VEFP ARCHITECTURAL EXHIBIT

March 17, 2015

Williamsburg, Virginia

Renovation/Additions Category

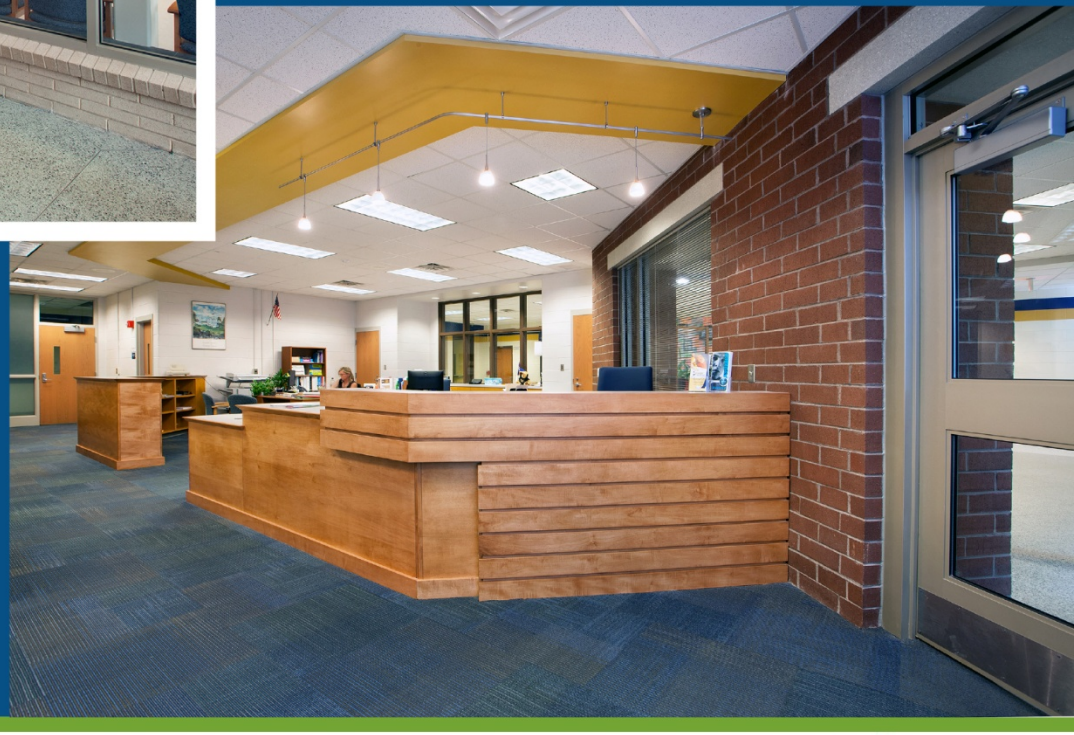
Midlothian High School
Martin Luther King Jr. Middle School
Charlottesville High School Sigma Lab
Chesterfield Career & Technical Center at Hull
Fauquier High School

Jury Comments
Midlothian High School

- New entrance more lighting
- Inviting exterior look

MIDLOTHIAN HIGH SCHOOL

The original Midlothian High School building on Charter Colony Parkway opened thirty years ago in 1984. The Midlothian High School Additions and Renovation project focuses construction in six areas of the building. Additions include a new main entrance to the school, an Administration Suite, Performing Arts Classrooms, a Fitness Center, and a new 3-court Gymnasium with a 2,000-person seating capacity. Renovated spaces include the Administration and Guidance spaces areas, the Clinic, one Science Classroom, the Media Center, Performing Arts classrooms, and the Auxiliary Gymnasium (renovated into team locker rooms). Phasing of the additions was of primary consideration as the school was occupied during construction.



Jury Comments
Martin Luther King Jr. Middle School

- Bright and cheerful
- Good use of color

MARTIN LUTHER KING, JR. MIDDLE SCHOOL

The main goal of this project was to provide a high-quality 21st Century learning environment for the Martin Luther King, Jr. Middle School students, administration, and faculty. In order to provide this for the citizens of Richmond, the City of Richmond and Richmond Public Schools initiated a program known as Building a Better Richmond and it was determined that a new facility should be constructed on the current site while reusing the existing auditorium and some portions of the surrounding spaces. Concurrently, an Educational Specification was developed for this school which guided the schematic process.


Martin Luther King Jr.
Middle School

Jury Comments
Charlottesville High School Sigma Lab

- Vibrant planning process
- Collaborative learning environment
- 21st century learning

Renovation of 6,900-square-foot media center on the first floor

before

after

First floor as seen from second floor corridor

before

after

Students, faculty, administrative staff, and architects converged in a collaborative session to discuss user needs and explore design solutions.

This charrette resulted in concepts for a very open plan; existing building elements would be shifted on a five-degree angle to allow the new STEM Lab to stand apart from the existing construction.

DESIGN FOR INNOVATION

The STEM lab is set up in three distinct areas so a student can collaborate during the design process, execute their design in the computer lab, and build their design in three-dimensions.

DESIGN FOR INVITATION

Highly visible within the school to entice passing students into the STEM program

DESIGN FOR EXHIBITION

Twelve LCD television monitors display the students' projects, visible from both the first and second floors

Built-in display cases beneath the monitors feature the lab's 3-D creations

Renovation/Addition Category
Special Recognition Award
Charlottesville High School Sigma Lab

- Charlottesville City Public Schools
- Moseley Architects

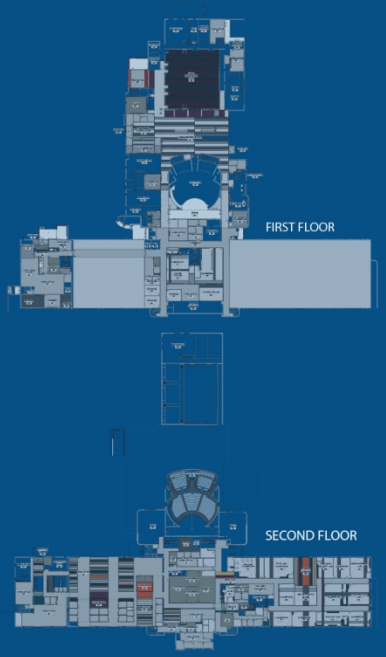
Jury Comments
Chesterfield Career and Technical Center at Hull

- Effective makeover
- Looks like a cool hotel, an innovation center
- Spaces that promote collaboration opportunities
- Mirrors working environment
- Multi-functional great design
- An inviting environment

THE CAREER & TECHNICAL CENTER at HULL

Thomas R. Fulghum Conference Center

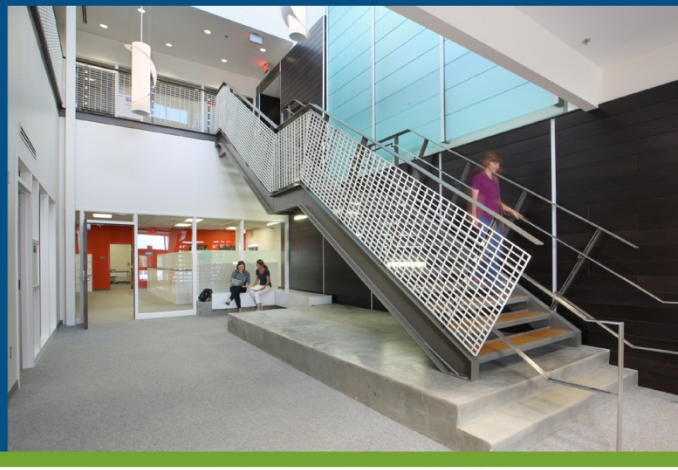
Chesterfield County needed a multi-functional facility that would combine career and technical education, school administration and a conference center, all within the walls of an abandoned high school building. Specialty career and technical education spaces accommodate lab, lecture and research areas for bio-technolog, homeland security, ecology, PT/OT, and mechatronics to name a few. Breakout space and collaboration hubs are ample throughout the building, encouraging 21st century learning among real world work environments. The Career and Tech Center design provides the County an opportunity to re-use existing space while building new programs for students and administrators in an innovative atmosphere.



cefpi where great schools begin Virginia Chapter

Back to the Future – Where Did We Go?

VEFP Virginia Educational Facility Planners



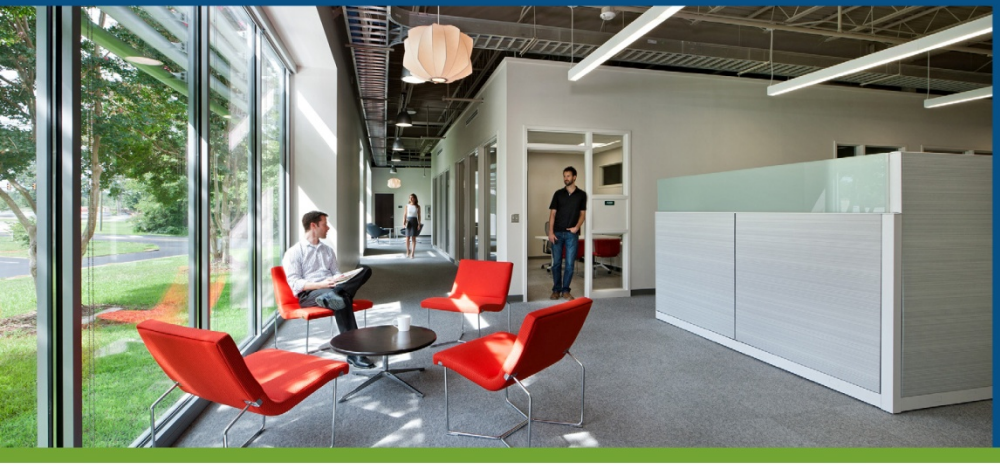
cefpi where great schools begin Virginia Chapter

Back to the Future – Where Did We Go?

VEFP Virginia Educational Facility Planners

ADMIN RECEPTION BEFORE

ADMIN RECEPTION AFTER



WORKING AMBIENCE

The goal for the instructional leadership and development spaces is to provide a flexible, collaborative environment that supports the existing positive synergies between departments and provides opportunities for developing new relationships. The multiple meeting and work areas as well as offices and stations exists for permanent employees and docking spaces are available for itinerant employees. Specific programmatic adjacencies were implemented in the organization of the space to facilitate interaction.

EDUCATIONAL COMMUNITY

The open architecture approach blurs the boundaries between the work environment and leisure spaces increasing opportunities for collaboration and interaction. The meeting rooms, workrooms, open office meeting areas, the break room and the employee lounge are placed strategically within the building. All of these spaces are visible from multiple vantage points to maximize energy and interaction while taking advantage of the natural light brought into the building via enlarged glazed openings in the exterior walls.


ADMIN CONFERENCE AFTER


ADMIN CONFERENCE BEFORE


AUDITORIUM BEFORE


AUDITORIUM AFTER

Renovation/Addition Category
Silver Award
Chesterfield Career and Technical Center at Hull

- Chesterfield County Public Schools
- BCWH Architects

Jury Comments
Fauquier High School

- Social circulation promotes interaction
- Interesting variety of furniture
- User friendly details
- Fun info graphics
- Spaces and student movement facilitate collaboration and connections

Fauquier High School

A four-story addition provides a new civic presence and entrance for the school. Local stone seat walls, brick detailing, and high performance terracotta rain screen cladding draw inspiration from the surrounding context to skillfully balance heritage and innovation.

FRONT ENTRANCE

SITE STRATEGY

The strategy for the addition and renovation of Fauquier High School unites disparate school wings into a coherent and harmonious campus.

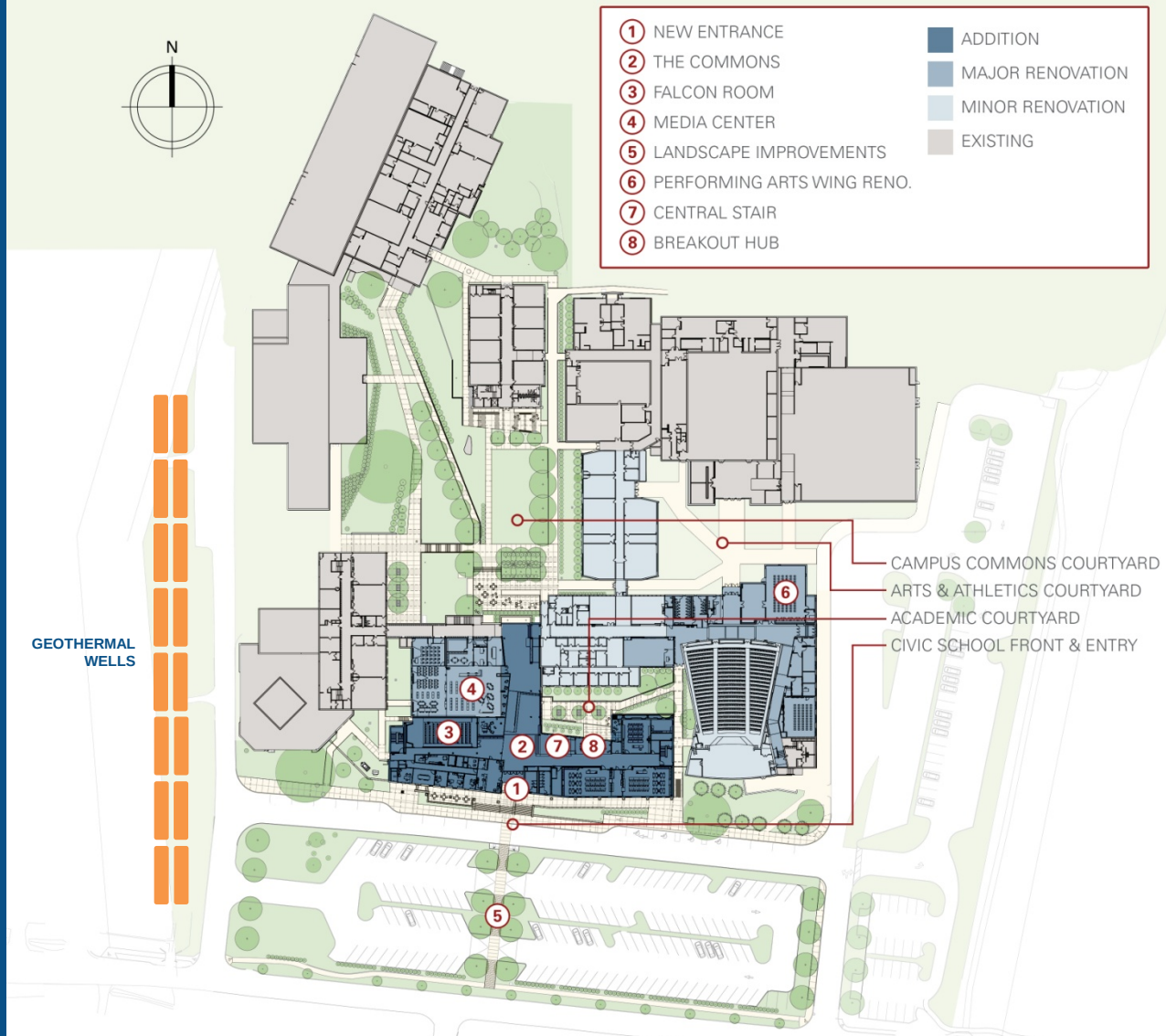
The 90,000 SF addition replaces an under-performing 1964 classroom building. Providing a net increase in usable space within a smaller footprint, the addition efficiently contains classrooms, laboratories, administrative spaces, and common areas within its four stories.

The existing library is transformed into a 21st century media center, the performing arts precinct is renovated and expanded, and the school campus is renewed with landscape improvements and a campus master plan for future growth.

BEFORE: EXISTING CONDITIONS

AFTER: NEW ADDITION

AFTER: NEW COURTYARD



SITE PLAN / FLOOR PLAN

BUILDING SECTION

BUILDING STRATEGY

Fauquier High School's entrance level is composed of shared school and community spaces. An administrative suite, a versatile student commons, the media center, and the Falcon Room forum surround a ground-level academic courtyard. The four-story stairway spills into the student commons and links it to three additional floors of classroom academies.

Social engagement and flexible learning are prominently displayed in this four-story vertical learning environment, foregrounding a new civic presence and showcasing Fauquier County's commitment to educational excellence. In all, the new addition and its integrated landscape provide students, teachers, and visitors with a vital sense of orientation and school character.

TAKING LEARNING TO THE STAIRS

The central stair provides much more than passage from one floor to another: it's the life force of the school. Designed to facilitate a variety of learning activities and social encounters, the stair and its circulation environment are choreographed with places for sitting, chatting, group work, small presentations, impromptu assemblies, school displays, galleries of student work / awards, and other opportunities to extend learning beyond the four walls of the classroom.

Situated next to a four-story glass curtain wall, the stair is bathed in natural daylight and capitalizes on views of the surrounding county. Likewise, from the outside, the stairway is a prominent feature, showcasing various instances of learning and engagement occurring in the school.

ACADEMIC COURTYARD

CENTRAL STAIR

BREAK-OUT AREA

21ST CENTURY LEARNING ENVIRONMENTS

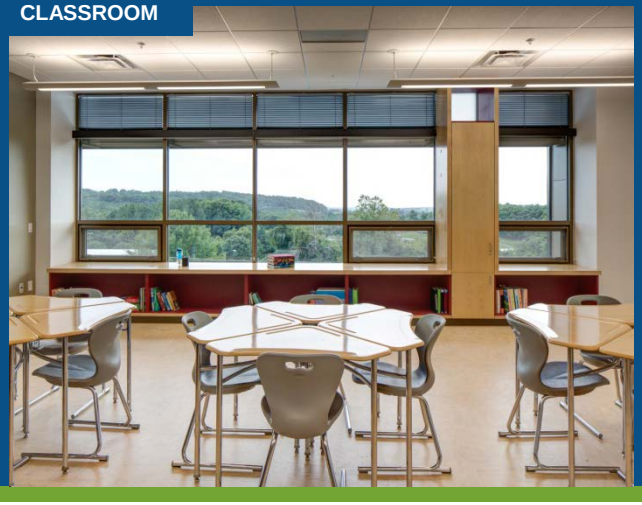
The central stair acts as a continuous learning environment, rich with a variety of formal and informal spaces. Flexible arrangements and comfortable furniture ranging in scale and character allow “break-out areas” to be easily customized to meet the diverse needs of students and teachers.

Along this circulation corridor, students and teachers alike have access to distributed conference rooms and break-out learning spaces. Flexible gathering and learning areas found along natural circulation pathways encourage active learning and a community of sharing.

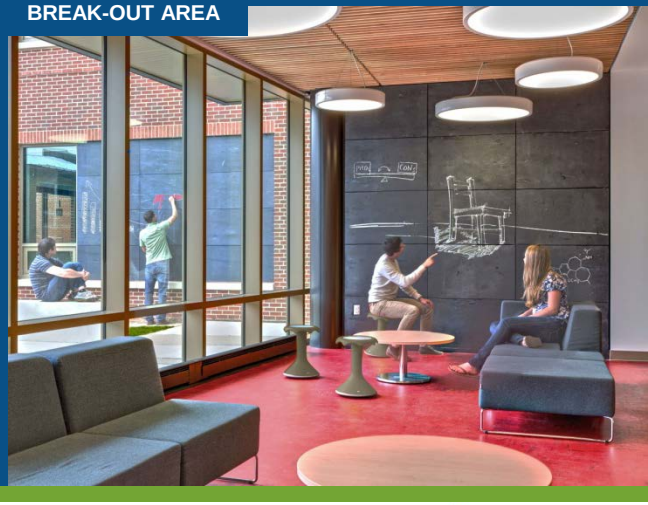
Natural daylighting from Solatube™ skylights is supplemented by ample views of Fauquier County.

LECTURE HALL

CLASSROOM



BREAK-OUT AREA



CONTROLABLE DAYLIGHT

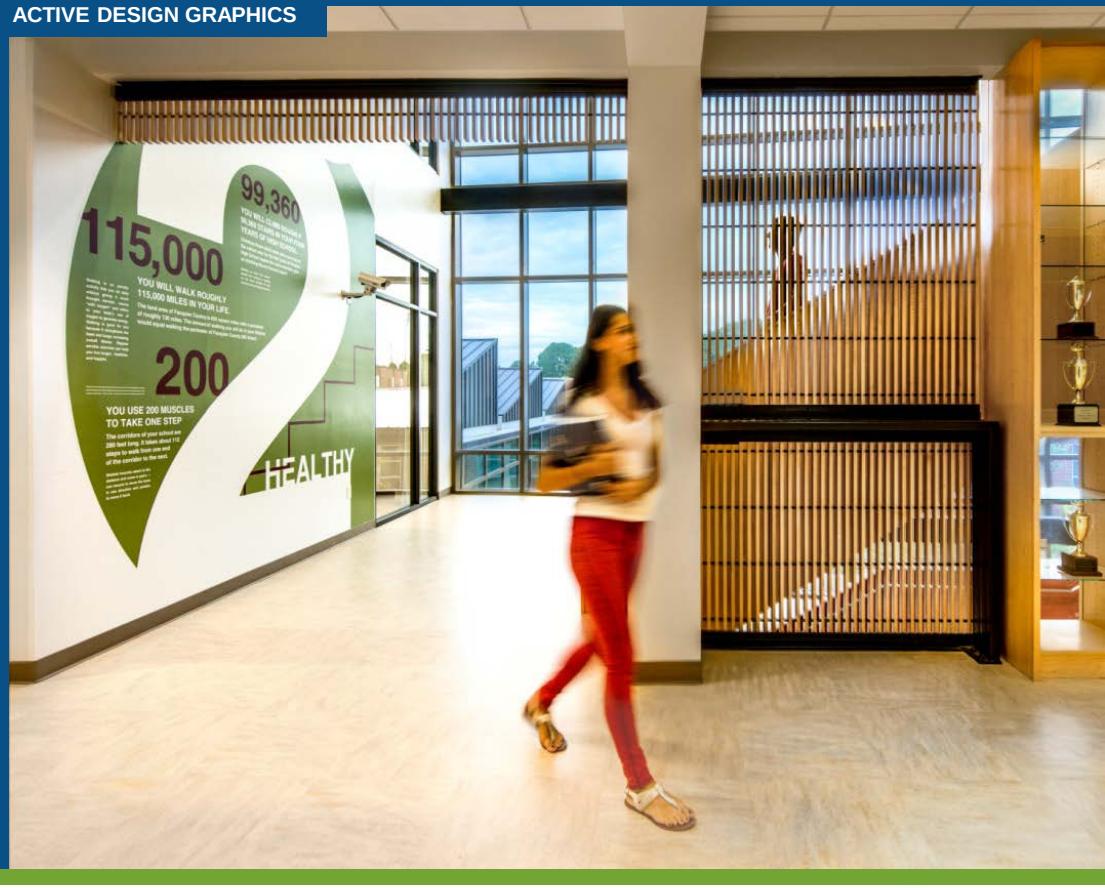
CUSTOM GRAPHICS

INSPIRING HEALTH & MOVEMENT

The design of the four-story addition draws inspiration from a set of active design guidelines (first implemented by New York City in 2010) to encourage movement and active utilization of the built environment to bolster health and fitness. The central stair at Fauquier High School does just that, prompting stair use (and behavior change) by featuring interactive graphics about the health benefits of using stairs. Each floor in the school features a different branded color identity for wayfinding purposes along with engaging statistics related to a specific movement-based “floor theme” – including Healthy, Active, and Strong.

ACTIVE DESIGN GRAPHICS

ACTIVE DESIGN GRAPHICS



EXTERIOR VIEW OF THE STAIR

Renovation/Addition Category
Gold Award
Fauquier High School

- Fauquier County Public Schools
- VMDO Architects

New Construction Category

Pioneer Elementary School
Georgie D. Tyler Middle School
Nokesville K-8 School
Kellam High School Replacement

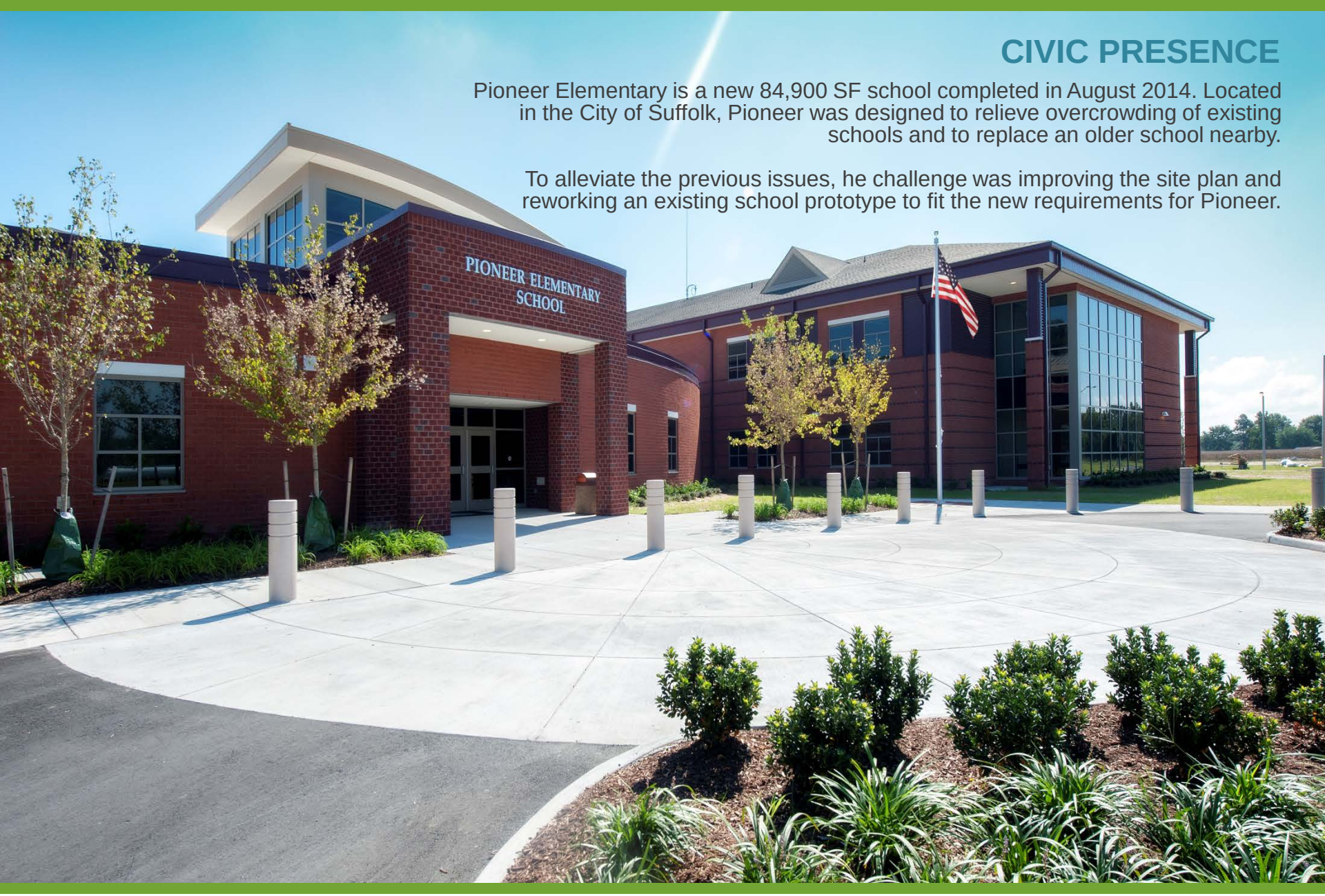
Jury Comments
Pioneer Elementary School

- Good overall functional zoning
- Good site plan, flow and safety features
- Warm and friendly colors

CIVIC PRESENCE

Pioneer Elementary is a new 84,900 SF school completed in August 2014. Located in the City of Suffolk, Pioneer was designed to relieve overcrowding of existing schools and to replace an older school nearby.

To alleviate the previous issues, he challenge was improving the site plan and reworking an existing school prototype to fit the new requirements for Pioneer.



Site Plan

EDUCATIONAL COMMUNITY

The site is located on a heavily traveled highway, Route 58. It was important to arrange the school to allow buses and visitors to enter off of Pioneer Road versus Route 58.

The location of the play areas had to be carefully considered to ensure they were safely positioned as far as possible from the busy road.

Academic Wing

SUBTLE SECURITY

The floor plan is organized with a public entrance separate from the bus loop entrances. The idea behind this is to eliminate the public from entering the school without being checked in by the administration. Upon entering the large vestibule, one is greeted by a check desk with the administrative area adjacently located. This allows one to be checked prior to entering the interior of the school through another set of doors.

MULTI-FUNCTIONALITY

When the folding partition is raised the cafetorium becomes an even larger space. The gym is located on the other side of the partition and allows for additional seating when performances are taking place.

Jury Comments
Georgie D. Tyler Middle School

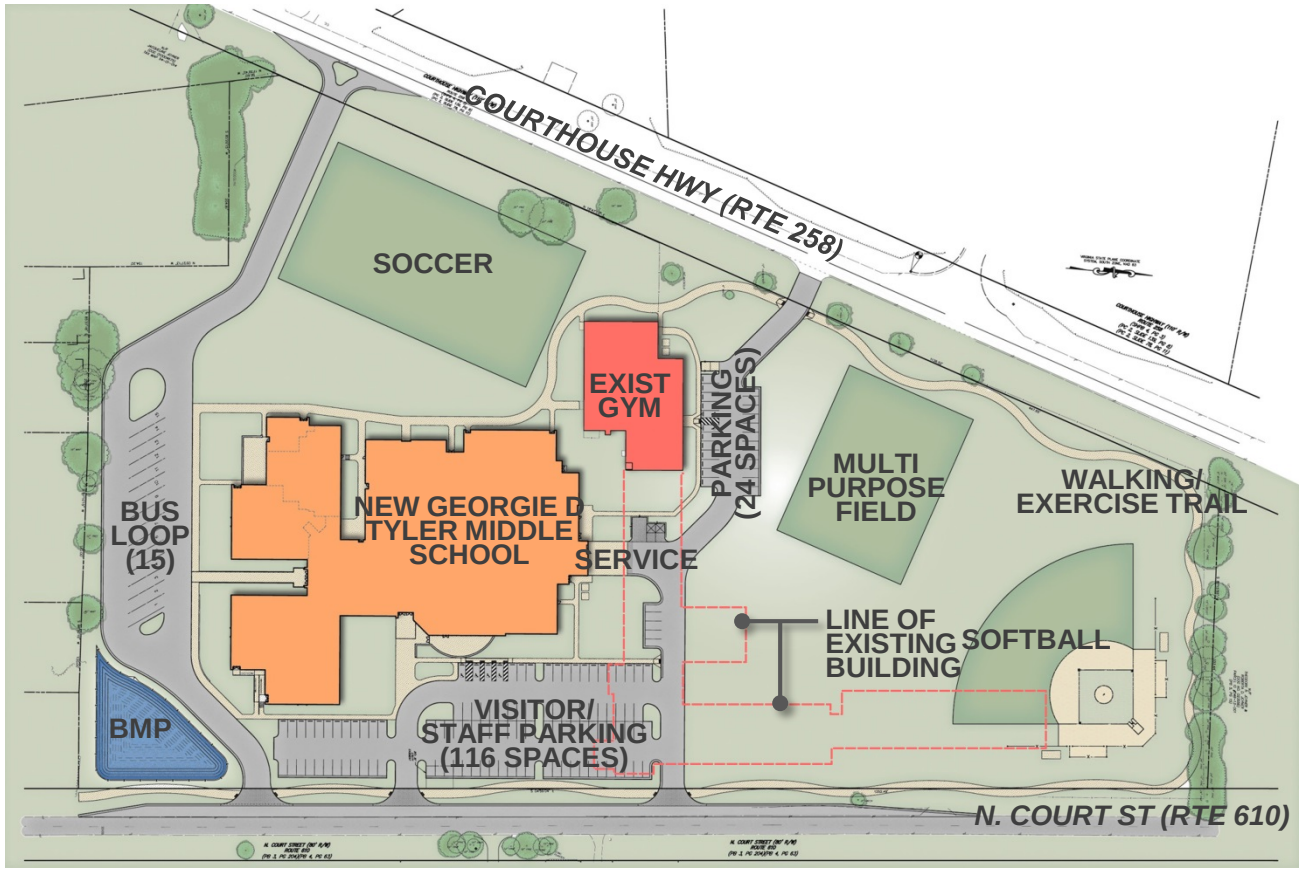
- Tough tight site for building
- Good community use zoning
- Kid friendly main entrance
- Well-designed for community use
- Visible front lobby

CIVIC PRESENCE

Located in rural Isle of Wight County, the new middle school was named in honor of Georgie D. Tyler, an African-American educator who contributed greatly to the educational community.

Designed to replace the existing middle school which was sorely overcrowded and out of date, the new Georgie D. Tyler Middle School provides the much needed space at 114,800 SF, and is current in technological and educational trends. The school was in completed in August 2014 and has the efficiency and flexibility to accommodate the changing styles in education for many more years to come.

SITE ORGANIZATION



Site Plan

0′ 100′ 200′ 400′

The design challenge was to find a way to build the new school on the same site as the existing school while fully occupied with students, faculty, and staff.

The solution was to locate the new school in close proximity to the existing school; primarily to salvage and repurpose the existing gym into an auxiliary gym. Another high priority as determined from the users and school system was to retain the existing play fields for reuse. Finally, once the existing building is demolished the remaining area will be converted to new play fields.

Bus Loop Entrance

Administrative Area

SUBTLE SECURITY

The organization of the floor plan separates the main public entry from the students and bus loop entrances. In doing so any visitor to the school is clearly visible to the staff from the administrative area and is also greeted by a security guard prior to proceeding any further into the school.

Main Lobby

EDUCATIONAL COMMUNITY

The academic wing is anchored with a monumental stair case centrally located in the commons area, which serves as a hub to help orient and guide students to their classrooms after entering from the bus loop.

CIVIC PRESENCE

Georgie D. Tyler Memorial. This new facility is named in honor of Georgie D. Tyler, an African-American educator, because of her positive and outstanding service to the students in this community. Ms. Tyler began teaching in single and two room school houses in 1912 and was later selected to be supervisor over the county's all-black schools, a total of 27. With Ms. Tyler being such a part of the community and history, the county Board of Educators voted to pay her this tribute. This memorial display will house artifacts (currently off site for refinishing) from the original school and from students taught by Ms. Tyler.

Jury Comments
Nokesville K-8 School

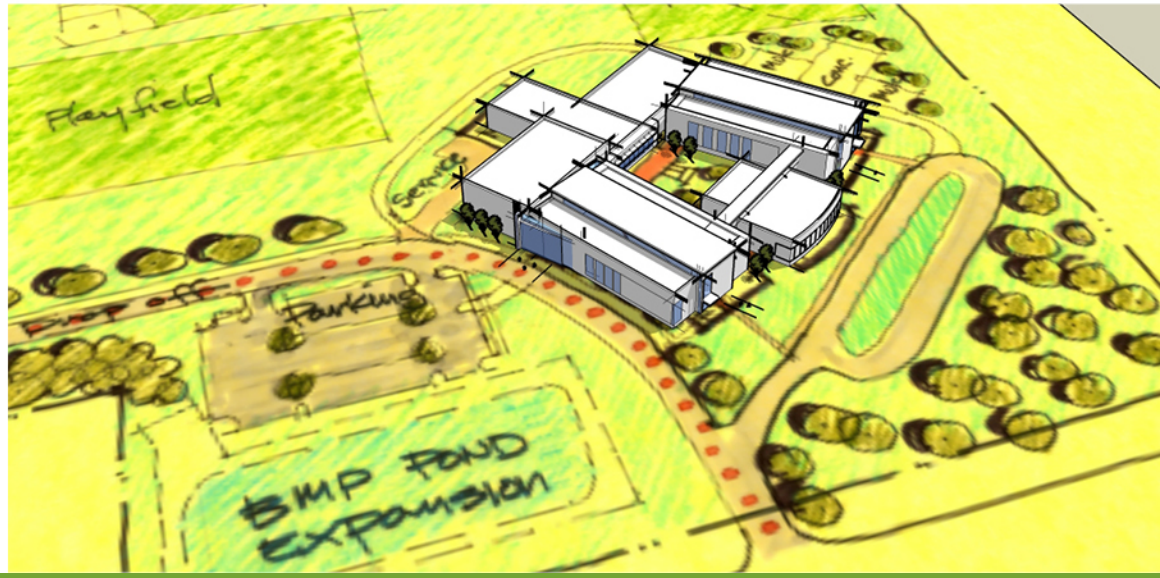
- Clear segregation of elementary and middle school
- User friendly and spatial qualities in circulation
  - Balconies
  - Open stairs
- Abundant lighting
- Some sustainable features


NOKESVILLE K–8 SCHOOL
New Construction of Prince William County's
first and only general attendance K-8 school

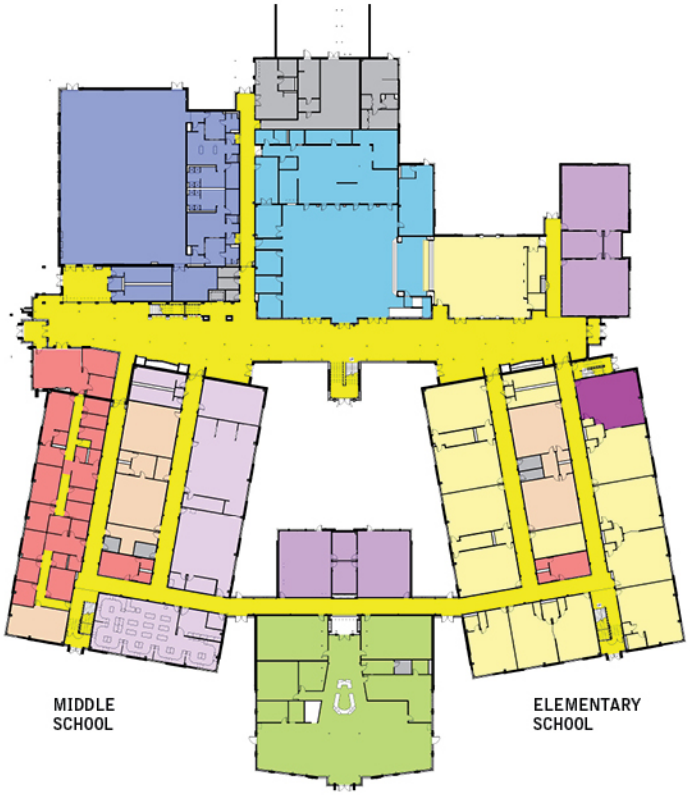
To reduce students' distractions and to allow stronger relationships to be forged between teachers and individual families, Prince William County elected to replace an outdated elementary school with a combined school.

The new facility shares a site with the existing Brentsville High School. Careful studies and planning resulted in an integrated campus.

Students, faculty, administrative staff, and architects converged in a collaborative session to discuss user needs and explore design solutions.

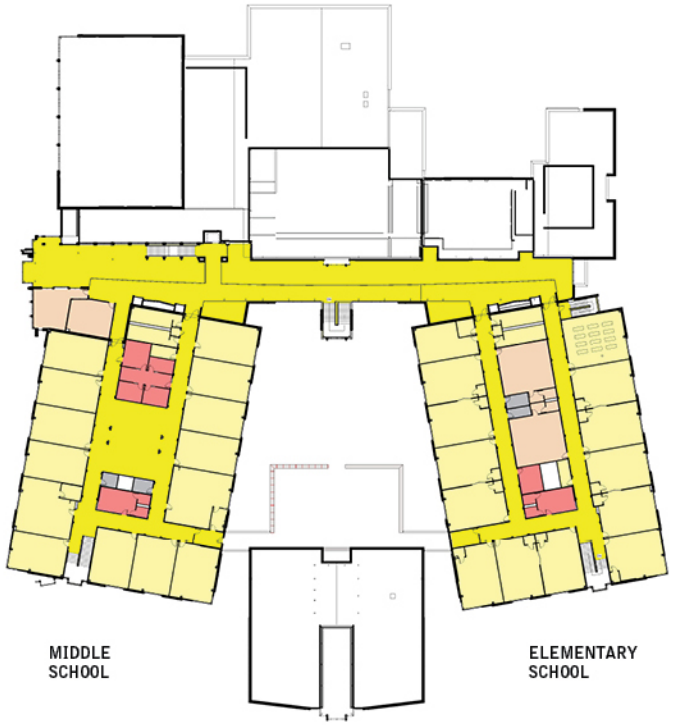


First Floor



- ADMINISTRATION
- ART
- Athletics
- CIRCULATION
- Circulation
- CLASSROOM
- DINING/FOOD AREA'S
- ELEMENTARY ROOMS
- MECH/ELECT/DATA
- MEDIA CENTER
- MUSIC
- SPECIAL EDUCATION
- TEACHER ROOMS
- VOCATIONAL

Second Floor



The school opens to a soaring, light-filled two-story foyer that leads to separate wings for the elementary and middle-school grades.

Main Entrance


Administrative Entrance


Main Hall

The school has two science labs: one for elementary school students and one for seventh- and eighth-graders–as well as a gymnasium, cafeteria, multi-purpose room and library, all of which will be used by all grade levels.


Try a Challenge

SUSTAINABLE FEATURES INCLUDE

- Highly reflective roof materials to reduce heat island effect and to cool building
- Non-potable water irrigation system fed entirely by storm water gathered in on-site cisterns
- Low-flow fixtures
- Solar hot water system
- Two green roofs
- Using energy efficient exterior envelope strategies such as low-e glass, increased insulation and daylight sensors to reduce the energy bills by a modeled 18 percent
- Preferred parking and drop-off areas for low-emitting and fuel-efficient vehicles

SIZE OF SITE	77 acres
STUDENT CAPACITY	940 students
AREA OF BUILDING	141,832 square feet
TOTAL PROJECT COST	$28,551,976
COST PER SQUARE FOOT	$98
COST PER STUDENT	$30,374
SPACE PER STUDENT	151 square feet

New Construction Category
Silver Award
Nokesville K-8 School

- Prince William County Public Schools
- Moseley Architects

Jury Comments
Kellam High School Replacement

- 6 small learning communities
- 3 types of purpose driven gardens
- Innovative small learning communities
- Collaboration stations are effective
- Good sense of purpose in each learning space

Jury Comments
Kellam High School Replacement

- Collaborative planning process, community input
- Attractive and inviting
- 21st century learning spaces
- Green roof

KELLAM HIGH SCHOOL REPLACEMENT

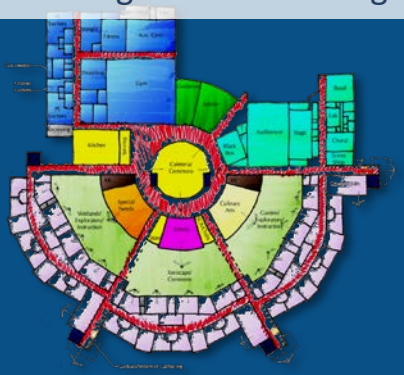
A Prototype for 21st Century Learning

From the beginning, this new 2,000 student high school was envisioned as a prototype for **21st century learning**. We established three clear objectives that would define success for this project:

1. Involve full spectrum of stakeholders in **collaborative planning and design processes** to maximize the value of design-thinking across diverse networks and also to achieve user and community "buy-in.
2. Design a high school facility that will **facilitate and support** the implementation of a new curriculum and assessment model founded on the principals of student-centered **challenge-based learning** and focused on developing skills in critical thinking, creative thinking, collaboration and communication.
3. Create challenge-based learning opportunities for Kellam HS students that are integral to the planning and design process for the new school and that are collaborative efforts with the design team; incorporate design themes and elements into the school facility that will encourage students to become engaged as **lifelong "sustainable citizens".**

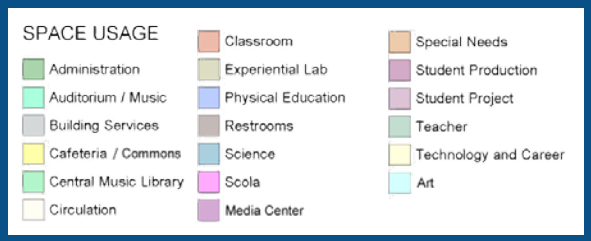
PLANNING: COLLABORATIVE DESIGN

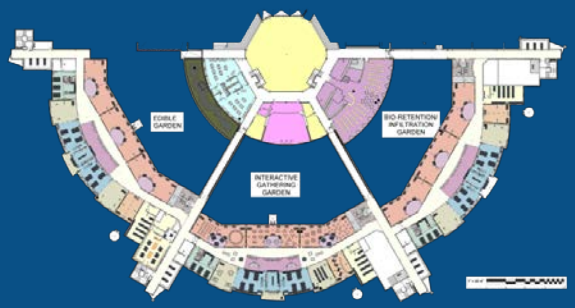
Creating a Learning Community



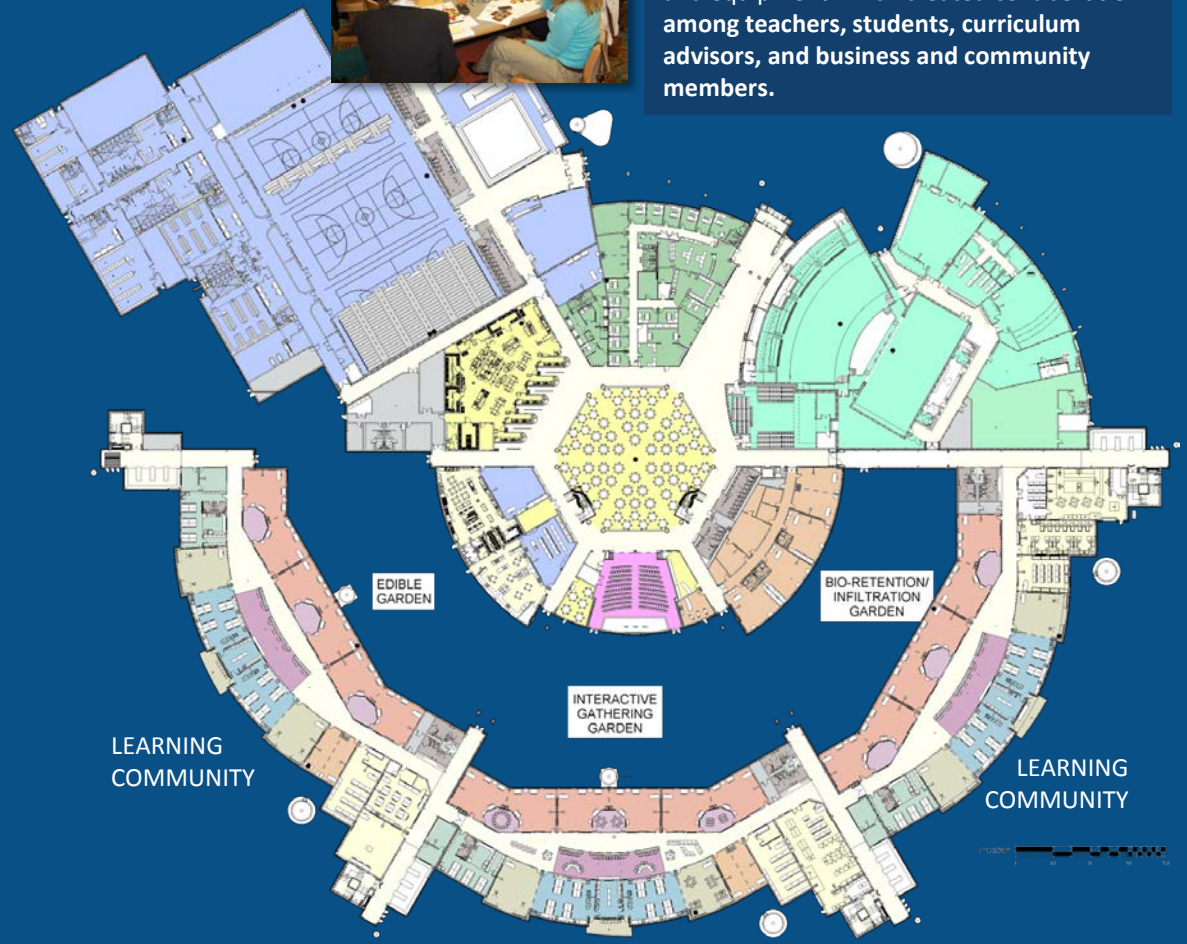
Concept Diagram

The architect facilitated a series of workshops for educational specifications, site design, building design, and furnishings and equipment which created **collaboration among teachers, students, curriculum advisors, and business and community members.**





Second Floor Plan



First Floor Plan

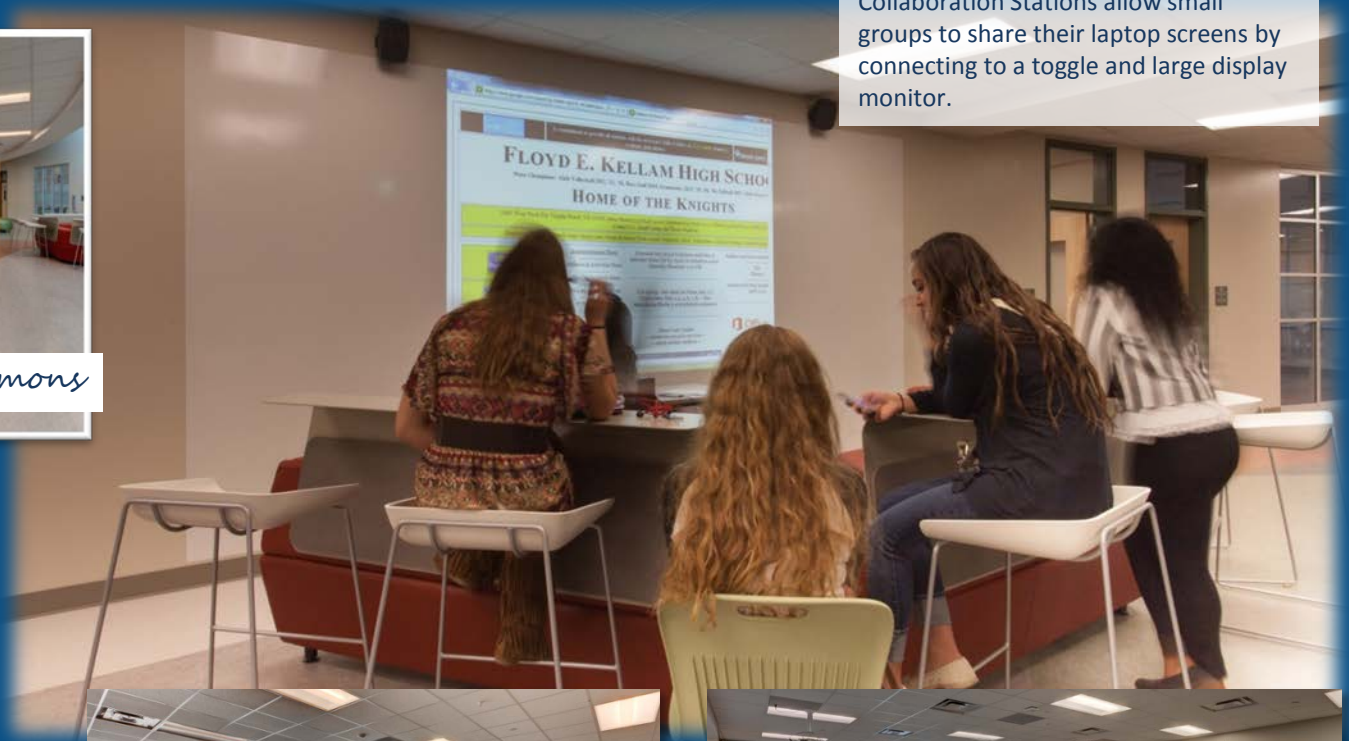
EDUCATIONAL COMMUNITY/ LEARNING AMBIENCE

Two Smart Boards and Three projectors in each Experiential Lab space give many avenues for the display of student work.

Collaboration Stations allow small groups to share their laptop screens by connecting to a toggle and large display monitor.

Learning Commons

The **Learning Commons** are at the core of each Learning Community, encouraging exploration and interaction.



Daylight
All common spaces are flooded with natural light, and each classroom is designed with sloped ceilings and light-diffusing windows in order to **capture the most daylight possible**. This increases student productivity and reduces the need for electrical lighting.

Science Lab

Experiential Lab

EDUCATIONAL COMMUNITY/ LEARNING AMBIENCE

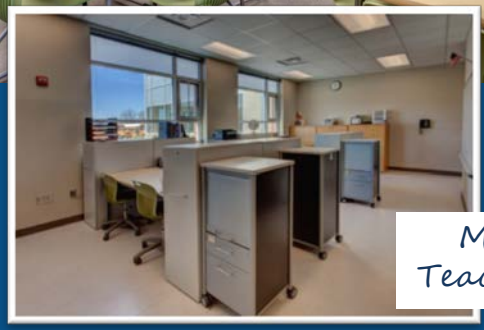
Innovative Learning Spaces

All Learning Community spaces are designed to facilitate student discussion and collaboration, as well as presentation and demonstration. ***Student Centered Problem-Based Learning*** is successful when the educational model provides for inquiry-based, multi-sensory, multi-path, collaborative learning that has real-world context. Students come to understand that problem solving is an interdisciplinary and iterative process, and that there is no one right answer; rather, that there a multitude of possible solutions and that each have benefits and consequences.

Black Box Theater

Media Center Collaboration Area

Culinary Arts Lab



Multi-Disciplinary Teacher Planning Space

Art Lab Vegetative Roof

SUSTAINABLE DESIGN

A Dynamic and Sustainable Outdoor Space for Learning and Exploration

Edible Garden

The **edible garden** contains planter boxes, a greenhouse, composting bins, and an outdoor classroom constructed from sustainable materials.

The planning, planting, maintenance, and harvesting of the garden will be fully incorporated into the science and culinary arts curriculum.

Rainwater from adjacent roofs is collected for **sustainable irrigation** and run-off is directed through the gathering garden.

Gathering Garden

Rainwater from adjacent roofs is collected and added to the irrigation run-off in **Rainwater Runnels**, which meander through the Amphitheater, gathering areas, and outdoor café as a visual reminder to students of the role of water in their school and environment.

Infiltration Garden

Seating areas and sustainable decking are interspersed within a **natural marsh environment**, allowing students to directly observe water infiltration: the completion of the water's journey through the educational courtyard.

CIVIC PRESENCE

A School that Unites, Teaches, and Inspires 21st Century Learners

This High School is an educational facility that has truly been designed from the inside out, planned to support and facilitate a new challenge-based learning curriculum focused on engaging students in their own learning, and collaboratively designed by the stakeholders who will benefit from its realization.

This unique and innovative **design directly responds and correlates to the new curriculum**, and serves as a model for future schools in the area.

Through participating in the design and planning of this educational facility, the entire community has produced a new school that they can respect, take pride in, and get excited about.

Main Entrance

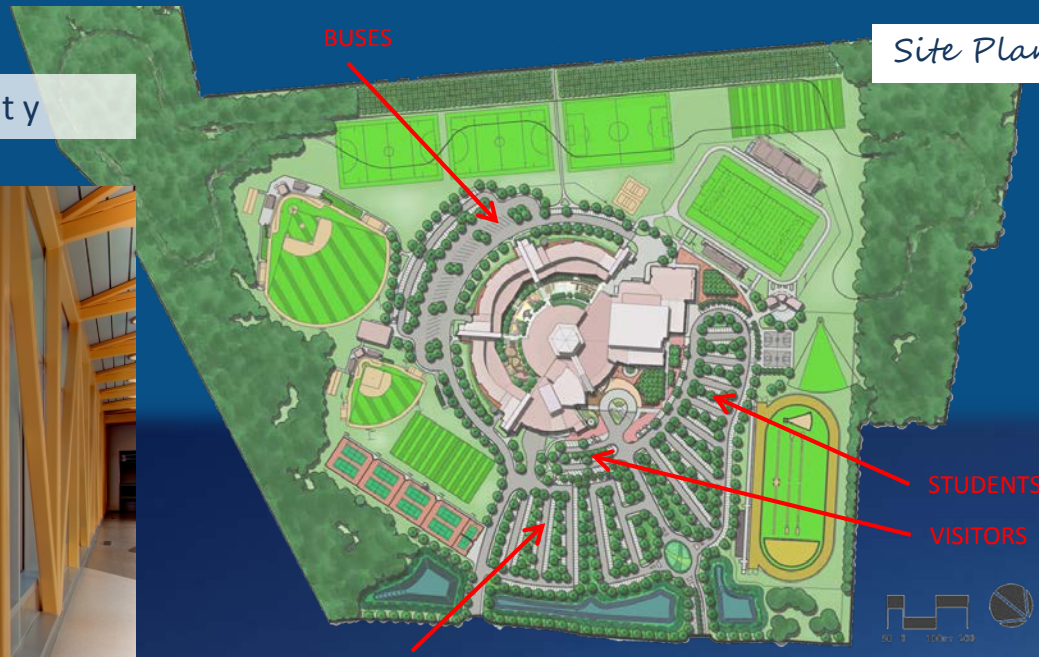
Commons/ Community Space

Entrance Lobby

SUBTLE SECURITY

Providing Passive Security & Safety

View from Bridge Connecting Commons to Learning Communities



Site Plan

Transparency

We worked with teachers to establish **optimum levels of transparency**, allowing visual connections between learning spaces for passive security and increased interaction and collaboration among students and teachers.

Controlled entrances and clear separation of parking areas maximizes visibility and safety.

Student Entrance

New Construction Category
Gold Award
Kellam High School Replacement

- Virginia Beach City Public Schools
- HBA Architects