

District: Whittier Regional Vocational Technical School District
 School Name: Whittier Regional Vocational Technical High School
 Recommended Category: Preferred Schematic
 Date: April 19, 2023

Recommendation

That the Executive Director be authorized to approve the Whittier Regional Vocational Technical School District (the “District”), as part of its Invitation to Feasibility Study, to proceed into Schematic Design to replace the existing Whittier Regional Vocational Technical High School with a new facility serving grades 9-12 on the existing site (“Preferred Schematic”). MSBA staff has reviewed the Feasibility Study and accepts the District’s Preferred Schematic.

District Information	
District Name	Whittier Regional Vocational Technical School District
Elementary Schools	N/A
Middle School	N/A
High School	Whittier Regional Vocational Technical High School (9-12)
Priority School Name	Whittier Regional Vocational Technical High School (9-12)
Type of School	Vocational Technical High School
Grades Served	9-12
Year Opened	1972
Existing Square Footage	356,732
Additions	1996 and 1999
Acreage of Site	166 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 - Building envelope - Sprinkler system - Accessibility <p>In addition to the physical plant issues, the District reported that the existing facility does not support the delivery of its educational program nor provides the resources of flexibility to appropriately accommodate current educational teachings and concepts.</p>
Original Design Capacity	Unknown
2022-2023 Enrollment	1,277 students
Agreed Upon Enrollment	<p>Study Enrollment includes the following configurations:</p> <ul style="list-style-type: none"> - 1,280 students in grades 9-12 as currently configured. (Preferred Schematic) - Between 1,280-1,400 students in grades 9-12 with partial proposed expansion and/or additional Chapter 74 Programming.
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 1,280 students serving grades 9-12.

	Contingent upon the Board’s approval of the Preferred Schematic, the District will sign a Design Enrollment Certification of 1,280 students in grades 9-12.
Total Project Budget – Debt Exclusion Anticipated	Yes

MSBA Board Votes	
Invitation to Eligibility Period	December 11, 2019
Invitation to Feasibility Study	June 23, 2021
Preferred Schematic Authorization	On April 26, 2023 Board Agenda
Project Scope & Budget Authorization	District is targeting Board authorization on December 13, 2023
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	59.16%

Consultants	
Owner’s Project Manager (the “OPM”)	Leftfield, LLC.
Designer	JCJ Architecture, PC

Discussion

The existing Whittier Regional Vocational Technical High School is a 356,732 square-foot multilevel facility located on a 166-acre site in Haverhill, Massachusetts. The school currently serves students in grades 9-12 and offers (21) Chapter 74 career vocational programs. The original facility was constructed in 1972, with a major renovation in 1996 to address a deteriorating concrete envelope and the replacement of all external doors and windows. In 1999, a 12,000 square-foot addition was added to house the technology center. Please note, the District includes the following (11) communities: Amesbury, Georgetown, Groveland, Haverhill, Ipswich, Merrimac, Newbury, Newburyport, Rowley, Salisbury, and West Newbury.

The District’s Statement of Interest (“SOI”) identified numerous deficiencies in the existing facility associated with the age of the building and its systems, along with programmatic deficiencies, and accessibility issues. Additionally, the existing space does not support the delivery of its educational program and does not provide the flexibility to appropriately accommodate current educational teachings and concepts.

As part of the Feasibility Study, the MSBA mutually agreed with the District to explore the following two enrollment options for students in grades 9-12: 1,280 students (current configuration) and an option that ranges between 1,280-1,400 students (with partial proposed expansion and/or additional Chapter 74 Programming).

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 (9) preliminary options that include: (1) code upgrade option, (4) addition/renovation options, and (4) new construction options, as presented below.

Option	Description of Preliminary Options
Option A-1	Code Upgrade for grades 9-12 with an enrollment of 1,280 students with an estimated project cost of \$230.4 million.
Option A-2.1	Addition/renovation (Addition at North Parking Lot) for grades 9-12 with an enrollment of 1,280 students with an estimated project cost of \$370.6 million.
Option A-2.2	Addition/Renovation (Addition at Courts) for grades 9-12 with an enrollment of 1,280 students with an estimated project cost of \$396.8 million.
Option A-3.1	New Construction (Upper Field + Hill) for grades 9-12 with an enrollment of 1,280 students with an estimated project cost of \$412.9 million.
Option A-3.2	New Construction (Upper Field) for grades 9-12 with an enrollment of 1,280 students with an estimated project cost of \$403.6 million.
Option B-2.1	Addition/Renovation (Addition at North Parking Lot) for grades 9-12 with an enrollment of 1,400 students with an estimated project cost of \$394.6 million.
Option B-2.2	Addition/Renovation (Addition at Courts) for grades 9-12 with an enrollment of 1,400 students with an estimated project cost of \$394.6 million.
Option B-3.1	New Construction (Upper Field + Hill) for grades 9-12 with an enrollment of 1,400 students with an estimated project cost of \$443.4 million.
Option B-3.2	New Construction (Upper Field) for grades 9-12 with an enrollment of 1,400 students with an estimated project cost of \$435.1 million.

As a result of this analysis, the District determined that “Options A-2.1, B-2.1, and B-2.2” would not be considered for further evaluation due to concerns associated with disruptions to student and education delivery due to phased construction, and lack of construction access and staging conflicts with school traffic circulation. Additionally, these options would not improve natural daylight access in existing spaces and limit the District’s ability to create desired program adjacencies and were therefore eliminated as viable options.

The District determined that “Option B-3.1” would not be considered for further evaluation because the proposed building footprint located on the upper fields would reduce the availability of the athletic fields during construction and due to limitations on leveling the hilly area southwest edge of stadium. Additionally, this option is the most expensive option considered and would impact the balance of local educational funding for many of the 11-member communities that make up the District.

The District determined that “Options A-3.2, and B-3.2” would not be considered for further evaluation because the proposed building footprint located on the upper fields would reduce the availability of the athletic fields during construction and the proposed fully enclosed courtyard poses access and acoustic challenges.

Subsequent to the evaluation of preliminary options, the District further developed “Option A-3.1”, which is now referred to as “Option A-3.3” and the District developed an additional new construction option that is referred to as “Option A-3.4”.

MSBA staff and the District agreed to explore the following (4) options for further development and consideration in the final evaluation and development of preliminary design pricing as presented below, including: (1) code upgrade option, (1) addition/renovation option, and (2) new construction options.

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 A-1 Code Upgrade/ Base Repair	356,732	356,732 \$494/sq. ft.	N/A	\$27,008,690	\$203,111,718 \$569/sq. ft.	\$271,327,890
Option A-2.2 Addition/ Renovation	404,522	355,043 \$707/sq. ft.	49,479 \$1,043/sq. ft.	\$59,629,211	\$362,123,570 \$895/sq. ft.	\$461,391,191
Option A-3.3 New Construction*** (Dual Courtyard)	375,932	N/A	375,932 \$713/sq. ft.	\$61,345,309	\$329,384,825 \$876/sq. ft.	\$404,791,671
Option A-3.4 New Construction (Optimized Solar)	375,932	N/A	375,932 \$730/sq. ft.	\$62,491,026	\$336,921,386 \$896/sq. ft.	\$413,015,959

* Marked up construction costs

** Does not include construction contingency

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

The District has selected “Option A-3.3” as the Preferred Schematic to proceed into Schematic Design. The District selected “Option A-3.3” because this option supports the needs of the District’s educational program, addresses site circulation issues, new fields will have proper solar orientation, offers clear circulation with visibility for security and daylight in all academic and vocational spaces. Additionally, this option allows optimization of desired adjacencies.

As a result of this analysis, the District determined “Option A-1” was not considered a viable option because this option does not support the District’s educational program, it does not address site circulation issues nor the solar field orientation. Additionally, this option would require multi-phased construction, higher annual operating costs related to an inefficient envelope and swing space.

“Option A-2.2” was not selected by the District because the proposed addition/renovation would limit the ability to create desired program adjacencies and compromise simultaneous use during the school hours due to cross circulation between community and educational zones. Additionally, this option would not improve natural daylight, and would require phased construction and a longer project schedule resulting in additional costs.

“Option A-3.4” was not selected by the District because the proposed increased exterior envelope requires more energy and higher annual operating costs. Additionally, the fourth-floor self-shades the third floor and limits photo-voltaic potential in the project. Furthermore, site constraints result in undesirable and costly vertical future expansion.

The District presented its proposed Preferred Schematic to the MSBA Facilities Assessment Subcommittee (“FAS”) on March 29, 2023. At that meeting, members of the FAS discussed the following items: appreciation of the Educational Program; opportunity to use elements of the Educational Program as tools for community outreach; distribution of Special Education spaces and DESE submittal process; clarification of spaces that are exclusively dedicated to the delivery of Special Education Services; understanding of topographical challenges and site constraints; conceptual nature of the current floor plans; clarification of the building massing and architectural expression; experience and hierarchy of the second floor of the building; visual connections and ways to enhance programs for community use; entryway locations and vehicular access to building associated with related Chapter 74 Programming; importance of professional development and collaboration between academic and vocational teachers; consideration of interior shop layouts as it relates to clearances, and circulation into and out of the Automotive spaces; and, awareness of cost drivers, construction timeline and cost of materials.

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) Prior to the submission of the District’s Schematic Design submittal, the MSBA requests that the District be available to present updates to the preferred solution to the FAS should the MSBA determine an updated presentation is required. This update is to ensure a mutual understanding and agreement of the proposed project scope and to ensure that this 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) The District’s Special Education submission 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.
- 5) 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.
- 6) As part of the Schematic Design phase, the MSBA will continue to work with the District to better understand the total area associated with the preferred schematic and how the proposed space serves the student population..
- 7) 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 Whittier Regional Vocational Technical School District be approved to proceed into Schematic Design to proceed into Schematic Design to replace the existing Whittier Regional Vocational Technical High School on the existing site.