



March 26, 2004

Mr. David Ramsay, Town Administrator  
Town of Dover  
P.O. Box 250  
Dover MA 02030

Re: Caryl School Deferred Maintenance

Dear Mr. Ramsay,

In April 2003, we prepared a "Deferred Maintenance Study" for incremental repairs to the Caryl School. This study reviewed items that needed to be maintained and outlined the probable costs of making those repairs over a ten-year period. The approximate average annual expenditure for the maintenance plan would result in about \$200,000 in repairs, resulting in approximately \$2 million over ten years for the construction, plus soft costs of approximately \$300,000, resulting in an overall cost of about \$2.3 million.

You recently asked us to review the implications of performing the deferred maintenance as a single, integrated project. As a result, we have reviewed the 2003 report, toured the building again and examined the code implications of performing the work as a single project. Please note the following items:

1. **Accessibility Improvements:** The 2003 study excluded the need to make improvements to the existing accessibility environment of the school since the construction was not going to exceed 30% of the assessed value of the building over a three-year period. If the construction cost does exceed this trigger, then the entire building must comply with the current Architectural Access Board Regulations 521 CMR. This will result in the need to upgrade the elevator, upgrade toilet rooms, replace door hardware, provide adequate maneuvering clearance at all doors, upgrade handrails at stairs, provide appropriate signage and provide wheelchair access to the gymnasium.
2. **Seismic Upgrades:** In a similar fashion as noted above, if the construction cost exceeds 50% of the assessed value including the cost of any work performed over a two-year period prior to the project, then the building must comply with Seismic Category 2 as defined in Chapter 34 of the Building Code 780 CMR. This will involve the provision of seismic restraints around the perimeter of the building, tying the floor and attic structures to the masonry bearing walls.
3. **Automatic Sprinkler System:** It is our opinion that a deferred maintenance project does not necessarily trigger the requirement to provide a sprinkler system for the building. This is an issue that must be determined by the Building Official. Enclosed please find our letter to Tony Calo, Dover Building Inspector, regarding this issue. No cost has been included for this item.
4. It is our understanding that there will be no change in use or occupancy. Also, no change is anticipated regarding the existing kitchen. As a result, it is our understanding that no change to the existing septic system would be required. This assumption has not yet been confirmed with the Dover Board of Health. No cost has been included for this item.
5. **Enclose Open Stairway:** The central stairway of the building is open to the adjacent corridor space. This is an existing condition that need not be repaired unless a project under 780 CMR Chapter 34 is underway, whereby the open stairway must be enclosed. If the project is performed as a combined project, then this item must be addressed.

P. O. Box 750089  
Arlington MA 02475  
617.876.7611 voice  
617.876.6420 fax

6. Replace Drywells: It has come to our attention during the recent site review that the existing drywells in the 1910 and 1931 portions of the facility are not operative. This information was not known to us at the time of the 2003 study. These drywells should be replaced during the roof work upgrade in order to provide adequate roof drainage.
7. If the project were performed at one time, costs would need to be added for General Conditions related to a General Contractor's involvement. In the 2003 study figures, it was assumed that the different repair items would be procured as separate projects to be handled by individual subcontractor's acting as prime contractors in direct relationship to the Owner.
8. The 2003 study did not include any costs related to escalation. Since one would expect to gain some efficiency by combining the multiple projects into one project, we have assumed that this financial savings will be offset by the escalation of construction prices over time. Hence, the preliminary figures below assume that this project would be performed in the year 2005.

Based on these issues, the cost of the construction would likely increase from \$2 million to \$2.8 million if it were to be performed as a single project. The overall project cost, including soft costs, would likely increase from \$2.3 million to \$3.3 million. Note that the disclaimer related to costs on page 13 of the 2003 report still applies to these approximate costs.<sup>1</sup> The breakdown of approximate costs is as follows:

2,000,000	Approximate Construction Cost ( <i>Preliminary Cost Matrix, 2003 Study, page 16</i> )
175,000	Accessibility Improvements
140,000	Seismic Upgrades
15,000	Enclose Open Stairway
30,000	Replace Drywells
<b>2,360,000</b>	<b>Approximate Cost with Accessibility, Seismic, Stair Enclosure, Drywells</b>
440,000	Added Cost of General Conditions (one project under a General Contractor)
<b>2,800,000</b>	<b>Preliminary Construction Cost of Single Project</b>
336,000	Approximate A/E Fee (measured drawings, design & construction admin.)
122,000	Approximate Expenses (reproductions, change orders, testing, advertising)
42,000	Approximate Permit Fee
<b>3,300,000</b>	<b>Approximate Revised Project Cost of Single Project</b>

In addition to the code mandated and general construction issues noted above, you asked us to review any other likely issues that may want to be considered by the Town if this project were to be performed all at once. Listed below are optional items to consider for bundling into a single deferred maintenance project.

Replace HVAC Units, Piping & Controls – In the 2003 study, it was determined to maintain existing HVAC terminal units (unit ventilators, cabinet unit heaters, convectors, fin-tube radiation) and controls while replacing the air compressor and any piping known to be corroded. This approach is fine for ongoing maintenance. However, if the project were to be performed all at once, then the possibility of replacing terminal HVAC units and associated piping and controls should be considered. Note that the 2003 Study assumed no costs for unit replacement or the associated work. Since the time of the study, several unit ventilators have become inoperable and, due to limited funding for ongoing maintenance, those units have not yet been repaired. The approximate cost to replace everything is significant, as noted below:

350,000	Units
200,000	Piping
150,000	Controls
150,000	Associated General Construction
115,000	Associated A/E Fees, Permit
965,000	Approximate Cost

<sup>1</sup> "Since neither an Architect nor an Owner has control over construction costs or project phasing, this report does not warrant or represent in any way that actual repair costs will not vary substantially from those stated in the preliminary cost matrix."