

2015 Exhibition of School Planning and Architecture

Mt. Blue Campus Renovation

Mt. Blue Regional School District
Farmington, Maine

Mt. Blue Campus



Mt. Blue Campus



Mt. Blue Campus: **Site Plan**

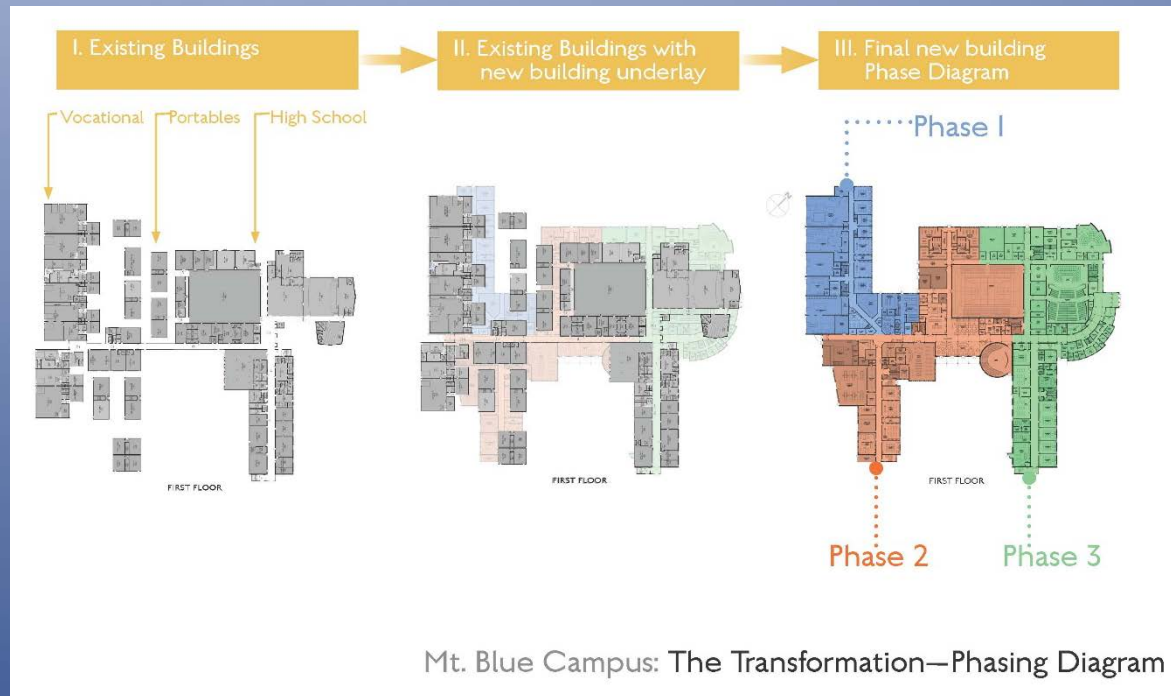
1 Building, 10 Communities

Community Environment: Mt. Blue Campus is in Farmington, Maine, a former manufacturing and railroad center. This rural high/technical school educates students from 10 different communities spread over 400 square miles. These rural communities are exceptionally supportive and were energetically involved in planning and fundraising for a building that is as much a community center as it is a school. In spite of the site's rural location, the building is planned and designed to encourage teenagers and adults to cross paths and to erase the distinction between academic and vocational learning and between high school, college, and vocational programs.



1 Building, 2 Institutions, Lifelong Learning

Community Environment: For 40 years a vocational high school sat behind and separate from the academic high school on the same site. The Futures Team developed a vision of a comprehensive high school that would offer community college courses, adult education, and integrated vocational and high school courses. With a clearer understanding of the nature of learning itself, the community understood that synthesizing “doing” and “studying” would improve learning for all students. The communities also looked for the school to be a center for civic performances, meetings, displays, training, and athletic events. Local dance, music, and theater groups were asked to be partners in the planning and occupancy of the building.

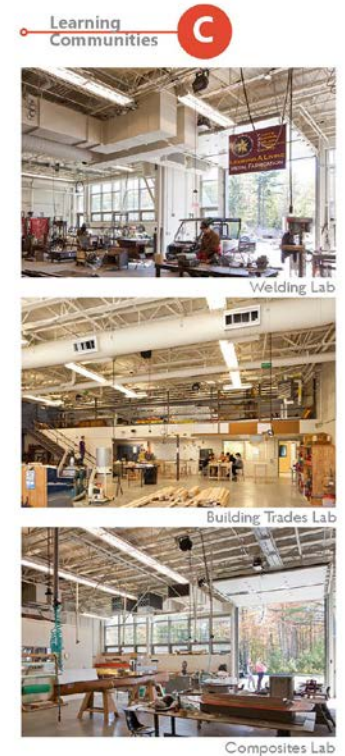
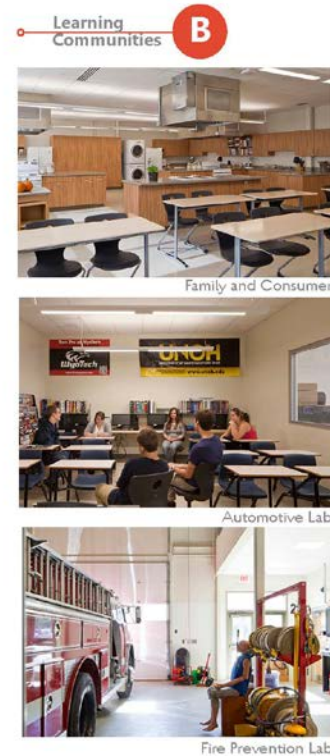


1 Building, 3 Learning Communities

Learning Environment: The old vocational programs were redefined using the new CTE guidelines, and three learning communities were developed, each offering complementary academic and CTE programs. Vocational labs are integrated into each learning community, which also offers math, English, social studies, and science.

The integrated curriculum allows student access to all courses and teachers in multiple interdisciplinary programs.

Learning community A has a focus on visual arts, early childhood education, commercial art, robotics, pre-engineering, biotechnology, and CNA programs.



Mt. Blue Campus: **Learning Communities Program**

Main St. Engages and Connects

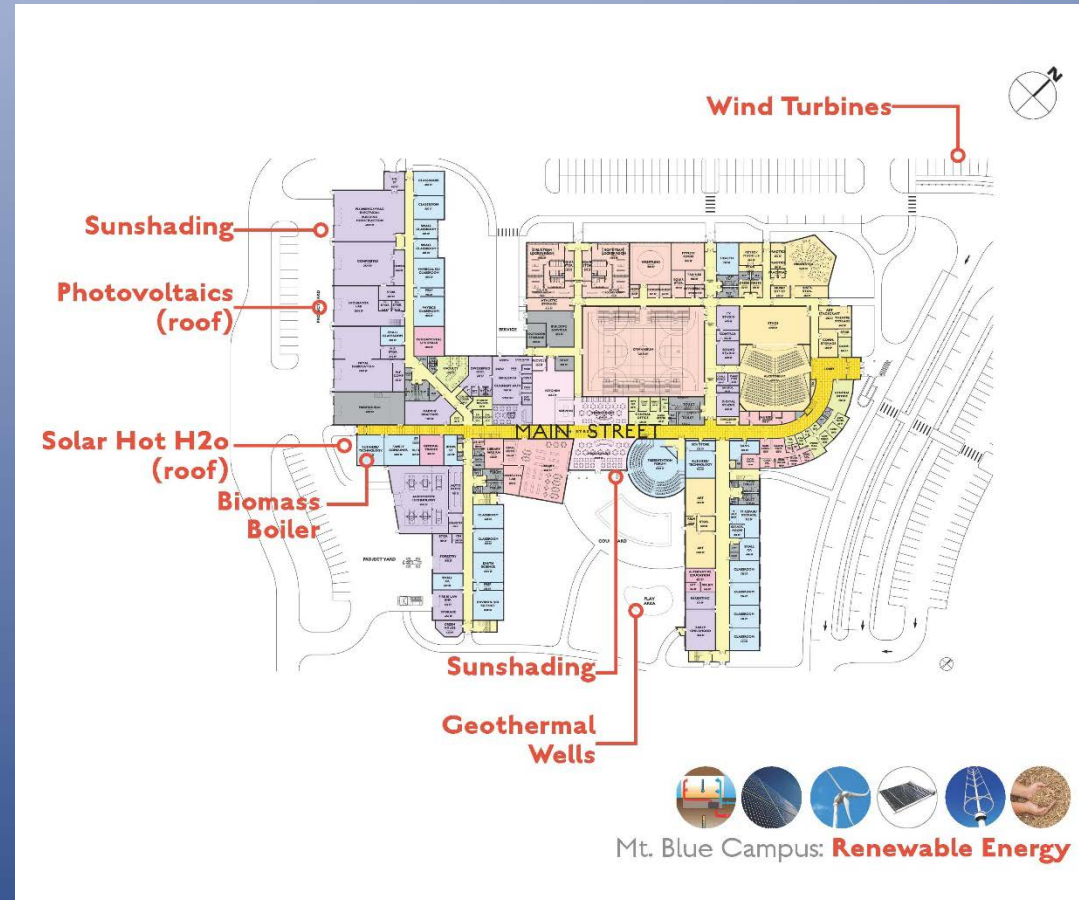
Learning Environment: . Learning Community B focuses on automotive technology, general trades, fire and law enforcement, environmental sciences, and building technology. Community C focuses on construction trades, composite materials, metal fabrication, forestry, and CADD drafting. The social heart of the school is a Main Street offering maximum opportunities for identity and transparency with an open food court used for studying, clubs, team meetings, and community functions. The food court can be acoustically separated with overhead garage doors to permit multiple gatherings. Main Street functions include bank, administration, guidance, health clinic, concessions, 500-seat auditorium, forum, gymnasium, library, café, special education, and school store.



Mt. Blue Campus: **Main Street Fabric**

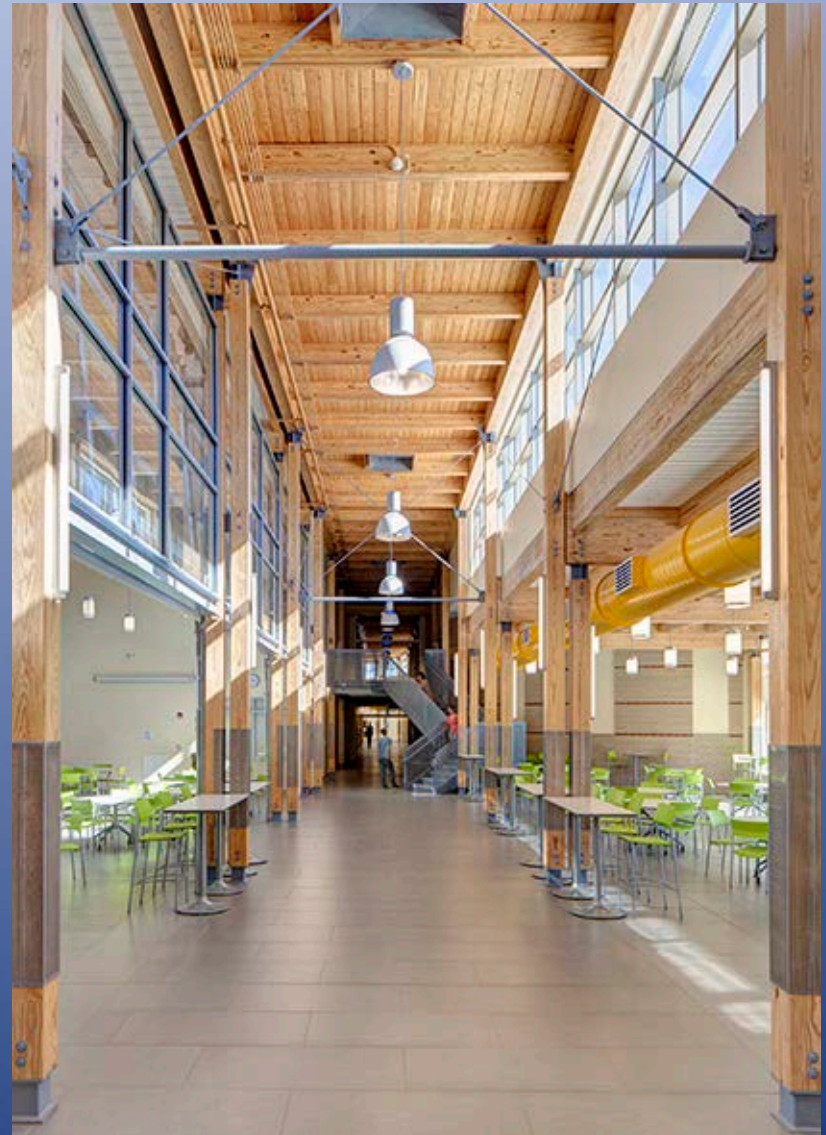
Renewable Energies

Physical Environment : Logging trucks roll through Farmington, many families heat their houses with wood, and the area has a history of forestry and mechanical innovation. So this community was more than receptive to the idea of multiple renewable energies, both to heat and power the building and to support new curriculum offerings. The orientation of the building makes the most of its scenic views and provides exposure for passive solar, photovoltaic, solar hot water, and daylight harvesting. Strong winds out of the northwest power two electrical generation wind towers. Great care was taken to protect 45 acres of wetland and woodland, with substantial wildlife and vernal pool habitats that are studied in science and sustainability programs.



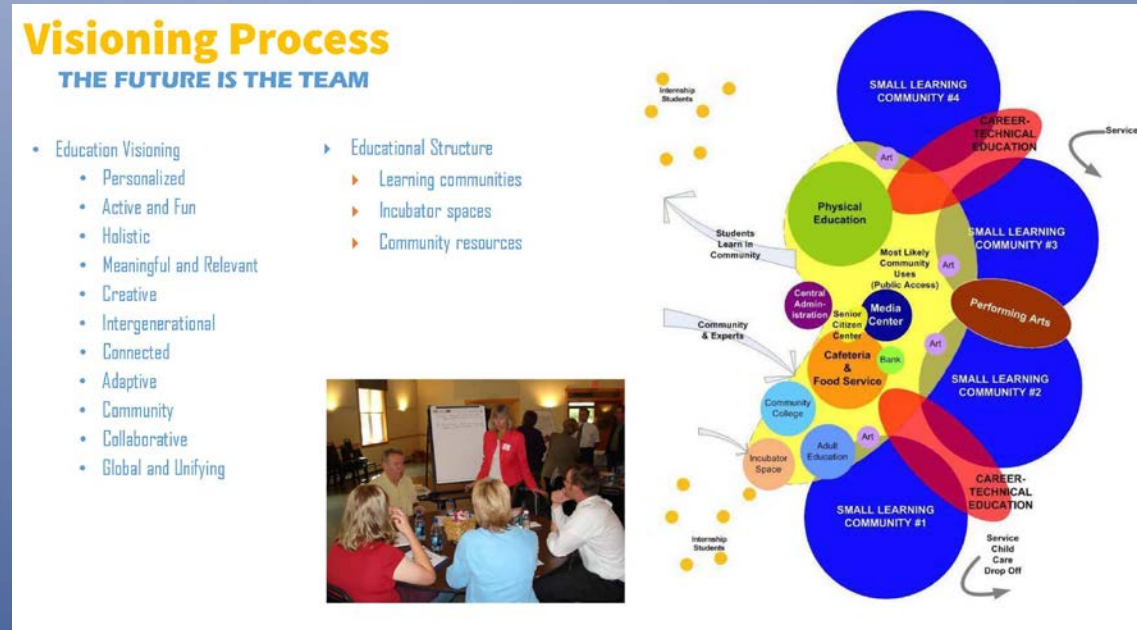
Traditional Materials: Wood, Masonry, and Light

Physical Environment: The interior design of the building makes use of wood beams, wood planks, and laminated wood columns in Main Street, concrete block and brick manufactured within 100 miles of the site, and exterior shading devices, as well as daylight harvesting technologies, for classrooms and Main Street. Almost 89,000 sf of the existing 1970 construction was reused. Existing dead end corridors were opened up with full glazing to take advantage of the views and create informal bench study areas. Previous punched window openings and penetrations for thru-wall unit ventilators were removed and converted into full height vertical strip windows increasing passive solar gain and to increase daylighting.



Community Futures Team

Planning Process: The visioning process designed by the architects involved educators, students, and community members who became a Futures Team responsible for designing a 21st-century high school blending vocational and academic programs. The Futures Team met with the architects and an educational planning consultant for 4 intensive all-day sessions to share visions and study other educational models. They reviewed educational concepts with an eye to trends in education and evolving business models, and they developed guiding principles for educational delivery and building diagrams. The Educational Vision has 3 cornerstones: an interdisciplinary organizational model, real-world educational experiences, and attention to individual students.



Work of the Futures Team

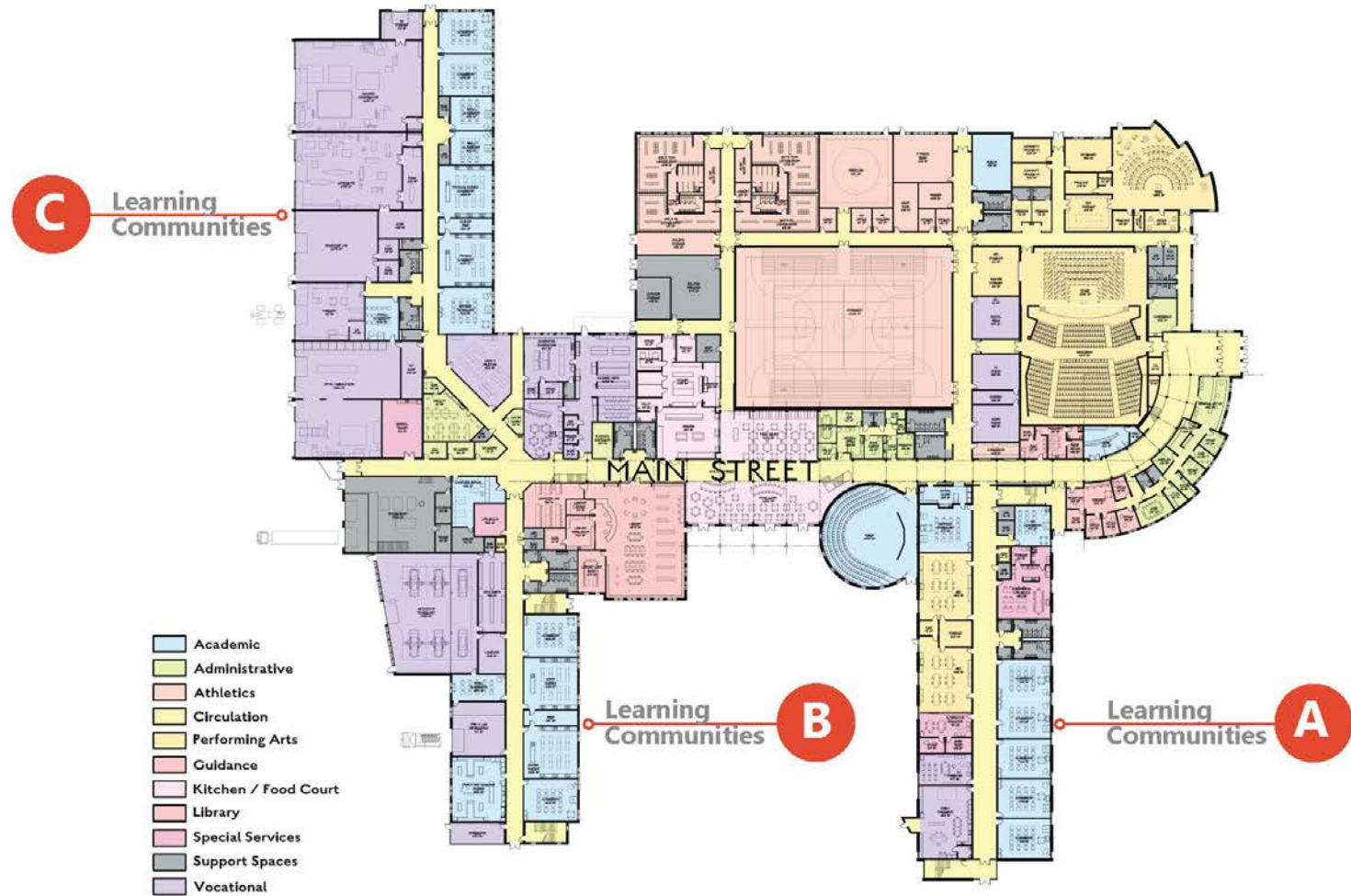
Planning Process:

School Organization:

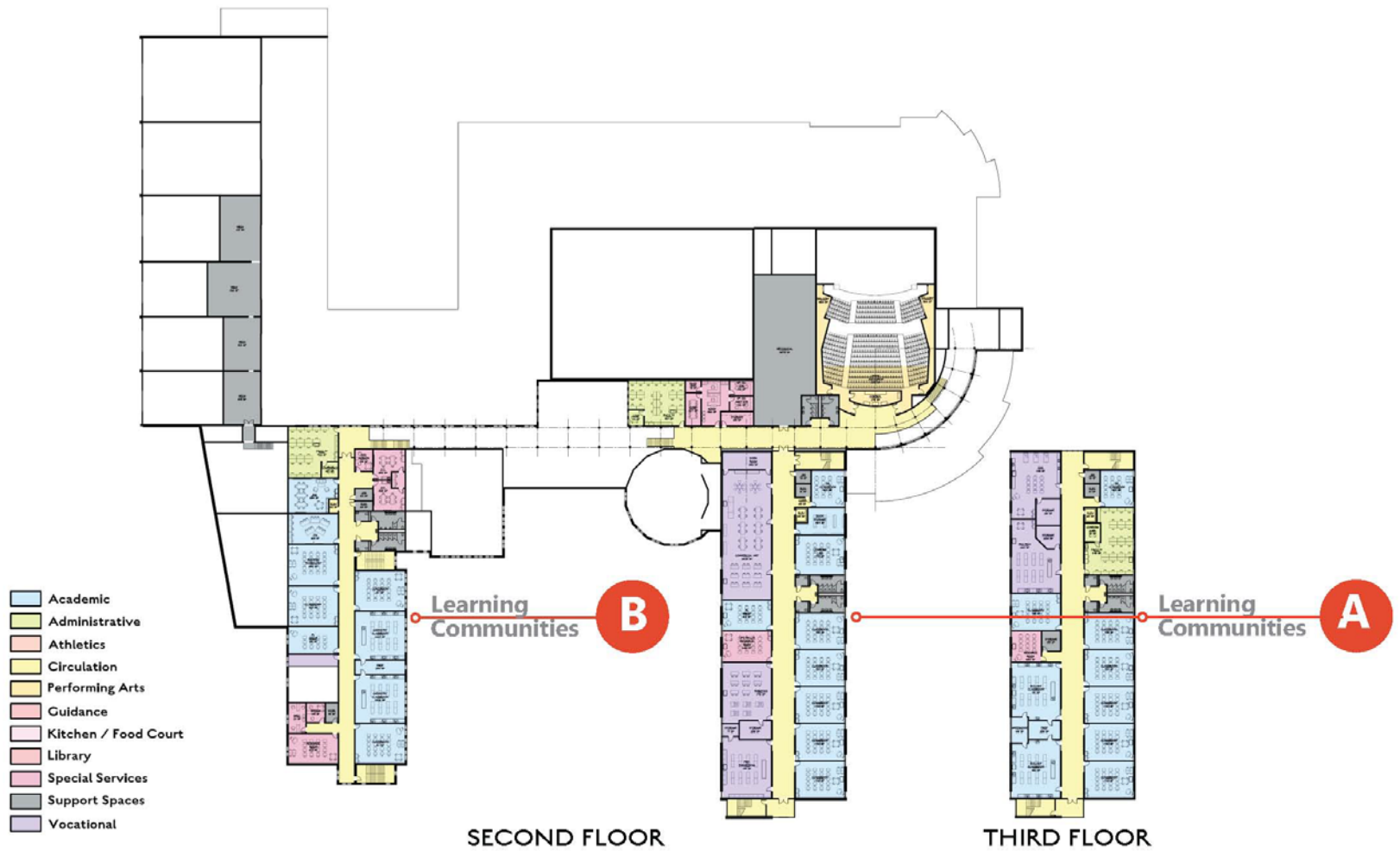
A school concept is proposed with small learning communities that support technical and academic education. This concept maintains the identities of Mt. Blue High School and Foster Technology Center through subtle balance and architectural expression. A central arrival/gathering space, near dining and library, will be the center of the school.

Learning Community Organization: Places for learning are conceived as identifiable sub-schools, each with academic and career-tech access. A variety of learning spaces supports project learning, cooperative learning, team teaching, and differentiated instruction attentive to multiple learning styles.





Mt. Blue Campus: First Floor Plan



Mt. Blue Campus: Second and Third Floor Plans

Exhibition of School Planning and Architecture

Project Data

Submitting Firm :PDT Architects	PDT Architects
Project Role	Partner-in-Charge
Project Contact:	Lyndon D. Keck, AIA, LEED AP
Title	Principal and Vice President
Address	49 Dartmouth St., Suite 2
City, State or Province, Country	Portland, ME, USA
Phone	207-775-1059

Joint Partner Firm:	
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

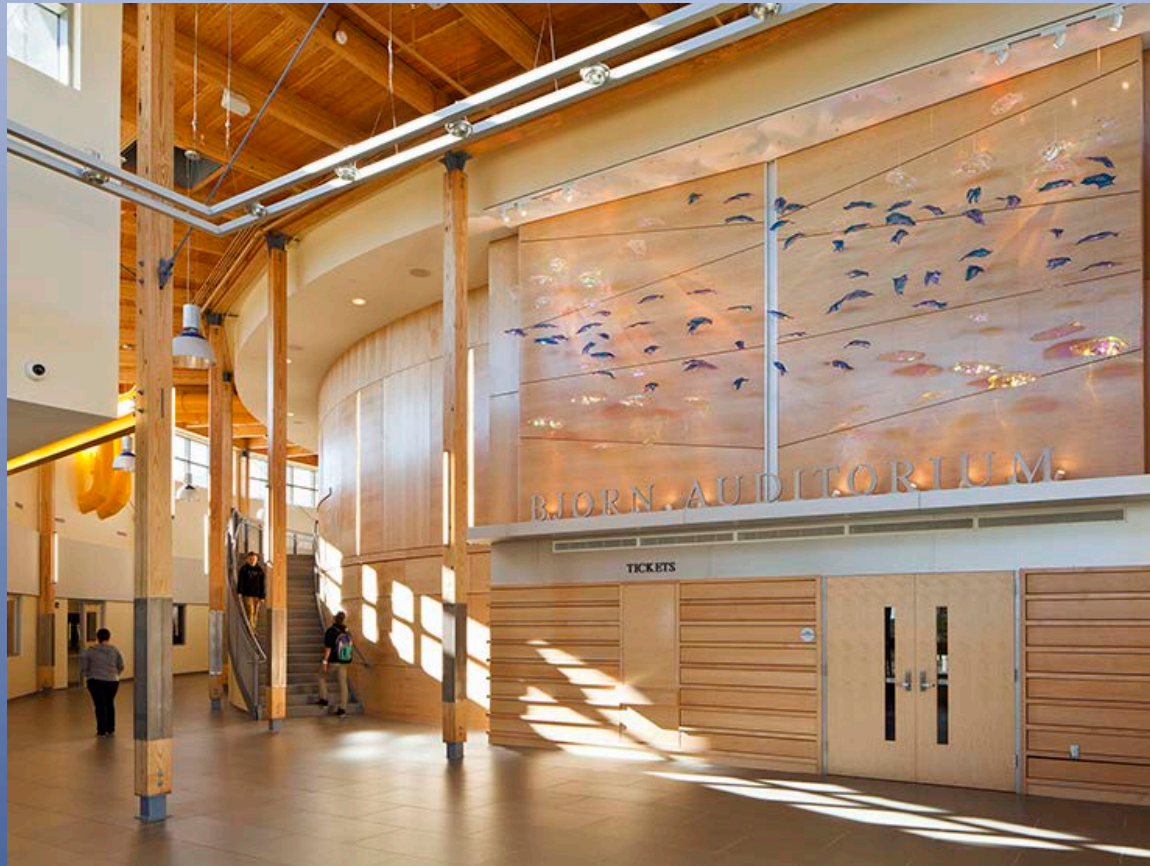
Other Firm:	Frank Locker Educational Planning
Project Role	Educational Visioning
Project Contact	Frank Locker
Title	President
Address	306c Dover Point Road
City, State or Province, Country	Dover, NH
Phone	617-412-7444

Construction Firm:	Wright-Ryan Construction
Project Role	General Contractor
Project Contact	Tom Frederick, LEED AP BD+C
Title	Vice President and Project Manager
Address	10 Danforth St.
City, State or Province, Country	Portland, ME, USA
Phone	207-773-3625

Exhibition of School Planning and Architecture

Project Details

Project Name	Mt. Blue Campus
City	Farmington
State	Maine
District Name	Mt. Blue Regional School District
Supt/President	Dr. Thomas J. Ward
Occupancy Date	Fall 2013
Grades Housed	9-12
Capacity(Students)	950 students (750 high school, 200 CTE/vocational
Site Size (acres)	25
Gross Area (sq. ft.)	226,000
Per Occupant(pupil)	238
gross/net please indicate	1.49
Design and Build?	no
If yes, Total Cost:	
Includes:	
If no,	
Site Development:	\$6,120,000
Building Construction:	\$36,769,625
Fixed Equipment:	\$1,057,000
Other:	\$12,704,457
Total:	\$56,651,082



Main Lobby/Main Street

The entrance lobby serves as the start of Main St. and the lobby for the auditorium. The administration is on the left, next to the front door, and the Music Department, with direct access to the stage, is to the right.



Bjorn Auditorium

The largest performance venue in the county, Bjorn Auditorium hosts numerous community and touring organizations in addition to school music, theater, and dance practices, performances, and district festivals.



Heart of the School: Food Court/Main St.

Overhead garage doors can acoustically subdivide this light-filled space in minutes. Events in the adjacent Forum can use the Food Court as breakout space and cafeteria.



View of Food Court

From upper level of Main Street



Entrance to Mt. Blue

In a dark, cold, and snowy climate, a covered, light-filled entry with a clerestory lantern is truly welcoming. Extensive use of wood and local masonry products ties to local industry and architecture.