

A Child's Right to Play

A Therapeutic Landscape for Shriner's Hospital for Children

Northern California



A senior project prepared by Jo-Anmarie Cadiz Ricasata
To the faculty of Landscape Architecture Program
At the University of California at Davis,
In partial fulfillment of the requirements for the degree of
Bachelor of Science of Landscape Architecture.

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Accepted and Approved By:

Senior Project Faculty Advisor, Mark Francis

Committee Member, Patsy Owens

Committee Member, Barbara Brooks

Committee Member, Rose Marie Kraft

Abstract

Children learn and relate to the world through play, and every child has the right to play. Recovering patients who are exposed to natural, garden-like settings can experience reductions in stress, improved immune functioning, better pain control management and improved physical and emotional well-being. This project will research the benefits of healing gardens and outdoor experiences for recovering patients, particularly children. Through the review of literary works on this subject I will identify and review design guidelines that have been suggested to create thoughtful landscapes that evoke a sense of place and that facilitate the process of healing. Taking into account these design guidelines, I will develop a program and conceptual design for a youthful healing garden for Shriners Hospital for Children Northern California. This therapeutic landscape will incorporate traditional healing garden elements with the addition of sections for play and rehabilitation with sensory stations that will enrich a young patients experience outside the confines of a hospital building. This design will serve as a catalyst for gathering fundraising and support to make this hospital's dream a reality.

Biographical Sketch

Upon completion of this senior project, Jo-Anmarie Cadiz Ricasata will have graduated from the University of California, Davis with a degree of Bachelor of Science of Landscape Architecture and a minor in Human Development.

She hopes to continue working with children and creating landscapes that foster a sense joy and commitment to the natural world.

Dedication

For my family,

Thank you for supporting me as I chose to wander away from our cultural stereotypes to form my own unique identity that is about as American and as Filipino as you could possibly be in one person.

More importantly, thank you for allowing me to pursue a dream that has become my own gratifying reality. I may not have become a pediatrician, mom, but I am proud to create places for children where they can be their best and feel better about the world they are growing up in.

For my twin nephews,

I wish for you two to grow up in spaces that are truly designed with you in mind. Maybe one day you could be playing in a special place designed by your favorite aunt. Jump high, run fast, and get dirty!

Acknowledgements

Special recognition and appreciation are given to the following:

Mark Francis

Thank you for being the landscape rock star that you are! I can never thank you enough for being the best faculty advisor, and for opening doors to the field that I have grown to love.

Margaret Kugler and Barbara Brooks from Shriners Hospital for Children

Thank you for meeting with me and doing your best to provide me with as much information as you could so that I could design a truly accessible play environment for your patients.

Rosemarie Kraft

Thank you for introducing me to Childhood Development and for providing valuable insight that I can use to continue to make connections between children and the landscape.

Patsy Owens

My first female role model in the field of landscape architecture! You have nurtured a passion in me for children's landscapes and I hope to carry this enthusiasm with me throughout future projects.

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Support toward the holistic benefits of outdoor experience has been increasing progressively. Recovering patients who are exposed to natural, garden-like settings can experience reductions in stress, improved immune functioning, better pain control management and improved physical and emotional wellbeing. Children respond and relate to the world around them in varied ways as compared with adults. They experience pain and stress differently, therefore their

needs for relieving this pressure differs as well.

In this senior project, I will discuss the benefits of healing gardens and outdoor experiences for recovering young patients, as well as its immediate impacts on a child's recovery. I will examine how children cope with the hospital atmosphere and what aspects of healing gardens and play areas help to relieve the daily stresses of sickness and recovery.



Figure 1.1

I will also research the different ways in which children react and interact with the natural environment. A review of literary works regarding healing gardens as well as children in the landscape will serve to identify specific design principles that have been recommended and implemented to reduce stress and promote holistic restoration in existing projects. The design principles and recommendations outlined in this section and will serve to guide a new

design project for Shriners Hospital for Children Northern California (SHCNC).

Using the information collected and analyzed, I will develop a concept plan and program for a youthful healing garden for ShrinersHospitalforChildrenNorthernCalifornia in Sacramento, CA. A review of suggested design guidelines in circulation will better prepare me when working with patients and staff to develop a design that accommodates their needs. Determining whether the



Figure 1.2

recommended design principles outlined in my research are appropriate for their garden may further verify the results of my research.

Shriners Hospitals for Children is a network of pediatric hospitals, as well as a research and teaching facility that strive to provide comprehensive medical, surgical and rehabilitative care to children with orthopedic conditions, burns, spinal cord injuries, and cleft lip and palate conditions. The Shriners Hospital for Children Northern California is located in Sacramento, CA is the only Shriners Hospital providing expert medical care in all four care specialties. SHCNC has expressed a desire for a therapeutic garden for use by their young patients. An existing play structure is to be incorporated into the design as it is currently aids in physical therapy activities. They want to integrate sensory stations that will serve as a basis to overcome obstacles that their patients may encounter daily. This garden will also service the young patients by providing stimulating outdoor experiences as well as

opportunities for therapeutic play away from the confines of the hospital. Shriners Hospital for Children Northern California wants to develop a concept design that would serve as a catalyst for cost estimation and fundraising.

Definitions

1. Coping is the process used to alter, manage, or tolerate a stressful situation.

Because children process information from the world around them much differently than adults, they have distinct needs for managing the effects of stress and trauma.

2. Health can be defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”
3. Healing refers to the process of curing somebody or something, or becoming well.
4. Healing Gardens encompass the

definitions related to “healing” to a certain extent, but instead of focusing the idea of curing a person; healing in a natural setting is related more to the alleviation of stress as well as the intent to soothe, calm, rejuvenate, and restore one’s mental and emotional health.

5. Holistic Health is a philosophy in the medical care field that views physical and mental and spiritual aspects of life as closely interconnected and equally important approaches to treatment.

6. Play can be broadly defined as any activity in which children spontaneously engage in and find pleasurable.

Play is an essential, natural part of childhood, important in its own right. Play facilitates healing, coping, mastery, self-expression, creativity, achievement and learning, and is vital to a child’s optimal growth and development. For the purposes of this project, play will be limited to activities that that initiated outdoors, in a natural setting.

7. Physical Therapy is concerned with identifying and maximizing quality of life and movement potential within the spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation.

8. Rehabilitation is the restoration

of a person to their fullest physical, psychological, social, and emotional potential.

9. Stress refers to the negative consequences associated with the inappropriate response to emotionally or physically demanding, challenging, or threatening.

10. Therapeutic play refers to specialized activities that are developmentally supportive and facilitate the emotional well being of a pediatric patient.

Therapeutic play typically consists of at least one of the following types of activities

- The encouragement of emotional expression (e.g. reenactment of experiences through doll play),
- Instructional play to educate children about medical experiences, and
- Physiologically enhancing play (e.g. blowing bubbles to improve breathing)



Figure 1.3

The Right to Play

The movement to rekindle the relationship between today's children and nature has been gaining momentum. Concepts such as "Leave No Child Indoors," and "nature-deficit disorder," popularized by Richard Louv, have sparked numerous programs and initiatives to inspire enthusiasm in children to play outdoors again and reconnect with the natural world. For this movement to become

They have a right to be afforded equal opportunities. "Children with disabilities are first and foremost children. They will benefit from the same experiences that are desirable for all children for the same reasons." (Kids Together Inc. 1995-2008). It is important to create places that are truly accessible to every child. Every child has the right to play.

A child's resilience and natural ability



Figure 1.4

truly revolutionary, these concepts must be applied to every possible child in every possible situation. If something is offered to children it must be accessible to all based on disability or any characteristic alone.

to cope and heal can be compromised by a wide variety of stressful events, particularly if these events relate to sickness and death. The stress manifesting from just visiting a health care facility is difficult enough for

a child to process. Difficult or unexpected experiences, such as chronic illness and hospitalization, are upsetting and stressful for everyone involved. Children of all ages may experience emotions such as fear, shame, confusion and loneliness, which can inhibit their natural development and have lasting negative effects on their wellbeing.

Penny Lees, manager of the Child Life Department at Shriners Hospital for

Children Northern California, works with a team dedicated to promoting effective coping through play, preparation, education, and self-expression

activities. Lees believes that “play is an internal drive for children; it’s like eating for them.” Child Life specialists believe in the benefits of outdoor experience and Lees experiences it first hand when bringing a patient that has been cooped up in an ICU for several weeks --“the look of instant relief and happiness is priceless.” According to the Child Life Council (Child Life Council,

1998), Child Life specialists “provide emotional support for families, and encourage optimum development of children facing a broad range of challenging experiences, particularly those related to healthcare and hospitalization.” The purpose of Lees’s department is to normalize the environment of their young patients. So much of the hospital environment is foreign to children that bringing in some of the daily routines they are used to at home can greatly improve the overall temperament of



Figure 1.5

a hospitalized child. Restoring a little bit of familiarity and control is key to stress reduction for children. According to Peggy Miller (Miller, pg. 15, 1972), “opportunities

ought to be provided for handicapped children to engage in self-directed play activities, because so many aspects of their lives are directed by others for them.” Small decisions such as choosing where to walk or how to get somewhere do enough to release the tension that has built up from being confined to a room where everything is controlled and premeditated. Many studies have been

conducted that support the correlation between nature experiences and a child's physical, emotional and psychological health. Roger Ulrich, a renowned environmental psychologist, conducted one of the most famous studies that confirm the positive correlation between nature and healing. Molly Dannenmeier summarizes the study:

“A famous study by Ulrich examined two groups of hospital patients recovering from the same surgery. The group that recuperated in rooms with a window view of a natural setting had shorter postoperative hospital stays, received fewer negative evaluations in nurses' notes, and took fewer pain killers than an identical group

of patients placed in similar rooms with windows facing a brick wall.”

(Dannenmeier, pg. 57, 1995).

These health outcomes visibly support the importance of a child's continued experience with nature, especially if that child is faced with stressful events such as surgery and hospitalization. Research for the biological and measurable benefits of nature experiences is new and still developing. In the future, sound research will prove to health care providers and developers that gardens improve health outcomes, increase patient and staff satisfaction, and will prove that projects like this will rival pharmaceuticals and indoor therapies in cost and efficacy. Howard Frumkin, director of the National Center for Environmental Health, points out that “Future research about the positive health effects of nature should be conducted in collaboration with architects, urban planners, park designers, and landscape architects. “Perhaps we will advise patients to take a few days in the country, to spend time gardening,” he wrote in a 2001 American Journal of Preventive Medicine article, “or [we will] build hospitals in scenic locations, or plant gardens in rehabilitation centers. Perhaps the . . . organizations that pay for health care will come to fund such interventions, especially if they prove to rival pharmaceuticals in cost and



Figure 1.6



efficacy" (Louv, 2007).

More studies supporting this future notion will need to be done in order to secure the priority that needs to be given to gardens in healthcare facilities.

The physical benefits are becoming more obvious, but other positive effects associated with outdoor experiences may be equally beneficial to the healing and recovery of these young patients. According to Roger Ulrich, "some urban park studies have found... that the moods most commonly reported by users of a large arboretum near Chicago were serenity, tranquility, and peacefulness, and

such feelings were most often linked to areas having water, lush vegetation, large trees, flowers, and openness" (Cooper Marcus and Barnes, pg. 53, 1999). Research has shown that these experiences not only protect a child's psychological wellbeing but can reduce the stress, fear and anxiety associated with the most stressful life events that a he or she may endure.

If society embraces something as simple as the health benefits of nature experiences for children, it may initiate a re-evaluation of the worth of "nature" and the "environment." We must hold ourselves accountable for values and ideals that are instilled within our

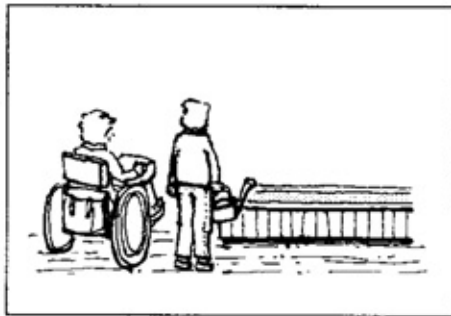
children.

“Greater attention must be given to the quality of every single day's living. Greater attention must be given to the experiences which children are daily provided, purposely and unintentionally. Several studies have shown that therapeutic play is effective in decreasing anxiety and fears for children from the time of hospital admission to immediately after surgery and to the time of discharge. In studies where children were

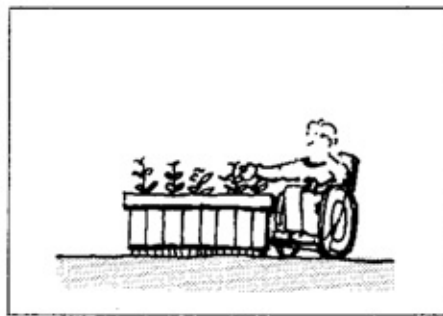
health of the Earth. Peggy L. Miller shares the same sentiments of many advocates for children and the nature. “Outdoor play areas provide opportunities for today's children to develop into tomorrows citizens and advocates for this earth.” (Miller, pg. 15, 1972).

Review of Design Guidelines

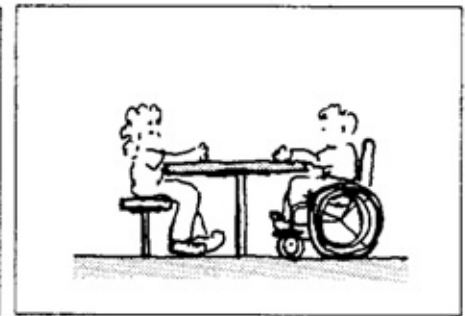
When creating a healing garden



216 Gardening stimulates cooperative work between children.



220 Height and width of planting beds should allow wheelchair access.



224 Accessible tables are essential for working and social interaction.

Figure 1.8

offered therapeutic play, they exhibited greater cooperation during stressful procedures, and were more willing to return to the hospital for further treatment.”

(Miller, pg. 15, 1972).

Now is the time to rekindle our children's relationship with nature, for they will come to respect the natural world and more importantly become the environmental stewards that will continue to protect the

that is truly functional landscape architects have two objectives. Our first and primary job is to create a special place. Many factors must be put into consideration especially when the location of this place is as sensitive as a healthcare facility. When it comes to designing a therapeutic landscape for a healthcare community, a new objective is added in that designing this special place requires us to consider

how it works to facilitate the process of healing.

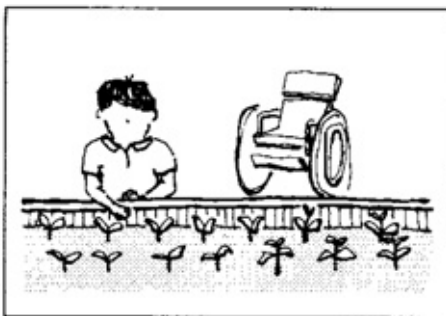
There are several publications in circulation that stress this design philosophy. I have chosen to present and offer my thoughts on several design guidelines that share a similar design philosophy and that are most relevant to the site for SHCNC.

Healing Gardens: Therapeutic Benefits and Design Recommendations by Clare Cooper Marcus and Marni Barnes

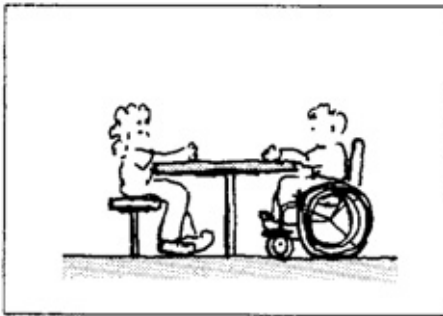
be a good idea to add a sign in the main lobby or even inside the elevator. Including a map of the play terrace in the patient's information packet would be very helpful in outlining the types of activities and amenities available.

2. Provide paving that does not inhibit movement.

The patients that would be using the site may be working to regain their walking ability or use wheelchairs. The main



221 Low-rise beds can be accessible to children out of wheelchairs.



224 Accessible tables are essential for working and social interaction.



225 Gardens provide a good vehicle for special events.

Figure 1.9

1. Provide maps and directional sign in the hospital especially at elevator lobbies and front entries to direct people to the outdoor spaces.

This is very relevant to SHCNC site. During the initial site visit, there was only one sign mentioning a play terrace. It was located on the second floor and had no indication of where the play terrace was relatively located. I think it would

corridor to the play terrace has a deep grooved tile paving that makes it difficult and unpleasant for patients to traverse.

3. Provide gardens users with choice.

Much of a patient's time is controlled by the hospital. Making accessible design decisions such as pathway and seating preferences will provide them with simple choices that can boost their confidence and make them feel a little more

independent.

4. Create subspaces

Subspaces allow for single users as well as families to find comfortable spaces. Gathering spaces are also important as they can be utilized for a number of social events. A subspace with an entry element may entice potential users and evoke a sense of anticipation.

5. Save existing mature trees on site.

There are six existing trees on the northeast corner of the site are definitely worth saving as a thriving 20 foot tree is a marvel on rooftop and roof terraces.

“Designing and Building Healing Gardens at Health Care Facilities” by Cheryl Ware

These guidelines can be found in the book, “The Healing Dimensions of People-Plant Relations.” (Francis, pg. 323, 1994).

1. Must create “a sense of place”, - a separate and distinct style from its surroundings with a feeling of privacy and quietness.

It is important that this place be like an oasis where it offers a sense of release and relief from the severe hospital atmosphere.

2. Might stimulate all senses – hearing (singing birds, trickling water), smell (fragrant flowers, fragrant trees), taste (herbs, fruits), touch (stone, wood, water, leaf textures), as well as sight (seasonal changes, flowering plants,

butterfly garden).

Gardens that appeal to the senses engage the user and teach them as well. Particularly with young patients, children relate to the world through play and these types of outdoor experiences are crucial to their holistic development.

3. Might be incorporated into the healing program at the facility – group meditations, counseling sessions, religious services, exercise programs, etc.

Through design, the quality of the environment benefits because we





Figure 2.2

can increase and diversify the range of activities and opportunities for play. This is a crucial component especially when these young patients maybe spending a large and routine amount of time at the hospital.

Designing Outdoor Environments for Children: Landscaping Schoolyards, Gardens, and Playgrounds by Lolly Tai, et al.

1. Retreat

One way children retreat is to seek enclosure. Children need places where they feel safe and can think and play privately. Staff members need to be able to unobtrusively supervise from a safe distance.

2. Active Play

Movement and physical play are essential to the development of a child's motor skills. Active play is particularly pertinent to physical therapy and the rehabilitation

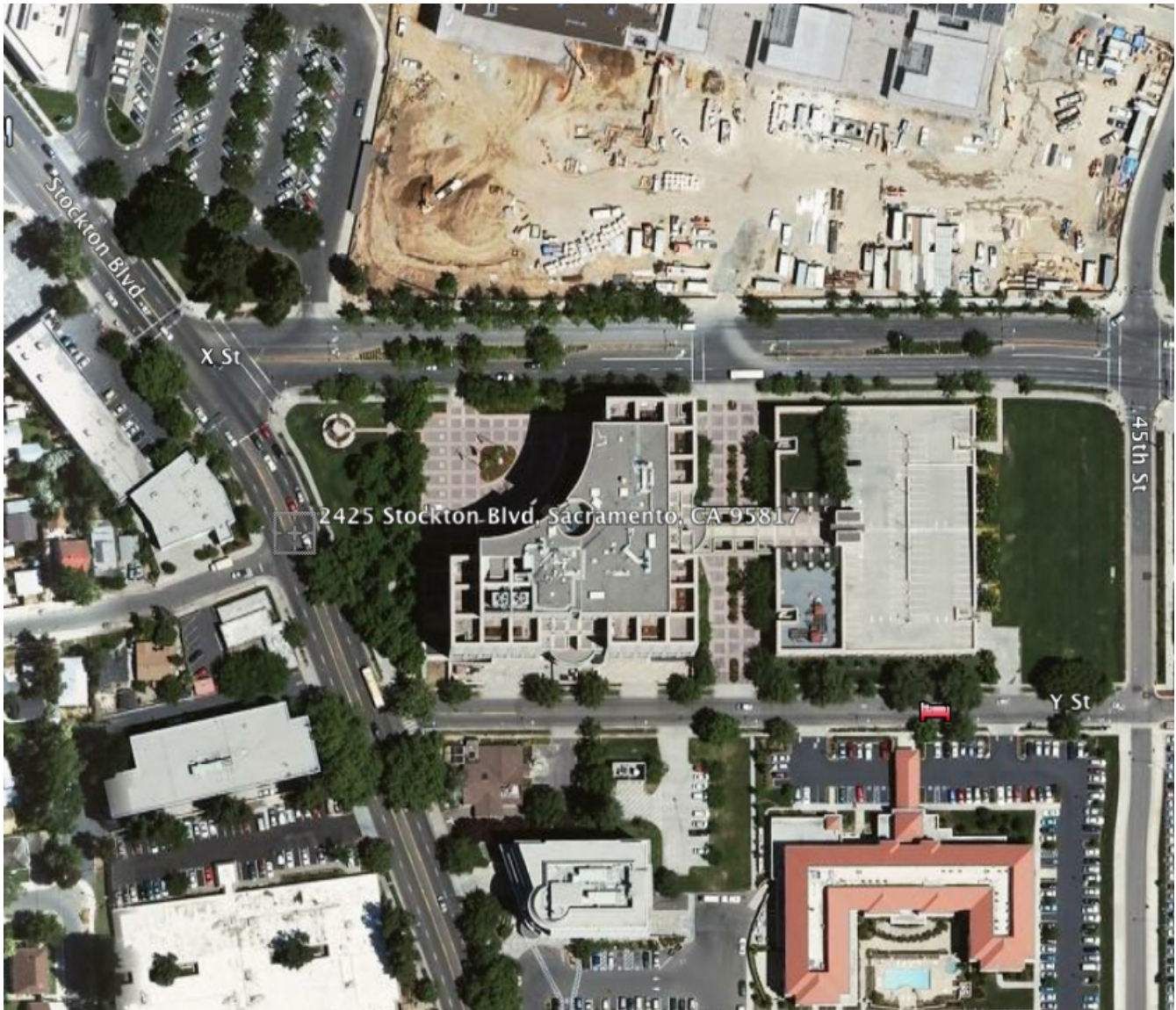
and instruction of new mobility skills.

3. Plants

Plants should be selected carefully. Aside from being interesting and engaging for children. Care must be taken in choosing the most appropriate plant material. Poisonous plants and plants with hazardous parts such as thorns, barbs, and sharp blades. Should be omitted from plant list.

About the Client

Shriners Hospitals for Children has been a leader in pediatric orthopedic care since 1922. Shriners International established this network of hospitals. A bit of general research about the origin of the Shriners revealed that the organization grew out of the Freemasonry Fraternity. Two Masons by the name of Fleming and Florence entertained the thought of a new focused more on fellowship and fun. Florence traveled around the world and was once invited to a party by an Arabian diplomat. Florence was so inspired by the theme and tone of the party that he decided



to use it as the basis of this new fraternity. With this new backdrop came the Arabian stylized emblem and greeting.

The Shriners Hospitals specializing in orthopedics are dedicated to providing medical and rehabilitative services to children with congenital deformities that result from problems with orthopedic injuries and diseases of the musculoskeletal system. Shriners Hospital for Children Northern California admits and treats children less than 18 years of age free of a charge and does not bill insurance.

They rely on funding from the Shriners organization and from outside donations. There is no requirement for admittance in regards to religion, race or relationship to a Freemason. Patients can be self-referred or referred by other medical staff and facilities.

The Shriners Hospital for Children in Sacramento specializes in care for patients with orthopedic conditions, burns and spinal cord injuries. For many of these children, such conditions require constant

medical attention and routine visits making this hospital a familiar second home. Along with providing pediatric specialty care, innovative research and outstanding teaching programs, Shriners creates opportunities for creative outlets through art projects and amenities that make their patients visits more comfortable when they are away from home.

Site Context

The Northern California Hospital is located near downtown Sacramento next to the UC Davis Medical Center. Sacramento is the capital of California and is populated by more than 460,000 residents. The ethnic composition of these residents is 49.5% White, 14.4% Black or African American, 1.2% Native American, 17.4% Asian, 1.2% Native Hawaiian and Pacific Islander, 11.6% from other races, 4.8% from two or more races, and 24.8% are Hispanic or Latino. There are 154,581 households, and 30% have children under the age of 18. The median income for a family is about \$42,000. (Cline, pg. 5, 2007). In 2002, Time Magazine and the civil Rights Project of Harvard University identified Sacramento as the most racially and ethnically integrated major city in America. (Stodghill, 2002).

Sacramento is located in the Central Valley and experiences mild Mediterranean climate of cool, wet winters, and warm, dry summers. During the summer, Sacramento

is fortunate to experience mild and pleasant nights due to the cooling effect of the delta breeze that comes in from the southwest end of the delta for the Sacramento and San Joaquin rivers. During the winter “rainy season” (November through February), over half the total annual precipitation falls, yet rain in measurable amounts occurs only about ten days monthly during the winter.

The SHCNC facility has 80 patient beds, 9 parent apartments, 5 state-of-the-art operating rooms, a high tech Motion Analysis Laboratory, and an entire floor devoted to research (Shriners, 2005). The hospital itself is quite large and boasts indoor open space with floor to ceiling windows and a large balcony area on the second floor for playing with wagons and cars and chalkboards. On the second floor of the facility, down the hall from the classroom and physical therapy rooms, is a set of double doors. These doors open to a walkway that bridges the hospital to the Children’s Outdoor Play Terrace located on the rooftop of the parking lot. The site is located on the rooftop of the hospital’s parking lot that has a bridge walkway to the second floor of the hospital. There are double doors leading to the parking structure, but the site can only be accessed through the second floor building entrance, and has emergency stairways on either side of the terrace.



Site Inventory

Existing Vegetation

- 6 Hackberry Trees, 15-20ft. tall
- 79'x 59' grass area on left side of terrace
- 2 vines climbing up columns and trellis above seating area
- 8 planters with sago palms, Aptenia 'red apple,' and 1 young Japanese maple
- Ivy surrounds perimeter planters around walkway

Existing Fenestration

- 8 round planters, 36' diameter
- 2 barbeque pits
- Various movable lawn chairs
- Various children's picnic tables

- 2 concrete trash receptacles located near entrance
- 1 trash receptacle located outside restroom
- 2 movable basketball hoops
- 2 small hose reels

Existing Structures

- Large play structure on left side of site
- Men and Woman single stall restrooms
- Prefabricated shed housing board games and outdoor toys
- Emergency stairway entrances on either side of terrace
- Locked and unused double doors to third level parking lot



Opportunities

- Unlike a hospital courtyard, the site is located on a rooftop and receives an abundance of sunlight.
- The site is located on the second floor and provides privacy for patients and families without giving them the feeling of being entrapped.
- The site is easily accessible to the hospital school and physical therapy department.

Constraints

- There is no information available on the structure and soil

composition of the rooftop site. Weight considerations were taken into account, but the original soil will not be disrupted.

- Maintenance is voluntary and must be considered when designing.
- No adequate shading for west side of site.
- Entire site must be wheelchair accessible.

Site Analysis

The healing garden site hosts numerous opportunities and constraints as well as interesting elements to be incorporated that make this site a dynamic project. The children that use the site range not only in age but in ability as well. Many require wheelchair accessibility, while burn patients will need plenty of shade. Still others will benefit from unique opportunities to learn new ways to accomplish daily tasks using their arms and fingers. Physical therapists use the existing playground as a tool for habilitation.

There is an existing grassy area that cannot be enjoyed because the soil is consistently over watered and soggy. The soft ground makes it inaccessible to wheelchairs and unpleasant for everyone else to walk on. Six hackberry trees line the left side of the wall that separates the terrace from the parking lot. The trees seem to be doing quite well, but many have outgrown their designated drip lines and roots are poking up creating a tripping hazard.

At the opposite end of the site, along the same wall, six empty planters show evidence of failed tree plantings. Although it cannot be confirmed, it would seem that a total of twelve trees were originally planted, but for an unknown reason the trees on the right side of the side did not survive. This bit of open space offers an opportunity for new plantings or elements more cohesive with the play structure.

Adequate shading for the site is an issue as it receives full sun for much of the day. The site is oriented in a way that the wall that separates the parking lot from the terrace provides shading for the east side of the site. Existing trellises set upon large columns and either side of the center suggest a division of three distinct areas, and provide the only shading for seating. Few people utilize the space for enjoyment as it gets uncomfortably hot when spring transitions into summer.

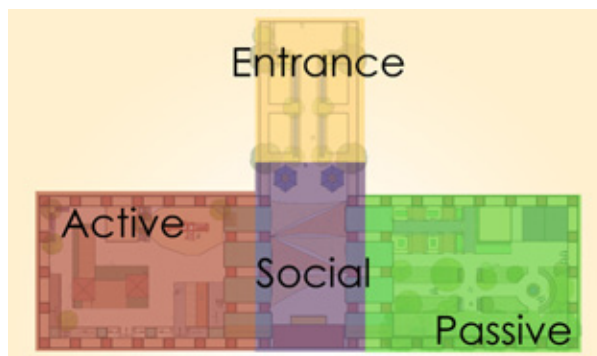
I visited the play terrace one morning at about 10 a.m. and the sun was already starting to beat down. Two employees were spending their break-time shooting a basketball at a portable basketball hoop located in front of the restrooms. A child and a physical therapist were playing on the existing play structure while the child's parent looked on. An hour or so later, two men came out to the terrace to sit under the trellis and make a few phone calls. They had been the volunteers that helped register visitors into the hospital. I recognized them as Shriners by the red fez hats on their heads.

Program Development

I met with Margaret Kugler, the transitions coordinator, and Barbara Brooks, the special education teacher at Shriners Hospital for Children Northern California, to develop a program and discuss what they would like this site to feature. The site is primarily used for therapy and rehabilitation exercises and for staff and families to enjoy. They would like the space to reflect and be representative of Shriners International values and the services they offer.

We decided upon the following design objectives:

- An overall design theme that reflects SHCNC
- Wheelchair accessibility with appropriate paving surfaces
- Low maintenance/low water use design
- Arbors and shaded areas for burn patients
- Physical Therapy - Practice areas with uneven surfaces, curbs, and inclines
- Adequate seating for family and staff
- Adaptive equipment
- Permanent as well as movable



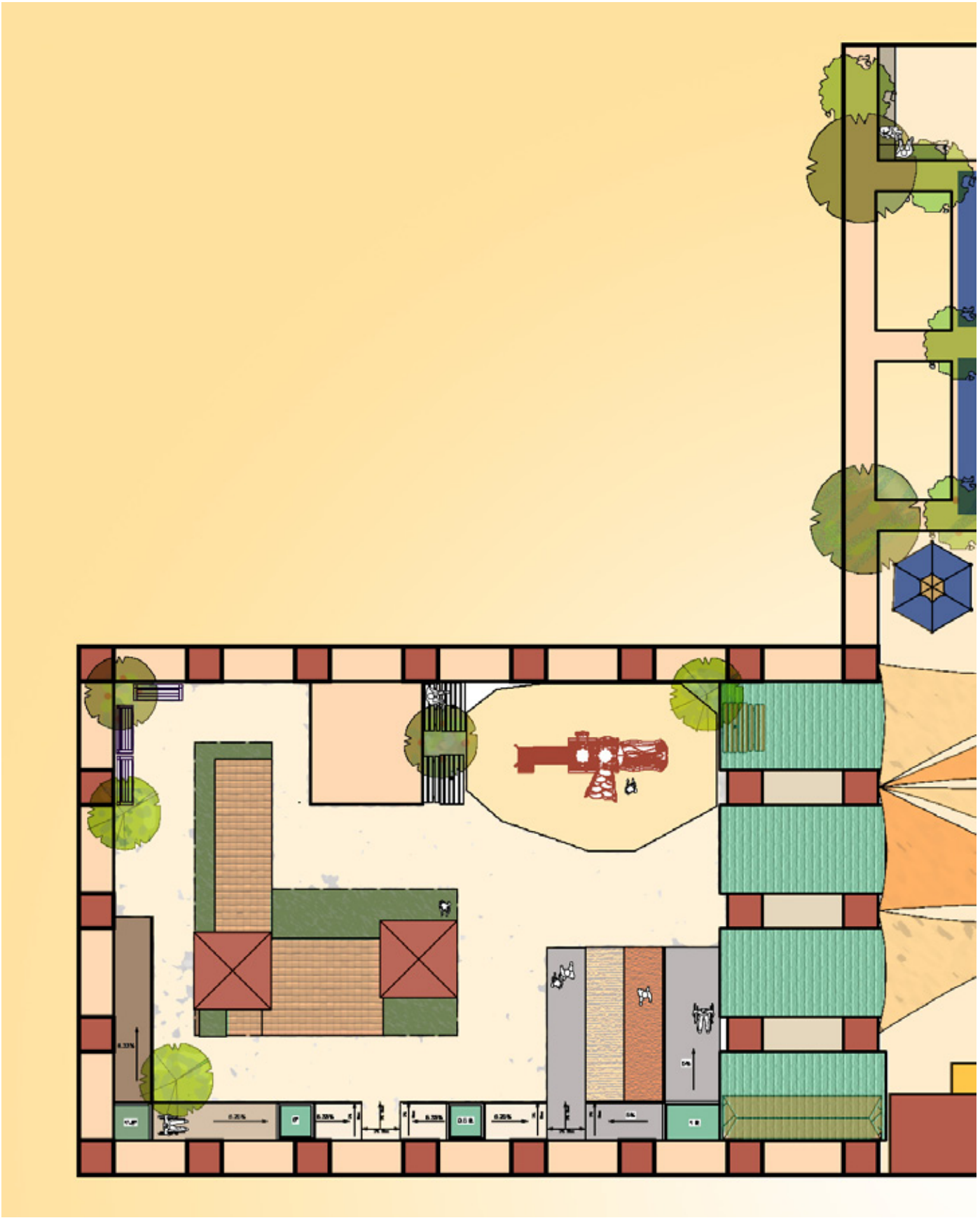
benches

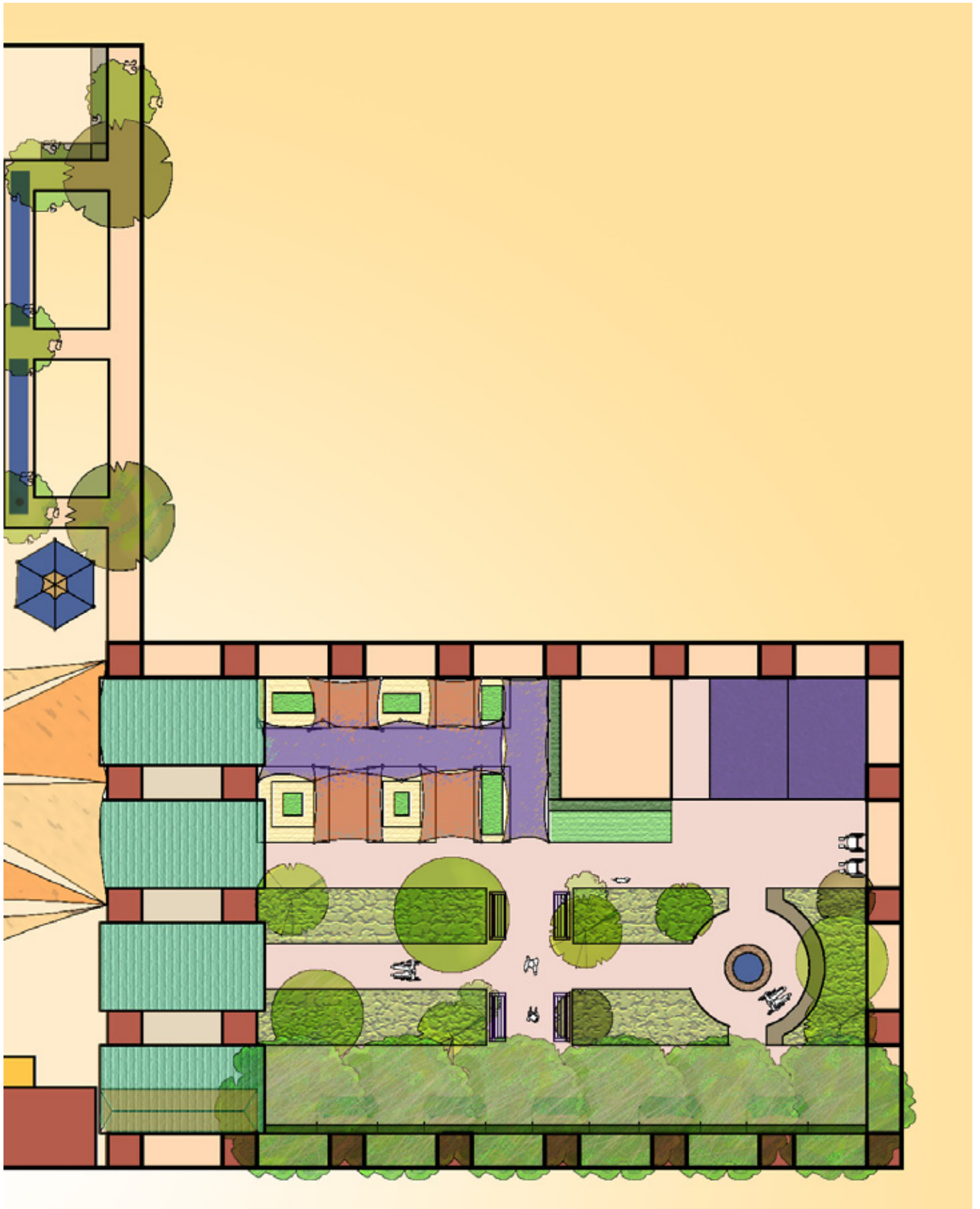
- Drinking fountains
- Pet Waste Stations for use during pet therapy
- Tool Shed for gardening equipment
- Accommodate needs of staff, patients, and family

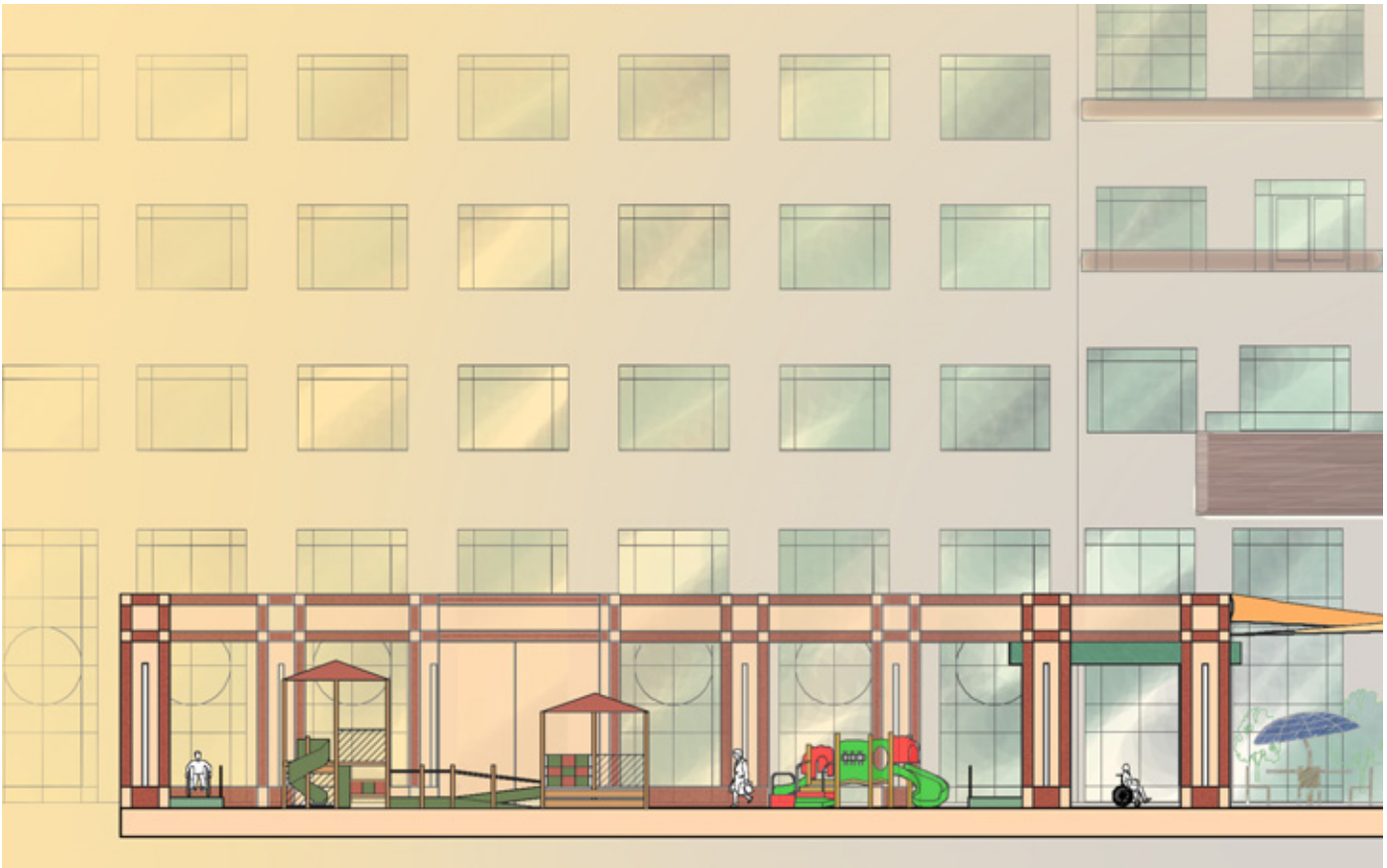
Patients would like to use the grass area, but it is constantly over watered and is poorly drained, making it inaccessible for wheelchair patients. To meet the patients and staff physical therapy needs, a practice area is wanted that features varied paving surfaces as well as uneven curbs with inclines and declines.

This element would allow patients to practice their wheelchair capabilities as applied to real-world conditions. Most of their patients utilize wheelchairs and would like appropriate planters to be installed that would make it possible for them to participate in digging in the soil and planting. The hospital offers pet therapy days and would benefit from pet sanitation stations as well as drinking fountains. Shaded seating areas are needed for families to enjoy continuously and for special barbeques and outdoor events.

There is no budget for this project, as all funds must be allocated to primary medical treatment. The client has expressed that







the total area be designed in phases to be implemented gradually. Implementation and maintenance will come from community based donations and volunteers. Therefore, a low maintenance design and efficient water management practices are essential.

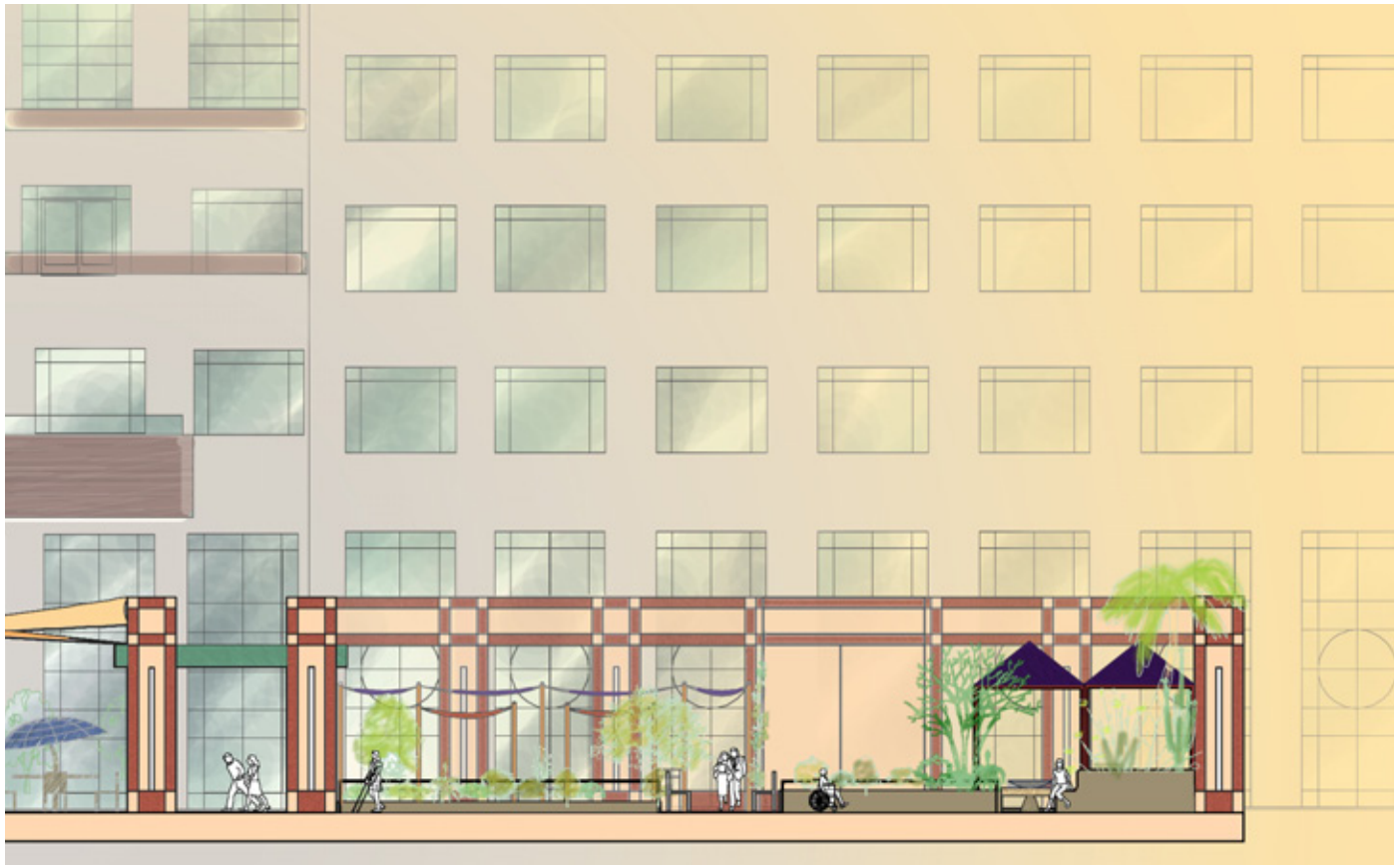
Design Development

The Shriners Hospital for Children Northern California has expressed a strong desire for a themed space that reflects their organization. Based on experience and research, overtly themed spaces can restrict children’s play possibilities. In order to avoid this issue, careful consideration was put into integrating a theme with the program elements.

I have elected to return to the foundations

of the Shriners Hospital idea and its roots in Arabia for design inspiration for the children’s garden. Given Sacramento’s obvious dry and extreme climate, designing a desert oasis for the hospital’s young patients seemed fitting. Rich colors, generous shading, and drought tolerant planting could easily be incorporated throughout the site without restraining a child’s possibilities for imaginative play.

“There once was a doctor who traveled the world in search of unique remedies that could help his patients. He walked through the deepest jungles and climbed up the highest mountains. The doctor finally went to a desert kingdom at the farthest reaches of the world. He met a



prince that shared with him the gifts and wonders of the nature around them. The doctor was so inspired by this prince's love for his homeland that he took a piece of that fantastic land back home with him to share with his patients."

This short story is a child friendly adaptation of this organization's history. These words will be presented at along the entrance and will introduce the overall theme of the space. This tale may even entice patients and family to enter and explore this special place that was designed with them in mind.

Site Plan

The site is divided up into four core activity areas: entrance, social, passive and active. It would be most beneficial

in developing a successful well-used space if this design were implemented in a progressive order. The entrance and active areas should be the first phases to be implemented. The entrance would entice users to walk through and explore. The active areas will give patients and staff and reason to be out there. The social and passive areas will give users a reason to stay and spend more free time.

Area 1: Entrance

The objective here is to create a welcoming atmosphere that will draw users through the threshold of the bridge and into the core areas of the site. The entrance to the terrace is attached to the building and is conveniently accessible to patients, visitors and staff. The garden's location on the

second floor provides safety and privacy, as registration is mandatory upon entering the building. At the entrance of the site, two signs will welcome and inform the users. One sign

Informational signage will provide pertinent information about the site through child-oriented symbols and pictographs. Seat walls shaded by ornamental trees provide



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displaying the theme story of the garden will set the overall tone of the user experience.

a smaller meeting area for staff and families to converse and go over procedures. The

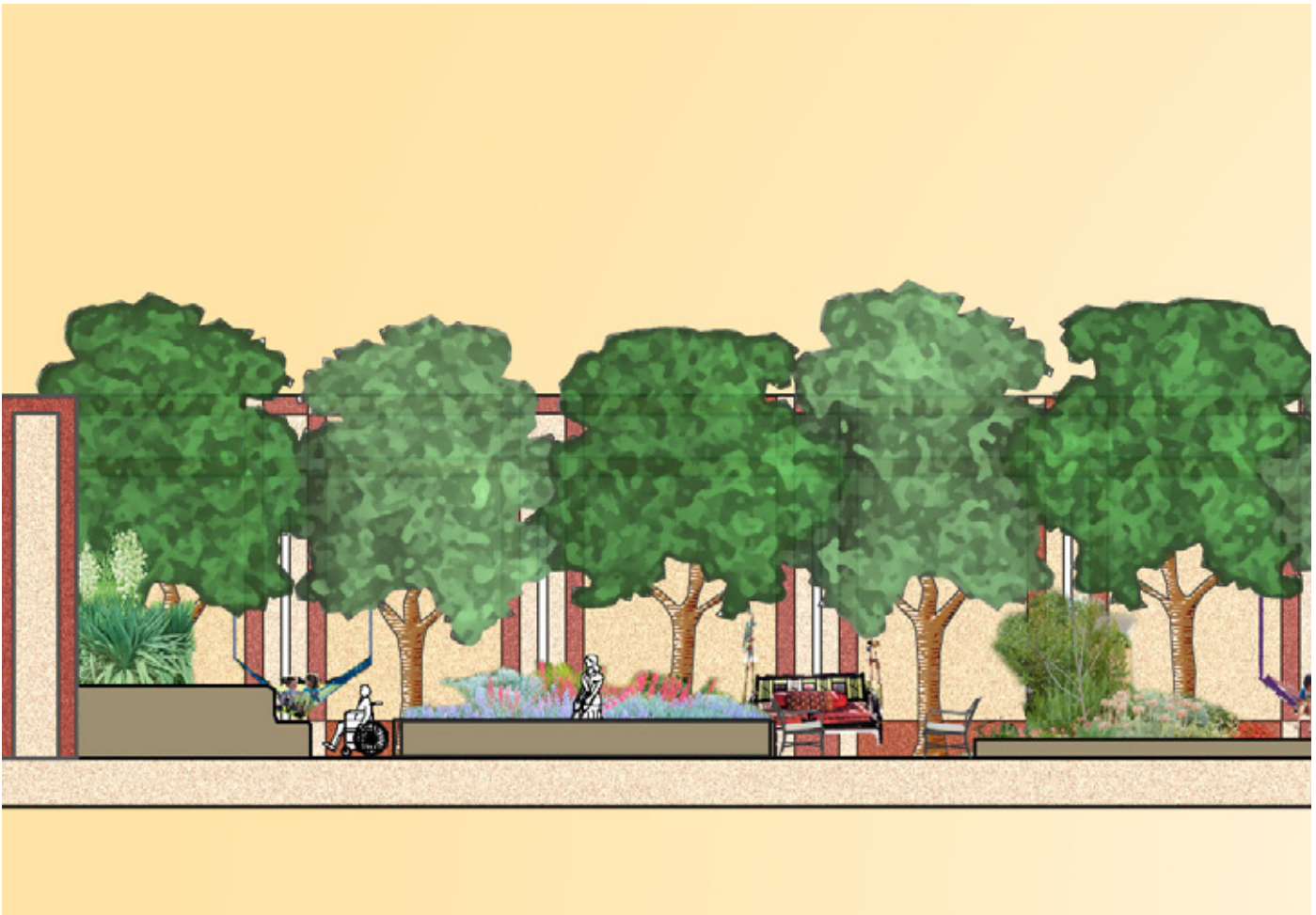
entrance to the site is the most exposed and therefore will experience the most extreme climates during the year. A variety of trees are planted along the main walkway to shade the patients as they cross the bridge. A water feature has been incorporated into the tree planters that line the main walkway. The water runs along a textured stream creating audio and visual stimulation. Handrails line pathway of the bridge to help those regaining their ability to walk. The path along the entrance area has been subtly lit for visual and physical access.

Area 2: Social

Places for gathering and meeting are essential for social interaction. This area will draw continuous use from patients, family and staff. Adequate

shading provides a comfortable space for users to sit and socialize, as well as enjoy a meal. Large retractable shade sails hung from the trellis on either side of the social area will provide adequate shading for barbeques and recreational events without obstructing everyday physical activities such as playing basketball. A variety of movable seating is provided to accommodate preferences with sun and shade exposure. The existing storage facility should be equipped with supplies for large meetings and social events. This area can be utilized for a range of activities that might usually be held indoors. Holding staff and family meetings, group meditations, counseling sessions, religious services, exercise programs, and physical therapy sessions outside set a lighter and more positive tone to any event.





Area 3: Active

The Active area responds to the physical act of healing. What better way to get children to do their physical therapy exercises than by disguising it as playing outside? The existing play structure accommodates the play possibilities of toddlers, but does not take into consideration the needs of much younger toddlers. Therefore, a more appropriate mini structure suitable for toddlers and small children has been designed. A smaller shade structure protects the toddlers from sunburn, additional movable seating has been added for parents to comfortably sit as they watch their children play.

I designed a custom obstacle course

that will aid patients who are regaining their walking ability and becoming more accustomed to a wheelchair. This track offers a variety of paving surfaces that simulate common pedestrian situations that a patient might be confronted with outside of the hospital setting. Various curbs, ramps, incline and declines provide a more advantageous space for physical therapists to work with their patients.

Area 4: Passive

The Passive area provides plenty of opportunities for quiet activity in family or individual settings. A plush and comfortable



outdoor room shaded by a tent-like frame is furnished with cushy seating and fluffy pillows and is the ideal setting for intimate family visits. A variety of hammocks and hanging benches in between the existing trees provide a relaxed space to daydream and nap.

One particularly dynamic feature of this space is the bazaar or open market inspired garden. Crude structures that resemble market stalls provide shading for burn patients and the raised planting beds remind you of fresh goods for sale. A variety of vegetation can be planted to suit each growing season. Strawberries, blueberries and tomatoes are easy to

grow and a treat for everyone. Hardier, low maintenance plants have been permanently installed to preserve the overall visual quality of the space, even when the children's planting beds are empty. This garden is not only fun and whimsical, but also accessible to every patient. Raised planting beds make it easier for children in wheelchairs to get their hands in the dirt, while low rise planters allow smaller children access to garden features without obstacle.

A shallow water feature will attract wildlife and allow children to connect with other living creatures. The fountain allows for water play and is safe for patients as the water is not re-circulated in order to prevent

the risk of infection. These water features are located at the far end of the passive activity area in order to lead users deeper into the site allowing them to take note of all the amenities and activities available.

Conclusion

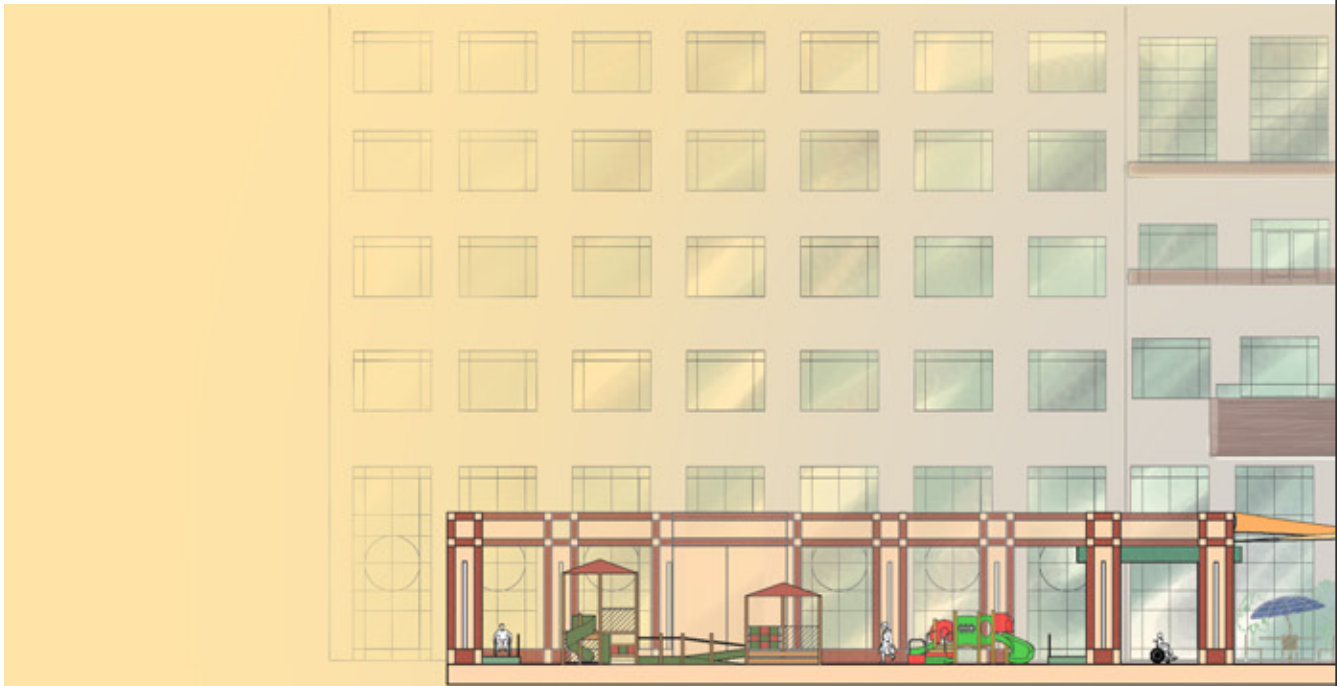
Play was found to significantly promote cognitive and social aspects of development and these effects were magnified when adults participated in play with children. "Play leadership and playful staff intervention can extend the range, challenge, and creativity of both indoor and outdoor experience far beyond what might be possible in undirected situations." (Marcus, pg. 326. 1999). Child life specialists are trained professionals with expertise in helping children and their families overcome life's most challenging events, and the importance of their services has been well documented. "Child life specialists work through informal recreation because of the individual freedom offered, in contrast to the invasive medical protocols endured by the child over which she or he has no control." (Marcus, pg. 327. 1999). I would recommend that a staff person from the Child Life department at SHCNC be designated to organize and maintain the activities that go on at the play terrace.

Given the current economic environment, this design project has little to no budget for installation and will probably

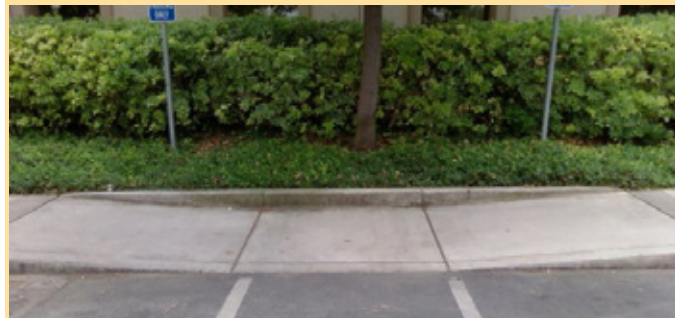
be implemented as a grass roots effort. Fundraising will be the primary source of funding while volunteers such as parents, service clubs, or others with the desire to perform community service can provide "free" labor to implement and maintain the landscape. Devising a plan of action, obtaining the proper permits, organizing volunteers, and supervising implementation all require a tremendous amount of commitment and enthusiasm.

The connection between children and the landscape is an ongoing development. This study will further support the importance of outdoor experiences to childhood growth and development especially those coping with chronic illness and hospitalization. The health benefits of being outside are obvious, but I aim to stress the emotional and psychological benefits as well. At the very least, I want this senior project to drive this garden design higher on the list of priorities for Shriners Hospital for Children Northern California.

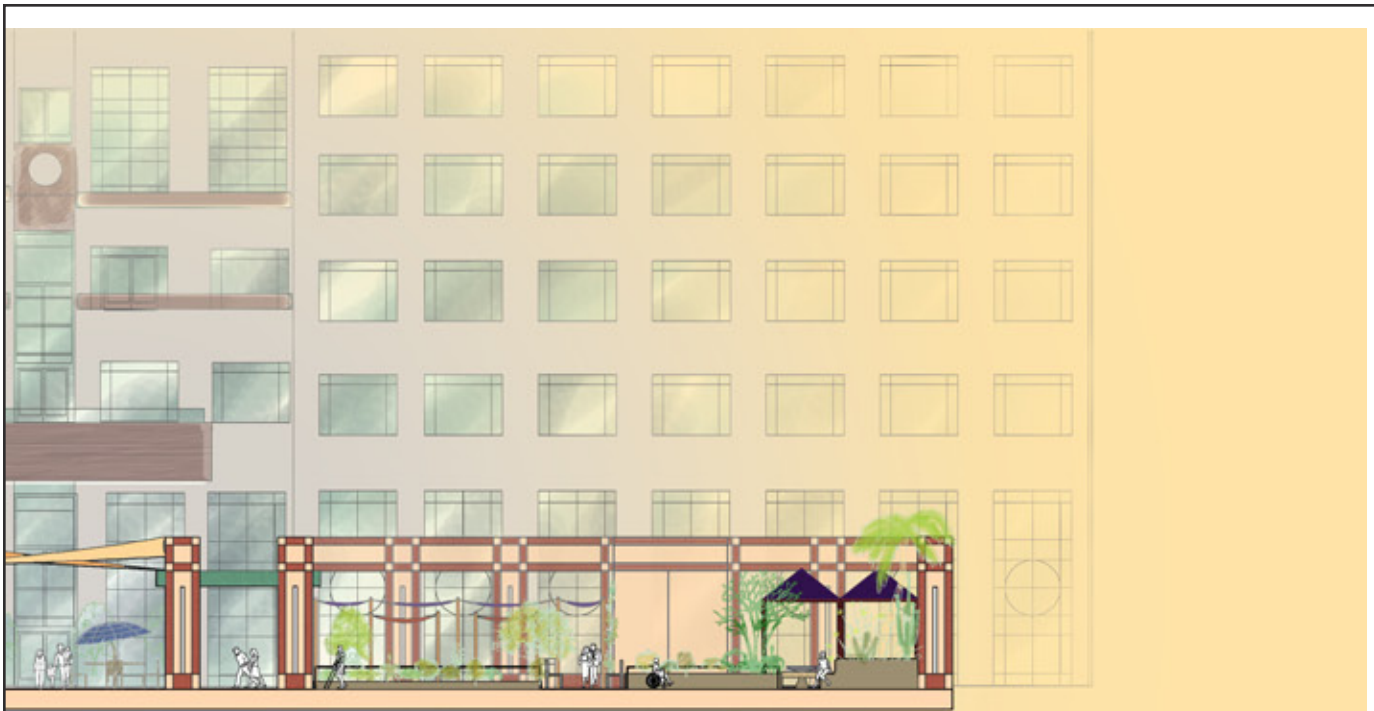
Understanding how healing gardens benefit children will allow landscape architects to better design play areas with the best interest of children of all levels of health and ability in mind. Although much research and literature has been published on the topics of healing gardens and children's landscapes, I hope to contribute to the connection and integration of both subjects.



A custom obstacle course will aid patients who are regaining their walking ability and becoming more accustomed to a wheelchair. This track offers a variety of paving surfaces that simulate common pedestrian situations that a patient might be confronted with outside of the hospital setting. Various curbs, ramps, incline and declines provide a more advantageous space for physical therapists to work with their patients.



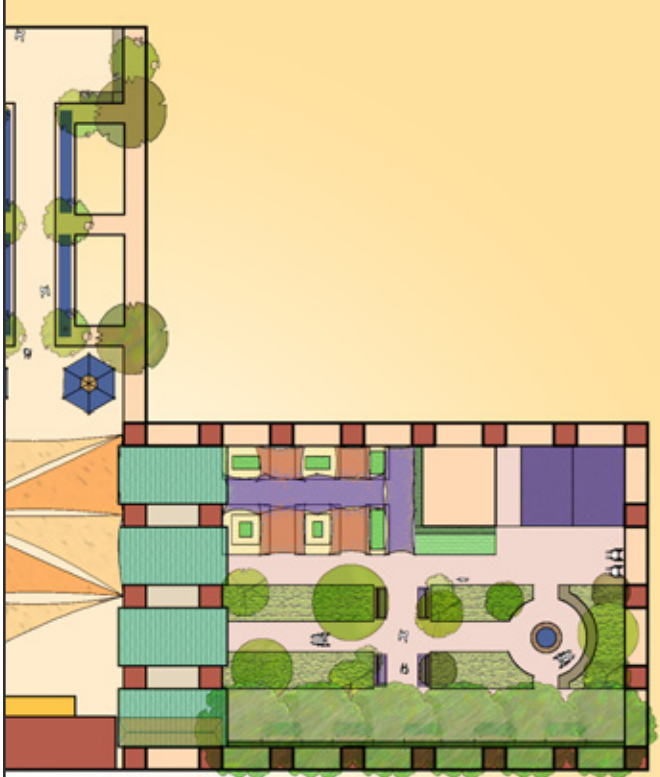
Shriners Hospital for Children Northern California
 Sacramento, CA






A Child's Right To Play

Play Terrace Master Concept



"There once was a doctor who traveled the world in search of unique remedies that could help his patients. He walked through the deepest jungles and climbed up the highest mountains. The doctor finally went to a desert kingdom at the farthest reaches of the world. He met a prince that shared with him the gifts and wonders of the nature around them. The doctor was so inspired by this prince's love for his homeland that he took a piece of that fantastic land back home with him to share with his patients."

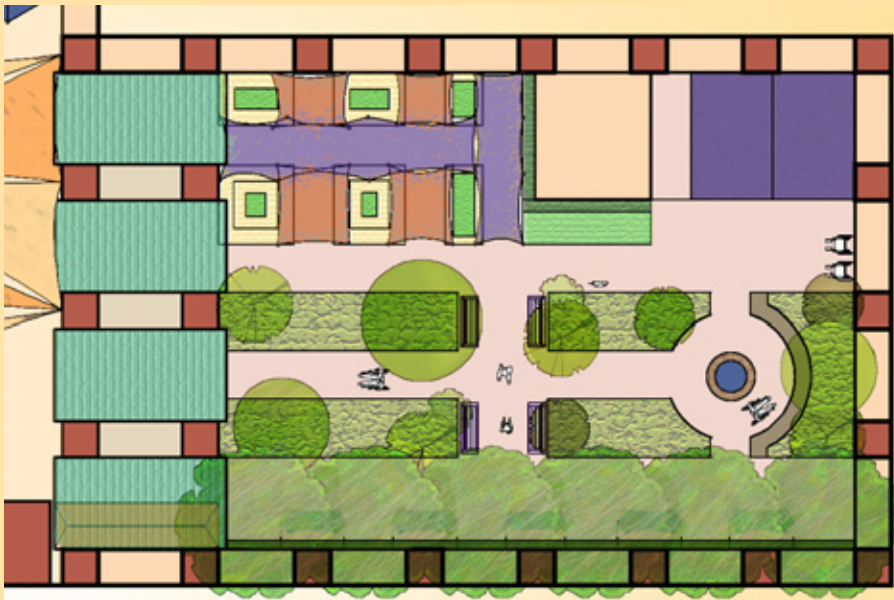
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Area 1: Entrance
 A variety of trees are planted along the main walkway to shade the patients as they cross the bridge. A water feature has been incorporated into the tree planters that line the main walkway. The water runs along a textured stream creating audio and visual stimulation.

Area 2: Social
 Places for gathering and meeting are essential for social interaction. This area will draw continuous use from patients, family and staff.

Area 3: Active
 a more appropriate mini structure suitable for toddlers and small children has been designed. A smaller shade structure protects the toddlers from sunburn, additional movable seating has been added for parents to comfortably sit as they watch their children play.

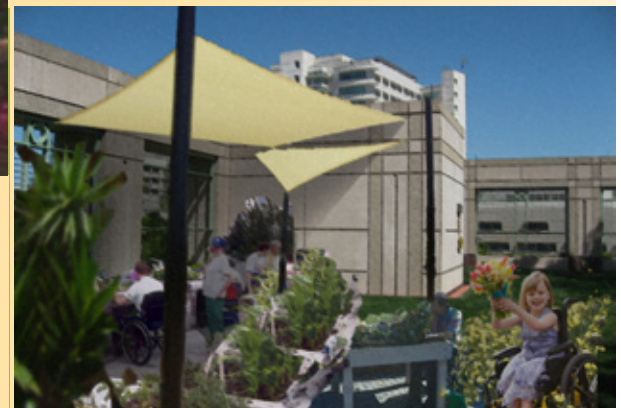
Jo-Anmarie Cadiz Ricasata
 UC Davis Landscape Architecture 2009



Area 4: Passive

One particularly dynamic feature is a raised garden bed or open market inspired garden. The raised garden beds resemble market stalls providing shading. A variety of vegetation can be planted in the garden beds during the growing season. Strawberries, blueberries, and other fruits can be grown and a treat for everyone. Hardwood plants have been permanently installed to improve the visual quality of the space, even when the garden beds are empty. This garden is not only accessible to every patient, but also accessible to every patient. It makes it easier for children in wheelchairs to navigate the dirt, while low rise planters allow small garden features without obstacle.

A shallow water feature will attract children to connect with other living creatures. It allows for water play and is safe for patients. The water features are located at the far end of the activity area in order to lead users deeper into the area to take note of all the amenities available.



The Passive area provides plenty of opportunities for quiet activity in family or individual settings. A plush and comfortable outdoor room shaded by a tent-like frame is furnished with cushy seating and fluffy pillows and is the ideal setting for intimate family visits.

Shriners Hospital for Children Northern California
Sacramento, CA

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Play Oasis

Concept Detail



Water Features and Palm Trunk Planters

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Jo-Anmarie Cadiz Ricasata
 UC Davis Landscape Architecture 2009

Volunteer Time Record Sheet

Project Name A Right to Play: A Therapeutic Landscape for Shriners Hospital for Children Northern California

TEAM MEMBE Jo-An Ricasata

UC DAVIS
Landscape Architecture
Senior Project

WEEK	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JAN 4-10			2		2	2	
JAN 11-17			2		2	2	
JAN 18-24			2		2	2	
JAN 25- 31			2		2	2	
FEB 1-7			2		2	2	
FEB 8 -14			2		2	2	
FEB 15-21			2		2	2	
FEB 22 - 28			2		2	2	
MAR 1-7			2		2	2	
MAR 8 -14			2		2	2	
MAR 15-21			2		2	2	
MAR 22-28			2		2	2	
MAR 29-APR 4			2		2	2	
APR 5-11			2		2	2	
APR 12-18			2		2	2	
APR 19-25			2		2	2	
APR 26-MAY 2			2		2	2	
MAY 3-9			2		2	2	
MAY 10-16			2		2	2	