Chapter 3

Facility Planning Objectives

The *Superintendent's Recommended FY 2018 Capital Budget and Amendments to the FY 2017–2022 Capital Improvements Program (CIP)* are closely aligned with the school system strategic planning framework—*Building Our Future Together*. The Framework is built around three competencies—Academic Excellence, Creative Problem Solving, and Social Emotional Learning. These competencies are what MCPS students will need to compete and thrive in the 21st century. The foundation for the strategic planning framework focuses on organizational effectiveness which states that MCPS will:

- Engage collaboratively and respectfully with all partners, building a self-renewing learning community that reflects our values
- Provide the highest quality business operations and support services that are essential to the educational success of all students
- Organize and optimize resources, including effective use of technology and sustainable practices
- Establish strategic processes for operational excellence, customer service, and shared accountability that support teaching and learning
- Hire for excellence and build capacity of all staff
- Promote effective two-way communication

In addition to the strategic planning framework, Board of Education Policy FAA, *Long-range Educational Facilities Planning* and MCPS Regulation FAA-RA, *Long-range Educational Facilities Planning and the Capital Improvement Priorities*, listed below, guide the development of the CIP.

Capital Improvement Priorities

1. Compliance Projects
2. Capital Maintenance Projects
3. Capacity Projects
4. Revitalization/Expansion Projects
5. System Infrastructure Projects
6. Technology Modernization Project

Setting priorities is important in times of fiscal constraints. The CIP includes funding for capital projects in all priority areas and represents a balanced approach to address the many needs of the school system. A brief description of the type of projects that are included in each priority area follows:

- Priority #1—Compliance Projects. This includes funding to address mandates, including American with Disabilities Act (ADA), asbestos abatement, fire safety upgrades, storm water discharge, water quality management, and Washington Suburban Sanitary Commission (WSSC) requirements. These projects must be completed in a timely fashion to be in compliance with laws and regulations.
- Priority #2—Capital Maintenance. This includes funding countywide projects that maintain school facilities in good condition so that they are safe, secure, and comfortable learning environments. In addition, capital projects in this area preserve school assets and can avert more costly repairs or replacements in the future.
- Priority #3—Capacity Projects. This includes funding for new schools and additions so facilities can operate within capacity.
- Priority #4—Revitalization/Expansion Projects. Funding in this area is important to preserve aging facilities and bring schools up to current educational program and building standards.
- Priority #5—System Infrastructure. Funding in this area provides for facilities important to the operation of schools, including transportation depots, maintenance depots, the warehouse, and the upgrading of food services equipment.
- Priority #6—Technology Modernization. Funding in this area enables computers and technology to be upgraded periodically so that student learning is supported by up-to-date technologies.

Long-range Educational Facilities Planning Policy Guidance

On June 17, 2014, the Board of Education adopted a revision to Policy FAA, *Long-range Educational Facilities Planning*, to align Policy FAA with the recent update of Policy ABA, *Community Involvement*. This update was part of an initiative to align all Board policies that have a community involvement component with Policy ABA.

Policy FAA requires that the superintendent of schools include in the CIP recommendations, each fall, a review of certain guidelines involved in facility planning activities. The four guidelines include: preferred range of enrollment, school capacity calculations, desired facility utilization levels, and school site size. Including the guidelines as part of the superintendent's CIP recommendations allows the community an opportunity to provide testimony to the Board of Education on the guidelines and any proposed changes to the guidelines.

See Appendix S for Policy FAA and Regulation FAA-RA.

Preferred Range of Enrollment

The preferred range of enrollment for schools includes all students attending a school. The preferred ranges of enrollment for schools are:

- 450 to 750 students in elementary schools
- 750 to 1,200 students in middle schools
- 1,600 to 2,400 students in high schools

- Enrollment in special and alternative program centers may differ from the above ranges and generally is lower.

The preferred range of enrollment is considered when planning new schools or when changes are made to existing schools. Departures from the preferred ranges may occur if circumstances warrant.

School Capacity Calculations

Unless otherwise specified by Board action, the program capacity of a facility is determined by the space requirements of the educational programs in the facility and student-to-classroom ratios. These ratios should not be confused with staffing ratios that are determined through the annual operating budget process. Program capacity is based on the current classroom ratios shown below:

Head Start and prekindergarten—2 sessions	40:1
Head Start and prekindergarten—1 session	20:1
Grade K—full-day	22:1
Grade K—reduced class size	18:1
Grades 1–2—reduced class size	18:1
Grades 1–5 Elementary	23:1
Grades 6–8 Middle	25:1[a]
Grades 9–12 High	25:1[b]
Special Education, ESOL, Alternative Programs[c]	

[a]Program capacity is adjusted at the middle school level to account for scheduling constraints. The regular classroom capacity of 25 is multiplied by .85 to reflect the optimal utilization of a middle school facility (equivalent to 21.25 students per classroom).

[b]Program capacity is adjusted at the high school level to account for scheduling constraints. The regular classroom capacity of 25 is multiplied by .9 to reflect the optimal utilization of a high school facility (equivalent to 22.5 students per classroom).

[c]Special Education, ESOL, alternative programs, and other special programs may require classroom ratios different from those listed.

School Facility Utilization

Unless otherwise specified by Board action, elementary, middle, and high schools should operate in an efficient facility utilization range of 80 to 100 percent of program capacity. If a school is projected to be underutilized (less than 80 percent) or overutilized (over 100 percent), then a boundary study, non-capital action, or a capital project may be considered. Whether a school meets the preferred range of enrollment also is considered. In the case of overutilization, an effort to judge the long-term need for permanent space is made prior to planning for new construction. Underutilization of facilities also is evaluated in the context of long-term enrollment forecasts.

School Site Size

School Site Size is the minimum acreage desired to accommodate the full instructional program, as follows:

- Elementary schools—a minimum useable site size of 7.5 acres that is capable of fitting the instructional program, including site requirements. The 7.5 acres is based on an ideal leveled site, and the size may vary depending on site shapes and surrounding site constraints.
- Middle schools—a minimum useable site size of 15.5 acres that is capable of fitting the instructional program, including site requirements. The 15.5 acres is based on an ideal leveled site, and the size may vary depending on site shapes and surrounding site constraints.
- High schools—a minimum useable site size of 35 acres that is capable of fitting the instructional program, including site requirements. The 35 acres is based on an ideal leveled site, and the size may vary depending on site shapes and surrounding site constraints.

Facility Planning Objectives

Adequate and up-to-date school facilities form the physical infrastructure needed to pursue MCPS goals and priorities. Long-range facility plans, as reflected in this CIP, provide justification for the programming and construction of new school facilities and revitalization/expansion projects. Facility planning and capital programming activities are closely coordinated with educational program delivery approaches. In addition, an emphasis is placed on the inclusion of stakeholders in facility planning processes.

Six objectives guide the facilities planning process and development of each CIP. These objectives are outlined below, with the remainder of this chapter dedicated to providing information on planning within each objective. The CIP also incorporates plans to implement the State of Maryland Bridge to Excellence Master Plan requirement to identify programs that allow all eligible children admittance, free of charge, to publicly-funded prekindergarten programs.

OBJECTIVE 1: Implement facility plans that support the continuous improvement of educational programs in the school system

OBJECTIVE 2: Meet long-term and interim space needs

OBJECTIVE 3: Sustain and revitalize facilities

OBJECTIVE 4: Provide schools that are environmentally safe, secure, functionally efficient, and comfortable

OBJECTIVE 5: Support multipurpose use of schools

OBJECTIVE 6: Meet space needs of special education programs

OBJECTIVE 1: Implement Facility Plans that Support the Continuous Improvement of Educational Programs in the School System

As the school system continues to focus program initiatives to improve student performance, facility plans are developed to address the space needs and facility requirements of schools. Implementing school system educational priorities that require more classroom and support space continues to be a challenge, particularly over the past 30 years of steady enrollment growth. With student enrollment increasing rapidly at the secondary schools, the school system will continue to be challenged to provide adequate capacity.

2016–2017 Class Size Reduction Schools

Arcola	S. Christa McAuliffe
Lucy V. Barnsley	Meadow Hall
***Bel Pre**/Strathmore	Mill Creek Towne
Brookhaven	*Montgomery Knolls/
Brown Station	Pine Crest
Burnt Mills	***New Hampshire
Burtonsville	Estates/Oak View**
Cannon Road	***Roscoe Nix/
Clopper Mill	Cresthaven**
Capt. James E. Daly	Oakland Terrace
Dr. Charles R. Drew	William T. Page
East Silver Spring	Judith A. Resnik
Fairland	Sally K. Ride
Fields Road	Rock Creek Forest
Flower Hill	Rock Creek Valley
Fox Chapel	Rock View
Forest Knolls	**Rolling Terrace**
Gaithersburg	Rosemont
Galway	Sequoyah
Georgian Forest	**Sargent Shriver**
Glen Haven	Flora M. Singer
Glenallan	**South Lake**
Goshen	Stedwick
Great Seneca	Strawberry Knoll
Greencastle	**Summit Hall**
Harmony Hills	*Takoma Park/Piney
Highland	Branch
Highland View	Twinbrook
Jackson Road	**Viers Mill**
Kemp Mill	**Washington Grove**
Lake Seneca	Waters Landing
JoAnn Leleck ES at	**Watkins Mill**
Broad Acres	**Weller Road**
Maryvale	**Wheaton Woods**
	Whetstone

Schools receive staffing to reduce class sizes in Grades K–2.
*These schools are paired, Grades K–2/3–5.
Schools in bold are Title I schools in the 2015–2016 school year.

Several educational program initiatives require more classroom and support space. These initiatives include the reduction in class sizes in Grades K–2 for the 63 schools most heavily affected by poverty and English language deficiency (called "focus schools") and the expansion of full-day kindergarten to all elementary schools in MCPS. Creative uses of existing space in schools, modifications to existing classrooms, and placement of relocatable classrooms are all used to accommodate the additional staff needed to implement these initiatives. At schools with capital improvements in the facility planning or architectural planning phase, additional classrooms are provided to accommodate these initiatives. These initiatives are described in further detail in the following paragraphs.

Class Size Reductions

In the 2000–2001 school year, the Board of Education began a three-year initiative to reduce class size in the primary grades as a key component of the Early Success Performance Plan. Over a three-year period, class size in Grades K–2 in the focus schools most heavily impacted by poverty and language deficiency were reduced for the full instructional day to an average of 17 students per teacher in Grades 1–2 and 15 students per teacher in full-day kindergarten. (See chart on page 3-3.) Reducing class sizes in Grades K–2 had a dramatic impact on utilization levels in elementary schools, creating the need for additional classrooms to accommodate the increased number of teaching positions. Beginning in FY 2012, the staffing guidelines for the focus schools increased to an average of 18 students per teacher in Grades K–2. Beginning in FY 2015, Fields Road Elementary School became a focus school and received staffing to reduce class sizes in Grades K–2. Beginning in FY 2015, Great Seneca Creek Elementary School became a focus school and receive staffing to reduce class sizes in Grades K–2.

Head Start and Prekindergarten Programs

The Bridge to Excellence in Public Schools Act of 2002 requires that all eligible children "shall be admitted free of charge to publicly funded prekindergarten programs" established by the Board of Education. These programs are located yearly, based on need in the community and transportation travel times. The locations are shown in Appendix N.

Signature and Academy Programs

Most high schools have developed and implemented signature and/or academy programs. Some of these programs are whole school programs, while others are structured as a special program offering at the school. Signature and academy programs have been developed to raise student achievement by matching programs with student interests. Some signature programs require specialized classrooms or laboratories to support the delivery of the educational program. As high schools are revitalized/expanded, specialized spaces for the signature programs are designed as part of the revitalization/expansion project. However, some high schools do not have revitalization/expansion projects scheduled in the next six years and may require facility modifications to accommodate signature or academy programs. Minor modifications that are needed to individual classrooms are completed through countywide capital projects.

Information Technologies

MCPS has a strong commitment to prepare today's students for life in the 21st century and to ensure a technologically literate citizenry and an internationally competitive work force. Board of Education Policy IGS, Educational Technology strives to ensure that educational technology is appropriately and equitably integrated into instruction and management to increase student learning, enhance the teaching process, and improve the operation of the school system.

The Technology Modernization Project provides the needed technology updates and computers in every school. Funds included in this project update schools' technology hardware, software, and network infrastructure. Up-to-date technology enhance student learning through access to online information and through the ability to use the latest instructional software. MCPS is planning a multiyear effort to provide all students with access to mobile computers and a cloud-based learning platform that will enhance creativity and collaboration in the classroom. These technologies also are critical for implementing online testing strategies.

OBJECTIVE 2: Meet Long-term and Interim Space Needs

Montgomery County has demonstrated a strong commitment to providing sufficient school facilities. Funding capital improvements has been a challenge since 1983 when enrollment began to rise sharply. MCPS enrollment is now 68,212 students greater than it was in 1983, and 34 elementary schools, 17 middle schools, and 6 high schools have been constructed. Numerous additions to existing schools also have been constructed to accommodate the growth in enrollment. This year, MCPS is operating a total of 204 school facilities, including: 133 elementary schools, 39 middle schools, and 25 high schools; 1 career and technology high school; 5 special education schools; and 1 alternative education center.

Long-term Space Needs

A continued commitment to capital projects for the next six years is necessary to address overdue space needs and keep up with rising enrollment. This year's official school enrollment is 159,242 students. Enrollment is projected to be 168,480 students by 2022. The CIP identifies where space deficits are projected to occur and how the school system plans to address them. Due to the high level of school utilization throughout the school system, there are very few opportunities to address school space shortages through boundary changes among existing schools. Therefore, additions to existing schools, the opening of new schools, and the revitalization/expansion projects at schools are all important strategies to address space needs. For a summary of recommended capital projects, please see the table in Chapter 1, labeled "County Council Recommended FY 2018 Capital Budget and the Amendments to the FY 2017–2022 Capital Improvements Program Summary Table" (page 1–6).

To develop long-term space plans for schools, school planners annually review the space available at schools by comparing the enrollment projections with program capacity in the sixth year of the CIP planning period. When the enrollment exceeds the program capacity of a school planners may consider several strategies to address the overutilization of a school. These strategies include:

- Determine if space is available at adjacent or nearby schools and reassign students to a school(s) with space available;
- Consider an addition at the school to accommodate the enrollment if possible. If the school cannot be expanded to accommodate the projected enrollment, additions could be considered at nearby schools and students reassigned to these schools. For a classroom addition to be considered for funding at an individual school the following thresholds need to be met:
- Elementary school—the enrollment needs to exceed capacity by four classrooms or more (a minimum of 92 seats) in the sixth year of the CIP period
- Middle school—enrollment needs to exceed capacity by six classrooms or more (a minimum of 150 seats) in the sixth year of the CIP period
- High school—enrollment needs to exceed capacity by eight classrooms or more (a minimum of 200 seats) in the sixth year of the CIP period
- Consider the opening of a new school if reassignments and increasing capacity of existing schools is not sufficient to address the projected enrollment. Expanding schools to their maximum core capacity is considered before the opening of a new school. A new elementary school may be considered if the clusterwide deficit of space exceeds 500–600 seats. Deficits close to the size of a new secondary school would support a new middle or high school.

School planners also review the impact of school utilization on the county Subdivision Staging Policy. When possible, school facility plans attempt to keep clusters from being placed in a housing moratorium.

To address growing enrollment in the county, the Superintendent's Recommended FY 2018 Capital Budget and Amendments to the FY 2017–2022 CIP includes funds for three new schools that are listed below:

- Bethesda-Chevy Chase Middle School #2 (opens August 2018)
- Richard Montgomery Cluster #5 (opens August 2018)
- Clarksburg Cluster Elementary School (Clarksburg Village Site #2) (opens August 2019)

In addition to these schools, a site selection study is recommended for a new elementary school, Clarksburg Cluster Elementary School #9, in the Clarksburg Cluster. Funding for this school will be considered in a future CIP.

New and Reopened Schools, 1985 to 2016

1985	Flower Hill ES, Lake Seneca ES
1986	Clopper Mill ES
1987	Jones Lane ES; Chirsta McAuliffe ES
1988	Goshen ES, Greencastle ES, Clearspring ES, Stone Mill ES, Strawberry Knoll ES, Waters Landing ES, Quince Orchard HS
1989	Cloverly ES, Capt. James E. Daly ES, Cabin John MS, Watkins Mill HS
1990	Brooke Grove ES, Ronald McNair ES, Sequoyah ES, Briggs Chaney MS, Francis Scott Key MS
1991	Dr. Charles R. Drew ES, Judith A. Resnik ES
1992	Dr. Sally K. Ride ES, Lois P. Rockwell ES, Rosa M. Parks MS
1993	Thurgood Marshall ES, Argyle MS
1994	Roberto Clemente MS
1995	Forest Oaks MS, Rocky Hill MS
1996	Neelsville MS
1997	Kingsview MS, John Poole MS
1998	James Hubert Blake HS, Northwest HS
1999	Sligo Creek ES, North Bethesda MS
2000	None
2001	Spark M. Matsunaga ES
2002	Newport Mill MS
2003	None
2004	Northwood HS
2005	Lakelands Park MS, A. Mario Loiederman MS
2006	Great Seneca Creek ES, Little Bennett ES, Roscoe Nix ES, Sargent Shriver ES, Clarksburg HS
2007	Arcola ES
2008	None
2009	William B. Gibbs, Jr. ES
2010	None
2011	None
2012	Flora M. Singer ES
2013	None
2014	Wilson Wims ES
2015	None
2016	Hallie Wells MS

34 Elementary Schools, 18 Middle Schools, 6 High Schools, Source: Montgomery County Public Schools, Division of Long-range Planning, October 2016.

Number of Additional Rooms Planned—Addition Projects

School	Number of Rooms Planned*	Completion Date
Lucy V. Barnsley ES	11	8/18
Bethesda-Chevy Chase HS	33	8/18
Diamond ES	7	8/18
North Bethesda MS	17	8/18
Kensington-Parkwood ES	14	8/18
Ashburton ES	4	8/19
S. Christa McAuliffe ES	12	8/19
Burtonsville ES	9	8/20
Gaithersburg ES	15	8/20
Montgomery Knolls ES	4	8/20
Pine Crest ES	9	8/20
Thomas W. Pyle MS	14	8/20
Judith A. Resnik ES	9	8/20
Takoma Park MS	25	8/20
Col. E. Brooke Lee MS	21	8/21
Piney Branch ES	5	8/21
Walt Whitman HS	27	8/21
East Silver Spring ES	4	8/22
Greencastle ES	8	8/22
Woodlin ES	8	8/22

*The number of rooms includes classrooms that are being added with new construction. These rooms include teaching stations that are counted in capacity as well as teaching stations in the elementary school that are not counted in the capacity—art, music, dual purpose room, and the computer laboratory.

In addition to new school openings, classroom addition projects are planned to address overutilization at schools. Planning and/or construction funds are approved for 22 addition projects as part of the Adopted FY 2017–2022 CIP. These schools are listed on the table above, along with the number of rooms in the additions, and the completion dates. Prior to requesting funding for a classroom addition project, facility planning funds are requested to conduct a feasibility study to determine the feasibility, scope, and cost of a classroom addition.

An FY 2018 appropriation for facility planning funds is recommended to conduct feasibility studies for the following schools:

- Alternative Education Programs at Blair G. Ewing Center
- Clarksburg Cluster Elementary School #9
- Quince Orchard High School

To address growing enrollment in the Downcounty Consortium high schools, a capacity study was approved to conduct a comprehensive capacity study for the Downcounty Consortium high schools. The study will explore the possibility of adding capacity to the Downcounty Consortium through classroom additions at Montgomery Blair, Albert Einstein, John F. Kennedy, and/or Northwood high schools. As part of the revitalization/expansion project at Wheaton High School,

the building shell of the master-planned addition will be constructed as part of the ongoing project.

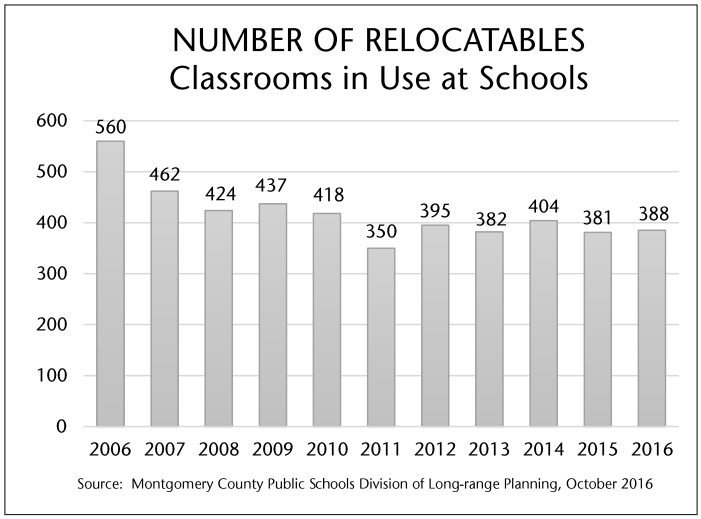
Due to large enrollment increases in the Walter Johnson Cluster in the past eight years a roundtable discussion group was approved for this cluster to gather input on a range of approaches to accommodate short-term and long-term enrollment increases. The roundtable met in the spring of 2016. The superintendent of schools released his recommendation regarding this roundtable on October 13, 2016, as Supplement B to the Superintendent's Recommended FY 2018 Capital Budget and Amendments to the FY 2017–2022 CIP, which can be found on the MCPS website at the following link: *http://gis.mcpsmd.org/cipmasterpdfs/CIPFY18_SupplementB_WJClusterSchools.pdf*

Many schools that are scheduled for revitalization/expansion projects also have increases in capacity as part of the project to accommodate growing enrollment. The table to the right lists the schools that will have revitalization/expansion projects completed in the six-year CIP period and the number of rooms being added as part of the revitalization/expansion projects.

Interim Space Needs

The use of relocatable classrooms on a short-term basis has proven to be successful in providing schools the space necessary to deliver educational programs. Relocatable classrooms provide an interim learning environment for students until permanent capacity can be constructed. Relocatable classrooms also enable the school system to avoid significant capital investment where building needs are only short term. The number of relocatable classrooms in use grew dramatically as program initiatives described under Objective 1 were implemented and enrollment increased. The number of relocatable classrooms declined between 2005 and 2008 as enrollment plateaued and capacity projects opened. However, with enrollment increasing again, the number of relocatable classrooms is expected to increase in the future. In the 2016–2017 school year, over 8,900 students attended class in 388 relocatable classrooms. This number does not include relocatable classrooms used for daycare, to stage construction on site at schools, or relocatables located at holding facilities and other facilities throughout the school system.

With the implementation of wireless technology and mobile devices at all schools, the need for computer laboratories has decreased. At some schools with space needs, the school system converted some computer laboratories to standard classrooms to deliver the educational programs beginning in the 2013–2014 school year.



Number of Additional Rooms Planned–Revitalization/Expansion Projects

School	Number of Rooms Planned*	Completion Date
Brown Station ES	11	8/17
Wheaton Woods ES	17	8/17
Seneca Valley HS	49	8/19
Luxmanor ES	10	1/20
Maryvale ES	7	1/20
Potomac ES	6	1/20
Tilden MS	11	8/20
Thomas S. Wootton HS	12	8/21
Eastern MS	10	8/22

Non-Capital Actions

A boundary study was approved to determine the service area for Bethesda-Chevy Chase Middle School #2. Representatives from the Bethesda-Chevy Chase Cluster. The boundary study met during spring 2016. The superintendent of schools released his recommendation as Supplement A to the Superintendent's Recommended FY 2018 Capital Budget and Amendments to the FY 2017–2022 CIP on October 13, 2016. The Board of Education Is scheduled to act on the recommendation on November 17, 2016. The new middle school is scheduled to open in August 2017. The superintendent's recommendation is available on the MCPS website at the following link: http://www.montgomeryschoolsmd.org/departments/planning/boundary.aspx

A boundary study was approved for residents of the Unity area to consider a reassignment from the Gaithersburg Cluster schools to the Sherwood Cluster schools. The boundary review will be conducted in the fall 2016 with followed by the superintendent of school's recommendation in February 2017 and Board of Education action in March or April 2017. The Board of Education action authorizing the boundary review is located on the MCPS website at the following link: *http://gis.mcpsmd.org/cipmasterpdfs/CIP17_AdoptedBoundaryStudyUnityArea.pdf*

A boundary study was approved to reassign the portion of the Shady Grove Sector Plan that is located east of Interstate 370 in the Gaithersburg Cluster to the Col. Zadok Magruder Cluster. Representatives from Washington Grove Elementary School, Forest Oak Middle School, and Gaithersburg High School in the Gaithersburg Cluster and Candlewood Elementary School,

Shady Grove Middle School, and Col. Zadok Magruder High School in the Col. Zadok Magruder Cluster will participate in the boundary advisory committee. The boundary study will occur in the spring 2017 with Board of Education in fall 2017 and implementation scheduled for fall 2018.

A boundary study is recommended to determine the service area for Richard Montgomery Elementary School #5. Representatives from the Beall, College Gardens, and Ritchie Park elementary school service areas will participate on the boundary advisory committee. Pursuant to the Board of Education action on November 18, 2010, the boundary study will explore options to reassign the Chinese immersion program from College Gardens Elementary School to another elementary school in the Richard Montgomery Cluster as part of the boundary advisory study. The boundary study will occur in spring 2017 with Board of Education action in November 2107. The new elementary school is scheduled to open in August 2018.

A boundary study is recommended to explore the possibility to reassign the area of Highland Elementary School, currently assigned to Sligo Middle School to Newport Middle School. Representatives from Highland Elementary School and Newport Mill and Sligo middle schools will participate on the boundary advisory committee. The boundary study will occur in winter 2016 with Board of Education action in winter 2017.

OBJECTIVE 3: Sustaining and Revitalizing Facilities

The Board of Education, superintendent of schools, and school community recognize the necessity to maintain schools in good condition through a range of activities that includes routine daily maintenance to the systematic replacement of building systems. A number of capital projects provide funds for systematic life-cycle asset replacement, including the Roof Replacement Program, the Heating, Ventilation, and Air Conditioning (HVAC) Program, and the Planned Life Cycle Asset Replacement (PLAR) Program. Because schools built or revitalized since 1985 are generally of higher construction quality than schools built prior to 1985, it is possible to extend the useful life through a high level of maintenance and replacement of building systems. In the coming years, more funds will be directed to capital projects that sustain facilities in good condition for longer periods than have been feasible in the past.

The Board of Education, superintendent of schools, and school community also recognize that even well-maintained facilities eventually reach the end of their useful life span and require revitalization. Revitalization/expansion projects update school facilities and provide the variety of instructional spaces necessary to effectively deliver the current curriculum. These projects also bring schools up to current design and code standards. The cost to revitalize/expand an older school so that it is educationally, technologically, and physically up-to-date, is similar to the cost to construct a new school. In most cases, a life cycle cost analysis shows it is more cost effective to replace an older school facility rather than attempt to salvage portions of the old facility.

In recognition of the need to place more emphasis to sustain all schools in good condition, the Board of Education recently updated its policy on school revitalization/expansion projects. The previous policy, called Policy FKB, *Modernization/Renovation*, was adopted in 1992. On December 7, 2010, the Board of Education adopted a new policy, called FKB, *Sustaining and Modernizing Montgomery County Public Schools (MCPS) Facilities*. The policy is found in Appendix U. The updated Policy FKB enacts a long-term view for sustaining MCPS facilities until the

Holding Facility Schedule

Holding Facility	SY 16–17	SY 17–18	SY 18–19	SY 19–20	SY 20–21	SY 21–22	SY 22-23
ELEMENTARY SCHOOLS							
Emory Grove Center	Brown Station					DuFief**	Damascus**
Fairland Center						Stonegate**	
Grosvenor Center	Wayside		Luxmanor			Cold Spring**	Twinbrook**
North Lake Center	Wheaton Woods	Lucy V. Barnsley	Maryvale			Belmont**	Summit Hall**
Radnor Center			Potomac				Rosemary Hills**
MIDDLE SCHOOLS							
Tilden Center/ Woodward Center*			*To be revitalized/expanded*		Eastern*		

** Tilden Middle School is currently located in the Woodward Center. A revitalization/expansion for Tilden Center is scheduled for completion in August 2020 which will house Tilden Middle School and Rock Terrace School. Based on the adopted FY 2017–2022 CIP, the Woodward facility would become a secondary holding facility. However, based on the superintendent of schools recommendation was released on October 13, 2016 for the Walter Johnson cluster schools to explore the possible reopening of Woodward High School, this use may change. See Supplement B for the Superintendent's Recommended FY 2018 Capital Budget and Amendments to the FY 2017–2022 CIP for additional information which can be bound at the following link:*
http://gis.mcpsmd.org/cipmasterpdfs/CIPFY18_SupplementB_WJClusterSchools.pdf

***Pending the outcome of the FACT Committee reassessment, these schools are subject to change. (See Appendix J for more information.)*

point where a full revitalization/expansion project is necessary. The greater emphasis to maintain schools in good condition addresses concerns over the length of time it takes before schools are revitalized/expanded. Although a large number of schools have been revitalized since 1985—66 elementary schools, 13 middle schools, and 13 high schools—the availability of funds and the limited number of holding centers constrains the pace of revitalization/expansion projects. At the current rate, revitalizations/expansions of elementary schools occur on a 65-year cycle, middle schools occur on a 76-year cycle, and high schools occur on a 50-year cycle. By providing a higher level of maintenance at schools, facilities will be in good condition for a longer period of time.

The original list of schools for revitalization/expansion projects was scheduled using a standardized assessment tool called Facilities Assessment with Criteria and Testing (FACT). Schools beyond a certain age were assessed and scored on a standard set of facility and educational program space criteria. Schools scheduled for revitalization/expansion projects were rank ordered after the assessment. Because the original list of elementary schools in the queue for revitalization/expansion projects is almost complete, it was necessary to prepare for the assessment of additional schools that are aging and in need of revitalization/expansion projects. Therefore, the FACT methodology used to assess schools was updated in the 2010–2011 school year to reflect current educational programs and school design and code standards. The updated FACT methodology describes the following: the criteria used to assess the condition of schools; the measures that define each criterion; and the relative weights applied to the various criteria to obtain an overall score for each facility. The Board of Education adopted the updated FACT methodology on July 8, 2010, and 53 school assessments were completed at the end of June 2011.

The Adopted FY 2017–2022 CIP maintains the current revitalization/expansion approved schedule. However, based on the Montgomery County Council Office of Legislative Oversight (OLO) study released in July 2015 regarding the revitalization/expansion program and the Facility Assessment with Criteria and Testing (FACT) methodology used to rank the schools, and the work of the FACT Review Committee, the 53 schools have been reassessed using the revised FACT methodology, and the data is being compiled by the consultant. The superintendent of schools will release his recommendation on the queue of schools in winter 2017 for Board of Education in spring 2017. Pending the outcome of the reassessment, the queue for the revitalization/expansion projects may change. (For more information see Appendix J.) Schools that have planning or construction funds recommended in the six-year CIP period appear in Appendix I with a completion date.

Schools Revitalized/Expanded by Type 1985 to 2016

1985	Oak View ES, Woodfield ES
1986	Twinbrook ES
1987	Cedar Grove ES
1988	Bannockburn ES, Rosemary Hills ES, Gaithersburg MS
1989	Cloverly ES, Highland ES, Laytonsville ES, Monocacy ES, Montgomery Knolls ES
1990	Olney ES, Westbrook ES
1991	Beall ES, Burning Tree ES, Viers Mill ES, Sligo MS, Sherwood HS
1992	Pine Crest ES, Travilah ES, Walt Whitman HS
1993	Ashburton ES, Burtonsville ES, Clarksburg ES, Forest Knolls ES, Oakland Terrace ES, Thomas W. Pyle MS, White Oak MS
1994	Highland View ES, Meadow Hall ES, Springbrook HS
1995	Brookhaven ES, Georgian Forest ES, Jackson Road ES, North Chevy ES, Rosemont ES, Julius West MS
1996	Flower Valley ES, Kemp Mill ES
1997	Ritchie Park ES, Wyngate ES, Westland MS, Albert Einstein HS
1998	Lucy V. Barnsley ES, Westover ES, Montgomery Blair HS
1999	Bethesda ES, Harmony Hills ES, Rock View ES, Takoma Park MS, John F. Kennedy HS
2000	Mill Creek Towne ES, Chevy Chase ES
2001	Rock Creek Valley ES, Earle B. Wood MS, Bethesda-Chevy Chase HS
2002	Wood Acres ES
2003	Lakewood ES, William Tyler Page ES
2004	Glen Haven ES, Rockville HS
2005	Somerset ES, Kensington-Parkwood ES
2006	None
2007	College Gardens ES, Parkland MS, Richard Montgomery HS
2008	Galway ES
2009	Bells Mill ES, Cashell ES, Francis Scott Key MS, Walter Johnson HS
2010	Carderock Springs ES, Cresthaven ES
2011	Cannon Road ES, Farmland ES, Garrett Park ES, Seven Locks ES
2012	Beverly Farms ES, Paint Branch HS
2013	Glenallan ES, Weller Road ES, Herbert Hoover MS, Gaithersburg HS
2014	Bel Pre ES, Candlewood ES, Rock Creek Forest ES
2015	Wheaton HS
2016	None

66 elementary schools, 11 middle schools, and 13 high schools. Source: Montgomery County Public Schools, Division of Long-range Planning, October 2016.

OBJECTIVE 4: Provide Schools that Are Environmentally Safe, Secure, Functionally Efficient, and Comfortable

To maintain and extend the useful life of school facilities, MCPS follows a continuum of activities that begins the first day a new school is opened and ends when a school's revitalization/expansion begins. Funding for maintenance activities is found in both the capital and operating budgets. The trend for the past five years has been to provide a level of funding effort in both budgets for building maintenance and systemic renovations. Understanding the full cost of building maintenance is critical to develop a balance between the comprehensive maintenance plan and a revitalization/expansion schedule that reflects the school system's priorities.

MCPS has many projects designed to meet the capital maintenance needs of schools across the county. These countywide projects are described in Chapter 5. Countywide projects work with environmental issues, safety and security, and major building system maintenance in schools. These projects require an assessment of each school relative to the needs of other schools and include scheduled major repairs and replacement activities. The assessment process for most of the countywide projects is carried out through an annual review that involves a team of maintenance professionals, school principals, and consultants. On some projects, local, state, and federal mandates affect the scope and cost of the effort required.

Planned Life-cycle Asset Replacement (PLAR) and other countywide projects that focus on roof and mechanical system rehabilitation are essential to the long-term protection of the county's capital investment in schools. Because the projects to revitalize older schools must compete for funding with projects for building new schools, maintenance and rehabilitation projects for schools and relocatable classrooms take on even greater importance. A list of projects that were completed during summer 2016 can be found in Appendix M.

The Indoor Air Quality (IAQ) Improvements Project funds mechanical retrofits and building modifications to address indoor air quality projects in MCPS schools. An amendment to the FY 2000 Capital Budget created this project and funds improvements, such as major mechanical corrections, carpet removal, floor tile replacement, and minor mechanical retrofits. MCPS staff is required to report periodically to the County Council's Education Committee on the status of this project.

MCPS is committed to sustainability and conservation of resources in the design and operation of all facilities. Several programs exist to support these activities. The School Energy and Recycling Team (SERT) Program promotes efficient and responsible energy use and active recycling in all schools. The SERT Program strives to significantly reduce energy consumption and to increase recycling systemwide by providing training and education; incentives, recognition, and award programs for conservation; accessible energy and recycling data; individual school programs for energy and environmental investigation-based learning opportunities; and conservation operations and procedures. SERT staff works with students, teachers, staff, and the community to practice environmental stewardship and to develop strategies to reduce the carbon footprint of MCPS.

MCPS has implemented measures to reduce the environmental impact of its buildings through a comprehensive revision of its construction design guidelines. This revision incorporates best practices from the widely recognized Leadership in Energy and Environmental Design (LEED) rating system of the United States Green Building Council. Great Seneca Creek Elementary School, which opened in September 2006, was the first public school in Maryland to be "gold" certified under the LEED rating system for green buildings. Beginning in FY 2007, all new schools and revitalization/expansion projects are designed to achieve a LEED for Schools "silver" certification. Smaller green technology and conservation pilots have been introduced at several schools to provide a healthy and effective learning environment for students and staff.

OBJECTIVE 5: Support Multipurpose Use of Schools

MCPS recognizes the role schools play as centers of community activity and affiliation. The school system supports multipurpose use of its schools, especially in regard to uses that complement the educational program. Multipurpose uses of schools that promote family and community partnerships also are of great importance. Compatible uses of schools are factored into the facility planning process whenever possible. A prime example of compatible uses in schools is the leasing of available space in elementary schools to childcare providers. Most of the elementary schools in the system provide space for childcare providers through a mixture of full-day centers and before and after school services.

The Montgomery County Department of Health and Human Services (DHHS) Capital Budget includes several projects to provide services in county schools. In the Child Care in Schools Project, DHHS funds the construction of childcare classrooms in schools undergoing major construction or renovation. MCPS oversees the construction of the childcare classroom while DHHS arranges for the lease of the childcare classroom to a private childcare provider. Funds are included in the DHHS CIP to construct childcare classrooms at Brown Station and Wheaton Woods elementary schools.

Linkages to Learning, a collaborative program between the school system, DHHS, and private community providers, addresses the complex social and mental health needs of an increasingly diverse and economically impacted population in Montgomery County. In order to address possible barriers to learning, a variety of mental health, social, and educational support services are brought together at Linkages to Learning sites. In addition, services are provided at the School Health

Services Center at Rocking Horse Road. The long-range plan is to expand the Linkages to Learning programs to additional schools. Funding is included in the DHHS CIP to construct a Linkages to Learning suite at Maryvale and Wheaton Woods elementary schools.

Since fall 1997, Linkages to Learning/School-based Health Centers (SBHC) have been providing enhanced health resources to students and their families. In response to the County Council Health and Human Services Committee request for a plan to expand SBHCs to additional school sites, the School-based Health Centers Interagency Planning Group was convened by DHHS. The planning group was an interagency group that developed selection criteria to rank schools and a timeline for constructing new SBHCs at school sites. Based on the work of the workgroup, several school were identified to receive a SBHC. The following table shows the schools that have SBHCs along with the opening date:

SBHC Schools	Opening Date
Joann Leleck at Broad Acres ES	1997
Harmony Hills ES	1997
Gaithersburg ES	2005
Summit Hall ES	2008
New Hampshire Estates ES	2009
Rolling Terrace ES	2011
Highland ES	2012
Viers Mill ES	2013
Weller Road ES	2013

In spring 2006, the School-based Wellness Center Planning Group was convened. The planning group was charged with describing the services that would be offered at wellness centers at high schools and to identify criteria and a decision-making process for prioritizing schools sites for wellness centers. As a result of the work of the planning group, Northwood High School was the first school to receive a School-based Wellness Center (SBWC) in August 2007. School-based Wellness Centers opened in August 2013 at Gaithersburg and Watkins Mill high schools and in January 2016 at Wheaton High School. Funding is included in the DHHS CIP to open a School-based Wellness Center at Seneca Valley High School in August 2019. MCPS and DHHS staffs work collaboratively to develop the design for all the DHHS projects. Facility planning funds are approved for a possible SBWC at John F. Kennedy High School.

Kingsview Middle School in Germantown adjoins a county-operated community center. The community center is a 23,000 square foot building that contains a gymnasium, social hall, arts room, game room, and exercise room, as well as administrative offices, common areas, and conference spaces. The center is structurally integrated with the middle school building but has a separate and distinct main entry. An outdoor pool and bathhouse also are located on the site as a separate facility, consisting of the following: 50-meter lap pool, leisure pool, wading pool for toddlers, and common lounging areas. Other opportunities to collocate schools with compatible uses will be pursued in the future as land for new schools sites becomes more limited.

Community use of school facilities is another important way in which schools serve their communities. Outside of the instructional day, schools are used for a wide range of community activities. The Interagency Coordinating Board (ICB) for Community Use of Public Facilities (CUPF) manages school use, collects fees for most community uses of schools, and maintains an Enterprise Fund to pay for the cost of utilizing schools after school hours. Among the largest users of schools are childcare providers, county recreation groups, sports groups, and religious groups.

MCPS has been participating in an interagency study to inventory county land that is available for public facilities and identify opportunities for collocation of compatible types of facilities. This study, known as the "Future Public Facilities Infrastructure Study" comes at a time when land to site public facilities is becoming scarcer, and more efficient use of sites is necessary.

OBJECTIVE *6*: Meet Special Education Program Space Needs

The Maryland State Department of Education established a target for local school systems to address the need for special education students to receive access to services in the general education environment. The FY 2017 proposed target requires 70.4 percent of students with disabilities to receive special education and related services in a general education setting. As a result of this mandate, the Department of Special Education Services (DSES), in collaboration with the Department of Facilities Management (DFM) and the Office of School Support and Improvement (OSSI), plan and coordinate the identification of program sites and locations to address the diverse needs of students with disabilities. This process is designed to ensure the delivery of special education services with an emphasis on providing services to the maximum extent appropriate in the school the student would attend if nondisabled.

MCPS chooses locations for special education programs by focusing on the delivery of services in the student's home school or in the school as close as possible to the student's home. The location of programs enables students with disabilities to receive special education services within the school, cluster, quad-cluster, or region of the county where the student resides.

The percentage of students who receive services in their home school, cluster, or quad-cluster has increased each year since 1998. The following model guides facility planning:

- Special education resource services are offered in all schools for Grades K–12. Eighty-eight elementary schools were designated as Home School Model Schools for the 2016–2017 school year. (See Appendix P for a description of the Home School Model program.)

- Learning and Academic Disabilities (LAD) Services and transition services are provided in all secondary schools.
- Special education services are provided at the cluster and quad-cluster level for elementary students who are recommended for LAD Services.
- Special education services are available in quad clusters or regionally for students who are recommended for the following services:
  - Augmentative and Alternative Communication Services
  - Autism Spectrum Disorders Services
  - Autism Resource Services
  - Aspergers Services
  - Bridge Services
  - Elementary Physical Disabilities Services
  - Elementary Learning Center
  - Emotional Disabilities Cluster Services
  - Extensions (upcounty and downcounty)
  - Gifted and Talented/Learning Disabled Program (secondary school level)
  - Infants and Toddlers Program
  - Learning for Independence (LFI) Program
  - Preschool Education Program (PEP)
  - Prekindergarten Language Classes
  - School/Community-based (SCB) Program
  - Longview and Stephen Knolls
- Special education services are county-based for students in need of the following programs:
  - Carl Sandburg Learning Center
  - Deaf and Hard-of-Hearing Services
  - Gifted and Talented/Learning Disabled Program (elementary school level)
  - Preschool Vision Class
  - John L. Gildner Regional Institute for Children and Adolescents (RICA)
  - Rock Terrace School

Birth through 5 Years of Age Special Education Growth

The Montgomery County Infants and Toddlers Program provides services to children with developmental delays from birth to three years of age or until the start of the school year after turning four under the Extended Individualized Family Service Plan, in natural environments, such as home, child-care, or other community settings. Growth in the Infants and Toddlers Program has resulted in the location of five centers throughout the county.

MCPS provides a continuum of special education services for children ages three through five. Preschool Education Program (PEP) services range from consultative and itinerant services for children in community-based child care settings and pre-schools to itinerant instruction at home for medically fragile children. Classroom environments are provided for children who need a comprehensive approach to their learning needs.

Providing prekindergarten special education services in the least restrictive environment (LRE) is a challenge because of the limited number of general education prekindergarten class-rooms and services available in MCPS. DSES and the Division of Early Childhood Programs and Services (DECPS) collaborate to collocate general and special education preschool classes to provide additional LRE opportunities to prekindergarten students. MCPS also is focused on increasing the number of locations where nondisabled community peers are invited to learn alongside students with disabilities in a prekindergarten classroom.