



2021 JAMES D. MACCONNELL AWARD SUBMISSION

BERG MIDDLE SCHOOL

Newton, Iowa

EXECUTIVE SUMMARY

The Berg Middle School project completes a vision of reinvention by a school district serving a city that is well versed in the concept. The new facility was the heart of a district-wide grade level shift, done to free up needed space for future curriculum delivery. Much more than just a replacement facility, the project was a catalyst to approach teaching and learning in a new way, and to do so at a very critical developmental stage.

Through a background of thorough research and assessment, this project became reality within an inclusive and interactive visioning process. This process gathered what was good about the community and faced head on the perceived challenges in order to head off future roadblocks. This community engagement brought to life the resilience and readiness for this community to meet the future.

Embracing multiple logistical challenges of working around an existing functioning school, the planning team set of to fulfill the charge of creating a facility with a collaborative and safe learning environment that embraced student individuality and had the flexibility to adapt to multiple learning and teaching styles.

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PROJECT SCOPE

OWNER:

NEWTON COMMUNITY SCHOOL DISTRICT

LOCATION:

NEWTON, IOWA

OCCUPANCY DATE:

JANUARY 2019 (NEW)

GRADE LEVELS:

5-8

STUDENT CAPACITY:

1,000 STUDENTS

BUILDING AREA:

180,000 SF

SF/STUDENT:

180 SF/STUDENT

SITE AREA:

29.5 ACRES

CONSTRUCTION COST:

BUDGET: **\$ 32,105,000**

BID: **\$ 27,250,000**

FINAL COST: **\$ 27,245,170**

BUILDING CONSTRUCTION COST/SF

\$ 151.36/SF





Newton, Iowa is a small city with a population of around 15,000 people located in central Iowa just a short 30-minute drive from the Iowa's most populous area and capital, Des Moines. The city has been a model for reinvention and resilience in the face of adversity since its inception. First established in 1846 as a coal mining hub, it first reinvented itself as a manufacturing center in the early 1900's becoming home to cigar factories, manufacturing of patent medicines, the center of advertising specialty companies, manufacturing of farm equipment and home appliances.

By the 1960's and 70's Newton became known as "Washing Machine Capital of the World" and was home to a Fortune "500" Company - the Maytag Corporation, who was its most prominent industry. Through the corporate mergers of the 2000's, Maytag found itself outsourcing manufacturing and eventually closing up operations in Newton entirely in 2007 as it was swallowed up by the Whirlpool Corporation.

Newton once again found itself in need of reinvention.

Since 2007, thirteen new companies have located to Newton replacing lost jobs and creating Newton as a new center for manufacturing related to renewable "Green Energy", specifically wind turbines. Additionally, taking advantage of its central location, the city now is home to a new NASCAR Speedway creating tourism and entertainment opportunities not available before.



Newton Community School District encompasses the city of Newton and the surrounding rural area and provides opportunities for around 3000 students with the mission of empowering every learner to achieve a lifetime of personal success.

Newton Community School District will support student learning by providing current best practices.

1. **Newton Community School District utilizes the High Reliability Schools Model to ensure:**
 - safe, supportive, collaborative culture in all buildings,
 - effective teaching in all classrooms and
 - a guaranteed and viable curriculum.
2. **Schools will show student growth at or above the state growth average.**
3. **All schools in Newton Community School District will seek:**
 - High Reliability Schools Level 1 certification
 - Capturing Kids Hearts with fidelity in all classrooms.

01

FACILITY
ASSESSMENT

The last new building built in the district was in the 1960's. Newton's buildings have grown organically over the years and where added to as needed with fluctuations over the years. The buildings "housed" the educational process for the most part but by no means help to inspire it.

Looking at projections for upcoming growth, around 2014 the District began to look it's building stock and how it served, or didn't serve, its' goals. Engaging the planning team to look at options for the future, Newton set out on a path to re-envision where and how education happened.

A thorough study was done by the planning team on each building in the district, studying both the condition of the building, but also taking stock of the spaces within the building and evaluating them for the potential to deliver opportunities to provide a safe, supportive, collaborative culture, as set out in the District's goals statement.

02

GRADE LEVEL
CONFIGURATION

The District and the planning team engaged the community and settled on a plan to change the current grade-level configurations of the buildings, creating more neighborhood-centric PK-4 buildings, creating a new 5-8 middle school center, and keeping the current 9-12 building that was in good condition.

The District's existing Berg School became the focus for the planning team to move the process forward. The building's low one-story structure was a combination of an elementary and middle school that had been renovated and added to, and eventually grew together to create one building that served as two. The existing building was studied for options of remodeling and reconfigurations.

The building's original construction created smaller classrooms and most walls were found to be structural walls, making reconfiguration difficult and expensive. The Team studied options and created estimates for creating new and reconfiguring existing to meet future needs for the district to evaluate. Ultimately, the district chose that the best use of resources to meet their goals was to start new and create a learning environment that will meet long-term goals and create flexible space to allow education to evolve.

03

VISION
PLANNING

With the big-picture decision in place to create this new 5-8 grade middle school environment, the planning team set out to engage the community in creating the vision for the school that would eventually need to be embraced by the voters in order to pass a bond referendum to pay for the project.

The planning team started by working with the District to assist in creating a planning committee that represented a broad cross section of the district's demographics to engage in the creation of the building's vision. A planning committee of around 30 people were selected with diverse backgrounds and ages. Both staff and community, retirees and students were engaged in order to bring a broader vision and outlook to the project to help create something that best represents the community as a whole.

The team felt it was important that everyone started with the same set of background information. With the first meeting of the committee, the team presented virtual tours of new educational spaces that were recently built both regionally, nationally, and internationally- highlighting aspects of learning environments and how they engaged in creating supportive, collaborative opportunities and promote effective curriculum delivery. In addition to virtual tours, the planning team also guided the committee through the way personal learning styles can have an impact on how students engage and the reasons the built environment can impact student performance and outcomes.

With this shared background knowledge, the team engaged the committee in an interactive process to discover how environments within and around the primary learning areas can allow for student differentiation and choice and positively impact how they embrace the learning process. At the end of the first night the committee was sent home on a scavenger hunt to find the spaces that most engage them so that they could be shared at the following session.

Reconvening on the second day, the committee and the design team engaged in several interactive exercises that formed the list of goals and priorities that became the foundation for the final solution. Armed with these priorities, the committee split into smaller groups and set out on a hands-on design charrette to create, with the help of some easy manipulative's, the school layout that they thought best embraced them.

Guiding the group through some final goal setting after the charrette, the Team came back to a third day with options that best encompassed what resulted from the previous sessions for the group to interact with and respond to, ultimately forming the foundation of the final design to be presented to voters for funding by a bond referendum.

Out of the process, the planning team was able to refine the building space program, accurately calculating in specific amenities and features, as prioritized by the committee, as well as building in those spaces needed to serve the District's core curriculum.



04 BOND REFERENDUM

With the vision complete and the design concept agreed, the planning team assisted in guiding the formation of the citizen's committees that would lead the mechanics of the bond referendum to fund the project. In a community that had so recently seen its largest employer completely close operations, careful messaging was going to be needed.

Because the initial work to get to this point was so thorough, the story of the new building was easy to tell. The education program was detailed and based on the visioning done by a committee that represented the community very well. Budgets for the building as well as for the background facility study were complete well vetted.

The citizen's committee raised funds to hire an outside communications consultant that assisted them with the overall messaging to the community. A dedicated website was created, as well as all channels of social media cover, and well-illustrated facts and numbers were provided. Along with this, community open houses and tours were done to inform and gain support.

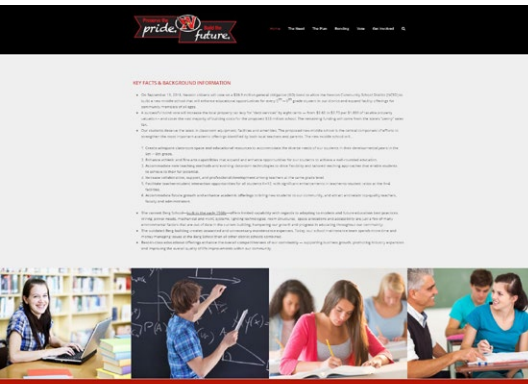
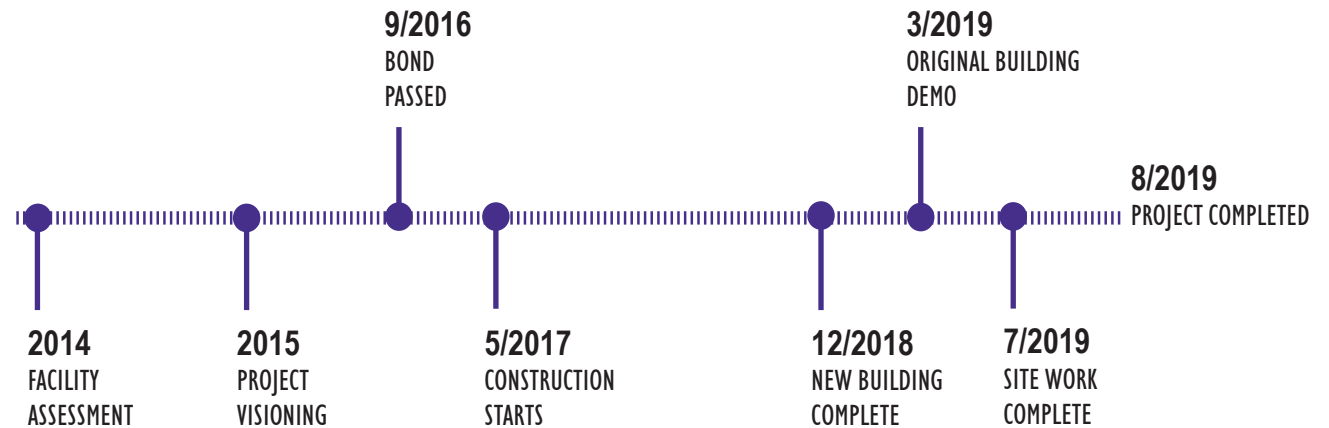
Ultimately the voters agreed and passed the bond referendum to fund the project.

05 DESIGN REFINEMENT

The project now moving forward, the planning team resets the new design and construction schedule and starts to develop the design concept. Touch points with the original vision committee were held regularly, and team started developing the design with the end users. Meetings with the staff fully developed the specific needs and goals for each individual spaced so contract documents could be fully developed for construction. Detailed phasing plans were completed at this stage so initial contingency plans could be developed.

06 PROJECT DELIVERY

The project was delivered in a design / bid / build format and was competitively bid. Once the contractor was on board, the final phasing, sequencing, and safety protocols were finalized so the project to start and the existing school could operate safely during the process.



CHALLENGES

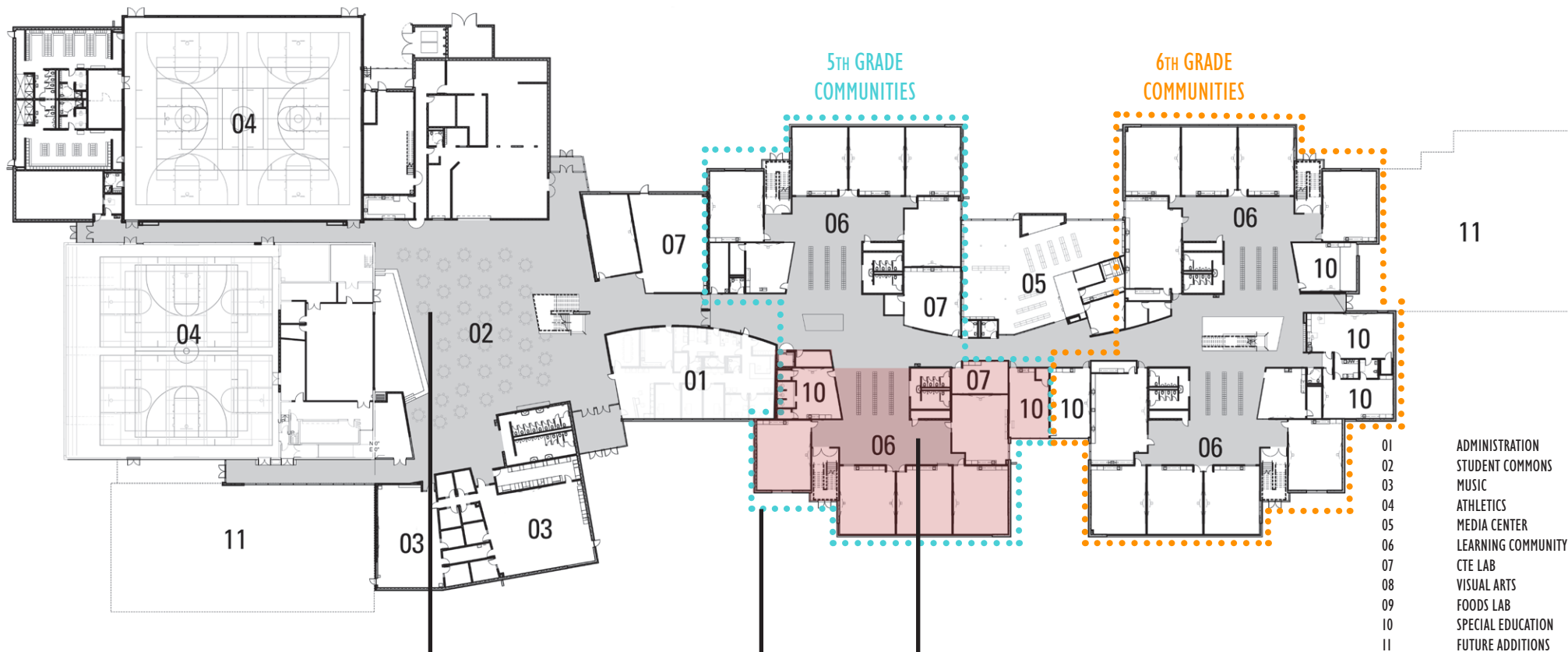
- The existing Berg attendance center that functioned as a 7-8 middle school and also a 5-6 elementary had to be kept functioning during the construction of the new building and could only be demolished once the new school was operational.
- The School District desired that a recent gymnasium addition be kept and be integrally designed as part of the new school building.
- Construction phasing that kept the site safe at all times when students were using the campus.
- Integrating 5th grade into the middle school environment that was previously 6th-8th grade, and do so in a way that they felt safe and welcomed.
- Create a non-traditional school environment within a building that still feels like a school building.



The learning environments should be transparent and visible and allow for the idea of constant learning. Students should be engaged in learning as an active participant, or more passively by seeing it going on around them as they transition through the building. The educational process should be on display.

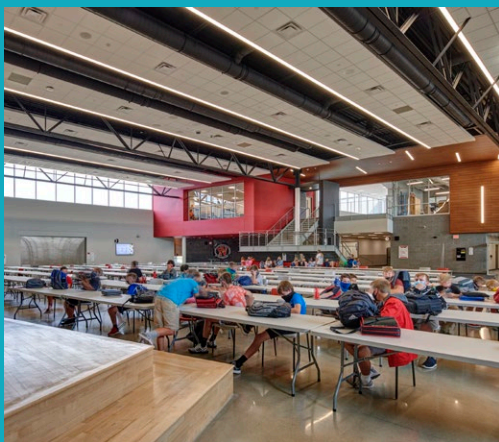


EDUCATIONAL ENVIRONMENT



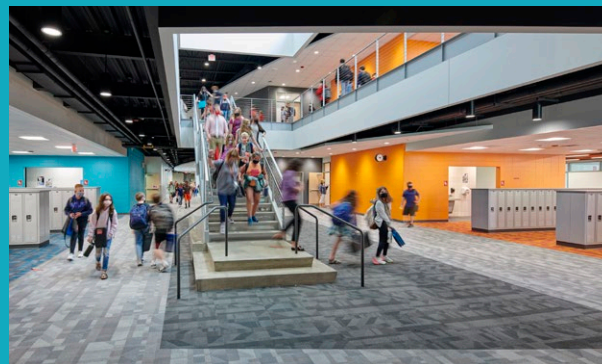
STUDENT COMMONS

- COMMONS / FOOD COURT
- PERFORMANCE PLATFORM
- LOBBY ACCESS TO ATHLETIC AREAS



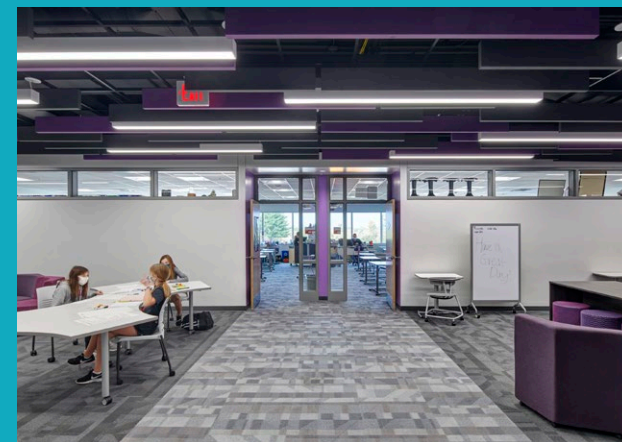
BUILDING ORGANIZATION

- TWO LEARNING COMMUNITIES PER GRADE LEVEL
- CONNECTED ACROSS MAIN CIRCULATION
- SPECIAL LEARNING AREAS CENTRALLY LOCATED
- SECURE BUILDING ACCESS
- ACADEMIC WING SECURED FROM PUBLIC AREA



LEARNING COMMUNITY

- CLASSROOMS
- CENTRAL COLLABORATION AREA
- CENTRAL LOCKER AREA





VISUAL ARTS

- CENTRALLY LOCATED ACCESS
- AMPLE DAYLIGHTING
- ON DISPLAY FOR THE SCHOOL



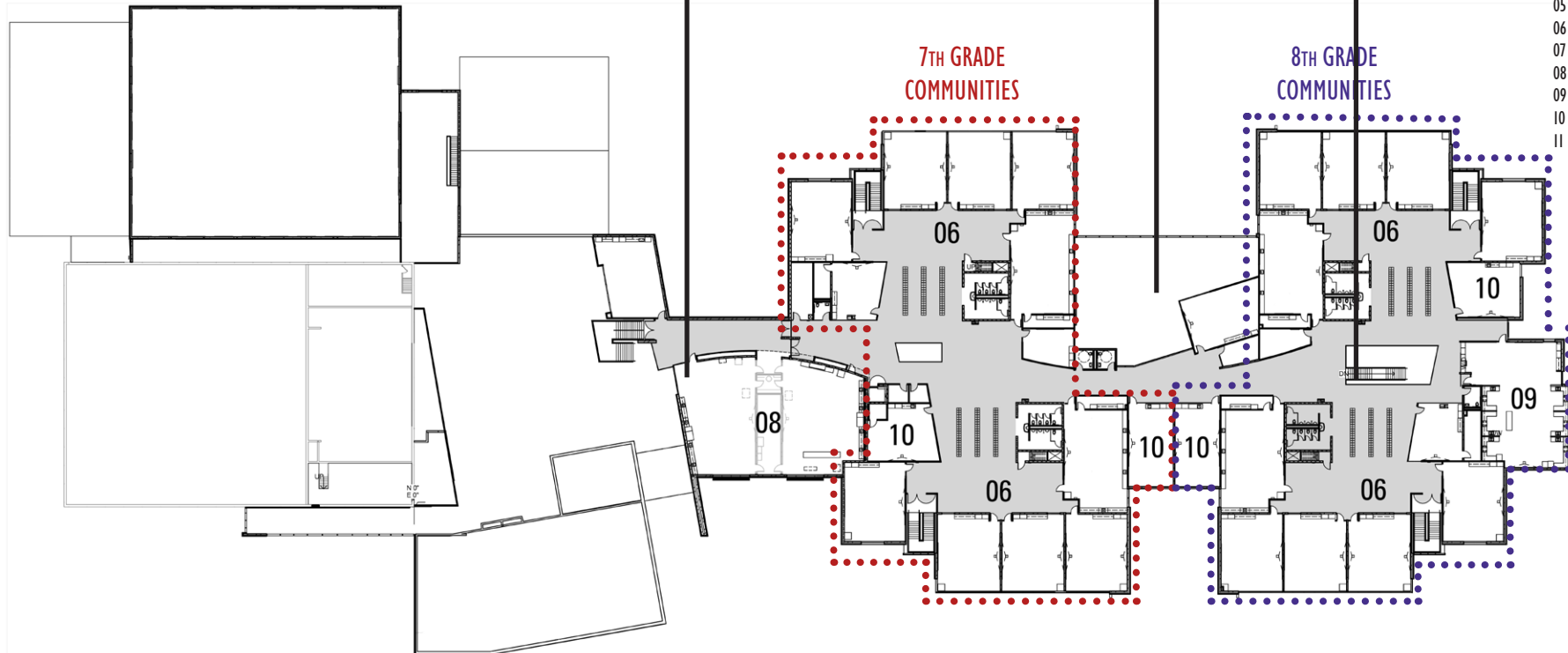
MEDIA CENTER

- FLEXIBLE USE
- SPACES THAT ADAPT INDIVIDUAL LEARNING STYLES
- VISUAL CONNECTION



VERTICAL CONNECTION

- DAYLIGHTING TO BUILDING CORE
- ACCESS FOR CROSS-LEVEL LEARNING





ORGANIZATION / TEAM BUILDING

The use of color in the building was intentional and used for both orientation and team building. Each grade-level area is designated with two distinct colors, denoting the individual learning community. Those colors are carried through in the interior finishes and furniture.



DAYLIGHTING

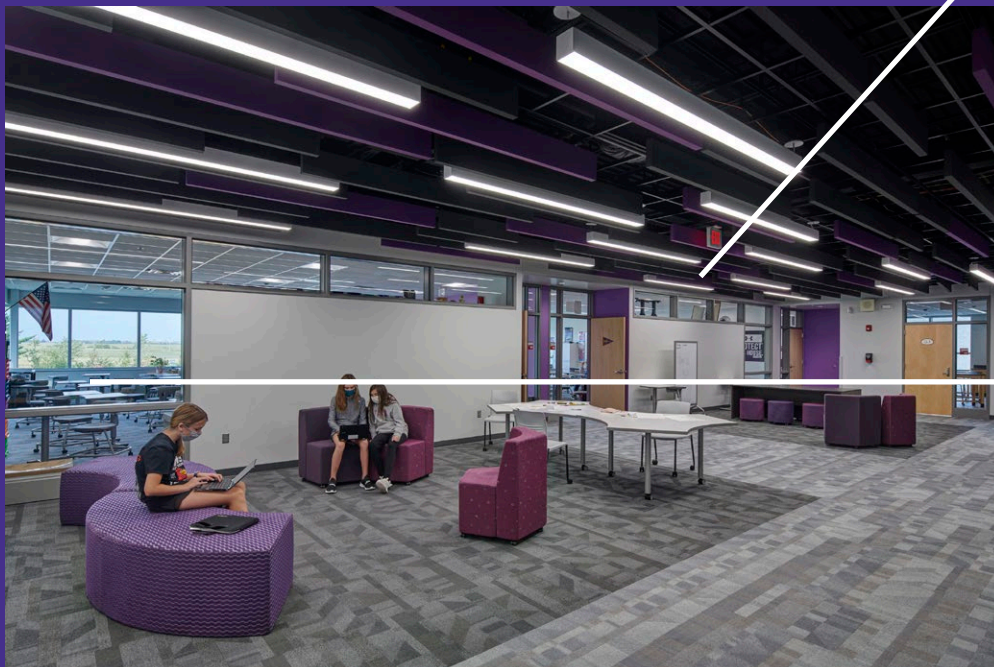
Expansive exterior window openings creates and connection to the outdoors and provide ample natural light to the interior spaces. Lighting controls allow energy usage to be minimized with use of natural daylight.

MOBILE FURNITURE

Provides flexibility in the classroom arrangements and accommodates customization for multiple learning and teaching styles.

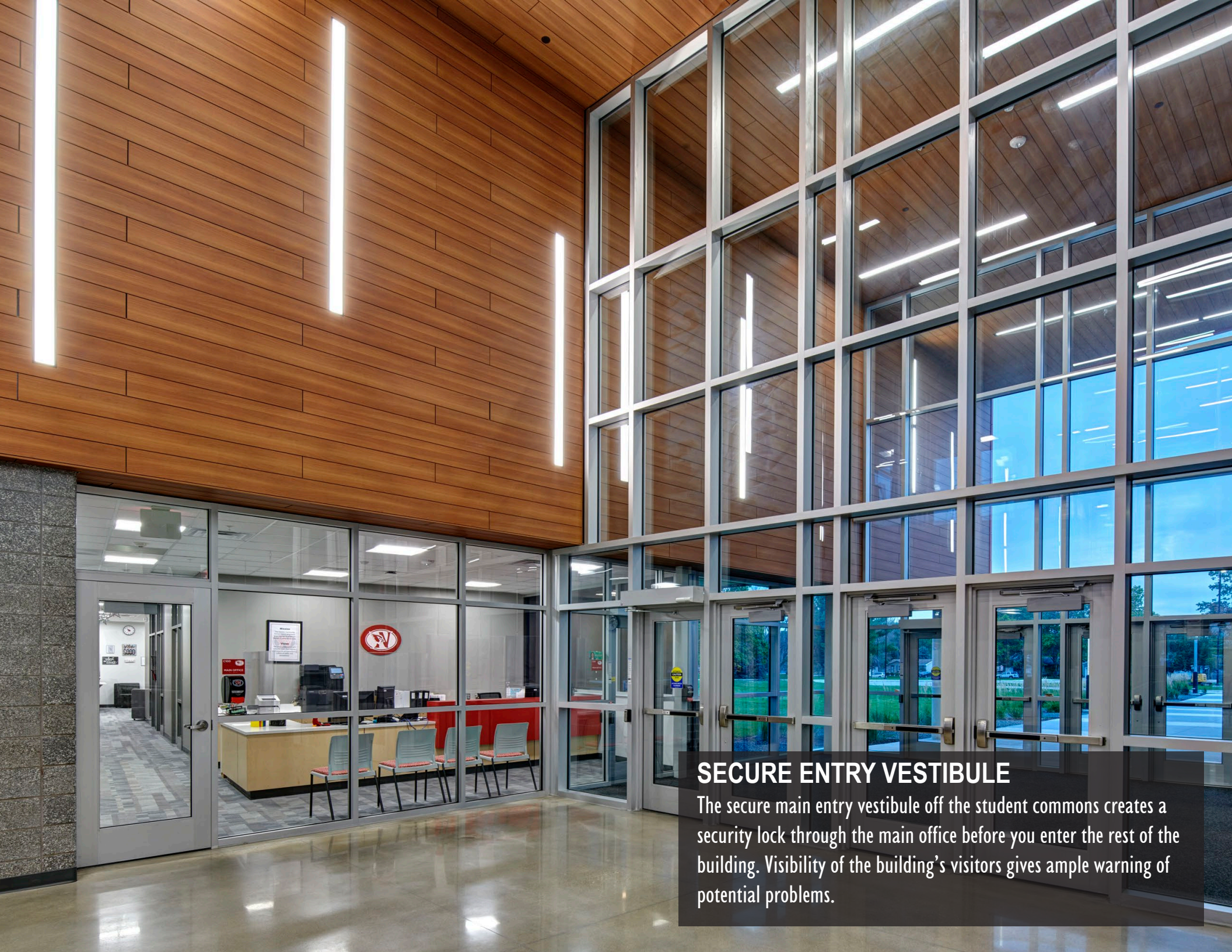
COLLABORATION AREA

Located central in every learning community, these flexible areas allow students to gather in small groups, large groups, or individually. Furniture is easily configured and movable to allow customization. As this Covid-19 pandemic hit in it's second year , these spaces also where able to be used for primary teaching to allow physical distancing requirements



TRANSPARENCY

Transparency to the classrooms promote visual connection and accountability as well as passive learning by being on display. Blank walls and careful arrangement of glass allows additional security protocols for being out of view to shelter in place in case of emergency lock downs.



SECURE ENTRY VESTIBULE

The secure main entry vestibule off the student commons creates a security lock through the main office before you enter the rest of the building. Visibility of the building's visitors gives ample warning of potential problems.



LEARNING ON DISPLAY

The CTE / Robotics lab is located along the main circulation areas and is visible as you enter the academic wing of the building. A smaller flexible lab space is located in each of the learning communities to give flexibility to the curriculum programming in the future.

PHYSICAL ENVIRONMENT





PHYSICAL ENVIRONMENT

The former Berg School was deeply seated in an established neighborhood in northeast Newton. The surrounding area is made up mostly of one-story ranch houses constructed between early 1960's to the mid 1970's. Several small churches surround the site within the neighborhood, all being built at a similar time as the housing around them.

PHASING AND EXISTING CONDITIONS. The new school was to be a replacement for the existing structure, but the existing school needed to remain in operation until the new could be occupied. The district also wanted the new design to incorporate the most recent previous gym addition. Both the building design and construction phasing were carefully crafted to allow this to come about.

NON-TRADITIONAL ENVIRONMENT THAT LOOKS LIKE A SCHOOL. Early on in the planning process the group desired that the Team create a non-traditional school environment within a building that still feels like a school building. This was determined to be a selling point for the more conservative bond voters in the community in order to rally as broad a base of support as was possible.

SCALE. The building design still needed to fill in the broader context and scale of the neighborhood. Because site and phasing constraints required the building to be two-stories, the design needed to work with scale and horizontality in an effort to lessen the impact of a larger building design on the surrounding area.

TRAFFIC & SAFETY. A thoughtful approach to the site layout and traffic in the neighborhood was a critical factor in the final design. Separated areas for bus drop-off and parent drop-off were placed on each side of the building and connect to different streets in the neighborhood to lessen the impact of traffic and keep students safe when arriving and leaving the site.



- 01 NEW SCHOOL BUILDING
- 02 EXISTING GYM/ MULTIPURPOSE
- 03 FUTURE ADDITION
- 04 PARENT DROP OFF/ PICK UP
- 05 PARKING/ BUS DROP OFF
- 06 FUTURE PARKING LOT
- 07 TRACK & FIELD

E. 19TH STREET



N. 5TH AVENUE

RESULTS PROCESS/PROJECT

As stated in original information given to voters asked to pay for the project:

NEW LEARNING OPPORTUNITIES

The new middle school will upgrade the Newton Community School District by creating consistent enrollment and grade distribution among all facilities.

The new building will restructure our schools so we'll have:

- Four K-4 elementary buildings
- A 5-8 middle school (the new middle school)
- A 9-12 high school

With the completion of Berg Middle School, the District was able to achieve district wide grade level realignment. The district office, once housed in one of the elementary buildings with open space, was moved into a newly remodeled building along with the alternative high school. With new level reassignment, the District now has space available for growth at all levels.

Building a brand new 5-8 middle school facility enables our community to strengthen academics in the key areas identified by both local teachers and parents, including:

- Expand teacher and student access to grade-level appropriate educational environment and learning resources.
- Enhance collaboration, continuing education opportunities, and instructional support for teachers providing instruction to students at the same grade level.
- Increase opportunities to match student-teacher learning styles in classrooms throughout the district.

The new Berg Middle School was unanimously embraced by both teaching staff and the new students attending there. Although their full year in the building was cut short by the Covid-19 pandemic, that District benefited greatly by the flexibility the spaces in the new building offered in order to work more physically distant.



EDUCATIONAL BRIEF



Newton Community School's stated goals:

1. Strengthens our community by enhancing extracurricular experiences for all of our students and expanding available offerings throughout the entire community.
2. The new middle school offers competitive athletic and fine arts capabilities, creating new and enhanced opportunities for students to achieve a well-rounded education.
3. The updated 5-8 middle school serves students from throughout the community and expands our offering of suitable facilities to support activities for community members of all ages.
4. Build a healthier school environment that serves every single student in our community.
5. The new middle school design creates a modern school that enhances education services and the basic educational environment for every student in our community during their formidable developmental years of grades 5-8.
6. The new environmentally sound; state-of-the-art building design features an abundance of natural daylight and meets modern ADA requirements, creating a healthier and safer learning environment which is a top priority for serving our students.
7. The new 5-8 middle school enhances our competitiveness when business and industry leaders work to bring new jobs, business, residents, and growth to our community.
8. Newton leaders and residents can take pride in a new, leading-edge middle school facility that will serve every student in our community — now and for generations of families for years to come.

