2015 Exhibition of School Planning and Architecture

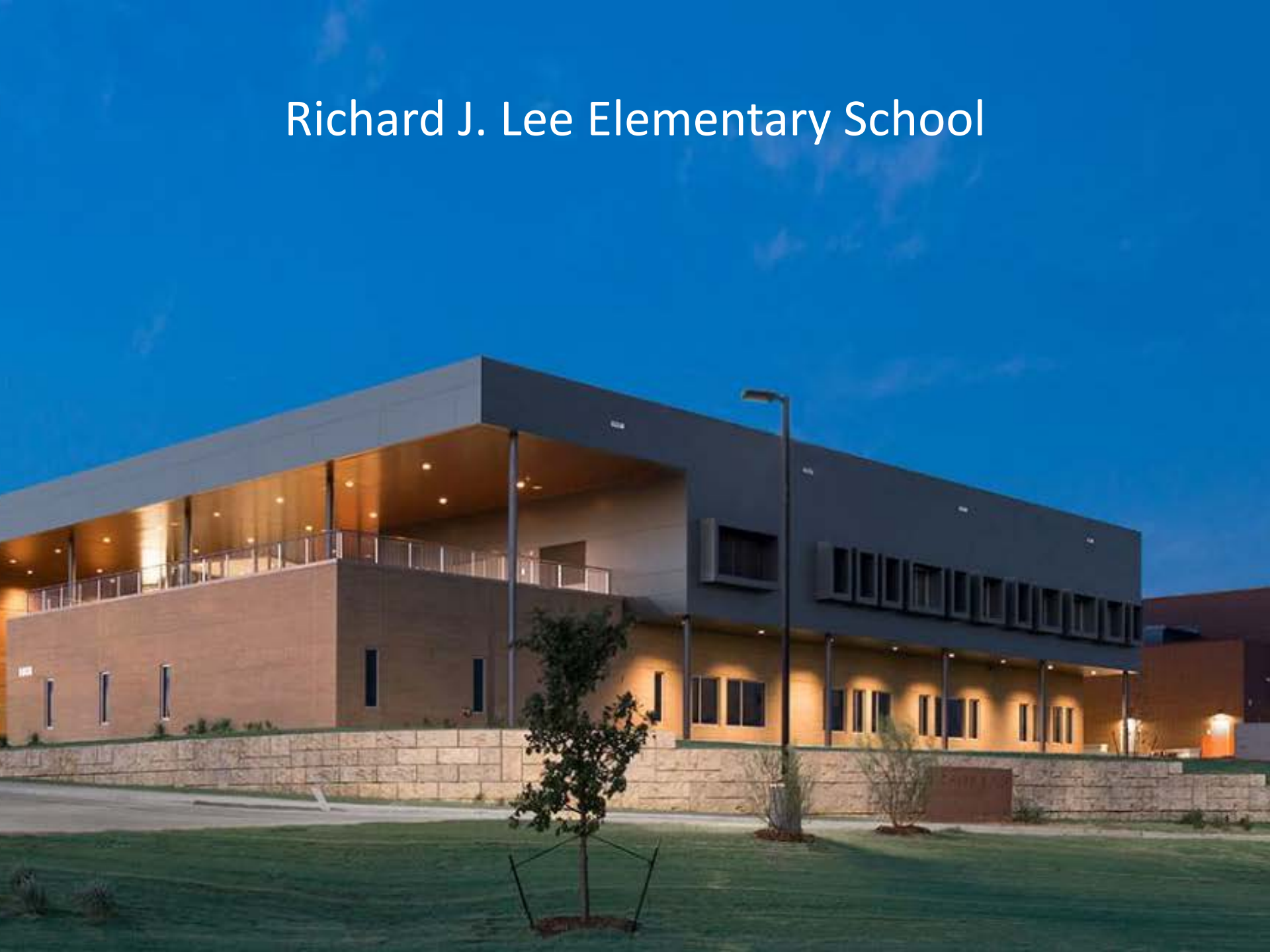
Richard J. Lee Elementary School

Category: New Construction

Coppell Independent School District

Coppell, Texas

Richard J. Lee Elementary School



Site plan

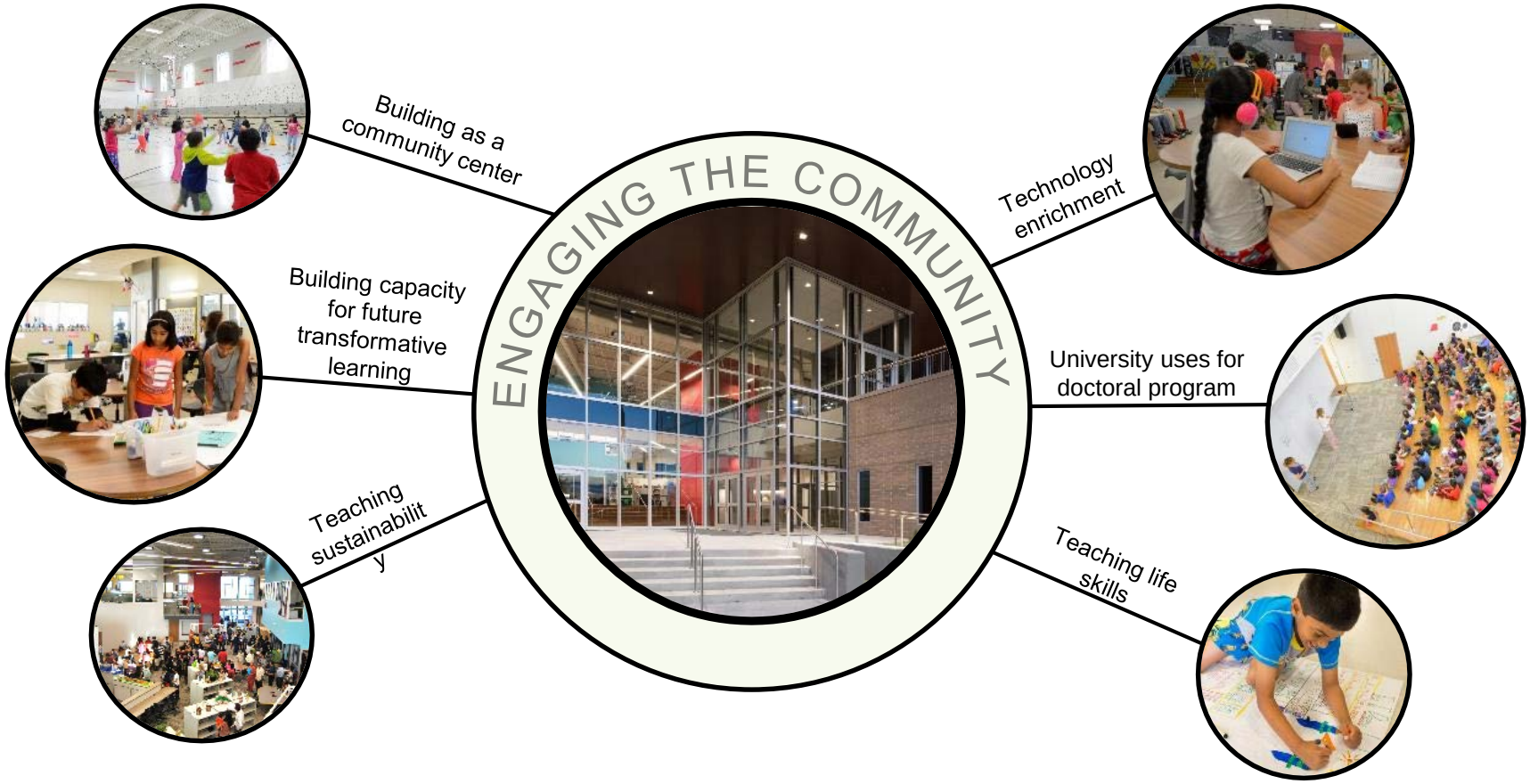

Entry
Parent Drive
nteractive Learning Courtyard
Erosion Creek and Life Sciences Lab
Younger Student Play Area
Bus Drive
Outdoor Lab
Service Entry
Older Student Play Area
Student-Managed Gardens
Wind Turbine & Energy Studies
Nature Discovery Trail
Native Plantings
PLAYGROUND ZONE
SPORTS FIELD

Community Environment:

Exterior exudes innovation

Nestled in a community striving for excellence, the exterior reflects the innovative learning environment within the facility.

Community Environment: *Continued…*



Engaging the community

The community benefits from a transformative building that itself is a learning tool.

Community Environment: *Continued…*

Students own their space

The school provides a sense of place and a learning environment the students can call their own.

Community Environment: *Continued…*

A Sense of belonging

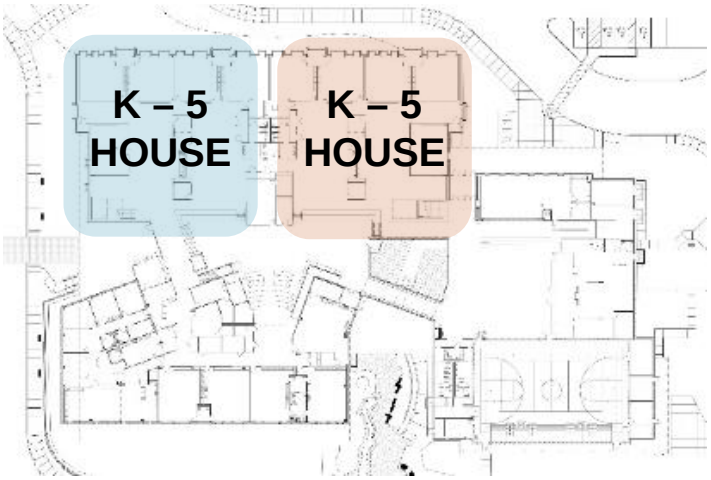
Shared houses and collaborative learning inspire belonging and community.

Learning Environment:

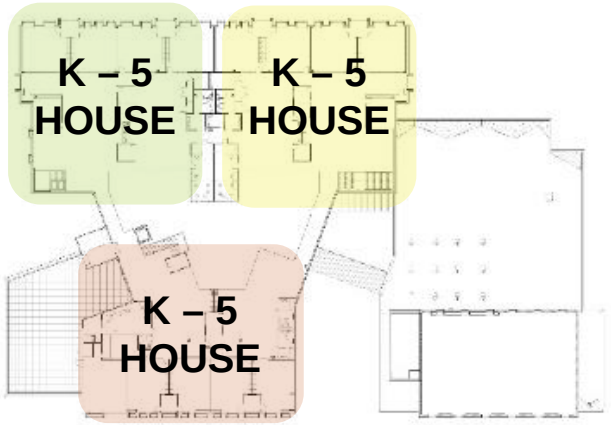
Designed with vision

To create this style of learning environment, three visioning goals drove the design: reduce limitations and inspire to drive innovation; celebrate fun, risk-taking, and authentic learning experiences through sustainable practices; and create collaboration, connection, and active learning.

Learning Environment: Continued..



First Floor Plan



Second Floor Plan

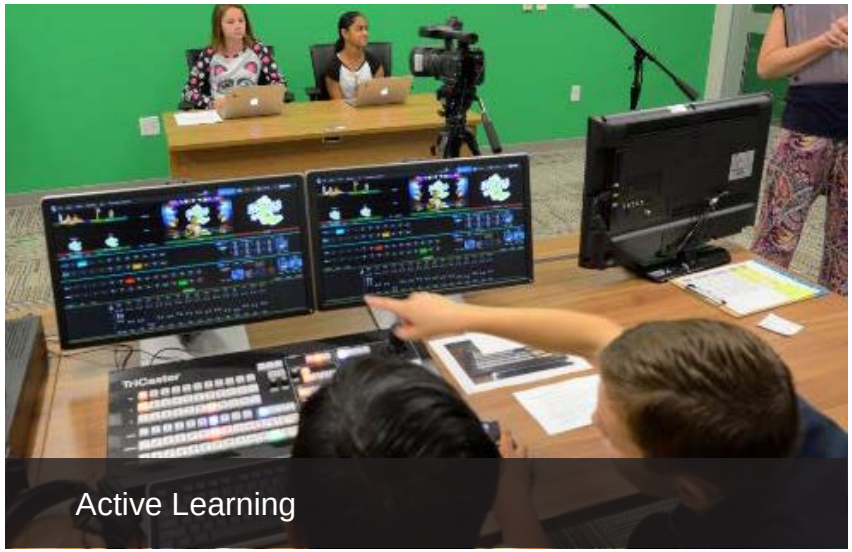
Multi-age peer to peer learning

Collaborative learning

Each small learning community promotes collaboration and encourages peer learning.

Learning Environment: Continued..

Collaborative Learning



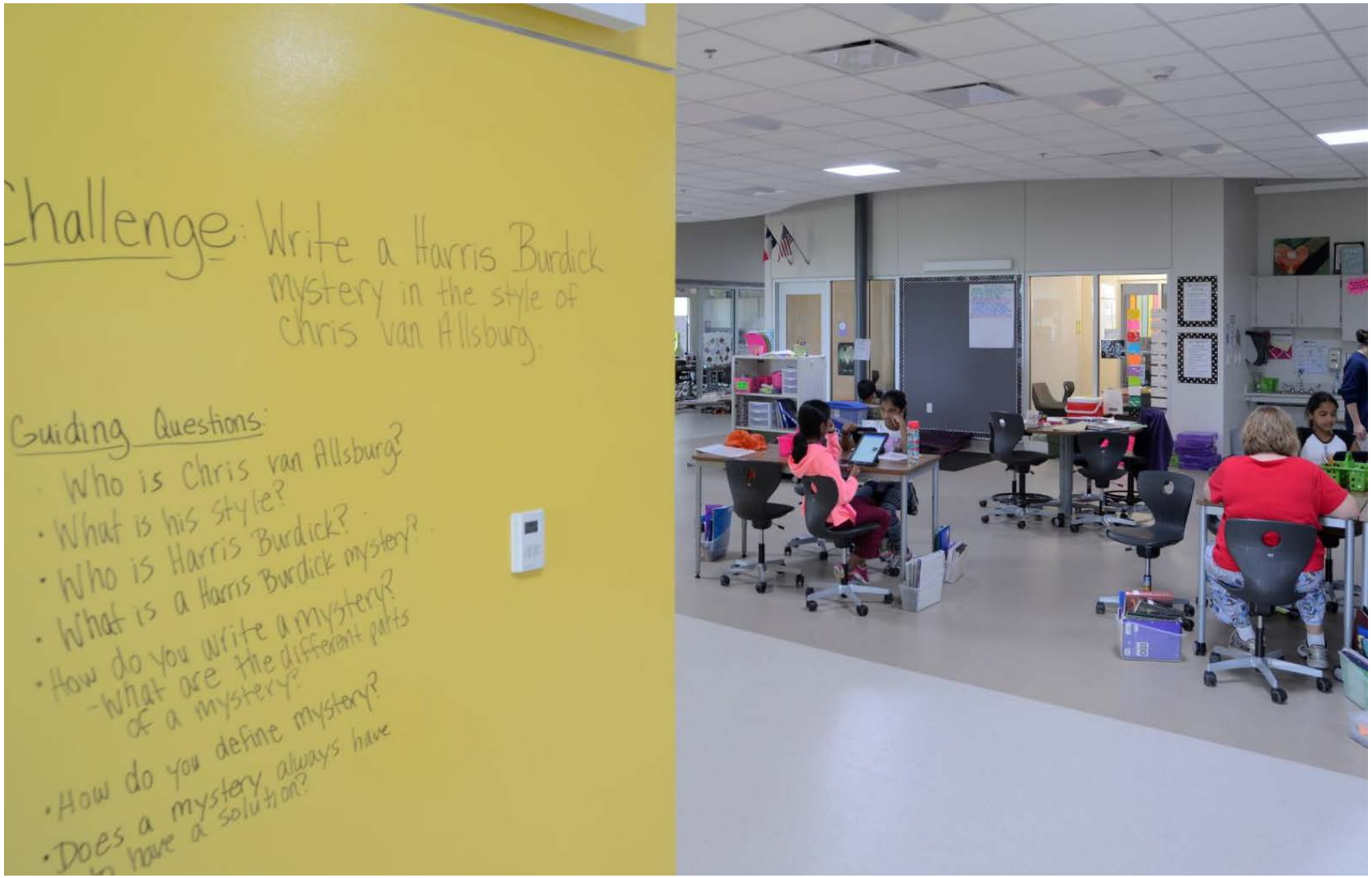
Active Learning

Focused Learning

Learning zones

Different types of learning zones support each student’s needs.

Learning Environment: Continued..



Challenge-based learning

Learning is challenge-based and focuses on the individual's learning style. The students gain responsibility for their education and the teachers facilitate. There is a true alignment between the learning style and the educational environment.

Learning Environment: Continued..

Tackling real-world issues

Challenge-Based Learning mirrors the 21st Century workplace. Learners work in collaborative groups and use technology to tackle real-world issues in the context of their school, family or local community" [1] .

[1] Challenge-Based Learning: A Classroom Guide

Physical Environment:

Connectivity & Transparency

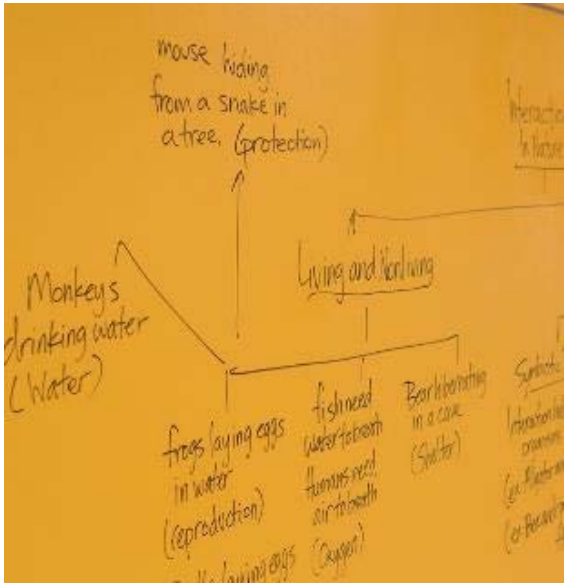
The design provides connectivity within each house and the supporting media resources while transparency places learning on display and allows for passive supervision.

Physical Environment: Continued..

Design full of purpose

Intentional furniture and technology design enable flexibility and adaptability for continuous school transformation.

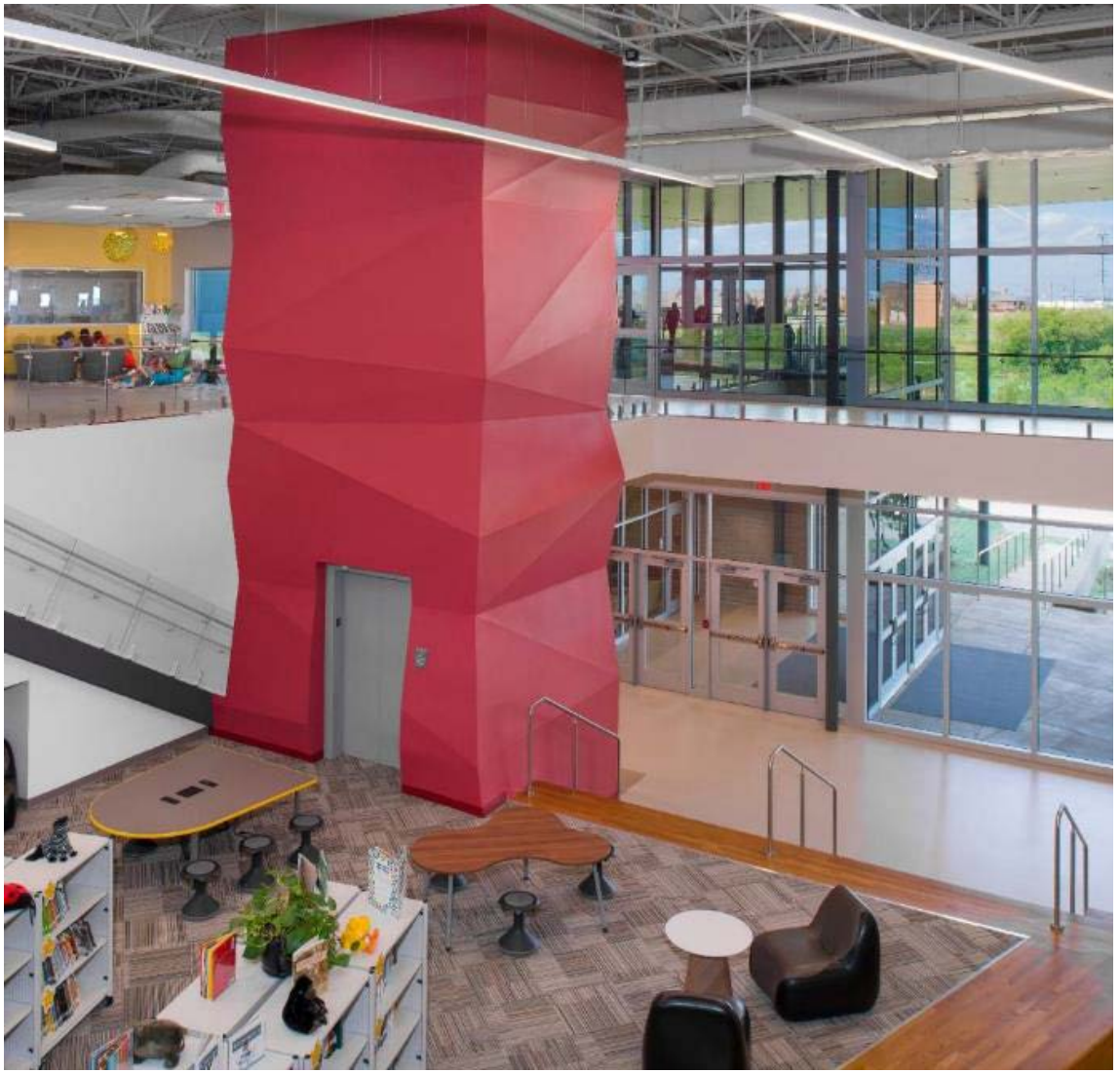
Physical Environment: Continued..



Supporting engaged learning

Wall and furniture materials support engaged learning.

Physical Environment: Continued..



Daylighting

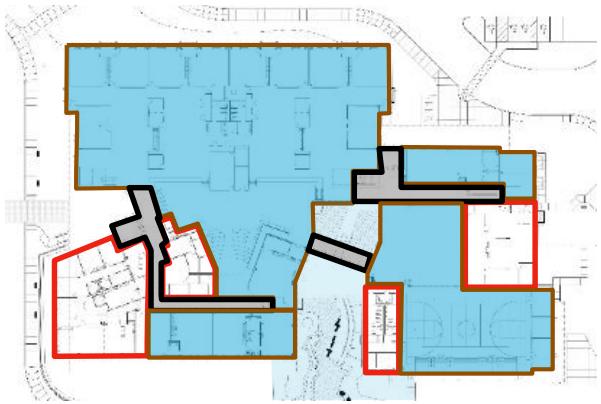
99 Solatubes provide consistent daylight harvesting and enable natural light to fill 90% of the school.

Physical Environment: Continued..

Building as a teaching tool

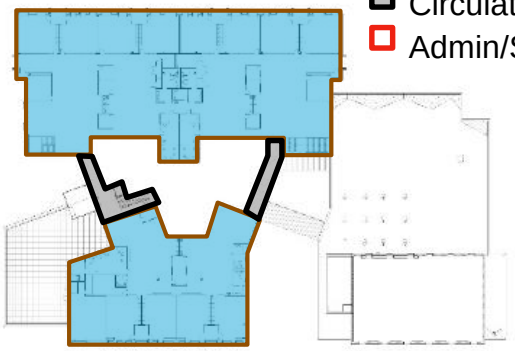
The building promotes opportunities for learning about the building systems, components, and strategies.

Physical Environment: Continued..



First Floor Plan

Learning Space
Circulation
Admin/Support



Second Floor Plan

Maximize efficiency

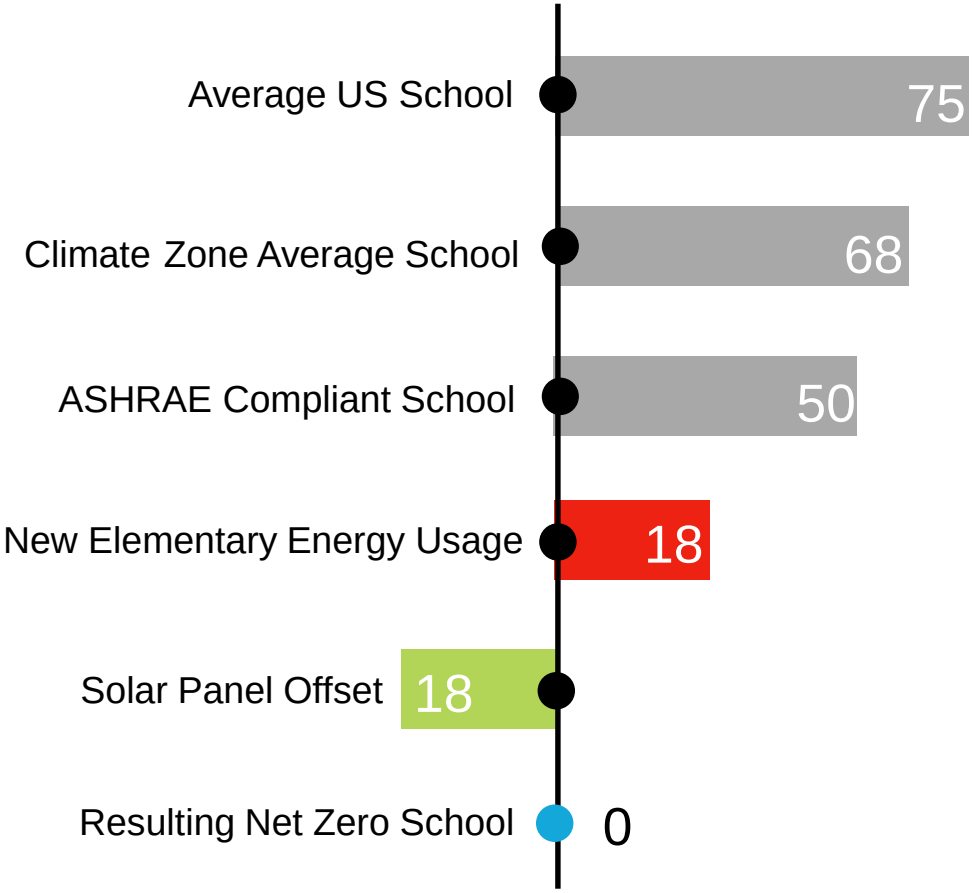
The two-story plan has 39% more square footage dedicated to learning than a traditional school.

Physical Environment: Continued..

Design elements for net-zero energy use

Wind turbines and native gardens offer hands-on opportunities and 1,096 solar panels contribute to net-zero energy use.

Physical Environment: Continued..



Solar panels, building automation, and LED fixtures contribute to decreased energy usage.

The net-zero energy usage provides an annual savings of **$76,000.**

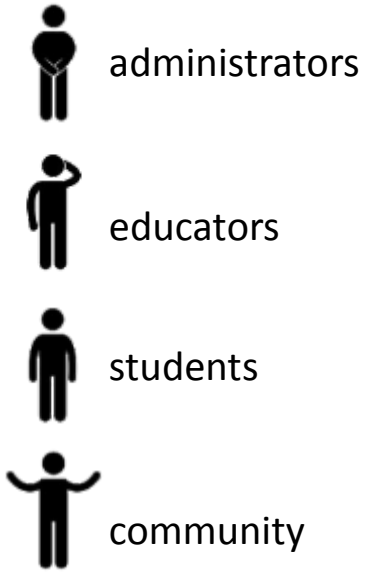
This enables reallocation of financial resources **back into the classroom.**

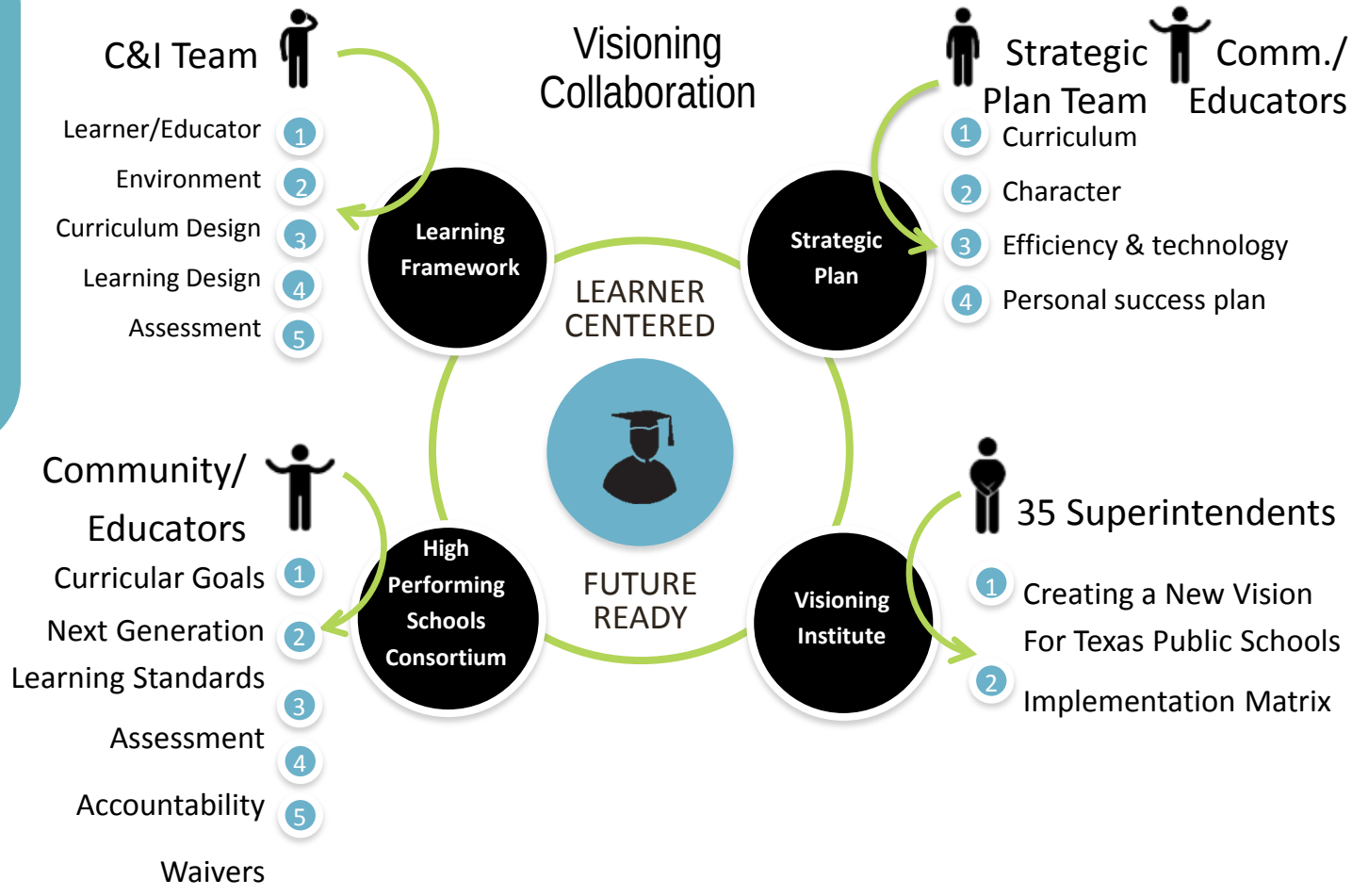
Energy usage (KBTU/SF/Year)

The design drives down the building's energy usage and the balance is offset with solar energy, creating the state's first net-zero elementary school.

Planning Process:

The planning process was initiated by the district **redefining its strategic vision** born out of the "Visioning Document"[1]





[1]*Creating a New Vision for Public Education in Texas,* The Visioning Institute

Planning Process: Continued..




Innovative facility tours


Comparative pedagogical analysis



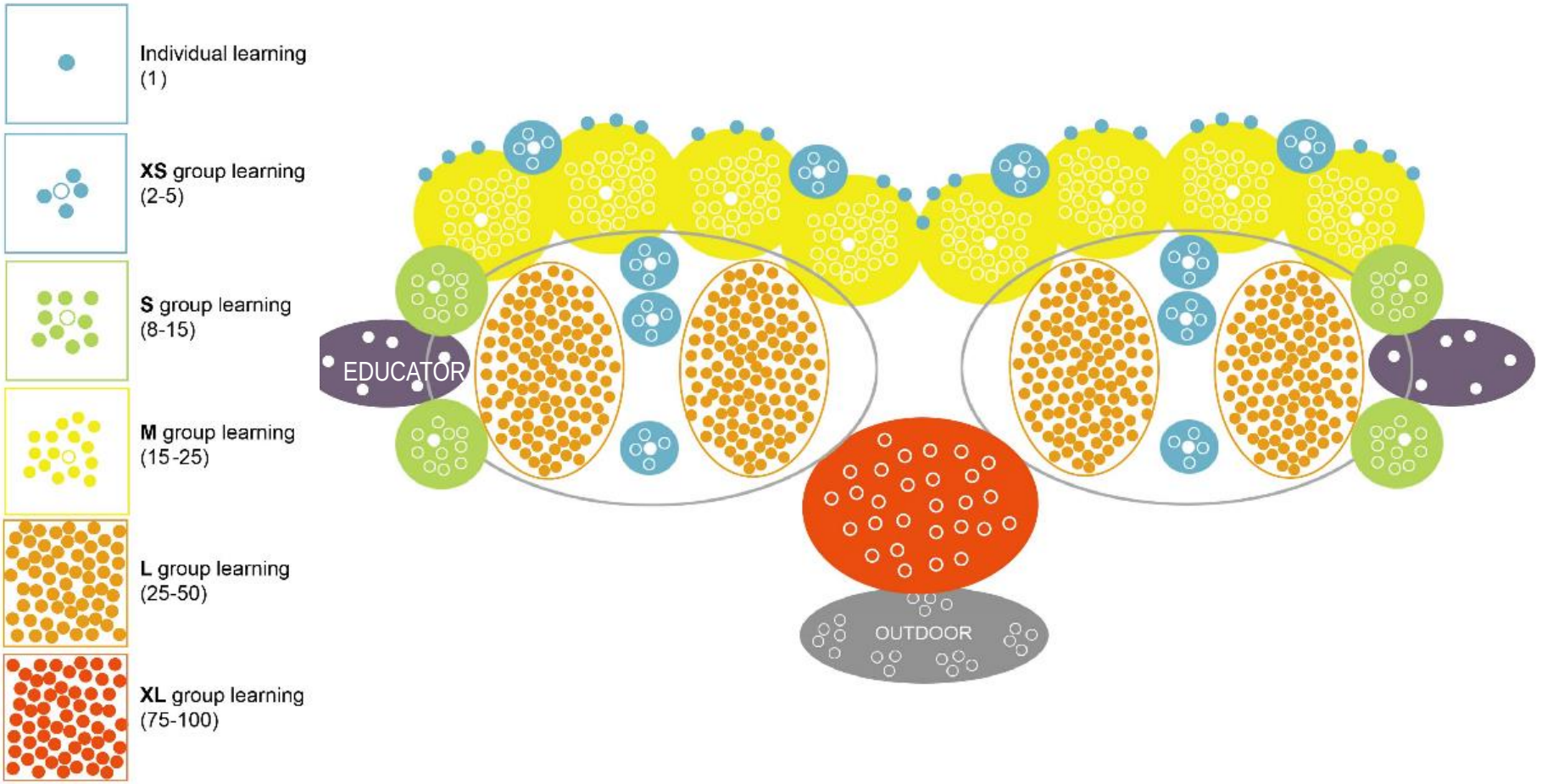
Design recommendations

Concept images to inspire the design

A collaborative process

A collaborative process defined the visioning goals to inspire, celebrate, and create.

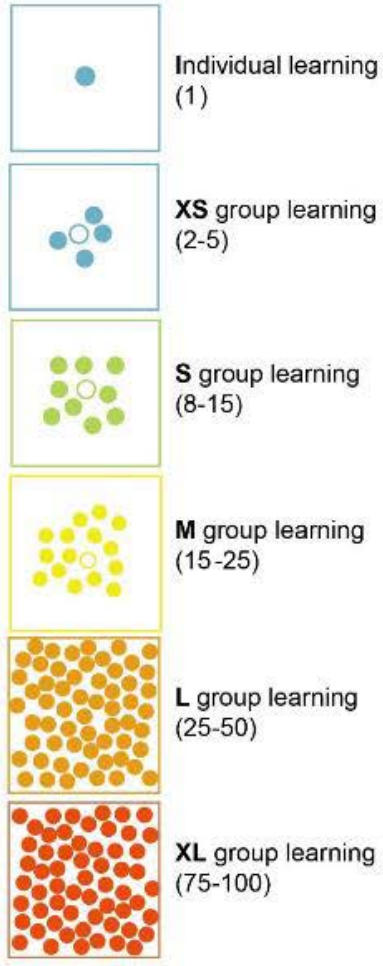
Planning Process: Continued..



Non-traditional programming

Varied group sizes and activities drove a non-traditional programming process.

Planning Process: Continued..



Process directs design

The planning process directed the design to integrate multiple options for learning.

Floor plan


HOUSE 1
HOUSE 2
FOCUSED LEARNING
1 CLASSROOMS
COLLABORATIVE LEARNING
2 WET LAB
3 DRY LAB
4 BREAK OUT
5 SMALL GROUP
6 TEACHER COLLABORATION
7 LEARNING STORAGE
ACTIVE LEARNING
8 OPEN COLLABORATION/MEDIA RESOURCES
9 PRESENTATION
10 COLLABORATION/PERFORM/DINING
11 VIDEO PRODUCTION LAB
OUTDOOR LEARNING
12 ENTRY COURTYARD
13 VISIBLE GEOTHERMAL ROOMS
14 OUTDOOR LAB
15 INTERACTIVE LEARNING COURTYARD
SPECIALTY LEARNING
16 MUSIC
17 ART
18 PHYSICAL EDUCATION
19 KITCHEN
SUPPORT
20 ADMINISTRATION

Floor plan


HOUSE 3
HOUSE 4
HOUSE 5
OPEN
FOCUSED LEARNING
1 CLASSROOMS
COLLABORATIVE LEARNING
2 WET LAB
3 DRY LAB
4 BREAK OUT
5 SMALL GROUP
6 TEACHER COLLABORATION
7 LEARNING STORAGE
ACTIVE LEARNING
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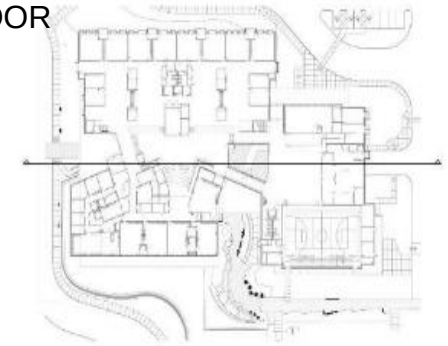
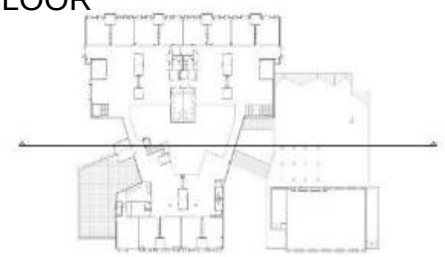
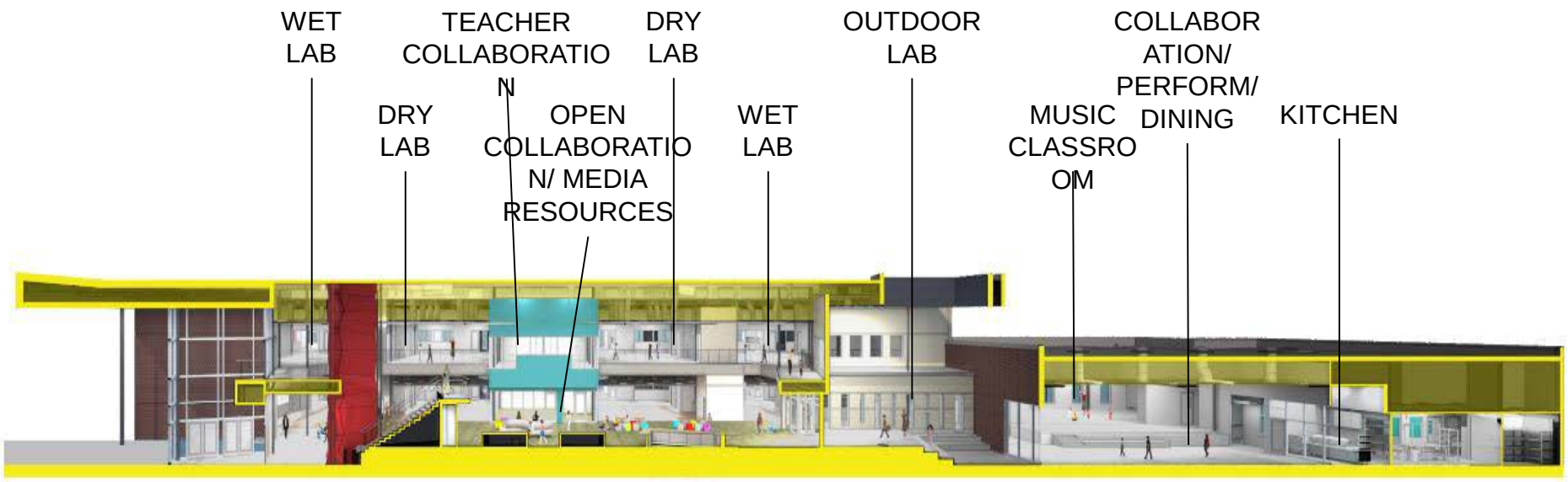
Floor plan

1ST FLOOR

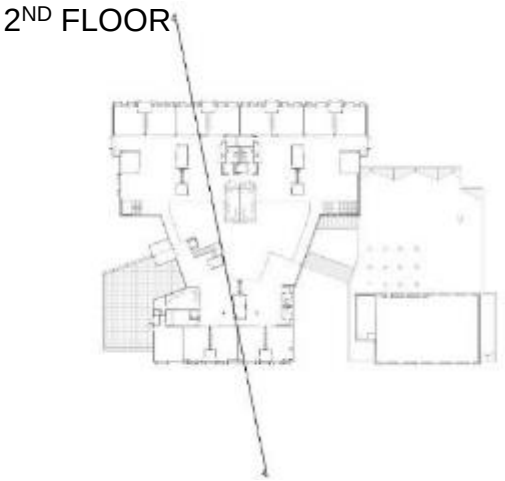


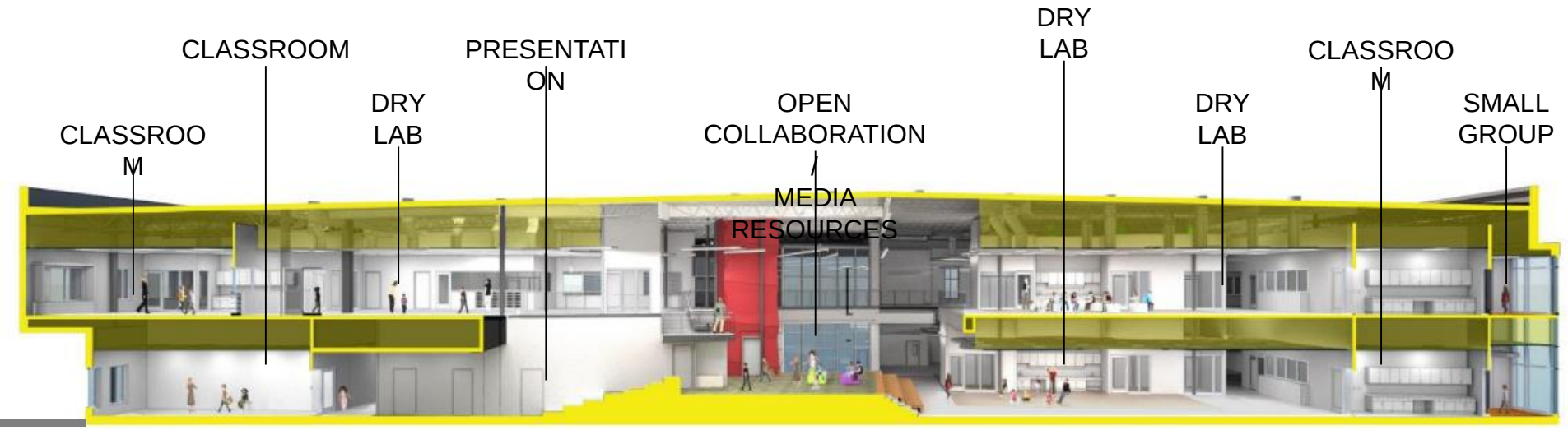
2ND FLOOR





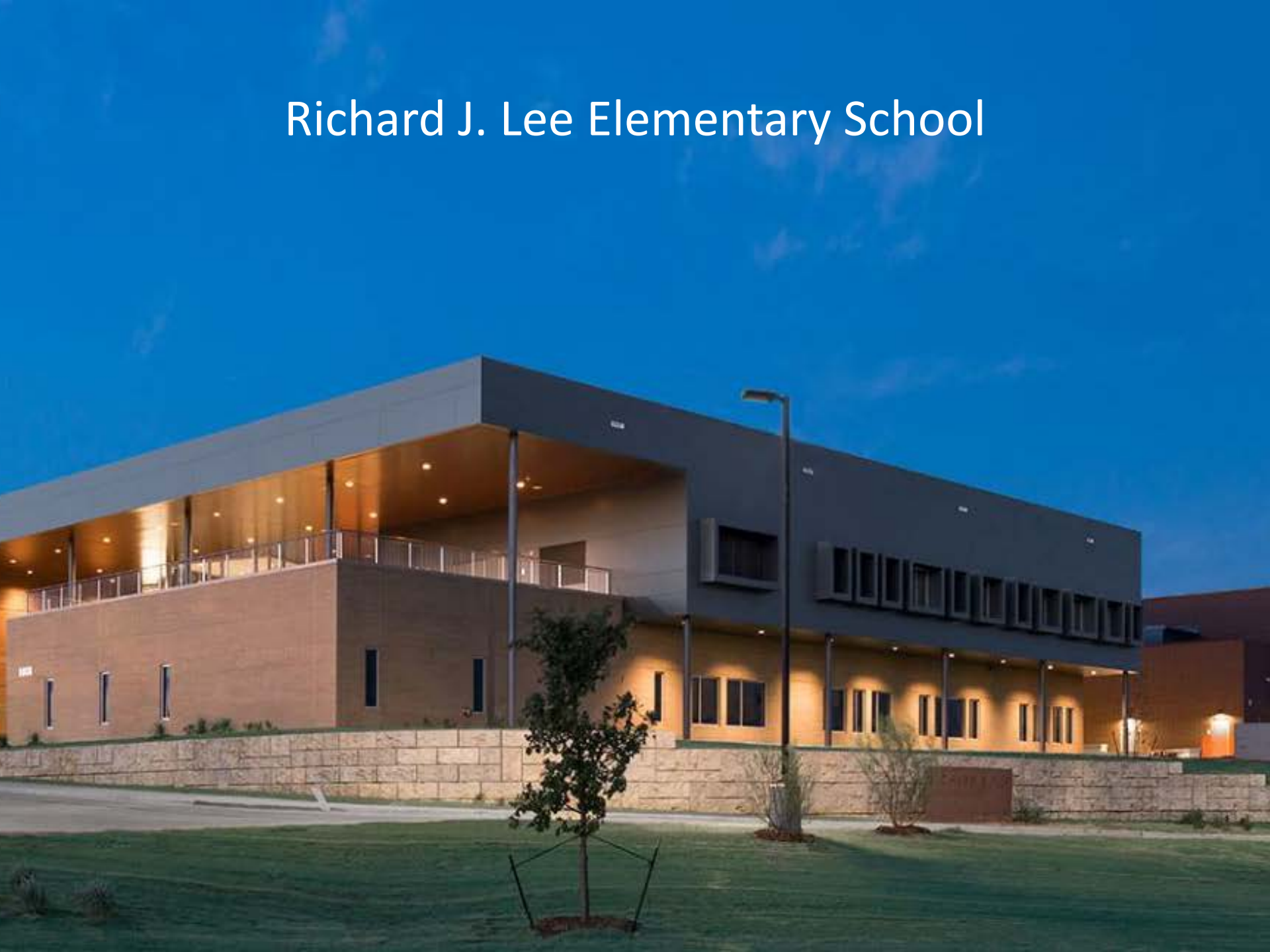
Floor plan





FOCUSED LEARNING | COLLABORATIVE LEARNING | ACTIVE LEARNING | COLLABORATIVE LEARNING | FOCUSED LEARNING

Richard J. Lee Elementary School



Exhibition of School Planning and Architecture Project Data

Submitting Firm :	Stantec
Project Role	Architect
Project Contact	Terry Hoyle
Title	Principal
Address	5717 Legacy Drive, Ste 250
City, State or Province, Country	Plano, TX 75042-4246
Phone	214.473.2578
Joint Partner Firm:	
Project Role	Not applicable
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	
Other Firm:	
Project Role	Not applicable
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	
Construction Firm:	
Project Role	Balfour Beatty Construction
Project Contact	Niels Berzanskis
Title	Project Manager
Address	3100 McKinnon Street
City, State or Province, Country	Dallas, TX 75201
Phone	214.869.6565

Exhibition of School Planning and Architecture Project Details

Project Name	Richard J. Lee Elementary School
City	Coppell
State	Texas
District Name	Coppell Independent School District
Supt/President	Dr. Mike Waldrip
Occupancy Date	August 2014
Grades Housed	K-5
Capacity(Students)	735
Site Size (acres)	12.8
Gross Area (sq. ft.)	95.633
Per Occupant(pupil)	130
gross/net please indicate	gross
Design and Build?	No
If yes, Total Cost:	
Includes:	
If no,	
Site Development:	$2,725,233
Building Construction:	$18,238,102
Fixed Equipment:	Included in construction cost above
Other:	
Total:	$20,963,335