III

III. Inventory and Evaluation of School Facilities

As of May 2018, FCPS operates and maintains 66 school buildings. These buildings constitute approximately 6.4 million square feet and occupy over 1,400 acres. Between 1990 and May 2018, the school system completed construction of 26 new school buildings and constructed 25 additions. While FCPS has pursued new construction, it has also devoted increasing resources to maintaining and renovating existing buildings. FCPS operates 45 buildings that are, in whole or part, 25 or more years old.

The Maintenance and Operations Department serves to keep FCPS facilities clean, safe, and fully functioning as effective learning environments. In support of the BOE's strategic plan, the department strives to avoid interruption to instruction, maintain facility conditions that promote student achievement, and provide amenities and services that foster community involvement and inclusion. The department develops and maintains a skilled and safety-minded workforce that supports the organization's goals in practice and ideology. Additionally, FCPS allocates resources to ensure the safety of building occupants, protect the State's and County's capital investment, and inspire public confidence in our responsible stewardship.

ELEMENTARY SCHOOLS

FCPS operates 39 primary and elementary schools (including the Monocacy Valley Montessori, Carroll Creek Montessori and Frederick Classical charter schools). The state rated capacity (SRC) for these schools varies in size from 160 to 692 students. FCPS provides a full day of elementary education to students from kindergarten through grade 5. Twenty-three elementary schools will also have a pre-K or special education pre-K program for the 2018-19 school year. See Appendix N for a list of school facilities and grades served.

The Thurmont and Middletown communities have paired schools consisting of a primary school (pre-K through grade 2) and an elementary school (grades 3-5). New Midway/Woodsboro is housed in two buildings.

In addition to "core" facility space (office, media center, gymnasium/ cafeteria), each school also contains computer labs, art and music rooms, and a special education resource room. Some schools also have space devoted to special programs, such as pre-kindergarten, special education self-contained classrooms, advanced academics classrooms, enrichment labs, English Language Learners program and math and reading intervention.

The formula for calculating the SRC of an elementary school is the total of the following:

Pre-kindergarten 20 x number of classrooms Kindergarten 22 x number of classrooms Grades 1-5 23 x number of classrooms Special Education 10 x number of classrooms

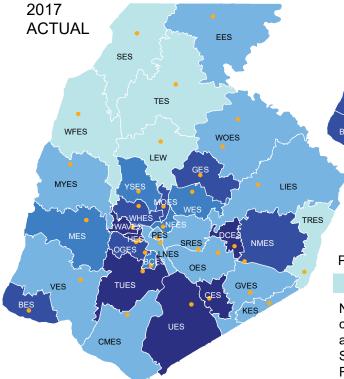
Whenever an addition is completed or a school renovated or use of an existing school changes due to programmatic changes, the SRC for a school is recalculated and approved by the Maryland Department of Planning. Periodically, FCPS completes a system wide review of the SRC for each school. A review of the SRC for all schools is ongoing.

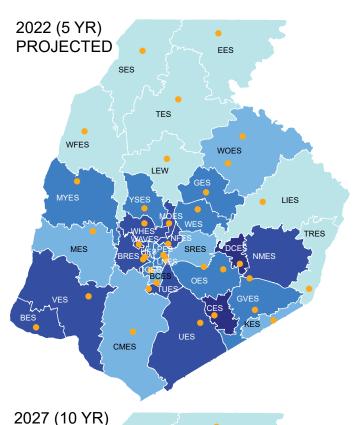
For the 2017-18 school year, the system-wide elementary school SRC totaled 19,421 seats. With the opening of Butterfly Ridge Elementary and the temporary relocation of Urbana Elementary to the new Sugarloaf building, the SRC for the 2018-19 school year will increase to 20,360. The

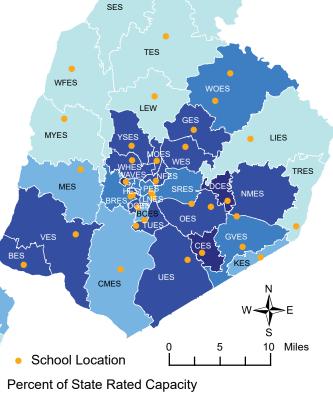
system-wide projected percent of SRC at the elementary level for 2018-19 is 94%. This indicates that FCPS has not yet reached the BOE's goal that schools will operate at 90% capacity at each level, system-wide. With the opening of Butterfly Ridge Elementary School in 2018 and Sugarloaf Elementary School and Urbana Elementary School replacement in 2020, system wide utilization at the elementary level is expected to fall to 91% but rise again to 94% before the end of the ten year period without the additional elementary seats proposed in this plan that have not yet been funded.

Individual elementary school utilization varies. In general, schools that are near or at capacity are located in or around Frederick City and in the fast-growing areas of the I-70 corridor and Urbana. As of September 2017, 13 elementary schools were at or over 100% capacity, 8 were between 90 and 100%, and 18 were below 90%. Based on low birth rates over the past several years, FCPS projects that enrollment at several schools will remain flat or decrease through 2022, although schools in high growth areas will continue to increase in enrollment. By 2027, enrollments will exceed 2017 levels for most schools.

Figure 3A: Elementary School Percent of State Rated Capacity Over Time







PROJECTED

90-99% 100-119% <75% 75-89% >120%

Note: Projections do not take into account new capacity unless funding has been awarded and new attendance areas have been determined. Source: Frederick County Public Schools and Frederick County GIS.

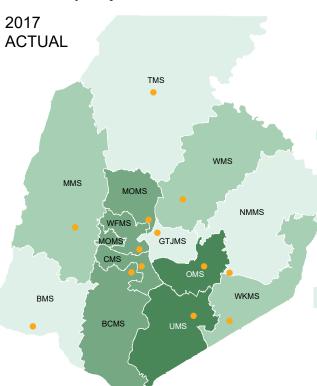
In summer 2017, the BOE approved adjustments to existing attendance boundaries and approved an attendance boundary for the new Butterfly Ridge Elementary School that will go into effect when the school opens in the fall of 2018. Enrollments at some schools will shift significantly when the Butterfly Ridge redistricting decision is implemented. See maps in Figure 3A for geographic locations and projected growth over time and see Table 4A for ten-year enrollment projection numbers.

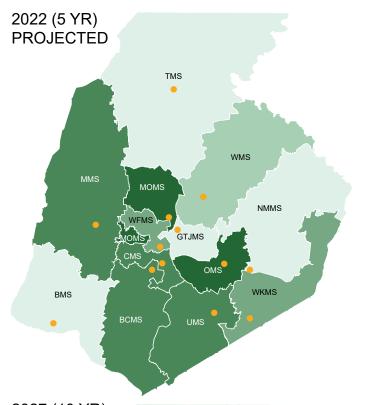
In many locations, FCPS has responded overcrowding by installing portable classrooms. At the elementary school level, FCPS will use 125 portable classrooms at 19 locations during the 2018-19 school year.

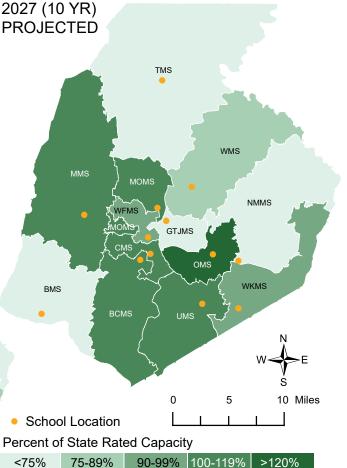
MIDDLE SCHOOLS

Middle school (grades 6, 7, and 8) is designed for students in transition between childhood and adolescence. Middle school programs seek to expand course offerings by providing specialized facilities for fine arts, technology education, science, and physical education.

Figure 3B: Middle School Percent of State Rated Capacity Over Time







Note: Projections do not take into account new capacity unless funding has been awarded and new attendance areas have been determined. Source: Frederick County Public Schools and Frederick County GIS.

FCPS operates 16 middle schools including Monocacy Valley Montessori, Carroll Creek Montessori and the Frederick Classical charter schools. These schools vary in size from an SRC of 600 to 1,051 with the exception of the charter schools which may have capacities as low as 70.

Each middle school attendance area generally contains 2-3 elementary schools, in accordance with BOE feeder pattern policies. Several larger middle schools serve 5 elementary schools. Three middle schools are located on the same campus as high schools which permits some shared use of facilities.

For the 2017-18 school year, the system-wide middle school SRC totaled 11,529 seats. For the 2018-19 school year, the SRC will also be 11,529. The system-wide projected percent of SRC at the middle level for 2018-19 is 88%, which indicates that FCPS is operating within the BOE's goal of 90% SRC system-wide for the middle school level.

Although system-wide enrollments are acceptable, the capacity at individual schools varies. As of September 2017, four middle schools were at or over 100% capacity, four schools were between 90 and 100%, and eight were below 90% capacity. For the 2018-19 school year, there will be nine portable classrooms in use at two middle schools. FCPS projects that enrollment will increase slightly at most middle schools over the next five years, particularly in the Frederick City area and the southeastern part of the county. Over the next ten years, middle school enrollments are expected to increase by over 700 students. See map in Figure 3B for geographic locations and projected growth over time.

While the system-wide SRC meets the BOE's goal of 90% SRC, continued growth over the next ten years is likely to necessitate the addition of more middle school seats. This additional capacity will be located as an addition at either Crestwood or Oakdale middle schools. Staff will monitor residential growth and middle school enrollments closely over the next several years.

HIGH SCHOOLS

For the 2018-19 school year, FCPS students in grades 9-12 will attend one of 10 high schools. High school students are encouraged to grow personally and academically by providing a wider range of course offerings than at middle school. FCPS high school facilities are built to accommodate a wide-ranging curriculum. High schools also provide facilities that are often unique and heavily used by the larger community. High school buildings contain auditoriums, indoor pools (at two high schools), gymnasiums, and stadiums. FCPS encourages use of these facilities by community groups when they are not needed for the school program.

High schools in Frederick County have attendance areas that incorporate one or two middle school attendance areas. High schools vary in size from an SRC of 893 at Brunswick to 2091 at Governor Thomas Johnson. For the 2017-18 school year, the system-wide high school SRC totaled 14,720 seats and the SRC will remain the same for the 2018-19 school year. The system-wide projected percent of SRC at the high school level for 2018-19 is 87%, which indicates that FCPS is operating within the BOE's goal of 90% SRC system-wide at the high school level.

As of September 2017, Urbana High School was over 100% capacity. Three other high schools were between 90 and 100%, and six schools will be less than 90%. Fourteen portable classrooms will be located at three high schools for the 2018-19 school year. By 2022, FCPS expects enrollments to increase at most high schools. Almost 1,700 additional high school students are expected system wide by 2022. Most high schools will have slower growth between 2022 and 2027. It is anticipated that by 2022, system wide high school enrollments will be at 98% of SRC and at 99% of SRC by the end of the ten year period. See map in Figure 3C for geographic locations and projected growth over time.

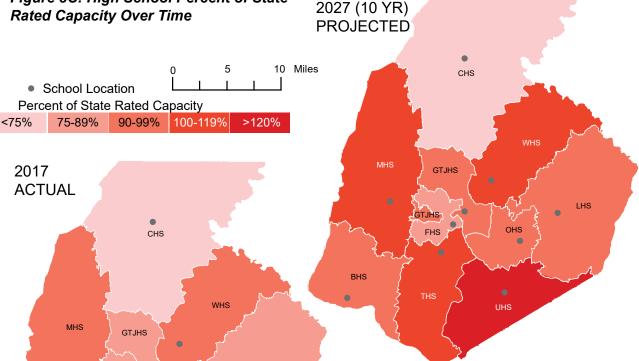
Figure 3C: High School Percent of State Rated Capacity Over Time

GTJHS

THS

BHS

OHS



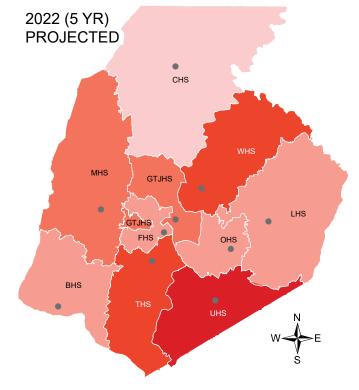
Note: Projections do not take into account new capacity unless funding has been awarded and new attendance areas have been determined. Source: Frederick County Public Schools and Frederick County GIS.

CHARTER SCHOOLS

Frederick County Public Schools operates three public charter schools. Any student in the county may apply to enroll, with new students selected via lottery when interest exceeds program capacities. Students attending these schools are public school students taught by FCPS teachers. The capacity of each school is determined by a contract.

Carroll Creek Montessori School is located in leased space on Corporate Court in the Ballenger Creek area. The school is projected to have an enrollment of 291 students in grades K through 8 by the 2018-19 school year. This school offers an instructional program centered on the Montessori method. Classes are taught in English and Spanish.

Frederick Classical Charter School is located in leased space on Spires Way in Frederick City. The school offers a curriculum that emphasizes traditional content taught using research based curricula to grades K



through 8. The school is projected to have an enrollment of 366 students by the 2018-19 school year.

Monocacy Valley Montessori School is located in Frederick City in leased space that was formerly a church. This school offers an instructional program centered on the Montessori Method for grades pre-K through 8. The school is projected to have an enrollment of 285 students in the 2018-19 school year.

OTHER FREDERICK COUNTY PUBLIC SCHOOL FACILITIES

Heather Ridge School is a 30,000 square foot alternative middle/high school educational facility for students who require a highly structured setting. The school offers appropriate curriculum in the context of individualized behavior-management programs, family counseling, and other services. Additional information regarding this school can be found in Appendix U. Enrollment in September 2017 was 56 students. For the 2018-19 school year, there will be three portable classrooms.

Rock Creek School is a 55,214 square foot facility that provides individualized special education programs for students from 3-21 years of age. An appropriate curriculum is offered in self-contained classrooms, as well as related services in such areas as adaptive physical education, physical therapy, swimming, pre-vocational training and occupational therapy. Additional information regarding this program can be found in Appendix V. Enrollment in September 2017 was 77 students. A feasibility study for this facility was completed in August 2016 recommending the replacement of this facility at another location. Design for the replacement school underway.

Career and Technology Center (CTC) is an 86,681 square foot facility located on the Frederick Community College campus. Students in grades 10-12 may enroll. At the CTC, introductory training is offered in various professions such as criminal justice, masonry, nursing, biomedical technology, cosmetology, video production and computer networking. Some courses provide college credit through agreements with Frederick Community College or certifications. Additional information regarding this program can be found in Appendix W. There will be three portable classrooms in use at CTC again in 2018-19.

Earth and Space Science Lab (ESSL) is an 11,750 square foot facility on the Lincoln ES campus. A new building to house this facility was constructed in 2009. This facility includes two classrooms, a planetarium, tanks housing live organisms, and a variety of resources for hands on instruction in meteorology, astronomy, oceanography, and geology for students in grades 1-5.

Lincoln "A" building is a 20,334 square foot building located on Madison Street in Frederick. Beginning in the 2018-19 school year, the Success program will be located in this building. The Success Program is a transition education program for students ages 18-21 who have an IEP and are pursuing a Maryland School Certificate of Completion. Child Find will also occupy the building. Frederick Boys and Girls Club will occupy the building when school is not in session.

Walkersville "B" building is a 27,352 square foot building located on Frederick Street in Walkersville. The Success Program was formerly located in this building, however, beginning in the 2018-19 school year, the Walkersville "B" building will become the Staff Development Center.

ADMINISTRATIVE FACILITIES

Administrative facilities are housed in two locations. The FCPS central office is at 191 South East Street in downtown Frederick City and houses the business services group and the education related staff. Technology support services, food services, maintenance/operations, transportation and Child Find are located at a two-building complex on Hayward Road and Thomas Johnson

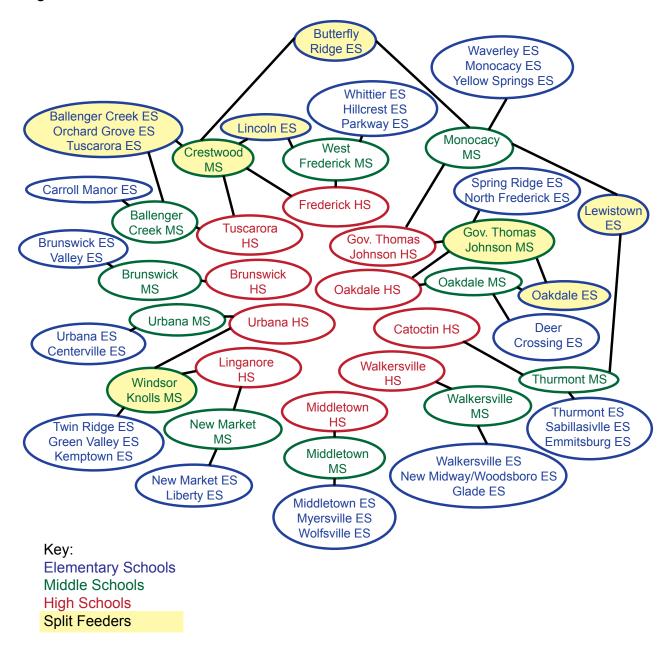
Drive, on the north side of Frederick City. Also included on this campus are a warehouse, bus storage and vehicle maintenance facilities.

FCPS completed a feasibility study in September 2017 for the Transportation Department's facilities. The study recommended replacement of the existing facility and eventual construction of a satellite facility totaling 48,500 square feet and parking space needs of 10.6 acres. Design specifications for design-build of the Hayward Road facility are underway and the project will be funded with a long term lease using operating budget funds.

ATTENDANCE AREA BOUNDARIES AND FEEDER PATTERNS

FCPS is organized into ten feeder patterns around each high school as shown in Figure 3D below. In general, 2-3 elementary schools (shown in blue) feed to each middle school (shown in green) and 1-2 middle schools feed to each high school (shown in red). A map depicting the relationships between elementary and high school attendance areas can be found in Appendix CC.

Figure 3D: 2017-2018 Feeder Patterns



Redistricting occurs when attendance boundaries are established for a newly constructed school or to balance enrollments between adjoining schools. While allowable under the BOE's redistricting policy, FCPS has tried to reduce the number of split feeders where one elementary fed to two middle schools or one middle school fed to two high schools; however, sometimes split feeders are necessary to balance student populations.

SCHOOL REDISTRICTING PLANNING

The BOE has established policies and procedures that govern changes to attendance areas for schools across the system. Ideally, redistricting should be undertaken as infrequently as possible while still addressing other school system needs such as reducing overcrowding. BOE Policy 200.2 lists factors that the BOE considers when establishing new attendance area boundaries. FCPS policies and procedures for redistricting can be found in <u>Appendix Q</u>.

Since 1994, FCPS has conducted 16 major redistricting studies in almost every section of the county. Most of these redistricting projects were associated with the opening of new schools. Others, however, were conducted to balance enrollments between adjoining school districts.

Aredistricting study to establish attendance area boundaries for the new Butterfly Ridge Elementary School took place during the 2016-2017 school year. The new boundaries go into effect when the school opens in August 2018. The new Butterfly Ridge Elementary School attendance area draws students from the Hillcrest, Waverley, and Orchard Grove elementary attendance areas. The boundaries of Lincoln, Parkway, Tuscarora, Carroll Manor, and Valley elementaries were also adjusted to help balance enrollments. Small adjustments were also made at the middle school and high school level, impacting West Frederick Middle, Crestwood Middle, Monocacy Middle, Ballenger Creek Middle, Frederick High, and Governor Thomas Johnson High. Full results of the redistricting study can be found on the FCPS website.

In summer 2018, FCPS will begin a redistricting study for the Urbana area to establish new attendance boundaries for Sugarloaf Elementary School and to balance enrollments at neighboring schools. This study is anticipated to focus on Urbana and Centerville elementary schools but may also impact Kemptown, Green Valley, and Oakdale elementary schools, Urbana, Windsor Knolls, Oakdale, and New Market middle schools, and Urbana, Linganore, and Oakdale high schools. The BOE is expected to approve the final redistricting recommendations in summer 2019. They will go into effect in the fall of 2020 when Sugarloaf Elementary opens as a new school. Urbana Elementary students and staff will be temporarily housed in the Sugarloaf building during the 2018-19 and 2019-20 school years while the old building is demolished and rebuilt.

Redistricting studies will continue to occur primarily in connection with the opening of new schools. For the next 10 years, redistricting will be needed most frequently at the elementary level. Within the ten year plan outlined in this document, three new elementary schools are anticipated by this plan to open along with one elementary school addition. During these redistricting studies, middle and high schools will also be included to balance enrollments between schools and to evaluate feeder schools. A list of potential redistricting studies associated with the opening of new schools is shown in Table 3A below.

Other potential redistricting studies that the BOE may consider are associated with areas where adjoining schools have unbalanced enrollments based on current or projected enrollment growth and school overcrowding. Candidate projects will be recommended on an annual basis.

New School	Study Initiates	School Opening
New Sugarloaf ES	2018	2020
Waverley ES replacement	2020	2022
New east county area ES	2020	2022
New north Frederick City area ES	2023	2025
New south Frederick City area ES	2025	2027
New Brunswick area ES	2026	2028

RESOURCES

School Facility Sites

City and county officials identify property for school sites through the residential development approval process. Both county and city zoning regulations can compel, under certain circumstances, dedication of land for future school construction. Of the 26 new schools completed since 1990, 14 were constructed on dedicated sites. This saved taxpayers millions of dollars in land acquisition costs. In the future, new schools are also expected to be located on dedicated sites.

FCPS continues to work with both the county and municipalities to secure additional school sites for future construction. Appendix L contains a list of potential future school sites. Seven sites are planned to be dedicated through approved rezonings, annexed properties, or preliminary plan approvals, while the BOE already owns seven sites for future schools. Finally, in addition to these sites, the city and county comprehensive plans indicate the general locations of additional school sites necessary to serve future residential areas. These are located throughout the county and may be dedicated in the future or purchased by the BOE.

Funding

Funding for major new school construction, additions, and renovations is programmed through the capital budget of the county and state. At the state level, the governor establishes a total funding pool available for major school construction projects. Local jurisdictions, such as Frederick County, then compete for these funds through an application process.

The process involves a review by the State Public School Construction Program staff and the Interagency Committee on School Construction. Capital budget requests are due in October. Final capital budget decisions are made in May. The level of state funding available to FCPS each year has varied considerably from a low of about \$9.7 million in FY2005 to a high of \$24.7 million in FY2002. Over the past five years, state funding has averaged approximately \$19 million each year.

Frederick County Government also provides funding for major new school construction projects. Each year, the County Executive prepares a 6-year program of construction for all county agencies and several independent entities, including FCPS. Once the County Executive releases a proposed capital budget in April, the County Council reviews and approves a final capital budget following a public hearing in May or June. FCPS has been fortunate in the past that the County elected officials have been willing to forward fund the entire state's share of the school construction project so that the project can move forward while the state funds their share of the project over several fiscal years.



In addition to the capital projects funded through state and county capital budgets, FCPS administers projects funded through two other state funding programs. These programs utilize special funding set aside by the state for a particular purpose:

- Aging School Program: The Maryland General Assembly approved this grant program in 1997. Under this program, funds are made available for a wide variety of building repair or improvement projects. From FY98 to FY18, nearly \$4.27 million for 74 projects has been approved for Frederick County. Another \$182,622 in ASP funding was allocated to Frederick County for FY19.
- Qualified Zone Academy Bond Program: The state administers this program using a debt instrument made available through the congressionally approved "Tax Reform Act of 1997." Special bonds sold under this program result in funds that must be directed toward schools where 10% of the project's value is contributed by a business or private non-profit group. Older school buildings have priority. Since the program began, QZAB funds totaling approximately \$4.7 million has been awarded to FCPS. The Federal Corporate Tax Cut Bill has eliminated the issuance of Qualified Zone Academy Bonds, which suspends the QZAB program until further notice.

Finally, developers may also contribute to new funding for school construction. To meet the requirements of the County's APFO, a developer has the option to fund the improvements needed to meet the county's APFO standards or to wait until the improvement is funded by the county and/or the state. Some previously approved developments have the option to pay a school construction fee to move forward after failing the APFO schools test, as discussed in Chapter II. School construction fees were allocated to pay, in part, for the addition to Urbana Middle School. In 2005, the developer of the Linton property agreed to fund the addition to Tuscarora High in order to meet the county's school adequacy standards. BOE policy 202.7 offers guidelines for considering similar projects in the future.

SUMMARY OF FACILITY RESOURCES

System-wide, existing elementary school facilities are operating over the BOE's goal of 90% SRC. However, FCPS continues to address overcrowding at the elementary level, reducing the number of elementary schools at or over 100% of SRC. A redistricting study was completed to establish an attendance area for the new Butterfly Ridge Elementary School scheduled to open in August 2018. At the individual school level, there are also several schools at the secondary level that are at or over capacity. New school construction, school additions, and redistricting studies at strategic locations will be necessary to respond to future enrollment growth. At the same time, as the physical plant of the system continues to age, FCPS will need to budget funds for renovation or major repairs to respond to the needs of individual schools.