

# The Playground Project

Creating Garden, Art, and Play Spaces for Young Children



Senior Project 2012  
Liana Ramos



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Creating Garden, Art, and Play Spaces for Young Children

2012 Senior Project, Liana Ramos

Presented to the faculty of the Landscape Architecture Program at the  
University of California, Davis in partial fulfillment of the requirements for the  
Degree of Bachelors of Science in Landscape Architecture

Accepted and Approved by

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Rachel Hartsough, Committee Member





# Abstract

The Playground Project is my year long internship with Hutchison Child Development Center, the UC Davis on campus nursery school. My original duties were to enhance the existing landscape by improving its color, texture, plant palette and overall aesthetics. After carefully analyzing the site, I observed a few problems like the need for cooling and shade and realized the site would need more than simple landscape improvements. I proposed for more garden areas in the playground that could act as art and educational spaces. The site is small so having areas with multiple functions is ideal. The new overall goal of this project is to create **natural** and educational play spaces that will **improve** the children's **cognitive development** and **motor skills**. To provide spaces that the children can **engage** with **nature** to develop **environmental stewardship**. After research and site analysis was conducted, a Playground & Garden Committee was formed. The committee consists of the centers director, teachers, parents, students and myself. It is crucial to have the support of the schools community when starting and sustaining schoolyard projects. The committee brainstormed ideas and contributed resources to allow this to happen. My role was to design the new garden and art spaces, organize the committee and work days, provide construction and installation instructions, and create cost estimates. The project was able to have two successful building days and take on two graduate students to design a ninety foot mural. Most of the materials used in the project are donated. The final product is a **beautiful school yard**. The children grow their own **food**, learn about plant propagation, play around and in the garden spaces, study the food web as **wildlife** is attracted to the garden, "paint" with plants, build bug habitats using natural elements, and learn about why the environment in their own backyard and at the center, is important. The project met all of its goals successfully and still has room for more opportunities.



# Dedication

To my parents, Ron and Isabel.  
Thank you for your guidance and support.



# Acknowledgements

To my **Committee**,

Thank you for all of the advice and support. The Playground Project would not have been as successful as it is without your hard work.

To my **Teachers and Advisors, Stephen Wheeler and Claire Napawan**,

Thank you for always providing counsel when I found myself struggling. You have believed in me and pushed me to work as hard as I could. I am forever grateful for your support and care. Teachers like you are hard to come by.

To the **Playground & Garden Committee**,

Your encouragement and complete belief in the project has pushed me to work as hard as I could. Without your resourcefulness and stewardship, most of the projects would not have been built.

To my **Family**,

Thank you for all of your love and support. I have come a long way and would not have been able to do it without you. I hope I can make you proud.

To my **Friends**,

Thank you for your love and patience. I know it was hard to understand how I could spend one week straight in studio.

To my **Classmates**,

Thank you for the wonderful memories and being my shoulder to cry on at 4 am. I will never forget the days we watched the sunset and then the sunrise and then the sunset, again... in studio.

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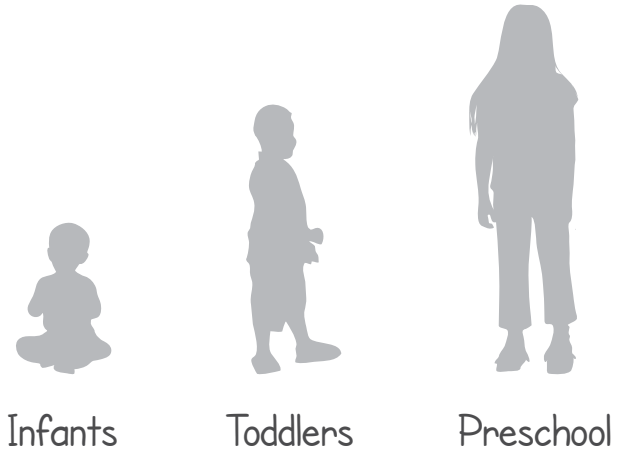


# INTRODUCTION

## The Center

Hutchison Child Care Extension Center is part of Bright Horizons Family Solutions, a national nursery school service. Bright Horizons serves many corporations, hospitals, universities, and government agencies. The center is located on campus and serves faculty and Davis residents. Ages of children at the center range from infants to pre-kindergarten. The Bright Horizons mission: "to provide innovative programs to help children, families, and employers work together to be their very best. We are committed to providing the highest quality childcare, early education, and work/life solutions in the world" (Child Care Preschool - Bright Horizons).

## Ages Served



## Site Map

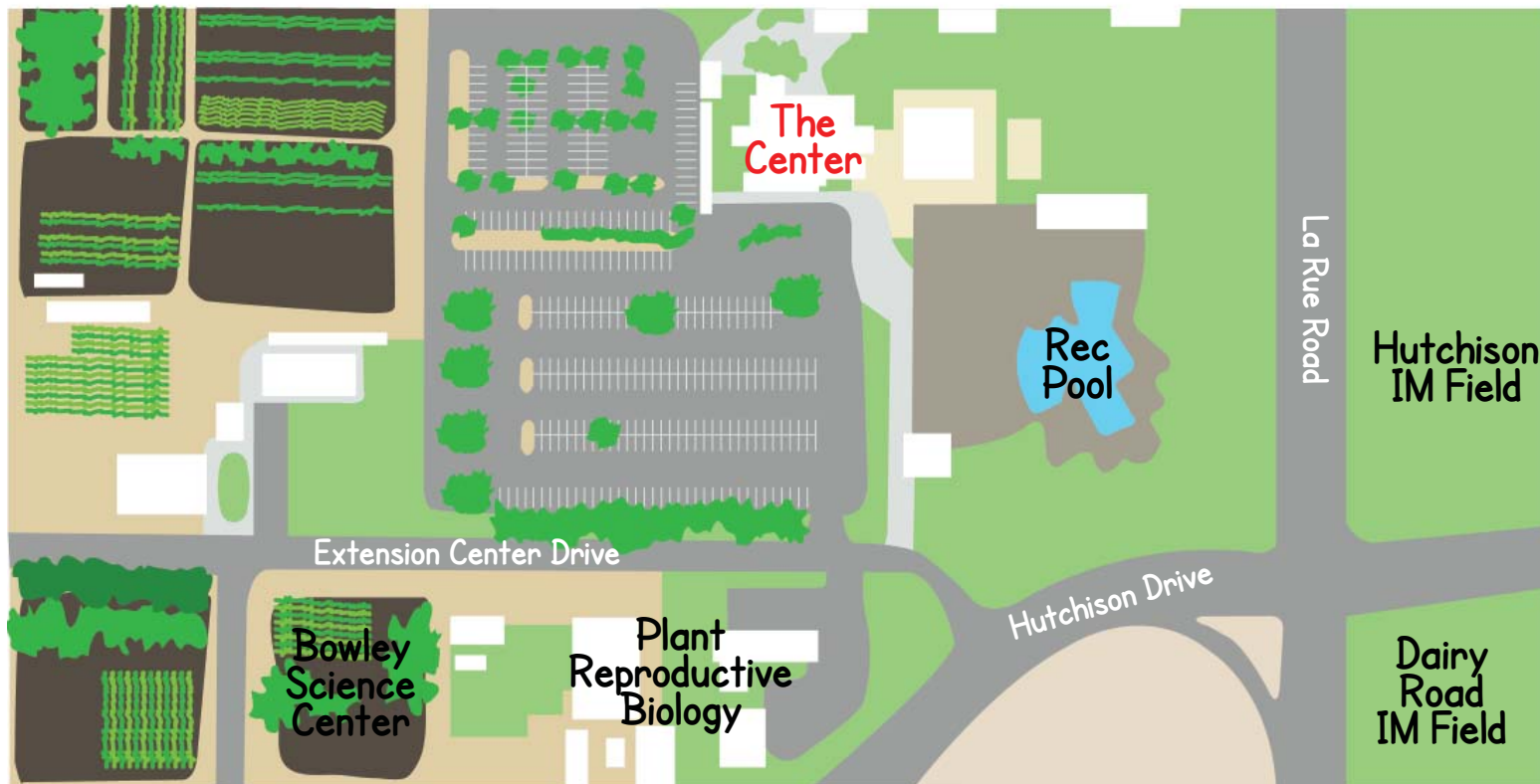


Figure 1.1

## Playground and Garden Committee

The Playground & Garden Committee consists of myself, landscape architecture faculty, the director and staff of the center, graduate students, and parents of children at the center. We meet every two weeks to discuss opportunities, concerns, events and projects to be built. The group combines resources and connections to find donations to get projects constructed.

Without this group The Playground Project would have had to significantly reduce the amount of projects to be built. The huge effort from the committee allowed for these projects to get built quickly.

## Committee Members

Liana Ramos, Student

Mimi Kusch, Parent

Teresa Heath, Director

Rachel Hartsough, Parent

Keir Johnson, Teacher

Uwe Rossbach, Parent

Jamie Schlee, Teacher

Kaitlyn Fitzmahan, Graduate Student

Stephen Wheeler, Parent and  
Landscape Architecture Faculty

Tiva Lasiter, Graduate Student

## General Goals

Color  
Textures  
Aesthetic  
Variety of Plants - Herbs, Shrubs, etc.  
Community Building  
Multifunctional  
Collaboration with Arboretum or  
Horticulture Source

The original goal of the center was to improve the existing landscape by adding color, texture, and a variety of shrub types. This would enhance the landscapes aesthetics and provide an opportunity for the center to connect with UC Davis departments and organizations. Departments and organizations like Landscape Architecture and The Arboretum.

The project would strengthen the relationship between the center and UC Davis and provide awareness to the centers efforts in improving itself.

## Design Goals

After visiting the site and collecting initial site analysis, new design goals are determined. These design goals drive all aspects of the project. From design aesthetics and functions to classroom curriculum and activities. The schoolyard design will also include natural elements and play options.

Safety and visibility of the children must always be taken into consideration. It is the responsibility of the center and the teachers to provide a safe environment for the children.

### Naturalistic Play & Garden Spaces

Agriculture  
Art  
Educational  
Informational  
Cooling  
Inviting  
Outdoor Classrooms  
Safe  
Sustainable

# Themes

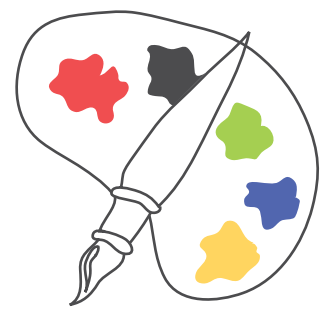
These themes can be found in all proposed designs.



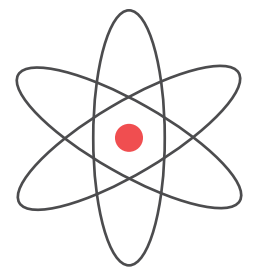
Play



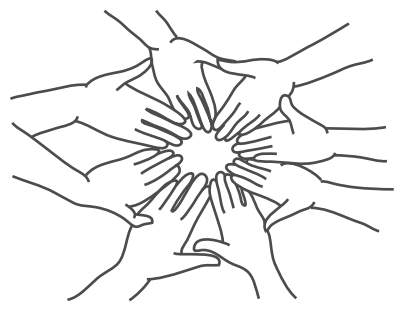
Garden



Art



Science



Community





RESEARCH



“Contact with nature also **enriches** the body and spirit. For children, time to be in nature offers **unique benefits** to their cognitive, physical, emotional, and social development”  
- Julie M. Johnson, Design for Learning

## My Approach

Before site analysis, I conducted research to gain insight on schoolyard design. This would allow me to observe where certain behaviors and activities are being carried out on the site. I gathered sources on these subjects and began organizing the information into categories: importance of nature, designing for young children, safety, and design, stewardship and sustainability. Lastly, I looked at successful examples of school yard designs around the world and used them as inspiration for my design.

## Importance of Nature

With increasing urbanization it is important for future generations to understand the value of nature. The natural environment is constantly decreasing resulting in negative environmental impacts such as global warming and species loss, and less connection and respect between children and nature. In order to allow children to connect with their surrounding environment it is imperative that naturalistic spaces are available in everyday landscapes. Contact with nature enriches the body and spirit. It is proven that nature is needed in urban environments to improve and maintain public health. For children, time in nature “offers unique benefits to their cognitive, physical, emotional, and social development” (Johnson, 2000).

Nursery school children are very young and only understand simple concepts that connect with their surrounding environment. For example, class subjects should study local flora and fauna (as these animals might live in the children’s neighborhood) rather than the extinction of elephants in Africa (Sobel, 1999). In depth curricula on subjects that are abstract for young children are more appropriate in older grades where the children can understand such concepts. Figure 2.1 by Roger Hart describes children’s developing capacity and comprehensive ability by age.

The ability to understand the relationship and actions of the human world with the natural world is known as, "ecological literacy" (Johnson, 2000). Julie Johnson views ecological literacy as a language and states, "to be literate in a language, one needs to use it, everyday, in a variety of contexts". Unfortunately, ecological literacy amongst children has decreased with urbanization. According to a 1994 national survey of fifth and sixth graders, 53% of the children listed media as their primary teacher about the environment, 31% reported that they learned more about the environment from school, and 9% claimed they obtained most of their environmental information at home and in the wild (Johnson, 2000).

Environmentalists, teachers, and designers recognize this problem and found solutions through green schoolyard design. The schoolyard is a place all children must visit on almost a daily basis. Having places on the schoolyard to expose children to the natural world increases the opportunity for improving ecological literacy.

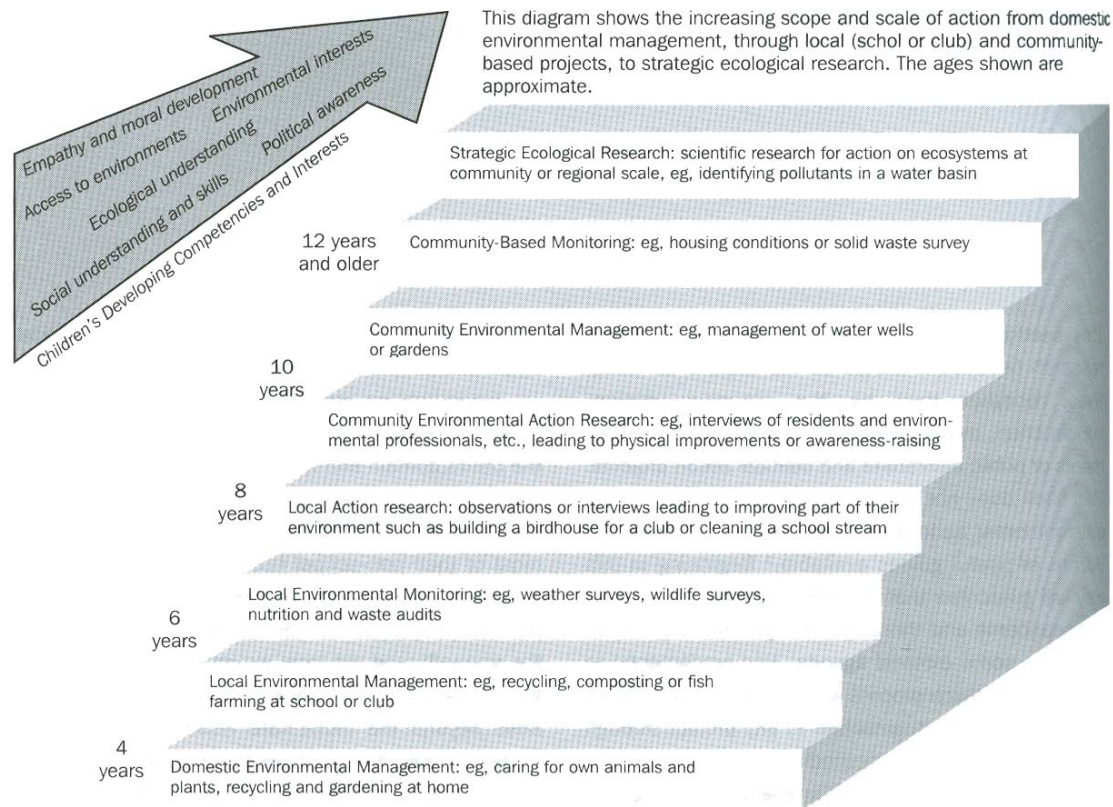


Figure 2.1

“What’s important is that children have an **opportunity** to **bond** with the **natural world**, to learn to **love** it, before being asked to **heal** its wounds”

-David Sobel, *Beyond Ecophobia*

## Designing for Young Children

Young children learn through participation and experience. Kenneth Olwig relates “children’s perceptions of space to their bodily experience, and points out that children orient themselves to people and activity in the landscape rather than visual composition”. The children at the center have short attention spans so having outdoor classroom space to experience the environmental topics discussed in class increases their comprehension ability.

Material types must carefully be chosen as children perform particular activities and behaviors. The schoolyards design must bring out these healthy behaviors to promote creativity and stimulation (Wong & Moore, 1997). Such behaviors include, hiding in or under small hiding spaces, collecting loose materials, finding places to store loose materials, taking care of objects, and role playing (Bengtsson, 1970). The hiding places or nooks provide spaces where children can collect items, store materials or role play (Wong & Moore, 1997). As Frost (1992) noted, “Children who play with unstructured or minimally structured (divergent) play materials perform better on measures of creativity than those who play with convergent materials (Pepler 1979; Pepler & Ross 1981) and they engage in a wider variety of fantasy play (Pulaski 1973). Children’s activities with structured (convergent) materials are limited and unlikely to foster creativity (Goldman & Chaille 1981).

Some ways to gain free materials are by using recycled wood, cable reels, utility poles, tires, or tree cuttings (Hogan, 1975). Using donated or recycled materials is an option for schoolyard projects on strict budgets. The quality of all materials must be inspected to assure safety.

# Design for Learning Experiences

Notes from Design for Learning: Values, Qualities, and Processes of Enriching School Landscapes  
by Julie Johnson

## Experiences

1. Rich and varied sensations: touch, sounds, smells, tastes, sight. Children learn through relating space to their own body and movement.
2. Abundant choices: varied activities foster the development of different intelligences.
3. Opportunities to make changes: creating and changing environment.
4. Personalized sense of place: choose from and be in a range of comfortable settings help foster personal meanings and emotional attachment.

## Landscape Qualities

1. Natural and Cultural Systems: relating nature to class teachings and having cultural or historical elements to teach children, e.g. garden that contains plants from home countries, sculptures or banners.
2. Connections: views from classroom, transitional spaces, entryways, encourage interaction.
3. Legible and Complex Image: paths, nodes of activity, edges, districts, and landmarks. Complexity and mystery in materials, objects.
4. Varied Scales: paths, sitting areas, etc. depending on use need to have appropriate scale. Child sized places, varied topography and structure levels.
5. Flexibility: open-ended, flexible, or unfinished spaces provide opportunities for children's imagination and creativity to flourish as well as for alternative activities within a curriculum.
6. Aesthetic Quality: poetics and beauty of places engage the mind and spirit. For children, beauty is not simply experiences as a visual composition, but as a setting that engages all the senses, particularly at the detailed, close to ground scale.

## Themes for Landscape Character

1. Habitat
2. Gardens
3. Sustainability
4. Cultural and Artistic Expressions
5. Interpretive Features (parks, museums, historical natural and cultural artifacts)

## Safety

Schoolyard design for young children must carefully be thought out as young children are more susceptible to injury and illness. Many of the children still attempt to eat what they can pick up, throw objects, and touch everything. Vegetation choices must be non-poisonous and not physically harmful. Hiding places are usually not found on schoolyards due to its perception as a safety hazard since it disrupts visibility of the children. One way to create hiding places and maintain visibility is by creating edge conditions (Bengtsson, 1970). These “edges” could be made out of vegetation, bricks, planks, sticks, etc. These outdoor rooms are necessary to children’s play as vast, open play areas are often too windy and disagreeable. Schools and designers are usually too concerned that every corner must be in full view, which in turn, makes children play elsewhere (Bengtsson, 1970).

## Design, Stewardship, and Sustainability

After researching successful green schoolyards, I found similar types of garden and art spaces. Murals or dream walls give color and a sense of playfulness to the schoolyard. Creating educational murals and allowing children to be involved with painting or choosing the mural design enhances the children’s relationship and respect for the schoolyard (Wong & Moore, 1997). Small educational gardens can be installed: butterfly corners, edible teepees, vegetable beds, etc. Some educational activities that conjoin the classroom with the outdoor classroom are garden logs (Figure 2.2) wildlife attraction, snail trails, bug habitats, and discussing the food web of the garden (Wong & Moore, 1997). Other activities or design options can be found throughout Figure 2.3-2.6.

Green schoolyards can take years to establish as they are a result of community collaborations. The schools community consists of the principal/director, faculty, staff, students, and their families (Danks, 2010). Other sources of support can include local businesses, government agencies, nonprofit organizations, and other schools. The process of building the schoolyard is important for community development as it invites all parties to be involved and to connect with the project. Some ways to involve the community is to invite them to building. Planting and construction can be easy to coordinate and are activities people find joy in (Wong & Moore, 1997). Involvement in the schoolyard creates stewardship. Stewardship should be viewed as responsible schoolyard users and helpers and not just maintenance assistance (Danks, 2010).

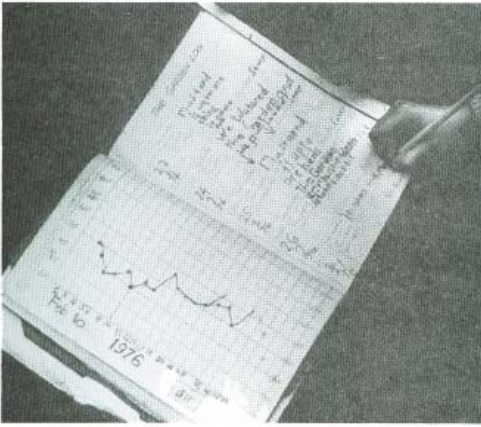


Figure 2.2

## Rules of Thumb for Starting and Sustaining Green Schoolyards

### Asphalt to Ecosystems: Design Ideas for Schoolyard Transformation

by Sharon Danks

#### Basic Steps

1. Start with buy-in from the principal.
2. Form a green schoolyard committee to oversee the projects development.
3. Discuss new ideas with the school faculty before engaging parents.
4. Make initial inquiries to the school district to see what's possible.
5. Allow enough time to give careful through to your schoolyard master plan.
6. Allow project participants to "get their hands dirty" as soon as possible.
7. Dream big, but start small. Plan to implement the project slowly, over time.
7. Thoroughly document the design, construction, and stewardship process.
8. Institutionalize the green schoolyard program.
9. Never "Finish".
10. Plan for stewardship from the beginning.
11. Raise money.
12. Do not give up.



# Childproofing and Yard-Safety Tips for Gardening with Children

*With the right attitude, the garden and yard, just like a properly childproofed home, can be a safe and happy place for family fun in all seasons.*

1. The number one rule for children in the garden is to never eat anything unless an adult is supervising. While eating fruits and vegetables you've grown yourself is part of the joy of gardening, many common ornamental plants can make you quite sick if you eat them; some are very poisonous.
2. Never leave a toddler or young child outside unattended.
3. Point out any potential hazards to the child, such as thorn bushes or poison ivy. Fence off areas of plants that should be avoided, if necessary.
4. Be careful with sharp tools and discuss with your children which tools are safe for them to use and which are not. Place forks, rakes and other pointed tools points down.
5. No chemicals. Despite their sometimes colorful labels, garden chemicals are highly dangerous if mishandled and have no place in a garden with young children. A child's garden, above all other, should be an organic garden. If you do have garden chemicals, be sure to store them in clearly marked containers, perhaps with a big skull and crossbones. Never use soft drink bottles or other empty food containers for storing chemicals, cleaning supplies or fertilizers.
6. Always wash your hands after gardening.

The above tips on outdoor safety with children are from the Netherlands Flower Bulb Information Center.



Figure 2.3



# blooming salad



A salad of edible flowers can be beautiful and tasty.

In modern times, flowers have been used as a beautiful garnish for foods or salads. But now, as in times past, they are appearing in dishes for their flavor as well as their beauty.

Some flowers are similar to lettuce in not having much flavor, but many are very flavorful. The flowers of borage have a strong cucumber flavor; chive flowers add an onion flavor; bee balm has a minty lemon flavor; lemon thyme has the pungency and flavor of lemon; pot marigold flowers are tangy; tuberous begonias have a light lemon flavor; honeysuckle tastes like honey and pinks have a spicy clovelike flavor.

Lavender is very pungent and should be added in small doses. Nasturtiums have beautiful flowers with little flavor, but their leaves are very spicy and can be

substituted for ground pepper. Tulips have a crisp texture and are similar to peas, but taste a little sweeter. (Make sure you remove the pollen and stigma from the tulips before using as they do not taste good.)

Violets, apple blossoms, lilacs and roses have a sweet floral taste, but each variety has a slightly different flavor. To avoid disappointment,

you must smell and taste the flower before using it. The more fragrant the flower, the stronger the flavor.

Figure 2.4

# tepee garden

## Seed List

- A. Scarlet runner bean
- B. Jack-be-little pumpkin
- C. Radish mix
- D. Mammoth sunflower
- E. Marigolds
- F. Strawflowers

A vine-covered tepee is easy to grow. Young children delight in watching the vines climb up the tepee poles, creating a special place for them to hide and play. I recommend two fast-growing vines. The most important one is the scarlet runner bean which, alone, quickly covers the structure. The vine is continuously covered with

both red flowers and beans all summer. It offers children the best of both worlds: being able to hide in the tepee and to reach out and grab a young pod to nibble. The second vine, Jack-be-little pumpkin, will not cover the tepee, but grows pumpkins so small that they fit in children's hands. Other fast-growing vines that could be substituted are morning glory, moonflower and love-in-a-puff.

At the backside of the tepee, stately sunflowers are planted to "stand guard" over the garden and grow seeds that children can harvest for bird feed or roast for snacks. In the front and side of the garden, marigolds grow to be picked for fresh flower bouquets and strawflowers for dried winter bouquets (see pages 68–70).

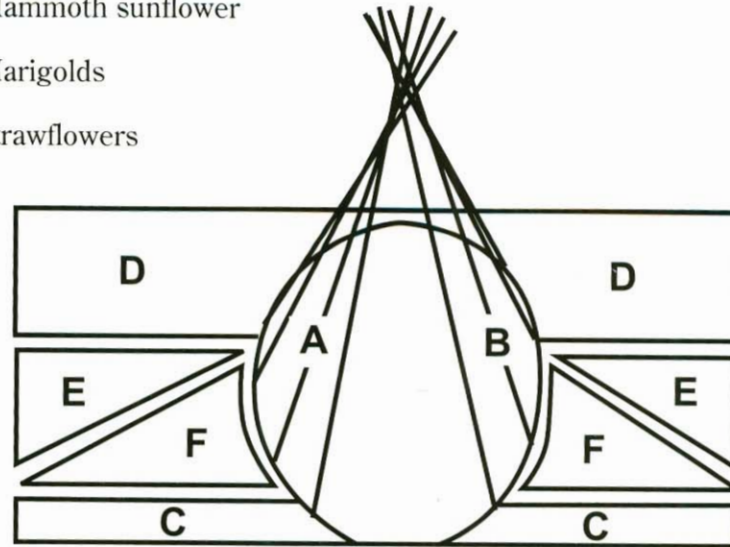
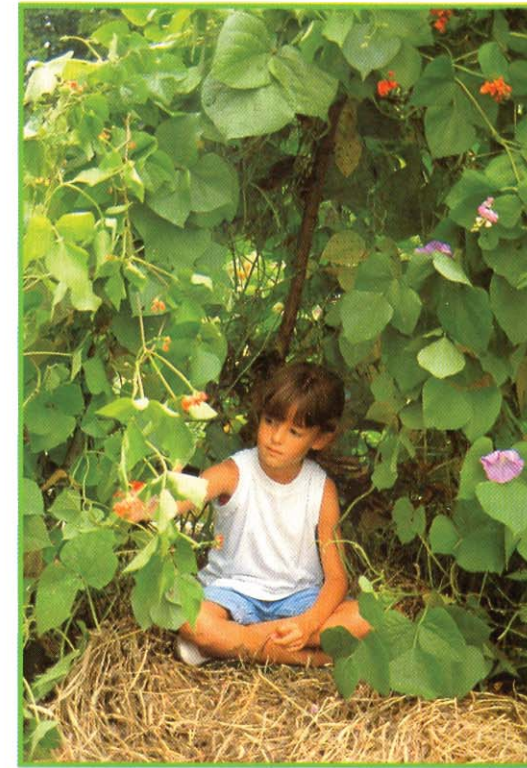


Figure 2.5



Prepare the garden soil for tepees as you would for any new garden (see page 7). After the danger of spring frost, sow the seeds directly in the garden where they are to grow, following the instructions on each seed package. I positioned the tepee in the middle of the garden, but you can place it anywhere and adjust the design accordingly. The tepee itself was made of bamboo poles set in the ground and tied together at the top. A trellis netting can be wrapped around the poles to make it easier for the vines to climb and cover the tepee structure. The scarlet runner beans and the Jack-be-little pumpkin seeds should both be planted evenly spaced, a few inches apart, around the outside tepee structure. When the seedlings emerge, they can be thinned to the distance recommended on the seed packets. A large plastic garbage bag can be laid on the ground inside the tepee to keep weeds from growing. Later when the vines are covering the tepee and the children want to play inside it, a towel or a small rug can be laid for the children. Radishes quickly mature and can be eaten in three to four weeks.



Catie Bales hides from the sun in the shade of her tepee garden.

Figure 2.6

## Successful Examples

I compiled examples of successful schoolyards which I used as inspiration and as models for my design. Most examples feature schoolyards for younger children but some feature design solutions that can be adapted to the centers schoolyard.

### Busy Bee Daycare & Preschool

Portland, Oregon

The nursery school uses natural elements like tree stumps as play equipment and bean teepees.



Figure 2.7



## Playful Edges at the Lackenbach Arboretum Lackenbach, Austria

The arboretum uses paving and vegetation to create edge conditions.



Figure 2.8

## Loose Parts in a Natural Playground Seattle, Washington

A Seattle Preschool uses natural materials as play structures and for play.



Figure 2.9



## Colorful, Recycled Sign Fencing

By YouthBuild in Greensboro, Alabama

Fencing made from recycled street signs. YouthBuild provides low-income students with the opportunity to study for their GED, acquire trade skills, and earn a small stipend for making fences.



Figure 2.10

## Raised, ADA Planter Beds and Sensory Boxes

William Carter School, Boston, Massachusetts

The nursery school uses natural elements like tree stumps as play equipment and bean teepees.



Figure 2.11

## School Murals

Davis, CA and London, UK

Figure 2.12 and 2.13 feature schoolyard murals. Figure BLAH has a mural and climber wall.



Figure 2.12



Figure 2.13

## Art Opportunities

From Asphalt to Ecosystems by Sharon Danks

Figure 2.14 features a chalkboard wall used for water painting. Figure BLAH students drawing with chalk.

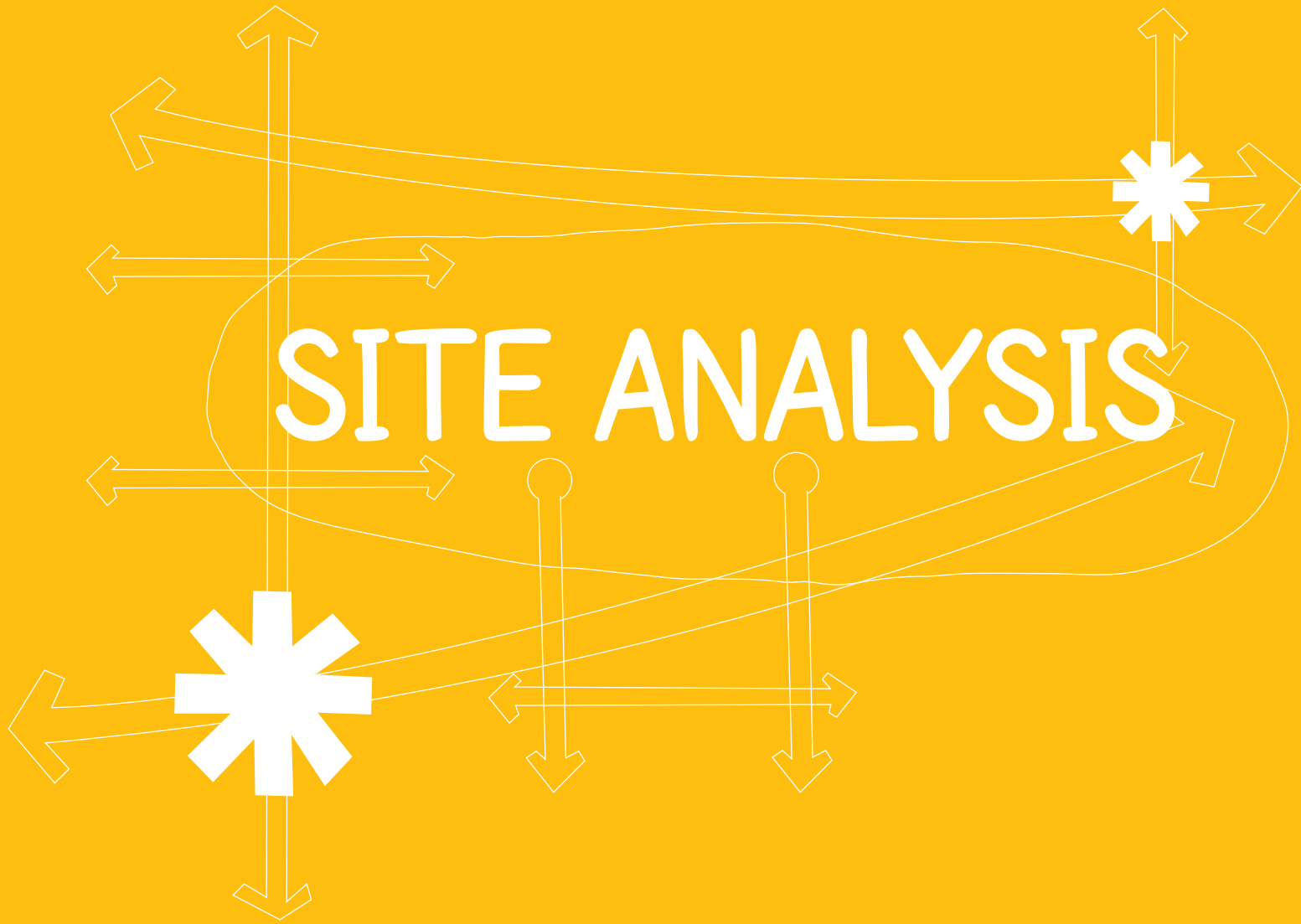


Figure 2.14



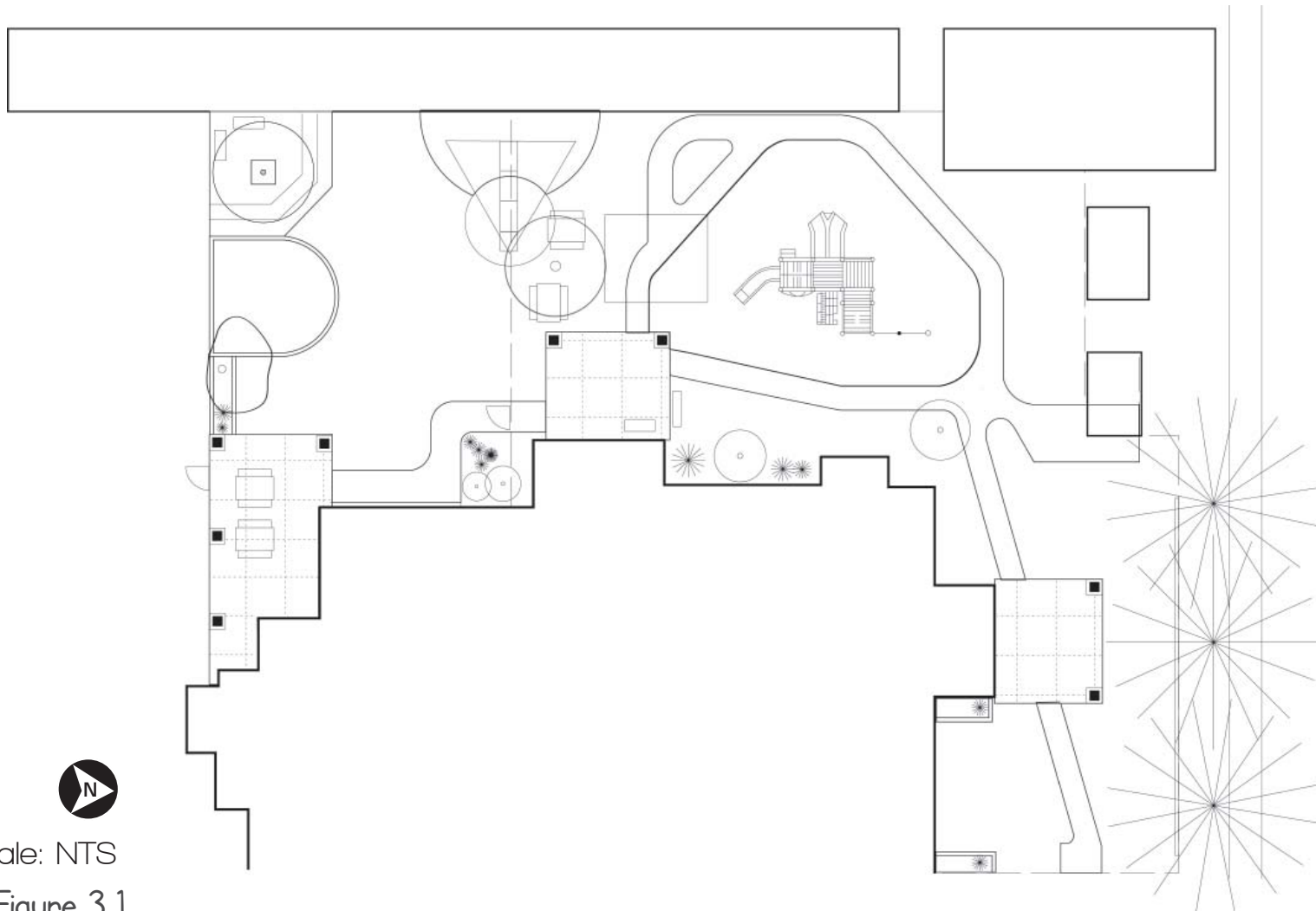


# SITE ANALYSIS



## The Site

I have chosen to work with the pre-k and toddler side of the center (Figure 3.1) This is the west side of the building and has three large areas: pre-k play area (south area), playground, and north shade area. I created this base map to assist with site analysis.



Scale: NTS

Figure 3.1

## Existing Site Photos

The photos shown below were taken during the initial stage of site analysis. These photos are used to document existing conditions and opportunity areas.



Figure 3.2



## Existing Site Photos Continued

These photos show the north side of the site. The north side of the playground is the least utilized area. The planters have minimal vegetation and most of this area does not contain any play equipment.

### Underutilized Planting Areas



### Open Areas and Fencing



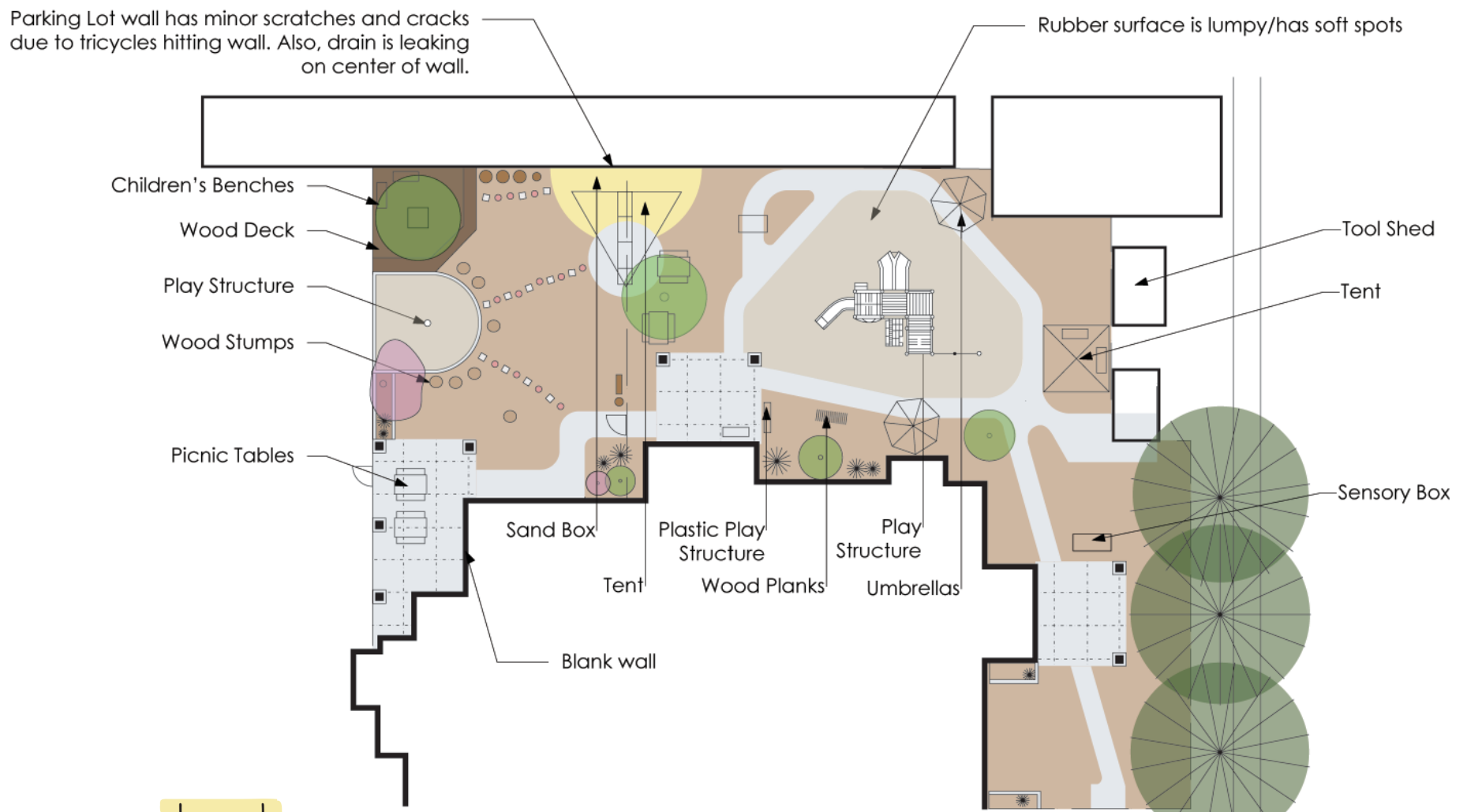
Figure 3.3

# Existing Conditions

**Surface Condition:** Sand and wood chips have mixed together all over the playground. Wood deck still in good shape.

**Vegetation Condition:** Most of large shrubs and trees are not fully mature but are healthy. The smaller shrubs could be healthier. Potted plants are not as healthy and plants near partition have died. The small shrubs on the north side of the site are also not healthy. This could be due to too much shade.

**Structure Conditions:** All of the structures, toys, and tools are in great condition. The tree stumps and tiles are in good condition aside from one cracked tile.



## Legend

- |            |                |               |          |                   |
|------------|----------------|---------------|----------|-------------------|
| Wood Deck  | Sand           | Potted Plants | Olive    | Pines             |
| Rubber     | Cement         | Shrubs        | Buddleia | Medium Sized Tree |
| Bark Chips | Stepping Tiles | Tree Stumps   |          |                   |



Scale: NTS

Figure 3.4

## Use and Perception

I mapped activities and the direction of tricycle circulation (Figure 3.5). Red highlights activities and their areas. Blue highlights areas of concern but are also opportunity areas. For example, the flimsy bamboo fence is an opportunity to replace it with something more substantial and aesthetically pleasing.

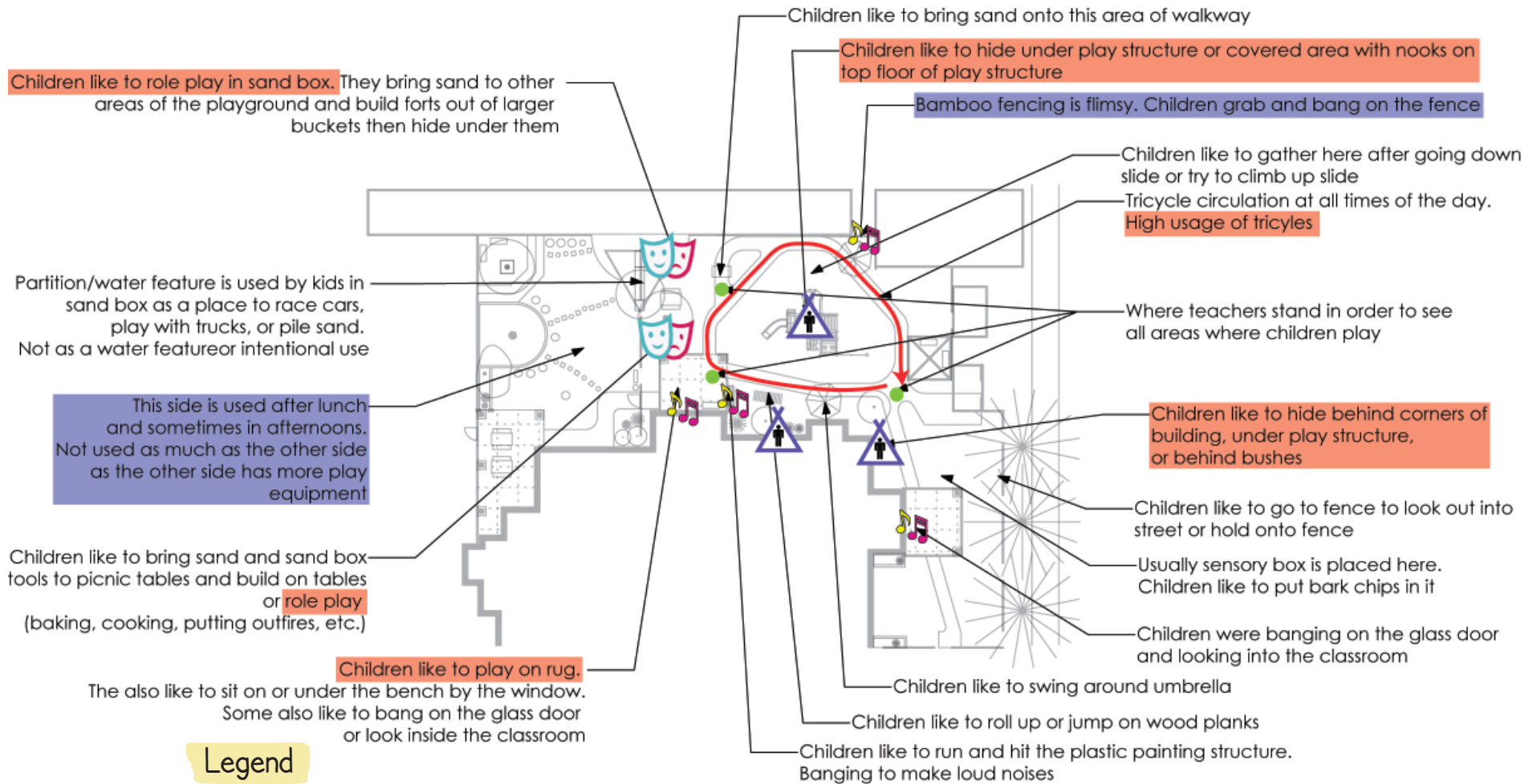


Figure 3.5



Scale: NTS



Role Playing



Music/Creating Noise



Hiding Places



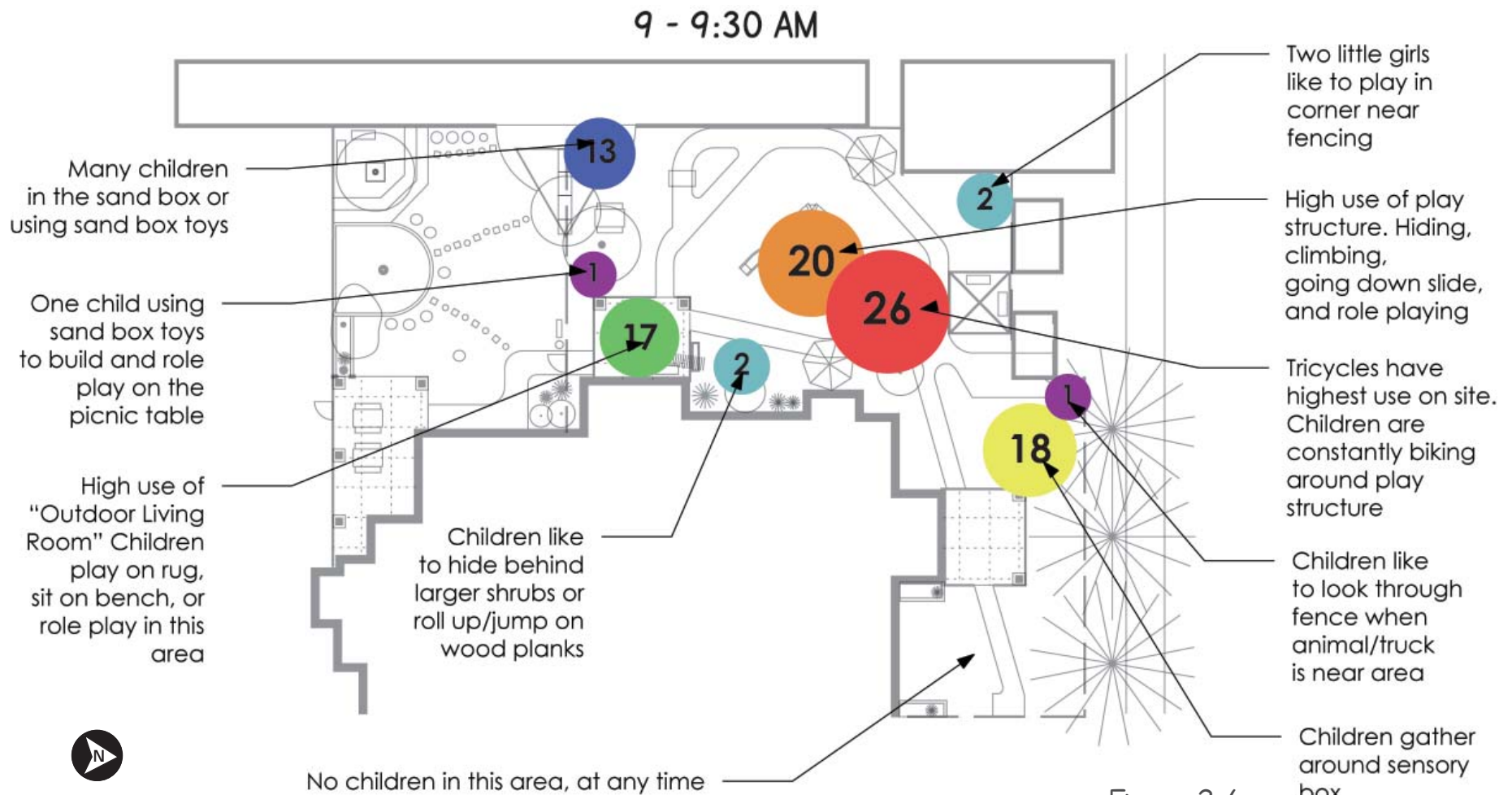
Teachers



## 30 Minute Activity Observation

I collected playground activity data for thirty minutes in the morning and afternoon. Every five minutes I would mark locations of activities and tally how many children participated. I added these totals up to see high and low use activities.

**Notes:** Children fought over sandbox tools then put sand all over the picnic tables and walkways. The children used the archway to throw a ball against. The archway is also shaded out by tree making it hard for the potted plants to establish.



Scale: NTS

Figure 3.6

## 30 Minute Activity Observation

The afternoon data collection had more children

**Results:** Pre-k & Toddlers play together. One of the children's arm got stuck in play structure. There is still sand all over the walkways. Some of the children placed wood chips in carriage of tricycle. When the children fall on the wood chips they just get back up again without crying.

4:30 - 5:00 PM

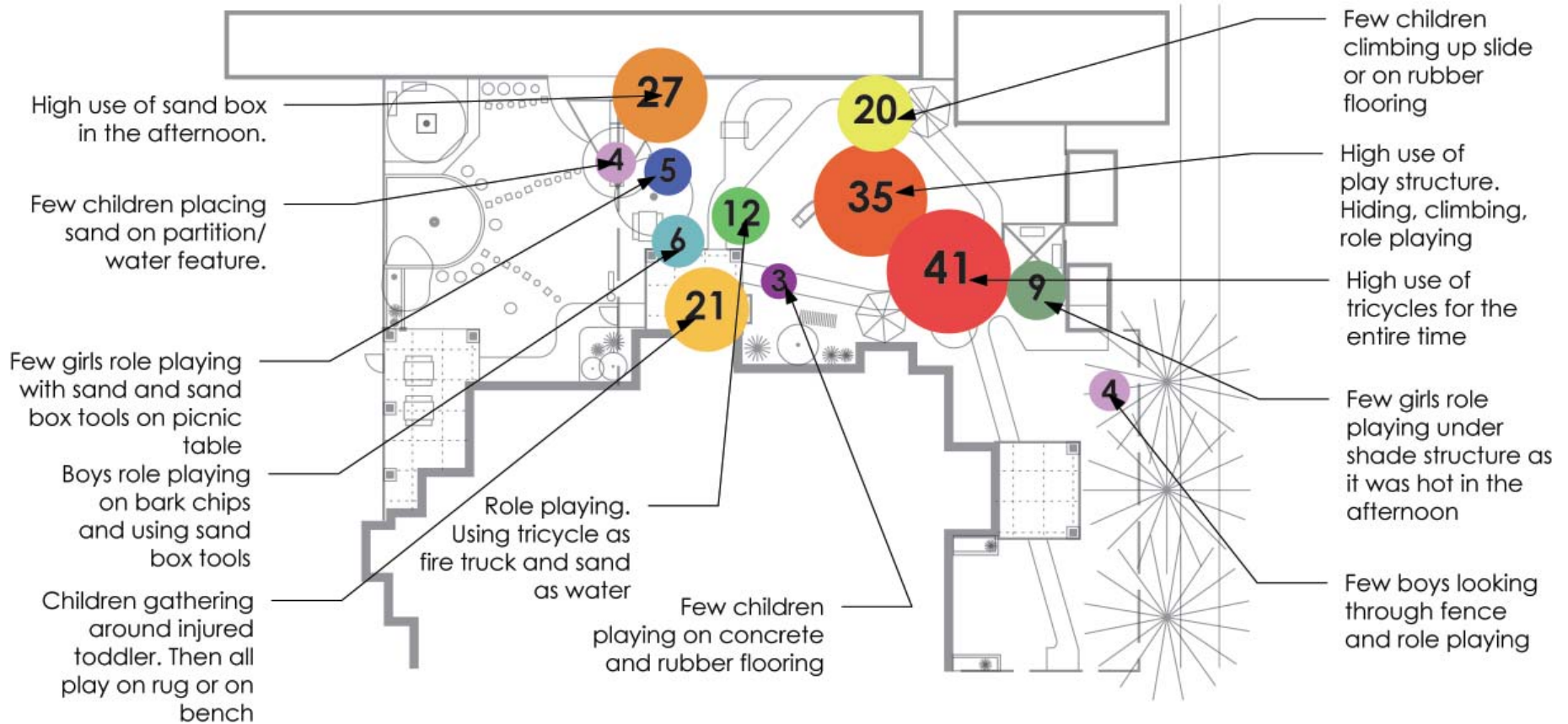


Figure 3.7

Scale: NTS



## Informational Graphic on the 30 Minute Activity Observation

### Morning Study

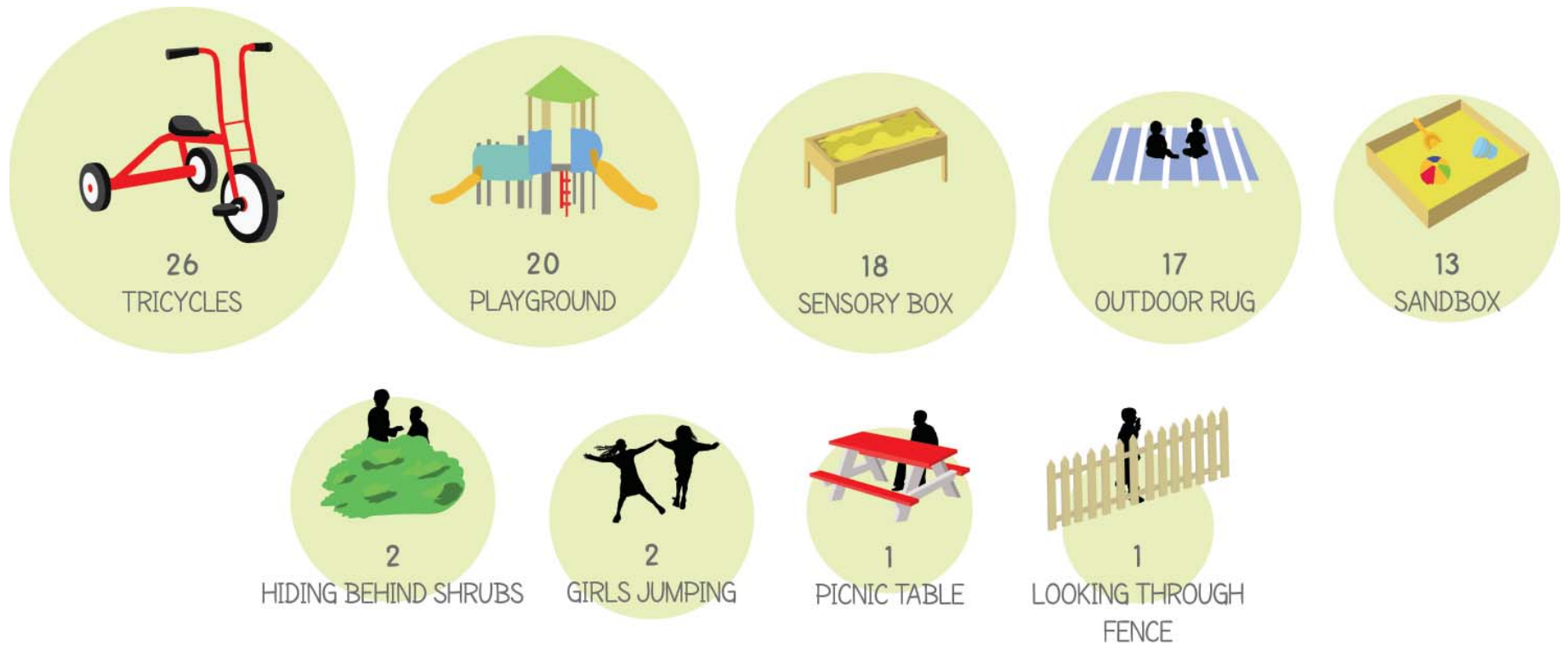


Figure 3.8

## Issues and Opportunities

This map marks areas of concern but more importantly, opportunity areas. The space has functional and quality elements already existing. Most opportunity areas featured on this map involve garden areas, not play equipment.

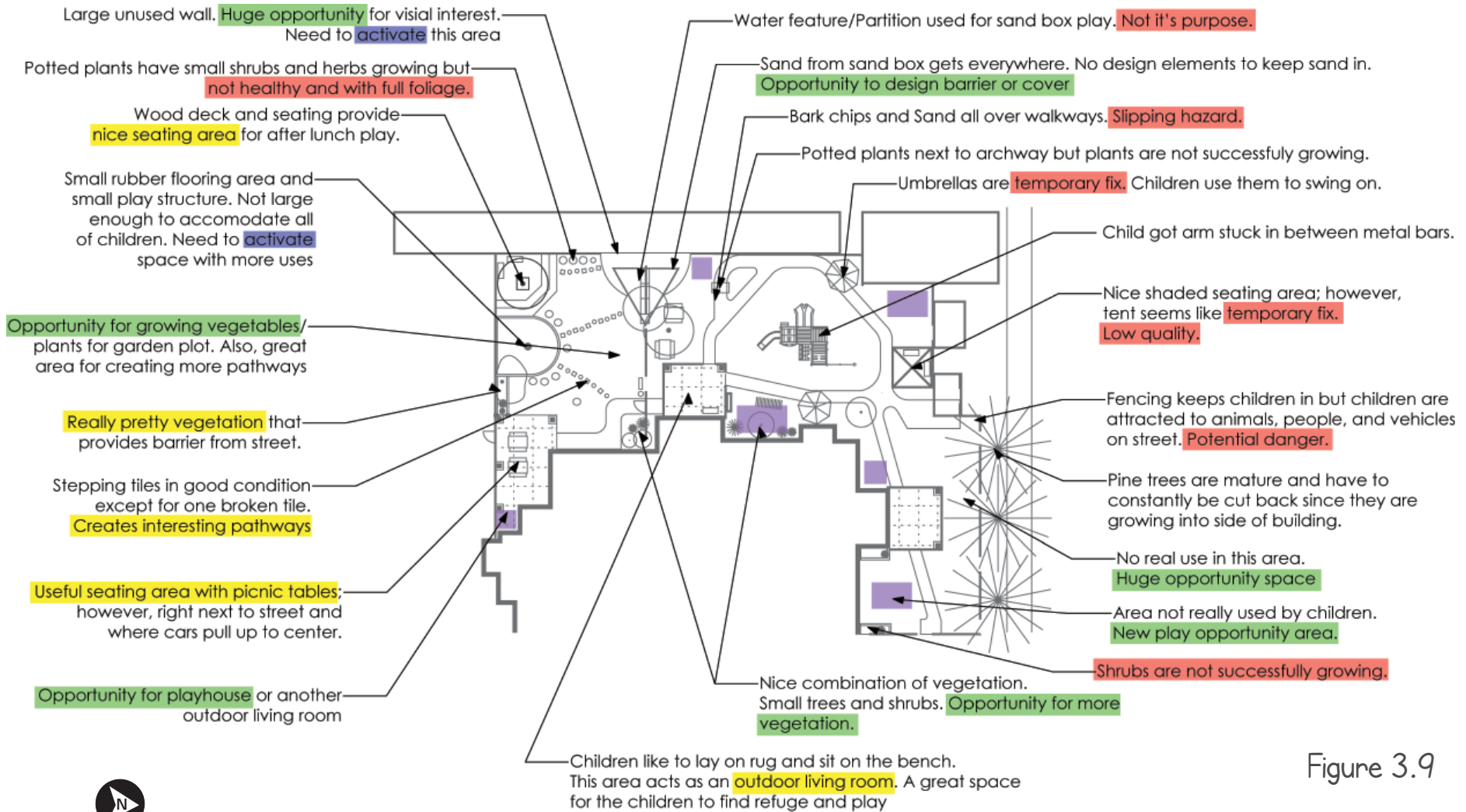


Figure 3.9



Scale: NTS

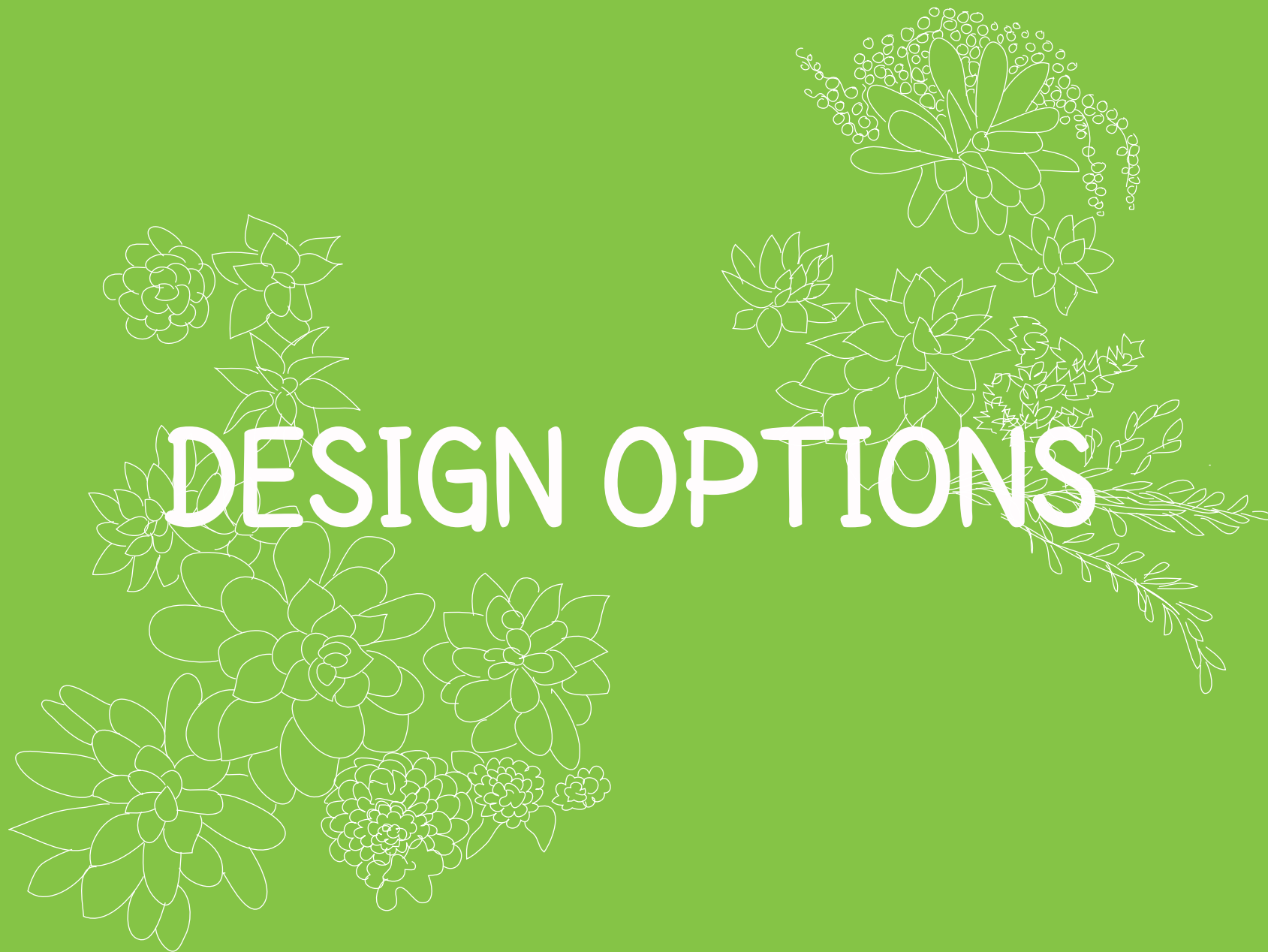


Opportunity Areas for Safe Hiding Places





# DESIGN OPTIONS





## Family Potluck, November 17, 2012

These photos were shown during a family potluck at the center. I used the potluck as an opportunity to introduce The Playground Project and to gain insight on families' opinions of the existing playground and possible design solutions. These are images I found inspirational and appropriate for schoolyard design. I created two posters that families could vote on whether they liked or disliked the photo and could leave comments or concerns on.



Figure 4.1



This poster (Figure 4.2) shows photos of the existing playground. I asked families to vote on each photo. Green for like, red for dislike.

Please place stickers under each photo to indicate whether or not you like the playground feature  
**COLOR for Like**  
**COLOR for Dislike**

# PRE-K & TODDLER PLAY AREA FEATURES

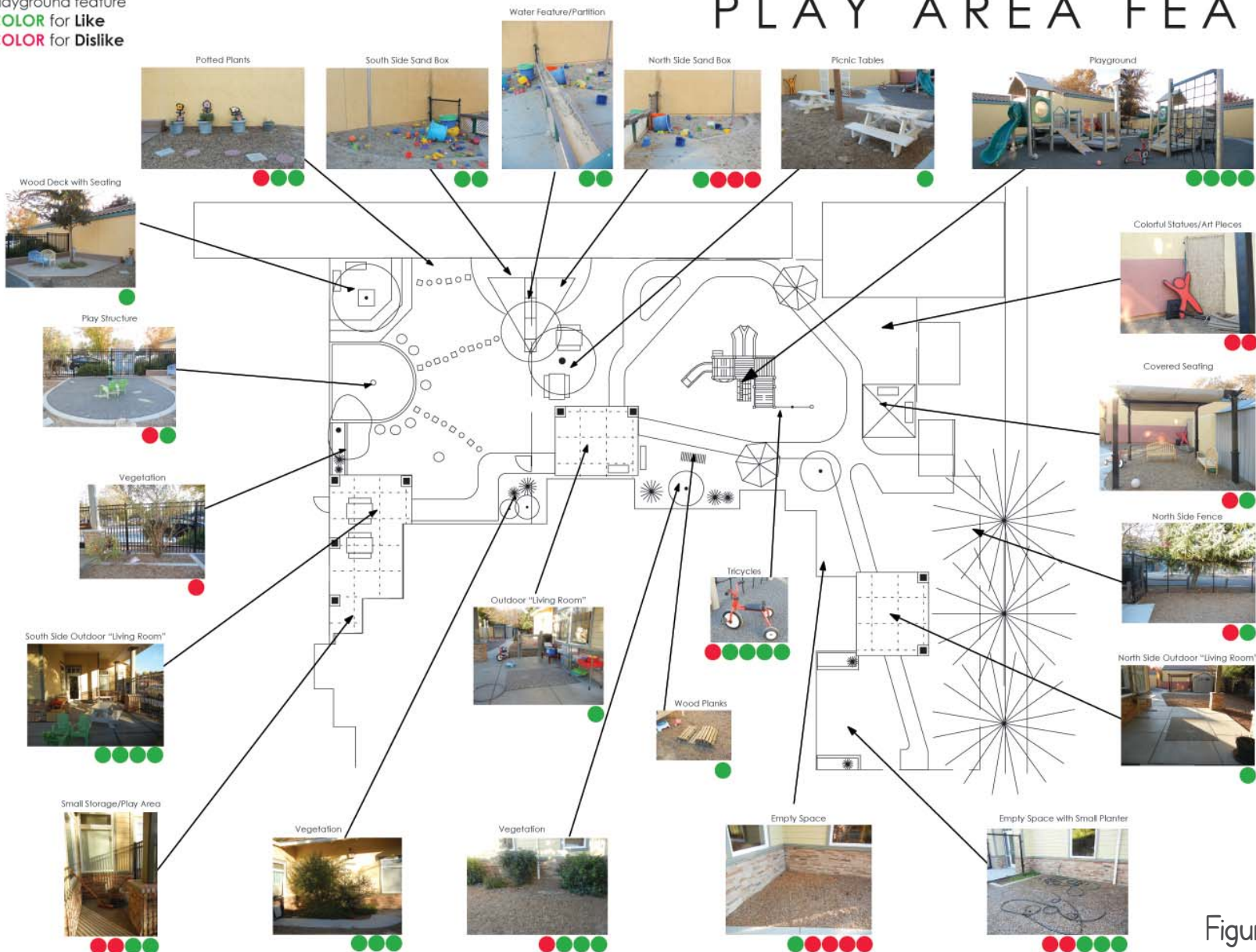


Figure 4.2

This poster (4.3) shows photos of design solutions I found inspirational. I asked families to vote on each photo. Yellow for like, blue for dislike.

# DESIGN IDEAS

Please place a sticker on ideas you like or dislike

**YELLOW** for Like

**BLUE** for Dislike

Herb Spiral Garden



Sand Box Cover



Made from Recycled Wood



Outdoor Mural



By Juli Ann Blanco  
at Marguerite Montgomery  
Elementary School in Davis, CA



Outdoor Mural with  
Climbing Wall



Planter Options



Planters made from recycled materials



Vertical planters



Drawing Opportunities



Chalk Board on Fence



Drawing Wall



Bean/Vegetated Tipi



Recycled Street Signs  
Create Colorful Fencing



Places for Children to Collect  
and Store Natural Elements



Figure 4.3



## Comments from Families

### South Side - Four pots along wall

"This area is too scattered, could use a lot of fun activities, pots are just place holder"

### South Side - opportunity for vegetation

"Please! This would be great for the kids"

### South Side - stepping stones

"Beware of stepping stone, my son fall on it and hurt his head on edge of it pretty bad, Suggest to embed stones and made it flush with surrounding paving material"

### South Side - fencing

"Consider screening from street, vertical planting or some type of fence along this area"

### Bean Teepee

"This is a cool idea, combine planting/veg. garden opportunity w/ playing opportunity"

### Sand Box Cover

"What's the purpose of sandbox cover? Are there any cats or wildlife around here?"

## Staff Workshop, January 16, 2012

During a Staff Development Day I was given time to lead a staff workshop to teach the staff about seed bombs, transplanting shrubs, and to discuss their concerns and ideas for the playground. I started with the Seed Bomb activity where recycled paper is covered in seeds to create seed bombs. The idea is that these can be thrown anywhere and will germinate once water reaches the seed bombs. This is an easy activity to do with the kids and is a form of guerilla gardening. I then taught the teachers how to transplant shrubs. Before the workshop, a few of the teachers mentioned they had no gardening experience and did not feel comfortable teaching the children about the garden. During the last ten minutes of the workshop I asked the teachers if they had any ideas or concerns for the schoolyard. Some ideas were: lawn, bird feeders, worm bin, sunflowers, hay stacks, chalkboards, and topography. When discussing concerns for the playground, the toddlers were the main concern. The toddlers do not understand rules and safety as much as the pre-kindergarten children.

Seed Bombs



Figure 4.4

Transplanting



Figure 4.5

## Final Design Options

The Staff Workshop and Family Potluck provided an easy and straightforward way to introduce the project to the community and to invite them to participate in design decisions. All of the research I gathered stated community involvement is crucial to the success of schoolyard designs and its sustainability. I want to make sure the community is involved in every phase of the project.

I found many parents interested in the garden and thankful that the center is moving in this direction. The majority of parents hope for vegetable gardens and trees for shade.

After taking comments, concerns, and ideas from the community, I went back to the playground and mapped out opportunity areas. I then presented my notes, inspirational images, and ideas to the Playground & Garden Committee. As a group we chose certain projects to pursue for The Playground Project.

The projects: a spiral shaped garden, vegetable bed with worm bin, butterfly corner, shade garden, Woolly Pockets®, play rooms and nooks, bean teepee, art wall, permanent shade structure, vertical gardens, outdoor art areas and more plants in existing planters.

For Phase 1 we had to narrow our scope and decide on a few projects to pursue as the budget for The Playground Project is limited. The center purchased Woolly Pockets® which will be used for a vertical salad garden after the summer months, and the materials for the spiral garden. The committee combined resources to find donations and these donations are another major factor in which projects to accomplish.





# CONCEPTUAL MASTERPLAN

# Conceptual Masterplan

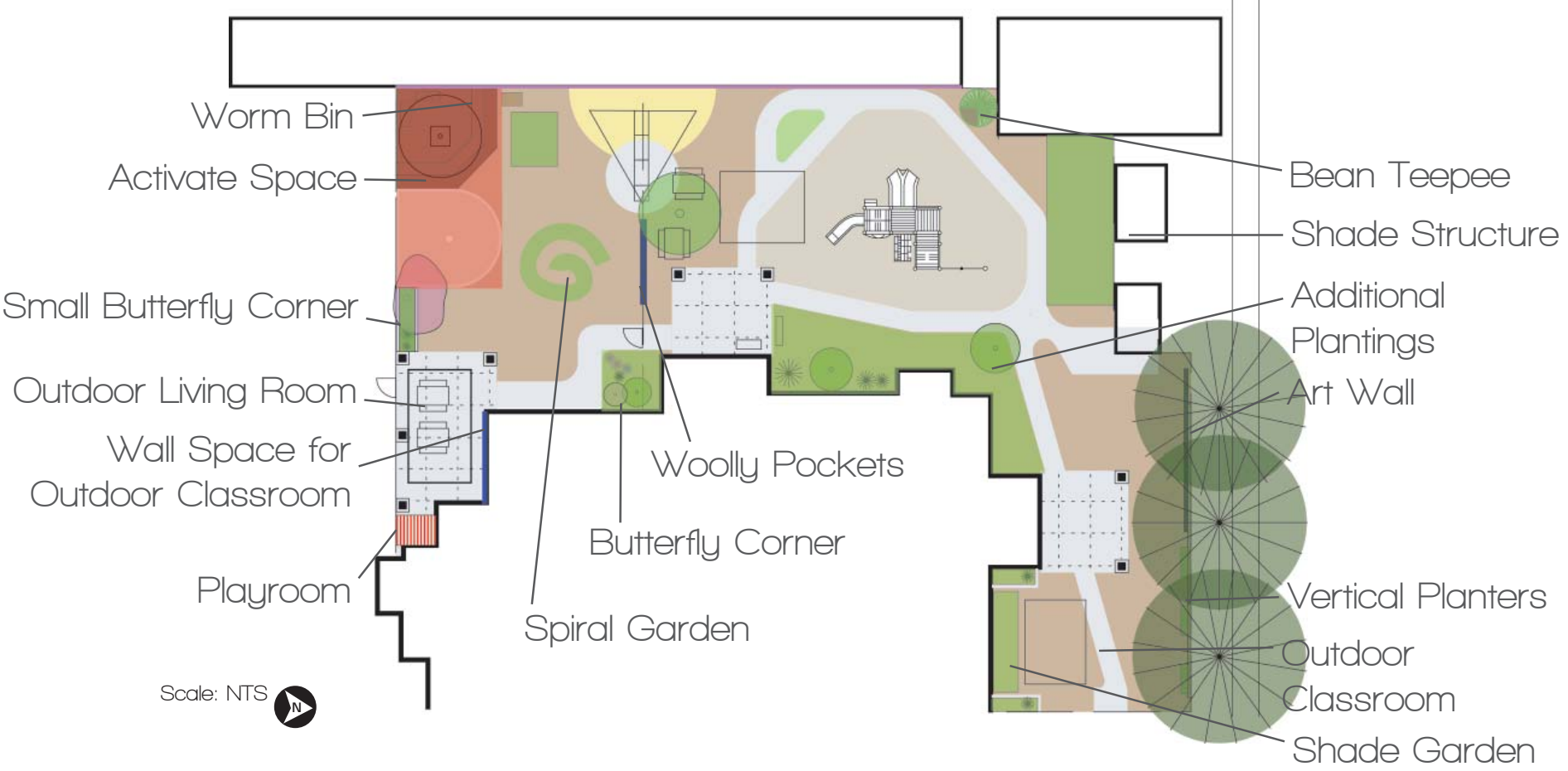


Figure 5.1

## Using the Conceptual Masterplan as a Tool

The conceptual masterplan shown in Figure 5.1 presents goals for the future. Not all of the designs can be built within one year's time but it is important to be able to revisit original intentions for the site.

The masterplan does not have to be followed exactly and should be used as a tool to represent general goals for the playground. Goals like greening the center, adding more natural play areas, and locations for these additions.

Figure 5.1 was presented to the Playground & Garden committee. Every member contributed ideas, found resources, and brought enthusiasm to the project.





A white line-art illustration of a garden bed, centered on a teal background. The garden bed is filled with various plants, including flowers, grasses, and succulents, arranged in a somewhat circular pattern. The text "PHASE 1" is written in a bold, white, sans-serif font across the middle of the garden bed. The entire illustration is enclosed within a white double-line border.

PHASE 1

## Phase I

I presented my findings from the Family Potluck, Staff Workshop, and my conceptual masterplan to the Playground & Garden Committee and as a group chose a few of the projects to pursue. The projects: spiral garden, vegetable bed, butterfly corner, grass strip, Woolly Pockets® and shade garden. The committee gathered resources and contacts to find materials, collaborated ideas on the construction of the projects, and coordinated a schedule for the building. I was given total control on the design of the spiral garden.

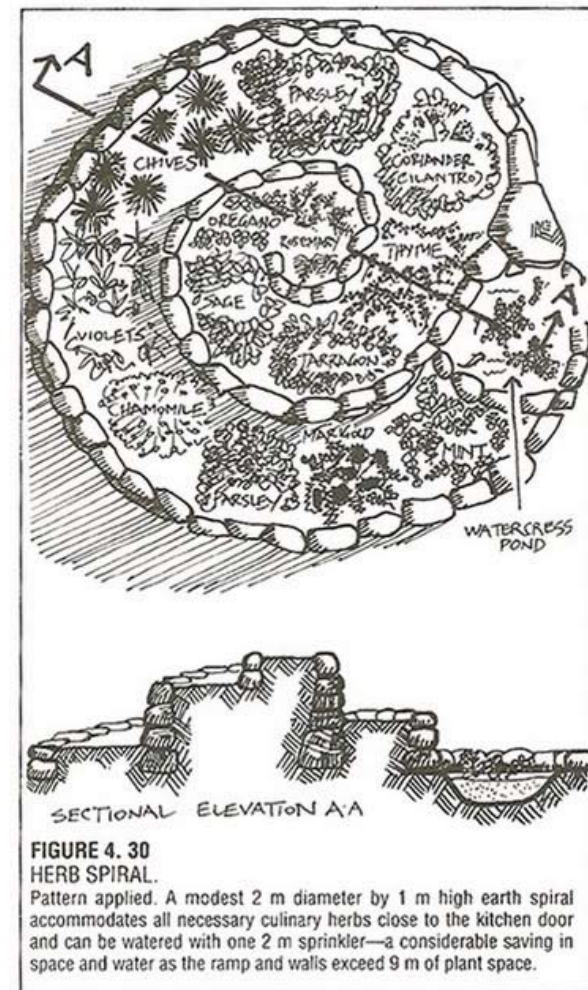
Staff and families were invited to assist in the building day. It is important for the community to be involved in every step of the project. The UC Davis Arboretum Teaching Nursery donated all of the plants for the construction day. Families donated materials for the vegetable bed. Without these donations, most of the projects would not have been built.

## The Spiral Garden

The spiral garden is inspired by the herb spiral. An herb spiral is a design solution that incorporates a variety of herbs in a small garden space. The outside of the spiral is at ground level and the center is raised. As the garden moves up the spiral, the topography moves with it allowing for the center point to be the high point (Figure 6.1). This creates multiple microclimates in a small space and a garden with a variety of herbs.

The center has the space for the spiral garden to be at one level. This would allow the children to be able to reach into the garden and take care of the plants. The children are still young and might not be able to reach a lot of the plants if the spiral was built like the spiral in Figure 6.1. I designed a small room and hiding place in the center of the spiral which will appear more enclosed when taller plants are used to create edges.

My approach was to create a spiral shape that the children could run around and through as children like to circulate around structures. I created a conceptual broken spiral to gain a sense of what a one leveled spiral would look like (Figure 6.2). I want to encourage play and respectful behaviors in the garden. I then looked at appropriate heights (Figure 6.3) and decided the second option was most appropriate. The final planting plan (Figure 6.4) features donated plants with larger plants in the center and the broken spiral (Figure 6.5) was chosen as it allows children's circulation through and around.



**FIGURE 4.30**  
**HERB SPIRAL.**  
Pattern applied. A modest 2 m diameter by 1 m high earth spiral accommodates all necessary culinary herbs close to the kitchen door and can be watered with one 2 m sprinkler—a considerable saving in space and water as the ramp and walls exceed 9 m of plant space.

Figure 6.1

### Conceptual Spiral

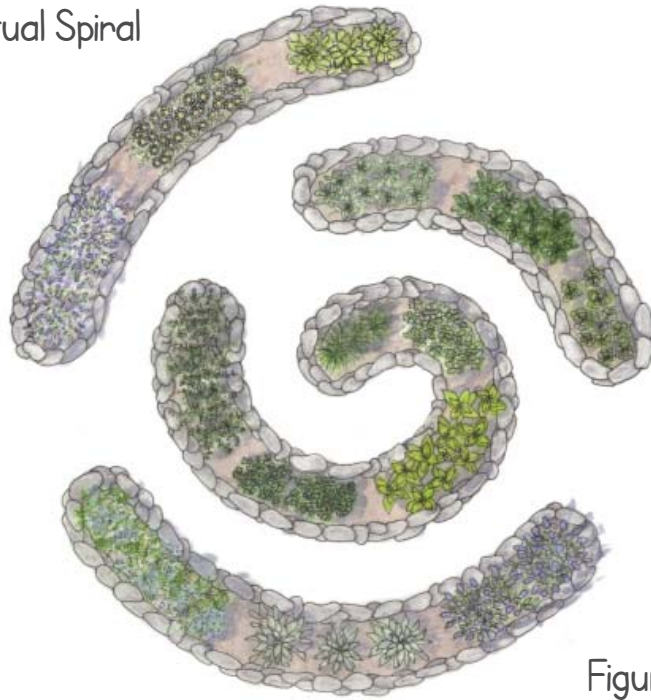


Figure 6.2

### Height Study

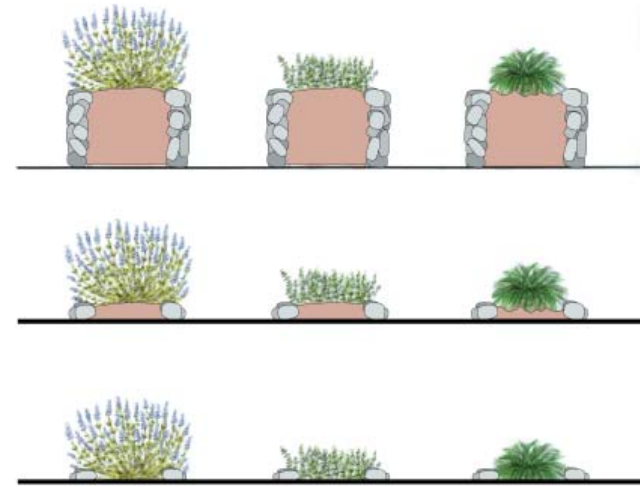


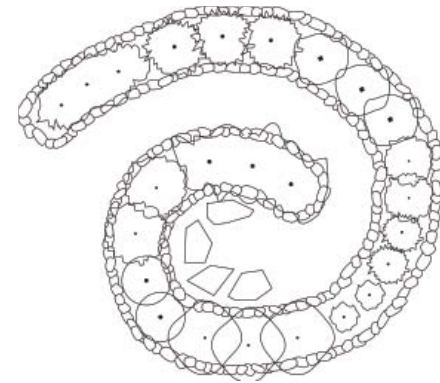
Figure 6.3

### Final Planting Plan



Figure 6.4

### Version 1 Whole Spiral



### Version 2 Broken Spiral (Final Version as it allows for children's circulation around and through)

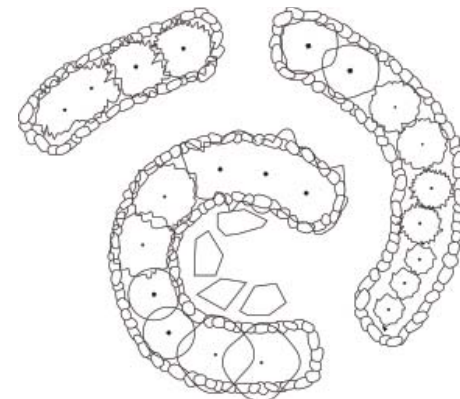


Figure 6.5



## Family Planting Day, Saturday, March 3, 2012

Family Planting Day was important to carry out and succeed in as it was the first step in creating visible changes to the playscape. The Playground & Garden Committee helped organize the building day and combined resources to find materials. I created the designs, cost estimates, construction instructions, and coordinated the groups on the building day.

Families and staff were invited to help construct the new garden areas. Students, staff, parents, and children participated all day. Many families came to support the project which was unexpected as not as many families had signed up to help. The community worked together to get all of the projects built and worked fast as a group. As a result of the building day, relationships were created and a stronger sense of community emerged. Many families wanted to help even if they had no knowledge in construction or horticulture. Parents were constantly asking me questions on the plant material and care as they wanted to use similar vegetation in their homes.

The Family Planting Day was a success as all projects were built and all areas of the centers community helped produce the new garden spaces. Due to excess materials additional projects were built on the construction day. Mounds were made from left over cobbles and soil and cobbles were used to line the borders of existing planters. The children love the mounds as it creates topography to the site in which they like to climb or dig into with hopes to find "dinosaur eggs". At the end of the day stewardship and pride sprouted from the community.



Figure 6.6



## Building The Spiral



Community

Aesthetics

Play

Small Space Solutions



Figure 6.7



## Family Planting Day Photos

The Spiral Garden



The Shade Garden



Figure 6.8



Improvised Mound



Butterfly Corner



Woolly Pocket with Succulents (later will turn into salad garden)



Figure 6.9



Vegetable Bed



Grass Strip



Shade Garden



Figure 6.10



Planting is fun!



Figure 6.11

## Vegetation Information

Educational information for all new plants in the playscape.  
The charts are grouped by different garden areas.

Due to the young age of the children at Hutchison Child Development Center, they are only able to identify simple garden characteristics. These characteristics include color, shape, and animal or insect types the plants attract.

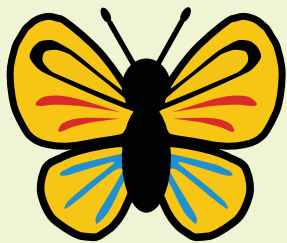
These characteristics can be tied to in-class activities where the children learn about science and math.

The intention of this chart is to provide a simple and easy way the teachers and children can identify the more obvious characteristics of each plant.

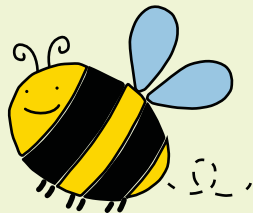


## Key

Butterfly



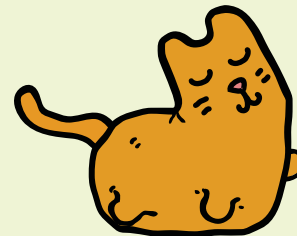
Bee



Ladybug



Cat



Hummingbird





Photos of new plants.  
These photos match the plants listed in the informational charts.

## Spiral Garden



Hollyhock



Beach Wormwood



Tickseed



Chomley Farran  
Carnation



Purple  
Coneflower



Autumn Sage



Catnip



Oregano



Kent Beauty

## Butterfly Corner



Yarrow



Butterfly  
Bush



Zauschneria



English  
Lavender



Spanish  
Lavender



Spanish Sage



Common Sage

## Shade Garden



Cranesbill



Coral Bells



Pink Flowered  
Currant



Evergreen  
Currant



Ornamental  
Sorrel

## Other Planters



Hen and Chicks



Hen and Chicks



Hylothelephium



Rosemary

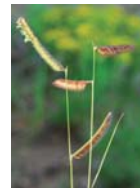
## Grass Strip



Blue Fescue



Idaho Fescue



Gramas  
Eyelashes

## Bean Teepee










Jack-Be-Little Pumpkins














Blue Lake Pole Beans

Figure 6.12

Name	Scientific Name	Edible	Flower Color	Wildlife Value
Spiral Garden				
Hollyhock	<i>Alcea ficifolia</i>	Yes	Red, Pink, White, Orange	
Beach Wormwood	<i>Artemisia pycnocephala</i> 'David's Choice'	No	None	None
Tickseed	<i>Coreopsis lanceolata</i>	Yes	Yellow	
Carnation 'Chomley Farran'	<i>Dianthus caryophyllus</i> 'Chomley Farran'	Yes	Hot Pink, Purple	
Purple Coneflower	<i>Echinacea purpurea</i>	Yes	Purple	
Autumn Sage	<i>Salvia greggii</i>	Yes	Pink, Purple	
Catnip	<i>Nepeta cataria</i>	Yes	Purple	
Oregano	<i>Origanum vulgare</i>	Yes	None	
Kent Beauty	<i>Origanum rotundifolium</i>	Yes	Pink, Purple	

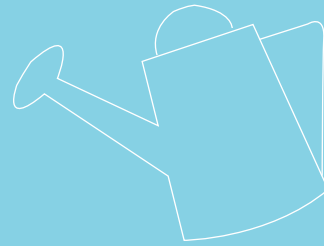
Name	Scientific Name	Edible	Flower Color	Wildlife Value
Butterfly Corner				
Yarrow	<i>Achillea millefolium</i>	Yes	White, Yellow, Pink	   
Butterfly Bush	<i>Buddleia davidii</i>	No	Purple	  
Zauschneria	<i>Epilobium canum</i>	Yes	Red	 
English Lavender	<i>Lavandula angustifolia</i>	Yes	Purple	 
Spanish Lavender	<i>Lavandula stoechas</i>	Yes	Purple	 
Spanish Sage	<i>Salvia lavandulifolia</i>	Yes	Blue, Purple	  
Common Sage	<i>Salvia officinalis</i>	Yes	Purple	  

Name	Scientific Name	Edible	Flower Color	Wildlife Value
Shade Garden				
Cranesbill	<i>Geranium maculatum</i>	Yes	Purple	
Coral Bells	<i>Heuchera spp.</i>	No	Pink, Orange, Cream	
Pink Flowered Currant	<i>Ribes sanguineum</i>	Yes	Pink	
Evergreen Currant	<i>Ribes viburnifolium</i>	Yes	Pink	
Ornamental Sorrel	<i>Rumex sanguineus</i> <i>var. sanguineus</i>	Yes	None	None
Other Planters				
Hen and Chicks	<i>Echeveria 'Imbricata'</i>	No	Pink, Yellow	
Hen and Chicks	<i>Echeveria pulvinata</i>	No	Orange, Yellow	
Hylotelephium	<i>Hylotelephium spectabile</i> <i>'Indian Chief'</i>	No	Pink	
Rosemary	<i>Rosmarinus officinalis</i>	No	Blue	

Name	Scientific Name	Edible	Flower Color	Wildlife Value
Grass Strip				
Blue Fescue	<i>Festuca glauca</i>	No	Light Green	
Idaho Fescue	<i>Festuca idahoensis</i>	No	Yellow	
Gramas Eyelashes	<i>Bouteloua gracilis</i>	No	Purple	
Bean Teepee				
Jack-Be-Little Pumpkins	<i>Cucurbita pepo</i> 'Jack Be Little'	Yes	Orange	
Blue Lake Pole Beans	<i>Phaseolus vulgaris</i>	Yes	Green	







# INTRODUCING THE GARDEN



## Introducing the Garden, Monday, March 5, 2012

The new garden areas installed need extra care as many of the plants are young and will need assistance in establishing. This means that the teachers and children will have to water them a little more in the beginning and learn new rules about the garden spaces. Rules like no running over the plants, no picking up rocks, no breaking the plants, sand is not allowed in the garden and dirt is not to be taken out.

The following Monday after the building day I went to the center to introduce the garden to the children (Figure 7). I discussed why the garden was there, some of its characteristics, and the science behind each area. We discussed the sun and shade, what types of animals would be attracted to the garden, and whether or not the children liked it. All of the children loved the garden spaces and asked questions on why we have to be gentle to the plants and what areas they are allowed to stand on.

It took some time for the children to learn the new rules. Overall, the children responded positively with care and respect for the spaces. Teachers and children watered and cared for the plants that were not in existing planters. All existing planters have irrigation installed and UC Davis grounds is in charge of modifying the sprinkler system. Any changes or additions to the irrigation system can be installed by grounds for a fee. This is why it is important to establish stewardship for the garden as it automatically brings care and maintenance for the garden, for free.



Figure 7.1



Playing with Plants



Sensory Box with Soil



Playing on Mounds



Running Around the Spiral



Figure 7.2



Playing in the Center of the Spiral




Observing The Plants Together



Figure 7.3





**MASTERPLAN  
REVISED**

# Masterplan Revised

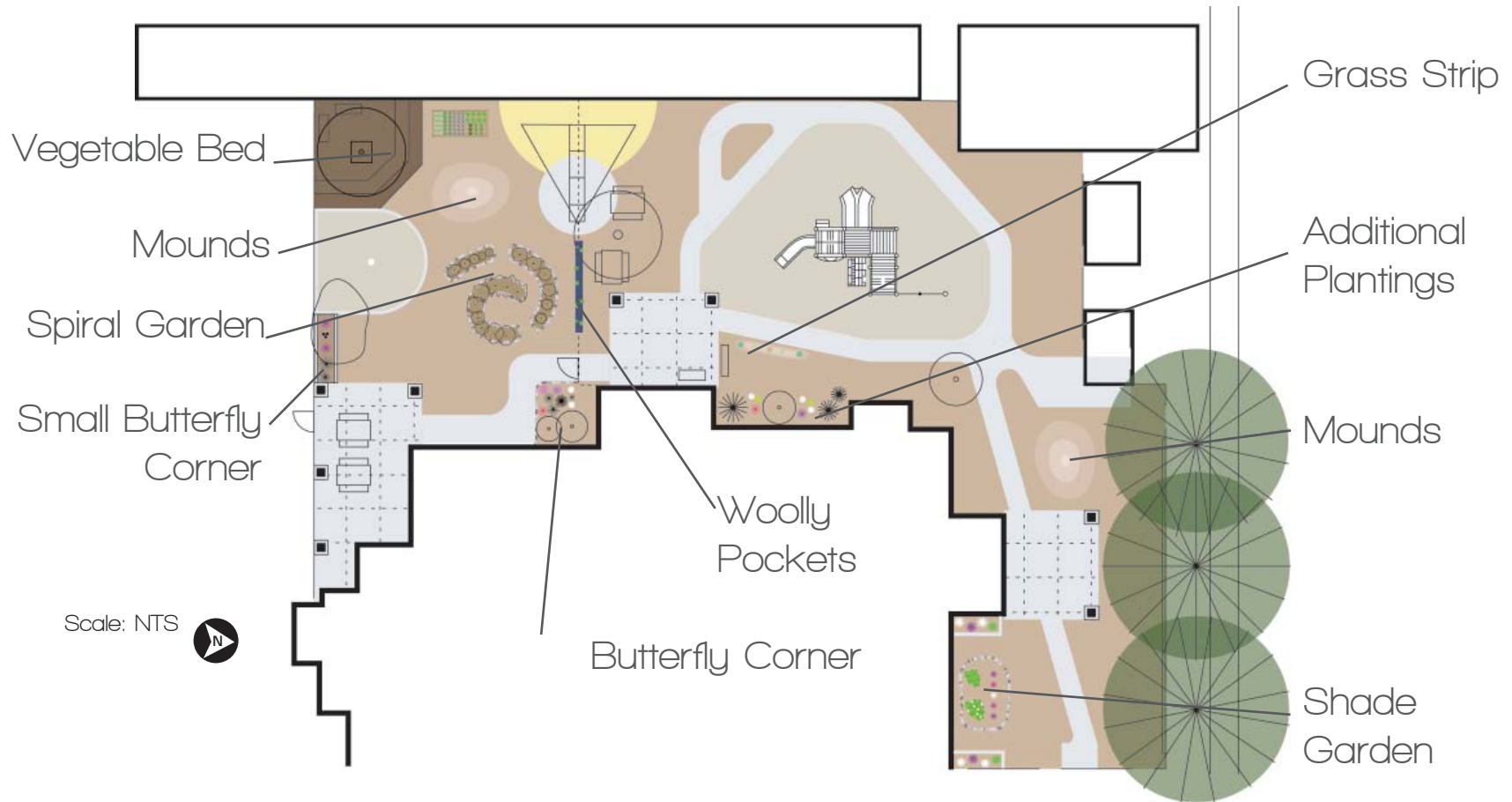


Figure 8.1

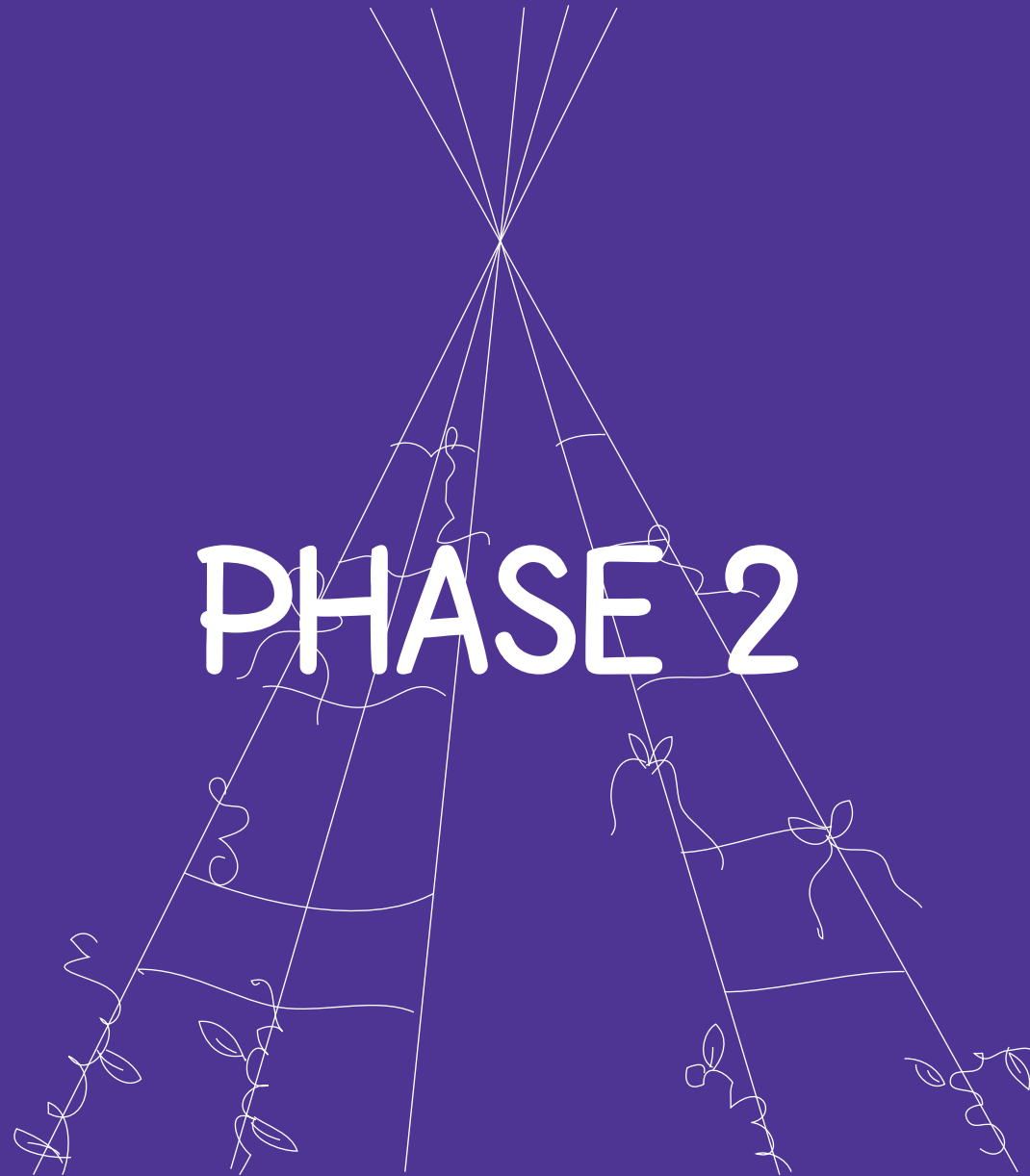


## Phase I Masterplan

The conceptual masterplan is revised (Figure 8) to reflect new elements after building Phase 1. Not all projects on the conceptual masterplan could be built; however, new elements like the mounds were designed and constructed on the building day. This masterplan shows the new playscapes and not future goals.



# PHASE 2



## Phase 2

Another Family Building Day was scheduled for Saturday May 19, 2012. Many events within the centers community and in Davis was scheduled for this day but it was decided by the committee to pursue building because members of the committee were able to work on this day. Not as many families as the first building day showed up but not not as many projects were being constructed.

The mural project was approved for the ninety foot wall that borders the playground and the parking lot (on the west side). This wall is private property but the owners have given the center permission to paint the wall. This is a large project and could not be designed and coordinated by myself. Kaitlin Fitzmahan and Tiva Lasater, two UC Davis graduate students focusing on art and community were asked to join The Playground Project. During the Spring 2012 quarter they managed to design the mural, schedule painting days, and finish the project. I requested that the mural featured a Davis theme where plants and animals that live in Davis could be identified by the children. This would create an educational mural that the young children can relate to. This is a great accomplishment as it is difficult to coordinate such a large project in one quarter. They also included the centers community within the design process by asking them to vote on favorite designs and to provide ideas. The community was also invited to the building day to paint the mural.

The mural project is a large task that would take up most of the budget and time for Phase 2. It was decided by the Playground & Garden Committee to limit the garden projects for this phase. The bean teepee was to be constructed and garden areas from Phase 1 were to be fixed. The shade garden central area had sunken in and needed to be filled with soil. The children were using the grass strip as stepping stones causing the grasses to struggle or die. The committee decided the most effective solution to the grass strip would be to create a border to delineate the grass strip from the ground. The spiral garden is raised, has different colored mulch, and cobbles around the border which the children respect and do not trample the plants.

All of the materials for the garden areas were donated from committee members and businesses. I created a poster on, "How-To Build a Bean Teepee" as I found it hard to give instructions to all of the projects from the first building day. I realized this is why not all of the garden areas were installed correctly.

All of the projects were built or accomplished on the building day. The grass strip was raised, replanted, new plants were donated to fill in the dead vegetation, and cobbles were donated to lined the new planter. The bean teepee was built and decorated with materials from the classroom. We also found a downspout from the parking roof that flowed into the parking lot. We turned the downspout to face the teepee so when rain falls it will be used for watering the vegetation. This is a stormwater management technique. When we tackled the shade garden we found the vegetation to be establishing and did not want to dig them out of the ground. Instead, we created a swale type shape by digging into the ground, filling the depression with cobbles, and hopefully the downspout in this area can be directed into the new swale planter. The mural was also a success. Not as many people showed up to help on this day but enough people did to assist with the mural. The entire ninety foot wall was covered in paint. Additional work days are needed to finish the detail of the mural. The second building day was a success and was another great event for community building.



# Bean Teepee Construction Poster

## HOW TO BUILD A BEAN TEEPEE

- Materials**
- 10 (min.) Bamboo Poles about 8-10 ft long
  - Ball of twine
  - 4 Wood Stakes (this can be branch cuttings 20" - for stability)
  - Pole Bean Seeds/Plants
  - Compost
  - Mulch

- Tools**
- Hammer
  - Knife
  - Ladder
  - Shovel and trowel
  - Pickaxe

### STEPS

1. Dig 4-5" inches in a circle. Make sure to keep 18" away from walls. The circle should be 4' in diameter. Leave about 2' in the center-front for the entryway
2. Lay 4 poles on the ground. Tie the top of them. Then set the bundle vertical, spreading the four poles 4' apart from each other. This forms the basic support of the structure - the four "corners" of the teepee.



3. Stake these four poles to the ground for extra support. Do this by hammering the stakes in the ground, next to the poles. Tie them together with twine.



4. Place the remaining 6 poles evenly around the structure. Remember to leave the opening for the door. Push the poles into the ground about 6" and tie them all together.



5. Wrap the teepee with twine in a spiral fashion to give the vines support as they climb to the top.



6. Then loosen the soil around the teepee where the pole beans are to be planted. Otherwise plant seeds.

7. Add compost to the holes. Cover with mulch.

8. Place seating areas or pillows inside the teepee.

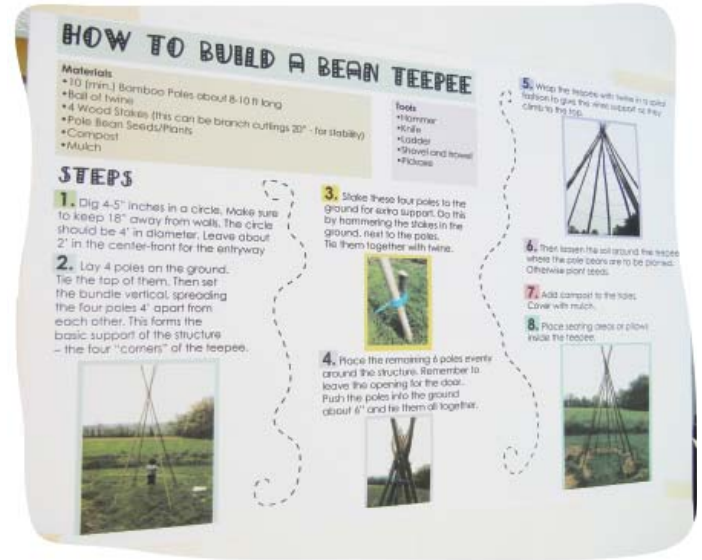


Figure 9.1-9.2

## New Mulch and Swale Garden



Figure 9.3

## Family Building Day Photos



Figure 9.4

Mural lead by Kaitlin Fitzmahan and Tiva Lasater



Figure 9.5



## Building the Teepee



## Final Teepee

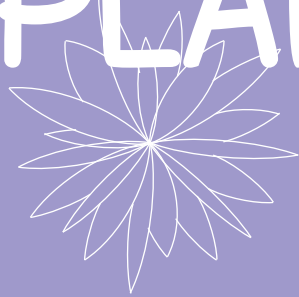


Figure 9.6





# MASTERPLAN FINAL



# Enlarged Masterplan

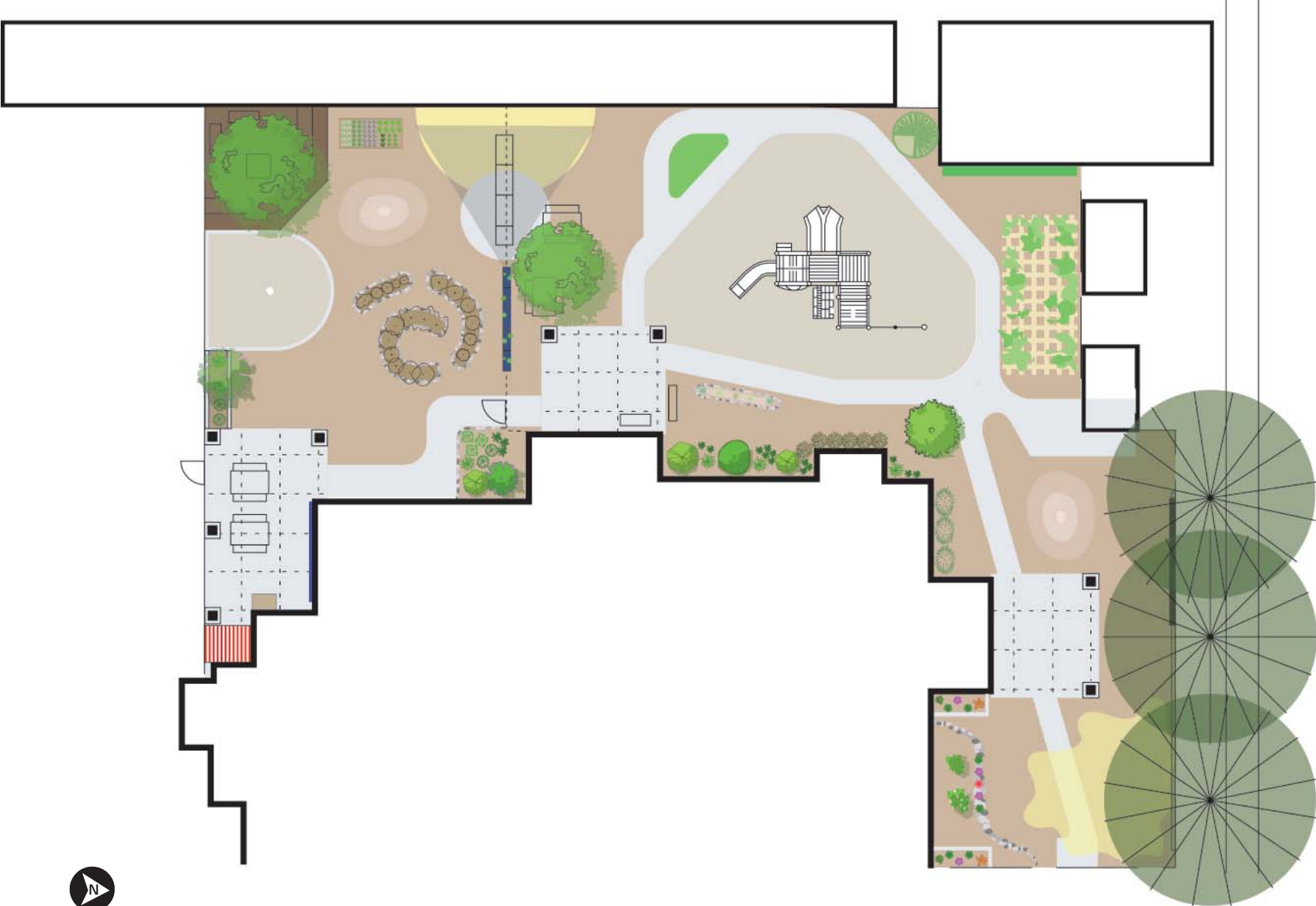


Figure 10.1



Scale: NTS

## Masterplan - Final

The final masterplan (Figure 10.1) of Hutchison Child Development Centers pre-K and toddler playscape features all existing conditions and goals for the future. As mentioned before, it is important to revisit original ideas and use them as **inspiration** and targets to aim for:

Many of the conceptual designs are built which is a **great accomplishment**. Creative garden improvisations on building day also **transformed** the playscape. Additional elements have been added to the final masterplan; a play area: "Fairyland", vegetated shade structure and additional planting. These are projects that require more time to coordinate and build.

Some of the original design ideas were not built due to lack of time and budget. Projects like the art wall, playhouse, lawn patch, and worm bin. These are projects that can be added to the playground later on.

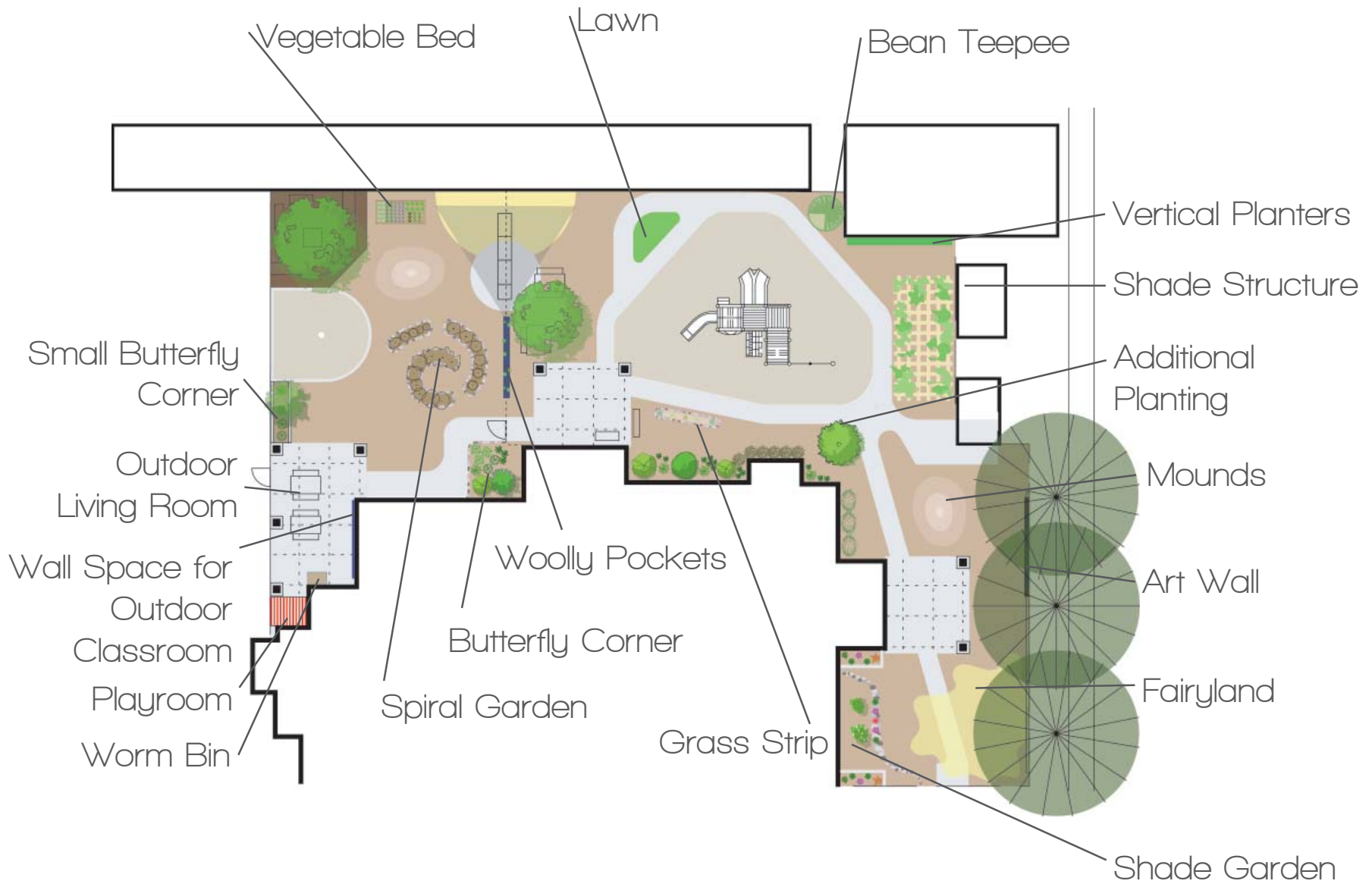


Figure 10.2



## Fairyland

Fairyland is a collaborative idea by the teachers at the center. It is an area that could encourage play, reading, sitting, role playing, and nature. Color, texture, seating, and decoration was discussed as main themes for the its design.

My thoughts on Fairyland could be an area that the children build fairy homes. As a child, my friends and I built fairy structures out of plant materials we gathered and watched movies like, "FairyTale: A True Story" where the main character built a fairy house. I gathered inspirational images (Figure 10.3) of what this could look like and showed these to the teachers. I mentioned this could be a class activity where children could bring materials from home or gather them from the centers surrounding landscape to build these fairy homes as a class.



Figure 10.3

## Shade Structure

There is an existing shade structure currently on the site; however, it is not permanent. I designed a vegetated pergola that could take the place of the existing shade structure. This would provide shade, an outdoor room to teach or play in, and cooling as the vegetation will circulate the hot air. My design is influenced by an arbor with a planter along its roof (Figure 10.5-10.6). This would allow plants to grow from the roof down. I prefer this design for the nursery schools children have trampled on young plants preventing them from establishing successfully. The sides of the pergola have small planters that could be used as an herb bed or succulents as they are easier to care for (Figure 10.4).

I kept the design simple in case a shade structure influenced by my design would be built. Many of the The Playground Project designs have been created from donated materials and families assisting with the construction. Having a more elaborate design might hinder any chance of this projects ability to get built as it is not likely materials and professional help would be available. There is also discussion within the Playground & Garden Committee of adding misters to the play area. The site gets extremely hot in the summer. Having misters would cool the site and could provide water play for the children.

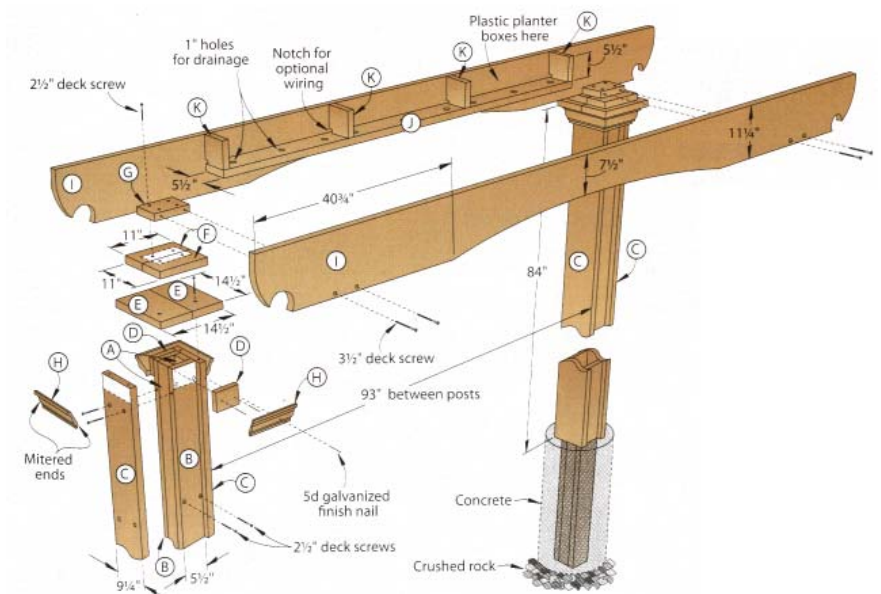


Figure 10.4





Arbor/Pergola with Planter on Roof  
Figure 10.5



How-To Build a "Planter-Topped Arbor"  
Figure 10.6



Figure 10.7



Figure 10.8

## Other Additions

The masterplan (Figure 10.1) shows proposed areas for additional planting. There are empty corners around the building and these could be used for planters. Irrigation would have to be installed as these are not already designated planters.

Some areas in the playscape could incorporate vertical gardens which provide cooling, color, texture, and possible agriculture. Some examples are shown in Figure 10.7.

When discussing The Playground Project with staff on the Staff Workshop day, many teachers voiced their want for lawn areas. This would provide a cool place to sit and play with the children. The infant side of the center (east side) has turf that the children play on. The majority of the pre-k and toddler play area consists of bark chips which can get hot and uncomfortable in the summer.



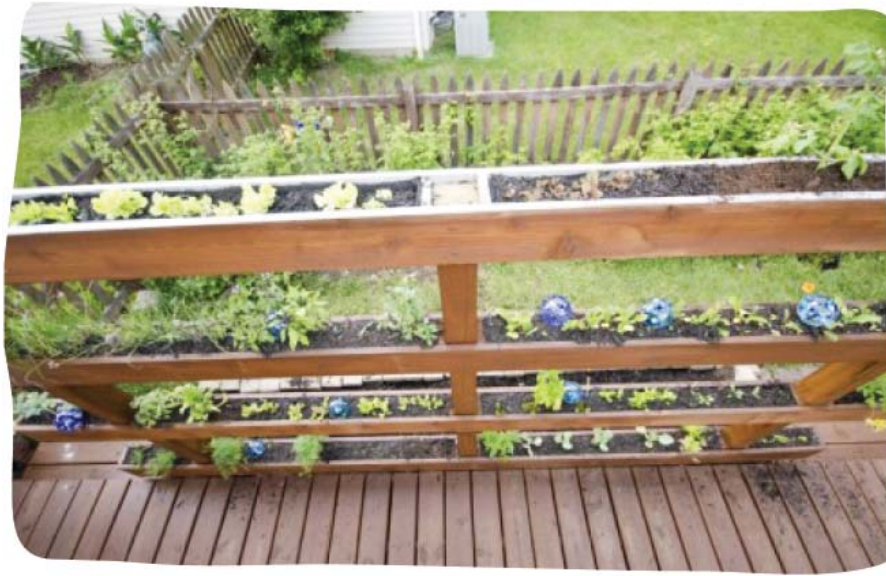



Figure 10.9





# EVALUATION & RECOMMENDATIONS



## Evaluations

### Successes

The majority of the projects are successful in terms of meeting goals, plant establishment, and remaining intact.

The **spiral garden** has established (Figure 11.1) and is blooming. All of the plants are growing, all of the materials are in place, the children respect the space, and it attracts wildlife. Many of the families appreciate this larger garden and find their children talking about it.



Figure 11.1



The **shade garden** was not necessarily successful after its installation as it had sunken in. I would like to look at this as an opportunity and not a failure. On the second building day the shade garden was turned into a swale garden. The new design brings more movement to the space and provides an opportunity for stormwater management.

The **bean teepee** is slowly establishing as the beans are now sprouting. The children were hanging onto to poles when the teepee was new but were told not to and now respect the structure. I instructed the teachers to irrigate the beans a little more than usual as it is summer and young plants need more assistance. The teachers have done a great job in taking care of this space as it is growing and being used by the children.

The **woolly pockets** are successful when looking at the succulent plant material growing in them. The children like to touch the plants and do not trample them as they are not on the ground. Later on in cooler months the pockets could be used for a salad garden. This was the original intent for the pockets; however, they were installed when the weather was already heating up.



**Bean Teepee Site**

Downspouts are now directed to irrigate teepee



Figure 11.2

The children still use the improvised **mounds** in everyday play. They like to dig up the rocks or “dinosaur eggs”, bury them, and then dig them up again. When the mound is intact the children like to run over and around them. The topography and mound elements create a fun play environment for the children.

Although the **mural** was not designed by me, I would like to include it in my evaluation as I advocated for an educational mural since Fall 2011 quarter. When conducting research I found many school examples with educational murals and thought this would be a great design solution to the large, plain, ninety foot wall. The mural brings color and life to the playground. Children like to talk about the animals featured in the mural and like being a part of its design and creation.

I have also found the **process** of The Playground Project to be a main factor to its success. The community of the center is involved in all aspects of The Playground Project; from beginning to end with the design, construction, and evaluation. I do not think all of the projects that have been built would be here today without the help and guidance from the Hutchison community. Everyone played an important role and everyone’s opinion matters. This is important for morale and interest in continuing the project.

## Room for Improvement

Not all of the areas were initially successful and some areas could be improved on.

The **grass strip** is the most obvious garden installation that needed revision. The children were using the grasses as stepping stones causing the grasses to die back or struggle immensely. As mentioned before, the committee realized this could be because the garden area had no delineation of ground and garden and the younger children did not recognize this as a space to keep off of. On the second building day the grass strip was raised, given a cobble border, different colored mulch and dead grass was replaced. The children respect this area as they can easily see it is a special area not to be trampled on.

The **butterfly corner** (Figure 11.3) is not necessarily unsuccessful but it is not recognized as a butterfly corner. The plants are slowly establishing and will take time to fill in the planter. Perhaps decoration indicating this is a special butterfly area would help the children realize this area has wildlife value.

The **additional planters** with newer vegetation is struggling to establish. The children run through and hide behind the larger shrubs in this area. It appears they are trampling on the smaller plants preventing them from growing. They are still alive and with some care could grow larger. Adding a cobble border and different colored mulch, as done with the grass strip, could help the children see this is another garden area to respect.

The **vegetable bed** (Figure 11.4) is still intact but is not used to its full potential. The bed has some vegetables but is not full. Perhaps including the vegetable bed in class curricula could encourage more use of this space. The children can grow food like kale and harvest the produce to eat. The classrooms are equipped with kitchens so the class could make kale chips or other dishes.



Figure 11.3

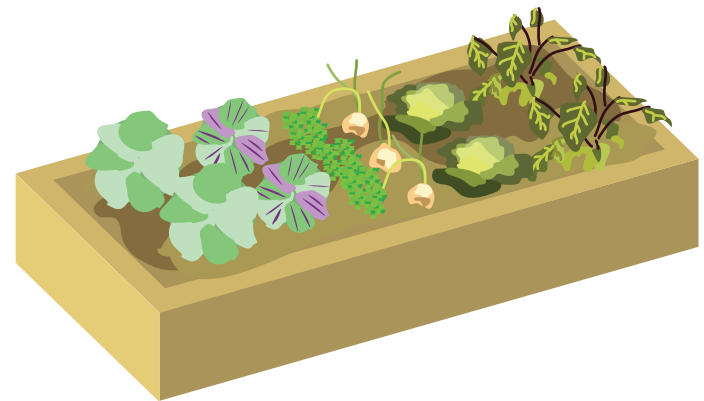


Figure 11.4

## Parents Evaluation

Throughout the playgrounds transformation many parents would approach me to express their appreciation and observations. The garden has changed in class activities to focus more on gardening and plant propagation. Many parents think this is due to the strong community involvement with the project. I also attribute the curricula change to teachers being more comfortable with plant related topics as I introduced simple activities and methods to them. A lot of the parents want The Playground Project to continue. Perhaps adding sensory vegetation like lamb's ears as it is fragrant, safe, and very soft.



## Recommendations

The Playground Project is the first step to Hutchison Child Development Centers efforts to improve its playscape. There are plenty of opportunities to continue the center's **transformation**.

I recommend another landscape architecture student be hired as an intern to continue improving the center's playground. There is still morale in the project and it is important to keep the community's **interest**. Perhaps, a new committee could be created and parents with younger children could be asked to join as their children will still be at the center for years. The parents in the existing committee have children that are graduating to kindergarten and will not be at the center as often.

Additional projects could start small. Redesigning or modifying the entrance to the center; adding fruit trees along the outside of the fence, change the pockets to a salad garden and using the succulents in class to propagate more succulents, setting up a composting and worm bin workshop with UC Davis' Project Compost, creating small outdoor living rooms, and additional plants. Plants cool the space and add aesthetic value; more plants would address the concern of shade parents still have. Larger projects would be to install lawn areas, green walls or roofs, misters on the building or built with PVC pipe (Figure BLAH), redirecting stormwater in downspouts to irrigate the garden, installing a plexiglass artwall along the north fence, and installing a permanent and artistic shade structure.

I have found many **books** on gardening with children and garden and art activities. It would be in the centers best interest to purchase some of these books so that the teachers could use them as inspiration for class activities.

## The Playground Project Survey

I created a simple survey asking the centers community to provide their opinions on The Playground Project. This survey was emailed out and eighteen responses were recieved.

1. Are you a parent or staff member?

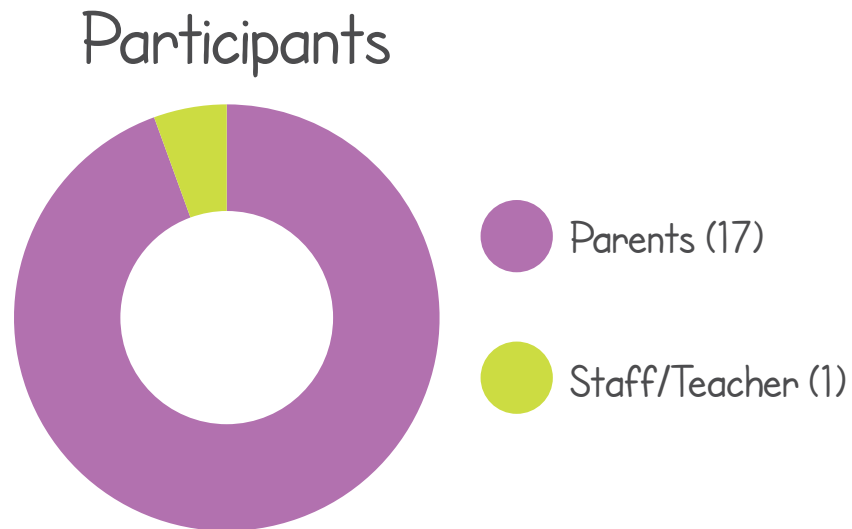


Figure 11.5

2. Do you know what The Playground Project is?

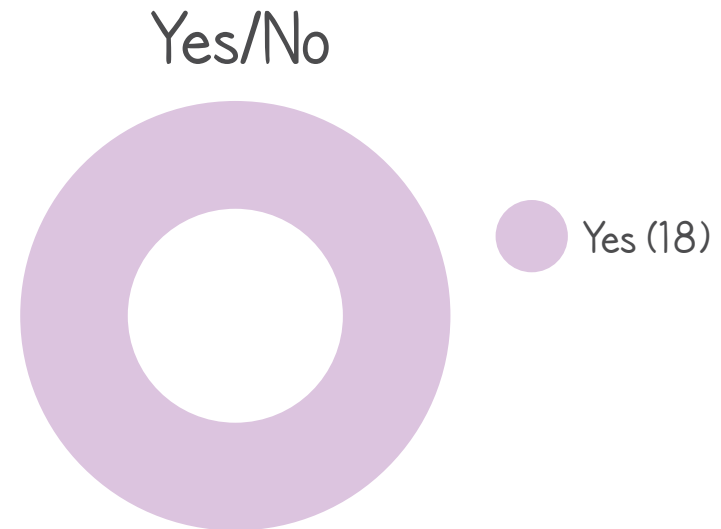


Figure 11.6

3. If you are a parent: How many children do you have at the center? and What are their ages?

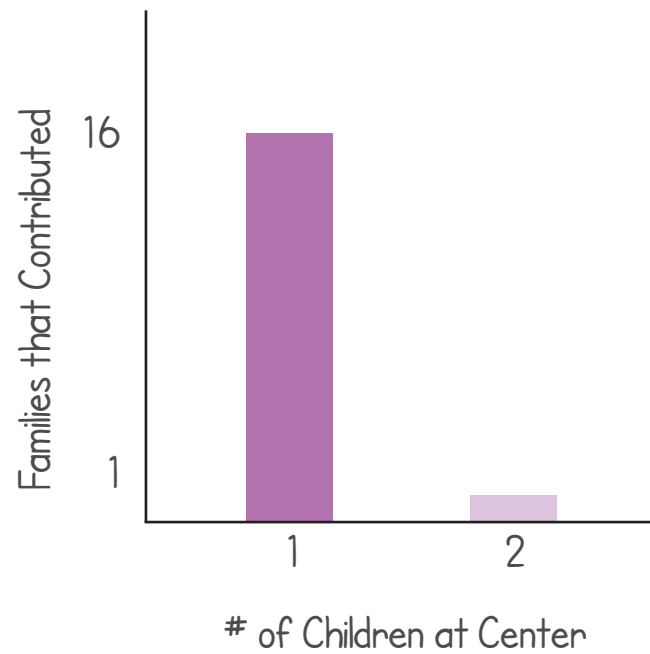


Figure 11.7

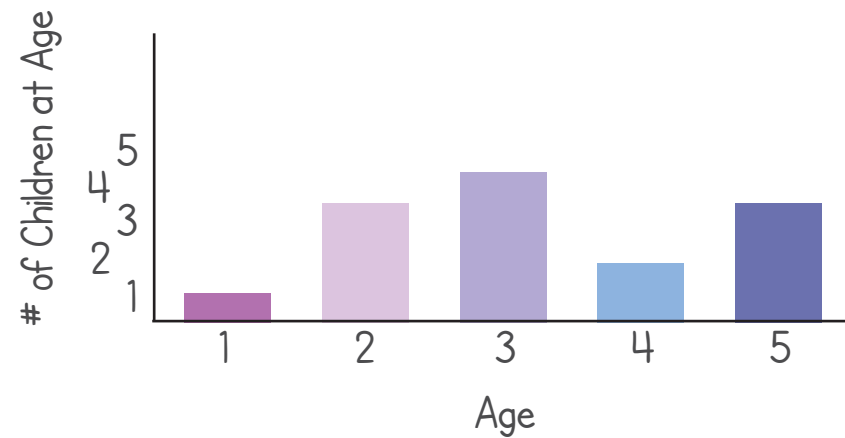


Figure 11.7

## 4. What do you like about the new additions to the playground? Why?

---

More color, vitality, and plants. These changes, especially the mural, also make the playground feel cooler.

The vibrancy it brings to the playground, the personalization of the school environment with the references in the mural to the class names, that our family could contribute to creating it

Terrific, they made the playground more convenient.

I love hearing my daughter come home talking about it. It's been a wonderful new learning experience in addition to looking great!

The whole schoolyard has been transformed! I love it, especially the mural, teepee, and spiral garden. I love that the kids are watching things grow and talking about that more now.

I like the addition of the shade, the new plants and the mural.

The colors and the animals. It creates a beautiful landscape for the children while they are playing outside.

The additions to the playground have enlivened the outdoor areas of the school, turning them into more vibrant and alive spaces.

The children are more engaged in plants now, and the teachers have begun to incorporate an exploration of plants and gardens into their classrooms. In this way, the playground additions span the space and have impacted what the children do indoors. The mural has dramatically changed the way the playground looks and feels, and has brought it to life. It is a much friendlier space now. This also impacts the indoors, as parts of the mural can be seen from inside each of the classrooms on this side of the building.



I love the mural. It really brings a lot more life to the playground, and my daughter really enjoyed watching part of the painting. the garden additions are nice, as well, and allow my daughter to get in touch with nature a little bit more when she's outside playing.

### Mural paintings

only know of (or have seen) the mural -- nice addition; makes the space feel more special and kid-friendly  
Makes it a more interesting area. Better to look at than a wall.

I loved that my child got to participate in plantings in the new playground and can see how these plants grow and change.  
She has learned a lot from doing this. She and the other children help to water the plants too.  
Turns a bland, monochromatic wall into a fun backdrop for the kids.

### The plants and mural

love the mural, new plantings and bean teepee

LOVE! It just is so beautiful, and my daughter talks about the mural and the animals constantly.  
It adds natural elements to the playground and has opened opportunities for new types of play and interactions with the plants.

## 5. Do you dislike any of the new additions to the playground? Why?

---

I don't dislike anything. The children even love the dirt/woodchip pile in the rear of the play area that was meant to store extra dirt. The Monday after the first work-day there were 15 kids just standing on this new "hill." The only teeny tiny issue I have is that the woodchips are long gone from this pile and now my child's clothes are very dirty from playing in this dirt. Small price to pay for fun though!

Maybe the CDs on the tepee

No way!

No

No dislikes

## 6. Do you have any concerns for the new additions to the playground?

---

Nope!

no concerns.

I hope that there will be continuity between the parents and teachers who are there helping to foster this process now into the future so that the space has some kind of built-in stewardship program.

There is still any issue of proper shade.

## 7. If you could change or add anything to the playground, what would it be?

---

I don't dislike anything. The children even love the dirt/woodchip pile in the rear of the play area that was meant to store extra  
More shade and vegetation. More different sitting areas. More whimsical art features.

A slide or monkey bars to the street-side of the playground to make that part less boring.

More shade

I would add even more plantings, if the irrigation allowed for that. And more shade at some point.  
some addition to the unused shady area on the north side of the yard outside the Toddler Option room.

Nothing.

Just keep adding-a more lush garden box, and perhaps some additional planting beds.

shade. it gets very hot, especially on the playground equipment. A colorful shade structure or some large trees would be great.

none

More sun shades on the west side of the building.

Shade structures.

NA

More shade

More shade; a shade structure

A shallow pool?? :) No, I think it's great.

more shade

## 8. Do you have any additional comments with regards to the changes on the playground?

---

We are lucky to have such committed students to bring this to our school. While not that many parents came to the work days, for our family, it did build our sense of community and personal investment in the school.

No

Thank you! We think it's wonderful.

THANK YOU!!!

Thanks for undertaking this project. It's appreciated!

I think it's great!!

Thank you so much! This has dramatically changed the school in an entirely positive way! Liana did an amazing job bring together resources to make a lot happen in a relatively short time.

thanks for your efforts and good job!

none

it wasn't ever very clear to me which age groups or classrooms the playground changes were for... maybe they are not part of my child's play area?

This has been a marvelous transformation. I can't thank you enough for your effort. The playground is such a pleasant place now. It has enhanced the aesthetic of the area but also provided a valuable learning tool to engage our children.

Great job!

Thank you thank you thank you!







## Thank You!

I want to thank everyone involved in this project. I would not have been able to get my designs built without every single person that contributed to The Playground Project. It was an amazing experience and I learned a lot. I feel that I have gained valuable knowledge and a new skill sets.

Thank you for all for all of your efforts and words of encouragement.





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