

Presentation Information

- Date: Tuesday, April 8th
- Time: 1:30pm-2:30pm
- Room: Cottonwood Ballroom (Renaissance Dallas Richardson Hotel)

Abstract Description

- In an era demanding both technological advancement and student wellbeing, how do we create schools that truly serve our learners? Barton Elementary's journey demonstrates a thoughtful approach to balancing competing priorities in modern school design. This session explores how Irving ISD and Huckabee Architects collaborated to evolve the "smart school" concept beyond technology integration, creating spaces that nurture both digital literacy and human connection.

This design resolved a complex challenge: integrating cutting-edge technology while maintaining strong connections to nature and community. Through careful stakeholder engagement and innovative design solutions, Barton Elementary emerged as a model for balanced educational environments. The project highlights how intentional progression of spaces, biophilic design strategies and flexible learning environments work together to support current diverse learning needs, while forming future ready students.

Unlike traditional case studies, this session brings together the actual project team to share authentic insights about their collaborative process, challenges resolved, and solutions being implemented. As the project moves from design to reality in Irving ISD, attendees will gain valuable insights into how innovative concepts are translated into constructible solutions. The team will share their decision-making framework, stakeholder engagement strategies, and methods for maintaining design integrity while navigating real-world constraints.

Learning Objectives

- Analyze how the spatial progressions concept will support student development across grade levels
- Implement strategies for balancing competing priorities in school design through examination of real project decision points
- Evaluate methods for integrating biophilic design elements with technology to enhance learning environments
- Apply collaborative design processes that successfully engage diverse stakeholders in complex and innovative educational projects



pivotal balance FOR INNOVATION

*Reimagining the “Smart School”
at Barton Elementary*

IRVING
Independent School District

Huckabee
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Presenters



Magda A. Hernández

Superintendent – Irving ISD



Idaliza Camacho

Principal - Huckabee



Holly Teague

Director of Planning - Huckabee

Outline

- Introduction & The Vision
- Collaboration – *The Planning Process*
- The Balance - *Instructional Design & Design Solution*
- The Future of Instruction
- Q&A



REFLECTIVE AND COLLABORATIVE PRACTICES

DISTRICT STRATEGIC PLANNING EFFORTS
2022 - 2023

Vision

To become the premier district for educational excellence, fostering the full potential of students and empowering educators.

Board Goal 3

In Irving ISD, we will provide state-of-the-art facilities that rethink the present design of education for all students.



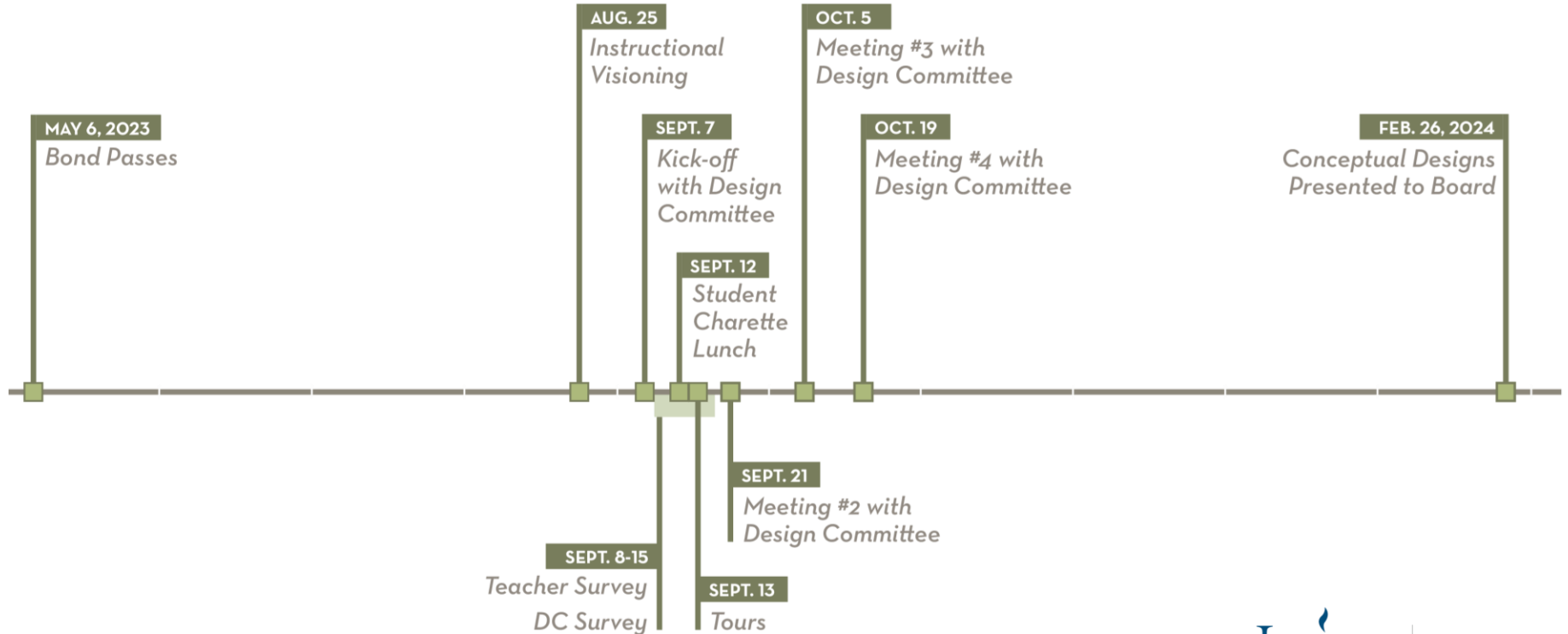
Collaboration

The Planning Process

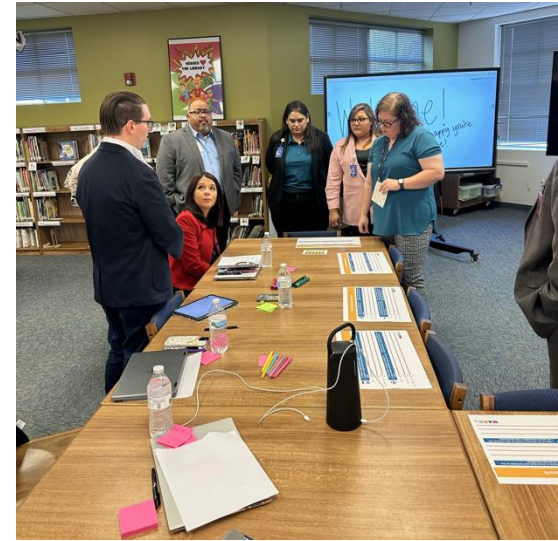
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Planning Timeline



Planning Sessions



Purpose + Objectives

The campus is a place for students to develop into future ready learners through a STEM education with dynamic educators unleashing innovation + encouraging risk taking.

El recinto escolar es el lugar para que los estudiantes se desarrollen y se preparen para el futuro a través de una educación CTIM (Ciencias, Tecnología, Ingeniería y Matemáticas) con el apoyo de educadores dinámicos que impulsen la innovación y fomenten la toma de riesgos.



The design will encourage learners and educators to explore, experiment, and create a world of new possibilities.



The building will provide space for collaboration and accessibility for our learners in a colorful, inclusive, natural, and purposeful environment.



The building will provide a secure environment that creates a safe space for teaching and learning.



The campus will challenge and innovate through the intentional utilization of every space that is aligned with a STEM focus.



The Balance

Instructional Design & Design Solution

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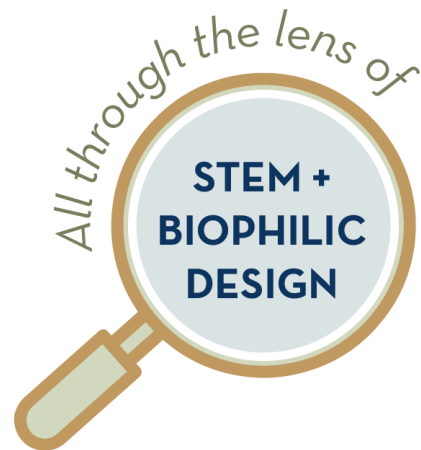
BARTON

reimagined

 **STUDENTS**
discover

 **STAFF**
inspire

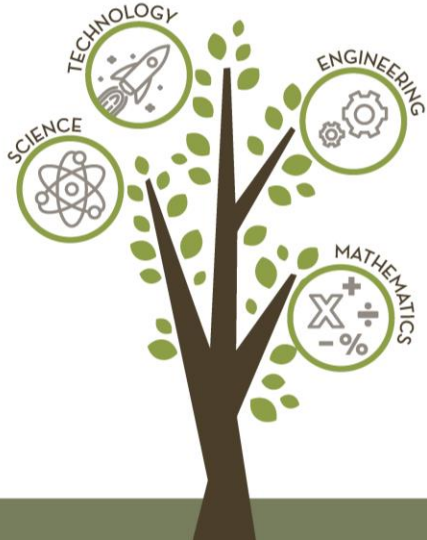
 **COMMUNITY**
engage



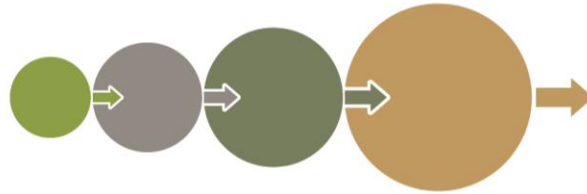
CONNECTIONS TO RETHINK POSSIBILITIES

MAIN DESIGN CONCEPTS

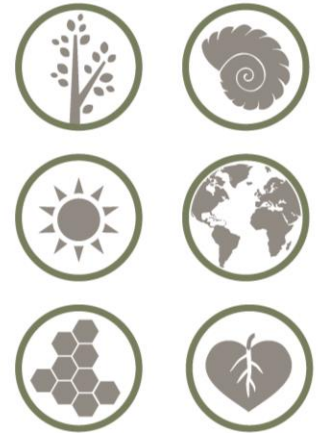
SMART SCHOOL



PROGRESSIONS OF LEARNING



BIOPHILIC DESIGN



Approximately
40%
Walkers

**Barton
Elementary**



Neighborhood

Existing Site & Project Phases





Barto





King Richard St

Conflans Rd

Conflans Rd

Site Plan

LINE TYPE LEGEND

-  PROPERTY LINE
-  FENCING
-  BUS LOOP
-  PARENT DROP-OFF

SITE PLAN KEY

-  ENTRY
-  1 GROW GARDEN
-  2 SERVICE
-  3 LEARNING REFLECTIVE GARDEN
-  4 ART GARDEN
-  5 STEM GARDEN
-  6 PLAYGROUND & STEM PLAY AREA
-  7 SCIENCE GARDEN
-  8 HARDSCAPE
-  9 BUFFALO SCULPTURAL RECYCLING CONTAINER
-  10 PLAY AREA
-  11 READING GARDEN
-  12 HUMAN SCALE SUNDIAL



A stylized, dark blue silhouette of a tree with several branches and clusters of leaves, positioned on the left side of the slide.

Interior Design

Instructional Design & Design Solution

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SIX PRINCIPLES OF **BIOPHILIC** *design*



ENVIRONMENTAL
FEATURES



NATURAL SHAPES
+ FORMS



NATURAL
PATTERNS +
PROCESSES



LIGHT + SPACE



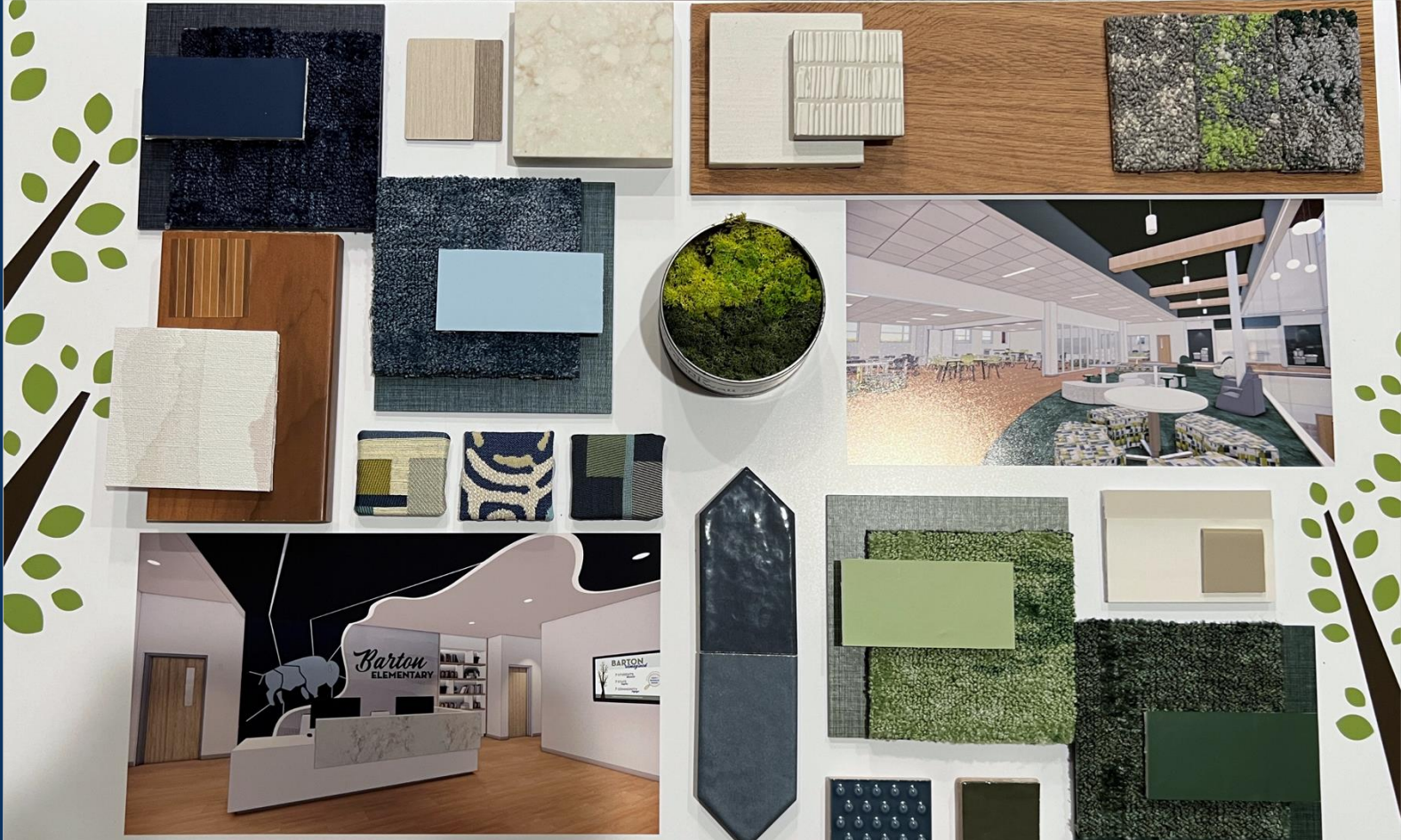
PLACE-BASED
RELATIONSHIPS



EVOLVED
HUMAN-NATURE
RELATIONSHIPS

CONNECTION





COLOR LEGEND	
	Administration
	Administration Support
	Academic
	Academic Support
	Dining
	Kitchen
	Athletic
	Athletic Support
	Fine Art
	Fine Art Support
	Circulation
	Restrooms/Support Spaces
	Library



1st Level Floor Plan



COLOR LEGEND

- Administration
- Administration Support
- Academic
- Academic Support
- Circulation
- Restrooms/Support Spaces

2nd Level Floor Plan



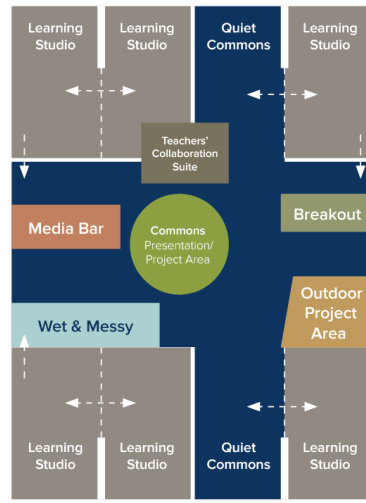
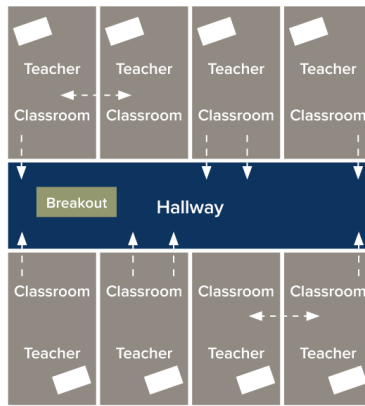
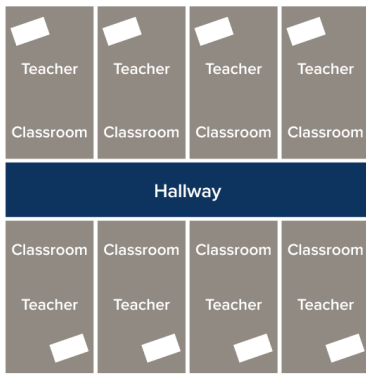
Individually Owned Rooms

Individual
Teacher Directed
Isolated Content
Classroom

Shared in a Pair

Learning Community

Team
Student Directed
Integrated Content
Beyond the Classroom



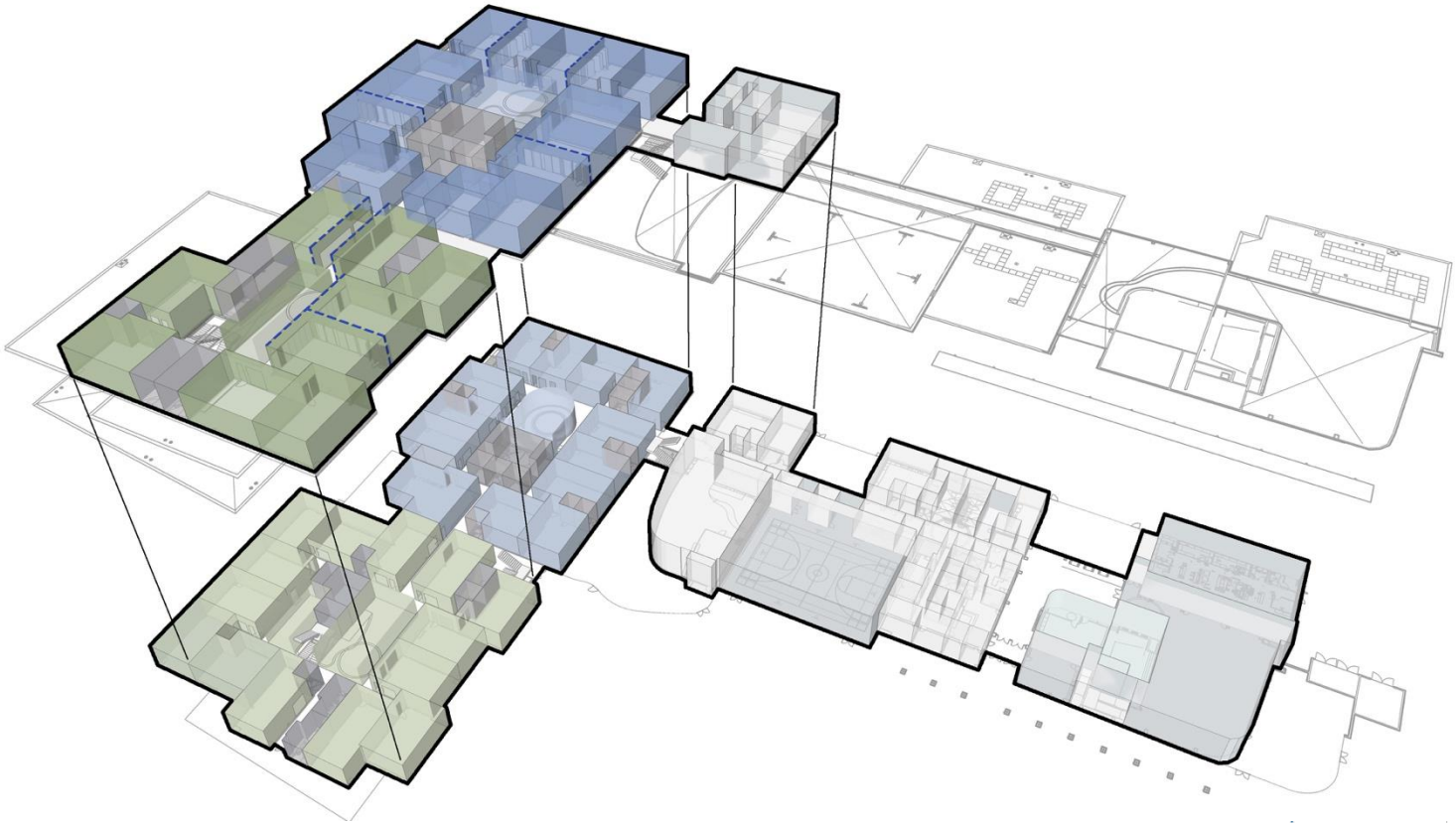
Progression of the Learning Environment

Flexible, dynamic learning environments that may be modified easily over time, designing not just for today, but for the future.

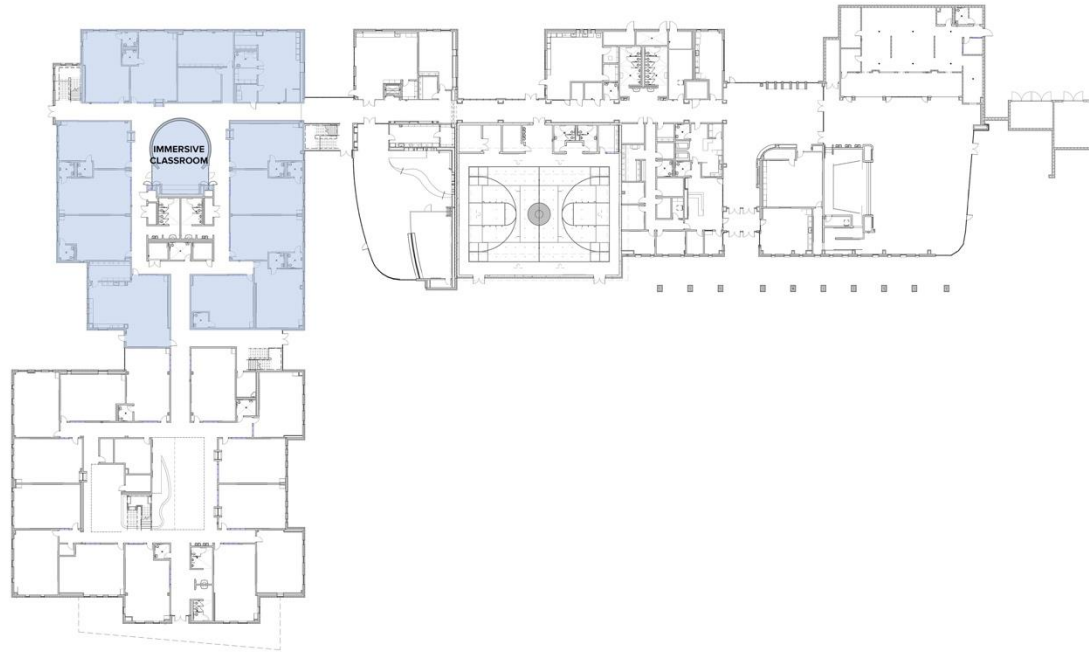


Adaptable learning environment that provides zones of instruction, as well as collaborative spaces at various scales to support teacher and student led activities.

Progression of Learning at Barton



Key Plan – Immersive Classroom (PreK – K)

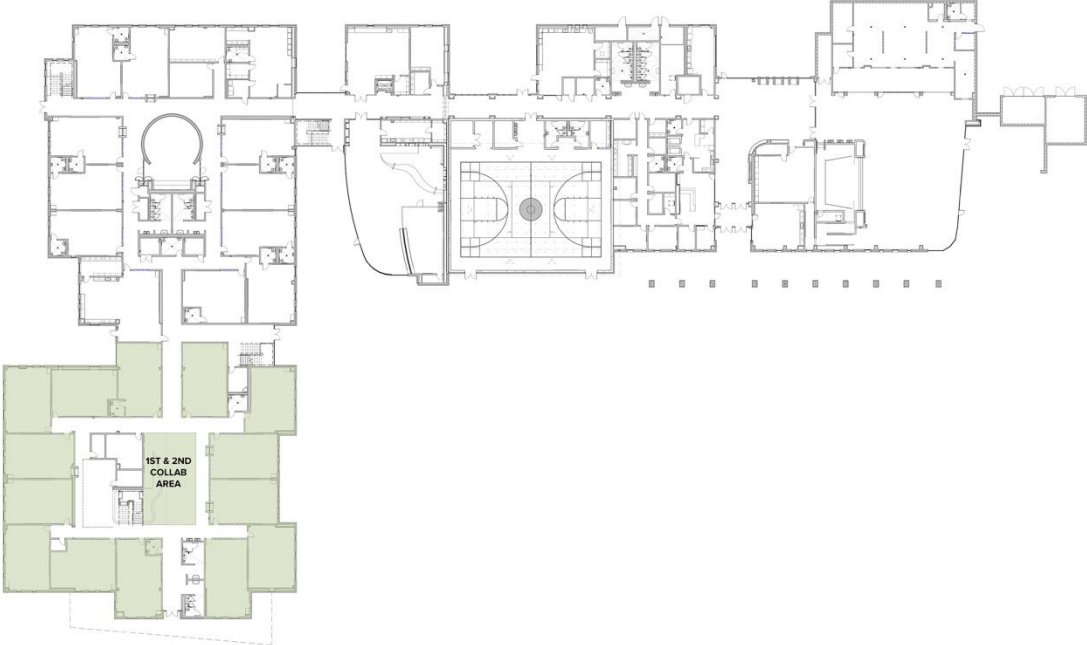




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Key Plan – 1st & 2nd Grades

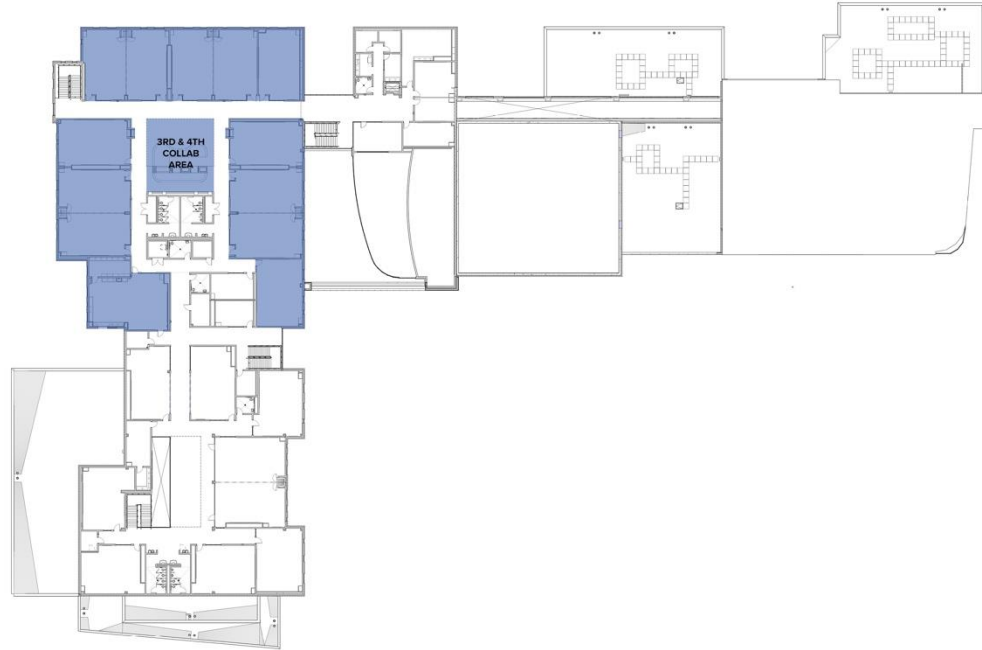




Upcoming District Events			
10/15	10/16	10/17	10/18
10/19	10/20	10/21	10/22



Key Plan – 3rd & 4th Grades





Key Plan – 5th Grade





COLOR LEGEND	
	Administration
	Administration Support
	Academic
	Academic Support
	Dining
	Kitchen
	Athletic
	Athletic Support
	Fine Art
	Fine Art Support
	Circulation
	Restrooms/Support Spaces
	Library



1st Level Floor Plan



BARTON
ELEMENTARY





BARTON









Exterior Design & Outdoor

Instructional Design & Design Solution
Spaces

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Site Plan

LINE TYPE LEGEND

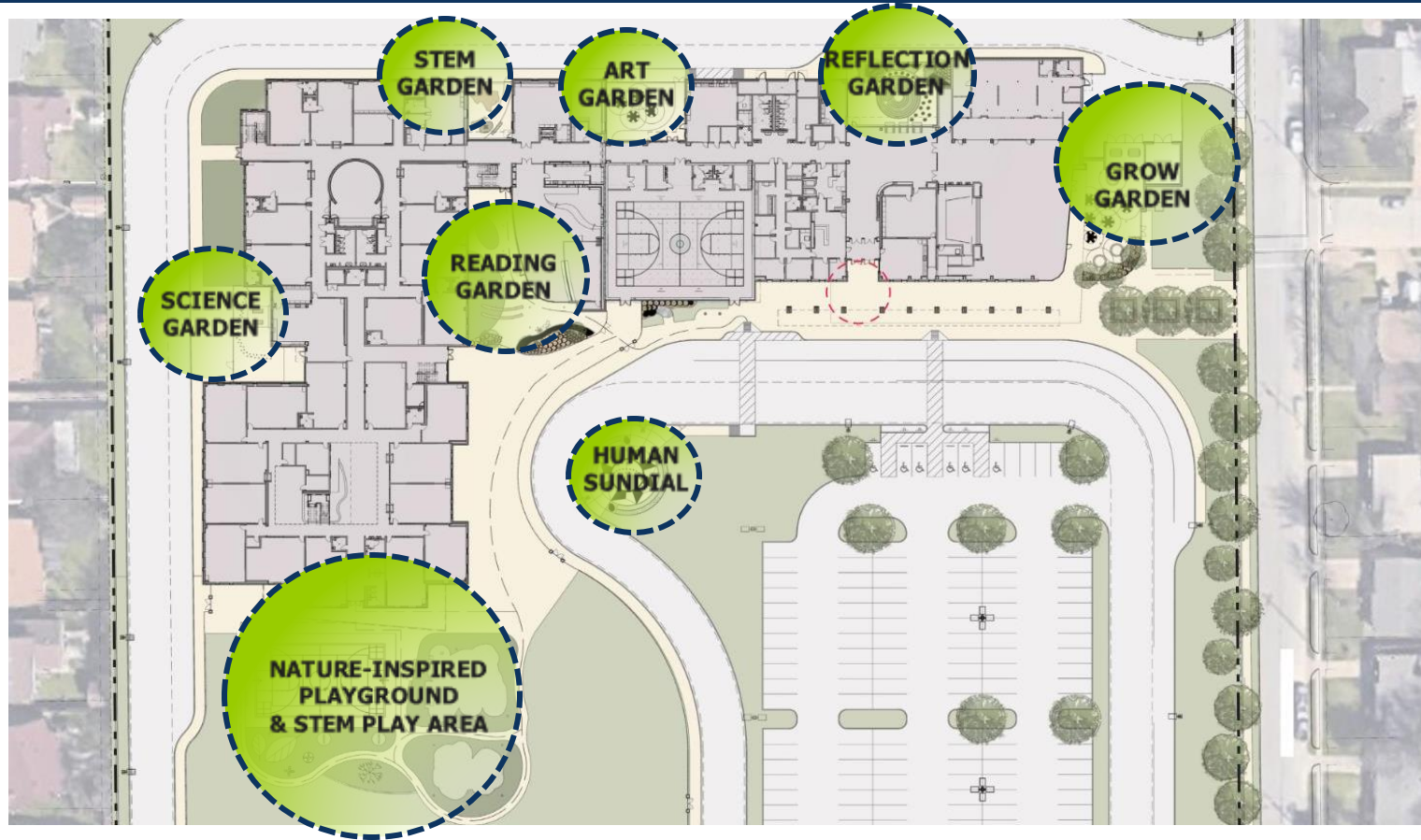
- PROPERTY LINE
- FENCING
- - - BUS LOOP
- ← PARENT DROP-OFF

SITE PLAN KEY

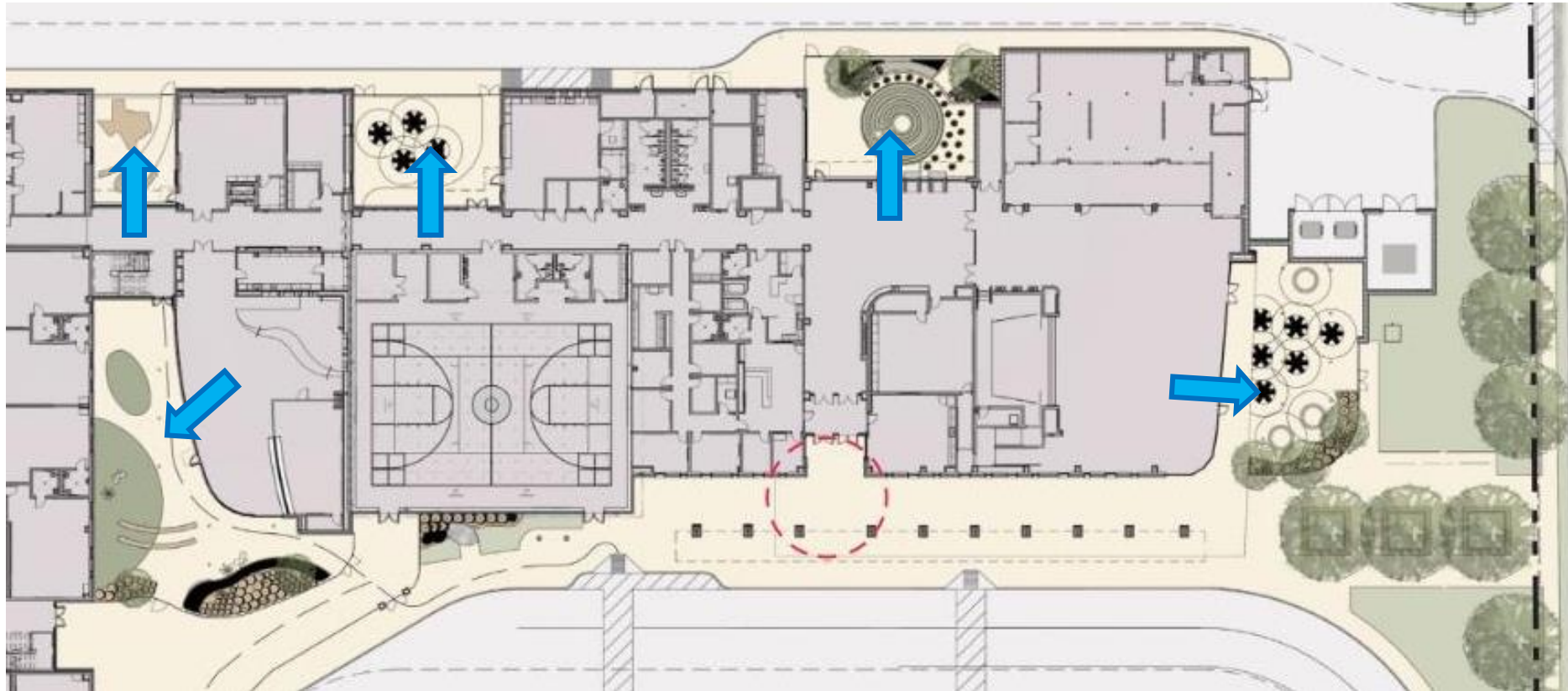
- ENTRY
- ① GROW GARDEN
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- ⑦ SCIENCE GARDEN
- ⑧ HARDSCAPE
- ⑨ BUFFALO SCULPTURAL RECYCLING CONTAINER
- ⑩ PLAY AREA
- ⑪ READING GARDEN
- ⑫ HUMAN SCALE SUNDIAL



Outdoor Learning Spaces



Connecting Indoor and Outdoor Spaces





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HELPFUL
EXCELLENT
RESPECTFUL
DETERMINED

BE





BROOKVIEW ELEMENTARY SCHOOL



BARTON ELEMENTARY SCHOOL

IRVING
FOUNDATION



Huckabee
FOUNDATION



Mission

We empower today
to excel tomorrow.





The Future of Instruction with AI



Code To The Future & Irving ISD Partnership

Igniting Innovation, Empowering the Future

Irving ISD is proud to be the first district in Texas to join a national movement in Computer Science Immersion, preparing students for the future of work.





Who is Code To The Future?

Creator of the first **Computer Science Immersion Schools** in the U.S. Partners with:

- Digital Promise
- League of Innovative Schools
- Active in North America & England
- Leading the Tri-Continental Network of global school system leaders

Their Mission is ***to inspire students to become aware of their incredible potential, and equip them with the skills necessary for success in school and life.***



Why This Matters for Irving ISD

- First district in Texas selected for this partnership
- Aligns with our mission to provide equitable, future-ready learning
- **Empowers students through:**
 - Daily immersive coding experiences
 - Project-based, interdisciplinary learning
 - Critical thinking, collaboration, and creativity
 - Paves the way for national recognition in innovation



Launching the Future

- **Next Steps:**

- Finalize partnership details
- Implement at pilot campuses (Barton and Davis Elementary!)
- Begin staff development
- Launch Immersion Program: Fall 2025

- **Long-Term Impact:**

- Career-ready graduates
- Stronger community & industry partnerships
- Positioning Irving ISD as an innovation hub in Texas



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