

Dorothy Hamm Middle School

Arlington Public Schools

Arlington, Virginia



Executive Summary

To accommodate rapid growth, Arlington Public Schools determined that the historic Stratford Junior High School should be renovated and expanded to serve as a neighborhood middle school for the surrounding community. The new Dorothy Hamm Middle School incorporated a program, visionary in scope, that would modernize and enlarge the school with interdisciplinary, technology-rich learning environments to support collaboration, creativity, and critical thinking. From the start, a core challenge and unique opportunity was incorporating this visionary scope while preserving the building's key historic features and its compelling role in the civil rights movement.

The incorporation of a new 40,000 SF addition was key to meet the enrollment needs. This addition was organized around a large open grand stair and designed to help bring a new heart to the disjointed school. The first floor of the addition houses the high-energy spaces, such as the Auxiliary Gym with direct connection to the exterior play fields. The second floor introduces a vibrant student commons, at the nexus between the addition and the existing building, activating the new heart of the school. The third floor transitions to the more focused academic classroom and small group spaces.

With a limited budget and the need for an addition, the renovation of the existing building had to be strategic and smart - focusing on shared spaces, accessibility and unification. Furthermore, recognizing the need to prepare for

non-traditional and evolving careers, the school welcomed the incorporation of integrated, interdisciplinary learning spaces such as an active Family Consumer Sciences Center; a large Arts and Technology Lab, supporting innovation and creativity; and a Business Theater emphasizing the art of business both individually and collaboratively.

To help students navigate the labyrinth-like school, identification markers, signage and color themes were implemented throughout. The facet, with accents of color, was an integral theme incorporated throughout the design as both a wayfinding element and a nod to the site's history of integration. To remember and learn from the school's history in the civil rights era, numerous exhibits, artwork, and interpretive elements were woven into the design of the building encouraging students to be ambassadors of positive change.

Arlington Public School has a strong commitment to energy and environmental conservation that supported many of the improvements to this 75+ year-old building. The decision to reuse the existing building facilities was a huge contributor to overall resource conservation, and carbon reduction. For the Design Team it was not only important to promote a building design and construction effort that supported the district and community's green initiative, but also provided a healthy school environment that fully integrated sustainability on display as a tangible teaching tool.

Scope of Work and Budget

Owner:

Arlington Public Schools

Total Site:

9 acres

Student Capacity:

1,000

Grades Housed:

6-8

SF Addition:

40,000 sf

SF Renovation:

145,000 sf

Occupancy Date:

September 2020

Construction Cost:

\$30 million



School/Community Research & Engagement

The School Building: Ambitious from the Start

Dorothy Hamm Middle School, formerly known as Stratford Junior High School, opened in 1950 as one of the many schools built during the post-World War II construction boom in the Washington metropolitan area. The school was designed in the International Style prevalent during the era and is today one of few remaining examples of that architectural style in Arlington County.

The school was built according to a linear, rectangular plan and is clad in buff brick and sandstone veneer. The primary, northwest façade is highlighted by an elegant, columned portico that serves as the historic main entrance, flanked by two-story wings. Considered “Arlington’s most ambitious school construction project” at the time, the original building features concrete post-and-beam construction and high-end materials such as glass block and terrazzo. Stratford also boasted the first science laboratory specifically built for that purpose in the county.



Dismantling Racial Barriers: A Socially Progressive Legacy

While the building itself is distinctive for its architecture and construction, as well as its ambitious mid-20th century educational programming, Stratford would also later play a prominent role in Virginia's civil rights history. On February 2, 1959, the all-White junior high school became the first public school in the Commonwealth of Virginia to desegregate with the admission of four African American students: Ronald Deskins, Michael Jones, Lance Newman, and Gloria Thompson. The four seventh-graders were escorted into the school accompanied by 85 police officers. This landmark event, which took place nearly five years after the Supreme Court's *Brown v. Board of Education* decision, finally signaled the end of “massive resistance” to the integration of schools throughout the state and the nation.

“The experience benefited me and my family greatly, and it benefit many, many students who came behind me. So, it was a great experience, and I think it was better overall for not only the black student but everyone in this area.”

– MICHAEL JONES, ALUMNI WHO INTEGRATED THE
SCHOOL IN 1959

Retracing Their Steps

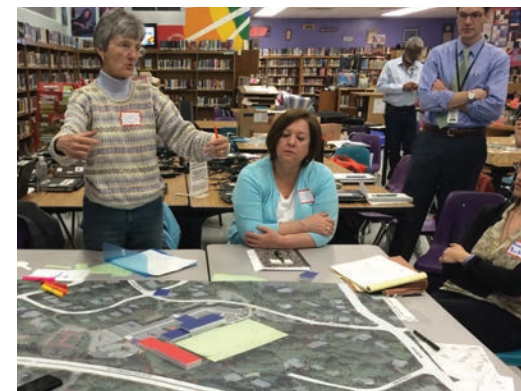
To accommodate rapid growth in the county's student population, school administrators determined that the building, which from 1978 to 2019 served as the H-B Woodlawn Secondary Program for grades 6-12, should be renovated and expanded to serve exclusively as a neighborhood middle school. The new program, visionary in scope, would modernize and enlarge the school with interdisciplinary, technology-rich classrooms, laboratories, and maker spaces to support collaboration, creativity, critical thinking, and teamwork.

"The history wasn't as well-known at the beginning, this project became the inspiration to take another look at this valuable piece of Arlington's history that allowed space for the conversation to begin, ways to honor and commemorate what happened at this site and display it for the middle schoolers."

- BEN BURGIN, ASSISTANT DIRECTOR OF DESIGN & CONSTRUCTION, ARLINGTON PUBLIC SCHOOLS

As a suburb of Washington, DC the county is a diverse and dynamic professional community that is very active, vocal and engaged with their public school system. Early on, our design team, school administrators, and concerned community members addressed one of the project's key challenges: transforming the building into a contemporary learning environment while preserving many of the building's historic features. Working closely with the Arlington County Historical Affairs and Landmark Review Board, we identified existing elements that were vital to the building's historic designations, as well as the school's compelling role in the civil rights movement. For Gloria Thompson, one of the original four Black students to desegregate the school in February 1959, this included preserving the historic southeast entrance. The original entrance, she notes, lets students "see the building how it was when we entered. They can retrace our steps."

The Design Team participated in County Historical Affairs and Landmark Review Board (HALRB) and Design Review Committee (DRC) meetings and wrote the Historic Structure Report documenting features, preservation philosophy and treatments. They also assisted in the development of Design Guidelines for the historic district based on the Secretary of the Interior's Standards for Rehabilitation, preceded by the Guiding Principles. Already listed on the Virginia Landmarks Register and the National Register of Historic Places, the school was designated as a Local Historic Landmark in Arlington County during the design process.



Educational Environment Design

A New Central Core

An open, grand central stair highlights the new addition, connecting all three levels both physically and visually. Purposefully located at the junction between the new and existing buildings the stair activates this interstitial space with the intent of unifying the addition to rest of the school. A dynamically patterned, faceted wall adjoins the grand stair, spanning all three levels and highlighting a key motif used throughout the school. The library was relocated to the addition and grouped with other “big box” spaces such as the gym and cafeteria in the existing building and the new auxiliary gym. The first floor of the addition is characterized by high-energy spaces such as the auxiliary gym, multipurpose fitness room, and locker rooms. The second floor introduces a vibrant student commons - an open, flexible space with a variety of comfortable seating options and a large media wall encouraging knowledge-seeking, collaboration and activism. This commons space and nearby, glass-front classrooms, surround the library and are highly integrated with the library programming. The third floor transitions to more focused, quiet spaces that includes daylight-filled small group collaboration rooms, as well as math and science classrooms. As highlighted in this new central core, color change from floor to floor across both the additional and existing building, as a means of orientation and wayfinding, and to integrate the new structure with the original building.

“The intersection between the old and the new is now considered the heart of the school,”

- ELLEN SMITH, PRINCIPAL



CENTRAL CORE CONCEPT



Integrated Programming

Recognizing the need to prepare for non-traditional and evolving career choices in the future, school administrators and educators emphasized the need for spaces that would support integrated, interdisciplinary learning. Examples of these new spaces in the renovated building include; the expansive Family and Consumer Sciences Center, which was created in the former location of the library to combine multiple programming needs in to a space that is flexible for a complex range of uses and multi-class operation, a large learning suite and maker space bringing technology and the arts together and supporting creative student projects and innovations and theater-style labs, like the new Business Lab, to enhance student collaboration and promote technology, media, and information literacy.

Relocated to the addition, the new library has become an integral part to the new heart of the school. Linked to the new Student Commons, the library seeks to encourage student engagement with each other and the world, providing a diversity of group gathering spaces while digitally them connected to local and world initiatives. The Library also provide a place for literary escape, quiet study and group research. Moreover, classrooms like Journalism and Reading are co-located and fully integrated in to the library area, facilitating and encouraging discovery, curiosity and active learning.

“Family Consumer Sciences is formally Home Economics... They come in here and it is like home. And they do, they enjoy cooking, and they’ll sit around the table and eat their meals together and talk and they visit. It is just not like any other class. And so, this space allows us to do that. This space allows us to be a family, like our own school family where the kids build their connections and their build their relationships. They really just get to know each other.”

— CHRISTINE TAYLOR,
FAMILY CONSUMER SCIENCES TEACHER,
DOROTHY HAMM MIDDLE SCHOOL

FAMILY & CONSUMER SCIENCES CENTER



FAMILY & CONSUMER SCIENCES CENTER



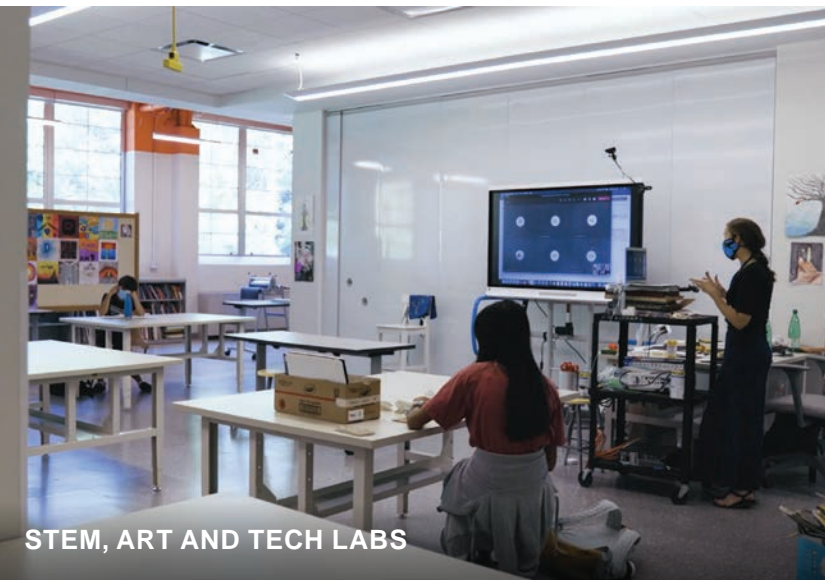
STEM, ART AND TECH LABS

Powerful Learning

In both the addition and the renovated existing building, the team designed expansive, light-filled classrooms that enable students to work either independently or collaboratively in small groups. “We want classrooms that are going to grow with the students, grow with the teachers and technology, and that are built sustainably,” says Elise Krueger, a seventh-grade teacher. “We want our learning spaces to create the opportunity for students to learn critical skills and problem-solving in authentic ways. That is powerful learning,” adds Principal Smith. School Administrators agreed, they need to move away from the traditional classroom. “The teacher is not the sage on the stage anymore. The teacher is the coach. They’re facilitating the building of these skills through rich content and enriching learning experiences.”

“The possibilities really for kids to collaborate in an environment that’s open like this, are incredible. I think the lines of what’s art and what’s science, and what’s technology are really blurring today. That’s truly a 21st century skill that we want them walking away with. And so having this pace to create the opportunity for this kind of learning has been brilliant”

- ELLEN SMITH, PRINCIPAL



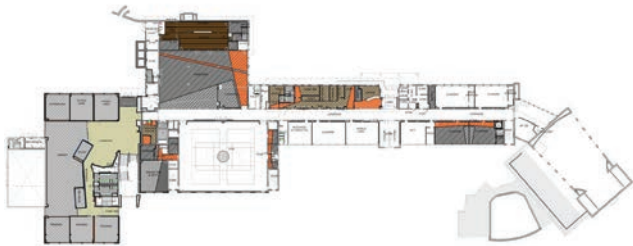
STEM, ART AND TECH LABS



STEM, ART AND TECH LABS



3RD FLOOR PLAN



2ND FLOOR PLAN



1ST FLOOR PLAN



BASEMENT LEVEL FLOOR PLAN



AUXILIARY GYM AND RETENTION BASIN



MAINTAINING HISTORIC SOUTHEAST ENTRANCES

Physical Environment Design

Locating the Addition

Siting the 40,000-square-foot addition, which represented a significant intervention on the site, was the major challenge for the design team. Working with community stakeholders, we explored several alternatives. Considerations included maintaining a compact configuration with highly functional connections to the existing building; minimizing disruption to the site, including its recreational and green spaces; and preserving the façade and existing views of the historic structure.

The addition was ultimately positioned at the southwest end of the building on an existing parking lot. This allowed the new structure to connect to three of the four stories in the original building. This alternative proved to be the least invasive solution, preserving existing views and creating a vibrant new central core for the school.

"I been tasked with carrying forward and ensuring all of our student know the civil rights history that happened here and understand that this is still work we are doing as a school, as a county, as a commonwealth of Virginia, and as a nation."

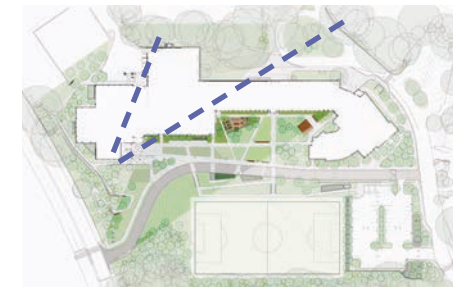
- ELLEN SMITH, PRINCIPAL

Siting the addition in this location was also really important to the community in that it preserved the historic view shed of the path the 4 students took on their way to integrate the school in 1959.



BEFORE

HISTORIC VIEW SHED



FINAL SITING PLAN



Results of the Process & Project

Celebrating History

Dorothy Hamm, a local civil rights activist and leading advocate for equal rights for African Americans in Virginia, was a leader in the federal desegregation suit filed in 1956 that led to the integration of Stratford Junior High School. Hamm was determined that her three children would not be denied admission to schools or other public facilities, and her own son, Edward, entered Stratford seven months after the first Black students were admitted. In 2019, with the completion of a major addition and renovations at the school, Stratford was renamed Dorothy Hamm Middle School in honor of her achievements. The school now serves students in grades 6-8, with a capacity that has expanded from 700 students to 1,000. In recognition of its significant role in dismantling racial barriers and advancing civil rights for Black students in Virginia, the school has been listed on the Virginia Landmarks Register and the National Register of Historic Places, and as an Arlington County Historic District.

Throughout both the interior and the exterior of Dorothy Hamm Middle School, students encounter numerous exhibits, artwork, and interpretive elements that focus on the school's important history in the civil rights era. Banners and large graphic images depict the four African American students who first desegregated the school as well as other heroes of the civil rights movement.

"There's a history in this building that's a really important part of what we're trying to ensure that kids understand—the civil rights history and the desegregation of this building, everything in this building can be a learning experience."

- ELLEN SMITH, PRINCIPAL



NEW INTERPRETIVE PANELS ON COMMEMORATIVE TRAIL



Sustainability and Wellness

Energy and Environmental Conservation

The chosen configuration of the addition consolidated the program into a relatively small, three-story building footprint, and located it on top of an existing black-top parking lot. This move alone reduced the impact to the surrounding environment, reduced heat-island effect, and maximized the community's highly-valued exterior open space. This couples with a high-performance envelope, LED lighting, and energy-efficient HVAC system helped minimize energy use and cost.

Respect for the surrounding environment was also important. The design team incorporated bird-friendly glazing to the large expanse of glass encasing the new Auxiliary Gym to provide a safer environment for local bird communities. The landscape design integrated pollinator gardens and native planting throughout the site to help to strengthen the surround ecosystem. Additionally, green roofs and planted bio retention areas were provided as sustainable means of stormwater managements.



DAYLIGHT & VIEW OF GARDEN



NEW AUXILIARY GYMNASIUM



OUTDOOR STUDENT SPACES

Health and Wellness

The design focused on providing spaces that support the whole student – physiologically, emotionally, socially and intellectually. Good air quality, access to natural light and views, and plentiful outdoor environments help the building space attend the needs of the students and teachers so they can thrive in their learning environment. The addition strives to reconnect the school to its outdoor spaces. The new entry provides direct connection to both the soccer field to the east and the shared parks and recreation tennis and baseball fields to the west. The mobile classrooms were removed from the historic courtyard and the space was reactivated with outdoor learning spaces and gardens to entice student use of the outdoor space. Increased ventilation, operable windows, conscientious use of products with low to no VOC's, and promoting a completely smoke-free site helped to increase the indoor air quality. Ample natural light and adaptable lighting systems provide for a brighter and more effective learning environment.

"[The students] are amazed by how bright these rooms are. They are amazed by how big and open these rooms feel."

– **ELISE KRUEGER, 7TH GRADE TEACHER, DOROTHY HAMM
MIDDLE SCHOOL**



NATURAL LIGHT CLASSROOMS



NEW AUXILIARY GYMNASIUM



HALLWAY DISPLAY

Sustainability On Display

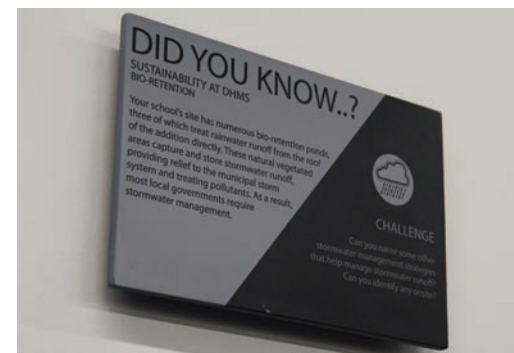
Throughout the building, displays explain the sustainable design of the building, allowing the building itself to serve as a learning tool. Individual signs are located inside and outside the school highlighting out sustainable features incorporated into the design of the school. A location for the Energy Dashboard was chosen adjacent to the Media Wall in the Student Commons to show real-time data on how the building is performing. Located in the Heart of the School the intent was to put this important information front and center. To utilize the building as a teaching tool, select areas of the school intentionally remove the ceiling to expose building systems above and near the Science Classrooms a display peels back the wall to visually show the different materials used to create the high-performing thermal envelope.

“Everything in the Building can be a learning experience...so walking down the hallway kids can see signs that talk about sustainability, talk about how the building was designed and why it was designed this way...That’s a really important and enriching experience for kids and for teachers to utilize as part of their teaching tool kit.”

– ELLEN SMITH, PRINCIPAL, DOROTHY HAMM MIDDLE SCHOOL

“I love the building envelope [display]. I look at it every morning when I come in.”

– ELISE KRUEGER, 7TH GRADE
TEACHER, DOROTHY HAMM MIDDLE
SCHOOL



MEDIA WALL IN STUDENT COMMONS

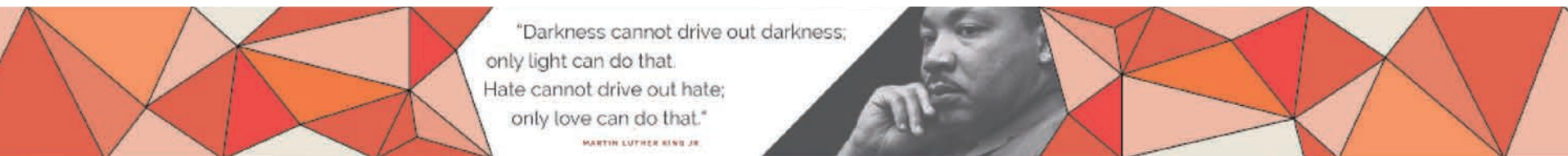
Navigation and the Facets

To help students navigate the large school, identification markers and color themes were implemented throughout with new signage and use of connecting colors and artwork in hallways.

The facet, with accents of color, was introduced throughout the renovation and addition as both a wayfinding element and a nod to the site's history of integration. Within the ridged grid of the existing building, the facets illustrate the beauty and importance of standing out from the established order. Furthermore, a facet or triangle is one of the most stable and flexible forms; each facet, though different, is integral to the greater whole. This symbolizes the diverse student body that make up Arlington today, especially relevant at this site while referencing the spirit of the Arlington students who were empowered to take charge of their own education during the civil rights era. The design seeks to challenge students to think about what their impact is and what changes they want to see for themselves and the world - just like the brave Stratford four did for Arlington Public Schools and the nation as a whole in 1959.

"[As] 7th graders unfortunately you don't realize how big it is at the time...it was just something that had to be done."

— MICHAEL JONES, ALUMNI WHO INTEGRATED THE SCHOOL IN 1959



"Darkness cannot drive out darkness;
only light can do that.
Hate cannot drive out hate;
only love can do that."

MARTIN LUTHER KING JR.