

PROGRAM RESPONSE

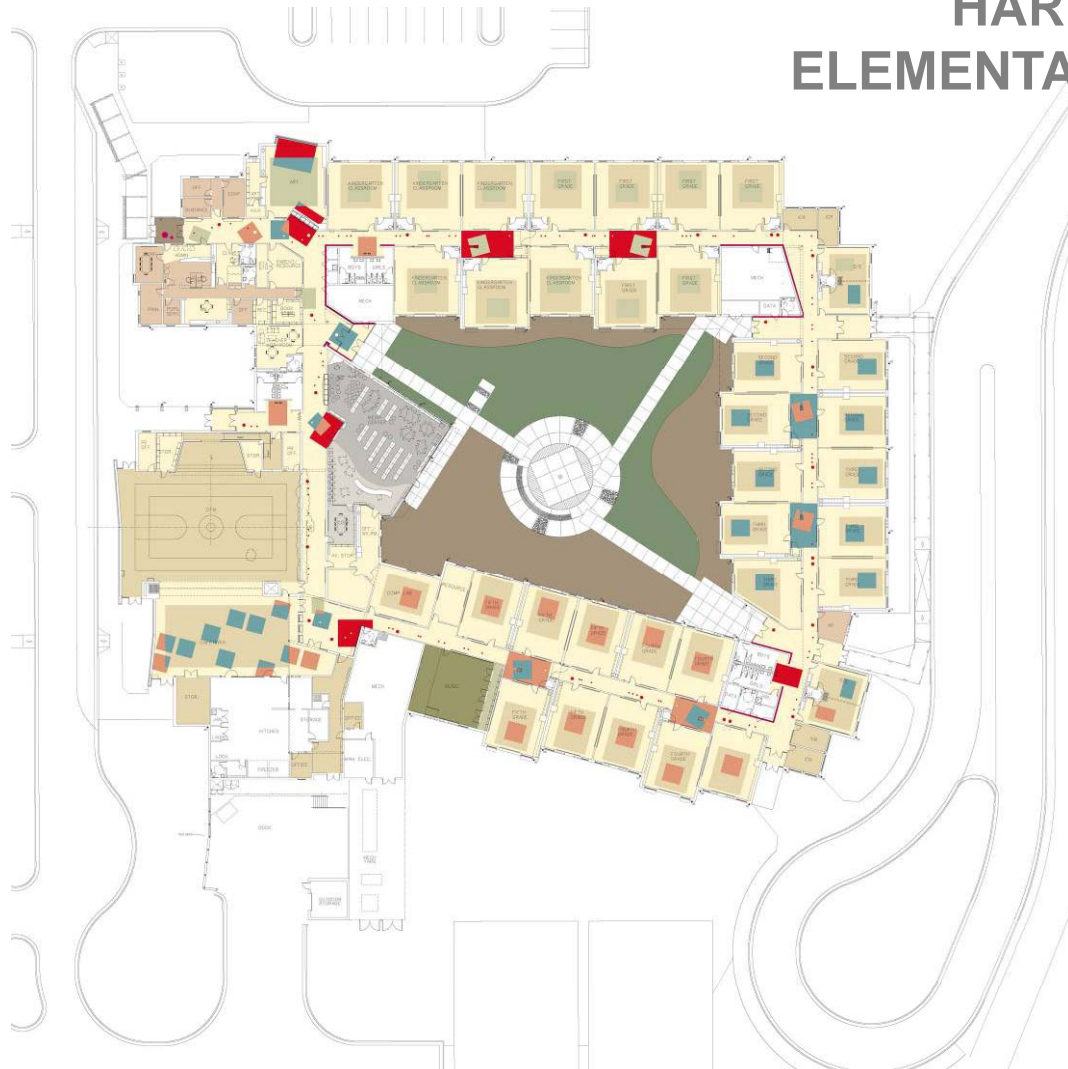
Harvie Elementary School sits at the corner of Harvie Road and Laburnum Avenue in eastern Henrico County. It is designed for 750 students and can be expanded to 950. It represents an entirely new school design tailored specifically for its site and its community.

SPATIAL ORGANIZATION

The school is a one-story design with four distinct interconnected wings. The front of the school, which faces both Harvie and Laburnum, is made up of the public spaces such as the Administration Suite, Multipurpose Room, Cafeteria, Media Center, Music, and Art Classrooms.

All of the classrooms are located in three wings forming a continuous loop. This loop encloses a generous courtyard of both hardscape and landscape areas and is intended to be used as an outdoor classroom.

HARVIE ELEMENTARY





INNOVATIVE ELEMENTS

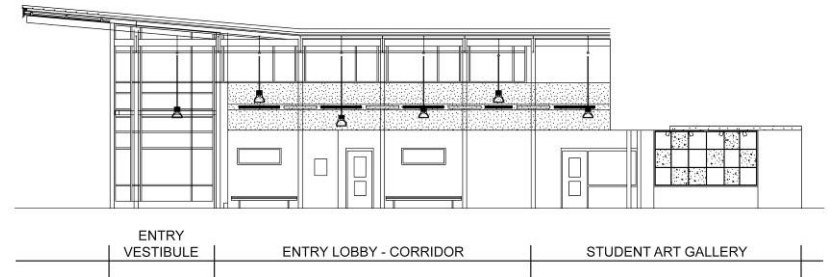


At the center of the outdoor courtyard is a paved compass-rose pointing to true north using inscribed lettering. When used with a shadow casting pole or gnomon, it acts like a sun dial. Students can track the sun's movement through time in relation to our position on the Earth.





DESIGN EFFICIENCY



The Cafeteria and the Multi-Purpose Rooms are located adjacent to one another and are joined by a folding partition wall. This allows the space to expand for large school and community events. Both rooms have similar ceilings and windows allowing for day-lighting and views out to the site. Natural light enters these rooms making a colorful vibrant space during the day. High-efficiency dimmable fluorescent lights provide warm lighting during evening and overcast days.

The Multi-Purpose Room, with adjacent public restrooms, can be entered through an easily supervised separate exterior entrance during evening and weekend events. A lockable corridor gate can be used to restrict access to other building areas during off-hour events.

LEARNING AMBIENCE

Harvie Elementary is designed for multiple opportunities to experience learning. Due to the school's response to solar orientation, there are two subtly different types of classrooms. Each has a slightly different ceiling treatment and window arrangement, and provide generous amounts of natural light and lighting control to accommodate both high tech and traditional instruction. Natural lighting is controlled by exterior shading devices, glazing types, and interior shades. Artificial lighting can be adjusted to various levels based on the teacher's preference.

Children and teachers enjoy the benefits of nature as an integral part of their learning experience. Each classroom has operable windows allowing for fresh air and views to the outside. The classrooms are designed with both high and low windows for optimal natural lighting while allowing for daylight and glare control.



TECHNOLOGY INTEGRATION

The Media Center's location makes it a prominent element in the school and on the courtyard. It is organized to allow for multiple activities and types of classroom instruction. It utilizes both traditional and state-of-the-art teaching technology. The Media Center is designed for flexibility to allow for school instruction, small community gatherings and parent teacher meetings.



LEARNING AMBIENCE



A combination of color patterns and interior materials throughout the school reinforces the goal of making Harvie Elementary a place of active learning for growing minds. Two unique display cases allow for presentation of student work and objects provided by the teachers. This promotes a learning environment that is always dynamic and stimulating. Students can also display their work in classrooms and along the corridors.

The classroom wings are designed with a mechanical access walkway above the corridors, with all of the mechanical equipment located along this catwalk. This allows for all of the mechanical systems and equipment to be serviced and maintained quickly and easily, without having to enter the classroom and interrupt the activities. This design also isolates noise-making equipment from the classrooms, improving the quality of the classroom environment.

INNOVATIVE ELEMENTS





Each classroom wing has two “common learning” spaces along the corridor that can be used as additional instruction spaces for individuals or small groups. Throughout the school, benches and seating are strategically placed to provide for collaborative experiences and informal learning.

A series of various sized red “dots”, ring the entire loop of the school corridors. These are intended to be both playful as well as directional elements that can be used by the teachers to line up their students when moving about the corridors.

INNOVATIVE ELEMENTS





SUBTLE SECURITY



The primary school entrance is prominently located and identifiable by the architectural design of the exterior.

All points of entry have full height and width window walls. This allows for uncompromised visibility from the interior and promotes security through visual monitoring and observation. The main entry is located adjacent to the front reception office; this allows for security monitoring and access control. All visitors are required to pass by the reception desk accessing the rest of the school. Safety and control is also achieved through the use of security cameras, keypad entryways, and handicap accessible doorways.

All spaces outside the building are open for easy observation and clear views. Almost one third of the building's exterior is secure by being enclosed within the exterior courtyard.

Each face of the building exterior is responsive to its particular orientation to the sun. The south, east, and west facing sides have been designed for shading by use of roof overhangs, horizontal solar shading devices, and plane changes. These create shade while allowing for generous daylight and views. The north facing sides have flat planes and no overhangs or exterior shading, maximizing the benefits of north light.

The exterior materials, brick, metal panel, metal roofing, and glass are durable for no- to low-maintenance. The metal panel and glazing systems both have high levels of recycled content and can be easily recycled.

The interior of this building uses low-odor (VOC) paints and adhesives, operable windows, CO2 sensors, and natural fabrics. Individual offices, conference rooms and workrooms are provided direct or borrowed natural light from adjacent spaces, but are still allowed privacy through the use of translucent and transparent glass.



SUSTAINABLE DESIGN



SITE SIZE: **19.57 acres**

STUDENT CAPACITY: **750 students**

AREA OF BUILDING: **79,188 SF**

TOTAL PROJECT COST: **\$15,437,500**

COST PER SQFT: **\$195**

PROJECT IDENTIFICATION

COST PER STUDENT: **\$20,583**

SPACE PER STUDENT: **106 SF**

DESCRIPTIVE DATA

Harvie Elementary School

Henrico County ,VA

Dr. Patrick J. Russo, Superintendent

Henrico County Public Schools

BCWH Architects

Principal–In-Charge: **Charles D. Piper, AIA, REFP, LEED AP**

Project Manager: **Bo Fairlamb, AIA, LEED AP**

Project Architect: **R. Scott Wheeler, LEED AP**

Interior Designer: **Elena Epstein, CID, LEED AP**

MEP Engineer: **Hurd & Obenchain**

Structural Engineer: **Stroud Pence & Associates**

Civil & Landscape Engineer: **Timmons Group**

Contractor: **Gulf Seaboard**

Photographer: **Chris Cunningham Photography**



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