



NORTHWEST HIGH SCHOOL

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1 SCOPE

Forward-thinking leadership and community input, shaped the growth plan for Iowa’s fastest-growing school district, resulting in the creation of Waukee’s new Northwest High School. With the existing high school projected to quickly reach capacity, the district collaborated with the design team to plan a second facility. The team led a comprehensive visioning process for the district’s planning committee, resulting in a Future-Ready design that complements the existing Waukee High School.

The school’s design emphasizes natural views and functional connections between facilities, anchored by a central student commons. This versatile space also serves as a lobby for public events in the athletic and performing arts areas. Key features include a top-loaded gymnasium, a performing arts auditorium with adjacent teaching spaces, and strategically located music instruction areas.

The campus encompasses a 395,000 SF high school serving 1800 students, along with a 5000-seat football stadium. A new baseball and softball complex completes the activity areas, with carefully planned circulation ensuring safe traffic flow.



OWNER *Waukee Community School District*

PROJECT TYPE
K12 Recreation Commercial
Early Childhood Higher Education

CAPACITY 1,800 students

OCCUPANCY DATE August 2021

BUILDING AREA 395,000 SF

AREA PER STUDENT 219 SF

STADIUM SEATS 5,000

FINAL COST \$103 M

2 COMMUNITY



TORIUM
LCONY

BLACK BOX THEATRE



Community

The Waukee Community School District serves the City of Waukee and the western edges of Des Moines, including West Des Moines, Urbandale, and Clive. These communities, once rural towns, have grown into a diverse urban area attracting families from around the world, contributing to the district's cultural richness. Melding these backgrounds into a single vision for the school community has always been the focus and challenge.

School District

With over 13,000 students, the district ranks as the sixth-largest in Iowa, experiencing consistent growth over the past two decades. The district's mission centers on preparing every child for success after high school, with a dedication to student-focused learning and continuous improvement.

Project Genesis

In 2010, the district formed a broad-based planning committee to address the imminent need for a new high school. Seeing similarities in growth challenges, the City of Waukee collaborated with the district, resulting in a joint development agreement approved in May 2016. This agreement allocated 160 acres of land for Northwest High School and a city-owned sports complex.

3 PROCESS

Community Involvement:

- a committee comprising staff, community leaders, parents, and students was formed to work alongside the design team.

Precedent Research:

- learning from recently built facilities in and around the Des Moines metro through tours and discussions with owners to envision future education.

Vision Planning:

- setting overarching goals and priorities with the community committee to shape the new educational environment.
- engaging in a three-day charrette process to co-create the future high school, incorporating virtual tours, learning styles discovery, and academic pedagogy exploration.

Design Refinement:

- defining a future-ready vision guided by core values and beliefs for Waukee education, resulting in a design concept reflecting the community's vision.
- incorporating feedback from staff, students, and the community to develop the final design, ensuring acceptance and alignment with the desired user experience.



4 ENVIRONMENT



Organic Learning:

- a home-like aesthetic allows students to feel comfortable in their environment encouraging informal learning opportunities.
- spaces like the roof terrace and centralized student “living room” provide customizable seating options and connection to resources.

Collaboration Areas:

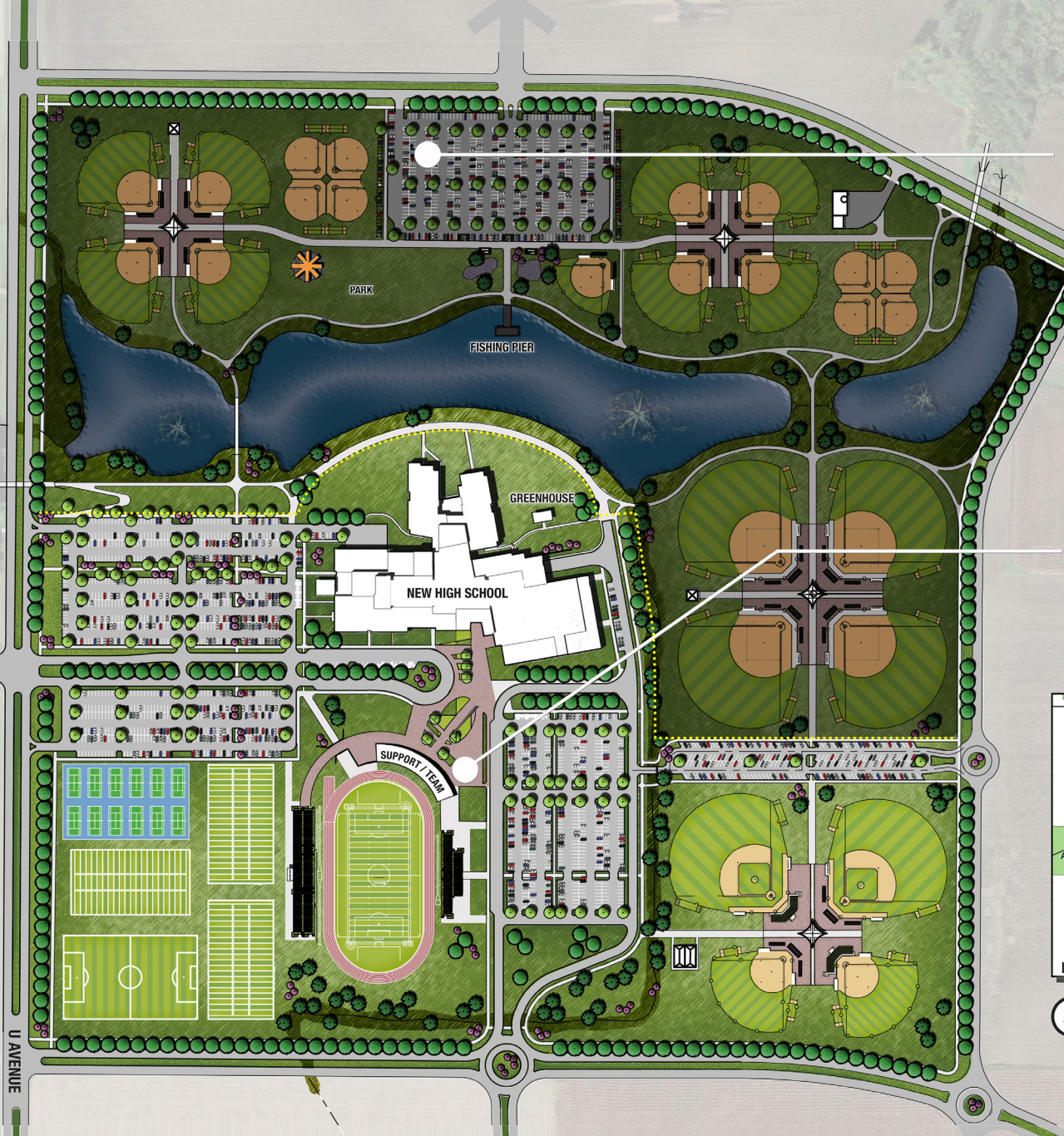
- areas for small gatherings, social crossroads, and individual study spots throughout the building, emphasize the importance of incorporating spaces for social interactions.
- project rooms and informal learning spaces foster opportunities for self-paced learning and collaboration.
- corridors offer bench and booth areas for studying and small group gatherings.

Daylighting:

- learning environments prioritize comfort and invitation, featuring ample natural light.

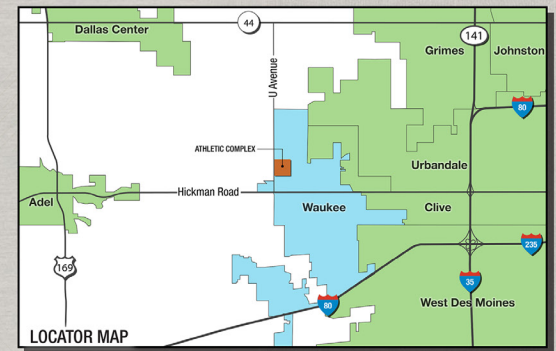
Transparency:

- visual connection and accountability promoted through transparency to classrooms.
- community room and media center create visual connections from entry to the lake.



**CITY OF WAUKEE PARK
& ATHLETIC COMPLEX**

**NEW WAUKEE CSD
NORTHWEST HIGH SCHOOL
& ATHLETIC COMPLEX**



5 PROGRAM

Visual and Performing Arts

- two vocal music rooms
- three instrumental music rooms
- 1000 seat auditorium w/
orchestra pit
- black box theater
- four visual and digital art studios
- media production studio

Health and Wellness Areas

- main performance gymnasium w/
2500 seats
- auxiliary gymnasium w/ raised
track on main level
- weight training room
- cardio fitness room
- multi-sport training room
- wrestling room
- athletic locker & support areas

Technical Training Areas

- metals shop
- wood shop
- robotics lab
- CAD lab
- FCS textiles lab
- FCS food lab
- culinary arts lab

Complete Sport Amenities

- 5000-seat football and soccer
stadium
- baseball/softball complex
- tennis complex



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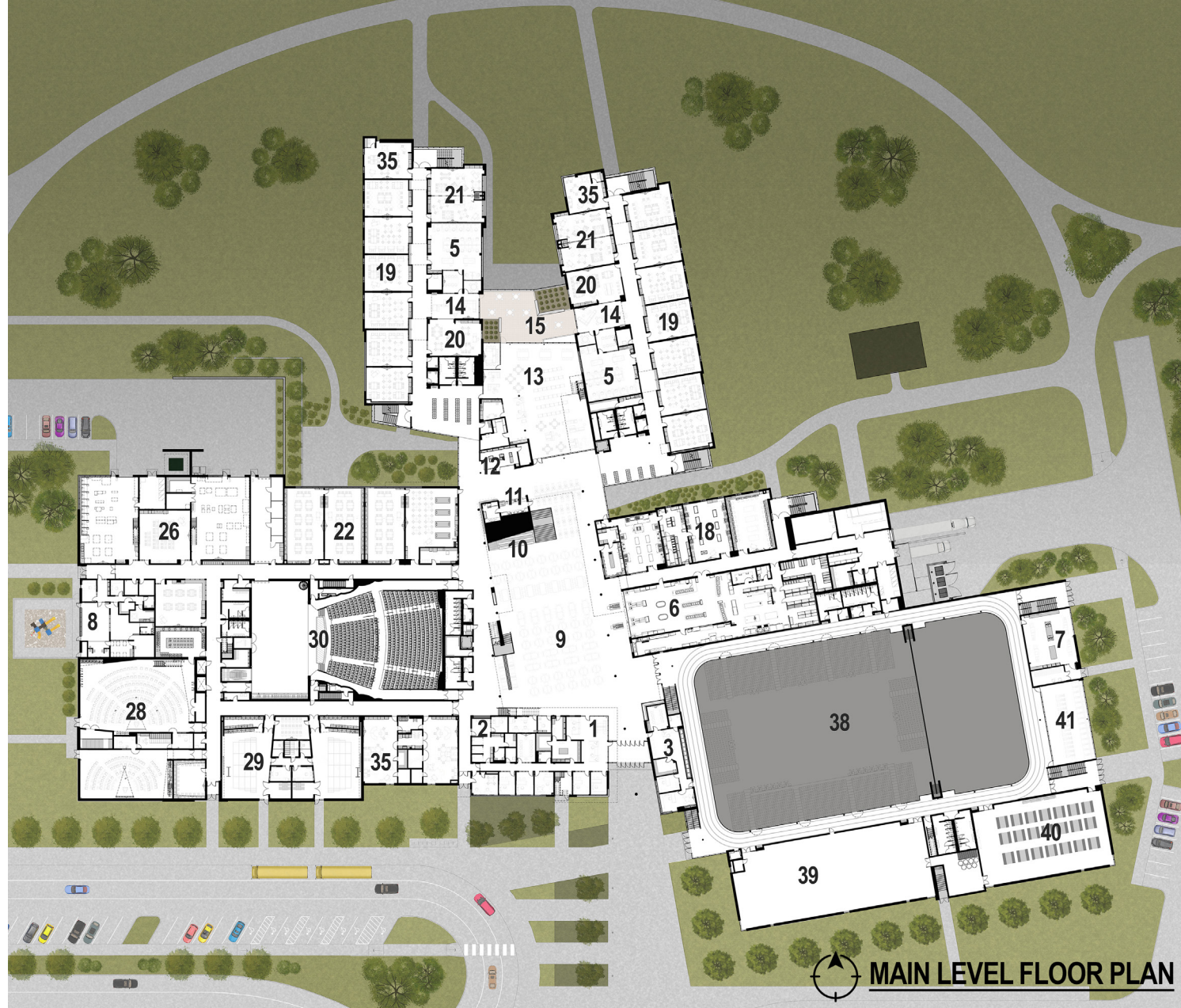
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38. UPPER GYMNASIUM / RUNNING TRACK
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40. WEIGHT TRAINING
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42. HEALTH EDUCATION
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LOCKER ROOMS
45. ATHLETIC & BUILDING STORAGE



LOWER LEVEL FLOOR PLAN

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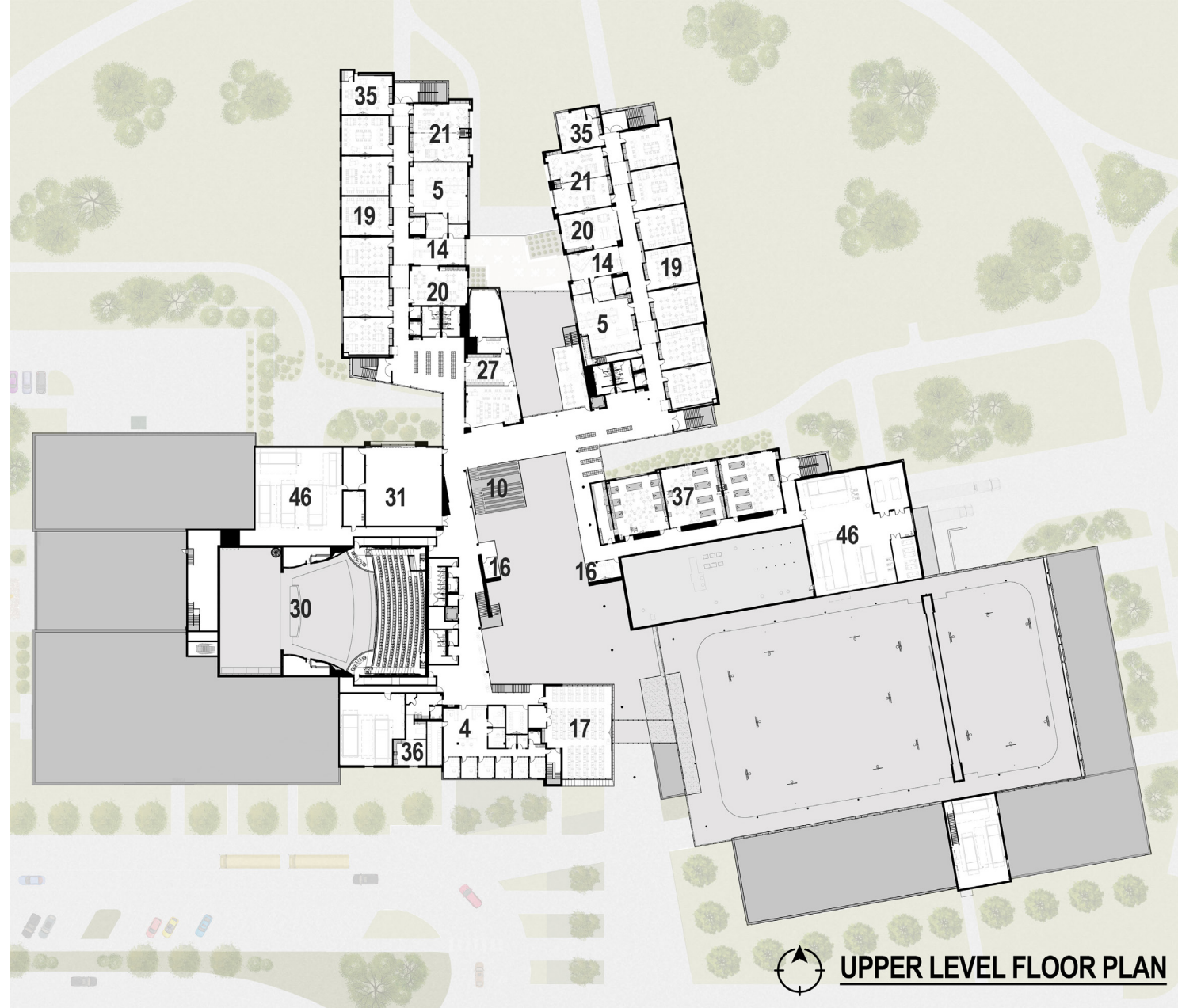
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MAIN LEVEL FLOOR PLAN

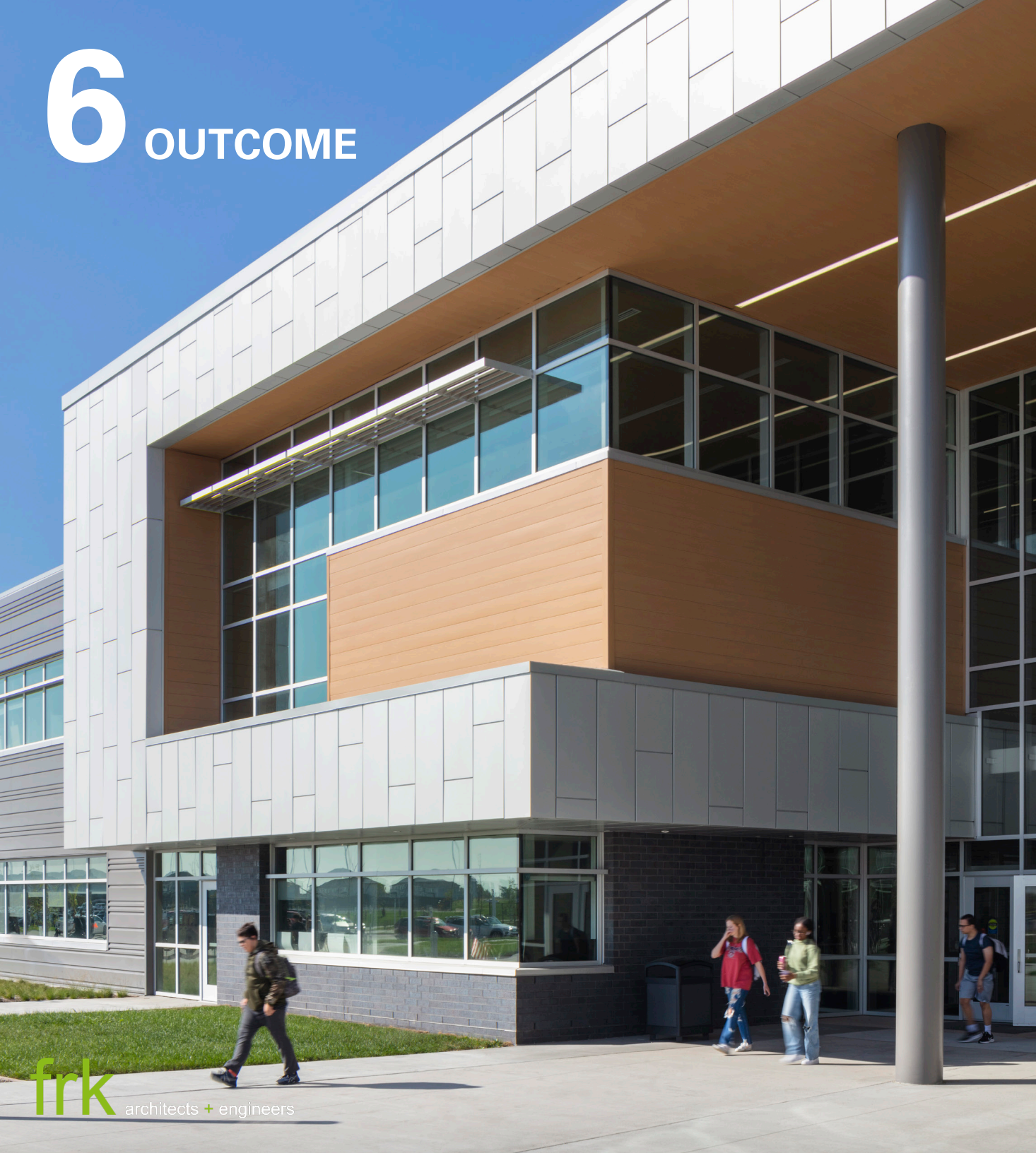
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UPPER LEVEL FLOOR PLAN

6 OUTCOME



The design team collaborated closely with the owner and local energy company, conducting energy modeling and lifecycle analysis for proposed building systems. Northwest High School achieved a verified 35% reduction in Energy Use Intensity (EUI) compared to code-level buildings, resulting in approximately \$140,000 in annual operational savings. Additionally, the building received a \$231,000 rebate through energy company rebate systems to offset initial cost increases.

*While being a sustainable design solution to the quickly growing school district, building a brand new high school facility also enables the community to upkeep its **key beliefs** as identified by both local teachers and parents:*

- we believe in keeping students our priority.
- we believe in equity and belonging.
- we believe in developing people.
- we believe in integrity.
- we believe in joy.
- we believe in inclusivity.
- we believe in innovative problem solving.

