



LANCE THOMPSON
ELEMENTARY

Northwest Independent School District • Argyle, Texas

2021 SUBMISSION • LE SOLUTIONS AWARDS

EXECUTIVE SUMMARY

Northwest ISD wanted to reinvent the district's prototype elementary school. The previous prototype had been in use for 15 years, and the team knew it was time for a change. The new prototype needed to fit immediate needs, as well as educational needs of the future. It needed to reflect and adapt to the ways in which education continually changes. So the team began with a question:

"What does a 'school of the future' mean to you?"

More than 200 students, educators and district leaders came together to answer this question. The approach prioritized the elementary school redesign on a district-scale, rather than just a campus-scale. It was important to Northwest ISD that district educators from every department and students from every grade-level were given a voice in the process.

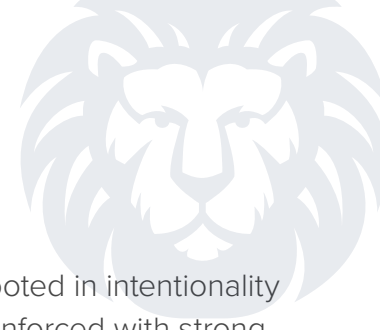
Together, the group envisioned:

A school with no boundaries, where learning was on display and students could share the built environment in ways that mattered most to them.

The success of the campus is rooted in intentionality and a collaborative spirit; it is reinforced with strong leadership and buy-in at all levels from students, educators and administrators. The design creates a fun, engaging and innovative space for the group's vision to be realized. Biophilic design elements and a connection to the outdoors give students a unique learning experience; small and large learning spaces provide flexibility to instruction and organic collaboration; and grade-level neighborhoods create community and ownership. The centerpiece of the school is the open concept library / learning commons, a high-volume space that utilizes an engaging tree-house concept.

The building layout creates flow and harmony. The learning commons promotes togetherness. The design of corridors and grade-level areas promotes comfort and seamless transitions. Movable magnetic walls, flexible furniture and writable surfaces allow users to re-imagine each space and how it can be used.

The design includes spaces that can be easily converted into additional classrooms down the line, as capacity needs change. In every way, Lance Thompson Elementary School was designed with the future in mind.



PROJECT OBJECTIVES:

1. Engage in an intentional planning process to design innovation



2. Create a space with "no boundaries" to support project-based learning



3. Explore biophilic design and its impact to learning and student engagement



4. Maximize the built environment to create an innovative and experiential learning culture





"This is a huge opportunity that will affect thousands of students for years to come."

– District Staff Member

Planning for the Future

Given the importance of this effort, the team knew that a rigorous planning process was necessary. This school would help set a vision for NISD education 50+ years in the future.

Ideas were passionately shared. Concepts were evaluated and debated. What began as conceptual sketches evolved into an innovative design solution built on stakeholder input.

Making Connections

Grade-level learning communities surround the library / learning commons. Each community has classrooms that surround flex space and focus rooms. Throughout the building, there are multiple channels of connectivity between peers, teachers, administrators and the community. Students are connected to the curriculum and their environment.



FIRST FLOOR

- 1 Entrance
- 2 Administration
- 3 SPED
- 4 Pre-Kindergarten
- 5 Collaboration
- 6 Teacher Planning
- 7 Resource / Flex
- 8 Outdoor Lab
- 9 Kindergarten
- 10 First Grade
- 11 Makerspace
- 12 Learning Commons
- 13 Cafeteria
- 14 Stage
- 15 Kitchen
- 16 Music
- 17 Art
- 18 Gym / Shelter



SECOND FLOOR

- 1 Second Grade
- 2 Third Grade
- 3 Fourth Grade
- 4 Fifth Grade
- 5 Collaboration
- 6 Teacher Planning
- 7 Resource / Flex
- 8 Outdoor Lab
- 9 Counselor
- 10 Balcony

■ Featured Spaces



► *"My favorite thing about the school is that it is very open."* — Current Student





Courtyard connected to Libratory (makerspace) via movable partition



Library featuring treehouse concept



Chorale terrace with tiered viewing platform



Open cafeteria with balcony and stage



Libratory (makerspace) located within learning commons

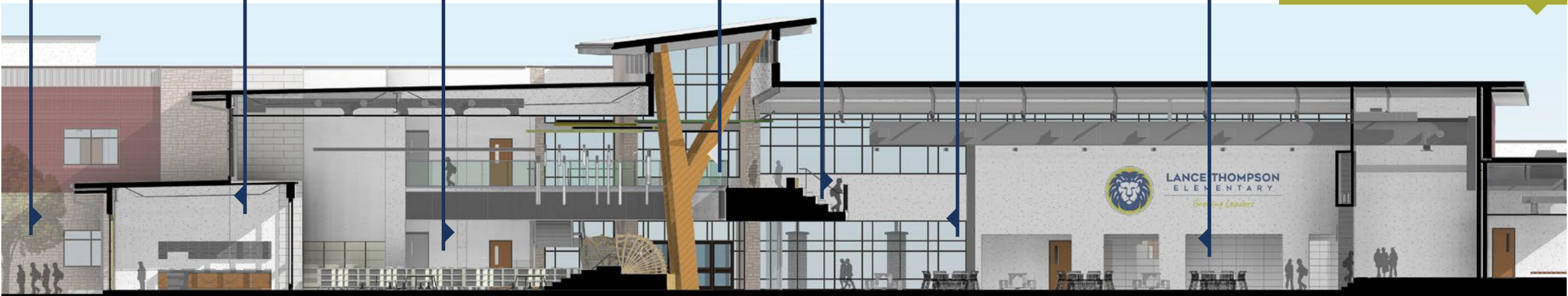


Upstairs corridor overlooking commons



Corridor with glazing and views to the outside

The building creates a comfortable, intuitive flow between spaces. Students are invited to move freely through the building, to observe and draw inspiration from their surroundings.



SCOPE OF WORK & BUDGET

Size

105,671 SF

Capacity

850 students

Students

Pre-Kindergarten through
5th Grade

Cost

\$25,949,792

Client

Northwest Independent
School District

Location

Argyle, Texas

Completion Date

September 2019

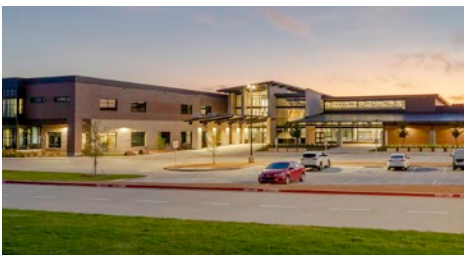


SCHOOL & COMMUNITY ENGAGEMENT

Lance Thompson Elementary School is located in the Harvest community, a master-planned community that emphasizes the importance of shared experiences and the natural environment to everyday living. It is a place “with a rustic affection for the simple life, where farm-to-table gardening inspires neighbors to *Grow Together* and live bountiful lives.” Located in a small Texas town, Harvest combines traditional values of simplicity and togetherness with a modern approach to country living.

As the first school in the new Harvest community (and the first in the town), Lance Thompson needed to be an organic part of the neighborhood. During planning, one guiding principle that arose was “this school must be a community asset.” From the beginning, the team worked to make Lance Thompson an honest reflection and focal point of the community. Material palettes and school colors were selected to match Harvest’s materials and colors.

The school’s mission is heavily influenced by Harvest’s mission—with an emphasis on growth. And biophilic elements of Lance Thompson align well with community goals and values.



STAKEHOLDERS:



Students

The importance of student collaboration is one of the core foundations of this school. The team enlisted a large group of students to help cast the vision.



Teachers

This new facility required a change in educational approach. Openness, shared space and autonomy were key ideals. Teacher buy-in was a must.



Parents

The new facility would offer more freedom for students, but also needed to feel safe and nurturing. The team worked to honor the parent perspective.



District staff

This new prototype would guide the future of elementary education in the district. Together, district staff members defined a “no boundaries” concept.



Local landowners and developers

The team developed a collaborative relationship with local landowners and developers to ensure Lance Thompson was an extension of its surroundings.



Harvest community members

In this tight-knit community, there was no doubt that the school would be a central place. The district held community forums to share concepts and gather input as the process progressed.

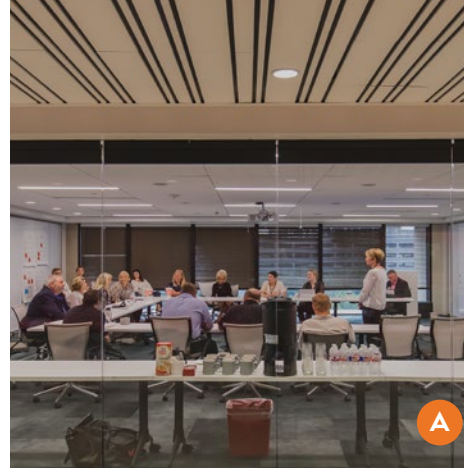


A CHALLENGE WORTH UNDERTAKING

The team started with 15.5 acres and a deep desire to deliver excellence for a diverse group of stakeholders.

In time, **a strong shared vision emerged** as the result of an incredibly in-depth planning process.

- **6** elementary students (Grades 1-3) were interviewed one-on-one
- **9** high school STEM students were interviewed
- **11** elementary school students presented “school of the future” projects
- **50** teachers, principals and administrators (not including the NISD design team) were engaged
- **12** members of the NISD design team participated
- **111** 4th and 5th graders were surveyed
- **137** NISD students were engaged in some way, including 128 elementary students
- **17** department meetings were conducted



Healthy banter about design elements focused on the real WHY behind each decision.

Participants were encouraged to take part in exploratory activities, such as this “draw where you want to teach” exercise.

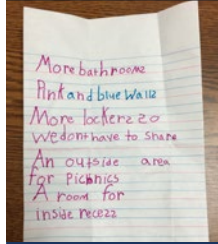
Tours helped illustrate specific features so educators could better articulate their preferences.

Presentations provided a special glimpse into student hopes for the educational experience.





Design Team Kick Off Meeting
[Initial visioning]



Student Surveys

Student Interviews

Student Presentations

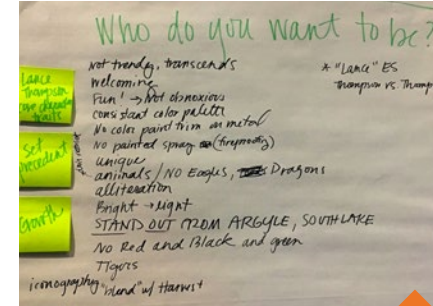
[Understanding of student perspectives to shape design]



Design Charrette #1
[Definition of parameters for success]



Firm Synthesis Session
[Insights turned to concepts]



Design Charrette #4
[Confirmation of space adjacencies and functions]



Floor plan Massing/Site Charrette
[Preliminary floor plan]



Design Team Visits Harvest
[Deeper understanding of community]

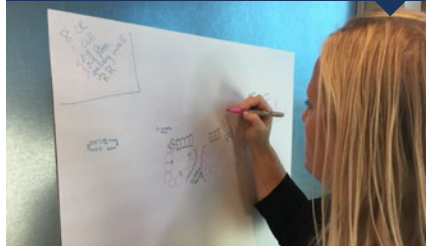
Department meetings
[Discussion of macro and micro adjacencies]

Tours
[Ideation based on real-life concepts]



Professional Learning Community Observation
[Understanding of teacher planning needs]

Teacher Interviews
[Understanding of teacher perspectives to shape design]



Design Charrette #2
[Brainstorm of specific educational environment concepts]

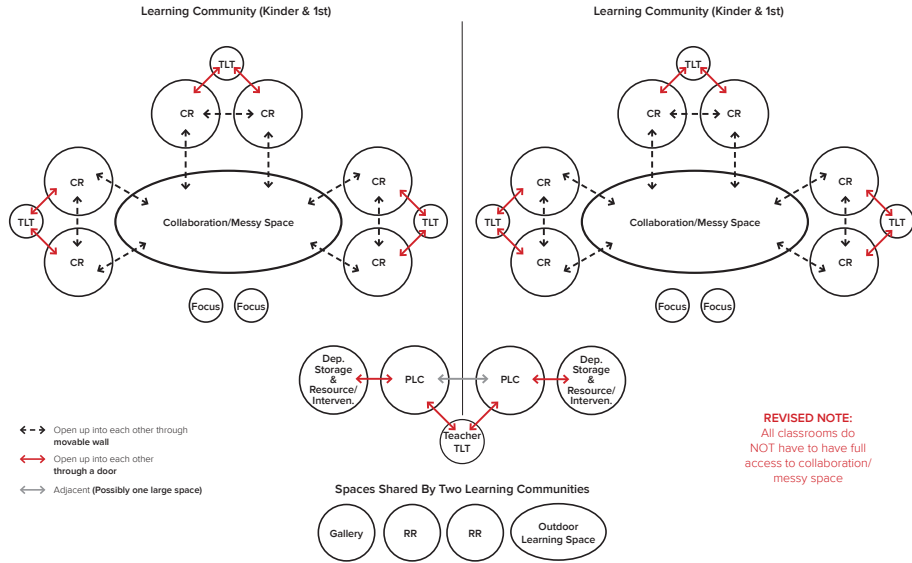
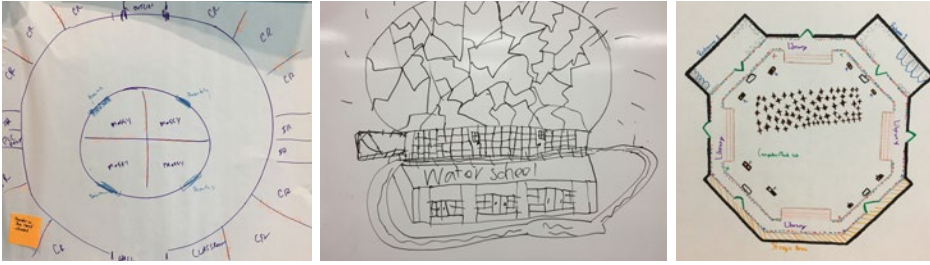


Design Charrette #3
[Plan for desired spaces and functions]



2-Day Schematic Design Charrette
[Schematic design of Lance Thompson Elementary School with full buy-in]





Evolution of Ideas

Early on, the team began exploring what the layout might look like. Students and educators imagined a school where the “sky is the limit.” Sketches turned to bubble diagrams and space adjacencies began to take shape.

Developing the Vision

Every space in the school reflects the unity of many voices and ideas. Through meetings, charrettes, interviews, presentations and planning activities, the team developed an educational vision with a set of guiding principles for design.





▶ *Community mural*



▶ *Walkable site*



▶ *Community logo*



▶ *Community ownership*

VALUE TO THE COMMUNITY

Today, Lance Thompson Elementary School is an exemplary civic place within the neighborhood. It is a beacon that draws in members of the community.

The entire school can be utilized as community-use space, which allows the school to host special events. Indoor and outdoor events have seen great support and participation. Additionally, school personnel have co-planned events with the Harvest community coordinator to bring additional unity and excitement to the area.

“On the weekends, the playground is full. People want to be here. There is a real sense of place.”

— School staff member

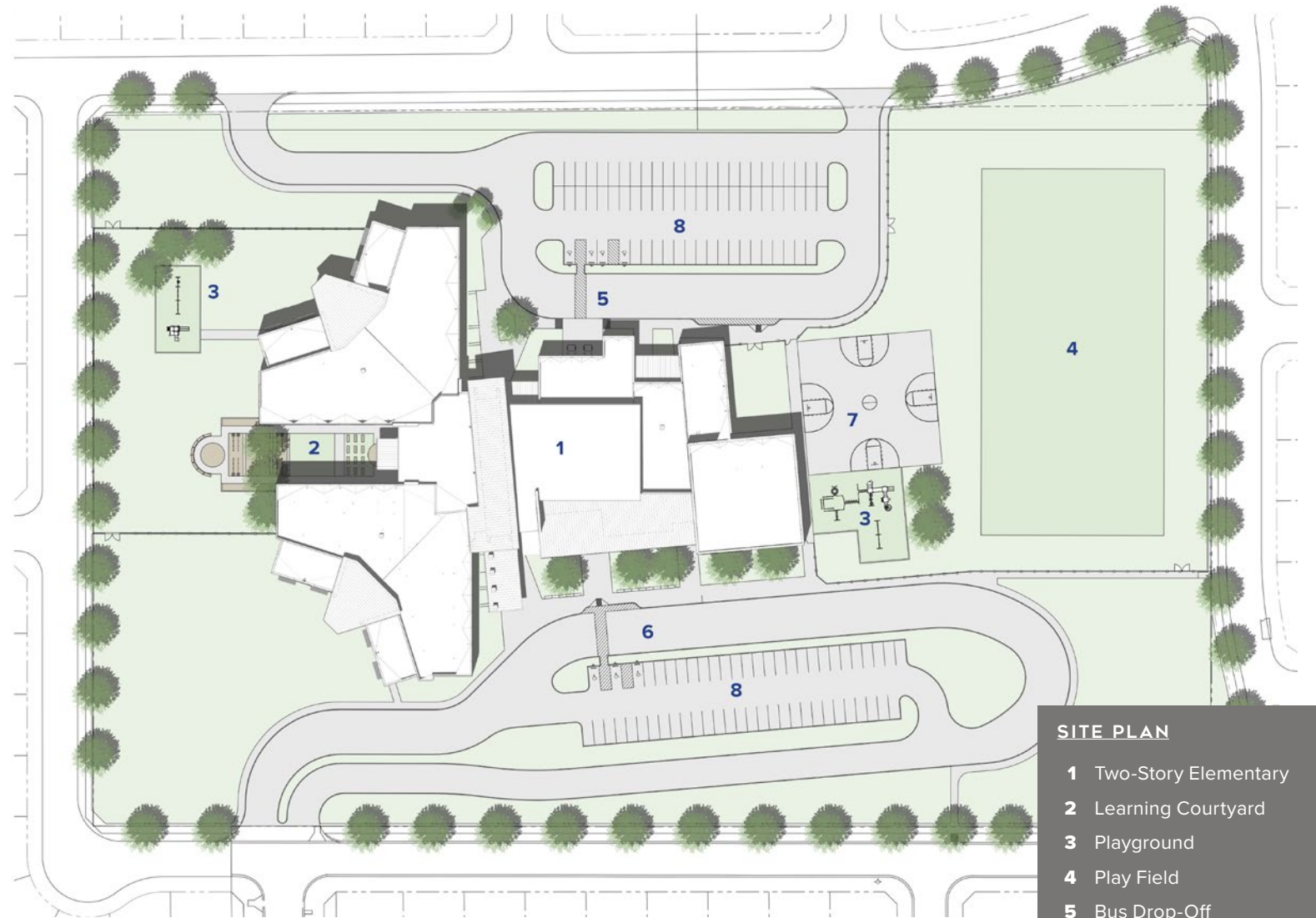
A Harvest-themed mural within the school and a Harvest logo in the courtyard ground students within their community; these elements are a daily reminder of the strong relationship between Lance Thompson and its surroundings.



A Significant Heritage

The site was a gift from a former NISD educator, board member and local resident in honor of his late son—Lance Thompson. The team understood the significance of this gift and worked to develop a facility that respects the deep meaning.

Lance Thompson Elementary School carries on a legacy of hope, growth and togetherness.



SITE PLAN

- 1 Two-Story Elementary
- 2 Learning Courtyard
- 3 Playground
- 4 Play Field
- 5 Bus Drop-Off
- 6 Parent Drop-Off
- 7 Hard Court
- 8 Parking

EDUCATIONAL ENVIRONMENT

The design of Lance Thompson Elementary School celebrates the importance of students working together to achieve success. Using this as inspiration, students, educators and district stakeholders shared their vision for the “school of the future.” The result is a school where learning is “in your face” and where students and educators collaborate formally and organically as part of a unique culture.

The building celebrates each student, presenting them with opportunity and choice. At the heart of the school, the library / learning commons sits below “tree” canopies—invoking excitement for young learners. Small nooks, collaborative group spaces, presentation areas and a makerspace support engagement and exploration.

Grade-level communities surround the shared space. The educational environment is characterized by flexibility—with movable walls, writable surfaces, adjustable furniture and a new classroom concept.

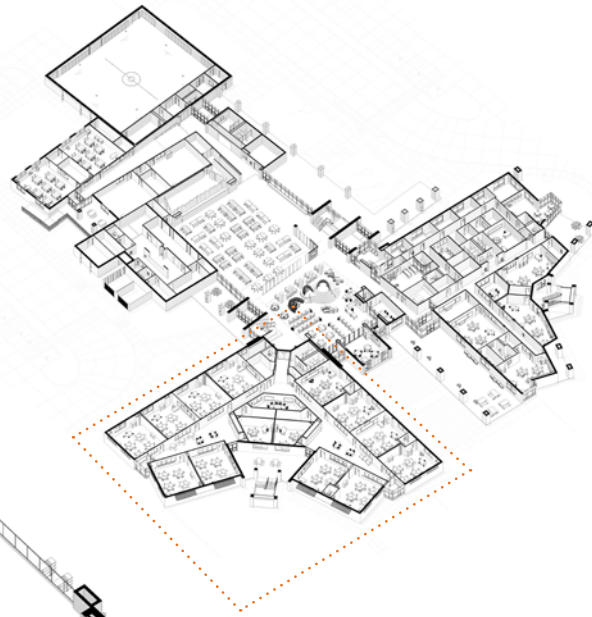
Goals:

- 1 Creating Flexibility and Freedom**
Bringing the concept of Limitless Learning to life; supporting 21st century learning with flexible tools and spaces focused on choice
- 2 Building Social-Emotional Learning**
Developing key skills through community and culture
- 3 Celebrating Student Achievement**
Putting learning on display and growing student confidence
- 4 Developing Trust and Ownership**
Creating mutual trust and allowing students to grow in independence
- 5 Creating Connection**
Enhancing wellbeing through connection to the outdoors, surrounding community and members of the Lion family



ANATOMY OF A GRADE-LEVEL LEARNING COMMUNITY

Within grade-level communities, spaces accommodate learning of all types, sizes and scales.



EDUCATIONAL ENVIRONMENT



Join-able classrooms A



Corridors with flexible furniture C



Small focus space D



Large group collaborative space B



Outdoor connection E



LIMITLESS LEARNING

The innovative design of Lance Thompson Elementary School naturally lends itself to 21st century learning, including Science, Technology, Reading, Engineering, Arts and Mathematics (STREAM); robotics; student-led learning; project-based learning and social-emotional learning. The ability to move walls, easily adjust furniture, join classrooms and reorient individual learning areas allows users to transform spaces for many uses.

Notably, the Lion Library is attached to the learning commons with a movable partition and opens to an outdoor learning area; this space functions as a makerspace and so much more. It has been used for art, STEM expositions, a robotics competition and presentations toward the library and courtyard.



In planning, an idea for a re-imagined classroom was born. While touring a museum space, the team identified a concept—walls with purpose. At Lance Thompson, there is no true “front” of the classroom. Instead, different walls can be used in different ways depending on educational needs.

Covered learning spaces allow education to move outdoors, adding another layer of opportunity and flexibility.

A UNIQUE CULTURE

The design encourages sharing resources and ideas. Shared spaces, such as the library / commons and professional learning communities, promote collaboration while also pushing users to rethink how work is expressed.

Connectivity is key throughout the building. Transparency is used to create visual connection between spaces; transparency to the outdoors in the main lobby supports the district's safety and security goals.

Sight-lines build levels of trust and create intrigue. The chorale terrace is a beautiful balcony space that enhances learning activities, creates unique overflow space for gatherings and allows students to look down and see learning in the library / learning commons.

Displaying student work is a district ideal and is woven into the design of Lance Thompson Elementary School. Each grade-level wing features a gallery wall of digital and tactile student work. This display enhances each wing's identity, celebrating the unique students who reside there.





► *Transparency*



► *Sight-lines*

EDUCATIONAL ENVIRONMENT



► *Gallery wall*

GROWING LEADERS

The design—created in-part by students—promotes student ownership and pride. Students treat the space with respect. They are quiet when they move across the building and make a visible effort to maintain the appearance of the facility.

“I’ve heard kids say, ‘I helped design this part of the building!’ They are so proud of it.”

— Staff member at Lance Thompson

In many ways, students engage as leaders at school. Student ambassadors lead tours of the facility. Students create and teach interdisciplinary lessons. A student-led coffee company delivers coffee to teachers, and broadcast students come in early to write and present the morning announcements.



PHYSICAL ENVIRONMENT

Lance Thompson Elementary School motivates learners through physical spaces that inspire creativity, enhance engagement and promote fun. Key attributes include:

- Open concept dining and learning commons, separated by a nature-inspired walkway
- Small and large learning spaces incorporated throughout the school
- Connection to outdoor learning on first and second floors
- Grade-level learning communities surround a collaborative common space
- Classrooms with writable, magnetic, movable walls and collaborative furniture to support flexibility
- Balcony on the second floor cantilevered over the cafeteria, creating a unique platform for learning and observation
- Tornado shelter / multi-purpose gymnasium





BIOPHILIC DESIGN

Biophilic design recognizes the importance of reconnecting people with the natural world within the built environment; it has been linked to immense psychological and physiological benefits, including improved productivity and enhanced mood and well-being. Biophilic design elements at the school are listed.



Visual Connection with Nature

Accomplished through exterior glazing and connection to outdoor courtyards. In grade-level areas, there is focus space surrounded by full height glass with views to natural surroundings.



Non-Rhythmic Sensory Stimuli

Tree elements, openness in the main corridor and classroom collaboration areas replicate minor, pleasant distractions of nature. "Trees" cast patterned shadows and invite inquiries.



Thermal & Airflow Variability

Covered outdoor areas provide space with variable temperatures. Opening the Library to the courtyard supports additional thermal & airflow variability.



Non-Visual Connection with Nature

Students have the haptic capability to touch the "trees" and feel real wood or touch stone walls. Auditory interaction occurs between nature sounds in courtyards.

Continued ▼



Dynamic & Diffuse Lights

Dimming capability in lights allows for automatic adjustment. Shadows occur through clerestory windows filtering through the branches of the “trees.”



Prospect

Second-floor balcony and tree canopy area allow for an unimpeded view over a distance for surveillance and planning.



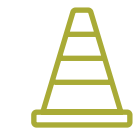
Refuge

Covered outdoor areas allow for refuge. Inside, there are “dens”—cave-like areas that offer places to withdrawal from the main environment.



Mystery

The flow of grade-level learning communities creates and unveils mystery.



Risk / Peril

Risk / Peril is created due to the balcony height and is safeguarded by a transparent guardrail.



Biomorphic Forms & Patterns

“Tree” trunk and branches are composed of structural glue-laminated wood beams. The form of the tree is abstract and symbolic to arrangements that persist in nature. Wood tile and resin panels with a grass visual are additional examples.



Material Connection with Nature

“Tree” trunk and branches are composed of structural glue-laminated wood beams. Building signage in front vestibule is made of wood and faux greenery.



COMMUNITY CONTEXT

Lance Thompson Elementary School is heavily influenced by the surrounding community context. Material choices are a direct reflection of the nearby homes and buildings, and the school's colors are based on the Harvest community. The roof-line and scale of the building were designed to feel more residential to match the surrounding neighborhood; this pedestrian-friendly scale is also appropriately sized for elementary students.

Lance Thompson adopted the Harvest community's reverence for nature as a core belief and daily practice. In addition to biophilic elements, Lance Thomson has an interactive energy monitoring system and display to support the school's "green" initiatives.

"Harvest is very eco-friendly, so we wanted to honor that."

— District Administrator



PHYSICAL ENVIRONMENT





► *Connection with nature*



PHYSICAL ENVIRONMENT



► *Connection with community*

RESULTS OF THE PROCESS AND PROJECT

One of the greatest successes of Lance Thompson Elementary School is that the extensive planning process allowed the team to understand each stakeholder's needs on a deep, personal level. These needs were heard, understood and met. Through the combined efforts of students, teachers, community members and others, the team forged a new path for learning in Northwest ISD.

"I never want to leave this building. I've never experienced a situation in which the intent of the design IS the reality." – District staff member

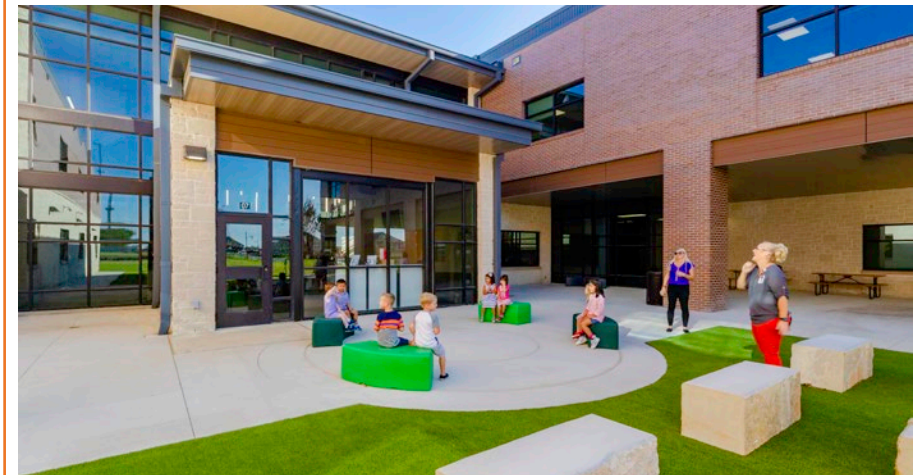
This facility has set a precedent for future buildings within the district, helping to drive the vision for elementary and even secondary education. The school has created a transformation—a shift in mindset, habits and behaviors for students and educators.

By embracing shared space and a "less is more" approach to classroom storage / decorations, the team has created more space for student creativity to shine. By shifting to an open

concept, the team has created a sense of trust and empowerment. Education is more fluid; students learn in the classroom, out of the classroom, in corridors, in commons, outdoors and more. This allows for more retention and transfer of knowledge. Students' horizons are expanded, and they are challenged to see learning as more accessible, more active and more personally meaningful.

This "school of the future" lives up to its purpose and nickname. Walking through the commons, you might see one group of students engaged in a coding activity, another group designing a PBL-type project, while others read independently. Teachers describe the campus as a melting pot of activities, where students are fully engaged in different activities simultaneously.

The flexible, 21st century approach has also influenced existing schools in the district. Seeing the boundless ways in which Lance Thompson Elementary School is used has inspired staff at other schools in NISD to adopt a more innovative approach to education.



Success Spotlight: Professional Learning Communities

One idea that emerged as part of the planning process was that in order to support teacher planning, collaboration and professional empowerment, each grade-level learning community should have its own PLC (Professional Learning Community). This dedicated planning space helps teachers step out of the classroom and focus.



Success Spotlight: Supporting Social-Emotional Learning

Nook spaces within learning communities have been used as places to calm down and practice deescalation strategies. Counseling spaces promote a supportive environment. And the unifying design provides ample opportunities for students to practice positive social interactions with peers and authority figures.



GATHERING POST-OCCUPANCY FEEDBACK

Following the completion of Lance Thompson Elementary School, members of the design team met for a post-occupancy discussion and review. The discussion highlighted what the school has achieved and how the prototype can be used in the future. The team took a detail-orientated approach to understand what specifically works and what might be improved.

Students at the school were also given a survey, keeping in-line with the district's focus on the student perspective. Over 150 survey responses were received. The following are some of the students' comments about their school:

"This is the best school ever!"

"I like how the whole school is mostly open."

"I really like the library."

"The Lion Libratory is my favorite."

"I like the amount of space we have to learn."

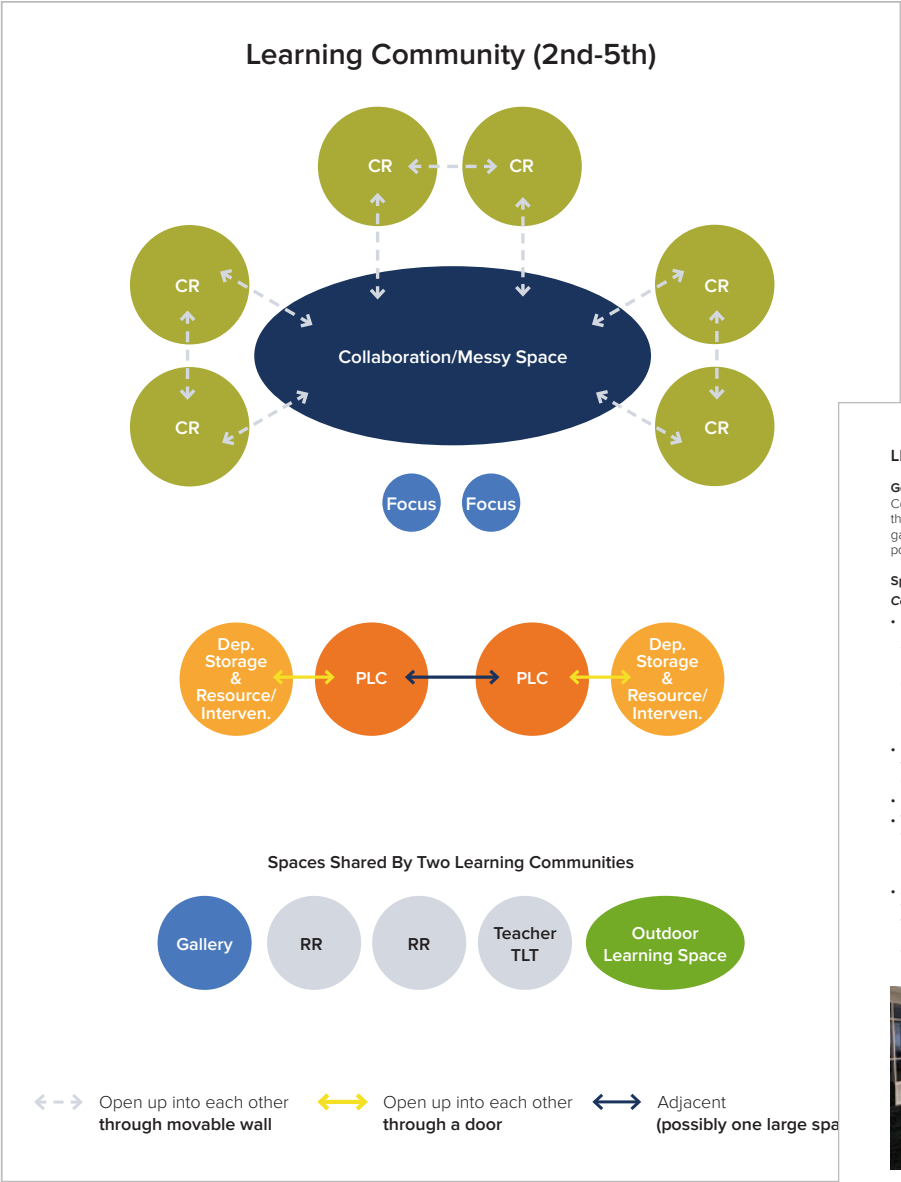
"This school is amazing!"

"I love all the freedom and opportunities we get."

EDUCATIONAL SPECIFICATIONS

Rather than creating formal educational specifications, the team determined that they wanted to create a flexible framework based on the approach to Lance Thompson Elementary School. This framework emphasizes the importance of collaboration, creativity and an intentional planning process.

NISD and the architecture firm are currently partnering on the next iteration of the elementary prototype, and this custom framework is being used to identify specific needs, continue discussion on 21st century education and determine how to adjust the prototype to fit a new community and student body. The design brief from Lance Thompson Elementary School is guiding the team's efforts. Sample design brief pages are provided.



LEARNING COMMUNITIES

General Notes: Every pair of Learning Communities should have a "gateway" of sorts that includes a gallery of student work. This gateway is an opportunity for wayfinding and possibly branding of learning communities.

Space Requirements:

Collaborative/Messy Spaces

- Functional Intent:** Zones for thinking, designing and making that are used by all classrooms. The space should have the flexibility to accommodate up to 3 classes working together (+/- 70 students). Even with furniture in the collaborative space, there should be enough room for classrooms to bring out their furniture during spill-out activities.
- Experience Objectives:** This space should be the heart of each Learning Community with all (or a majority of) classrooms opening up into it.
- Fixtures/Equipment:** Sink
- Technology:** 4-5 fixed monitors, throughout, for spread out presentations. Mobile projection carts with adequate wall space. Outlets and charging stations throughout.
- Storage and Furniture:** Variety of "cool" furniture: thin work tables that can be grouped together and soft seating options. Furniture solutions for more private and quiet focus areas within the larger space. The furniture-to-space ratio should mimic Eaton HS (see image below).



- Views/transparency:** View into the classrooms
- Preferred finishes:** No (or minimal) carpet
- Additional Notes:**
 - The collaborative/messy space should be in close proximity to the grade level storage in each Learning Community

PLCs

- Functional Intent:** These spaces are to be used for teacher planning
- Technology:** Monitor (fixed if possible)
- Storage & Furniture:** 4 large, mobile tables that can be grouped together and taken into the collaborative space. There should be some short, mobile storage cabinets along a wall for teachers to leave supplies in the room.
- Views/transparency:** Transparency is desired, but need to be able to hide/obstruct private student information on some of the walls when needed
- Additional Notes:**
 - PLCs should not be "front and center" in the Learning Communities
 - PLCs should have direct access to Department Storage Rooms

Focus Rooms

- Functional Intent:** These spaces are for individuals or small groups to use for more quiet, focused work. They will also serve as spaces to accommodate distance learning students
- Storage and Furniture:** Focus rooms only need to be equipped with a small table for 4 people
- Flexibility of walls:** A movable wall should divide the two focus rooms, so that at any given moment the spaces can be used as one, larger focus/meeting room
- Views/Transparency:** The focus rooms need to be as transparent as possible, so that teachers can constantly monitor what is going on in the rooms
- Additional Notes:**
 - Any solid walls in the focus rooms should be writable surfaces

EDUCATIONAL VISIONING

In planning, core vision statements were identified that guided design and ultimately led to a transformed learning environment.

Vision Statement #1: This school must meet the needs of all students, 21st century and beyond

Reality: The school is future-ready and promotes collaboration, digital literacy, critical thinking, problem-solving and other 21st century skills.



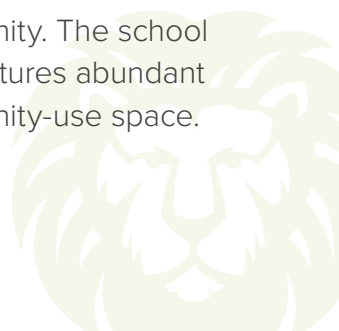
Vision Statement #2: This school must be flexibly designed to allow for educational changes as needs change

Reality: From movable walls and partitions to flexible furniture to multi-purpose spaces to spaces that can be converted in the future, every part of the school was designed for flexibility and adaptability.



Vision Statement #3: This school must be a community asset

Reality: The school's appearance, values and culture reflect the community. The school also features abundant community-use space.

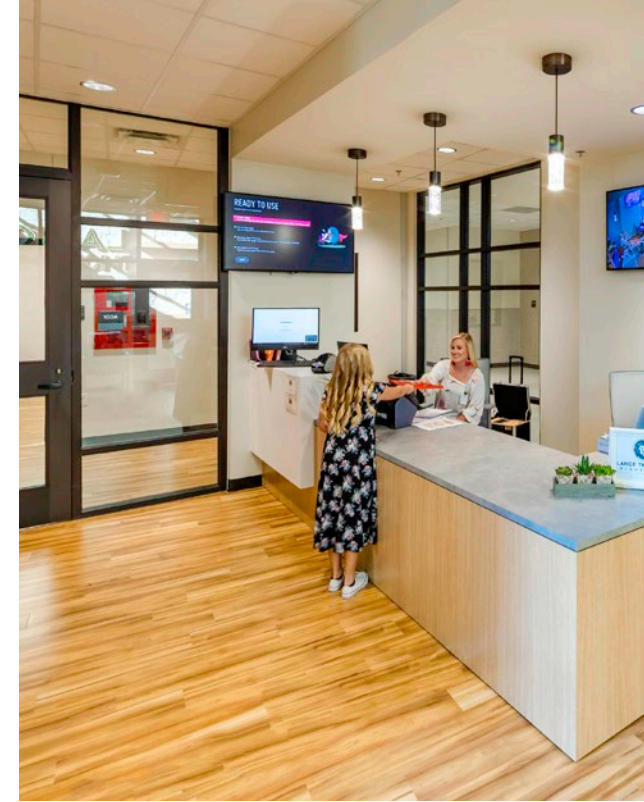


Vision Statement #4: This school must evoke curiosity and wonder

Reality: Transparency provides an opportunity for students to observe and draw inspiration from others. Students can journey into the tops of trees or tuck themselves away into small nooks. Spaces like the Libratory give students more ways to ideate, imagine and make.

Vision Statement #5: This school must facilitate collaboration for all

Reality: Shared spaces are a cornerstone of the design. Combinable classrooms, collaboration areas located within grade-level communities and the open library / commons offer more opportunities for joint efforts.



Vision Statement #6: This school must feel warm, comfortable and welcoming

Reality: Students and educators can choose what's comfortable to them. Open spaces are welcoming, while small spaces provide a cozy alternative. Flexible classrooms allow students to sit, stand and move around for comfort. Transparency and bright colors add warmth.

Vision Statement #7: This school must be safe

Reality: A secure yet welcoming entry, covered outdoor spaces and a balcony with transparent guardrail are some of the ways that the campus protects students—while still maintaining a sense of limitless learning.



Vision Statement #8: This school must evoke a love of learning

Reality: The campus was designed by students for students. And the response has been phenomenal. Students take pride in their school and enjoy having freedom to learn in ways that resonate with them.

Notably, centralizing an open library has invited and evoked a love of learning. A significant part of the team's vision was that the library be the heart of the facility, rather than just a destination.

That vision has been realized. The central library is interactive and builds trust. It is a place to explore, engage and learn in limitless ways.

“The open library is undoubtedly the heart of the school. It has changed everything.”

— District Administrator