

District: Greater Lowell Regional Vocational Technical School District
 School Name: Greater Lowell Technical High School
 Recommended Category: Preferred Schematic
 Date: July 18, 2012

Recommendation

That the Executive Director be authorized to approve the Greater Lowell Regional Vocational Technical School District, as part of its Invitation to Feasibility Study, to proceed into schematic design for an addition and renovation project at the Greater Lowell Technical High School. MSBA staff has reviewed the Feasibility Study and accepts the District’s preferred solution for an addition and renovation project at the Greater Lowell Technical High School.

District Information	
District Name	Greater Lowell Regional Vocational Technical School District
Elementary School(s)	N/A
Middle School(s)	N/A
High School(s)	Greater Lowell Technical High School (9-12)
Priority School Name	Greater Lowell Technical High School
Type of School	High School
Grades Served	9-12
Year Opened	1974
Total Square Footage	482,954
Additions	N/A
Acreage of Site	75 acres
Building Issues	<p>The District identified deficiencies in the following areas:</p> <ul style="list-style-type: none"> - Mechanical systems - Electrical systems - Plumbing systems - Envelope - Windows - Roof - Accessibility <p>In addition to physical plant issues, the District has indicated insufficient cafeteria space and space associated with the delivery of its science curriculum.</p>
Original Design Capacity	Unknown
2011-2012 Enrollment	2,116
Agreed Upon Enrollment	1,990
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 1,990 students serving grades 9-12.

MSBA Board Votes	
Invitation to Feasibility Study for Repair	July 29, 2009
Invitation to Feasibility Study	March 30, 2010

Preferred Schematic Authorization	On July 25, 2012 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on October 3, 2012
Reimbursement Rate Before Incentives	76.84%

Consultants	
Owner's Project Manager	Heery International, Inc.
Designer	Knight, Bagge & Anderson, Inc.

Discussion

The existing Greater Lowell Technical High School is a 482,954 square-foot regional technical high school that serves the city of Lowell and the towns of Dracut, Tyngsboro, and Dunstable. The school is located on a 75-acre site in Tyngsboro. The existing facility serves grades 9-12.

The original school building was constructed in 1974. Minor building system upgrades have been completed as necessary, including a roof replacement in 1993 and HVAC improvements in 1994 and 2006 that included the addition and upgrade of rooftop air handling units. The District identified numerous deficiencies in its Statement of Interest. The existing facility requires accessibility and building systems upgrades throughout the building, and a number of the science labs need to be renovated and more appropriately sized. The District also reported deficiencies with space dedicated to its culinary arts program (Chapter 74 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. Based on the findings of this effort, the District and its consultants initially studied five preliminary options: one repair-only option, one limited-renovation and repair option, two addition and renovation options, and a potential new construction option, as described below.

Option	Description of Preliminary Options
1	Repair/Equipment/Code upgrade to existing building only
2A	Repair/Equipment/Code upgrade to existing building. renovations to 7 science labs
2B	Repair/Equipment/Code upgrade to existing building, renovations to 7 science labs, addition of new science wing with 6 new labs
3	Repair/Equipment/Code upgrade to existing building, renovations to 7 science labs, addition of 6 new labs, new addition for cafeteria/kitchen/atrium – approx. 22,000 SF
4	New Construction – Demolish/Replace existing school with all new construction

Upon review with its consultants, the District concluded that Option 1 would not address the deficiencies with spaces dedicated to the delivery of its science curriculum, and Option 4 would

not be cost-effective since it would replace a facility that is well-maintained, suitable for delivery of a vast majority of educational programs, and not at the end of its useful life. The District further concluded that Option 2A would fail to provide the number of science labs needed to support the educational program, and Option 2B would not address issues related to the size and remote location of the existing cafeteria spaces. Additionally, the District concluded that none of these options would correct for insufficient spaces associated with the school's culinary arts program.

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: Systems Repair & Code Upgrades	483,000	483,000 \$88/sf	-	\$2,699,760	\$45,203,760 \$94/sf	\$54,156,691
Option 2A: Option 1 plus Renovation of Science Rooms/Labs	483,000	483,000 \$92/sf	-	\$2,699,760	\$47,135,760 \$98/sf	\$56,477,029
Option 2B: Option 2A plus Addition of Science Rooms/Labs	496,050	483,000 \$92/sf	13,050 \$350/sf	\$2,699,760	\$51,703,260 \$104/sf	\$61,958,029
Option 3: Option 2A plus Renovation of Science Rooms/Labs, Addition of 6 new Science Rooms/Labs, Kitchen and Cafeteria ***	505,000	483,000 \$94/sf	22,000 \$280/sf	\$2,699,760	\$54,261,760 \$107/sf	\$65,809,939
Option 4: New Construction	476,100	-	476,100 \$280/sf	-	\$133,308,000 \$280/sf	\$166,635,000

* Marked up construction costs

** Does not include construction contingency

***District's preferred option

The District has selected Option 3 as the preferred solution to proceed into schematic design. This option includes repairs to and replacement of existing systems and equipment, upgrades to

conform to current code, renovations to seven science classroom/labs, construction of six new science classroom/labs within the existing building, and an addition for a new cafeteria, preparation kitchen, and serving area. The construction of the kitchen/cafeteria addition will allow for the construction of six science classroom/labs in the two existing cafeteria spaces on the third floor and expansion of culinary spaces to include the existing preparation kitchen. The District selected Option 3 as its preferred option because it is the most cost-effective option that satisfies all aspects of its desired educational program and addresses building system deficiencies.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee (“FAS”) on May 23, 2012. At that meeting, members of the FAS raised a number of concerns regarding the alignment of the science program with the STEM standards. The FAS also expressed concerns about the layout of the cafeteria addition, expressing concerns about student circulation and the overall flexibility of the design. The District and its consultants have modified the initial layout to address some of these concerns and to advance the design. MSBA staff will continue to work with the District during schematic design to reach a mutually agreeable solution to recommend to the MSBA Board of Directors.

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

- 1) All initial paperwork required has been processed, including an executed Initial Compliance Certification, the composition of the School Building Committee, and the enrollment information.
- 2) MSBA has completed an enrollment projection and has reached a mutual agreement with the District for a design enrollment of 1,990 students for the Greater Lowell Technical High School.
- 3) MSBA staff reviewed the Feasibility Study and subsequent material and finds that the options investigated were sufficiently comprehensive in scope, the approach undertaken was appropriate, and the District’s preferred solution is reasonable and cost-effective and meets the needs identified by the District.
- 4) The District will submit an operational budget for educational objectives and a capital budget for MSBA review.
- 5) 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.
- 6) 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.
- 7) As part of the Schematic Design phase, the MSBA will continue to work with the District to better understand the total area associated with dining and food service, how these spaces serve the student population, and the renovation of the existing facility.

Based on the review outlined above, staff recommends that the Greater Lowell Technical Regional School District be approved to proceed into schematic design for an addition and renovation project at the Greater Lowell Technical High School.