

Lake Highlands High School

Executive Summary

Lake Highlands High School, like many schools, grew over decades of expansions, renovations, and additions. The organic growth of a school over so many years often leads to less-than-ideal building layouts, disconnections, and spaces that are used in ways never intended. In this case, a new detached school, envisioned as a 9th-grade center, was constructed more than two decades ago and positioned across a fire lane from the high school. Eventually this detached facility was incorporated into the overall high school, with classes supporting all grade levels.

The architecture of Lake Highlands High School not only required students to navigate between these two separate buildings, it facilitated, and in some cases, exacerbated social islands – students self-segregating – potentially leading to anxiety and depression.

OVERALL GOALS AND OUTCOMES

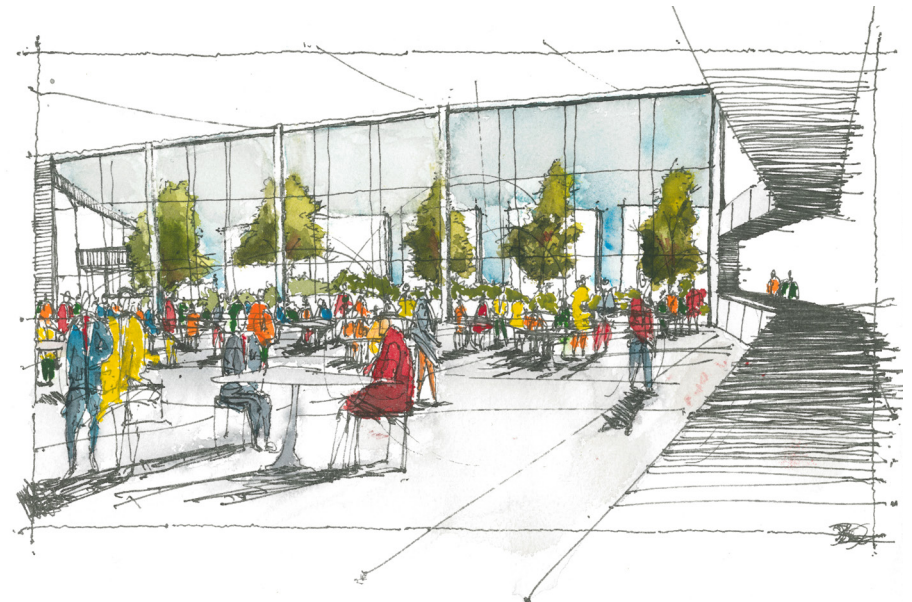
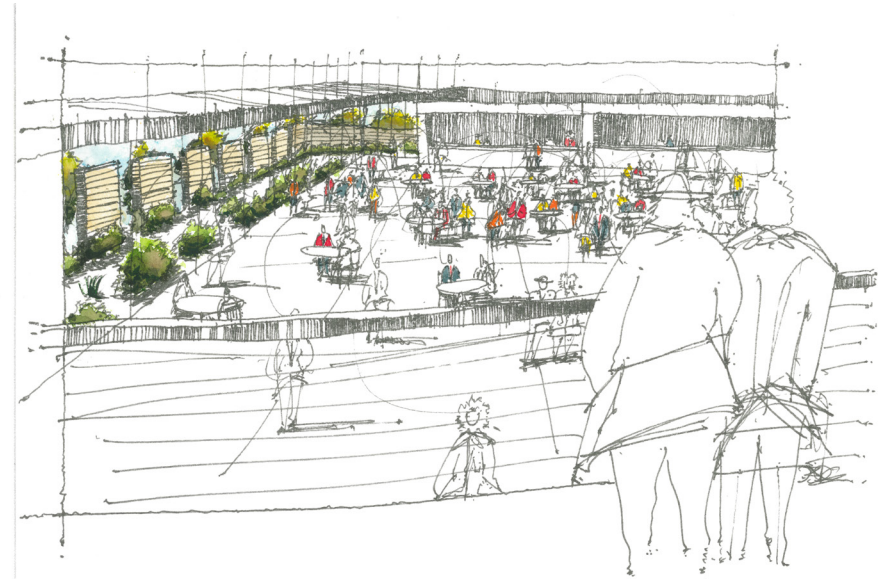
Originally, the **overall goal** of Richardson ISD was to add 24 classrooms to the high school, providing more enrichment spaces and creating a link between the main high school and the former freshman center. However, in-depth conversations with community members revealed other obstacles to school unity that wouldn't be resolved by linking the buildings with a block of classrooms or a corridor.

The **OUTCOME** is an architectural solution that makes an actual difference in the health and well-being of the students.

"The design team challenged the district to think differently."

Instead of building an additional 24 classrooms flanking a corridor, the team suggested designing a new "heart" for the school; a central hub for students to gather for meals, formal and informal learning opportunities, to study during passing periods, and a place for unplanned interactions and conversations. The hub also provides the school a needed central community gathering place where students and parents attend after-school events.

"RE-IMAGINE CONNECTION"



Lake Highlands High School

Scope of Work and Budget

GSF:

Phase 1 - 50,000 sf (MAC)

Phase 2 - 42,555 sf Addition

Phase 3 - 56,000 sf Renovation

Total Campus - 640,000 sf

Budget:

\$53,500,000

Construction Cost: \$53,300,000

Services:

Architecture

Master planning

Interior design

Structural engineering

Features:

Student and community campus hub

Dining commons

Learning commons

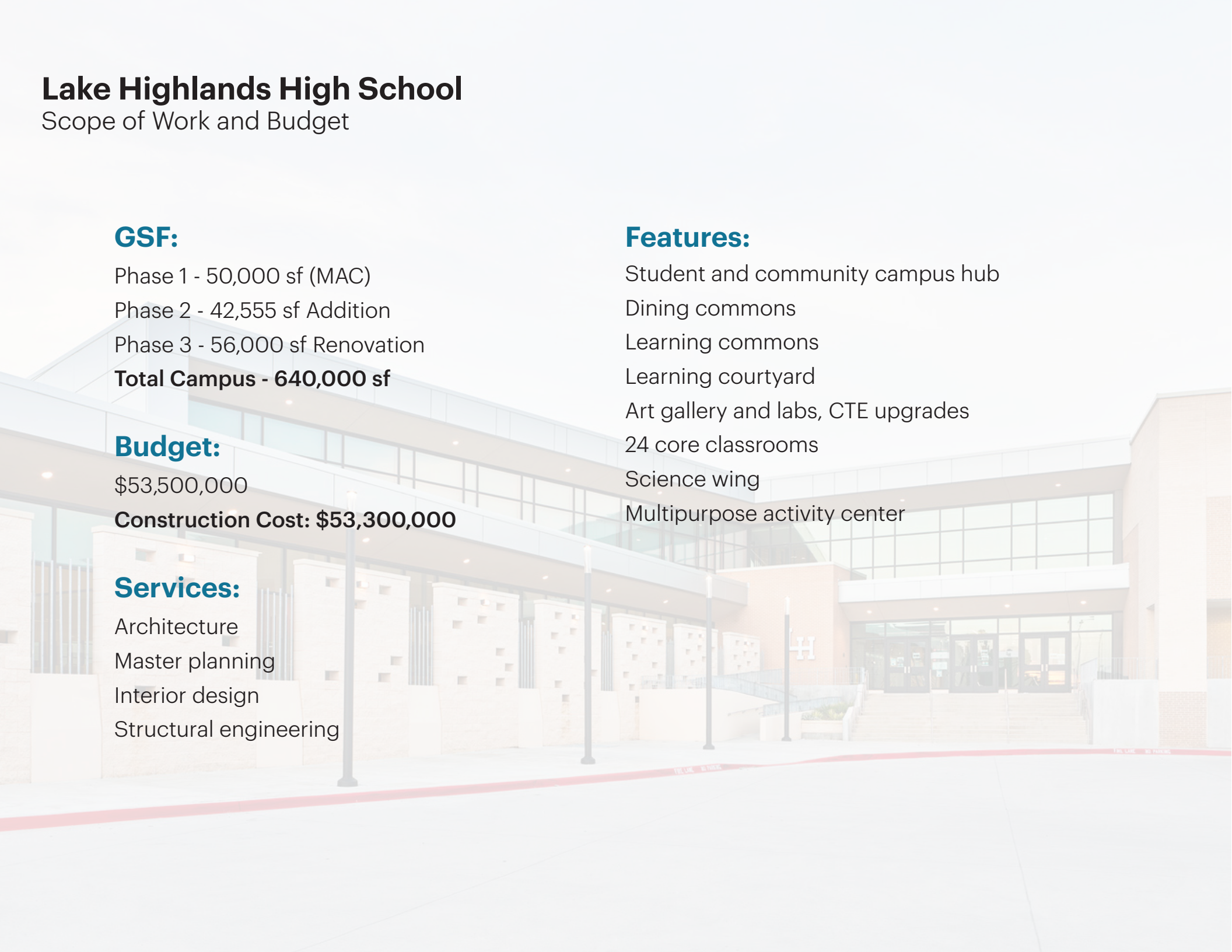
Learning courtyard

Art gallery and labs, CTE upgrades

24 core classrooms

Science wing

Multipurpose activity center





Lake Highlands High School

School and Community Engagement

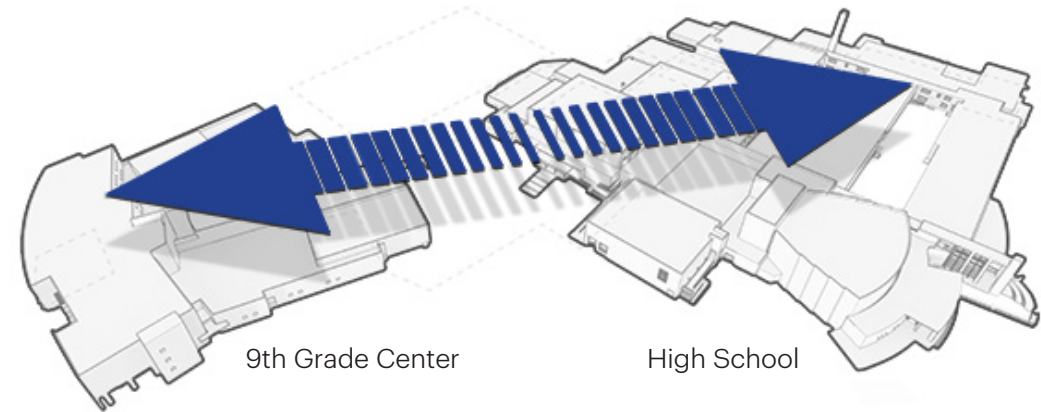
IDENTIFY STAKEHOLDERS

Students, teachers, administrators, parents and neighborhood

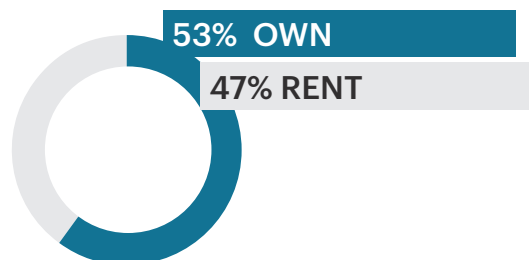
NAME CHALLENGES

During stakeholder meetings in the Lake Highlands community, known as the Public Programming Community (PPC) two main areas of concern were identified. The first was the campus configuration, which included a 24-year old Ninth Grade Center separated from the high school by a parking lot, loading dock and fire lane. Over time, the campus began functioning as a complete four grade-level configuration, with students traversing this chasm back and forth between buildings (in all types of weather) during class changes. The second issue that became clear through the PPC meetings was a need to address Social Islands. The single greatest contributor was the three cafeterias where students could choose to eat.

Through informal interviews with students and visits to the site, the effects these Social Islands had on the student body during meal time became increasingly clear - they were self-segregating. Students could choose to eat in any of the three cafeterias, but instead, the dividing factor was the economic disparities between their classmates. Many students received free meals, others reduced meals, while across campus other students were enjoying the luxury of meal delivery services.



DESCRIBE THE COMMUNITY



#7
of 124

most diverse
neighborhoods
in Dallas



median
household
income \$91,696



white 51%
hispanic - 23%
african american 19%
asian 5%
two or more races 2%

Lake Highlands High School

School and Community Engagement

DESCRIBE AVAILABLE ASSETS

- The community - students, administrators, teachers and parents were engaged and enthusiastic about the opportunity to re-envision a program to address issues of social inequity.
- The vacated space in the existing buildings allowed for a new art wing and new science wing to be more connected to their respective departments.

DESCRIBE VALUE OF PROCESS AND PROJECT TO COMMUNITY AT LARGE

In initial discussions with the PPC, the design team sensed that some community members were skeptical about how influential they could be given that the bond program was specifically to build 24 classrooms and a multi-function activity center.

But the skepticism soon turned into enthusiasm. At the first gathering, the team divided the PPC into smaller groups where planned activities shed light on the stakeholders' concerns and desires for the future. It became clear that more than just classrooms were needed to address the social divisions within the school. The resulting design addresses the need for a sense of belonging within the community. The hub provides opportunities for students to eat together, meet, study, collaborate, share stories, and learn from each other. These exchanges can have a lasting impact on the students as they carry their experiences into their future interactions.



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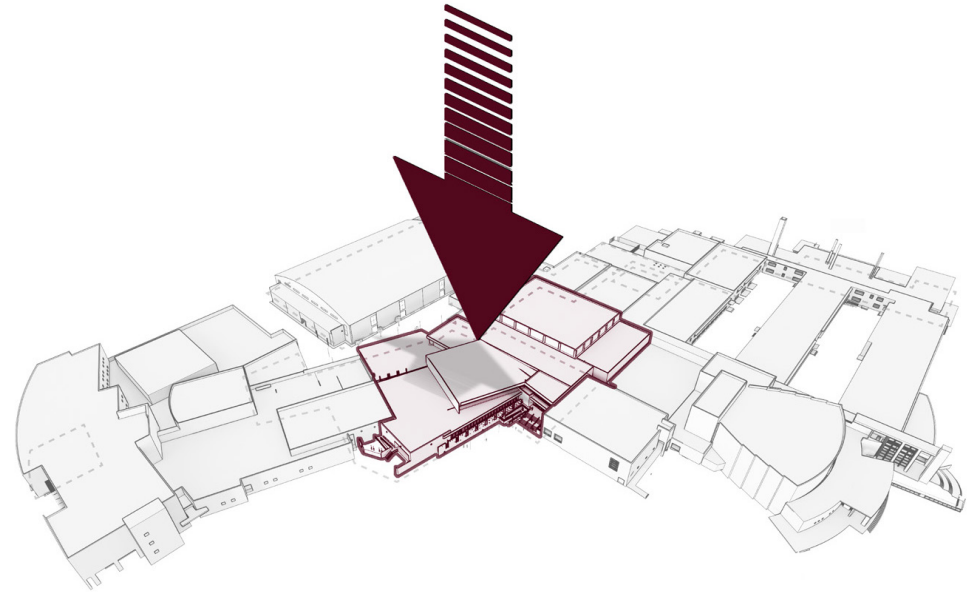
Educational Environment

EXPLAIN THE EDUCATIONAL VISION AND GOALS OF THE SCHOOL

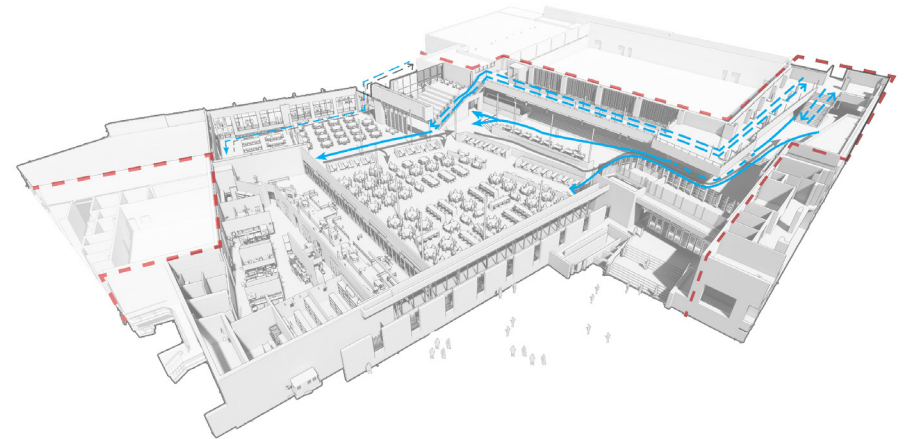
- Add the required additional learning space to the existing campus
- Unify the campus buildings and provide improved circulation and access for the students
- Address and resolve the issue of Social Islands

DEPICT & ILLUSTRATE HOW THE ENVIRONMENT SUPPORTS THE CURRICULUM

In addition to the requirement for much needed additional classroom space, the design solution includes a multipurpose activity center, library/media center, science and art wing. The design solution also creates spaces that allow for special moments of relationship building. The hub includes a variety of scale and style of space that provides opportunity for impromptu interactions, or quiet niches. Though students may still split into their own cliques within the hub, they have more opportunities to cross paths and interact with peers from other social groups.



Addition Placement



Traffic/Circulation Pattern



GYMNASIUM <<
RESTROOMS <<
BUILDING H <<
BUILDING L >>

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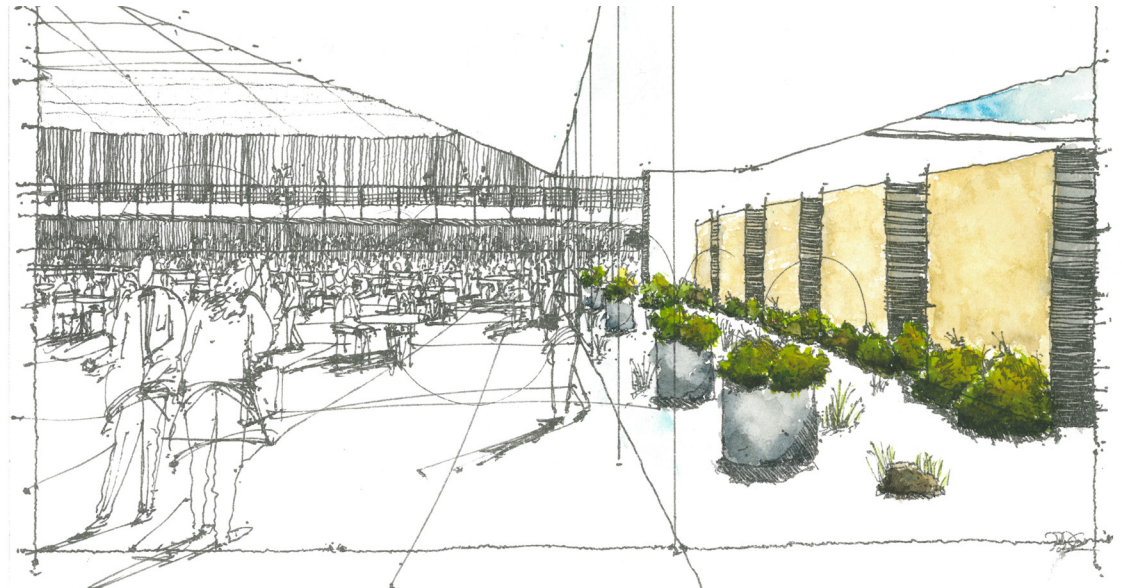
Educational Environment

DEPICT & ILLUSTRATE HOW THE ENVIRONMENT SUPPORTS A VARIETY OF LEARNING AND TEACHING STYLES

As each student has individual and specific social needs, the dining area was crafted into several spaces varying in size and character. This allows for students to find their comfort zone, to tailor their dining experiences throughout the year and to match their emotional state to the experience they each need.

DEPICT & ILLUSTRATE HOW THE ENVIRONMENT IS ADAPTABLE AND FLEXIBLE

The design team further impacted the experiences by designing choice into the dining program. The school embraced a new direction in providing students with choice in the seating arrangements by providing varying table sizes and types (round tables, high-top tables, booths, and even creating long steps for students to informally enjoy lunch sitting on steps overlooking the hub. Additionally, the hub is designed in a way that allows areas of the space to flex between dining use, media center spill over and daily project based learning, club meetings and various learning opportunities.



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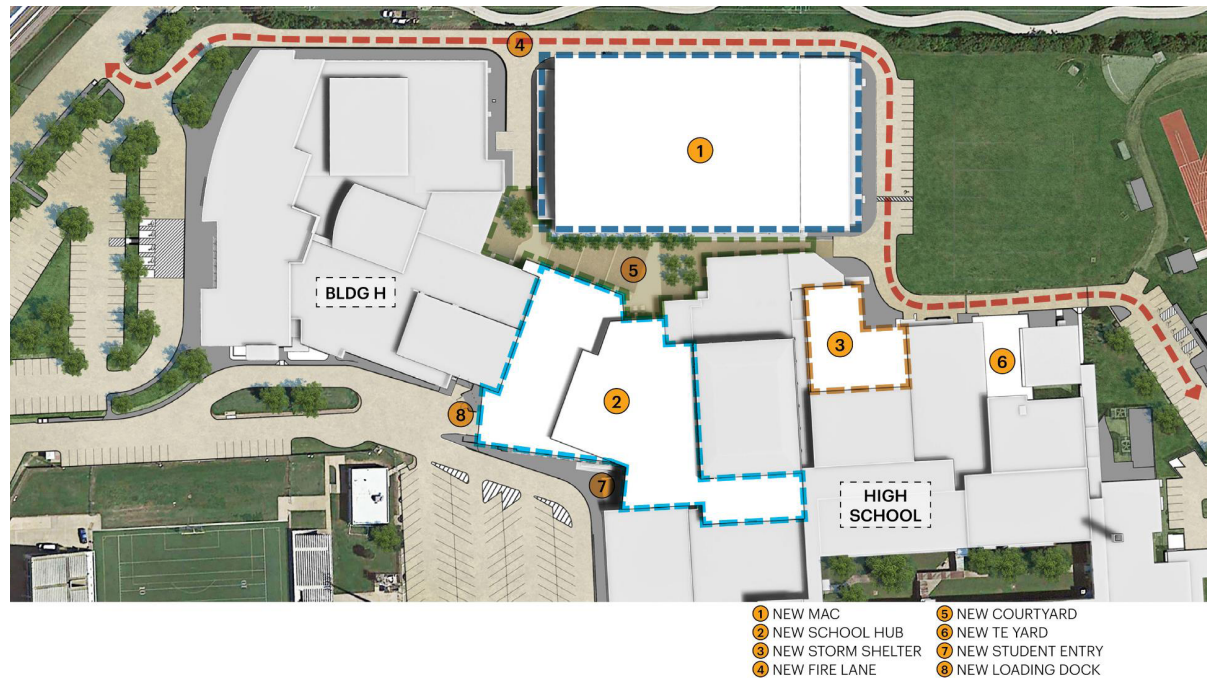
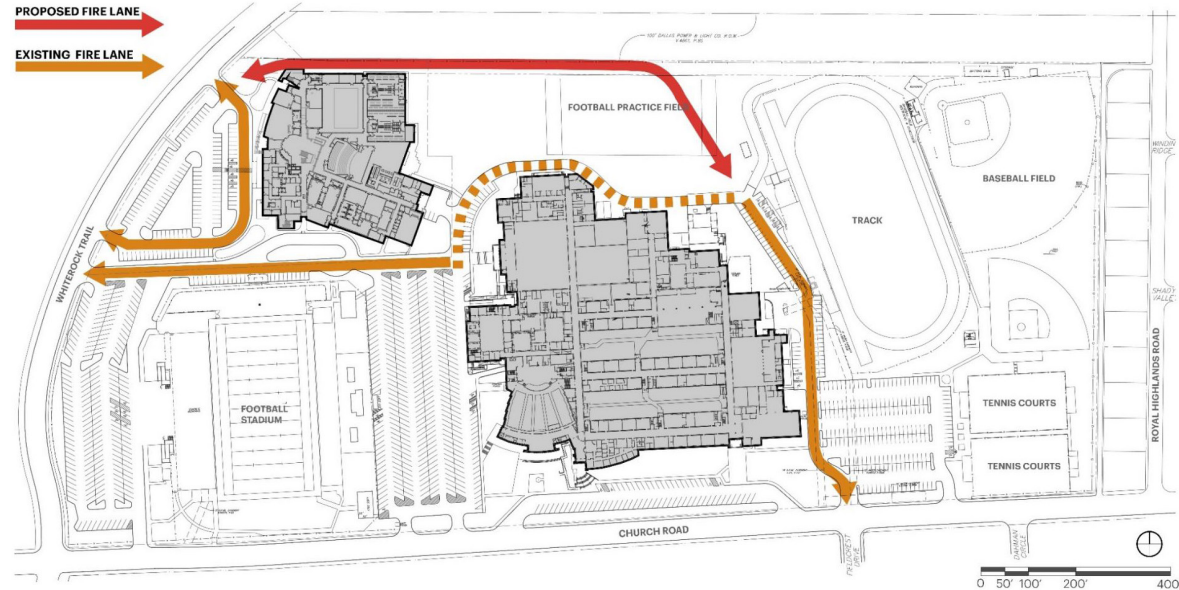
Physical Environment

DESCRIBE & ILLUSTRATE THE SITE PLAN

The existing Lake Highlands High School campus had grown and evolved over many decades of expansions and additions. Through this process, unintended disconnections emerged that were reinforced by fire lanes separating buildings as well as unplanned pedestrian connections for students to utilize multiple times a day as they are forced to negotiate their way between the existing buildings to get to class. Students would utilize multiple entries and exits which often would bottle neck at the building, increasing the time it would take for students to get to class.

A site strategy was developed which included reworking the existing fire lane to wrap around the perimeter of the site (creating a separation between vehicles and pedestrians,) the addition of a new Mutli-purpose Activity Center which helped to enclose and protect a new interior courtyard which students can utilize for dining, studying, and many after school activities in a safe and secure manner, and a new Student/Visitor Entry providing a safe and planned entry sequence.

Most importantly is the new addition connecting the two existing facilities providing students with an interior protected means to navigate between classes.



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Physical Environment

PHYSICAL ATTRIBUTES OF THE ENVIRONMENT

Through a rigorous design process, the team designed a student-centric commons area to improve student health and emotional well-being. Ample access to natural light, views of nature and choice for experience allow individuals to navigate the space for their specific needs. The hub hosts a new open dining commons and new library/media center and is flexible enough to provide seating for 1,000 students per lunch serving (three periods), while also being able to provide informal learning areas throughout the space when not used for cafeteria needs.

HOW THE FACILITY FITS WITHIN THE LARGER CONTEXT OF THE COMMUNITY

The most interesting characteristic of the Lake Highlands High School Community is that the High School is literally the melting pot of the surrounding community “pockets” of diversity. The more affluent community that edges White Rock Lake boasts such attractions as the White Rock Lake Theater and Botanical Gardens of Dallas. Other parts of the community are typical middle class neighborhoods surrounding the school campus proper, while other parts are apartments and areas requiring financial assistance. With 52% of the students benefiting from free and reduced breakfast and lunch, other students have the benefit of Uber Eats if the campus would allow it.



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Physical Environment

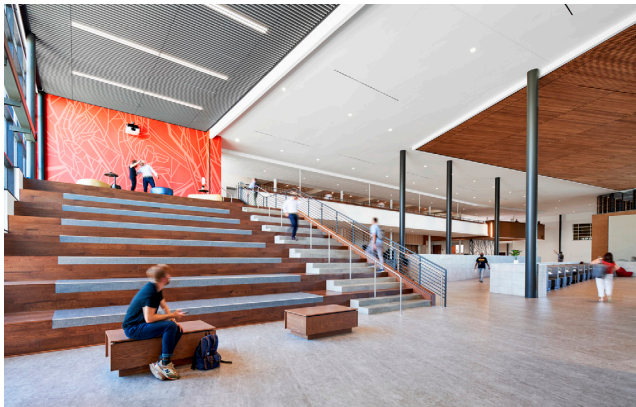
The campus represents the one location in the community where students from these very different community pockets interact with one another for the first time. This project recognized that social challenge and how it was being lived out on campus. This hub design made the **“Wildcat Way”** the bigger story. A place of champions to be born in a reinvigorated environment that celebrates diversity rather and equitable social interaction.



Flexible Social + Dining space



Bridge Connector - 'Tree Perch'



Learning Stair - Flexible Dining



Open Variety Seating



Open Variety Seating

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Physical Environment

DESCRIBE & ILLUSTRATE HOW PROJECT INSPIRES AND MOTIVATES

The team incorporated design strategies aimed at stress reduction, including physical and visual connection to nature and an abundance of natural light. All locations in the hub enjoy views to the exterior including a courtyard, views of the sky and a strategically placed viewing garden adjacent to the main dining area. This was designed to balance the district's concern with maintenance of a landscaped area by creating a non-accessible space that is fully landscaped to maximize impact on students' mental health. The completed building delivers a brand new experience for students, aimed at providing a safe environment that will support the school in building community within the student body for generations to come.





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Results of the Planning Process and Project

DESCRIBE & ILLUSTRATE HOW THE PROJECT ACHIEVES SCHOOL DISTRICT GOALS

In what ended up being a significant re-shuffle, the original 24 classroom program was leveraged into a student-centric, transformative renovation of significant portions of the existing high school building. The intervention is sure to be a magnet for talented educators as it affords them space that truly supports their programs.

DESCRIBE & ILLUSTRATE HOW THE PROJECT ACHIEVES COMMUNITY GOALS

In the words of a Lake Highlands High School faculty member:

"Students all eat together in a single communal space regardless of age, race, or socioeconomic status. Students are noticeably happier, and there are no more fights at lunch. They love it so they take care of it. It's a perfect example of ownership."

EXPLAIN ANY UNINTENDED RESULTS AND ACHIEVEMENTS OF THE PROCESS & PROJECT.

The project completed when the global pandemic was in full swing. One incredible unintended outcome was the way the campus was able to use the hub for safe circulation and open air classroom options. The school district stated, "We were very fortunate the hub allowed us to operate safely and gave us multiple options to execute our safety protocols with no disruption."



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Sustainability and Wellness

ENERGY-EFFICIENCY WITHIN THE SOLUTION

The HUB of Lake Highlands High School is to reduce energy consumption over a Zero Tool baseline campus by approximately 25%. The design accomplishes this through the strategic orientation the main views out of the Cafeteria to the North, while providing deep overhangs and free-standing exterior walls at the South. These overhangs and exterior walls will block direct Southern light while allowing indirect light into the space.

DURABLE AND GREEN MATERIALS RELATING TO WELLNESS

The HUB will cultivate a space and an experience that embodies a healthy mind and body, providing ample visual and physical access to nature. Studies show a growing mental health crisis taking hold of our students at an alarming rate. The team incorporated design strategies aimed at stress reduction, including physical and visual connection to nature and an abundance of natural light.

DURABLE AND GREEN MATERIALS RELATING TO MAINTENANCE

All locations in the HUB enjoy views to the exterior including, a courtyard, views of the sky and a strategically placed viewing garden adjacent the main dining area. This was designed to balance the district's concern with maintenance of a landscaped area by creating a non-accessible space that is fully landscaped to maximize impact on students' mental health.

