

District: Bristol County Agricultural Regional School District
 School Name: Bristol County Agricultural High School
 Recommended Category: Preferred Schematic
 Date: October 18, 2017

Recommendation

That the Executive Director be authorized to approve the Bristol County Agricultural Regional School District, as part of its Invitation to Feasibility Study, to proceed into Schematic Design for additions/renovations and new construction of various buildings, at the Bristol County Agricultural High School campus. MSBA staff has reviewed the Feasibility Study and accepts the District’s preferred solution.

District Information	
District Name	Bristol County Agricultural Regional School District
Elementary Schools	N/A
Middle Schools	N/A
High School	Bristol County Agricultural High School (9-12)
Priority School Name	Bristol County Agricultural High School
Type of School	High School
Grades Served	9-12
Year Opened	1935
Existing Square Footage	224,237
Additions	1940 1950 1960 1967 1974 2005
Acreage of Site	250 acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> – Mechanical, Electrical, and Fire Protection systems – Building Envelope – Indoor Air Quality – Accessibility – Overcrowding In addition to the physical plant issues, the District reported that the existing facility does not support the delivery of its educational program.
Original Design Capacity	Originally designed to house 350 students
2016-2017 Enrollment	468
Agreed Upon Enrollment	Study Enrollment includes the following configurations: 450 (grade configuration 9-12) 640 (expanded enrollment for a grade configuration of 9-12) (Preferred Solution)
Enrollment Specifics	Contingent upon the Board’s approval of the preferred solution, the District will sign a Design Enrollment Certification for 640 students in grades 9-12.

District Information	
Total Project Funding Debt Exclusion Anticipated	No

MSBA Board Votes	
Invitation to Eligibility Period	January 14, 2015
Invitation to Feasibility Study	November 19, 2015
Preferred Schematic Authorization	On October 25, 2017 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on April 10, 2018
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	56.26%

Consultants	
Owner's Project Manager (the "OPM")	Colliers International, Inc.
Designer	HMFH Architects, Inc.

Discussion

The existing Bristol County Agricultural High School is a campus style school located on a site of over 250 acres that includes twenty-seven (27) buildings totaling approximately 224,000 square feet. The original school building was constructed in 1935 and currently serves grades 9-12. Since its opening, several additions have been constructed in the 1940's, 1950's, 1960's, and 1970's, with the most recent additions completed in 2005. System and component upgrades have been implemented through the 1990's and 2000's.

The District identified numerous deficiencies in the Statement of Interest that were generally associated with space limitations and overcrowding, insufficient instructional areas, outdated and inadequate electrical and mechanical distribution, accessibility, inefficient windows and exterior envelope, and air quality. The District identified particular concerns with educational spaces associated with its Arboriculture, Natural Resources, Landscape, and Animal Science programs.

In conjunction with its consultants, the District performed a comprehensive assessment of the existing conditions and the educational program, received input from educators, administrators, and facilities personnel, and developed educational priorities and facility goals against which to evaluate each of its twenty-seven buildings. Based on the findings of this effort, the District and its consultants initially studied ten preliminary options, which included one base repair option and nine addition/renovation configuration options. With the exception of the "Base Repair" option, the preliminary alternatives initially explored varying levels of additions/renovations and/or replacement of the existing buildings. An entirely new construction option was not considered as a feasible option given the number and condition of many of the existing buildings. The District and the MSBA discussed this approach and agreed that a priority based matrix was appropriate for investigating alternatives to address educational and facility needs across the campus. The following is a list of the preliminary alternatives considered.

Option	Description of Preliminary Options
1	Base Repair
1.1	New Construction of Center of Science and Environment (north campus), Animal Science Center, and Dairy Barn; Addition to Transition Barn; and Minor Renovations to Gilbert Hall and Keith Hall for 450 students
1.2	New Construction of Center of Science and Environment (south campus), Animal Science Center, Dairy Barn, and Agricultural Mechanics (north campus); Addition to Transition Barn; and Minor Renovations to Gilbert Hall and Keith Hall for 450 students
2A	New Construction of Center of Science and Environment (north campus), Animal Science Center, and Dairy Barn; Addition to Transition Barn; and Major Renovations to Gilbert Hall for 640 students
2B	New Construction of Center of Science and Environment (south campus), Animal Science Center, Dairy Barn, and Agricultural Mechanics (north campus); Addition to Transition Barn; and Major Renovations to Gilbert Hall for 640 students
3A	New Construction of Center of Science and Environment (north campus), Animal Science Center, and Dairy Barn; Additions to Transition Barn, and Floriculture Building, Addition/Major Renovation to Gilbert Hall (convert existing gym to new auditorium and construct new gym addition); and Major Renovations of Pole Barn and Agricultural Mechanics Building for 640 students
3B	New Construction of Center of Science and Environment (includes auditorium, north campus), Animal Science Center, and Dairy Barn; Additions to Transition Barn, and Floriculture Building, Addition/Major Renovation to Gilbert Hall (new athletic facilities and classroom addition); and Major Renovations of Pole Barn and Agricultural Mechanics Building for 640 students
3C	New Construction of Center of Science and Environment (north campus), Animal Science Center, and Dairy Barn; Additions to Transition Barn, and Floriculture Building, Addition/Major Renovation to Gilbert Hall (new gym addition); and Major Renovations of Pole Barn and Agricultural Mechanics Building for 640 students
4A	New Construction of Center of Science and Environment (south campus), Animal Science Center, Dairy Barn, and Agricultural Mechanics (north campus); Addition to Transition Barn, and Floriculture Building; Addition/Major Renovation to Gilbert Hall (convert existing gym to new auditorium and construct new gym addition); and Major Renovations to Pole Barn for 640 students
4B	New Construction of Center of Science and Environment (includes auditorium, south campus), Animal Science Center, Dairy Barn, and Agricultural Mechanics (north campus); Addition to Transition Barn, and Floriculture Building; Addition/Major Renovation to Gilbert Hall (new athletic facilities and classroom addition); and Major Renovations to Pole Barn for 640 students

Early in the evaluation of alternatives the base repair “Option 1” was determined to be a non-viable alternative and dropped from further consideration and development because this option does not address current capacity issues or accommodate the planned growth of the school for an enrollment of 640 students.

“Options 1.1 and 1.2” were not considered viable by the District and were not considered further because these options do not accommodate for the planned growth in enrollment of 640 students for the school. However, staff requested that the District identify the most feasible of the two

options for 450 students and further develop and consider these in the Final Evaluation of Alternatives for comparison to the 640 student design enrollment options and to better understand the financial impact of expanding the enrollment. Subsequently, the District and its consultants developed “Option 1.4” as a refined variation of “Options 1.1 and 1.2”.

Although “Options 2A and 2B” achieve many of the District’s top priority goals for a design enrollment of 640 students, these options do not fully meet the desired needs of the District’s proposed program; thus, they were not evaluated further. Similarly, “Options 3A, 3B, 4A, and 4B” achieve many of the District’s top priority goals associated with a design enrollment of 640 students; however, “Option 3A” converts the existing gymnasium into an auditorium, “Options 3B and 4B” include new auditorium and new athletic facilities, and “Options 4A and 4B” include a new Agricultural Mechanics Building, all of which the District determined were not cost effective in meeting its needs. Therefore, these options were not further evaluated.

The District’s Final Evaluation of Alternatives include one (1) option for the current population of (approximately 450 students) and three (3) options for an expanded design enrollment of 640 students. All of the options include renovation of Gilbert Hall, renovation of the Agricultural Mechanics Building, renovation of Pole Barn, an addition to the Floriculture Building, new construction of the proposed Center for Science and the Environment, new construction of a Dairy Barn, and site improvements to vehicle and pedestrian circulation. Also, it is anticipated that all of these options will include demolition of several existing buildings including: the Small Animal building, the Dairy Barn, Landscape Classroom building, and the Museum. Several of these buildings are located within historic districts in Dighton. The District has submitted a project notification form and is preparing materials to assist the Massachusetts Historic Commission (MHC) and the Dighton Historic Commission with their review of the buildings. The District has informed the Town of its intentions and offered the buildings to the Town for potential relocation and reuse.

The four (4) options included in the Final Evaluation of Alternatives, listed below, explore variations in meeting the District’s educational priorities and facility goals.

Option	Description
<p>1.4 450 students</p>	<p>Construction of a new Center for Science and the Environment building and a new Dairy Barn. Renovation of Gilbert Hall, Agricultural Mechanics building, and Pole Barn. Small addition to the Floriculture building.</p> <p>Gym and dining is provided on the north campus, within the new Center for Science and the Environment building. The existing gym is renovated to provide assembly space, and the existing auditorium is repurposed to provide classrooms and a climbing lab for the Arboriculture program.</p>
<p>3C 640 Students</p>	<p>Construction of a new Center for Science and the Environment building and Dairy Barn. Renovation of Gilbert Hall, Agricultural Mechanics building, and Pole Barn. Small addition to the Floriculture building. The proposed spaces allow for an expanded enrollment.</p> <p>Gym and dining is provided on the north campus, within the new Center for Science and the Environment building. The existing gym is renovated to also provide assembly bleacher seating, and the existing auditorium is repurposed to provide</p>

Option	Description
	classrooms and a climbing lab for the Arboriculture program.
3C.1 640 students	<p>Construction of a new Center for Science and the Environment building and Dairy Barn. Renovation of and addition to Gilbert Hall, the Agricultural Mechanics building, and Pole Barn. Small addition to the Floriculture building. The proposed spaces allow for an expanded enrollment.</p> <p>Gym and dining is provided on the south campus within Gilbert Hall. The existing gym is renovated to provide space for assembly, dining, a kitchen and a media center. A new gymnasium is constructed on the south side of Gilbert Hall and the proposed new Center for Science and the Environment building is smaller. The existing auditorium is repurposed to provide classrooms and a climbing lab for the Arboriculture program.</p>
3C.2 640 students	<p>Construction of a new Center for Science and the Environment building and Dairy Barn. Renovation of Gilbert Hall, Agricultural Mechanics building, and Pole Barn. Larger addition to the Floriculture building. The proposed spaces allow for an expanded enrollment.</p> <p>Gym and dining is provided on the north campus, within the new Center for Science and the Environment building. The existing gym is renovated to provide assembly space, and the existing auditorium is repurposed to provide classrooms and a climbing lab for the Arboriculture program. The larger addition to the Floriculture building allows for the entire Arboriculture program to be delivered within a single space.</p>

Upon further review and discussion, MSBA staff and the District agreed to further develop “Options 1.4, 3C, 3C.1, and 3C.2” in the Final Evaluation of Alternatives and development of preliminary design pricing as presented below.

Summary of Preliminary Design Pricing for Final Evaluation of Options

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sq. ft.)	Square Feet of New Construction (cost*/sq. ft.)	Site, Building Takedown, Hazmat Cost*	Estimated Total Construction ** (cost*/sq. ft.)	Estimated Total Project Costs
Option 1.4: (New Construction & Addition/ Renovation)	181,330	93,600 \$320/sq. ft.	87,730 \$394/sq. ft.	\$10,371,336	\$74,909,764 \$413/sq. ft.	\$97,450,000
Option 3C: (New Construction & Addition/ Renovation)***	193,300	93,600 \$320/sq. ft.	99,730 \$390/sq. ft.	\$10,967,572	\$79,748,224 \$412/sq. ft.	\$103,750,000
Option 3C.1: (New Construction & Addition/ Renovation)	192,330	93,600 \$355/sq. ft.	98,730 \$357/sq. ft.	\$11,115,786	\$79,528,143 \$413/sq. ft.	\$103,450,000

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sq. ft.)	Square Feet of New Construction (cost*/sq. ft.)	Site, Building Takedown, Hazmat Cost*	Estimated Total Construction ** (cost*/sq. ft.)	Estimated Total Project Costs
Option 3C.2: (New Construction & Addition/ Renovation)	199,330	93,600 \$320/sq. ft.	105,730 \$397/sq. ft.	\$10,949,985	\$82,782,952 \$415/sq. ft.	\$107,650,000

* *Marked up construction costs*

** *Does not include construction contingency*

****District's preferred solution*

The District has selected “Option 3C” as the preferred solution to proceed into Schematic Design. “Option 3C” includes the renovation and/or addition to five existing buildings: Gilbert Hall, the Agricultural Mechanics building, the existing Pole Barn, and the Paint Shop. “Option 3C” also provides for an addition to the existing Floriculture building. This option includes demolition of the existing the Small Animal building, Dairy Barn, Landscape Classroom building, and the Museum, which will be replaced by the construction of a new Center for Science and the Environment and a new Dairy Barn. The District selected “Option 3C” as its preferred solution because it best meets the educational and facility goals explored during preliminary visioning, provides the most essential programmatic upgrades to campus facilities, improves site circulation, and provides better connection between the north and south campuses.

Although “Option 1.4” proposes scope similar to “Options 3C, 3C.1, and 3C.2,” this option does not include provisions for the District’s desired expansion of programs associated with increased enrollment, thus, it was not considered further. “Options 3C.1 and 3C.2” offer many of the same aspects as “Option 3C”; however, the District determined that construction of a new gymnasium in “Option 3C.1” was less advantageous than renovation of the existing gym as proposed in “Option 3C”. Similarly, the District determined that a smaller addition to the existing Floriculture Building in “Option 3C” was more desirable than the larger addition in “Option 3C.2”.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee (“FAS”) on October 4, 2017. At that meeting, members of the FAS discussed a number of items including authorship of the submitted educational plan; class size policies; campus design, layout and connection between the two campuses; special education and consideration for more distribution of spaces dedicated to delivery of the District’s services; outdoor educational spaces; typical school day of a student; traffic along Center Street; potential for engaging students in the design process; foreign language offerings after school; the status of the search for a new Superintendent; further development of the media center and building layouts; and the anticipated process and timeline for securing authorization and funding of the proposed project.

MSBA staff reviewed the conclusions of the Feasibility Study, all subsequent submittals, and the enrollment data with the District and found:

- 1) The options investigated were sufficiently comprehensive in scope, the approach undertaken in this study was appropriate, and the District’s preferred solution is reasonable and cost-effective and meets the needs identified by the District.
- 2) Prior to the submission of the District’s Schematic Design submittal, the MSBA has requested that the District be available to present the progress of the preferred solution to

the FAS should the MSBA determine that such a presentation is required. This presentation would ensure a mutual understanding and agreement of the proposed concept and ensure that the proposed scope will be reflected in the District's Schematic Design submittal.

- 3) The District has submitted an operational budget for educational objectives and a capital budget statement for MSBA review.
- 4) Prior to a Project Scope and Budget Agreement, the District's Schematic Design submittal will be subject to final review and approval by the Department of Elementary and Secondary Education as part of the Schematic Design phase.
- 5) Subject to MSBA Board approval, the MSBA will participate in a project that includes spaces that meet MSBA guidelines, with the exception of variations previously agreed to by the MSBA. All proposed spaces will be reviewed during the Schematic Design phase.
- 6) As part of the Schematic Design phase, the District will work with the MSBA to determine a mutually agreeable methodology to differentiate eligible costs from ineligible costs.

Based on the review outlined above, staff recommends that the Bristol County Agricultural Regional School District be approved to proceed into Schematic Design for additions/renovations and new construction of various buildings, at the Bristol County Agricultural High School campus.