

# Sheldon Lake **ELEMENTARY SCHOOL**

Through the Lens of Performing and Visual Arts

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SHELDON INDEPENDENT SCHOOL DISTRICT  
HOUSTON, TEXAS





# THROUGH THE LENS OF PERFORMING AND VISUAL ARTS

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# EXECUTIVE SUMMARY

Sheldon Lake Elementary School emerged out of an initiative in Sheldon Independent School District to roll out specialized learning programs to each of their six elementary schools. This initiative, the Compass Schools program, promotes the District's belief that parent voice is an essential part in a child's education by providing parents an opportunity to make a choice in a program that fits their child's interests.

Compass Schools is for all elementary school students enrolled in Sheldon Independent School District (ISD). The program offers three tracks: Performing and Visual Arts (PVA), Science, Technology, Engineering, and Math (STEM), and Technology. Each specialty area is offered at two Sheldon ISD elementary schools.

The PVA track was recommended for Sheldon Lake Elementary School after a sub-committee of district staff, design team members, content experts, and community members evaluated a range of School of Choice selection criteria. The committee also discussed the facility implications for each specialty area and felt that the unique performance spaces of a PVA school would be well-suited for a new construction project.

**"Provide personalized learning opportunities for all students. All campuses should have different ways to engage and interact with the curriculum. Spark Interest in the students. Every child to be comfortable in their learning space."**

**– SHELDON- ISD SCHOOL OF CHOICE SPECIALTY AREA SUB-COMMITTEE MEMBER**



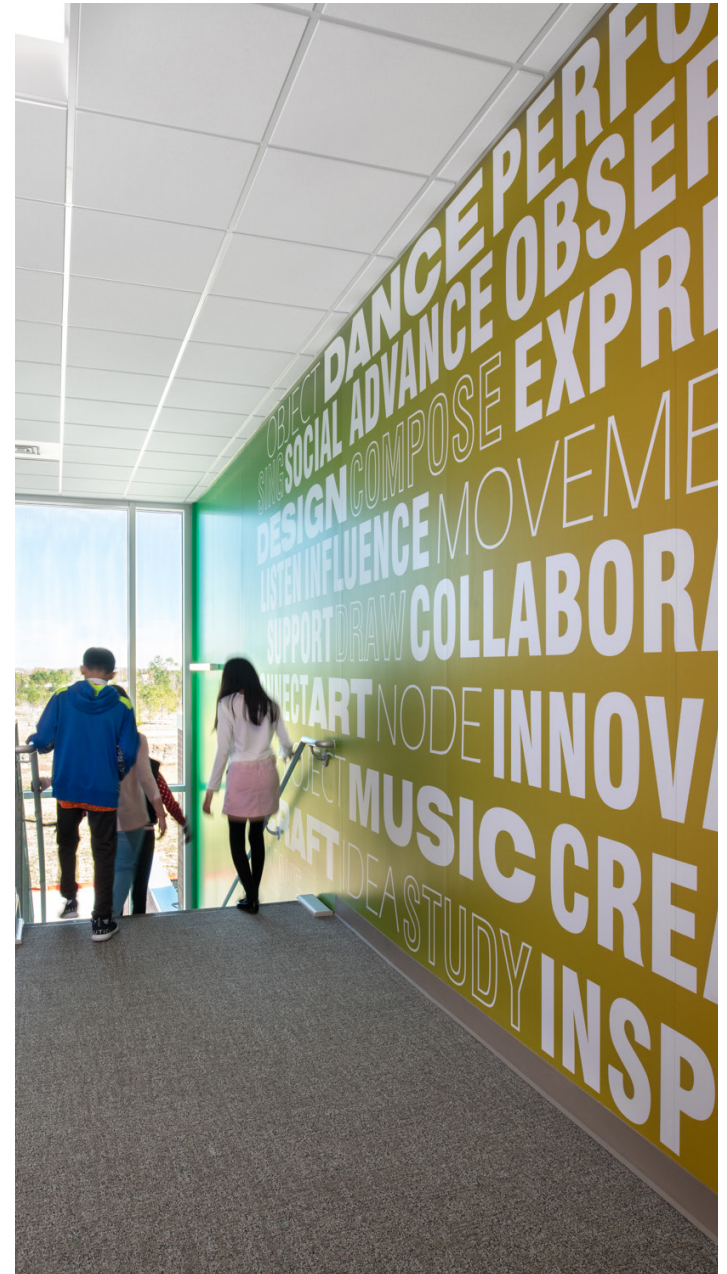
# THROUGH THE LENS OF PERFORMING AND VISUAL ARTS

As one of two campuses with a PVA focus, the goal for Sheldon Lake Elementary School was to provide an open learning environment that uses student interests to excite them about learning and celebrates the unique activities happening within its walls.

The design approach considered each aspect of this new school of choice through the lens of Performing and Visual Arts (PVA), resulting in a facility that challenges the notion of hosting a specialized program as only one piece of the educational environment and instead makes one conceptualize the entire building as a vehicle for pedagogical choice.

Throughout the visual landscape of this new school stand iconic features that support PVA programs. Rather than pieces hidden within a traditional school environment, the spaces define the entire building and use the intrigue and passion of PVA to engage and support the learners. The two-story building has a free-flowing design, where the theater, dining, and library spaces don't have walls but still have their own core. The design also provides several visual and physical connections to an exterior courtyard space where students can interact with nature.

While research indicates that an arts-centered curriculum is beneficial to language and reading development, Sheldon Lake Elementary School also fills community amenity gaps by providing highly- desired and much-needed performance, gathering, and shared green spaces.





# SCOPE OF WORK & BUDGET

Sheldon Lake Elementary School is the sixth elementary school in Sheldon ISD. The new two-story building is located on a shared site near the new high school and football stadium.

At the heart of the design are a range of PVA spaces—including a Blackbox theater, and art, music, dance, and design studios—that define the entire building and serve as a continual reminder of this school's special purpose.

**OWNER:**  
Sheldon Independent School District

**LOCATION:**  
Houston, Texas

**CONSTRUCTION COST:**  
\$19,998,205

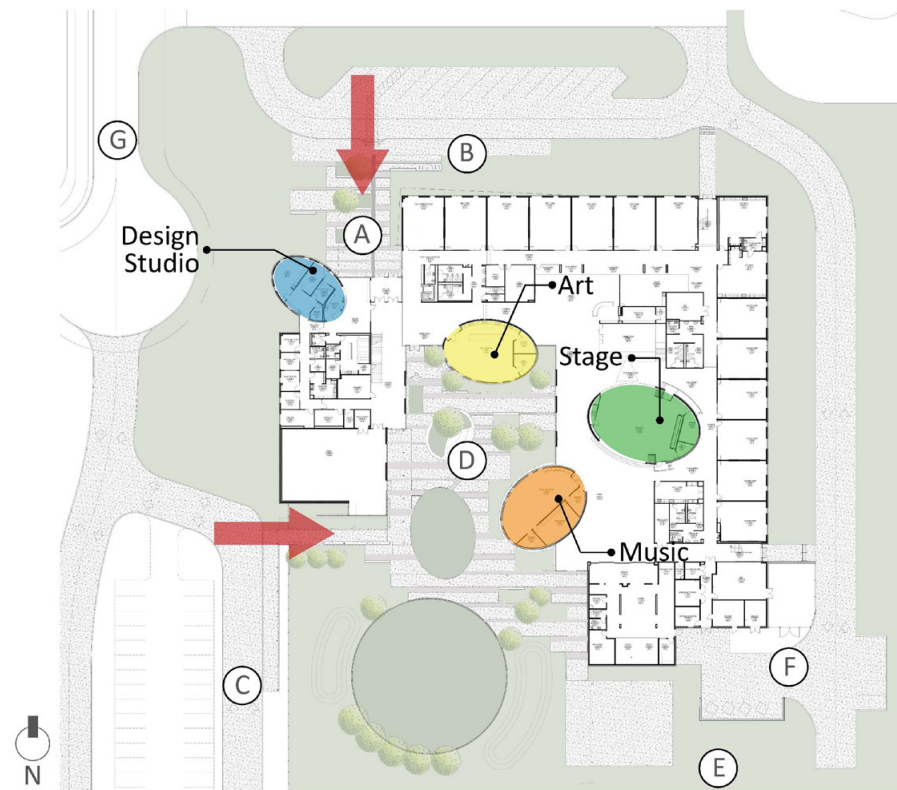
**OCCUPANCY DATE:**  
August 2019

**SITE SIZE:**  
362 acres total with shared site, 38 acres for ES

**SQUARE FOOTAGE:**  
87,654

**CAPACITY:**  
700 students

**GRADES SERVED:**  
1st–5th



- (A) Main Entry
- (B) Parent Drop-off
- (C) Bus Drop-off
- (D) Learning Plaza / Courtyard
- (E) Play Fields
- (F) Building Services
- (G) Perimeter Campus Access Road



# THROUGH THE LENS OF PERFORMING AND VISUAL ARTS

## 01

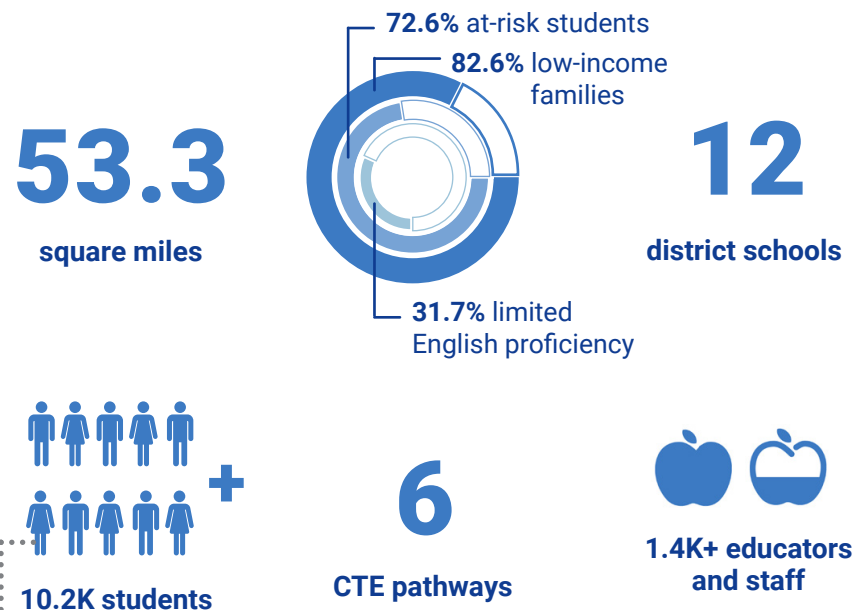
## SCHOOL & COMMUNITY RESEARCH AND ENGAGEMENT



# MEET SHELDON ISD:

Sheldon Independent School District (ISD) is located in an unincorporated part of Harris County, Texas, approximately 20 miles northeast of Houston. With a 3-year enrollment growth rate of 11.35%, it is one of the top 10 largest growing districts among the 60 that serve the ten counties comprising the Greater Houston area.

As a Title I district, Sheldon ISD strives to provide personalized learning opportunities that will engage and inspire students, empowering them to own their education as they prepare for their futures. The District also places a high emphasis on the importance of parental involvement, believing that a community's collective power is greater than individual efforts and that family is the foundation of society.



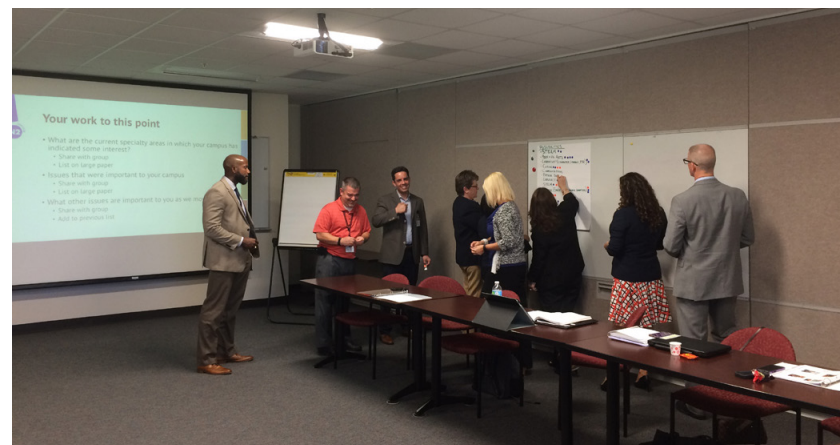
\*represents 1,000 students

# LOOKING TOWARD THE FUTURE

The visioning and planning process for Sheldon Lake Elementary School began with a subcommittee of district staff, design team members, content experts, and community members, who were asked to evaluate various specialty areas of learning and to ultimately recommend the Compass School tracks for Sheldon Lake Elementary School as well as the district's five existing elementary campuses.

Meeting four times over the course of two months, the subcommittee's efforts focused on identifying the sub-committees' highest aspirations for each child who would attend this new facility as well as reviewing the facility implications for each specialty area. This included thoroughly evaluating of a range of School of Choice selection criteria:

- Will it engage students?
- Do we have students who are interested in the area?
- Will it provide opportunities for students' creativity?
- Will students experience solving real-life problems?
- Will it lead to personalized learning opportunities?
- Will it be available / appropriate for all students?
- Will it allow students to learn from their strengths?
- Will it allow students to explore future careers?
- Will it provide opportunities for students to create long-term goals for themselves?
- Can we currently provide vertical alignment to middle school and high school?



# DEVELOPING THE PVA PROGRAM

## Why build a School for the Performing & Visual Arts?

There are numerous academic benefits to an arts education. Additionally, an arts education fosters creative thinking, an ability that is highly-relevant in today's careers:

- IBM surveyed over 1,500 CEOs from 60 countries worldwide and found that chief executives believe that—more than rigor, management discipline or even vision—successfully navigating our increasingly complex world will require creativity.
- According to an Adecco survey of 500 senior executives across a variety of industries in the United States, 44 percent of respondents cited soft skills, such as communication, critical thinking, creativity, and collaboration, as the area with the biggest gap in US workforce skills. Notably, only 22 percent cited a lack of technical skills as the cause of the skills gap.

## Visioning

During this interactive process, the team identified project goals and began to prioritize space needs for PVA.

Sheldon ISD Principals and curriculum instruction leadership discussed the value and benefits of teaching through the lens of PVA. The design team, recognizing the unique nature of this project, took the same approach and addressed design decisions in a way that upheld the project vision.

## Programming

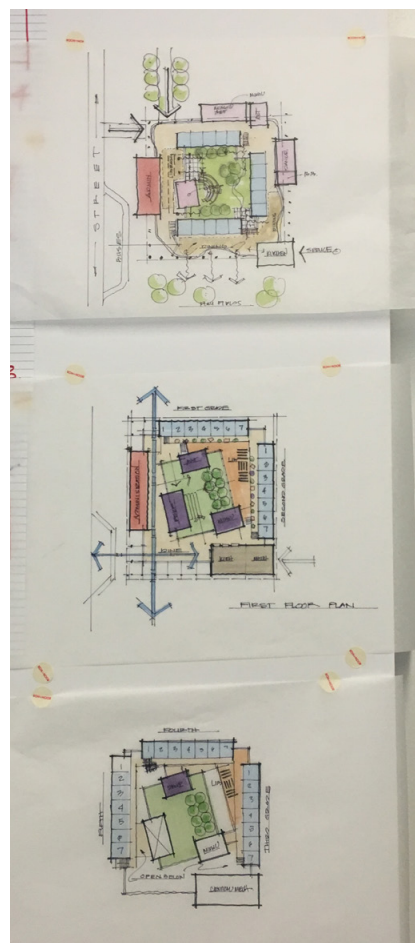
The team worked collaboratively to determine each and every room that would be part of Sheldon Lake Elementary School and identify the approximate size of each space.

To develop the room-by-room list of spaces, the team first considered multiple precedents for existing PVA schools, then explored what it means to be a school of the 21st century, and finally, identified opportunities for efficient space utilization.

## Development

The design team, together with Sheldon ISD representatives, reviewed examples from other PVA schools, including room-by-room programs, floor plans, photos, and videos.

The team also used Sheldon ISD's current facilities as a reference point while discussing space needs. This included identifying opportunities to gain efficiencies as compared to current facilities as well as exploring ways to create a school for 21st century learning.

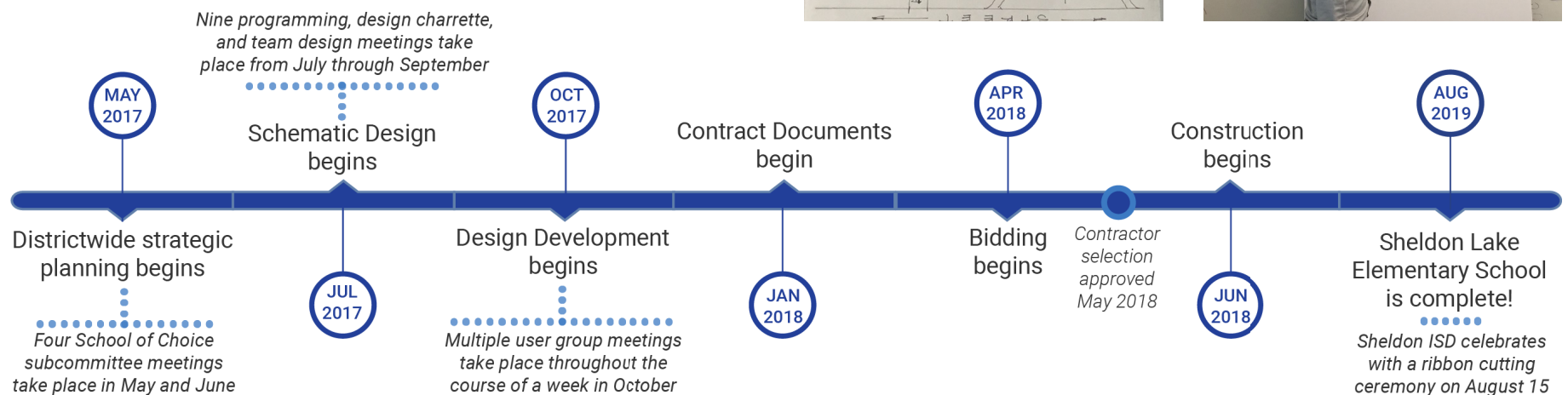
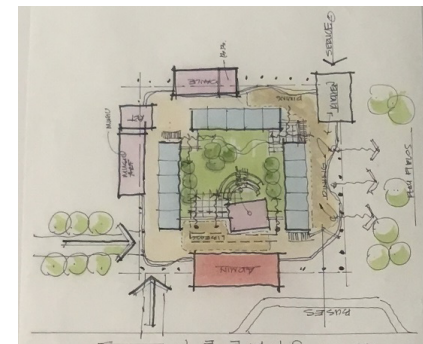




# THROUGH THE LENS OF PVA

The project team met with a leading educational specialist for a 3-day design charrette to begin crafting initial project concepts. This third-party facilitator helps clients meet their highest aspirations and develop a new vision for facility designs that support imagination and innovation through comprehensive and customized planning endeavors, including:

- Academy Planning & Implementation Strategies
- Facilities Visioning
- Grade Level Configuration Studies
- Professional Learning Planning
- Strategic Planning
- Technology Integration
- Digital by Design
- Spaces that encourage student ownership for learning
- Flexible spaces (including furnishings)
- Safety and security
- Integration of technology into the instructional process
- Educational specifications



During the charrette, the team discussed what it meant to be a performing and visual arts-focused school and, through that lens of PVA, generated concepts for initial review by Sheldon ISD and the design committee that were driven by an intent to bring the programmatic spaces to the forefront of the school.

# INVESTING IN THE SHELDON COMMUNITY

Sheldon Lake Elementary School is a School of Choice that supports the districtwide investment in providing learning environments to their community that educate and energize students using their interests to excite them about every aspect of their learning.

The new two-story building is located on a shared site with Sheldon ISD's new high school and football stadium. This challenged the team to design the overall vernacular to harmoniously blend in with its surroundings while also creating a distinct identity for the elementary campus that responds to the different pedagogical, safety and security, and emotional and social needs of its users.

The facility is designed not just to get the students interested but to also create increased opportunities for parents to be involved, creating a place where the school is the community, and the community is the school; they are one and the same.





The image shows a bright, modern educational space. In the foreground, several children are seated at small, light-colored wooden tables, each with a grey, trapezoidal stool. They appear to be engaged in an activity. The background wall is covered in a large, colorful mural featuring stylized letters and musical notes. The ceiling is white with a grid pattern and features several large, circular, blue-rimmed light fixtures. The floor is covered in a blue and white striped carpet. The overall atmosphere is bright and creative.

THROUGH THE LENS OF  
PERFORMING AND VISUAL ARTS

02

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EDUCATIONAL  
ENVIRONMENT  
DESIGN

# GUIDING PRINCIPLES

**DISTRICT MOTTO**  
Every Child, Every Day

**DISTRICT MISSION STATEMENT**  
Sheldon ISD will provide personalized learning opportunities to ensure all students graduate college and career ready

## GUIDING PRINCIPLE #1:

**Attract and engage students: Make learning come alive through the lens of the arts**

Correlative studies show a strong relationship between arts education and deep engagement in learning as well as a motivation to learn for understanding.



## GUIDING PRINCIPLE #2:

**Create opportunities for creativity and personalized learning**

Studies measuring creative thinking, critical thinking, problem-solving and reasoning all find these functions increase and improve when arts education is added to the educational mix.



## GUIDING PRINCIPLE #3:

**Support the goals, interests, strengths, and needs of all students**

The arts contribute to academic success for students from low socio-economic backgrounds, English language learners, and students with special needs, as well as helping prepare youth to apply their skills directly to employment opportunities.

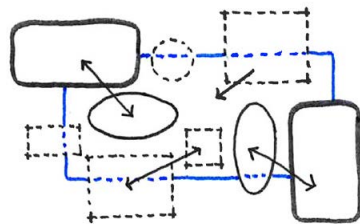
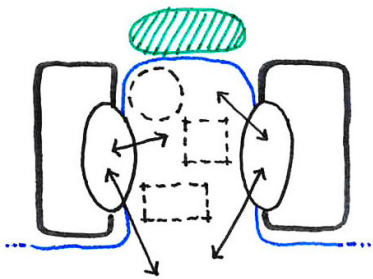




# SUPPORTING THE CURRICULUM

The design was driven by the intent to bring the programmatic PVA spaces to the forefront of the school. Rather than pieces hidden within a traditional school environment, the spaces define the entire building and use the intrigue and passion of PVA to engage and support the learners.

- Traditional spaces become extraordinary in the pursuit to support performing and visual arts, such as a Dance Studio in lieu of a traditional gym.
- Spaces for the Music program are designed to support opportunities for vertical integration with the music programs in junior and high school.
- In addition to its performance value, the Blackbox Theater also provides students with opportunities to see behind the curtain and learn about stage lighting, sound, set design, and more.
- The Design Studio is a space for scientific inquiry and learning, serving traditional elementary-level science lab functions while also providing a backdrop for the exploration of the intersection of science and the arts.



# EDUCATIONAL VARIETY



From the Blackbox Theater and learning stair to the outdoor courtyard and abundance of flexible collaboration areas, this building offers multi-use learning space at every turn



Extended learning spaces along the circulation have flexible furniture with bright colors and transparency into classrooms



Additional breakout spaces provide areas for quiet study and can accommodate various group sizes and learning functions



Small nooks promoting focus and contemplation have a fun and playful design that reflects the unique PVA activities taking place within the school





# MAXIMIZING FLEXIBILITY

The programmatic PVA spaces are designed to accommodate changing and evolving pedagogical needs.

The learning stair supports large group instruction and collaboration and can also accommodate performance audiences, student awards ceremonies, staff meetings, faculty trainings, and other school and district events.

Dance is a program that goes beyond traditional forms of the art. It fulfills Texas state requirements for physical education by offering a variety of movement and exercise, from ballet and modern dance, to gymnastics and balance activities, to parachute play and more.

While there is not a traditional gymnasium with regulation-sized sports courts, the design includes an outdoor covered play surface that can be outfitted as a sport court and maximize the flexibility of the PE program.

Three differently sized spaces support music program activities ranging from large group instruction to individual music training. The design includes acoustic treatments to limit sound travel outside the classroom and plenty of room for instrument storage.



# MAXIMIZING FLEXIBILITY

Additional features such as movable partitions with writeable surfaces and outlets in the learning stair further enhance the ability of this space to support a wide range of activities.



The Blackbox theater and learning stair serve as an extension of the library and dining spaces.

The multi-configurable theater-in-the-round can support a performance on one side and a banquet on the other, even concurrently, providing added flexibility for educational use.





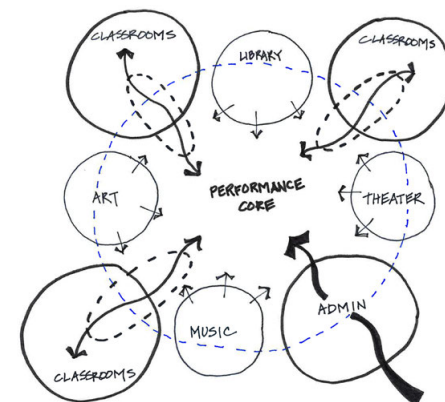
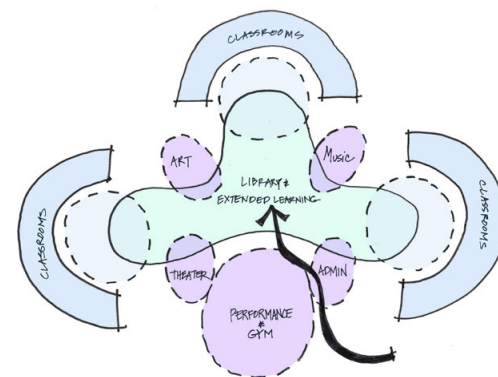
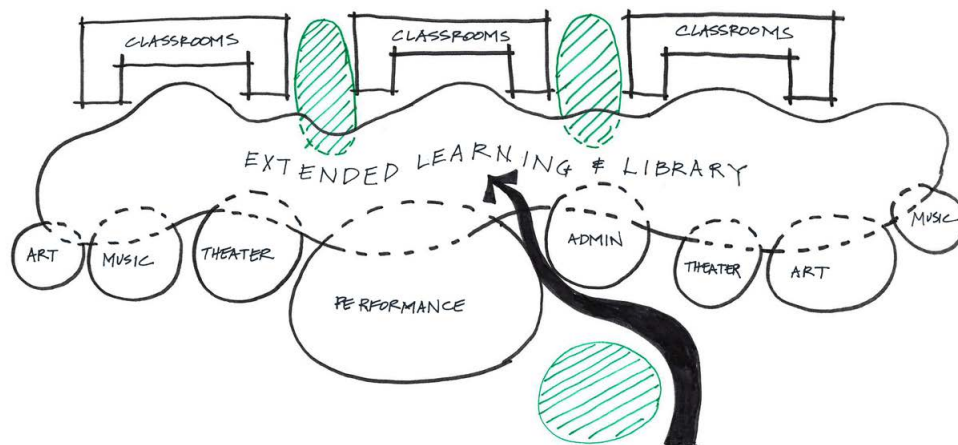


THROUGH THE LENS OF  
PERFORMING AND VISUAL ARTS

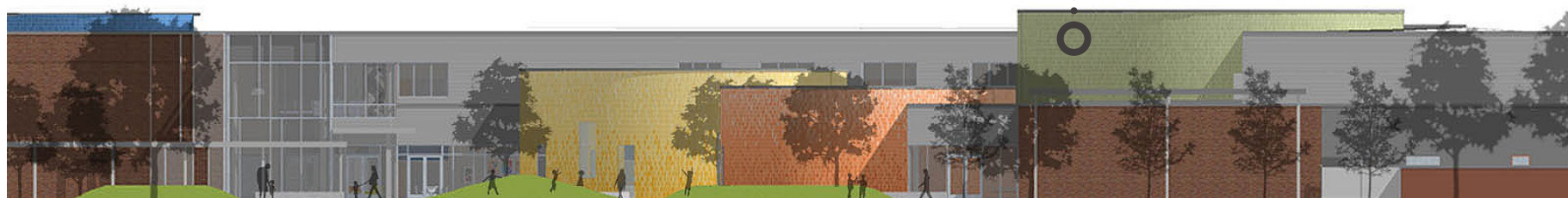
03

PHYSICAL  
ENVIRONMENT  
DESIGN

# DESIGN INFLUENCES



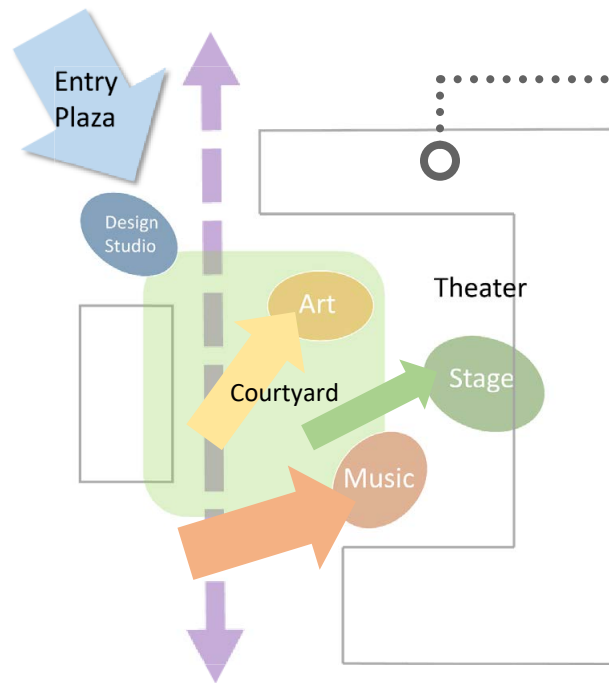
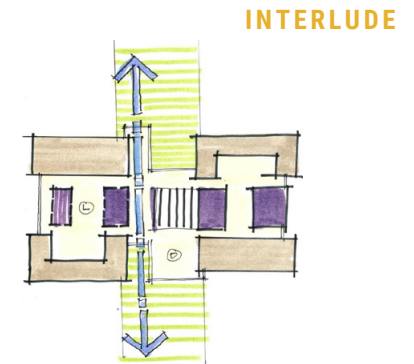
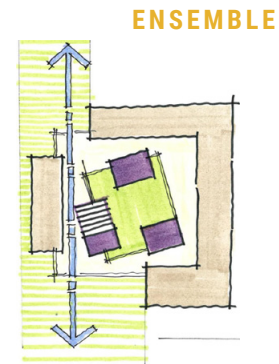
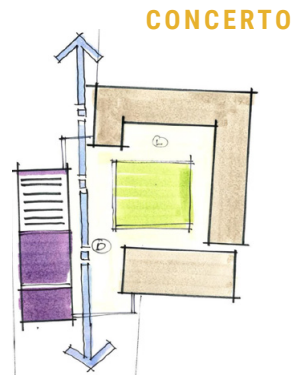
The goal for this new PVA elementary school was to provide an open and engaging learning environment that encourages student collaboration, provides visual connections to nature, and celebrates the unique activities taking place within its walls. The **multi-configurable theater-in-the-round** influenced both the interior and exterior spaces, becoming a landmark that drove the building organization.





# DESIGN CONCEPTS

To achieve the vision of making the PVA spaces front and center, the design team generated three concepts to present to Sheldon ISD and the design committee:



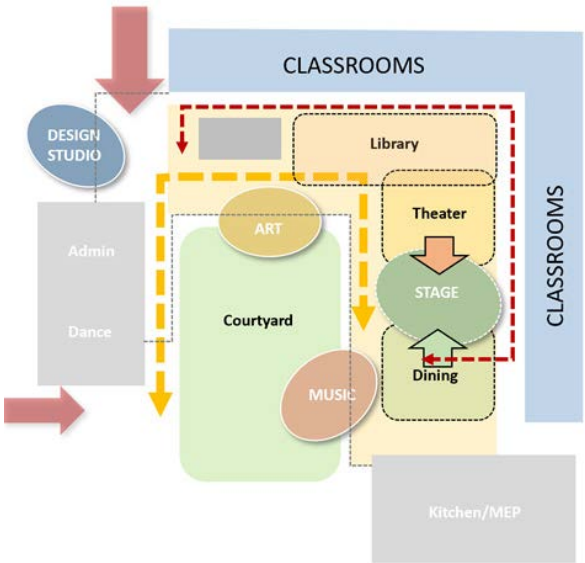
**The final design translation combines the Concerto and Ensemble concepts.**

Concerto creates a design that showcases its intent to the exterior, sharing with the public what this school is all about. Ensemble recognizes the beauty created by each individual discipline while also showcasing that wearing all in disciplines in concert creates something bigger than one can individually. The single community is broken open at the corners to expose the programs within.



# BUILDING FLOW & ORGANIZATION

Resulting from the planning process is a free-flowing design, where the theater, dining, and library spaces don't have walls but still have their own core. The iconic "drums" that house the programmatic spaces hold primary positions within the building and serve as anchors informing the building organization and orienting students as they move through the school.



Art Studio •••••

Music •••••



Design Studio

••••• Stage





# INDOOR/OUTDOOR CONNECTIONS

The courtyard blurs the lines between interior and exterior: place a roof over this exterior space and it will feel very similar to the interior.

The PVA drums that orient students within the school are also seen from the courtyard, creating interior and exterior spaces that experientially feel the same.





# COMMUNITY CONTEXT

The team was charged with developing a project that blended with the other two facilities on its shared site while also having its own identity and providing a more intimate and protected exterior environment that recognizes the smaller scale of both the building and its users.

The District invested in the courtyard to expand the school's ability to invite in the community for performances and additional gathering opportunities. Additional shared spaces, such as the theater and learning stair and the dance studio, provide numerous opportunities to draw parents together and encourage them to engage with each other.

The nearby high school was planned with an auditorium that can seat approximately 850 people. With an eye on efficiency, Sheldon Lake was designed with the intent to utilize this off-campus auditorium for occasional large performances or ceremonies.





# INSPIRATION & MOTIVATION



Throughout the visual landscape of this school stand iconic features that support PVA programs. They become prominent organizational features that use the interest, intrigue, and passion of these artistic programs to engage and support the students learning in this innovative and creative elementary school.

Classroom transparency, graphics, and signage support and promote the arts-based curriculum. Walls serve as gallery spaces to display student artwork, including a dedicated gallery space located adjacent to the main school entrance.



The design provides the campus with its own identity and responds to the scale of its users through a playful and intimate environment that embodies its arts-centered curriculum to support the unique needs of the students.





THROUGH THE LENS OF  
PERFORMING AND VISUAL ARTS

04

RESULTS OF THE  
PROCESS AND  
THE PROJECT



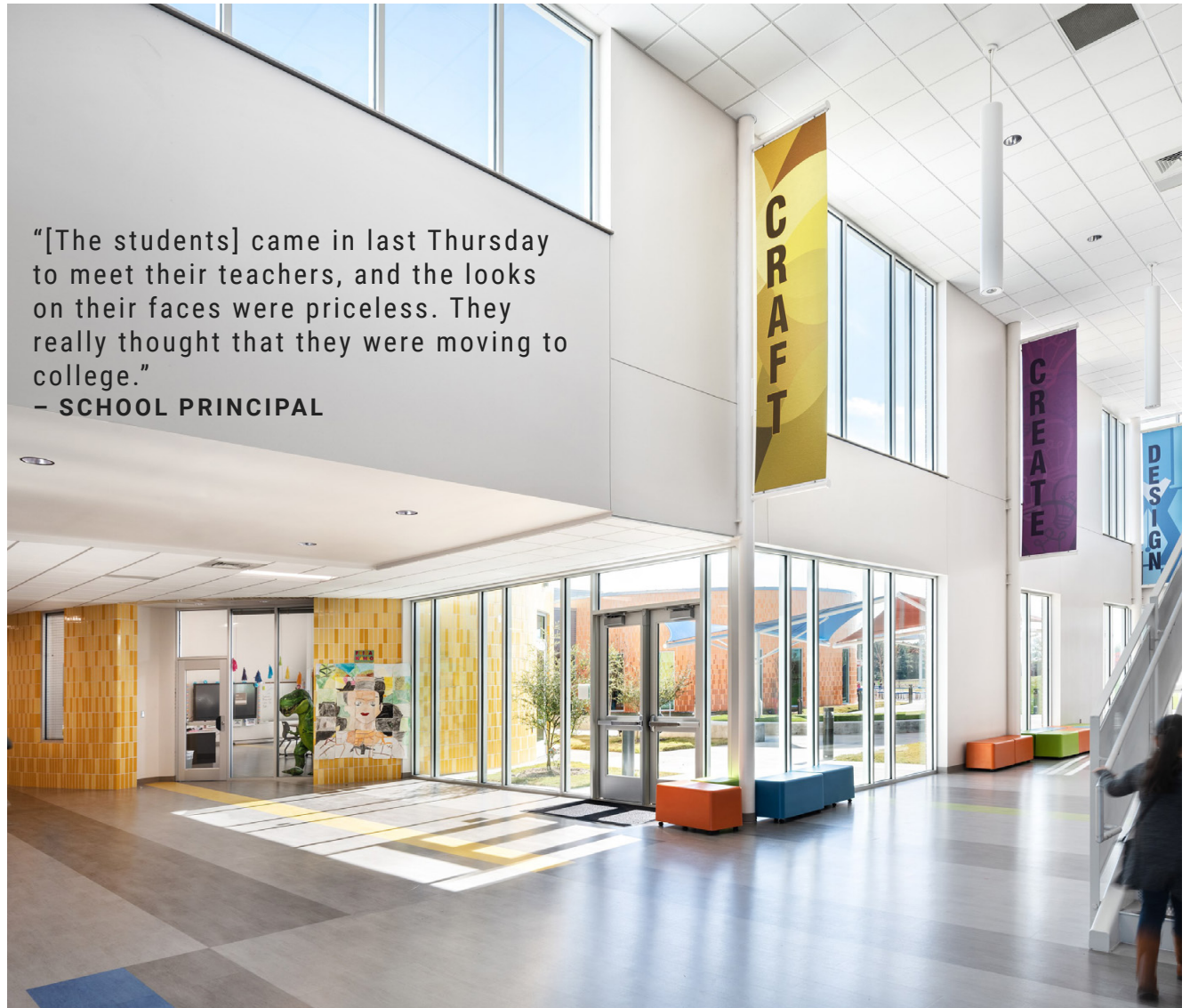
# ENHANCING THE EDUCATION

The facility promotes and supports research indicating that an arts-centered curriculum is most beneficial to language and reading development.

The first School of Choice in the district, this facility challenges the notion of hosting a specialized program as only a piece within a traditional school environment and instead makes one conceptualize the entire building through the lens of Choice, in this case, PVA.

And those three initial design concepts – concerto, ensemble, and interlude? They now hang in the Principal's office as a point of pride for the new school and the unique planning process that brought it to fruition.

**"[The students] came in last Thursday to meet their teachers, and the looks on their faces were priceless. They really thought that they were moving to college."  
- SCHOOL PRINCIPAL**



# ENHANCING THE DISTRICT

Sheldon Lake Elementary School supports the District's investment in providing their community with personalized learning environments that best fit individual student interests and needs.

As the flagship project for Sheldon ISD's Compass Schools initiative, the new school of choice upholds the District's commitment that all schools under this initiative will:

- Share the same underlying curriculum
- Provide opportunities and resources for all learners to facilitate student success
- Prepare all students to be college and career ready.
- Use project-based learning to develop leadership skills that will prepare them for the future workplace.
- Commit to building parent partnerships and providing volunteer engagement opportunities.





# ENHANCING THE COMMUNITY

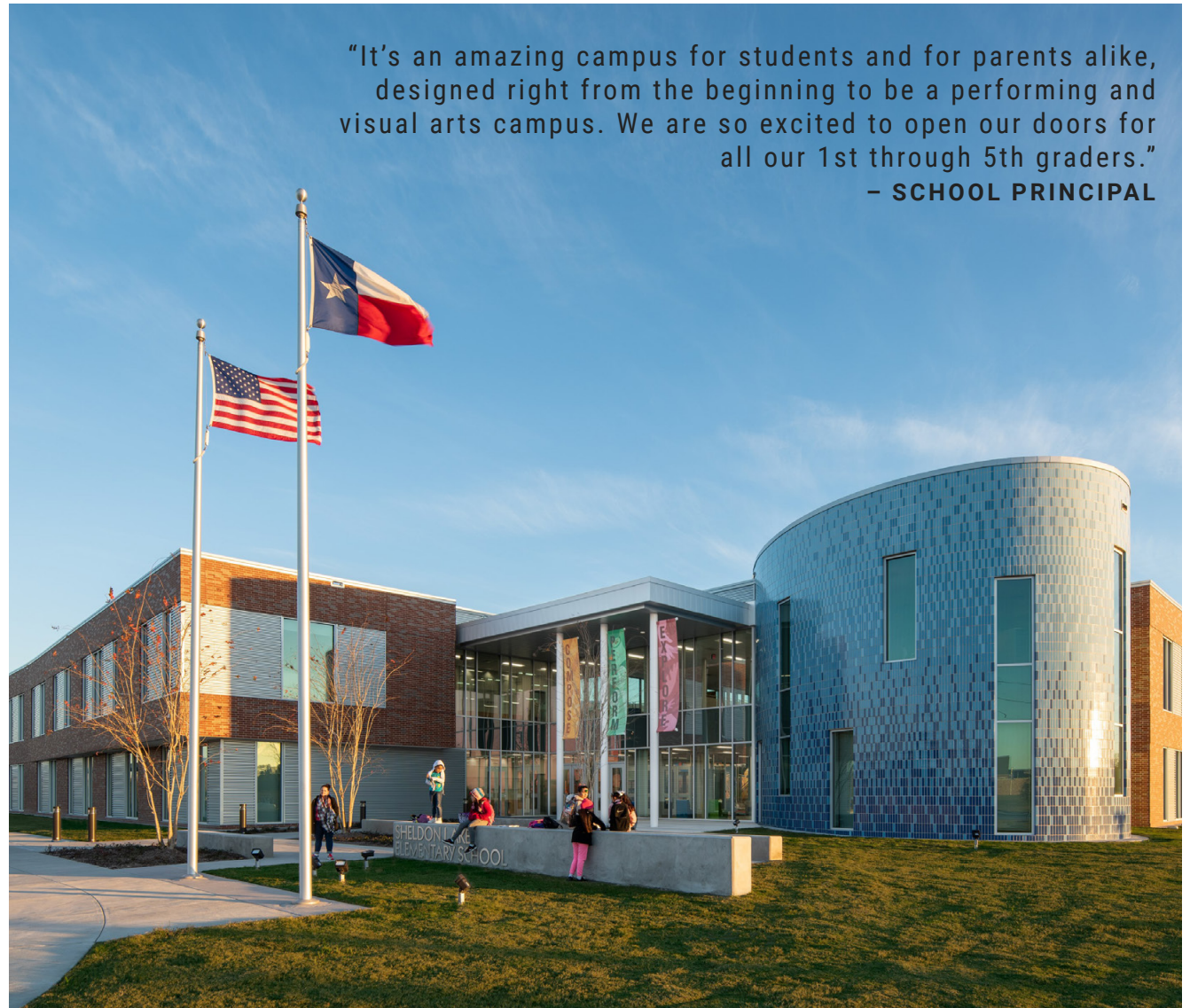
The outdoor area serves as an additional performance, gathering, and amenity space, which offers new and much-needed opportunities for family and community engagement.

The campus is also home to Eagle University, a site for the Center for Afterschool Summer & Enrichment (CASE) Partnership Project, which aims to promote social and emotional learning skills (SEL) and provide increased support of numeracy and literacy development for economically disadvantaged students between the ages of 4 and 12 (or up to the age of 19 with a documented disability).

Sheldon Lake Elementary School has also received an award for the 2021-2022 Nita M. Lowey 21st Century Community Learning Center, a federal after-school program that supports the creation of community learning centers that provide academic enrichment opportunities for children, particularly students who attend high-poverty schools. The program helps students meet state and local standards in core academic subjects, offers a broad array of enrichment activities that can complement their regular academic programs; and offers literacy and other educational services to the families of participating children.

**"It's an amazing campus for students and for parents alike, designed right from the beginning to be a performing and visual arts campus. We are so excited to open our doors for all our 1st through 5th graders."**

**– SCHOOL PRINCIPAL**







THROUGH THE LENS OF  
PERFORMING AND VISUAL ARTS

05

SUSTAINABILITY  
AND WELLNESS



# BIOPHILIC DESIGN

## Biophilia | \bī-ō-'fi-lē-ə, -'fēl-yə\

: a hypothetical human tendency to interact or be closely associated with other forms of life in nature

: a desire or tendency to commune with nature

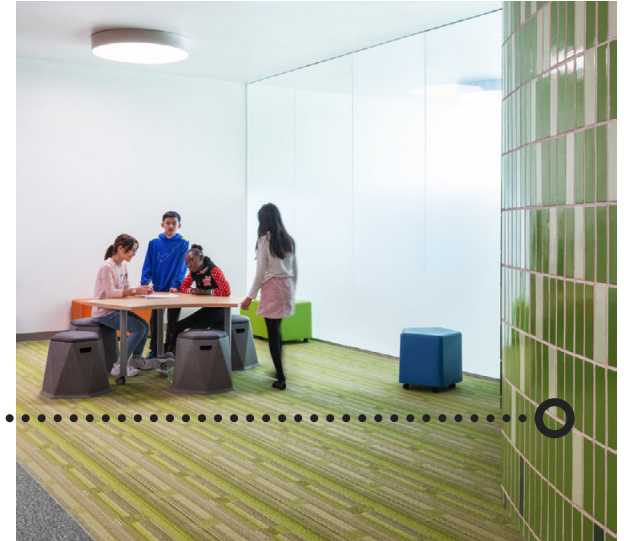
Sustainability is more than energy efficiency; it is the protection and wellness of the occupants of the built environment. The school achieves this through a biophilic design that provides visual connection to the outdoors, evokes feelings of closeness with nature from the indoors, and encourages constant movement throughout the facility.

The elliptical shapes, inspired by a river flowing around rocks, is repeated throughout the school to reinforce its concept and strengthen its identity. The elliptical forms (the rocks) and the curvilinear corridor (the river) creates cohesion between the different PVA programs within the school.

Another form of water, water vapor, inspired the surface design of each of the four elliptical forms that house the PVA program spaces. Multiple shades of colored glazed brick were customized and installed in a pattern that is darker near the ground and dissipates to a lighter shade toward the top of the form to express water evaporating into the atmosphere.

Additional design features throughout the campus help further reinforce the biophilic design through organic patterns, including:

- Water influenced the lighting design over the learning stair and in the collaboration spaces throughout the school, creating a pattern of rain droplets in puddles.
- Niches below the learning stair provide small individual reading cubbies
- Cutouts in the movable sliding screens at the cafeteria serving line and in the library supply interesting textured surfaces while allowing the administration to restrict access without obstructing views





# ADDITIONAL SUSTAINABLE DESIGN FEATURES

## Design and Materials Selection

- Maximizing north-south facing classroom as well as providing natural daylight for each one
- High performance glass as well as a white reflective roof
- Vestibules at the entrances to remove dirt from shoes with walk-off mats and to help the indoor air quality maintain a cleaner level than outdoor
- The main entry corridor stair and the learning stair are prominent features and are enhanced with beautiful artwork to encourage stair use.
- Student chairs offer multiple ergonomic seating positions to provide greater comfort throughout the day
- High NRC performing ceiling and carpet tiles were specified to provide comfortable acoustics to minimize distraction and increase comfort

## Mechanical, Electrical, and Plumbing

- The primary cooling system is VAV and single-zone VAV system
- Ventilation is provided with a dedicated outside air unit (DOAU) with an energy recovery system. The unit uses a total enthalpy energy recovery wheel to transfer heat and moisture between outside air and exhaust air.
- The DOAU delivers fresh air directly to each space using a variable air volume terminal box. A CO2 sensor located in each space calculates the number of students in a classroom and adjusts the fresh air supply accordingly. This dramatically reduces the amount of fresh air supplied when students and staff are not present resulting in dramatic energy savings.
- High-efficiency air-cooled chillers and high efficient boiler.
- Kitchen exhaust and makeup air systems are demand-controlled ventilation systems that reduce energy consumption by reducing makeup and exhaust airflow.
- All the light fixtures, including exterior light fixtures, are LED lights with installed lighting power density less than 0.55 watts/sf.
- Water closets and urinals are low-flow fixtures. All sinks or lavatories in the public spaces are provided with metered faucets

