

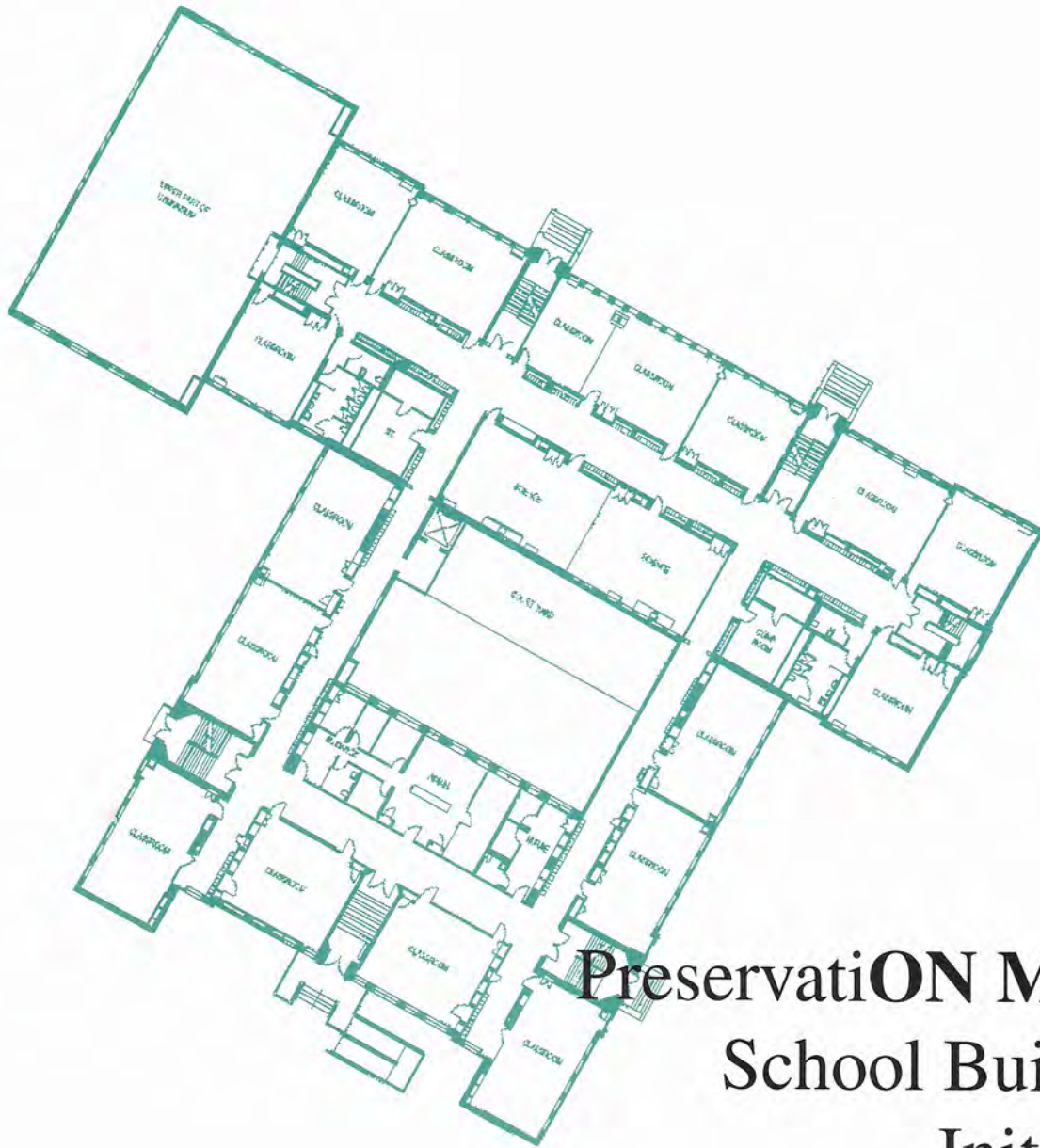


PRESERVATION  
**ON**  
**MASS**

# School Building Initiative

*An Endangered  
Historic Resource*





**Preservation MASS**  
**School Building**  
**Initiative**  
*An Endangered*  
*Historic Resource*

## A Letter from PreservatiON MASS

The sense of importance for producing the report stemmed from the fact that it involves issues that touch and concern us all: the education of our children and the preservation of historic buildings. Numerous preservation professionals and citizens concerned about the fate of our school buildings contributed to the development of this report, in the hopes that its hands-on approach to state and local school building policies would help communities assess their school building needs and structure their school facilities projects in light of such issues. It's a guide for any community going through the process of evaluating its school facilities, whether or not the buildings have been determined to be historically and architecturally significant.

PreservatiON MASS, formerly known as Historic Massachusetts, the statewide nonprofit preservation organization, has prepared this document to bring about greater awareness of the benefits of using existing buildings and the challenges communities face as they renovate schools. As shown through various case studies included in this report, existing buildings can not only house extraordinary educational spaces, but they also provide a link to a community's heritage and protect open space by encouraging rehabilitation over sprawl and new development. Renovating existing buildings is thus the ultimate recycling.

Nevertheless, there will always be professionals and lay people who are more comfortable with the idea of constructing a brand new building than they are rehabilitating an old one. Arguments such as old schools can't be saved or can't provide appropriate learning space for your children are used over and over to close and even tear down older school buildings. These misconceptions, along with others that lead to the abandonment of old schools in Massachusetts, are addressed in this report.

As shown in this guidebook, most old schools can be saved, can be used and do provide a wonderful educational environment for our children. The common misconceptions outlined in this report need not stop communities from reusing their schools. This book provides tips for getting started, a checklist of important community concerns to be addressed in each project, and a series of case studies that illustrate how this process can be successful.

A successful school renovation project is possible through the hard work of dedicated principals, school administrators, school boards and facilities committees and preservation commissions, working with the Department of Education staff, selectmen, town planners and state officials. Communities throughout the Commonwealth have proven that great school facilities can be housed in older and historic buildings.

We hope this guide will be useful as you establish the priorities for your community and that it encourages you to preserve your schools.

Sincerely,

*Jim Igoe, Executive Director*

P R E S E R V A T I O N   M A S S   1

Developing this report was a labor of love and perseverance for many people over a four-year period. PreservatiON MASS wishes to thank the community leaders, architects and public officials who helped us prepare this study and report. *Special thanks goes to Margaret Dyson, former President of Historic Massachusetts, for her tremendous work and dedication to this project.* We'd also like to recognize the contributions of the following people and organizations, whose tireless work on this project made it possible:

**James G. Alexander**  
**Carol Bratley**  
**Marilyn Fenollosa**  
**Jean Marie Hall**  
**Gary Hammer**  
**Wayne King**  
**Maureen Meister**

**Marcia Molay**  
**John David Powell**  
**Brona Simon**  
**Tad Stahl**  
**Elaine Stiles**  
**Claudia Sauermann Wu**

*Community Preservation Coalition*

*Massachusetts Historical Commission*

*Finegold Alexander + Associates*

*National Trust for Historic Preservation*

SCHOOL BUILDING INITIATIVE: AN ENDANGERED HISTORIC RESOURCE. Copyright (c) 2003 by PreservatiON MASS. All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from PreservatiON MASS.

**Research for and publishing of this book was funded in part by Furthermore: a program of the J.M. Kaplan Fund.**

The research for this project was funded in part with federal funds from the National Park Service, U.S. Department of the Interior, through the Massachusetts Historical Commission, Secretary of the Commonwealth, William Francis Galvin, Chairman. However, the contents do not necessarily reflect the views or policies of the Department of the Interior or the Massachusetts Historical Commission. The U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, age, gender, or handicap in its federally assisted programs. To report discrimination or for information, write to the Office of Equal Opportunity, Department of the Interior, 1849 C Street, NW, Room 1234, Washington, DC 20240.

# Table of Contents

<b>I. Introduction</b>	<b>5</b>
-How Preservation MASS Became Involved	
-Massachusetts Public School Buildings - an Endangered Historic Resource	
-A National Challenge	
-Positive Change	
<b>II. State Reimbursement Provisions</b>	<b>7</b>
<b>III. Guidelines for School Construction</b>	<b>8</b>
-What are the Standards and who makes them?	
-School Site Standards and Classroom Size Standards	
-The Wood Framing Issue	
-The 50% "Rule" of Cost	
-Building Code Issues	
-The Massachusetts Experience	
<b>IV. Massachusetts School Building Assistance Fictions and Facts</b>	<b>12</b>
-FICTION #1: The State will not reimburse communities for renovation of school buildings.	
-FICTION #2: Renovation is more expensive than new construction.	
-FICTION #3: Old school buildings cannot provide the best space for our children.	
-FICTION #4: Our school has "wood frame" construction; therefore it's not eligible for reimbursement.	
-FICTION #5: All classrooms must be 1000 square feet in size.	
-FICTION #6: We don't have enough land to satisfy site requirements; therefore we need to build a new school on a new site.	
-FICTION #7: School buildings that are "mothballed" cannot be brought back as future facilities.	
<b>V. Getting Started: Suggestions for Communities</b>	<b>15</b>
-Checklist of Community Needs	
-School Building Adaptability and Condition	
-Environment, Historical and Public Policy Issues	
-School Siting	
-Financial Considerations	
-Hiring an Architect	
-Working with the Department of Education	

## **Table of Contents Continued...**

<b>VI. The aftermath: What happens to the old school if we build a new school?</b>	<b>18</b>
<b>VII. Challenges We Continue to Face</b>	<b>19</b>
-School Planning vs. Community Planning	
-Building Codes	
-Inflated School Renovation Cost Estimates	
-Donated Sites and Developers' Influence	
-Unwillingness to Consider Renovation Possibilities	
<b>VIII. Case Studies: Stories of Advocacy and Successful Renovations of Older School Buildings</b>	<b>20</b>
-Center School, Mattapoisett	<b>22</b>
-School Street Middle School (Old Waltham High School), Waltham	<b>24</b>
-Lincoln Elementary School, Melrose	<b>26</b>
-East Boston High School, East Boston	<b>28</b>
-McCall Middle School, Winchester	<b>30</b>
-Point Webster Middle School, Quincy	<b>32</b>
-Brookline High School, Brookline	<b>34</b>
-Fairhaven High School, Fairhaven	<b>36</b>
-Shrutleff Early Learning Center, Chelsea	<b>38</b>
-Quinsigamond Elementary School, Worcester	<b>40</b>
<b>IX. Stories of Advocacy for Older School Buildings</b>	<b>42</b>
<b>X. Bibliography</b>	<b>46</b>
<b>XI. Appendix</b>	

# I. Introduction

## How PreservatiON MASS Became Involved

As the statewide historic preservation organization, PreservatiON MASS, then known as Historic Massachusetts, began to receive a stream of frightened and angry telephone calls from across the Commonwealth about older schools. Community activists, preservation commission members and residents all asked the same questions: “What can we do to save our old school? How can we stop our community from taking our parks and building on them?”

People were seeing their older schools and public open spaces under assault. They feared that the buildings, many of which were beloved neighborhood schools and landmarks anchoring their downtowns, were threatened. They perceived that these properties were being endangered by a state reimbursement policy that unambiguously favored new over old. At the same time, these activists were also alarmed by the conversion of public parks, many of which were truly historic in their own right, into building sites for the new school buildings. The losses began to accumulate across the Commonwealth.

## Massachusetts Public School Buildings - an Endangered Historic Resource

This pattern of ongoing damage to our cultural resources demanded attention, and in 1997 Historic Massachusetts listed the Commonwealth’s historic public school buildings on our “Ten Most Endangered Historic Resources” list. It was the first time that we had designated a *type* of building rather than an individual building, but the common threat to these resources made the listing vital.

Responding to its mission of advocacy, education and community revitalization, we organized the Historic School Building Initiative to address the growing concern over our state’s older school buildings. We assembled a group of volunteers and professionals to determine the scope of the problem and to identify ways to help historic schools have a fighting chance in the face of current regulatory thinking. Architects, engineers, preservation commission members, our board members and staff, public leaders and others met to identify the “sticking points” and the best strategies to overcome them.

## **A National Challenge**

As we began to research this issue, we learned that this is not only a Massachusetts issue, but one that is affecting schools nationwide. States such as Maine, Maryland, Vermont, Pennsylvania, North Carolina, and Georgia have implemented or are seeking changes in policy and regulations to stop the abandonment and destruction of their older school buildings. In November 2000, the National Trust for Historic Preservation named Historic Schools to its national list of Most Endangered Historic Resources and released its report "*Historic Neighborhood Schools in the Age of Sprawl: Why Johnny Can't Walk to School*," further highlighting the national scope of threatened school buildings.

## **Positive Change**

Fortunately, the attention focused on the precarious position of neighborhood and historic schools in Massachusetts resulted in positive change. In July, 2000, Massachusetts enacted the most far-reaching changes the state's School Building Assistance Program (SBA) has seen since its creation in 1948. A new state law mandates that school construction funding be guided by principles grounded in the preservation of open space, thoughtful community development, and project flexibility (M.G.L. c. 70B). The Massachusetts Department of Education also adopted new regulations pertaining to the SBA, which emphasize the reuse of existing structures, alternatives to new construction, sound planning practices, and adequate building maintenance (603 CMR 38.00). The new regulations not only benefit older schools, but also help communities make informed decisions on their school building needs and better manage school construction projects. July, 2001 marked the first round of funding for school construction and renovation projects under the new laws and regulations.

This document is designed to complement local school facilities planning and review processes by providing background information on school facility policies and standards as well as examples of how Massachusetts communities have created outstanding educational spaces through the reuse of their older schools. We hope you will find it useful as you define priorities and set strategies with respect to these most important resources in your community.



## II. State Reimbursement Provisions

The Massachusetts School Building Assistance Program (SBA), codified in the Massachusetts General Laws, was enacted to provide financial assistance to communities with school facilities needs. The SBA is the largest capital grant program operated by the Commonwealth. Under the terms of the Act, the state assumes a significant portion — from 50 to 90% — of the costs associated with construction of new school buildings or the renovation and expansion of existing buildings; the actual percentage applied to a specific school project is based on a legislatively-determined assessment of the community's wealth. Once a project is approved for funding, the state will pay a percentage of both the actual construction costs and the debt service incurred to finance the construction over a 5 to 20 year period. If an approved project is not funded in a given fiscal year, it will be placed on a waiting list. The prioritization of projects on the waiting list is determined based on issues of safety and structural soundness; overcrowding or projected overcrowding; threat of accreditation loss, increasing energy efficiency; improvement of obsolete buildings, or upgrading buildings for greater service (M.G.L. c. 70B (8)).

As part of the application process, the Department of Education staff must determine whether the proposed construction is in the “best interests” of the Commonwealth and the city, town or regional school district, basing its analysis on the proposed site, type of construction, sufficiency of facilities, open space preservation, urban development, and urban sprawl factors. The Department must also be guided in its decisions by the following principles: preservation of open space and minimization of loss of open space, an emphasis on thoughtful community development, and project flexibility (M.G.L. c. 70B (3)). Each project must also be found to be in compliance with Department standards and procedures, including the minimum program and cost standards issued annually by the State Board of Education.

In setting the minimum program standards, the Department of Education must consider fiscal impacts, prevailing educational standards in the Commonwealth, and the needs of efficient and creative school projects. Cost standards must be based on the cost experience of recently completed and recently bid school projects, taking into account the cost effectiveness of design, construction and programming techniques. While an analysis of the costs of renovation versus demolition and new construction is not explicitly contemplated, the Department requires that applicants fully consider all available options for satisfying their facility needs, including acquisition, rehabilitation, or usage modification of an existing building which could be made available for school use (M.G.L. c. 70B (9) (a), (b)).

### III. Guidelines for School Construction

Since 1948, the Commonwealth of Massachusetts has had a funding program to assist communities with their school facility needs. Until recently, this funding program discouraged renovation of older schools in favor of new school construction. Changes in Massachusetts' school facilities program and school construction regulations now encourage the continued use of older schools.

Despite these changes, many communities may still hear and believe that only new construction will meet national standards and Massachusetts regulations. Communities feel forced to abandon their older schools in order to meet recommended standards for school construction.

#### What are the Standards? Who Makes Them?

The suggested guidelines for school construction come from the Council of Educational Facilities Planners International (CEFPI), a Scottsdale, Arizona-based group of architects, school building consultants and builders. The CEFPI's guidelines were first published in 1930, and today its *Guide for Planning Educational Facilities* has become the foundation of almost every state's school facility policies.

The guidelines themselves have *no* legal basis. They are a *national* standard (meaning they are used throughout the country), but not a *federal* standard. The United States Government does not establish requirements for school facilities, nor does it endorse the CEFPI guidelines. Some, but not all, of the CEFPI guidelines have been adopted in the Massachusetts regulations.

#### GUIDELINES, STANDARDS and REQUIREMENTS

These words, which are often used interchangeably in conversation, have very different definitions. The differences are important to understand in conversations with officials.

**GUIDELINE** - an indication or outline of policy.

**STANDARD** - a reference point set up as a rule for measuring or as a model to be followed.

**REQUIREMENT** - something called for as essential — for the purposes of this publication, those items appearing in Massachusetts law or regulation pertaining to school construction.

If something is called a "requirement" but does not appear in the law or any regulation, it is in fact a guideline or standard and should not adversely affect the funding of your application.

The *Guide for Planning Educational Facilities* was last published in 1991, with a new “preservation-friendlier” edition due in the Fall, 2003. Although efforts have been made within the Council itself to address identified problems arising from use of the guidelines, changes have not yet taken place on a national level. As a result, the publication with dated information is still in use and cited as the standard in Massachusetts school construction requirements.

## Site Standards

The CEFPI site standards, that is, the number of acres suggested for a school facility, do *not* appear in Massachusetts law or regulation or in any publication by the Massachusetts Department of Education. However, the standards are cited frequently in school planning conversations. *Community members should be aware that these national standards may not be appropriate for use everywhere in the Commonwealth and should be prepared to make the case for existing school sites.*

The CEFPI - recommended site standards are as follows:

- 10 acres of land, plus one additional acre for every 100 elementary students. Example: 12 acres for a school of 200 students;
- 20 acres of land, plus one additional acre for every 100 middle school students. Example: 25 acres for a school of 500 students;
- 30 acres of land, plus one additional acre for every 100 high school students. Example: 40 acres for a school of 1,000 students; and
- 50 acres of land, plus one acre for every 50 post-secondary school students. Example: 130 acres for a school of 4,000 students.

## SPRAWL

Sprawl is development that is isolated from already-developed areas and that does not utilize existing or planned infrastructure.

Adhering to the letter of these site guidelines can and has resulted in school demolitions, relocation of school facilities to the outskirts of a community, and development of significant areas of public open space. The guidelines mandate state-subsidized sprawl and are in direct conflict with Massachusetts’ growth management and planning policies. *By pushing school construction to the edge of communities, municipalities decrease pedestrian activity in downtowns and increase the use of cars.*

The Massachusetts school assistance law states that municipalities will *not* be reimbursed for land acquisition, so communities must shoulder the cost of buying land or face the prospect of building on lands they already own, which are most often public parks and playgrounds. In either case, communities will need to consider the cost of infrastructure at the new site. This can include everything from road construction to bringing electrical, water, and sewerage systems to the new site.

### **Classroom Size Standards**

At a time when current educational thinking urges a decrease in the number of students per class, particularly for special needs classes, designing classrooms according to the CEFPI size guidelines may no longer be appropriate. For example, the CEFPI's guidelines call for a 900 to 1000 square foot classroom, allowing for a 5% variance in size, in order to accommodate approximately 25 students. Massachusetts has adopted this standard for grades 1 through 8 and another standard of 750 to 850 square feet, with the 5% variance, for a "regular interchangeable" (general classroom) high school class of 20 to 30 pupils. The tables for classroom sizes appear in Code of Massachusetts Regulations Section 38.05 ("Program Standards: Capital Construction") of the School Construction Regulations issued by the Massachusetts Department of Education.

A review of many of the older classrooms in Massachusetts indicates that they measure approximately 750 to 850 square feet, which would be large enough to accommodate classes of 20 students. *By retaining the existing footprint of the classrooms, a community would thus provide for optimal class size while avoiding costs of demolition and construction of new wall partitions.*

### **The Wood Framing Problem**

Often the argument is made by local officials that the older school buildings are unsafe because of the presence of wood building materials in them. It is important to differentiate between buildings that are *entirely* of a wood frame construction, which may pose structural issues, and those buildings with an interior wooden flooring system but with exterior masonry load-bearing walls, which do not. These same buildings are often successfully re-used as elderly housing or for other residential uses. *Clearly if these buildings can be made safe for housing, they can also be safe schools.*

### **The 50% "Rule" of Cost**

The CEFPI guidelines recommend against any renovation project that exceeds 50% of the cost of a comparable new building. This threshold does not appear in either Massachusetts law or regulations. This benchmark figure first

appeared in a 1952 article by H. Linn entitled “Modernizing School Buildings”, and has been cited more recently in the 1994 *School Renovation Handbook* published by Virginia Polytechnic Institute and State University. We believe that the 50% Rule reflects outdated sensibilities about older construction nationwide and does not take into account the more contemporary recognized value of historic or architecturally significant school buildings.

### **Building Code Issues**

Before 2000, the School Building Assistance Program regulations required that all new additions to school buildings and building renovation work must comply with the Massachusetts Building Code for new construction. Changes to the regulations in 2000 now leave compliance to the discretion of the Executive Office of Public Safety. Massachusetts’ Building Code Chapter 34 is a special section of the state code pertaining to existing buildings. School renovation projects can now apply for compliance under this chapter of the code, which recognizes the challenges of bringing old buildings up to codes designed for modern construction methods and materials. Many school projects have also successfully applied for waivers from the state on building code and ADA compliance issues.

### **The Massachusetts Experience**

Many Massachusetts communities have successfully renovated their school buildings at a cost that exceeds the 50% threshold, and they have been reimbursed to the *full* percentage rate to which their community is entitled, as set by the Massachusetts Legislature. A review of several state-funded school projects reveals that most renovation and renovation/addition project budgets come in at or below the allowable cost of new construction. *If, indeed, project costs under both the renovation scenario and the new construction scenario are comparable, the decision to renovate or build a new school should remain with the community rather than be deferred to the State or its representatives.*

At the start of the school facilities planning process, both the school building committee and its hired architect should understand that the guidelines presented by the CEFPI are suggestions and not absolutes. Agreement about site size and classroom size, in particular, is critical and should reflect the overall desired school program. A realistic assessment of the costs of the various alternatives should then be undertaken in the context of community priorities — not arbitrary rules-of-thumb.

## IV. Massachusetts School Building Assistance Fictions and Facts

*The following seven issues come up again and again in our conversations with communities. The information for this study is based on public information provided by The Department of Education and on case studies assembled by PreservatiON MASS over the last four years.*

### **FICTION #1: The State will not reimburse communities for the renovation of school buildings.**

**FACT:** The Department of Education's new standards for school construction explicitly state that renovation and rehabilitation of existing buildings to accommodate changes in educational use, compliance with building code, and other legal requirements are eligible for construction grants. They further state that, "Projects calling for new school construction shall be approved and funded only where the feasibility and cost of renovating an existing school building, or of acquiring an existing building or buildings which are structurally sound, available within the community, and adaptable for school purposes, has been studied and the applicant demonstrates that the proposed new construction is the best available alternative to meet the projected need based upon the educational program to be housed, total cost effectiveness, and the public interest." (603 CMR 38.03 (10))

In fiscal year 2002, the SBA approved 19 school projects for reimbursement:

<b>new construction</b>	<b>7</b>
<b>renovation/addition</b>	<b>11</b>
<b>re-open/renovation</b>	<b>1</b>

Additionally, the new SBA statute encourages reusing older school buildings by awarding such projects incentive points. These points increase the community's set reimbursement rate for construction costs.

- Case studies - All

### **FICTION #2: Renovation is more expensive than new construction.**

**FACT:** By comparing and contrasting the construction costs of over 20 recent school projects, PRESERVATION Mass found that the overall cost per square foot of renovation is the same as or less than new construction. Money spent on site preparation, demolition, hazardous waste disposal and purchase of construction materials can be saved in the re-use of an existing building. Renovation is not necessarily a cheaper alternative, but it has not proved to be a consistently more expensive option than new construction. Our findings were reinforced by a January, 2000 report released by the Commonwealth's Executive Office of Administration and Finance on restructuring the SBA.

- Case studies - Shurtleff Early Learning Center, Chelsea; McCall Middle School, Winchester

**FICTION #3: Old school buildings cannot provide the best space for our children.**

**FACT:** Some parents and teachers think of older school buildings as inadequate spaces for their children. Many times, parents and teachers suppose that school renovation will consist of simply updating the older building cosmetically. Through the talent and commitment of architects, designers, and educators, renovated schools can be brilliant facilities. Renovated facilities can be retrofitted to provide state-of-the-art audio/visual and internet capacity. Additional space such as science labs, libraries, cafeteriums, and special need rooms can be introduced into older structures.

- Case studies - Quinsigamond Elementary School, Worcester; Fairhaven High School, Fairhaven; and Lincoln School, Melrose

**FICTION #4: Our school is of “wood frame” construction; therefore, it is not be eligible for reimbursement.**

**FACT:** The term “wood frame” can be deceiving. It is important to differentiate between buildings that are *entirely* of a wood frame construction and those buildings with exterior masonry load bearing walls with an interior wooden flooring system. There have been several successful renovation projects of wooden floor framed structures that have been funded or reimbursed by the state. *Massachusetts regulations do not say that a school with wood framing is ineligible for reimbursement.*

- Case studies - Shurtleff Early Learning Center, Chelsea and Brookline High School, Brookline

**FICTION #5: All classrooms must be 1,000 square feet in size.**

**FACT:** The Council of Educational Facilities Planner International’s guidelines call for a 900 to 1,000 square foot classroom, allowing for a 5% variance in sizes, to accommodate approximately 25 students. Massachusetts has adopted this standard for grades 1 through 8 and another standard of 750 to 850 square feet, with the 5% variance, for a “regular interchangeable” high school class of 20 to 30 pupils. Refer to the tables for classroom sizes which appear on the web at <http://www.doe.mass.edu/lawsregs/603cmr38/> in section 38.05, Program Standards: Capital Construction.

Requirements for computer stations in classrooms add a greater burden to smaller rooms, but at a time when the educational philosophy is urging schools to decrease the number of students per class, particularly for special needs classes, building classrooms of this larger size is not a necessity. A review of many of the older classrooms in

Massachusetts shows that they measure approximately 750 to 850 square feet, which is large enough to accommodate the desired class size. In addition, by leaving the existing footprint of the classrooms, a community can decrease costs of demolition and reconstruction of wall partitions.

- Case studies - Saltonstall School, Salem and Fairhaven High School

**FICTION #6: We don't have enough land to satisfy the site requirement; therefore, we need to build a new school on a new site.**

**FACT:** Neither Massachusetts law nor Massachusetts regulation includes any site size requirements. However, the Department of Education does use national guidelines in the review process. The DOE can be fairly flexible on sites, but this flexibility is most often a response to community commitment to reuse existing resources. Particularly in communities where there is no cost-effective alternative location, non-conforming sites can be creatively and effectively designed to accommodate the needs of the school without consuming any new land. Nearby parks can be used for recreation; commercial and institutional facilities can provide off-site parking.

- Case studies - Quinsigamond School, Worcester; Lincoln School, Melrose; Shurtleff Early Learning Center, Chelsea; Point Webster Middle School, Quincy

**FICTION #7: School buildings that are "moth balled" cannot be brought back as future facilities.**

**FACT:** In the past several years, the Department of Education (DOE) has funded the re-opening of several schools. In fiscal year 1997, Chelmsford, Quincy and Burlington all received reimbursement for the re-opening and renovation of schools. The legislation also allows communities to purchase existing buildings and the land they sit on for use as a school facility.

- Case studies – School Street Middle School, Waltham



## V. Getting Started: Suggestions for Communities

### Checklist of Community Needs

Before undertaking a lengthy feasibility study or contracting an architect, review the questions listed below to help determine some of the factors involved in making the best decision about a school facility for your community. It is important to identify the issues that face your individual community and school to aid in choosing an architect who is the best possible match for your town. Encouraging citizen participation in this evaluation process will ensure that all constituencies' concerns are addressed and promote local support as plans are being finalized.

### School Building Adaptability and Condition

- Can the current building accommodate the needed educational programs? If not, what sort of spaces are needed?
- What building systems need to be upgraded?
- Does the building comply with the Americans with Disabilities Act (ADA)? If not, what issues must be addressed?
- What problems may exist in the exterior envelope ( i.e. gutters, downspouts, roof)?
- Does the building have hazardous materials issues?

### Environmental, Historical and Public Policy Issues

- What would new construction mean to the community in terms of environmental and economic impacts, population distribution, and overall town planning?
- What other community uses does the existing school building serve (i.e., after-school programs, public meeting space, AA meetings)?
- What is the school's historical significance? What is its cultural significance within the community? Has an historical and archeological survey been completed? Should a state or federal register of historic places nomination be prepared? Is the school included in the Massachusetts Historical Commission's Inventory of Historic and Archaeological Assets of the Commonwealth?

### **School Siting**

- Where would a new school be located? How will the land be acquired? What is the land currently used for?
- How much land is necessary to accommodate the program?
- Is the new site located in a place where students can walk to the school?
- Will it be necessary to redraw the district boundaries to accommodate the new school?

### **Financial Considerations**

- What is the availability and cost of additional transportation to the new site (i.e. busing)?
- What are the actual costs of similar new construction and renovation projects?
- What is the real cost of building on a new site, including site acquisition and preparation, infrastructure, transportation for students to the new site, and disposal of the old building?

### **Hiring an Architect**

After identifying some of the issues that pertain to your school and community, it is time to hire an architect to do a feasibility study, which looks at the reuse potential and costs of the existing school building.

When interviewing architects for this job, ask to see examples of their previous school projects (both new construction and renovation). Interview several different architects/architectural firms to find the one that will be dedicated to working with your community and will listen to what the community is asking him or her to design. In addition, architects should be asked:

- how they feel about renovation vs. new construction;
- to show renderings or a completed project in which they have been involved; and
- whether they are willing to try several plans to find the best use of the existing school and site.

It is often the case that a community feels a great loyalty to an architect who conducts the feasibility study and she/he is often hired as the architect for the job; therefore, choose wisely early in the process.

### **Working with the Department of Education**

The Department of Education will send a copy of the State Regulations and the School Building Assistance Capital Grant Application to any community upon request. It is important to read through all of this material before scheduling a visit with a representative from the Department of Education.

Schedule a meeting with the members of your committee to review relevant issues of the building and the community before the site visit. You do not have to make a final decision, but it is important to be clear about what solutions would be best for your community. Invite a representative from the town planning board to attend the site visit and take thorough notes.

*Be sure to get all of the Department of Education's suggested recommendations and their reasons for them in writing.* The process of designing, funding and building or renovating a school takes several years. Relying on people's recollections of conversations complicates the process and can disrupt the facilities planning effort. A written record ensures that all parties understand the decisions that are made, and the reasons for them.

## VI. The aftermath: What happens to the old school if we build a new school?

It is a common misconception that a town will spend more to renovate an existing school building that is out of compliance with current regulations than it will to build a new school. As a result, communities often abandon their school structures in favor of new construction. Before a community vacates a school building, however, neighbors and others in the community should insist that a viable plan for reuse is in place. School conversions work best if they are part of a broad community consensus rather than part of a piecemeal effort.

To ensure successful reuse, early in the facilities planning process the community should hire a knowledgeable structural engineer, who is familiar with frame and masonry buildings, to inspect the building for soundness and reuse potential.

Schools are well suited to reuse as municipal space or to conversion to housing or offices, provided that there is a demonstrable need for such uses in the community. *If the need is not there, the vacated buildings will sit empty and deteriorating, until a new use is found or they become a public nuisance and are demolished.*

Any analysis of the reuse potential of a former school building for municipal purposes should consider several areas of cost:

- the cost the community will still face to improve and reuse the vacant building for its new municipal life, and
  - the cost of constructing a replacement school elsewhere;
- versus
- the cost to renovate and expand the former school as a school, and
  - the cost to provide or rent municipal space elsewhere.

### LESSONS LEARNED

An example of what can happen without expert preliminary structural analysis is the experience of one Massachusetts community: after being told that its existing school needed major structural improvements, it proceeded to spend \$20 million on new schools. Faced with disposition of the old school, the town hired an engineer who was familiar with wood and masonry construction to look at the building, late in the process. In his professional opinion, the building was sound — and could have been renovated as a school! The community is now searching for a new use for the building.

## **VII. Challenges We Continue to Face**

Despite the positive changes made in Massachusetts' laws and regulations regarding school construction, there are still obstacles to preserving our state's older school buildings. The following issues cannot be addressed by legislation alone; community action is still essential, successfully advocating for historic neighborhood schools.

### **School Planning vs. Community Planning**

Oftentimes, new school construction ignores or bypasses local master plans, capital improvement plans, and even zoning in the siting of facilities. City or town planning board approval is not always required in the school planning process, and on many occasions, the community planning board is not consulted on issues of siting. The construction of new school buildings in outlying areas often speeds up a municipality's need to construct new roads, water mains, and sewer lines. The very presence of a school on the periphery of a community can greatly change a city or town's growth patterns, becoming a catalyst for other forms of new construction and sprawl.

### **Building Codes**

Safety is of utmost importance in our schools. Many older school buildings do not comply with modern building codes, particularly because those codes were written to apply only to modern construction methods and materials. Older school buildings can be made safe, however, by retrofitting the building to meet equivalent life safety standards for new buildings. Smoke detectors, sprinkler systems, and other early warning devices can take the place of items required by modern codes. Fortunately, Massachusetts has a state building code that recognizes that older buildings may not fully comply with modern codes, but can be made safe with alternative methods.

Despite this positive provision, many communities are told by their architect that it will cost enormous amounts of money to bring older school buildings up to code. This is where the services of an architect experienced in rehabilitation are vital.

### **Inflated School Renovation Cost Estimates**

The inexperience and lack of familiarity with school renovation projects on the part of many school boards and architects often results in unrealistically high renovation costs for older schools. In one remarkable instance, the town of Kokomo, Indiana received a renovation cost estimate inflated by \$16 million. Again, the services of an architect with renovation as well as new construction experience can make a drastic difference in the success of preserving older school buildings.

### **Donated Sites and Developers' Influence**

Large-scale real estate developers frequently offer to donate large pieces of land near new subdivisions or major commercial projects as an incentive for local government approval of their projects or to improve the value of their development. Many cities and towns feel they cannot afford to turn down this "free land." The result is a school location that further contributes to sprawl and may be inconvenient for most of the area's residents.

### **Unwillingness to Consider Renovation Possibilities**

Bias towards new construction by school boards and architects, misinformation by state and local education officials, and the perception that "new" is always better all contribute to a community's unwillingness to explore the possibility of renovating an existing school building.

## **VIII. Case Studies: Successful Renovations of Older School Buildings**

The following schools have undergone creative and technologically advanced renovations. The projects were designed to alleviate overcrowding, resolve accreditation issues and implement structural or systems upgrades.

Each case study includes a brief description of the school, the problems its reuse faced, and a synopsis of the project activity. We have chosen projects of various grade levels and locations that show creativity in reuse, technology applications, and community support for outstanding learning spaces.

These schools faced the same issues that continue to derail other communities' efforts to renovate. Concerns about "wood framing", site size, classroom size, hazardous materials, and overcrowding have all been addressed and overcome in these projects. We thank the architects, community activists, and other project participants for generously sharing information about their successful projects with us.

## Center School, Mattapoisett

17 Barstow Street, Mattapoisett, MA 02739

Grades Pre-K-3

Originally built: 1898, with additions in 1938 and 1958

Project Date:	2003-2004
Architects:	Tappé Associates
Construction Cost/Sq. Ft.:	\$125 (approximate figure)
State Reimbursement Rate:	51.42% (FY01, before incentive points)
Number of Students:	Presently 360, proposed 850
Building Size:	20,000 sq. ft. with 57,000 sq. ft. addition
Site Size:	5 acres

### Introduction

Built in 1898, the Center School currently serves about 360 students from pre-school through third grade. The grand colonial revival school was a gift to the community from Fairhaven oil magnate Henry Huttleston Rogers. It is located in the center of the village with access to the town's library and beaches.

### Project Description

Mattapoisett's construction plan will maintain the 1898 block of the Center School and replace two older rear additions with a new two-story addition. The older portion of the school will retain almost all of its original historic character. New life safety, heating, electrical, and technology systems will be installed and existing classrooms will be refurbished with new chalkboards, bulletin boards, and storage cabinets. The renovation of the older section of Center School will include restoring shellac finishes to its interior wood work and replacing deteriorated wood flooring with new wood flooring. The school's grand auditorium will be renovated into a new music performance area.

### Major Issues

The infrastructure at Center School was beyond the end of its useful life. The community wished to add classrooms to the building and make it accessible to the handicapped. The traffic patterns in the building were a safety concern and the combination gym/cafeteria/auditorium was overburdened. The available library resources were insufficient and lacked technology facilities.





*Left: Center School, Mattapoisett, prior to rehabilitation work.*



*Above: Drawing of rehabilitation plans for Center School, Mattapoisett. Drawing courtesy of Tappe Associates.*

## **School Street Middle School (Old Waltham High School), Waltham**

School Street, Waltham, MA 02452

Grades 6-8

Originally built: 1902 with 1930s addition

Project Date:	2001-2003
Architects:	Flansburgh Associates
Construction Cost/Sq. Ft.:	Not available
State Reimbursement Rate:	73%
Number of Students:	700
Building Size:	40,000 sq. ft. with an addition of 80,000 sq. ft.
Site Size:	10 acres

### **Introduction**

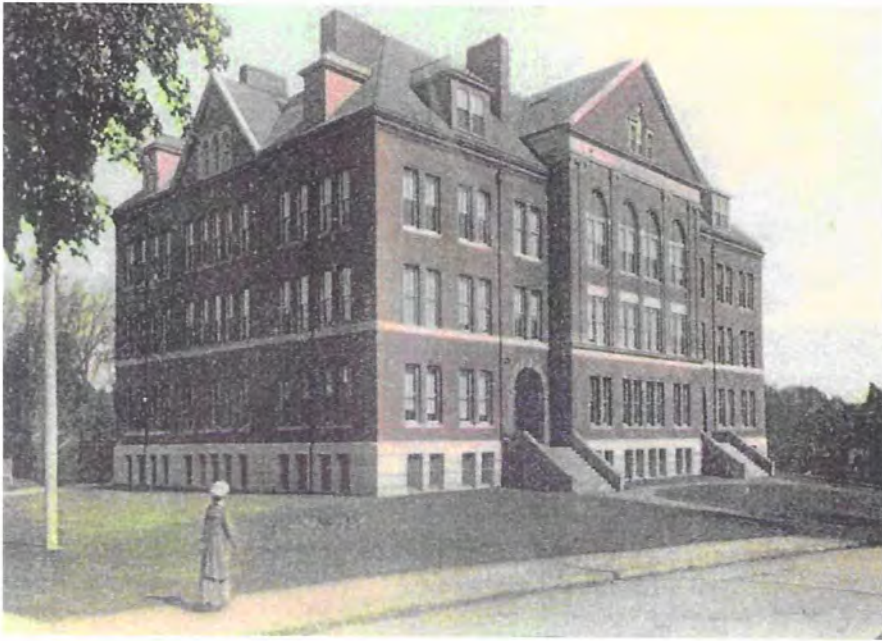
Waltham's Old High School is a neoclassical-Romanesque, red-brick building dating from 1902, with a 1930s era wing added during the Federal Emergency Administration of Public Works. In 2000, the city decided to reuse the building for a new middle school.

### **Project Description**

The renovation and additions at the new School Street Middle School is an \$18 million project, part of citywide, \$120 million revitalization plan for elementary and middle schools. The renovation/addition will result in 36 classrooms with state-of-the-art science labs, media center, modern communication technology linking classrooms, full size gym, and new and upgraded on-site play fields. The addition will compliment the existing building in its materials and scale.

### **Major Issues**

Vacant and boarded up for over a decade, this National Register-listed building suffered from water damage and vandalism. The school needed new life safety systems, technology wiring, new electrical, plumbing, heating, airconditioning systems and seismic upgrades, as well as handicapped access that will be provided through the addition.



*School Street Middle School  
(Old Waltham High School),  
Waltham, 1902 Postcard  
image.*



*Elevation drawings for School Street School renovation. Courtesy of Flansburgh Associates*

# Lincoln Elementary School, Melrose

80 W. Wyoming Avenue, Melrose, MA 02176

Grades K-5

Originally built: 1895

Project Date:	1999-2000
Architects:	Design Partnership of Cambridge
Construction Cost/Sq. Ft.:	\$158
State Reimbursement Rate:	58.79% (FY01, before incentive points)
Number of Students:	376
Building Size:	65,021 sq. ft.
Site Size:	3.2 acres

## Introduction

The Lincoln School, eligible for listing on the National Register of Historic Places, is located in an urban setting in Melrose's city center. The City of Melrose wanted to improve both facilities and site configuration of the Lincoln School to solve parking, bus circulation, and outdoor play space issues. Because of its important downtown location, proximity to other civic buildings, and effectiveness as a neighborhood school, the city was particularly interested in reusing the Lincoln School building as a meeting place.

## Project Description

A poorly designed 1920s addition crowded the site. The design solution minimized the impact on the existing building, demolished the 1920s addition, and reflected existing building design in a new addition without copying it and minimized the impact of the addition on the site. The new addition contains a gym, kitchen, cafeteria, and kindergarten classrooms with their own entrance. The new main entrance is in an open, two-story atrium lobby connecting the 1895 Lincoln School with its new addition. The old main entrance now accesses the school library.

## Major Issues

The renovation and redesign of the Lincoln School presented several challenges. The school's tight urban lot included a city park, baseball field and a Metropolitan District Commission waterway easement. While the Lincoln School's exterior was in good shape, its interior was not code compliant. As the interior was refurbished, previously unused space was cleverly employed. Mechanical systems were updated which implemented a much higher level of energy efficiency. By involving the community in the planning, this project created a valuable facility for every citizen.



*Left: Lincoln Elementary School, Melrose, original 1895 building with new addition in the rear.*



*Right: Lincoln Elementary School Atrium in new addition. Photo courtesy of Design Partnership of Cambridge.*

# East Boston High School, East Boston

89 White Street, East Boston, MA 02128

Grades 9-12

Originally built: 1926

Project Date:	1998-2000
Architects:	Cole and Goyette, Architects and Planners Inc.
Construction Cost/Sq. Ft.:	\$77
State Reimbursement Rate:	90%
Number of Students:	1,200
Building Size:	208,000 sq. ft.
Site Size:	5.1 acres

## Introduction

The City of Boston's revitalization plan for East Boston High School included complete rehabilitation of the original 1926 structure and construction of an 18,000 sq. ft. addition. East Boston High School is listed on the State and National Registers of Historic Places as part of the Eagle Hill National Register District.

## Project Description

The 1926 section of East Boston High School received thorough rehabilitation, including restoration of its terrazzo floors, glazed interior brickwork, oak wood cabinets, slate blackboards and wood flooring. Brass fixtures, marble wall panels, and carved plaster decoration in the school's main reception area were repaired. The auditorium kept its wood paneling and seats and the building's red brick and beige limestone exterior had full restoration. The building also received new engineering systems, technology networking, seismic upgrades, and accessibility improvements. Travel and tourism, communications, visual arts, library/media center, science labs, music and dance rooms, and a cafeteria are housed within the older part of the high school. The school's new addition provides a gymnasium, new school kitchen, and faculty dining area. The project won honor awards from the Boston Preservation Alliance and the Massachusetts Historical Commission.

## Major Issues

The City's goal in this project was to create a high school appropriate for the 21st century with the most up-to-date technology and educational programming. Modern building codes and educational needs necessitated a redesign of space within the existing school, but every effort was made to retain original materials and spaces. Mechanical systems, seismic and ADA provisions were all brought up to standard and hazardous materials were abated.



*East Boston High School, East Boston. Photo Courtesy of Cole and Goyette, Architects and Planners Inc.*

# McCall Middle School, Winchester

263 Main Street, Winchester, MA 01890

Grades 6-8

Originally built: 1930

Project Date:	1998-2000
Architects:	HMFH Architects
Construction Cost/Sq. Ft.:	\$102
State Reimbursement Rate:	63%
Number of Students:	800
Building Size:	132,000 sq. ft.
Site Size:	14 acres

## Introduction

The McCall Middle School was constructed in 1931-32 to ease overcrowding. Its original design was an experiment to test the new concept of a “junior high”. The McCall School was converted to a high school and expanded in 1956, prompting the town to re-open the nearby Lincoln School (See following section of this report on Endangered Schools) as a junior high. McCall is located within the Winchester Historic District and is listed on the National Register of Historic Places.

## Project Description

The renovation included the reconfiguration of teachers’ space to accommodate team clusters and additional science classrooms. Technology labs were created in spaces formerly used as locker rooms. Other plans for the school included: conversion of the existing library to classrooms, construction of an addition to contain a media center and additional classrooms, renovation of the existing auditorium and gymnasium, and completion of ADA compliance. Efforts were made to maintain the historically important neo-classical exterior. Located near the center of town, McCall is used by the community after school hours. The project also includes a new after-school youth center.

## Major Issues

In addition to the larger library and additional classrooms, plans called for the building roof to be replaced and electronic wiring for computers to be installed. The project required a full systems upgrade as well as ADA compliance. Finally, hazardous materials had to be abated.





*East Boston High School, East Boston. Photo Courtesy of Cole and Goyette, Architects and Planners Inc.*



*McCall Middle School, Winchester. Photo courtesy of HMFH Architects.*

## **Point Webster Middle School, Quincy**

60 Lancaster Street, Quincy, MA 02169

Grades 6-8

Originally built: 1916, 1927

Project Date:	1998-1999
Architects:	Cole and Goyette, Architects and Planners Inc.
Construction Cost/Sq. Ft.:	\$65
State Reimbursement Rate:	63%
Number of Students:	232 enrolled, 600 capacity
Building Size:	100,000 sq. ft.
Site Size:	2.9 acres

### **Introduction**

Built in 1916 as Daniel Webster Elementary School, the present Point Webster Middle School also accommodated junior high aged students from the Point Webster neighborhood with an addition in 1927. As part of a \$100 million citywide education revitalization program in Quincy, the Point Webster Middle School was renovated in 1998 to provide education for grades five through eight beginning in 1999.

### **Project Description**

The Point Webster Middle School was made accessible with the addition of an elevator, new interior staircases, and ramps and lifts. The building was retrofitted for plumbing, HVAC, electrical, and technology wiring. Major interior alterations provided specialized spaces for physical education, industrial arts, music, and computer instruction. The school's combined library, media center and auditorium was refurbished. The renovation revealed its vaulted ceilings, hidden under earlier alterations, and renovated the space to become the center of school life.

### **Major Issues**

The facility has been upgraded for ADA compliance as well as improved its technology capacity. All the old mechanical systems were replaced and modernized. Special attention was given to the incorporation of renovated facilities with specific activities and functions, such as laboratories and physical education areas.



*Point Webster Middle School, Quincy. Photo courtesy of Cole and Goyette, Architects and Planners, Inc.*

# Brookline High School, Brookline

115 Greenough Street, Brookline, MA 02445

Grades 9-12

Originally built: 1895-1965

Project Date:	1996-2000
Architects:	Finegold Alexander + Associates
Construction Cost/Sq .Ft.:	\$103
State Reimbursement Rate:	61%
Number of Students:	2,200
Building Size:	424,000 Sq. Ft.
Site Size:	12.64 acres

## Introduction

In order to alleviate overcrowding and accommodate the growing school population, the Town of Brookline decided in 1996 to renovate its three-building, 424,000 sq. ft. high school complex. The main building was constructed in 1895 with 1921, 1932, 1937, 1948, and 1965 additions; the original 1895 building burned down in 1936. The adjacent Unified Arts Building and Tappen Street Gym were constructed in 1901 and 1968, respectively.

## Project Description

Many additions left the main building disjointed and unconnected. The project added a central three-story, light-filled atrium to the front of the 1937 sections creating a new "front door." The 1937 facade with its columns and entablature remains visible from the outside, with views beyond it to an Olmsted-designed quadrangle. Administrative suites surround the lobby area and provide visitor information and building security. The expanded cafeteria offers more seating and service space for the estimated future 2,200-student enrollment. The town's use of the school for public meetings, adult education classes, and athletic programs required the ability to secure areas of the school after-hours. The building remained in continuous occupancy during construction, requiring careful planning to stage major construction work during school breaks and after hours. Combined efforts of school administrators, faculty, students, and community groups tailored the construction schedule to the needs of each user group.

## Major Issues

All three buildings received mechanical system upgrades, technology integration, ADA compliance, and restoration of significant interior finishes. The project posed the special challenges of site sizing, wood floor framing, and a three-phase construction program.



*Brookline High School, Brookline. Photo courtesy of Finegold Alexander + Associates, Inc.*

# Fairhaven High School, Fairhaven

12 Huttleston Avenue, Fairhaven, MA 02719

Grades 9-12

Originally built: 1906

Project Date:	1996-2000 (phased)
Architects:	Flansburgh Associates
Construction Cost/Sq. Ft:	\$113
State Reimbursement Rate:	72%
Number of Students:	700
Building Size:	148,000 Sq. Ft.
Site Size:	9 acres

## Introduction

Grappling with deferred maintenance, code violations, and undersized science rooms, library, and gymnasium space, the Town of Fairhaven undertook comprehensive renovation and enlargement of this magnificent 1906 structure. The Tudor-Gothic style high school was donated to the town by local oil magnate Henry Huddleston Rogers.

## Project Description

The project included demolition of an annex, renovation of the 1906 structure, and construction of two additions: an educational wing and community wing. The renovated 1906 structure houses interchangeable classrooms and offices, the original Knipe Auditorium, and new 6,000 sq. ft. library contained in the former gymnasium space. The redesign of the interior and additions more than doubled the educational space. The three-level educational wing, located on the east side of the 1906 structure, houses 11 new classrooms, science labs, and lecture rooms; art, technology and computer areas; cafeteria and kitchen; and a new administrative area. The one-story community wing, on the site of the former annex, contains a new 8,500 sq. ft. gymnasium, a 350-seat auditorium with full stage, and an exercise room, locker room, and music room. The new design took special pains to make the new additions' exterior masonry and rooflines compatible with the existing historic structure. A significant amount of the 1906 building's interior woodwork, Italian marble floors, murals, stained glass windows, and carved ceilings were preserved and repaired.

## Major Issues

The facility was upgraded for ADA, fire, and seismic code requirements. The State reached agreements with Fairhaven High School on issues of site size, fire code and other compliance issues.



*Fairhaven High School, Fairhaven. Photo courtesy of Flansburgh Associates.*



# Shurtleff Early Learning Center, Chelsea

99 Hawthorn Street, Chelsea, MA 02150

Early Learning Center, K-1  
Originally built: 1909, 1912

Project Date:	Spring 1996 - Sept. 1997
Architects:	Finegold Alexander + Associates Inc.
Construction Cost/Sq. Ft.:	\$122
State Reimbursement Rate:	* state funded
Number of Students:	1,100
Building Size:	114,090 Sq. Ft.
Site Size:	1.83 acres

## Introduction

As a part of the nationally recognized Chelsea School Project under the management of Boston University, the City of Chelsea commissioned the conversion of the historic Shurtleff School to a new Early Learning Center. The project was designed to create an environment for growth and discovery scaled to children's needs and safety, classroom flexibility, family and community inclusiveness, building durability and efficiency, and increased play space.

## Project Description

The project involved renovating the existing 1909 and 1912 buildings and constructing a 6,000 sq. ft. pavilion that encloses the space between the buildings, creates a new "front door" for the school, and provides space for two multi-purpose rooms. A new play yard fills the area between the buildings and can be secured for after-school programs. Each floor has been designed as a mini-school with up to 10 homerooms. In addition, each classroom has a furniture kit that allows teachers to create their own class environments. Corridors are designed to provide a directional guide for small children, expanding at classroom entries and contracting along passage zones. The project also included full ADA compliance, facade cleaning and repair, new windows, and landscaping.

## Major Issues

Shurtleff addressed many of the challenges of an older school renovation, including a smaller than standard site, bringing the building into compliance with ADA, and reinforcement of the wood floor framing. Comprehensive hazardous materials abatement for the building and the site was also completed.

*\*Special project funded by the State.*



*Above: Shurtleff Early Learning Center, Chelsea.*



*Above: Enclosed play yard, Shurtleff Early Learning Center, Chelsea.*



*Right: Corridor, Shurtleff Early Learning Center, Chelsea.*

*Photos courtesy of Finegold Alexander + Associates Inc.*

# Quinsigamond Elementary School, Worcester

832 Mulberry Street, Worcester, MA 01607

Grades K-6

Originally built: 1896

Project Date:	Summer 1995 - 1997
Architects:	Lamoureux*Pagano Associates
Construction Cost/Sq. Ft.:	\$135
State Reimbursement Rate:	90%
Number of Students:	750
Building Size:	112,600 Sq. Ft.
Site Size:	2.43 acres

## Introduction

The renovated Quinsigamond Elementary School Project is the fulfillment of a 40-year-old promise that the city made with the neighborhood for a new school. The project occupies the entire city block, joining the existing Quinsigamond School, built in 1896, with the National Register Quinsigamond Public Library, built in 1913. The school is located in a tightly knit community, and a number of the school faculty actually received their elementary education at the Quinsigamond School.

## Project Description

The project combined the restoration and new construction of 32 classrooms, a music room, art room, dance room, science room, computer room, library, gymnasium, cafetorium, and adult education room. Many of the building facilities and spaces also serve a community use. The combination of two buildings into one structure required the imposition of a two-hour firewall to separate the existing wood timber construction from the new steel member construction. This innovative design allowed Worcester to garner an award from the Massachusetts State Senate in 1997 and a 1998 preservation award from the Massachusetts Historical Commission.

## Major Issues

The demolition phase of this project required hazardous materials abatement. The wood framing and the steel framing portions of the building, described above, were separated successfully into different fire rating areas. The architects achieved full ADA compliance through their design.



*Quinsigamond Elementary School, Worcester. Photo courtesy of Lamoureux\*Pagano Associates.*

## **IX. Stories of Advocacy for Older School Buildings**

### **Center School, Mattapoisett**

Mattapoisett's Center School was built in 1898, a gift to the town from Fairhaven philanthropist and oil magnate Harry Huttleston Rogers. The brick and limestone Colonial Revival building sits at the heart of Mattapoisett's town center, with easy access to the community library, retail shops, and local parks and beaches. The school has educated Mattapoisett's elementary school students for over 100 years and is a much beloved building. Its grounds provide a shared community space where neighbors and residents play softball and other sports.

In 1990, the Town of Mattapoisett conducted a study of its elementary education facilities to determine how well Center School and the town's other elementary school, Old Hammondton Elementary, were meeting students' needs. The study found that Old Hammondton, built in the 1950s to serve grades 4-6, was overcrowded. The Center School, serving grades K-3, was suffering from deferred maintenance and needed systems upgrades.

In the course of the planning process to address these issues, members of the Mattapoisett School Committee were told by School Building Assistance staff members and private architectural consultants that the state would only reimburse the town for an addition to ease overcrowding at Old Hammondton. Renovating and updating the systems at Center School would not qualify for state reimbursement because of the presence of wood framing, the need for seismic upgrade, and small site size. Because the School Committee believed they could not receive reimbursement for work done to the Center School, they concluded that a consolidated elementary facility at Old Hammondton would be the best solution to the town's current and future elementary education needs. In 1993, the School Committee requested a \$9 million appropriation to expand Old Hammondton. Though the request passed Town Meeting, it failed in a town wide referendum. Most town residents did not want to see the Center School abandoned.

After the failed referendum, the town appointed an Elementary School Building Needs Committee to reassess what could be done about the elementary education situation in Mattapoisett. In order to temporarily ease crowding at Old Hammondton, the Committee recommended adding several classrooms to the building, which the state would reimburse. The situation with Center School was more complicated given the School Building Assistance Program's refusal to reimburse improvements. First, the Committee interviewed town departments to see if the building could find another use within town government. Unfortunately, none of the departments identified a need the building might serve. The only options left were to turn the building over to a private developer, or continue to use it as a school.

Local architect and member of the Elementary School Building Needs Committee Charles Van Voorhis wondered why the state would not reimburse for renovation of the Center School when it was still a serviceable building. Although it needed work, Center School was structurally sound, its classrooms were large, and its place in the community was important to many residents. During his tenure on the committee, Mr. Van Voorhis attended an information session on school building renovation sponsored by Historic Massachusetts. At the session, he learned the disqualifying circumstances cited by the School Building Assistance Program in the case of Center School had no basis in regulation or law. In fact, many Massachusetts communities had renovated and added onto older school buildings with the same site conditions and physical characteristics as Center School. Armed with this information, Mr. Van Voorhis and the Elementary School Building Needs Committee wrote a letter to the Mattapoissett School Committee notifying them that money was in fact available from the State for renovations to Center School, and recommending that the building continue as a school educating grades K-3.

The Elementary School Building Needs Committee encountered resistance to their recommendation regarding the Center School from the School Committee and state officials. Both insisted that reimbursement would not be available for Center School improvement. In response, Van Voorhis enlisted the help of concerned residents and parents and surveyed almost 900 Mattapoissett residents, asking them whether they would like to see the Center School renovated and expanded or have a new school built on another site. Surveyed residents responded eight to one in favor of renovation and expansion. While the powerful public opinion in favor of renovating the Center School was noted, School Committee officials still did not consider renovating Center School as a viable option.

Finally, Van Voorhis drafted an article backed by 100 signatures to present at town meeting asking for an appropriation of funds for a renovation/expansion feasibility study for Center School. He also reiterated again and again that the State had no regulatory basis for denying funding for construction at Center School. Backed by overwhelming community support for renovating Center School, and the facts regarding state assistance for school building renovation, the article was amended to study Old Hammondtown as well and passed unanimously. A new School Renovation Building Committee was formed with several of the petition's signers included in the group. Construction on the renovation and addition project for Center and Old Hammondtown is scheduled to begin in 2003.

### **Lincoln Elementary School, Winchester**

Winchester's Lincoln Elementary School plays a conspicuous role in the town's downtown life. A grand Beaux Arts building built in 1903 to serve as Winchester's high school, the Lincoln School overlooks a pond in the town center and is an integral part of a civic campus made up of the town hall and library. The school is a contributing building in the Winchester Center National Register Historic District.

The Lincoln School later became Winchester's junior high school, and then changed to an elementary school in the 1970s. Today, it draws over 400 children to the town center every day. The location makes it easy for parents and children to make use of Winchester's downtown offerings, including a photography museum, retail district, and playing fields.

When Winchester's Educational Facilities Planning and Building Committee addressed the condition of the Lincoln building in 1995, it had been over 40 years since the last major renovation of the school's systems. Other than cosmetic and systems upgrades, however, the building was sound and the school faced no accreditation problems. The Lincoln School has 20 classrooms of 900 square feet each, sufficient to meet current standards for Lincoln's per-class population of 20-22 students. The school benefited from its original design as a high school facility and contains a large cafeteria (2,700 square feet), a library and a designated computer space. The auditorium and gymnasium, which were enjoyed by school and public alike, needed only minor renovations to their interiors.

Despite these positive factors, the Committee recommended vacating Lincoln and building a new, smaller school with fewer amenities on a site in another part of town. The main reasons for the Committee's decision were financial. Initial estimates suggested that renovation of the Lincoln School would cost from \$2 to \$3.4 million more than new construction. This was primarily due to the proposed construction of a large and costly addition to solve ADA problems, as well as plans to gut most of the school's interior. A State of Massachusetts School Building Assistance Program representative told the Committee that the state would not reimburse the project because the state did not reimburse for renovations. Another SBA staff member also told the Committee that the Lincoln School would not qualify for any reimbursement because of its wood framing.

Many Winchester residents were upset with the Committee's plan. Despite objections raised at public hearings on the plan in 1996, the Building Committee passed the plan to vacate the Lincoln School. A local community group, Citizens for a Better Plan, appealed to the Commissioner of Education as to why a renovation of the Lincoln School would not qualify for reimbursement. Current Massachusetts reimbursement program regulations did not state that school renovations were excluded. The Commissioner overturned the SBA staff's decision.

With guarantee of reimbursement for a renovation/addition project, the Town of Winchester defeated the tax override needed to fund the new elementary school construction project, indicating support for keeping the area's students in the Lincoln School. After further outcry from the community, a more comprehensive study was completed, which showed that renovation would actually be \$800,000 less expensive than new construction — even though the Lincoln School was 20% larger than the proposed new school. In 1998, the town voted to allocate \$12 million to renovate the Lincoln School. Construction began in August, 2000.

## **Mullen-Hall School, Falmouth**

The Mullen School, named for Margaret A. Mullen, a principal and teacher in Falmouth for 50 years, was built in 1932 to replace the village school of 1904. The 22-room Hall School was built to complete an educational campus that included the junior high to the east and the former high school and the library to the south. The buildings were later combined to form the Mullen-Hall School. This brick Colonial Revival building with its distinctive cupola is one of the most important structures in Falmouth Center.

In 1995, the school's future was threatened because of noncompliance with state school building standards. Although the school was considered an efficient building, the individual classroom sizes did not meet state standards. There was also confusion over the wood framing components in the building and whether or not the state would reimburse renovation on such a building. Although the school had a wheelchair ramp in the front of the building, the second floor was not fully accessible.

The Falmouth School Building Needs Committee (SBNC) was formed to address two issues: how to best accommodate a growing student population, and whether the Mullen-Hall School should be renovated or replaced. At the onset of deliberations, the SBNC was considering two options: one, to demolish Mullen-Hall and construct a new school on the same site or, two, to demolish only the Hall section of the school and renovate the Mullen building. If needed in the future, the plan would phase in a new school building on the high school campus.

The Committee hired several consultants with experience in school renovation to assess the Mullen-Hall building and give a second opinion on the quotes the town received for each project. Consultants concluded that the Mullen portion of the school was sound and could be renovated, but that the Hall portion was not worth saving. Despite this advice, the Committee recommended demolishing Mullen-Hall completely and building a new school on the site. This decision was based on financial concerns. Renovating Mullen-Hall would cost almost \$1 million more than building a new school. The Committee also believed that it would not receive as high a reimbursement rate from the state if they chose renovation over new construction.

The School Building Needs Committee decision, backed by the Falmouth School Committee, went to a public debate in 1998, where town meeting members defeated the demolition decision. Issues of educational needs, cost to taxpayers, and the historic and aesthetic character of the Mullen-Hall School were topics of debate. Many town center business owners and the Falmouth Historical Commission also endorsed preserving Mullen-Hall.

The decision then went to a town-wide referendum, where residents approved an appropriation of \$14.8 million to renovate the Mullen section of the school and demolish the failing Hall section. Construction began in June 2002.



## X. Bibliography

### Laws and Regulations

Department of Education, School Construction, 603  
*Code of Massachusetts Regulations* 38.00.  
Available online at <http://www.doe.mass.edu/lawsregs/603cmr38/>.

School Building Assistance Program, *Massachusetts General Laws* c. 70B  
Available online at <http://finance1.doe.mass.edu/sbuilding/chapter70b.html>.

### Books

Beaumont, Constance E. with Elizabeth G. Pianca.  
*Historic Neighborhood Schools in the Age of Sprawl: Why Johnny Can't Walk to School* (Washington, D.C.: National Trust for Historic Preservation, 2000).

Beaumont, Constance E. *Smart States, Better Communities: How State Governments Can Help Citizens Preserve Their Communities* (Washington, D.C.: National Trust for Historic Preservation, 1996).

Earthman, Glen I., Ed.D. *School Renovation Handbook*. (Lancaster, PA: Technomic Publishing Co., Inc. 1994).

Moore, Deborah P., ed. *Guide for Planning Educational Facilities* (Scottsdale, AZ: Council of Educational Facilities Planners, International, 1991).

Rubman, Kerri. *A Community Guide to Saving Older Schools* (Washington, D.C.: National Trust for Historic Preservation, 2001).

### Periodicals

Daly, Beth. "Shift Eyed for School Building Program," *The Boston Globe*, January 24, 2000, pp. Metro/Region B1.

Daniel, Mac. "Land-poor Communities Eye Parks for School Sites," *The Boston Globe*, March 1, 1998, North Weekly Edition, p. 1.

Goff, Lisa. "Why Johnny Can't Walk to School: Regulations on Size and Funding Work Against Older Buildings," *Preservation*, Vol. 50, No. 3 (May/ June, 1998), p.20-22.

Griffin, Rebecca. "New Rules Fuel Fight to Save School," *Eagle-Tribune*, May 10, 2001, p. 1.

Gruber, Michael, ed. *Visual Architecture*. Issue 5; Spring, 2001

Hayward, Ed. "Plan Pushes School Fix-Ups," *The Boston Herald*. January 21, 2000, p. 3.

Hylton, Thomas. "Regaining Community Will Deter More Sprawl," *Sunday Patriot-News* (Harrisburg, PA), September 21, 1997, p.B15.

Linn, H. "Modernizing School Buildings," *American School and University*, Vol. 24, p. 401 (1952).

Peirce, Neal R. "Even Schools Succumb to Sprawl," *The Neighborhood Works*, January/February 1998, p. 11.

## **Other**

Commonwealth of Massachusetts Executive Office for Administration and Finance. *Reconstructing the School Building Assistance Program*. Policy Report Series No. 3. (Boston: Commonwealth of Massachusetts, 2000). Available online at <http://www.state.ma.us/eoaf/PolicyReports/sbap/sbap.htm>.

MassPIRG. "This Land is Not Your Land: The Loss of Publicly Owned Open Space in Massachusetts." (Boston: MassPIRG, 2001)

National Trust for Historic Preservation. *Issues and Initiatives: Historic Schools* (Successful School Renovation Case Studies; "Restoration vs. Replacement- The role of a feasibility study"; and "A Roadmap for Saving your Historic School"). Available online at [http://www.nthp.org/issues/historic\\_schools.html](http://www.nthp.org/issues/historic_schools.html).

# XI. Appendix

## Summary of Changes to the School Building Assistance Program

- **New regulations encourage the re-use or expansion of existing buildings to minimize the need to take open space for new school construction.**
- **A more thorough review of available options will take place prior to project approval.**  
Applications must include an updated building inventory and long-range facilities plan for the district. A feasibility study evaluating the various options for meeting the building needs is also required. (603 CMR 38.10 (2) (a))
- **Fixed reimbursement rates have been eliminated.**  
Reimbursement rates are now calculated for each town based on equalized property valuations, per capita income and the percentage of low-income students in the district. (M.G.L.c.70B (10) (a) and 603 CMR 38.15)
- **A new incentive point system can raise reimbursement rates.**  
Points are awarded for re-using existing buildings, providing adequate maintenance, using construction managers and meeting energy efficiency standards. (M.G.L. c. 70B (10) (a) (C))
- **Districts can now receive reimbursement for more cost effective alternatives to construction.**  
Leasing space, tuition agreements with neighboring districts, or temporarily using modular classrooms now qualify for state aid. (M.G.L. c. 70B (9) (a), (14))
- **Other items newly eligible for reimbursement from the School Building Assistance Program:**
  - Major repair projects to roofs, mechanical systems or windows (603 CMR 38.07 (4))
  - Work required to meet building code or accessibility requirements (M.G.L. c. 70B (8) (7) and 603 CMR 38.07 (4))
  - Work required to improve energy efficiency (M.G.L. c. 70B (8) (5) and 603 CMR 38.07 (4))
  - Work required to remedy structural or environmental safety hazards (M.G.L. c. 70B (8) (1) and 603 CMR 38.07 (4))
- **Minimum spending requirements for building maintenance now in effect.**  
The requirement states that each school district must spend at least 50% of their maintenance budget each fiscal year. If a school district fails to comply, they will not receive funding authorization until they are in compliance. (603 CMR 38.14 (1))
- **Fixed deadlines for application steps have been eliminated.**
- **Districts must hire a qualified construction manager for all approved projects.** (603 CMR 38.03 (12))

PRESERVATION **ON**  
**MASS**

Preservati**ON** MASS

Old C  
Tel. 617-723



Preservation Massachusetts  
34 Main Street Extension  
Suite 401  
Plymouth, MA 02360

3  
mass.org