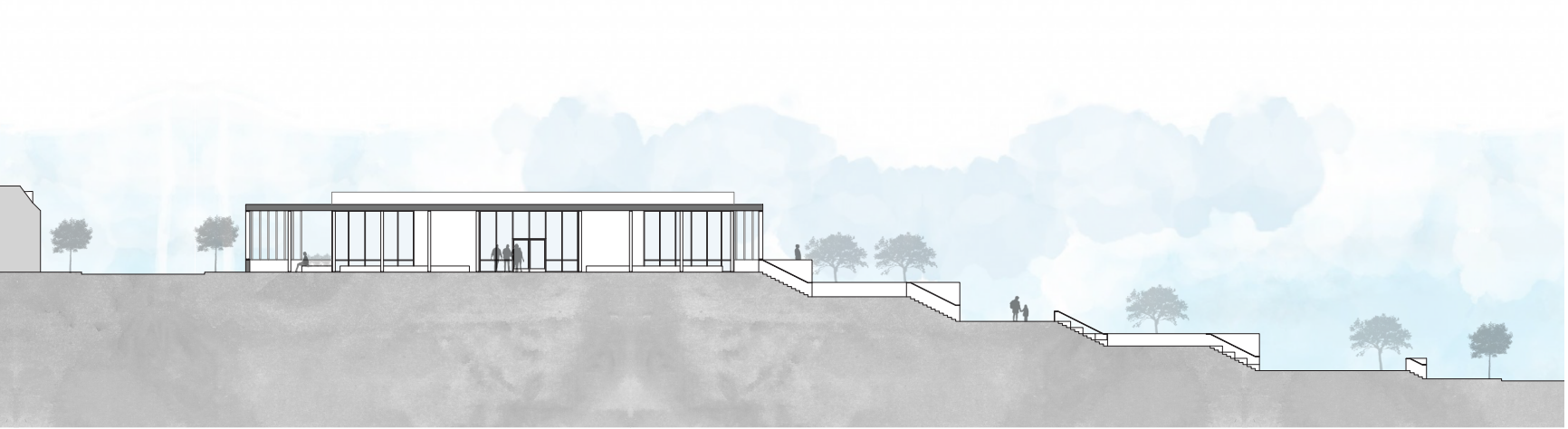
- 25. Nurse Station
- 26. Counseling Room
- 27. Exam Room
- 28. Pharmacist office
- 29. Staff Room
- 30. Wellness Room
- 31. Storage
- 32. Mechanical



Level 0 



Section C-C



Section B-B

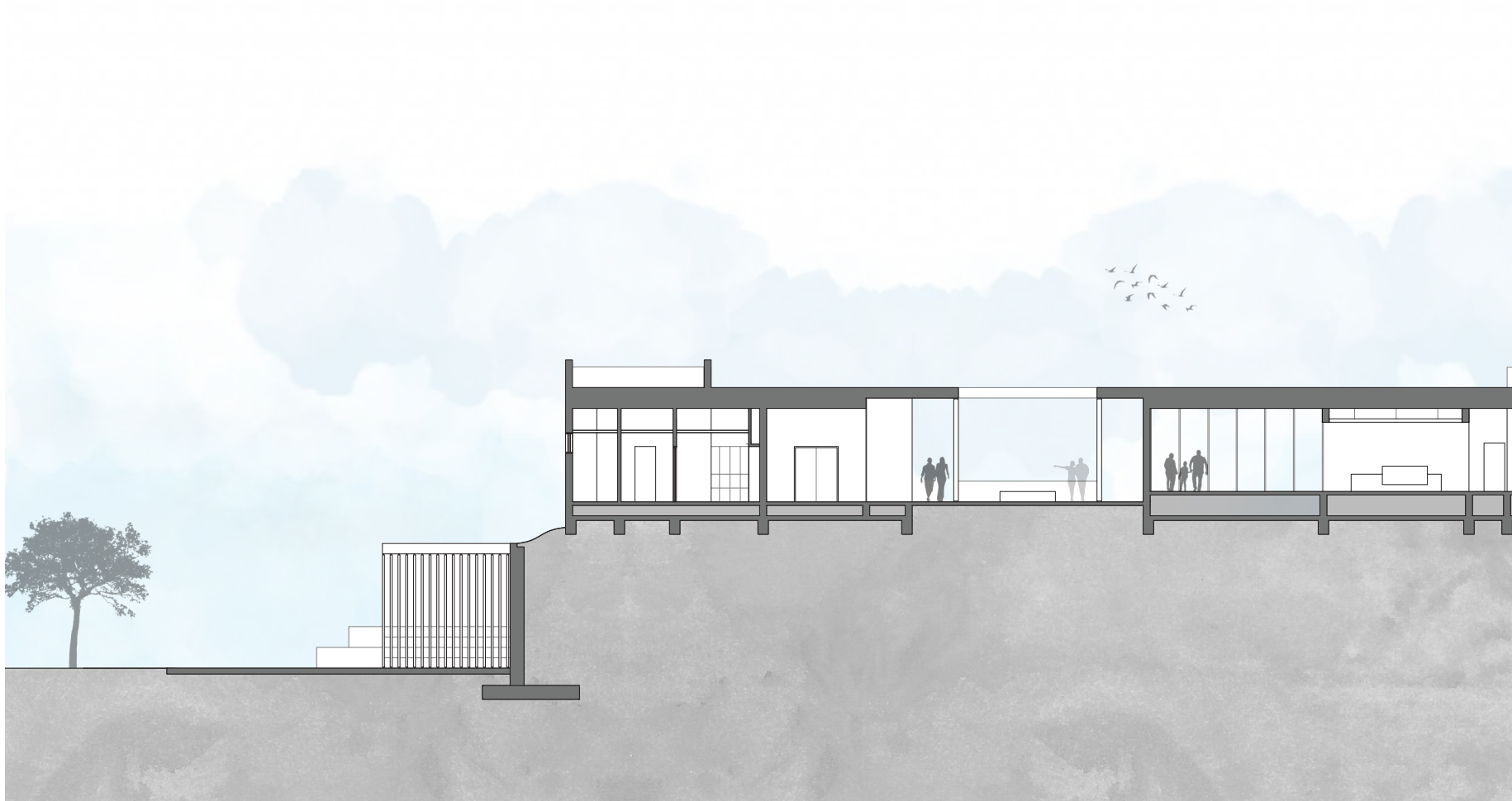




Front Elevation



Back Elevation





Section A-A





EXPERIENCES

Public
Patient
Staff



PUBLIC EXPERIENCE



*Far left: Northwest Corner Entry
Top: Entry Courtyard
Bottom: View to Courtyard*

OUTPATIENT EXPERIENCE



*Far left: Lobby
Top: Waiting Room
Bottom: Counseling Room*





INPATIENT EXPERIENCE



*Far left: Bedroom
Top: Living Space
Bottom: Lawn*

STAFF EXPERIENCE



*Far Left: Staff Entry
Top: Affordances
Bottom: Staff Courtyard*







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- ⁹ Image: <https://www.dezeen.com/2012/02/01/young-disabled-modules-and-workshop-pavillions-by-g-bang/>
Photography is by Jesús Granada.
- ¹⁰ Image: https://www.archdaily.com/203388/clyfford-still-museum-allied-works-architecture-2?ad_medium=gallery
Photography is by Jeremy Bittermann.