

District: Town of Braintree
 School Name: South Middle School
 Recommended Category: Preferred Schematic
 Date: April 3, 2019

Recommendation

That the Executive Director be authorized to approve the Town of Braintree (the “District”), as part of its Invitation to Feasibility Study, to proceed into Schematic Design to replace the existing South Middle School with a new grades 5-8 facility on the existing site. MSBA staff has reviewed the Feasibility Study and accepts the District’s Preferred Schematic.

District Information	
District Name	Town of Braintree
Elementary Schools	Archie T. Morrison Elementary School (K-5) Donald Ross Elementary School (K-5) Highlands Elementary School (K-5) Hollis Elementary School (K-5) Liberty Elementary School (K-5) Mary E. Flaherty Elementary School (K-5) Monatiquot Kindergarten Center (K)
Middle Schools	East Middle School (6-8) South Middle School (6-8)
High School	Braintree High School (9-12)
Priority School Name	South Middle School
Type of School	Middle School
Grades Served	6-8
Year Opened	1956
Existing Square Footage	79,264
Additions	2001 – two modular classrooms 2017 – two modular classrooms
Acreage of Site	21.9 acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> – Overcrowding – Roof – Building Envelope – Accessibility In addition to the physical plant issues, the District reported that the existing facility does not support the delivery of its educational program as well as existing and projected overcrowding.
Original Design Capacity	Unknown
2018-2019 Enrollment	704
Agreed Upon Enrollment	800
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 800 students serving grades 5-8.
Total Project Budget – Debt Exclusion Anticipated	No

MSBA Board Votes	
Invitation to Eligibility Period	February 15, 2017
Invitation to Feasibility Study	December 13, 2017
Preferred Schematic Authorization	On April 10, 2019 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on August 28, 2019
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	50.58%

Consultants	
Owner’s Project Manager (the “OPM”)	Hill International, Inc.
Designer	Miller Dyer Spears, Inc.

Discussion

The existing Braintree South Middle School is a 79,264 square-foot facility located on approximately 21.9 acres in a residential neighborhood. The original school building was constructed in 1956. Two modular classrooms were added in 2001 and two more modular classrooms were added in 2017. Approximately 90 percent of the exterior windows of the original building were replaced, and the lighting, fire alarm, and HVAC systems were upgraded in 2010 as part of MSBA’s Green Repair Program.

The District identified numerous deficiencies in the Statement of Interest including severe overcrowding, roofing, building envelope, and accessibility constraints. The District has also expressed concern regarding its ability to deliver its educational program due to lack of programmatic space.

The existing facility currently houses grades 6-8. However, the MSBA understands that in order to relieve district-wide enrollment pressures at the elementary school level, the District approved a grade-reconfiguration that will move grade five students out of six existing elementary schools and into the District’s two middle schools. This transition began with the commencement of construction at the East Middle School, an earlier project in Braintree.

In conjunction with its consultants, the District performed a comprehensive assessment of the existing conditions and the educational program and received input from educators, administrators, and facilities personnel. Based on the findings of this effort, the District and its consultants initially studied six preliminary options that included a code upgrade, a renovation, two addition/renovation configurations, and two new construction options. The following is a detailed list of the preliminary options considered.

Option	Description of Preliminary Options
R0	Code Upgrade/ Repair – Includes repair of systems and /or scope required for code compliance with no modification to existing spaces or their function.
R1	Renovation Only - Includes repair of systems and /or scope required for code compliance with modification to existing spaces or their function.
RA-1	Addition/ Renovation - Demolition of the existing cafeteria, former shop spaces, and

	modular classrooms with an addition of approximately 81,720 square feet.
RA-2	Addition/ Renovation - Demolition of the existing modular classrooms with an addition of approximately 84,255 square feet.
N-1	New School on adjacent playing fields, existing school remains for the District's use.
N-2	New School on adjacent playing fields, existing school demolished.

Upon further review at the conclusion of the Preliminary Development Program phase, the District determined that “Options RO and R1” would not be considered for further evaluation. Based on overcrowding at the current enrollment of 705 students, the District determined that the code upgrade and the renovation only options would not accommodate the proposed enrollment of 800 students. Based on this determination, MSBA staff and the District agreed to five final options for further development and consideration in the final evaluation and development of preliminary design pricing as presented below. Although the District determined that “Option R0” is not a viable solution, this option has been included for cost comparison purposes.

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, Haz Mat. Cost*	Estimated Total Construction ** (cost*/sq. ft.)	Estimated Total Project Costs
Option RO: Base Repair (Cost Comparison Only)	79,264	79,264 \$323/sq. ft.	N/A	\$1,357,992	\$26,942,681 \$340/sq. ft.	\$35,575,205
Option RA-1: Addition/ Renovation	151,696	69,976 \$309/sq. ft.	81,720 \$531/sq. ft.	\$8,987,911	\$73,954,670 \$488/sq. ft.	\$96,467,431
Option RA-2: Addition/ Renovation	153,903	69,648 \$306/sq. ft.	84,255 \$507/sq. ft.	\$8,647,246	\$72,648,513 \$472/sq. ft.	\$94,808,612
<i>Option N-1: New Construction***</i>	<i>140,399</i>	<i>N/A</i>	<i>140,399 \$431/sq. ft.</i>	<i>\$8,642,049</i>	<i>\$69,181,408 \$493/sq. ft.</i>	<i>\$86,600,411</i>
Option N-2: New Construction	140,399	N/A	140,399 \$432/sq. ft.	\$10,785,277	\$71,502,005 \$509/sq. ft.	\$89,419,936

* Marked up construction costs

** Does not include construction contingency

******District's Preferred Schematic***

The District has selected “Option N-1”, a new three-story construction option located on the playing fields on the northwestern corner of the existing site as the preferred solution to proceed into schematic design. In addition to supporting the District's desire to incorporate the 5th grade student population into the proposed school, the District selected this option because it fully accommodates the District's educational program and best matches the spatial and adjacencies needs of the school. This option creates distinct 5-6 and 7-8 learning academies, places the Media Commons at the core of the school, provides public spaces with controlled access, and provides spaces that support collaborative and team learning for students and staff.

The District has also indicated that this option was selected because it has the lowest construction cost among the addition/renovation and new construction options, has the least impact on the existing school operations, minimizes construction duration, and situates the administrative functions along the access route to the main corridor to provide direct oversight over a secured entry vestibule. Although “Option N-2” provided the identical building layout as the preferred solution, this option proposes demolition of the existing school. It was eliminated from further consideration because the District has indicated the existing building will remain in use for other purposes.

Although the District indicated “Option RA-1” provides a cohesive layout with the required academic and core spaces to accommodate the proposed grades 5-8 enrollment, this option was not selected because it did not allow for two separate learning communities as desired in the educational program. “Option RA-2” proposes a smaller building footprint than “Option RA-1” and provides separate circulation for the two learning academies. However, this option was eliminated from further consideration because it also does not fulfill all of the requirements of the educational program, proposes gymnasiums on two different levels, and proposes an addition that is located closer to abutting neighbors.

“Options RA-1 and RA-2” both have construction costs that are higher than the new construction options and would disrupt playing fields on the existing site for up to three years and disrupt existing school operations. These options also propose undesirable construction phasing in an occupied building, and require temporary swing space during construction.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee (“FAS”) on March 20, 2019. At that meeting, members of the FAS discussed the following topics: appreciation of the District’s educational program and its relation to the proposed building layout; design limitations associated with site topography and the location of the existing building to remain; site circulation and location of pick-up/drop-off areas; shelter and handicapped access to the building for individuals with limited mobility; distribution of special education spaces and specialized programs; access, use, and maintenance of the proposed courtyard, how the courtyard relates to the interior circulation and the educational program; the proposed elevator location and associated travel time required within the building; the proposed locations of the art room, media room and academy commons; the capacity of the proposed music storage areas; and community outreach and how MSBA’s financial participation in the proposed project is being communicated to the District.

MSBA staff reviewed the conclusions of the Feasibility Study and all other subsequent submittals 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 Schematic is reasonable and cost-effective and meets the needs identified by the District.
- 2) The District has submitted an operational budget for educational objectives and a capital budget statement for MSBA review.
- 3) 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 submittal, which is prior to executing a Project Scope and Budget Agreement.

- 4) Subject to Board approval, the MSBA will participate in a project that includes spaces that meet MSBA guidelines, except for variations previously agreed to by the MSBA. All proposed spaces will be reviewed during the Schematic Design phase.
- 5) Pursuant to the MSBA's enabling legislation, the MSBA's regulations, and the District's proposed plan to repurpose the existing Braintree South Middle School for which it received a school building grant from the Commonwealth for a prior project, the MSBA will recover a prorated portion of the financial assistance that the District has received for the previous project. The exact amount to be recovered will be established at the conclusion of 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 Town of Braintree be approved to proceed into Schematic Design to replace the existing South Middle School with a new grades 5-8 facility on the existing site.