District: North Middlesex Regional School District
School Name: North Middlesex Regional High School
Recommended Category: Preferred Schematic
Date: July 24, 2013

Recommendation

That the Executive Director be authorized to approve the North Middlesex Regional School District, as part of its Invitation to Feasibility Study, to proceed into schematic design for replacement of the existing North Middlesex Regional High School on the existing site. MSBA staff has reviewed the Feasibility Study and accepts the District's preferred solution for replacement of the existing North Middlesex Regional High School on the existing site.

District Information	
District Name	North Middlesex Regional School District
Elementary School(s)	Ashby Elementary School (K-4) Spaulding Memorial School (K-4) Varnum Brook Elementary School (K-4)
Middle School(s)	Hawthorne Brook Middle School (5-8) Nissitissit Middle School (5-8)
High School(s)	North Middlesex Regional High School (9-12)
Priority School Name	North Middlesex Regional High School
Type of School	High School
Grades Served	9-12
Year Opened	1960
Existing Square Footage	197,377
Additions	1971
Acreage of Site	49.5 acres
Building Issues	The District identified deficiencies in the following areas: – Mechanical systems – Electrical systems – Plumbing systems – Envelope – Windows 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	Unknown
2012-2013 Enrollment	999
Agreed Upon Enrollment	870
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 870 students serving grades 9-12.

MSBA Board Votes	
Invitation to Feasibility Study	June 6, 2012

Preferred Schematic Authorization	On July 31, 2013 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on January 29, 2014
Reimbursement Rate Before Incentives	57.11%

Consultants	
Owner's Project Manager	Heery International, Inc.
Designer	Symmes Maini & McKee Associates

Discussion

The existing North Middlesex Regional High School is a 197,377 square foot ("sf") facility on a 50 acre site located at 19 Main Street (Route 119) in Townsend, Massachusetts. Although the facility serves three communities, the site is almost entirely within the town limits of Townsend. The existing facility currently houses grades 9-12.

The original school building was constructed as a high school in 1960, with upgrades and a middle school addition completed in 1971. The District identified numerous deficiencies in its Statement of Interest, including the primary goals of replacing the HVAC system to ensure proper ventilation in the classrooms and common areas, expanding the science laboratories, and increasing the capacity of the building's electrical and communications infrastructure to enable expanded use of technology in the classrooms.

As part of this proposed project, the design team performed an evaluation of all major building systems and concluded that, in addition to the building's HVAC system deficiencies, the plumbing, the main electrical service components, the fire alarm, and the emergency power systems are all at the end of their useful lives. This evaluation noted that the facility is not handicap accessible and does not have a fire sprinkler system. It also reports that the building's exterior envelope requires substantial modification to comply with current energy efficiency standards, the roof framing is significantly below current standards for snow loading, and the level of renovations required to bring the building to compliance with current building codes would trigger upgrades to the structural framing and foundation systems. It should be noted that there was a 2001 window and wall panel replacement project in the 1960 portion of the building for which the Commonwealth provided grant funding to the District. In the Schematic Design Phase, the MSBA will determine the appropriate amount of state funding that will be recouped in with conjunction with the 2001 project.

In conjunction with its consultants, the District performed a comprehensive review of its educational program and received input from educators, administrators, and facilities personnel. Because the 1970s middle school facility was added to the existing 1960s high school design, and later repurposed back to the original function as a high school, most common core functions are separated into two distinct spaces serving the original middle and high schools. It was noted in the review that was performed that space adjacencies in the building layout do not support the

District's educational needs and that significant reconfiguration of the facility is required to meet these needs.

Based on the findings of this review, the District and its consultants initially studied seven preliminary options; including one no build option, three addition/renovation configurations and three new construction options. The following is a list of the preliminary alternatives considered:

Options	Description of Preliminary Options
1	No build, code upgrade
2A & 2B	Two variations of full scope, addition/renovation options
2C	Full scope, renovation only
3A, 3B & 3C	Full scope, new building

As a result of the MSBA's review of the options included in the Preliminary Design Program ("PDP") submittal and MSBA staff concerns regarding the limited range of design options and high costs associated with the options provided, the design team considered additional options in the Preferred Schematic Report for comparative cost analysis. These additional options include: a base repair option and a moderate renovation and/or addition option. The MSBA asked the District to look at these additional options to provide the District with a range of alternatives including those with low, moderate, and high costs, and to provide a chance for the District to examine the extent to which each option supports its educational program. This enabled the District to work to evaluate and select the most educationally-appropriate and cost-effective solution. At the request of the MSBA, the design team provided a smaller new building option, referred to as the reduced scope option that, through increased space utilization, was able to meet the needs of the District's educational program. Subsequently, the design team provided three options, all of which met the District's educational program, for further development and evaluation, including the following:

Option	Description
2B.2	Full scope, addition/renovation
3A	Full scope, new building
3D	Reduced scope, new building

At the request of the MSBA, and in order to comply with the PDP review comments, the design team later provided the following two additional options in a supplemental package dated June 28, 2013:

Option	Description
1	No build, code upgrade
2D	Reduced scope, addition/renovation

Upon further review, MSBA staff and the District agreed to five final options for further consideration in the final evaluation of options 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*/sf)	Square Feet of New Construction (cost*/sf)	Site, Building Takedown, Haz Mat. Cost*	Estimated Total Construction ** (cost*/sf)	Estimated Total Project Costs
Option 1: (No Build, Code Upgrade)	197,377	197,377 $149/sf	NA	$1,420,000	$30,764,754 $156/sf	$38,455,942
Option 2B.2: (Full Scope, Add/ Reno)	190,656	117,319 $277/sf	73,337 $344/sf	$16,343,128	$74,092,020 $389/sf	$88,910,424
Option 2D: (Reduced Scope, Renovation)	197,377	197,377 $277/sf	NA	$12,179,819	$66,899,095 $339/sf	$80,278,914
Option 3A: (Full Scope, New Building)	192,005	NA	192,005 $316/sf	$18,595,248	$79,295,027 $413/sf	$95,154,033
Option 3D: (Reduced Scope, New Building)***	***180,530***	***NA***	***180,530*** ***$310/sf***	***$18,595,248***	***$74,558,890*** ***$413/sf***	***$89,470,688***

** Marked up construction costs*
*** Does not include construction contingency*
******District's preferred option***

The District selected Option 3D, which has a reduced scope and provides a smaller, more efficient new building. The District determined that Option 3D is the most educationally-appropriate and cost-effective solution and selected this option as its preferred solution to proceed into schematic design. The District considered this option to be preferable to the addition/renovation options because of the extent of reconfiguration required in the existing building to meet the needs of the educational program. This option is also the most cost-effective of the new building options studied that is able to fully support the educational program.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee ("FAS") on July 10, 2013. At that meeting, MSBA staff raised concerns regarding the extent of the proposed scope items deemed ineligible for MSBA funding, including a TV studio, additional staff offices, work associated with improvements to existing athletic press box and concession facility, and proposed items not included in the budget such as District offices and maintenance facilities. Members of the FAS noted discrepancies in the submitted documents including references to "reduced program" versus "reduced scope" in the educational program documents and presented materials, asking whether the preferred option resulted in a design that compromises the needs described in the educational program. The District explained that all spaces eliminated in the preferred "reduced scope" options will not prevent it from being able to deliver its educational program. The MSBA asked the design team to provide documentation of the revisions to the educational program as approved by the Superintendent and submittal

documents to reflect discussions at the FAS meeting. The MSBA has received this information. Members of the FAS also commented on the following items to be addressed in the subsequent Schematic Design submittal: (1) travel distance from the accessible parking area to the front entrance; (2) ability of the preferred option floor plan to accommodate a shift from a department based configuration to a team/project based arrangement; (3) configuration of the upper floors and the elevator location; and (4) incorporation of the greenhouse functions into the science labs by using window mounted plant shelving.

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

1) MSBA reviewed the Feasibility Study and subsequent material and finds that 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) 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 prior to 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, 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 District will work with the MSBA to determine a mutually agreeable methodology to differentiate between eligible costs and ineligible costs.

6) MSBA staff recommends allowing the District to proceed into schematic design contingent upon receipt of an updated educational program.

Based on the review outlined above, staff recommends that the North Middlesex Regional School District be approved to proceed into schematic design for replacement of the existing North Middlesex Regional High School on the existing site.