

# 7 Facilities Construction

## *Summary*

---

The Bradford County School District is using 19 of the 21 applicable facilities construction best practices. (Given the district's relatively small size and growth rate, 3 Facilities Construction Best Practices do not apply.) The district has outsourced nearly all of its construction operations through contracts and construction management. While it has no plans for new school construction, the district has maximized the use of local revenue which funds the small construction projects that do occur. The district keeps school personnel and the public informed of construction projects through public announcements, school board meetings and post-construction orientations. To meet the remaining best practice standards the district needs to address several issues. First, to improve the efficiency and effectiveness of its construction operations, the district needs to establish a facilities planning committee and ensure competitive contracting practices. Second, the facilities construction budget should be the product of a facilities planning group and should outline the capital needs for the school district for the next five years. And third, the district should ensure that competitive bidding for construction services is conducted as outlined in Florida statutes.

## *Background*

---

**Facilities utilization.** The Bradford County School District is a small district with declining enrollment. The district has a total of 5,021 satisfactory student stations (4,404 permanent student stations and 617 student stations located in relocatables) across its nine schools. With a current enrollment of 3,979 students, the utilization rate of district facilities was 80%. If only permanent student stations are counted, the utilization rate increases to 91%.

The last Educational Plant Survey for the district was conducted in 1998. The district has selected a contractor to complete a new survey. The 1998 survey made several districtwide recommendations including, correcting State Requirements for Educational Facilities (SREF) deficiencies identified in the district's safety inspection report, general remodeling needs pursuant to SREF and retrofitting existing schools for technological improvements. The district implemented some of these recommendations, specifically corrections to facilities based on SREF deficiencies.

**Facilities inventory.** As seen in Exhibit 7-1, most of the schools in this district are over 30 years old. Growth in the district has been slow and most campuses are small. As a result, the majority of district construction projects are small in scale, such as classroom additions to existing campuses. The last new school constructed in the district was Starke Elementary in 1997. This facility was constructed to replace the old Starke Elementary facility which was condemned for student use. The district renovated the old facility and now uses it for the district offices.

## Facilities Construction

Bradford County facilities include seven schools, two special purpose centers, and two ancillary complexes which are used for transportation, maintenance, and district administration. The district currently uses 33 relocatables, mainly at Lawtey Community and Southside Elementary schools. The facilities are predominantly located within the city limits of Starke and include over 630,000 square feet of space on 428 acres of district property.

### Exhibit 7-1 Overall the District Uses 80% of Its Capacity

Description	First Acquired <sup>1</sup>	Total Student Stations <sup>2</sup>	Current Enrollment	Permanent Square Footage	COFTE <sup>3</sup>
Southside Elementary	1959	832	652	62,711	660
Starke Elementary	1997	728	529	72,938	572
Hampton Elementary	1967	232	150	23,548	171
Brooker Elementary	1966	146	91	18,661	130
Lawtey Community School	1978	546	382	43,809	418
Bradford Middle School	1966	905	829	84,579	756
Bradford High School	1914	1,100	1,091	143,897	969
RJE Center (Alternative/ESE) <sup>4</sup>	1948	141	255	28,689	22
Vocational & Technical	1967	343	-	83,102	193
District Offices	1949	-	-	50,119	-
Transportation and Maintenance	1966	-	-	20,243	-
<b>Grand Total</b>		<b>4,973</b>	<b>3,979</b>	<b>632,296</b>	<b>3,891</b>

<sup>1</sup> The date shown generally applies to when a site was acquired. The acquisition date of the facilities located at these sites may differ from the date shown in the exhibit.

<sup>2</sup> This total includes both permanent student stations and relocatable student stations for each facility.

<sup>3</sup> "COFTE" is the Capital Outlay Full Time Equivalent computed by the Florida Department of Education.

<sup>4</sup> This center includes ESE and alternative classes in one facility and a separate building housing a nursery and classes for teen mothers.

Source: Florida Inventory of School Houses 2002-03 school year, Bradford County Schools Enrollment: May, 2003.

## Capital budget

The Bradford County School District assesses the full 2 mills of capital outlay from property taxes allowed by Florida law. It has been able to address most facilities construction needs with these funds. The most recent facility constructed in the district was the new Starke Elementary School in 1997 and its construction was funded through the State of Florida's Public Education Capital Outlay Trust Fund's (PECO) Special Facilities Account. This is a grant program managed by the Florida Department of Education and is discussed in more detail in Best Practice 12.

The district's facilities construction budget for Fiscal Year 2002-03 was \$2,242,147. As shown in Exhibit 7-2, the district's construction needs over the next four fiscal years are mainly remodeling or renovation projects and small classroom additions at existing schools.

**Exhibit 7-2  
Most of the District's Capital Budget for the Next Five Years  
Is Devoted to Expanding Existing Facilities**

<b>Project Descriptions</b>	<b>2002-03 Expenditures</b>	<b>2003-04 Projected Budget</b>	<b>2004-05 Projected Budget</b>	<b>2005-06 Projected Budget</b>	<b>2006-07 Projected Budget</b>
<b>New construction</b>					
Southside Elementary Media Center	\$823,159				
Lawtey Community Classroom Building		\$650,000	\$450,000		
BMS Band Addition			\$500,000		
BHS Classroom Addition				\$825,000	
Renaissance Facility					\$480,000
New Maintenance Facility					\$500,000
Southside Elementary Classroom Building	\$673,277	\$485,000			
<b>TOTAL: \$5,386,436</b>					
<b>Remodeling, renovations, repairs</b>					
Convert Old Southside Media Center	\$25,000				
Fieldhouse Renovation		\$25,000			
Extend Band Room					\$35,000
Lawtey Community Pavilion	\$86,217				
Portable Renovation		\$25,000			
Replace damaged windows - Lawtey Community	\$27,950				
Replace windows (district wide)		\$20,000			
Pave Vo-tech parking	\$49,585				
New Vo-tech classroom	\$106,959				
Southside Elementary Pavilion				\$100,000	
BHS Cafeteria Expansion	\$450,000				
<b>TOTAL: \$950,711</b>					
<b>Fiscal Year Totals</b>	<b>\$2,242,147</b>	<b>\$1,205,000</b>	<b>\$950,000</b>	<b>\$925,000</b>	<b>\$1,015,000</b>
<b>Grand Total through 2007</b>					<b>\$6,337,147</b>

Source: Capital Projects Funds, 2002-2003 Budget, Bradford County School District, September 3, 2002.

**Organization and management**

Facilities construction activities in the district are the responsibility of the maintenance supervisor. The district does not have a facilities construction program. This district has no staff that perform new construction, and therefore contracts with construction management or individual subcontractors on construction projects. The district does have a contract with an architect who manages many of the construction responsibilities including contract management.

The district also relies heavily on the Northeast Florida Education Consortium (NEFEC) for construction-related activities. NEFEC provides training and professional expertise to the district and provides a Florida Building Code inspector. Although the district does not have a large-scale construction program,

the maintenance employees have the opportunity for training on building code requirements and safety and fire inspections.

## Conclusion and Recommendations

### Summary of Conclusions for Facilities Construction Best Practices

Practice Area	Best Practice	Using the Best Practice?	Page No.
<b>Construction Planning</b>	1. The district has effective long-range planning processes.	No	7-6
	2. When developing the annual five-year facilities work plan the district evaluates alternatives to minimize the need for new construction.	Yes	7-8
	3. The five-year facilities work plan establishes budgetary plans and priorities.	Yes	7-8
	4. The school board ensures responsiveness to the community through open communication about the construction program and the five-year facilities work plan.	Yes	7-8
	5. The district has an effective site selection process based on expected growth patterns.	N/A	7-9
	6. The board considers the most economical and practical sites for current and anticipated needs, including such factors as need to exercise eminent domain, obstacles to development, and consideration of agreements with adjoining counties.	Yes	7-9
<b>Construction Funding</b>	7. Funds collected for school projects were raised appropriately.	Yes	7-9
	8. The district approves and uses construction funds only after determining that the project(s) are cost-efficient and in compliance with the lawfully designated purpose of the funds and the district's five-year facilities work plan.	Yes	7-10
<b>Construction Design</b>	9. The district develops thorough descriptions and educational specifications for each construction project.	Yes	7-10
	10. The architectural design fulfills the building specification needs as determined by the district.	Yes	7-11
	11. New construction, remodeling, and renovations incorporate effective safety features.	Yes	7-11
	12. The district minimizes construction and maintenance and operations costs through the use of cost-effective designs, prototype school designs, and frugal construction practices.	Yes	7-11
	13. The district has effective management processes for construction projects.	Yes	7-12
<b>New Construction, Renovation and Remodeling</b>	14. District planning provides realistic time frames for implementation that are coordinated with the opening of schools.	Yes	7-12
	15. All projects started after March 1, 2002, comply with the <i>Florida Building Code</i> .	Yes	7-13

Practice Area	Best Practice	Using the Best Practice?	Page No.
	16. The district requires appropriate inspection of all school construction projects.	Yes	7-13
	17. The district retains appropriate professionals to assist in facility planning, design, and construction.	Yes	7-13
	18. The district follows generally accepted and legal contracting practices to control costs.	No	7-14
	19. The district minimizes changes to facilities plans after final working drawings are initiated in order to control project costs.	Yes	7-15
	20. The architect recommends payment based on the percentage of work completed. A percentage of the contract is withheld pending completion of the project.	Yes	7-15
<b>Facility Occupancy and Evaluation</b>	21. The district conducts a comprehensive orientation to the new facility prior to its use so that users better understand the building design and function.	Yes	7-16
	22. The district conducts comprehensive building evaluations at the end of the first year of operation and regularly during the next three to five years to collect information about building operation and performance.	Yes	7-16
	23. The district has established and implemented accountability mechanisms to ensure the performance, efficiency, and effectiveness of the construction program.	N/A	7-17
	24. The district regularly evaluates facilities construction operations based on established benchmarks and implements improvements to maximize efficiency and effectiveness.	N/A	7-17

# CONSTRUCTION PLANNING

## Best Practice 1: Not Using

### **The district does not have effective long-range planning processes.**

Long-range facilities planning enables a district to identify its critical needs, establish strategies, and plan for the allocation of resources to address these needs. To ensure that all critical needs are identified, the district should obtain broad stakeholder input by establishing a facilities planning committee, which includes school district personnel, parents, real estate and construction professionals, and other community stakeholders. The decisions made during the planning process should be in writing and the resulting plans should address facilities needs from 5 to 20 years into the future. The planning process should assess enrollment projections, plant capacity, sufficiency of funds, and other relevant information. Primary responsibility for facilities planning should be assigned to a district employee, and that person should be responsible for developing and maintaining demographic information that can be used to predict facilities needs. Because the Florida Inventory of School Houses (FISH) is used to report plant capacity and is used to help determine district facilities funding levels, it must accurately reflect the capacities and physical condition of the existing facilities. In addition, to refine projections with more current information, there should be an annual update to the five-year facilities work program, which establishes short-term capital budget plans and construction priorities.

The Bradford County School District has assigned responsibilities for facilities construction planning to the maintenance supervisor. Construction planning and operations are shared between the supervisor and the district architect through contract. Because the district has relatively few construction needs and construction projects are generally small in scale, the district outsources its construction activities.

The district does not meet best practice standards in this area for several reasons. First, although the district has experienced an enrollment decline over the past few years, it still has significant facility needs that are not being adequately planned for and addressed, for instance, chronic problems with site drainage at Lawtey Community School. Establishing a facilities planning committee whose membership includes a broad base of school district personnel, parents, construction professionals and other community stakeholders would provide a mechanism for broad stakeholder input in identifying, prioritizing, and making recommendations to the school board on resource allocation to meet the district's future construction needs.

Second, the district should improve its timeliness in identifying and addressing facility repair and renovation needs. Many of the district buildings are nearing the 50-year-design threshold and are in declining condition. As the district's building age, the need for accurate, overall physical assessment becomes even more important, and the educational plant survey will be less effective as a planning tool for major capital outlay projects. To do this, the district will need to standardize the facility inspection process with a formal checklist, in addition to the SREF assessment, and make these inspections at regularly scheduled times during the school year. The district did not provide the school board with a facilities assessment for the 2001-02 school year until May 2003.

A related issue that the district should remedy is the accuracy of facility data. As of February 2003, FISH data for the district had not been updated since 2000 and did not include the new Starke Elementary School built in 1997. The district finally updated this information in May of 2003; however, data for many facilities from 1945 to 2003 had changed, giving some more square footage and some less. This information must be kept current and accurate for the district to assess current facility utilization, adequately plan for future needs, and receive the appropriate amount of state education funding. The district should update and maintain their FISH data on a regular basis.

**Action Plan 7-1**

**We recommend that the district establish a facilities planning committee. The committee will be responsible for the planning and organization of any and all new construction in the district.**

<p>Actions Needed</p>	<p>Step 1: Establish a facilities planning committee that will meet every month (or as needed).</p> <p>Step 2: Develop written procedures to be followed by the committee when reviewing facilities construction projects and plans for future facilities needs to ensure all legal requirements are being met.</p> <p>Step 3: Require the facilities planning committee to ensure FISH data is updated annually and whenever changes to facilities occur.</p> <p>Step 4: Require the facilities planning committee to prepare written evaluation documents of proposed facility construction projects addressing site, educational specifications, design, cost, statutory requirements and availability of funds.</p> <p>Step 5: The committee should forward the written evaluation of project and all related documents (including construction plans) to the school board.</p> <p>Step 6: Require facilities planning committee to report results of annual facilities assessments to the district staff and school board at the end of each assessment period or fiscal year. The assessments should include such information as</p> <ul style="list-style-type: none"> <li>• structural integrity,</li> <li>• mechanical systems,</li> <li>• electrical systems,</li> <li>• plumbing and sewer systems,</li> <li>• fire, safety, health and sanitation systems,</li> <li>• educational environment,</li> <li>• educational suitability,</li> <li>• site size, layout, space and adaptability,</li> <li>• operations and maintenance costs,</li> <li>• technological currency,</li> <li>• capacity utilization, and</li> <li>• users' satisfaction.</li> </ul> <p>Step 1: The committee should use the results of this survey to project the district's five-year needs relating to, renovation, remodeling, and new construction including ancillary space, and long-term maintenance concerns.</p> <p>Step 2: Apply the facilities assessment tool and use the information to adjust the capital outlay and five-year work plans.</p> <p>Step 3: Consider these needs in relation to projected capital outlay revenues and inflationary factors.</p> <p>Step 4: Develop linkages to the district's long-term strategic plan.</p> <p>Step 5: Present the capital outlay and five-year plans to the superintendent and publish and disseminate this information to the public.</p> <p>Step 6: The superintendent can make changes deemed necessary and annually report long-term anticipated capital outlay needs to the board.</p>
<p>Who is Responsible</p>	<p>The committee will involve, but not be limited to, the facilities and maintenance supervisor, the deputy superintendent, the district architect, at least one principal and at least one teacher.</p>
<p>Time Frame</p>	<p>By January 1, 2004</p>

## **Best Practice 2: Using**

### **The district evaluates alternatives to minimize the need for new construction.**

Alternatives to new construction such as year-round education, extended day schools, changes in grade-level configuration, changes in attendance boundaries, and use of relocatable classrooms are ways in which a district can avoid the high costs associated with building new space. Alternative methods of using existing facilities can help to mitigate the peaks and valleys in future student enrollments.

The Bradford County School District has little need for new facilities because student enrollment has been slowly declining. The district's main needs for new construction are replacement of older buildings or small additions to existing buildings. The district currently utilizes 33 relocatables on four campuses. As seen in Exhibit 7-1, most of the schools are also under capacity. This coupled with no anticipated changes in county growth patterns reduces the likelihood of construction of a new school in the next 20 years.

## **Best Practice 3: Using**

### **The five-year facilities work plan establishes budgetary plans and priorities.**

A five-year facilities work plan, mandated by Florida law (s. 1013.35, *Florida Statutes*), should be prepared, and submitted to the Department of Education. It is primarily a current-year budget document with an additional four-year projection of anticipated revenues and new and continuing capital projects. The plan details a schedule of major projects intended to maintain the educational plant and ancillary facilities of the district properly, and to provide an adequate number of satisfactory student stations for the projected student enrollments. Information developed and contained in the Five-Year Educational Plant Survey is the basis for the work plan. A five-year work plan is not and should not become a district's strategic plan but it is an important element to be used in the planning process. A five-year view of capital needs is inadequate and reactive in nature for a school district; a much longer-term view, a strategic plan, is necessary to assure that the district will develop adequate funding and make appropriate land acquisition decisions. Capital project priorities (site acquisition, site improvement, construction, remodeling, renovation, maintenance) should be established in the strategic plan and linked to the district's anticipated revenues and budget projections through the five-year work plan.

The district's five-year facilities work plan does establish budgetary plans for facilities construction. The district could benefit from a more structured method of predicting remodeling, renovation, and other maintenance needs as well as a method of associating those needs with anticipated levels of capital outlay funding. While the district has a more than adequate supply of student stations for current enrollment (see Exhibit 7-1), there are other construction needs such as building replacement that need to be addressed in the five year plan. The five-year facilities work plan can be an excellent planning tool and Action Plan 7-1 addresses this and an extension of the long-term planning process to assist in determining district needs.

## **Best Practice 4: Using**

### **The school board ensures responsiveness to the community through open communication about the construction program and the five-year facilities work plan.**

School districts should be accountable for and provide information to parents and other taxpayers on the performance and cost of their major programs, including the facilities construction program. A school district should provide the public with clear and accurate information regarding its capital program, such as information about planned projects, the priorities it has set for future projects and how those priorities were determined. A district should provide a complete explanation of how the planned projects will help the district meet its educational, site acquisition, construction, remodeling, renovation, and maintenance needs. Effective communications with district stakeholders helps earn the support of the public for its capital program. Typically, districts that successfully communicate their capital program priorities hold

regular school board meetings at which information regarding the construction program is provided and clear explanations of each construction project are made available in a format that allows for public input.

The Bradford County School District provides the board, district staff, and the public with construction project information at regularly scheduled, publicly announced board meetings. During the planning phase, the district architect and the facilities and maintenance supervisor meet with district staff at schools to determine their needs. When plans are completed, the architect and facilities district presents facilities plans in open public forums and allows for public input.

### **Best Practice 5: Not applicable**

**The district has no need for a formal site selection process based on expected growth patterns.**

The appropriate and timely selection of sites for new facilities is a critical issue for a district's capital program and ensures that land is available when and where it is needed. A district should use the demographic projections to identify land in areas, which may require school facilities as the district grows or needs change. Early identification of appropriate parcels will allow the district to acquire the land well in advance of construction needs. When multiple sites are to be considered, the district should use the facilities planning committee, which includes experts and community stakeholders, to review the proposed sites.

The Bradford County School District has not constructed a new school since 1997. There is no established site selection process and with declining enrollment, it is doubtful that one is needed. The facilities planning committee recommended in Best Practice 1 should be an adequate method for site selection and should be involved in any future site purchases.

### **Best Practice 6: Using**

**The board considers the most economical and practical sites for current and anticipated needs, including such factors as the need to exercise eminent domain, obstacles to development, and consideration of agreements with adjoining counties.**

An effectively managed district acquires the right property for its facilities and makes economical land acquisitions. To accomplish this, a district should ensure that the land meets its needs as to location, and that the site complies with the requirements of Florida law as it pertains to land for educational facilities. Moreover, the price should be reasonable. In determining the appropriate price, the district should consider factors beyond the cost of the land itself such as the need for site development and improvement or other work that may be incidental to construction.

The Bradford County School District has limited needs for property acquisition. The district is experiencing declining enrollment and has low utilization rates at some schools (see exhibit 7-1). The only recent property acquisition has been a parcel connected to the middle school. This parcel is slated for future expansion of parking and athletic fields for the middle school, which the school currently shares with the high school.

## **CONSTRUCTION FUNDING**

### **Best Practice 7: Using**

**Funds collected for school projects were raised appropriately.**

Funding for district capital projects is commonly derived from a variety of revenue sources, which include property taxes, bond referendums, sales surtaxes, and certificates of participation. A district

should be able to demonstrate that each revenue source is used as authorized in the law. For instance, a district must be able to show that if local bond referendum proceeds were used, the scope of each project was spelled out in the bond referendum; and, that if local sales surtax revenue was used to finance any project, the scope of that project was spelled out in the sales surtax referendum resolution advertisement. The district should have evaluated the advantages and drawbacks of alternative methods for funding and financing construction projects when developing its capital planning budget. The best way to ensure the greatest amount of construction funding is for the district to first maximize the use of local revenue alternatives.

The Bradford County School District has maximized local two-mill revenue and has not sought local sales tax or bond revenue. It is unlikely the district will pursue local sales tax or bond revenue based on the low returns this would produce and the limited need for large, new construction projects. The last new school constructed in 1997 replaced an older facility condemned for student use and was funded through the State of Florida's PECO Special Facilities Account.

### **Best Practice 8: Using**

**The district approves and uses construction funds only after determining that the projects are cost-efficient and in compliance with the lawfully designated purpose of the funds and the district's five-year facilities work plan.**

A school district must use tax revenues appropriately and for their intended purposes. All capital projects, including new construction, renovation, remodeling, and site acquisition, development and improvement projects may have separate funding sources with differing expenditure requirements. Districts typically rely on a finance officer to ensure that revenues generated for use as construction or site acquisition funds have been collected as authorized by Florida law and are being expended for lawful purposes. Generally, the district finance officer ensures that funds from the Public Education Capital Outlay and Debt Service Trust Fund are used for construction of educational plant space with total student station costs, including change orders, which meet the allowable amount specified in Florida law. The finance officer ensures that the school tax defined in Florida law as two-mill money is only used for construction, maintenance, or other authorized capital or facilities purposes. The finance officer is responsible for the timely use of state funds, avoiding reversion of any unspent revenues. During the budget process, the finance officer should ensure that all available capital resources are applied towards the five-year facilities work plan and limited use capital funds are not diverted to other, lower priority allowable uses.

The Bradford County School District uses tax revenues appropriately and for their intended purpose. The district finance director reviews funding plans for the facilities program and ensures that PECO and other funds are spent according to Florida law. The finance director evaluates the facilities budgets and makes corrections to avoid funds being spent in areas other than those intended.

## **CONSTRUCTION DESIGN**

### **Best Practice 9: Using**

**The district develops thorough descriptions and educational specifications for each construction project.**

Educational specifications are an important part of the planning process allowing stakeholders, including parents, subject matter specialists, educators, administrators, and design professionals to develop working descriptions of a planned educational facility. Well-written educational specifications will ensure that, once built, the facility meets the needs of a variety of users. Educational specifications should include a rationale for the project, determine the size of the facility, and define the district's program goals, objectives and activities, teaching strategies and instructional methods, all based on staff input.

Educational specifications should identify the needs and design implications of advanced technology and provide for adaptability as changes and innovations occur in education. They should address spatial relationships and circulation patterns, security issues, and comply with the ‘small schools’ requirement.

The Bradford County School District’s most recent construction project involved several stakeholders. The new media center project involved media experts, the school principal, the architect, the facilities and maintenance supervisor and the school board. However, there was no formal document to provide others interested in this process a scope for the project. In the future, the district should document educational specifications for all construction projects and make documentation available to all interested parties.

**To further improve the district’s planning practices, we recommend that the district develop a policy requiring the responsibility for developing any future educational specifications be assigned to the facilities construction planning committee.**

### **Best Practice 10: Using**

**The architectural design fulfills the building specification needs as determined by the district.**

A district should submit a well-developed educational specification to the design professional for use in preparing written construction documents, which include materials and equipment specifications, and schematic drawings. A review of the documents should be made to ensure that the district planning leader, the users of the facility, and the architect and engineers have matched the written construction specifications and schematics against the educational specifications. The final plans must represent the district’s needs as expressed in the educational specification.

The Bradford County School District maintains a contract with a district architect that requires the architect design each project in accordance with educational specifications adopted by the school board and Florida statutes. The facilities and maintenance supervisor is also responsible for ensuring that construction plans match educational specifications.

### **Best Practice 11: Using**

**New construction, remodeling, and renovations incorporate effective safety features.**

To ensure the safety and security of those using school district facilities, all building specifications should include common safety elements such as controlled access entrances, appropriate, signage, and circulation patterns that allow unobstructed views of the entrance and hallways. Other safety needs and design elements include lighting, intra-communication systems, security and fire systems, security fencing, and a combination of fenestration and doorways, which provide safe and quick evacuation. A district must review safety and address it as part of the construction process when designing and building new structures, as well as during renovation and remodeling projects.

The Bradford County School District obtains architectural plan review services through NEFEC to ensure compliance with Florida’s safe school requirements as well as other building code requirements according to SREF. The district architect is required to incorporate these features into facility designs and the maintenance supervisor attends training for these areas when offered by the NEFEC.

### **Best Practice 12: Using**

**The district minimizes construction and maintenance and operations costs through the use of cost-effective designs, prototype school designs, and frugal construction practices.**

A district should design new and remodeled space as efficiently as possible in order to minimize the costs of construction, provide for long term-energy efficiency, and reduce lifetime building operations and

maintenance costs. The construction design and major equipment selection are to be analyzed to maximize the efficient use of energy and the environment, the potential for joint usage, how technology is used, and the life cycle and costs of the materials chosen. To control the costs of building new facilities, a district should have a written policy that encourages the design team to comply with Florida's SMART school design philosophy and develop practical design solutions that are functional and cost-effective.

The Bradford County School District's newest facility, Starke Elementary School, was completed in 1997 and used a prototype design. As mentioned previously, this project was funded through the State of Florida's PECO Special Facilities Account. This is a grant program managed by the Florida Department of Education for school districts with special needs for facilities construction. However, this facility has had significant maintenance problems since construction, as noted in Chapter 8. Smaller projects in the district were constructed based on previously constructed designs that complied with Florida's SMART school design philosophy.

## **NEW CONSTRUCTION, RENOVATION, AND REMODELING**

### **Best Practice 13: Using**

**The district has effective management processes for construction projects.**

A district may be able to improve the management of construction projects by exploring alternative service methods. A district has several options on how to complete a construction project, which include whether to do the project in-house or contract out to a private company. The potential cost savings of alternative methods should be weighed before a project begins. This practice ensures that the district has evaluated the various types of construction contracting and chosen the most beneficial method given the circumstances of individual projects. Once the method is chosen the project must be monitored for quality, timeliness, and cost.

The Bradford County School District contracts with a district architect and construction managers to complete construction projects because it lacks the resources to complete projects in-house. As a result, the district must out-source management of most construction projects. The contracts with construction managers are monitored during the construction period by district staff and the architect before scheduled payments are made. Projects are monitored for quality, timeliness and cost and requirements for each of these areas are contained in contracts.

### **Best Practice 14: Using**

**District planning provides realistic time frames for implementation that are coordinated with the opening of schools.**

A district can obtain maximum use of construction and operating funds by reducing the impact of inflation and ensuring a smooth, non-disruptive transition of students into new facilities at the beginning of a school term. Planning, coordination, and regular communication between the district's representatives and its contractors is required. Realistic expectations for project completion must be established and should include contingency planning for delays caused by bad weather or unanticipated construction problems.

A district must ensure that the tasks for achievement of all phases of each project have been incorporated and timed to coordinate with the opening of schools to cause the least disruption to students and teachers. When time frames are not met, the district should revise them accordingly and identify why they were not met, periodically updating the board and public. The plan should contain an accountability component

that provides assurance to the board and to the public that the projects addressed in the plan will be implemented at the proposed budget levels within the time frame outlined. Regular budget updates, prepared at the completion of each phase of design, should be delivered to the board.

The Bradford County School District does plan the opening of new projects based on a certain number of bad weather days and to coincide with the opening of schools. These expectations are outlined in district contracts with construction managers. The district is currently constructing a new media center and will be expanding the high school cafeteria this summer and has stipulated project completion dates prior to the opening of schools. The district should consider involving the facilities planning committee with this best practice in future projects.

### **Best Practice 15: Using**

#### **All projects started after March 1, 2002, comply with the Florida Building Code.**

The State of Florida has completed a major rewrite of the state building code, including those elements that pertain to educational facilities, which became effective on March 1, 2002. Significant changes included allowing districts to establish alternative methods of obtaining permits and required the re-education of existing staff certified to conduct building code inspections. All school construction projects begun after the effective date are required to meet the new code requirements. Districts must adjust for the code changes in contracted projects and consider the impact the new code will have on future projects. To ensure that districts are aware of and follow these new requirements, construction personnel should have received training in the Florida Building Code or the district should be able to justify why training is not needed.

The Bradford County School District has no staff certified to conduct building inspections and have no need to train staff on the Florida Building Code. Instead, the district utilizes the Northeast Florida Education Consortium's building inspector for all construction projects.

### **Best Practice 16: Using**

#### **The district requires appropriate inspection of all school construction projects.**

Compliance with the Florida Building Code assures that completed building projects provide a safe and secure facility. Therefore, all school construction projects must be inspected by a competent authority, schooled and certified in the requirements of the state building code. Inspectors must be trained and certified in accordance with Florida law and the inspections must be in accordance with the new Florida Building Code as revised March 2002. All information about the affected space should be recorded in the Florida Inventory of School Houses (FISH), a data base which contains extensive information about school sites, capacity, and condition.

The Department of Education, Office of Educational Facilities requires final inspections and certificates of occupancy for all new construction. The Bradford County School District conducts inspections of school construction projects through the building code inspector from the NEFEC. However, the district has not updated FISH data in a timely manner and, as mentioned in Best Practice 1, the district could make this task one of the responsibilities of a facilities planning committee.

### **Best Practice 17: Using**

#### **The district retains appropriate professionals to assist in facility planning, design, and construction.**

A district should make reasoned and appropriate selections of design and construction professionals to aid in carrying out the mission, goals and obligations of the school board and in accordance with Florida law. The selection process should be in writing and available to the public. It should begin sufficiently in advance of a proposed project's completion date to ensure that the necessary persons are selected,

obligated, and committed to the project. Districts may select from a combination of in-house and out-sourced options to staff a particular project or group of projects. Hiring of permanent employees may not be cost-effective for smaller, low growth districts, but larger districts or districts with significant student population growth may find it appropriate to have permanent, professionally staffed design and construction departments. When out-sourcing, the district should use a selection committee to choose appropriate professionals who will act in the district's best interests during the construction project.

The Bradford County School District has contracted with an architectural firm that is responsible for most of the district's construction projects. The district used a selection committee process pursuant to s. 287.055, *Florida Statutes*, and chose an architectural firm who had experience with other districts in the NEFEC. During the selection process, the district also ensured the firm had experience with state facilities construction guidelines, building prototypes, and management practices. Since construction projects in the district are usually small, this firm is responsible for almost all projects in the district.

### **Best Practice 18: Not Using**

#### **The district does not always follow generally accepted and legal contracting practices to control costs.**

A district should have policies and procedures in place, which delineate bid solicitation and contracting practices, to control costs and protect itself from litigation. These policies and procedures should have been reviewed by legal counsel for adequacy and conformity to statutes and generally accepted practices. Generally accepted bidding procedures include bids with set opening dates and times that are inspected to confirm that all required documents are in order. Contracting practices include the use of standardized agreements that have been modified to satisfy local concerns and conditions, and review by legal authority. The district should determine the type of contract appropriate for the work to be performed after considering alternative bid and construction systems for each new project. The contract should be awarded to the lowest responsible bidder whose bid, after review by district legal counsel, meets the specifications or to the construction manager or design build contractor selected pursuant to Florida law. The contracts should be submitted to the school board for final contract award.

The Bradford County School District is currently constructing a new media center at Southside Elementary School and did not competitively bid architectural services for this project. The district contracted with an architectural firm after competitive bidding to provide ongoing services for projects over \$250,000 but under \$500,000 as required by s. 287.055, *Florida Statutes*. The district is allowed to use this firm for all projects under the \$500,000 threshold. The budget for the media center project began under the \$500,000 threshold and the district architect began plans for the center. During the course of drafting plans, the size of the project and the budget grew, surpassing the \$500,000 threshold. The district should have competitively bid for architectural services when the budget exceeded \$500,000 but did not. District officials and the district architect stated that they contacted DOE to obtain permission to proceed, but could not provide us with documentation. The district's need for more comprehensive construction planning mentioned in Best Practice 1 contributed to this oversight.

To prevent this from happening in the future, we recommend the district change its practices for contracting for architectural services. The district's facilities planning committee should review all future projects and, for those with a projected budget over \$400,000, the committee should recommend competitive bidding for architectural services.

**Action Plan 7-2**

**We recommend that the district develop a written process that requires the facilities planning committee to review all projects with a projected budget over \$400,000 and that management consider the possibility of a bidding process for architectural services.**

Actions Needed	<p>Step 1: The facilities and maintenance supervisor will prepare a project description and present it to the other members of the facilities planning committee.</p> <p>Step 2: The committee will evaluate the description and make determinations as to whether the project needs to be increased in budget or scope to meet educational specifications.</p> <p>Step 3: If the committee determines that the project needs to be larger or that the budget for the project may increase the committee will recommend to the board, in writing, that the project be competitively bid for architectural services.</p> <p>Step 4: The committee will forward this decision and any related evaluation documents to the school board for review and formal adoption.</p> <p>Step 5: The school board will distribute approved decision to responsible employees and construction project members.</p>
Who is Responsible	Facilities and maintenance supervisor and facilities planning committee
Time Frame	January 1, 2004

**Best Practice 19: Using**

**The district minimizes changes to facilities plans after final working drawings are initiated in order to control project costs.**

Changes to a facility’s design after construction has begun must be carefully considered as they can be very costly to a district or they can save a substantial number of dollars. Design changes have the potential to create substantial delays in the intended completion date of a project, while adding overlooked elements can enhance the educational environment or the delivery of educational services, or reduce future operational/maintenance costs. Necessary changes to the construction agreement, which may be requested by either the contractor or the district’s representative, should generate a request for a change order. Change orders should be reviewed for viability, necessity, and cost. A district should use planning and contracting methods that minimize change orders and retain information sufficient to document the reasons behind a change order and the responsible individual. Critical to the change order process is a review that, when possible, ensures change orders implemented do not result in the project exceeding budget, do not compromise educational specifications, do not exceed industry standards, and do not extend the completion date beyond the established completion date.

The Bradford County School District has no significant problems with change orders. However, the district should utilize the facilities planning committee, when it is established, to further reduce the need for change orders through a more thorough planning process. In the future, members of the committee should be notified of change orders when they occur.

**Best Practice 20: Using**

**The architect recommends payment based on the percentage of work completed. A percentage of the contract is withheld pending completion of the project.**

Payments to contractors for larger construction projects are usually separated into a series of partial payments known as progress payments. This practice protects the school district and pays the contractor in a fair and reasonable manner and in proportion to the work completed. Once a payment request is received, the district should respond in a timely and efficient manner. A district should retain a predetermined percentage of the contract pending final completion to be used to cover non-performance issues or liquidated damages, should such a situation arise. The district should have a system of internal

controls to ensure that payments are made timely and only after the architect has approved the completed work, and with the concurrence of the district's project manager.

The Bradford County School District does distribute payment for construction services in a timely manner and based on a percentage of the project completed as established in construction contracts. The district architect is responsible for ensuring that the required amount of work has been completed before disbursing district funds.

## **FACILITY OCCUPANCY AND EVALUATION**

### **Best Practice 21: Using**

**The district conducts a comprehensive orientation to the new facility prior to its use so that users better understand the building design and function.**

The proper operation of a school is dependent on the users' understanding of the facilities systems and why certain design elements were included in the project. Therefore, school district personnel should be familiarized with a new facility prior to occupation. Orienting users to a facility is a critically important activity that allows the new facility to work as it was designed, provides for the safety and comfort of the occupants, and ensures that the building's components are operated in a non-damaging and efficient manner. An orientation program should include the delivery of clear and understandable users' manuals designed for the appropriate staff, elements of the program being customized for a particular group of users such as maintenance staff, custodians or administrators and teachers. The district should include clauses in the design and construction contracts to require the architect and the contractor to share the responsibility for and provide the orientation programs and supporting documentation.

The Bradford County School District conducts building orientations for all interested parties, including the public, after construction projects are completed. The district architect, maintenance supervisor, and appropriate contractors are present at all orientations.

### **Best Practice 22: Using**

**The district conducts comprehensive building evaluations at the end of the first year of operation and regularly during the next three to five years to collect information about building operation and performance.**

A post-occupancy evaluation helps a district determine how well the design of a facility meets the educational, service, community, and administrative needs of the building's users. Information from a post-occupancy evaluation can be used to improve the design of subsequent projects. Such an evaluation should be conducted on every new facility no earlier than one year and no longer than three years after occupancy. This window of time allows for a full school year in the new facility and for the evaluation to occur before any functional design changes or remodeling might take place, which would change elements of the original design. As part of the evaluation, users, including students, parents, district and school-based maintenance and food service personnel, teachers, administrators and bus drivers, should be surveyed or interviewed to determine their attitudes about the design. District facilities design and construction staff, the design professional for the new facility, and a representative of the contractor also should provide input to the evaluation. The information gathered should be compiled into a report, enumerating the positive aspects and difficulties, if any, with the design of the facility. Information obtained through post-occupancy evaluations should be communicated to educational specification committees, the design review committee and when contracted for a new facility, the design professional.

The Bradford County School District conducts eleventh-month inspections to evaluate new building performance and evaluates utility costs to verify pre-construction estimates. Safety, sanitation and fire

inspections are also conducted by district personnel after the first year of occupancy as required by SREF. The district could also improve these building evaluations by using the recommended survey in Best Practice 1.

### **Best Practice 23: Not applicable**

**The district has not needed to establish internal accountability mechanisms to ensure the performance, efficiency, and effectiveness facilities construction program.**

Like other publicly funded entities, a school district should be held accountable for and provide information to parents, other taxpayers, and the school board on the performance and cost of its major programs and support services, including the facilities construction program. To accomplish this, each school district should have an accountability system that includes clearly stated goals and measurable objectives for the facilities construction program that identify whether it is operating efficiently and effectively. An effective accountability system includes performance and cost-efficiency measures, and interpretive benchmarks, including comparisons to adjoining districts, to evaluate the program and use these in management decision making. As part of its accountability system, the district also should establish and implement strategies to continually assess the reliability of program performance and cost data and take advantage of significant opportunities to improve construction operations management.

The Bradford County School District does not maintain a formal facilities construction program. Construction projects for the district are managed and completed through contracts and accountability is established at the project level through guaranteed maximum price (GMP), scheduled completion dates and other mechanisms. In addition to mechanisms currently in contracts, the district and the school board could benefit from project level measures of performance.

**To improve the district's accountability mechanisms, we recommend that, prior to beginning construction on any major educational facilities, the district, with the assistance of the facilities planning committee, develop a project accountability system to ensure efficiency and effectiveness. Results from this system would be reported to the board and could include such information as cost per square foot, cost per student station, or a customer satisfaction survey.**

### **Best Practice 24: Not Applicable**

**The district does not evaluate facilities construction operations based on established benchmarks or implement improvements to maximize efficiency and effectiveness.**

Evaluation of completed projects is an important management tool because it assesses how tax dollars were spent and whether a district took full advantage of available, usually scarce, public funds. Districts should assess their facilities construction operations as a whole at least annually using performance data and their established benchmarks. They should report their progress towards meeting established goals, objectives and benchmarks to the board and the public on at least an annual basis. Strategies should be established and implemented based on the outcomes of these evaluations.

The Bradford County School District does not have formal procedures to assess facilities construction operations. Given the lack of a continuing major construction program focused on adding school capacity there is no need for the district to develop an evaluation methodology for their construction program. Also, the majority of recent projects are completed through contracts with the district that contain accountability mechanisms mentioned in Best Practice 23.