



Bancroft Elementary School

Andover, MA

A4LE 2016 Exhibition of School
Planning and Architecture
Category of Entry: New Construction

Planning Process

The Town of Andover sought to express its commitment to educational excellence through its new neighborhood-focused school. The project was conceived with full community and abutter input over the course of two years and hundreds of meetings. Early on it was resolved to not simply be a “brick box” but to take on a shape through rotational plan moves addressed each neighborhood with its distinctive end facades.



Kids peaking in during construction



Before



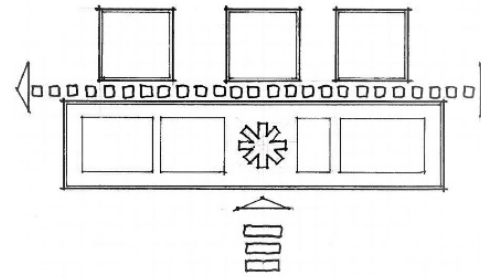
After

Community Environment

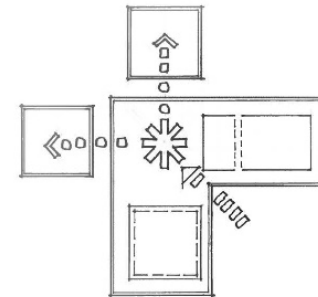


A History of Open Plan

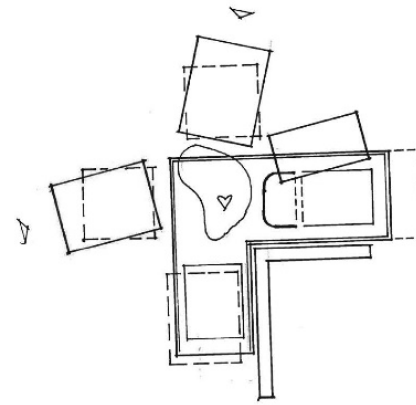
Nestled into one of Andover's more rural and pastoral neighborhoods, once farmland with plots defined by both historic and newer stone walls and large grand homes, the new Bancroft School replaces a beloved but structurally failing open plan school from the 1960's, which was whimsically designed to look like a castle (complete with moat!). With rising enrollments, school consolidation and changing educational needs the new school is twice the program area, prompting and engaged and sustained design conversation with the Town and neighbors.



Bancroft Base Diagram



Bancroft Centered/Stacked



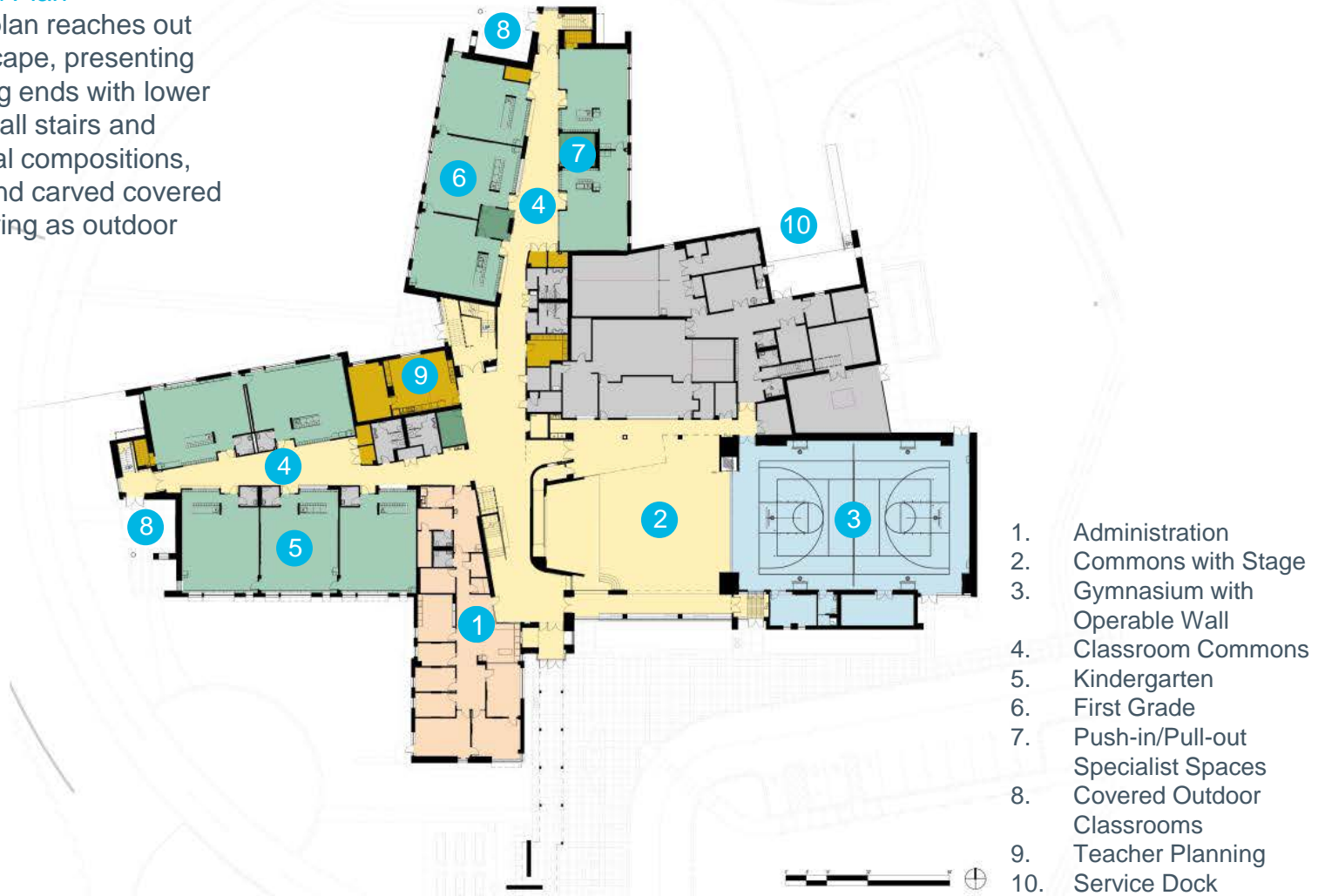
Rotation & Layering

View from Neighbors

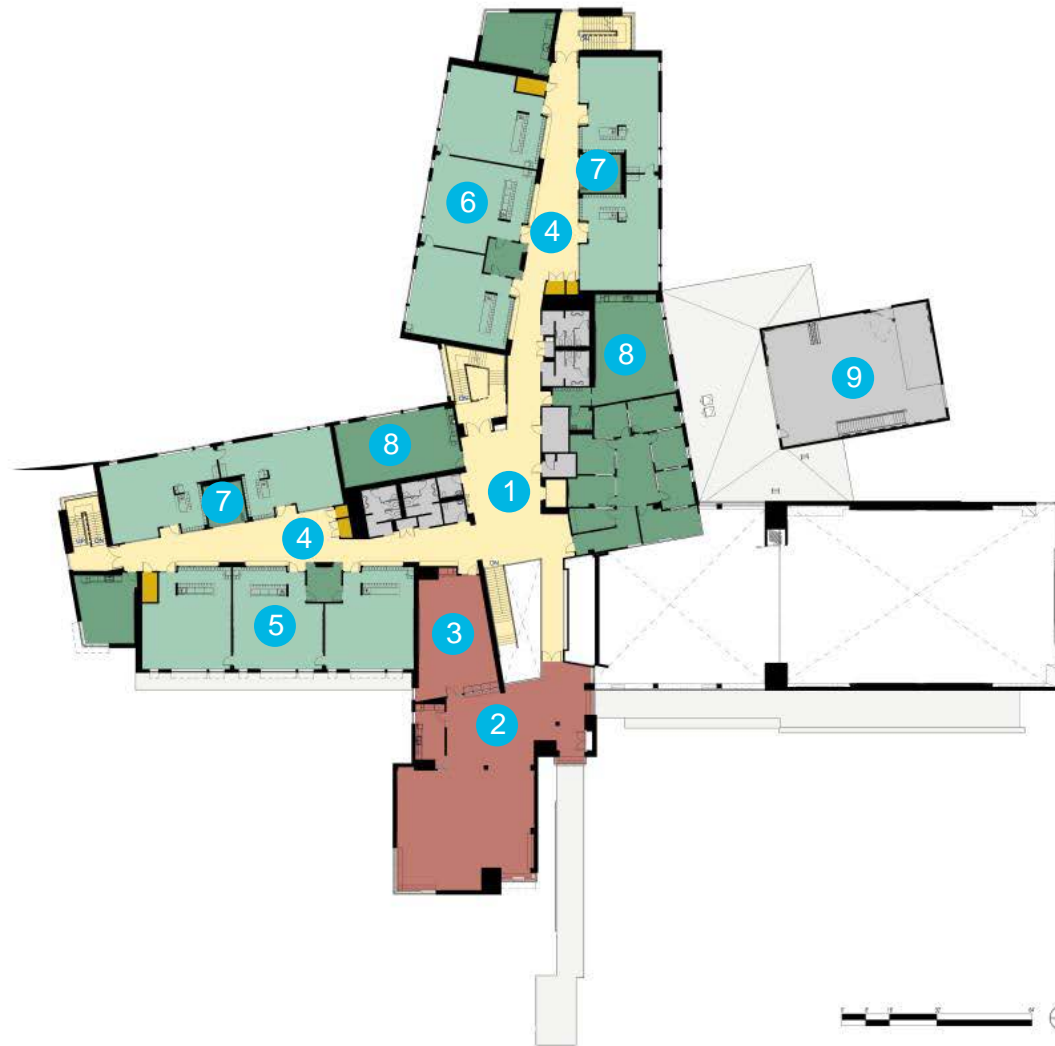
First Floor Plan

A Star-Shaped Plan

The school's plan reaches out into the landscape, presenting narrow building ends with lower roofs at end-wall stairs and careful material compositions, proportions, and carved covered "porches" serving as outdoor classrooms.



Second Floor Plan



Third Floor Plan



1. Media Center Tower
2. Music Room with Operable Wall (Large Group Space)
3. Art Rooms
4. Classroom Commons
5. 4th Grade Classrooms
6. 5th Grade Open Classrooms
7. Push-in/Pull-out Specialist Spaces
8. Autism Spectrum District wide Program

Fifth Grade Module



Third Floor



Operable Wall

Push-in/Pull-out
Resource rooms with
operable glazed partitions

Fifth Grade Commons
Classroom commons with operable glazed
partitions. Converts Elementary model to
Middle School team teaching model

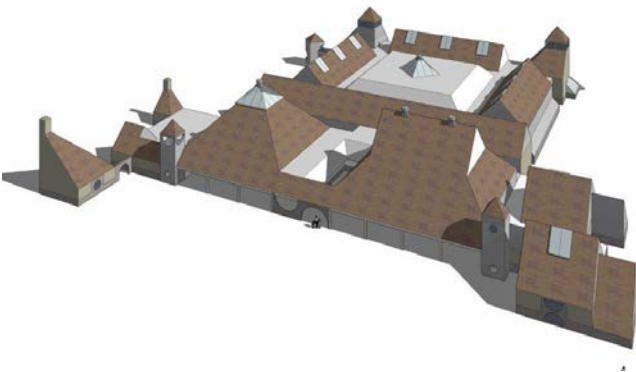
Transition from one teacher per room
primary school pedagogy to five
teachers team teaching and middle
school pedagogy makes the Bancroft a
unique and flexible model.



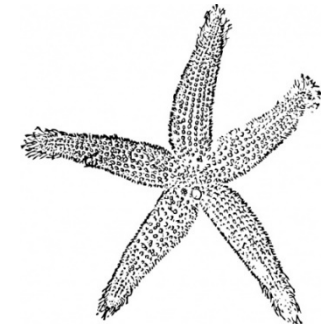
Before



During



Site Plan & Environment



The Hub of the Star

At first glance the site appears expansive but building near the existing structure and protecting neighbors' buffer zones and three distinct wetlands required a rethinking of the site. Flipping the entrance to face south altered the previous reference points for the school but also supported a better micro climate and secure entrance and play zone. The compact and efficient plan vertically links the four core gathering spaces, with their variety of scales and functions – the cafeteria/performance space (opens up into the gymnasium), Media Center, and the performing arts rooms which can also open to become a large group gathering space, which are the “hubs” creating primary activity zones on each floor and organize movement through the building. The grade level classroom wings splay open – and extend into a series of “living room” spaces.

Learning Environment



Visible technology data acquisition display system – connected throughout the Bancroft School

Reclaimed “castle” doors from old Bancroft



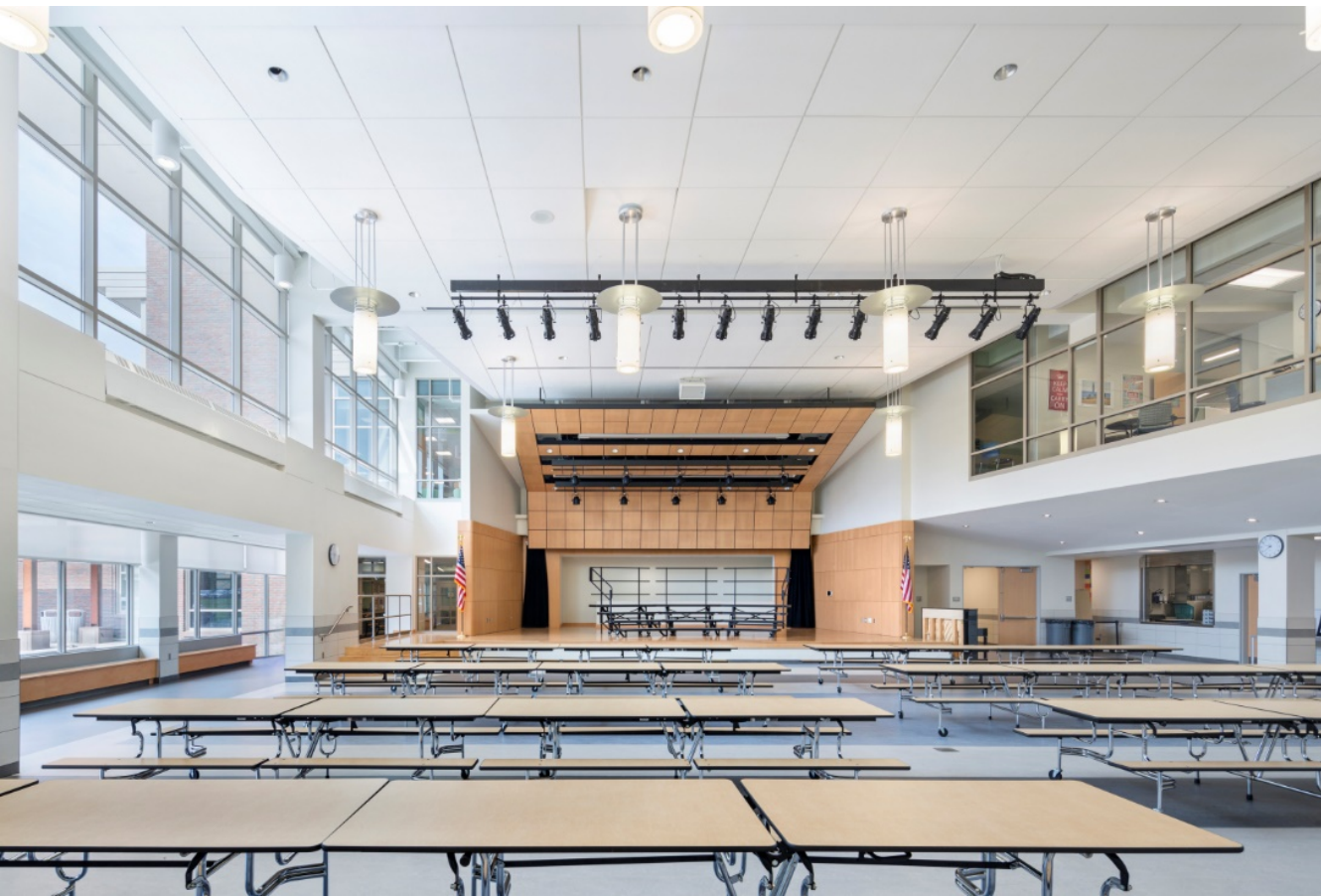
Media Center

Centrally located media center faces the quiet forested portion of the site



Gymnasium

The cafeteria commons and gymnasium connected by a large operable wall – often open for community and student activities



Cafeteria/Commons

Every space is activated by daylight, built-in seating and spaces that overlook and connect floors and educational programs – the media center at upper left and resource rooms upper right.



Corridors at Classroom Commons

Daylit, exuberant and active learning environments. Student centered learning commons on each floor.

Learning Environment

21st Century Spaces

Hallways are reimagined as a series of classroom commons, lending a sense of cohesiveness, identity, and safety to each 125-student grade. Every classroom has oversized borrowed lights and widened doorways, creating a more porous and open feeling that harkens back to the best of the old school's open classroom planning.

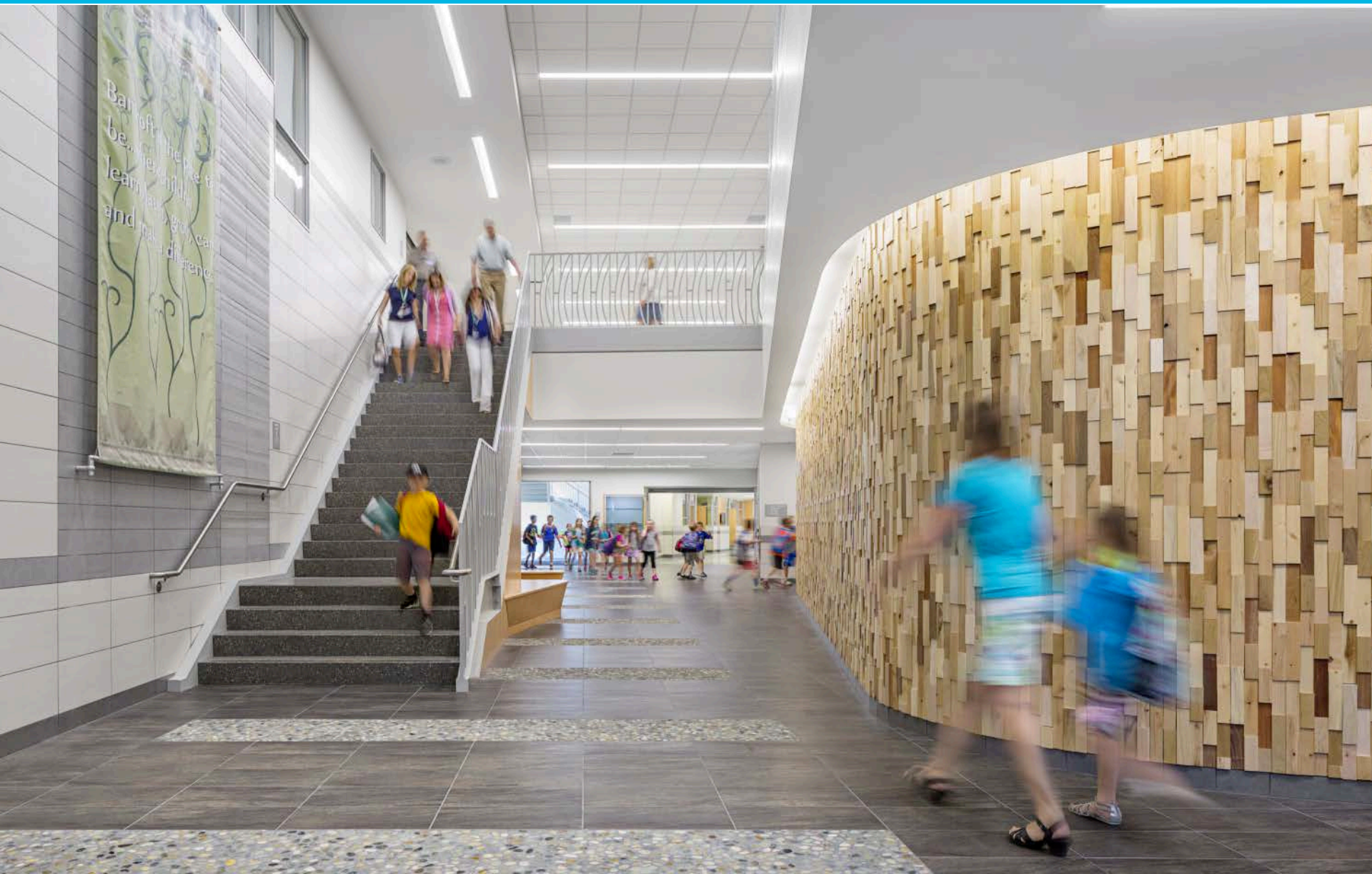
The fifth grade wing on the third floor extends this concept, with fully glazed operable walls to allow for even greater collaboration and grade-wide team-teaching, to help transition students from elementary to middle school model.



Exterior Site

PV array, 50,000 gallon rain water harvesting tank, herb and vegetables gardens used in cafeteria. Three distinct wetlands areas were preserved and expanded. Walk/bike pathways were established to neighborhoods on all sides.





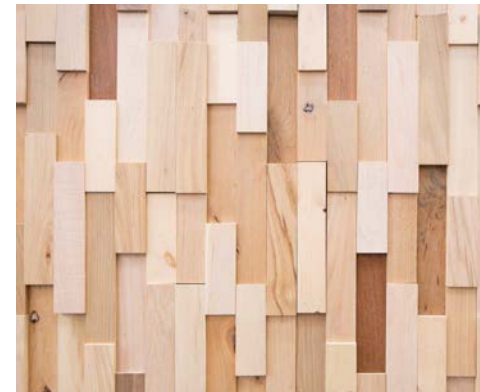
Lobby

The rural setting inspired the use of reclaimed wood organize shaped wall, rive stone floor, native grasses and reeds guardrail at the welcoming entrance lobby

Physical Environment

A continuous plinth of darker, textured brick, inspired by local stone walls, terminates at the first-floor window heads. Above, 12-foot wood phenolic “clapboards” provide shadow relief – this subtle play on proportions settles the building into the landscape. The school is warm and inviting, its windows playfully composed across the façade to provide maximum daylight and reduce the institutional character associated with traditional schools.

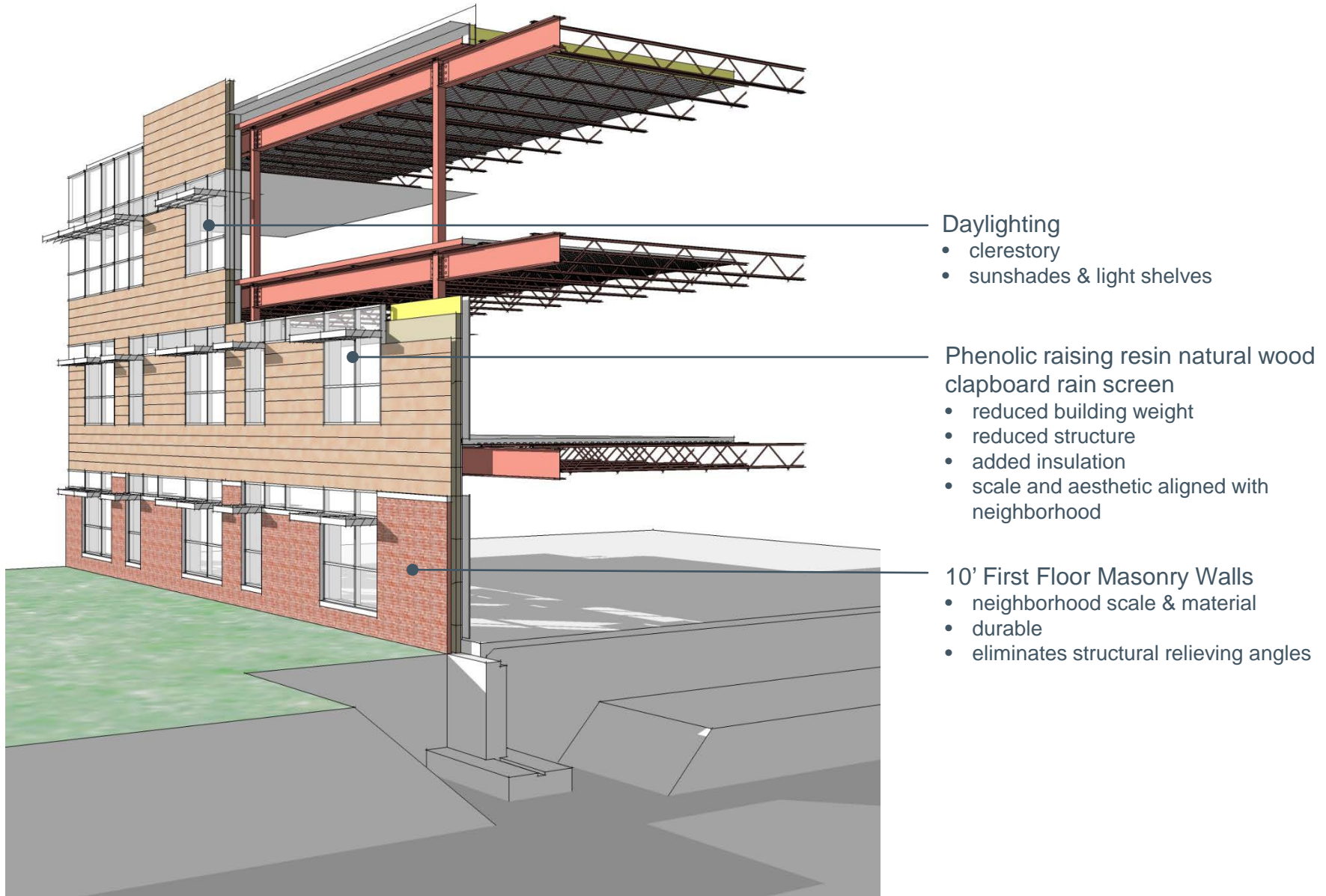




Main Entrance

Canopy and roof edges extend out to greet students and provide shelter. Child scaled granite seat walls, colorful ball bollards, and the interactive shapes from the main entrance. While textures and shapes reminiscent of nature work their way into the school.

Building Section



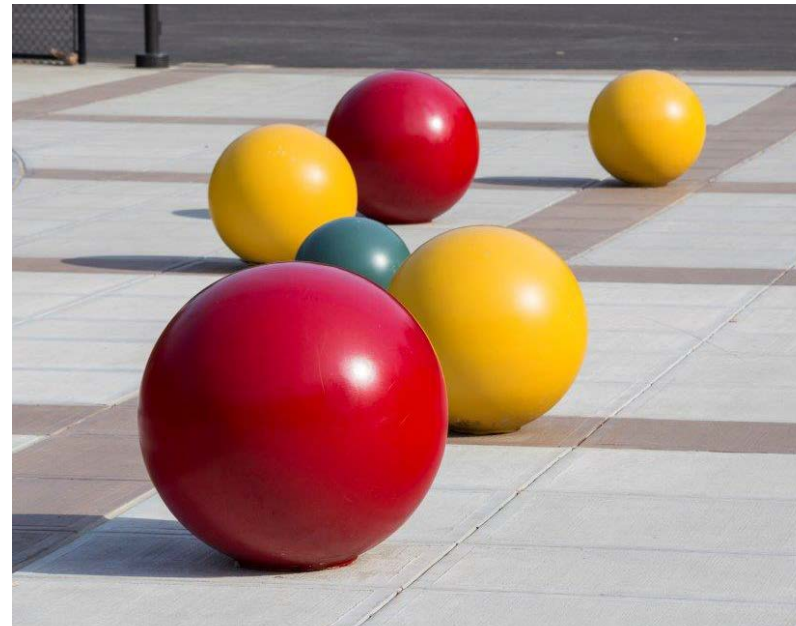


Outdoor classroom

Playing to Learn

A complex occupied school site where the existing school was situated on the most advantageous (highest) and central portion of the site. Design interventions include numerous fields and courts, a hidden deck nestled in the woods, and bronze animal and insect castings located throughout the site waiting to be discovered.

All the elements within the site were designed not only to fulfill programmatic requirements, but to add the sense of play and learning. A solar panel is integrated within the multi-age playground equipment area. Extensive vegetable gardens allow students to grow food for their cafeteria. Colorful sphere bollards were mathematically installed and arranged, inviting students to unlock the meaning in their precise patterns and formulas.



Project Data

Submitting Firm :	Symmes Maini & McKee Associates
Project Role	Architecture/Engineering Firm
Project Contact	Alex C. Pitkin, AIA, LEED AP
Title	Principal, Senior Vice President
Address	1000 Massachusetts Ave
City, State or Province, Country	Cambridge, MA 02138
Phone	617.547.5400
Joint Partner Firm:	Not Applicable
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	
Other Firm:	Not Applicable
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	
Construction Firm:	Skanska USA Building
Project Role	Construction Firm
Project Contact	Jim Dowd
Title	Project Manager
Address	253 Summer Street
City, State or Province, Country	Boston, MA 02210
Phone	617.574.1400

Project Data

Project Name	Bancroft Elementary School
City	Andover
State	MA
District Name	Andover School District
Supt/President	Dr. Marinel McGrath
Occupancy Date	September 2014
Grades Housed	K to 5
Capacity(Students)	680
Site Size (acres)	20.2 acres
Gross Area (sq. ft.)	106,904 sf
Per Occupant(pupil)	157 sf
gross/net please indicate	
Design and Build?	
If yes, Total Cost:	\$40,218,065
Includes:	Comprehensive
If no,	
Site Development:	
Building Construction:	
Fixed Equipment:	
Other:	
Total:	\$40, 218, 065