NORTHLAKE ELEMENTARY SCHOOL | GARLAND ISD

Early Childhood Learning Environment | Sensory Design • Inclusion • Spatial Clarity



PROJECT INTRODUCTION

A partial interior renovation of Northlake Elementary School focused on enhancing early childhood learning through sensory comfort, accessibility, and spatial clarity. The project scope includes approximately 13,500 square feet, targeting Pre-K and Kindergarten classrooms, the library, cafetorium, and key administrative spaces.

HISTORICAL & COMMUNITY CONTEXT

1950S–1960S
Post-War Suburban Growth
Rapid suburban growth increased demand for neighborhood schools.

EARLY 1970S
Growing Educational Demand
Population growth created the need for additional elementary schools.

1974–1975
Establishment of Northlake Elementary
Northlake Elementary was established to serve the growing community.

1980S–1990S
Neighborhood Stability and Growth
The neighborhood stabilized, with the school becoming a community anchor.

2000S–PRESENT
Aging Facilities and Changing Needs
Aging facilities highlight the need for updated learning environments.

INVESTIGATIVE QUESTIONS

- **How can design make students and teachers feel excited to be at school?**
- **How can classrooms feel more welcoming and inspiring rather than routine?**
- **How can the design reduce distractions and improve focus?**
- **How can the space support diffAerent learning styles?**

BUILDING ANALYSIS



- LIMITED ACCESS TO NATURAL DAYLIGHT OBSERVED IN CLASSROOMS AND SHARED SPACES
- LIMITED ENCLOSURE AND ACOUSTIC SEPARATION OBSERVED IN EXISTING CLASSROOMS
- SENSORY COMFORT CHALLENGES OBSERVED IN EARLY LEARNING ENVIRONMENTS



LOCATION
1626 Bosque Drive,
Garland, Texas 75040

ISOMETRIC VIEW

- **East → Morning sun**
- **South → Strongest and longest sun exposure**
- **West → Harsh afternoon sun**
- **North → Mostly indirect light**

CASE STUDIES: ENVIRONMENTAL IMPACT ON LEARNING

CASE STUDY 01 | ACOUSTICS
- Noise → distraction, reduced comprehension
- Young learners → high sound sensitivity
- Open classrooms → increased cognitive load

TAKEAWAY →
Sound control = better focus & learning

CASE STUDY 02 | LIGHTING
- Daylight → focus, engagement
- Poor lighting → fatigue, distraction
- Balanced lighting → visual comfort

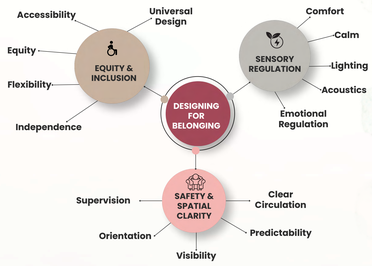
TAKEAWAY →
Daylight + balance = better focus & comfort

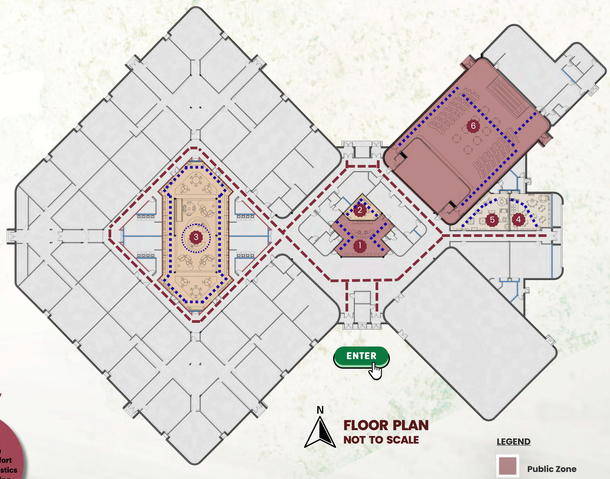
CONCEPT STATEMENT & DIAGRAM

A Supportive Learning Environment prioritizing sensory regulation, inclusion, and spatial clarity to support learning and safety.

- **Sensory Regulation** supports focus (Tamblyn et al., 2023).
- **Equity & Inclusion** supports access and flexibility (Konda et al., 2023).
- **Wayfinding & Supervision** supports safety and clarity (Passini, 1996).

Together, these strategies strengthen learning and **safety** within **Northlake Elementary School.**





FLOOR PLAN
NOT TO SCALE

LEGEND
- Public Zone
- Semi- Public Zone
- Semi- Private Zone
- Not In Scope

1. Reception
2. Conference
3. Library
4. Pre- K
5. Kindergarten
6. Cafetorium

CIRCULATION
- Primary Circulation
- Secondary Circulation

DESIGN DRIVERS & FORMGIVERS

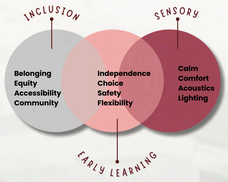
01 **SENSORY REGULATION** — Managing acoustics, lighting, color, and materiality to support neurodiversity and sensory comfort in early childhood learning environments.

02 **EQUITY & INCLUSION** — Creating accessible, flexible spaces that support diverse abilities, learning styles, and cultural backgrounds.

03 **CLEAR SUPERVISION & SAFETY** — Prioritizing visibility, circulation clarity, and staff oversight in high-use learning and shared community spaces.

04 **WAYFINDING & SPATIAL CLARITY** — Using intuitive layouts, visual cues, and color differentiation to support orientation, independence, and age-appropriate navigation.

05 **SCHOOL IDENTITY & BRANDING** — Integrating school colors, graphics, and visual identity elements to reinforce community connection, belonging, and school pride.



FF & E SELECTIONS





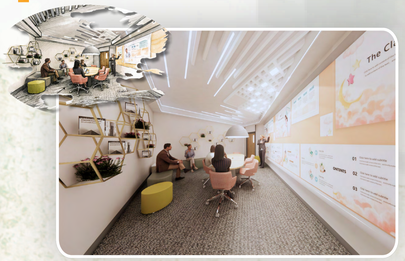
PERSPECTIVE RENDERING

1 RECEPTION AREA



A secure, welcoming threshold with clear visibility and intuitive circulation

2 CONFERENCE ROOM



A collaborative space defined by flexibility, comfort, and clear communication.

3 LIBRARY



A flexible learning hub defined by clarity, visibility, and adaptability.

4 PRE - K



A flexible learning space focused on play, comfort, and independence.

5 KINDERGARTEN



A flexible classroom that supports structure, creativity, and independence.

6 CAFETORIUM



A multi-functional space designed for flexibility, flow, and community use.

FOR MORE INFO.

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