District: Town of Natick

School Name: John F. Kennedy Middle School

Recommended Category: Preferred Schematic October 18, 2017

Recommendation

That the Executive Director be authorized to approve the Town of Natick, as part of its Invitation to Feasibility Study, to proceed into Schematic Design to replace the existing John F. Kennedy 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 solution.

District Information				
District Name	Town of Natick			
Elementary School(s)	Natick Preschool (PK)			
	Bennett-Hemenway Elementary School (K-4)			
	Brown Elementary School (K-4)			
	Johnson Elementary School (K-4)			
	Lilja Elementary School (K-4)			
	Memorial Elementary School (K-4)			
Middle School(s)	John F. Kennedy Middle School (5-8)			
	Wilson Middle School (5-8)			
High School(s)	Natick High School (9-12)			
Priority School Name	John F. Kennedy Middle School			
Type of School	Middle School			
Grades Served	5-8			
Year Opened	1965			
Existing Square Footage	114,885			
Additions	2012 – addition of 8 modular classrooms			
Acreage of Site	11.7			
Building Issues	The District identified deficiencies in the following areas:			
	Structural integrity			
	 Mechanical systems 			
	 Electrical systems 			
	 Plumbing systems 			
	– Envelope			
	– Windows			
	- Roof			
	 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	600			
2016-2017 Enrollment	650			
Agreed Upon Enrollment	1,000			

District Information					
Enrollment Specifics	The District and MSBA have mutually agreed upon a				
	design enrollment of 1,000 students serving grades 5-8.				
Total Project Funding					
Debt Exclusion Anticipated	Yes				

MSBA Board Votes				
Invitation to Eligibility Period	May 25, 2016			
Invitation to Feasibility Study	September 28, 2016			
Preferred Schematic Authorization	On October 25, 2017 agenda			
Project Scope & Budget Authorization	District is targeting Board authorization on			
	February 14, 2018			
Feasibility Study Reimbursement Rate	44.26%			
(Incentive points are not applicable)				

Consultants	
Owner's Project Manager (the "OPM")	Compass Project Management, Inc.
Designer	Ai3 Architects, LLC

Discussion

The existing John F. Kennedy Middle School is an 114,885 square foot facility, located on a 11.7 acre site, that currently serves students in grades 5-8. The original school building was constructed in 1965, with the addition of eight modular units in 2012.

The District's Statement of Interest identifies numerous deficiencies in the existing building including: outdated mechanical, electrical, and plumbing systems; building envelope; accessibility issues; overcrowding; and the appropriateness of existing spaces to deliver the District's education program.

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. The District and its consultants initially studied six potential sites, and subsequently determined that five of the sites were not viable because of existing site conditions. Based on the findings of this effort, the District and its consultants studied twenty preliminary options at the existing John F. Kennedy Middle School site, which included one base repair option, two addition/renovation options, and seventeen new construction options. The following is a detailed list of the preliminary alternatives that were considered.

Option	Description of Preliminary Options
1	Base repair – code required upgrade only
2.1	Addition and renovation option that investigates 100% reuse of the existing school facility.
2.2	Addition and renovation option that investigates the demolition of a significant portion of the existing school facility.
3.1	2-story new construction option located to the southeast of the Brown Elementary School and to the northwest of the existing John F. Kennedy Middle School (Site

	Zone 1).					
3.2	2-story new construction option located to the southeast of the Brown Elementary School and to the northwest of the existing John F. Kennedy Middle School (Site					
2.2	Zone 1).					
3.3	3-story new construction option located directly south of the existing Brown Elementary School, with bordering wetland vegetation along the entire western side (Site Zone 2).					
3.4	4-story new construction option located directly south of the existing Brown Elementary School, with bordering wetland vegetation along the entire western side (Site Zone 2).					
3.5	4-story new construction option located to the east of Jean Burke Drive and south of the Brown Elementary School (Site Zone 3).					
3.6	4-story new construction option located to the east of Jean Burke Drive and south of the Brown Elementary School (Site Zone 3).					
3.6B	4-story new construction option located to the east of Jean Burke Drive and south of the Brown Elementary School (Site Zone 3).					
3.6C	4-story new construction option similar to "Option 3.4" located on the southernmost buildable area on the site (Site Zone 4).					
3.7	4-story new construction option located directly south of the existing Brown Elementary School, with bordering wetland vegetation along the entire western side (Site Zone 2).					
3.7B	4-story new construction option located on the southernmost buildable area on the site (Site Zone 4).					
3.8	4-story new construction option similar to "Option 3.7" located to the east of Jean Burke Drive and south of the Brown Elementary School (Site Zone 3).					
3.8B	4-story new construction option located on the southernmost buildable area on the site (Site Zone 4).					
3.9	4-story new construction option located on the southernmost buildable area on the site (Site Zone 4).					
3.9B	4-story new construction option located on the southernmost buildable area on the site (Site Zone 4).					
3.10	4-story new construction option located on the southernmost buildable area on the site (Site Zone 4).					
3.11	4-story new construction option located to the east of Jean Burke Drive and south of the Brown Elementary School (Site Zone 3).					
3.12	4-story new construction option located to the east of Jean Burke Drive and south of the Brown Elementary School (Site Zone 3).					

As a result of this analysis, "Option 1" was not considered a viable option because it does not meet the needs of the District's educational program, and it does not modernize any of the existing educational spaces.

"Option 2.1" was not considered a viable option because it does not meet the needs of the District's educational program, and results in multiple phases of construction which would cause significant disruption to the delivery of the educational instruction during construction.

"Options 3.1 and 3.2" are located on site zone 1, and were not considered viable options because the proposed location would displace the existing soccer and ball fields at the adjacent Brown

Elementary School and the Performing Arts and Athletic Center does not provide an identifiable entry from the Brown Elementary School.

"Options 3.3, 3.4, and 3.7",located on site zone 2, were not considered viable options because the proposed location would displace the existing soccer and ball fields at the adjacent Brown Elementary School. Additionally, "Option 3.3" would require more complex structural framing and acoustical treatment of the floor slab between the noise of the gym and the educational spaces above which is expected to increase cost, and "Option 3.7" impacts areas of wetlands and woodland which would require on site replication of these areas.

"Options 3.5, 3.6, 3.6B, 3.8, and 3.11" are located on site zone 3. Although each option meets the needs of the District's educational program, they were not recommended for further consideration because they would result in the elimination of interior wetlands and the relocation of the existing play structure at the adjacent Brown Elementary School. Additionally, "Option 3.5" requires phased, occupied construction of the existing gymnasium, mechanical spaces, and locker room; "Option 3.8" does not allow full vehicular access around the perimeter of the building; and "Option 3.11" provides an auditorium that is not adjacent to the Brown Elementary School.

"Options 3.6C, 3.7B, 3.8B, 3.9, 3.9B, and 3.10" are located on site zone 4. Although "Option 3.9" meets the needs of the District's educational program, it was not recommended for further consideration because it reduced the amount of green space in front of the Brown Elementary School for student use and does not allow full vehicular access around the perimeter of the building due to isolated wetlands. Additionally, "Options 3.6C, 3.7B, 3.8B, 3.9B, and 3.10" were not recommended due to the excessive impact to the bordering vegetated wetlands, with no additional educational or financial benefits.

Upon further review, MSBA staff and the District agreed to three final options for further development and consideration in the final evaluation and development of preliminary design pricing, as presented below. Please note that "Option 1" is not considered a viable option, but is included for cost comparison purposes only.

Summary of Preliminary Design Pricing for Final Evaluation of Options

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sf.)	Square Feet of New Construction (cost*/sf.)	Site, Building Takedown, Hamat Cost*	Estimated Total Construction ** (cost*/sf.)	Estimated Total Project Cost
Option 1: Base Repair (Cost Comparison Only)	114,885	114,885 \$327/sf.	N/A	\$3,268,081	\$40,889,190 \$356/sf.	\$55,500,000
Option 2.2: Addition/ Renovation	195,200	93,000 \$337/sf.	102,200 \$443/sf.	\$8,422,595	\$86,284,145 \$442/sf.	\$108,345,000
Option 3.12: New Construction***	183,620	N/A	183,620 \$410/sf.	\$11,961,924	\$87,314,267 \$476/sf.	\$109,510,000

^{*} Marked up construction costs

^{**} Does not include construction contingency

^{***}District's preferred solution

The District has selected "Option 3.12", a new grades 5-8 facility on the existing John F. Kennedy Middle School site as the preferred solution. The proposed facility is 183,620 gross square feet, with an estimated project cost of approximately \$109.5 million dollars.

The District selected "Option 3.12" as its preferred solution to move into Schematic Design because it meets the needs of the District's educational program, enhances site circulation and creates an overall campus between the Brown Elementary School and the John F. Kennedy Middle School, has the ideal location of the Performing Arts program and Health & Physical Education program, does not impact the bordering vegetated wetlands, and remains cost effective.

Although "Option 2.2" meets the needs of the District's educational program, it was not considered a viable option because it would result in multiple phases of construction which would cause significant disruption to the delivery of the educational program during construction.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee ("FAS") on September 20, 2017. At that meeting, members of the FAS discussed the following: the District's educational program; auditorium/performing art spaces; importance of flexible and adaptable project labs that will have the ability to change with technology; the number of student common spaces/cafeteria space; appreciation of the building orientation and organization; opportunities to further refine the building envelope to create a more efficient plan and potentially create cost savings; team collaboration spaces and circulation; phasing during construction; and future expansion.

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) The District has submitted an operational budget for educational objectives and a capital budget statement for MSBA review.
- 3) 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.
- 4) Subject to 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.
- 5) As part of the Schematic Design Phase, the MSBA will continue to work with the District to explore increased efficiencies associated with the proposed project labs and potential opportunities to increase the overall facility.
- 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 Natick be approved to proceed into Schematic Design to replace the existing John F. Kennedy Middle School with a new grades 5-8 facility on the existing site.