

District: City of Somerville  
 School Name: Somerville High School  
 Recommended Category: Preferred Schematic  
 Date: July 13, 2016

**Recommendation**

That the Executive Director be authorized to approve the City of Somerville, as part of its Invitation to Feasibility Study, to proceed into Schematic Design for an addition and renovation project at the Somerville High School including the grade 6-8 Next Wave and grade 9-12 Full Circle special education day and alternative education programs. MSBA staff has reviewed the Feasibility Study and accepts the District’s preferred solution.

<b>District Information</b>	
District Name	City of Somerville
Elementary Schools	Michael E. Capuano Early Childhood Center (PK-K) Albert F. Argenziano School at Lincoln Park (PK-8) Arthur D. Healy School (PK-8) John F. Kennedy Elementary School (PK-8) West Somerville Neighborhood School (PK-8) Winter Hill Community School (PK-8) Benjamin G. Brown School (K-6) East Somerville Community School (K-8)
Middle School	Next Wave Junior High School at Edgerly (6-8 Alternative Programs)
High Schools	Full Circle High School at Edgerly (9-12 Alternative Programs) Somerville High School (9-12)
Priority School Name	Somerville High School
Type of School	High School
Grades Served	9-12
Year Opened	1895
Existing Square Footage	360,150
Additions	1914: classroom addition 1929: classroom, auditorium, and library addition 1986: field house and vocational addition 2006: community health center addition
Acreage of Site	13 acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> <li>– Mechanical systems</li> <li>– Electrical systems</li> <li>– Envelope</li> <li>– Windows</li> <li>– Accessibility</li> </ul> In addition to the physical plant issues, the District reported that the existing facility does not support the delivery of its educational program, and cannot accommodate the growing demand for vocational programs.

<b>District Information</b>	
Original Design Capacity	Unknown
2015-2016 Enrollment	1,231 students
Agreed Upon Enrollment	Study Enrollment includes the following configurations: <ul style="list-style-type: none"> <li>– 1,515 students (grade configuration 9-12, without inclusion of the Full Circle High School and the Next Wave Junior High School students)</li> <li>– 1,565 students (grade configuration 9-12, including the Full Circle High School students)</li> <li>– 1,590 students – (grade configuration 9-12, including the Full Circle High School and the Next Wave Junior High School students)</li> </ul>
Enrollment Specifics	Contingent upon the Board’s approval of the preferred solution, the District will sign a Design Enrollment Certification for 1,590 students in grades 9-12 including the Full Circle High School and the Next Wave Junior High School students.

<b>MSBA Board Votes</b>	
Invitation to Eligibility Period	January 29, 2014
Invitation to Feasibility Study	November 19, 2014
Preferred Schematic Authorization	On July 20, 2016 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on January 25, 2017
Feasibility Study Reimbursement Rate (Incentives points are not applicable)	71.79%

<b>Consultants</b>	
Owner’s Project Manager (the “OPM”)	PMA Consultants, LLC
Designer	Symmes Maini & McKee Associates, Inc.

## **Discussion**

The existing facility serving grades 9 -12 is a 360,150 square foot comprehensive/technical high school facility located on Highland Avenue in Somerville. The building is co-located on the historic 13 acre Central Hill site along with City Hall built in 1852 and the municipal library built in 1914. The high school was constructed in various phases from 1895 to 2006.

The District identified numerous deficiencies in its Statement of Interest. An evaluation of all major building systems has shown that the HVAC, plumbing, electrical, technology, fire alarm and emergency power systems are all at the end of their useful life. The existing exterior wall system is a combination of uninsulated and unreinforced brick masonry with no lateral force resisting structural system, and brick veneer walls over metal stud backup with limited insulation within the stud cavity. The District reported that the building is noncompliant with the current energy code, contains hazardous materials throughout, and is only partially handicapped accessible. . In addition, the District reports a number of educational concerns in the building including a separation between the general academic and vocational portions of the school,

classrooms that are not equipped for 21st century instruction, and the lack of differentiated learning environments.

Based on discussions with school staff, members of the community, the City Planning Office, the Somerville High School Building Committee, and the City of Somerville, the School Building Committee voted to include the grade 6-8 Next Wave and grade 9-12 Full Circle alternative school programs in the Project, therefore limiting all subsequent options to the 1,590 student enrollment configuration. These two alternative schools will function as independent programs within the facility, separate from the high school. This decision was based on a preference in the District to address the poor condition of the existing Edgerly building that currently houses these programs, and to provide a facility that provides equity and access for these students to a broader range of high school programs by co-locating these schools in a single building. After additional evaluation and development of these options, the District and design team considered the following nine preliminary options in the Preliminary Design Program that included one Code Upgrade Alternative, six addition/renovation configurations, and two new construction options:

<b>Option</b>	<b>Description of Preliminary Options</b>
0	Code Upgrade Alternative (No-New Build)
1	Addition/Renovation: interior gut renovation of all finishes and systems
2	Addition/Renovation: partial demolition/renovation
3	Addition/Renovation: partial demolition/renovation
4	Addition/Renovation: partial demolition/renovation
4A	Addition/Renovation: partial demolition/renovation
4B	Addition/Renovation: partial demolition/renovation
5	New Construction: on existing site
6	New Construction: on DPW site at 1 Franey Road

Upon further review, MSBA staff and the District agreed to five final options for consideration in the final evaluation. Of the five options carried forward, three options were studied in greater detail. “Option 0” (Code Upgrade) and “Option 1” (renovation of existing school), which were reported to not meet the District’s educational needs, were also included for comparison. The three options that support delivery of the District’s educational program were further developed including: “Option 2A” (a modified version of “Option 2”) – an addition/renovation option that is roughly 58% renovation and 42% new construction; “Option 3” – an addition/renovation option that is roughly 65% renovation and 35% new construction; and “Option 4B” – an addition/renovation option that is roughly 21% renovation and 79% new construction.

After the District selected “Option 4B” as the most advantageous option it directed its consultants to investigate potential scope reductions and value engineering strategies to reduce the cost of this option. This effort concluded with the development of “Option 4B Modified,” which is included with the other five options considered in its 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 0: (Repair)	360,150 sf	360,150 sf \$136.65/sf	N/A	\$4,810,221	\$54,026,310 \$150.01/sf	\$73,648,422
Option 1: (Renovation)	360,150 sf	360,150 sf \$429.18/sf	N/A	\$14,927,352	\$169,497,950 \$470.63/sf	\$232,439,511
Option 2A: (Addition/ Renovation)	390,000 sf	224,800 sf \$448.84/sf	165,200 sf \$590.81/sf	\$40,260,734	\$238,762,916 \$612.21/sf	\$319,022,549
Option 3: (Addition/ Renovation)	406,290 sf	265,230 sf \$464.57/sf	141,060 sf \$599.78/sf	\$38,133,574	\$245,957,445 \$605.37/sf	\$328,519,327
Option 4B: As Estimated (Addition/ Renovation)	402,664 sf	82,700 sf \$491.38/sf	319,964 sf \$573.28/sf	\$39,734,951	\$263,799,407 \$655.14/sf	\$352,070,717
<b>Option 4B Modified: (Addition / Renovation)***</b>	<b>373,373 sf</b>	<b>82,700 sf</b> <b>\$398.29/sf</b>	<b>290,673 sf</b> <b>\$464.68/sf</b>	<b>\$31,183,979</b> <b>(Includes Parking Garage)</b>	<b>\$199,191,461</b> <b>\$533.49/sf</b>	<b>\$255,997,997</b>

\* Marked up construction costs

\*\* Does not include construction contingency

\*\*\*District's preferred option

The District has selected “Option 4B Modified” as the preferred solution to proceed into Schematic Design. The District reports that by co-locating the Career Technical Education (“CTE”) programs with the academic programs, the option improves functional adjacencies that better address the goals of the educational program and has a more compact layout that reduces travel time between classes. This option is also more cost-effective than “Option 3.” In comparison, “Options 2A” and “3” do not address the District’s concerns regarding travel time between spaces, separates the CTE functions from academic spaces, and requires a more disruptive construction phasing schedule.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee (“FAS”) on June 15, 2016. At that meeting, members of the FAS raised a number of concerns regarding significant reductions to the scope and budget of the preferred solution, public support for this project, DESE approval of the two alternative schools and the Chapter 74 vocational programs, and review of adjacencies in the floor plan as compared to objectives outlined in the educational program.

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 reviewed its decision to include the grade 6-8 Next Wave and grade 9-12 Full Circle special education day and alternative education programs in the proposed project with the Department of Elementary and Secondary Education ("DESE"). While both the DESE's review process and the MSBA's Grant Program approval process will continue into the Schematic Design Phase, the DESE is in general agreement with the District's intent to relocate both of these existing programs to the High School upon completion of the proposed project.
- 3) The District is reviewing its Proposed Chapter 74 Programming with the DESE. The MSBA's and DESE's review and approval process will continue into the schematic design phase. The District must document DESE agreement that the planning for the Career/Vocational Technical Education program offerings the District is proposing for this school project are viable in order for the MSBA staff to accept a Schematic Design Submittal for MSBA consideration of the District's proposed project.
- 4) The District has submitted an operational budget for educational objectives and a capital budget statement 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 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 City of Somerville be approved to proceed into Schematic Design for an addition and renovation project at the Somerville High School including the grade 6-8 Next Wave and grade 9-12 Full Circle special education day and alternative education programs.