



East Bridgewater School Committee: Comprehensive School District Feasibility Study

2 Executive Summary



Executive Summary

THE PROBLEM

After reviewing the enrollment projections, existing school environments, existing building conditions, and current educational philosophies, the following critical conclusions were established regarding the current problems facing the East Bridgewater Public Schools:

1. The existing East Bridgewater High School is a very poor environment for delivering 21st Century education. It is in very poor physical condition and lacks most of the educational amenities associated with modern high school facilities. Repeated peer and accreditation reviews of the East Bridgewater High School have all yielded the same result: the facility is an extremely poor environment for educational delivery. The MSBA review of this facility ranked it in the lowest 2% of all public school facilities in Massachusetts. It was awarded the lowest possible score as part of the MSBA evaluation. The reports herein draw the same conclusion.
2. The existing Central Elementary School is **EXTREMELY overcrowded**. Based on its physical size and core facilities, the existing Central Elementary School is capable of accommodating approximately 450 students. With current enrollments exceeding 800 students, this facility is extremely overcrowded. All available space has been converted to classrooms, regardless of its adequacy or intended purpose. Additionally, modular/temporary classrooms are being added. These temporary solutions compromise the overall educational environment, and permanent solutions should be adopted and implemented as quickly as possible.
3. Enrollment projections indicate that there will be continued growth within the next 10 years. Although the current problems were not driven by rapid increases in enrollment, projections indicate that there will be continued and steady enrollment growth in East Bridgewater. If housing growth continues, enrollments are projected to increase approximately 7% (200 students) over the next 10 years. Even if housing growth stops entirely, enrollment projections show that enrollment will be steady and there will be no relief to the current overcrowding conditions at the Elementary School.

THE ANALYSIS

The following is a summary of the systematic approach utilized in reviewing existing conditions, developing possible solutions, and evaluating the viability of any proposed solutions:

1. Review the physical condition of existing school facilities. Evaluate and develop costs for renovation of existing facilities.
2. Document existing building plans and establish quantities for overall available space and individual room sizes. Establish acceptable educational capacity for each building.
3. Review current and future enrollment to determine expansion required at each school facility.
4. Evaluate costs of renovating and expanding individual schools.
5. Evaluate costs of developing new school facilities.
6. Evaluate potential sites for a new school.
7. Evaluate advantages/disadvantages of a new school project with specific emphasis on the costs associated with educational opportunities, construction costs, and continued operational costs.

In order to complete step #7, some criteria for evaluation must be established. The following is a brief summary of the criteria that was utilized in evaluating potential options/solutions:

Is the Option the most economical?

Any Option that has a total cost that is significantly more expensive and does not increase educational or community opportunity should be eliminated. If an Option resolves all problems and is also the most economical, it clearly would be the most desirable.

Is the Option educationally sound?

In meeting with staff, parents, and community members of East Bridgewater, it is apparent that there is great pride and motivation for providing educational opportunities to the children of East Bridgewater. This is the key ingredient to any successful educational environment and can often be utilized to temporarily overcome obstacles such as space and program deficiencies. In meeting with administrators, staff, parents, and community members, they showed clear understanding that "Educationally Sound" often means that class sizes are appropriate and that appropriate program space is available for teaching and learning. The overall size of the school also plays an important role in determining the overall quality of the educational environment. Teachers, staff, and administration clearly indicated that significant increases in school sizes should be reviewed carefully to insure that the current qualities inherent in "Small Community Schools" is not lost as part of any expansion Option.

Does the Option minimize long-term operational cost?

In evaluating any possible Option, one must consider not only the total project cost but also the long-term operational cost of such a plan. Any Option that minimizes the number of schools without compromising the quality of the educational environment and community use is beneficial to the Town and the School Department.

Can the Option meet immediate space and program needs?

Because creating "Appropriate Program Space" was one of the primary factors in instigating the Feasibility Study, a successful Option must provide the necessary educational programs and space as quickly as possible. This need is particularly prominent at the High School, where the lack of modern educational facilities threatens accreditation and educational delivery.

Does the Option negatively impact the teaching and learning environment during construction/renovation?

Any Option that involves immediate construction disruption at the existing schools, without providing appropriate new swing space, should be avoided. Any phased/occupied construction at the current schools should be carefully evaluated in order to avoid compromises to the educational environment.

Does the Option consider the importance of the Town Center and contextual considerations for improving the entire area currently occupied by the Elementary School and High School?

Because the Elementary School and the High School occupy a prominent location within the East Bridgewater Town Center, a unique opportunity exists. A successful Option should insure that the Town Center becomes a more beautiful place and that the current context and character is maintained.

Does the Option include opportunities for implementing "Green Design" strategies and "Environmentally-Friendly" design?

The newly established MSBA clearly recognizes the value of Green Design, Energy Efficiency, and Environmentally-Friendly Design. The MSBA will be providing additional reimbursement to projects that comply with its requirements in these areas. It also makes economical sense to incorporate any feature that results in long-term operational savings to the Town of East Bridgewater.

Does the Option require modular space for relief of overcrowding and/or swing space, or can it be implemented in a manner that minimizes this

requirement and instead includes mostly permanent, well-planned educational space?

Does the Option limit future (20-Year) expansion?

Any Option that limits future expansion should not be considered.

Does the Option include provisions for correcting building deficiencies at all schools (i.e. MEP)?

Does the Option consider the current and future strength of appropriately sized high schools and elementary schools?

A successful option should consider the ability to support and provide expanded academic opportunities and offerings without creating schools that lose the advantages of a "Small School" environment.

THE MORATORIUM AND SBA REORGANIZATION

In addition to the above-defined criteria, there are two additional factors that increase the complexity of implementing any potential solutions for East Bridgewater: 1) the current school construction moratorium and 2) the current reorganization of the MSBA. These factors are unique to modern-day Massachusetts school planning, as the former SBA program had been in place for over 50 years.

The moratorium that was implemented on school design and construction in 2002 will be lifted in July 2007. The new MSBA has formulated new regulations and guidelines and these guidelines were finalized in August of 2006.

In the past, the history of the former State Building Assistance Program gave communities confidence in moving forward with large and ambitious school renovation and construction projects. The new School Building Authority has many advantages, including a guaranteed funding source (dedicated sales tax revenue) that did not exist in the old program. However, because it is a newly reorganized program, it does not have the history associated with the former program.

The fact that the new MSBA has completed its statewide facilities survey and has acknowledged the poor condition of the High School and the overcrowding that exists at the Elementary School should work in favor of East Bridgewater. The new regulations will no longer include a list that insures *all* projects, regardless of priority, will ultimately be reimbursed. Only high priority projects will receive reimbursement. Therefore it is important that the new MSBA recognize any proposed project as being a high priority.

Because of the unique circumstances that exist at the new MSBA, there are additional considerations that should be made when planning any proposed option/solution:

Can the Option be implemented in a way that minimizes the Town's financial exposure until there is more certainty with regard to the SBA?

The Town must adopt an Option that maximizes the possibility of SBA funding support and also includes controlled incremental spending commitments that allow continued monitoring and incorporation of the new SBA regulations.

Does the Option consider SBA's current evaluation criteria? Does the Option structure all proposed projects as "High Priority" projects, therefore maximizing the possibility that they will be "ranked", funded, and ultimately deemed executable projects?

The newest evaluation criteria established by the SBA for ranking of future projects includes:

1. Priority shall be given to school projects needed in the judgment of said board to replace or renovate a building that is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.
2. Priority shall be given to school projects to eliminate existing severe overcrowding.
3. Priority shall be given to school projects needed in the judgment of said authority to prevent loss of accreditation.
4. Priority shall be given to school projects needed in the judgment of said authority to prevent severe overcrowding expected to result from increased enrollments, which must be substantiated.
5. Priority shall be given to projects needed in the judgment of said authority for the replacement, renovation, or modernization of the heating system in any schoolhouse to increase energy conservation and decrease energy related costs in said schoolhouse.
6. Priority shall be given to any school project needed in the judgment of said authority for short-term enrollment growth.
7. Priority shall be given to school projects needed in the judgment of said authority to replace or add to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.
8. Priority shall be given to projects needed in the judgment of said authority to

transition from court-ordered and authority-approved racial balance school districts to walk-to, so-called, or other school districts.

MODULAR CLASSROOMS

East Bridgewater has recently deployed seven modular classrooms of which two are Pre-K and the remaining five are dedicated to Kindergarten classrooms. These modular classrooms provide short-term relief but are often confused with long-term solutions. Therefore, caution must be utilized in the deployment of Temporary (Modular) Classrooms for the following reasons:

1. Modular classrooms are a temporary solution that often becomes permanent if significant funds are invested and the perception of an "Acceptable Solution" is created within the community.
2. Modular classrooms have significant costs and a large portion of these costs involves "set up" and incorporation of services like sewage, electricity, plumbing, etc.
3. The placement of modular classrooms might possibly interfere with future "permanent" building construction.
4. Modular classrooms do nothing to provide additional "core" support facilities like cafeteria, library/media center, administration, physical education, etc. By adding modular classrooms without expanding core facilities, individual classroom sizes may remain low but the overall functionality of the school environment is compromised.
5. Modular classrooms will not resolve the educational and physical building deficiencies that exist within the existing schools.

RECOMMENDATIONS

High School:

The existing East Bridgewater High School is a 1957 facility with a 1975 4-story addition, occupied by approximately 680 students in a 160,542 square foot facility. The High School facility is also used to accommodate a portion of the Kindergarten program and the Central Administration offices. Based on its current use and the available square feet, the existing High School is (physically) capable of accommodating approximately 750 students. However, its age, physical condition, and lack of modern 21st Century educational program space and amenities make it a poor facility for high school education.

One of the first tasks established by the new School Building Authority was to complete a "Needs Survey" of all 1,816 schools throughout the Commonwealth. This survey was completed to establish the overall quality and physical condition of all Massachusetts public schools. The East Bridgewater High School finished in the lowest 2% of all schools reviewed by the MSBA. It received the lowest score available within the established point system.

With the exception of the membrane roofing, the High School has not received any significant capital improvements in the last five years. Most of the building systems (Electrical, Mechanical, Plumbing, Waste Water Management, Building Envelope, Windows, etc.) have exceeded their life expectancy. These systems cannot continue to perform without major capital improvement projects dedicated to the replacement of the systems. Retrofitting modern code-compliant and energy-efficient systems into the existing aged facility will be an expensive proposition. The exterior masonry exhibits signs of significant failure and therefore costly remediation would be required. (See structural and architectural report).

There are many factors that will make the High School a difficult and expensive renovation project:

1. Age of facility warrants complete and comprehensive replacement of systems including selective demolition.
2. Asbestos and hazardous materials abatement costs.
3. Inefficient layout. An "all new" facility would be smaller, more compact, and more efficient.
4. Poor educational layout. There have been many advancements (since 1957 and 1975 respectively) in our understanding of how organizational layout impacts the educational environment. It would be impossible to reorganize the existing building and give it the same advantages that could be provided in an "all new" facility.
5. Lack of modern educational program space.
6. Lack of energy efficiency. All of the exterior envelope (roof, walls, windows, etc.) will have to be significantly modified to comply with the current energy code.
7. Phased construction will be required in order to allow the school department to continue use of the building during renovations. This will extend the construction period and increase costs.

8. Extremely poor condition of exterior masonry and poor (1975) construction techniques utilized.

Ultimately, in order to determine the viability of renovating and modernizing the existing High School facility, the cost of such a project was compared to the cost of an "all new" facility. The results show that the construction of a new building would be:

- Less expensive
- Less disruptive to students/staff
- More energy efficient
- More educationally sound
- More functional and better organized
- Less costly to maintain
- Completed in less time
- An improvement to the Town Center

The site analysis indicates that a new High School could be constructed on the existing High School site without disrupting the continued operation of the existing High School. This would be an ideal approach because it would allow the existing High School to remain in service as a "Swing Space" (after the new High School is complete) during future renovations and expansions at the Elementary School. Ultimately, the existing High School could be demolished and the area it currently occupies could be converted to "Green Space" including playfields.

Central Elementary School:

The existing Central Elementary School is a 1949 facility with a 1963 addition, occupied by 856 students in an approximately 59,000 square foot facility. Based on the total square feet, we would estimate the capacity of the elementary school to be approximately 450 students. This obviously creates an EXTREME overcrowding situation. The school department is in the process of adding seven modular classrooms (see previous section) in order to provide partial relief from the overcrowding. However, these classrooms will not help to expand key core facilities such as library/media center, cafeteria, gymnasium, etc., and they will not provide sufficient overall classroom relief.

The enrollment projections for the Elementary School population indicate that enrollment will continue to increase steadily and in no event will there be any decline in enrollment. The current conditions clearly require additional space.

The original 1949 structure is in good overall condition. The structure is located near Central Street and presents a very attractive façade that citizens identify as one of the focal points of East Bridgewater's "Town Center." The structure has

an original slate roof that has been very well maintained. The roof structure is in good condition. The classroom windows have been recently replaced along with all the gutters and downspouts. The adaptable organization and good condition of the original 1949 building, combined with the significant amount of additional space required at the Elementary School, make this building a good candidate for renovation and expansion. A review of preliminary options suggests that the 3-story 1949 structure should be preserved and fully renovated. The 1965 structure, which is a lesser quality construction and does not lend itself to renovation and expansion, should be removed and replaced with a larger, state-of-the-art educational space that would be sized to accept the year 2015/16 projected enrollments.