

2022 Exhibition of School Planning and Architecture Northeast Region

Benjamin W. Murch Elementary School
District of Columbia Public Schools

4810 36th St NW, Washington, DC 20008

Benjamin W. Murch Elementary School



Benjamin W. Murch Elementary School



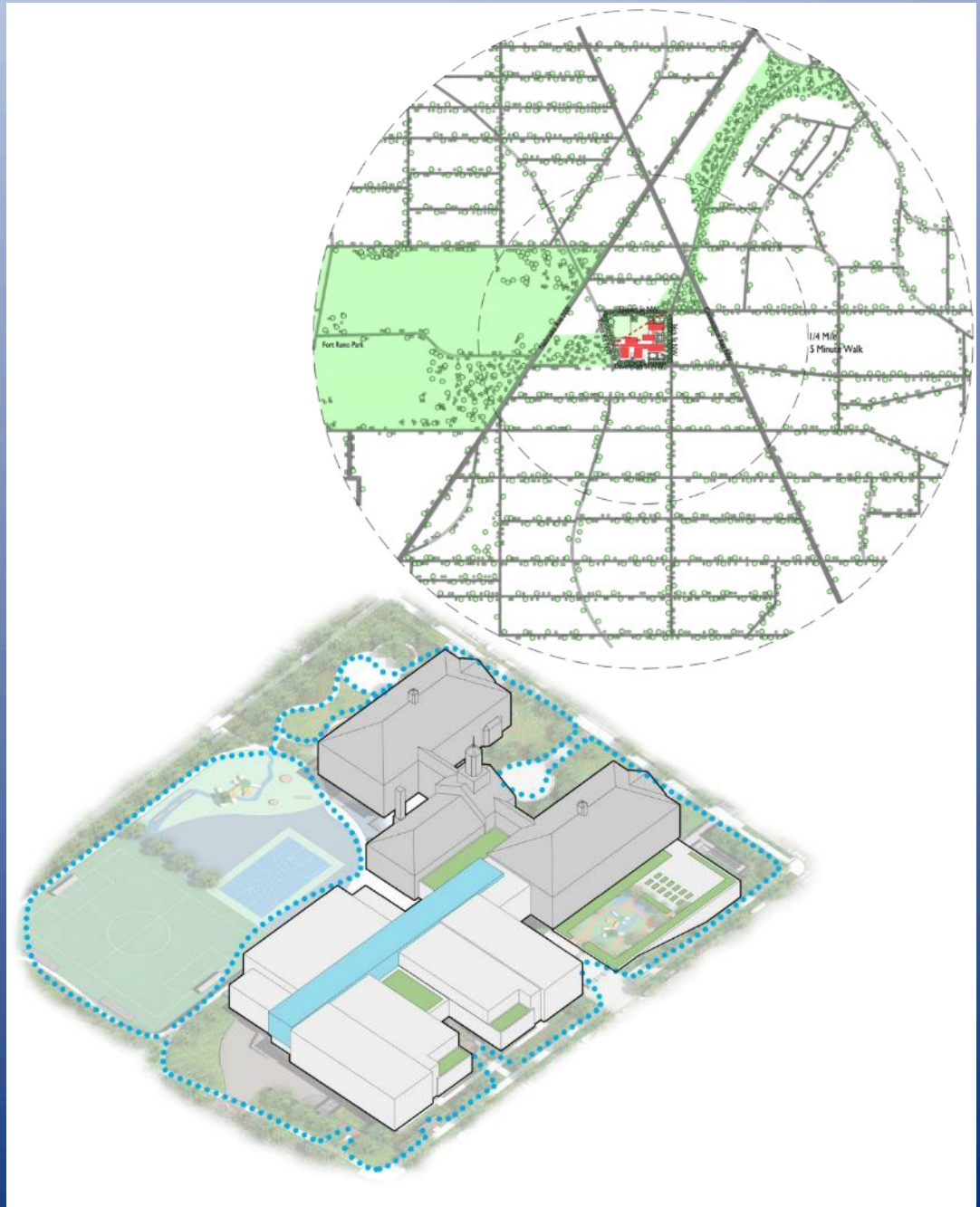
“A School in the Park”

Responding to History & Place at the Urban Scale

Community Environment:

The site of Benjamin W. Murch Elementary School is situated along a path of contiguous green space that cuts through the dense residential area of northwestern Washington, D.C. This open space has become the beating heart of the surrounding community, and the design team made a concerted effort to respect the scale of adjacent single-family homes while maximizing the amount of open space on and around the building. The resulting building massing allowed the design team to nestle the new addition seamlessly into this context.

As the project site was part of the ring of the Civil War Defenses of Washington, adjacent to the site of Fort Reno, the design team conducted an archeological investigation of the site to assure no historic artifacts were damaged during construction. Since the site was part of this ring, a portion of the site was deeded to the District of Columbia from the National Park Service for use for recreation of the citizens of Washington.



Universal Access: Integrating a Two-Sided Entrance

Community Environment:

The school district created a School Improvement Team (SIT), which partnered with the design team from the beginning of concept design through construction. The SIT committee consisted of teachers, staff, parents, students and neighborhood stakeholders.

The front door to a school is a critical access point, and is an expression of how a school opens up to its neighbors. In conversations with the SIT committee, the design team understood the need to have a centralized entry that could be accessed on two sides of the site. These conversations led us to place the entry off Davenport Street and make it easily accessible from the playground.

Davenport St. Entrance



Playground Entrance

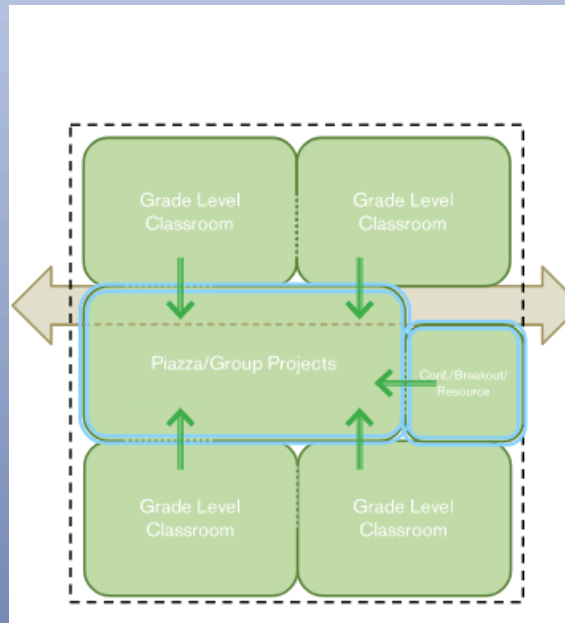


Designing for the Reggio Emilia Approach

Learning Environment:

The Murch ES project was designed to promote student success. This included incorporating Reggio Emilia inspired learning spaces to enhance the existing school pedagogy, in addition to collaborative work areas for faculty/staff, outdoor learning and recreation space for the school and community. As part of the student success, we also focused on the wellbeing of the student. The team used biophilic strategies to create interior and exterior environments that help facilitate mental wellbeing by reducing stress and promoting increased cognition.

The school is designed with a range of formal and informal learning environments throughout. Whether it is small breakout rooms, the Lower School Commons, or the Nexus, students and teachers have different sizes and types of spaces to meet. The corridors are designed with large tackable surfaces to maximize opportunities for display and learning.



Varied and Flexible Learning Environments

Learning Environment:

In working with the SIT and the DC Public School District, we were able, together, to shift program square footages, find efficiencies and use the building's pod layout to create opportunities for the school's curriculum. This is best demonstrated by how the Pre-K and K pods have direct access to a variety of learning spaces, which include the lower school commons, group breakout rooms and an outdoor learning courtyard.

The site includes sports fields, several play structures, colorful site furniture and a number programmed outdoor learning environments. These environments include a bird and butterfly pollinator garden, a labyrinth and school farm, which sit on top of the green cafeteria roof off the main entrance. A special courtyard is also designed for Pre-K and K students containing a learning garden and play turf.



Surmounting Site Utilization Constraints

Physical Environment:

The historic Murch school offered a severe site utilization challenge. Guidance from the Historic Preservation Office indicated their desire for the street-facing elevations to be as visible as possible, retaining primacy on the site. The steep slope of the site created an opportunity for the cafeteria program to be embedded in the ground on a prominent corner of the site. This let the historic elevations remain visible while providing an opportunity for a rooftop Pre-K play area, which becomes an inviting element to the main entrance approach.

The new main entrance provides a clean, fully glazed separation between the existing and new classroom wings. The entry is reduced in scale to avoid interrupting the existing building's quoins and cornice. The color of the brick and the arrangement of the classroom windows are influenced by the existing building's rhythm



“A School in the Park” Using Biophilic Design to Enhance Student Success

Physical Environment

Due to site and construction constraints, each floor of the new addition is two feet lower than the existing building. On Level Two, the need for this transition led to the Nexus. The Nexus is a circular breakout learning space, large enough for a class to meet, which also happens to have a ramp and stair. It is here the details of the existing building are exposed, and careful attention was paid to patterns, form, and material selection.

This is one of the areas where the notion of “A School in a Park” is brought in and through the building. Where large expanses of glass enhance views to the exterior, the visual transition from inside to outside is softened by a canopy of wood slats and Biophilic design elements. A second example is taking what ordinarily would be a simple gymnasium pre-function space deep in the center of the floor plate, and transforming it into a light-filled, vibrant hub of natural materials and varied patterns.



Community Partnership

Planning Process:

The design team used various activities with the SIT to solicit hopes, concerns, generate ideas and receive feedback. These meetings were instrumental in shaping the final design. Early in the project, we divided into small groups and placed 3D printed program blocks on the site. The SIT used this activity to illustrate one of their clear goals for the project; maximizing the site's contiguous open play space. Conducting multiple meetings and participating in these activities allowed the community's voice to be heard. This led to concrete changes in the design, such as placing the parking in a garage under the gym and placing the cafeteria under the Pre-K / K playground in the Southeast corner of the site.



Planned For Students, By Students

Planning Process:

As the design progressed, the partnership between the community and SIT continued. Together in Schematic Design we used an activity called the “Brown Paper” exercise. In this activity, dozens of precedent images were placed on butcher’s block paper. The resulting comments formed a clear vision for the character of the new school, which informed the massing and materiality of the addition. The SIT committee was not the only group who participated in these activities. The students themselves were included in the discussions to play with the 3D blocks and comment on the precedent images.

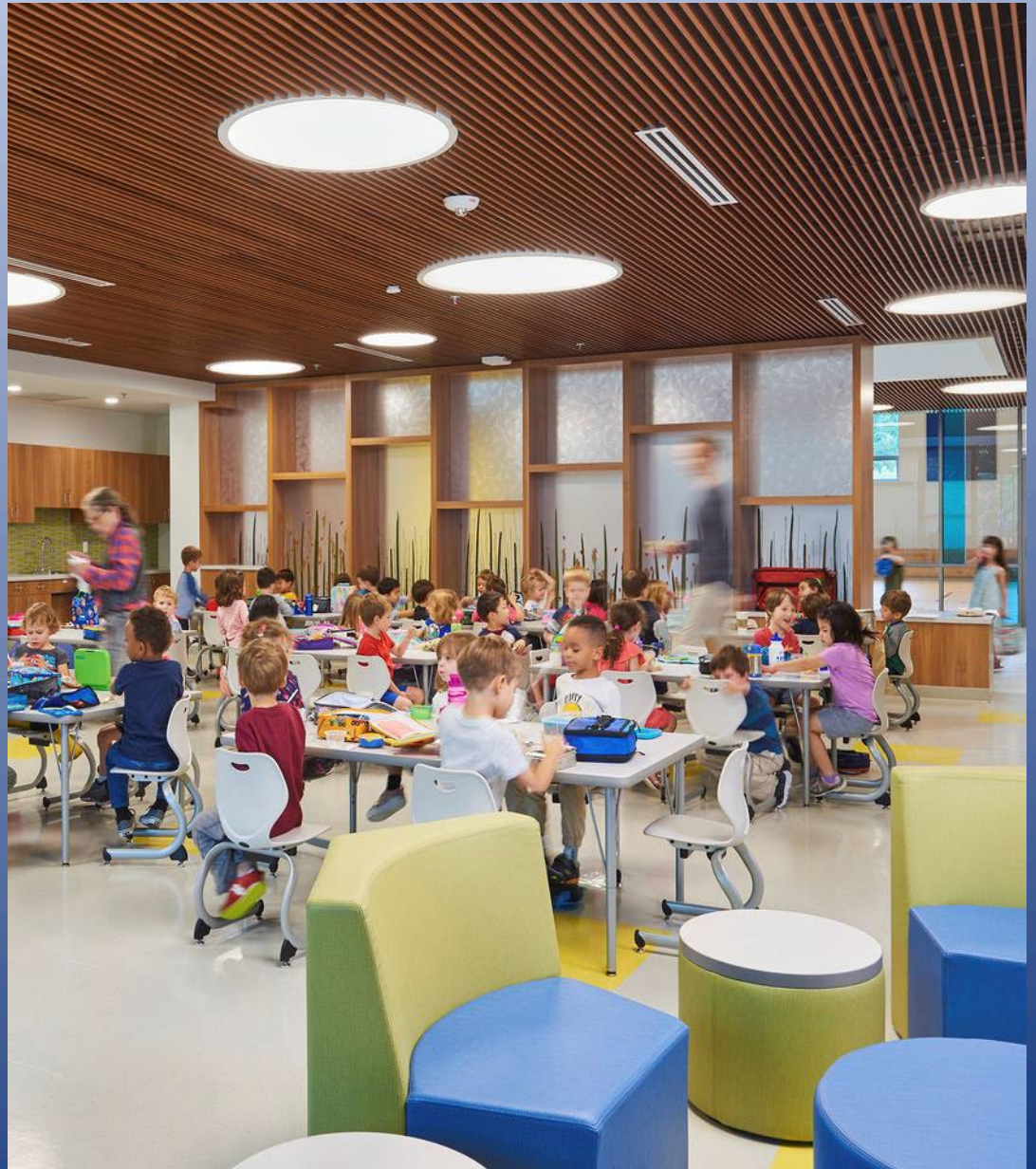
Finally, in construction as the configuration of the playgrounds were being finalized, we engaged a group of students in a variety of activities to inform the type and arrangement of the playgrounds, which influenced the final design and equipment placement.



Dedicated Space for Pre-K/K Activities

Revolutions in Learning

The Pre-K / K commons offers a fully customizable, flexible area designed to accommodate any activity the school needs. This includes student dining, large group learning, and smaller scale assemblies. There are two breakout rooms that open directly to the commons, and sinks and cabinets are provided.



Integrating School-Specific Needs with District-Wide Requirements

Revolutions in Learning

The design team was provided an education specification (ed spec) at the onset of design. In order to adapt the ed spec to the pedagogy of the school, the design team validated and refined the program to incorporate additional spaces in the process. In order to maximize the educational environment and diversity of spaces without increasing the overall size of the building, the design team right-sized the spaces to the educational need. This allowed all the Reggio Emilia Approach spaces to be incorporated without increasing the budget.



FIRST FLOOR PLAN



BASEMENT LEVEL



1. SPINE
2. COMMONS
3. GROUP STUDY
4. PRE K / K CLASSROOMS
5. CLASSROOMS
6. ADMINISTRATION
7. GYMNASIUM
8. LIBRARY
9. MUSIC
10. ART
11. PARKING GARAGE
12. CAFETERIA
13. NEXUS
14. FOREIGN LANGUAGE



SECOND FLOOR



1. SPINE
2. COMMONS
3. GROUP STUDY
4. PRE K / K CLASSROOMS
5. CLASSROOMS
6. ADMINISTRATION
7. GYMNASIUM
8. LIBRARY
9. MUSIC
10. ART
11. PARKING GARAGE
12. CAFETERIA
13. NEXUS
14. FOREIGN LANGUAGE



Exhibition of School Planning and Architecture

Project Data

Submitting Firm :	Hord Coplan Macht
Project Role	Associate Architect
Project Contact	Scott M Walters, AIA, LEED AP
Title	Principal, Design Director - Education
Address	700 E. Pratt Street, Suite 1200
City, State or Province, Country	Baltimore, MD 21202
Phone	443-451-2347
Joint Partner Firm:	R. McGhee & Associates
Project Role	Architect of Record
Project Contact	Ronnie McGhee, FAIA, LEED AP
Title	Principal
Address	2013 Florida Ave, NW – 3 rd Floor
City, State or Province, Country	Washington, DC 20009
Planner on Record:	
Name	
Address	
City, State or Province, Country	
Phone	
Email	
Construction Firm:	MCN Build
Project Role	Design Build Partner
Project Contact	Bassem Boustany
Title	
Address	1214 28 th ST. NW
City, State or Province, Country	Washington DC, 20007
Phone	2002.333.3424

Exhibition of School Planning and Architecture

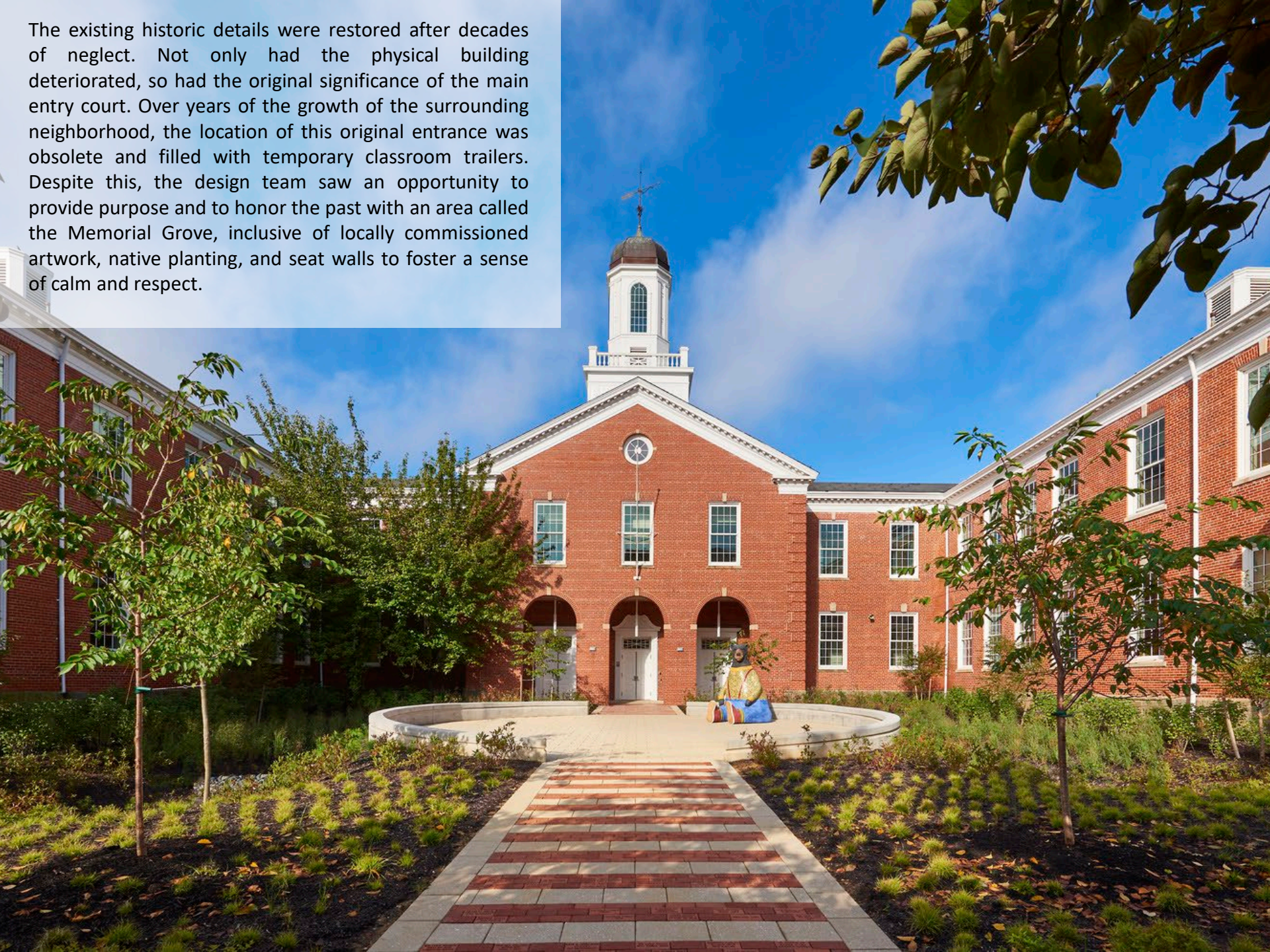
Project Details

Project Name	Benjamin W. Murch Elementary School Modernization and Addition
City	Washington DC
State	
District Name	District of Columbia Public Schools
Supt/President	
Occupancy Date	Summer 2018
Grades Housed	Pre K – 5 th Grade
Capacity(Students)	730
Site Size (acres)	3.8
Gross Area (sq. ft.)	113,843 GSF
Per Occupant(pupil)	155
gross/net please indicate	1.20
Design and Build?	Yes
If yes, Total Cost:	Withheld at the owners request
Includes:	
Project Costs	
If no,	
Site Development:	
Building Construction:	
Fixed Equipment:	
Other:	
Total:	



The second floor main corridor provides an open stair connecting to the main entrance, while offering views to the historic cupola. Large tack surfaces line all corridor walls to provide ample display of student work.

The existing historic details were restored after decades of neglect. Not only had the physical building deteriorated, so had the original significance of the main entry court. Over years of the growth of the surrounding neighborhood, the location of this original entrance was obsolete and filled with temporary classroom trailers. Despite this, the design team saw an opportunity to provide purpose and to honor the past with an area called the Memorial Grove, inclusive of locally commissioned artwork, native planting, and seat walls to foster a sense of calm and respect.





The Pre-K / K commons connects directly to a play courtyard. Tack and writable surfaces are integrated into the architecture, and biophilic materials and shapes are designed into the ceiling.



Understanding how the brain reacts to natural daylight allowed the design team to open up the north-facing gymnasium to daylight and views of the adjacent play fields. Exposure to natural light is linked to benefits to alertness, circadian rhythm regulation, and metabolism. Maximizing children's access to daylight is essential to their well-being during the school day.



Preserving the existing stage platform of the old multipurpose gymnasium honors the old while ushering in the future. The space has been adapted into a new media center, featuring a maker space which inhabits the raised platform, visually connected to the larger space. Low bookshelves and furniture can be easily reconfigured to maximize flexibility. The design team took great care in selecting the details that were restored in order to maintain the connection to the school's history.