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DISTRICT OF COLUMBIA

D.C. Public Schools' Modernization Program Faces Major Challenges

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Mr. Chairman and Members of the Subcommittee:

Thank you for inviting me to participate in today's hearing. At your request, we have been evaluating the District of Columbia's plans to modernize and renovate its public schools. In the past few years, the school system, with the assistance of the U.S. Army Corps of Engineers (the Corps), has made considerable progress in fixing roofs, replacing windows, repairing bathrooms, and addressing maintenance projects that had been neglected for years.

Now that many of the emergency repairs have been completed, the school system is turning its attention to the more complex task of modernizing—either through renovation or through new construction—virtually every public school in the District of Columbia. In fact, several new school construction projects are underway. My remarks will focus on challenges the school system faces in this formidable task. Specifically, I will address

- increases in the cost of modernizing the schools,
- delays in completing the schools,
- quality inspection problems, and
- concerns about managing asbestos hazards.

Background

In April 1998, the school system entered into a memorandum of agreement with the Corps for engineering, procurement, and technical assistance to ensure that construction contracts were awarded and managed so that the schools could open that year. Under the Fiscal Year 1999 District of Columbia Appropriations Act, Congress expanded the Corps' role by authorizing it to provide the school system with engineering, construction, and related services. Through the years, the school system has renewed its working relationship with the Corps by signing yearly updates to the support agreement.

To modernize the schools, the school system generally plans to build a new school and demolish the old one or to completely renovate an entire school. The Corps and the school system each have responsibility for managing a certain number of new school modernization projects. Because all of the schools are not modernized at the same time, component replacements are needed to replace major building systems—such as boilers, chillers, roofs, and windows—that have reached the end of their useful lives. The Corps has taken responsibility for the majority of these projects. In the past, the school system used an areawide utility contract with the Washington Gas Light Company to perform some types

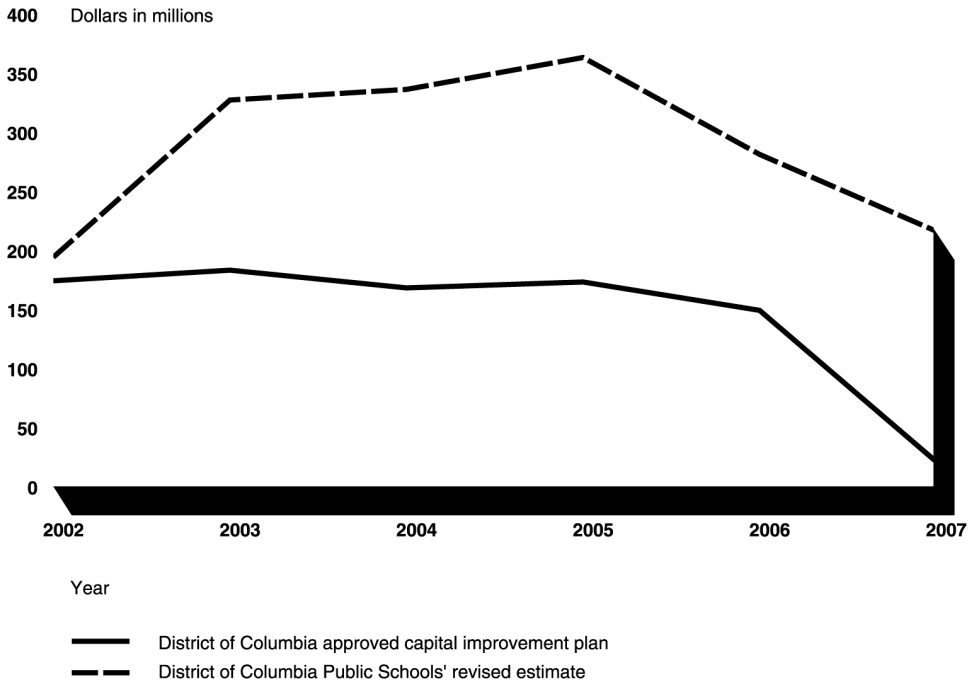
of repairs, such as electrical, heating, and air conditioning work, painting, and carpeting. We reported in September 2001 that the school system had improperly used this contract.[1] The school system is no longer using Washington Gas and has taken steps to implement new contracting mechanisms for this work.

Modernization Projects Are Costing More Than Planned

In December 2000, the District of Columbia Board of Education approved a facility master plan to rebuild and update the District's public schools. It is an ambitious plan calling for the modernization of 10 schools annually over a 10- to 15-year period. Based on this plan, a $1.3 billion capital budget to modernize the public schools was approved in June 2001. However, in November 2001, the school system revised its spending plan. Because the District's capital plans require 6-year budget projections, we evaluated the fiscal year 2002 through 2007 projections in the approved budget and in the revised plan. We found that the cost to execute the modernization effort has increased significantly—about $848 million in the 6-year period. Figure 1 shows how the costs have increased over the period.

[1] U.S. General Accounting Office, *District of Columbia: D.C. Public Schools Inappropriately Used Gas Utility Contract for Renovations*, GAO-01-96 (Washington, D.C.: Sept. 28, 2001) and U.S. General Accounting Office, *GSA's Guidance and Oversight Concerning Areawide Utility Contracts*, GAO-02-56R (Washington, D.C.: Dec. 17, 2001).

Figure 1: Comparison of the School System's Approved Budget and Revised Plan



Source: GAO analysis.

According to school system officials, costs increased for a number of reasons, including the following:

- historically significant buildings cannot be razed and have to be redesigned at higher costs,
- experience to date shows that construction costs are running significantly higher than the estimates used in the facility master plan, and
- the scope has been expanded for some projects to recognize community needs for special facilities.

As an indication of how costs are increasing, we reviewed the cost estimates in the facility master plan and the revised estimates for the first 22 schools to be modernized.[2] These schools are currently in the planning, design, or construction phase. We found that the costs for these schools

[2]Oyster elementary school, funded through a public-private partnership, opened in September 2001.

have increased by about $170 million. Appendix I lists the original and revised estimates for the 22 schools.

These cost increases present a significant challenge. On March 22, 2002, the District's Office of the Chief Financial Officer advised the school system that due to the District's current debt position and limited borrowing capacity, it must meet its capital improvement needs within its currently approved budget. School system officials are considering options to deal with the cost increases. However, such a huge increase will likely result in stretching out the modernization program. If that happens, some schools will have to be maintained longer than currently planned, which will add costs to a program that is already over budget.

Modernization Efforts Are Taking Longer Than Planned

The facility master plan approved by the Board of Education set ambitious completion dates for modernizing the schools. Generally, 3 to 4 years are required to conduct feasibility studies,[3] design the schools, and complete construction. To meet the master plan's construction completion dates, time frames were compressed. However, most of the first 22 schools to be modernized will not be completed on time. Recognizing that the schedule in the facility master plan cannot be achieved, school system and Corps officials are developing more realistic schedules for some of the schools. Appendix II contains a list of the first 22 schools with facility master plan and current completion dates. It shows that

- 10 schools are experiencing delays ranging from 3 to 15 months,
- 1 is ahead of schedule,
- 3 are on time, and
- the schedules for 5 schools are being revised.

In addition, three schools are ahead of the facility master plan schedule, but they have not met accelerated schedules established by the school system and Corps. The scheduled construction completion dates for four elementary schools—Key, Miner, Randle Highlands, and Barnard—were accelerated to show the community tangible results quickly. Accelerated completion of the schools involves a high-risk acquisition strategy. For example, in some cases, construction began before the designs were

[3]Feasibility studies are used to develop the initial design of a school, based on the educational specifications. These studies involve extensive input from the community.

complete. The accelerated schedule also required at least $700,000 in additional costs. None of the 4 schools have met the accelerated schedule. The delays in meeting the accelerated schedules were caused by difficulties in obtaining required permits from other District agencies, incorrect assumptions about the time required to get materials, design changes, and a bid protest. At Key elementary, persistent contractor performance problems continue to delay completion of the project.

Our work also shows that delays have occurred with some repair projects. For example, completion dates for 9 boiler replacement projects slipped from October 2001 to March 2002 and 1 slipped to August 2002.[4] Also, 17 of 22 bathroom renovation projects were delayed.[5] Reasons for the delays in the boiler and bathroom projects included problems in obtaining required permits, time required for asbestos inspections and removal, and a contract award protest.

Concerns about Quality Inspections

In our September 2001 report to you, we raised a number of concerns about the school system's use of a Washington Gas Light Company contract, including concerns about quality inspections. In a follow-up to our report, we examined the gas company's records of quality inspections for the work it managed for the school system. From August 2000 through March 2001, the school system paid Washington Gas $25 million for 609 repair projects. Based on the results of a random sample of projects, we estimate that 77 percent of all projects lacked evidence that quality inspections were performed.[6] Without evidence of inspections, the school system has no assurance that the work was properly completed and its money was well-spent.

[4]According to Corps officials, temporary heating systems were available in the schools in October 2001 for 7 of the projects. Three of the projects were substantially completed in October 2001, but additional time was needed to finish remaining work.

[5]An additional three projects did not have scheduled completion dates due to an administrative error, so we could not assess timeliness of these projects. The basis for our analysis was the Corps' fiscal year 2001 project list, dated February 2001, and subsequent updates.

[6]Estimates were made using a 95-percent confidence level. We considered evidence of inspection to be the Washington Gas inspector's initials or signature on subcontractor invoices or proposals.

School system officials advised us that they are negotiating with the company about the fee they paid the company to manage the repair projects.

Concerns about Managing Asbestos Hazards

To ensure compliance with legal requirements, the school system must be ever vigilant in dealing with asbestos problems. In September 1998, the Environmental Protection Agency (EPA) notified the District of Columbia of serious issues of noncompliance with federal asbestos law at the public schools. EPA's primary concern was the lack of required asbestos management plans and periodic updates of the plans at each school. The plans are required to show where asbestos is located in the schools so that it will not be accidentally disturbed. To deal with the issues raised by EPA, the school system sought assistance from the Corps in fiscal year 1999. The Corps helped achieve compliance with EPA requirements and, as of February 2002, had spent $60.5 million on asbestos management and abatement activities in the schools.

From October 1999 through May 2001, 13 inadvertent asbestos releases occurred in the schools. Most of these releases were caused when contractors and school custodians failed to consult the asbestos management plans and to follow proper procedures for dealing with asbestos in the schools.[7] According to District of Columbia Department of Health officials, asbestos tests at the schools revealed that, while some of the releases were serious, the health of District school children was not affected.

Concerns remain about whether the school system plans to adequately fund continued compliance with asbestos mandates and additional asbestos management activities. In addition, the Department of Health did not promptly pursue enforcement actions against the contractors who were at fault for the asbestos releases.

The school system's fiscal year 2002 to 2007 capital improvement plan includes only $1 million per year for asbestos management. Based on past experience and ongoing requirements, this level of funding is insufficient to meet asbestos management needs. According to Corps officials, a much higher level of funding is needed to (1) maintain compliance with EPA

[7]When it was discovered that many of these incidents occurred during boiler replacement projects, the District of Columbia Department of Health temporarily shut down 17 boiler replacement projects throughout the school system.

requirements to keep the asbestos management plans updated, (2) conduct assessments of asbestos areas before starting renovation work, and (3) manage asbestos abatements.

The school system identified an additional $12 million from other sources to fund asbestos activities for this year. However, Corps officials told us they need an additional $1.6 million by mid-May or they will have to curtail some of their asbestos activities. They also estimate that asbestos activities will require about $17 million in fiscal year 2003.

Our review of asbestos activities also raises concerns about the Department of Health's role in taking enforcement action against contractors who failed to (1) follow the asbestos management plans in the schools before starting renovation work and (2) properly deal with asbestos-containing materials once the releases occurred. Department of Health officials told us that they did not pursue enforcement actions because the Department's inspectors had not collected adequate documentation.[8] Specifically, inspection reports had not been prepared which would have included information on laboratory reports, the sequence of events and key players, a technical analysis of the information collected at the scene, and a record of witness interviews.

After our inquiries, Department of Health attorneys began looking into some of the 13 incidents where contractor errors caused the asbestos releases. After gathering additional documentation from the Corps, earlier this month the Department issued a notice of noncompliance and fined the contractors involved in one of the release incidents. The Department plans to issue additional notices soon. Department officials told us that noncompliance notices will be issued for such things as failures to

- notify the District and receive proper approval to start a renovation project involving asbestos materials,
- obtain and pay for an asbestos abatement license,
- show evidence of proper asbestos abatement training,
- provide protective clothing for employees engaged in asbestos abatement,
- display caution signs, and
- enclose work areas with airtight plastic sheeting.

[8]One enforcement action taken by the Department was to suspend a contractor's license for 30 days.

The Department of Health also plans to train its inspectors on the types of documentation they need to prepare, such as inspection reports, to enable contractor violations to be promptly pursued.

Our work also shows that communication between the Department of Health, the Corps, and the school system needs to be improved. In some cases, the Department of Health was unaware of asbestos releases in the schools. Department of Health officials told us that they are working to improve communications with the school system and the Corps and increase the Department's oversight of renovation work being done in the schools.

In summary, Mr. Chairman, the school system, with the Corps of Engineers' assistance, has accomplished much in the last few years. However, it must now come to grips with a modernization program that will cost significantly more and take longer to accomplish than originally projected. We believe the school system needs to revise its modernization plans to reflect these realities. We also believe the school system needs to fully fund asbestos management activities this year and ensure that sufficient funding is budgeted in future years.

Mr. Chairman, this concludes my prepared statement. I will be happy to respond to any questions you or other Members of the Subcommittee may have.

Contacts and Acknowledgments

For further information about our work or the issues discussed in this statement, please contact David E. Cooper at (202) 512-4841. We will make copies of this statement available to other interested parties upon request. This testimony is also available on GAO's Web site at www.gao.gov. This effort was conducted under the direction of Michele Mackin. Other individuals making key contributions were Charles D. Groves, John D. Heere, Gary L. Middleton, William Petrick, Jr., Russell R. Reiter, Rebecca L. Shea, and Adam Vodraska.

Appendix I: Original and Current Cost Estimates for First 22 Schools to be Modernized

(dollars in millions)

School	Cost in facility master plan[a]	Current estimate[b]	Increase
Key Elementary	$8.7	$11.9	$3.2
Randle Highlands Elementary	14.2	20.8	6.6
Barnard Elementary	12.8	23.9	11.1
Miner Elementary	15.3	22.0	6.7
Kelly-Miller Middle	20.6	25.2	4.6
Patterson Elementary	14.0	18.3	4.3
Noyes Elementary	10.2	16.5	6.3
Cleveland Elementary	9.1	12.2	3.1
McKinley Technology High	44.7	52.0	7.3
Thomson Elementary	10.6	17.3	6.7
Bell/Lincoln High	40.0	63.0	23.0
Phelps High[c]	0.0	26.0	26.0
Birney Elementary	11.3	21.2	9.9
Thomas Elementary	10.8	15.6	4.8
Walker Jones Elementary	16.4	22.3	5.9
Wheatley Elementary	9.9	18.0	8.1
Luke Moore High	10.9	15.1	4.2
Woodson High	42.7	50.2	7.5
Brightwood Elementary	10.9	18.5	7.6
Cooke Elementary	14.0	19.3	5.3
Hardy Middle	20.6	24.9	4.3
Sousa Middle	17.1	20.1	3.0
Total	**$364.8**	**$534.3**	**$169.5**

[a]Cost reported in the facility master plan dated December 20, 2000.

[b]Estimates reported in the fiscal year 2003-2008 capital spending plan dated November 30, 2001.

[c]Phelps High School was not listed in the December 2000 facility master plan as a planned renovation.

Appendix II: Original and Current Schedules for First 22 Schools to be Modernized

School	Facility master plan completion date[a]	Current completion date[b]	Delay (months)
Key Elementary[c]	September 2002	December 2002	3
Randle-Highlands Elementary[c]	April 2003	August 2002	8 months early
Barnard Elementary[c]	April 2003	November 2002	5 months early
Miner Elementary[c]	April 2003	December 2002	4 months early
Kelly-Miller Middle	April 2003	July 2003	3
Patterson Elementary	July 2003	July 2003	0
Noyes Elementary	July 2003	July 2003	0
Cleveland Elementary	July 2003	July 2003	0
McKinley Technology High	September 2003	May 2004	8
Thomson Elementary	July 2003	December 2003	5
Bell/Lincoln High	September 2003	July 2004	10
Phelps High	[d]	Unknown	Not applicable
Birney Elementary	September 2003	December 2004	15
Thomas Elementary	September 2003	July 2004	10
Walker Jones Elementary	September 2003	July 2004	10
Wheatley Elementary	September 2003	July 2004	10
Luke Moore High	September 2004	July 2004	2 months early
Woodson High	September 2005	December 2005	3
Brightwood Elementary[e]	September 2003	Unknown	Unknown
Cooke Elementary[e]	September 2003	Unknown	Unknown
Hardy Middle[e]	September 2004	Unknown	Unknown
Sousa Middle[e]	September 2004	Unknown	Unknown

[a]Completion dates reported in the facility master plan dated December 20, 2000.

[b]Completion dates in Army Corps of Engineers status reports as of April 11, 2002.

[c]At the request of the school system, the schedules for these schools were fast tracked for completion by July 2002.

[d]Phelps was not included in the original facility master plan.

[e]Current completion estimates are under review.