District: Town of Lexington
School Name: Lexington High School
Recommended Category: Preferred Schematic
Date: February 19, 2025

Recommendation

That the Executive Director be authorized to approve the Town of Lexington (the "District"), as part of its Invitation to Feasibility Study, to proceed into Schematic Design for an addition and renovation project at the Lexington High School serving grades 9-12 on the site of the existing school.

The proposed project site is subject to the protections of Article 97 of the Amendments to the Massachusetts Constitution. If the District is approved by the Board to proceed into Schematic Design for this proposed project, and then is later considered by the Board for approval of a Project Scope and Budget Agreement, the vote to approve a Project Scope and Budget Agreement and a Project Funding Agreement will be contingent upon the District satisfying all MSBA land ownership and control requirements, and any environmental approvals for the proposed site, unless these conditions are met prior to such vote.

Additionally, the proposed project is subject to the review of the Massachusetts Environmental Policy Act Office ("MEPA Review"). If the District is approved by the Board to proceed into Schematic Design for this proposed project, and then is later considered by the Board for approval of a Project Scope and Budget Agreement, the vote to approve a Project Scope and Budget Agreement and a Project Funding Agreement will be contingent upon the District satisfying any environmental approvals for the proposed site, unless these conditions are met prior to such vote.

MSBA staff has reviewed the Feasibility Study and accepts the District's Preferred Schematic.

District Information	
District Name	Town of Lexington
Elementary Schools	Lexington Children's Place (PK) Bowman Elementary School (K-5) Bridge Elementary School (K-5) Fiske Elementary School (K-5) Harrington Elementary School (K-5) Joseph Estabrook Elementary School (K-5) Maria Hastings Elementary School (K-5)
Middle Schools	Jonas Clarke Middle School (6-8) William Diamond Middle School (6-8)
High School	Lexington High School (9-12)
Priority School Name	Lexington High School
Type of School	High School
Grades Served	9-12
Year Opened	1953
Existing Square Footage	352,000
Additions	1957 – addition to main building and of two new buildings 1965 – addition of four new buildings 1968 – addition to one building

District Information	
	2000 – major renovation; new library 2014/2015 – 17,000 sf modular construction
Acreage of Site	56.5 acres
Building Issues	The District identified deficiencies in the following areas: – Mechanical systems – Electrical systems – Plumbing Systems – Building 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	Unknown
2024-2025 Enrollment	2,405 students
Agreed Upon Enrollment	2,395 students
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 2,395 students serving grades 9-12.
Total Project Budget – Debt Exclusion Anticipated	Yes

MSBA Board Votes	
Invitation to Eligibility Period	March 2, 2022
Invitation to Feasibility Study	March 1, 2023
Preferred Schematic Authorization	On February 26, 2025 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on October 29, 2025.
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	31.00%

Consultants	
Owner's Project Manager (the "OPM")	Dore & Whittier Management Partners, LLC
Designer	Symmes Maini & McKee Associates, Inc.

Discussion

The existing Lexington High School is a 352,000 square-foot facility which includes an existing field house and is located on a 56.5-acre site, currently serving students in grades 9-12. The original school building was constructed in 1953 with upgrades and additions added in 1957, 1965, and 1968, to accommodate the student population. Additionally, in 2000 a major renovation was completed for the library and in 2015 modular classrooms were added.

The District's Statement of Interest ("SOI") identified numerous deficiencies in the existing facility associated with outdated mechanical, electrical, and plumbing systems; the building envelope and roof;

windows; accessibility; overcrowding; undersized classrooms; and deficiencies in existing spaces that are deemed incapable of appropriately delivering the District's educational 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 nineteen (19) preliminary options that included: one (1) code upgrade/base repair option, three (3) addition/renovation options, and fifteen (15) new construction options. The following is a detailed list of the preliminary options considered:

Option	**Description of Preliminary Options**
Option A.1	Code Upgrade / Base Repair of the existing 352,000 sf building with an estimated project cost of $300 million.
Option B.1	Addition/ renovation (2-4 floors phased-in-place renovation and new addition) which proposes to renovate 87,973 gsf of the existing school building including the existing field house and proposes 352,843 gsf of new construction; with an estimated project cost of $635 million.
Option B.2	Addition/ renovation (2-4 floors addition and renovation on athletic fields) which proposes to renovate 87,973 gsf of the existing school building including the existing field house and proposes 355,563 gsf of new construction; with an estimated project cost of $595 million.
Option B.3	Addition/ renovation (4 floors phased-in-place renovation and addition) which proposes to renovate 71,394 gsf of the existing building, proposes 369,422 gsf of new construction; plus new construction of a 36,000 gsf field house; with an estimated project cost of $665 million.
Option C.1a	New Construction (3 Floors on Athletic Fields) for 2,395 students grades 9-12 at the existing athletic fields; plus the renovation of the existing 31,280 sq.ft field house ; with an estimated project cost of $610 million.
Option C.1b	New Construction (4 Floors on Athletic Fields northeast of the existing fieldhouse) for 2,395 students grades 9-12 at the existing athletic fields; plus the renovation of the existing 31,280 sq.ft field house; with an estimated project cost of $600 million.
Option C.1c	New Construction (5 Floors on Athletic Fields) for 2,395 students grades 9-12 at the existing athletic; plus the renovation of the existing 31,280 sq.ft field house; with an estimated project cost of $600 million.
Option C.1d	New Construction (4 Floors on Athletic Fields and minimized wetland Impact, Branch Building shape) for 2,395 students grade 9-12 at the existing athletic fields; and the renovation of the existing 31,280 sq.ft field house; with an estimated project cost of $625 million.
Option C.2a	New Construction (3 Floors on Athletic Fields) for 2,395 students grade 9-12 at the existing athletic fields; and the 48,000 gsf renovation and addition of the existing field house; with an estimated project cost of $610 million.
Option C.2b	New Construction (4 Floors on Athletic Fields) for 2,395 students grade 9-12 at the existing athletic fields and the 48,000 gsf renovation and addition of the existing field house; with an estimated project cost of $600 million.
Option C.3a	New Construction (3 Floors on Athletic Fields) for 2,395 students grade 9-

	12 at the existing athletic fields and the 48,000 gsf renovation and addition of the existing field house; with an estimated project cost of $605 million.
Option C.4a	New Construction (3 Floors on Athletic Fields) for 2,395 students grade 9-12 at the existing athletic fields; and the renovation of the existing 31,280 sq.ft field house; with an estimated project cost of $615 million.
Option C.4b	New Construction (4 Floors on Athletic Fields north of the existing fieldhouse) for 2,395 students grade 9- 12 at the existing athletic field and the renovation of the existing 31,280 sq.ft field house; with an estimated project cost of $605 million.
Option C.4c	New Construction (4 Floors on Athletic Fields and reduced wetland Impact, Staggered Pyramid Building shape) for 2,395 students grade 9-12 at the existing athletic fields and the renovation of the existing 31,280 sq.ft field house; with an estimated project cost of $630 million.
Option C.5a	New Construction (4 Floors on Athletic Fields) for 2,395 students grade 9- 12 at the existing athletic fields and at the footprint of the existing field house plus a new construction 36,000 gsf field house; with an estimated project cost of $600 million.
Option C.5b	New Construction (4 Floors on Athletic Fields and reduced wetland impact) for 2,395 students grade 9-12 at the existing athletic fields plus renovation and expansion to a 36,000 gsf field house; with an estimated project cost of $620 million.
Option C.6	New Construction (4 Floors with multi phases and reduced wetland and Article 97 impact) for 2,395 students grade 9-12 at the existing athletic field and a new construction 36,000 gsf field house; with an estimated project cost of $615 million.
Option D.1	New Construction (4 Floors on Athletic Fields with multiple phases) for 2,395 students grade 9-12 at the existing athletics fields adjacent to Worthen Road and the footprint of the existing field house plus a new construction 72,000 gsf field house; with an estimated project cost of $610 million.
Option D.2	New Construction (4 Floors phased-in-place with reduced wetland and Article 97 impact) for 2,395 students grade 9-12 at the footprint of the existing building plus the renovation of the existing 31,280 gsf existing field house; with an estimated project cost of $621.3 million.

As a result of this analysis, the District determined that "Options B.2 and B.3" would not be considered for further evaluation because of the anticipated disruptions due to extended phasing of construction and the anticipated additional costs associated with the need for modular classrooms. Additionally, the existing structural frame would likely not be able to accommodate additional floor levels and would limit planning on the available site. Furthermore, new wall enclosure would potentially require extensive rework and underpinning of existing foundations, which is not desirable.

The District determined that "Options C.1a, C.1b, C.1c, C.2a, C.3a, C.4a, C.4b, C.4c, and C.5a" would not be considered for further evaluation because these options would require existing athletic fields to be taken offline for the duration of construction. Additionally, the final field locations, which are used by the Lexington community and not just students, would be physically separated from the fieldhouse and the adjacent athletic fields, which is not desirable.

The District determined that "Option C.6" would not be considered for further evaluation because it is anticipated that this option would require multi-phased construction, causing migration of students to a new building over multiple phases. This option is likely to result in a higher cost due to a longer construction duration and the need for modular classrooms. Lastly, this option could potentially cause complicated vehicular traffic patterns by locating the building near Worthen Road, which is not desirable.

The District determined that "Option D.1" would not be considered for further evaluation because this option is anticipated to require multi-phased construction that could potentially cause extended disruption and migration of students to a new building over multiple phases. Additionally, this option is likely to result in higher costs due to wetlands impacts and tree replication requirements.

Subsequent to the evaluation of preliminary options, the District developed a new option referred to as "Option B.4", which proposes to renovate more square footage of the existing facility than "Option B.1". "Option B.4" would result in the renovation of four existing buildings and a 3-story phased-in-place addition.

MSBA staff and the District agreed to explore the following seven (7) options for further development and consideration in the final evaluation and development of preliminary design pricing, as presented below, including: one (1) code upgrade/base repair option and six (6) addition/renovation options. Please note four (4) of the six (6) addition/renovation options include the construction of a new high school facility and the renovation/expansion of an existing field house.

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)	352,000	352,000 $610/sq. ft.	N/A	$15,607,240	$230,327,240 $654/sq. ft.	$311,000,000
Option B.1 Quad: (Renovation/ Major Addition)	509,516	120,970 $813/sq. ft.	388,546 $1,002/sq. ft.	$65,057,143	$552,692,015 $1,085/sq. ft.	$713,000,000
Option B.4 Figure 8: (Renovation/ Major Addition)	509,516	175,380 $896/sq. ft.	334,136 $992/sq. ft.	$62,107,296	$550,692,015 $1,081/sq. ft.	$715,000,000
Option C.1d Branch: (New Construction of School with Addition/Renovation of Field House)	509,516	34,400 $634/sq. ft.	475,116 $924/sq. ft.	$68,092,318	$528,692,015 $1,038/sq. ft.	$660,000,000
Option C.2b Braid: (New Construction of School with Addition/Renovation of Field House)	509,516	34,400 $634/sq. ft.	475,116 $919/sq. ft.	$69,354,928	$527,692,015 $1,036/sq. ft.	$659,000,000
Option C.5b Bloom: (New Construction of	***509,516***	***34,400 $634 /sq. ft.***	***475,116 $927/sq. ft.***	***$67,658,339***	***$529,692,015 $1,040/sq. ft.***	***$662,000,000***

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
School with Addition/Renovation of Field House)***						
Option D.2 Weave: (New Construction of School with Addition/Renovation of Field House)	509,516	34,400 $634/sq. ft.	475,116 $1,000/sq. ft.	$67,625,452	$564,692,015 $1,108/sq. ft.	$734,710,000

** Marked up construction costs*
*** Does not include construction contingency*
******District's Preferred Schematic***

The District has selected "Option C.5b Bloom", as the Preferred Schematic to proceed into Schematic Design, as the District has determined that this option best meets the needs of the District's educational program. This option is anticipated to result in the construction of a new 4-story single-phase high school building and includes the renovation and expansion of an existing field house as the District determined this component to be a vital community resource. The District has indicated that this design concept includes provisions for flexibility and expansion to accommodate potential future increases to student enrollment and building capacity. Specifically, this option includes District Central Administration spaces that could potentially be converted to educational spaces if necessary for increased capacity. Also, the District has indicated that this concept is anticipated to result in buildable area for potential new expansion to accommodate additional capacity. The District also determined the conceptual design provides ideal separation of the major public access spaces such as the Media Center, Auditorium, Gymnasium, and Cafeteria/Commons from the more private educational neighborhoods. Additionally, the District indicated that the geometry of "Option C.5b Bloom" creates site access from multiple directions, helping to mitigate traffic flow and separate bus and passenger car routes.

"Option A.1" was not selected by the District because this option does not meet the District's desired educational program and would not accommodate the future curriculum envisioned. Additionally, this option does not address overcrowding and is anticipated to add cost due to the need for modular classrooms. Furthermore, this option is anticipated to require a multiple-year phased construction that could cause significant disruption to the students. Lastly, this option does not address the issue of separate buildings that require students to move outside throughout the school day and could potentially result in safety concerns.

"Option B.1" was not selected by the District because this option could potentially create disruption to ongoing education due to phased construction as well as added cost due to the need for modular classrooms. Additionally, the District indicated that the existing structural frame would likely not be able to accommodate additional floor levels limiting efficient planning on the available site. Furthermore, new wall enclosures associated with this option are anticipated to require extensive rework and costly addition to the existing foundation which was found to be undesirable to the District.

"Option B.4" was not selected by the District because this option is anticipated to require a portion of the building to be raised 5 feet, and the existing upper floor level would not align with the finished floor levels of the new addition. Additionally, it is anticipated that the existing floor to floor height would result in low headroom in classrooms due to space needed for an updated HVAC system. Furthermore, this option limits the renovation of the Auditorium and Stage rather than constructing a new and larger space which is preferred by the District.

Although "Option C.1d" and "Option C.2b" align with the District's educational program and desire for interdisciplinary adjacencies, this option was not selected by the District because the building massing would bisect the site, which is shared with community-accessed athletic fields which was found to be undesirable to the District. Additionally, this option would require athletic fields to be taken offline during construction and the new field locations would be physically separated from the Center Recreation Complex which is not desirable to the District.

"Option D.2" was not selected by the District because it is anticipated that this option would cause significant disruption to school activities as it requires multi-phased construction. Additionally, the District indicated this option is anticipated to add cost due to a longer construction duration and would require modular classrooms. Furthermore, this option could potentially require temporary replacement of critical building infrastructure due to renovations in place which is not desirable to the District.

The District presented its proposed Preferred Schematic to the MSBA Facilities Assessment Subcommittee ("FAS") on January 15, 2025. At that meeting, members of the FAS discussed the following items: appreciation of the District's educational program; Inclusion of the LABBB collaborative; distribution of Special Education spaces and DESE review process; current and future projected enrollment and resulting considerations for the proposed project as it relates to building utilization, capacity of core spaces and accommodating potential fluctuations in enrollment; proximity of the proposed building to the existing high school and associated constructability and safety considerations; proposed expansion and renovation of the high school's existing fieldhouse in addition to construction of a new gymnasium; design intention and connectivity between floors; interior circulation and the experience of students while progressing through the building and across connecting bridges; the character and function of the multiple building entrances; the facade of the building and potential exterior material choices; building massing, geometry and refinement of the overall footprint including relationship to the existing field house; opportunities for continued student and faculty feedback and involvement as the design progresses; proposed use, programming, and further design of the Commons space including its capacity to serve as the cafeteria and accommodate enrollment fluctuations; sustainable design considerations including incorporation of geothermal wells and photovoltaic arrays; maintenance considerations associated with the proposed third floor courtyard; intended use of the third-floor courtyard and correlated program in the educational plan; estimated project costs and associated cost drivers; past, present, and future community outreach and engagement; and, the overall complexity of the proposed project and potential benefits for the District of additional time within Feasibility Study for further refinement of the Preferred Schematic design.

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) In addition to proposing a primary Gymnasium within the newly constructed school building, the District's decision to retain, renovate, and expand their stand-alone existing field house as a supplemental athletic space will result in significant ineligible cost and will be calculated at the conclusion of the Schematic Design phase.

3) In advance of the District's Schematic Design submittal, the MSBA will require the District to present a progress update associated with the Preferred Schematic to the MSBA's Facilities Assessment Subcommittee. 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.

4) The District has submitted an operational budget for educational objectives and a capital budget statement for MSBA review.

5) 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.

6) 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.

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 recommend that the Town of Lexington be approved to proceed into Schematic Design for an addition and renovation project at Lexington High School serving students in grades 9-12 on the site of the existing school. If the District is approved by the Board to proceed into Schematic Design for this proposed project, and then is later considered by the Board for approval of a Project Scope and Budget Agreement and a Project Funding Agreement, the vote to approve a Project Scope and Budget Agreement and a Project Funding Agreement may be contingent upon the District satisfying all MSBA land ownership and control requirements, and any environmental approvals for the proposed site, unless these conditions are met prior to such vote.