Inventory-
Courtyard One

**Key**

- **B**: Bath/Shower
- **DR**: Dining Room/Activity Area
- **E**: Electrical
- **EDR**: Employee Dining Room
- **EL**: Elevator
- **J**: Janitor
- **K**: Kitchen
- **L**: Laundry
- **LA**: Lounge Area
- **LI**: Linen
- **NS**: Nurses Station
- **RES**: Resident Apartment
- **RR**: Restroom
- **ST**: Stairs
- **SU**: Supplies

- **Wide Concrete Path**
- **Employee Entrance**
- **Grassy Earth Berm**
- **Ornamental Trees**
- **Gazebo with Movable Furniture**
- **Grassy Earth Berm**
- **Mature Deciduous Trees**
- **Lounge Entrance (Locked)**

*figure 22: "inventory of courtyard one"*
Inventory: Courtyard Two

This courtyard is surrounded by the wing that is currently home to those who wish to maintain as much independence as possible, but may need occasional assistance. The courtyard measures 59' x 68' and is surrounded by two story residential apartments. The residents have full time access to the courtyard.

figure 23: "view of courtyard two"
Inventory—Courtyard Two

Key

B  Bath/Shower
DR  Dining Room/Activity Area
E  Electrical
EDR  Employee Dining Room
EL  Elevator
J  Janitor
K  Kitchen
L  Laundry
LA  Lounge Area
LI  Linen
NS  Nurses Station
RES  Resident Apartment
RR  Restroom
ST  Stairs
SU  Supplies

Courtyard Entrance (Unlocked)
Patio With Movable Seating
Catch Basin (10' x 14')
3' Wide Uneven Sidewalks
Patio With Movable Seating
Courtyard Entrance (Unlocked)

figure 24. "Inventory of courtyard two"
Inventory- Courtyard Three

This courtyard is surrounded by the wing that contains the "Genesis Unit" for those individuals in the early stages of dementia. The courtyard measures 59' x 68' and is surrounded by two story residential apartments. Access into the courtyard for these individuals is only available by the two south doors.

figure 25- "view of courtyard three"
Inventory-
Courtyard Three

Key

B  Bath/Shower
DR  Dining Room/Activity Area
E  Electrical
EDR  Employee Dining Room
EL  Elevator
J  Janitor
K  Kitchen
L  Laundry
LA  Lounge Area
LI  Linen
NS  Nurses Station
RES  Resident Apartment
RR  Restroom
ST  Stairs
SU  Supplies

---

End of the Alzheimer's Unit
Courtyard Entrance (Locked)

4' Wide Uneven Concrete Paths
Patio

Circular Path
2 Planters

5 Fixed Metal Benches with Backrests and Armrests

Residents Patio
Lounge

Courtyard Entrance (Unlocked)

---

figure 26. "inventory of courtyard three"
D. Site Analysis

The existing courtyards present a range of problems for patients with Alzheimer’s disease. Careful planning of the site is essential if it is to meet the needs of the users. It is obvious from the current designs that this did not take place, and therefore resulted in a poor design and a wasted landscape. This project has the opportunity to

- Increase the use of the courtyard and access into the site.
- Break up the monotony of the building with more vertical elements.
- Reduce the number of access points into the site to make it less confusing.

The following information is a site analysis of what is existing and the positives and negatives of those site features. There are inherent inconsistencies in the analysis because it is impossible to respond to the complete spectrum of the disease. For example, elements that provide shade can conflict with the shadows that are created on the ground plane thus resulting in anxiety and confusion from the patient.
Courtyard One

This courtyard is the most effective of the three because it begins to address some of the issues that are associated with Alzheimer's disease and aging. It also provides the most visual stimulus and variety of the three courtyards.

Assets

- Change in topography
- Wide paths that accommodate wheelchair users
- A circular path for wanderers
- Outdoor gazebo that provides shade during the hot summer months
- Trees that provide shade and interest
- Handrails surround the walkway
- There is one light for night lighting
- Moveable seating is present
- The walkways are concrete

Liabilities

- Walled courtyard and monotony of the windows
- Uneven surfaces could cause individuals to trip and fall
- Very little variety in seating options (sun/shade)
- Crabapples drop messy fruit that can be slipped on easily
- Very little plant material
- Some sidewalks are only 3' wide
- Doors are locked. This prevents the use of the courtyard
- Nurses station does not have a direct view into the courtyard, therefore the patients may be limited as to when they can use the site
Analysis-
Courtyard One

Opportunities

Change in topography
Circular path for wanderers
Trees provide shade and interest
Handrails
Outdoor gazebo for shade
Moveable seating
Wide paths accommodate wheelchair users
Concrete walkways
Night lighting

Constraints

Some sidewalks are 3' wide
Monotony of the windows
Crabapples drop messy, slippery fruit
Walled courtyard
Doors into the courtyard are locked
Nurses station lacks direct view into the courtyard
Uneven surfaces
Little variety in seating options
Very little plant material

figure 27: "analysis of courtyard one"
Courtyard Two

This is the worst design of the three gardens because it completely ignores the needs and concerns of the elderly and disabled.

Assets
- Trees that provide shade and interest

Liabilities
- Walkways are extremely narrow with sharp turns that may be difficult for wheelchair users to maneuver in
- Uneven surfaces could cause individuals to trip and fall
- Confusing layout design that is difficult to navigate through and may create anxiety for some patients
- Trees are placed in front of windows blocking views into the site from the bedrooms
- A large, square catch basin sits in the middle of the courtyard with no functional or aesthetic purpose. It has a 6 inch concrete edging that is dangerous for those that may trip over it. Two paths lead to this structure that may confuse some individuals.
- Shade covers half the site in the winter
- No plant material within the site to provide sensory stimulation
- Extremely sterile and representational of an institutional setting
- There are several 6 inch raised concrete and steel edging that is difficult for elderly to see and is easy for them to trip over
- Very little seating within the site
- Nothing interesting to see or watch
- Site does not provide night lighting so the courtyard is limited to daytime use
- There is no type of structure that provides protection from the sun
- The nurses station does not have a direct view into the site- therefore the patients don’t have full supervision when they are in the courtyard
- The courtyard has just a bit of grass that is difficult to mow.
- While the walled courtyard blocks the wind, it also casts shadows that may make the area cool and uninviting
Analysis - Courtyard Two

Opportunities

Trees provide shade and interest

Constraints

Narrow walkways with sharp turns
Uneven surfaces
Confusing layout - difficult to navigate
Trees in front of windows block view into the site
Catch basin in the middle of the courtyard
No functional or aesthetic purpose
Dangerous concrete edging
Confusing dead end paths
Shade covers half the site in the winter
Very little plant material
Sterile & representational of an institutional setting
Dangerous 6” concrete and steel edging
Very little seating
No protection from the sun
Nurses station lacks a direct view into the courtyard
Limited grass is difficult to mow

Figure 28: “Analysis of courtyard two”
Courtyard Three

This courtyard currently serves patients in the early stages of Alzheimer's disease. While it is the most recent courtyard that has been designed, its layout does not take into consideration much of the user's needs.

Assets
- The path system begins to address the wanderer's needs by providing a loop for them to circulate
- There is a better view into the site from the nurses station
- Walkways have increased to 4' wide, providing better access for the elderly

Liabilities
- The four walkways from each doorway is confusing. A person with Alzheimer's disease may be confused on how to return from where they originally came from.
- The benches are uncomfortably placed:
  - With the benches directly across from each other it may be difficult to talk or to hear the other person.
  - The bench placement forces the individuals to converse- this could be uncomfortable and create anxiety in Alzheimer patients.
  - The bench placement makes no consideration for wheelchair users in providing them a place to sit and talk with those sitting on the benches.
- Even with a circular path system, the site is difficult to navigate. Benches, planters, and planting beds block access and may confuse some patients.
- Site does not provide night lighting, so the site is limited to daytime use.
- Uneven surfaces could cause individuals to trip and fall.
Analysis-
Courtyard Three

Opportunities

4' wide walkways
Path system addresses wanderer's needs
Good view into the site from the nurses station

Constraints

Too many walkways to the building

Benches are uncomfortably placed:
  Communication is difficult
  Forces conversation
  No space for wheelchair users

Bench and planters block access
Path system is difficult to navigate
No night lighting
Uneven surfaces

figure 29: "analysis of courtyard three"
C. Conceptual Designs

As stated previously “Stage One” of Alzheimer’s disease will correspond with “Courtyard One”; “Stage Two” of Alzheimer’s disease will correspond with “Courtyard Two”; and “Stage Three” of Alzheimer’s disease will correspond with “Courtyard Three”.

Stage 1 - The Therapeutic Garden

Concept A: LABORATORY
Concept A is designed to enhance the feeling of control that the patients have over their lives. The patients would have an active role in changing the landscape because the layout allows them to have more flexibility with what goes on in each space. The courtyard has a central open space with the sites program elements or “activities” on the perimeter. These program elements would include hands on activities such as a working greenhouse, a vegetable garden, raised beds, a gathering space, and passive seating areas. The central open space may be used for outdoor physical therapy, exercise, or group activities. On either side of the “activity” spaces there are gardens for different types of plant material that can be used for horticultural therapy activities such as plants for drying and cutting, as well as herbs and vegetables. A conservatory is located on the south wall of the site. It provides a transition from indoors to outdoors, and is the main access point into and out of the site.

Opportunities
• Creates more individual garden experiences
• More variety of green space and plant material
• One main entrance provides better security
• Better visual surveillance from the nurses station
• More opportunity for organized group activities
• Views across the site are not blocked because of the open central space
• Walkway links interesting pedestrian points
• Variety of social spaces
• Breaks up the monotony of the building better
• The conservatory/dining room allows patients to enjoy the view while eating or sitting indoors.

Constraints
• Pedestrian circulation is reduced
• Spaces are more spatially independent of each other. This may reduce their use.
• May require more maintenance
• A more obstructed view from the nurses station due to the conservatory
• Two access points from the south wall may be confusing
Stage One - "The Therapeutic Garden"

Concept A - "LABORATORY"

---

Figure 30: "Stage one concept A...laboratory"
Concept B: RETREAT

In Concept B the garden is more passive, and limits the amount of control the patients have over the environment. There is a central core of activity with a path system surrounding it serving as a buffer between the windows of the bedrooms and the activity. With the program elements located in the center of the site, access become easier for the patients. There is a merging of the patio and the adjacent activities because they share the same general area within the site. The path system joins with the patio to provide easy access and encourage exploration within the site. There are not as much hands-on activities. The majority of the horticultural activities revolve around the raised beds and a vegetable garden.

Opportunities
- Easier transition from the indoor to the outdoors
- All different types of activity spaces are in one central location, making them more likely to be used
- Path system provides a longer stroll
- Better visual access from the nurses station
- One main access point- reduces confusion

Constraints
- Views across the site may be blocked by the elements in the center of the courtyard
- Reduced amount of vegetation and not as much variety of arrangement
- Very little to no grass
- No variety in social spaces
Stage One- “The Therapeutic Garden”

Concept B-
“RETREAT”

---

**Figure 31** - "Stage one- concept B...retreat"
Stage 2 - The Reminiscent Garden

Concept A: CURVILINEAR

In Concept A the focus is on the patient's need to wander. This design gives the patient a strolling loop with multiple path choices for those who want to push the limits of wayfinding and orientation. The layout, however, starts to become more structured and ordered. Major focal points or "artifacts" will serve as reference point(s) for wanderers, and as a tool for reminiscing about the past. The nurses station and lounge area for the residents is located on the north side of the courtyard with a patio directly off of it. This will serve as the main entrance/exit for the courtyard, while all other doors into the site will be locked. A few raised beds will exist closer to the main patio to allow easier access for the patients and monitoring by the staff. There is also a second patio that provides the opportunity for a more private seating area.

Opportunities
- Encourages greater pedestrian movement for wanderers
- Better visual access from nurses station
- A well defined path system that avoids confusion
- Opportunity for exploration, but with the feeling of safety and security
- Power-assisted doors to make it easier for residents to move from indoors to outdoors. There is also a remote in the nurses station that activates the door.
- Provides "artifacts" that help to recall memories

Constraints
- Three access points may cause confusion
- Not as much interaction with the "artifacts"
- Lack of variety in seating arrangements
Stage Two- "The Reminiscent Garden"

Concept A-
"CURVILINEAR"

Main Access Point with Power Assisted Double Doors

Circular Path System

Reference Point (Artifact)

Reference Point (Artifact)

Secondary Access (Locked)

figure 32- "stage two- concept A...curvilinear"
Concept B: GEOMETRIC

In Concept B, the design focuses on the patient's need for orientation by providing a layout that is ordered with a minimal chance of getting lost. There is one central focal point or "artifact" in the middle of the garden that will serve as a point of reference, with four interactive "artifacts" along the path system (such as a water sculpture or wind sculpture). There is a main patio off the nurses station and lounge area. It will have a few raised beds close at hand to allow easier access for the patients and monitoring by the staff. The circular path system is meant to interact with each of the "artifacts" and encourage touching, listening, or looking as one passes by.

Opportunities
- Simple design layout
- Easy orientation
- Only one double door to serve as an access point into and out of site-reduces confusion
- Clear view into site from the nurses station
- Increased interaction with the "artifacts"
- Variety of social spaces
- Seating is provided in both the sun and shade
- Walkway links interesting destination points
- Opportunities to create a slight change in topography

Constraints
- Path system may not be challenging enough
- There may be too many "artifacts"-too much stimulation
- Views from the nurses station could be blocked by plant material
- Spaces are not arranged in hierarchies-may be confusing
Stage Two- "The Reminiscent Garden"

Concept B-
"GEOMETRIC"

Main Access Point with Power Assisted Double Doors
Main Patio with Raised Beds
Reference Point (Artifact)
Smaller Sitting Area
Circular Path
Reference Point (Artifact)
Smaller Sitting Area
Access Door (Locked)

Nurses Station Lounge/Dining Room

Reference Point (Artifact)
Smaller Sitting Area
Reference Point (Artifact)
Access Door (Locked)

figure 33- "stage two- concept B...geometric"
Stage 3: The Contemplative Garden

Concept A: PICTURESQUE
In Concept A the design centers on views and sensory stimulation. Views are important at this stage because many patients may be bed-ridden or are unable to travel very far. The courtyard is a simple garden layout that has minimal choices to make. It deals more with the idea of providing pleasant and interesting views from bedroom or lounge windows. For those who are bed-ridden, there is a patio that allows beds to be rolled out. It would be screened to eliminate bugs and have a trellis to provide shade. The patio is directly off of the nurses station and lounge and has power-assisted double doors to allow the beds to be rolled out with ease.

There is also a patio directly off the existing conservatory that links with the circular path system. There is a patio in the northern portion of the site for those who tire easily and need to rest, or just want to be alone.

Opportunities
- Trellis provides shade and reduces glare from sun
- Large patio directly off of conservatory allows easy access to the outdoors
- Southeast door only used for emergencies (locked)- reduces confusion
- More vegetation
- Opportunities to create a slight change in topography
- Layout permits a variety of views

Constraints
- Nurses station may not be able to see as much of the site
- Both patios are in the shadier portion of the site
Stage Three - “The Contemplative Garden”

Concept A - “PICTURESQUE”

- Access Door (locked)
- Smaller Sitting Area
- Circular Path
- Access Door (Locked)
- Power-Assisted Double Doors
- Nurses Station
- Second Patio for Beds
- Lounge
- Access Door (Locked)

Figure 34 - “Stage three - concept A...picturesque”
Concept B: INTIMACY
In Concept B the design focuses on the patient's strong desire for intimacy. Intimacy is important at this stage because many patients rarely experience it at this point in their life. The courtyard provides several smaller areas that allow for privacy from the main patio and the roll-out bed patio. The walkway is a bit shorter and less challenging as it takes the patient on a continuous loop around the site. There is a single, major point of reference in the center of the site.
There is also a patio that allows beds to be rolled out into the courtyard. It would be screened to eliminate bugs and have a trellis to provide shade. The patio is directly off of the nurses station and lounge and has power assisted double doors to allow the beds to be rolled out with ease.
The conservatory has two access points that serve the adjacent patio and the south east door as well as the screened patio.

Opportunities
- Nurses station has good visual surveillance directly into the center of the site
- Path system is simple
- Provides more seating options
- Access to and from the screened patio and the conservatory is easy and convenient for staff
- Trellis provides shade and reduces glare from sun
- Sitting areas allow privacy and rest stops
- Easily defined personal spaces promotes sense of intimacy

Constraints
- Too many access points- confusing
- Conservatory has two access points -this reduces the amount of sittable space
- The two smaller sitting areas may be too far away
- Patio off the conservatory is too long and narrow
Stage Three- "The Contemplative Garden"

Concept B-
"INTIMACY"

Access Door (locked)
Smaller Sitting Area
Circular Path
Reference Point (landmark)
Access Door (Locked)

Access Door (locked)
Smaller Sitting Area
Screened Patio for Beds
Nurses Station
Power-Assisted Double Doors
Lounge
Access Door (Locked)

figure 35. "stage three concept B...intimacy"
SECTION VII.- MASTER PLAN DEVELOPMENT
MASTER PLAN - Stage 1 - The Therapeutic Garden

The final design of the stage one courtyard encourages patients to remain physically and mentally active by providing a variety of challenging activities. The courtyard's features are:

1. A looping path to accommodate the walkers and "wanderers" while providing a variety of views and rest stops.
2. Benches are located at intervals offering a variety of seating options.
3. A central lawn area is provided for patients to enjoy or for those participating in outdoor physical therapy classes. It also gives the nurses a clear view across the site.
4. A generous patio off of the lounge area and nurses station gives the patients easy access to outdoor seating.
5. A water feature which serves as a reference point.
6. Raised planters are designed for a standing, sitting, or wheelchair position. They facilitate the individual's desire to reach the soil, to plant a vegetable, or to smell the flowers.
7. A working greenhouse
8. A vegetable garden promotes independence among the patients and encourages the use of motor skills.
9. Chosen plants provide as much stimulation as possible as well as materials for horticultural therapy activities. There is a cutting garden, an herb garden and a vegetable garden.
10. Staff has access to the site from the employee dining room.
Stage One - “The Therapeutic Garden”

Master Plan

*figure 36 - “master plan for stage one courtyard”*
Stage One- "The Therapeutic Garden"

Planting Plan

Figure 37. "Planting plan for stage one courtyard"
# Stage One- “The Therapeutic Garden”

## Plant List

<table>
<thead>
<tr>
<th>ORNAMENTAL TREES</th>
<th>SYM.</th>
<th>QTY.</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>FEATURES</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>Ameranthus x grandiflora ‘Autumn Brilliance’</td>
<td>Autumn Brilliance Serviceberry</td>
<td>WI</td>
<td>20-25' x 15'</td>
</tr>
<tr>
<td>CA</td>
<td>6</td>
<td>1</td>
<td>Cornus alba ‘Siberica Red Gnome’</td>
<td>Red Gnome Siberian Dogwood</td>
<td>D, WI</td>
<td>3-4' x 4-5'</td>
</tr>
<tr>
<td>FG</td>
<td>6</td>
<td>1</td>
<td>Fothergilla gardenii</td>
<td>Dwarf Fothergilla</td>
<td>D, WI</td>
<td>2-3' x 2-4'</td>
</tr>
<tr>
<td>HM</td>
<td>4</td>
<td>1</td>
<td>Hydrangea macrophylla ‘Forever Pink’</td>
<td>Forever Pink Hydrangea</td>
<td>WI</td>
<td>3-4' x 4-4'</td>
</tr>
<tr>
<td>IM</td>
<td>7</td>
<td>1</td>
<td>Ilex x meservea ‘Blue Boy’</td>
<td>Blue Boy Holly</td>
<td>B</td>
<td>5' x 5'</td>
</tr>
<tr>
<td>MB</td>
<td>1</td>
<td>1</td>
<td>Magnolia x ‘Betty’</td>
<td>Betty Magnolia</td>
<td>C, D</td>
<td>10' x 8'</td>
</tr>
<tr>
<td>PF</td>
<td>1</td>
<td>1</td>
<td>Potentilla fruticosa ‘Goldfinger’</td>
<td>Goldfinger Potentilla</td>
<td>P</td>
<td>2-3' x 3-4'</td>
</tr>
<tr>
<td>PG</td>
<td>1</td>
<td>1</td>
<td>Prunus glandulosa ‘Rosea’</td>
<td>Pink Flowering Almond</td>
<td>B, F</td>
<td>6' x 3-4'</td>
</tr>
<tr>
<td>SM</td>
<td>5</td>
<td>1</td>
<td>Syringa meyeri ‘Palbin’</td>
<td>Dwarf Korean Lilac</td>
<td>BF, F, H</td>
<td>4' x 4'</td>
</tr>
<tr>
<td>VC</td>
<td>2</td>
<td>1</td>
<td>Viburnum carlesii</td>
<td>Korean Spice Viburnum</td>
<td>B, F</td>
<td>5' x 5'</td>
</tr>
</tbody>
</table>

**Key**

- B = Birds
- BF = Butterflies
- C = Cutting
- D = Drying
- F = Fragrance
- H = Hummingbirds
- P = Pressing
- T = Touch
- WI = Winter Interest

### Perennials

<table>
<thead>
<tr>
<th>PERENNIALS</th>
<th>SYM.</th>
<th>QTY.</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>FEATURES</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AF</td>
<td>1</td>
<td>1</td>
<td>Achillea filipendula ‘Coronation Gold’</td>
<td>Feathery Yarrow</td>
<td>BF, C, D</td>
<td>3' x 18'</td>
</tr>
<tr>
<td>AP</td>
<td>12</td>
<td>1</td>
<td>Adiantum pedatum</td>
<td>Maidenhair Fern</td>
<td>C</td>
<td>2' x 18'</td>
</tr>
<tr>
<td>AM</td>
<td>4</td>
<td>1</td>
<td>Alchemilla mollis</td>
<td>Lady’s Mantle</td>
<td>D</td>
<td>12-18' x 2'</td>
</tr>
<tr>
<td>AA</td>
<td>3</td>
<td>1</td>
<td>Astilbe x arendii ‘Peach Blossom’</td>
<td>Peach Blossom Astilbe</td>
<td>D</td>
<td>20' x 24-30'</td>
</tr>
<tr>
<td>AS</td>
<td>2</td>
<td>1</td>
<td>Astilbe simplicifolia ‘Sprite’</td>
<td>Sprite Astilbe</td>
<td>D</td>
<td>12' x 2'</td>
</tr>
<tr>
<td>AT</td>
<td>4</td>
<td>1</td>
<td>Astilbe thunbergii ‘Ostrich Plume’</td>
<td>Ostrich Plume Astilbe</td>
<td>D</td>
<td>2-3' x 2-3'</td>
</tr>
<tr>
<td>BC</td>
<td>3</td>
<td>1</td>
<td>Bergenia cordifolia ‘Bressingham Ruby’</td>
<td>Bressingham Ruby Bergenia</td>
<td>B</td>
<td>12-18' x 2'</td>
</tr>
<tr>
<td>BD</td>
<td>4</td>
<td>1</td>
<td>Buddleja davidii ‘Pink Delight’</td>
<td>Pink Delight Butterfly Bush</td>
<td>B, BF, F</td>
<td>5' x 4'</td>
</tr>
<tr>
<td>CSa</td>
<td>7</td>
<td>1</td>
<td>Chrysanthemum x superbum ‘Alaska’</td>
<td>Alaska Shasta Daisy</td>
<td>BF, C</td>
<td>12-18' x 2'</td>
</tr>
<tr>
<td>DC</td>
<td>1</td>
<td>1</td>
<td>Dianthus caryophyllus</td>
<td>Border Carnation</td>
<td>C, P</td>
<td>12-18' x 12'</td>
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<tr>
<td>EP</td>
<td>5</td>
<td>1</td>
<td>Echinacea purpurea</td>
<td>Purple Coneflower</td>
<td>BF, C, D</td>
<td>30-36' x 2'</td>
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<tr>
<td>ER</td>
<td>1</td>
<td>1</td>
<td>Echinops ritro ‘Taplow Blue’</td>
<td>Taplow Blue Globe Thistle</td>
<td>C, D, H</td>
<td>4' x 2'</td>
</tr>
<tr>
<td>GP</td>
<td>3</td>
<td>1</td>
<td>Gypsophila paniculata ‘Bristol Fairy’</td>
<td>Bristol Fairy Baby’s Breath</td>
<td>C, D</td>
<td>2-3' x 2-3'</td>
</tr>
<tr>
<td>HH</td>
<td>1</td>
<td>1</td>
<td>Helianthus helianthoides scabra</td>
<td>Heliopsis</td>
<td>C</td>
<td>3-4' x 18-24'</td>
</tr>
<tr>
<td>Hsd</td>
<td>6</td>
<td>1</td>
<td>Hemerocallis ‘Stella D’Oro’</td>
<td>Stella D’Oro Daylily</td>
<td>BF, H</td>
<td>12' x 18'</td>
</tr>
<tr>
<td>Hsp</td>
<td>5</td>
<td>1</td>
<td>Heuchera sanguinea ‘Palace Purple’</td>
<td>Palace Purple Coral Bells</td>
<td>BF, H</td>
<td>12-24' x 12-18'</td>
</tr>
<tr>
<td>HF</td>
<td>3</td>
<td>1</td>
<td>Hosta ‘fortunei’ ‘Frances’</td>
<td>Frances Hosta</td>
<td>C</td>
<td>7' x 2'</td>
</tr>
<tr>
<td>HG</td>
<td>9</td>
<td>1</td>
<td>Hosta x ‘GinkgoCraig’</td>
<td>Ginkgo Craig Hosta</td>
<td>C</td>
<td>15' x 18'</td>
</tr>
<tr>
<td>HSae</td>
<td>1</td>
<td>1</td>
<td>Hosta sieboldiana ‘Elegans’</td>
<td>Elegans Hosta</td>
<td>C</td>
<td>28'</td>
</tr>
<tr>
<td>PC</td>
<td>1</td>
<td>1</td>
<td>Paeonia ‘Cors Stubb’s’</td>
<td>Core Stubb’s Peony</td>
<td>C, F</td>
<td>3' x 3'</td>
</tr>
<tr>
<td>PS</td>
<td>7</td>
<td>1</td>
<td>Phlox subulata ‘Marjorie’</td>
<td>Marjorie Creeping Phlox</td>
<td>H</td>
<td>2-8' x 12-18'</td>
</tr>
<tr>
<td>RL</td>
<td>3</td>
<td>1</td>
<td>Rudbeckia laciniata ‘Goldquelle’</td>
<td>Golden Fountain Coneflower</td>
<td>C</td>
<td>36-40' x 2'</td>
</tr>
<tr>
<td>VM</td>
<td>1</td>
<td>1</td>
<td>Vinca minor</td>
<td>Blue Myrtle</td>
<td>F, P</td>
<td>6' x 6-12'</td>
</tr>
<tr>
<td>VT</td>
<td>1</td>
<td>1</td>
<td>Viola tricolor</td>
<td>Johnny Jump-Up</td>
<td>F, P</td>
<td>4-6' x 6'</td>
</tr>
</tbody>
</table>

### Annuals

<table>
<thead>
<tr>
<th>ANNUALS</th>
<th>SYM.</th>
<th>QTY.</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>FEATURES</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>1</td>
<td>1</td>
<td>Antirrhinum majus</td>
<td>Snapdragon</td>
<td>C, H</td>
<td>9&quot;</td>
</tr>
<tr>
<td>CCP</td>
<td>5</td>
<td>1</td>
<td>Celosia cristata ‘Plicosa’</td>
<td>Cockcomb</td>
<td>C, D</td>
<td>30&quot;</td>
</tr>
<tr>
<td>CCB</td>
<td>1</td>
<td>1</td>
<td>Centaurea cyanus ‘Blue Diablo’</td>
<td>Blue Diablo Bachelor’s Button</td>
<td>B</td>
<td>24&quot; x 15&quot;</td>
</tr>
<tr>
<td>CSH</td>
<td>3</td>
<td>1</td>
<td>Cosmos sulphureus strain</td>
<td>Daf Klondike Yellow Cosmos</td>
<td>C, D</td>
<td>24&quot; x 15&quot;</td>
</tr>
<tr>
<td>HB</td>
<td>1</td>
<td>1</td>
<td>Helichrysum bracteatum</td>
<td>Strawflower</td>
<td>C, D, P, T</td>
<td>24&quot;</td>
</tr>
<tr>
<td>LS</td>
<td>1</td>
<td>1</td>
<td>Limonium sinuatum</td>
<td>Statice</td>
<td>C, D, T</td>
<td>30&quot;</td>
</tr>
<tr>
<td>SS</td>
<td>2</td>
<td>1</td>
<td>Salvia splendens</td>
<td>Red Scarlet Sage</td>
<td>C, D, H</td>
<td>24&quot;</td>
</tr>
<tr>
<td>TP</td>
<td>4</td>
<td>1</td>
<td>Tagetes patula</td>
<td>French Marigold</td>
<td>B, BF, C</td>
<td>24&quot;</td>
</tr>
<tr>
<td>ZE</td>
<td>6</td>
<td>1</td>
<td>Zinnia elegans</td>
<td>Mosaic Zinnia</td>
<td>H</td>
<td>24&quot;</td>
</tr>
</tbody>
</table>

1. Annuals and Herbs are chosen at patients request.
2. Interspacing daffodils and tulips with Vinca minor and Sweet Woodruff.
Stage One- “The Therapeutic Garden”

Perspectives

Figure 38: "Perspective of the greenhouse and vegetable garden"

Figure 39: "Perspective of the northwest corner"
MASTER PLAN- Stage 2- The Reminiscent Garden

The final design of the stage two courtyard is a more controlled environment. The individuals using this space have lost much cognitive ability but remain very active, continuing to walk and “to wander,” sometimes with greater intensity than before. Disorientation, however, is more pronounced. This courtyard focuses on providing focal points throughout the garden to help individuals navigate through the site. The courtyard's features are:

1. A looping path to accommodate the walkers and “wanderers” on a path that provides variety of views and rest stops.
2. Benches are located at intervals offering a variety of seating options.
3. A central lawn area is provided for patients to enjoy or for those participating in outdoor physical therapy classes. It also gives the nurses a clear view across the site.
4. A sculpture located in the center of the lawn serves as a point as reference and visual stimulus.
5. A patio off of the lounge area and nurses station is screened overhead by a trellis for both shade and psychological containment.
6. A gazebo provides a quiet retreat and is a distant focal point in the design.
7. An elegant bird feeder attracts wildlife and adds visual and auditory stimulation.
8. Only two raised planters exist due to the extremely low level of functioning of the majority of the patients.
9. Handrails around the site assist the patients in mobility.
Stage Two- "The Reminiscent Garden"

Master Plan

figure 40. "master plan for stage two courtyard"
Stage Two- "The Reminiscent Garden"

Planting Plan

Figure 41: "planting plan for stage two courtyard"
## Stage Two- “The Reminiscent Garden”

### Plant List

<table>
<thead>
<tr>
<th>ORNAMENTAL TREES</th>
<th>SYM.</th>
<th>QTY.</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>FEATURES</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>1</td>
<td>Cercis Canadensis</td>
<td>Redbud (tree form)</td>
<td></td>
<td></td>
<td>20' x 15'</td>
</tr>
</tbody>
</table>

**Key**
- B = Birds
- BF = Butterflies
- C = Cutting
- D = Drying
- F = Fragrance
- H = Hummingbirds
- P = Pressing
- T = Touch
- WI = Winter Interest

**PERENNIALS, ANNUALS, GRASSES, VINES**

<table>
<thead>
<tr>
<th>SYM.</th>
<th>QTY.</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>FEATURES</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG</td>
<td>4</td>
<td>Achillea x 'Paprika'</td>
<td>Paprika Yarrow</td>
<td>C, D</td>
<td>24-36&quot; x 2'</td>
</tr>
<tr>
<td>AS</td>
<td></td>
<td>Artemisia schmidtiana 'Silver Mound'</td>
<td>Silver Mound</td>
<td>T</td>
<td>12&quot; x 12-18&quot;</td>
</tr>
<tr>
<td>AT</td>
<td>5</td>
<td>Asitile thunbergii 'Ostrich Plume'</td>
<td>Ostrich Plume Astilbe</td>
<td>D</td>
<td>2'-3' x 2-3</td>
</tr>
<tr>
<td>AF</td>
<td>7</td>
<td>Althaea wili-filamenta 'Veronica Cristata'</td>
<td>Crested Lady Fern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>6</td>
<td>Chrysanthemum x superbum 'Alaska'</td>
<td>Alaska Shasta Daisy</td>
<td>BF, C</td>
<td>2'-4&quot; x 1'</td>
</tr>
<tr>
<td>CG</td>
<td></td>
<td>Coreopsis grandiflora 'Early Sunrise'</td>
<td>Early Sunrise Coreopsis</td>
<td>P</td>
<td>2'-4' x 4'</td>
</tr>
<tr>
<td>CV</td>
<td></td>
<td>Coreopsis verticillata 'Golden Showers'</td>
<td>Golden Showers Coreopsis</td>
<td>P</td>
<td>24'-30&quot; x 12-18&quot;</td>
</tr>
<tr>
<td>DGb</td>
<td></td>
<td>Dianthus gratianopolitanus 'Baths Pink'</td>
<td>Bath's Pink Dianthus</td>
<td>C, F, P</td>
<td>6&quot; x 8-12&quot;</td>
</tr>
<tr>
<td>DE</td>
<td>9</td>
<td>Dryopteris eythrophylla</td>
<td>Autumn Fern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>3</td>
<td>Echinacea purpurea</td>
<td>Purple Coneflower</td>
<td>BF, C, D</td>
<td>30-36&quot; x 2'</td>
</tr>
<tr>
<td>GO</td>
<td></td>
<td>Galtomum odonton</td>
<td>Sweet Woodruff</td>
<td>F</td>
<td>6&quot; x 12-18&quot;</td>
</tr>
<tr>
<td>GP</td>
<td>5</td>
<td>Gypsophila paniculata 'Alba'</td>
<td>Alba Baby's Breath</td>
<td>C, D</td>
<td>3' x 2'</td>
</tr>
<tr>
<td>HS</td>
<td>4</td>
<td>Hemerocallis 'Stella de Oro'</td>
<td>Stella de Oro Daylily</td>
<td>BF, H</td>
<td>2'-3' x 15</td>
</tr>
<tr>
<td>HR</td>
<td>6</td>
<td>Hosta fortunei 'Franceses'</td>
<td>Frances I Hosta</td>
<td>C</td>
<td>3' x 2'</td>
</tr>
<tr>
<td>HG</td>
<td>10</td>
<td>Hosta x 'Sagora Craig'</td>
<td>Ginkgo Craig Hosta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS</td>
<td>4</td>
<td>Iberis sempervirens 'Snowflake'</td>
<td>Snowflake Candytuft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>5</td>
<td>Lavandula angustifolia 'Munstead'</td>
<td>Munstead English Lavendar</td>
<td>C, D, T</td>
<td>18&quot; x 18&quot;</td>
</tr>
<tr>
<td>LS</td>
<td>3</td>
<td>Liatris spicata 'Kobold'</td>
<td>Kobold Liatris</td>
<td>C</td>
<td>24'-30&quot; x 2'</td>
</tr>
<tr>
<td>LM</td>
<td></td>
<td>Lobularia maritima</td>
<td>Sweet Alyssum</td>
<td>C, D, T</td>
<td>4'-8' x 8'</td>
</tr>
<tr>
<td>MS</td>
<td>3</td>
<td>Miscanthus sinensis 'Graecilimus'</td>
<td>Maiden Grass</td>
<td>D, T</td>
<td>6'-4&quot;</td>
</tr>
<tr>
<td>PSe</td>
<td></td>
<td>Phlox subulata 'Emerald Blue'</td>
<td>Emerald Blue Creeping Phlox</td>
<td>H</td>
<td>2'-6&quot; x 12-18&quot;</td>
</tr>
<tr>
<td>PGm</td>
<td></td>
<td>Phlox subulata 'Marjorie'</td>
<td>Marjorie Creeping Phlox</td>
<td>H</td>
<td>2'-6&quot; x 12-18&quot;</td>
</tr>
<tr>
<td>Pg</td>
<td>6</td>
<td>Pitypogon grandiflorus</td>
<td>Balloon Flower</td>
<td>C</td>
<td>24'-30&quot; x 2'</td>
</tr>
<tr>
<td>PA</td>
<td>5</td>
<td>Polygonum aubertii Vine</td>
<td>Silver Lace Vine</td>
<td>F, P</td>
<td>3'-4&quot; x 6'</td>
</tr>
<tr>
<td>VT</td>
<td>5</td>
<td>Viola tricolor</td>
<td>Johnny Jump-Up</td>
<td>C, D, T</td>
<td>4'-8' x 8'</td>
</tr>
</tbody>
</table>

1. Annuals and Herbs are chosen at patients request.
2. Interplant daffodils and tulips with Vinca minor and Sweet Woodruff.

---

Village Christian Parke Retirement Home
Zionsville, Indiana

Comprehensive Project
Stage Two- "The Reminiscent Garden"

Perspectives

Figure 42: "Perspective of the smaller sitting area"

Figure 43: "Perspective of the main patio"
MASTER PLAN: Stage 3 - The Contemplative Garden

The final design for the stage three courtyard centers on visual and sensory stimulation. At this stage, one of the remaining pleasures is tactile sensation. This courtyard tries to enhance this experience. The courtyard's features are:

1. A controlled looping path with easy access from the conservatory and the lounge.
2. A patio with power-assisted double doors allows beds to be rolled out into the courtyard.
3. A screened trellis that provides shade and protects from insects.
4. A conservatory serves as a transition between indoors and outdoors. A patio directly off of it links with the circular path system.
5. A quiet rest area off of the path system that is still easily visible from the nurses station.
6. Handrails surround the site to assist the patients with mobility.
7. A gently sloped area adds interest and is a visual element.
8. Plant material is chosen for its color, fragrance and texture in each season. Nostalgic plants are used to evoke response in horticultural therapy sessions.
Stage Three- “The Contemplative Garden”

Master Plan

figure 44- “master plan for stage three courtyard”
Stage Three- "The Contemplative Garden"

Planting Plan

---

*figure 45- "planting plan for stage three courtyard"*
## Stage Three- “The Contemplative Garden”

### Plant List

<table>
<thead>
<tr>
<th>ORNAMENTAL TREES</th>
<th>SYM.</th>
<th>QTY.</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>FEATURES</th>
<th>SIZE</th>
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</thead>
<tbody>
<tr>
<td>SHRUBS</td>
<td>CC</td>
<td>1</td>
<td>Cercis Canadensis</td>
<td>Redbud (tree form)</td>
<td>WI</td>
<td>20' x 15'</td>
</tr>
<tr>
<td></td>
<td>CA</td>
<td>5</td>
<td>Cornus alba 'Siberica Red Gnome'</td>
<td>Red Gnome Siberian Dogwood</td>
<td>3' x 3'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DG</td>
<td>3</td>
<td>Deutzia gracils</td>
<td>Slender Deutzia</td>
<td>D, P</td>
<td>5' x 5'</td>
</tr>
<tr>
<td></td>
<td>FN</td>
<td>6</td>
<td>Forsythia x 'New Hampshire Gold'</td>
<td>New Hampshire Gold Forsythia</td>
<td>2-3' x 2-4'</td>
<td></td>
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<tr>
<td></td>
<td>FG</td>
<td>10</td>
<td>Fothergilla gardenii</td>
<td>Dwarf Fothergilla</td>
<td>C, D</td>
<td>3' x 3'</td>
</tr>
<tr>
<td></td>
<td>HM</td>
<td>6</td>
<td>Hydrangea macrophylla 'Forever Pink'</td>
<td>Forever Pink Hydrangea</td>
<td>6' x 6'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MP</td>
<td>3</td>
<td>Myrica pensylvanica</td>
<td>Northern Bayberry</td>
<td>P</td>
<td>2-3' x 3-4'</td>
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<tr>
<td></td>
<td>PF</td>
<td>5</td>
<td>Potentilla fruticosa 'Goldfinger'</td>
<td>Goldfinger Potentilla</td>
<td>BF, C, F, H</td>
<td>4' x 4'</td>
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<td></td>
<td>SM</td>
<td>5</td>
<td>Syringa meyer 'Palibin'</td>
<td>Dwarf Korean Lilac</td>
<td>B, F</td>
<td>5' x 5'</td>
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<td></td>
<td>VC</td>
<td>3</td>
<td>Viburnum carlesi</td>
<td>Korean Spice Viburnum</td>
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### PERENNIALS, ANNUALS, GRASSES, VINES

<table>
<thead>
<tr>
<th></th>
<th>SYM.</th>
<th>QTY.</th>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>FEATURES</th>
<th>SIZE</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>AG</td>
<td>4</td>
<td>Achillea x 'Paprika'</td>
<td>Paprika Yarrow</td>
<td>C, D</td>
<td>24-36' x 2'</td>
</tr>
<tr>
<td></td>
<td>AS</td>
<td>5</td>
<td>Artemisia schmidtiana 'Silver Mound'</td>
<td>Silver Mound</td>
<td>T</td>
<td>12' x 12-18'</td>
</tr>
<tr>
<td></td>
<td>AT</td>
<td>5</td>
<td>Astilbe thunbergii 'Ostrich Plume'</td>
<td>Ostrich Plume Astibe</td>
<td>D</td>
<td>2-3' x 2-3'</td>
</tr>
<tr>
<td></td>
<td>AF</td>
<td>7</td>
<td>Athyrium filix-femina 'Veronae Cristata'</td>
<td>Crested Lady Fern</td>
<td>BF, C</td>
<td>24' x 12-18'</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>6</td>
<td>Chrysanthemum x superbum 'Alaska'</td>
<td>Alaska Shasta Daisy</td>
<td>P</td>
<td>16-24' x 1'</td>
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<tr>
<td></td>
<td>CG</td>
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<td>Coreopsis grandiflora 'Early Sunrise'</td>
<td>Early Sunrise Coreopsis</td>
<td>C, F, H</td>
<td>6' x 6'</td>
</tr>
<tr>
<td></td>
<td>CV</td>
<td>5</td>
<td>Coreopsis verticillata 'Golden Showers'</td>
<td>Golden Showers Coreopsis</td>
<td>C</td>
<td>30' x 2'</td>
</tr>
<tr>
<td></td>
<td>DCh</td>
<td>9</td>
<td>Dianthus gratianopolitanus 'Bath's Pink'</td>
<td>Bath's Pink Dianthus</td>
<td>BF, C, D</td>
<td>30-36' x 2'</td>
</tr>
<tr>
<td></td>
<td>DE</td>
<td>3</td>
<td>Dryopteris erythropora</td>
<td>Autumn Fern</td>
<td>C</td>
<td>8' x 12-18'</td>
</tr>
<tr>
<td></td>
<td>EP</td>
<td>3</td>
<td>Echinaeae purpurea</td>
<td>Purple Coneflower</td>
<td>BF, C, H</td>
<td>5' x 15'</td>
</tr>
<tr>
<td></td>
<td>GO</td>
<td>3</td>
<td>Galium odoratum</td>
<td>Sweet Woodruff</td>
<td>C, D, F</td>
<td>10' x 2'</td>
</tr>
<tr>
<td></td>
<td>GP</td>
<td>5</td>
<td>Glycosphaena paniculata 'Alba'</td>
<td>Alba Baby's Breath</td>
<td>BF, H</td>
<td>6' x 12-18'</td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>4</td>
<td>Hemerocallis 'Stella de Oro'</td>
<td>Stella de Oro Daylily</td>
<td>C, D</td>
<td>3' x 2'</td>
</tr>
<tr>
<td></td>
<td>HF</td>
<td>5</td>
<td>Hosta fortunei 'Tranense'</td>
<td>Franconie Hosta</td>
<td>BF, H</td>
<td>3' x 15'</td>
</tr>
<tr>
<td></td>
<td>HG</td>
<td>5</td>
<td>Hosta x 'Ginkgo Craig'</td>
<td>Ginkgo Craig Hosta</td>
<td>C</td>
<td>15' x 18'</td>
</tr>
<tr>
<td></td>
<td>IS</td>
<td>5</td>
<td>Iberis sempervirens 'Snowflake'</td>
<td>Snowflake Candytuft</td>
<td>C, D, T</td>
<td>4' x 8'</td>
</tr>
<tr>
<td></td>
<td>LA</td>
<td>5</td>
<td>Lavandula angustifolia 'Munstead'</td>
<td>Munstead English Lavender</td>
<td>BF, H</td>
<td>6' x 6'</td>
</tr>
<tr>
<td></td>
<td>LS</td>
<td>3</td>
<td>Liatris spicata 'Kobold'</td>
<td>Kobold Liatris</td>
<td>C, D, T</td>
<td>24-30' x 2'</td>
</tr>
<tr>
<td></td>
<td>LM</td>
<td>5</td>
<td>Lobularia maritima</td>
<td>Sweet Alyssum</td>
<td>BF, C, D</td>
<td>2-5' x 12-18'</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>5</td>
<td>Miscantus sinensis 'Gracillimus'</td>
<td>Maiden Grass</td>
<td>D, T</td>
<td>6' x 4'</td>
</tr>
<tr>
<td></td>
<td>PSe</td>
<td>5</td>
<td>Phlox subulata 'Emerald Blue'</td>
<td>Emerald Blue Creeping Phlox</td>
<td>H</td>
<td>2-6' x 12-18'</td>
</tr>
<tr>
<td></td>
<td>PSm</td>
<td>5</td>
<td>Phlox subulata 'Marjorie'</td>
<td>Marjorie Creeping Phlox</td>
<td>H</td>
<td>2-6' x 12-18'</td>
</tr>
<tr>
<td></td>
<td>Pg</td>
<td>5</td>
<td>Plantycodon grandiflorus</td>
<td>Balloon Flower</td>
<td>C</td>
<td>24-30' x 2'</td>
</tr>
<tr>
<td></td>
<td>PA</td>
<td>5</td>
<td>Polygonum aubertii Vine</td>
<td>Silver Lace Vine</td>
<td>F, P</td>
<td>4-6' x 6'</td>
</tr>
<tr>
<td></td>
<td>VT</td>
<td>5</td>
<td>Viola tricolor</td>
<td>Johnny Jump-Up</td>
<td>BF, C, D</td>
<td>24-30' x 2'</td>
</tr>
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</table>

1. Annuals and Herbs are chosen at patients request.
2. Interplant daffodils and tulips with Vinca minor and Sweet Woodruff.
Stage Three - "The Contemplative Garden"

Perspective

figure 46: "perspective of the patio for the roll out beds"
SECTION VIII.- CONCLUSION
Conclusion

The study of the effects that the environment has on people with dementia is evolving. Many questions still remain unanswered and much more research is needed to create better design solutions of outdoor environments for those with Alzheimer's disease. However, physical design issues are only part of the solution when it comes to helping those with Alzheimer's disease. Programs that provide social and emotional support are essential as well. Without support from the administration and staff, even the most well designed landscapes become virtually useless.

While it can be said that not all persons with Alzheimer's disease exhibit the same types of behaviors or symptoms, there are some general characteristics that occur throughout the disease. This paper has attempted to look at those characteristics and give solutions that respond to the particular stage at hand. It aims to create spaces that people will be physically able to use and enjoy.
SECTION IX.- APPENDIXES
Appendix A - Definition of Terms

1. Alzheimer's Disease- A disease in which brain cells die prematurely and progressively, causing memory loss and progressive intellectual deterioration.
2. Horticulture Therapy- "A medical discipline that uses plants, gardening activities and the natural world as vehicles for professionally conducted programs in therapy and rehabilitation" (AHTA pamphlet).
3. Sundowning Syndrome- A period of severe confusion, agitation and irritability that typically occurs toward the end of the evening.
4. Dementia- An acquired permanent 'overall' loss of functions of the intellect while consciousness remains unimpaired. It mostly begins with forgetfulness about recent happenings. The loss is such that the affected person can no longer function independently in society" (Sourn I 28). Functions of the mind which are more or less lost are: thought; judgment; the ability to act independently and take an initiative; the ability to orientate oneself in time and space; the ability to remember what has happened recently and earlier on; the ability to absorb new information; reading; writing; conversing.
### Appendix B - List of Figures

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Appendix C- Bibliography

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Appendix D- PowerPoint Presentation