

Nature Explore Design Consultations and Educator Workshops, 2009

*Offered by Dimensions Educational Research Foundation
working in collaboration with Arbor Day Foundation*



A Collaborative Project of
Arbor Day Foundation and
Dimensions Educational Research Foundation

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References available upon request.

Please contact: info@dimensionsfoundation.org

Introductory Letter

Dear Nature Education Advocates:

The mission of the Dimensions Foundation, a non-profit organization, is to inspire children, families and educators to connect more deeply with the world around them. The Foundation provides research-based design consultations, educator workshops, and hands-on resources to elementary schools, early childhood programs, nature centers, arboretums, botanical gardens, parks, zoos, wildlife refuges, national forest visitor centers and other organizations throughout the United States interested in helping children connect more deeply with the natural world. It also runs the Dimensions Early Education Programs, which serve as primary research classrooms for on-going research efforts. Dimensions works with a cadre of workshop consultants, designers and researchers throughout the United States. Through Dimensions' research and programs, children and families develop a profound engagement with the natural world, where nature is an integral part of children's daily learning. The Early Education Programs Research Classrooms have been in existence since 1967, and the national cadre of Dimensions researchers and consultants began their work in 1998.

Since 2005, the Dimensions Foundation has been collaborating with the Arbor Day Foundation on the national Nature Explore program. Nature Explore research-based outdoor classroom designs are being used throughout large school systems such as Los Angeles Unified School District and in many other parts of the country including Minnesota, Missouri, New York, Oregon and Washington State. The interactive map on the Nature Explore Web site (www.arborday.org/explore) indicates Nature Explore Classrooms in progress and completed throughout the United States. Dimensions has also provided comprehensive training through workshops for landscape architects and architects in various locations around the country.

The comprehensive offerings of the Nature Explore Program (assistance with outdoor classroom design; sources for safe, effective and natural outdoor materials; workshops to help educators best utilize the outdoor environment as part of daily learning; and family involvement materials) have led to life-changing benefits for children in programs throughout the United States. Dimensions would be pleased to partner with your organization to help create Nature Explore Classrooms that we believe would lead to equally gratifying results.

Sincerely,

Nancy Rosenow
Executive Director
Dimensions Educational Research Foundation
6000 Cornhusker Hwy. Suite 1
Lincoln, NE 68510

Overview

Dimensions Educational Research Foundation offers both design consultation services and educator workshops as described below:

Comprehensive Design Consultation Services

On-site design consultations with a specially trained landscape architect-educator team are available to help create Nature Explore Classrooms nationwide. This team works closely with the school or organization constructing the site to develop a unique concept plan for the space based on the field-tested principles while customizing the classroom to include the school or organization's interests, needs and resources. This two-day process is an efficient way to help everyone in the organization come to consensus. During the two days, the following takes place:

Day One: the landscape architect-educator team meets with the organization and representatives from their staff as well as any maintenance personnel, community members of volunteers they wish to include. During this one to two hour meeting, the guiding principles in the *Learning With Nature Idea Book* are reviewed and the needs and unique talents of all stakeholders are discussed. The Dimensions landscape architect then creates a design concept plan, which is reviewed by the education specialist.

Day Two: During a one to two hour meeting the concept plan is presented to all stakeholders, and thoughts about revisions are discussed. Once all stakeholders agree upon the final version of the plan, and upon an implementation timeline the landscape architect will revise the plan to include final thoughts and sent copies to all stakeholders. The education specialist will develop a written narrative, which will be sent as well.

Deliverables the Organization will Receive from Dimensions:

1. Design Concept Plan to Scale

The concept plan for each individual location will illustrate all ten recommended areas described in the research-based *Learning With Nature Idea Book* and at least one supplemental area. Supplemental areas to be included will be determined through consensus of the stakeholders. General materials will be noted. Planting will be shown in a generic manner with general massing of low level material and larger trees and shrub locations shown in evergreen and deciduous symbols. While the deliverable is not intended as a construction document it can serve well to develop further drawings as required. Deliverables will be hand drawn black and white as well as color drawings in pdf format. Final plans will be reviewed by Dimensions Senior Landscape Architect James Wike.

2. Written Narrative

The narrative will describe the overall philosophy of the design concept. Included will be discussion of the input received from the stakeholders during the design process and suggestions for the inclusion of social and environmental contexts. Each of the areas shown on the plan will be described in detail including instructional objectives, construction materials as well as any unique opportunities to include elements that make the Nature Explore Classroom genuinely reflect the essence of your particular community.

3. Construction Implementation Guide

This document will give helpful information to those who will spearhead the development and construction of the Nature Explore Classroom. Overall strategies will be offered and ideas for each specific area will be included. In addition resources for materials and suggestions for the involvement of volunteer organizations will be included. During the construction phase of the project, the Dimensions Foundation landscape architect will be available for up to four hours follow-up consultation (included in the proposal fee structure).

4. Materials Takeoff

This will be a simple spreadsheet itemizing all materials and estimated quantities. If desired, the Nature Explore Sourcebook can serve as a resource for natural materials that meet safety requirements.

5. Family Involvement Materials

Dimensions will include a downloadable Nature Explore Families' Club CD and kit for each site participating in the design-consultation process. Each research-based, field-tested kit includes everything needed to start a program that will connect families with the outdoors and each other while introducing them to ideas that can be implemented at home. The Families' Club kit contains easy-to-use, developmentally appropriate activities shown to engage families in exploring the natural world together.

Items to be Supplied by Organization:

1. Property boundary and topographical survey.
2. Layout and grading plans of the project area.
3. Utility plans showing location of all-existing and proposed utilities and easements (above/below ground).
4. Floor plan and elevations of all buildings.
5. Any site specific city, county or local design requirements, restrictions, or covenants.
6. Locations, species and sizes of all existing trees.

Educator Workshops:

Both unique and essential to the Nature Explore concept, these Workshops prepare and enable staff to utilize the new outdoor environment to its fullest potential. Research show that today's children would benefit greatly from spending more time outdoors and making deeper connections to the natural world. Getting children outside, however, is just the first step. While children learn a great deal exploring their natural surroundings, deeper learning involves interpreting what they see, touch and smell, as well as synthesizing this information to construct meaning. Supportive adults can help children develop well-functioning observation skills, visual memory and the ability to learn math, science, and literacy concepts from their interactions with nature.

Each of the ten Nature Explore Workshops in the series provides research-based, field-tested activities that support comprehensive learning with nature. A Nature Explore Workshop could be delivered to staff at the same time the two-day design consultation process occurs, if desired.

Credentials and Qualifications

Senior Landscape Architect

James R. Wike, Senior Landscape Architect ASLA, RLA

With more than 23 years of professional practice, and being licensed in 14 states, James Wike, ASLA, RLA has assembled a wide variety of land planning and site design experience in a multitude of situations. Since 2005, he has been specializing in outdoor classroom design based on research from Dimensions Educational Research Foundation. He has been responsible for the site planning of parks, hospitals, schools, churches, multi-family housing, single family housing, commercial centers and various public works projects. His experience includes site analysis, land use studies, conceptual design, preparation of construction documents, competitive bid administration, and construction administration. Jim was the President, responsible for the day- to-day operation and supervision of Kersey/Wike Associates, P.C, a Memphis-based landscape architectural firm. He has taught several classes in landscape architecture at the college level in Memphis and in North Carolina and now teaches at the University of Nebraska-Lincoln. Jim holds a Bachelor of Science in Landscape Architecture from the University of Kentucky and a Master of Landscape Architecture from North Carolina State University. He holds a Council of Landscape Architectural Registration Board certification and is a member of many local, state and national landscape architecture associations. At present Jim is working with Dimensions Educational Research Foundation and the Arbor Day Foundation on the development of Nature Explore Classrooms throughout the United States. He is on the Leadership Team of the International Nature Action Collaborative for Children.

Executive Director

Nancy Rosenow, Executive Director

As the Executive Director of the Dimensions Educational Research Foundation, Nancy Rosenow brings her experience and training in educational administration and research to her work with staff at the Dimensions offices in Lincoln, NE, as well as with consultants located throughout the United States. She speaks frequently at national conferences, and has also presented internationally at the World Forum on Early Care and Education in 2005 and 2007. The Dimensions Foundation and the Arbor Day Foundation helped host the international Working Forum on Nature Education in 2006 and 2008. She has authored articles for national publications such as Exchange Magazine, Young Children Magazine, and Out of the Box Training. She delivers trainings and keynote addresses to a variety of groups throughout the county and has previously served as a certified High/Scope trainer. She currently works with the international Nature Action Collaborative for Children Leadership Team, and serves as Nebraska's past-president for the National Association for the Education of Young Children.

Educational Specialist

Julie Rose, Workshops Director

In her role as Workshops Director, Julie Rose works with groups throughout the United States to meet their requests and needs for Nature Explore Workshops. She has served in this capacity since 2006. Prior to that time she served as the Staff Development Coordinator and co-researcher for Dimensions Early Education Programs. She also taught for the Dimensions Early Education Programs and Lincoln Public Schools for over twenty-five years. Julie has taught classes at the college level on early childhood development and literacy. As a certified lead trainer for Nature Explore, Julie presents keynotes and workshops all over the country and serves as Education Specialist on design consultation teams. She served as an analyst at the Working Forum on Nature Education in 2007 and has authored articles for Exchange Magazine.

Coordination

JoAnn Rall, Design Consultations Coordinator

As Design Consultations Coordinator, JoAnn Rall, who also has a background in education, provides information about and schedules Nature Explore Design Consultations for organizations throughout the United States. She assigns the landscape architect and education specialist for these on-site visits and works with sites to coordinate logistical details.

Address: 3305 Ridge Park Drive
Lincoln, NE 68504

Telephone: 901.355.3005

PROFESSIONAL EXPERIENCE:

June 1989 – June 2008 Senior Landscape Architect
Dimensions Educational Research Foundation
6000 Cornhusker Highway, Suite 1
Lincoln, Nebraska

Responsible for the development of Nature Explore Classrooms throughout the United States. Specializes in utilizing research-based, field-tested principles to the design of outdoor classrooms for elementary schools, parks, botanical gardens, children's museums, childcare centers, private homes and other public spaces.

June 1989 – June 2008 President
Kersey / Wike Associates, Inc.
5050 Poplar, Suite 1002
Memphis, Tennessee

Founding member of 5-person landscape architecture and land planning firm. Responsible for initial business start up, complete project management including design, production and construction observation of land plans, site details, signage and amenity plans, specification preparation, consultant coordination and public presentations for a wide variety of projects. Also responsible for staff management, marketing, client contact, marketing material production, billing preparation and the firm's financial operation. Use AutoCAD LT for computer based drawing production. Began as Principal in 1989, assumed Presidency in 2000.

August 1985 June 1989 Design Landscape Architect
Fogelman/Byrnes & Doggett
Memphis, Tennessee

Responsibilities included design, design development and production of land plans, recreation amenity plans, lighting and signage plans, public agency meetings, construction observation and technician coordination for the design/construction section of a high end national multi-family developer. Designed sites totaling over 8000 units throughout the Southeast and Midwest. Developed and implemented a system for reporting construction activity and progress. Used AutoCAD and LANDCADD extensively for construction document production.

May 1984 - August 1984

Consultant/Project Designer
Paton, Zucchini & Associates, P.A.
17 Glenwood Avenue
Raleigh, North Carolina

Responsible for the site design and construction documentation (layout, grading and planting plan), consultant coordination, public presentations and approvals for a 102 unit multi-family housing development.

August 1982 - July 1983

Site Planner/ Project Coordinator
Site Planning Department
Kevin Tucker & Associates, P.C.
Nashville, Tennessee

Responsible for complete site design, client presentations, technical staff coordination, planning /zoning research, and consultant coordination. Primary workload was the site design of health care facilities for a national health care developer.

September 1976 - Aug.1982

Staff Site Planner / Structural Detailer
Howard K. Bell Consulting Engineers, Inc.
Lexington, Kentucky

Responsibilities included structural detailing, shop drawing review, planting design, site grading, specification writing and a wide assortment of field assignments (survey crew, test monitoring, etc.) A majority of the work was for a variety of public works projects.

1977 - 1978

Architectural Drafting
Gerald Lovins - Residential Developer
Somerset, Kentucky

Drafting of a variety of home floor plans, elevations and details.

May 1976 - August 1976

Draftsman / Quality Control Inspector
Cloud Concrete Products
Lexington, Kentucky

Produced drawings for a variety of precast concrete products for a sales catalog and for shop production work. Also was responsible for performing various concrete tests (slump, air entrainment) and preparing test cylinders.

PROFESSIONAL
REGISTRATION:

CLARB Certificate #751	Texas (by U.N.E.) #1031	Mississippi #341
Tennessee #395	Missouri #163	Kentucky #522
Kansas #513	Arkansas #135	Alabama #496
North Carolina #789	Virginia #605	Nebraska #237
Arizona #44094		Nevada #675

PROFESSIONAL
AWARDS:

ULI - Project Reference File
Watergrove Apartments, Memphis, Tennessee
ASLA - KY Chapter Special Recognition Award
Waterford Place Apartments, Louisville, KY
ASLA - TN Chapter - Award of Service to Chapter 1996
ASLA - TN Chapter - Award of Service to Chapter 1997
Aurora Award – Single Family Residence with LRK Architects 1999
ASLA – National – Recognition for Service 2002

PROFESSIONAL
ORGANIZATIONS:

American Society of Landscape Architects (ASLA) Member since 1984
Board of Trustees, ASLA, Tennessee Representative 1996 to 2002
Treasurer, Tennessee Chapter ASLA 1994 to 1996
Landscape Architecture Accreditation Board (LAAB) Member - Roster of
Visiting Evaluators (ROVE) 1995 to present
Board of Directors, Construction Professionals Council; Memphis Chamber of
Commerce 1995 to 1998

TEACHING EXPERIENCE:

2008 - present Adjunct Faculty Member, College of Architecture and Landscape Architecture
University of Nebraska-Lincoln
Lincoln, Nebraska

1994 - 2008 Adjunct Faculty Member, Horticulture and Landscape Technology
Southwest Tennessee Community College
Memphis, Tennessee

Spring 1985 Instructor/Teaching Assistant, Landscape Architecture
North Carolina State University
School of Design
Raleigh, North Carolina

1976 - 1977 Instructor
SAGE School of the Outdoors
Lexington, Kentucky

Forest Lake Family Center and Elementary School

Completion Date: September, 2007
Owner Representative: Cindy Saarela
Forest Lake, Minnesota



Description of Consultant's Involvement:

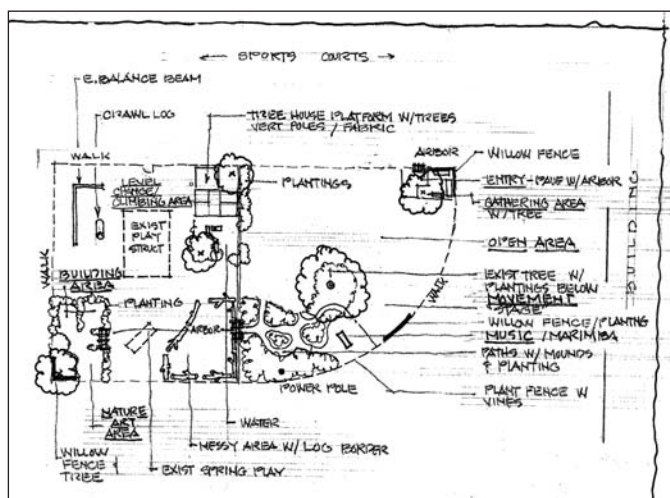
Staff at the Forest Lake Family Center, which serves preschool-aged children, had attended Nature Explore workshops and began wanting to change their traditional playground into a space incorporating natural materials. This wish coincided with the publication of *The Learning With Nature Idea Book* that outlined the research-based, field-tested guiding principles for outdoor space design for children. In November, 2006 landscape architect Jim Wike and Dimensions Foundation Executive Director Nancy Rosenow (serving as Education Specialist on the team) met with administrators Cindy Saarela and Vicki Bohling, along with teachers in the program, families, maintenance personnel and interested community members during a two-day consultation process. The guiding principles and the needs and unique talents of all stakeholders were discussed, then Jim Wike developed a concept plan based on discussions. Nancy Rosenow reviewed the concept plan from an educational perspective. The following day, the concept plan was presented to all stakeholders and thoughts about revisions were discussed. By the end of the second day all stakeholders agreed upon the final version of the plan, and upon an implementation timeline. Jim Wike revised the plan to include final thoughts and sent copies to all stakeholders.



Children help care for the trees and plants on the Nature Explore Classroom.



Children sort, classify and create patterns with nature items in the Nature Art Area.



This is the concept plan that was created for the Forest Lake Family Center in Minnesota.



Platforms installed around trees give children a safe venue for climbing and interacting with nature at the same time.

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Forest Lake Family Center and Elementary School (continued)

Forest Lake, Minnesota

Critical Issues and Interesting Features:

The two-day consultation plan worked extremely well to help a large number of people come to consensus quickly. Jim Wike and Nancy Rosenow provided a framework for discussion with the research-based guiding principles. The two administrators had talked with staff and families in advance so they were able to come to the meeting prepared with ideas. Maintenance personnel shared concerns and needs. Thoughts about community collaborations, in-kind donations and skills that could be used in building the space were all shared.

Cindy Saarela worked closely with the district administration to secure their “buy in” for this project. She was so successful that by the time the Nature Explore Classroom opened, the district highlighted this project on their Web site as an example of excellence. Businesses like Home Depot gave grants for this project. Staff and families came together to offer volunteer hours to help move dirt, plan flowers and trees, etc. Master gardeners in the community also helped with the landscaping. Children also participated in the actual physical creation of the space and continue to be part of the on-going maintenance.

Educators are reporting reduced behavior problems, calmer children indoors after they’ve spent time on the Nature Explore Classroom, and increased learning skills being developed outdoors (such as close observation skills). The school has had a number of workshops for families, and the families are beginning to report that they are adding outdoor materials in their backyards or apartment balconies so their children can engage in more “learning with nature” at home. Both Cindy Saarela and Vicki Bohling became such believers in the Nature Explore approach that they have since attended Train-the-Trainer Nature Explore Workshops and now serve as certified Nature Explore Trainers. They are working with many other programs throughout Minnesota now who are building Nature Explore Classrooms and scheduling Nature Explore Workshops for staff. The Family Center has officially become a certified Nature Explore Classroom. (Photos can be viewed on the national Web site, www.arborday.org/explore.)

The Forest Lake Family Center Nature Explore Classroom is used on weekends and in the evenings by neighborhood residents as a “pocket park.” Below is a direct quote from Vicki Bohling:

“...Some of the children who are very high energy indoors tend to be calmer and more focused when they are in the outdoor classroom, perhaps because they can tie all their muscles and senses together as they play. The space where we built our classroom used to function as a typical playground. Now, with designated areas for nature art, building, and messy materials, children have lots of ‘loose parts’ that allow them to plan, cooperate, and construct, beyond just running and climbing. And, we have discovered that digging is very therapeutic for young children!”



Children benefit from experimenting with pitch and rhythm as they create their own music on a natural marimba in the Music and Movement Area.

Child Saving Institute

Completion Date: May, 2007

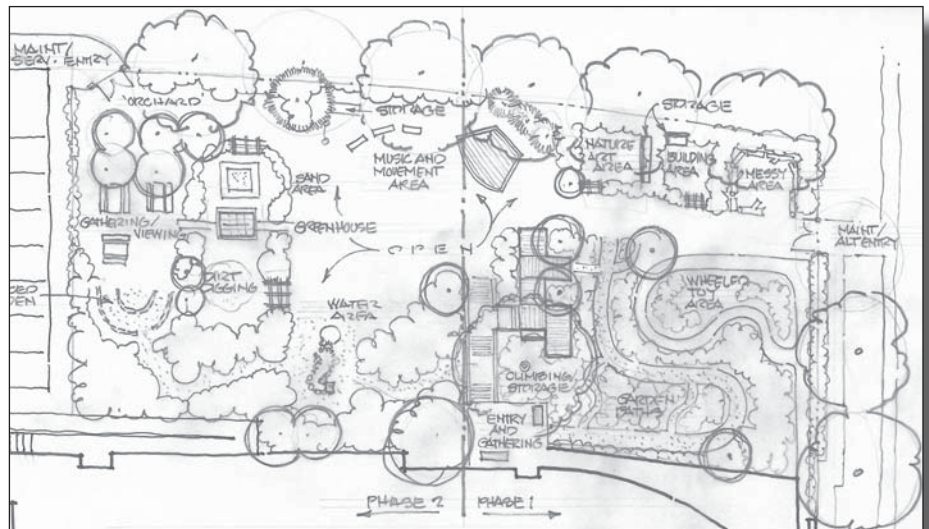
Owner Representative: Kathleen Feller

Omaha, Nebraska



Description of Consultant's Involvement:

Child Saving Institute works with a multi-age population of children who have been identified as “at risk.” During the time the Institute was building a new facility, staff learned of the Nature Explore Classroom concept and advocated changing the plans for outdoors (which called for safety surfacing and plastic equipment only) into a nature-filled space. In January, 2007 landscape architect Jim Wike and Dimensions Foundation Executive Director Nancy Rosenow (serving as Education Specialist on the team) met with administrators, Board members, teachers in the program, families, maintenance personnel and interested community members. A two-day design consultation was held to discuss the research-based guiding principles and the needs and talents of all stakeholders. Jim Wike developed a concept plan based on discussions, which Nancy Rosenow reviewed from an educational perspective. The concept plan was then presented to all stakeholders and desired revisions were discussed and incorporated. The plan was then turned into construction drawings and built by a local firm, with Jim Wike serving as consultant to the firm as needed.



Critical Issues and Interesting Features:

Child Saving Institute is located in the heart of an urban downtown area. Until the completion of the Nature Explore Classroom, trees and vegetation were not a part of the children’s outdoor experience. Since the Nature Explore Classroom has been completed, and since the staff has attended a series of Nature Explore Educator workshops, teachers have been reporting amazing benefits for children, including fewer behavioral issues, increased attention spans, and increased pro-social behaviors. Teachers also report that the workshops have helped them become better observers and supporters of children’s developmental needs. They have become believers in the great value of using the natural world as an integral part of children’s daily learning.



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Missouri Botanical Garden / Shaw Nature Reserve



Missouri Botanical Garden, St. Louis, Missouri

Completion Date: April, 2007

Owner Representative: Dr. Peter Raven

Shaw Nature Reserve, Gray Summit, Missouri

Completion Date: April, 2008

Owner Representative: Lydia Toth

Description of Consultant's Involvement:

The children's area at the Missouri Botanical Garden was not working well for children and families, so the Dimensions Foundation was hired to use its research-based principles for designing outdoor spaces to create a Nature Explore Classroom at the Garden. Concurrently, the Shaw Nature Reserve, which is associated with the Garden, requested design services as well. Landscape architect Jim Wike and Educational Specialists Nancy Rosenow and Susan Wirth met with staff and volunteers at both sites during the two-day design consultation process. Both sites were able to construct their Nature Explore Classrooms from the concept plans prepared for them.



Critical Issues and Interesting Features:

The Missouri Botanical Garden is a more managed environment than the Shaw Nature Reserve. School groups visit the Garden frequently and teachers learn of the Nature Explore Classroom concept. A number of Nature Explore Classrooms are now being constructed in Missouri schools because of these visits from educators.

The Shaw Nature Reserve was concerned about decreasing visitation from young families. They wanted to create a transitional space that would help families feel more comfortable venturing into "wilder" areas in the Reserve. The Nature Explore Classroom has filled the bill beautifully. Lydia Toth, Senior Manager for Education at the Reserve attributes most of "a tremendous increase in children's attendance" to their new Nature Explore Classroom. Attendance rose 39% for members' children and 90% for non-member visitors since the Classroom was created.



Children enjoy created their own music on the natural instruments in the Music and Movement Area.



Children strengthen crucial visual-spatial skills and develop mathematical concepts by exploring the Building Area.



Shaw Nature Reserve has experienced a tremendous increase in visitation because of their new Nature Explore Classroom.

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