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Use of State and District Construction Funds

The Miami-Dade County Public School District is generally using construction funds appropriately and for their intended purposes. The District does not use SMART school designs but does incorporate the SMART school design standards into its design prototypes. The District can incorporate lifecycle cost data more effectively into the design process.

Conclusion

The Miami-Dade County Public Schools District has generally established effective practices relating to the use of state and District construction funds. The District has established procedures to approve the use of construction funds by including all planned projects in the five-year capital work plan. The budget office then identifies funding based on the statutory restrictions for each funding source. The District's extensive use of locally produced prototype school designs has resulted in the District consistently building schools at or under the state-wide District average cost per student station.

Exhibit 9-1

The District Has Had Some Notable Accomplishments in the Use of State and District Construction Funds

- The District has consistently built schools at or under the state-wide average cost per student station while operating in the area with the most expensive land acquisition costs in the state.
 - The District has successfully maximized its local construction funds by leveraging available funding streams such as impact fees and receiving authorization to issue federally subsidized low interest Qualified Zone Academy bonds.
 - The District conducts thorough post occupancy reviews of selected new school construction projects.
 - The District has conducted studies of the efficacy of certain design standards and based on these studies have made changes to design standards that resulted in reduced operating and maintenance costs.
 - The District has continued a concept of building primary learning centers and middle learning centers on existing school sites to avoid the cost of acquiring land.
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Source: Miami-Dade County Public Schools.

Overview of Chapter Findings

Berkshire Advisors reviewed the District's use of state and local construction funds using the Best Financial Management Practices adopted by the Commissioner of Education and associated indicators. The consulting team employed several methodologies to develop chapter conclusions and action plans. Berkshire Advisors activities included conducting on site interviews with District level managers and school level administrators and staff, examining the approved Executive Budget Summary, Annual Financial Report, the adopted Five-Year Facilities Work Plan, Post Occupancy Reports and other pertinent documents. Moreover, four community forums were held

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at locations throughout the District where community members could “drop in” to provide input on the District. Likewise, an e-mail address and 800 number were established so District stakeholders could provide input to the study process.

An overview of chapter findings is presented below.

Compliance With Legal Mandates

1. The District does not aggressively consider alternatives to construction. (Page 9-3)
2. The District uses capital outlay and operational funds appropriately, however, concerns remain regarding two-mill funds, the District’s funding on the five-year facilities work plan and staffing in the Construction and Maintenance and Operations departments. (Page 9-9)
3. The District minimizes construction costs by using locally produced design prototypes that incorporate appropriate measures from the SMART (Soundly Made, Accountable, Reasonable and Thrifty) Schools Clearinghouse Frugal Constructions Standards. (Page 9-10)
4. When designing and constructing new educational facilities, the District incorporates factors to minimize the maintenance and operations requirements of the new facility. (Page 9-11)

Fiscal Impact of Recommendations

Exhibit 9-2

One Use of State and District Construction Funds Action Plan Recommendations Has A Fiscal Impact

Recommendation	Five-Year Fiscal Impact
<ul style="list-style-type: none">• Action Plan 9-2: We recommend that the District re-consider and expand its minimal use of double sessions in high schools and middle schools and that it expand year-round schooling in elementary schools.	<ul style="list-style-type: none">• This recommendation could avoid \$89,700,000 of construction costs in year 1 and \$365,300,000 over the next five years.
<ul style="list-style-type: none">• Action Plan 9-5: We recommend that the District increase the staff in the Capital Construction Budget office by one professional position. This position will be charged with reducing the risks of misspending or misallocating capital construction funds.	<ul style="list-style-type: none">• This recommendation will require an investment in fiscal year 2001-2002 of an estimated \$75,000 per year, or \$ 375,000 over the next five years.

Source: Berkshire Advisors, Inc.

Background

The Miami-Dade County Public Schools manages state and local construction funds through the Budget Office, the Facilities Planning and Construction Office and the Capital Construction Budget Office. These offices control and track construction funds needed to finance the five-year facility work plan. The District projects that it will have \$1.3 billion in state and local capital outlay funds available during the 2001-2002 fiscal year. Of the funds needed, nearly \$596 million will be from state and local funds and \$680 million will come from fund balances from prior years. (See Exhibit 9-3)

Exhibit 9-3

Miami-Dade County Public Schools Tentative Capital Outlay Budget—Revenues 2001-02		
State		
CO & DS Distribution	\$464,963	
Public Education Capital Outlay (PECO)	\$44,437,037	
Deferred Revenue (PECO)	\$22,958,780	
Effort Index Grants	\$35,255,316	
Charter School Capital Outlay Flow Through	\$6,900,117	
Total State		\$110,016,213
Local		
Optional Millage Levy	\$201,912,065	
Interest on Investments	\$24,739,000	
Gifts/Contributions	\$0	
Deferred Revenue-Biscayne Nature Center	\$750,912	
Impact Fees	\$18,000,000	
Total Local		\$245,401,977
Total Revenues		\$355,418,190
Fund Balances from Prior Years		\$680,310,717
Interfund Transfer (Among Capital Projects)		\$7,598,000
Non-Revenue Sources		
Master Lease COP's Issuance (Impact Fees)	\$42,700,000	
s.237 Loans for Capital Projects	\$173,000,000	
s.237 Loans for Land	\$16,810,562	
SBE Bonds	\$300,000	
Total Non-Revenue Sources		\$232,810,562
Total Revenues and Other Sources		\$1,276,137,469

Source: 2001-2002 MDCPS Tentative Budget- Executive Summary.

Compliance with Legal Mandates

1 The District does not aggressively consider alternatives to construction.

The District has considered a number of alternatives to new construction

The District has explored and implemented a number of a number of alternatives to new construction. These alternatives include:

- making use of relocatable classrooms to address an overcrowded school's needs while more permanent solutions are developed;

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- making appropriate modifications to attendance boundaries;
- establishing double sessions;
- establishing a year-round school schedule; and
- building learning centers on existing school sites

A discussion of each of these alternatives to new construction follows.

Using relocatable classrooms. District staff generally view relocatables as a “stop gap” measure. If new construction that will alleviate a school’s overcrowding is planned, relocatables will be used to address the school’s needs while a new facility is being designed and constructed.

Evaluating attendance boundaries. If the District’s Five Year Facilities Work Plan has no construction planned to relieve a particular school’s overcrowding, then the school is referred to the Attendance Boundary Committee (ABC). ABC committee members, who are selected to represent various civic and educational advocacy organizations, consider numerous factors including feeder patterns, transportation costs, use of available student stations in contiguous areas, impact on student racial ratios, and the planned construction of new schools among others when evaluating attendance boundaries. The results of these deliberations are then used to develop a series of recommendations to the Miami-Dade School Board for changes in attendance boundary and grade configurations. Over the past three years 10,328 students were shifted among under and over-enrolled schools through this boundary review process. OPPAGA estimates that the District could avoid \$166 million in land acquisition and construction costs by aggressively continuing this process.¹

Using double sessions. The District has implemented on a very limited basis the use of double sessions to increase available student stations without resorting to construction. One school, the Miami Springs Senior High School, is currently on double sessions.

Establishing year-round schools. The District also makes limited use of year round schools to address facility needs without constructing new facilities. Four schools are on an extended school year schedule:

- Opa Locka Elementary School;
- Toussaint L’Overture Elementary School;
- Charles Drew Elementary School; and
- North Miami Elementary School.

The four schools above were selected based on the need for additional days of instruction for students served by the schools. In part, because the principals who oversee these schools have strong leadership skills, implementation of the extended school year concept has reportedly been successful. The success of this effort has also been supported by the State of Florida, which currently provides supplemental funding that varies from \$353,000 to \$737,000 for each of the four schools. Note that the extended school year program as implemented by M-DCPS does not result in more efficient space utilization. This provides a longer school year, but is not a multi-track year round program.

Building learning centers on existing school sites. In addition to boundary changes, year-round schooling and double sessions, the District has implemented programs to modify the use of its existing schools in ways that minimize construction costs and avoid the costs of building new schools. The most successful of these efforts was the development of the primary learning centers and the middle school learning centers concept. Primary learning centers average 250 students and middle learning centers average 485 students. These learning centers are built on the sites of existing elementary or middle schools. While these learning centers result in construction and site preparation costs, for the most part they avoid the expense of purchasing land since they are built at existing schools. The result is increased capacity in a stand-alone building. Since 1999-98, Miami-Dade County Public Schools has opened 13 primary learning centers and 5 middle learning centers that added a total of 3,768 and 2,316 student stations respectively.

¹ *Land Acquisition Practices of Miami-Dade County School District*, OPPAGA [Report No. 01-26](#), May 2001.

While the District has several alternatives to new construction it is not sufficiently aggressive in using these tools

At present, the District generally considers alternatives to construction only after determining that construction is not feasible. Indeed, formal analyses of alternatives to construction are typically not prepared prior to adding projects to the District’s five-year capital outlay plan.² Rather, District budget office staff, capital projects staff, the Deputy Superintendent for Operations, and regional instructional staff tend to meet and discuss alternatives to construction at planning meetings only for schools not included in the five-year plan. Based on interviews with District staff, these alternatives to construction typically are part of an overall discussion of how to address school overcrowding. These discussions, however, are rarely memorialized.

In addition, the District has been anything but aggressive in pursuing double sessions as a means of addressing facility needs while avoiding the time and cost of new construction. Indeed, District staff has advised that the use of double sessions is a last resort for severely over crowded schools. However, OPPAGA, in its recent Special Review of Miami-Dade County Public Schools land acquisition practices estimated scheduling one-half of the middle and high schools with double sessions would avoid nearly \$1.6 billion in future construction and land acquisition costs.³ Miami-Dade’s unwillingness to expand the double session alternative beyond the Miami Springs High School will place a huge financial burden on the District and will undoubtedly lead to greater use of eminent domain for land acquisition. Moreover, unless alternative approaches are considered, the District’s ability to address overcrowding for middle and high schools will be extremely limited because these schools need more land than do elementary schools and the availability of appropriately sized and located parcels is limited. Based on the projects identified in the District’s Five-Year facilities Work Plan, implementation of double sessions could avoid \$466.5 million and \$162.6 million for construction and land acquisition costs for new high schools and middle schools respectively.

Likewise, District staff advises that the District could not afford to expand the number of schools in the year-round program without additional state funding. OPPAGA estimates however that putting all elementary schools on year round schedules could increase elementary school capacity by approximately 25% and result in the avoidance of over \$1.2 billion in future school construction and land acquisition costs. Rather than examine any one alternative to construction in isolation, a comprehensive approach would be to include year-round multi-track scheduling, double sessions, modification of attendance boundaries and the reduction in the use of relocatables in the MDCPS long range planning strategy. For example, the District has 37,000 student stations in relocatable classrooms and is 32,000 student stations over capacity in permanent student stations. Using an average cost per student station of \$15,000, MDCPS would need \$1.035 billion to eliminate relocatables and meet current space standards. To slow the rate of new construction, MDCPS can institute double sessions and multi-track year round scheduling in schools to alleviate overcrowding and avoid requirements for land acquisition and new construction. With a shortage of 69,000 permanent student stations, the District should develop a transition plan to reduce overcrowding and use of relocatables by 10% per year. This would involve reducing overcrowding and relocatables by 6,900 student stations in year one, placing 6,200 in year two, 5,500 in year three, until there was no more overcrowding. Assuming that there would be a \$2,000 per student station cost for improvements to existing schools, and as an incentive for year round, multi-track scheduling or double sessions, the institution of these changes would save \$89.7 million in year 1 (Cost per student station \$15,000-\$2000=\$13000 X 6,900) = \$89.7 million. (Over five years the District could avoid \$365,300,000 in construction costs.)

Exhibit 9-4

Year 1	Year 2	Year 3	Year 4	Year 5	Total
6,900 student stations	6,200 student stations	5,500 student stations	5,000 student stations	4,500 student stations	28,100 student stations
@ \$13,000	@ \$13,000	@ \$13,000	@ \$13,000	@ \$13,000	@ \$13,000
\$89,700,000	\$80,600,000	\$71,500,000	\$65,000,000	\$58,500,000	\$365,300,000

Source: Berkshire Advisors, Inc.

² This five-year capital outlay plan, which is approved by the MDCPS Board of Education, details the District’s overall construction plans.

³ [Report No. 01-26](#)

The District's use of "two-mill" money may not be consistent with Florida Statute

The District cannot demonstrate that it is in compliance with s. 36.25, *Florida Statutes*, regarding appropriate uses of millage levy funds ("two-mill" funds). This section places limits on the amounts a District can expend from this source for purposes not directly related to the construction and maintenance of the educational plant or the delivery of student instruction and servicing of debt related to any purpose prior to the effective date of the statute. In 2000-2001 the limit was 40%. The District's 2000-2001 Annual Financial Report and other subsidiary records identified that nearly \$84 million of "two-mill" funds were transferred into maintenance. Budget Office staff could not document how much and what percentage of the "two-mill" funds allocated to maintenance was used for the authorized purposes. Budget Office staff advises that the Maintenance Department does not provided them with the data necessary to accurately calculate compliance. However, Budget Office staff point out that the Maintenance Department would have had to have spent 40% of the nearly \$84 million of "two-mill" funds transferred to maintenance (or \$38.437 million) on either unapproved purposes (e.g., custodial salaries) or on expenses not directly related to construction and maintenance of the educational plant (e.g., the maintenance of administrative buildings) not to be in compliance with Florida Statutes regarding the use of "two-mill" money. Failure to properly account for "two-mill" funds may result in the State recouping these funds from Miami-Dade County Public Schools.

Public Education Capital Outlay (PECO) funds are always used first by the District's budget office to fund projects. This is a direct result of the requirement that PECO funds must be committed within 36 months or they are subject to re-coupment by the State.

The existing accounting system does not adequately support accounting for construction projects

The District has not exceeded the statewide average cost per student station for any new construction of educational space in part because projects costs are carefully controlled from pre-programming through project close-out. However, controlling costs is unnecessarily cumbersome because the District does not maintain an integrated project cost accounting system. Instead, accounting expenditure data and change orders must be downloaded by the Executive Director of Capital Construction Budgets into a home-made project tracking excel spreadsheet. In addition, efforts to manage costs are complicated because there is currently only two professional staff in the Capital Construction Budget Office (including the executive director). These two employees are directly responsible for ensuring that an estimated \$1.3 billion in state and local revenues will be spent in accordance with various Florida Statutes.

Strengthening accounting systems and providing more staff capacity to track project costs is a sound investment. Failure to properly account for all project costs could result in the State of Florida recouping these funds from the District.

Recommendations

- *We recommend that the District prepare an analysis of various alternatives to construction including double sessions, year-round schools and boundary and grade configuration changes prior to including projects in the five-year facilities work plan.*

Action Plan 9-1 provides the steps needed to implement this recommendation.

- *We recommend that the District re-consider and expand its minimal use of double sessions in high schools and middle schools and that it expand year-round schooling in elementary schools.*

Action Plan 9-2 provides the steps needed to implement this recommendation.

- We recommend that the District prepare an annual accounting of its compliance with statutory restrictions on the use of “two-mill” funds.

Action Plan 9-3 provides the steps needed to implement this recommendation.

- We recommend that the District obtain a project cost accounting system that is integrated into the District’s general ledger to ensure that all construction project cost are properly accounted for.

Action Plan 9-4 provides the steps needed to implement this recommendation.

- We recommend that the District increase the staff in the Capital Construction Budget office by one professional position.

Action Plan 9-5 provides the steps needed to implement this recommendation.

Action Plan 9-1

Alternatives to Construction	
Strategies	Systematically consider alternatives to construction prior to authorizing the expenditure of capital funds.
Actions Needed	Step 1: An analysis of specific alternatives to construction should be prepared prior to including projects in the five-year capital plan.
Who is responsible	Executive Director of Capital Construction Budgets
Time Frame	June 2002
Fiscal Impact	This recommendation will require establishing an additional position in the Capital Construction Budget office. See Action Plan 9-5

Source: Berkshire Advisors, Inc.

Action Plan 9-2

Make More Extensive Use of Double Sessions and Year-Round Schools	
Strategies	Make more extensive use of double sessions and year round schools as a way to relieve current and projected overcrowding at the middle and high school levels.
Actions Needed	<p>Step 1: Identify middle and schools and high schools where overcrowding can be relieved by implementing double sessions.</p> <p>Step 2: Assign responsibility to the School Operations Department for developing site-specific plans for converting these overcrowded schools to double sessions by the opening of school in September 2002.</p> <p>Step 3: Assign responsibility to the School Operations Department for surveying elementary schools to determine which ones have staff and parents who might be willing to convert to a year-round schedule.</p> <p>Step 4: Once candidate schools are identified, consult with affected unions and develop site-specific plans for effecting the change at the start of the 2002-2003 school year.</p>
Who is responsible	Deputy Superintendent of Operations
Time Frame	September 2002
Fiscal Impact	Based on a savings of \$15,000 for each student station not built minus \$2,000 in implementation costs per station, this recommendation could avoid \$365,300,000 in construction costs if the District converted 28,100 total student stations over a 5-year period.

Action Plan 9-3

Ensure Compliance With Statutory Requirements Regarding The Use of “two-mill” Funds	
Strategies	MDCPS should make an annual determination of its compliance with the spending limits imposed by s. 236.25, <i>Florida Statutes</i> .
Actions Needed	<p>Step 1: Prepare an annual accounting of the use of “two-mill” funds at the end of each fiscal year. (This accounting should delineate each use of “two-mill” funds consistent with the categories shown in s. 236.25, <i>Florida Statutes</i>. A calculation should also be made to determine if the annual limits on certain uses have been exceeded.)</p> <p>Step 2: Notify the Florida Department of Education immediately if spending limits have been exceeded.</p> <p>Step 3: Establish budget controls to ensure that the spending limits are not exceeded in future years.</p>
Who is responsible	Chief Budget Officer
Time Frame	September 2002
Fiscal Impact	This recommendation can be implemented with existing resources.

Action Plan 9-4

Acquire Integrated Project Cost Accounting Software	
Strategies	Acquire an integrated project cost accounting software package for capital projects.
Actions Needed	<p>Step 1: Develop and issue an RFP for project cost accounting software and software implementation services.</p> <p>Step 2: Select staff to serve on a proposal review committee.</p> <p>Step 3: Review proposals and make recommendation for award to the Board of Education.</p> <p>Step 4: After receiving Board approval, enter into contract negotiations and award contract.</p> <p>Step 5: Identify members of a project cost accounting executive steering committee.</p> <p>Step 6: Review and approve a project implementation schedule.</p> <p>Step 7: Conduct fit analysis.</p> <p>Step 8: Perform functional testing.</p> <p>Step 9: Perform acceptance testing.</p> <p>Step 10: Schedule staff training and design-standardized reports.</p> <p>Step 11: Begin tracking project costs using the new software.</p>
Who is responsible	Chief Financial Officer and Chief Technology Officer
Time Frame	February 2003
Fiscal Impact	To Be Determined-The acquisition cost of the project cost accounting software and the implementation services.

Action Plan 9-5

Increase the Staff of the Capital Construction Budget office	
Strategies	Improve control of capital construction funds by hiring additional budget analyst.
Actions Needed	<p>Step 1: Obtain funding for additional budget analyst position.</p> <p>Step 2: Post position announcement</p> <p>Step 3: Interview candidates.</p> <p>Step 4: Select person for new position and commence on the job training.</p>

Who is responsible	Chief Budget Officer & Chief Facilities Officer-Construction
Time Frame	June 2002
Fiscal Impact	Additional funding of approximately \$375,000 needed over five years.

2 The District is generally using construction and operational funds appropriately but significant concerns remain.

The District uses information from a number of sources to determine whether facilities needs are met

Information from a number of sources is used to assess the District’s current and expected future facility needs. Most notably, the District uses DOE growth projections and county growth projections to determine future facility needs (see also Chapter 10, section 4). In addition, information from the Florida Inventory of School Houses (FISH) is used to assess facility needs. The results of the District’s analysis of facilities needs are incorporated into its Five Year Capital Work Plan.

The District Uses Local Revenue Sources To Fund Facility Needs

The District has used local revenue sources to fund facility needs. In particular, the District and the county entered into an inter-local agreement that allows impact fees to be charged to support facility needs.⁴ Moreover, the District routinely borrows money through the issuance of certificates of participation (COPs) to finance various construction projects.⁵ The District leverages some of these impact fees to fund the debt service on a portion of the COP’s that are issued.

These creative financing approaches have proved quite successful. During the 2000-2001 fiscal year, the District received \$25.6 million in impact fees and realized \$325.2 million from the sale of COPs. Approximately \$100 million of these COPs will be funded from local impact fees and an additional \$39.5 million of the COPs will be funded through Qualified Zone Academy Bonds (QZABs). Interest on QZABs is paid by the Federal government through the issuance of federal income tax credits. Miami-Dade County Public Schools is one of a few school Districts in the country to take advantage of this complicated Federal program.

Concerns remain regarding two-mill funds and the five-year facilities work plan and staffing in the Construction and Maintenance and Operations departments

While the District complies with statutory limitations such as the maximum cost per student station and uses of local funds, four concerns limit the District’s ability to meet the best practice. First, as described in section 1 of this chapter, the District cannot document that it spends its two-mill money on legally designated operational activities. Second, as section 7 of Chapter 10 describes, there is at least a perception that political influences play an undue role in setting facilities priorities. This could result in the District placing lower priority projects on the facilities work plan while more pressing needs remain unmet. Third, as discussed in section 14 of Chapter 11, the District’s Maintenance and Operations department has become overly dependent on overtime to meet its workload. Fourth, as discussed in section 17 of Chapter 10, the District has a disproportionately high level of capital staffing.

⁴ An impact fee is a charge to real estate developers to partially offset the District’s cost of building new schools to serve the additional students resulting from the construction of a housing development

⁵ A certificate of participation is a long-term municipal bond.

Recommendations

- *We recommend that the district prepare an annual accounting of its compliance with statutory restrictions on the use of 2 Mill funds.*

Action Plan 9-3 (presented above) provides the steps needed to implement this recommendation.

- *We recommend that the district School Board create a board based standing committee to develop capital budget priorities based on the recommendations in the master plan and to advise the District on site selection.*

Action Plan 10-6 (section 3 of Chapter 10) provides the steps needed to implement this recommendation.

- *We recommend a systematic review of the cost and organization of the capital program management with the objective of reducing staffing of the capital management, operations and oversight by 20-35% within 3 years.*

Action Plan 10-17 (section 17 of Chapter 10) provides the steps needed to implement this recommendation.

- *We recommend that the district reduce its growing dependence on overtime and immediately establish a staffing formula based on historical work order activity data for maintenance staff.*

Action Plan 11-15 (section 8 of Chapter 11) provides the steps needed to implement this recommendation.

3 The District minimizes construction costs by using appropriate measures from the SMART (Soundly Made, Accountable, Reasonable and Thrifty) Schools Clearinghouse Frugal Construction Standards.

The District uses locally produced design prototypes that incorporate SMART School design guidelines

The Facilities Construction Department does not regularly use school designs included in the SMART school design directory due its belief that the designs are not compatible with the unique conditions found in Dade County (e.g. MDCPS uses smaller footprints than typical Florida suburban schools) and because evidence shows that its own design prototypes are less expensive than some of the state prototypes. This contention is supported by the results of a recent District prepared comparison of the cost of building a MDCPS prototype primary learning center with the cost of building a Florida DOE prototype primary learning center. This analysis revealed that the District's design is 25% cheaper to build and provides 30 more student stations than the state prototype. The finding that the District designs cost-effective schools is also borne out by the fact that the District has consistently built schools at or below the statewide average cost per student station. It should be noted, however, that no MDCPS design professional has completed a SMART school design information form to share its design expertise with other Florida school Districts.

It should be stressed that while the District does not use SMART school prototype designs to build new facilities it does use these designs to in its own design practices. Indeed, the Facilities Construction Department has evaluated the SMART school guidelines and frequently compares District design standards to the SMART schools standards to ensure that the District designs remain thrifty.

Recommendation

- We recommend that the District encourage its design professionals to complete SMART school design forms and submit them to the SMART Schools Clearinghouse so that other Districts can benefit from using these designs.

Action Plan 9-6 provides the steps needed to implement this recommendation.

Action Plan 9-6

Encourage The Submittal of Efficient School Designs to The SMART Schools Clearinghouse	
Strategies	Make the District's efficient school designs available to other Florida Districts.
Actions Needed	Step 1: Identify the most efficient MDCPS school proto-types.
	Step 2: Contact each design firm and request that it submit the SMART school design information form to the SMART Schools Clearinghouse.
Who is responsible	Facilities Planning and Standards
Time Frame	June 2002
Fiscal Impact	This recommendation can be implemented with existing resources.

4 When designing and constructing new educational facilities, the District incorporates factors to minimize the maintenance and operations requirements of the new facility.

Ongoing maintenance and energy costs are generally considered when designing new facilities. However, systems have not been established to facilitate the flow of information from facilities maintenance to the staff responsible for developing construction standards

The District does a generally good job of ensuring that ongoing maintenance and energy costs are considered when designing new construction projects. To this end, the Facilities Construction Department receives maintenance and energy cost recommendations from the Maintenance Department as part of its annual update of design criteria and educational specifications. In addition, Maintenance Department staff provides ongoing advice to the Facilities Planning and Standards Office as issues arise that may have an impact on the cost efficiency of building components. The Energy Office also provides data on the energy efficiency of various building components to the Facilities Planning and Standards Office.

It should be noted, however, that the formal systems needed to ensure the effective flow of information between Facilities Construction and Facilities Maintenance are not in place. For example, the District currently collects information on energy and maintenance costs by site but does not routinely pass this data to the Facilities Construction Department. Likewise, the Maintenance Department's COMPASS system does not interface with the Construction Department's PMIS system. In addition, the Maintenance Department is no longer represented on the Technical Review Committee (TRC) charged with reviewing all requests for construction change orders.

The Facilities Planning And Standards Office Has Commissioned A Small Number Of Studies To Systematically Evaluate Designs

The Facilities Planning and Standards Office frequently prepares or commissions the preparation of engineering studies of various designs. These studies have proved useful in making comparisons among different types of physical education shelters, food service shelters and trash compactors. In addition, the results of these analyses have been used to achieve significant savings in construction costs and in on going maintenance life cycle cost savings. Implementation of these design changes will generate over \$4.0 million dollars in construction cost savings and approximately \$250,000 in life cycle cost savings over the next five years.

It should be stressed, however, that the number of such studies currently being performed is limited. At present, only two professionals in the Facilities Planning and Standards Office are responsible for preparing these studies. The number of studies performed is, therefore, limited by the ability of these staff to conduct or oversee them. In addition, the benefits of these studies may not be being fully realized because no one is currently responsible for following up with contractors to determine if specification changes are in fact being implemented.

Likewise, the Facilities Planning and Standards Office currently has only one professional staff member conducting post occupancy reviews. Such reviews can be extremely helpful both in assessing the adequacy of design and in ensuring that contractors have fulfilled all of their contractual obligations.

The District does not have a method for ensuring that staff responsible for confirming that design standards are adhered to during construction have input into project management process

The District's Facilities American's with Disabilities Act Compliance/Design and Quality Control office is responsible for confirming that design standards and education specifications are adhered to during the construction process. Quality assurance inspectors, also known as trades-masters, perform periodic inspections of construction projects at different phases of the process. However, the trades-masters who perform this task are not actively involved in the management of construction projects. The trades-masters receive little or no feedback from project managers regarding whether or not their findings have been corrected or penalties have been assessed. Adherence to District mandated design standards and educational specifications are essential for the District to have cost efficient buildings.

Recommendations

- *We recommend that the Maintenance department periodically generate detailed work order reports by location and forward this data to the Facility Planning and Standards Department so that life cycle cost data may be more easily incorporated into design standards.*

Action Plan 9-7 provides the steps needed to implement this recommendation.

- *We recommend that the Facilities Construction Department increase the number of post occupancy reviews and studies on the adequacy and efficiency of the Districts design standards and begin conducting compliance reviews of design standards.*

Action Plan 9-8 provides the steps needed to implement this recommendation.

Action Plan 9-7

Develop Systems To Ensure The Regular Transfer of Maintenance Cost Data to Facilities Planning and Standards Office

Strategy	Generate COMPASS reports that will provide maintenance life cycle cost data to the Facilities Planning and Standards Office so that this data can be used to develop designs that reduce maintenance and operations costs.
Action Needed	<p>Step 1: Assign responsibility for coordinating the design of useful work order reports to the Executive Director of Operations Management.</p> <p>Step 2: Meet with Facilities Planning and Standards staff to finalize report design.</p> <p>Step 3: Obtain timeline for completion of report coding from the Office of Information Technology.</p> <p>Step 4: Review draft of work order report with Facilities Planning and Standards staff.</p> <p>Step 5: If report is satisfactory, jointly agree on a reporting schedule.</p> <p>Step 6: Upon receipt of quarterly report, Facilities Planning and Standards should incorporate conclusions into design standards.</p>
Who is Responsible	Chief Facilities Officer-Maintenance
Time Frame	June 2002
Fiscal Impact	This recommendation can be implemented with existing resources.

Source: Berkshire Advisors, Inc.

Action Plan 9-8

Establish Additional Architect or Engineer Position To Conduct Life Cycle Cost Studies	
Strategy	Increase professional staff by one position in order to double the number of post occupancy reviews, adequacy of design reviews and design standards compliance reviews.
Action Needed	<p>Step 1: Interview and select an additional architect or professional engineer.</p> <p>Step 2: Train new professional in District design standards and the need for cost estimates or cost savings estimates.</p> <p>Step 3: Prepare quarterly review schedule.</p> <p>Step 4: Commence reviews and report results to Chief Facilities Officer-Construction. These results should include recommendations to change design standards.</p> <p>Step 5: Immediately refer to the Executive Director of Project and Contract Management the results of any reviews that disclose the failure of contractors to adhere to District design standards.</p>
Who is Responsible	Assistant Chief Facilities Officer-Construction
Time Frame	September 2002
Fiscal Impact	This recommendation will require an additional professional position in the Facilities Planning & Standards office. The costs of this position will be offset by projected maintenance and construction cost savings from improved facility design.

Source: Berkshire Advisors, Inc.