# 2023 A4LE Virginia Chapter Conference

## Building Bridges – Creating Connections

ARCHITECTURAL EXHIBITION & AWARDS

# Jury Members

- **Dave Phelps,** AIA, is a senior project manager at SWBR Architecture, Engineering and Landscape Architecture, DPC in Rochester NY.

- **Megan White,** senior architect with BRPH in Melbourne, Florida.

- **Jessica Rodenberry**, *leads HKS' Education Studio in Florida.*

- **Michelle Carpenter,** Chief Strategy Officer Natural Pod | Creating better learning environments, together; A4LE board member as the SchoolsNEXT co-chair.

- **COORDINATION**: VDOE Office of Support Services

# 2023 A4LE Virginia Chapter Conference

## Building Bridges – Creating Connections

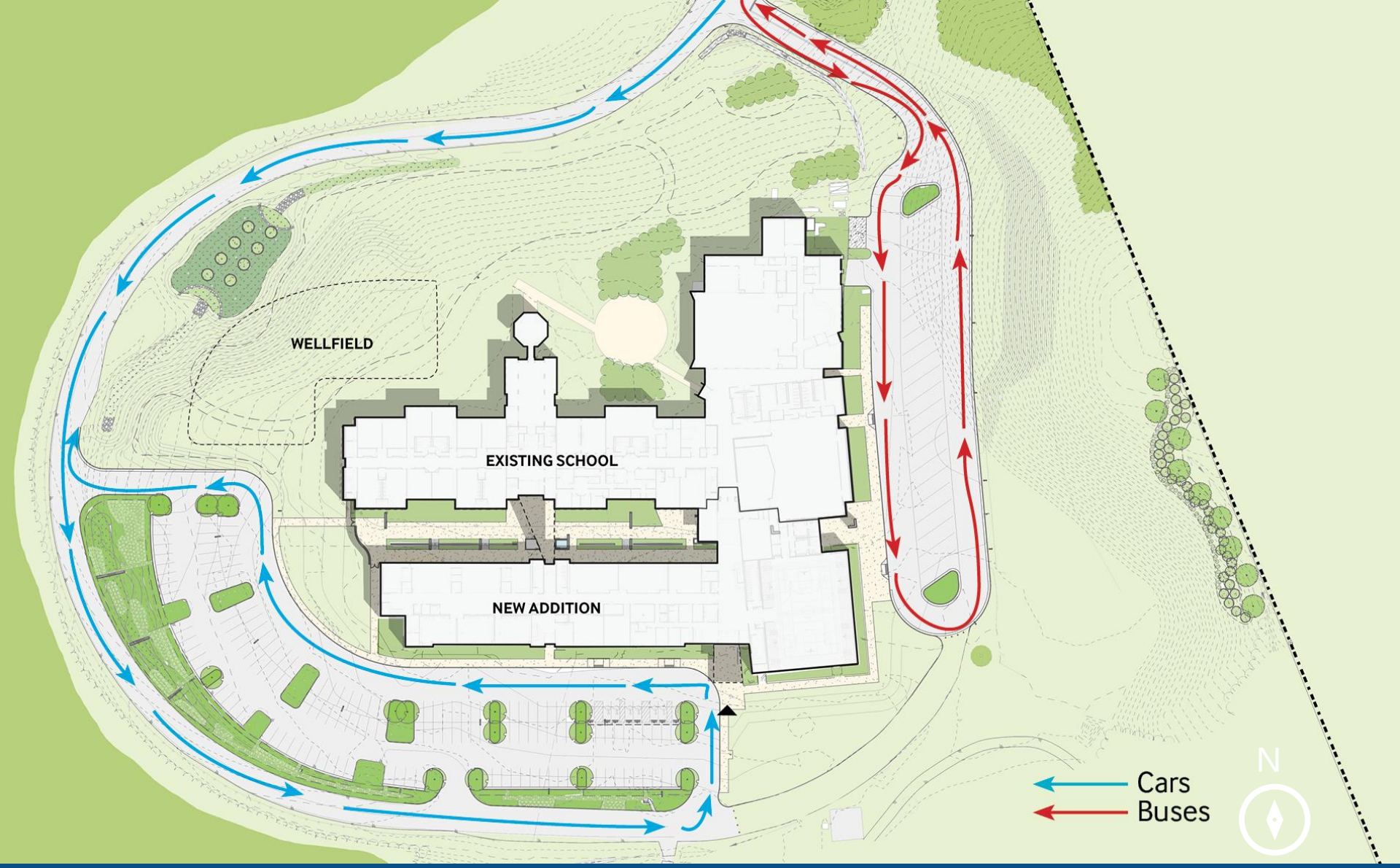
# Renovation Projects

# Jury Comments

- Nice use of spaces
- Embodies themes of conference
- Extended learning spaces in expanded corridor
- Classroom extension into learning courtyard

# SILVER AWARD

- **Forest Middle School**
- **Bedford County Public Schools**
- **VMDO Architects**


WELLFIELD
EXISTING SCHOOL
NEW ADDITION
Cars
Buses
N

# Level 1 Floor Plan

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Enhancing the Educational Experience
Virginia Chapter

*Building Bridges – Creating Connections*


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# 2023 A4LE Virginia Chapter Conference

## Building Bridges – Creating Connections

# Renovation Projects

# Jury Comments

- Small but impactful changes
- Strong planning process
- Renovations opened up spaces
- Flexible spaces

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# GOLD AWARD

- Scottsville Elementary School
- Albermarle County Public Schools
- Grimm + Parker  Architects

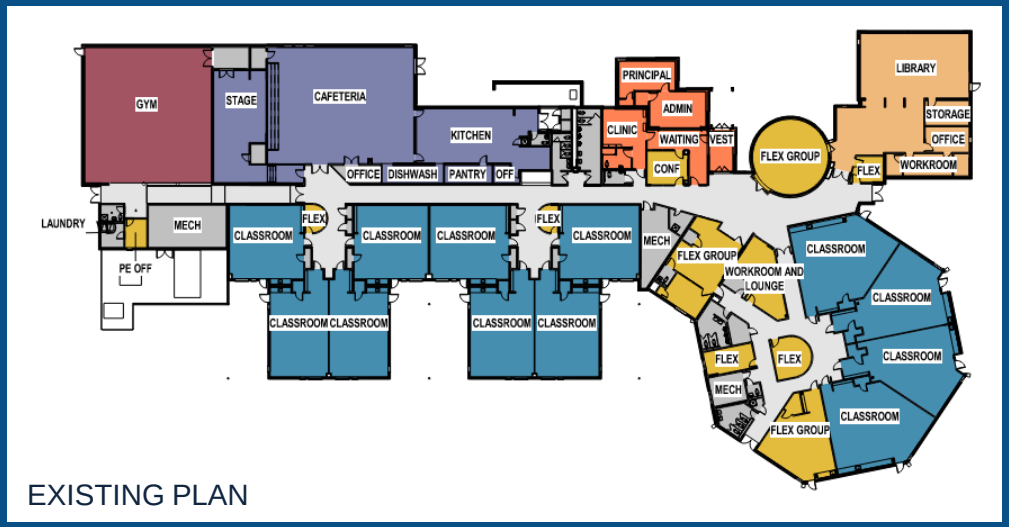
# The Planning Process


Many stakeholders were enabled as decision makers in the design process through regular meetings with a selected Design Committee, presentations to the school board, and multiple meetings on site with the community, teachers, staff, parents, and students. In the concept phase the community gave feedback on what inspirational images and guiding principles resonated with them. In schematic design community members responded to initial layouts and helped the school form take shape. Blending the addition and the renovation became a crucial goal for the project for inclusivity amongst the students and the community.



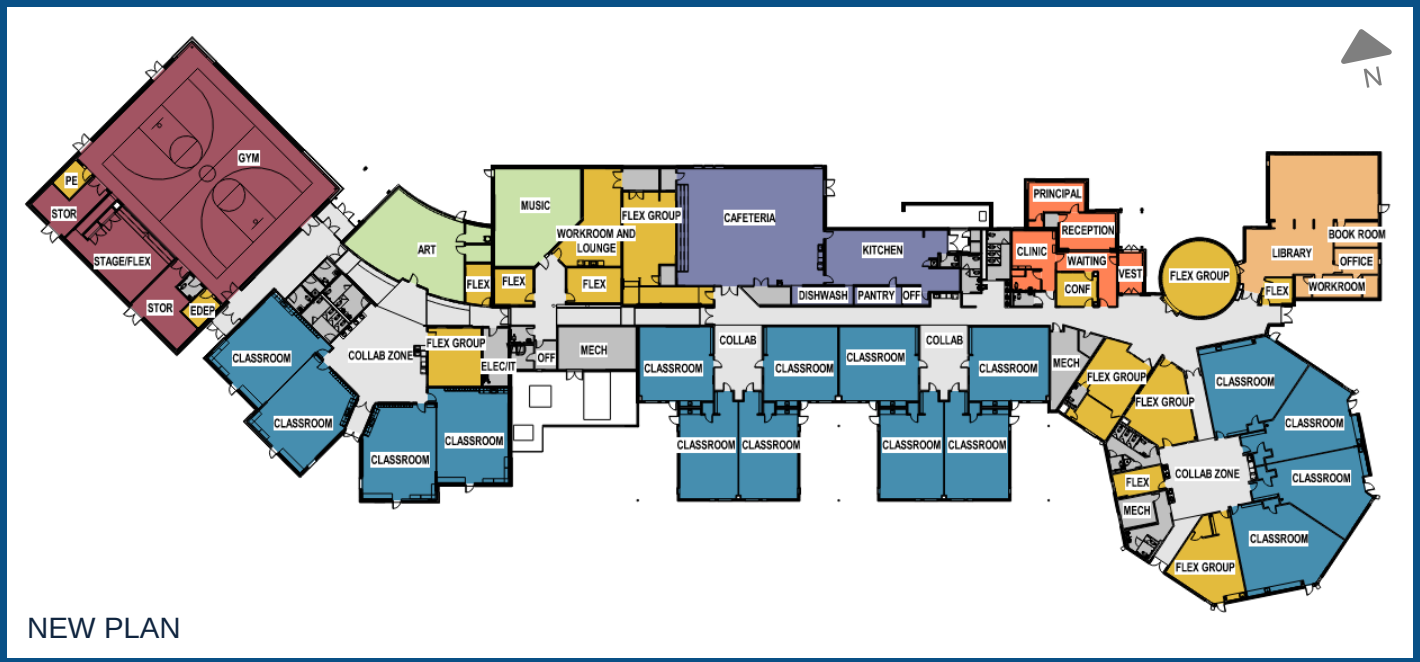
Site circulation was reorganized to separate car and bus traffic for safe drop off. Water across the site can now be used as a teaching tool through a stormwater pond, a bioretention garden, and a visible runnel that capitalized on an area of the existing site that was prone to flooding. All learning spaces have a direct connection to the outdoors and a site enhanced with expanded areas for natural play. The building engages the surrounding rural landscape to blend exterior and interior learning environments.


Erin Edgerton for the Daily Progress



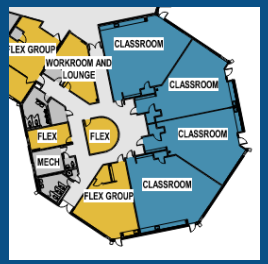
EXISTING PLAN

Through a 17,000SF expansion and a 33,000SF renovation, the school was able to leave their mobile classrooms behind and combine in one integrated building. The central spine of the building was extended with classrooms organized into four pods that each now open into a collaborative zone for equitable learning environments at all grade levels PK-5.

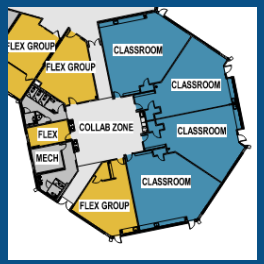


NEW PLAN

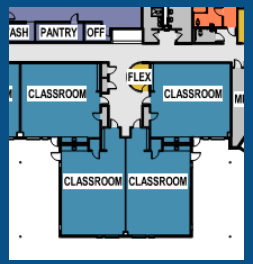
EXISTING



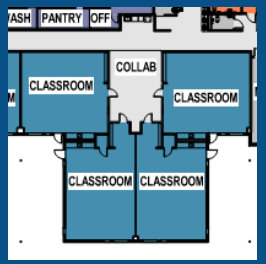

NEW



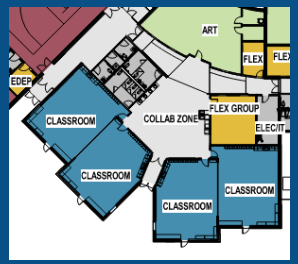

EXISTING




NEW




NEW





DEMOLITION


EXISTING

Circulation in the existing school was hindered by small rooms that blocked views to classroom doors so through renovation each learning pod gained a collaborative breakout area. These areas allow for flexible methods of teaching and empower student choice. Students can experience a variety of spaces throughout the day based on the idea of campfires, watering holes, and caves. Each learning pod was themed to regional Virginia geography and signage and color give each pod an identity.


RENOVATION

RENOVATION


ADDITION

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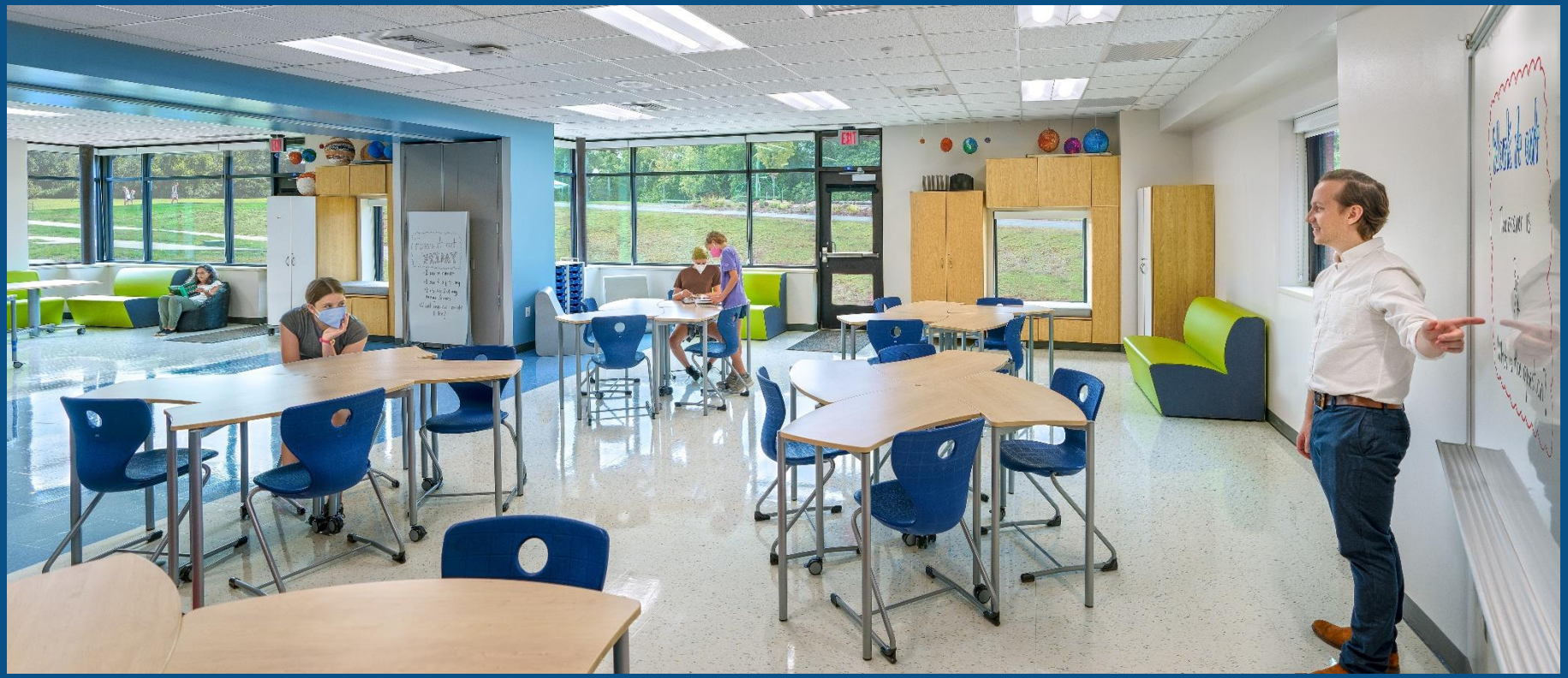


Flexibility is key to the addition as classroom pairs are divided with an operable partition. This allows to teachers to have the choice to team teach when large group projects are desired, but sound isolated separation when smaller classes are needed. White board surfacing on the partition allows for another teaching surfacing and interactivity with the wall when deployed.

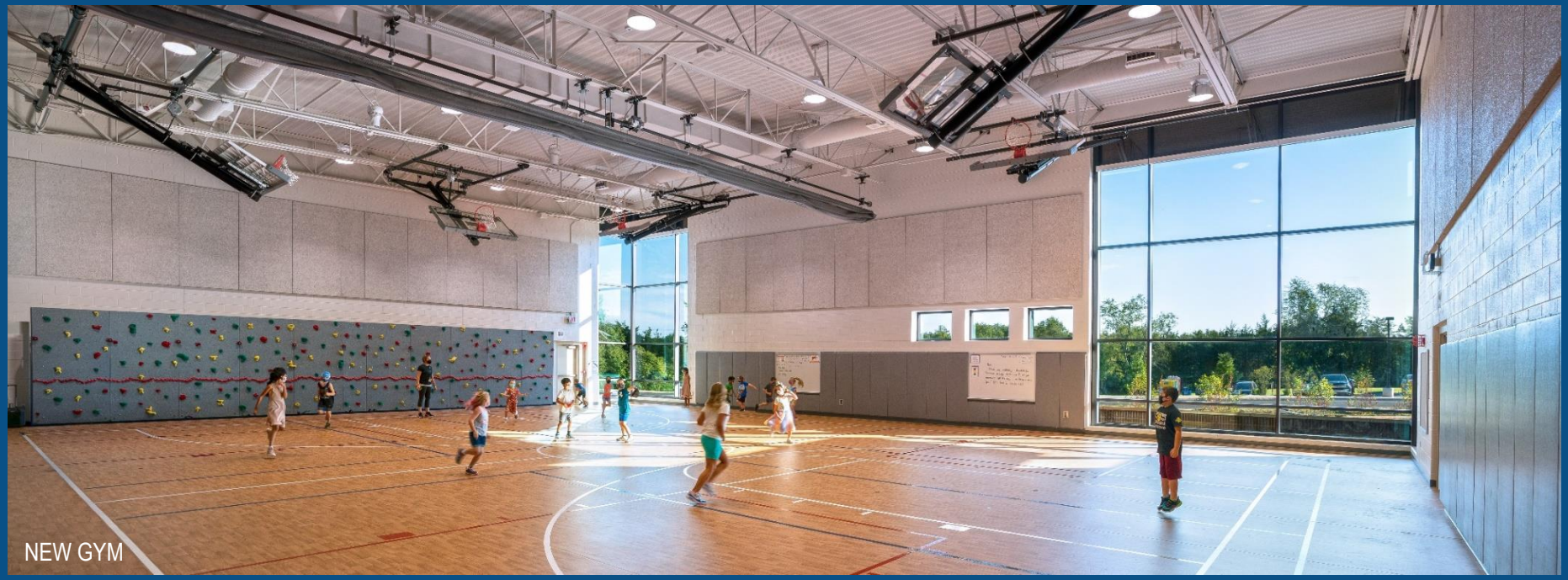
OPERABLE PARTITION

NEW ENTRY

Transparency was crucial for the project to promote a connection to the outdoors and allow for daylighting with the whole spectrum of visible light for stimulation throughout the day. New openings were created in the existing building and the addition promotes visual connection while utilizing the material language of the existing building. Through curving the art room, the addition opens up to the site and allows the new entry to greet visitors into the building.

ART CLASSROOM

STUDENT NOOK


NEW GYM


MUSIC CLASSROOM


EXISTING GYM

The existing gym was severely undersized in comparison to other elementary schools in Albemarle County so the addition included a large gymnasium to serve student populations and also as a community asset. The arts are promoted in the renovated building by providing a dedicated space for music in the existing gym rather than in a mobile classroom.

# 2023 A4LE Virginia Chapter Conference

## Building Bridges – Creating Connections

# New Projects

# 2023 A4LE Virginia Chapter Conference

## Building Bridges – Creating Connections

# Elementary Schools -NEW

# Jury Comments

- Flexibility, Transparency
- Great variety of learning spaces
- Sensitivity to the needs of neightboring community
- No defined corridors- rather active pathways
- Nice use of scale, lots going on, very vibrant design

- Cardinal Elementary School
- Arlington County Public Schools
- VMDO Architects

The original task was to develop an addition a public school facility built as part of a 2009 expansion of the historic Reed School, which now serves as the Westover public library. Through a nine month engagement process, it quickly became clear that school grounds were very important to the surrounding neighborhood and preserving open space through the new design was critical.

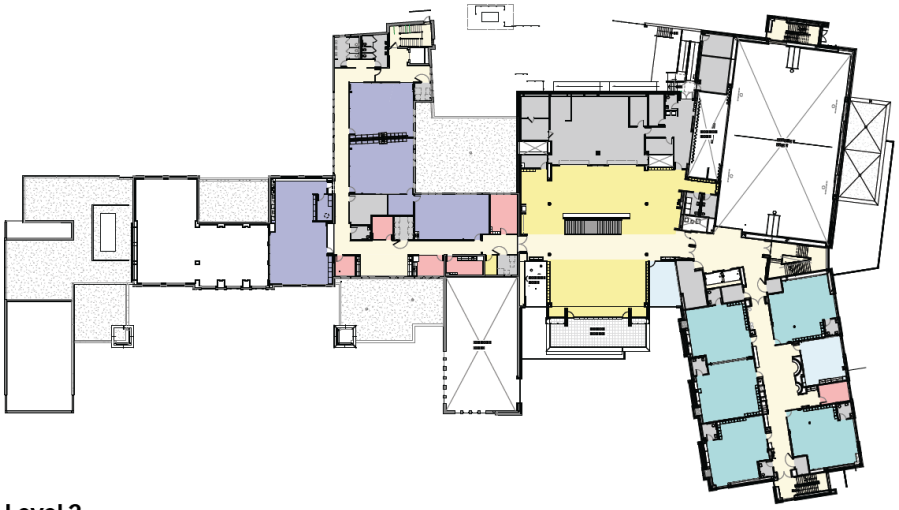

In response, the final design demolished 75% of the existing two-story school and in its place built a four-story school structure for 725 students, doubling capacity while maintaining the same amount of open space. The remaining 25% of the existing school was renovated – with new and existing spaces all brought up to zero-energy specifications.

Zero-energy goals informed building massing, which stretches the classroom bar along the east/west axis for ideal orientation. A four-story massing to the north preserves green space while ensuring clear solar access to the roof. Inside, active and passive systems create learning environments filled with clean air, safe materials, abundant daylight, and views to the outdoors.

**Floor Plan Legend**

- Mechanical, Toilets, Storage
- Circulation, Breakout Space
- Library, Dining Commons
- Gym + Stage
- Small Group Instruction
- Classroom
- Art + Music
- Staff Support, Office, Admin.


Level 1



Level 2

Levels 3 + 4

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# Jury Comments

- Connection with the community in building facility
- Excellent placement of facility on site to maximize solar energy
- Flexible space created along corridors
- Use of industrial elements

# SILVER AWARD

- Culpepper Ed. Center Technical School
- Culpepper County Public Schools
- RRMM Architects

*CTEC Main Entrance*


**Culpeper County Public Schools, Culpeper County, The Town of Culpeper, Germanna Community College, and local businesses came together to develop the regional workforce by engaging students who excel in hands-on technical fields of study.**

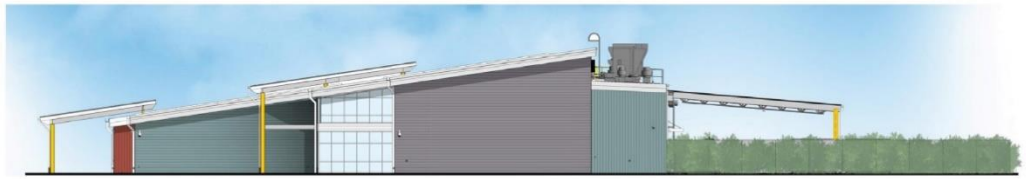

CTEC Site Plan
FRANK TURNAGE DRIVE
BMP
CTE YARD
MAIN ENTRY
BUS DROP-OFF
PM SUN
AM SUN
GCC CONNECTIVITY
GERMANNA COMMUNITY COLLEGE
JAMES MADISON HIGHWAY
PROMINENT VIEW


*CTEC Floor Plan*

**OVERALL BUILDING ELEVATION - SOUTH**
SCALE: 3/32"=1'0"


**OVERALL BUILDING ELEVATION - WEST**
SCALE: 3/32"=1'0"

**OVERALL BUILDING ELEVATION - NORTH**
SCALE: 3/32"=1'0"



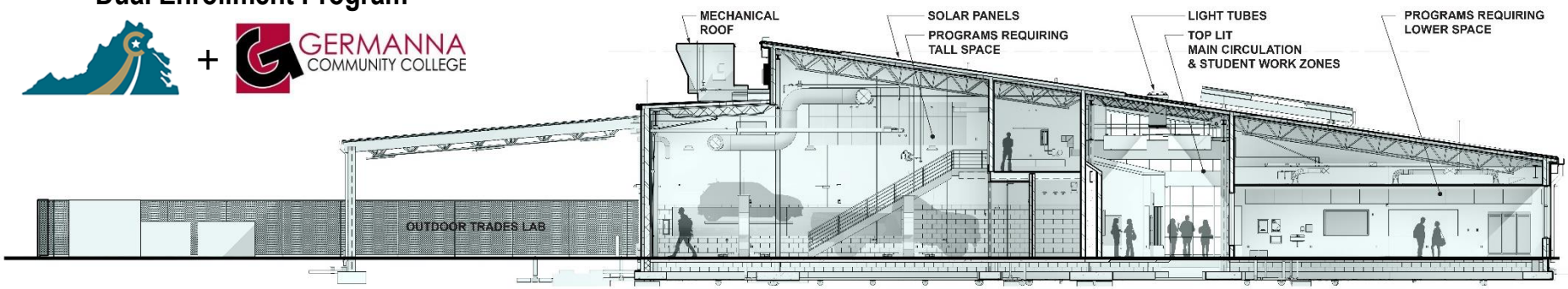
**OVERALL BUILDING ELEVATION - EAST**
SCALE: 3/32"=1'0"

**Several local trade businesses were fully invested in the CTEC project. This group was integrated into the design process in order to re-create real world work settings.**

***CTEC Building Elevations***

## Dual Enrollment Program

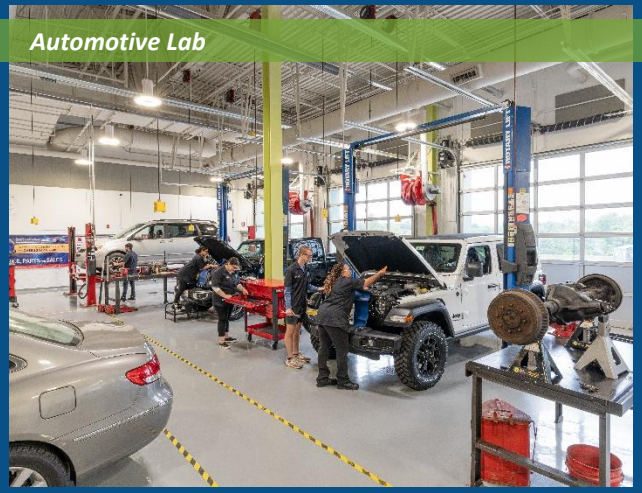
+ GERMANNA COMMUNITY COLLEGE




*CTEC Building Section*

*Culinary Arts Lab*

*Automotive Lab*



*Cosmetology Studio*

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*Entrance / West End & Student Work Zone*


*Training Room*

**A flex space that is regularly reconfigured from two large classrooms to one very large training room.**


*East End Student Work Zone*

**Strategic daylighting allows an abundance of natural light. Transparency into classrooms promotes interest with different programs.**

*View From Southeast*

Solar electric over-production will serve as an on-site carbon offset to CCPS's decision to utilize natural gas for a portion of the facility's energy need.

545 kW of CCPS-owned solar panels produce more electricity than the building uses. After a year of operation, CTEC is expected to be annual net positive electricity facility.

Construction documents required the solar array installer to participate in student curriculum. The desired result happened – the installer hired one of the students right after graduation!

Building orientation, daylighting, envelope & systems optimization cut energy consumption to less than half of a similar facility (2012 CBES).

# 2023 A4LE Virginia Chapter Conference

## Building Bridges – Creating Connections

# Secondary Schools -NEW

# Jury Comments

- Extended learning areas
- Simple geometry used well
- Innovative use of double loaded corridor
- Collaborative spaces between grades

# GOLD AWARD

- Potomac Shores Middle School
- Prince William County Public Schools
- MOSELEY ARCHITECTS


**Potomac Shores School**
**Prince William County Public Schools**

**Building for Growth – Creating Communities**

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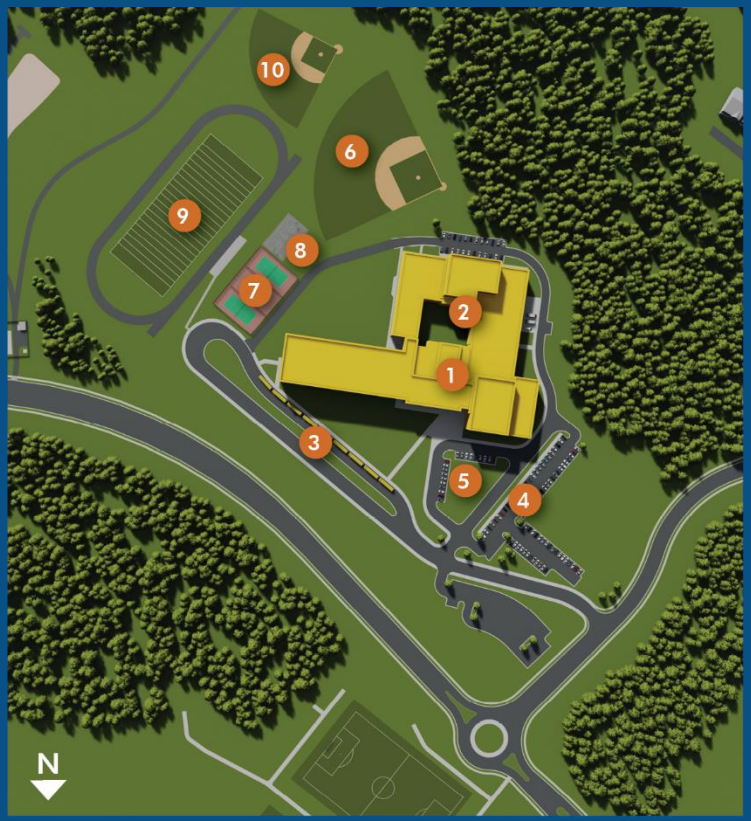
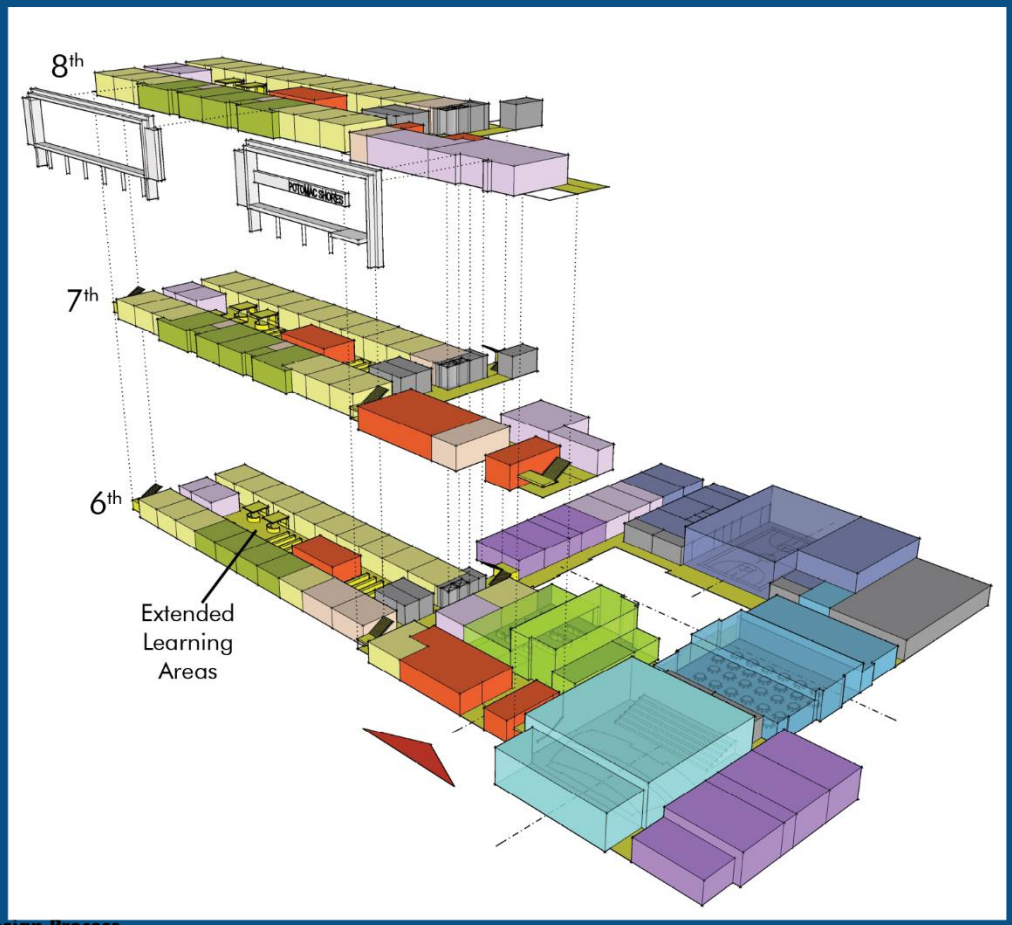



| | | | |
|---|---|---|---|
| 1 | New School | 6 | Baseball |
| 2 | Outdoor Learning Environment | 7 | Tennis |
| 3 | Bus Parking and Loading | 8 | Basketball |
| 4 | Staff Parking | 9 | Football Stadium and Track |
| 5 | Visitor Parking | 10 | Softball |




**Design Process**

Shores Middle School signifies a major departure from Prince William County Public Schools (PWCPS) previous traditional school prototype to a modern learning environment designed for world-class education.

PWCPS' and the design team closely collaborated to re-imagine their middle school experience. With capacity for 1,450 students, the three-story configuration dedicates a floor level for each grade, allotting them their own distinctive classrooms, extended learning areas, maker spaces, and collaboration spaces.

**Potomac Shores Middle School**


**Physical Environment**

As students, staff, and visitors enter Potomac Shores Middle School, they are greeted by the two-story media center, which is the heart of the school for inspiration, learning and social connection.

The media center serves as a thoroughfare connecting the dining space to the courtyard and the academic spaces, which encourages students to utilize the media center throughout the day. The dynamic space is filled with natural light throughout the day, with shades incorporated to moderate the environmental factors and balance the daylighting brightness.

The design team collaborated with PWCPS to create a personalized environment with bold wall graphics featuring inspirational quotes layered together with the school name and logo.

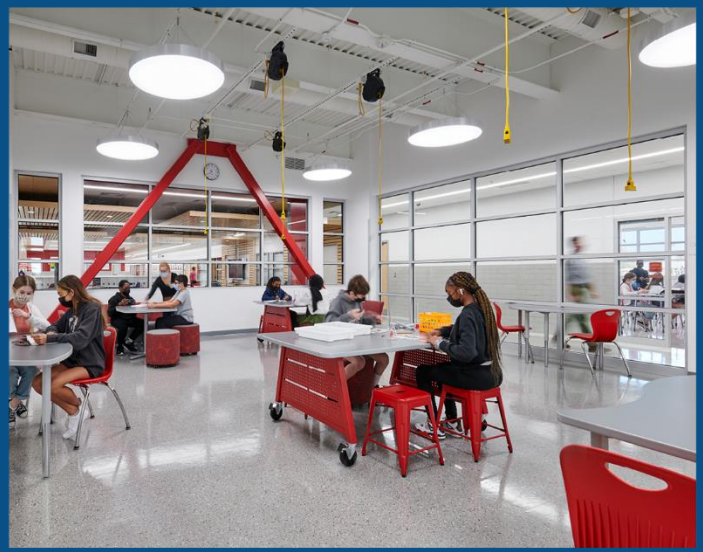
Technology

To facilitate learning, instructional technology is infused throughout the building to provide modern teaching equipment and accommodate future technologies as they are brought on. The extended learning areas include smart boards and connection for laptops and other devices for small group interaction and project-based learning opportunities.

"This whole building is structured around the idea that, in the 21st century, in a working world, we have to have these spaces where people are able to work together, communicate, collaborate, and have those projects that they need to do together.

— Justin Wilk, PWCPS' Potomac Magisterial District School Board Member

**Potomac Shores Middle School**



**Learning Environment**

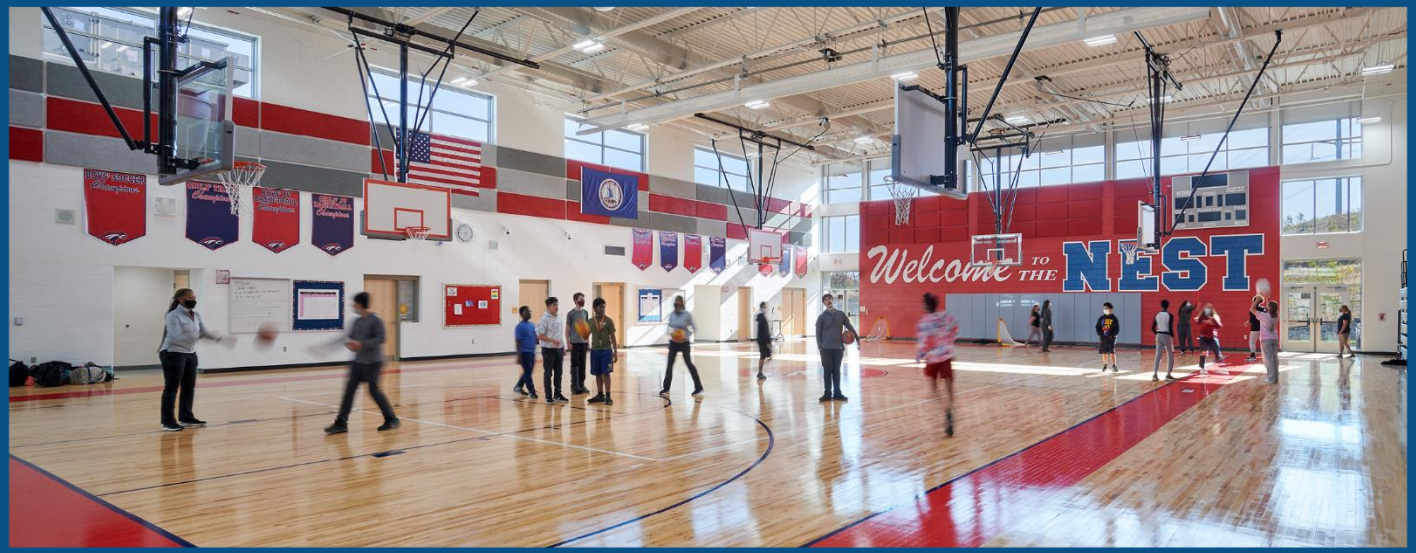
Each grade level academic wing is clustered around an extended learning area, maker spaces, and support functions.

The connected maker space allows students from different classes to collaborate on projects with teacher supervision. Located at the end of each academic wing, it includes a larger planning area that flows into the fabrication area which houses production equipment like 3D printers, laser cutters, and construction surfaces. Each maker space has direct access to an outdoor balcony for additional experiments, testing, and group discussion. Additionally, two small rooms for up to four students to collaborate in a quiet setting are adjacent, and natural light filters into the extended learning area through the maker space's large spans of glazing.

Distinct colors to coordinate with each grade level helps students feel a connection to their academic house. This is integrated into a colored accent wall and seating, with each grade level associated with red, yellow or blue.

Potomac Shores Middle School has a dedicated STEAM (science, technology, engineering, art, and math) lab centrally located in the school on the second and third floors. The lab consists of three connected spaces for preparation, production, and material storage.

**Potomac Shores Middle School**




**Community Environment**

Located in a new development in southeast Prince William County, Potomac Shores Middle School sits on a hill crest as the gateway to the community. Visible to the new community, the school serves as a focal point by imparting a sense of importance and dedication to the educational mission; students will be provided a student-centered education focused on collaboration, taking risks and empowering students to take ownership of their learning that is inclusive of every child's diverse and unique needs.

The design demonstrates a commitment to the community by locating the gymnasium at the perimeter of the school with secure, after-hours access and parking directly adjacent to the gymnasium. This space can be used by other community sports teams and civic groups.

The performance auditorium is unique to the middle school program. Located near to the main entrance, the auditorium is also accessible to public during after-hours events for meetings, presentations, and performances. The school's academic areas can be secured when the auditorium is in use.

Adjacent to the auditorium, is the cafeteria. This space can serve as a lobby or reception area for special community events hosted in the auditorium.

**Potomac Shores Middle School**

**Responsible Design**

Integrated in the welcoming environment, the design provides sight lines from the first and second floor for wayfinding and supervision. The front entrance features a security vestibule and monitored check-in for visitors during the day.

The courtyard allows students to dine, learn and socialize outside securely separated from the public. The administrative office has the ability to lock down each academic wing with a single control, as well as lowering motorized shades to limit visibility into open spaces, such as the media center and dining.

To contribute to energy efficiency, sunshades on the exterior of the building help to control the amount of natural light and decrease electrical lighting. The roofing, glazing, mechanical, electrical, and plumbing systems are selected to improve energy efficiency and work with the overall design such that Potomac Shores Middle School received the Designed to Earn Energy Star rating.



**Potomac Shores Middle School**

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*Building Bridges – Creating Connections*

| | |
|---|---|
| **Size of Site** | 52 acres |
| **Student Capacity** | 1,450 |
| **Area of Building** | 197,000 SF |
| **Total Project Cost** | $52,541,298 |
| **Cost Per Square Feet** | $267 |
| **Cost Per Student** | $36,235 |
| **Space Per Student** | 136 SF/student |

**Potomac Shores Middle School**

**Potomac Shores Middle School**
DUMFRIES, VIRGINIA

| | |
|---|---|
| **School Division** | Prince William County Public Schools |
| **Superintendent** | Dr. LaTanya McDade |
| **Owner Contact** | John Mills, AIA |
| **Design Firm** | Moseley Architects |
| **Principal in Charge** | William Riggs, III, AIA |
| **Project Designer** | Kenny Durrett |
| **Project Manager** | Kenny Durrett |
| **Construction Administrator** | Sumita Carpenter, AIA |
| **Civil Engineer** | IMEG |
| **M/E/P, Structural, and Fire Protection Engineering** | Moseley Architects |
| **Builder** | V.F. Pavone Construction Company |
| **Photographer** | Hoachlander Davis Photography, Judy Davis |

MOSELEY ARCHITECTS

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