

# A Nursing Home Community

by

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# Abstract

The western culture strives for advancement in every aspect of life. Medical technology advances exponentially from year to year. Once a milestone has been reached, a new discovery renders it obsolete. Treatments become more prevalent and death is postponed further, only to fuel the ever growing population of our elderly. But with the constant struggle to extend life, those who fight the battle to live longer seem to be tucked into far corners of endless corridors in hospitals or nursing homes. This thesis aims to discover ways to connect our communities to our ill and valuable citizens living in nursing homes. Studies will look for ways to incorporate the cultured and knowledgeable elderly back into the community, and to stoke the possibilities to learn from their experiences and principles they live by. In doing this, the hope is to help our communities and residents of nursing homes raise the overall quality of life.

The project will require a wide range of unique programmatic elements to be successful. The program will create a certain amount of attraction to the building and help create community involvement. There will be a focus on how residents within the nursing home, but also how the public will interact with the building and its immediate surroundings.

By creating a connection between residents in nursing homes and the public, it is a possibility to change the view of our elderly and lesson the dread of growing older. The exploration of environmental effects and social impacts on a person of poor health will find how architecture, medicine, and social surroundings can improve the lives of those living in a nursing home and the richness of our communities.

# Circumstance

The site is very important for this to be a successful nursing home development. The location of the site requires a certain amount of activity around the site, with a presence of nature as well. People's activity will create a proper environment for the building to connect with and become a part of. Natural elements will allow for a peaceful environment for residents to relax in. The site will need circulation through garden and natural spaces. Within these settings there should be defined spaces for gatherings and personal reflection. The site needs spread parking for less of an impact and an inviting attraction to the grounds. The space should in no way feel like fenced private property.

The nursing home requires a range of programmatic elements and unique characteristics to be a successful nursing home. Foremost are the relationships between the public, private, and restricted spaces for faculty. Also there will need to be special attention paid to how a patient interacts with the surrounding environment and community, whether it is visually, directly or not at all. This calls for a larger focus on transitional space between different programs within the building and outside. These transitional spaces may be community gathering areas, garden space, or public viewing areas. There will need to be private rooms for each patient that allows for personalization of space. For residents in need of more intense care, there may have to be specialized rooms. The building should have a very comfortable and inviting feel, while pronouncing its existence in a proud manor. People need to feel proud of the building as well as the people inhabiting it. The hope is for the program and building characteristics to draw people in. For this, meeting places are necessary for visitors or other public uses in the building. However, the approach to the building, main lobby and other major building components will be of secondary importance to the quality of lives of those who will live, or continuously inhabit the building.

The additional program space that will be incorporated to the building will require additional design strategies separate from the actual nursing home. The idea is to bring the public into these parts of the building and give the elderly a chance to become a part of the community. Gymnasiums, internet cafés, libraries, massage / day spa, and teen centers are just a few examples of how to bring the community to the building. By interacting with the residents, they may have chances to spread their knowledge about life while gaining a sense of purpose at the same time. These areas would have limited access to the residents' community space, but there will be a strong connection between the two.

# Thesis Paper

The evolution of healthcare environments is constantly underway. With the introduction of many new medical technologies, methods, and cultural changes, healthcare construction must progress accordingly to comply with new demands. Within the broad spectrum of healthcare environments the long term care facility, or nursing home, is one of its many categories, and also going through constant change. Nursing homes are an integral part of our communities and their need continues to grow with the rapid population growth of elderly in the United States. However, nursing homes have slowly become a sign of giving up on regaining health instead of a place with a quality life and more importantly, hope. In fact, statistics show that two out of three people will spend time in a nursing home, yet most people say they would rather die than go through the experience. Although researchers have found ways to improve the overall care in nursing homes, there are many more factors involved than the different effects of color, lighting and scale of the building. Among the nursing homes which have had success with creating a comfortable and appropriate nursing home environment such as Tendercare Inc, Bethany Methodist Corporation, and Oceana County Medical Care Facility, there is still very little appeal to their destination and a lack of connection to the surrounding community. While recent nursing homes focus on a limited fundamental set of psychological principles within the facility, many studies show a large effect on residence from surrounding community, activities and environmental qualities. To perfect our nursing home's environment, care, and image, we must minimize the economic impact of our aging, and improve the cultural integrity and community involvement with our elderly and the facility itself.

Nursing homes fail to address the economic impacts of a drastically increasing elderly population in the United States. While more baby boomers reach an age that requires additional assistance and our medical technology adds years to our lives, there is a greater

need for new nursing home developments. However, the average sized nursing home is one hundred nine beds, eventually adding to the all too familiar site of huge abandoned facilities to be left when the baby boomer generation has passed. In fact, from now till the year 2030, our population of sixty five year olds and older is expected to double from about 36,000 to almost 70,000, averaging a growth of over 14,000 people a year.<sup>1</sup> With a sudden decrease of this population there will also be a dangerous surplus of nurses and since healthcare is one of the largest professions in the United States, our economy will no doubt feel a substantial impact. This in turn creates a need for new design strategies to minimize the future impact of baby boomers on our communities and economy.

Although nursing homes are a growing necessity due to population growth, they are clearly something that our society views negatively. Over fifty percent of severely ill patients in a hospital say they would rather die than be placed in a nursing home. This may be because many individuals tend to find nursing homes to be impersonal institutions that offer little hope to those who are suffering from late-life illnesses. Current studies show that fifty two percent of women and thirty three percent of men over the age of sixty five will spend their last years in a nursing home.<sup>2</sup> With these percentages in mind, it is unethical to avoid the increase of elderly without change in mind. With more of our population in nursing homes, there must be a substantial improvement in the quality and image of nursing homes in efforts to improve the image of our elderly and improve the quality of living in our country.

Unfortunately, all of healthcare has transformed into a big business in the United States, making it hard for smaller more intimate healthcare facilities to exist without being affiliated with larger healthcare corporations. Over 2.25 trillion dollars were spent on healthcare in the year 2007, over 120 million of that was spent on nursing home care<sup>3</sup> making healthcare the leading cause of bankruptcy.<sup>4</sup> Since many individuals use, Medicaid or Medicare to fund their nursing homes stay it challenges smaller long term healthcare facilities to collect enough money to stay in business. However, recently the healthcare industry has seen an increase of residents equipped with long term care insurance. Since long term care insurance is becoming more common and government money is being spent faster than made, nursing homes will soon be likely to making more profit since private financing and insurance creates more

revenue per resident.<sup>5</sup> With more profit per resident, a large number of beds per facility will no longer be needed to stay in business, thus, making it possible for more friendly, personal and caring facilities to exist.

An emphasis of comfort for residents began in the late 80's and 90s and improved



nursing homes moderately.

Before nursing homes paid much attention to their environments, many of the facilities looked similar to Brookhaven Medical care facility, above, and at right. Brookhaven opened in

1970 and remains a nursing home with glossy floors, cold walls and uncomfortable common areas for residents to spend much of their free time in. Advancements in medical theory and studies on how our surrounding



environments affect individuals psychologically, have allowed for improvements to our healthcare environments. Building scale, wall treatments, floor materials, and color are a just a few examples of what areas have been explored. Investigations have found that sites placed by public transportation and activity outside of the facility can encourage

interaction with the public and improve life quality. The scale of the building can create an institutional feel or create comfort and beauty. Wall surfaces that are constant or glossy can make one feel uncomfortable. Other characteristics like shiny floor materials, bright glare from lights, depressing color and hard furnishings can create discomfort.<sup>6</sup> These ideas are important, but they fail to explore how specific types of environments can help residents be healthier people. Nursing homes should be expanding on the idea of creating a therapeutic environment and treating the architecture as therapy.

By improving the therapeutic quality in nursing homes, image and health can be improved. Health has commonly been defined as soundness of mind body and spirit, so can architecture help create harmony between these three important elements? According to the Socratic tradition a balance of the physical, psychological, and spiritual, leads to harmony and improves the quality of life. Keith Critchlow finds eight major elements of a building which can create harmony. First is its impression by illustrating a sense of inspiration in recovery and proficiency. Second is the arrangement of the building. The third is the clarity to understand what the facility's main focuses and beliefs are, and fourth, is the knowledge of the building components to allow for a healthy atmosphere. The fifth is that the proportions of the building should reflect the proportions of a person to create harmony. Six, the building should allow for efficiency like that of a human body. Seven, communication within the building must be easy and convenient. Eight, all functions of the building must be investigated and integrated properly. Each one of the eight building elements allows a balance of the physical, psychological and spiritual, creating harmony and ultimately a higher quality of life for residence and the expression of a healing atmosphere.<sup>7</sup>

It wasn't until recently nursing homes started designing environments to act more therapeutic. By not only focusing on materials, color and lighting, designers attempted to create a home like environment, helping the residents adjust to their new atmosphere. Tendercare Health and Rehabilitation Center of Wyoming Michigan offers a residential feel with brick, siding, and gabled ends on the outside and offers many options on the interior, including private and semiprivate rooms and personalized space for the residents. The most interesting attribute of this nursing home is the strong emphasis on rehabilitation. Residence began to check out of

the facility faster than checking in due to improvement of health. It is a sign of possible change of image for nursing homes. However, more improvements could be made. The Tendercare Center of Wyoming Michigan is in a location away from any real social activity. Even the interior is set up to seclude one patient from another instead of creating a community within the facility. Also the building's shape and entrance keeps it too secluded and private to instigate community involvement. Although the residents live a life of comfort, they are shut off from the outside world. <sup>8</sup>

However, even when a design is sensitive to the psychological effect to the residents on the inside, there is very rarely sensitivity to the psychological effect of the outside environment. The design of a successful nursing home also requires knowledge of how the community, activity, and association with other people can affect the residents. Psychologist Robert Gifford studies many different affects on people from different activities within environments. Simple, everyday activities within urban communities tend to show great importance to our everyday lives. Something as simple as walking, even the reflection of the walker can tend to calm an onlooker. Hanging out, or being in an environment with several different qualities can be extremely beneficial:

Active use of the neighborhood may be important and healthy for the elderly. Yet, old people's use of the neighborhood often is limited; this makes them 'spatially disadvantaged.' Researchers have examined which characteristics of the elderly predict their use of neighborhood goods and services. The ability to learn and remember locations was a better predictor than the degree of mobility or the length of time these individuals had lived in the neighborhood.<sup>9</sup> ,”

Watching, which may be the most common events to take place within a nursing home is also important to the mental state of elderly. In a community, one can watch familiar strangers, or familiar faces interacting with the surrounding environment which can be added comfort and a filling of belonging to the community. Perhaps only being around a community feels like performing very little action, but our minds and body are actually experiencing a variety of thoughts and experiences.<sup>10</sup> By connecting the nursing home with a community rich in culture, the healthcare facility can become more of a healing environment. Also, by exploiting this

healing atmosphere to the community, the image of the nursing home may change in a positive direction, eventually creating a place where the many in need of care will willingly go, and feel confident in spending their final years belonging to a community.

There are many ways to incorporate the surrounding community into a nursing home. By developing a nursing home in a location where other destinations like restaurants, shopping centers or parks that attract constant pedestrian traffic, there is a natural involvement with the community. However, when building a facility into a community there is more involved than just building the home. It would be most beneficial to open up to the surrounding area and be a welcoming building of interest, rather than fenced off and institutional.

In relation to being connected to the community, nature has also been proven to have many positive effects on our psyche. In reality, most people would prefer to look at nature than an urban setting. Nature has been found to be a restorative agent, which is more than necessary for a nursing home for healing. Studies have confirmed that those who spend more time in nature feel “self-actualized,” meaning “the desire to realize one’s full potential or to maximize one’s capabilities.” Self actualization can allow for residents to feel more ambitious to reach a higher level of health. Nature has also been found to lower blood pressure. Videos of nature lowered blood pressure, while videos of traffic and shopping malls raised it significantly.<sup>11</sup> Although nature is soothing, it may not always be appropriate to reinvigorate and generate health, especially in nursing homes. “A study of nursing-home patients found that a natural view was related to a significant decline in mental status one month after admission to the home.”<sup>12</sup> Perhaps a nursing home doesn’t need a view of nature, but more importantly, a natural setting for individuals to be a part of.

Finding a place where urban activity meets nature is extremely difficult, but there are possible methods for bringing activity to nature or nature to activity. If placement within a city is unavailable, an innovative program that provides services can bring people and additional revenue in. Cheaper land can allow for services such as daycares, internet cafés, libraries, gymnasiums, pools, and athletic fields are all examples of what could be integrated into a nursing home development. Bringing nature to an urban development is also possible. By surrounding the facility with vegetation and incorporating a water or flower garden into the site

plan, there can be a natural feel on a relatively small lot.

Other than creating a special program and bringing people into the building, there are many more ideologies which should be encompassed within a nursing home. Although hospice care is focused on individuals who have been given six months to live by a doctor, there are common qualities about them that nursing homes can learn to incorporate or avoid when designing the home. Current nursing homes tend to act as larger cold institutions with little sense of comfort or paradise. However, hospice buildings tend to be smaller, intimate buildings that focus all of their attention on the patient. Hospice care may actually be a type of death sentence, but they tend to feel comfortable and inviting. While a nursing home tends to be associated with an idea of death and depression, they also seem institutional. Modern hospice care design has focused on using the art of architecture as therapy. Art has been found to be an exceptionally successful type of therapy for the elderly and terminally ill. It is said that art can help a patient and family member “self actualize and illuminate their inner emotions,” helping them understand the different stages of life and their need of different life goals. “The art therapist in a hospice therefore helps the patients to confront and cope with their inner fears and anxieties, and to embrace the inevitability of death.” When architecture and art work together, “the hospice environment is able to transcend the mundane world of everyday existence to truly function as an expression of art as therapy/architecture as therapy.”<sup>13</sup>

In Stephen Verderber’s *Innovations in Hospice Design*, he looks at the connection with the outdoors, and focuses on a completely therapeutic atmosphere throughout the entire environment. Verderber’s Hospice Hawaii acts as the ideal hospice design. By using gardens, water, and meditation areas for patient and family counseling, it focuses on the care of everyone involved with the patient. Providing areas for outdoor activities and many patios stretching deep into the surrounding nature, Hospice Hawaii allows for the patients to interact with people and nature. Materials also play an integral role in the therapeutic atmosphere. “Wood is timeless, and has maintained a central, enduring place in human consciousness through the millennia. Not by coincidence, wood is a material widely used internationally in the hospice care environment.”<sup>14</sup> Hospice Hawaii also focuses on providing many services to family in effort to ease the grieving. The intention to create an expressive architecture that acts as a beacon for those who are going through hard times may be the most valuable aspect of Verderber’s

design. The expressive architecture appears to be something more than a building full of grief and sadness; it appears to be exciting and happy, giving outsiders a chance to become more comfortable with the function of the building.<sup>15</sup> Interesting architecture is commonly viewed as an unnecessary expense and an investment which will never be returned. However, with the integration of additional funds being brought in from insurance money and appropriate program development, expressive architecture can become more possible.

Other hospices are not as expressive in their architecture but do hold desirable characteristics that nursing homes could benefit from. The Dr. Peter Center in Vancouver, Canada is a welcoming piece of architecture and opens up to the surrounding public. It also provides rooms for the elderly who need outpatient treatment.<sup>16</sup> This is something that more nursing homes could benefit from since more healthcare income is generated from outpatient care. If nursing homes can take care of more patients on an outpatient or home visit basis in addition to the long term residents, they may be able to generate much more profit and aid more patients with simple treatments or rehabilitation programs. This could also be a possible solution to the growing population. By building smaller nursing homes, their will be less of a left over impact of large empty nursing homes when the baby boomer generation has past. Smaller buildings have more flexibility and can more easily change their function.

A variety of programs are available for nursing homes that are designed to improve the resident's stay and overall quality of life at a facility. By understanding what these programs consist of, it is possible to contribute to their advantages through proper design. Programs such as restorative nursing, is a commonly used method. Their purpose is to "help the resident progress to a higher level of function or to 'restore' function." The rehabilitation services include eating training, communication training, and bed mobility and walking training.<sup>17</sup> By designing a building that can better accommodate these types of methods, it is possible to contribute to their effectiveness and further increase the quality of life within the facility.

Moreover, by discovering ways to improve the cultural integrity, community involvement with our elderly and the design of nursing homes, we can improve their environment, care and image, but most importantly increase the quality of life in the facility. Creating design strategies for nursing homes that are smaller and more intimate can focus more on the resident and their family. Also it can fit in with a community and connect to the people of that community easier.

However, building program may also create additional opportunities for nursing homes. By using an innovative program outsiders will be more inclined to be a part of the building, and perhaps generate more profit. Also, it can allow for more programs that improve health of the residents. In addition to program, a successful architecture may help outsiders feel more welcome to the building and continue to generate more of an understanding of what a nursing home represents. With future integration of insurance money and appropriate program development, expressive architecture and design that contributes to the healing of nursing home residents, is becoming ever so achievable.

# Precedence Studies



## Brookhaven Medical Care Facility Muskegon, Michigan

Brookhaven Medical Care Facility is the first precedence study for this project because it is an example of why changes need to be made with nursing homes.



It was constructed in the 1970s and has had little renovations done since. Unfortunately, these images of Brookhaven are a common site throughout many nursing home facilities. The image of the courtyard is a rare quality to find, but with snow on the

ground and cold weather much of the year, it gets limited use. A room that allows residents to be a part of nature in all seasons with warmth and comfort would be beneficial.

On the inside, hard materials in lounging areas do little to create comfort for residents to spend time in. Some natural light is let in but the limited common rooms give few options for different areas to congregate. It is also doubtful that many residents get fulfillment from watching the small tv in the image to the right.



## Brookhaven Medical Care Facility Muskegon, Michigan

The interior atmosphere for workers are less than desirable. Nursing stations do



little to ease a nurses day at work, making them easier to become irritated and then providing poorer care to the residents. The painted CMU block walls are the only wall covering throughout all of the working areas and hallways. Also, cheap wood paneling and intense lighting adds to the discomfort of the space. This building is exactly why new design strategies are important to our elderly in nursing homes now.

Cold materials and sterile walls add to the depression of people who already wish they weren't here. Long hallways are often used for down time for residents, however every hallway, like the one below, seems endless and uncomfortable doing little to stimulate anyone's mind or create a positive attitude.



## Brookhaven Medical Care Facility Muskegon, Michigan



The residents' rooms at Brookhaven are no improvement from the hallways or nursing stations. The hard floors and cheap counters are far from luxury. Also, the barely code complying windows let in little natural light and give a minimal view.

There are few private rooms for personalizing their own space or for private visits with loved ones. If visitors come to the room, they most likely sit on a cream colored chair that no one could sleep in. No extra rooms for family members to stay overnight make it harder for residents to see loved ones for an extended period of time.

In the bathrooms of these rooms there are many code requirements for easy access. However, these bathrooms don't improve the resident's stay. There are only community showers and only tile on the floor.

This facility is precisely why there needs to be improvement in our nursing homes. With improved design, we can improve care.

# Tendercare Health and Rehabilitation Center Wyoming Michigan



This nursing home represents an affordable and dignified design. The 80 bed facility is smaller than the average size and still is capable of providing comfort. The materials are more warming than CMU or white laminate flooring. Also, in public spaces there are comfortable chairs and larger windows. These rooms allow for a community to develop easily within the facility. The bedrooms are mostly private rooms and can be personalized for a resident's desires.

Although Tendercare provides comfort to the residents, there is still a lack of connection to the surrounding community. The main entrance is hard to locate and is not very welcoming and there are no areas that allow for events to be held for both the residents and the outside community.



## Chestnut Square at The Glen Glenview, Illinois

The Chestnut Square nursing home is a larger facility with 291 beds but attempts to provide a home feeling and a community within the facility. There are large common areas with comfortable seating arrangements, through traffic and a fireplace so that people are frequently around. Large community kitchens are available for group gathering or cooking in wings that house the more capable residents. The combination of floor planning, materials and variety of patients help to form a community within the facility.

On the exterior, the large facility struggles to maintain a homely feel. There is a main entrance that appears to be welcoming but the building is so big it can tend to be intimidating. Also, the golf course it sits on provides nice viewing and surrounding activity, but the once developed airport leaves the building far from any community.



## Bear Cottage Children's Hospice, New South Wales, Australia



The Bear Cottage Children's Hospice was built in 2001 for Westmead Children's Hospital. It was designed by McConnel Smith and Johnson with 10 inpatient beds on 2.1 acres. The playful and bright building is located close to the Pacific Ocean and includes many essentials in hospice design. Hospice buildings should be celebratory, playful, relaxing and comfortable. What is interesting with the design is that it does not have the look of a standard residence but still has certain resemblances of a home. The building fits in with the residential community around it, but is bright in color and acts as a beacon of commemoration to its occupants. It is more exciting than a house. It is a childhood fantasy house including playful colors and materials. The interior is comprised with a beach theme in the patient rooms, and, there is a tree house area attached by a wood deck adjacent to the building. Even though the hospice sits within a residential landscape, it is more appropriate to say it has a natural feel to it do to the surrounding trees and thick woods in its immediate surroundings.



## Bear Cottage Children's Hospice, New South Whales, Australia



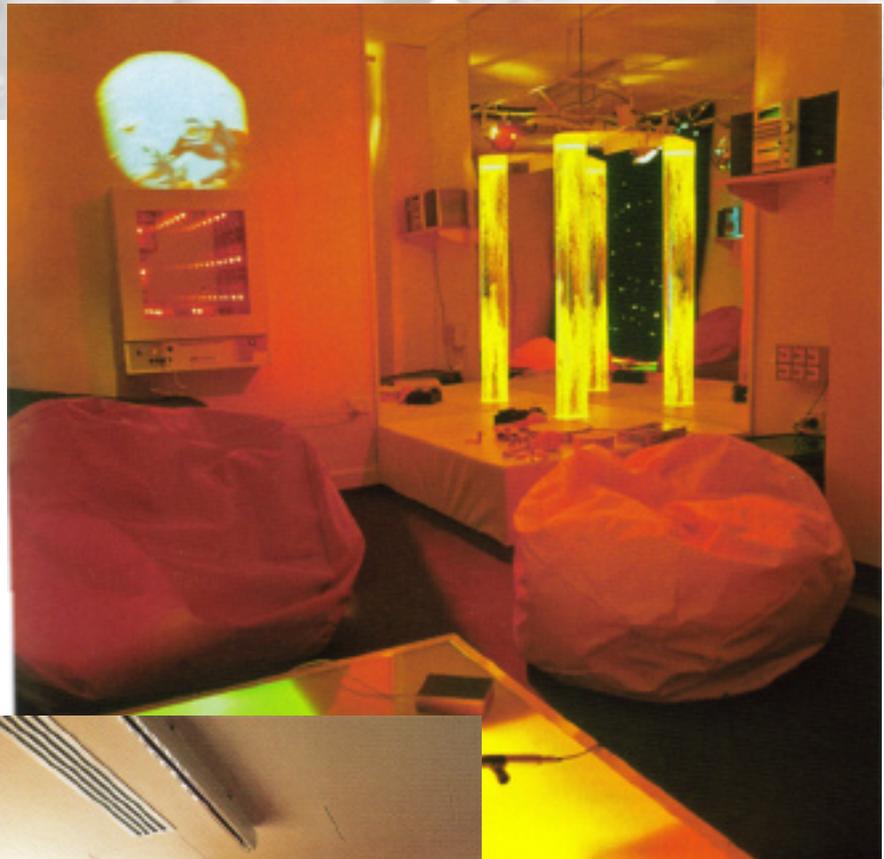
All though The Bear Cottage Children's Hospice is designed specifically for children it is a great example of what is vital to a house for the ill. This hospice viewed as a celebration of life and of the people who inhabit it. A nursing home can use these principles to provide individual's with something a little closer to a paradise.



## Bear Cottage Children's Hospice, New South Whales, Australia



The interior includes aspects that focus on stimulation. In many rooms the color red is present in efforts to be more stimulating for the occupants to be slightly more driven to have as active and playful of a life as possible. Furniture and other fixtures are fun shapes and gives off warmth for more ease of mind.



Also, different adjustable windows around the rehabilitation spa can conform to the comfort of each individual's privacy in the room. Lighting also keeps the atmosphere flexible for maximum comfort. The idea of flexibility in the atmosphere and space is essential to this thesis because the occupants' comfort is a main focus. A stress free life is what it aims to create.

## Dr. Peter Center Vancouver, Canada



The Dr. Peter Center was built for The Dr. Peter AIDS Foundation and is a four story residential building restored into a modern hospice. The remodeling was designed by Hotson Bakker Boniface Haden Architects and now stands as a modern expression in a neighborhood consisting of predominantly Victorian homes.

The successful architecture acts as a beacon for all who inhabit the hospice. The contrast between modern and historical styles allows everyone to understand that this building is meaningful. Although the building has a difference in architectural style, the designers use techniques to welcome the community into the space. The glass atrium between the original and new structures draws people into a welcoming space. Exterior balconies reach out into the exterior with a planter that wraps around the corner, welcoming the community in to the adjacent park and the building.

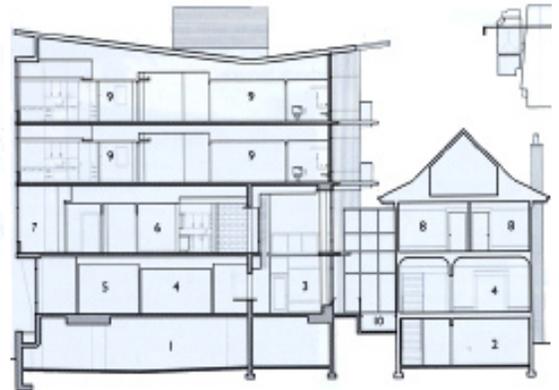
# Dr. Peter Center Vancouver, Canada

The Center also includes a sound proof music room, complimentary therapy rooms, an outdoor veranda, gym, and a safe injection site. Also, there are lockers and telephones for day patients who man not have such amenities accessible to them. The Dr. Peter Center does an outstanding job of helping the community while making their existence known to the community.

The Dr. Peter AIDS Foundation focuses on making a contribution to their community as well as providing a quality environment and care for the patients. This attitude is parallel with the drive behind my thesis. By becoming active in a community, there becomes more purpose for the facility and more importantly the residents.

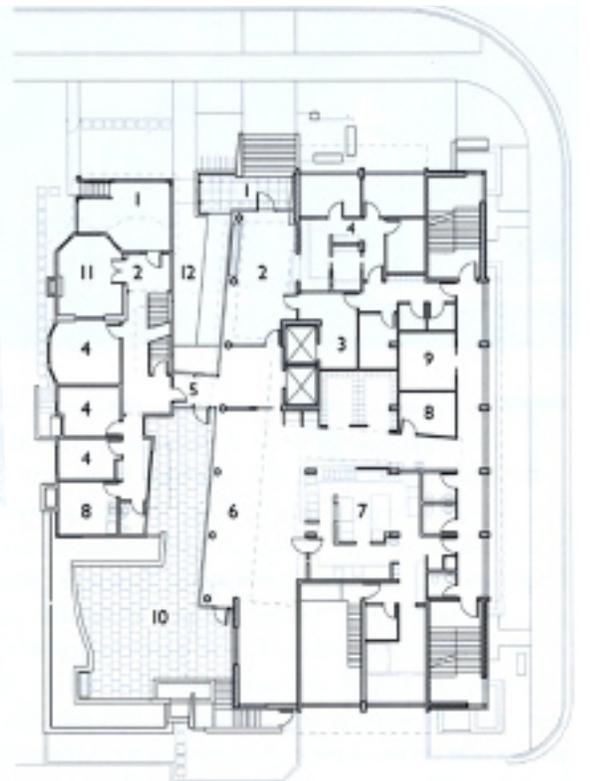
## Section

1. parking
2. storage
3. entrance lobby
4. boardroom
5. glazed corridor
6. art therapy
7. therapy
8. nap room
9. resident suite
10. ramp



## Main floor

1. porch
2. entrance lobby
3. resident lobby
4. office
5. link
6. dining
7. kitchen
8. counselling
9. quiet room
10. terrace
11. boardroom
12. ramp to parking

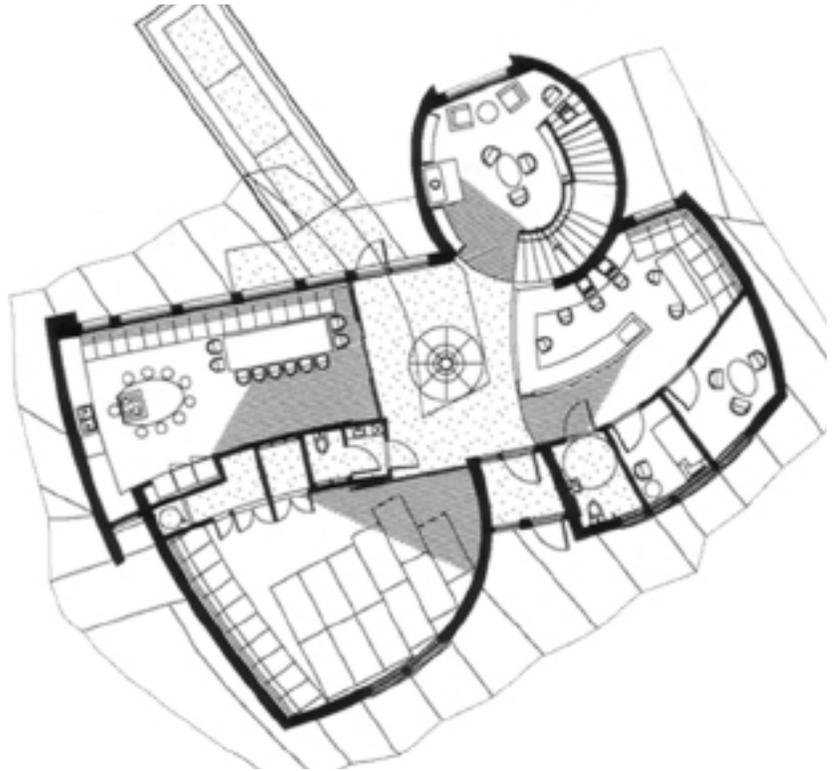


Main floor



## Maggie Centers, Dundee, Scotland

Also, the structure is a great place for comfort and reflection. The building was designed with human-scaled composition so a patient can feel at one with their environment. Also, there are many rooms for reflection as they open up to an unbelievable view. The idea was to put the cancer patients in a context which is bigger than them to fully get an understanding of life.



This building is a very expressive monument to cancer patients and successfully eliminates all feeling of an institution. This thesis also aims to celebrate its occupants and create a comfortable environment. However, comfort must be including exposure and interaction with the natural surrounding, not just a view of it. The contrast to the site



## Maggie Centers, Dundee, Scotland

This small scale retreat for cancer patients was designed by Frank Gehry, in memory of his friend Maggie who died of cancer. A large portion of the funding came from Maggie's husband, Charles Jencks.

This project is a small and intriguing building that stands against everything a hospital is. The small scale shies away from the massive institutional buildings with its awkward shaped stair case and other strange proportions. Also, it celebrates the occupants inside by standing out instead of concealing them in corners of large hospitals. Gehry designed the structure to be rigid for contrast against the natural rolling site, acting as a beacon, or mark for a home to cancer patients. It has a very petite and curious feel to it and makes visitors want to be a part of what it stands for.

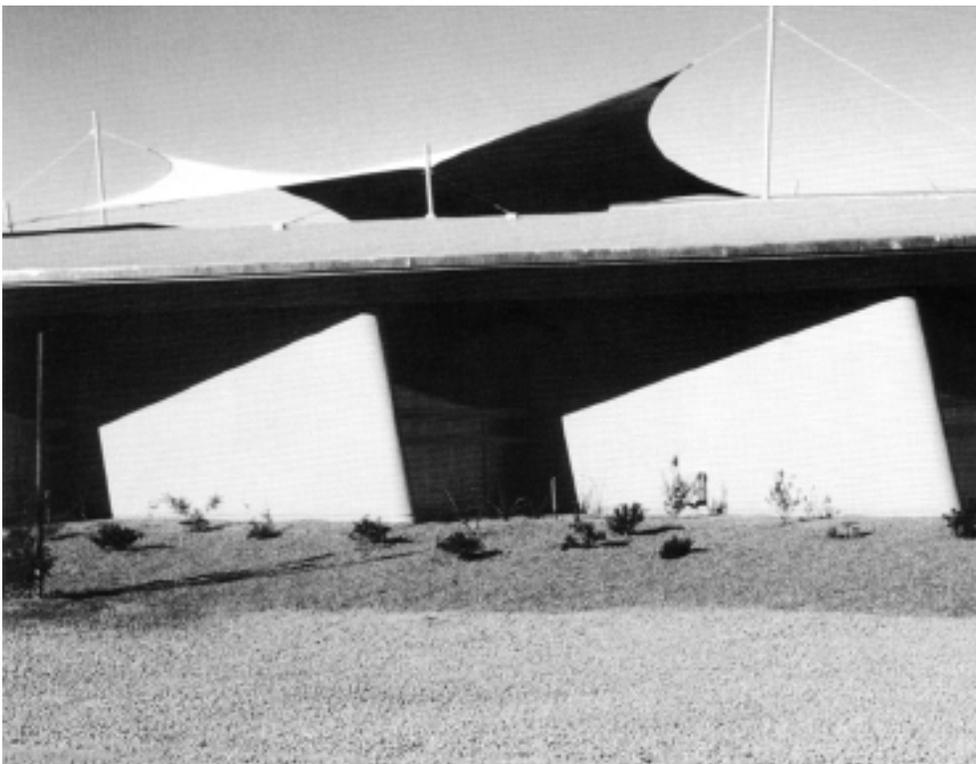


## Sun Health Hospice, Phoenix, Arizona



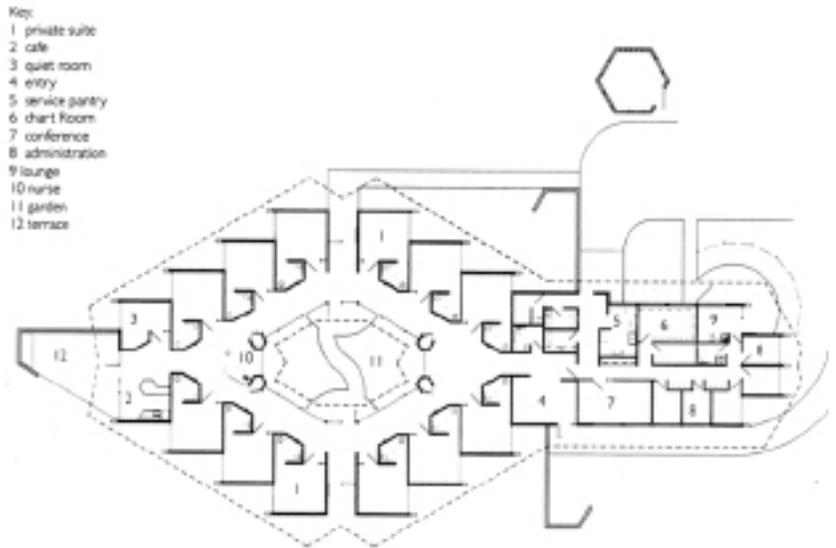
The Sun Health Hospice in Phoenix Arizona was built in 1997 by Talliesin Architects. It is a twelve bed facility and focuses on the comfort of the occupants.

For mostly one purpose, this hospice acts as a precedence study. It sets in the middle of a barren desert but uses every strategic design possible to better accommodate its occupants. The roof overhangs about eight feet on all sides, while concrete walls extend out on an east and west axis, past all windows to block direct sunlight. No direct sunlight reaches a patients room. All exterior patios also have masses blocking direct sunlight.

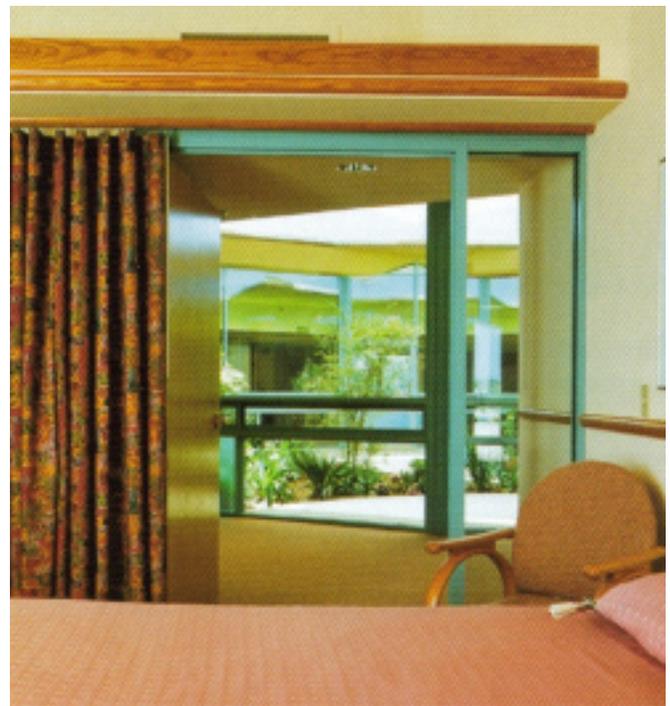


## Sun Health Hospice, Phoenix, Arizona

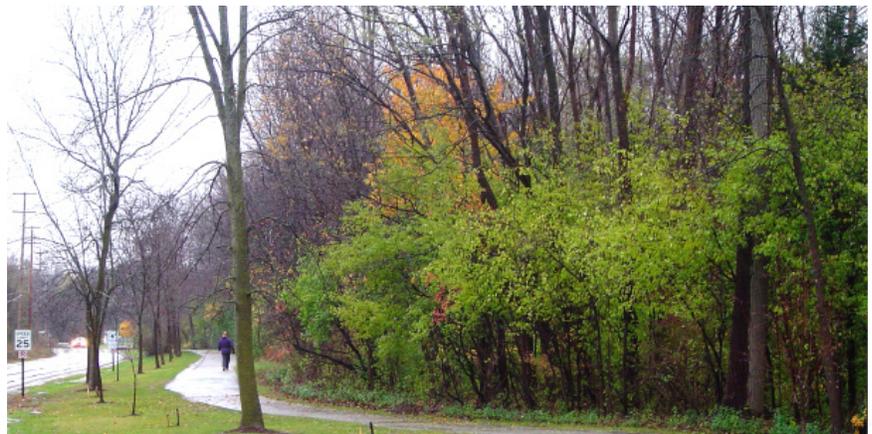
One of the most innovative strategies of this study is its plan. All rooms form a diamond shaped patio allowing for a large canopy covered courtyard. All rooms have a direct connection with the courtyard, encouraging interaction with a normally uncomfortable atmosphere. Within the courtyard is a relaxing area with many plants and winding paths.



With its ingenious plan comes weakness. Although the occupants are comfortable, there are no rooms for visitation. A hospice should encourage interaction with the occupants. People should want to be a part of the ambiance. However, with that being said, the most important aspect of this project is the emphasis on the environmental design. It is important to focus on ways to create the most comfortable atmosphere possible.



# Site On Reeds Lake East Grand Rapids, Michigan



## Site Requirements



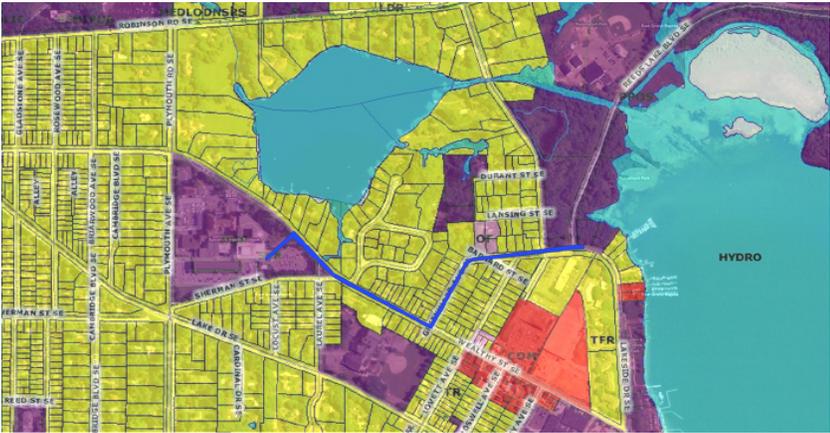
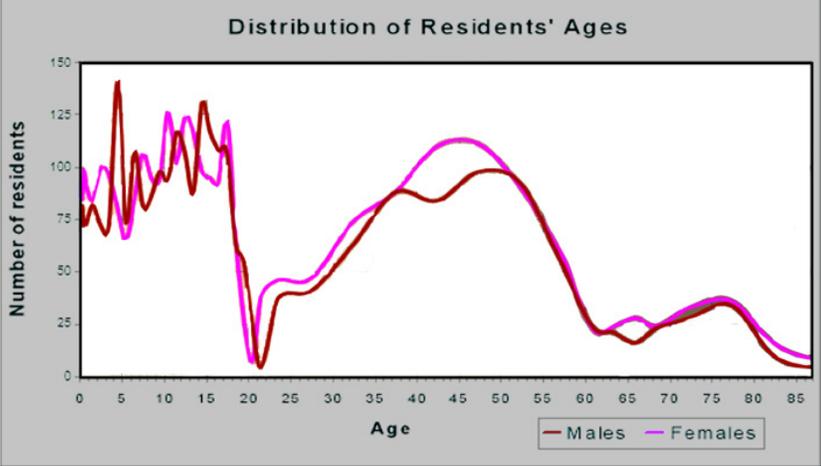
- Should be in close proximity to a full medical service
- Should be by commercial and entertainment facilities
- Should have a large amount of nature in and around site
- Should be by some recreational facilities
- Needs enough room for scattered parking to be unobtrusively seen
- Needs to be in a quiet setting
- Must have easy access
- Must be located in a non-intimidating space with little traffic
- Needs enough space for garden areas
- The site should be relatively flat for easy circulation for residents

In general, the site has to be a piece of land that allows for a building to become a part of its space. It can not be a large chunk of farm land converted into a parking lot and building.

# Site On Reeds Lake East Grand Rapids, Michigan

The site chosen for this project is extremely unique. It sets on a corner next to a restaurant and a heavily used park. It rests at the edge of nature and city and a part of the very active community of East Grand Rapids. Also, the city of East Grand Rapids has a very low elderly population, providing the ability to equalize the ratio of elderly to youth in the city.

This site is valuable to this project because of many reasons. The site is about one mile away from a large hospital. It is also by a pedestrian shopping area, and surrounded with a heavily traveled walkway, which is used all year round, providing a significant amount of activity around the sit. The location of this site will give the nursing home residents a feeling of belonging to a community.



## Site On Reeds Lake East Grand Rapids, Michigan



The site is surrounded by a lake that has a lot of activity, residential adjacent to it, and a commercial area, giving this site a lot of variety of the community it sets in. On the east side of the site, there is a lot of lake frontage, giving an amazing view of water and the water activities.

This site consists of two different sides with a small bay in the middle consisting of a small island. One side is thicker with vegetation and has small streams flowing through it. This side may be used as a park area or a nature garden for residents. The northern side is also wooded but with a large clearing in the middle, making this area perfect for a building destination. It is not ideal to cut down trees where it is not necessary.

## Site On Reeds Lake East Grand Rapids, Michigan

The map shows the site and its immediate surroundings. You can clearly see that the south side of the site is thick vegetation and closer to more activity, making this appropriate for a community park or other public uses. The north side is more open but still allows for a decent amount of privacy with surrounding vegetation.

The dark blue line represents a walking path that is well integrated into the site. Many pedestrians use this site and create a lot of interaction with the build. The walking path can also be viewed towards at the bottom.

The challenges of this site will be the traffic and Michigan climate. However with a successful design this should be easily taken care of.





## Program Summary

The program is essential to the nursing home. The program needs to create and maintain a certain level of activity in order to benefit the residents, but it also needs to provide the residents with a sense of privacy when they desire it. There will be public functions within the building so the transition between the public and private needs to be well thought out and separated appropriately. Residents need to have the ability to interact with others or be private as they wish. The residents also need to have their own space that they can personalize and take a sense of ownership to as a way of feeling like they belong. While giving them ownership, it is also important to encourage them to interact with each other to start a sense of community between the residents.

Other than the residents, it is important to create a suitable environment for the staff. Nurses have a very high turnover rate but by helping them enjoy their job, they will be less likely to leave the facility and most likely provide better care. They will need to be capable to easily monitor patients through out the facility and outside of the facility.

The public will have access to a large portion of the building. They will have full access to some of the program, limited access to others and none to the residents' private space. The program is acting as a way of attracting the public to interact with the facility.

# Program Square Footages

## Program

Room	QTY	Room	Size	Total	SF
<b>Public Spaces</b>					
Exhibition Space	1	4070	s.f.	4070	s.f.
Exhibition Space Serving Area	1	425	s.f.	425	s.f.
Chapel	1	650	s.f.	650	s.f.
Public Restrooms 1	2	50	s.f.	100	s.f.
Coffee Shop (Burdbucks)	1	3720	s.f.	3720	s.f.
Internet Café Storage	1	270	s.f.	270	s.f.
Public Restrooms 2	2	150	s.f.	300	s.f.
Entry	1	870	s.f.	870	s.f.
Salon	1	1130	s.f.	1130	s.f.
Public Dining Area	1	1490	s.f.	1490	s.f.
Daycare	1	1540	s.f.	1540	s.f.
<b>Fishing/Boating/Running Hub</b>					
Workout space	1	1000	s.f.	1000	s.f.
Instruction Area	1	600	s.f.	600	s.f.
Locker/bathrooms	2	400	s.f.	800	s.f.
Fishing/Kayak Strg.	1	800	s.f.	800	s.f.
<b>Staff and Resident Space</b>					
Dining	1	600	s.f.	600	s.f.
Front Porch Area	8	700	s.f.	5600	s.f.
TV Room/Resident Commons	2	940	s.f.	1880	s.f.
Counseling	1	380	s.f.	381	s.f.
Library/Reading Room	1	175	s.f.	175	s.f.
Sun Room	1	400	s.f.	400	s.f.
<b>Nursing/Staff Space</b>					
Conference Room	1	600	s.f.	600	s.f.
Break Room	1	600	s.f.	600	s.f.
Changing Room	1	150	s.f.	150	s.f.
Bathroom	1	60	s.f.	60	s.f.
Mail Room	1	130	s.f.	130	s.f.
Kitchen	1	750	s.f.	750	s.f.
Kitchen Freezer	1	50	s.f.	50	s.f.
Kitchen Refrigerator	1	90	s.f.	90	s.f.
Kitchen Toilet	1	50	s.f.	50	s.f.
Kitchen Pantry	1	95	s.f.	95	s.f.
Nursing Station	2	200	s.f.	400	s.f.

Clean Linen	1	350	s.f.	350	s.f.
Dirty Linen	1	290	s.f.	290	s.f.
General Storage	na	1000	s.f.	1000	s.f.
Medical Supply Storage	1	300	s.f.	300	s.f.
Office	4	160	s.f.	640	s.f.

#### Resident Space

Resident Room Model 1	15	200	s.f.	3000	s.f.
Resident Rm. Bath Rooms M1	15	50	s.f.	750	s.f.
Resident Room Model 2	16	210	s.f.	3360	s.f.
Resident Rm. Bath Rooms M2	16	50	s.f.	800	s.f.
Resident Room Model 3	2	380	s.f.	760	s.f.
Resident Rm. Bath Rooms M3	2	50	s.f.	100	s.f.
Overnight Rooms for Families	3	223	s.f.	669	s.f.

#### Therapy Branch

Office	4	110	s.f.	440	s.f.
Entry	1	180	s.f.	180	s.f.
Waiting room	1	450	s.f.	450	s.f.
Public Bathrooms	1	60	s.f.	60	s.f.
Pool/Gym Room	1	1150	s.f.	1150	s.f.
Pool/Gym Changing Room	1	80	s.f.	80	s.f.
Therapy Rooms	4	350	s.f.	1400	s.f.
Storage	na	400	s.f.	400	s.f.

Dumpster	1				
Mechanical Room	1	2000	s.f.	2000	s.f.

#### Building Room

Total	48005
Building Circulation	4450

Net Building Sq. Ft. 53266

The idea behind this program is not to conform to the majority of individuals who are in need of nursing homes, but to set an example of how many small micro scale homes of different varieties can improve the care of more and different types of patients. Many residents in nursing homes enjoy people visiting and special events being held, these are the types of people who this program aims to satisfy.

## Public Space

Many of the public spaces are open to both the community and the residents. Most of these spaces act as spaces for intermingling between our elderly and the younger generations.

### Park Space:

The main purpose of the small park on the south side of the site is to allow the public to relax in the vicinity of the building. It is right by the Hub for fishing, kayaking, and running so they can enjoy the water activities as well. It also gives the public an area to bring dogs or have picnics with their families. This is a way of generating positive activity around the nursing home, similar to many other programs within the building.

### Multi Purpose/Exhibition Space:

This is a place for displays of different cultural activities including, art, music, dinners and many other displays. It is flexible for interior and exterior use and can be easily accessed from the main entrance since individuals from the community will also be welcome to these events. The room includes a hard flooring surface for easy cleaning and enough room for tables and chairs. It is a very open room and is separated from its surrounding areas with low walls and vegetation to encourage interaction between the people. This space is open and welcoming and is easily accessed. It is also flexible for several types of events.

= 4,070 sf.

### Multi Purpose/Exhibition Space Serving Area:

This is a small serving counter attached to the multi purpose space which allows for easily catered events while providing a perfect area for a small indoor water garden. This space requires a counter sink and storage for dishes that may be needed for different events.

= 425 sf.

### Chapel:

The chapel is an extremely important piece of this program. Spiritual connection is a major issue with those who are struggling with health. Contrary to the typical nursing home chapel, this space will not be an afterthought, ending up as a corner room of a massive building. The chapel is located at the entrance with its doors acting as a continuation of the entrance. It is important to express the importance of religion. It will be a smaller chapel with a pulpit and chairs to be adequate for smaller crowds.

=650 sf

### Public Dining:

One out of the two dining areas is public. This allows the residents to eat in a public atmosphere if they wish to. Also this will act as a public dining service if they wish to enjoy a meal there. Mostly this dining area will be used by the residents and their families to offer a less casual eating area. The public dining room will be adjacent to the entry for easy access and will be divided from the entry and multi purpose space with low wall and vegetation.

1490 sf

### Coffee Shop (Burdbucks):

The public need a reason to come to this facility. With a walking/running path so close to the building the coffee shop acts as a possible resting point for those who are going to or have already utilized the path. The room will be wireless and be equipped with a couple computers inside. Nurses will also be able to use this space for their break times. Having an enjoyable working environment is important since nurses have a high turnover rate. Elderly people who are now being admitted into nursing homes are educated in new technologies. This room will allow residents to have access to computers and the public if being monitored by a staff member. This room has tables, chairs, built in counter along windows, a serving counter and a storage room behind the serving counter.

=3720 sf.

### Daycare:

This will be open to everyone who would like to put their children in this daycare. The daycare is an added bonus for the residence because they will be able to interact with the daycare. It is great for individuals who utilize the walking/running path and have

children. Being around children can be a great therapy for the elderly while giving them the comfort of young ones. There can be activities planned for the daycare and residents to come together.

=1540 sf.

#### Salon:

Grooming can be a large part of the moral at a nursing home. Keeping clean and looking good keeps individuals more open to activity and can give them more energy. The salon is open to the public and offers a great way for residents and the public to intermingle and stay manicured and trimmed.

=1130 sf.

#### Entry:

The entry will act as a central focal point of the building. Thought small in scale, the right amount of emphasis is needed to draw people into the space and keep them comfortable as well. The entry will include a welcome desk, warm colors, and openness. It will need to be connected to gardens, offices, exhibition space, and the reading room. This creates an important first impression for the residents and visitors alike.

=870 sf.

#### Public Restrooms:

There are two areas with easily accessible public men's and women's restrooms for those visiting the building. These restrooms are located in the coffee shop where most of the public traffic will be concentrated and another in the public dining room which would be used for visitors in the multipurpose space and the dining areas. All bathrooms are handicap accessible.

150 sf

### Fishing / Kayaking / Running Hub

The fishing kayaking and running hub is a separate building located across the small bay from the main building. This building is used to generate activities around the nursing home. In the summer it will rent out canoes, kayaks, and fishing necessities. In the winter it will provide ice fishing necessities and possibly ice skating.

#### Workout space:

The workout space in the hub is to allow people to provide people who utilize the running path with an option during harsh weather and winter to workout in the same vicinity. This will help generate constant busyness for the coffee shop, salon, and daycare.  
= 1000 s.f.

#### Instruction area:

The instruction area is a portion of the building set aside for teaching people who want to learn how to participate in the provided activities. It requires tables, chairs, projectors and any thing else needed for demonstrations.  
= 400s.f.

#### Bathroom/Locker Rooms:

The bathroom and locker rooms in the hub is open to people who are using the walking path or those who just want to hang out by the water. It is another way to encourage activity around the site.  
= 600 s.f.

#### Fishing Kayak Storage:

Storage is very important for the different activities. There is outdoor storage but also indoor. This is to keep easy access for what equipment is needed for the given season.  
= 800 s.f.

### Faculty and Residents Public Space

These areas are primarily used by faculty and residents but others are welcome as well. If residents wish to roam freely without being a part of other public sections of the building, these spaces are available.

#### Resident Healing Gardens:

The main purposes of the gardens are to connect the residence with nature and to draw others towards the building's environment. The gardens need to be filled with natural vegetation and landscaping for a completely peaceful feel.

The public will be able to bring animals to these areas for the residents' entertainment. Animals including sheep, goats, rabbits, llamas, pigs, miniature donkeys, and other domestic animals would be welcome to these garden spaces. The gardens will be on the water side, connecting the building's main functions to the lake.

#### Dining:

This room will be used primarily by residents. This will be adjacent to the kitchen and easily accessible by all residents. The materials are easy clean and slip resistant.

= 600 s.f.

#### Front Porch Areas:

The front porch idea is a major part of the building. It gives a certain ownership to a social area within the building. These front porches are outside of every room and are opened up to create small neighborhoods, breaking up long corridors. It also eliminates the feel of a long hallway. The glass opening up to courtyards provides natural light to illuminate the front porches.

=70 sf

#### TV Room/Resident Commons:

A television room is necessary to keep a place where residents can go to for relaxing and down time. These rooms are located off of the main circulation corridor and at the beginning of two resident room corridors. They are open to all residents so that there is a place where there can be a sense of community within the home itself. This room will require many comfortable lounging chairs and nice views to the natural setting and water activities.

=940 sf

#### Counseling:

This room is a secluded room at the end of the longest resident corridor. It is surrounded by nature to be a peaceful escape for those who need counseling through a grieving process or help with changes in their lives. Counseling is offered to families and residents. This room will be placed away from all public activity and act as a room for spiritual escape.

=380 sf

### Library/Reading Room:

The library/reading room is a small room just off of the main corridor. It is meant to be a quiet area for those who wish to have a place to read. It is open to the corridor so residents who are in the area can be monitored easily but still be away from a lot of activity.

=175 sf

### Sun Room:

The sun room is also a secluded area away from a lot of activity. It is outside of the counseling room and can act as a small “satellite” nurse station so that residents in the long corridor can be monitored easily. Its main purpose is to act as a peaceful resting area that is open to nature and away from noise and chaos.

=400 sf

## Staff Space

Staff space is used by the workers to provide for better care. These spaces are meant to be extremely convenient and connected for easy communication between nurses. It is important that the staff enjoy their work at the facility because nurses have such a high turnover rate.

### Break Room:

This room will be used by nurses and other staff for breaks and will also connect to a changing room/shower for convenience. There will be a table, chairs, counter and also minimal cooking appliances.

=600 sf

### Changing/Shower Room:

When staff needs to freshen up or if they change at work a small locker room will be extremely helpful. This room will be accessed through the break room and be usable for showering and changing.

=150 sf

### Conference Room:

This room will be used by nurses and other faculty for conferences or other faculty meetings. There will be a counter with some ability to have food or catered meetings.

=600 sf

### Nursing Station:

Nursing stations are essential to the care of the residents. This room is placed in the T.V. room for easy monitoring. Also from the nurse stations there are views down each of the resident corridors. The counter is higher with a half wall behind it for compliance with HIPPA regulations. The half wall also keeps from breaking up the room and allows natural light to come in from the main corridor sky light.

=200 sf

### Mail Room:

The mail room is essential for outside communication for residents. This room will be open to all of those who live or work in the facility.

= 130 sf

### Kitchen:

The kitchen is a place for cooks to cook food for the residents. The kitchen needs to be close to the dining room and exhibition space. It will include refrigeration, freezing, food storage, dish and utensil cleaning, and refuse storage and removal. There will be a connected lavatory for hand washing. Also, it is located between the private and public dining room so that the two can be separated but be served from only one kitchen. There also needs to be access directly to the outside to meet fire codes.

=1035 sf

### Soiled Linens:

There will be a need for residents' laundry to be done. By code there needs to be two rooms, one for soiled and one for clean linens. This room will be adjacent to nursing stations for convenience and directly open to the mechanical room for proper and easy dispensing if needed. The linens which are dirty will first go here.

=290 sf each

### Clean Linens:

There will be a need for residents' laundry. By code there needs to be 2 rooms; one for soiled and one for clean linens. This room will be adjacent to nursing stations for convenience and open up directly to the soiled linen room. The cloths that are cleaned will come here from the soiled room.

=350 sf each

### Mechanical:

The mechanical room will be primarily used for the HVAC, plumbing, and Electrical. It will also act as a receiving and storage room with a garage door on the north side of it. It opens to a secure dumpster (because of medical disposal) and a separate drive for direct access to the mechanical room. The HVAC is a radiant heat system in the floor since most comfort comes through the feet.

=2000 sf total

### General Storage:

Storage is an extremely important part to any building. There are multiple locations of storage throughout the building. There is storage for linen carts, food, linens, and much more.

=1000 sf total

### Medical Supply Storage:

In this specific building type, secure supply storage is important. There will be more than one room for medical supply storage, each are located in the nursing stations for convenience.

=60 sf each

### Office:

There are four offices for the nursing home itself. These office spaces will need to be private but have low walls to be open to the rest of the building. Communication is important and closed offices can seclude management from what is actually going on within the nursing home.

=130 sf each

## Resident Space

### Resident Rooms:

There are two room layouts, both of which are an inboard model of patient rooms. This is because the bathrooms are on the interior wall, this is to minimize travel distance to the bathrooms and maximize the exterior wall area allowing for the correct window treatment. The rooms open up to the front porches which then open to healing

gardens. All of the windows have views of courtyard space as well. There will be a total of fifteen rooms of model 1 and sixteen of model 2. Also there are two double rooms for couples who may wish to stay together. All rooms have natural light coming from a skylight on the front porch side of the room. They are also open ceilings to the timber frame trusses. The natural materials and light can be therapeutic for the residents.

Each room will have a private bathroom. All bathrooms are 50 S.F. and are barrier free. There are handrails to meet codes and no thresholds that may become a tripping hazard. The bathroom also requires two drains since there are no thresholds.

=200 sf for Model 1

=210 sf for Model 2

=230 sf for Model 3

#### Overnight Rooms for Families:

Overnight stay for families is a great way to keep families involved with the residents. Many people fear the thought of being placed in a nursing home with no visitors so these rooms encourage visitation by others. There are three rooms for this purpose that can also be used for overflow patient rooms if needed.

=223 sf each

### Therapy branch

This section of the building is intended for outpatient and inpatient use. This is because outpatient services will accumulate more income for the nursing home as a whole. It is also a way of getting the public to interact with the building

#### Rest rooms:

There are two easily accessible public restrooms for those visiting the therapy branch. In this section of the building there will only need to be two public restrooms with one toilet and sink each. They will both be unisex.

= 200 sf

#### Offices:

There are four offices for management, receptionist and record keeping. These office spaces will need to be private but do not need to be extravagant.

=160 sf each

Waiting Room/Entry:

This will be a comfortable space open to the circular drive for easy drop off and pick up. The entry will be separate from the nursing home entry to make for easy circulation of patients. The waiting room is big enough for twelve people.

=630 sf

Therapy Rooms:

There are four therapy rooms of different sizes. There will be a variety of separate uses for each room. There will need to be chairs, beds, and exercise equipment.

=400 sf each

Pool/Exercise Room:

The fifth of the therapy rooms will be larger than the rest. It has a small lap pool, and small therapy tub and exercise equipment. This room is connected to a small changing room with a shower in it for patients to dress according to their treatment.

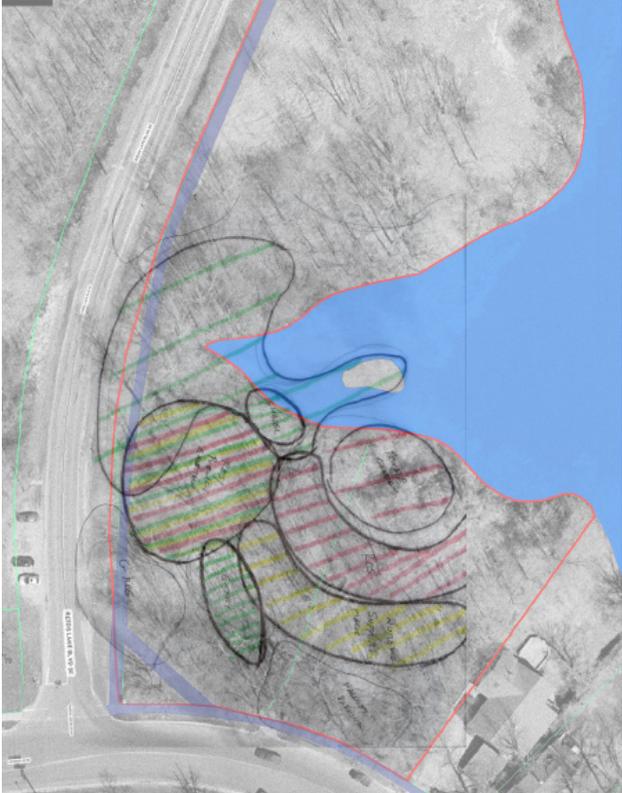
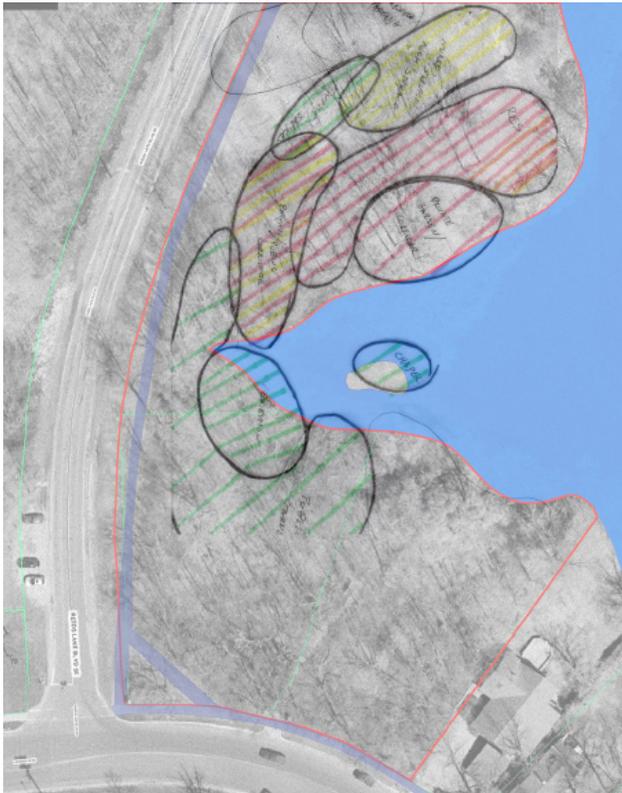
=1230 sf total

# Program Diagrams



These diagrams represent possible layouts of public, private, and semiprivate program elements. By wrapping the residents private space with semi private programs there is an important transition from public to private.

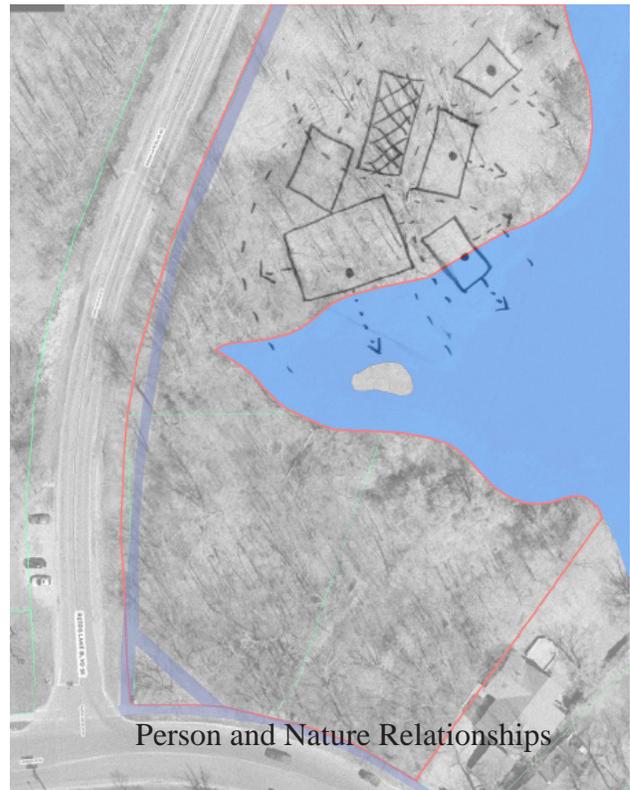
The immediate area surrounding the building is a garden or terrace area. This is to separate or connect the building with the community where necessary.



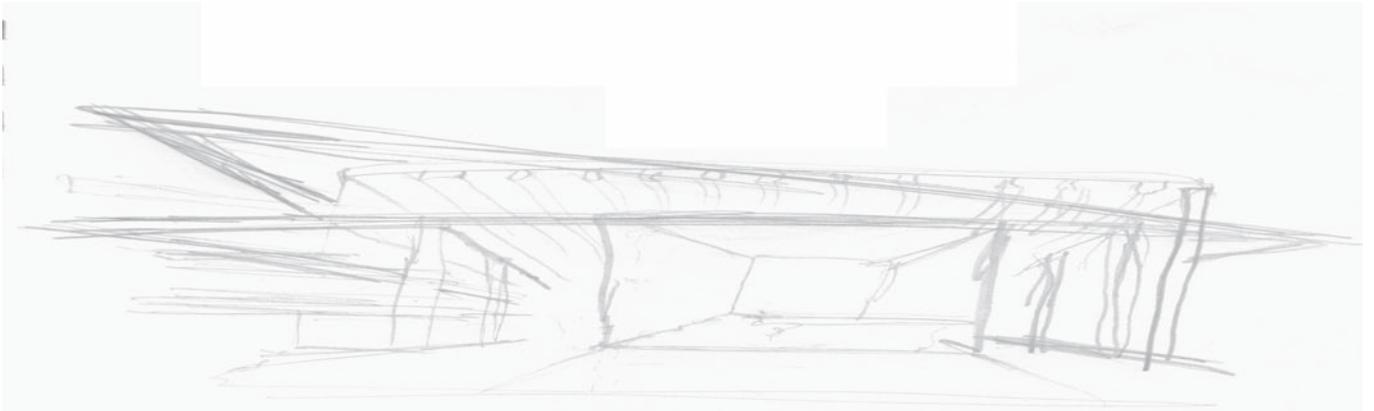
# Program Diagrams



These diagrams represent how the building is going to open up to nature and the surrounding community. By opening up to the water you create privacy while connecting with nature. Yet while Creating an openness to around the building through site planning it is possible to create a connection to all surrounding environments.



# Spring Board Schematic Design



# Spring Board Schematic Design

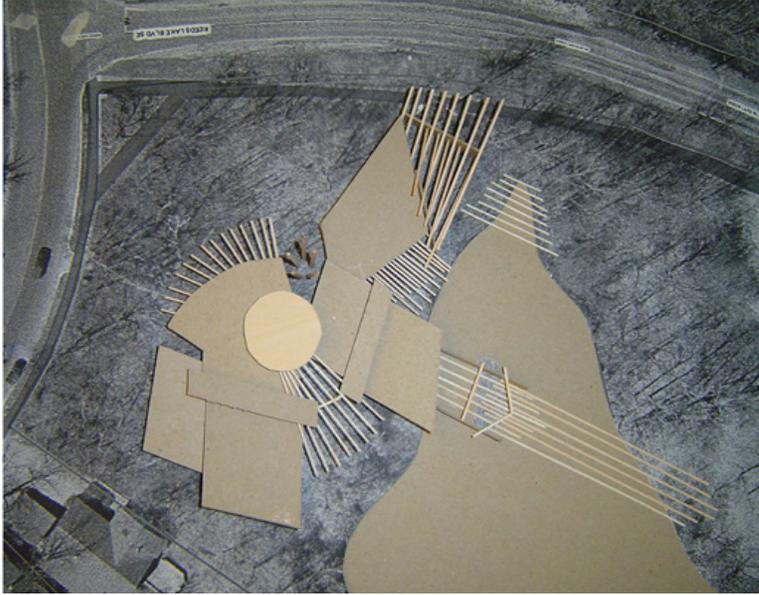
The beginning of the schematic design began as a program exploration since the arrangement seemed to be the most important aspect of the building at this time. There were a series of models made that explored different ways the building could be arranged. These models relate to where building mass may go VS. indoor outdoor space. The positioning of the building was explored more than actual design of the building to see where the proper amount of privacy and public space could be developed.



As the models developed, there was also explorations of out to reach out to the community and be a part of it. The connection to the surrounding environment is essential to the residents experience in the facility. There was an attempt to reach out to the community rather than bring the community in.



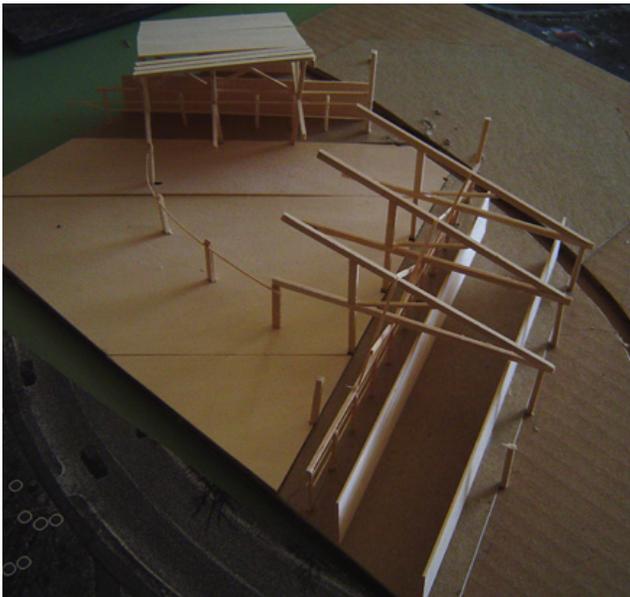
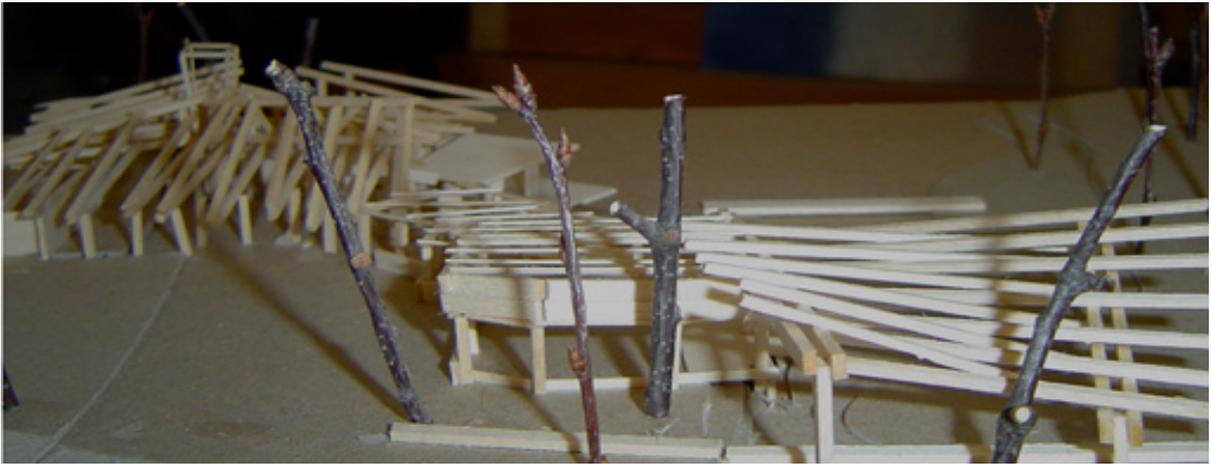
## Spring Board Schematic Design



Additional abstract models looked at different ways of laying out the building. One acted as a more compact model with a central space that has wings off of it and the other was a stretched out structure encompassing much of the site. It was determined that a happy medium between the two would be most beneficial.



## Spring Board Schematic Design

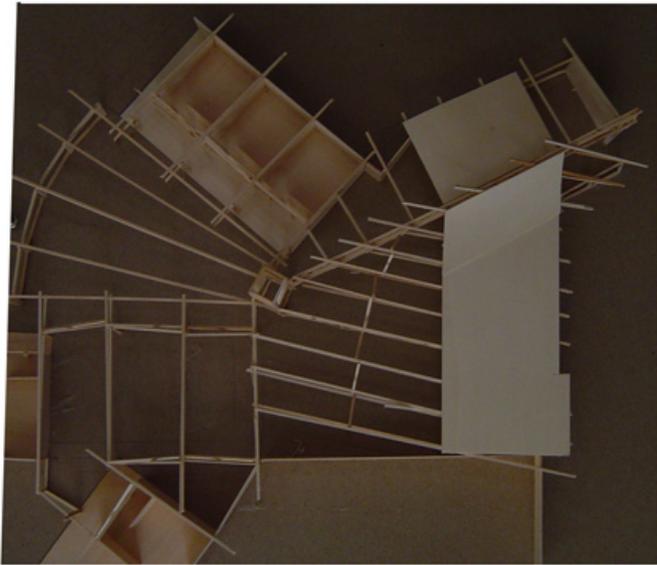


The last design called for wood truss structure, glass for natural light, and stone or brick walls. The wood is a relaxing material and can add to the intimacy of the space. Although the trusses may have been overdone in these models, it is a representation of an interesting roof line. The structure also allow for several terrace areas to be used.

The ideal room arrangement is a V shape that has a hallways and glass on the inner side. This allows for a community to develop in the facility and a smaller impact from hallways.



## Spring Board Schematic Design



The main section of the building is meant to be very open with a lot of natural light. The clearstory windows stretching the length of the public space and the large light tower it leads to in the center of the room provide a significant amount of natural light for the residents and workers to enjoy.

Also, the V shape of the private rooms act as defining walls of a community room. This room and the public rooms have a lot of glass towards the lake and also the other side of the site.



This area and the private room area will most likely grow significantly for the next portion of the project. Also, the drawing documentation will be

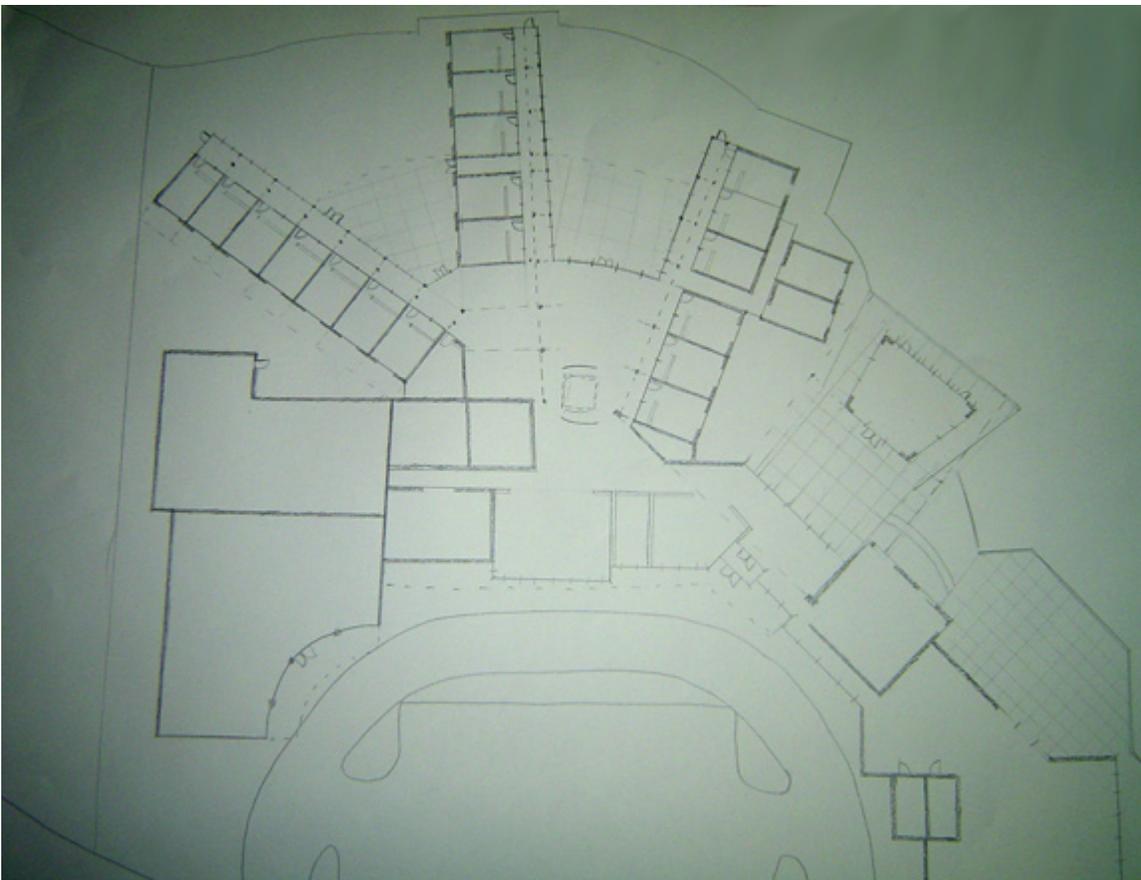
added later, on.



## Spring Board Schematic Design

The floor plan and site plan are designed to create transitional spaces between the community and the building while keeping a connection. Circulation through the site brings a visitor through exterior terraces and park areas. People who are walking by interact with the building when they walk through a terrace adjacent to the exhibition space.

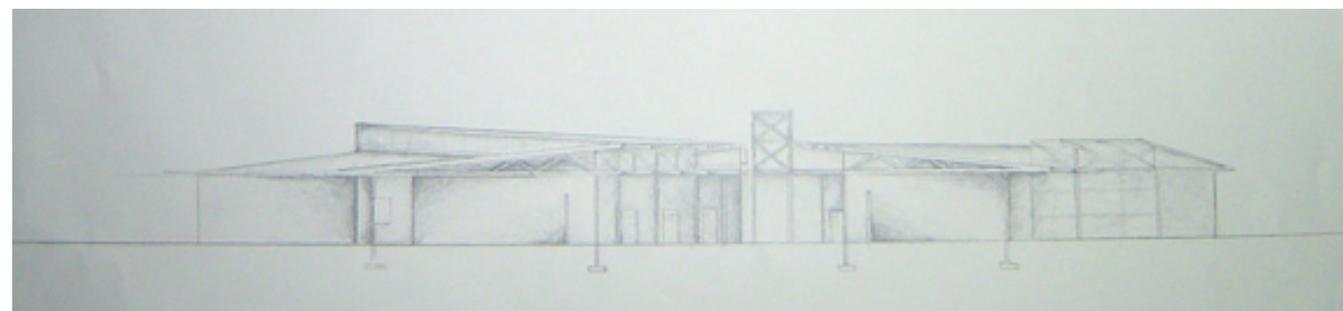
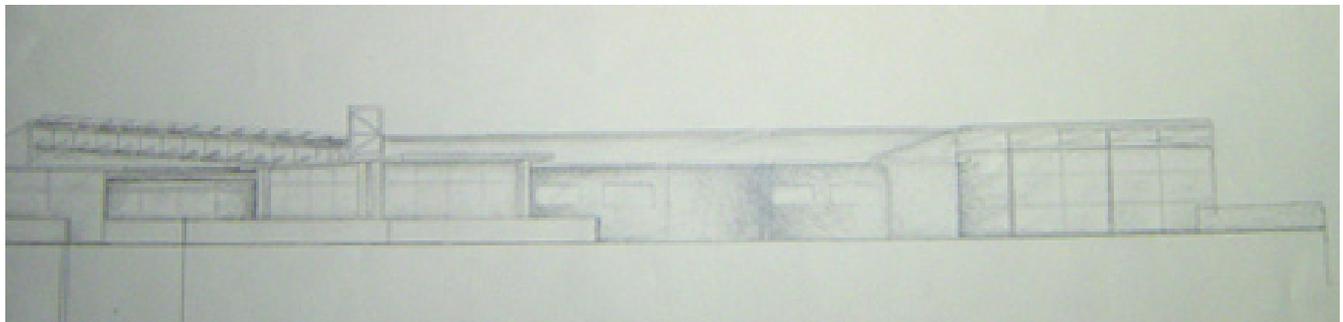
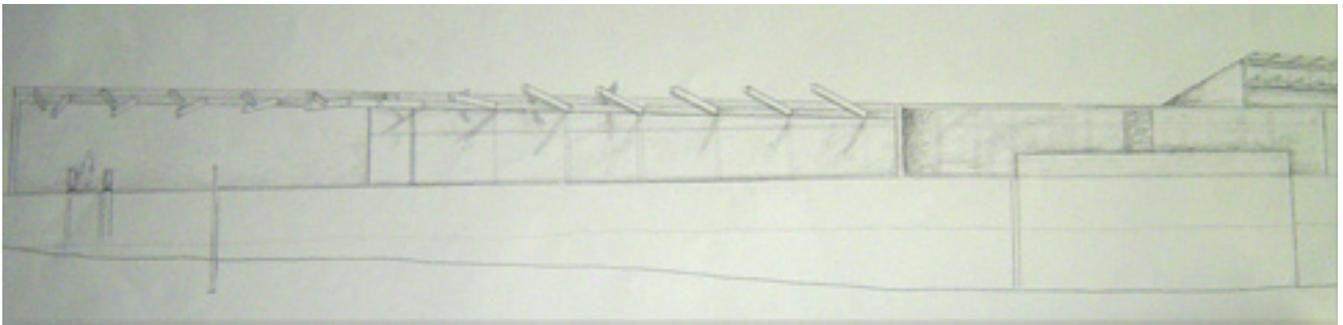
On the interior, movement along clearstory windows directs people towards places of interest.



## Spring Board Schematic Design

The interior of the building is designed for openness and natural light. In the public and office spaces the walls do not exceed three and a half feet so residents can see over them and communication with everybody in the building is convenient.

The structure is exposed in most of the building. Wood has been found to be a calming material and the added open ceilings also make it possible for more natural light. There will be more studies to find different ways to bring light into the building.



# Final Design of Nursing Home



# Final Building Design Principles

Current nursing homes tend to be cold and uninviting. They appear to be large institutional buildings with little comfort. The materials are usually cold and long corridors tend to act as a nursing home's community space. These facilities are becoming crowded and with "baby boomers" arriving, it is becoming an issue that must be addressed.

In order to cut down on these problems, the final design for the nursing home focuses on three major elements in effort to improve the living conditions of nursing homes. Materials, program and natural light were the three areas that were explored in depth for this project.

Materials can have very strong therapeutic benefits for individuals who are ill. Natural materials such as wood or stone are particularly useful in applications like this. For this nursing home the three primary materials were wood, stone, and glass. Stone was used in more private areas such as resident rooms or bathrooms where glass was used to open up to the natural surroundings. The structure was a tensile timber frame and standard timber truss frame that was left exposed all throughout the building.

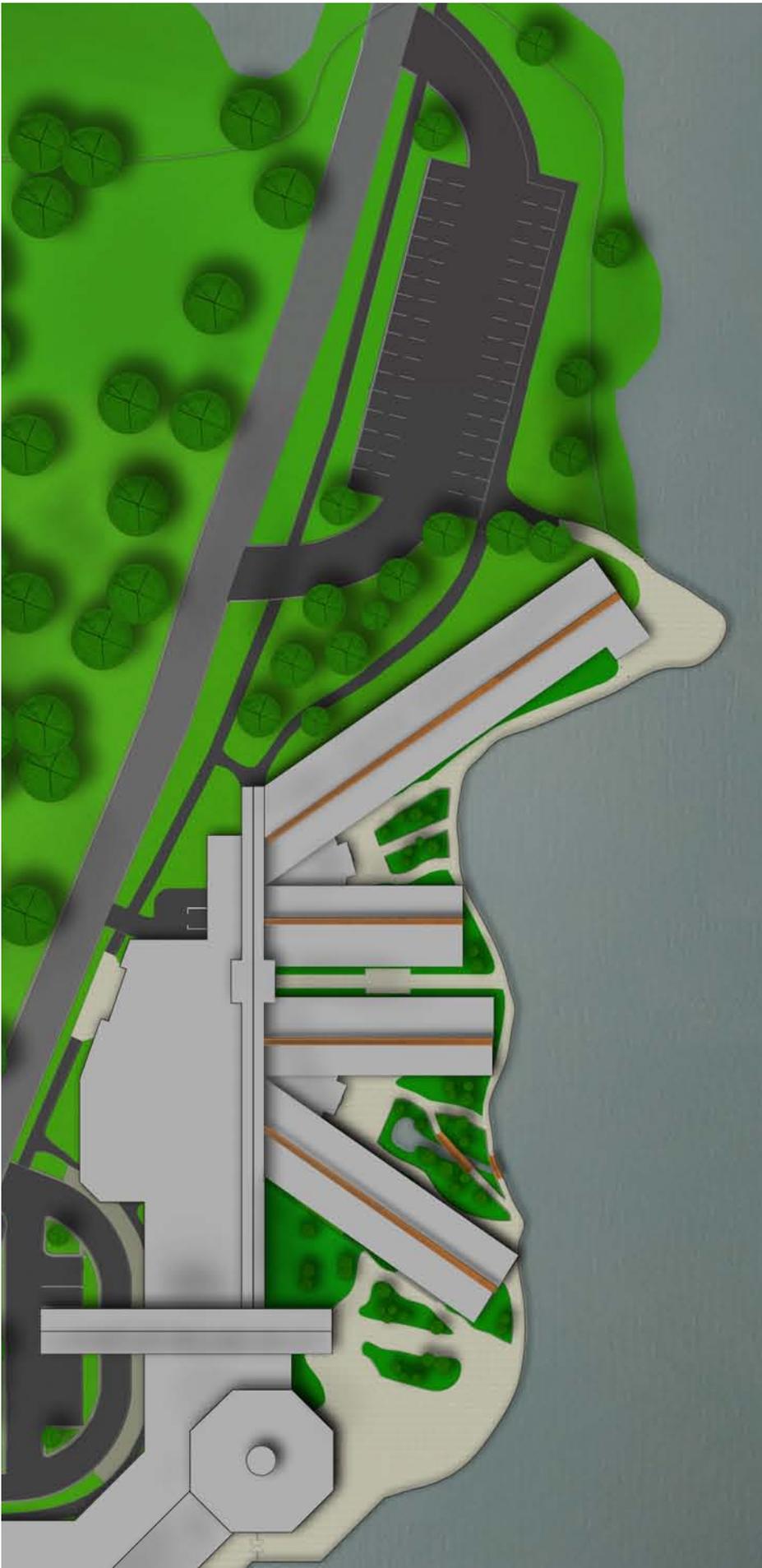
In addition to materials, the program was used to improve the environment of the building using public functions to bring outside people into the building that would not normally spend time in a nursing home. Programs such as a coffee shop, salon, day-care, fishing/kayaking/running hub, and public dining areas were incorporated into the building. The arrangement of the different programs makes interaction between individuals optional but does encourage it.

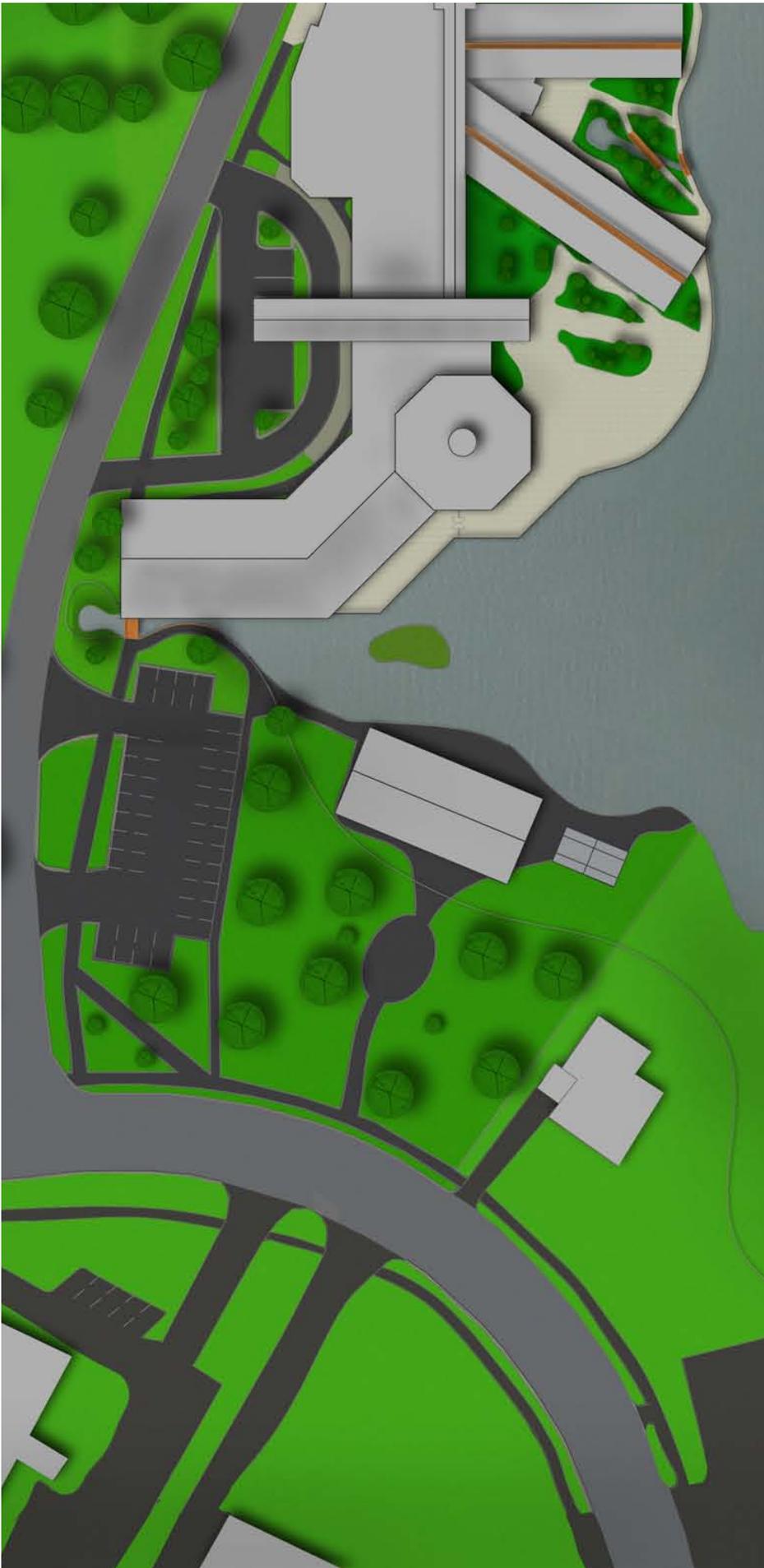
Natural light is also important. By brightening up the facility residents are more likely to be stimulated and more ambitious. Two large skylights are located in the main corridor to break up the long hall. Also, the inverted tensile truss allows for windows to run the entire length of the hall on each side towards the ceiling. In the residents' rooms there is a skylight spanning the length of the room. This can be closed when needed but during the day, the rooms will be well illuminated by the light.

## Site Plan

The location of the site is important to the success of the building. Reeds lake is a beautiful location in East Grand Rapids. There is a heavily traveled walking path running through the site and the lake is fairly busy. This is important because activity keeps the residents stimulated and mentally stronger, but there is not so much activity where it would become overwhelming. The site planning works in coordination with the existing site condition. Site circulation needs to be accommodating to those who are passing through the site so there are areas where the building provides resting areas in alcoves and nice bridges for fishing and circulation. Parking is broken up into two different lots to minimize the effects of a large parking lot on the residents and also to provide parking for visitors separately from the employees.

A boardwalk is located along the lake. This goes past the healing gardens that the patient rooms open up to. This also is connected to patio space that can be utilized for activities. The





shoreline is reformed at the public portion of the building to express the change of program.

The south half of the site is primarily park space and circulation. The circle drive provides easy drop off and pick up for the three entrances in that location. The separate building across the small bay is the fishing/kayaking/running hub. The idea is for families to come to the park and use the facilities for entertainment.

The surrounding buildings include a strip mall, marina/restaurant with a very popular park all located to the south.

# Floor Plan

The floor plan acted as a catalyst for how the nursing home looked and functioned as a nursing home. The north portion of the building is private and includes the resident rooms, resident common spaces, and staff support all situated on a main corridor that is broken up by windows, common rooms and skylights. The patient rooms were laid out for easy surveillance of the patients. The patient rooms were also laid out to create communities within the building. Since two corridors faced each other and created a V, the inner most part of that V became a common space that everyone passes through, making everyone aware of others and becoming more comfortable. This common space also includes a fireplace and T. V. area with a direct connection to the healing gardens. If a resident wishes to be a part of the community but not completely involved, the front porch area provides a sense of ownership but still allows them to be an active observer and to be observed. Also, the partition walls in the nursing station and the front porches are all low to increase vision and openness.

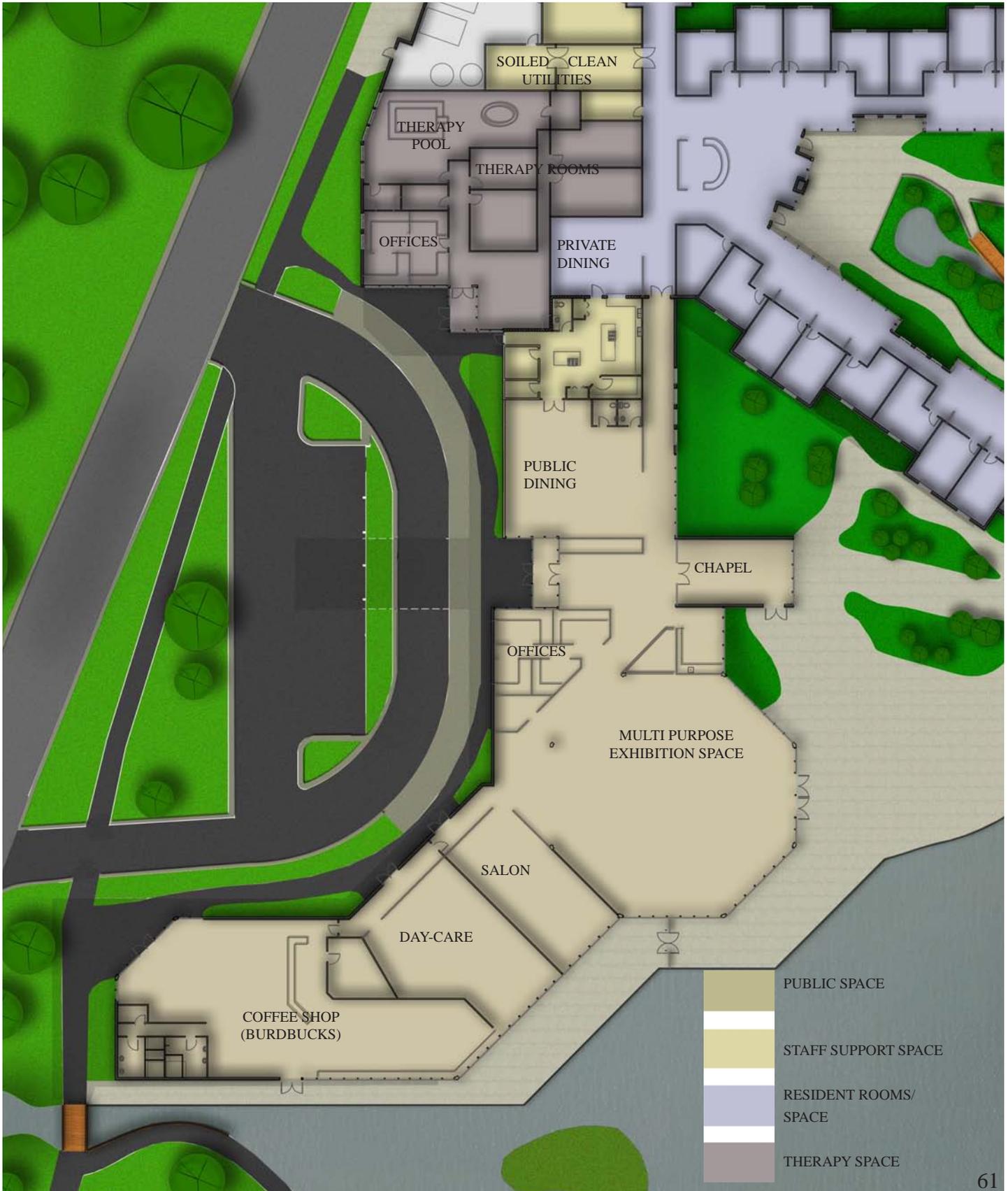
In addition to the resident rooms, the therapy is also located to the north end of the building. The therapy center has its own public entrance to increase efficiency but does share other amenities with the nursing section, including, mechanical, break room, conference room, and other staff support rooms if needed.

The public portion of the building is an open layout similar to the private section. Low walls through out maximize visibility and allows for easy communication from one function to the next. The coffee shop has its own entrance because of heightened traffic flow, but is still accessible from the inside of the building.

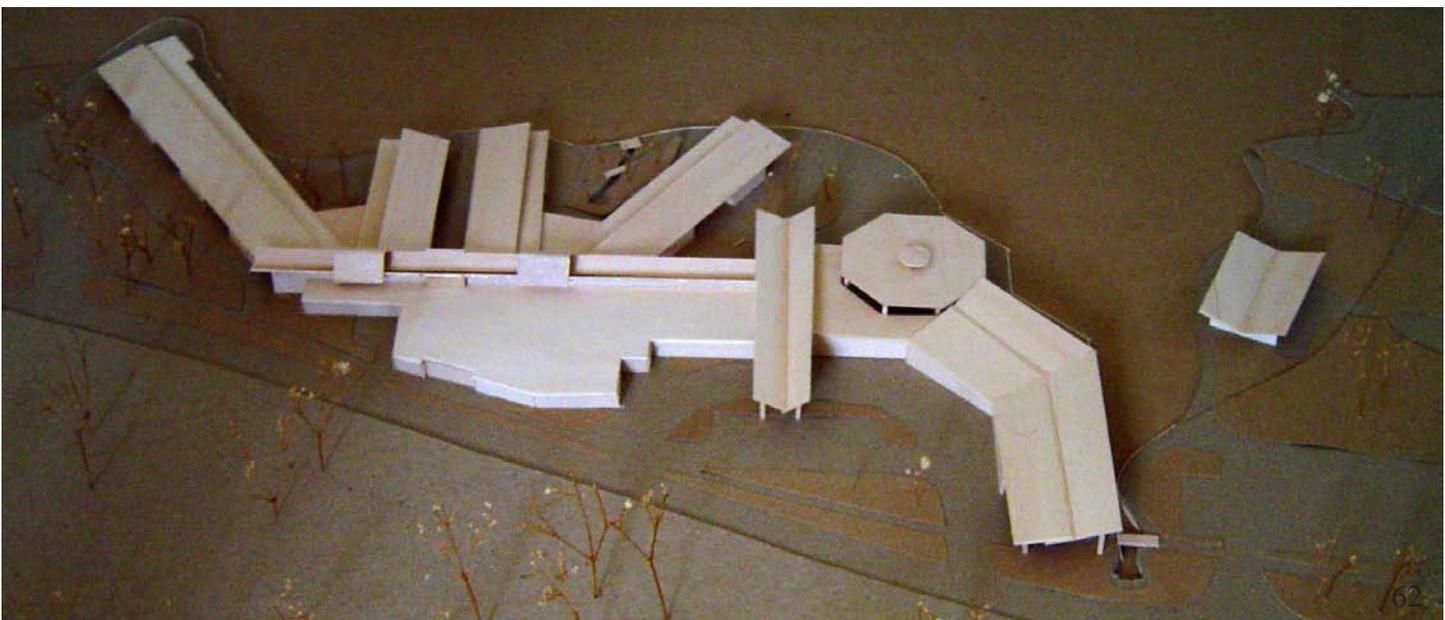
# Floor Plan of Private Section



# Floor Plan of Public Section



# Model of Building & Site



# Detailed Plan of Main Entry

The entry way is meant to be a very open space and welcoming. It has a water garden, vegetation and opens up directly at the receptionist. It also has an immediate view of the chapel. This is to emphasize the importance of religion and spirituality for the residents. The flooring material changes from function to function in order to help the residents with their memory and knowing where they are at within the building. Circulation is a separate from the office flooring and the serving area, and the dining room and multi-purpose space are easy cleaning surfaces for eating.



# Detailed Plan of Nursing Unit & Resident Rooms

The resident common space, nursing station, and front porch area all work together to create a strong sense of community within this area. The front porches open up directly to the hall and common room but are widened at those points to express that they are places for relaxing. Again, the circulation and common areas are different colors, expressing what areas are circulation in efforts to maximize efficiency with open halls.

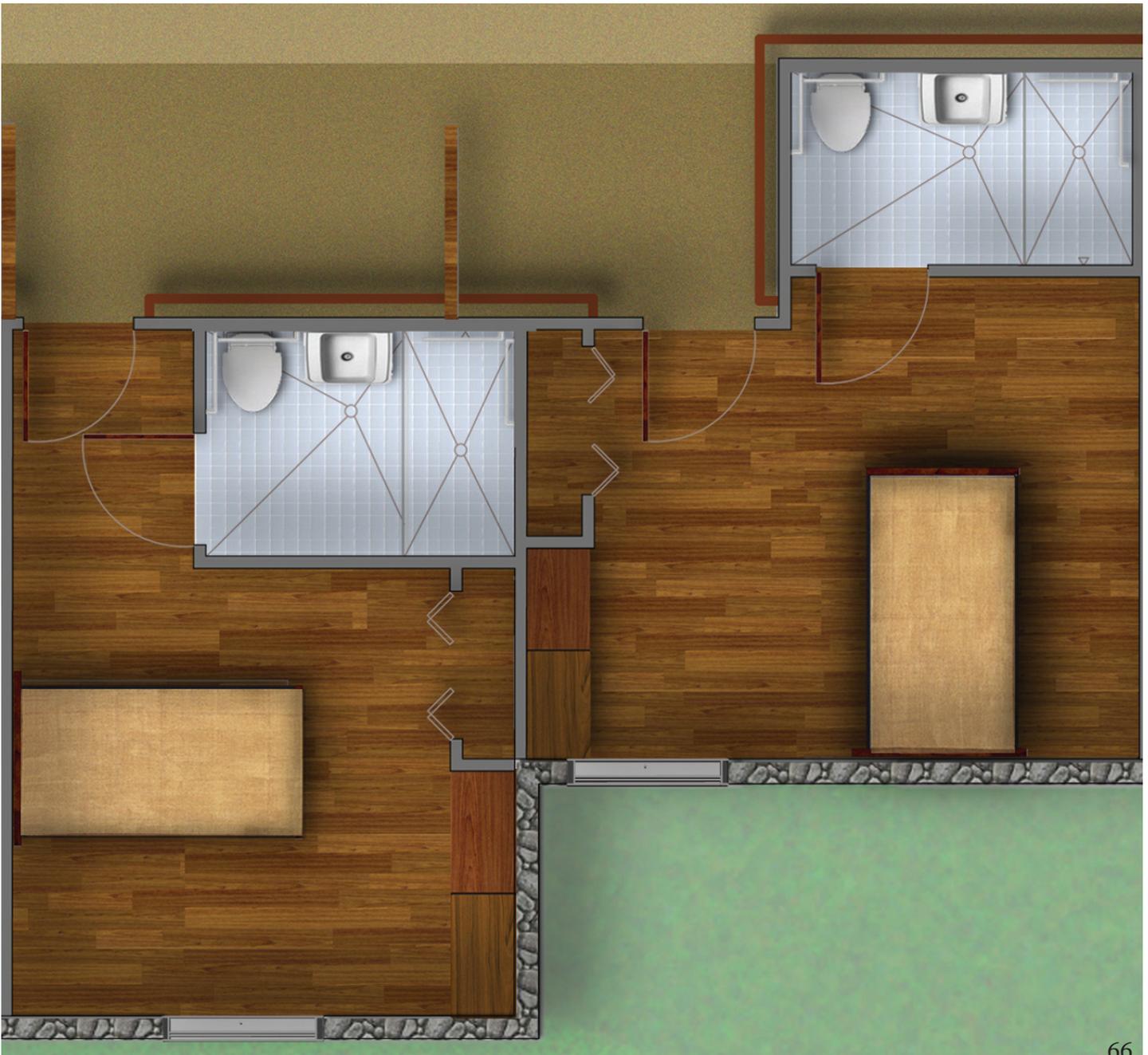


# Model of Resident Corridors & Healing Garden



# Detailed Plan of Resident Rooms

Each room is furnished with the necessities. A desk, dresser, closet and a bed are in the actual room and a toilet, sink, shower and the hand rails make up the bathroom. They are both inboard models to maximize space on the exterior wall for windows and room.



# Exterior Views of Main Entry

There are three public entrances into the building. The top image is of the entrance to the coffee shop to the main entrance and the bottom image is of the main entrance from the therapy entrance. All entrances are covered, defining where one should go.



# Exterior Views of East & South Elevations

The elevations on the public side of the building are very open and glass. This is to be more inviting to outsiders and provide natural light. Large overhangs on the south roof blocks direct sunlight in the summer but allows it in the winter, adding comfort to the building.



# Exterior Views of Resident Healing Gardens

Healing gardens are important for the residents to be in a peaceful environment. It opens up to the lake and provides a peaceful view from all the common spaces. The shape of the healing gardens also allows for easy monitoring when the residents are outside in these spaces.



# Section of Coffee Shop

The section of the coffee shop shows the structure of how the building is put together. It is a tensile timber frame structure. It was used because of its large overhangs and ability to let natural light in. With the inverted pitch on the roof, the scale of the building feels smaller than that of an exposed peaked timber frame. The stone is used on the north end of the building to prevent patients and residents from being on display when they enter the building. Also, the large glass windows provide and excellent view of the lake and other activities around the building.



# Section of Main Entry

The section of the entry shows how the structure comes together between the multi purpose space and the entry/chapel. The same tensile structure is used in the entry to bring in natural light and lower the scale, but the multi purpose space is a larger room and meant to feel open so a octagon layout of trusses makes up the multipurpose space structure. Meanwhile, the water garden adds a peaceful addition to the open area.



# Section of Resident Rooms

The section through the room and porch area shows the arrangement of the rooms. The front porch spaces widens on each side in between corridors and are closed off with glass for a clear view to the healing garden. Natural light is also let into the room through skylights at the top of the roof. The light shines through exposed trusses and into the room illuminating the therapeutic materials.



# Section of Nurse Station, Circulation & Resident Public Space

The section through the common space expresses the relationship between the nurse station, common room, and front porches. The wide corridor is open on one side at all time to eliminate the dark long hall feel to it. The corridor structure opens up to a large skylight, also helping to break up the long corridor. The skylight lets natural light into the nurse's station and the common space. The nurse has a clear view to the front porches and the healing garden from behind their workspace. Although the ceiling is relatively high at this point in the corridor, the tensile structure remains at a steady height to help minimize the scale.



# Interior Views of Entry & Multi Purpose Space



Interior Views  
of  
Resident Room & Front Porch  
View of Nurse Station



# Interior Views of Coffee Shop & Resident Common Space



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