2025 Exhibition of School Planning and Architecture Northeast Region

Bristol County Agricultural High School

Bristol County School District

Dighton, MA

Bristol County Agricultural High School

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Bristol County Agricultural High School is a county-owned institution in Massachusetts serving 20 towns and cities. Driven by a high demand for its programs as a unique agricultural and career technical school, it grew from 450 to 640 students and revitalized its campus through the addition of four new buildings and the renovation of two existing ones. The renewed campus supports Bristol Aggie's immersive, hands-on learning model rooted in science, agricultural, and environmental education and welcomes the broader community.

BRISTOL COUNTY AGRICULTURAL HIGH SCHOOL
DIGHTON, MA
SITE PLAN

Community Environment:

The planning process began with visioning workshops, engaging nearly 40 stakeholders including community members, administrators, staff, students, and local leaders to collaboratively define the campus's future. This inclusive approach ensured the design captured the diverse perspectives and shared goals of the community, deepening its connection to their identity.

Community Environment:

The school offers seven career technical pathways in addition to rigorous academics. Prior to the campus transformation, these programs were either isolated in separate areas or dispersed across multiple buildings. A new accessible pedestrian pathway now links the north and south parts of campus to align programs, enhance mobility, foster cohesion, and create a more user-friendly environment that strengthens the sense of unity.

BRISTOL COUNTY AGRICULTURAL HIGH SCHOOL
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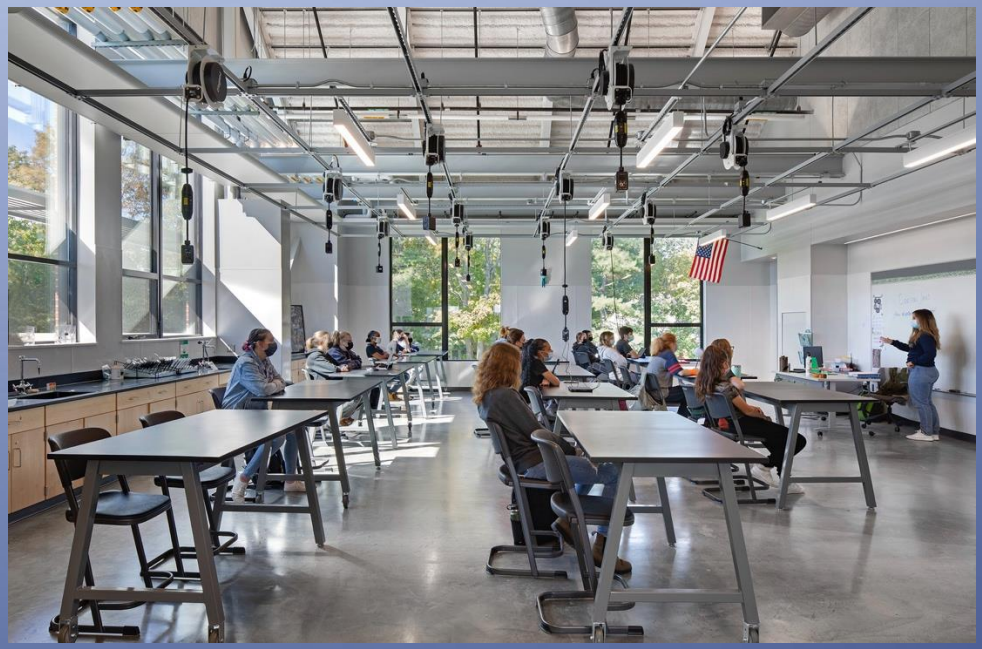
SITE PLAN

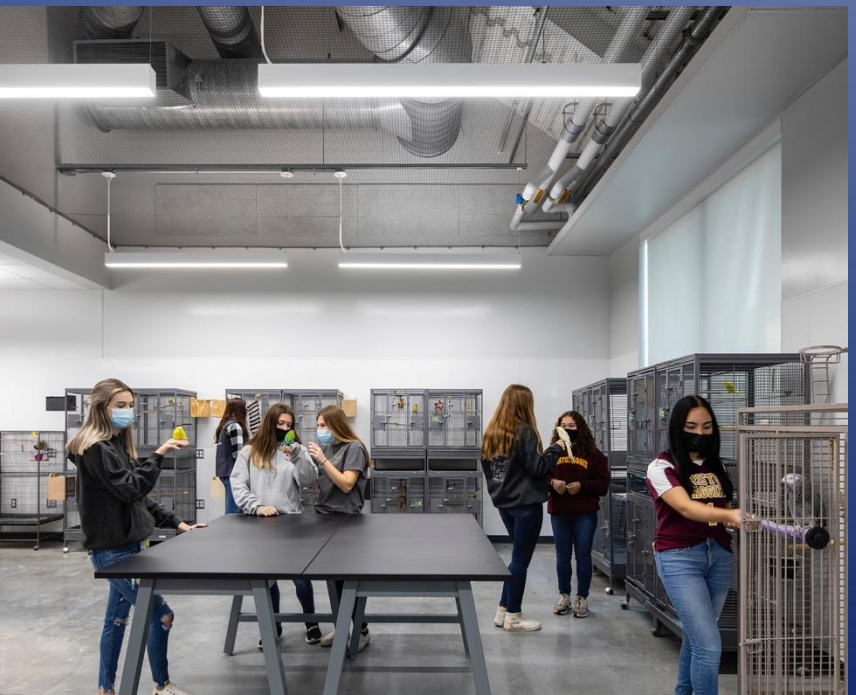
Community Environment: The centerpiece of the expansion, the Center for Science and the Environment, is the largest of the four new buildings. It brings Animal Science, Environmental Engineering, Natural Resource Management, and high school science classes under one roof, uniting disciplines that were once fragmented. This integrated design dismantles traditional silos, promoting collaboration and addressing the community's demand for a modern, interconnected approach to agricultural education. A shared biotech lab further supports this synergy, offering a hands-on space where students and faculty can explore the intersections of animal sciences and core science curricula.

Connections to Nature

Learning Environment: The learning environment at Bristol County Agricultural High School is thoughtfully designed to support a variety of learning styles and instructional methods, blending indoor and outdoor spaces to enrich the student experience.

Traditional academic classes benefit from flexible outdoor settings including intensive and extensive green roofs, while Arboriculture students use the campus as a living arboretum to study tree species. Similarly, the Floriculture and Landscape Design departments leverage the campus's diverse landscape for practical training, catering to kinesthetic and visual learners.





A Living Learning Lab

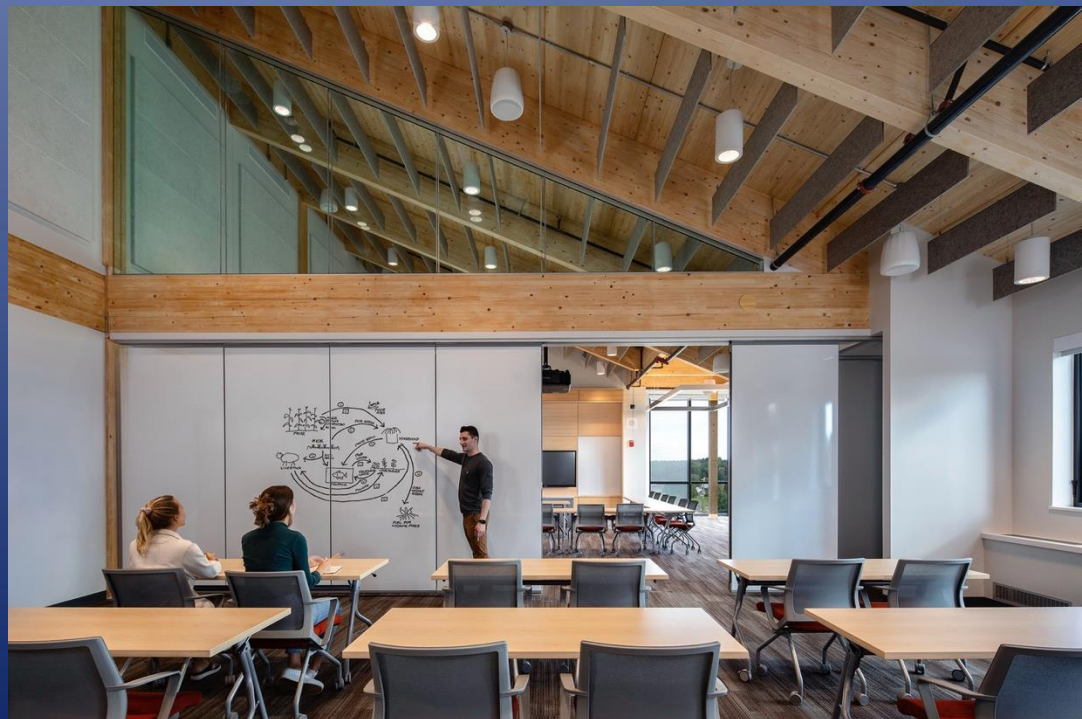
Learning Environment: The LEED Gold-certified Center for Science and the Environment serves as a cornerstone of experiential learning and includes a natural history museum. Environmental Engineering students audit the building's sustainable systems as part of their curriculum, which appeals to analytical and problem-solving learners. An accessible mechanical room exposes plumbing, gas lines, and electrical trays, offering a real-world view of building operations for students who thrive on tangible examples. Composting toilets demonstrate water conservation principles while exposed ceilings provide visual insights into infrastructure for those who learn best through observation.

Bristol Aggie's Natural History Museum

Learning Environment: Across the campus, environmental graphics enhance the environment for visual and conceptual learners. Wall displays illustrate the carbon cycle, tree anatomy, landscape details, animal and human cell biology, and the school's 100-year legacy, embedding lessons in science and history into the everyday experience.

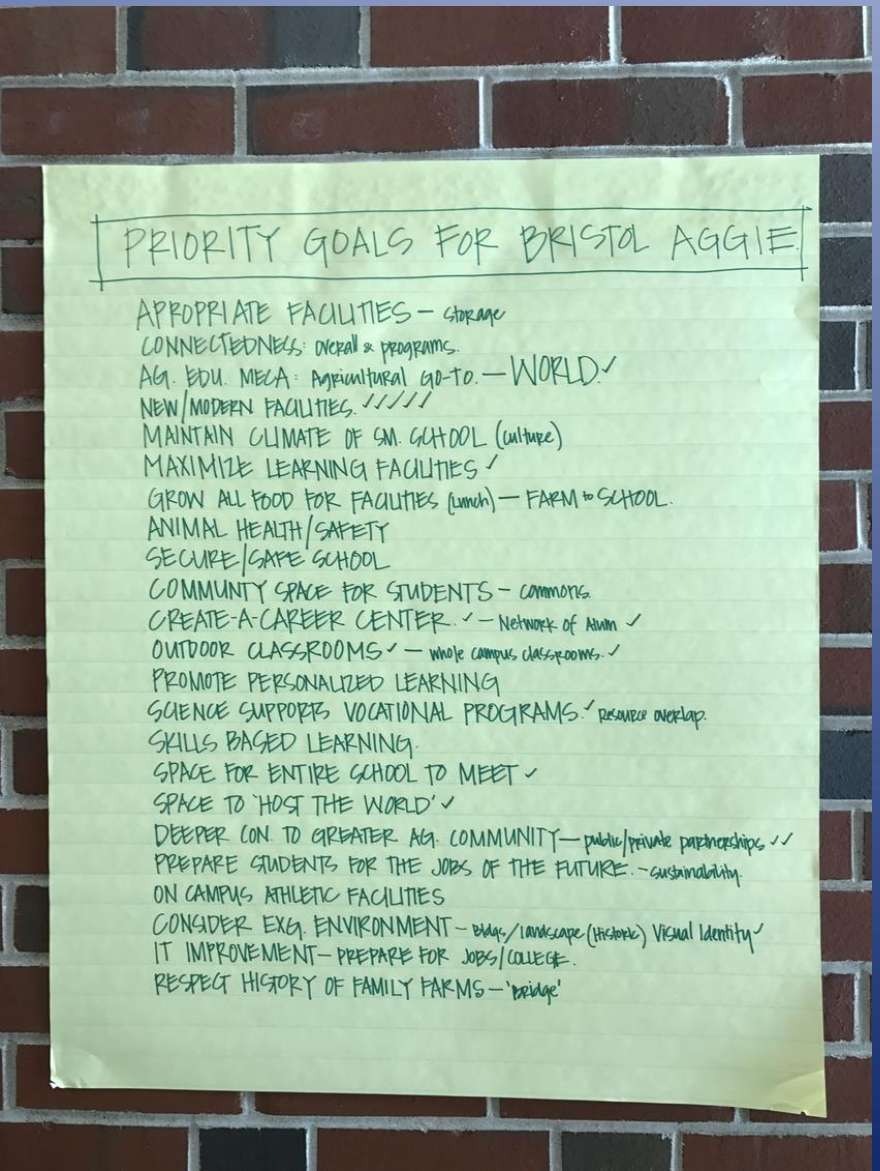
Learning Environment: State-of-the-art labs for the Natural Resource Management and Environmental Engineering programs foster collaborative and research-based learning, with partnerships with external organizations expanding opportunities for real-world application. The Animal Science program features a fully equipped veterinary clinic where students perform surgeries, take X-rays, and clean pets' teeth, providing immersive training for tactile and practical learners.

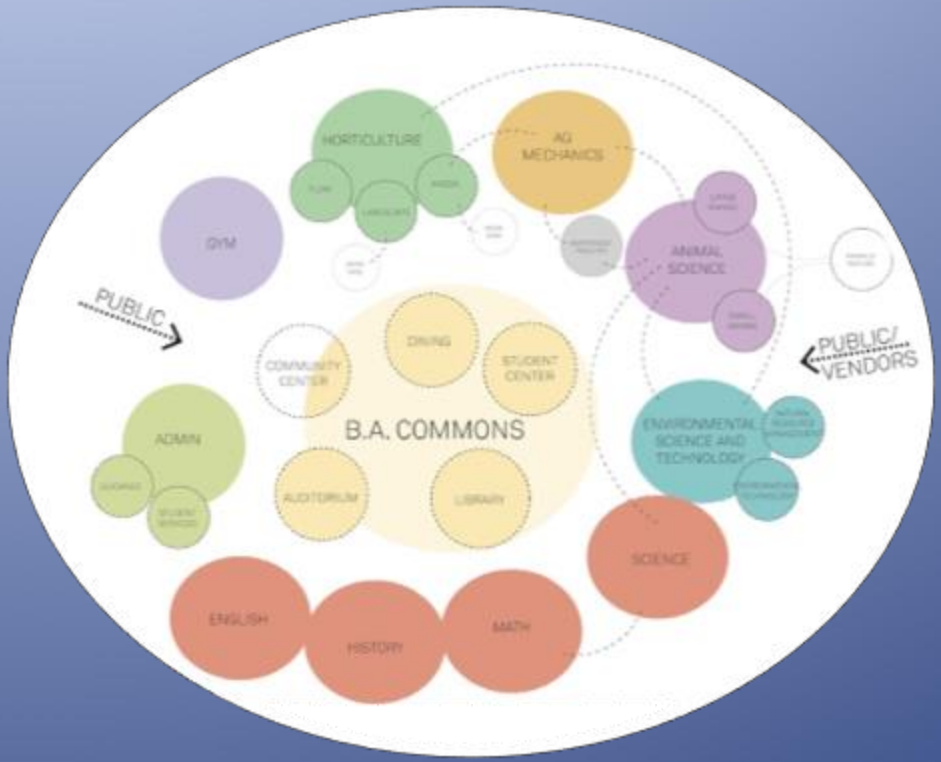
Physical Environment: The physical environment of Bristol County Agricultural High School integrates thoughtful material choices, building systems, and design elements to craft a welcoming, cohesive, and nature-connected learning space that honors its site and broader surroundings. The Student Commons, a daily gathering place for all students, showcases mass timber construction, bringing warmth to the campus core while embracing sustainable practices that resonate with the greater environment.



Physical Environment: To unify the campus and pay tribute to the original academic building's legacy, the Center for Science and the Environment and Student Commons buildings adopt its brick and Flemish bond pattern, while the use of stone anchors several buildings to the site, lending a sense of permanence. Metal panels, applied selectively to structures like the Landscape Arbor building and robotic Dairy Barn, establish a consistent aesthetic that strengthens the campus's sense of place.

Physical Environment: Designed with thoughtful transparency and views, the campus offers indoor-outdoor connections that tie the learning environment to the surrounding landscape, balancing functionality with site harmony. Echoing the rural architecture of the region, pitched roofs are used on the new buildings. The Center for Science and Environment also mirrors the window proportions of the original Gilbert Hall Academic Building. These systems—pitched roofs and carefully proportioned windows—blend aesthetic unity with environmental responsiveness, linking the campus to its historical roots and regional identity.

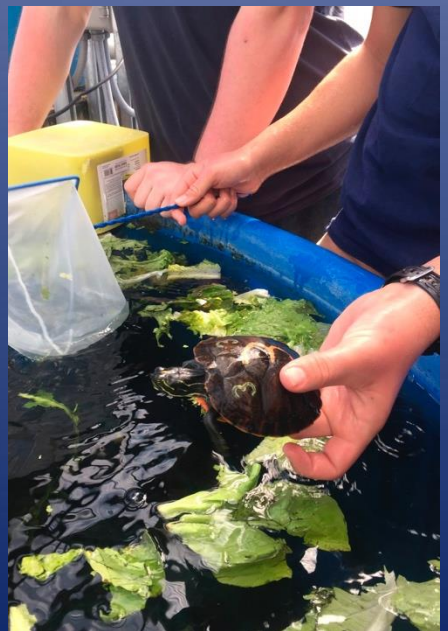




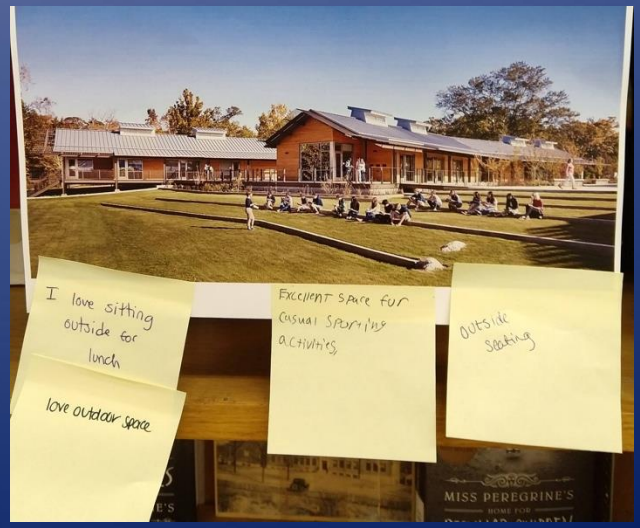
Planning Process: The planning process for Bristol County Agricultural High School was a collaborative and iterative effort designed to align the final campus environment with the community's educational and facility goals. It began with visioning workshops involving a broad cross-section of stakeholders—community members, administrators, staff, students, and local leaders—to establish the project's core objectives. These early sessions set the foundation for a shared vision, which guided subsequent steps.

A Day in the Life

Planning Process: To refine this vision, the design team conducted targeted meetings with students and staff. A key method, dubbed "A Day in the Life," involved shadowing students to observe how they used existing spaces and to identify activities constrained by outdated facilities. These insights revealed practical needs and aspirations, ensuring the design responded directly to student experiences. Parallel meetings with career technical teachers occurred at each design phase, allowing them to shape their specialized spaces—such as labs and workshops—as the plans evolved, guaranteeing functionality and relevance to their teaching methods.



Planning Process: Student-focused workshops further honed specific areas, like the media center and cafeteria. Students expressed a desire for warm, inviting spaces, which directly influenced the decision to construct the Student Commons building—housing both the Media Center and Cafeteria—using mass timber, a warm material that enhances a connection to the natural environment and promotes environmental stewardship. Throughout the process, the team ensured alignment with the initial goals: engaging diverse voices, actively listening, documenting feedback, and reconfirming decisions with stakeholders. This approach extended beyond the planning phase into design and construction, maintaining fidelity to the community's vision.



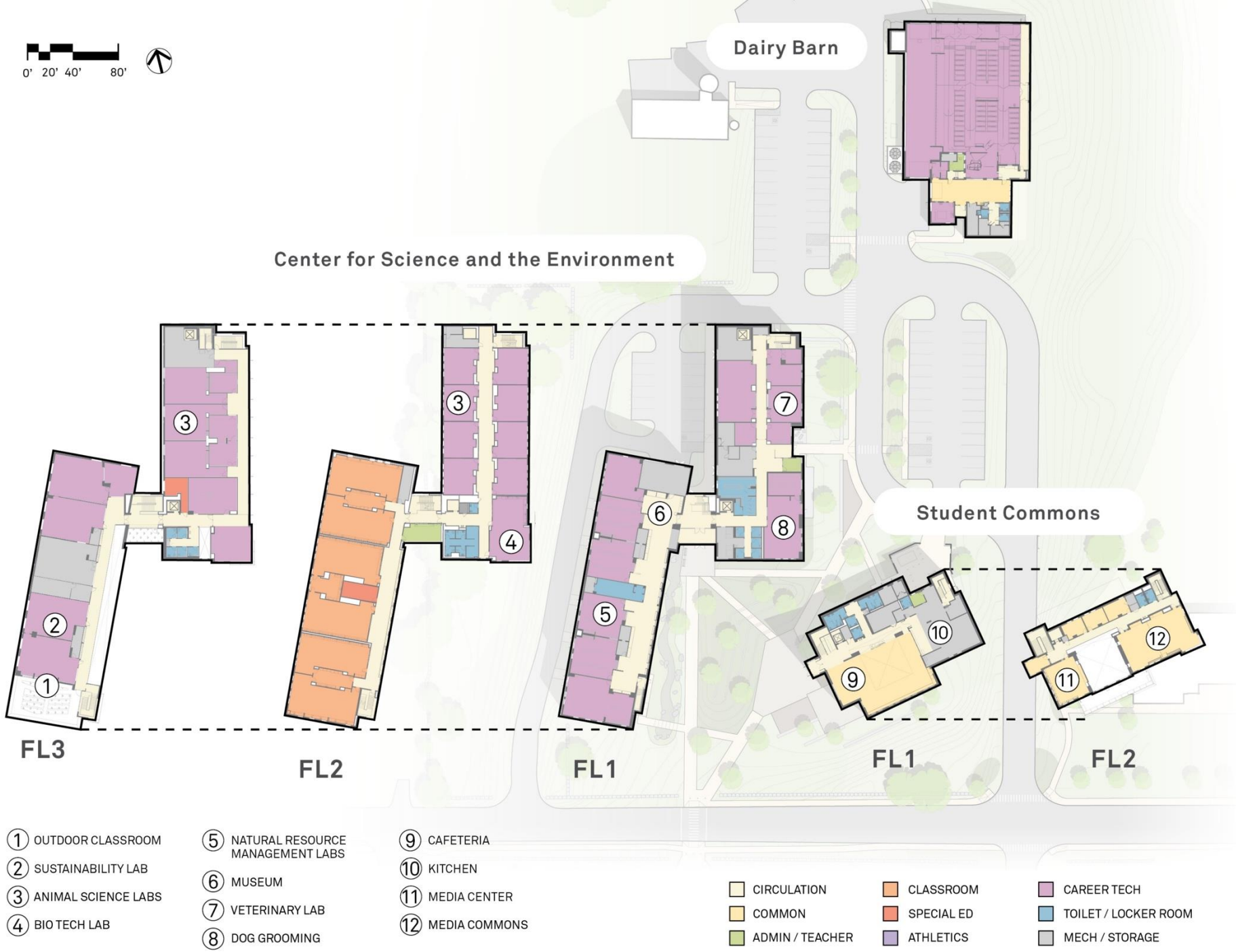

Galápagos

Revolutions in Learning: To strengthen Bristol Aggie's educational model of immersive, hands-on learning, every aspect of the campus is designed as a teaching tool. Professional-quality spaces, including a student-curated natural resource museum, flexible classrooms, a grooming lab, and numerous bio-secure labs, enable partnerships with local and national environmental organizations, giving students a unique opportunity to participate in high-level, real-world research.

Fostering Environmental Stewardship Through Design

Revolutions in Learning: Environmental stewardship and climate resiliency were important goals to integrate the physical campus facilities with the curriculum. Bristol Aggie showcases its high standards for sustainability, with systems including mass timber construction, solar panels, and vegetated green roofs that are visible and integrated across campus. Each building achieves distinct sustainability goals developed through close collaboration with students, educators, and community members: the Center for Science and the Environment and renovations to Gilbert Hall are LEED Gold certified, the Dairy Barn is designed to be net-zero ready, and the exposed mass timber structure of the new Student Commons is a visible demonstration of a low-carbon, high-performance construction alternative.


GALAXY


0' 20' 40' 80'
Dairy Barn
Center for Science and the Environment
Student Commons
FL3
FL2
FL1
FL1
FL2
1 OUTDOOR CLASSROOM
2 SUSTAINABILITY LAB
3 ANIMAL SCIENCE LABS
4 BIO TECH LAB
5 NATURAL RESOURCE MANAGEMENT LABS
6 MUSEUM
7 VETERINARY LAB
8 DOG GROOMING
9 CAFETERIA
10 KITCHEN
11 MEDIA CENTER
12 MEDIA COMMONS
CIRCULATION
COMMON
ADMIN / TEACHER
CLASSROOM
SPECIAL ED
ATHLETICS
CAREER TECH
TOILET / LOCKER ROOM
MECH / STORAGE


0' 20' 40' 80'
CENTER ST
Gilbert Hall (Renovation)
Agricultural Mechanics (Renovation)
FL3
FL2
FL1
FL2 (Ground)
FL1
Landscape Arbor Lab
1 SMALL GYMNASIUM
2 GYMNASIUM
3 ARBORICULTURE
4 MULTIPURPOSE
5 LANDSCAPE DESIGN CLASSROOMS
6 ENGINE REPAIR LABS
7 WELDING LAB
8 CARPENTRY LAB
CIRCULATION
COMMON
ADMIN / TEACHER
CLASSROOM
SPECIAL ED
ATHLETICS
CAREER TECH
TOILET / LOCKER ROOM
MECH / STORAGE

Exhibition of School Planning and Architecture Project Data

Submitting Firm :	HMFH Architects
Project Role	Project Manager
Project Contact	Bobby Williams
Title	Principal
Address	130 Bishop Allen Drive
City, State or Province, Country	Cambridge, MA
Phone	617-877-2150
Joint Partner Firm:	
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	
Planner on Record:	HMFH Architects
Name	Laura Wernick
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Phone	617-877-2150
Email	rwilliams@hmfh.com
Construction Firm:	Gilbane Building Company
Project Role	Project Executive
Project Contact	Michael O'Brien
Title	Sr Vice President – New England Division
Address	10 Channel Center Street Ste 100
City, State or Province, Country	Boston, MA
Phone	617-478-3300

Exhibition of School Planning and Architecture Project Details

Project Name	Bristol County Agricultural High School
City	Dighton
State	MA
District Name	Bristol County
Supt/President	Derek Costa
Occupancy Date	August 2021
Grades Housed	9-12
Capacity(Students)	640
Site Size (acres)	220 acres
Gross Area (sq. ft.)	204,000
Per Occupant(pupil)	318
gross/net please indicate	1.5
Design and Build?	
If yes, Total Cost:	
Includes:	
Project Costs	
If no,	
Site Development:	$8,397,202
Building Construction:	$79,544,401
Fixed Equipment:	$454,000
Other:	
Total:	$88,395,603