



The Growing Center

Horticultural Therapy Community Center

A unique facility for patients, their families, and the community that addresses mental health needs and re-introduces green spaces to the urban landscape of Richmond, Virginia.

Abridged Design Booklet

Planting a seed...

The initial seed for this project began with the Corona Virus Quarantine in March of 2020. Overnight the country, and much of the world, found themselves isolated and confused. It was a strange and stressful time, and many people, even those who did not experience issues before, found their mental health challenged. After a few weeks though, interesting trends began to emerge: people began to develop interesting and unique new ways to cope and connect with each other.

Quarantine lead a lot of people to take up gardening as a hobby. In fact, in a time when people could not leave their homes and many lacked a form of income, some gardening centers reported seeing their sales double. When asked why they chose to pursue this specific new hobby, people reported a number of different reasons including:

- fear over food shortage and an new need to grow their own food
- interest in a socially distanced activity
- an opportunity to bring the outdoors inside not that they were trapped at home
- wanting something to focus on and nurture during a time of isolation
- a grounding influence and a chance to see things change and whiteness the passing of time

It was interesting to see that in a time of fear and isolation, so many of us went back to nature and began to treat our own mental health with natural means. But that brought up other questions: what about the people who found themselves trapped in a tiny apartment in a big city with no access to an outdoor greenspace or even a balcony? If interacting with nature benefited our health on a small scale, was there a way to bring this experience to a larger environment? And was there a way to apply this to an urban environment with limited outdoor access?

Through extensive research, surveys, interviews, and case studies, it became apparent that this was not only a possibility but a necessity. A large scale space in an urban environment that provided access to mental health care, community support, and a green space would benefit our communities and our society and fill a niche that had thus far been largely unexplored. And thus a site was located, designs were begun, and the the Growing Center was born.





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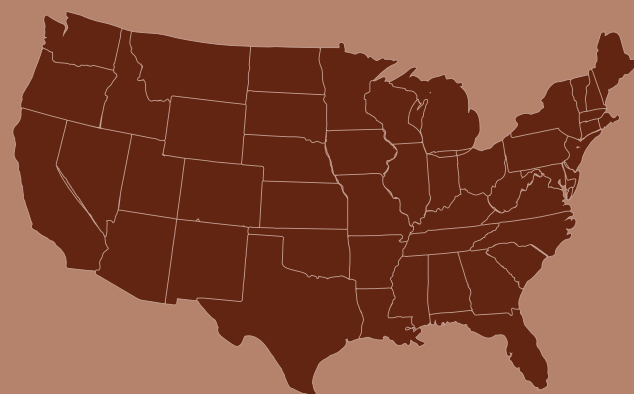
Initial Research

What problem needs to be addressed?

Mental health is not a new concern...

300 MILLION

people worldwide are estimated to be affected with depression



According to census.gov, that is only 30,000 less than the population of the United States



Schizophrenia affects about 21 million a little less than the population of Australia



Bipolar affective disorder affects about 60 million, which is a little less than the population of Italy

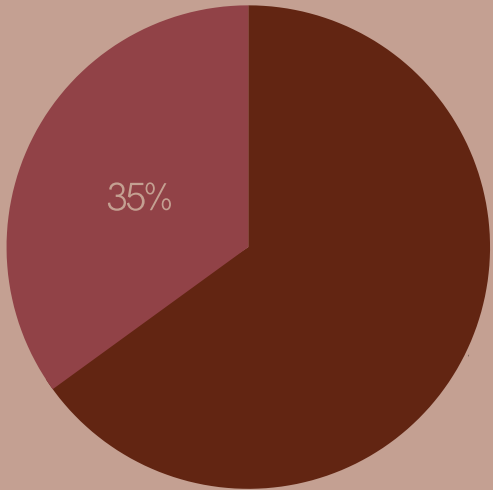


Dementia affects 47.5 million people worldwide which is slightly less than the population of Spain



One in twenty-five people suffer from serious mental illness in the United States

One in five people suffer from any level of mental illness during their lives, and 17% of youth experience a mental health disorder before the age of seventeen.



35% TO 50%

of people in high-income countries who are struggling with mental disorders receive no treatment

Many refuse to seek care due to cultural or social stigma, fear of professional repercussions, or lack of faith in traditional medications and methods of treatment.

PRECEDENTS FOR MENTAL HEALTH TREATMENT CENTERS

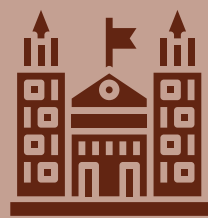
BEFORE 1900



For centuries the only care available for those suffering with a mental illness was charity from religious organizations. Monasteries and Abbeys often provided food and shelter for the mentally ill, but the only treatment available was religious practice and prayer.



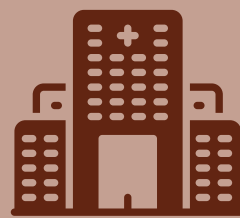
1900-1950



In the early 1900s, asylums were the primary care method for patients with mental illness. These facilities separated patients from the general population and presented them with a carefully controlled environment where they were to receive full-time care. This care focused on occupational therapy and religious involvement. Unfortunately, this method often lead to abuse of power and loss of autonomy as well as social isolation.



1950-1990



Later, the American health system transitioned to a psychopathic hospital system, where patients were treated in a more clinical environment and released into the population when symptoms of mental illness had reached manageable levels. These facilities often relied on the pharmaceutical industry for treatment. Unfortunately, many recent studies question the validity of medications designed to treat mental illness. Clinical trials for these medications often yield inconclusive results.



1990-TODAY



Today, Community Based Mental Health Care is the primary treatment method for mental illness. This method blends practical care methods from the past, such as physical activity, with pharmaceutical treatments and talk therapy. It also makes a point of involving the patient, their social network, and the surrounding community in the care and treatment of patients.





Community-Based Mental Health Care

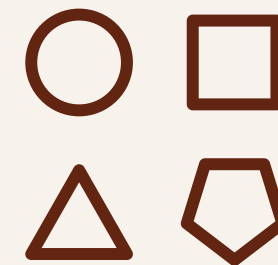
The new method for patient treatment and rehabilitation

It focuses on maintaining a patient's relationships and position in society rather than removing them from the general population.

It addresses not only the needs of the patient, but also the needs of their families and of their communities and focuses on educating all parties on mental health and mental healthcare.



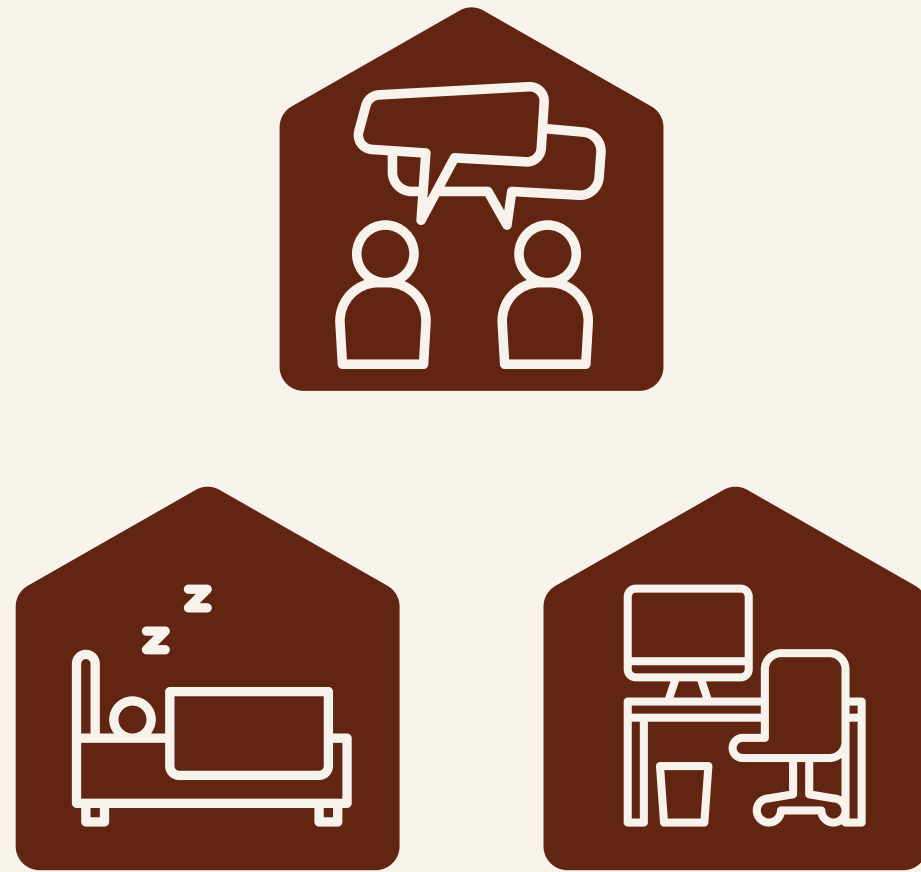
This method does not focus its attention on the negative effects of mental illness such as disability or social difficulties, but rather on the positive aspects of the patient's life. It takes more of a recovery perspective helping patients to build toward their dreams and goals and a more balanced life in the future.



Community based care is better designed to address the needs of traditionally underserved factions of society such as minorities, transient populations, immigrants and young adults. The more flexible care structure allows for everyone to receive fair treatment regardless of their differences.



This method also allows for a more cost-effective care system because much of the labor and day to day operations that would have traditionally been the role of psychiatric staff can be divided among non-specialized staff and members of the community. This also means that areas that would not have had access to specialized care can have some form of mental health treatment.



Community spaces, or "Third Place" spaces are an important aspect of our modern society

Third places are defined as "informal public gathering places" where we can gather and interact on neutral ground outside of our homes and workplaces. They are an essential part of community growth and health.



Our mental and emotional health is very dependent on our social connections and the health of our communities. Society today is moving away from a collective community environment to an individual development. This means that third places are disappearing and this can often lead to mental illness and social isolation.



Third places naturally cultivate local support groups within the community. People are able to meet regularly and form connections and this leads to a natural inclination to offer assistance and support whether that is a listening ear, or specialized knowledge.



Third places are areas where people can step out of their usual circles and interact across generations, beliefs, ages, and socio-economic backgrounds. They allow "community" to be defined by a location rather than more limiting, personal details and thus they allow for a greater diversity within social networks.



Third places work best when they are within walking distance of the community that they serve. They are also more effective if they are locally owned and operated. This grounds the space within the community, its values and needs, and allows the spaces to better foster an inclusive environment.

Horticultural Therapy & Mental Health

Nature's Cure for Modern Problems

"Horticultural therapy techniques are employed to assist participants to learn new skills or regain those that are lost. Horticultural therapy helps improve memory, cognitive abilities, task initiation, language skills, and socialization. In physical rehabilitation, horticultural therapy can help strengthen muscles and improve coordination, balance, and endurance. In vocational horticultural therapy settings, people learn to work independently, problem solve, and follow directions. Horticultural therapists are professionals with specific education, training, and credentials in the use of horticultural for therapy and rehabilitation."

- American Horticultural Therapy Association





Interacting with the natural world has a natural healing effect on humans

The world around us is full of stimuli that cause our brains to react in a fight-or-flight way without our conscious knowledge. Natural environments, however, trigger our limbic system to release serotonin and other relaxing agents and increase our ease, lower stress, and enhance our productivity.

79%

Seventy-nine percent of patients surveyed at four San Francisco bay Area Hospitals reported feeling more calm and relaxed after spending time in a garden. 19% reported feeling more positive and 25% reported feeling refreshed and stronger after time spent in a garden.

50%

In one study, females who spent a period of time in a forest setting saw a noticeable decrease in stress and those associated hormones. On the first day, adrenaline in their urine decreased by fifty percent and on the second day, their adrenaline levels were down to a quarter of their original measurements.



Green spaces also encourage physical activity and social interaction. The garden can become its own third place where all visitors are on an equal footing and where social interaction is not obstructed by the traditional limits and rules of society.



Humans have an ingrained, ancestral need for, and understanding of the natural environment. This natural attraction and tendency to create natural settings in the urban world is known as biophilia.



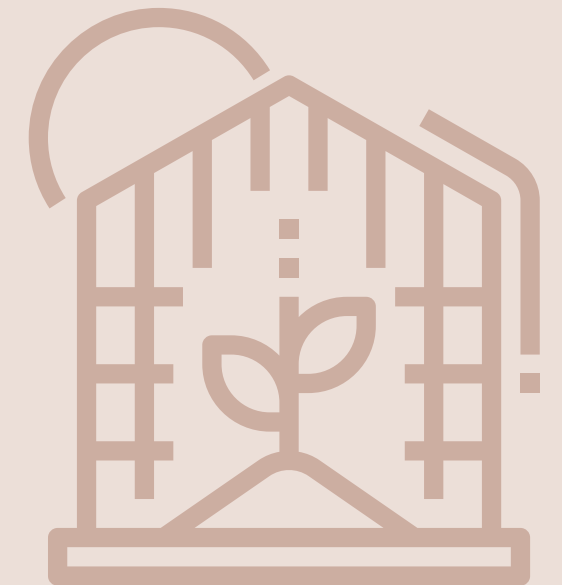
Although the effects of nature seem to be stronger when humans have direct contact with the natural world, small, simple changes to the built environment can have a marked effect as well. Several studies have shown that something as simple as access to natural views, natural light, or indoor plants can increase healing and create an enhanced sense of comfort and emotional wellbeing.



Healthcare
Center

Typical Design and Spatial Considerations:

- Primarily or entirely indoor spaces
- Focused on functional design and cleanliness
- Primarily artificial lighting
- Individual needs and private spaces are the primary design focus
- Access to nature is restricted to views through windows, artwork, potted plants, or limited greenspaces
- Design features minimalist, clean spaces with a heavy focus on wayfinding
- Clinical and sterile atmosphere



Urban Farm

Typical Design and Spatial Considerations:

- Primarily or entirely outdoor spaces (greenhouses bring the outdoors in)
- Function is dictated by plant needs rather than human needs
- Primarily or entirely natural lighting
- Community spaces are the primary focus (private spaces are limited or non-existent)
- Design is largely non-existent or it is limited to basic functional need and landscape layout
- Wayfinding is often lacking
- Users are fully immersed in the natural environment
- Dirty, active, and noisy environment



Behavioral
Center & School

Typical Design and Spatial Considerations:

- Mix of indoor and outdoor spaces
- Focused on functional design and space customization
- Artificial lighting mixed with limited natural lighting in interior spaces
- Classroom needs and community spaces are the primary focus
- Access to nature is achieved both through windows, artwork, and outdoor greenspaces
- Design features layered, textural spaces with limited wayfinding and a focus on group customization
- Friendly, comfortable environment, although heavily saturated colors and cluttered customization can make the space feel hectic



Community
Center

Typical Design and Spatial Considerations:

- Usually largely indoor spaces with limited outdoor access
- Focused on comfortable design and user customization for individual or group needs
- Mix of natural and artificial lighting
- Community spaces are the primary focus with limited private or semi-private spaces
- Design is often focused on community needs and creating a sense of inclusion
- Wayfinding is available but often hard to find
- Active, exciting environment in some spaces and comfortable quiet environment in others
- The space is designed to blend both working spaces and the comforts of a residential environment



Healthcare
Center



Behavioral
Center & School

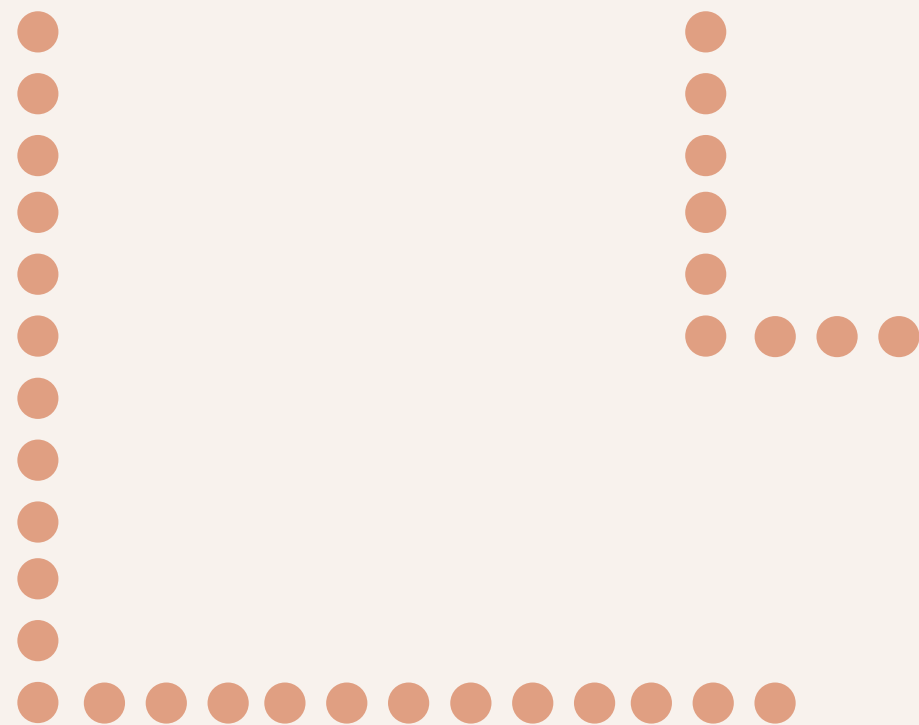
All of the best aspects of these
individual spaces can be
combined into something new.



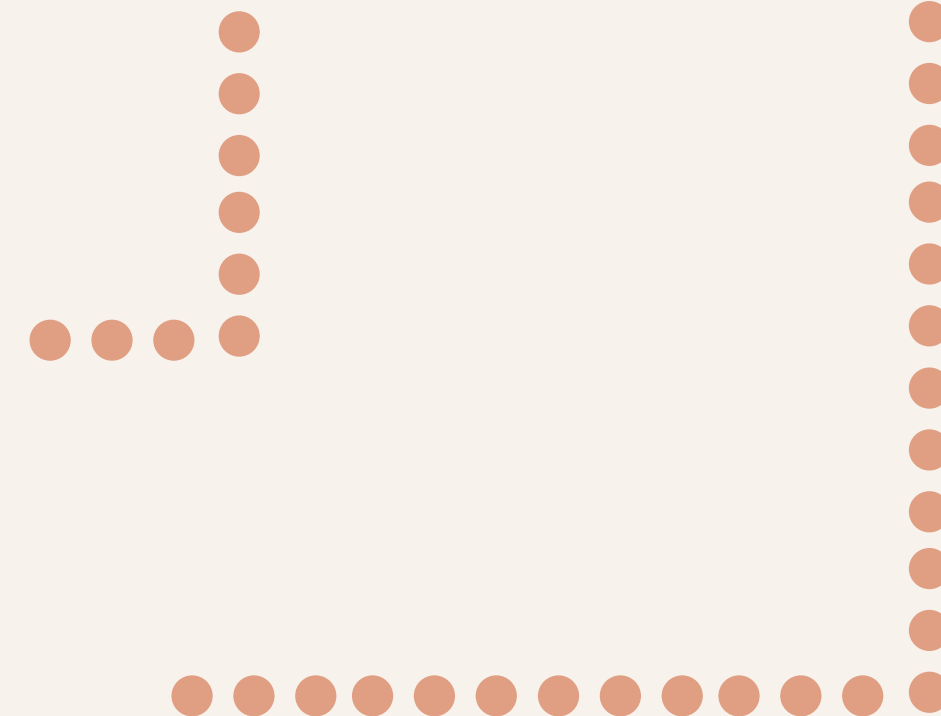
Community
Center



Urban Farm



Horticultural Therapy
Community Center



The Proposal

A Horticultural Therapy Community Center

This facility would be more than a mental health retreat or community center, it would become a community gathering point where patients with specific needs can receive out-patient care and where the community can gather and lend their support. By combining traditional aspects of therapy and psychiatric care with horticultural therapy, patients can meet with a therapist, psychiatrist, or participate in traditional group therapy sessions in a tailored and comforting environment or get their hands dirty with more physical horticultural therapy methods. The space would address acute mental health needs and provide comfort and support for collective health needs through the provision of green space and a third place. Patients and community members alike can grow their own food or flowers, contribute to the community by tending edible gardens, and nurture and care for a living thing as they re-learn how to nurture and care for themselves.



A Horticultural Therapy Community Center



A New Kind of Care

By combining the best parts of a variety of different spaces and care facilities, the Horticultural Therapy Community Center will address a variety of different user needs in a new and unique way. Indoor and outdoor spaces will be blended and community and private spaces will complement and enhance each other.

Proposed Design and Spatial Considerations:

- The line between indoor and outdoor spaces will be blurred and natural spaces will be adapted to an urban landscape
- The Space will be focused on comfortable design and user customization for individual or group needs
- Artificial and natural lighting will harmonize and complement each other
- There will be a balance between community spaces and private spaces with a focus on flexible customization
- Design will be inviting, comfortable and homey, inviting the public in and allowing them get involved in mental health care and community health care
- Wayfinding will be naturally integrated
- The area will balance an active exciting environment in some spaces with a comfortable quiet environment in others
- The space will be designed to blend both a working agricultural space and the comforts of a residential environment



Site & Building Analysis

Where can we grow?

Site Overview



Tobacco & Trade

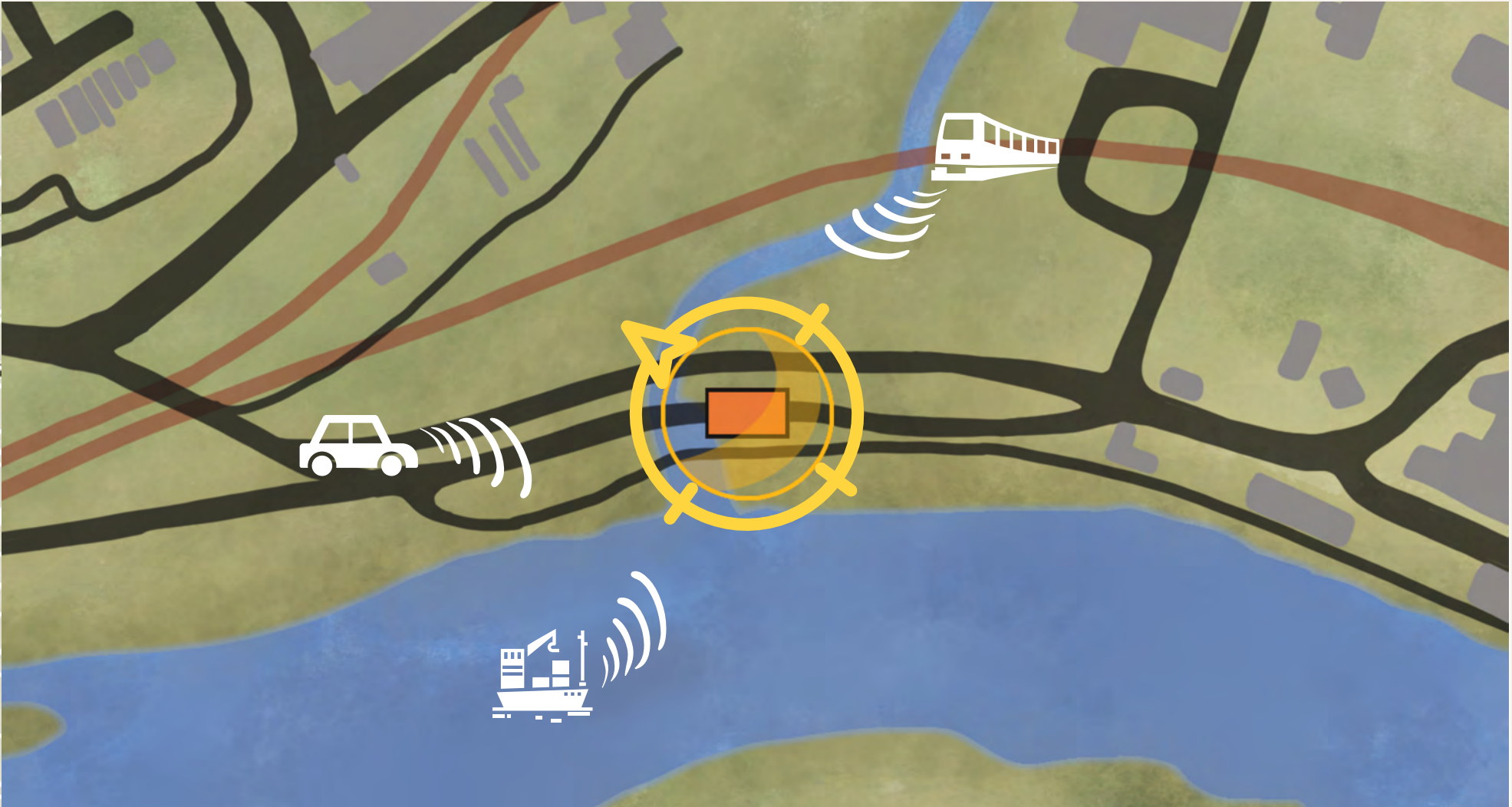
Richmond has a rich and complex history. The city that is now that capitol of the commonwealth of Virginia played an important role in the history of this country from the earliest days of English settlements. It survived the revolutionary war, acted as the capitol of the Confederacy during the civil war, played a part in the civil rights movements of the last century, and was home to a bustling industry of tobacco and trade acting as a major port for the shipping of goods throughout the country.

Today, the city is an interesting blend of rough edges and new innovations. Every moment in history has left an impact on the city's culture and architecture. The area is full of beautiful antique buildings, historical sites, and modern structures. Many of these sites are the remains of old factories or warehouses, now abandoned after industry services were outsourced. However, the spirit of the city remains the same.

Richmond has a thriving, loyal, and proud population who still love and believe in their city despite its past challenges and more recent setbacks. They are what makes this location a strong choice for a horticultural therapy *community* center.



Site Overview & Amenities



The building is located just outside of Downtown Richmond in what was once a commercial industrial site. As such, it is surrounded by train, boat, car, and bus transportation routes, which will cause a small amount of noise throughout the day. However, the advantage to this site is that it is easily accessible both by car or city bus and it remains connected to the city visually through open sightlines across the river without being located directly in the heart of downtown. Thus, the site becomes a haven where anyone can visit quite easily to get away from the hustle and bustle of daily life and recover amongst nature.



The Site

History

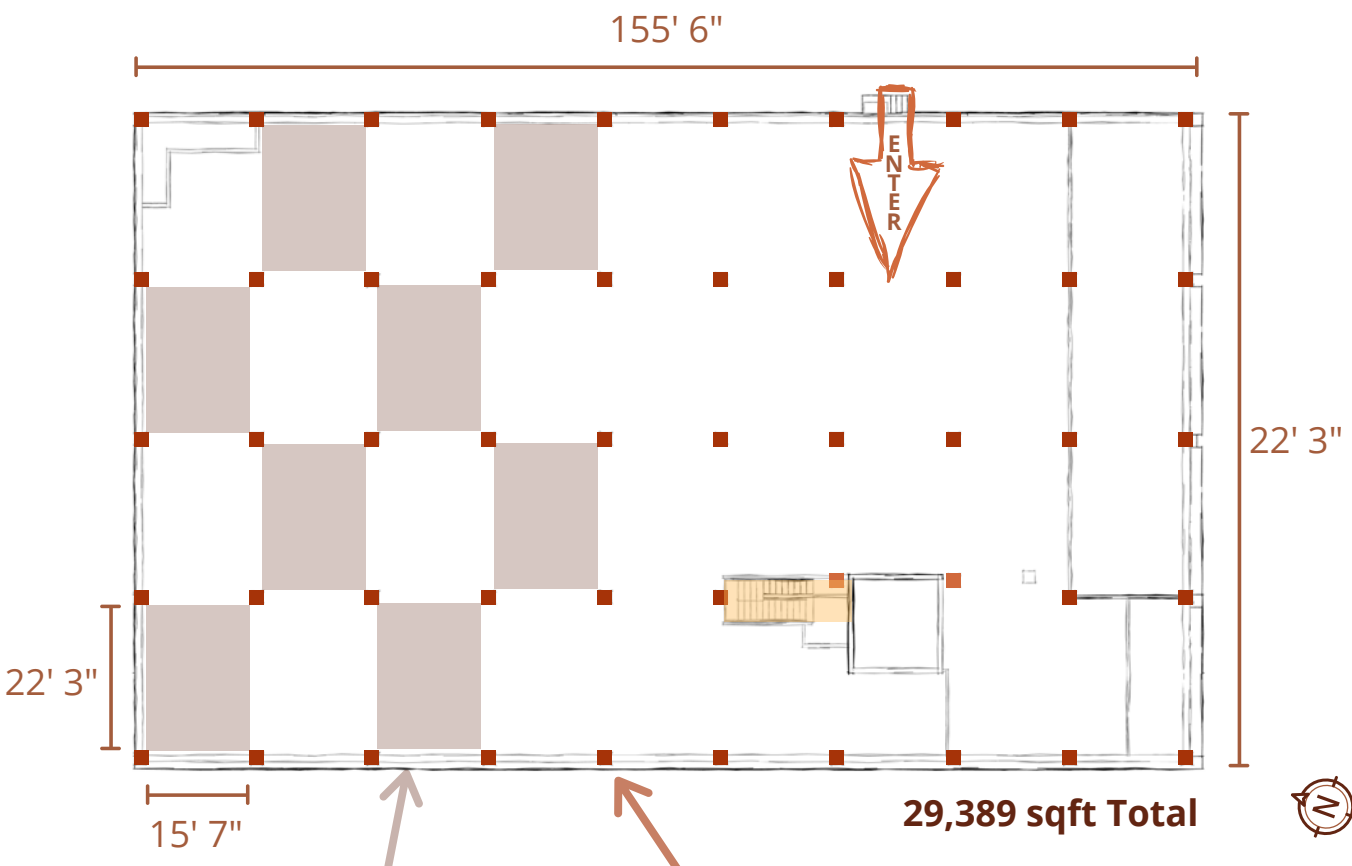
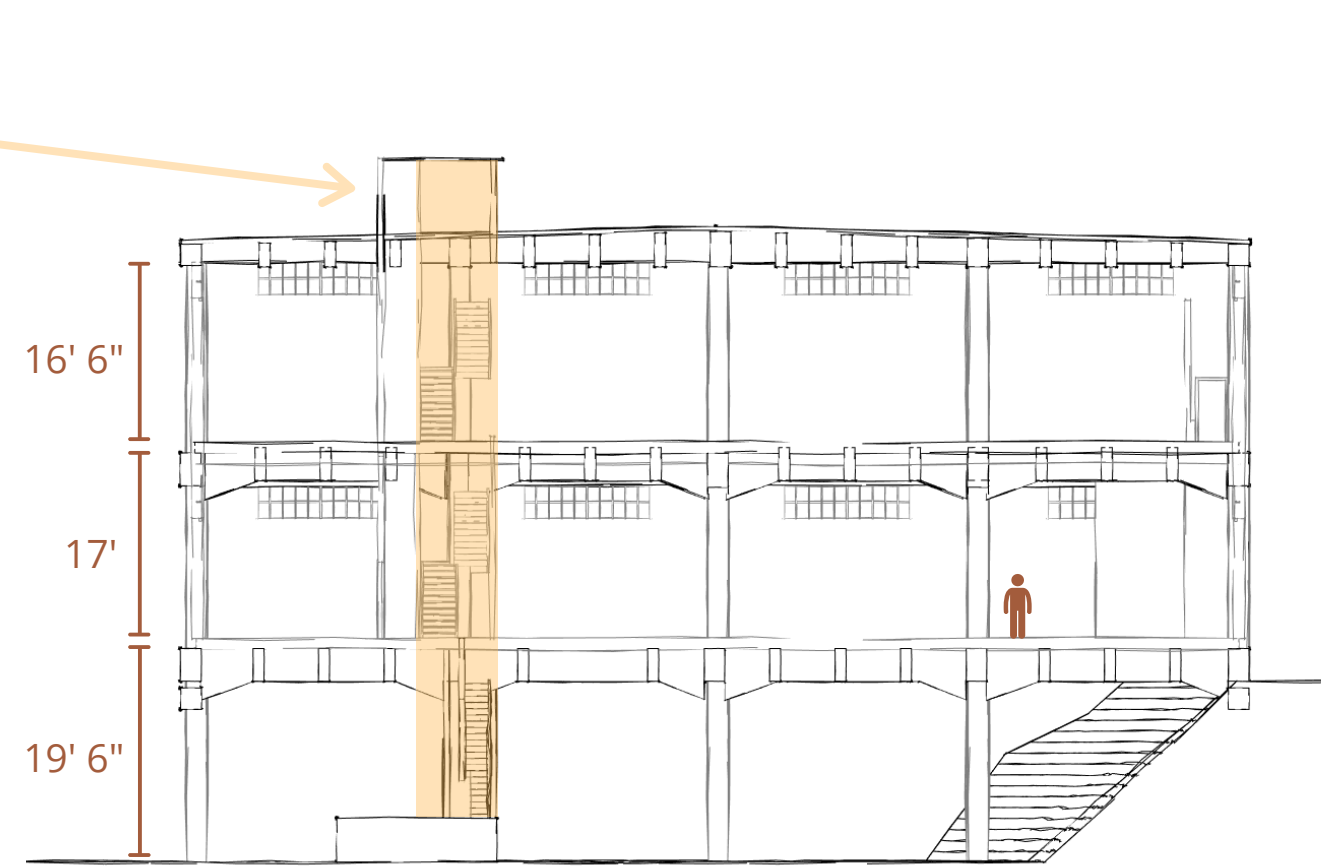
Intermediate Terminal Number Three is a cultural and historic landmark located at the site of the original lower deep water port in the James River. The site opened in 1938 as Richmond's second municipally owned wharf facility and one of the first warehouses in the city constructed on reinforced concrete piers to avoid flooding. Throughout its history it stored and transported a number of goods and provided jobs for the local community. The structure survived floods, narrowly avoided demolition, and remains intact today as a monument to the history of Richmond and the spirit of its people.



Breakdown of the Site

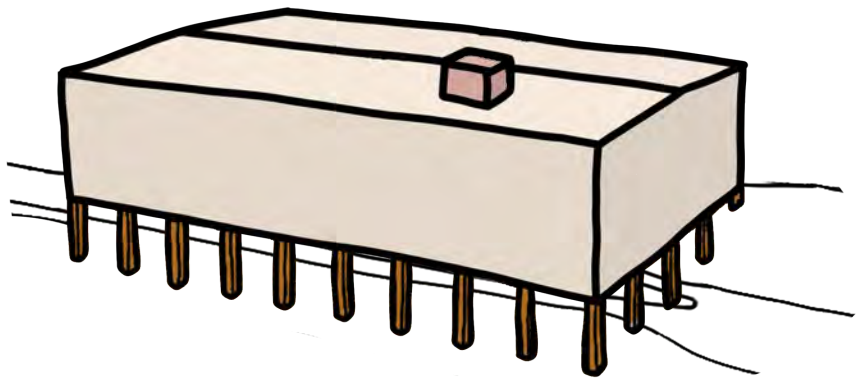
Circulation

There is one staircase in the building which spans the three floors of the building and provides roof access. As the staircase is not ADA compliant, it will have to be altered and an elevator will need to be added.



Structural Massing

The building is essentially divided into three main masses. The overall structure is one large rectangle, a smaller mass sits on the roof for circulation access, and the base of the site is a series of columns. Its a very simple structure, but it has a lot of potential.



Grid Layout

The building has a natural grid layout to the interior. Although the building is an open-plan warehouse, the implied grid created by the columns measures the space into equal visual segments through beams and arches.



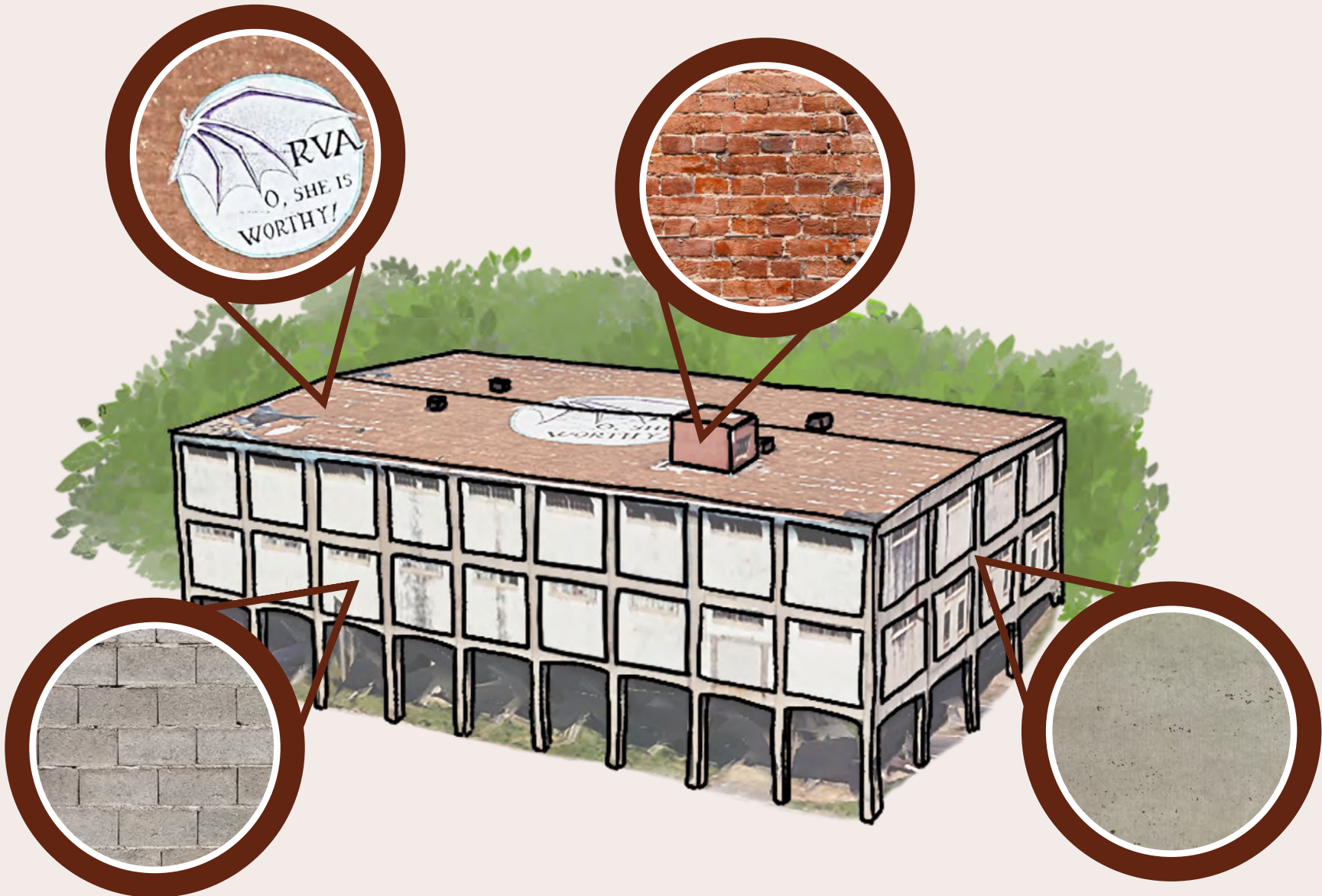
Column Structural Support

The building has an existing column system that functions as the structural support for the entire building. This means that the layout and exterior walls can be altered to suit the unique needs of the project as long as the column grid remains intact. So although it is a rectangular box of a building, it has provides a lot of possibilities for unique spatial layouts.

Breakdown of the Site

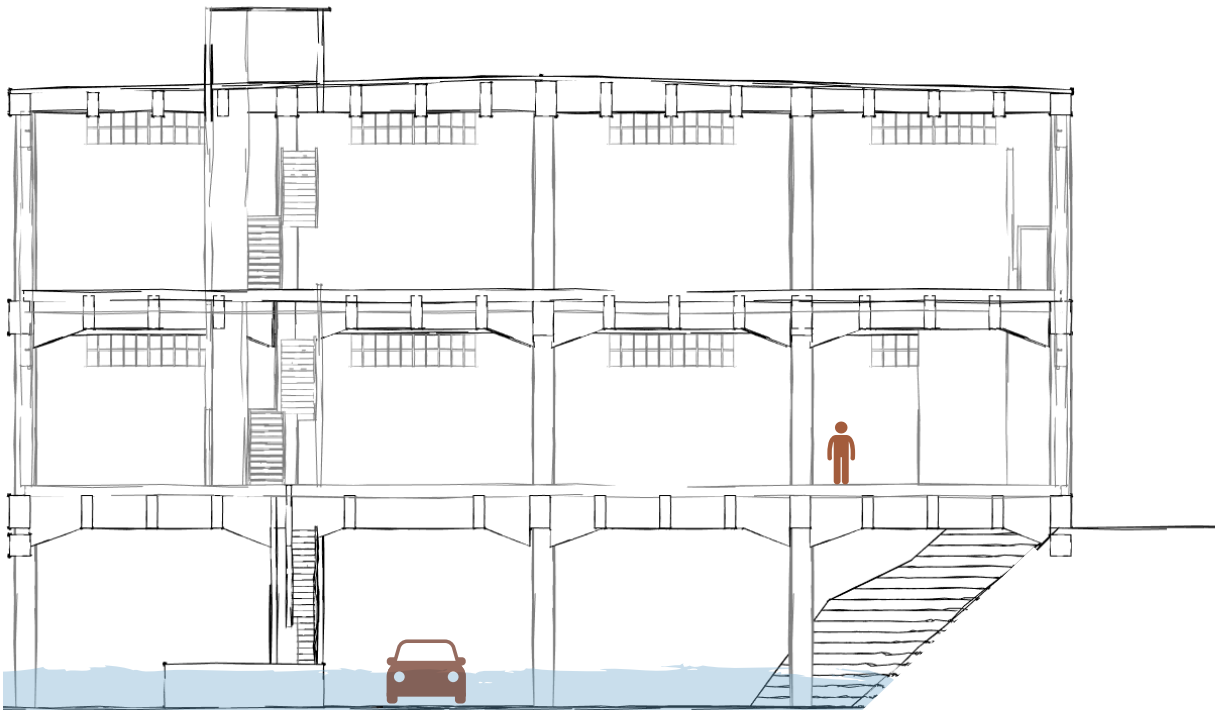
Materiality

The structural mass of the building is made up of non-reinforced concrete, which has been tested and is capable of withstanding a 100 years flood event. CMU bricks fill the walls between these concrete supports, and a central brick circulation system rises above the structure for roof access. The roof is a slightly sloped flat roof material with a unique mural painted in the center, which can only be seen from the air.



Changing Water Levels

The building is positioned on a sloping site with a multi level entrance. The main entrance is located on the upper street level, but the secondary entrance is located below, on a flood plain for the nearby James river. Although this area is not always under water, it has the potential to flood.



Public Interaction

A particularly interesting aspect of the site is the road passing underneath and through the structure. Although it is not commonly used, limited vehicular and bicycle traffic does pass through on occasion. In this way, the building is already bringing the public into the space.



Natural Light & Climate

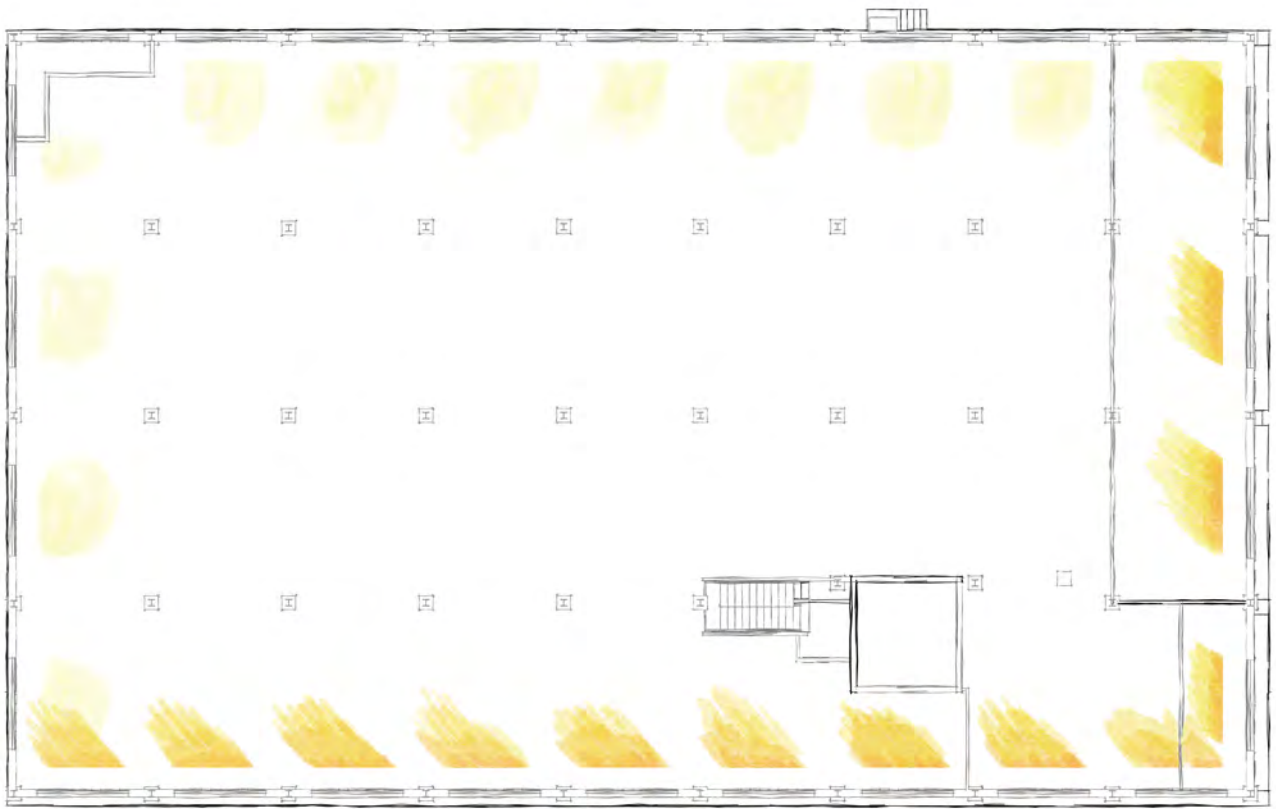
Existing Windows

Possible Windows



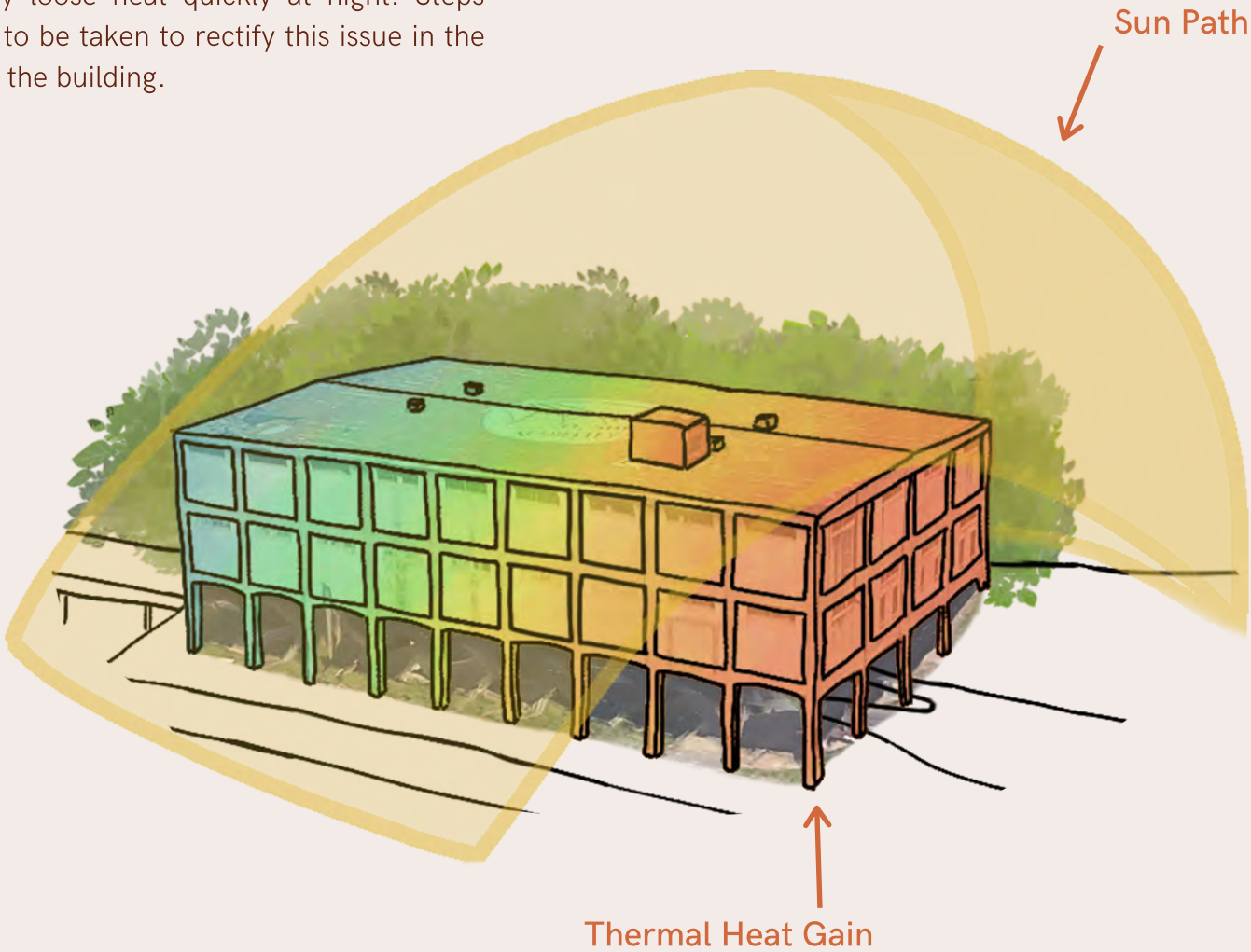
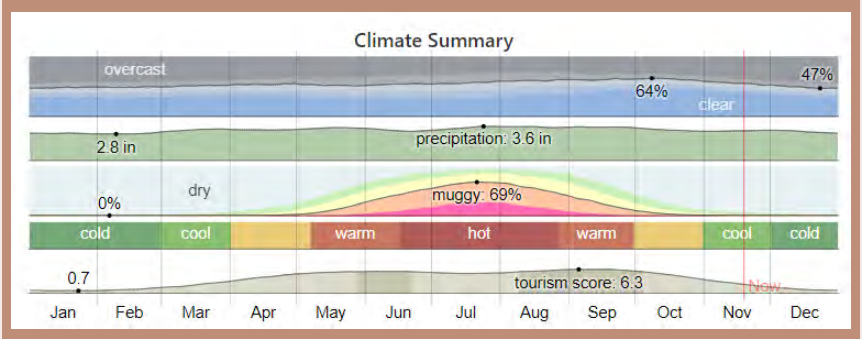
Fenestration & Interior Sun path

The existing windows in the structure are narrow and set high in the walls, so they allow very little light to enter the space. However, the gridded structural system of the building makes it possible to expand the windows and allow more natural light into the space.



Sun Path & Thermal Heat Gain

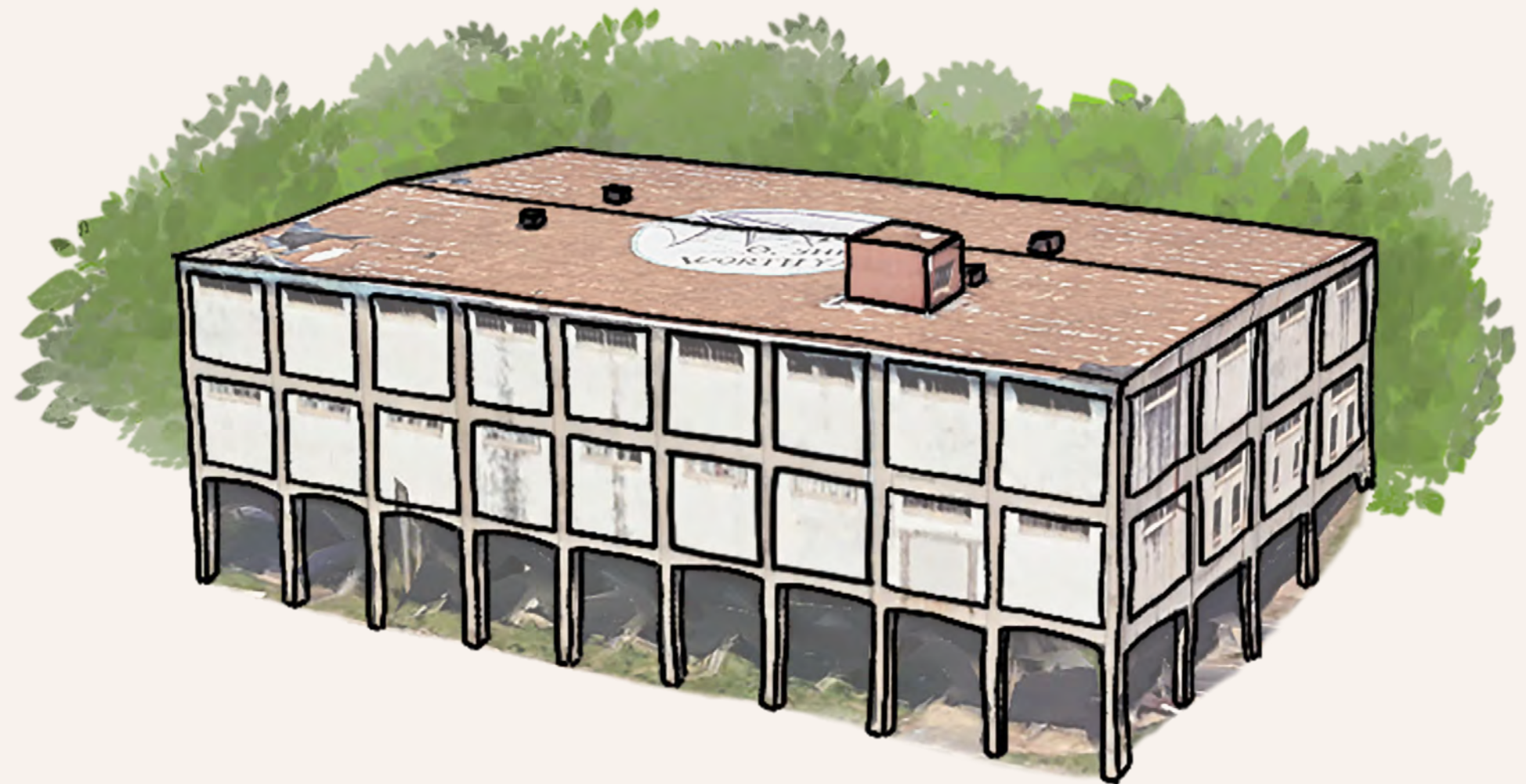
There are no tall buildings or trees near the site to prevent direct access to natural light. Because of this, the building can become a prime location for interior garden beds with just a few minor modifications. However, the structure was originally designed as a warehouse facility and is likely not well insulated. As such, the building will see a good deal of heat gain throughout the day. It will also likely lose heat quickly at night. Steps will have to be taken to rectify this issue in the design of the building.



LEED Suggestions

The building was originally constructed as a warehouse space in 1933. As such, it has a number of major necessary updates, and a few possible beneficial updates required to make it a green building. Major highlights include:

- Lack of interior insulation - All exterior concrete and CMU walls are directly exposed on the interior of the building causing a direct heat gain or heat loss. Additionally, the antique windows are not up to LEED standards.
- Updates to natural ventilation - The building is very much a concrete box with limited ventilation and no existing HVAC system. The natural wind path of the river offers opportunities for natural ventilation, however, which should be explored further.
- Installation of an HVAC systems - The building would need to be made comfortable and energy efficient with a new HVAC system.
- Interior lighting updates - Interior artificial lighting needs could be decreased with a greater integration of natural light through larger windows.
- Water conservation - Water recycling systems and natural rainwater or river water collection systems could be installed to serve the horticultural use.





Finding a place to grow...

Most seeds cannot grow without a place to put down roots, and like a seed, the idea for the Growing Center needs a space to bloom. but finding the right environment and creating the right space is a challenge. Although the idea for a horticultural therapy center is new, looking at pre-existing spaces that address individual aspects of the concept provides an idea of how the project's challenges have been addressed before.

Now that the seed of an idea has a place to grow, we need to get an idea of who will use the space and why. What can the Growing Center become?...



Defining The Client

Who will help us grow?

The Client:



Richmond Behavioral Health Authority is a non-profit organization responsible for providing mental health services across a broad range of needs to the citizens of Richmond Virginia. This organization is officially recognized by the Virginia Department of Behavioral Health and Developmental Services, and as such, it has the governmental resources and man power to take on something like the construction of a Horticultural Therapy Center. They also have a number of contacts in the private healthcare field that they could call to action to provide the mental health care in the facility.

The organization manages a number of different locations and events and adding a full scale horticultural center to their portfolio would be a comfortable and advantageous fit.

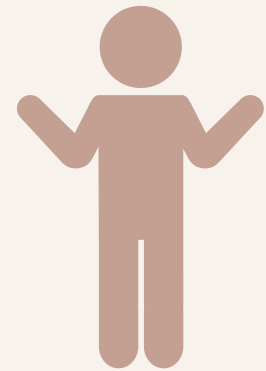




Defining The Users

Who will interact in the space?

The Users & Their Needs



Patients

- access to mental health care and professionals
- be included in a wider community
- autonomy and the ability to work towards their own care
- ability to contribute to society and have a purpose



Patient's Families

- education about mental illness and mental health care
- community support and assistance
- ability to address their own health and wellbeing



Medical Professionals

- training spaces and hands-on experience
- private spaces away from patients
- functional spaces that serve their professional goals



Horticultural Staff

- training and storage spaces
- private spaces away from patients & the community
- functional spaces that serve their professional goals



The Community

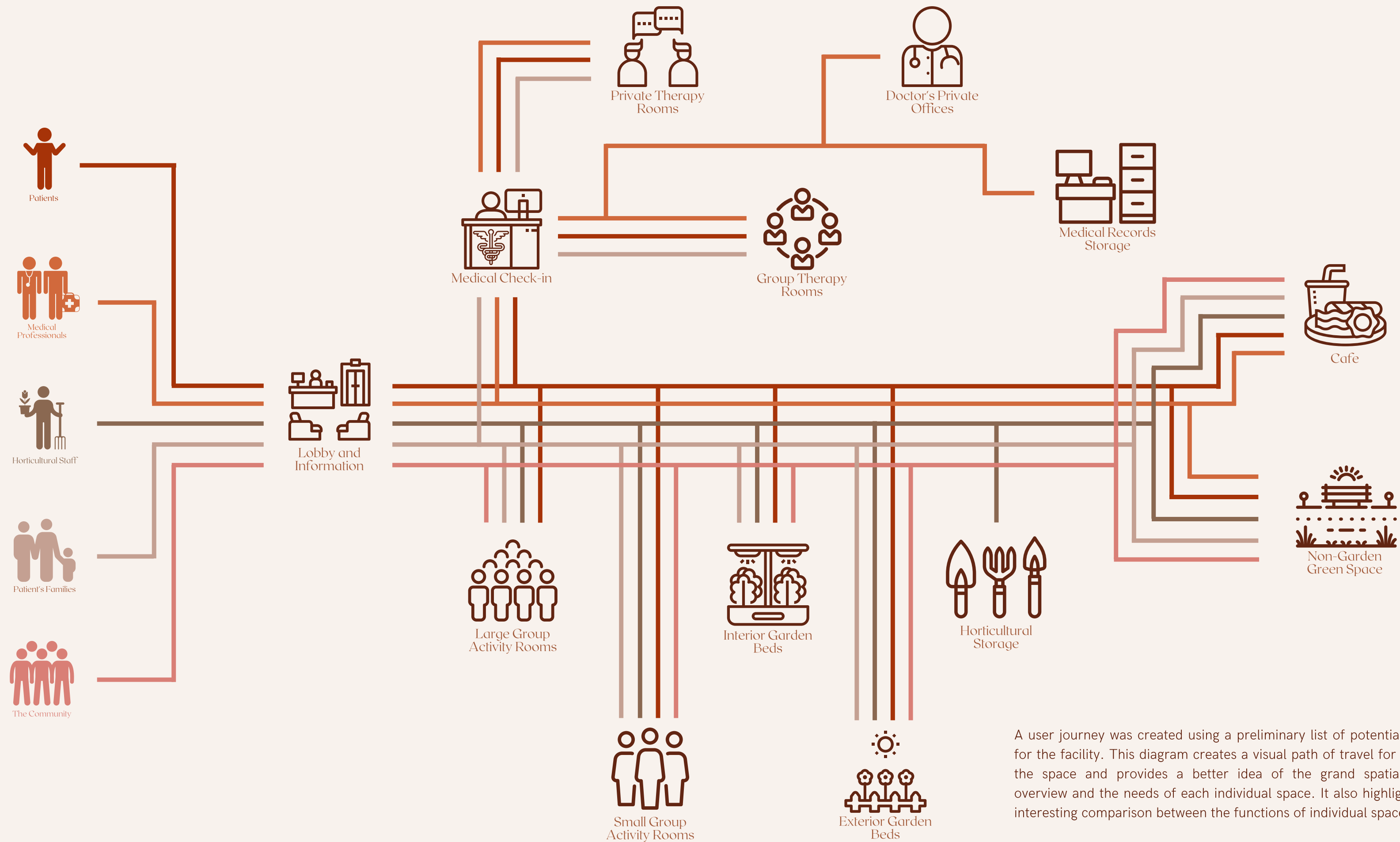
- education about mental illness and mental health care
- access to public spaces and community inclusion



User Journey

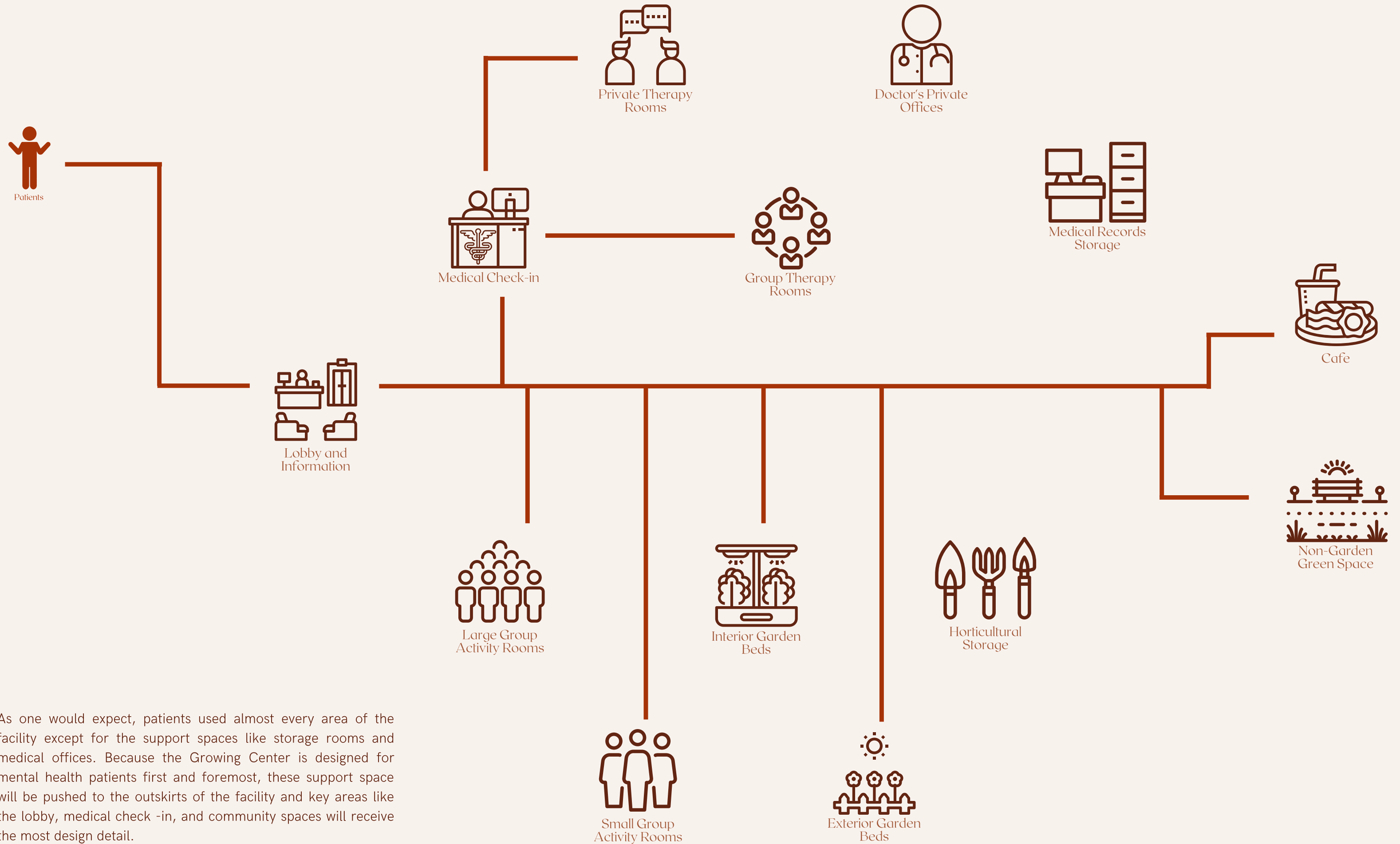
How do we use the space?

TOTAL USER JOURNEY



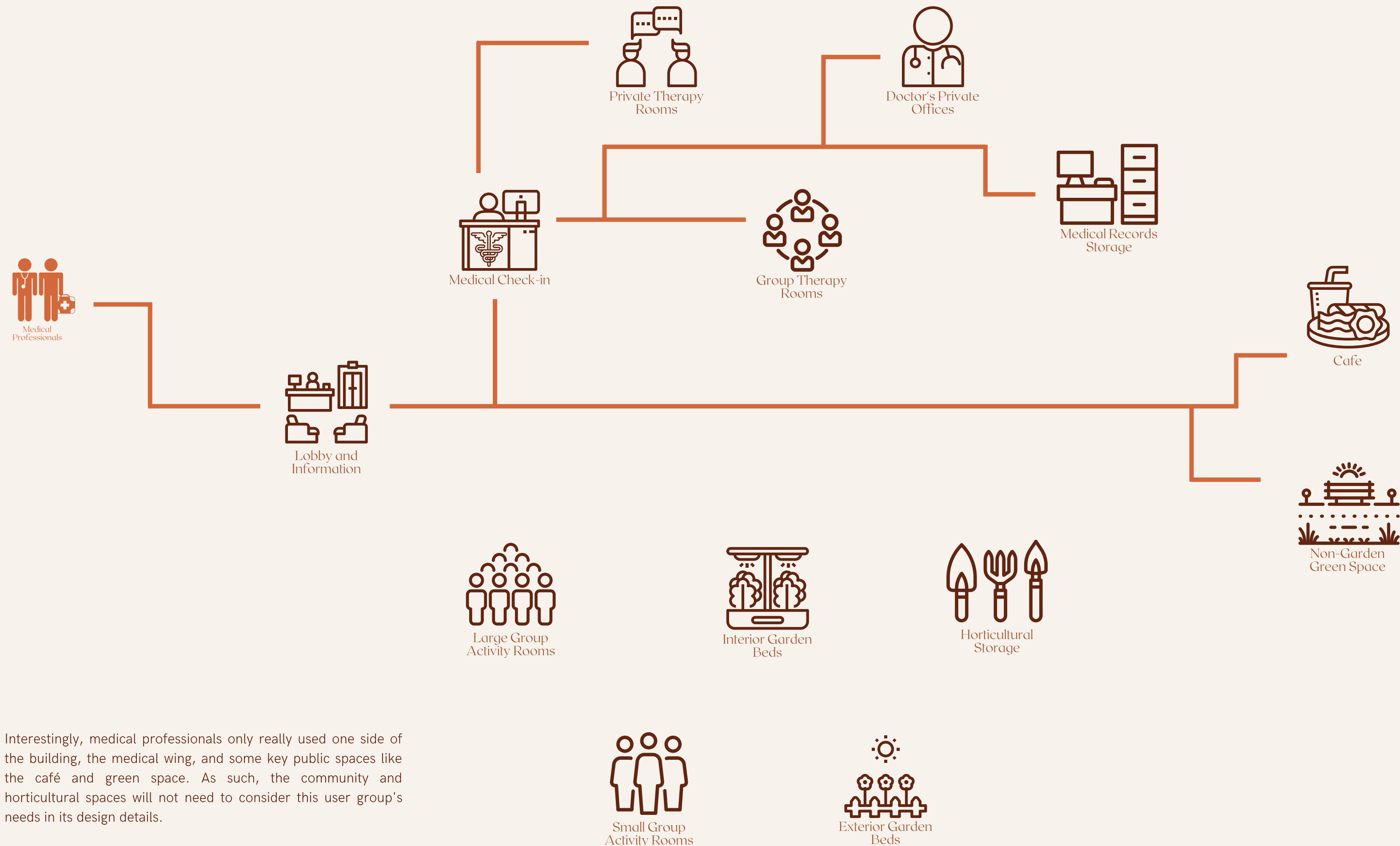
A user journey was created using a preliminary list of potential spaces for the facility. This diagram creates a visual path of travel for users in the space and provides a better idea of the grand spatial layout overview and the needs of each individual space. It also highlighted an interesting comparison between the functions of individual spaces.

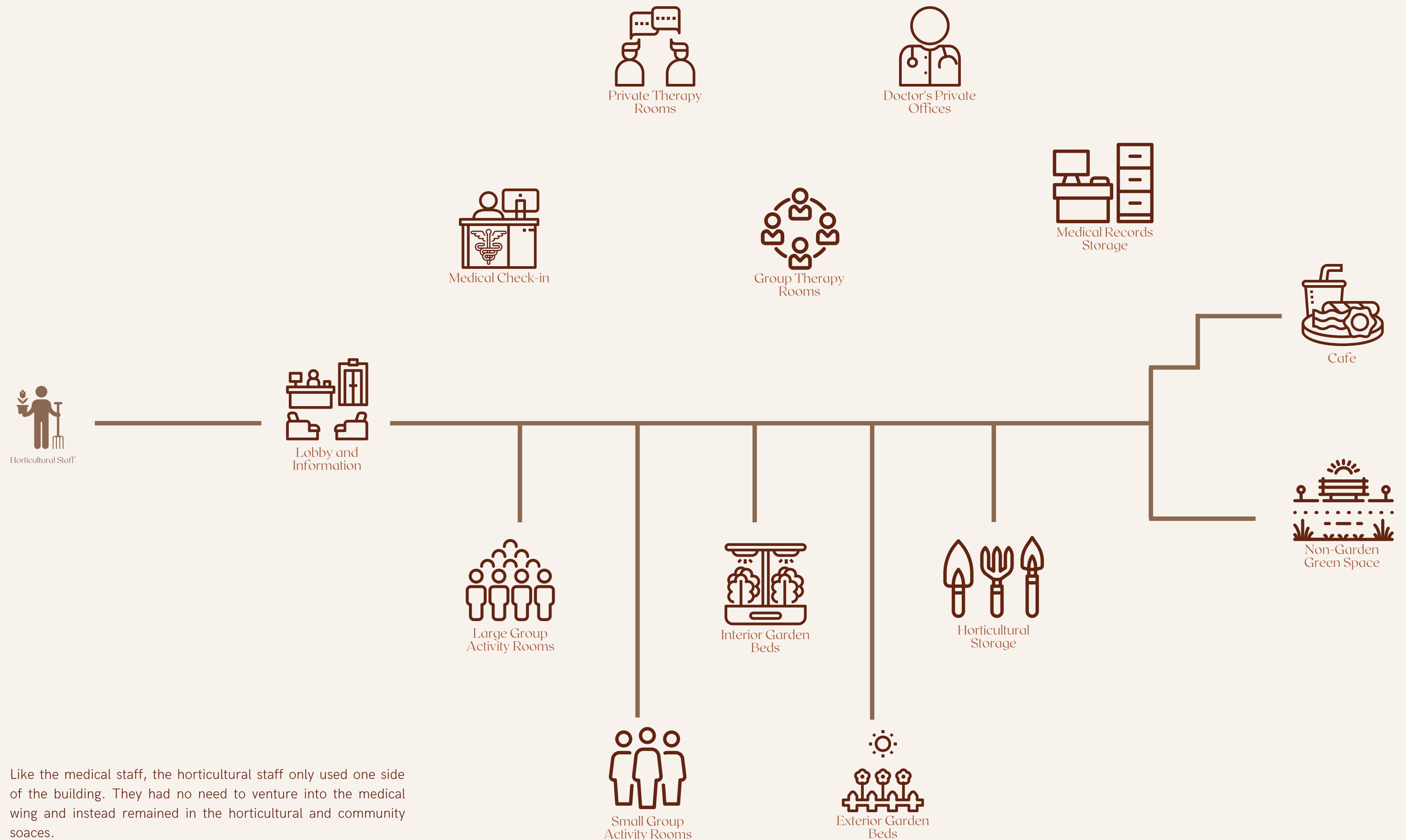
PATIENT USER JOURNEY



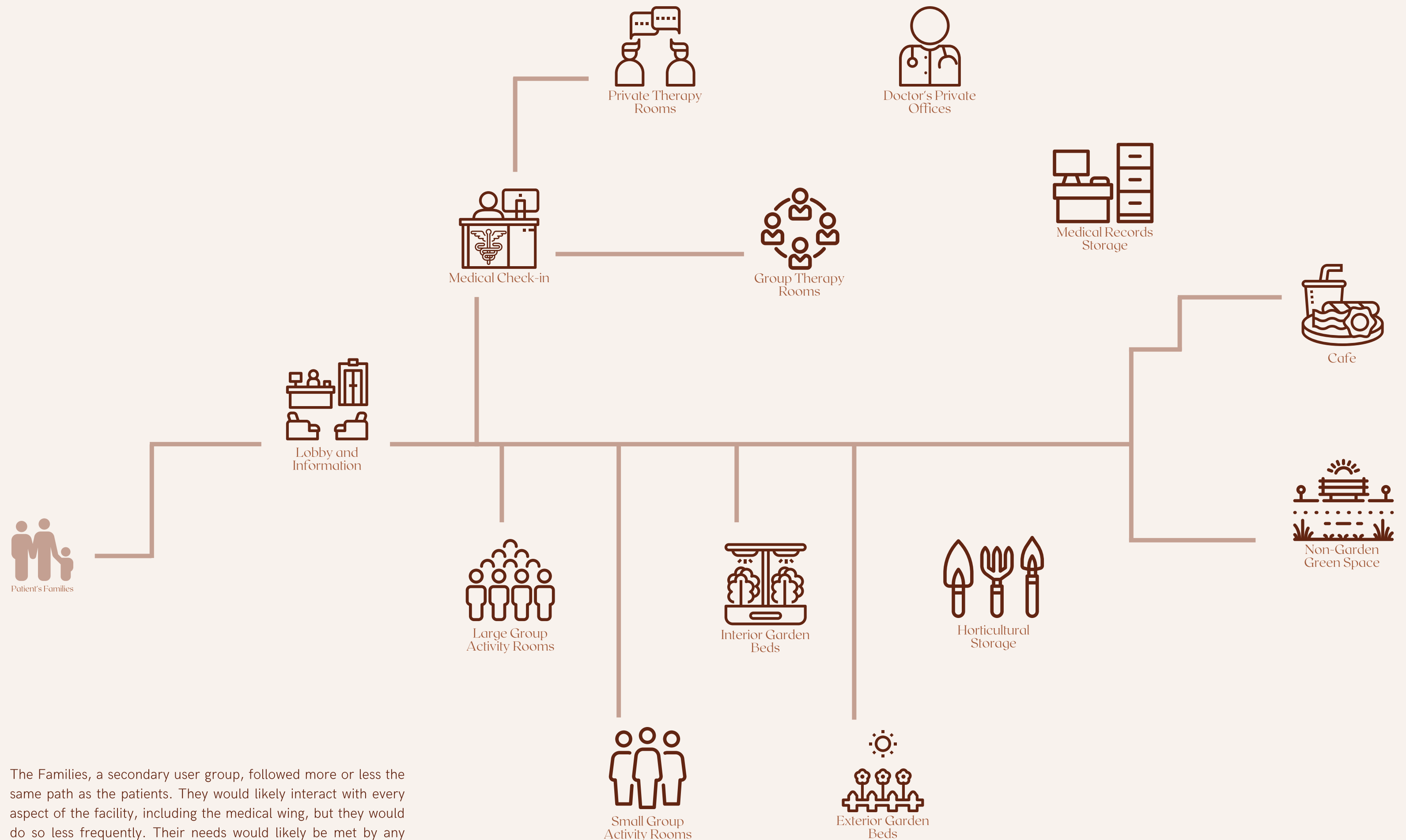
As one would expect, patients used almost every area of the facility except for the support spaces like storage rooms and medical offices. Because the Growing Center is designed for mental health patients first and foremost, these support space will be pushed to the outskirts of the facility and key areas like the lobby, medical check -in, and community spaces will receive the most design detail.

MEDICAL USER JOURNEY



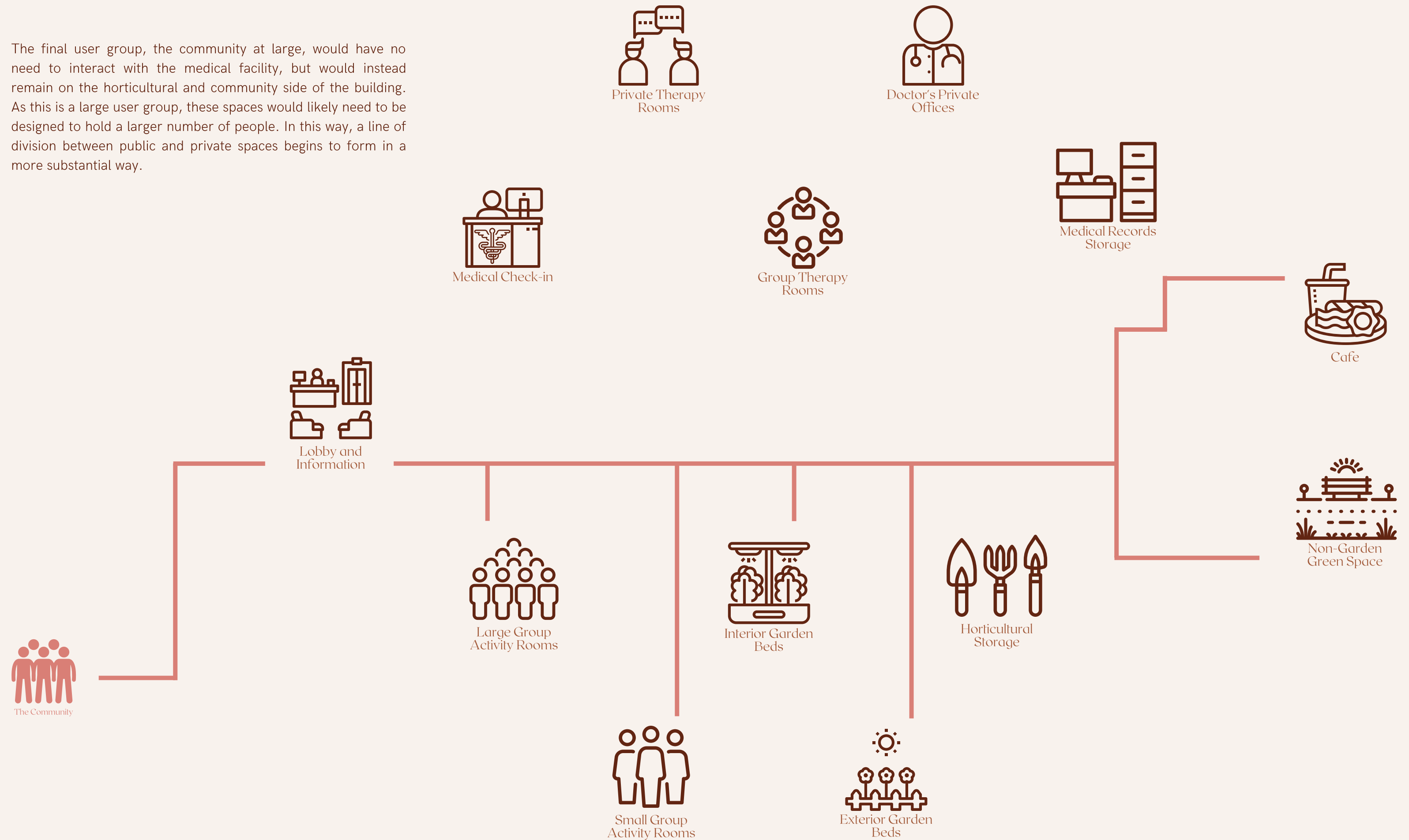


FAMILY USER JOURNEY

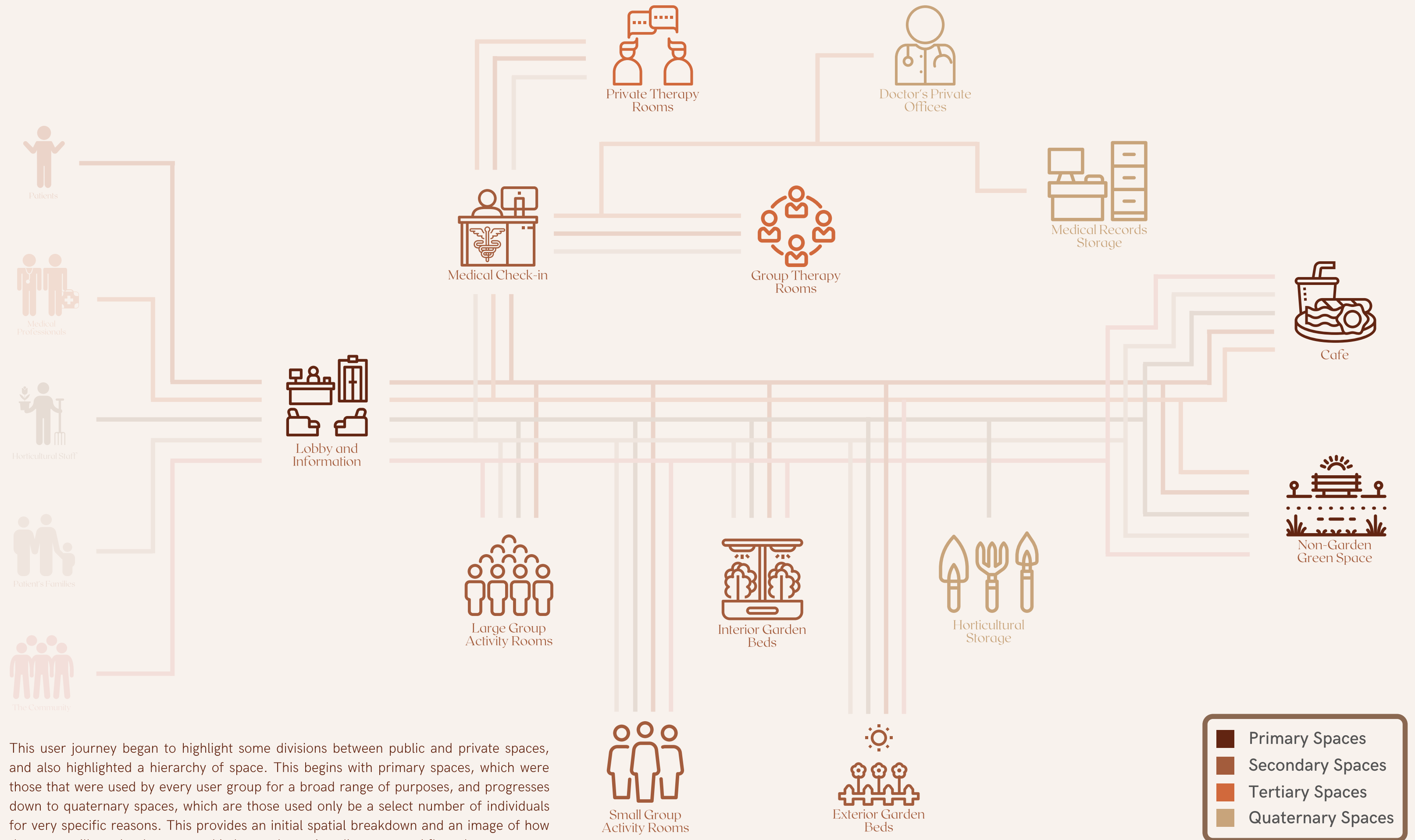


The Families, a secondary user group, followed more or less the same path as the patients. They would likely interact with every aspect of the facility, including the medical wing, but they would do so less frequently. Their needs would likely be met by any design details added for the patients.

The final user group, the community at large, would have no need to interact with the medical facility, but would instead remain on the horticultural and community side of the building. As this is a large user group, these spaces would likely need to be designed to hold a larger number of people. In this way, a line of division between public and private spaces begins to form in a more substantial way.



SPACIAL HIERARCHY



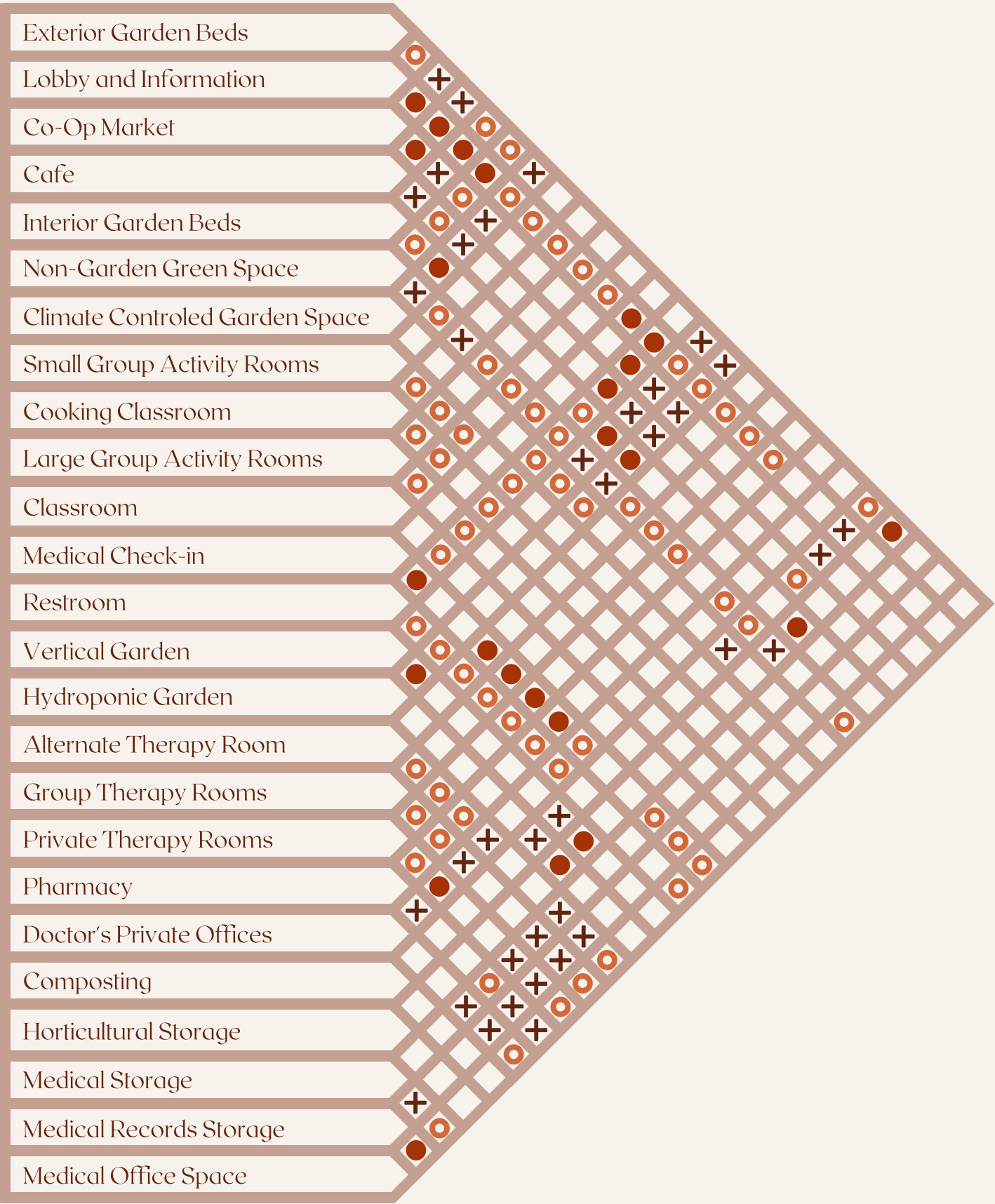
This user journey began to highlight some divisions between public and private spaces, and also highlighted a hierarchy of space. This begins with primary spaces, which were those that were used by every user group for a broad range of purposes, and progresses down to quaternary spaces, which are those used only by a select number of individuals for very specific reasons. This provides an initial spatial breakdown and an image of how the space will need to be arranged in later schematics, diagrams, and floorplans.



Programing & Spatial Adjacencies

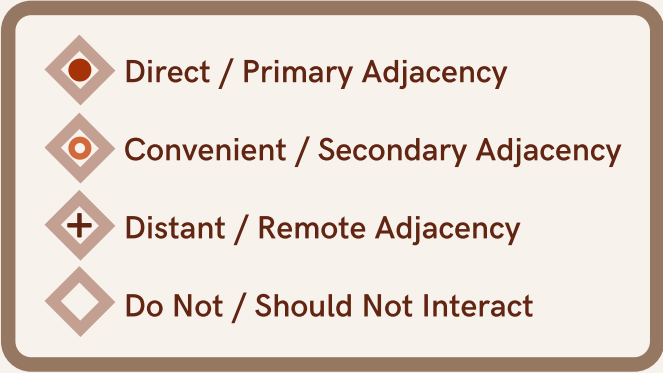
How can the space serve us?

ADJACENCY MATRIX



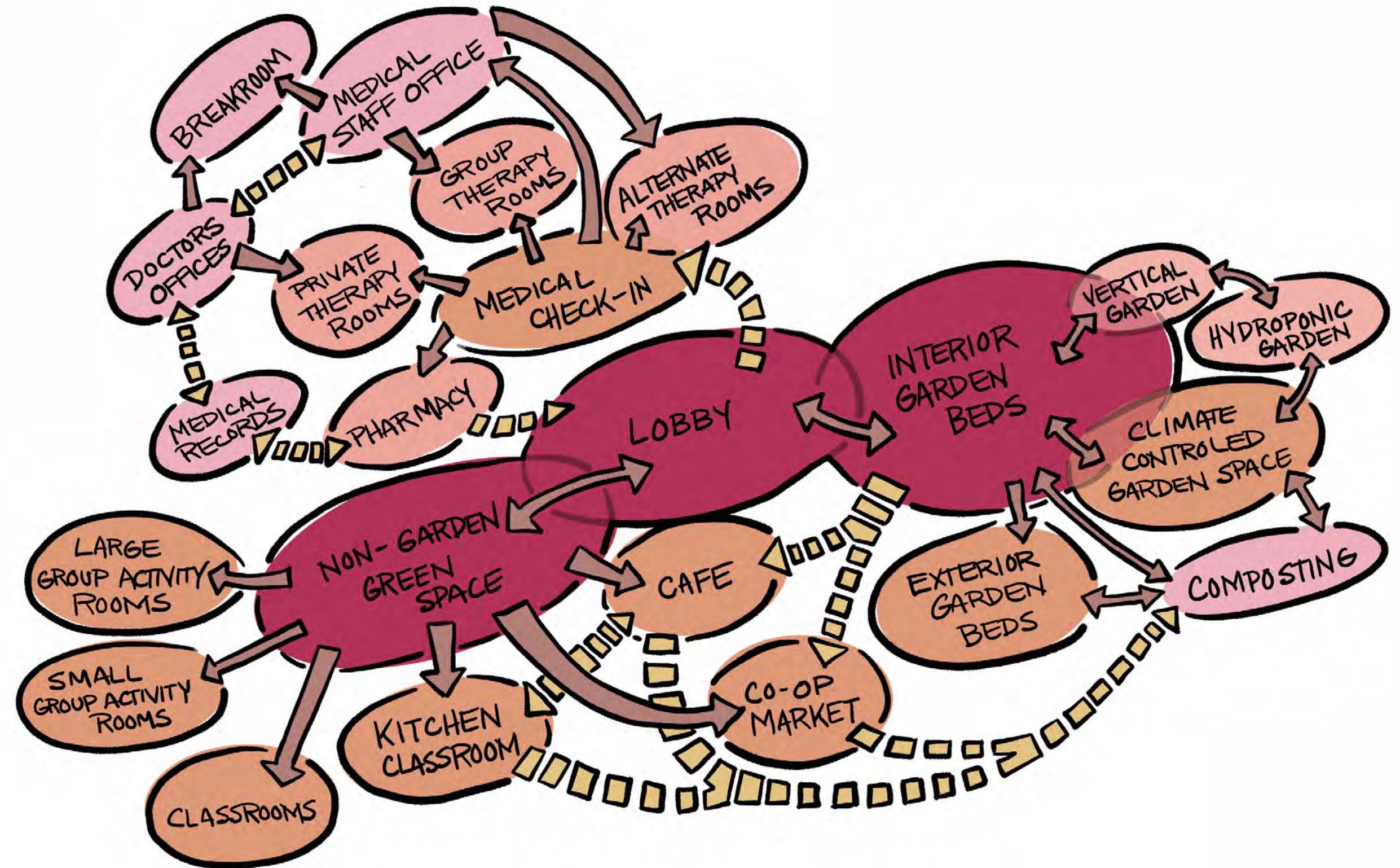
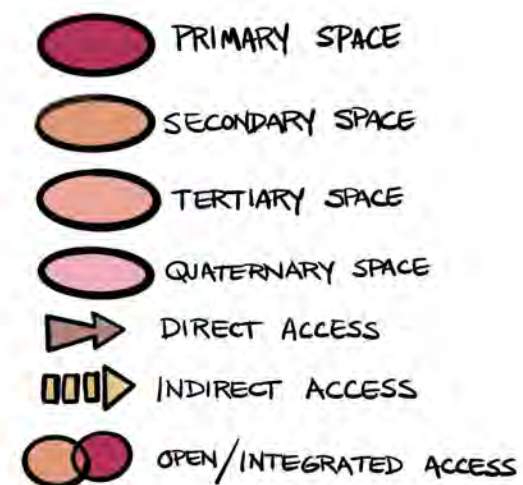
The original space breakdown that was used for the user journeys was augmented for the programing phase based on user suggestions. After a series of surveys were sent out and interviews were conducted, a list of extra services and needs was compiled. These spaces were both public services such as a cooking classroom and composting space, and private spaces such as medical storage and alternate therapy rooms.

Next, an Adjacency Matrix was completed to further explore the space. This matrix is a logical breakdown of spaces and their relationships to each other. It outlines space relationships roughly based on direct, convenient, distant, and non-existent relationships. This allows for an easy reference for the design phase and begins to suggest a logical layout for the overall space.



ADJACENCY BUBBLE DIAGRAM

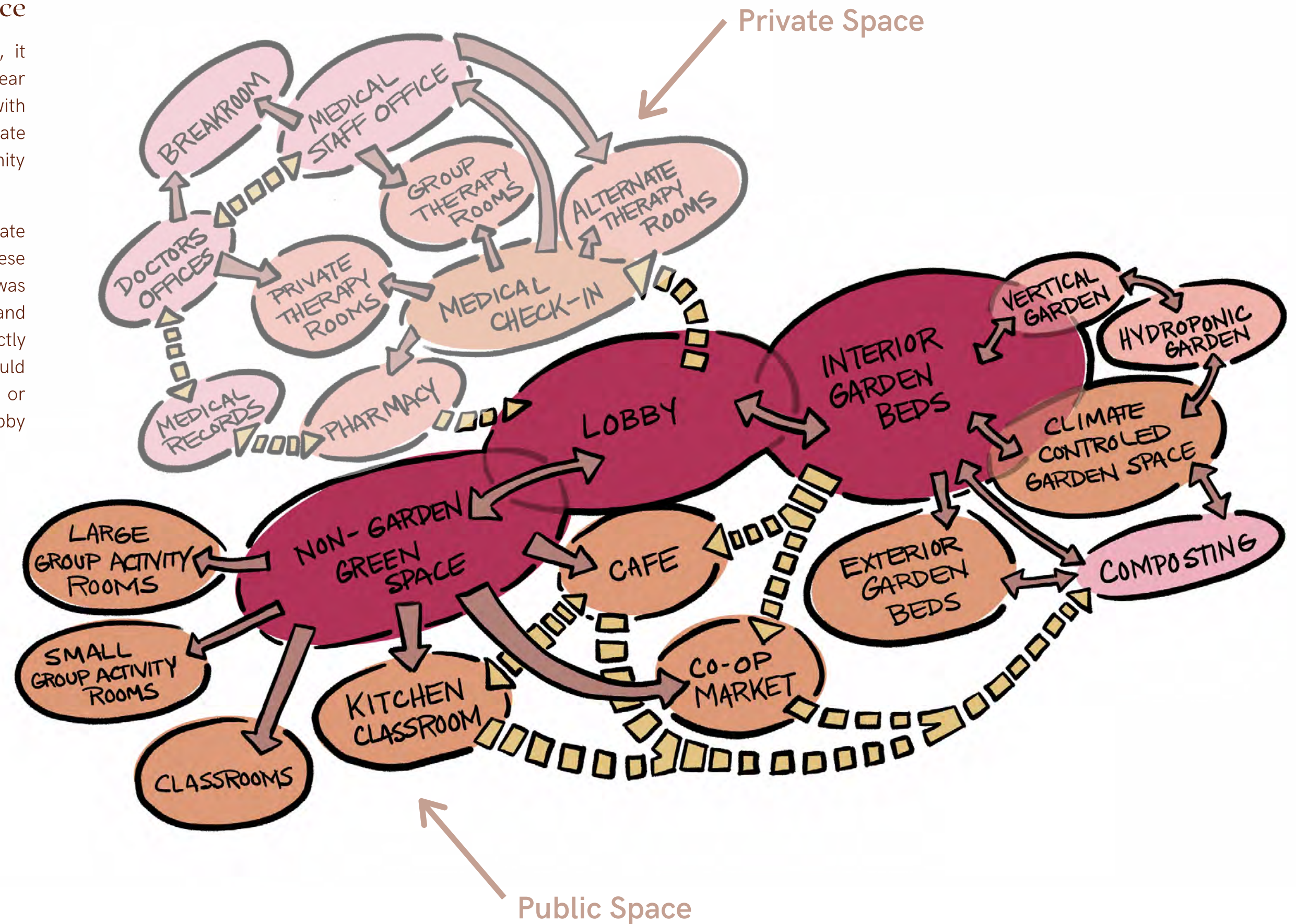
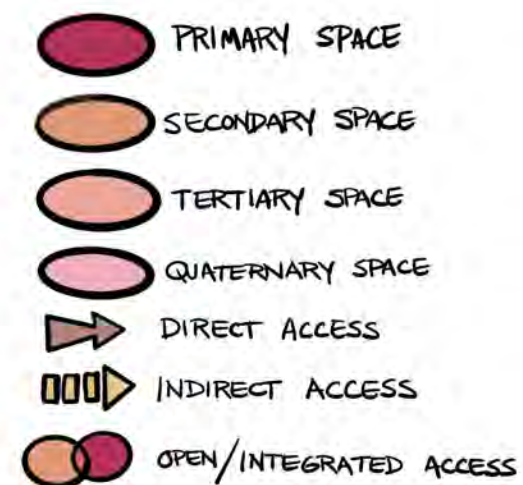
The bubble diagram is a more human-centered, visual breakdown of the adjacencies between the spaces. It maps out the way a person would comfortably move through the space and the types of spaces they would hope to find in each location and builds on the suggestions made by the adjacency diagram and the user journey. Ultimately this allows for an early spatial layout to form and highlights key features and needs of the space.



Public Space vs. Private Space

After completing the bubble diagram, it became clear that there was a clear delineation between public spaces with direct community access, and private spaces with specialized community access.

The medical office became a private space because the only access that these spaces had to the main building was through the medical check-in space and this space, in turn, was only indirectly adjacent to the main lobby. Users would have to have specialized needs or permissions to move through the lobby and into the medical lobby.



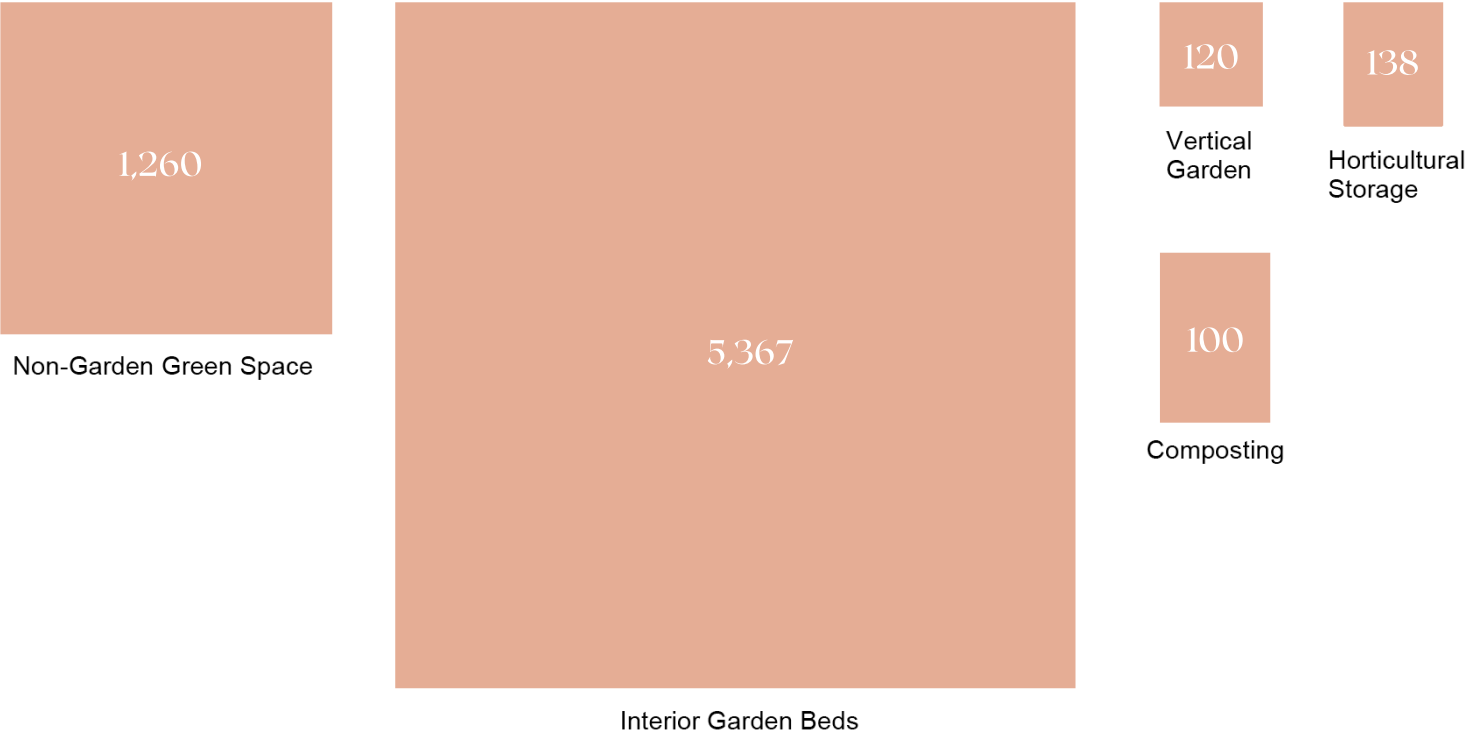
To get an idea of square footage requirements and occupancy allowances for each space, a Programing Occupancy Breakdown was created. This chart outlines every major space in the building, broken down by use, and estimates the amount of square footage used by these spaces and the amount of square footage remaining in the building for service spaces. Likely this chart will be augmented as design alters actual square footage for each space.

Programing Occupancy Breakdown									
The Growing Center									
SPACES	SIZE	USER GROUP TYPE	OCCUPANCY TYPE	NUMBER OF STAFF / VOLUNTEERS	OCCUPANCY LOAD FACTOR	AREA (SqFt)	OCCUPANCY	ACTIVITIES	ADDITIONAL SUPPORT
Central Spaces									
Lobby & Reception	XL	Patients, Families, Horticultural, Community, Support	A-3	5	15 gross	1,320	88	check-in, Requesting information, waiting, socializing, scheduling	seating, reception desk
Café	L	Patients, Families, Horticultural, Community, Medical, Support	A-2	4	15 net	675	45	eating, socializing	seating, tables, pick-up window
Café Kitchen	L	Support	A-2	3	200 gross	650	3	food prep	stove, oven, fryer, commercial fridge, commercial freezer, commercial dish washer, trash, prep-line, warming lamps
Restroom 1	S	Patients, Families, Horticultural, Support, Community	B	0	100 gross	400	4		toilets, sinks, hand dryers
Restroom 2	S	Patients, Families, Horticultural, Support, Community	B	0	100 gross	400	4		toilets, sinks, hand dryers
Co-Op Market	L	Horticultural, Support, Community	M	3	60 gross	773	13	shopping, check out, stocking shelves	register, shelving, refridgerators, baskets or carts
Non-garden Green Space	L	Patients, Families, Horticultural, Community, Family	A-5	2	11 gross	1,260	115	waiting, socializing, relaxing	seating
Community Spaces									
Composting Area	S	Horticultural, Support, Community	U	1	20 net	100	211	compost drop off, compost pick up?	compost bins
Large Group Activity Room 1	L	Horticultural, Community, Families, Patients	A-3	2	15 gross	440	29	exercise classes, community classes, educational classes, horticultural classes, community support meetings, community gatherings,	seating (folding), work surfaces (folding), whiteboard (rolling?), projector, screen
Large Group Activity Room 2	L	Horticultural, Community, Families, Patients	A-3	2	15 gross	440	29	exercise classes, community classes, educational classes, horticultural classes, community support meetings, community gatherings,	seating (folding), work surfaces (folding), whiteboard (rolling?), projector, screen
Small Group Activity Room 1	M	Horticultural, Community, Families, Patients	A-3	1	15 gross	220	15	small community classes, educational classes, horticultural classes, community support meetings, community gatherings	seating (folding), work surfaces (folding), whiteboard (rolling?), projector, screen
Small Group Activity Room 2	M	Horticultural, Community, Families, Patients	A-3	1	15 gross	220	15	small community classes, educational classes, horticultural classes, community support meetings, community gatherings	seating (folding), work surfaces (folding), whiteboard (rolling?), projector, screen
Classroom 1	M	Horticultural, Community, Patients, Families,	A-3	1	15 gross	335	22	educational classes, horticultural classes, community meetings	Seating (semi-fixed), work surfaces (semi-fixed), whiteboard, projector, screen
Classroom 2	M	Horticultural, Community, Patients, Families,	A-3	1	15 gross	335	22	educational classes, horticultural classes, community meetings	Seating (semi-fixed), work surfaces (semi-fixed), whiteboard, projector, screen
Janitor Closet	XS	Support	U	2	20 net	66	3	storage	shelving, commercial sink
Employee Breakroom	L	Horticultural, Support	B	0	100 gross	330	3	eating, resting, socializing	seating, tables, microwave, fridge, countertops and cupboards, tv?, vending machine? Lockers, computer for clocking in
Cooking Classroom	L	Horticultural, Community, Patients, Families,	A-2	1	200 gross	690	3	community classes, cooking	work surfaces, multiple stoves, whiteboard, fire safety, storage cupboards,
Restroom 1	S	Patients, Families, Horticultural, Support, Community	B	0	100 gross	400	4		toilets, sinks, hand dryers
Restroom 2	S	Patients, Families, Horticultural, Support, Community	B	0	100 gross	400	4		toilets, sinks, hand dryers
Horticultural Spaces									
Interior Garden Beds	XL	Horticultural, Patients, Families, Community	A-3	11	15 gross	5,367	358	gardeing, horticultural therapy	raised garden beds, grow lights, watering system?
Exterior Garden Beds	XL	Horticultural, Patients, Families, Community	A-5	11	15 gross	5,000	333	gardening, horticultural therapy	Raised garden beds, garden plot
Horticultural Storage	S	Horticultural	B	0	100 gross	138	1	storage	storage
Vertical Garden	M	Horticultural, Patients, Families, Community	B	1	100 gross	120	1	gardeing, horticultural therapy	Vertical Gardening systems, grow lights, watering system
Hydroponic Garden	M	Horticultural, Patients, Families, Community	B	1	100 gross	124	1	gardening, horticultural therapy	hydroponic systems, grow-lights
Climate Controlled Garden Space	L	Horticultural, Patients, Families, Community	B	1	100 gross	353	4	gardening, horticultural therapy	greenhouse facility, grow lights, watering system
	Totals for Non-Medical Space:			54		15,556	999		
Medical Spaces									
Medical Check-in	L	Medical Support, Patients, Families	B	2	100 gross	682	7	Check-in, waiting,	reception desk, seating, privacy screen
Group Therapy Room 1	L	Medical, Families, Patients	A-3	1	15 gross	440	29	group meetings, talk therapy	seating (flexible), tables (flexible)
Group Therapy Room 2	L	Medical, Families, Patients	A-3	1	15 gross	440	29	group meetings, talk therapy	seating (flexible), tables (flexible)
Alternate Therapy Room	L	Medical, Families, Patients	B	2	100 gross	513	5	physical therapy, accupuncture, holistic medicine,	TBD
Private Therapy Rooms	S	Medical, Families, Patients	B	1	100 gross	200	2	doctor/patient meetings	Lounge seating, visual comfort items
Private Therapy Rooms	S	Medical, Families, Patients	B	1	100 gross	200	2	doctor/patient meetings	Lounge seating, visual comfort items
Private Therapy Rooms	S	Medical, Families, Patients	B	1	100 gross	200	2	doctor/patient meetings	Lounge seating, visual comfort items
Pharmacy	M	Medical, Families, Patients	M	4	60 gross	255	4	medical dispensation, pharmacudical storage, paperwork	shelving, medical refridgerator, computers, service desk, workstations
Doctor's Private Office 1	S	Medical	B	0	100 gross	118	1	dication, paperwork, office work, personal storage	desk, bookshelf, chair, guest chairs, computer,
Doctor's Private Office 2	S	Medical	B	0	100 gross	118	1	dication, paperwork, office work, personal storage	desk, bookshelf, chair, guest chairs, computer,
Doctor's Private Office 3	S	Medical	B	0	100 gross	118	1	dication, paperwork, office work, personal storage	desk, bookshelf, chair, guest chairs, computer,
Employee Office	m	Medical Support	B	0	100 gross	446	4	dictation, paperwork, office work, personal storage	multiple desks, storage, office equipment (computers, printers, fax, etc., chairs
Medical Records Room	XS	Medical, Medical Support	B	0	100 gross	118	1	secure storage	shelving
Medical Storage Room	XS	Medical, Medical Support	S	0	300 gross	80	0	secure storage	shelving
Employee Breakroom	M	Medical, Medical Support	B	0	100 gross	297	3	eating, resting, socializing	seating, tables, microwave, fridge, countertops and cupboards, tv?, vending machine? Lockers, computer for clocking in
Restroom 1	XS	Medical, Medical Support, Patients, Families	B	0	100 gross	161	2		
Restroom 2	XS	Medical, Medical Support, Patients, Families	B	0	100 gross	161	2		toilets, sinks, hand dryers
	Totals for Medical Space:			13		4,547	97		

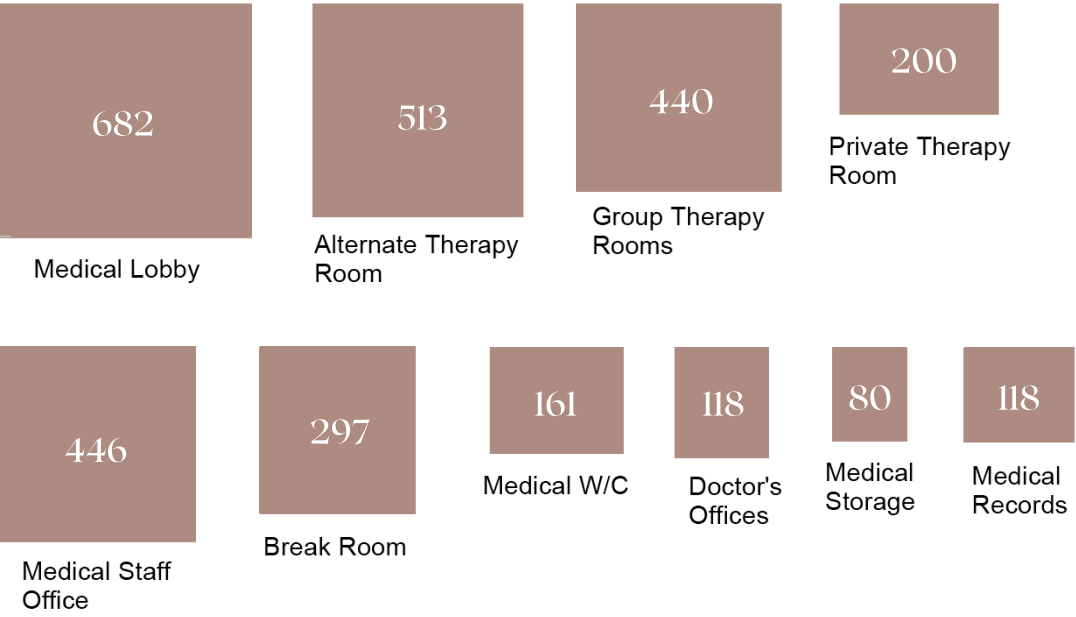
* Support includes: Support staff, Administrative staff, Non-Medical office staff, horticultural staff

Totals:	67		20,103	1,095
Building's Remaining Available SqFt:		9,286.5	(possibly open functional spaces / circulation)	
Overall Ratio of Guests to Staff:			15:1	
Total Square Footage:		29,389.5		

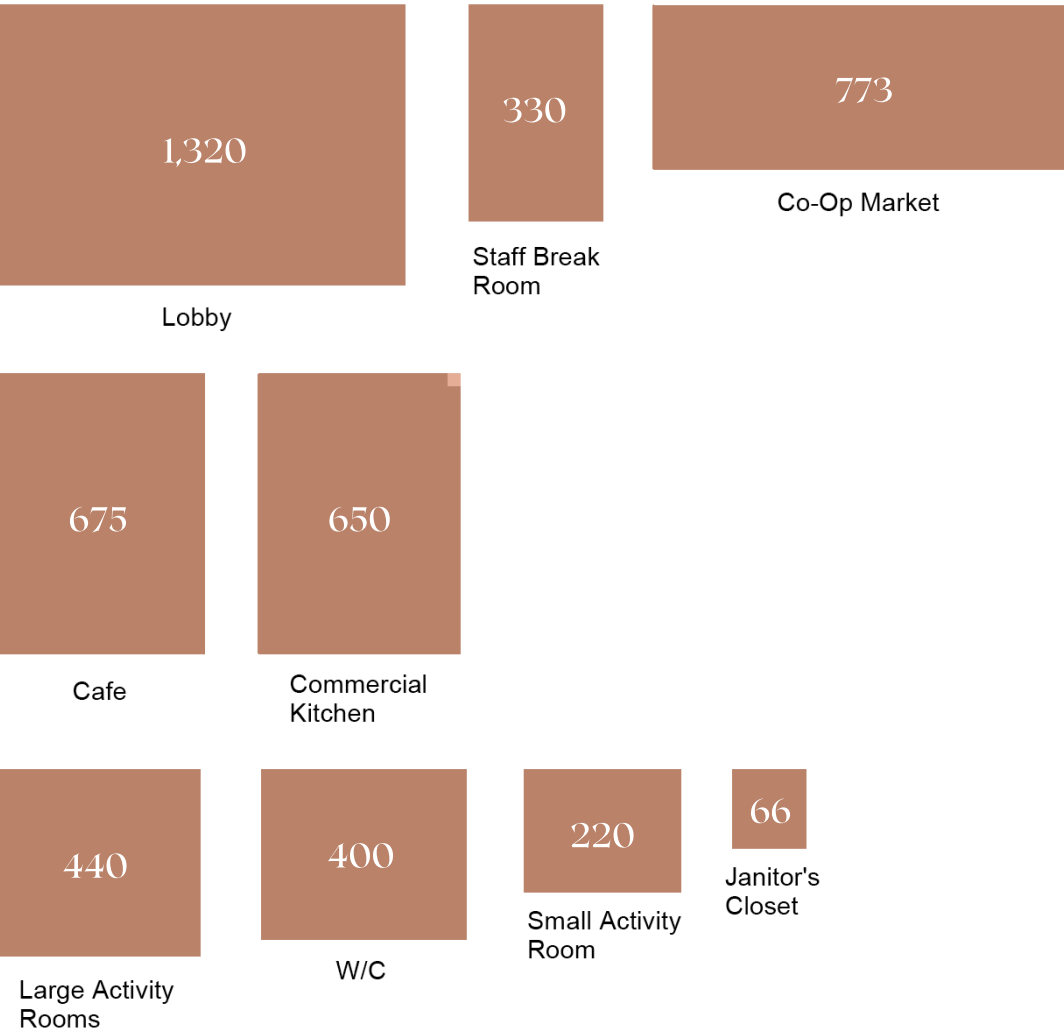
Horticultural Spaces



Medical Spaces



Community Spaces



A visual space needs summary compares square footage sizes for each space based on early plan layouts, block diagrams, and estimated square footage needs. This allows for a simple comparison of sizes. Each of these spaces fits within the 29,000 square foot building easily.



Concept Development

Creating an emotional connection



The Concept:

Proactive Flexibility & Calathea Plants

Calathea plants are traditionally considered to be a high-maintenance houseplant, but this isn't necessarily true. Much like a mental health patient, Calatheas need specific care to thrive, but if you provide for their unique needs, and give them the right environment, they will flourish.

Calatheas clearly convey their needs; they curl when they're too dry, fade when their environment is too bright, and they grow best when they're grouped together. They'll create a social support system of localized humidity and shade to help each other grow.

The Growing Center will bring the community together in much the same way to help each other grow and thrive.

Calatheas are also one of a number of plants that will physically alter their position in relation to the sun throughout the day to ensure that their leaves are gathering as much light as possible at any given time. This process is called Nyctinasty.

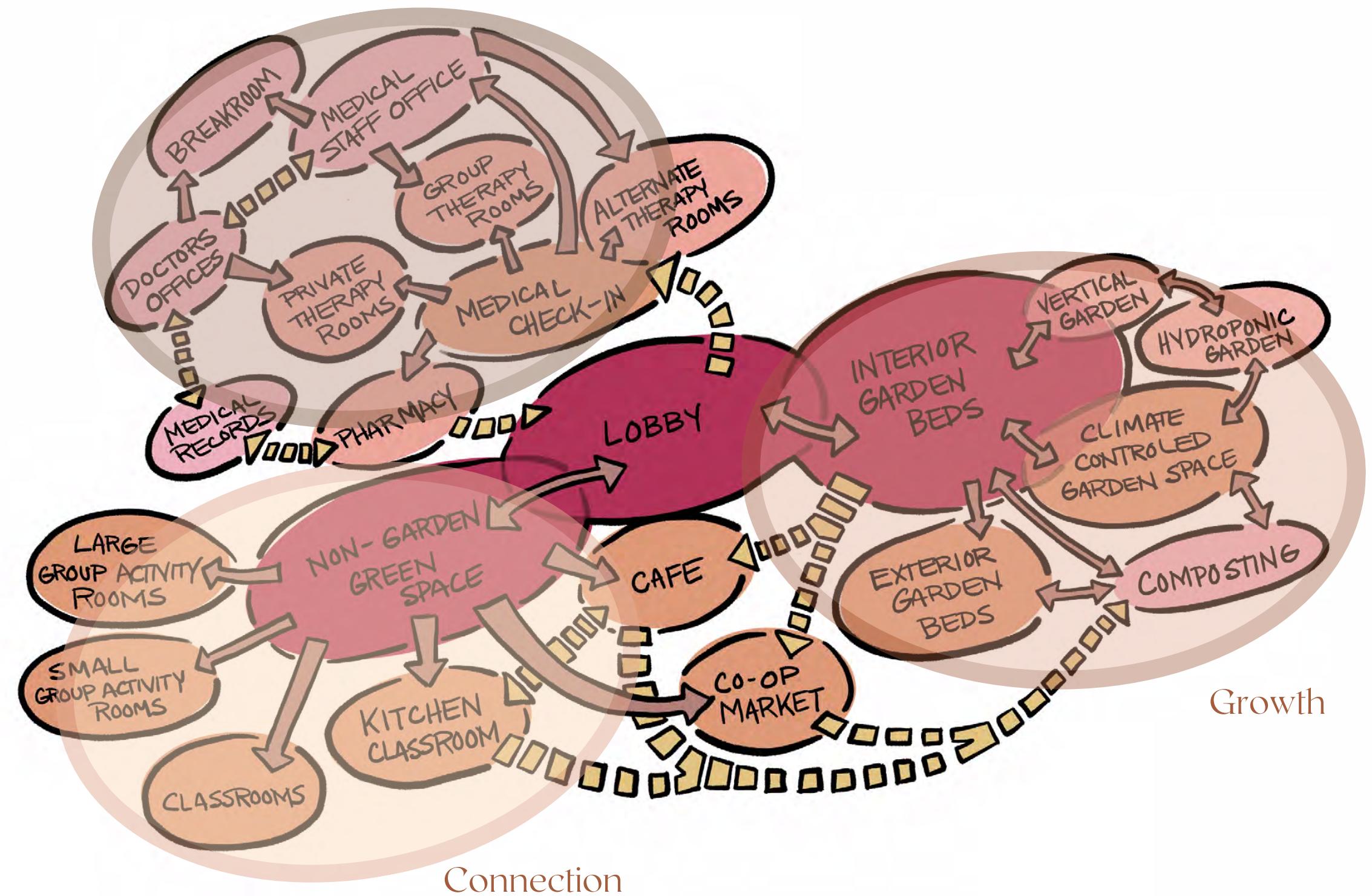
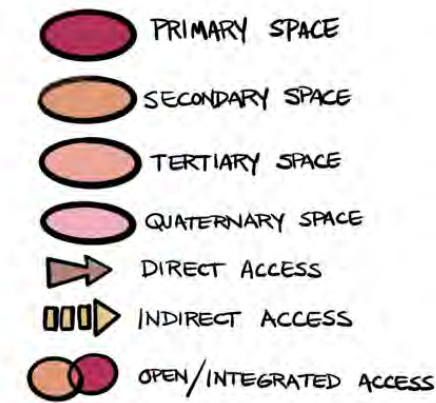
It's more than simply folding up to rest. The beauty of Nyctinasty is that it's all about adjusting to fit your needs. The plants adjust throughout the day to their environment, to its challenges and advantages, and they learn to take care of themselves and follow the natural rhythm of life. On days when it rains they fold up together, when the sun is shining, they turn towards the warmth.

These plants read their environment, study their own needs, and then adjust their situation proactively to find the best possible conditions for their personal growth.

Essentially this is what The Growing Center wants its users to accomplish. The center is designed to create the best possible environment for patient care and recovery.

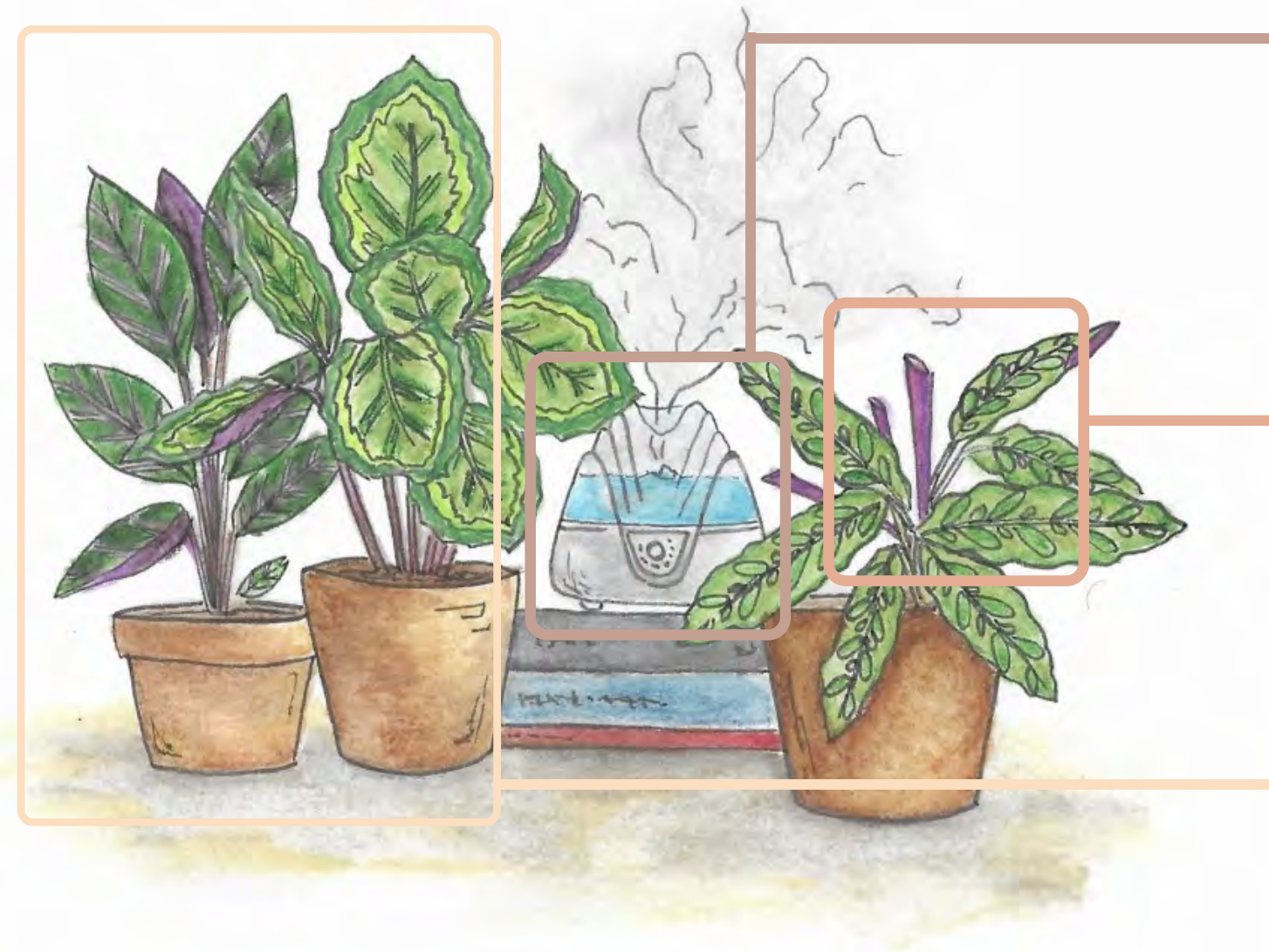
This concept of proactive flexibility will be applied to the structure of the design in a number of different ways beginning with the division and layout of key programmatic spaces.

Each unique area of the space that was identified in the spatial adjacency diagram will be adapted differently according to its function. These spaces are designed to provide the best possible environment for the community and mental health patients to grow and flourish. They are represented by three main goals: support, growth, and connection.



Growth

Connection



Support

Technical Medical Clinical
Functional Professional

The support section of the Growing Centers is much like placing a humidifier near a collection of calatheas. It is the tool that begins to lay the foundation and create the environment where the patients can thrive. Although it is only a small aspect of the overall building, and separate from the main portion of the building, it is the beginning of creating a healing environment. And much like the mist that a humidifier creates, its influence will spread.

"Find the right environment to thrive"

Growth

Practice Patience Nurturing
Practical Application

Once a healthy environment has been created, patients must focus on growth, learning new ways to help themselves and refocusing their attention on positive aspects of life rather than negative. Much like a calathea putting out a new leaf, it will take a while for users to unfurl and recover. This area will be focused on providing the tools and education needed to allow patients to help themselves. Hopefully it will create a sense of purpose and renewed excitement for living.

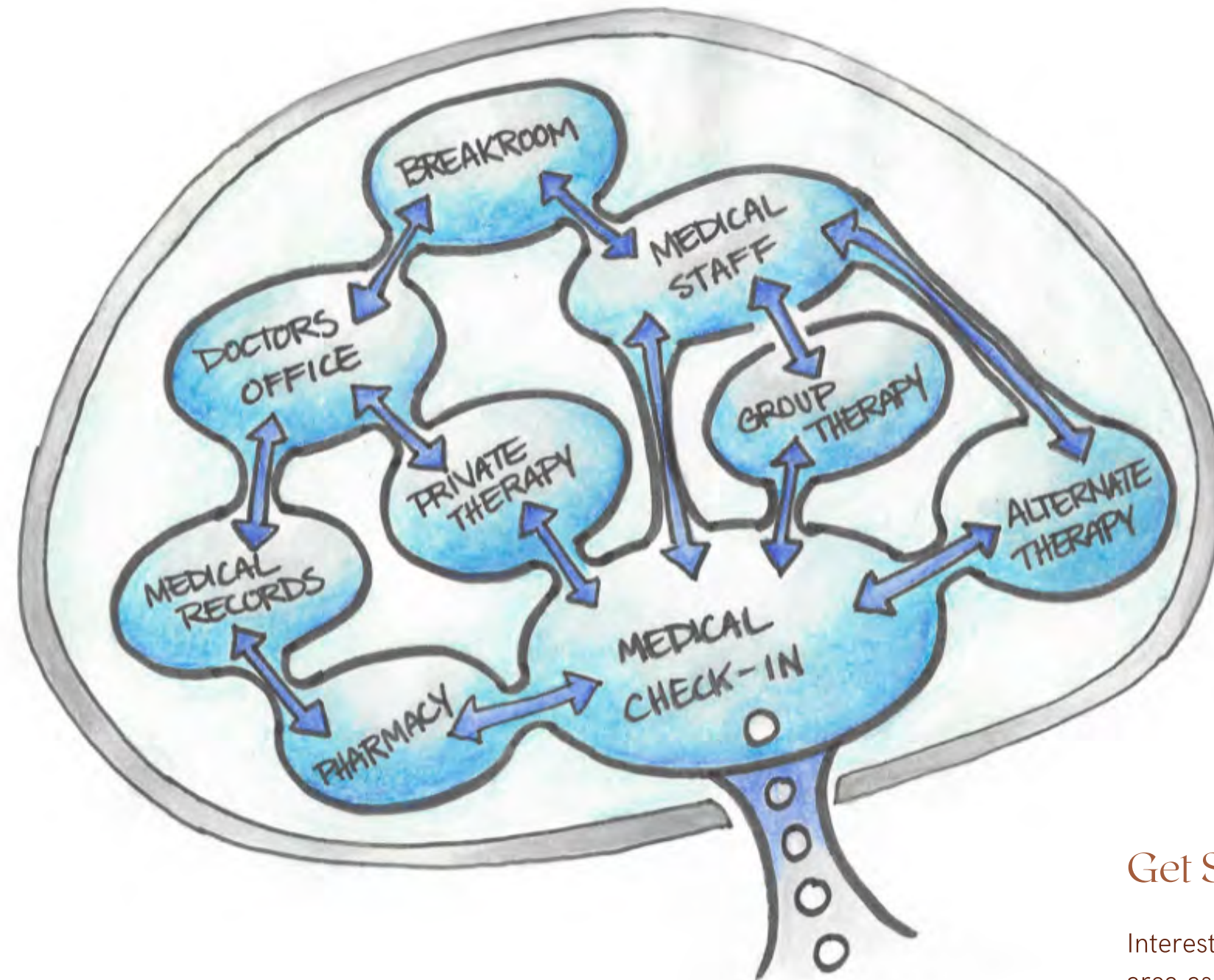
"Find a reason to wake up and grow"

Connection

Live again Share
Educate Reenter

The last area of the building is designed to integrate patients with the outside world and create a natural support network much like grouping calatheas together and allowing them to support each other. This means that the need for medical intervention is less. Users can support and heal each other.

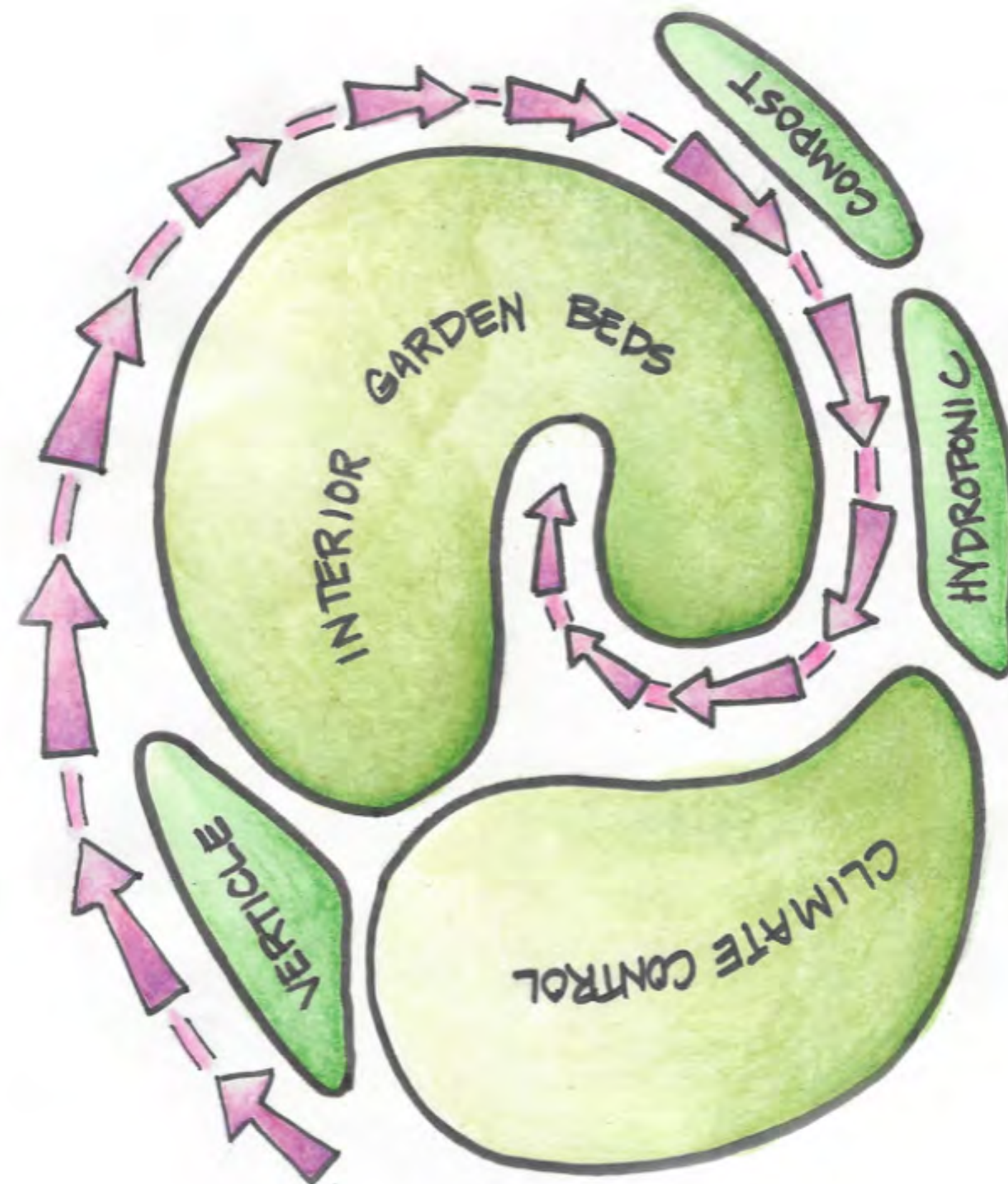
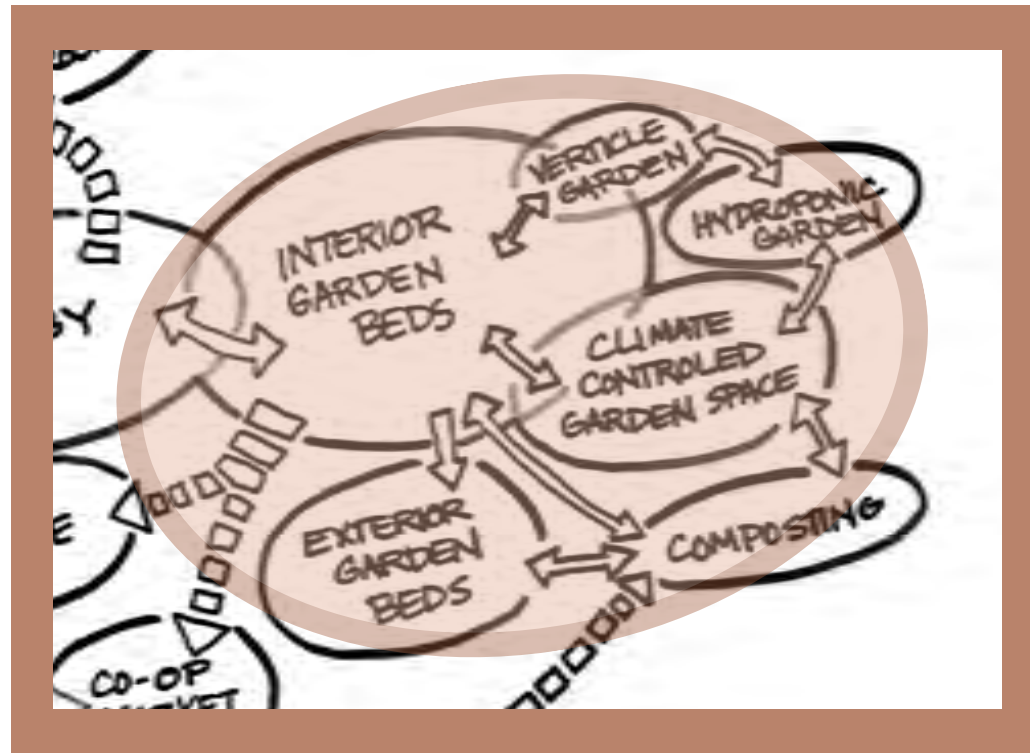
"Reach out and make new connections"



Get Support

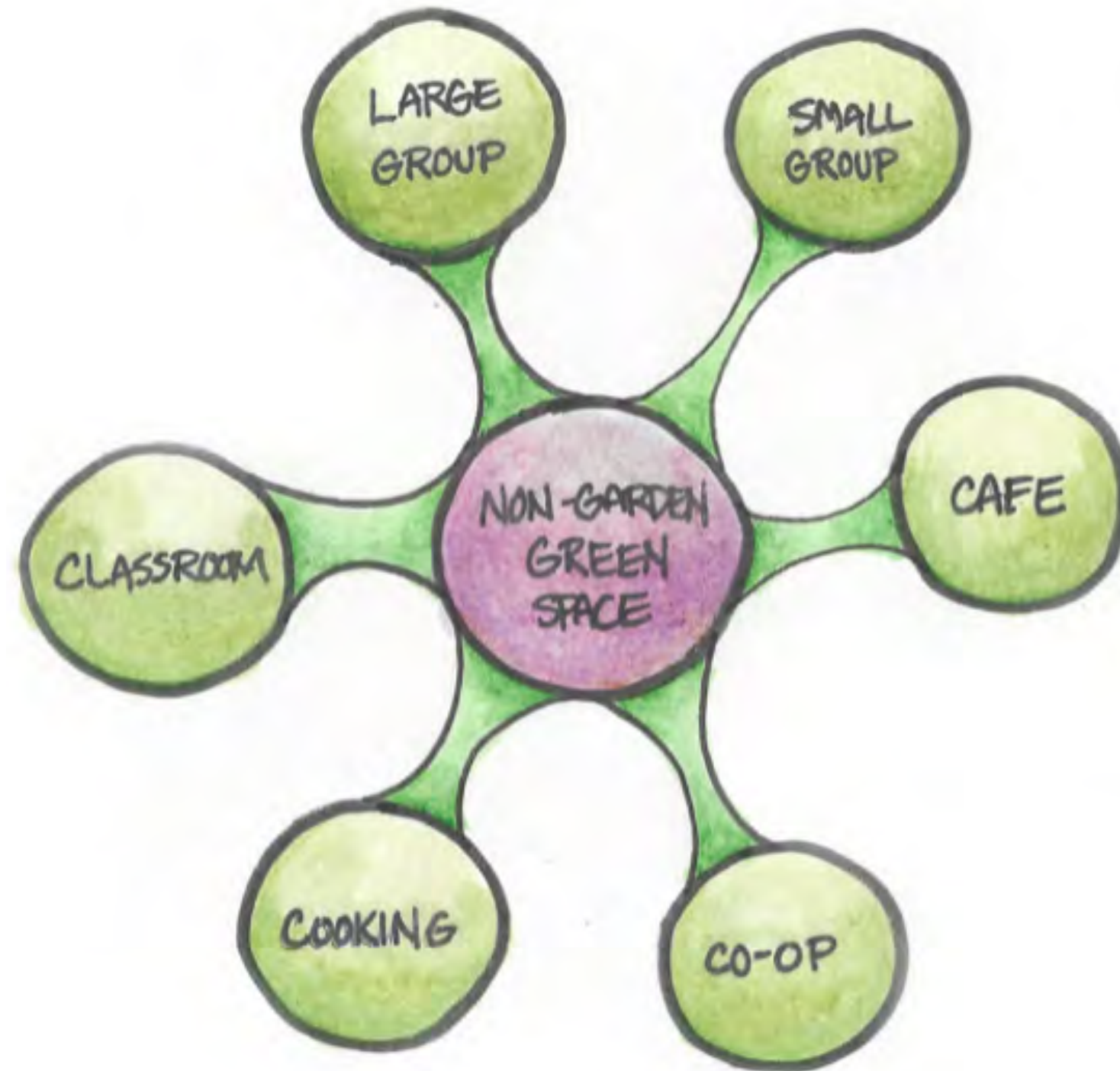
Interestingly, the concept of the Get Support area as a humidifier has already appeared in the original adjacency diagram. The medical area of the building was already identified as a private area outside of the main layout. It had also already developed a clustered layout, with spaces gathered together in a haphazard fashion much like bubbles on water.





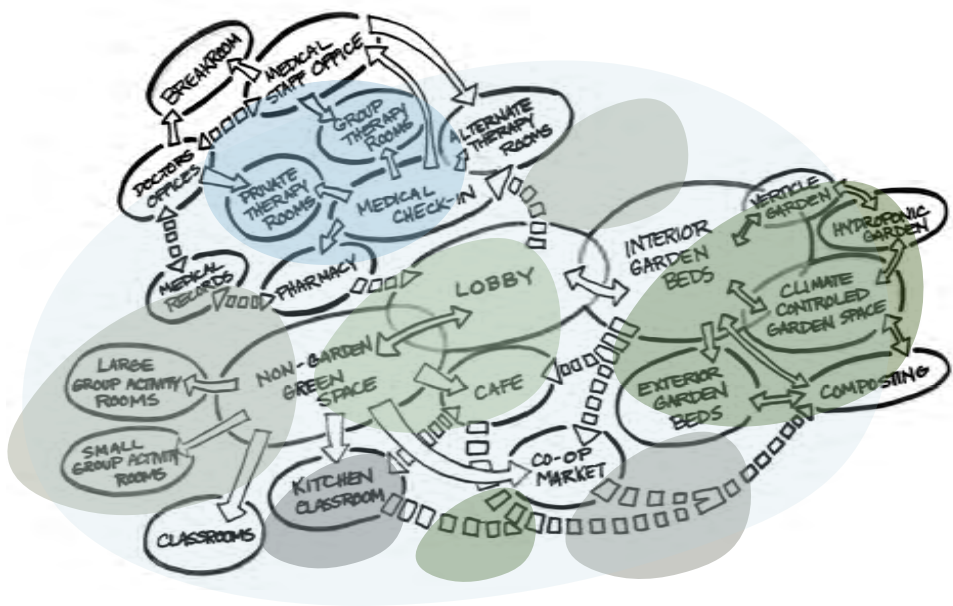
Find Purpose

Again the early adjacency diagram hinted at the new concept for the Find Purpose area of the Growing Center long before that concept had been identified. A subtle rotation between spaces was apparent that reflected the delicate curve of an unfurling calathea leaf. This fibonacci spiral created an interesting layout for the gardening area of the building.



Reconnect

The Reconnect area was all about bringing the community in and intermixing them with the patient population to create new connections. Again the adjacency diagram showed a clear direction for this space, which was echoed in the overall structure of a calathea plant. Each of the various different leaves are connected to one central point. This radial pattern became a clear layout for the final space.



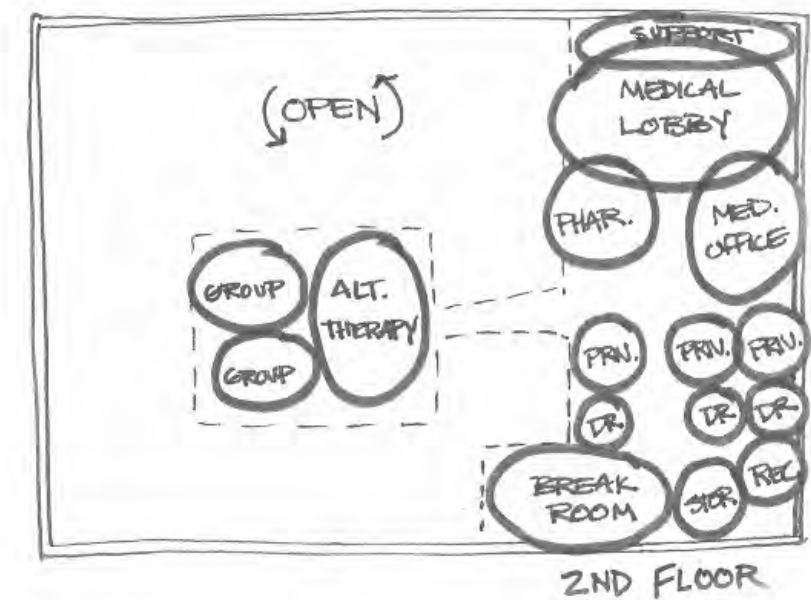
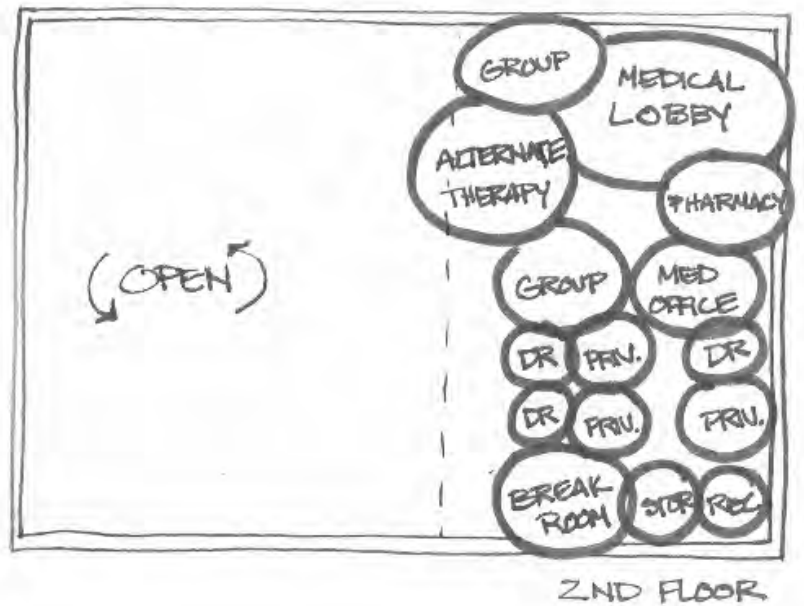
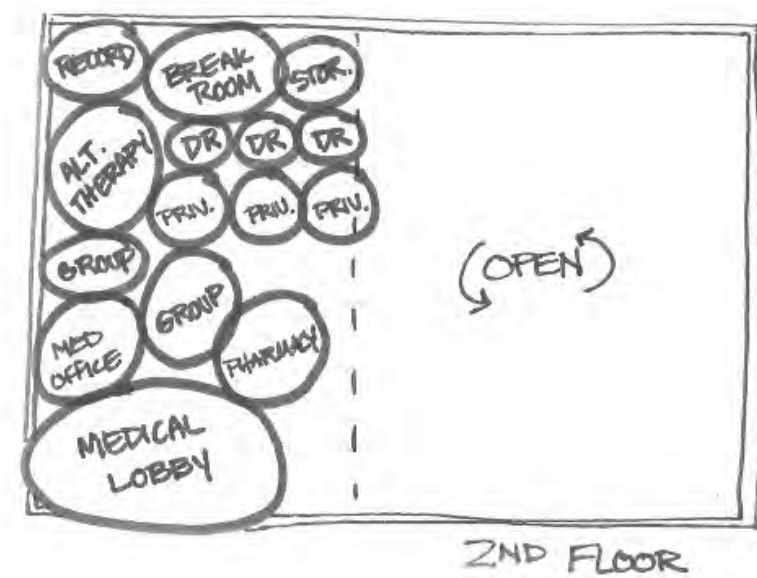
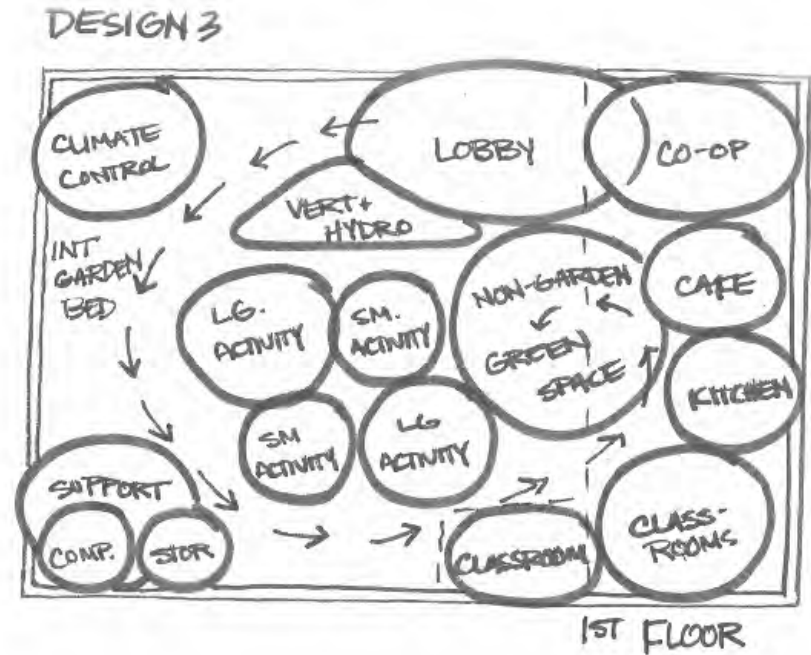
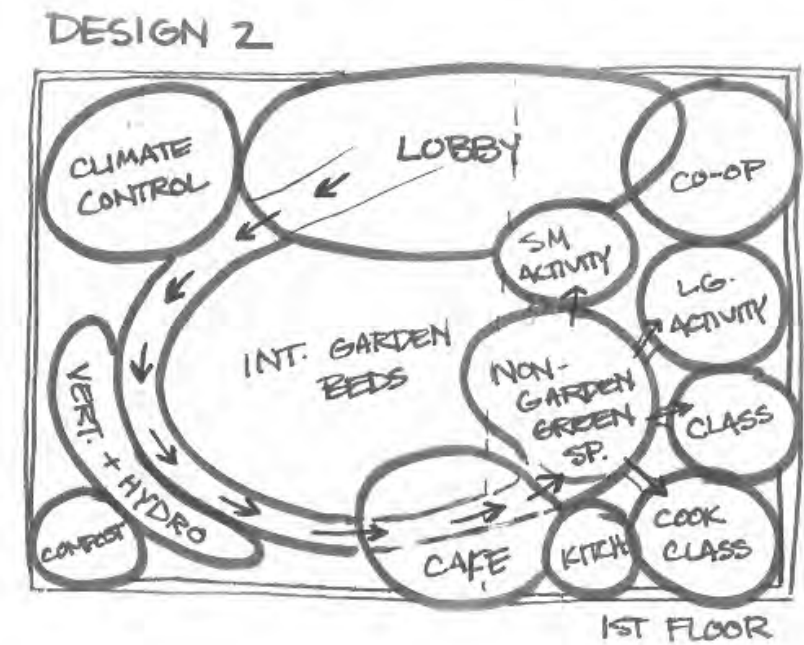
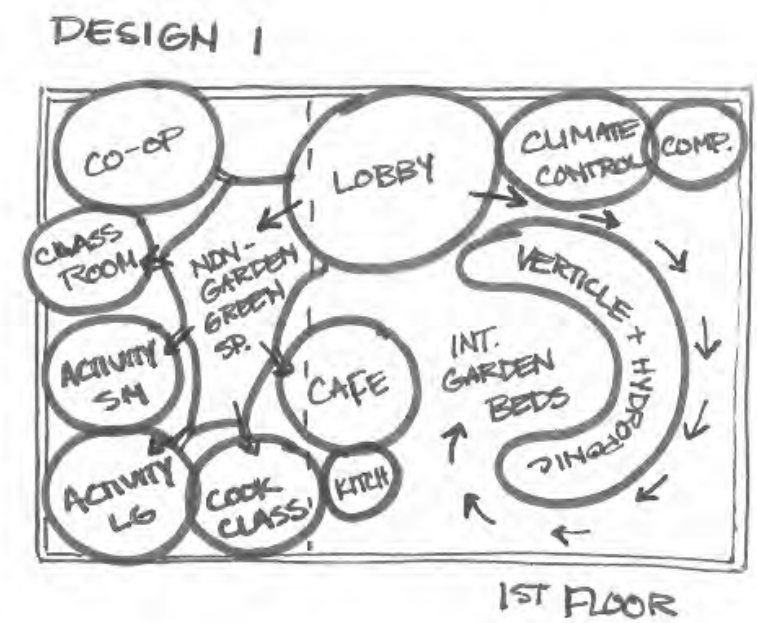
SPIRAL

RADIAL

Parti Diagram

The entire concept came together under the umbrella of the concept inspiration: Calatheas. The adjacency diagram looked remarkably like a collection of calatheas gathered around a humidifier, and when the new conceptual layouts for the space were applied, the result was a spatial garden designed and adapted to proactively affect user health and wellbeing from the ground up.

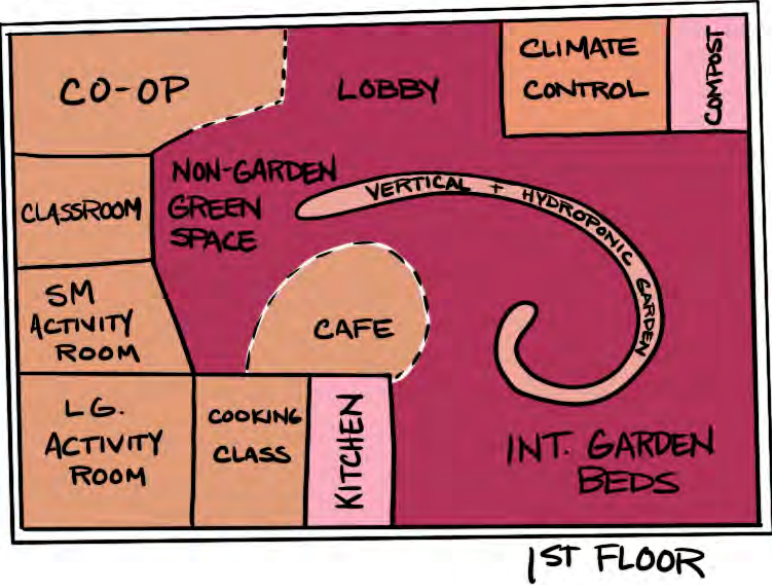
Bubble Diagrams



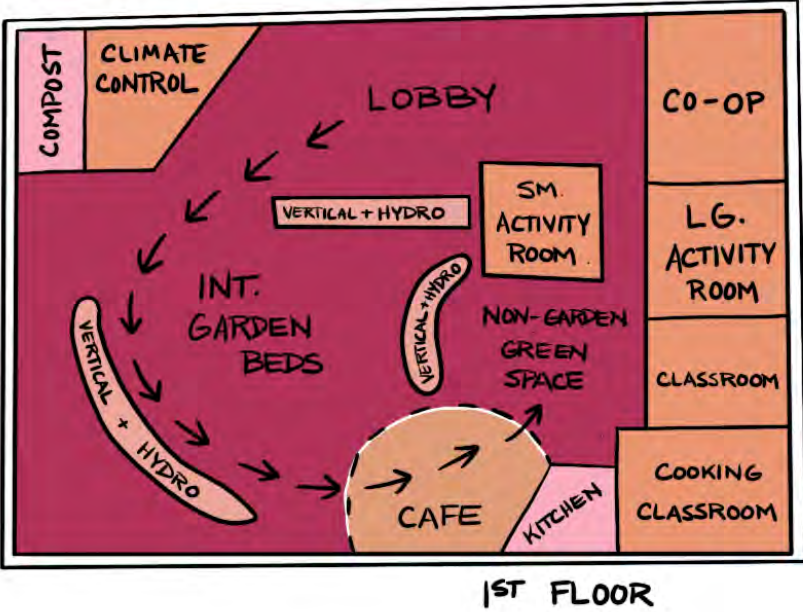
Applying this parti diagram to the actual building structure was a different matter entirely. The building has two different available floors, but conceptual areas still needed to be combined and overlapped to create an effective growing environment. The result were bubble diagrams where spaces followed a spiral path leading to a radially laid-out community area. Medical areas of the building were relegated to a private second floor where they could influence, but not interact with the other public areas.

Block Diagrams

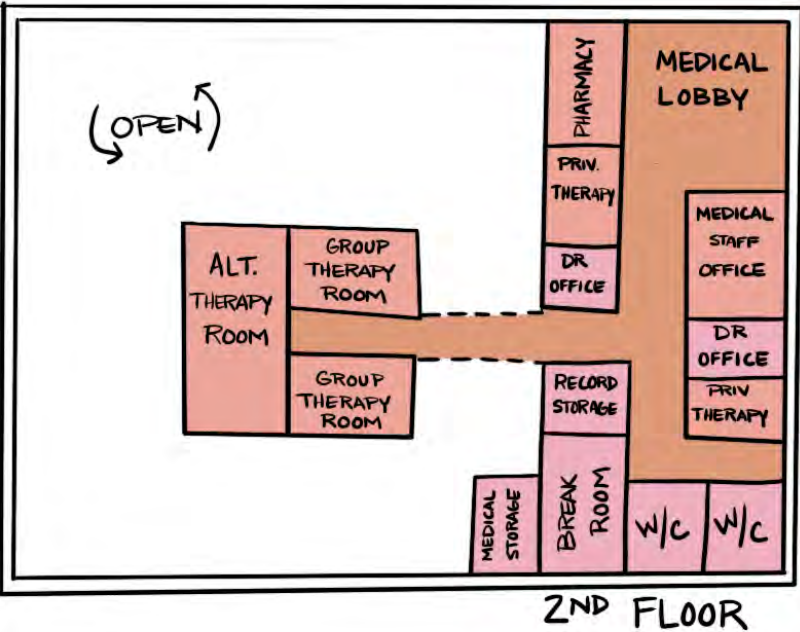
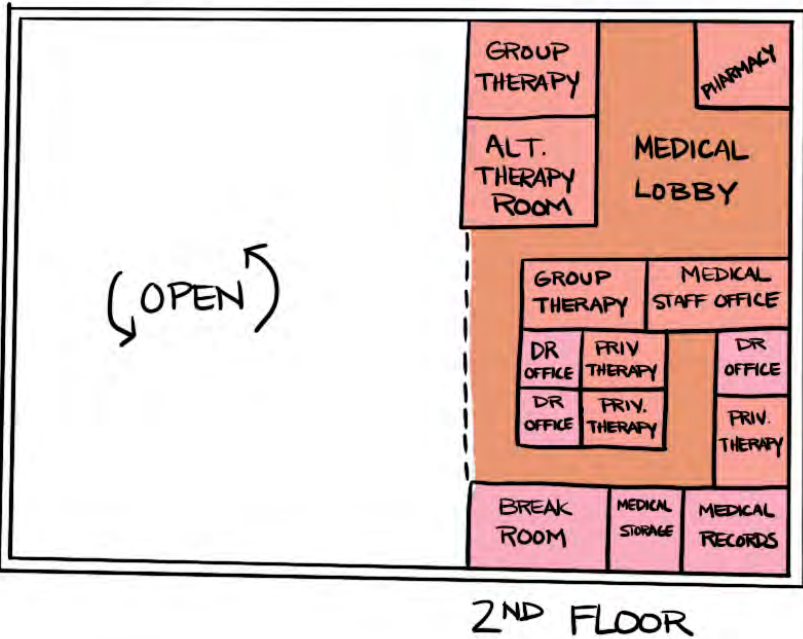
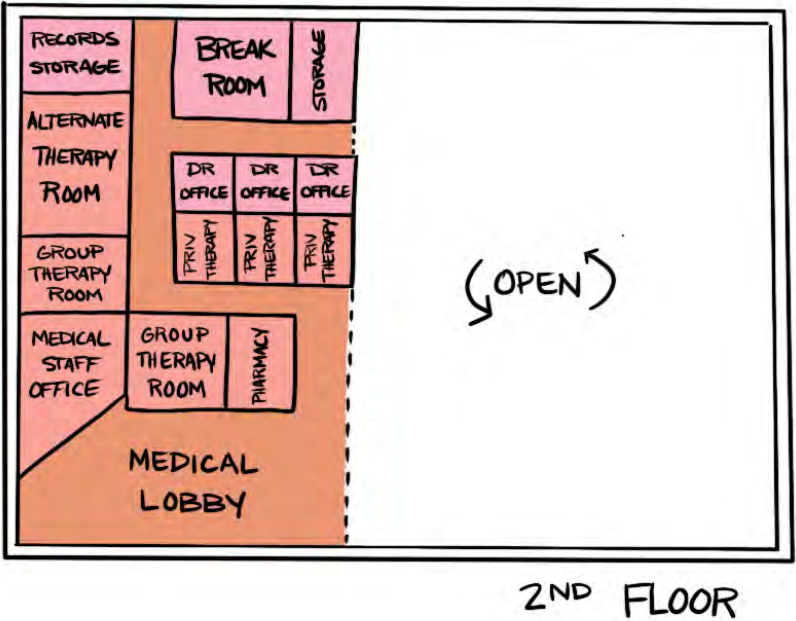
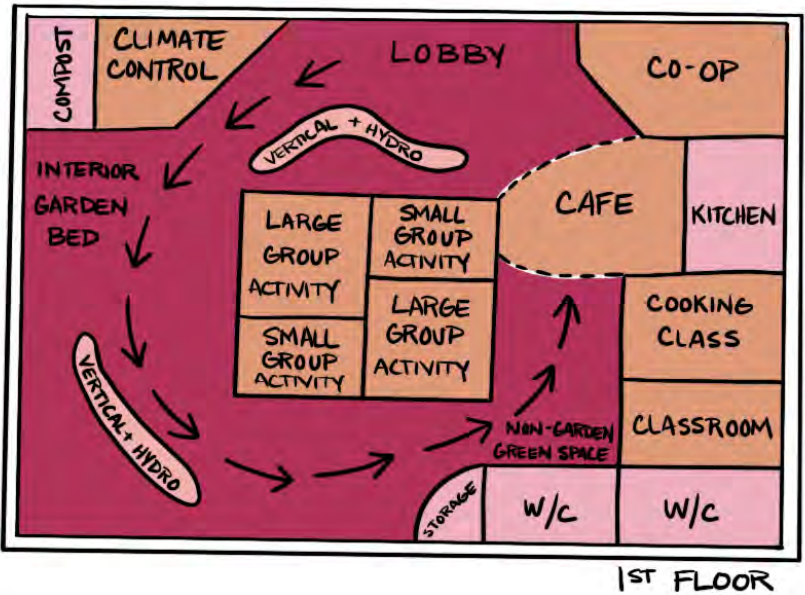
DESIGN 1



DESIGN 2



DESIGN 3



When creating block diagrams, the bubble layouts were refined and resized for a more accurate spatial analysis. Certain areas had to be rearranged to create the most effective layout, but a focus to keeping the space mostly open and public or semi-public whenever possible was made. This creates the inclusive, inviting space that the initial word cloud highlighted as a key feature.



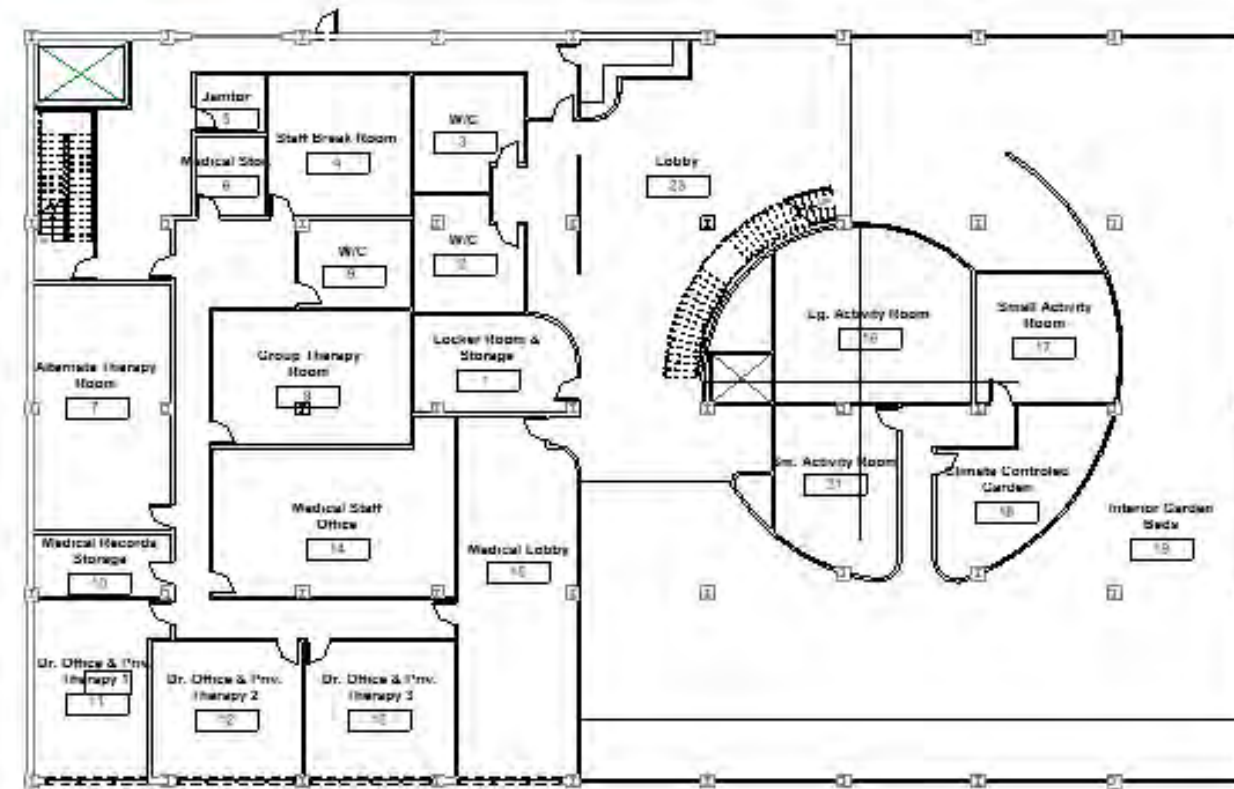
Building the Growing Center

Designing the Space

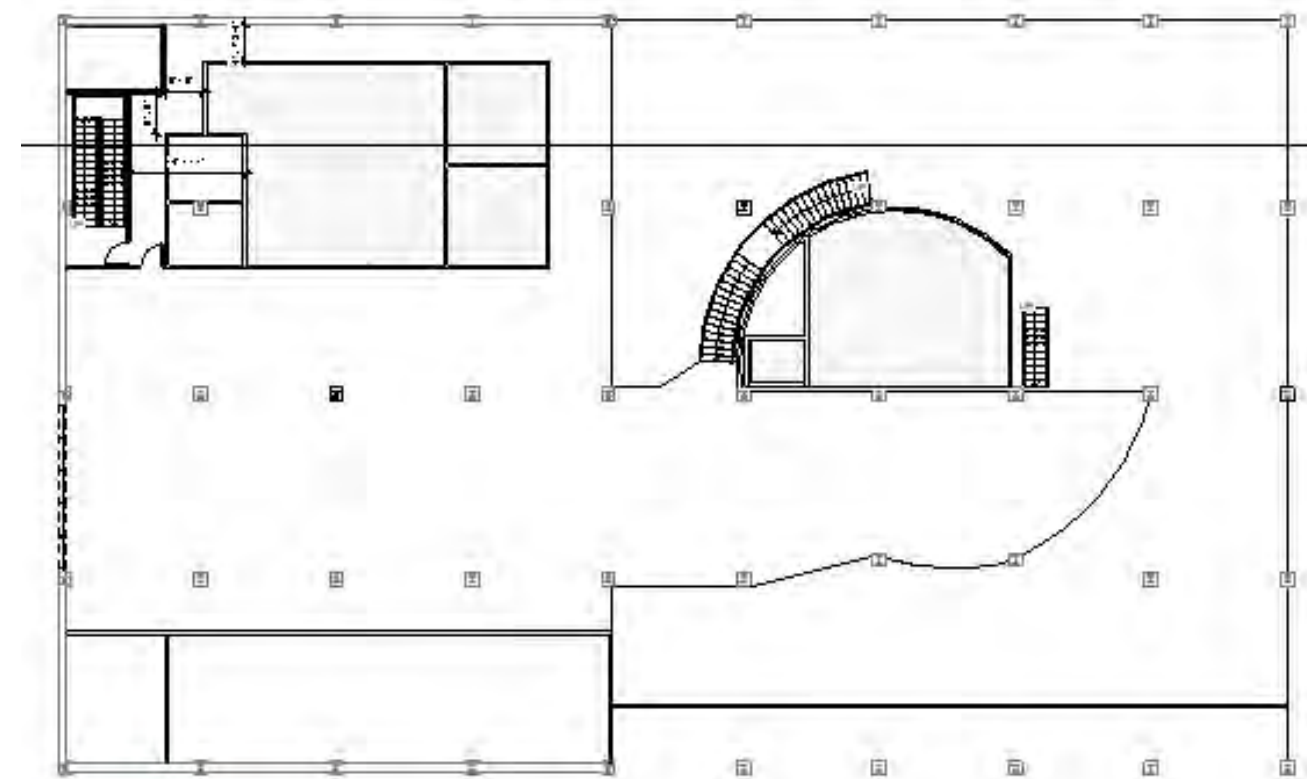
Initial Floor Plan

Two floorplans were created early on, based on bubble and block diagrams. These were the beginnings of bringing the concept into the physical design and were influenced by models, research, inspirational images, and conceptual arrangements.

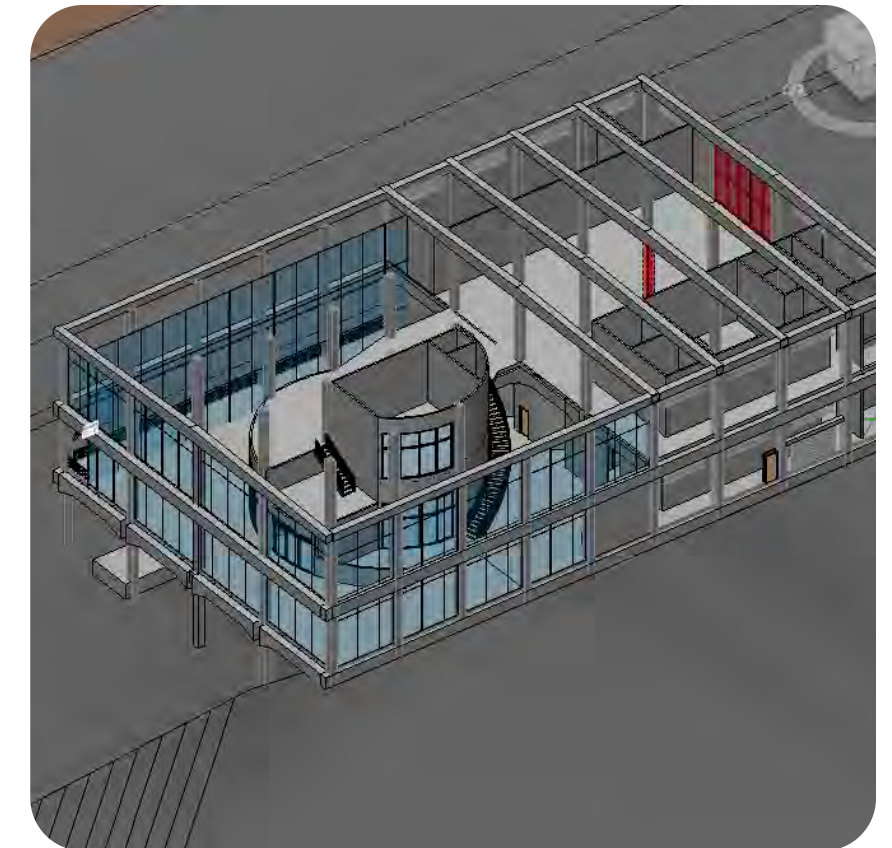
In the first floor plan, the emphasis was placed on a spiral-enclosed central cylindrical structure, which would house activity rooms and support a second level of interior garden beds. Although this idea had its merits, it was largely focused on functional and code-compliant use of the space and did not focus on conceptual use of the space or the user journey.



Level 1



Level 2



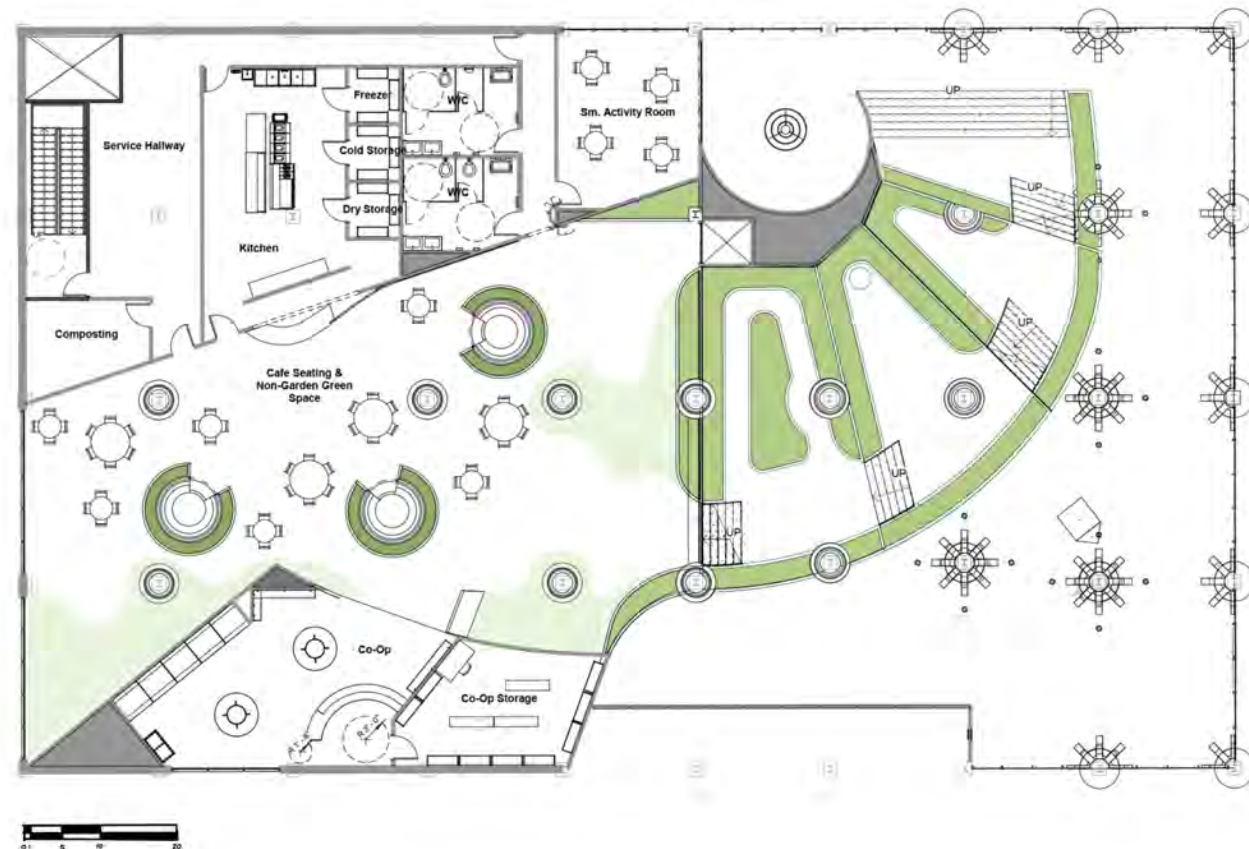
Developed Floor Plan

The second floorplan was much more conceptual. It focused on how the space could adapt to house the maximum number of interior garden spaces while still serving all of the community needs of the space. The end result was a tiered, central tower of garden beds that would spiral its way up to the second level. This was inspired by the tiered rice paddies of Asia, which were flexibly adapted to a complicated environment in order to encourage the best possible growth.

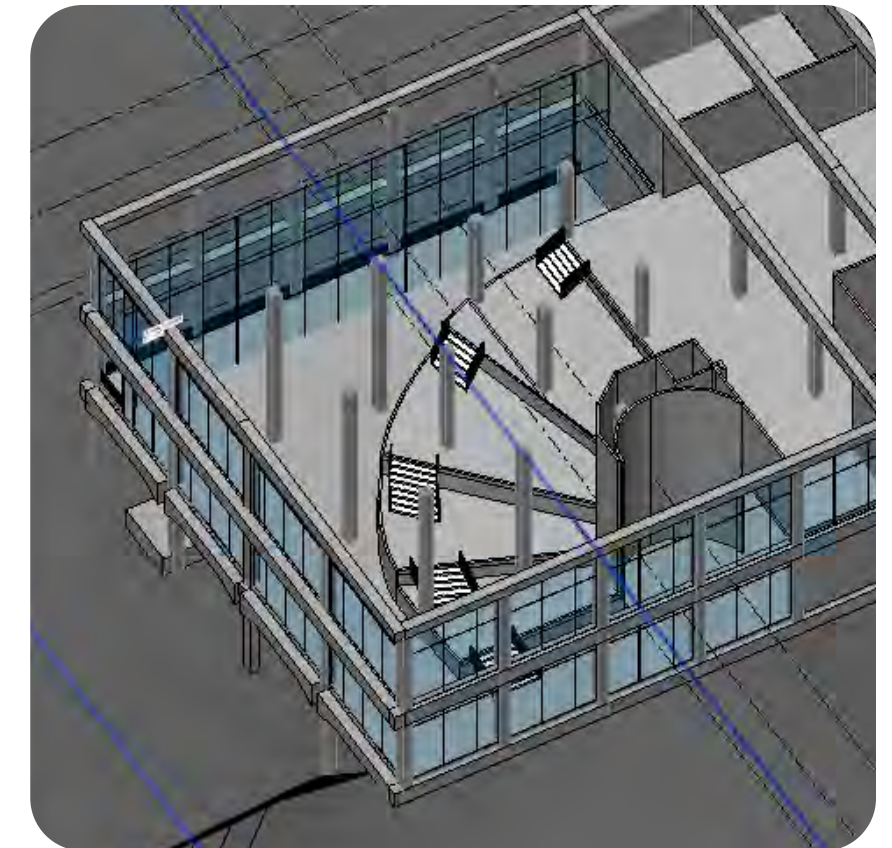
Activity rooms and other support spaces could be located on the ground floor and within the tower itself, while the roof levels could house raised garden beds and the grand staircase to the community spaces.



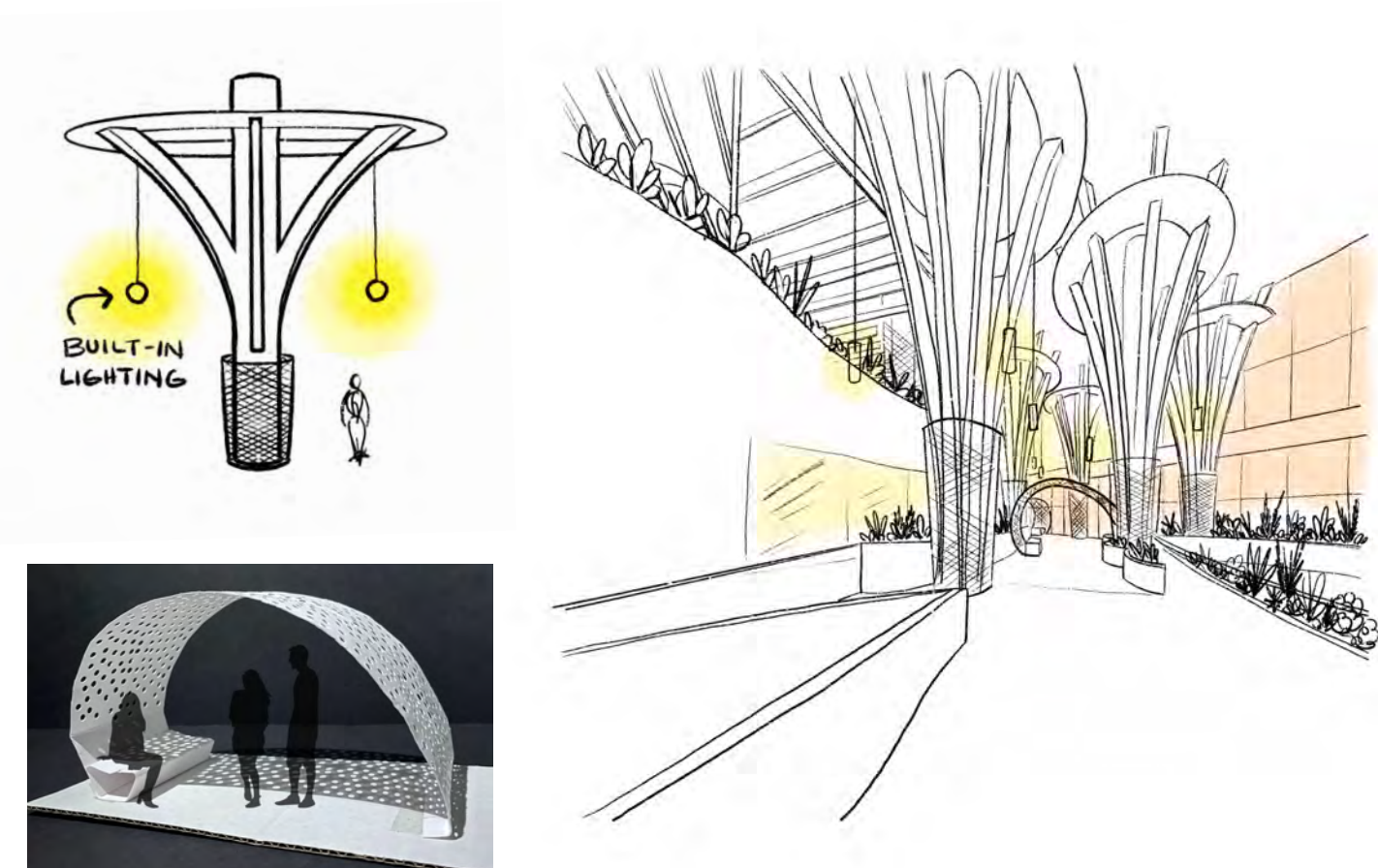
Level 1



Level 2

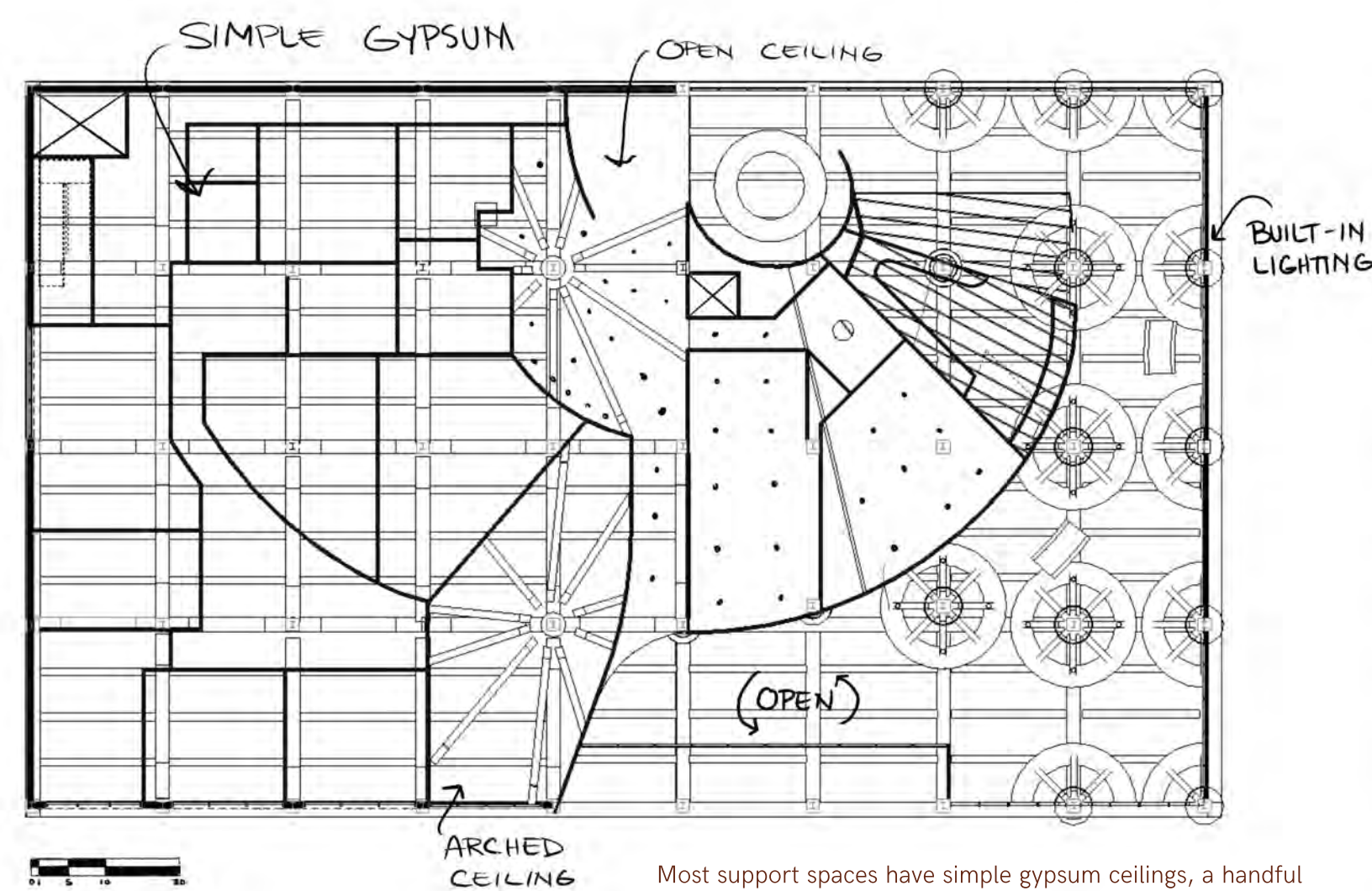


Reflected Ceiling Plan & Lighting Design Development



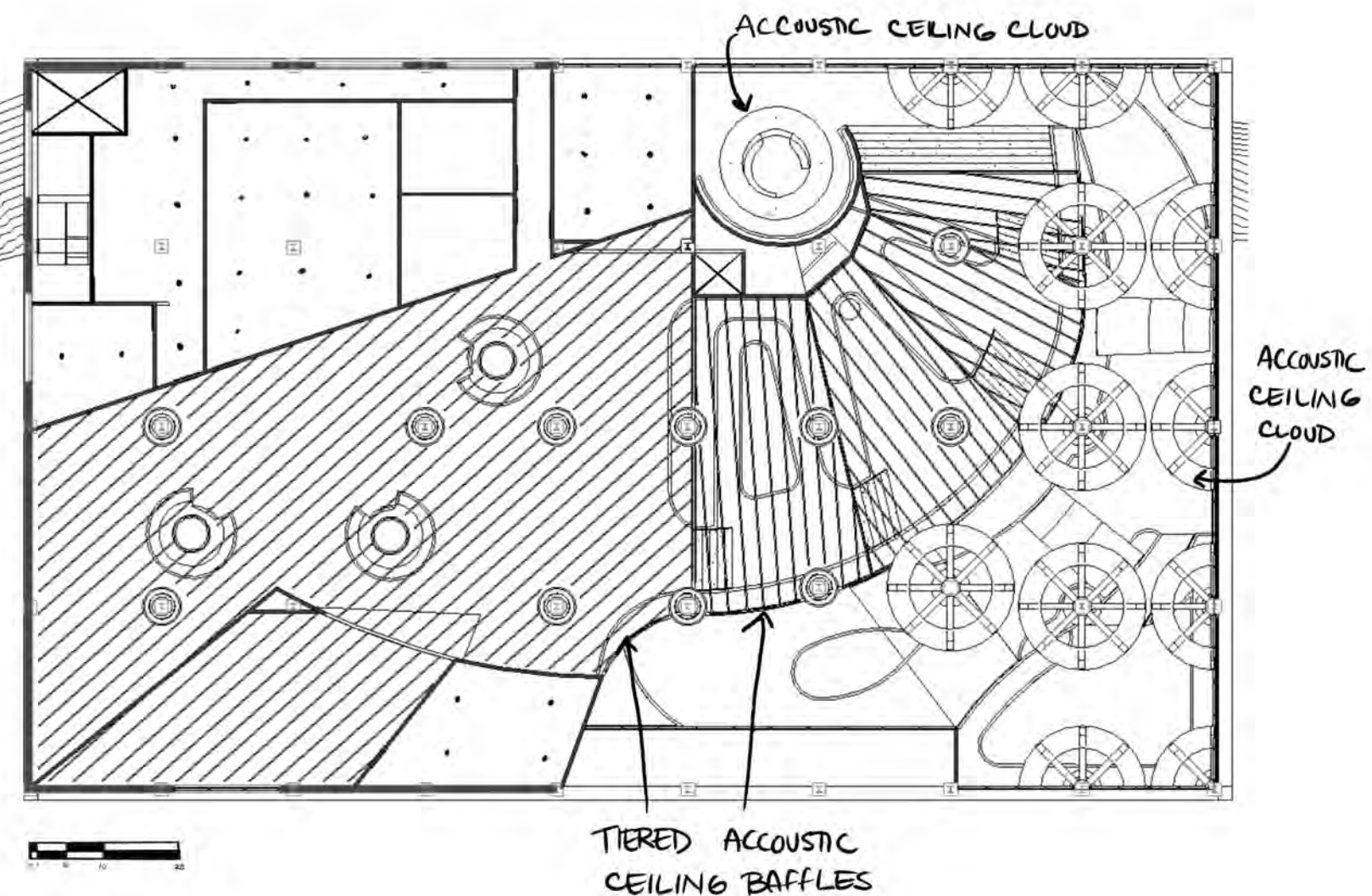
By definition, a space that is designed for growing plants indoors must be acutely focused on the light in the space and how it is used. In the garden bed areas, windows are floor to ceiling and light is more or less unobstructed. This is a necessity to allow the plants to grow. However, this can become overwhelming for certain individuals, and as such shaded bench seating was designed to provide a rest from the sun and a place to connect with friends and community members. Additionally, the column tree structures support built-in pendant lighting to create a warm, dull-glow ambiance in the evenings. The lower lighting after dark will follow the natural pattern of daylight and not interrupt natural circadian rhythms, which is an important design feature when dealing with mental health concerns.

Daylight & Needed Grow Light Map

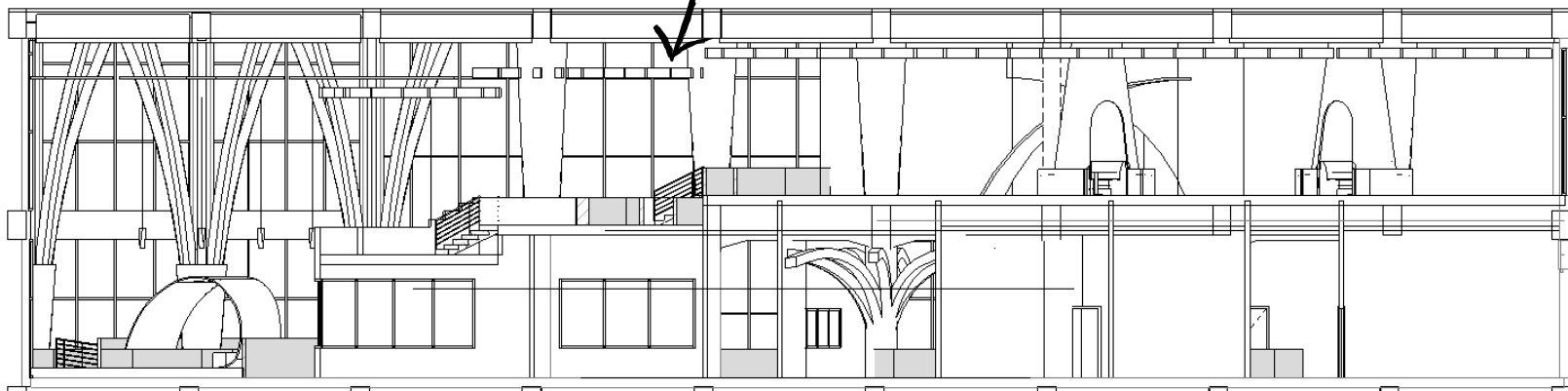


Level 1 Ceiling Plan

Most support spaces have simple gypsum ceilings, a handful have complex root structures to enhance those ceilings. In the garden beds, circular ceiling clouds and column trees are the majority of the ceiling design to allow for skylights and maximum window access.



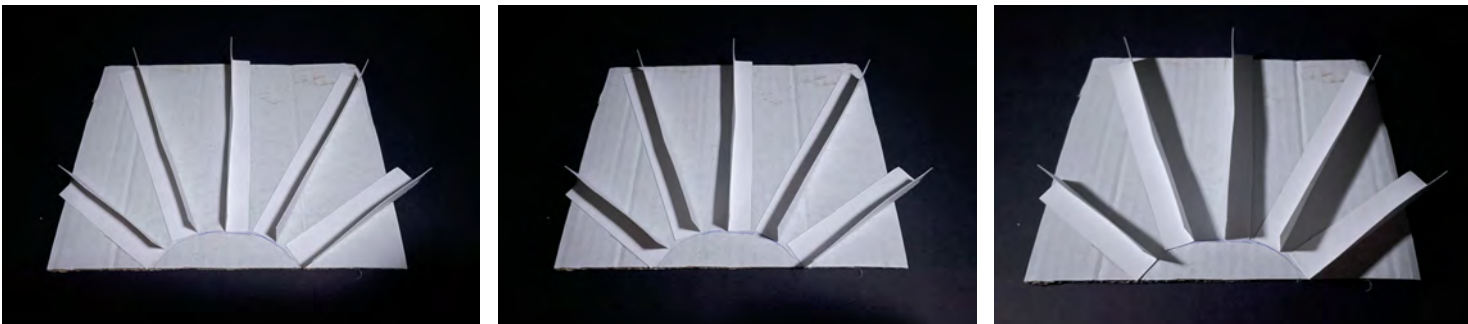
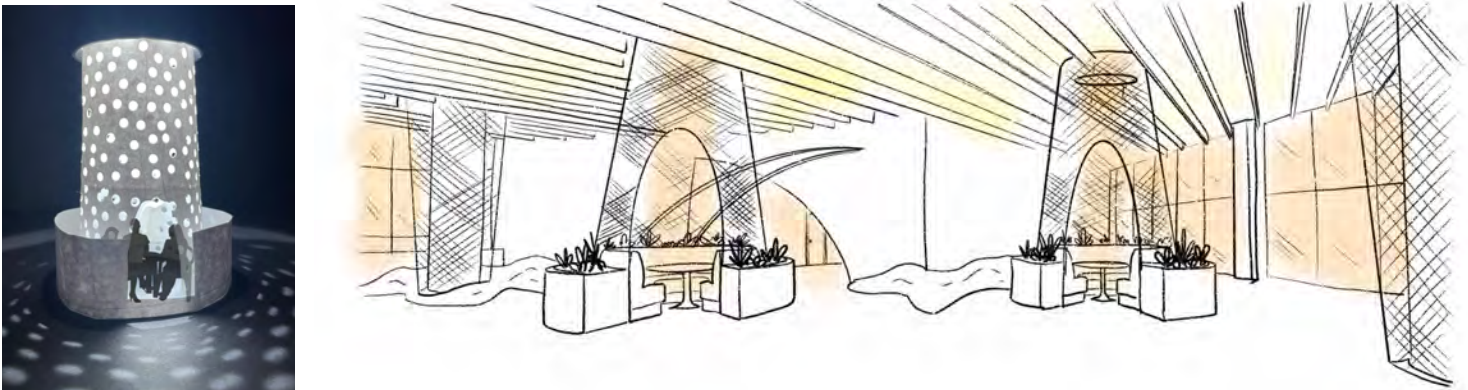
Level 2 Ceiling Plan



Daylight & Needed Grow Light Map



In the community spaces, however, light can be used more creatively. One example is in the booth seating, which is lit internally with a skylight and which would throw light patterns outward and echo that radial layout shape from the original concept diagrams. Another example are the ceiling baffles. These baffles would throw shadows across the ceiling in relation to the sun's position in the sky. This creates the illusion of the space moving along with the sun in the same way that calathea plants do, as shown in the model below.



Model fixed and light source moving



Conceptual Application

Encouraging design to bloom

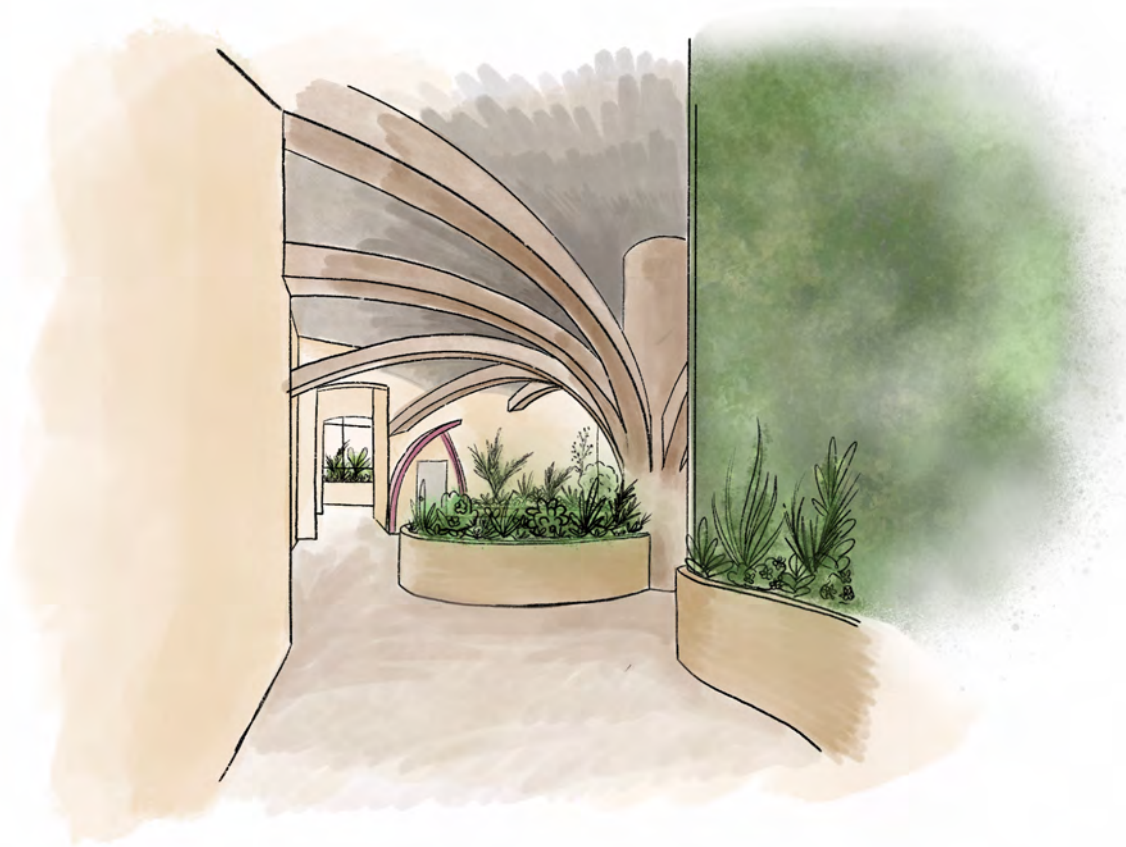
Conceptual Application

After the floorplan was fully analyzed on a grand scale, it was time to take a closer look at how the space would feel. What kind of details would be included that would encourage the healing growth and social connections of users and how would the concept be implemented in the details of the space? A series of rough sketches, annotated elevations, and tear models were created to get a feel for how the floorplan would translate into a physical space. The theory and conceptual research also began to come into play on a larger scale as the space was tailored to suit the users on a human scale...

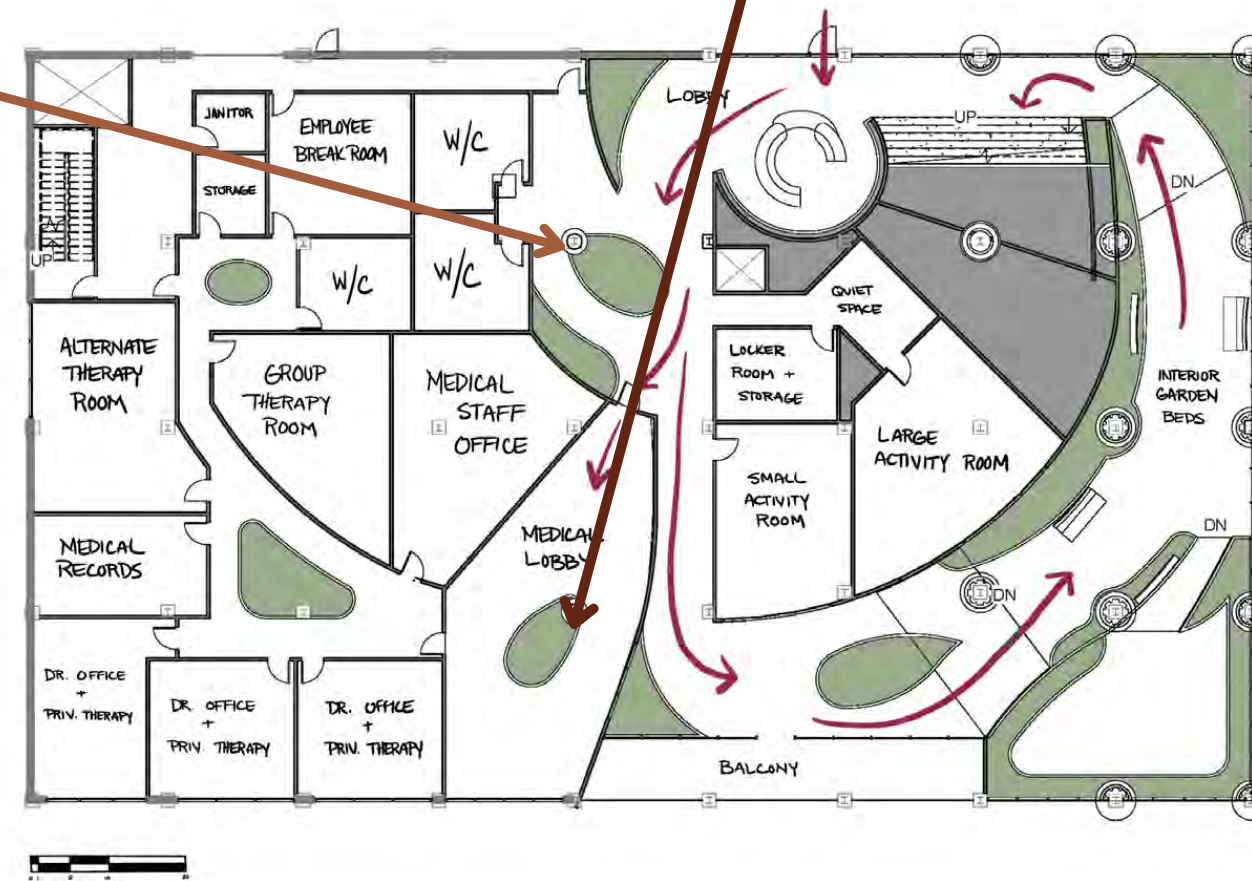


Support

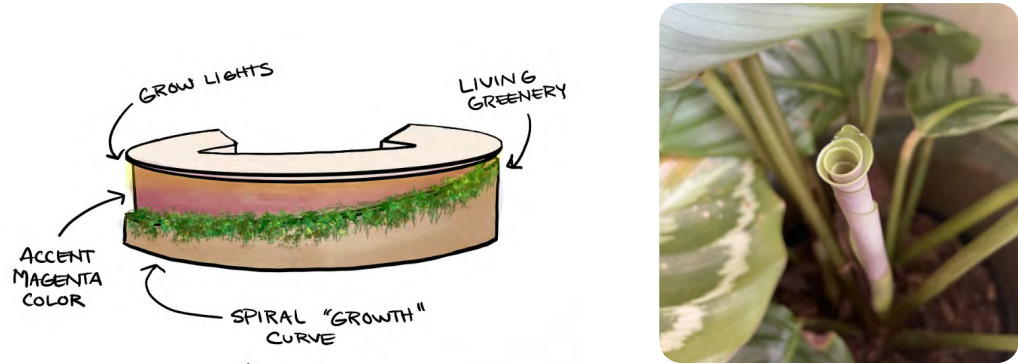
The support spaces are the ones that house features specifically designed for mental health care. They are located on the first floor of the building and act as a literal support structure for the community and garden spaces on the upper levels, much like the roots of a plant support the leaves and flowers. As such these spaces were designed to feel as if users are embraced in the roots of a giant plant.



The sloping, arched ceiling in the medical lobby creates a perceived sense of weight to the ceiling and enhances that sense of being in a comfortable underground space. However, windows to the riverfront and a translucent and semi-transparent wall to the garden space keeps patients connected to the outside world and their community while preserving their privacy.

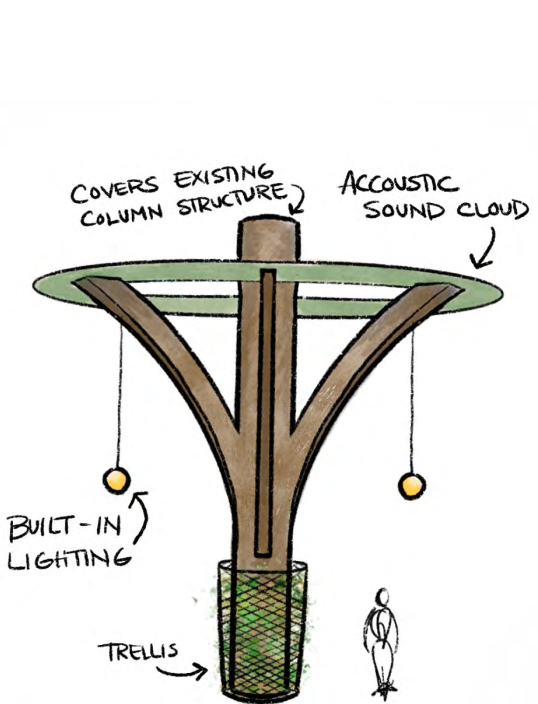
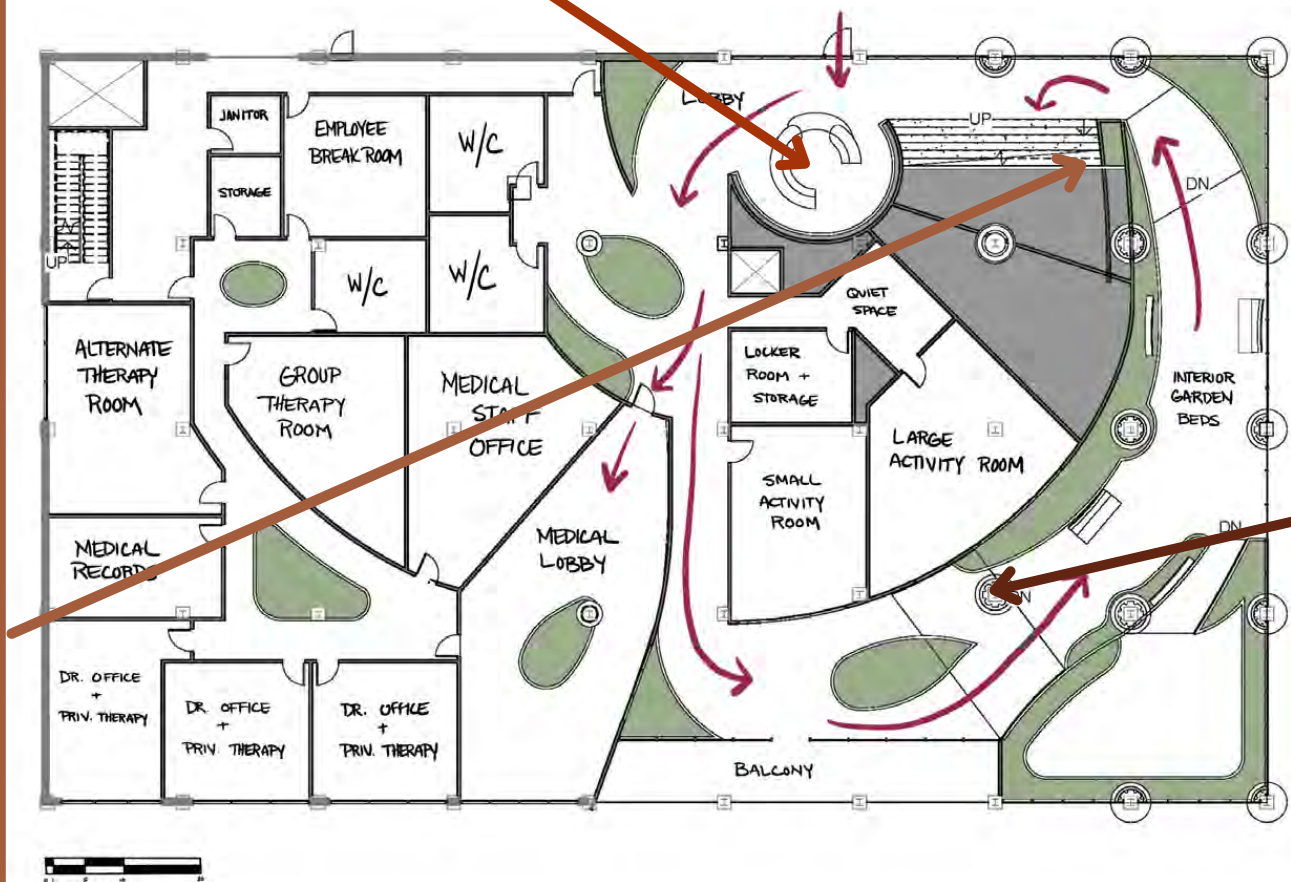


Growth



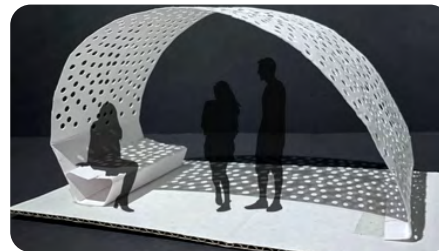
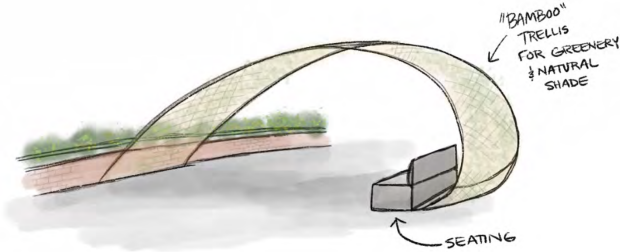
The entire growth area follows the spiral pattern of a newly emerging Calathea leaf. This is evident in the overall floorplan, but it is also apparent in more subtle places including the reception desk. This is the first feature guests see when they walk in the door and it essentially acts as foreshadowing for the user journey with plants growing undercover, but spiraling upward and out towards the public.

The overall tiered structure allows guests to follow an upward spiral from the roots level where they receive the help and support that they need to improve their mental health upward to where they can bloom among the community again. Along the way, the entire path is planted with greenery, which feeds the co-op and the cafe upstairs.



The column structure of the space is disguised by growing structures that mimic the graceful curve of Calathea stems. These structures serve multiple purposes: the base holds a trellis for plants to grow against, the center arms support the artificial lighting, and the circular top is an acoustic ceiling cloud, which serves to dampen sound while allowing light to penetrate the space from overhead skylights.

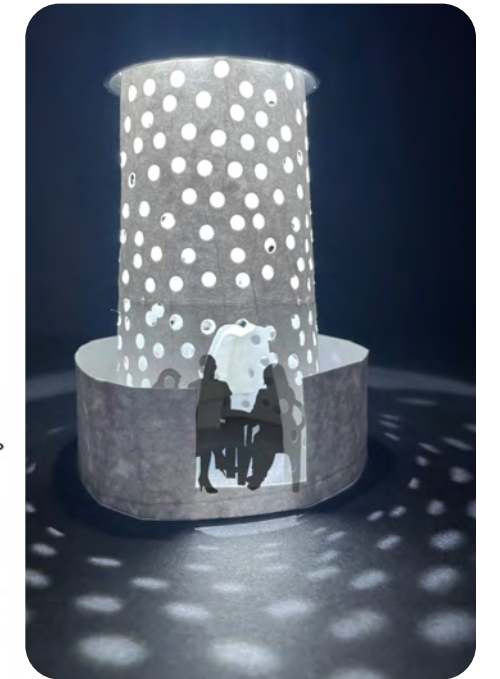
Connection



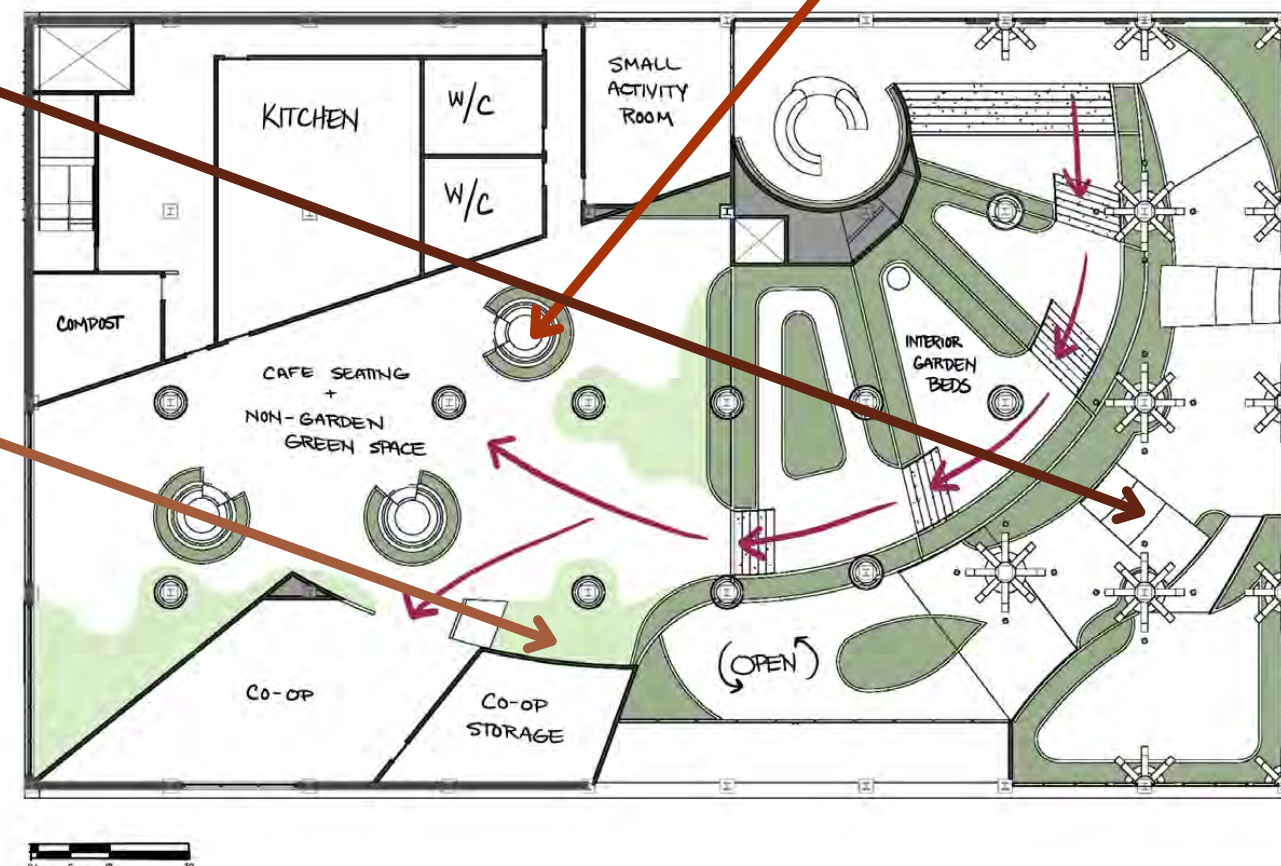
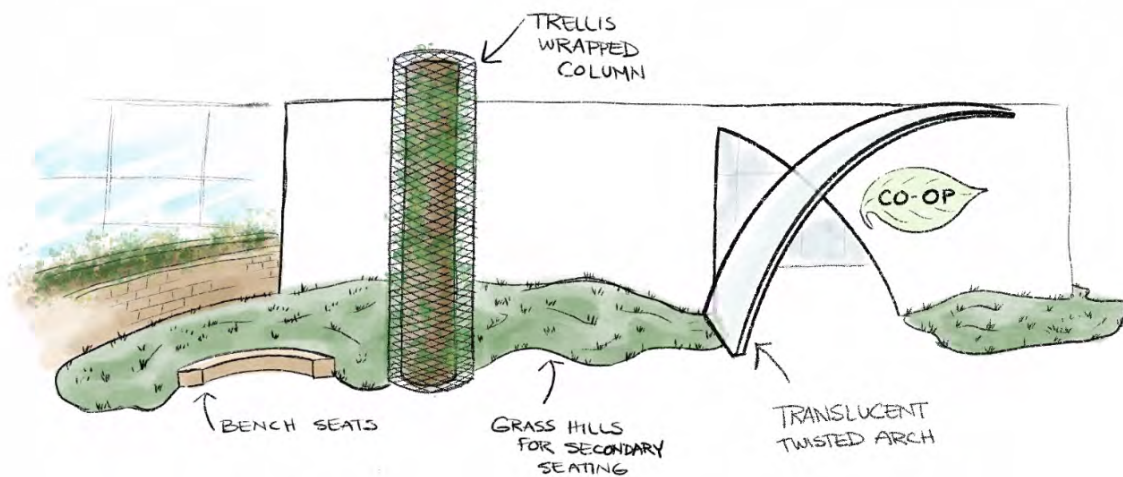
The Parabolic benches in the lower garden section bring a little bit of community into the horticultural space. They provide a sense of privacy for more intimate conversations as well as shade in an otherwise intensely sunny room.



Along with traditional tables, the café seating will include three unique booth huts. These structures provide a sense of privacy and more intimate dining experience because their outer edges can be planted up with greenery. Overhead skylights flood the small area with natural light and highlight the importance of human connections and conversation.



The community space is planted with non-edible plants and flowers and ringed by rolling "lawns" of false grass, which users can use as picnic seating. Benches punctuate the space for less mobile guests, and the columns are wrapped in a more simple trellis design. The overall effect is to bring the greenery upstairs, but keep the space focused on user interaction instead of horticultural tasks.



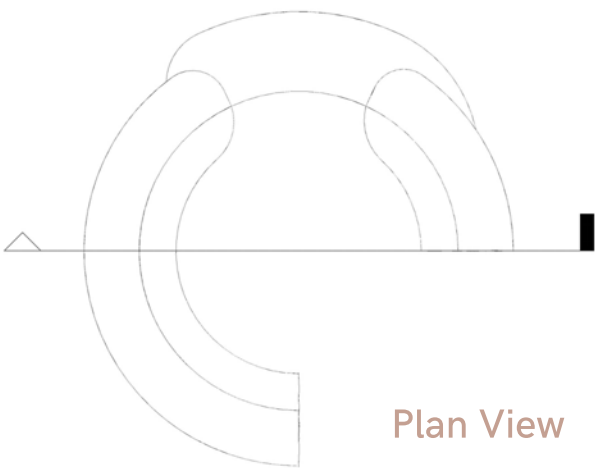


Custom Designs

Millwork & Special Design Features

Support Millwork Detail: The Reception Desk

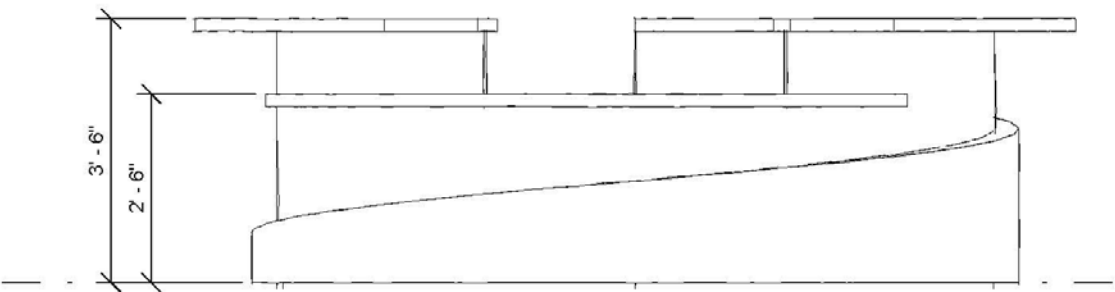
Millwork is all custom designed and modeled to perfectly suit the space and enhance the overall concept and experience.



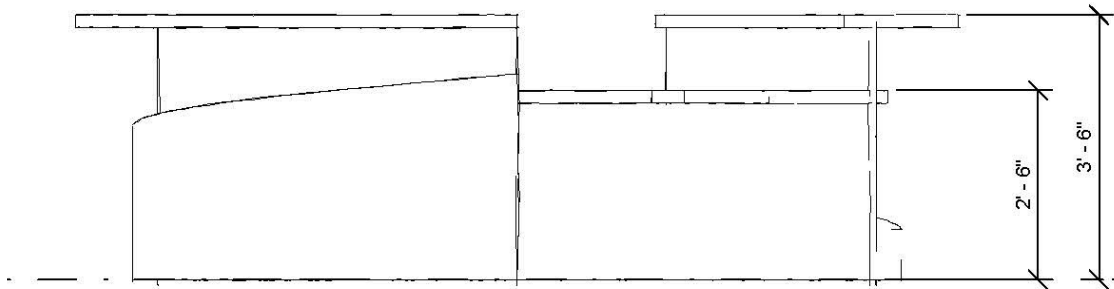
Plan View



Level 1



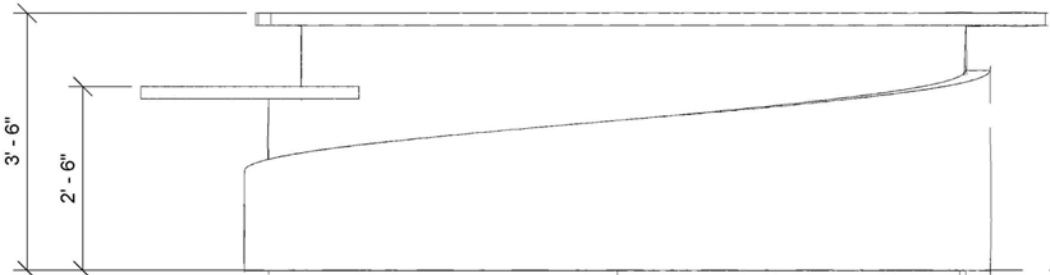
Front Elevation



Back Elevation



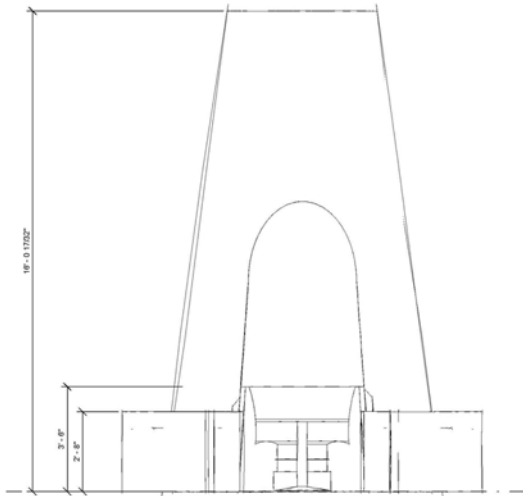
Section View



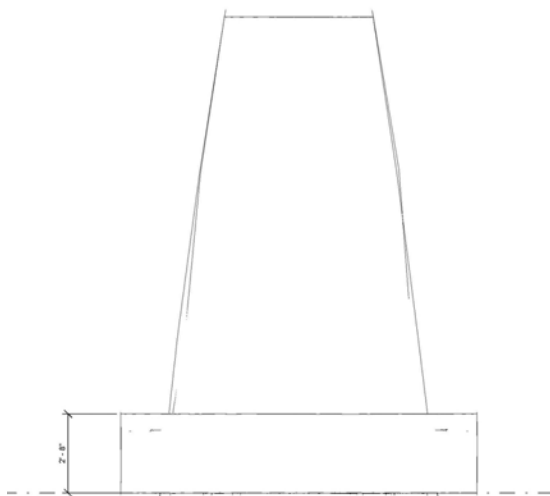
Right Elevation



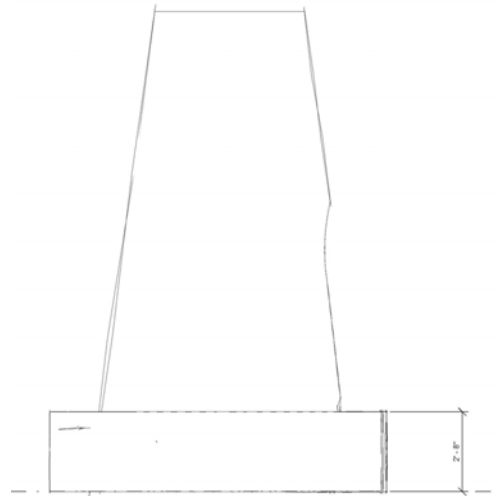
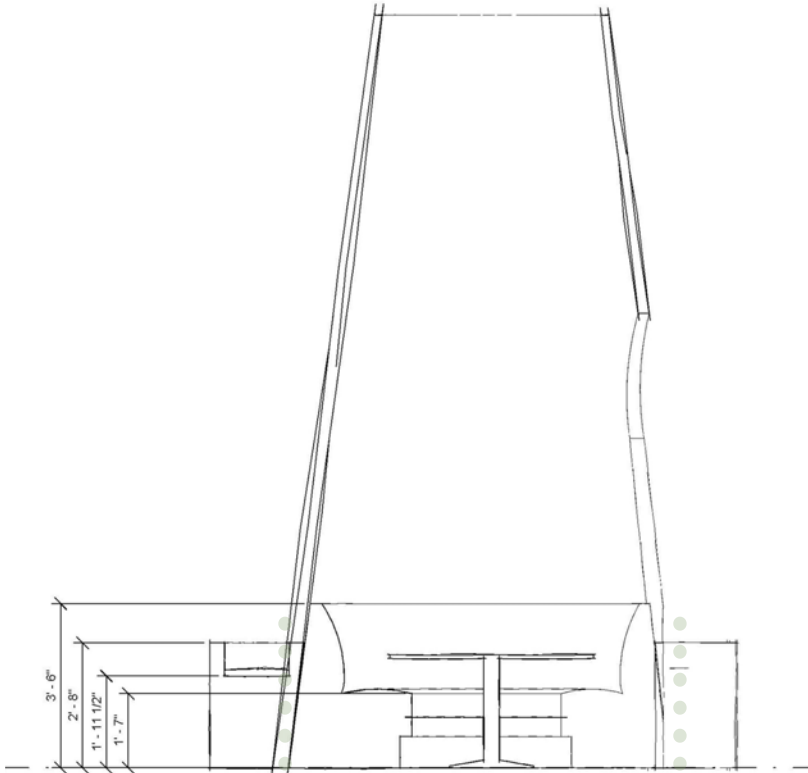
Connect Millwork Detail:
The Booth Trellises



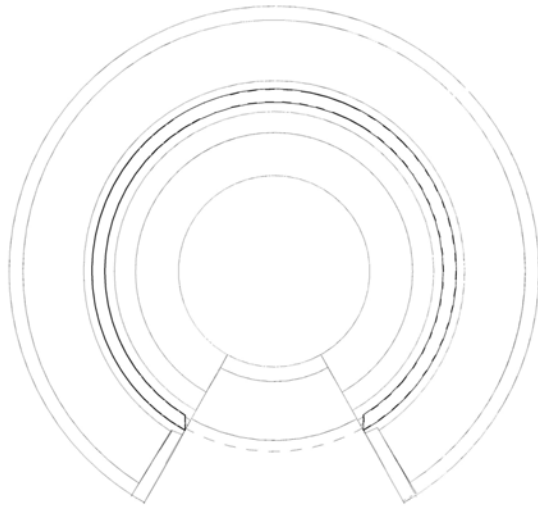
Front Elevation



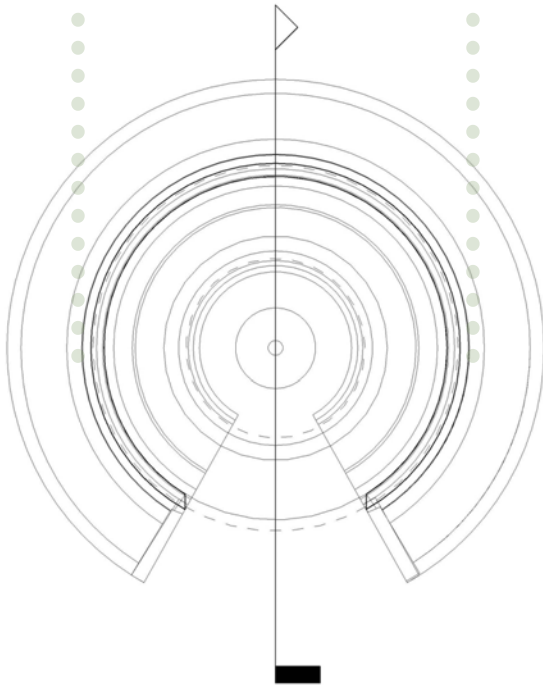
Back Elevation



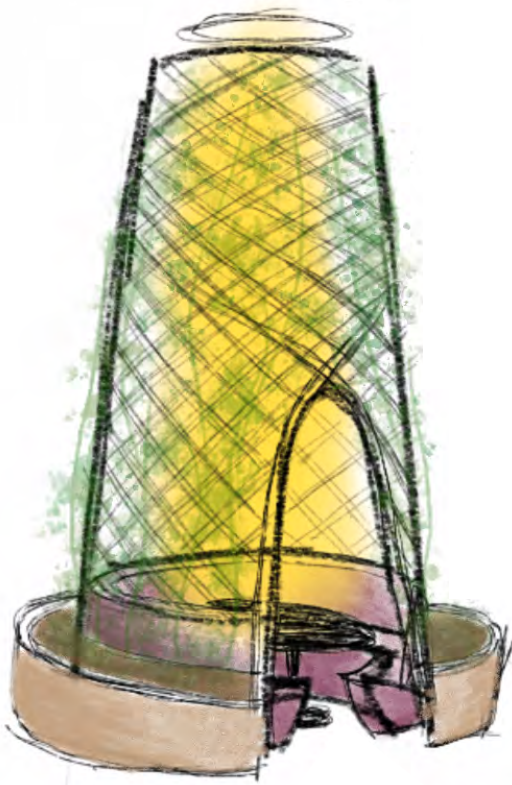
Left Elevation



Plan View



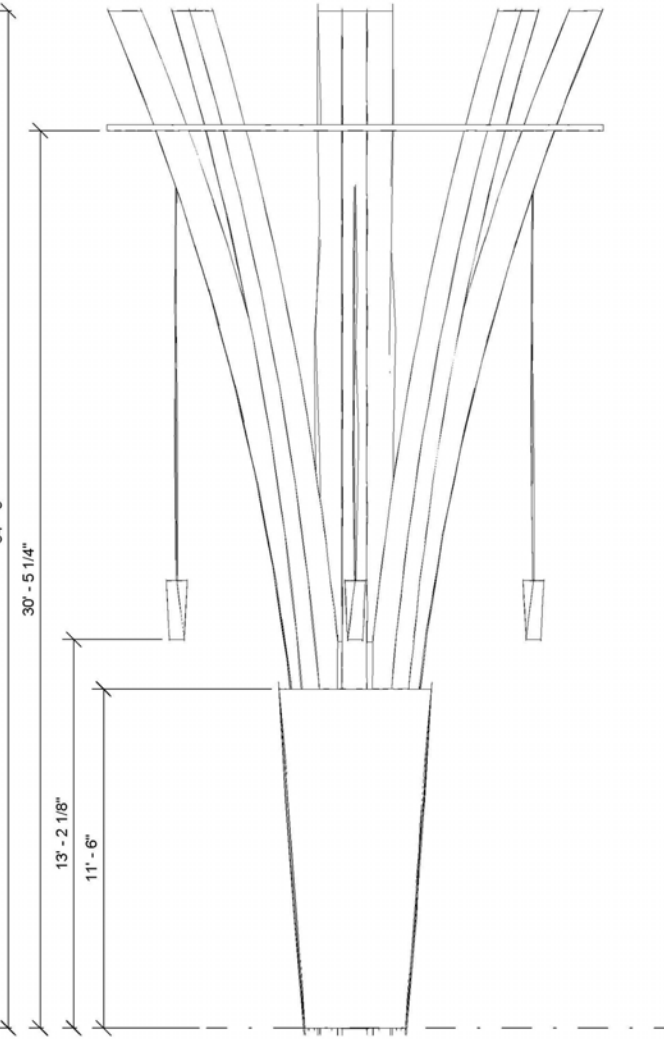
Section View



Level 2

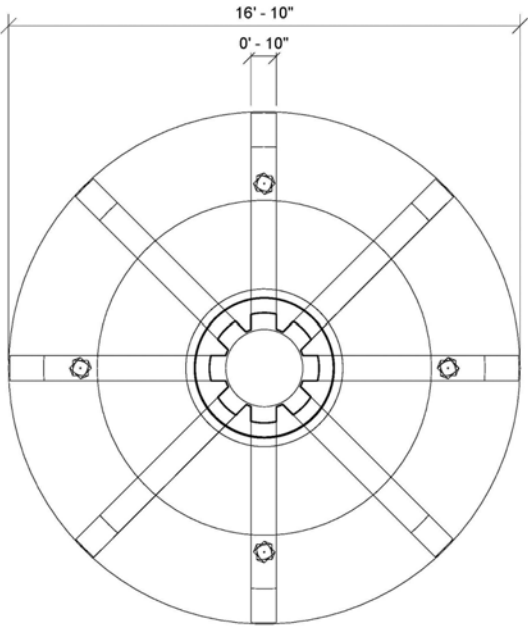
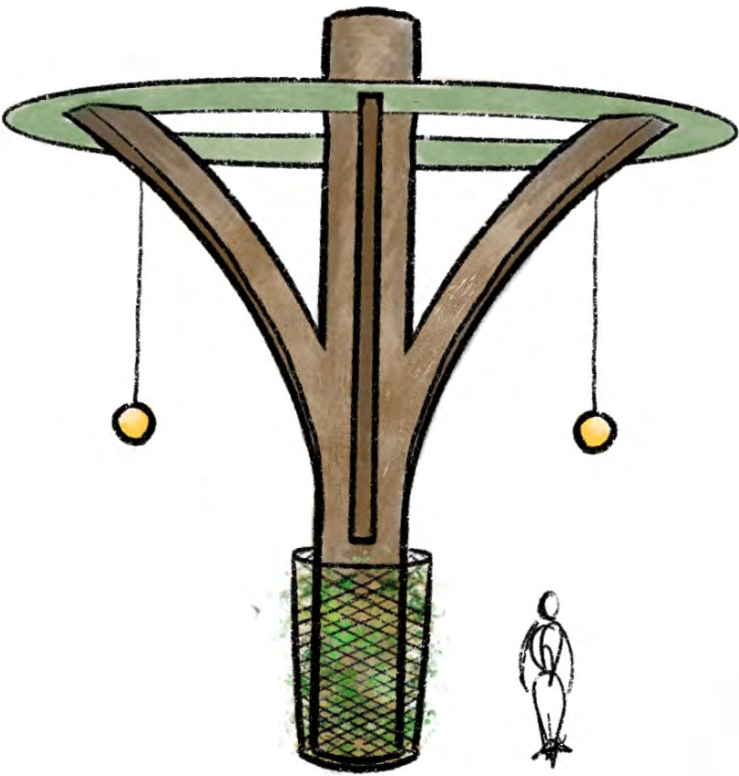


Growth Millwork Detail: The Column Trees

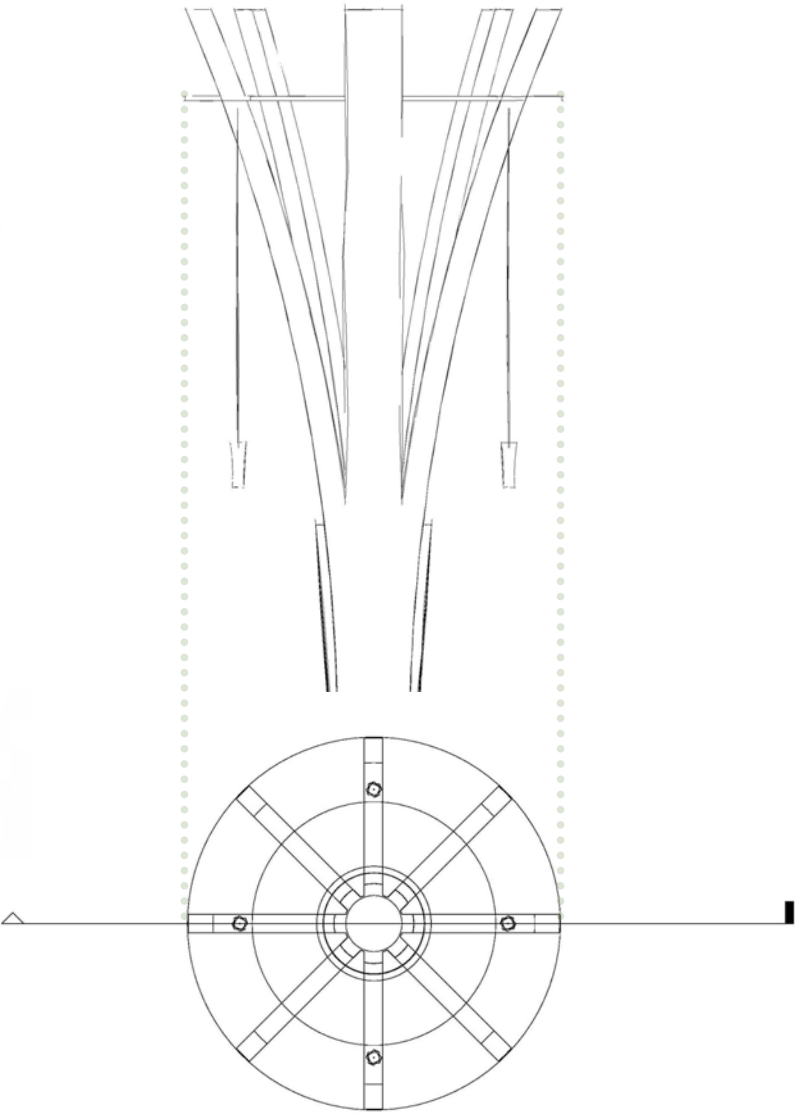


Elevation

(Item is circular and symmetrical so all elevations are the same)



Reflected Ceiling Plan View



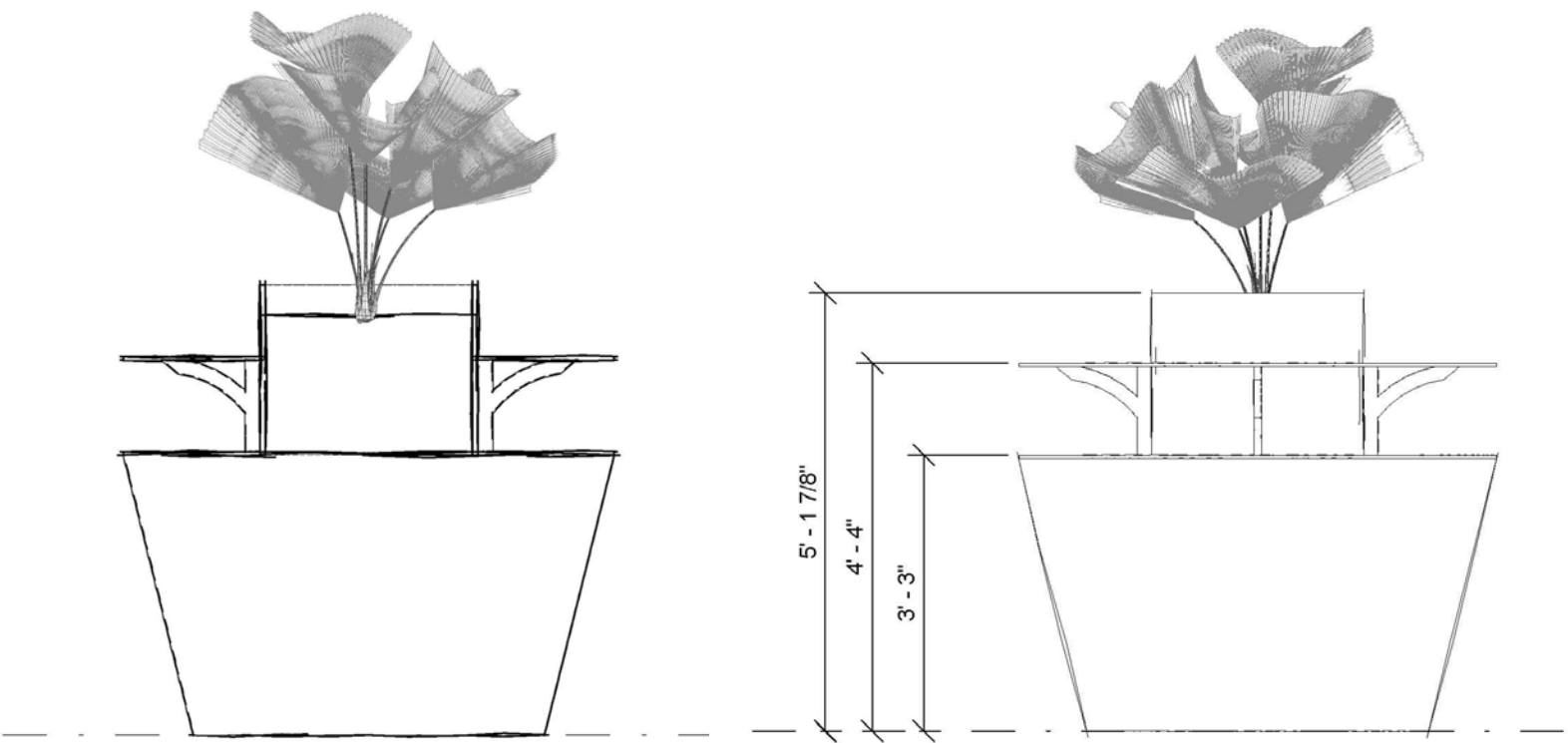
Section View



Level 1



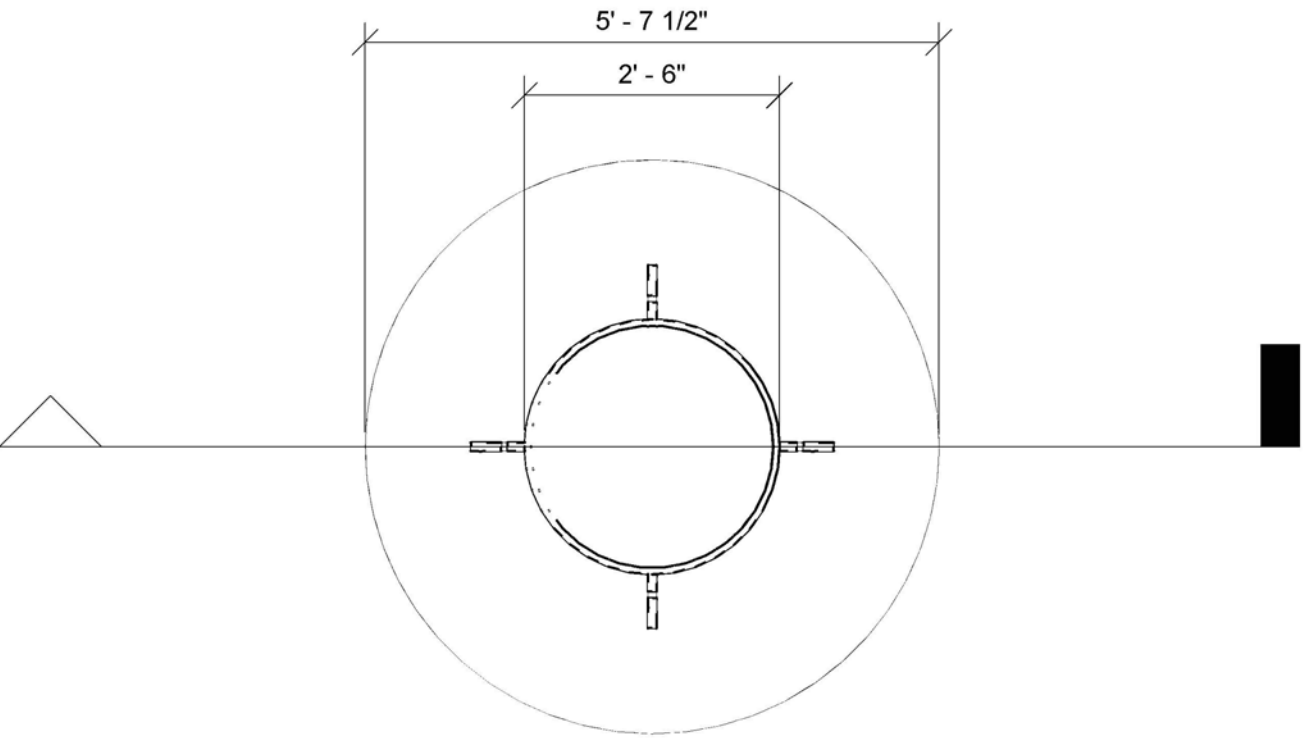
Connect Millwork Detail:
The Co-Op Planter Shelves



Section View

Front Elevation

(Item is circular and symmetrical so all elevations are the same)



Plan View



Level 2





The idea sprouts...

Creating the ideal space for recovery and growth was a long and layered process. The evidence-based roots of the design needed to be addressed in a physical space and given time to develop before the design could truly begin to grow. By layering analysis over the floorplan, however, it was possible to create a more developed and stronger design where concept and codes went hand in hand.

Now it is time to watch the design grow into a fully realized space...



The Final Design

How does it all come together?

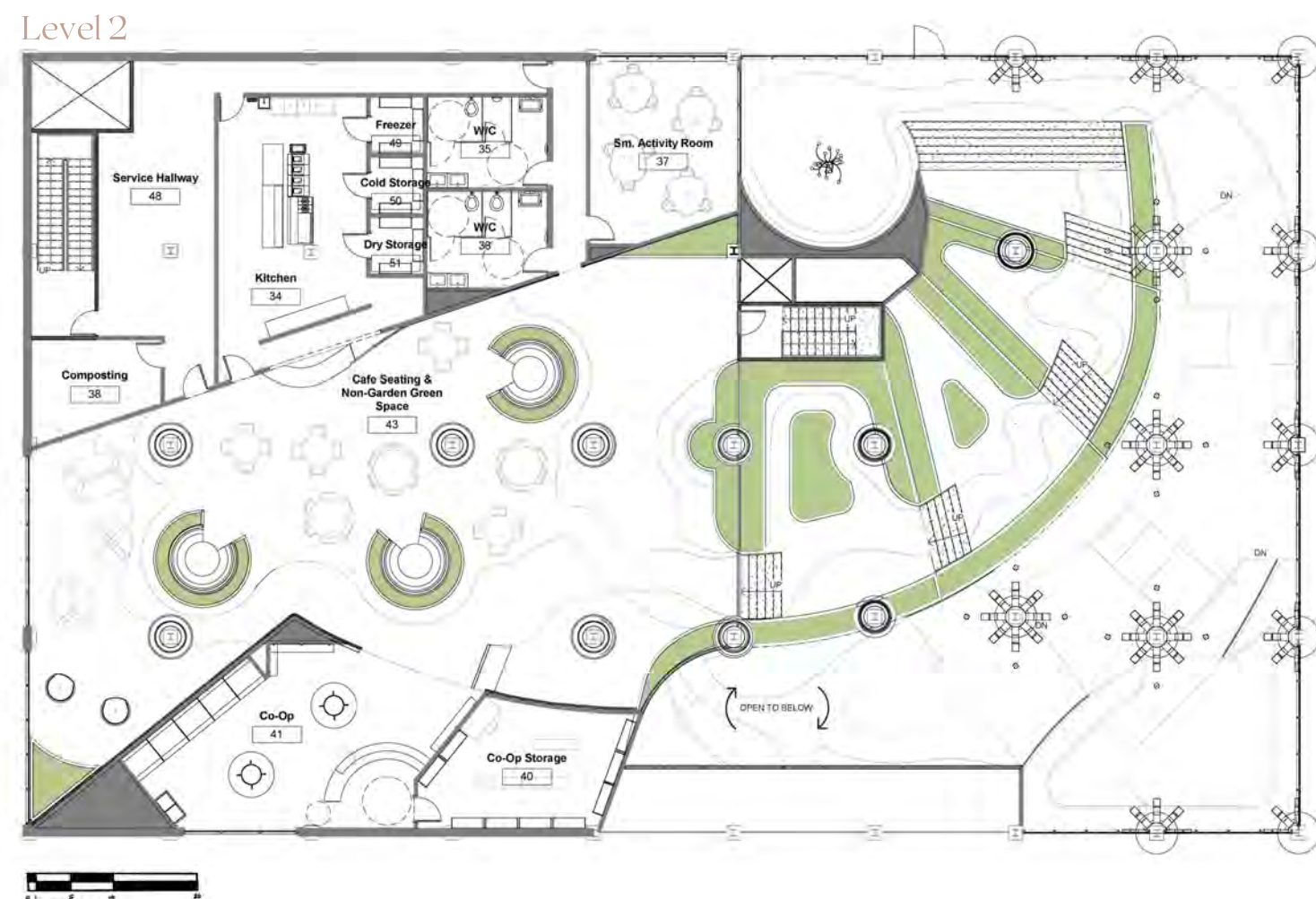
The Final Design

In the end, The Growing Center becomes part greenhouse, part clinic, part community center. Every available area is filled with plants. Light streams in through the large curtain wall windows and a meandering path encourage guests to explore at their own pace. On the second floor, bench seats, booths, tables, and poofs welcome the community and encourage interaction. Activity rooms can be rented for events, classes can be taught and knowledge can be passed down. It's a place to recover, recenter, and reconnect. In the heart of the bustling urban center that is Richmond, The Growing Center is an oasis.



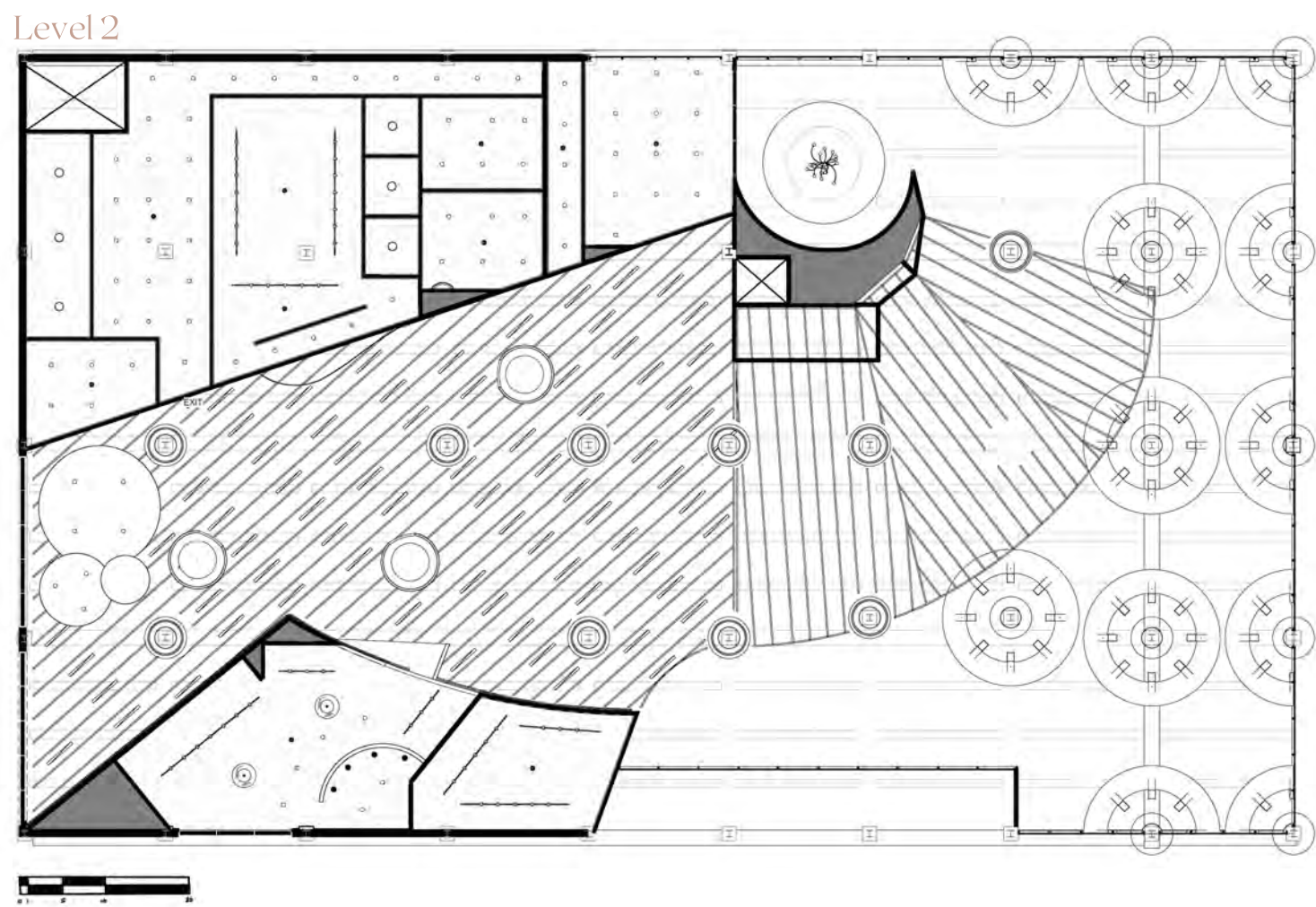
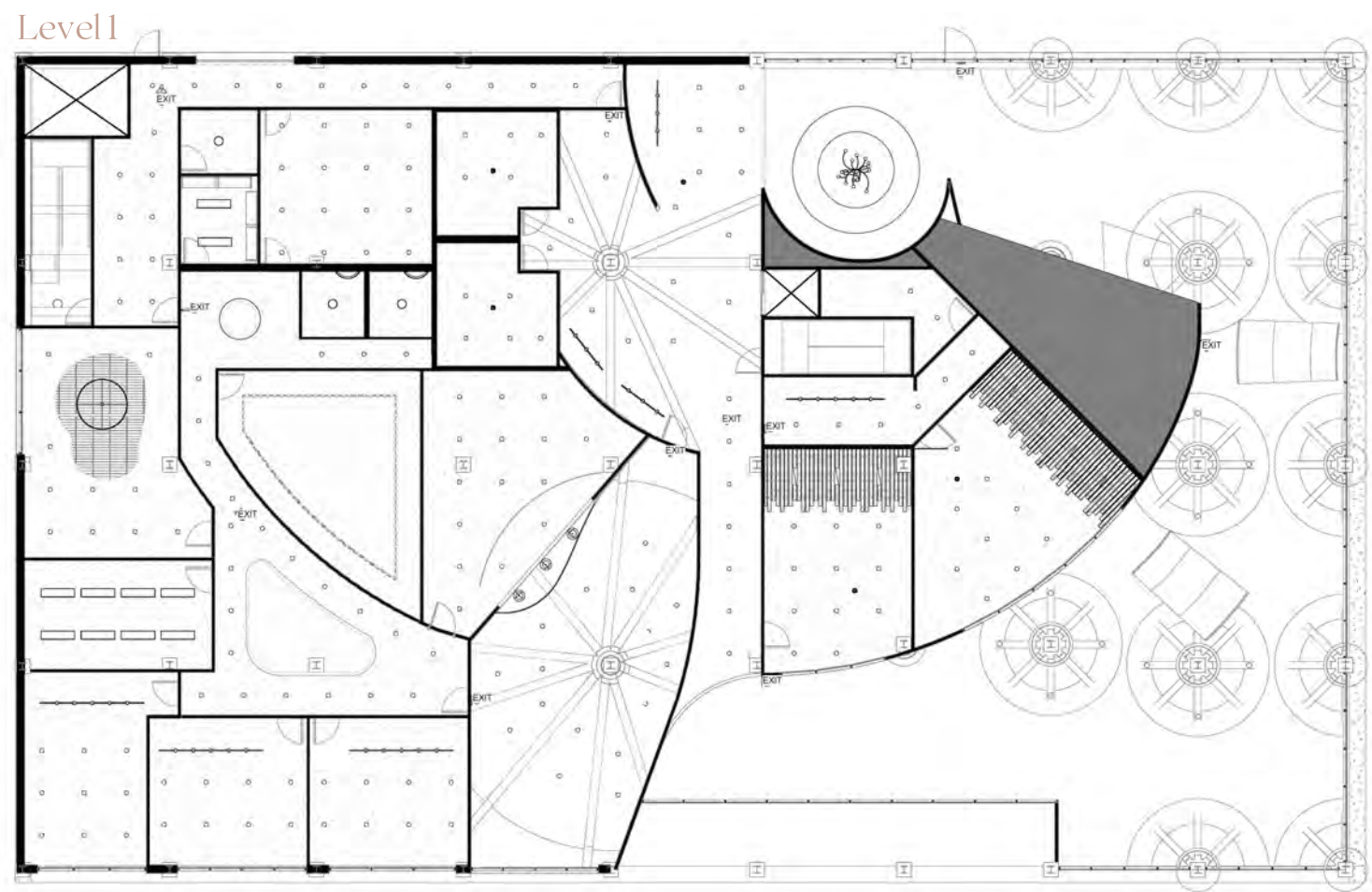
Final Floor Plan

The final floorplan applied all of the knowledge, research, conceptual diagrams, and revisions to create an environment that offers support, encourages growth, and fosters connections. It follows an abstract spiral pattern throughout the building, delicately weaving through the existing column grid. Each room is designed to maximize natural light indirectly or directly, and patterned floors encourage guests to explore. Overall, the design is flexibly adapted to work with the space, to serve its needs and functions flexibly and openly, and to encourage growth among all of its users, humans and plants alike.



Reflected Ceiling Plan

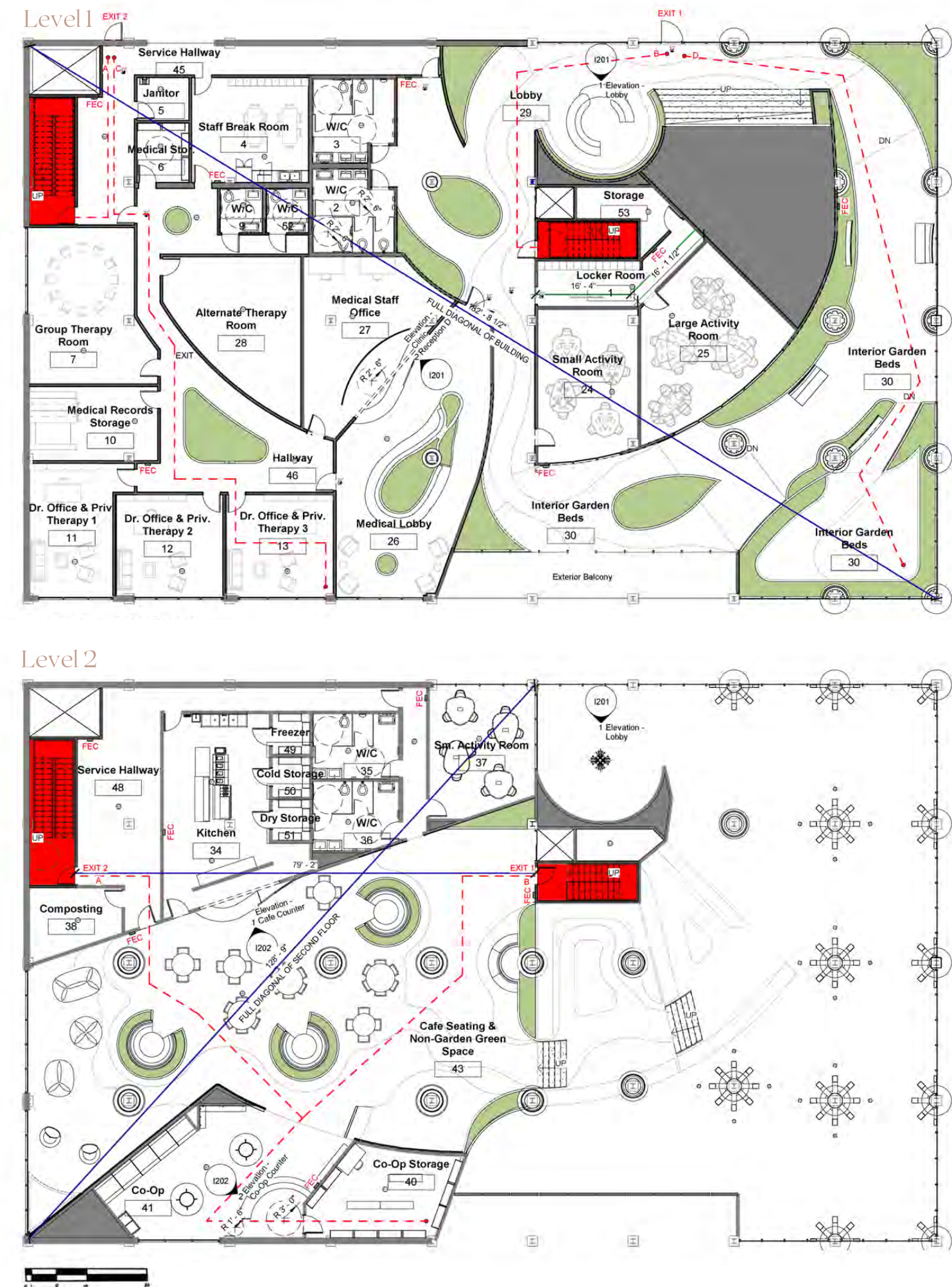
For the most part, ceilings are kept simple, light, and bright. Grids of recessed lighting provide a comfortable amount of light on the ground floor and suspended strip lights brighten the open second floor. Acoustic ceiling structures are used in various forms, either on the columns, in the radial tiered design, or in the activity rooms to increase user comfort and lower sound levels in an area with otherwise hard materials and open spaces. Three skylights bring sunlight into the cafe space, and a handful of decorative accent lights punctuate key spaces such as cafe and co-op counters and the lobby.



LIGHTING							
The Growing Center							
CODE / SYMBOL	MANUFACTURER	SELECTED PRODUCT NAME	BULB TYPE	LUMEN	WATTAGE	PRODUCT LOCATION	DESIGN CHOICE JUSTIFICATION
	METALUX	2 FT. LIGHT LINEAR WHITE INTEGRATED LED CEILING STRIP	LED	2100	19.4	ACTIVITY ROOMS	FUNCTION
	HALO	WHITE INTEGRATED LED RECESSED LIGHT WITH SELECTABLE CCT	LED	630	7	ALL	FUNCTION
	WAC LIGHTING	SUMMIT ACLED BEAMSHIFT LINE VOLTAGE CYLINDER TRACK HEAD	LED	750	15	ALL	FUNCTION
	DAVID TRUBRIDGE	CORAL PENDANT	LED	N/A	8	CAFÉ	DESIGN PATTERN REFLECTS CONCEPT
	LEDALITE BY SIGNIFY	JUMP SUSPENDED/SURFACE STRIP LIGHT	LED	2400	19.7	CAFÉ	FUNCTION
	VIBIA	FLAMINGO - 1550 - WHITE	LED	2038	5.6 X 3	CO-OP	DESIGN REFLECTS SHAPES IN OTHER SHAPES THROUGHOUT THE ROOM
	MITZI	REESE PENDANT - AGED BRASS	LED	N/A	8	CO-OP	DECORATIVE APPEAL
	CORBETT LIGHTING	SIGNATURE CHANDELIER	LED	N/A	4	LOBBY	SIZE IS PROPORTIONATE TO SPACE. DESIGN REFLECTS ORGANIC STRUCTURES
	KENNETH COBONPUE	C U C ME ROUND PENDANT	INCANDESCENT	N/A	53	MEDICAL LOBBY	PATTERN REFLECTS CONCEPT
	MITZI	EVIE WALL LIGHT	LED	360	4	W/C	DESIGN REFLECTS CONCEPT

Life Safety Plan

The life safety plan describes the key safety features of the building including emergency exits, fire extinguisher placements, exit paths, and so on. Although this was not influenced by the research or the concept, it was equally as important in creating a safe and nurturing environment. When all codes are followed, and users are safe, they can relax and enjoy their work and each other's company, thus promoting an environment of communal healing and growth.

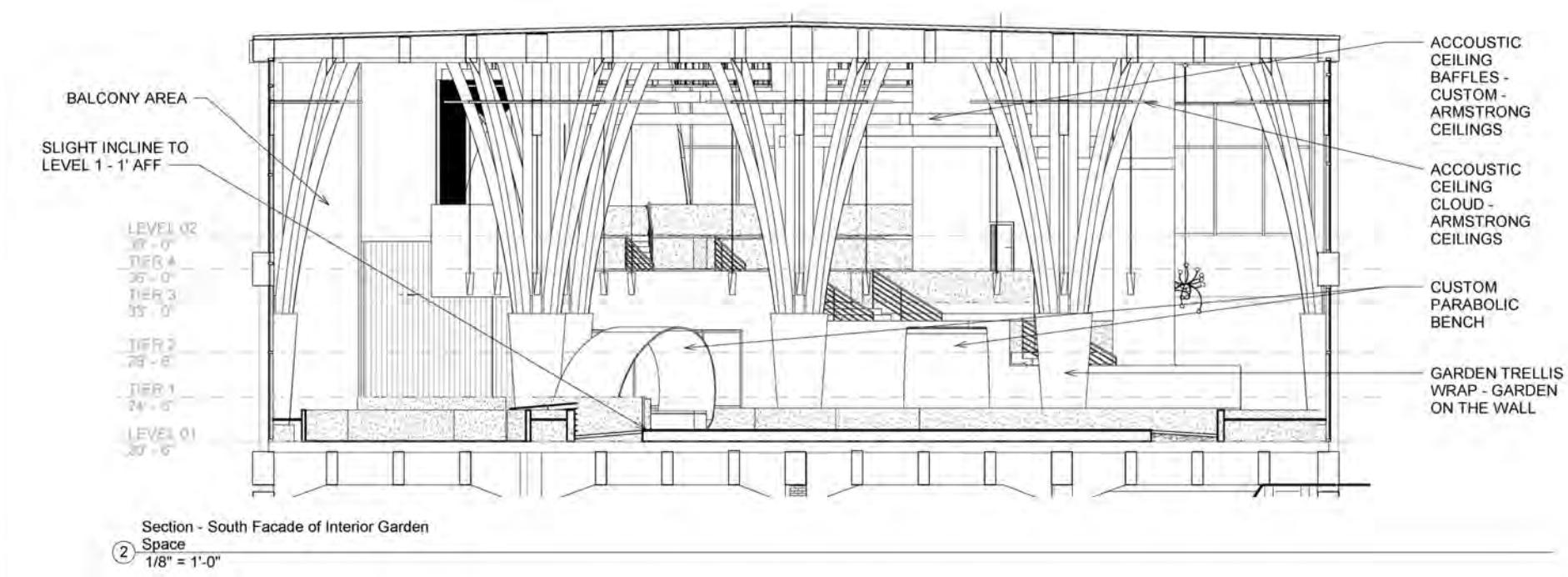


SYMBOLS LEGEND	
	AREAS OF EGRESS
	TRAVEL PATH A (194 ft.)
	TRAVEL PATH B (228 ft.)
	TRAVEL PATH C (125 ft.)
	TRAVEL PATH D (117 ft.)
	DEAD END CORRIDORS
	FIRE EXTINGUISHER CABINET
	SMOKE DETECTOR

CODE INFORMATION	
MUNICIPALITY:	THE CITY OF RICHMOND, VIRGINIA
PROJECT SQUARE FOOTAGE:	
LEVEL 1	
ASSEMBLY	9,758 SQ. FT.
BUSINESS	6,046 SQ. FT.
LEVEL 2	
BUSINESS	505 SQ. FT.
ASSEMBLY	5,168 SQ. FT.
MERCANTILE	1,052 SQ. FT.
TOTAL PROJECT SCOPE	29,389 SQ. FT.
APPLICABLE BUILDING CODES:	
INTERNATIONAL BUILDING CODE, VIRGINIA EDITION, 2012 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES, 2009 INTERNATIONAL FIRE PREVENTION CODE, VIRGINIA EDITION, 2012 INTERNATIONAL MECHANICAL CODE, VIRGINIA EDITION, 2012 INTERNATIONAL PLUMBING CODE, VIRGINIA EDITION, 2012 FLOOD RESISTANT DESIGN AND CONSTRUCTION, 2005 FIRE SPRINKLER CODE, 2010	

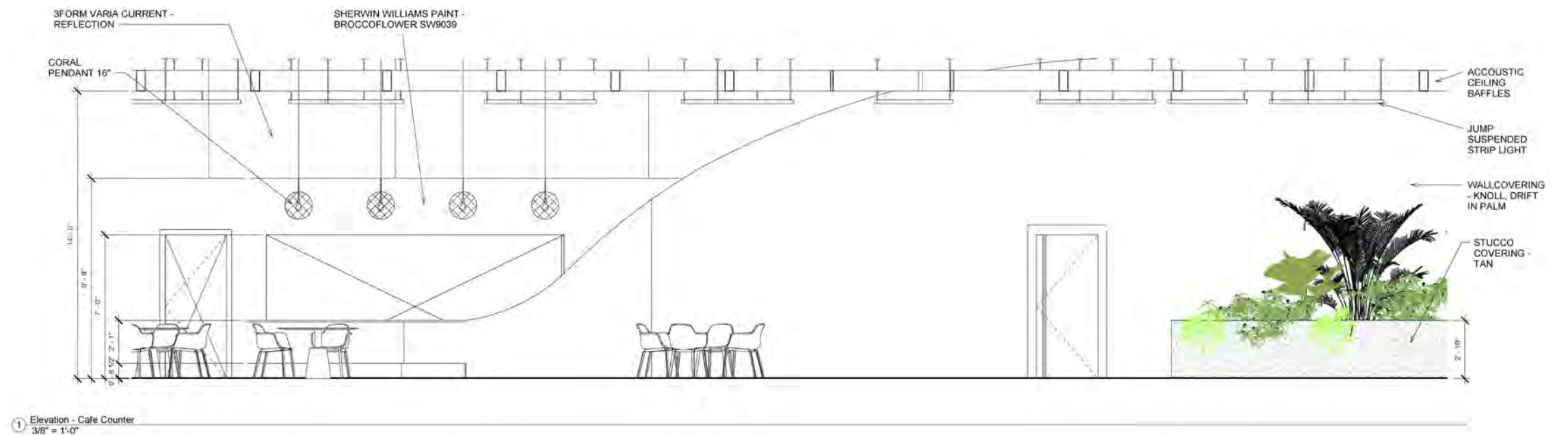
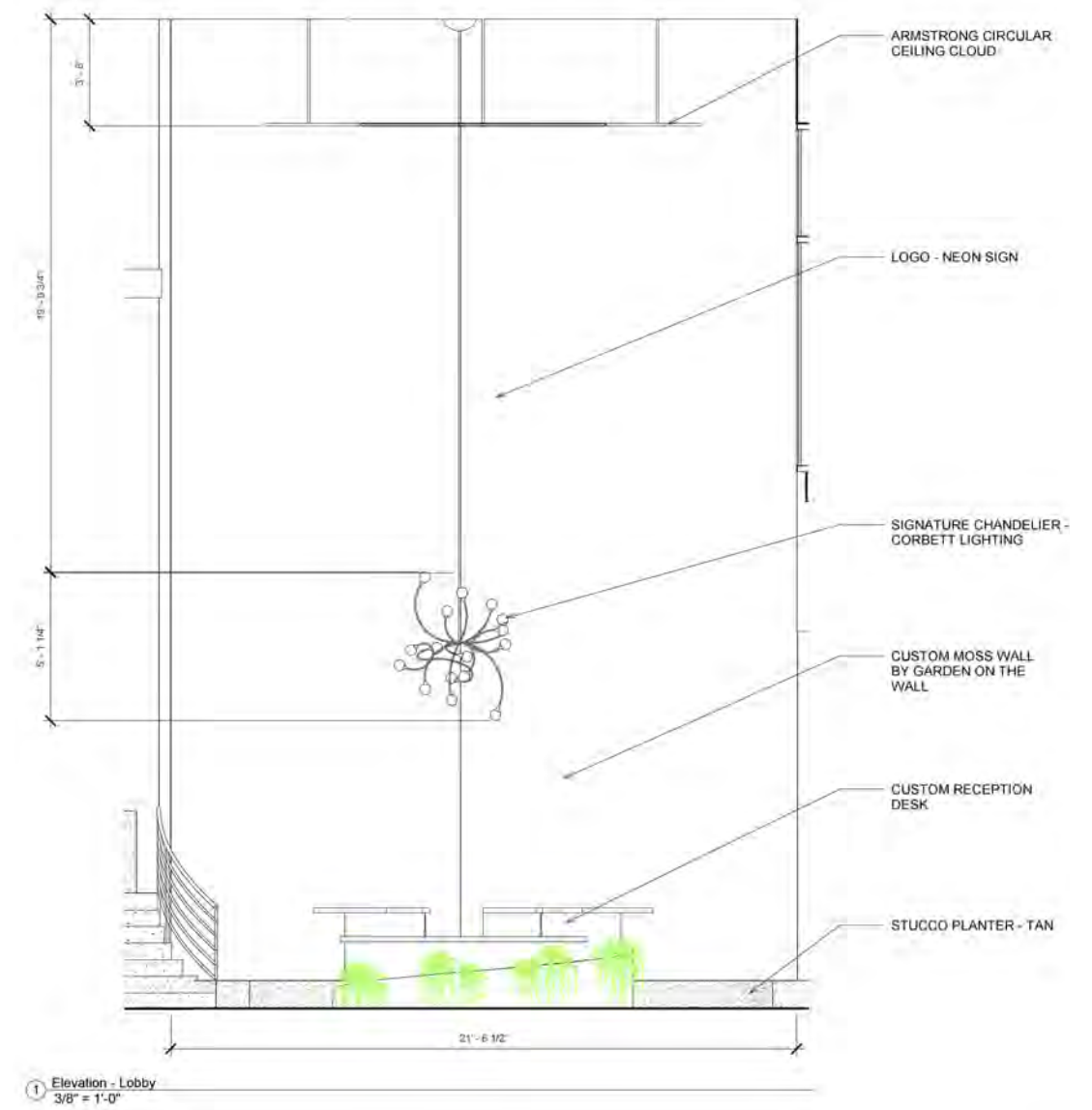
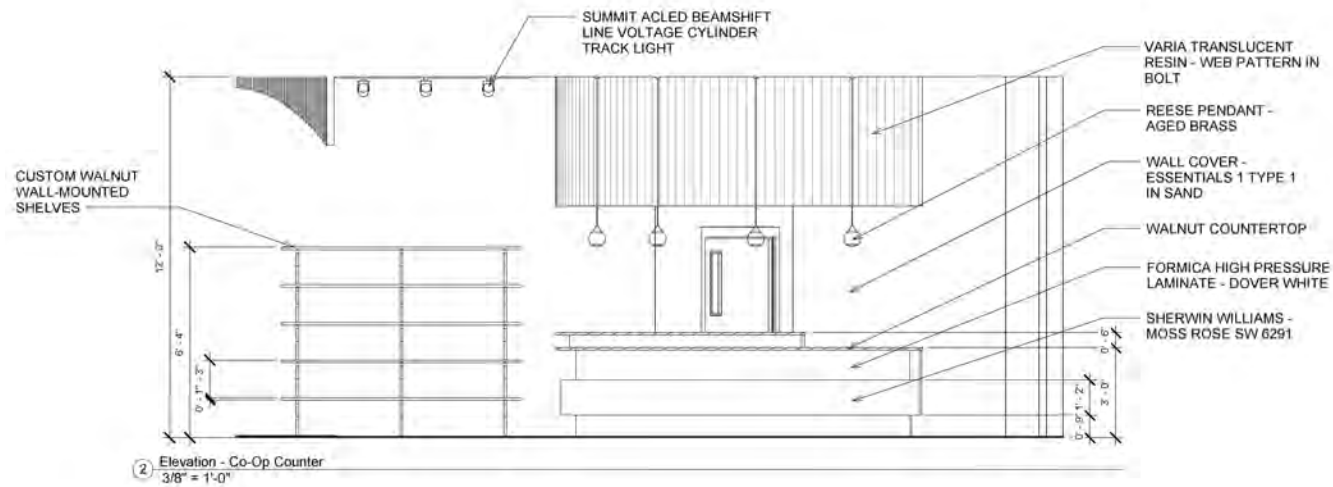
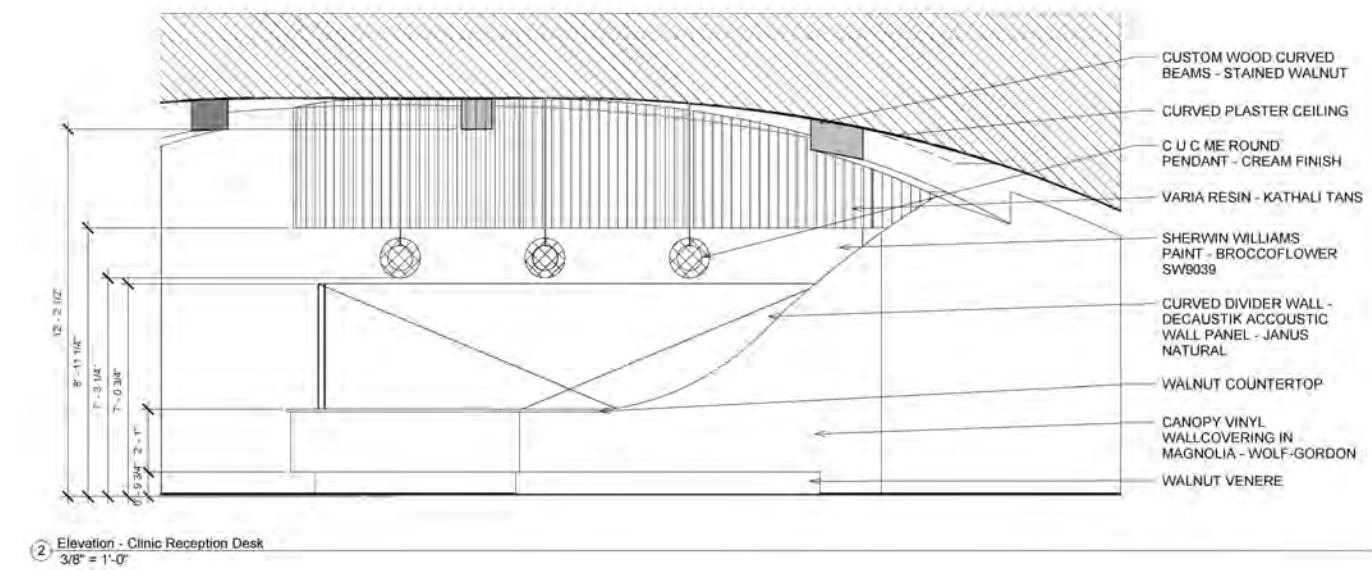
Sections

The building is made up of complex angles and curves, which make sections complicated. However, these two key views clearly convey the scope of the space, the three-tiered division between support, growth, and connection, and the central tiered structure that defines the majority of the space.



Elevations

Key elevations show just how the space will be designed to cater to the users and their needs. The medical reception desk and cafe counter appear to grow out from the wall like a new leaf emerging and unfurling from a Calathea, the co-op cash wrap is designed to maximize product display to promote the locally sourced goods, and the lobby's moss walls are a natural way to absorb sound and enhance guest comfort.





Growth flourishes...

Finalizing the floorplan, elevations, and sections allows the project to grow into its full and realized form. What began as the seed of an idea so many months ago has slowly spread roots, sprouted, put out leaves, and grown. Now, with the final design of the space complete, The Growing Center is finally allowed to bloom...



Exploring The Center

How the space tells the story

The User Experience

The structure of the building guides users through the space in a measured and planned path, while also allowing them to choose their own adventure. Each public space is layered, with different experiences scattered throughout. Let's explore a few...



Views of the Interior: Support



In the enclosed portion of the lobby, graceful, arching beams support a darker ceiling and cradle a collection of shade-loving decorative plants. Unique wayfinding patterns built into the floor encourage guests to find their way to other experiences.



Upon entering the lobby, guests move into the support section, which is designed to feel enclosed and comforting. Like cool shade on a hot day, this space provides a visual transition space from the hectic world outside to the new world within. From the moment guests step into the lobby, they are embraced by a cool moss wall, welcomed by the sound of trickling water from the built-in waterfall and greeted by the smiles of the reception desk staff.



The Enclosed Lobby Space

Views of the Interior: Support



The Clinic Waiting Room

As guests progress further into the support section and enter the medical lobby, they are greeted with a bespoke bench seat and reception desk. Translucent walls let in light from the garden space without compromising privacy, and the bench seats allow them to share a connection while still maintaining their personal space. Once seated, users face out away from each other towards the natural light sources around the room.

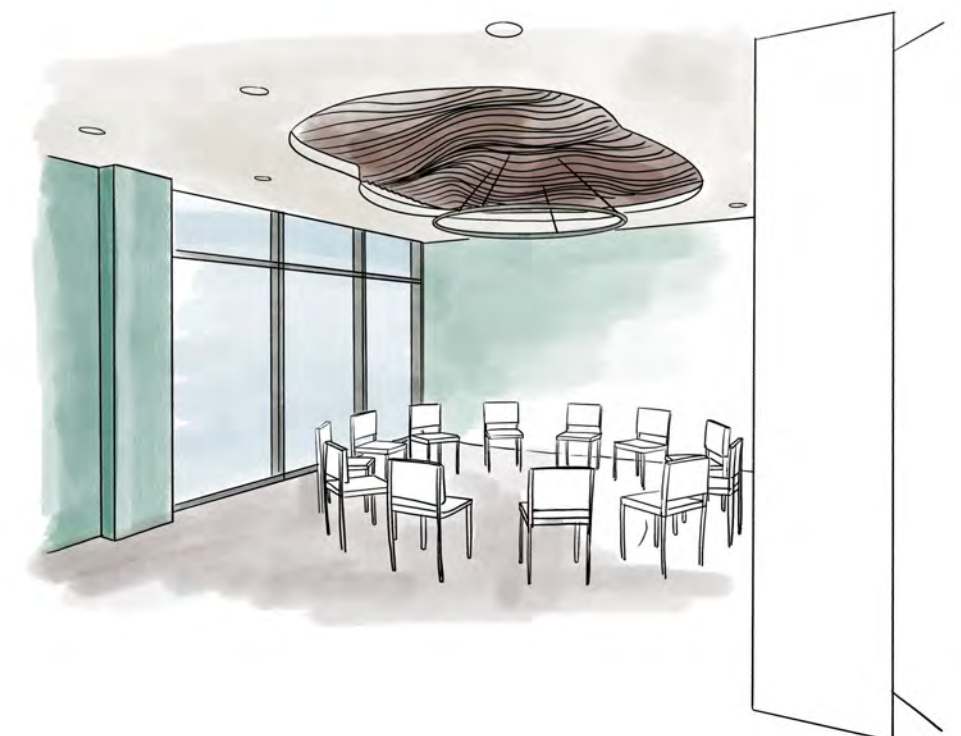
In the support wing, ceilings take center stage. Materials are rough, clean, and simple and spaces are deliberately designed to allow natural light to permeate the otherwise enclosed space through high windows set into the interior walls. Ceilings feature acoustic insulation and baffles and artificial inset "skylights" created out of hidden commercial grow lights and accented with pendant lights. These allow small planters of deep shade plants to thrive.



Group Therapy Room & the Clinic Hallway



Level 1



Views of the Interior: Growth



As guests move into the interior garden beds, the views and scale of the design expands dramatically. Here 34-foot tall ceilings are accented by column "trees" wrapped in garden trellis material and topped by a circular acoustic ceiling cloud. The walkway weaves in and out of raised garden beds and shifts delicately up and down in subtle levels that mimic the natural uneven landscape and allow guests to choose their own adventure and define their own territory.

The south and west-facing curtain walls ensure constant bright daylight as well, which is bounced around the room by the light, wave-patterned material wrapping the curved center wall. This creates visual interest and enhances the organic shape of the space.



Views of the Interior: Growth



Tier 3 is ADA accessible via elevator, allowing all guests to experience the sweeping views across the facility, and the river outside, from the upper garden beds.



View from Tier 2 looking up

At the center of the garden space, a grand staircase flanked by tiered garden levels climbs up to the second floor. Each level holds individual raised garden beds to allow the plantings access to natural light without competition. Guests can claim their own workspace or work together to harvest edible plants and seeds without discomfort. Scattered throughout, parabolic arched bench trellises provide shade and a place for quiet contemplation.



Level 2



View from Level 2 looking down

Views of the Interior: Connect



On the second floor, artificial turf "lawns" provide unusual visual interest in the community space and create a casual and informal feeling for gatherings and groups. These are designed specifically to encourage a neutral meeting place, much like a public park, where new connections can form spontaneously without the usual social expectations or formalities. These also enhance the feeling of natural green space access for urban residents who might not otherwise have a traditional yard.



Views of the Interior: Connect

The bright and busy second floor gently guides guests away from their individual garden beds and gathers them in shared dining and conversation spaces. Here people can gather to share a meal, work on community projects, plan events, have a casual conversation, or shop for locally grown and produced goods in the co-op. A wall of windows at the north end of the building redirects the visual focus from the interior beds and the stillness of the nearby river to the city skyline and encourages guests to reconnect with their community and themselves.



Community Gathering Spaces



Cafe Seating



The Co-Op

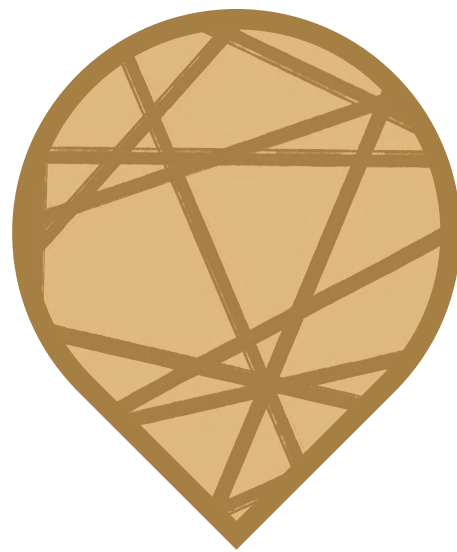


Filling the Space

Adding furniture, finishes, & Equipment

Furniture, Finishes, & Graphic Spatial Identification

Each of the three main areas is interconnected either directly or indirectly, but each has its own unique function and form. Although no walls provide a boundary between spaces, subtle visual cues suggest the delineation of spaces. Each space has its own "master pattern" which influences the material selection for that area. For the Support section, it is a cluttered collection of overlapping straight lines, for the growth section it is the natural waveform of organic lines, and for the connect section it is a variety of different arms coming together in a central point. These influence the majority of the materials and finishes selected for each space.



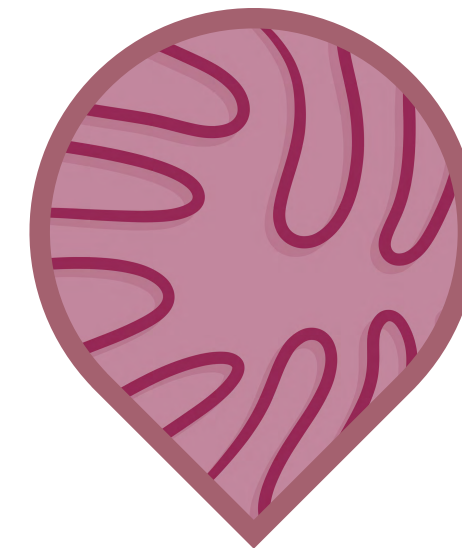
Support

- Light, neutral colors
- Rough textures
- Patterned ceilings
- Criss-cross pattern



Growth

- Green & growing materials
- Verticality
- Darker floor materials
- Wave-pattern walls & details



Connection

- Richer pigmented colors
- Starburst or connected pattern
- Smooth, high quality finishes



Lobby



WC-6



WC-1



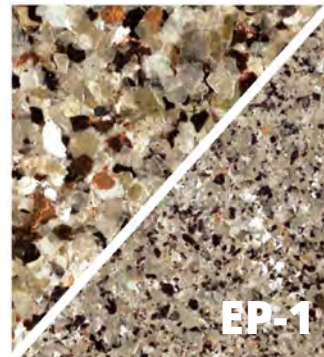
PT-9



EP-3



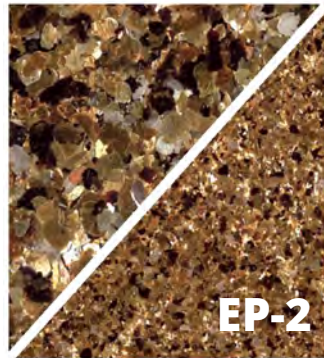
PT-3



EP-1



PT-8



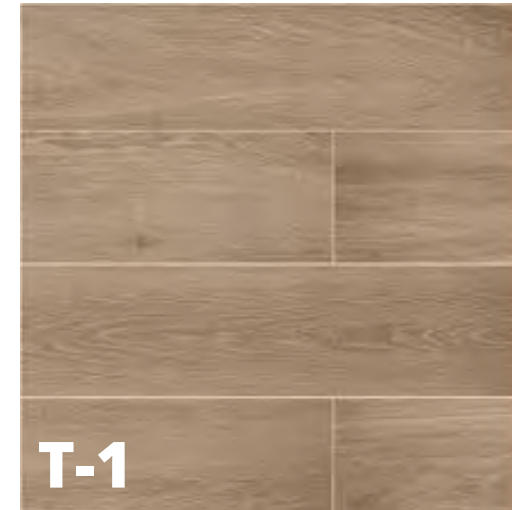
EP-2



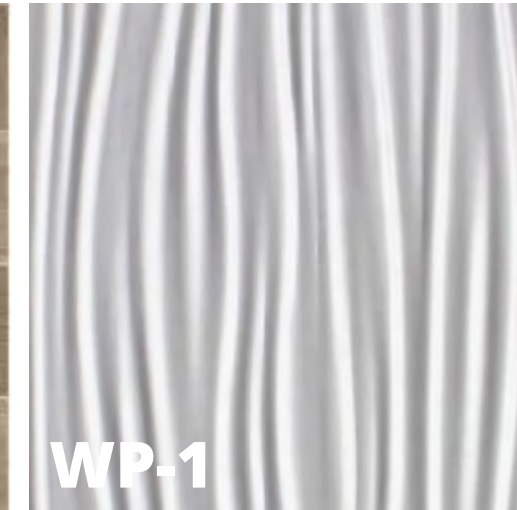
PT-6



Bathrooms



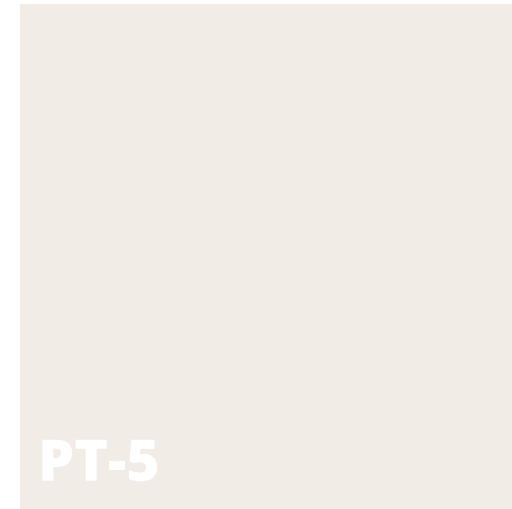
T-1



WP-1



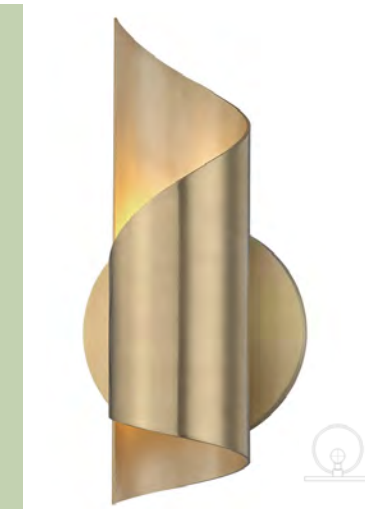
FIXT1



PT-5



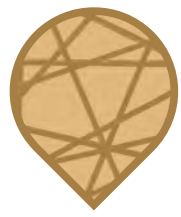
PT-2



SE3



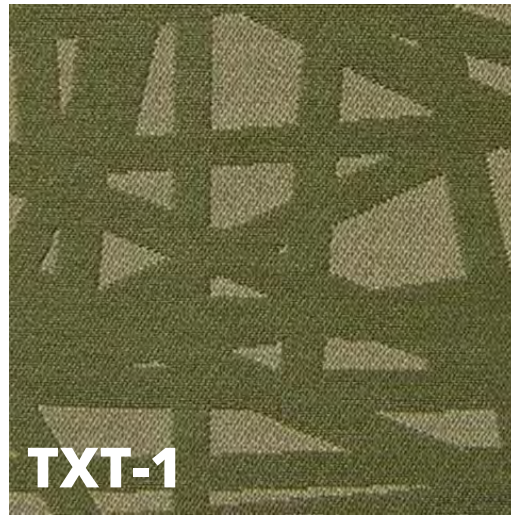
FIXT2



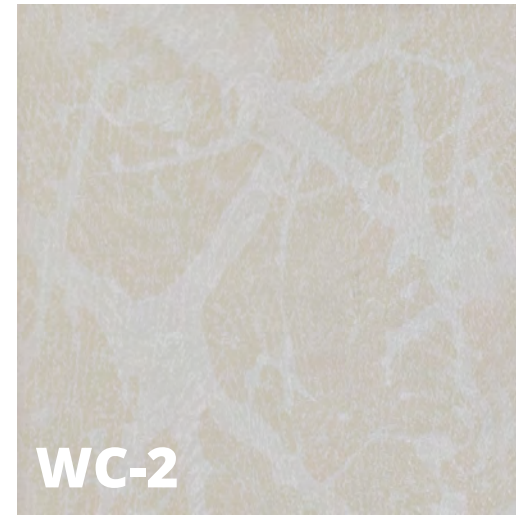
Medical Lobby



RSN-1



TXT-1



WC-2



CPT-1



PT-4



TBL1



CH1



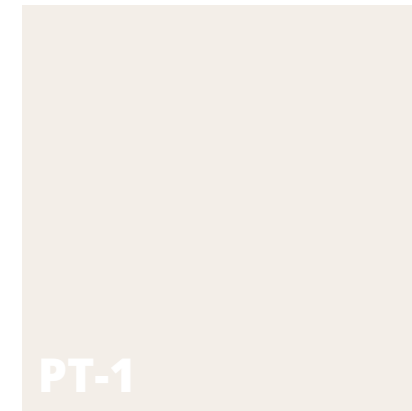
AWP-1



Activity Rooms



PT-4



PT-1



CPT-1



ACT-1



CH3



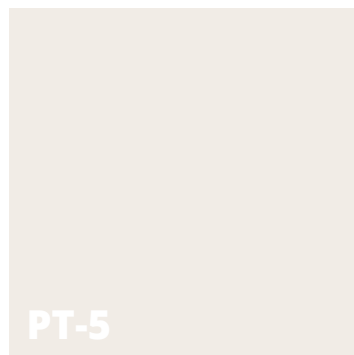
TBL5, TBL6, TBL7, TBL8



Co-op



PT-6



PT-5



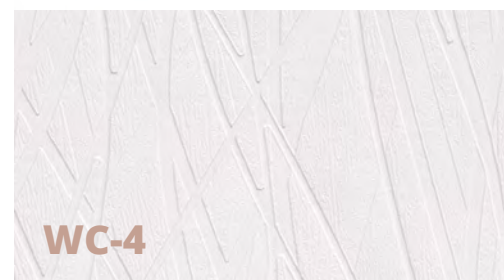
SE2



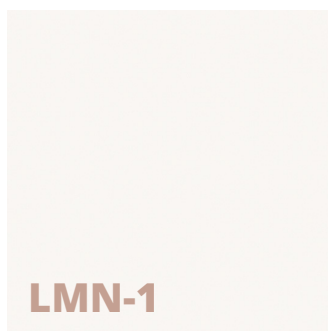
VNL-1



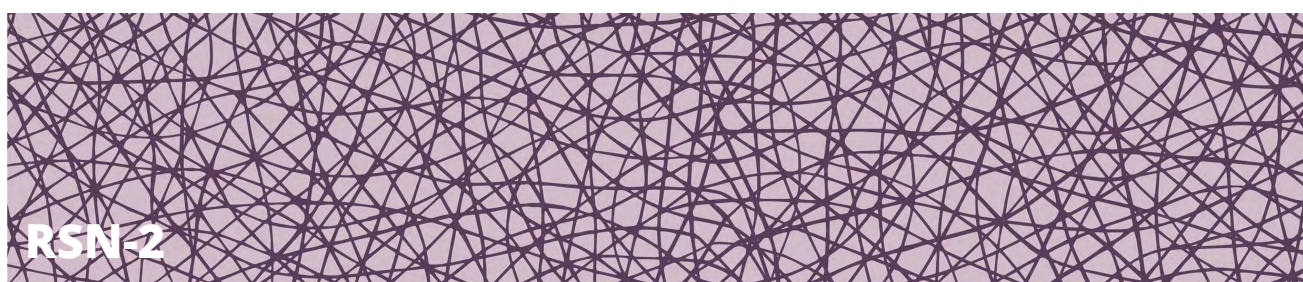
SE1



WC-4



LMN-1



RSN-2



Cafe



PT-7



PT-4



TBL2



TXT-2



CPT-3



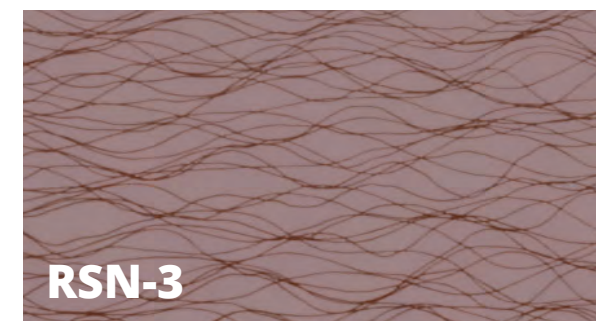
CH2



TBL4



AWP-2



RSN-3



CH4, CH5, CH6



CH7



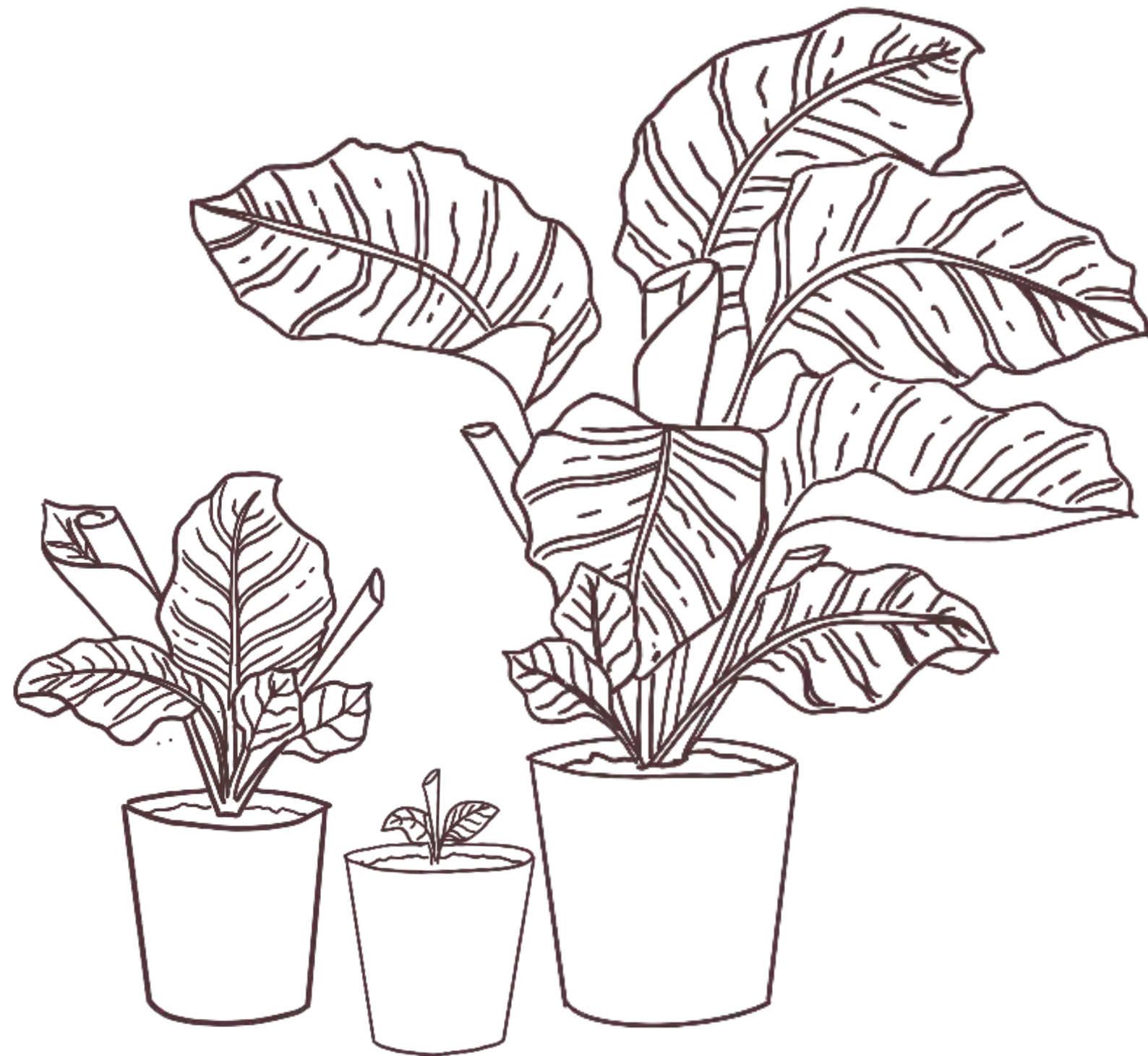
In full bloom

Thus, the Growing Center is complete.

A Season of Growth

Creating The Growing Center was an incredibly challenging endeavor. Designing and redesigning, second-guessing, and last-minute improvements, throughout it all I was pushed to my limits and stretched beyond what I thought I was capable of. I set out to challenge myself to design something new and I am deeply proud of the work I achieved. But I couldn't have done it alone. So to my friends and family who supported me through the long and painful process, the weeks of all-nighters, the cups upon cups of coffee, and all the crazy ideas: thank you. And a particular thank you to my parents who, although they don't understand a word of what I'm saying most of the time, will listen to me talk for hours about RCP's, FF&E, Building Codes, and Lumens. You have always supported my passions and believed in me and you are always willing to let me talk the problem out.

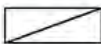
So where do we go from here? Well, as I said so many months ago when the first part of this project was completed, we keep growing and we keep going. We stretch for bigger and brighter heights and harder challenges, and maybe we find a place to put down roots...





Appendix

Material Legends

LIGHTING							
The Growing Center							
CODE / SYMBOL	MANUFACTURER	SELECTED PRODUCT NAME	BULB TYPE	LUMEN	WATTAGE	PRODUCT LOCATION	DESIGN CHOICE JUSTIFICATION
	METALUX	2 FT -LIGHT LINEAR WHITE INTEGRATED LED CEILING STRIP	LED	2100	19.4	ACTIVITY ROOMS	FUNCTION
	HALO	WHITE INTEGRATED LED RECESSED LIGHT WITH SELECTABLE CCT	LED	630	7	ALL	FUNCTION
	WAC LIGHTING	SUMMIT ACLED BEAMSHIFT LINE VOLTAGE CYLINDER TRACK HEAD	LED	750	15	ALL	FUNCTION
	DAVID TRUBRIDGE	CORAL PENDANT	LED	N/A	8	CAFÉ	DESIGN PATTERN REFLECTS CONCEPT
	LEDALITE BY SIGNIFY	JUMP SUSPENDED/SURFACE STRIP LIGHT	LED	2400	19.7	CAFÉ	FUNCTION
	VIBIA	FLAMINGO - 1550 - WHITE	LED	2038	5.6 X 3	CO-OP	DESIGN REFLECTS SHAPES IN OTHER SHAPES THROUGHOUT THE ROOM
	MITZI	REESE PENDANT - AGED BRASS	LED	N/A	8	CO-OP	DECORATIVE APPEAL
	CORBETT LIGHTING	SIGNATURE CHANDELIER	LED	N/A	4	LOBBY	SIZE IS PROPORTIONATE TO SPACE, DESIGN REFLECTS ORGANIC STRUCTURES
	KENNETH COBONPUE	C U C ME ROUND PENDANT	INCANDESCENT	N/A	53	MEDICAL LOBBY	PATTERN REFLECTS CONCEPT
	MITZI	EVIE WALL LIGHT	LED	360	4	W/C	DESIGN REFLECTS CONCEPT

EQUIPMENT					
CODE / SYMBOL	MANUFACTURER	SELECTED PRODUCT NAME	COLOR	QUANTITY	PRODUCT LOCATION
FIXT1	KOHLER	HIGHCLIFF ULTRA FLOOR-MOUNTED TOP SPUD FLUSHOMETER BOWL	WHITE	12	W/C
FIXT2	BRADLEY CORP.	EVERO DOUBLE SINK	ARUBA	4	W/C
FIXT3	BRADLEY CORP.	WASHBAR DUO	GOLD	10	W/C
FIXT4	BOBRICK	RECESSED WASTE RECEPTACLE B-35643	NICKLE	4	W/C
FIXT5	BRADLEY CORP.	SURFACE-MOUNTED HINGED HOOD DUAL ROLL TOILET PAPER DISPENSER	STAINLESS STEEL	12	W/C
FIXT6	ULINE	MOBILE DRY ERASE BOARD - MAGNETIC STEEL	WHITE STAINLESS STEEL	2	ACTIVITY ROOMS
MECH10	DYSON	AIRBLADE V	NICKLE	10	W/C
SE1	HEATCRAFT WORLDWIDE REFRIDGERATION	KYSOR/WARREN - STRATUS MULTI-DECK DISPLAY CASE - SX1LC-SC	BLACK	5	CO-OP
SE2	FRIGIDAIRE	8.7 Cu. Ft. Chest Freezer	WHITE	1	CO-OP
SE3	KOALA	KB110-SSWM HORIZONTAL STAINLESS STEEL WALL MOUNTED	STAINLESS STEEL	6	W/C
SE4	BRADLEY CORP.	SOLID PHENOLIC CORE PARTITION FLOOR MOUNTED	NATURAL CANVAS	4	W/C
SE5	SONY	XBR-X900F SERIES 4K HDR TV	BLACK	2	ACTIVITY ROOMS
SE6	GREENSCREEN	COLUMN TRELLIS - CUSTOM	STEEL	25	ALL
SE7	ULINE	MOBILE DRY ERASE BOARD	WHITE MAGNETIC STEEL	2	ACTIVITY ROOM

Finishes							
CODE / SYMBOL	MANUFACTURER	SELECTED PRODUCT NAME	COLOR	PRODUCT LOCATION	FINISH	PLACEMENT	DESIGN CHOICE JUSTIFICATION
ACT - 1	ARMSTRONG	WOODWORKS LINEAR VENEERED PLANKS	NATURAL VARIATIONS BEECH	ACTIVITY ROOMS	SEMI-GLOSS	CEILING - ACCOUSTIC PANELS	SOUND DAMPENING AND INSULATION WITH DECORATIVE BENEFITS
AWP-1	DECAUSTIK	JANUS	NATURAL	MEDICAL LOBBY	N/A	DIVIDER WALL	ALLOWS FOR SOUND DAMPENING IN OFFICE BUT ALSO ALLOWS LIGHT TO PASS THROUGH
AWP-2	GEOMETRIK	GEOPANEL GRILLE	WALNUT	CAFÉ	N/A	WALL PANELING	SOUND DAMPENING AND VISUAL INTEREST
CPT - 1	MOWHAWK GROUP	BILLET CARPET	SOFT WOOD	ACTIVITY ROOMS	TUFTED	FLOOR - CARPET	DURABILITY
CPT - 2	FLOR	MADE YOU LOOK CARPET TILE	BARK	MEDICAL LOBBY	N/A	FLOOR - CARPET	EASILY REPLACEABLE
CPT-3	TURF PROS SOLUTION	IMPERIAL K91 - FAUX GRASS	FOREST GREEN WITH TAN THATCH	CAFÉ	N/A	FLOOR CARPET	REDUCES MAINTANCE ISSUES AND COSTS
EP-1	DUR-A-FLEX	MICA-FLEX E EPOXY	NICKEL	LOBBY	MATTE	FLOOR - EPOXY	NON-SLIP, DURRABLE, AND APPEARS NATURAL
EP-2	DUR-A-FLEX	MICA-FLEX E EPOXY	GLIMMER	LOBBY	MATTE	FLOOR - EPOXY	NON-SLIP, DURRABLE, AND APPEARS NATURAL
EP-3	DUR-A-FLEX	MICA-FLEX E EPOXY	AUTUMN	LOBBY	MATTE	FLOOR - EPOXY	NON-SLIP, DURRABLE, AND APPEARS NATURAL
LAMN-1	FORMICA	DOVER WHITE HIGH PRESSURE LAMINATE	DOVER WHITE	CO-OP	N/A	CO-OP COUNTER FRONT	DURABILITY
PT - 1	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	ARCADE WHITE - SW 7100	ALL ROOMS	SATIN	CEILING - PAINT	COMPLIES WITH LEED STANDARDS
PT - 7	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	HUNT CLUB SW 6468	CAFÉ	SATIN	WALL PAINT	
PT - 8	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	WARM STONE SW 7032	LOBBY	SATIN	WALL PAINT	TXT-2
PT - 9	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	PURE WHITE SW 7005	LOBBY	SATIN	WALL PAINT	
PT - 2	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	BONSAI TINT SW 643	W/C	SATIN	WALL PAINT	
PT - 3	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	DIVERSE BEIGE SW 6079	LOBBY	SATIN	CEILING - PAINT	
PT - 4	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	BROCCOFLOWER	MEDICAL LOBBY	SATIN	WALL -PAINT	
PT - 5	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	IBIS WHITE SW7000	CO-OP	SATIN	WALL PAINT	
PT - 6	SHERWIN WILLIAMS	SUPERPAINT INTERIOR LATEX	MOSS ROSE SW 6291	CO-OP	SATIN	WALL PAINT	

RSN-1	3FORM	VARIA RESIN - KATHALI	TANS	MEDICAL LOBBY	N/A	OVERHEAD WALL	ALLOWS LIGHT TO PASS THROUGH BUT PROVIDES VISUAL INTEREST
RSN-2	3FORM	VARIA RESIN - WEB	BOLT	CO-OP	N/A	OVERHEAD WALL	ALLOWS LIGHT TO PASS THROUGH BUT PROVIDES VISUAL INTEREST
RSN-3	3FORM	VARIA RESIN - CURRENT	REFLECTION	CAFÉ	N/A	OVERHEAD WALL	ALLOWS LIGHT TO PASS THROUGH BUT PROVIDES VISUAL INTEREST
T-1	DALTILE	EMERSON WOOD COLORBODY PORCELAIN	BUTTER PECAN ER01	W/C	MATTE	FLOOR - TILE	EASY TO CLEAN BUT WARM IN APPEARANCE
TXT-1	LUNA	TWIGGY UPHOLSTERY	BRACKEN OTG-2122/UTG122	MEDICAL LOBBY	N/A	SEAT CUSHION UPHOLSTERY	PATTERN HIDES STAINS AND IT HAS HIGH DURABILITY RATINGS
TXT-2	FIL DOUX TEXTILES	OTRATEX - COMMANDER	AMARANTH	CAFÉ	N/A	UPHOLSTERY	WATER AND SPILL PROOF AND HIGH WEAR
VNL-1	ARMSTRONG FLOORING	MAPLE LANE WOOD LOOK VINYL	AGAVE 37923	CO-OP	N/A	FLOOR	WOOD WARMS UP THE SPACE AND FEELS LESS COMMERCIAL
W-1	DANPAL LIGHT ARCHITECTURE	DANPATHERM	N/A	MEDICAL LOBBY	N/A	WALL	ALLOWS NATURAL LIGHT INTO THE ENCLOSED SPACE
WC - 6	SAEBROOK DESIGNS	METALLIC GOLD CORK WALLPAPER	NATURAL / GOLD	LOBBY	MATTE	WALLCOVERING	NATURAL APPEARANCE AND SOUND DAMPENING QUALITIES
WC-1	GARDEN ON THE WALL	CUSTOM MOSS WALL	N/A	LOBBY	N/A	WALLS - MOSS	SOUND DAMPENING AND VISUALLY COMPELLING
WC-2	WOLF-GORDON	CANOPY VINYL WALLCOVERING	MAGNOLIA	MEDICAL LOBBY	N/A	WALLCOVERING	SUBTLE CALMING PATTERN
WC-3	WOLF-GORDON	SISAL SONG WALLCOVERING	DARK PULSE	MEDICAL LOBBY	N/A	WALLCOVERING	NATURAL MATERIAL AND DARK COLORS REDUCE GLARE
WC-4	ENDURE WALLS BY TEDLAR	ESSENTIALS 1 TYPE 1 WALLCOVERING	SAND	CO-OP	N/A	WALLCOVERING	PATTERN ECHOS GROWTH PATTERN
WC-5	KNOLL TEXTILES	DRIFT	PALM	CAFÉ	N/A	WALLCOVERING	SOOTHING COLORS
WP-1	ATI DECORATIVE LAMINATES	KALAHARI MIRROFLEX STRUCTURE	WINTER WHITE	W/C	GLOSS	WALL PANELING	FOLLOWS THE CONCEPT AND ADDS VISUAL INTEREST TO THE BATHROOM

Furniture							
CODE / SYMBOL	MANUFACTURER	SELECTED PRODUCT NAME	COLOR	SIZE	QUANTITY	PRODUCT LOCATION	DESIGN CHOICE JUSTIFICATION
CH1	KNOLL	ROCKWELL UNSCRIPTED HIGH BACK LOUNGE CHAIR	LINEN	35'X32.5'X43.5'	4	MEDICAL LOBBY	PRIVACY AND INTROVERT SEATING OPTION
CH2	HAWORTH	FORREST CHAIR	WHITE	21.25"X21.75"X32"	48	CAFÉ SEATING	DESIGN FITS CONCEPT
CH3	HERMAN MILLER	SAYL SIDE CHAIR - SLED BASE	STUDIO WHITE - 98, WILD BERRY	24"X19.25"X34.25"	34	ACTIVITY ROOM	DURRABILITY
CH4, CH5, CH6	SANCHEL	LA ISLA POOF SEATING	116	77 X 112 X 192 CM, 77 X 170 X 117 CM, 257 X 112 X 77 CM	3	CAFÉ SEATING	OPEN COLLAROBRAIVE SEATING TO ENCOURAGE INTERACTION & CHARGES TO ENCOURAGE LONG TERM USE
CH7	2MODERN	NANNA DITZEL OUTDOOR HANGING EGG CHAIR	NATURAL	33.5 X 29.5 X 49.2 IN	2	CAFÉ SEATING	INTORVERT SEATING OPTION FOR THE COMMUNITY SPACE
TBL1	KNOLL	RISOM SIDE TABLE - SQUARE	LIGHT WALNUT	18"x18"x20"	2	MEDICAL LOBBY	DURRABILITY
TBL2	HAWORTH	MESA DUE TABLE 47.25" D.	STAINED ASH & ALPI	47.25"X47.25"X29.5"	6	CAFÉ SEATING	DESIGN FITS CONCEPT
TBL3	HAWORTH	MESA DUE TABLE 59" D.	STAINED ASH & ALPI	59"59"29.5"	4	CAFÉ SEATING	DESIGN FITS CONCEPT
TBL4	KNOLL	SAARINEN DINING TABLE 47"	WHITE GLOSS	47.25X28.25	3	CAFÉ SEATING	CENTRAL SUPPORT ALLOWS FOR FUNCTIONAL BOOTH SEATING
TBL5	HERMAN MILLER	EXCLAVE TABLE - GUITAR PICK TABLE SMALL	CLEAR ON ASH	29"X60"X60"	2	ACTIVITY ROOM	SHAPE ENCOURAGES COMMUNICATION AND COLLABORATION
TBL6	HERMAN MILLER	EXCLAVE TABLE - GUITAR PICK TABLE LARGE	CLEAR ON ASH	29"X84"X84"	2	ACTIVITY ROOM	SHAPE ENCOURAGES COMMUNICATION AND COLLABORATION
TBL7	HERMAN MILLER	EXCLAVE TABLE - TEAR DROP TABLE SMALL	CLEAR ON ASH	29"X60"X72"	2	ACTIVITY ROOM	SHAPE ENCOURAGES COMMUNICATION AND COLLABORATION
TBL8	HERMAN MILLER	EXCLAVE TABLE - TEAR DROP TABLE LARGE	CLEAR ON ASH	29"X96"54"	2	ACTIVITY ROOM	SHAPE ENCOURAGES COMMUNICATION AND COLLABORATION



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