

2013 Exhibition of School Planning and Architecture

Dual Language, Project Based,
K-5 Elementary School

Deer Park, Texas

K-5 Elementary School



K-5 Elementary School

The Site

Respecting its Location

The design of the campus respects its Piney Woods eco region, leaving the woodland and its dependent wildlife untouched.

For the immediate site, selective tree retention focused on native species, with minimal removal for construction of the building.

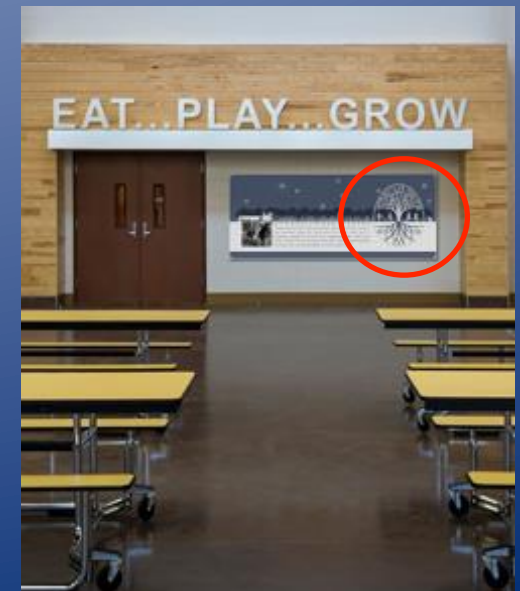
Trees harvested from the construction site were used as interior visual and textural features.

The building is sited to take advantage of daylight harvesting, and shade from the Texas sun.



Deeply Rooted Tree with Canopy Covering the Community

The deeply rooted tree and its canopy covering the community illustrates the School's commitment to the community, and became its brand message.



Community Environment: *Continued...*

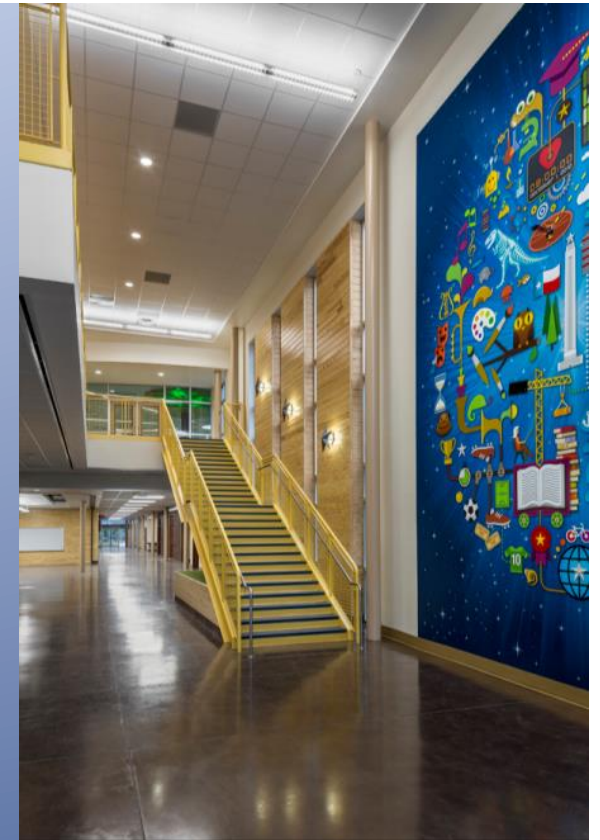
Community Interaction

The school was built closer to the community it serves, providing opportunities for walking or riding a bike to school.

The Gym, Cafeteria & Lobby were designed to accommodate community gathering with separate public entrances and the ability to secure them from the remainder of the building.

Wide corridors and mezzanines were created throughout the building to provide areas of planned and spontaneous interaction between staff, parents, and students, and to engage with one another on an informal basis.

A 2-story “time capsule” mural in the main corridor graphically tells the story of the earth through present time, and includes local icons and landmarks.





21st Century Project Based Learning

Learning Environment:

The design supports a Project Based, Dual Language curriculum for Grades K-5, with flexible instruction space that can expand or contract as needed, and technology is everywhere.

The palette is based on the 7 Eco Regions of Texas, which are depicted throughout as science lessons and visual elements.

Each grade level has a Discovery Zone for collaborative and independent exploration.



The Learning Courtyard

Learning Environment: *Continued*

Learning is not limited to classrooms --- the entire campus is an instructional area. Each grade level has it's own porch. The Learning Courtyard has:

- Outdoor Classrooms & Porches, Covered & Uncovered
- Math & Alphabet Sidewalks
- Science Gardening Containers
- Harvested Rainwater Monitored by Students



The Red Brick Schoolhouse Reimagined

Physical Environment – Narrative

Reimagining the traditional Red Brick Schoolhouse as a modern, touch technology, eco conscious, community-stakeholdered facility for project based curriculum resulted from the client's desire to have the traditions of the red school house at the center of the community while embracing 21st century educational models.

The design for this LEED Silver, K – 5 school is three 2-story wings so that every space has natural light combined with daylight harvesting and shading devices. The wings create a courtyard of interactive math and science activity zones with learning gardens, harvested water features, porches, boulders, and covered and uncovered outdoor classroom areas.



Sun for Daylight Harvesting & Science Study

Shade for shelter from the Texas sun

Interior & Exterior Connection

Physical Environment – Continued

Each section of the building utilizes a palette from a particular region complete with murals about Texas eco systems.

The Library represents the East Texas Piney Woods region, and its placement on the 2nd level adjacent to the green roof creates a visual plane of being in the tree canopy.

Trees that were removed for construction of the building were used as interior finish materials and to create a lodge pole story-telling area in the Library.



Embrace the Future School

Planning Process: Narrative

The process began with a VISIONING SESSION with the superintendent, principal and key members of the school staff.

There, a Project-Based, 21st Century school dual language was visualized. Key design elements resulted from these sessions:

Lots of technology, everywhere, in a formal and informal setting.

Flexibility of spaces, with classrooms inside and outside, classrooms that expand and contract, and flexible furniture options.

The building should be a teaching tool, with opportunities for learning the students would be exposed to throughout the school day.



Stakeholder Driven Process

Planning Process: Continued

The next step was to involve stakeholders to Visualize the 21st Century, Project-Based School, and embrace what the future of schools looks like by interactive:

Stakeholder Visioning Sessions

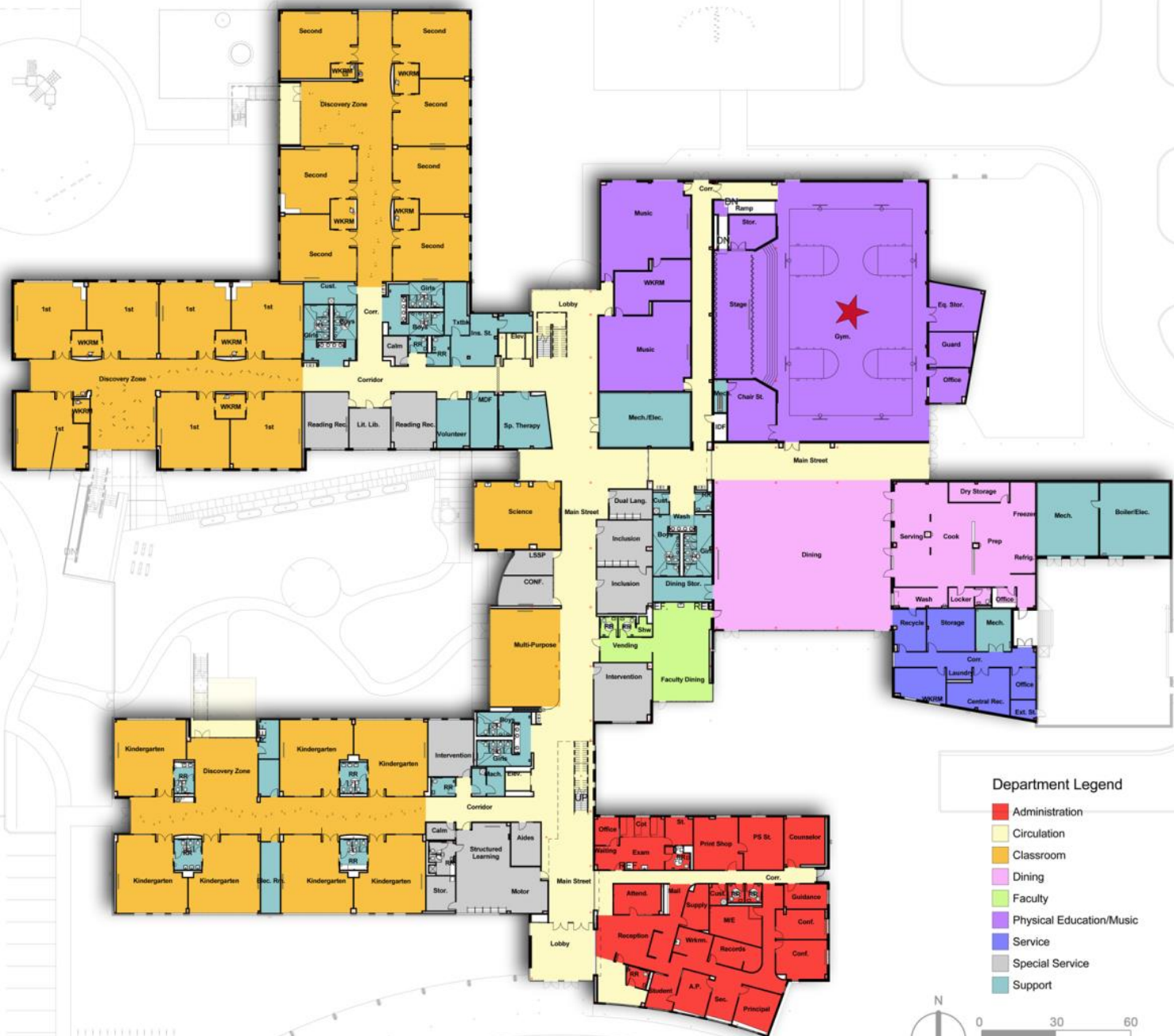
Townhall Sessions

Programming Sessions

Design Charettes

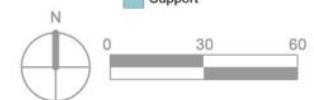


FIRST FLOOR PLAN



Department Legend

- Administration
- Circulation
- Classroom
- Dining
- Faculty
- Physical Education/Music
- Service
- Special Service
- Support



SECOND FLOOR PLAN



Exhibition of School Planning and Architecture

Project Data

| | |
|----------------------------------|------------------------------------|
| Submitting Firm : | cre8 Architects |
| Project Role | Architect |
| Project Contact | George Watanabe |
| Title | Project Principal |
| Address | 3815 Montrose Boulevard, Suite 123 |
| City, State or Province, Country | Houston, TX 77006 |
| Phone | 713-526-2738 |
| Joint Partner Firm: | |
| Project Role | |
| Project Contact | |
| Title | |
| Address | |
| City, State or Province, Country | |
| Phone | |
| Other Firm: | |
| Project Role | |
| Project Contact | |
| Title | |
| Address | |
| City, State or Province, Country | |
| Phone | |
| Construction Firm: | Brae Burn Construction Company |
| Project Role | CM@Risk |
| Project Contact | Carey Hamilton |
| Title | Senior Project Manager |
| Address | 6655 Rookin |
| City, State or Province, Country | Houston, TX 77074 |
| Phone | 713-777-0063 |

Exhibition of School Planning and Architecture

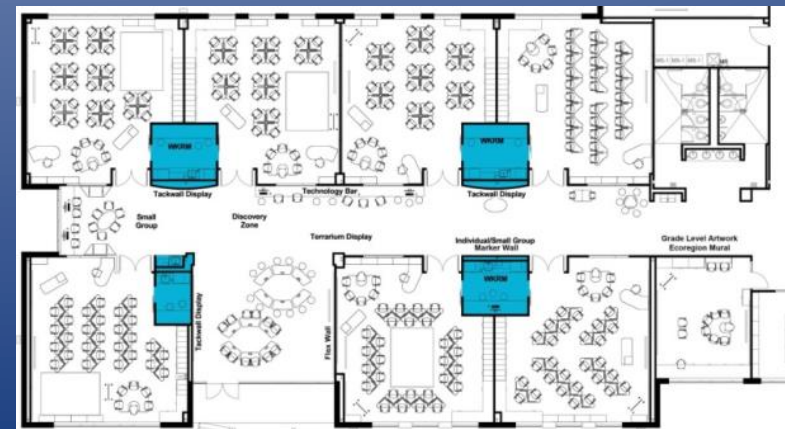
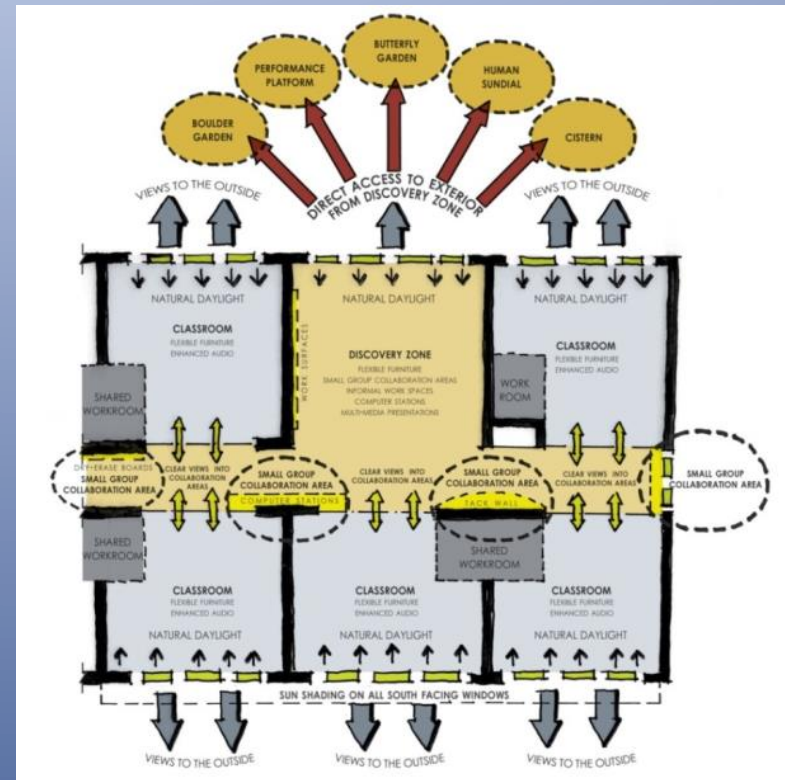
Project Details

| | |
|---------------------------|---------------------------------------|
| Project Name | San Jacinto Elementary School |
| City | Deer Park |
| State | Texas |
| District Name | Deer Park Independent School District |
| Supt/President | Dr. Arnold Adair |
| Occupancy Date | January 1, 2013 |
| Grades Housed | K – 5 |
| | |
| Capacity(Students) | 1050 |
| Site Size (acres) | 23 |
| Gross Area (sq. ft.) | 137,000 |
| Per Occupant(pupil) | 130 |
| gross/net please indicate | Gross |
| | |
| Design and Build? | No |
| If yes, Total Cost: | |
| Includes: | |
| | |
| If no, | |
| Site Development: | \$1,262,720 |
| Building Construction: | \$21,073,875 |
| Fixed Equipment: | \$1,085,520 |
| Other: | |
| | |
| Total: | \$22,336,595 |

High Functioning Instruction Areas

All Grade Levels have Discovery Zones, Collaboration Areas, Porches and direct access to the Learning Courtyard.

All instructional areas are designed to expand or contract as needed. All furnishings are reconfigurable, and a variety of seating choices are available.



Design Palette as Lessons

Colors, textures , materials and iconography are based on the Seven Ecological Regions of Texas.

Each grade level represents a region, so the students spend an academic year learning about a particular eco region--- flora, fauna, wildlife, geography, geology, water sources, etc.



Upcycled Content

Pine Trees harvested from the site for construction were cured on site and used as textural elements throughout the building, and used to build a story-telling kiva in the Library.







Photography by Gary Zvonkovic