

District: Manchester Essex Regional School District  
 School Name: Manchester Memorial Elementary School  
 Recommended Category: Preferred Schematic  
 Date: April 3, 2018

**Recommendation**

That the Executive Director be authorized to approve Manchester Essex Regional School District, as part of its Invitation to Feasibility Study, to proceed into Schematic Design to replace the existing Manchester Memorial Elementary School with a new PK-5 facility on the existing site. MSBA staff has reviewed the Feasibility Study and accepts the District’s preferred solution.

<b>District Information</b>	
District Name	Manchester Essex Regional School District
Elementary School(s)	Manchester Memorial Elementary School (PK-5) Essex Elementary School (K-5)
Middle School(s)	Manchester Essex Regional Middle School (6-8)
High School(s)	Manchester Essex Regional High School (9-12)
Priority School Name	Manchester Memorial Elementary School
Type of School	Elementary School
Grades Served	PK-5
Year Opened	1951
Existing Square Footage	66,573
Additions	1954-Addition 1965-Addition
Acreage of Site	11 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>- HVAC</li> <li>- Envelope</li> <li>- Windows</li> <li>- Roof</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 as well as existing overcrowding.
Original Design Capacity	Unknown
2017-2018 Enrollment	343
Agreed Upon Enrollment	335
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of no more than 335 students in grades K-5, for a project that will serve grades PK-5.
Total Project Budget – Debt Exclusion Anticipated	Yes

<b>MSBA Board Votes</b>	
Invitation to Eligibility Period	January 26, 2016
Invitation to Feasibility Study	September 28, 2016
Preferred Schematic Authorization	On April 10, 2018 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on August 29, 2018.
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	31.00%

<b>Consultants</b>	
Owner’s Project Manager (the “OPM”)	Dore & Whittier Management Partners
Designer	JCJ Architecture

## Discussion

The existing Manchester Memorial Elementary School is a 66,573 square foot, single-story building located on an 11-acre site that currently serves grades PK-5. The original school building was constructed in 1951. Classroom additions were added to the building in 1954 and in 1965.

The District identified numerous deficiencies in the Statement of Interest that are associated with: mechanical and electrical systems; HVAC; roof; building envelope and windows; and accessibility constraints. The District has also expressed concern regarding the ability to deliver its educational program due to the severe overcrowded conditions and lack of programmatic space.

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 fourteen preliminary options that included a base repair, four addition/renovation configurations, and nine new construction options. The following is a detailed list of the preliminary alternatives considered. All of the options are based upon serving students in grades PK-5 (335 students in grades K-5).

<b>Option</b>	<b>Description of Preliminary Options</b>
R-1	Base Repair/Full renovation to the existing building
AR-1	Addition/Renovation – “Four Walls and More” Retains separated auditorium and cafeteria
AR-2	Addition/Renovation – “Save the Core Block only” Replaces all the existing classrooms with all new construction
AR-3	Addition/Renovation – “Curved Main Street” Replaces all the existing classrooms with all new construction that supports multiple educational pedagogies
AR-4	Addition/Renovation – “Out West” Replaces 1954 and 1965 classroom additions with all new construction
N-1	New Construction – “The Piano” Multi-phased construction on an occupied site
N-2	New Construction – “The Pinwheel” Single phase construction relocating students to off-site swing space
N-3	New Construction – “The Hub” Multi-phased construction on an occupied site
N-4	New Construction – “Main Street” Multi-phased construction on an occupied site

N-5	New Construction – “Tennis Court L” Single phase construction relocating students to off-site swing space
N-6	New Construction – “East-Side Courtyard” Single phase construction relocating students to off-site swing space
N-7	New Construction – “East-Side Main Street” Single phase construction relocating students to off-site swing space
N-8	New Construction – “Two-Wings” Multi-phased construction on an occupied site, reduces or eliminates the need for modular classrooms
N-9	New Construction – “The Hook” Multi-phased construction on an occupied site, reduces or eliminates the need for modular classrooms

“Option AR-1” and “Option AR-3”, both one-story options, were eliminated from consideration due to the physical limitations of the existing facility and unfavorable existing site conditions and limitations. In addition, various rooms would also continue to be undersized and the proposed building footprint would continue to occupy a significant portion of the site and extend into the wetland areas. “Option N-4” was eliminated from future consideration because this option also proposed a large building footprint that encroaches into the wetlands. Options N-2, N-5, N-6, and N-7” represent a series of options that were not further evaluated by the District because all of these options require the District to find temporary swing space for all of the students during construction. As a result of the District’s analysis of the preliminary alternatives, the District determined that seven options would be further evaluated. The following is a detailed list of the preliminary alternatives evaluated for further consideration.

Option	Description of Preliminary Options
R-1	Full renovation to the existing building
AR-2	Addition/Renovation – “Save the Core Block only” Replaces all the existing classrooms with all new construction
AR-4	Addition/Renovation – “Out West” Replaces 1954 and 1965 classroom additions with all new construction
N-1	New Construction – “The Piano” Multi-phased construction on an occupied site
N-3	New Construction – “The Hub” Multi-phased construction on an occupied site
N-8	New Construction – “Two-Wings” Multi-phased construction on an occupied site, reduces or eliminates the need for modular classrooms
N-9	New Construction – “The Hook” Multi-phased construction on an occupied site, reduces or eliminates the need for modular classrooms

After further development of the remaining seven options, options “AR-4” and “N-8” were eliminated from further consideration because these options do not fully address the educational programming goals that were developed through the educational visioning sessions and described in the educational plan. As a result, MSBA staff and the District agreed to five final options for further development and consideration in the final evaluation and development of preliminary design pricing, 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*/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 R-1: (Base repair/ Code upgrade for grades)	66,573	66,573 \$357/sq. ft.	N/A.	\$2,982,700	\$26,728,455 \$402/sq. ft.	\$35,770,000
Option AR-2: (Addition Renovation)	91,100	22,200 \$357/sq. ft.	69,900 \$466/sq. ft.	\$3,701,884	\$43,836,918 \$481/sq. ft.	\$55,760,000
Option N-1: (New Construction)	88,900	N/A.	88,900 \$454/sq. ft.	\$4,494,261	\$44,883,333 \$505/sq. ft.	\$57,000,000
<b>Option N-3: (New Construction)***</b>	<b>82,800</b>	<b>N/A.</b>	<b>82,800 \$484/sq. ft.</b>	<b>\$4,416,120</b>	<b>\$44,505,251 \$538sq. ft.</b>	<b>\$55,560,000</b>
Option N-9: (New Construction)	87,700	0 \$0/sq. ft.	87,700 \$512/sq. ft.	\$4,406,219	\$49,306,956 \$562sq. ft.	\$62,610,000

\* Marked up construction costs

\*\* Does not include construction contingency

\*\*\*District's preferred solution

The District has selected “Option N-3” as the preferred solution to proceed into Schematic Design. “Option N-3” supports the goals identified by the District in the visioning sessions and detailed in the educational program including: meeting the District’s space program goals; providing flexibility for future building expansion; and providing a separated gathering space with a stage that can accommodate the entire student population and that can be accessed by the community during after-hour use. Additionally, “Option N-3” creates new play areas and outdoor learning environments. Moreover, this Option improves the site configuration to allow for additional vehicular circulation and parking areas, while maintaining the existing traffic patterns; also, it improves parent drop-off and queuing, thus, minimizing the potential for pedestrian and vehicle conflicts.

A base repair, “Option R-1”, was provided for cost comparison purposes only. This Option does not meet the space needs or the educational program requirements established by the District because of the physical limitations of the existing facility and site. A portion of the existing classrooms would continue to be undersized and other program areas including special education classrooms, health and fitness education, and the media center could not be easily enlarged within the existing building envelope.

While the addition/renovation “Option AR-2” provided the opportunity to retain a distinct auditorium space, it was eliminated from future consideration because of the costs associated with the requirement to bring this space into accessibility compliance. The gymnasium would also continue to be undersized and the proposed construction phasing would leave the District without the use of both the gymnasium and cafeteria during an extended period of the school year.

Additionally, the cost associated with structural upgrades required to address code compliance was considered a disadvantage by the District for this Option.

Although “Option N-1” responds to the specific goals documented in the District’s educational program and includes all of the proposed spaces included in the preferred solution, this Option was eliminated from future consideration because of its inability to provide flexibility for building expansion and it could not effectively allow common spaces to be accessed and secured separately from academic areas for off-hour events and activities. In addition, this Option requires additional cost and site work to minimize the impact of the temporary modular classrooms.

“Option N-9” also responds to the specific goals documented in the District’s educational program and includes all of the proposed spaces included in the preferred solution. However, this Option was eliminated from future consideration by the District because of the significant impact on the existing riverfront resource setback and because it would require the greatest number of modular classrooms to accommodate the proposed construction phasing.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee (“FAS”) on March 21, 2018. At that FAS meeting, FAS members discussed how the architectural design has responded to the educational program; the compactness and efficiency of the District’s preferred solution; the proposed construction phasing sequence; the building’s interior organization relative to the proposed east-west solar orientation; variations to the MSBA space summary guidelines; the locations and utilization of the STEM classrooms; the inclusion of an Adaptive P.E. program; how the world languages curriculum is delivered; the separation and security of the building during community after-hours use; the combination of the cafeteria and gymnasium with the stage and accommodating for the District’s need to gather the entire student body; and the sustainability and resiliency of the proposed project including the architectural responses to the existing site constraints, including the reduction of riverfront encroachment.

MSBA staff reviewed the conclusions of the Feasibility Study, all subsequent submittals, and the enrollment data 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 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 eligible costs from ineligible costs.

Based on the review outlined above, MSBA staff recommends that the Manchester Essex Regional School District be approved to proceed into Schematic Design to replace the existing Manchester Memorial Elementary School with a new PK-5 facility on the existing site.