

ASSOCIATION FOR LEARNING ENVIRONMENTS  
PLANNING & DESIGN AWARDS: TRANSFORMATIONS

Conversion of Eaton High School to the New

# Eaton Middle School

EATON SCHOOL DISTRICT, EATON, COLORADO



## EXECUTIVE SUMMARY

Eaton School District (ESD) engaged the design team in 2017 to conduct a comprehensive Master Plan for the District. Through these Master Planning efforts, it was established that nearly every facility in the district would need upgrading or replacement—most critically, a new high school. In attempt to utilize their existing resources with the understanding of the limitations of their aging buildings, the existing high school facility was converted into the new Eaton Middle School (EMS). The new Eaton Middle School delivers a reimagined learning environment while incorporating the existing middle school's identity into its new home.

While the existing high school building and site had challenges to be addressed, repurposing it as the middle school facility generously expanded the size of the middle school's previous site. The newly renovated EMS accommodates 675 students in a 140,000-square-foot space and boasts amenities such as a large gymnasium with built in seating, weight and wrestling rooms, track and field with stadium seating, theater, and a competition-sized swimming pool. The result of the project is a vibrant building honoring the original building's uniqueness and marrying it to modern architectural and educational opportunities. The new Eaton Middle School safely provides an abundance of learner-centered environments through flexible spaces, expanded educational programming through CTE and vocational curricula, and an enhanced sense of welcoming and belonging.

## SCOPE OF WORK & BUDGET



BUILDING SIZE  
140,000 SF



CAPACITY  
675



GRADES SERVED  
6-8



SITE SIZE  
22.6 Acres



DELIVERY  
CMGC



CONSTRUCTION COST  
\$40.4 million



## SCHOOL & COMMUNITY ENGAGEMENT

### Understanding the Context

#### COMMUNITY

Eaton School District encompasses two adjacent towns—Eaton and Galeton—in Northern Colorado. The towns remain primarily agricultural; however, this region has experienced exponential growth over the past several years and continues to expect more people moving into the area over the coming decades. The community-at-large has deep roots; many of the stakeholders engaged during the master planning and middle school design process had attended Eaton School District during their K-12 schooling and held these facilities in high esteem.

#### PLANNING

In 2017, the design team engaged with the District to Master Plan all the District's facilities—a high school, a middle school, three elementary schools, and support buildings. The plan led to a successful bond, funding each of the identified capital campaign projects, including the Conversion of the High School to the New Middle School.

Both the planning and design phases began with identifying overarching goals and non-negotiables, which became the anchor points for design. These sessions allowed the spirit of the community envelope the project, infusing the essence of what makes Eaton unique.

#### EXISTING SITE SHORTCOMINGS

The existing facility had buildings constructed from several eras: the original 1928 building, the 1962 wing, and an additional portion from the 1980s.

Several of the facility's greatest shortcomings were:

- Multiple permanent and modular outbuildings that are separate from the primary building;
- Shared site use with the District's Transportation Facility;
- A primary building entrance that is not central to the building; and
- A severe lack of parking.

#### EXISTING SITE ASSETS

One of the facility's greatest assets was that the site was previously a high school, with a lighted athletic stadium and lighted baseball/softball diamond, irrigated turf practice fields, a swimming pool, two gyms, several other large athletic spaces, and a theater: all amenities that a District could not typically afford to provide for a middle school.

Existing assets and proposed improvements came together to create a very robust middle school facility.

#### ADDITIONAL CHALLENGES

One challenging aspect of this project lies in creating a new identity for this facility. This involves reconciling the rich 90-plus year history of the site as a high school with the idea that it is a "leftover" from an institution that is moving on, and reconciling all of that with the idea that there is an existing institution with its own rich history coming in, eager to write a new chapter for itself.

#### SOLUTIONS

The New EMS was designed through significant community and advisory group participation, yielding a great sense of pride and connection within the community.

Shortcomings were overcome by demolishing the outbuildings, creating a New Transportation Facility on a new site, and utilizing the area recovered from these first two actions to create much needed on-site vehicular drop-off areas and parking. Additionally, a prominent and centrally located entrance was created, building circulation was improved, and mechanical and electrical infrastructure was modernized.

RENDERING OF HISTORIC BUILDING (LEFT) WITH CONNECTION TO NEW ADDITION (RIGHT)



## SCHOOL & COMMUNITY ENGAGEMENT

### Process: Stakeholders

The project engaged a diverse group of stakeholders and utilized a hierarchy of involvement from three primary groups:

#### 1 The Executive Planning Committee (EPC)

Members included core project champions such as the Superintendent, Assistant Superintendent, Facilities Director, Owner's Rep, and Architect. This committee monitored the integrity of the overall process (as well as scope, budget, and schedule), ensuring the right people were involved at the right times while shepherding the project through the design and construction process.

#### 2 The Design Advisory Group (DAG)

This group set guiding principles, informed project organization, building form, and character, and served as project ambassadors. The DAG process was extremely inclusive, with a diverse membership being integral to the planning process and continually throughout design. The Integrative Process established shared goals and growth mindsets, creating cohesive and consistent dialogue so the building could be tailored to the community.

#### 3 Focus Groups

Members of focus groups met several times and took deep dives into the specifics for each program housed at Eaton Middle School. These groups were comprised of school administration, educators, specialists within the middle school community, as well as the Architect.



### Keys to Success in the DAG Process

The process included Design-Team led meetings and began with an educational discussion on current trends in educational facility design.

School tours along the Front Range helped the Team establish a common framework for understanding what the DAG liked and disliked.

The Integrative Process established shared goals and growth mindsets, helping to create cohesive and consistent dialogue so the building could be tailored to the community.

## VISION OF THE DESIGN ADVISORY GROUP

The Design Advisory Group developed a set of visioning principles that would guide the project and measure the project's success:

- ✓ Students are put first
- ✓ Supports 21st Century learning
- ✓ Supports individual growth
- ✓ Age appropriate for middle-schoolers
- ✓ Creates sense of Community
- ✓ Feels new (not a "hand me down" building)
- ✓ Is future-ready
- ✓ Flexible & safe
- ✓ Supports growing Enrollment
- ✓ Promotes excellence
- ✓ Creates flow
- ✓ Seamless between old & new
- ✓ Clean & welcoming
- ✓ Lets kids be kids
- ✓ Comfortable

## PHYSICAL ENVIRONMENT

### Identifying Deficiencies

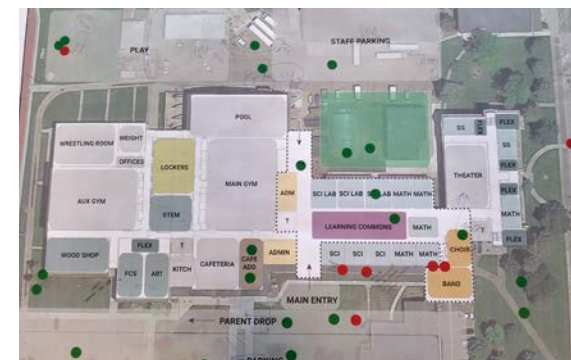
DAG members were given the task of analyzing their existing facility to identify positive, negative, and neutral attributes. This exercise was extremely useful in that it gave the designers a head start in successfully matching the new facility to the District's vision.

### Goals & Challenges

After deficiencies and positive attributes were identified, goals were set to guide the physical design of the project. One major goal of the renovation/addition was to **improve the safety and security of the new entry**. In the new design, the administrative area is expanded to better accommodate its required functions, and the new main entry incorporates a new vestibule that is both welcoming and secure. The new main corridor has parent drop-off lanes at the south end and a dedicated bus drop-off loop opposite of it at the north end, further enhancing pedestrian safety around vehicular traffic.

**Sustainability was at the core of the District's approach of revitalizing an existing building, as there is no approach more sustainable than reuse.** The addition used best practices for energy efficiency and daylighting. All of the HVAC systems were updated to more energy efficient equipment and the entire building lighting upgrade replaced old light fixtures with LEDs. Both the renovation and additions focused on the introduction of daylight to reduce dependence on electric lighting. The historic windows were completely restored and interior panes of glass were added throughout the 95-year-old portion of the building in order to keep the building envelope tight.

**Historic preservation and a cohesive, contemporary aesthetic formed the foundation of the architectural solution.** The existing facility had historically designated and community respected elements such as the theater and gym that were celebrated and restored through this project. The goal of the new architecture was to provide a backdrop for the historic and to treat connections with great care. Interior and exterior color palettes and materials were selected to help unify the many diverse styles and generations of architecture that make up the wings of the school. Pops of "Eaton Red" throughout give the spaces energy and interest and allow the community's pride in their school to shine bright.



# PHYSICAL ENVIRONMENT

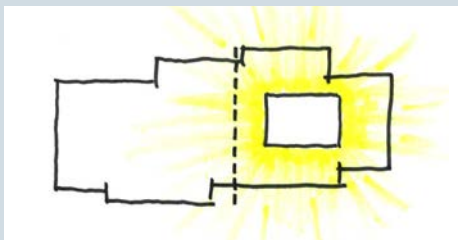
## Design Solution

The design solution includes a thoughtful combination of light renovation and heavy renovation to the original building, plus an addition that creates an outdoor courtyard serving as the heart of the school.

The concept for the design of the school is based on the idea that EMS is a family that shares life together. Two of the four walls of the courtyard were created by the new building addition with the new media center to the west and the new classroom wing to the north. All four sides of the courtyard have significant amounts of glass for visibility and indoor/outdoor connections. The courtyard creates lines-of-sight between the media center and theater, connecting new and historic, Core Curriculum and Unified Arts programs. The courtyard is an active space where students from all backgrounds and with all interests come together to study and present ideas.

The facility flows out in all directions from the courtyard. Throughout the day, students orient themselves in the building by the central hallway that runs north/south adjacent to the main gym and media center. The new main hallway is wide and full of natural light with exposed glulam beams from the existing gym. The new media center is truly at the center of the building with glass walls and flexible space for books, projects, study and technology. Both the media center and the main gym are the first spaces experienced once past the secure entry, showing the school's devotion to excellence academically.

Spaces become more specialized as one moves further to the edges of the facility with a quiet zone of special needs spaces to the far east and the industrial tech and unified arts suite in the far west.

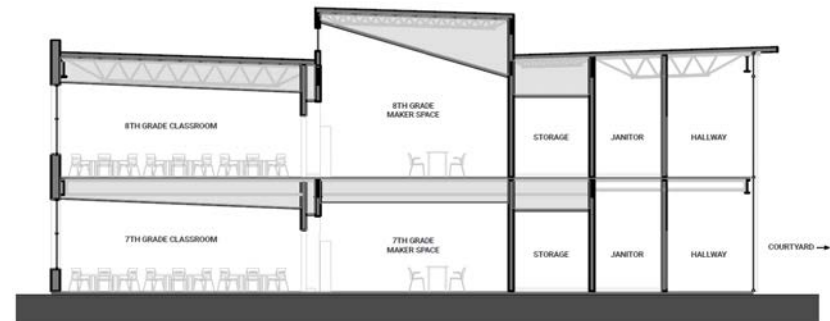
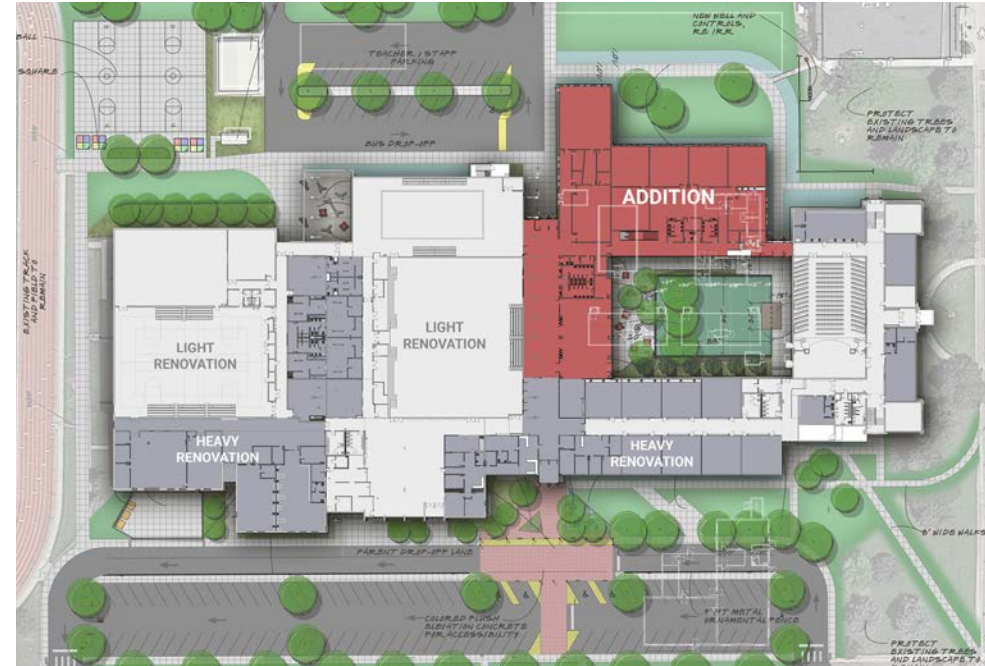


DESIGN PARTI SHOWING COURTYARD AS THE HEART OF THE BUILDING



EARLY RENDERING OF THE COURTYARD

## Site Plan Illustrating Addition/Renovations



NEW CLASSROOM POD SECTION



NEW MEDIA CENTER SECTION

# PHYSICAL ENVIRONMENT

## Building Program

### 1.0 Administration & Counseling

	Existing Middle School SF	Proposed New SF
<b>Main Office Suite</b>		
Reception	294	400
Office (Principal)	180	200
Office (Assistant Principal)	191	200
Office (SRO)	102	150
Office (Future Dean)	0	200
Office (Future Assistant Principal)	0	200
ISS	0	150
Conference Room	0	300
Storage (Cumulative Records)	97	200
Nurse's Office	147	500
Toilet (In Nurse's Office)	22	70
Work Room	327	250
Staff Restroom	0	80
<b>Counseling Suite</b>		
Waiting Area/Secretary		150
Student Services Conference	224	250
Office (Counseling)	104	120
Office (Counseling)	0	120
Office (Therapist)	0	120
Refocus Area	0	80
<b>Dispersed Staff Support</b>		
Staff Lounge	449	500
2 Staff Lounge Restrooms	0	140
Staff Work Room	0	300
Staff Work Room	0	300
Storage (Teacher Supplies)	191	(Inc. in work)
<b>NET AREA TOTAL</b>	<b>2,328</b>	<b>4,980</b>

### 2.0 Classrooms

	Existing Middle School SF	Proposed New SF
<b>Core Curriculum</b>		
6th Grade Classroom	837	850
6th Grade Classroom	818	850
6th Grade Classroom	812	850
6th Grade Classroom	816	850
6th Grade Classroom	822	850
6th Grade Science Classroom	841	850
6th Grade Science Classroom	846	850
6th Grade Science Classroom	0	850
7th Grade Classroom	851	850
7th Grade Classroom	849	850
7th Grade Classroom	860	850
7th Grade Classroom	0	850
7th Grade Classroom	0	850
7th Grade Classroom	0	850
7th Grade Science Classroom	848	850
7th Grade Science Lab	1,108	1,200
8th Grade Classroom	859	850
8th Grade Classroom	855	850
8th Grade Classroom	859	850
8th Grade Classroom	859	850
8th Grade Classroom	728	850
8th Grade Classroom	728	850
8th Grade Classroom	0	850
8th Grade Science Classroom	0	850
8th Grade Science Lab	1,115	1,200
Office (Science Lab)	100	N/A
Chem Storage	120	150
Storage	85	150

### Academic Support

6th Grade Resource (SPED)	731	700
7th Grade Resource (SPED)	729	700
8th Grade Resource (SPED)	0	700
ESL/Intervention	725	850
Significant Needs	0	1,100
Significant Needs Restroom	0	150
SPED Changing Room	220	N/A

### Unified Arts

Art	1,231	1,300
Art Storage	185	300
Kiln Room	0	100
Family Consumer Science	1,787	1,800
FCS Storage	127	200
Wood Shop	1,767	1,800
Shop Office	150	150
Paint	95	100
Shop Storage	100	200
Industrial Technology Lab	355	900
<b>NET AREA TOTAL</b>	<b>23,959</b>	<b>32,450</b>

### 3.0 Dining Commons

	Existing Middle School SF	Proposed New SF
Cafeteria	3,458	4,500
Kitchen	1,055	1,360
Toilet	39	80
<b>NET AREA TOTAL</b>	<b>4,552</b>	<b>5,940</b>

### 4.0 Learning Commons

	Existing Middle School SF	Proposed New SF
Media Center	3,002	2,500
Computer Lab	689	900
Office	165	N/A
Workroom	275	300
Laptop Storage/Charging	0	400
<b>NET AREA TOTAL</b>	<b>4,131</b>	<b>4,100</b>

### 5.0 Performing Arts

	Existing Middle School SF	Proposed New SF
Music (Choir)	1,482	1,200
Music Office (Choir)	81	120
Storage (Choir)	96	150
Music (Band)	1,803	1,800
Music Office (Band)	267	120
Storage (Band)	73	400
Stage Storage	210	300
Practice Room	45	80
Recording Studio	88	150
Storage (Chair and Table)	99	N/A
Auditorium		5,940
<b>NET AREA TOTAL</b>	<b>4,244</b>	<b>10,260</b>

### 6.0 Physical Education & Athletics

	Existing Middle School SF	Proposed New SF
Gym	6,120	13,871
Auxiliary Gym	0	9,468
Wrestling	0	4,828
Weight Room	0	1,315
Pool	0	7,523
Locker Room (Main)	1,271	1,200
Locker Room (Main)	1,272	1,200
Locker Room (After Hours)	0	500
Locker Room (After Hours)	0	500
Office (Athletic Director)	127	150
Office (Athletic Director)	130	150
Storage (PE)	320	400
Storage (Athletics)	77	200
Storage	177	N/A
Storage	160	N/A
Storage	77	N/A
Storage	160	N/A
<b>NET AREA TOTAL</b>	<b>9,891</b>	<b>41,305</b>

### 7.0 Building Support

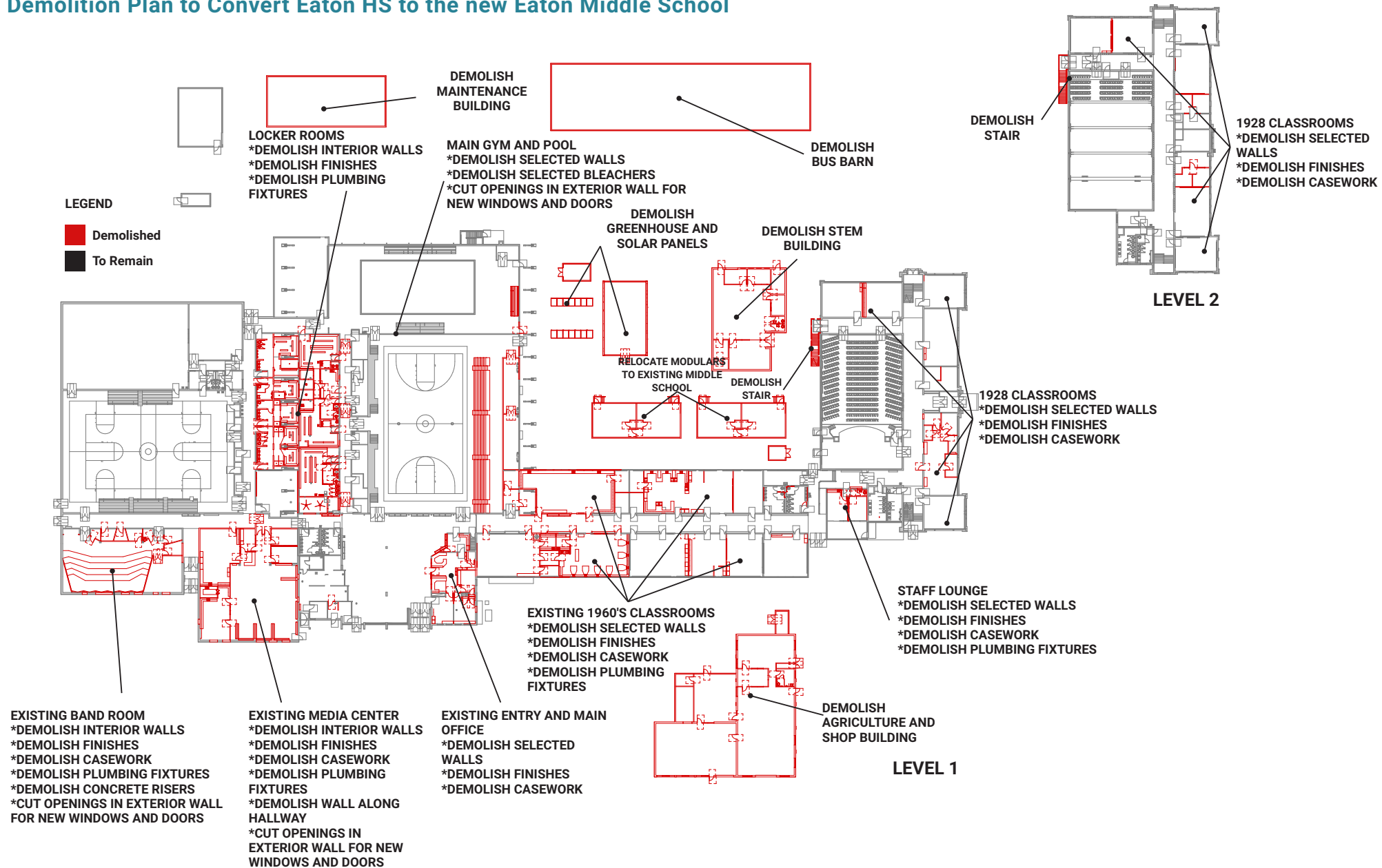
	Existing Middle School SF	Proposed New SF
Janitor Room	121	50
Janitor Storage	215	N/A
Janitor Workroom	205	200
Storage	93	100
Storage	126	100
Storage	296	300
Yard Storage	118	200
<b>NET AREA TOTAL</b>	<b>1,209</b>	<b>1,000</b>

### Summary

	Existing Middle School SF	Proposed New SF
Assignable Area (Net Area)	50,314	100,935
Total Support Area (Including Walls)	17,936	39,253
<b>Total Gross Area</b>	<b>68,250</b>	<b>140,188</b>
<b>AREA PER STUDENT</b>	<b>147</b>	<b>234</b>

# PHYSICAL ENVIRONMENT

## Demolition Plan to Convert Eaton HS to the new Eaton Middle School





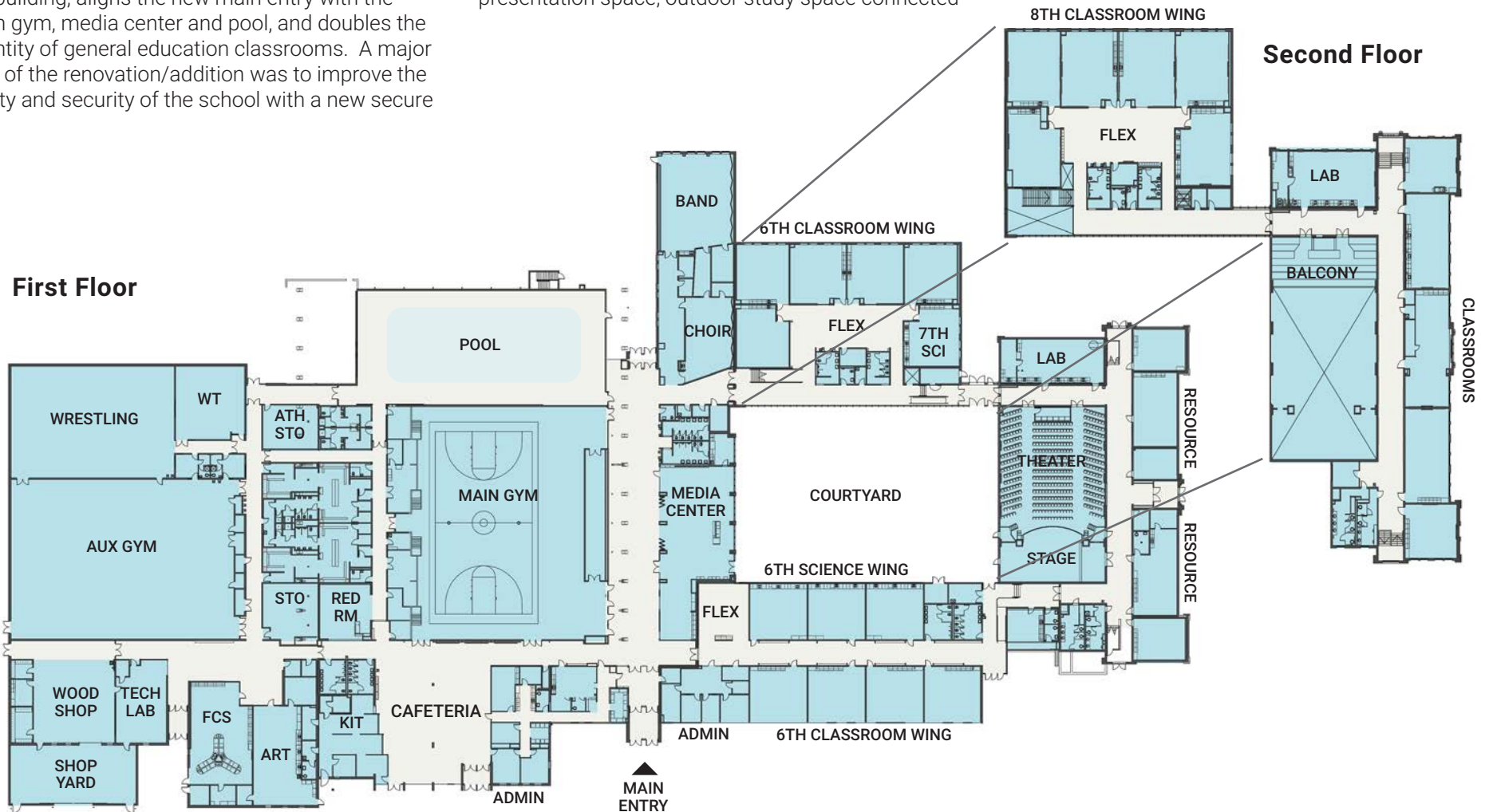
# PHYSICAL ENVIRONMENT

## Floor Plan

The new plan includes a 31,000 SF addition that allows for a complete reorganization of the overall layout of the building to solve many deficiencies within the existing facility. This addition consolidates several aging outbuildings into a single building configuration, provides an interior loop for significant improvement in student movement throughout the building, aligns the new main entry with the main gym, media center and pool, and doubles the quantity of general education classrooms. A major goal of the renovation/addition was to improve the safety and security of the school with a new secure

entry. The administrative area is expanded to better accommodate its required functions, and the new main entry incorporates a new vestibule that is both welcoming and secure. The form of the addition also created the opportunity to develop a large exterior courtyard that is programmed for many uses including theater and music performances, student presentation space, outdoor study space connected

to the media center, and a secure recess zone. Every space within the building was renovated and much of the building was completely reconfigured to meet the unique needs of the new Middle School program.



## Physical Environment

### Main Entry Transformation

The old entry was not clearly identifiable, was not near parking or drop-off areas, and entered directly into the cafeteria with no security barrier. Relocating the entry to the east solved all of these challenges in an elegant and welcoming way.



AFTER



## Physical Environment

### Main Entry Hallway Transformation

A major issue with the existing building was that there was only one main hallway stretching the length of the building, causing major congestion and long passing period walks for the majority of students. Adding a new main hallway adjacent to the gym not only connected directly to the new classroom addition, but also opened up a new option for students to navigate

around the building. The existing gym glulam beams that were once exterior to the building were incorporated into the new hallway design, with the space between them repurposed for small group study areas with direct connection to the media center.



EXTERIOR COLUMNS  
BEFORE ADDITION OF  
MAIN HALLWAY

HALLWAY AFTER



## Physical Environment

### Commons Transformation

The existing commons was undersized for the student population, so the design expanded it into an adjacent locker room space (pictured on the cover sheet) that was not needed due to the conversion of the program from a high school to a middle school. A third serving line was added to quicken serving time and all finishes and lighting were upgraded throughout the space.



COMMONS AFTER



## Physical Environment

### Color & Graphics

A simple color palette of "Eaton Red" and neutral accents were designed throughout to make the building cohesive and contemporary. Large custom graphics were installed throughout to give the school students and staff a feeling of ownership in the renovated spaces.



## Physical Environment

### Theater Transformation

The 95-year-old theater and 50-year-old main gym are dearly loved by the community but had years of deferred maintenance needed.

A complete restoration of the theater occurred including refinishing the historic seating, walls and ceiling, relocation of the control booth from the balcony to the first floor to be ADA accessible, and a completely new audio, lighting and presentation system.



THEATER AFTER



## Physical Environment

### Gym Transformation

Likewise, most systems and finishes within the main gym were out-of-date or in disrepair. All equipment, HVAC, and lighting were replaced. A new transparent entry to the gym was constructed that directly connects to the main entry corridor of the building. Finally, the gym floor and historic seating were completely refinished.



## Physical Environment

### Pool Transformation

Since the facility was previously a high school, upgrading an existing 50-year-old pool was also part of the project. Every aspect of the pool was upgraded including all new mechanical systems (pumps, heating, etc.), new timing booth and timing system, new bleachers and windows, new entry off of main corridor, new dedicated locker rooms, new lighting and HVAC, and all new finishes.





## Educational Environment

### Curriculum

Eaton Middle School is a comprehensive middle school, as opposed to a magnet middle school, for example. Classes are offered in four core content areas (Language Arts, Math, Social Studies, and Science) and are offered in four special content areas

(Visual Arts, Performing Arts, Career Technical Education (CTE), and Physical Education (PE)). Exploratory coursework in the middle school lays the foundation for more advanced coursework supported by the new high school.

### CLASSROOM



## Educational Environment



UNIFIED ARTS COMMONS

### Emphasis on Learning

ESD developed their Educational Specifications and refined the Eaton ES learning program during the district-wide design process.

**Learning spaces were tailored to the desired class sizes.** For the middle school, this meant 25-30 students per class.

**CTE and Vocational Learning** are both important tenets of the District. CTE programs are important at all ages, including disciplines such as Culinary Arts, Woodworking, and Computer Science. At the middle school level, this portion of the curriculum was called the “Unified Arts” department and was given its own wing of the building. The space was previously a large, windowless corner of the building that housed the high school’s music department and media center. This wing was gutted, many windows were punched into the exterior walls, and the new layout

provided large dedicated spaces for each discipline as well as a shared break-out area.

One interest of the Eaton MS DAG was the desire for the new school to provide a more **welcoming, clean and flexible feel** than their existing facility. The New Eaton MS design considered ways to both visually and physically connect spaces to make them more accessible, transparent, and open to facilitate new methods of teaching.

**Technology is integrated** throughout the building. ESD schools utilize chrome books to support a 1-to-1 technology initiative. TV displays are designed into small group meeting spaces, projectors are utilized in larger spaces—all to enhance the students’ connection to information through technology. Easy connection of chromebook devices to larger

monitors helps to facilitate sharing of information with larger groups.

A **variety of learning spaces** were designed to suit all learners, including flexible open spaces sized to serve small, medium and large groups as well as enclosed spaces of many sizes to serve more focused, acoustically sensitive needs.

**Furniture** was selected intentionally to promote student comfort and provide both flexibility for reconfiguration of all spaces. Diverse seating options were provided in each teaching space to serve the individualized needs of each student.

Various **environmental graphics** were designed throughout the building, encouraging connection, school spirit, and student pride.

Educational Environment



BAND CLASSROOM

## Flexibility & Daylighting to Support Learning

One thing missing from the existing middle school was **flex learning and breakout space**. The new design opens up old corridors in creative ways to provide these important spaces.

Another important feature missing from the old school was **natural light**. The new design punched openings in existing exterior walls, refurbished and added skylights, and included significant interior glazing between spaces for a brighter feel connected to the outdoors. Most classrooms in the new addition face north directly looking into an adjacent tree-filled public park further connecting the learning environment back to nature.

## LEARNING POD FLEX SPACE



## Educational Environment

### CTE Learning

TECH CLASSROOM



ART



WOODSHOP



FAMILY & CONSUMER SCIENCE



## Educational Environment

### Media Center

The new media center is an active hub for learning, with various options for seating, small group teaching, and access to technology. The existing media center was located down a small, dark hallway behind the cafeteria. The new media center is located at the heart of the building, near the main

entry with large windows overlooking the courtyard and historic theater. It also includes a dedicated maker space and has large operable glass walls that open to the main corridor. All furniture is movable so the space is flexible enough to house special events such as dances and career day activities.



MEDIA AFTER



## Results

### Preserving History



HISTORIC EXTERIOR



CONNECTION:  
EXISTING WITH  
NEW

Preserving history and combining the architecture with a cohesive, contemporary aesthetic formed the foundation of the architectural solution. The existing facility had historically-designated and community-respected elements such as the theater and gym that were celebrated and restored through this project. The goal of the new architecture was to treat connections between old and new with great care. Interior and exterior color palettes and materials were selected to help unify the many diverse styles and generations of architecture that make up the wings of the school.

## Results

### Creative Solutions

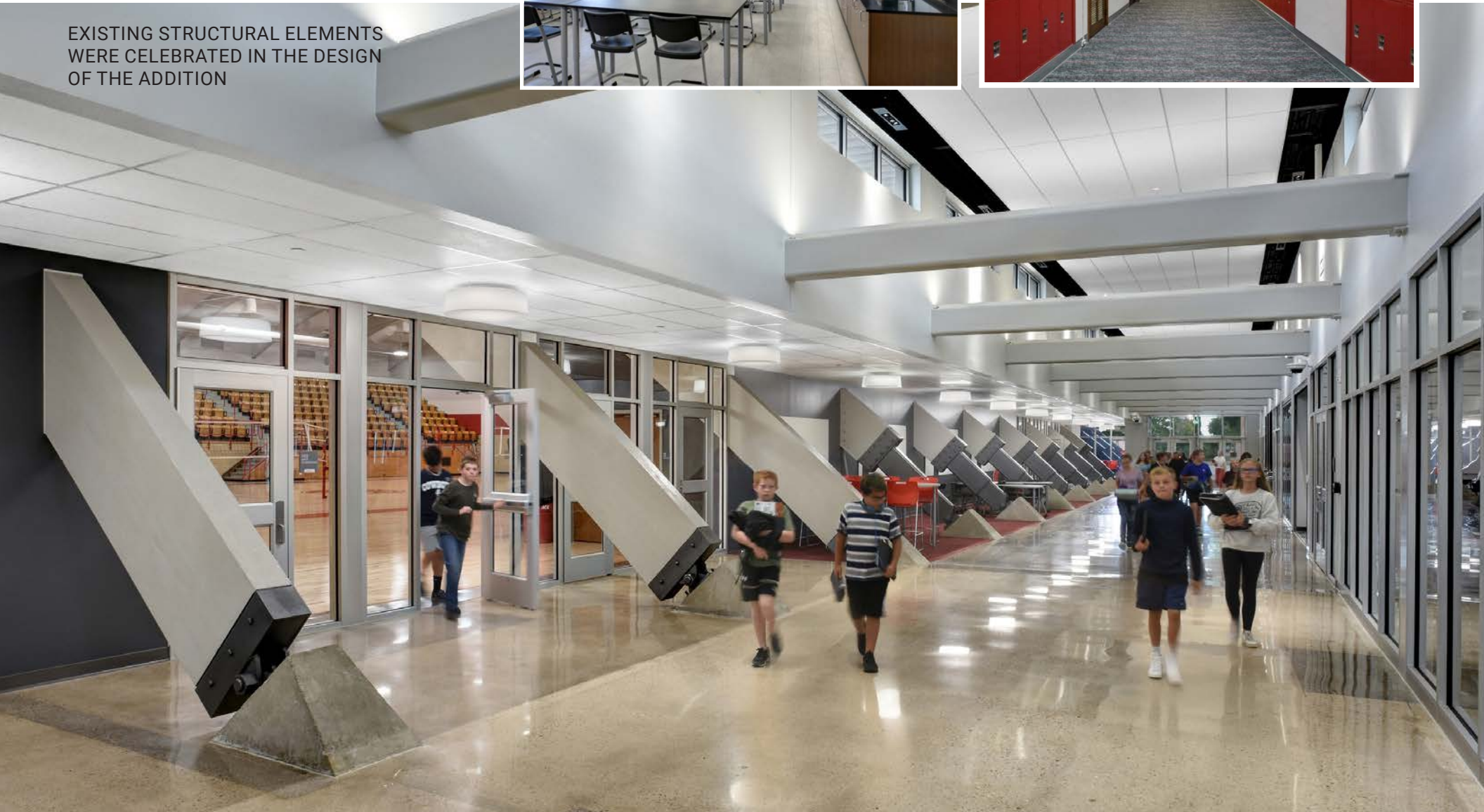
Air conditioning was added to the building which proved to be quite a challenge in the 95-year-old and 50-year-old parts of the facility. A creative ceiling design in the oldest sections of the building allowed for the full-height of the historic windows to be maintained while providing the necessary duct space deeper within the room's ceiling plenums.

EXISTING STRUCTURAL ELEMENTS WERE CELEBRATED IN THE DESIGN OF THE ADDITION

HISTORIC CLASSROOM WITH NEW AIR CONDITIONING AND FINISHES



RENOVATED HALLWAY WITH ADDED DAYLIGHTING





MAIN EXTERIOR



CAMPUS AERIAL



## Results

### Value of the Process to the Project and Community

The result of this thoughtful, layered engagement process led to a customized, unique design solution that meets the goals of the District while delivering education in a creative, vibrant environment. The new Eaton Middle School is functional, flexible, and thoughtfully integrates the building's long history in a way that is celebratory and merges with the new contemporary addition. Every space has been touched with an artistic hand showcasing the District's commitment to its heritage while propelling education forward.



COURTYARD