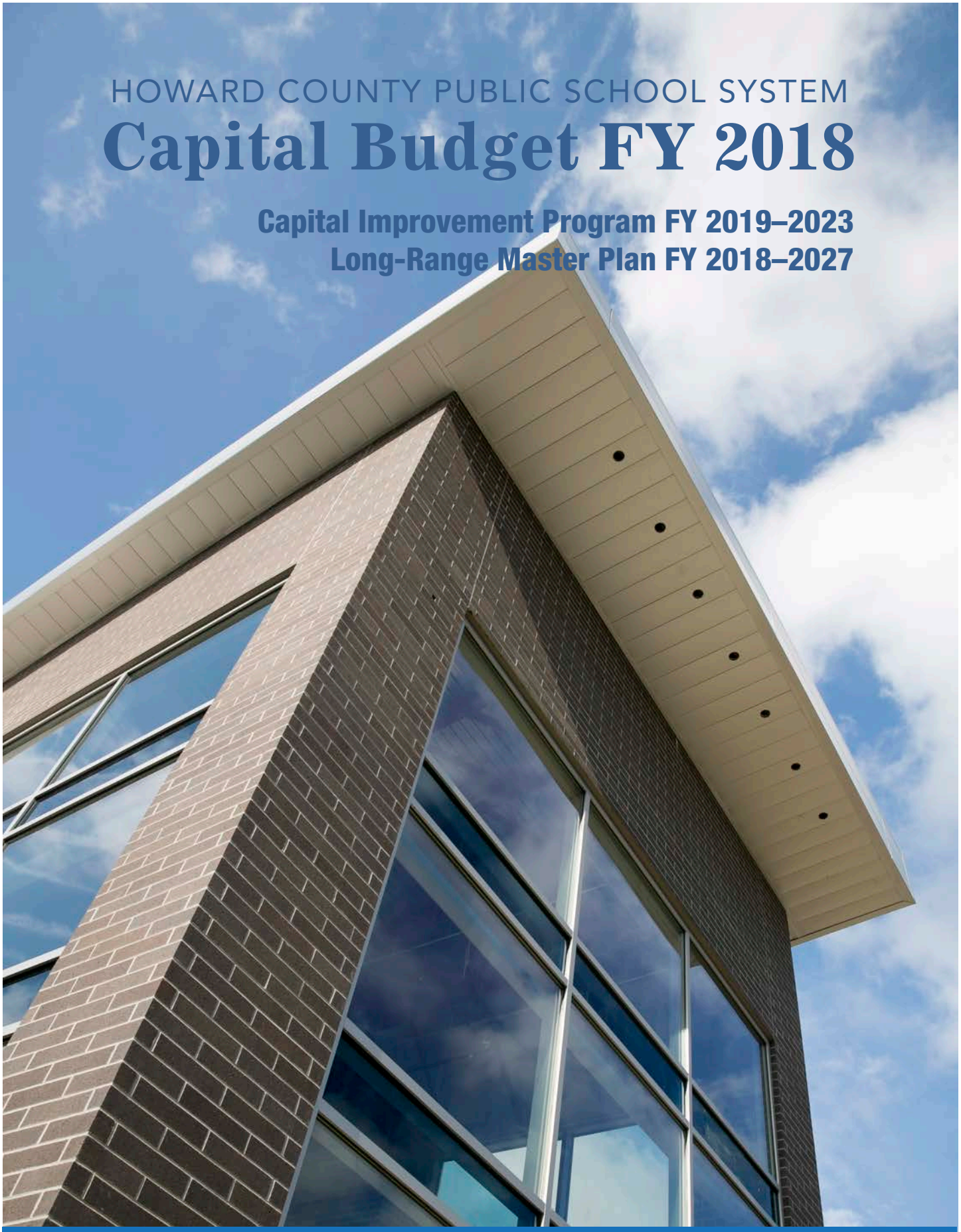
HOWARD COUNTY PUBLIC SCHOOL SYSTEM

Capital Budget FY 2018

Capital Improvement Program FY 2019–2023
Long-Range Master Plan FY 2018–2027



Superintendent's Proposed Budget

Howard County Public School System

Superintendent's Proposed FY 2018 Capital Budget

Capital Improvement Program FY 2019–2023
Long-Range Master Plan FY 2018–2027

Superintendent

Renee A. Foose, Ed.D.

Board of Education

Elected Officials

Christine E. O'Connor, Chairman
Ellen Flynn Giles, Vice Chairman
Bess Altwerger, Ed.D.
Ann De Lacy
Sandra H. French
Janet Siddiqui, M.D.
Cynthia L. Vaillancourt

Student Member

Griffin Diven

September 2016

Howard County Public School System

Superintendent's Proposed FY 2018 Capital Budget

Capital Improvement Program FY 2019–2023
Long-Range Master Plan FY 2018–2027

Prepared By
Department of Budget and Finance
and Office of School Planning
10910 Clarksville Pike
Ellicott City, Maryland 21042
410-313-6600

Beverly J. Davis, CPA
Chief Financial Officer

Bruce Gist
Executive Director
Capital Planning and Operations

Olivia Claus
Executive Director, School Facilities, Community Use, Safety, Insurance, and Risk Management

Herb Savje
Manager of Building Services

Jennifer Bubenko
Planning Specialist

Catherine Bejm
Budget Assistant

Scott Washington
Director of School Construction

Renee Kamen, AICP
Manager of School Planning

Betsy Zentz
Interagency Specialist

Gina Petrick
Accounting Analyst

This is a publication of the Howard County Public School System.

Electronic copy of the Capital Budget can be
found on the school system's website at *www.hcpss.org.*

Howard County Public School System

Board of Education

10910 Clarksville Pike
Ellicott City, Maryland 21042
Phone: 410.313.7194 • Fax: 410.313.6833
Group Board Member email: boe@hcpss.org

Christine E. O'Connor
Chairman

443.620.0122
christine_oconnor@hcpss.org
Term Expires 2018

Ellen Flynn Giles
Vice Chairman

410.880.0828
ellen_giles@hcpss.org
Term Expires 2016

Bess Altwerger, Ed.D.
Member

410.740.7195
bess_altwerger@hcpss.org
Term Expires 2018

Ann De Lacy
Member

301.922.4609
ann_delacy@hcpss.org
Term Expires 2016

Sandra H. French
Member

410.531.2394
sandra_french@hcpss.org
Term Expires 2018

Janet Siddiqui, M.D.
Member

410.313.7194
janet_siddiqui@hcpss.org
Term Expires 2016

Cynthia L. Vaillancourt
Member

443.535.9086
cynthia_vailliancourt@hcpss.org
Term Expires 2018

Griffin Diven
Student Member

student_member@hcpss.org
Term 2016–2017

Howard County Public School System
Capital Budget Long-Range Master Planning Committee

10910 Clarksville Pike
Ellicott City, Maryland 21042
410.313.6600

Beverly J. Davis
Chief Financial Officer
beverly_davis@hcpss.org

Frank Eastham
Executive Director
School Improvement and Administration
frank_eastham@hcpss.org

Ebony Langford-Brown
Executive Director
School Improvement and
Secondary Curricular Programs
ebony_langford-brown@hcpss.org

Bruce Gist
Executive Director
Capital Planning and Operations
bruce_gist@hcpss.org

Scott Washington
Director
School Construction
scott_washinton@hcpss.org

William Barnes
Director
Secondary Curricular Programs
william_barnes@hcpss.org

Olivia Claus
Executive Director, School Facilities, Community
Use, Safety, Insurance, and Risk Management
olivia_claus@hcpss.org

Stan Milesky
Howard County Government
Director, Department of Finance
smilesky@howardcountymd.gov

Renee Kamen, AICP
Manager
School Planning
renee_kamen@hcpss.org

Valdis Lazdins
Howard County Government
Director, Department of Planning and Zoning
vlazdins@howardcountymd.gov

Gina Petrick
Accounting Analyst
Finance Office
gina_petrick@hcpss.org

Jeff Bronow
Howard County Government
Chief, Division of Research
jbronow@howardcountymd.gov

Howard County Public School System
Superintendent's Cabinet

10910 Clarksville Pike
Ellicott City, Maryland 21042
410.313.6600

Renee A. Foose, Ed.D.
Superintendent
superintendent@hcpss.org

Linda T. Wise
Deputy Superintendent
linda_wise@hcpss.org

E. Grace Chesney
Chief Accountability Officer
echesney@hcpss.org

Anissa Brown Dennis
Acting Chief Operating Officer
anissa_browndennis@hcpss.org

Beverly J. Davis
Chief Financial Officer
beverly_davis@hcpss.org

Helen Nixon
Chief Human Resource and
Development Officer
helen_nixon@hcpss.org

Ebony Langford-Brown
Executive Director
School Improvement and
Secondary Curricular Programs
ebony_langford-brown@hcpss.org

Frank Eastham
Executive Director
School Improvement and Administration
frank_eastham@hcpss.org

Nancy Fitzgerald
Executive Director
Special Education and Student Services
nancy_fitzgerald@hcpss.org

Bruce Gist
Executive Director
Capital Planning and Operations
bruce_gist@hcpss.org

Olivia Claus
Executive Director
Executive Director, School Facilities, Community
Use, Safety, Insurance, and Risk Management
oliva_claus@hcpss.org

Justin Benedict
Executive Director
Information Technology
justin_benedict@hcpss.org

Caryn Lasser
Director of Executive Services
caryn_lasser@hcpss.org

John White
Director
Communications
john_white@hcpss.org

Leslie Gilbert
Coordinator of Continuous Improvement
leslie_gilbert@hcpss.org

Lauri Shropshire
Strategic Planning
lauri_shropshire@hcpss.org

Table of Contents

1 EXECUTIVE SUMMARY

Introduction 3
Message from the Superintendent 4
Capital Budget Request
FY 2018 Capital Budget 6
FY 2019–2023 Capital Improvement Program 7
FY 2018–2023 Long-Range Systemic Renovation Projects 8
FY 2018–2027 Long-Range Master Plan 9
Vision 2018 10
Capital Budget Support of Vision 2018 11
Capital Planning 13
Capital Planning and Growth Management 14
Enrollment Projections and School Capacities 16
Types of Capital Projects 17
Land Bank as of July 1, 2016 20
Recent Capital Accomplishments 21
Capital Improvement Program (CIP) Development Process 22
FY 2018 Capital Budget Schedule 23

2 SYSTEM INFORMATION

Howard County at a Glance 27
HCPSS Facilities at a Glance 28
Systemwide Map of Schools 29
Elementary Schools Map 30
Middle Schools Map 31
High Schools Map 32

Table of Contents

3 PROJECT DETAIL

Wilde Lake Middle School Replacement School 34
Patuxent Valley Middle School Renovation 36
Swansfield Elementary School Renovation/Addition 38
Waverly Elementary School Renovation/Addition 40
New ES #42 42
Talbott Springs Elementary School Renovation 44
Oakland Mills Middle School Renovation 46
New HS #13 48
Ellicott Mills Middle School Addition 50
Hammond High School Renovation 52
Long-Range Plan Adjustments 54
Systemic Renovations 56
Roofing Projects 58
Playground Equipment 60
Relocatable Classrooms 62
Site Acquisition and Construction Reserve 64
Technology 66
School Parking Lot Expansions 68
Planning and Design 69
Barrier-Free Projects 70
Project Cost Details 72

4 SUPPORTING DATA

Pre- and Post-Measures Data 96
Public School Enrollment – Actual for 1973–2015 and Estimated for 2016–2029 102
Facility Use, Acreage, and Capital Projects 103
School and Region Tests for APFO: Elementary and Middle 105
Fully Funded Projects in Process 107
Facilities Constructed with Assistance from MD School Construction Funds: 1980–2016 108
Addn./Reno. with Assistance from MD School Construction Funds: 1980–2017 109
Glossary 110
Policy 6020 School Planning/School Construction Programs 113

EXIT
CAFETORIUM

Howard County Public School System

Superintendent's Proposed FY 2018 Capital Budget

Capital Improvement Program FY 2019–2023
Long-Range Master Plan FY 2018–2027

Section 1

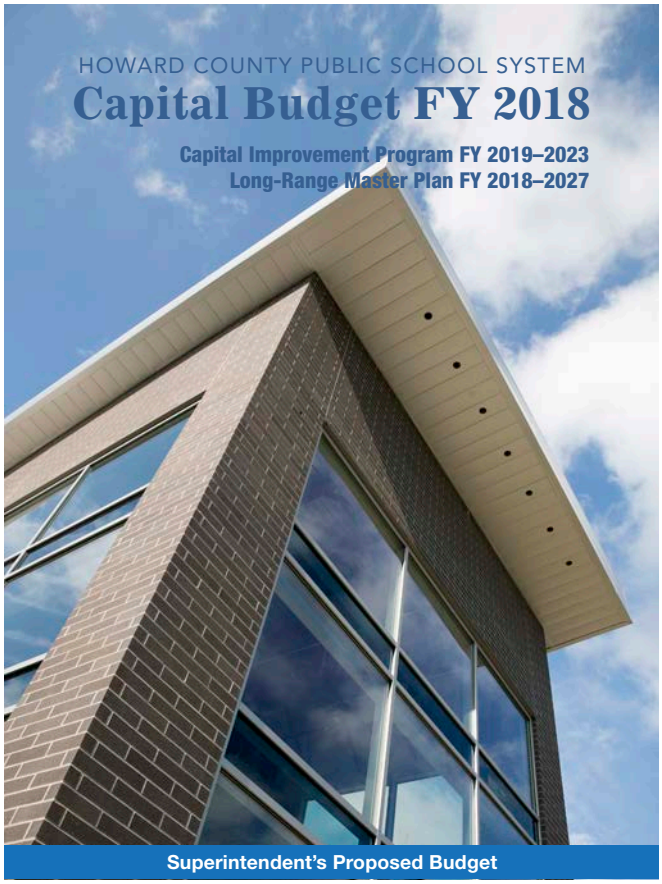
Executive Summary

September 2016

Introduction

This document contains the Howard County Public School System's (HCPSS) Superintendent's Proposed FY 2018 Capital Budget and the FY 2019–2023 Capital Improvement Program (CIP) schedules. Projects are presented for the next fiscal year and future years, documenting long-range plans for the system.

The capital budget process, detailed within the Executive Summary, links capital planning with attendance area planning and addresses long-range planning issues identified in the annual feasibility study. Presented to the Board of Education on June 23, 2016, the Feasibility Study provided new enrollment projections and proposed future redistricting. Several factors affect the total FY 2018 Capital Budget. This year's capital improvement program provides for student capacity, renovations, and various other improvements that staff, parents, and community leaders have identified as needed. The formula used by the state to calculate school construction costs has decreased to $315.35 per square foot. Project budgets have increased to reflect rising costs such as the requirement to pay prevailing wages on all projects after July 1, 2014, costs to comply with LEED requirements, and general inflationary increases.



The Superintendent's Proposed Capital Budget is the first step in this annual process which will ultimately end with the Board of Education's Approved Capital Budget in May 2017. The capital budget is submitted much earlier than the operating budget to accommodate deadlines associated with submission of the State capital budget to the Public School Construction Program.

Executive Summary provides an introduction to the Superintendent's Proposed FY 2018 Capital Budget, the Capital Improvement Program FY 2019–2023, and the Long-Range Master Plan FY 2018–2027. It presents a high level overview of the budget process and the FY 2018 Proposed Capital Budget. Included in the Executive Summary is the Superintendent's Message which provides an overview of the budget issues. Among other information found in the Executive Summary is a discussion of the capital budget alignment with the school system's strategic plan, *Vision 2018: Fulfilling the Promise of Preparation*, enrollment projections and student capacities, recent capital budget accomplishments, the capital budget schedule, and information on the capital budget process.

System Information presents information on the county and the school system, with maps of school locations throughout the county displayed by school level.

Project Detail presents detail on each project presented in the proposed FY 2018 Capital Budget as well as information on longer range project plans.

Supporting Data includes data from the feasibility study, detailed enrollment data, school and region tests for Adequate Public Facilities Ordinance (APFO), fully funded projects in process, facilities constructed and/or renovated with state funds, and the glossary.

Message from the Superintendent

September 8, 2016

Howard County Residents:

I am pleased to present the Howard County Public School System (HCPSS) Superintendent's Proposed FY 2018 Capital Budget and the Capital Improvement Program FY 2019–2023 and the Long-Range Master Plan FY 2018–2027. It provides the framework and plans for educational facilities that support a positive learning environment. The plans are integral to achieving *Vision 2018*, *Fulfilling the Promise of Preparation*, the school system's five-year strategic plan. The capital improvement program and long-range master plan address projected student capacity needs by implementing capital projects and facility renovations when and where they are most needed. The $94 million FY 2018 Proposed Capital Budget was developed from these plans.

Highlights of the FY 2018 Proposed Capital Budget and FY 2018–2027 Long-Range Master Plan are noted below:

- The FY 2018 Proposed Capital Budget is $94 million.

- The cumulative total of the ten-year Long-Range Master Plan for FY 2018–2027 is $964 million and includes funding for a replacement middle school, four future elementary schools, and a future high school which are necessary to meet projected enrollment growth and capacity needs. It also includes approximately $360 million in systemic renovations, modernizations, major programmatic renovations, and additions to existing school facilities.

- The HCPSS is projected to enroll approximately 12,000 additional students between 2017 and 2027. Over 5,700 (Grades K-12) additional seats are provided in the FY 2018–2027 Long-Range Master Plan. Coupled with the 55,000 seats of existing capacity in 2016 and the use of relocatable classrooms where required, the proposed capital program is sufficient to meet near-term student enrollment needs.

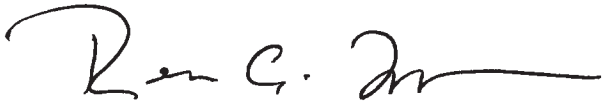
The completion of Ducketts Lane Elementary School and Thomas Viaduct Middle School, the reclaimed community rooms for classroom use at Ellicott Mills Middle School, Forest Ridge Elementary School, Veterans Elementary School and Gorman Crossing Elementary School, as well as the construction of the Wilde Lake Middle School Replacement School and the New ES #42 addresses capacity needs at the elementary and middle school levels. New HS #13 is being proposed to address the capacity needs at the high school level. The long-range master plan also includes much needed renovations of aging schools and systems.

Message from the Superintendent

The Capital Budget Long-Range Master Planning Committee, comprised of representatives from the HCPSS and the county government, assist in the development of the long-range master plan. The committee evaluates and prioritizes the many potential projects, basing recommendations on updated annual feasibility study data, support for Vision 2018, stakeholder input, and financial considerations. The long-range master plan reflects the collaborative work of this committee to develop a more realistic and affordable plan. Even with these efforts, however, rising costs and growing capacity needs result in future capital needs of the school system that will require an increase to the historical funding levels by the county and state. Funding of the capital budget currently depends predominantly upon the issuance of bonds by the county and state. We look forward to continuing our ongoing discussions with County Council and other stakeholders regarding both dedicated and alternative financing sources for education.

The FY 2018 Capital Budget schedule is detailed at the end of the Executive Summary and includes the dates of Board public hearings and work sessions. I look forward to working with the Board of Education, parents, community members, and business leaders to secure the necessary funding and support for the improvements to Howard County public school facilities.

Sincerely,



Renee A. Foose, Ed.D.
Superintendent

FY 2018 Capital Budget

Superintendent's Proposed September 8, 2016

(In Thousands)

Capacity	Project	Occupancy	Approved Appropriations	Local Bonds	Codes	Total FY18 Request	Requested Project Totals Through FY18
760	Wilde Lake MS Replacement School	Aug 2017	$ 43,377	$ 2,000	(C,E)	$ 2,000	$ 45,377
-	Patuxent Valley MS Renovation	Aug 2017	28,035	1,500	(C,E)	1,500	29,535
100	Swansfield ES Renovation/Addition	Aug 2018	22,495	4,407	(C,E)	4,407	26,902
100	Waverly ES Renovation/Phase II Addition*	Aug 2018	13,359	18,896	(C,E)	18,896	32,255
788	New ES #42	Aug 2018	17,333	20,658	(C)	20,658	37,991
-	Talbott Springs ES Renovation	Aug 2020	-	3,000	(P)	3,000	3,000
-	Oakland Mills MS Renovation*	Aug 2020	-	3,000	(P)	3,000	3,000
1600-1800	New HS #13	Aug 2023	-	3,300	(P)	3,300	3,300
	Systemic Renovations/Modernizations		239,664	26,750	(P,C,E)	26,750	266,414
	Roofing Projects		45,537	-	(P,C,E)	-	45,537
	Playground Equipment		2,680	560	(E)	560	3,240
	Relocatable Classrooms		18,910	1,500	(P,C,E)	1,500	20,410
	Site Acquisition & Construction Reserve		20,836	2,000	(P,C)	2,000	22,836
	Technology		39,486	5,000	(C,E)	5,000	44,486
	School Parking Lot Expansions		4,200	600	(P,C,E)	600	4,800
	Planning and Design		600	300	(P)	300	900
	Barrier Free		5,628	200	(P,C,E)	200	5,828
	TOTALS		**$ 502,140**	**$ 93,671**		**$ 93,671**	**$ 595,811**

(P) Planning
(C) Construction
(E) Equipment

* Partial planning funds received in Systemic Renovation Project

FY 2019-2023 Capital Improvement Program

Superintendent's Proposed September 8, 2016

(In Thousands)

Grades	Capacity	Project	Occupancy	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	5 Year CIP Total
K-5	100	Waverly ES Renovation/Phase II Addition*	Aug 2018	$ 1,500	$ -	$ -	$ -	$ -	$ 1,500
K-5	788	New ES #42	Aug 2018	6,132	-	-	-	-	6,132
K-5	-	Talbott Springs ES Renovation	Aug 2020	15,800	9,200	-	-	-	25,000
6-8	-	Oakland Mills MS Renovation*	Aug 2020	18,828	6,000	-	-	-	24,828
9-12	1600-1800	New HS #13	Aug 2023	10,950	35,250	27,200	36,500	25,325	135,225
K-5	788	New ES #43	Aug 2023	-	5,380	20,166	22,125	8,124	55,795
6-8	156	Ellicott Mills MS Addition	Aug 2024	-	-	-	-	544	544
9-12	-	Hammond HS Renovation	Aug 2028	-	-	-	-	2,800	2,800
	-	Systemic Renovations/Modernizations		27,300	26,657	37,703	23,822	42,775	158,257
	-	Roofing Projects		5,000	5,000	5,000	5,000	5,000	25,000
	-	Playground Equipment		300	300	300	300	300	1,500
	-	Relocatable Classrooms		1,500	1,500	1,500	1,500	1,500	7,500
	-	Site Acquisition & Construction Reserve		2,000	2,000	2,000	2,000	2,000	10,000
	-	Technology		5,000	5,000	5,000	5,000	5,000	25,000
	-	School Parking Lot Expansions		600	600	600	600	600	3,000
	-	Planning and Design		300	300	300	300	300	1,500
	-	Barrier Free		200	200	200	200	200	1,000
		TOTALS		**$ 95,410**	**$ 97,387**	**$ 99,969**	**$ 97,347**	**$ 94,468**	**$ 484,581**

* Partial planning funds received in Systemic Renovation Project

FY 2018-2023 Long-Range Systemic Renovation Projects

Superintendent's Proposed

September 8, 2016

(In Thousands)

Project	FY 2018 Local Bonds	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Totals
RTU Replacements	$ 6,900	$ 7,200	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ 24,100
HVAC Replacements	10,100	9,100	2,500	2,500	2,500	2,500	29,200
Kitchen Modernizations	300	300	300	300	300	300	1,800
Safety and Accessibility Projects	2,750	-	-	-	-	-	2,750
West Friendship ES MBR	-	4,000	-	-	-	-	4,000
Administration Office	-	-	11,100	-	-	-	11,100
Dunloggin MS Renovation + Addition	-	-	3,557	25,703	7,136	-	36,396
Jeffers Hill ES Renovation	-	-	-	-	2,015	11,475	13,490
Harper's Choice MS Renovation	-	-	-	-	2,671	16,021	18,692
Hammond MS Renovation	-	-	-	-	-	3,279	3,279
Other Systemic	6,700	6,700	6,700	6,700	6,700	6,700	40,200
TOTALS	**$ 26,750**	**$ 27,300**	**$ 26,657**	**$ 37,703**	**$ 23,822**	**$ 42,775**	**$ 185,007**

FY 2018-2027 Long-Range Master Plan

Superintendent's Proposed

September 8, 2016

(In Thousands)

Project	Approved Appropriations	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Total Approp. plus FY18-FY26 Request
Wilde Lake MS Replacement School	$ 43,377	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,377
Patuxent Valley MS Renovation	28,035	1,500	-	-	-	-	-	-	-	-	-	29,535
Swansfield ES Renovation/Addition	22,495	4,407	-	-	-	-	-	-	-	-	-	26,902
Waverly ES Renovation/Phase II Addition*	13,359	18,896	1,500	-	-	-	-	-	-	-	-	33,755
New ES #42	17,333	20,658	6,132	-	-	-	-	-	-	-	-	44,123
Talbott Springs ES Renovation	-	3,000	15,800	9,200	-	-	-	-	-	-	-	28,000
Oakland Mills MS Renovation*	-	3,000	18,828	6,000	-	-	-	-	-	-	-	27,828
New HS #13	-	3,300	10,950	35,250	27,200	36,500	25,325	-	-	-	-	138,525
New ES #43	-	-	-	5,380	20,166	22,125	8,124	-	-	-	-	55,795
Ellicott Mills MS Addition	-	-	-	-	-	-	544	5,404	-	-	-	5,948
Hammond HS Renovation	-	-	-	-	-	-	2,800	25,748	17,099	15,099	11,099	71,845
New ES #44	-	-	-	-	-	-	-	5,380	23,099	17,906	9,410	55,795
New ES #45	-	-	-	-	-	-	-	-	-	5,380	15,166	20,546
Systemic Renovations/Modernizations	239,664	26,750	27,300	26,657	37,703	23,822	42,775	40,661	42,694	44,829	47,070	599,925
Roofing Projects	45,537	-	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	90,537
Playground Equipment	2,680	560	300	300	300	300	300	300	300	300	300	5,940
Relocatable Classrooms	18,910	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	33,910
Site Acquisition & Construction Reserve	20,836	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	40,836
Technology	39,486	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	89,486
School Parking Lot Expansions	4,200	600	600	600	600	600	600	600	600	600	600	10,200
Planning and Design	600	300	300	300	300	300	300	300	300	300	300	3,600
Barrier Free	5,628	200	200	200	200	200	200	200	200	200	200	7,628
TOTALS	**$ 502,140**	**$ 93,671**	**$ 95,410**	**$ 97,387**	**$ 99,969**	**$ 97,347**	**$ 94,468**	**$ 92,093**	**$ 97,792**	**$ 98,114**	**$ 97,645**	**$ 1,466,036**

* Partial planning funds received in Systemic Renovation Project

Ten-Year Long-Range Master Plan = $963,896

VISION 2018

Fulfilling the Promise of Preparation

Vision

Every student is **inspired** to learn and **empowered** to excel.

Mission

We cultivate a **vibrant** learning community that prepares students to thrive in a **dynamic** world.

GOAL 1

Students
Every student achieves academic excellence in an inspiring, engaging, and supportive environment.

GOAL 2

Staff
Every staff member is engaged, supported, and successful.

GOAL 3

Families and the Community
Families and the community are engaged and supported as partners in education.

GOAL 4

Organization
Schools are supported by world-class organizational practices.

Guiding Principles

We believe in…

- Achieving excellence in all we do
- Developing each student's unique gifts
- Engaging students in relevant, experiential, and personalized learning
- Cultivating creative problem solving, critical thinking, and innovation
- Promoting integrity, civility, and global citizenship
- Enriching learning by honoring our diversity
- Fostering a culture of collaboration, trust, and shared responsibility
- Removing barriers to success

THE HOWARD COUNTY PUBLIC SCHOOL SYSTEM

Capital Budget Support of Vision 2018

Alignment with Strategic Plan

Vision 2018: Fulfilling the Promise of Preparation is the school system's strategic plan to build an educational program that is among the best in the world. While much of this plan is implemented in the operating budget, the Capital Improvement Program (CIP) supports achievement of each goal in Vision 2018.

The CIP supports Goal 1 Strategy 1.4.6: Configure physical spaces to facilitate learning by providing spaces configured to facilitate learning in accordance with Board approved educational specifications. The CIP also supports Strategy 1.8.2: Provide opportunities for students to explore a wide variety of experiences and to build competencies in academics, athletics, and the arts. Classrooms are specified to contain students according to approved class size ratios. Beyond the regular classrooms, facilities have specialized spaces which are equipped to deliver approved programs.

The CIP provides facilities with program areas for physical education and play areas for unstructured activity, thus promoting physical activity as a part of every child's daily routine. Walking and biking are facilitated with pathways and bicycle racks. Facilities include a cafetorium or cafeteria outfitted with the necessary equipment to deliver approved menu items.

Facilities also provide opportunities for students to learn how to balance their choices in activity modalities, including independent activity, face-to-face interaction, athletics, creative endeavors, and screen time. Facilities are designed to physically and socially activate students, staff, and the community. Stimulating indoor and outdoor spaces utilize light and appealing designs to create spaces for impromptu use.

Goal 2 seeks to have every staff member engaged, supported, and successful. Facility planning includes cross-functional representatives of the school system at all levels of the construction and renovation process from acquisition of land to engagement during construction. Planning, construction, and maintenance information is provided online through BoardDocs as well as separate web pages. Staff is engaged with satisfaction surveys and presentations at training sessions.

Capital Budget Support of Vision 2018

Goal 3 seeks to have families and the community engaged and supported as partners in education. Facilities are designed with secure access points to ensure visitors' needs are addressed while protecting students and staff from intrusion. Classrooms and staff work areas are designed to be comfortable and well lit. Projects include outreach to the community through meetings and presentations to ensure notification and collection of valuable stakeholder input. Staff coordinate with local officials, safety inspectors, and environmental regulators in support of student well-being.

Goal 4 seeks to ensure that schools are supported by world-class organizational practices. Facilities and equipment are constructed according to required codes and best practices. Regular safety and maintenance inspections are conducted according to local, state, and national standards. Industry best practices are implemented and benchmarks are identified and used. Examples include LEED standards and Green School Certification. Facilities are designed to incorporate technology selected to support overall organized goals.

Capital Planning

Capital planning is an ongoing process where the annual Capital Improvement Program (CIP) and Long-Range Master Plan are updated to reflect changes in enrollments, building capacities, and other conditions. The HCPSS provides other relevant publications which should be taken as a whole with the capital budget. These include the Feasibility Study, Educational Facility Master Plan, and the Comprehensive Facility Maintenance Plan.

The formulation of the FY 2018 Capital Budget, FY 2019–2023 Capital Improvement Plan, and the FY 2018–2027 Long-Range Master Plan begins with the annual completion of enrollment projections first presented in the 2016 Feasibility Study. The results of this projection are also included in this document in pre- and post-measures charts. Capacities of schools dictate the calculation of percentage capacity utilization, a measure which allows the effect of school projections to be illustrated in a meaningful way. A school with capacity utilization over 110 percent is deemed to be over-utilized, while a school below 90 percent capacity utilization is deemed to be under-utilized. This range is set by Board of Education policy.

The redistricting of school attendance areas is an integral part of the CIP. The HCPSS is responsible for ensuring that school buildings in the county are run efficiently and effectively. This means keeping schools at or near capacity and ensuring that most available seats are used before new schools would be built. Redistricting is used to ensure that existing capacity and the scheduled capital projects efficiently accommodate projected student enrollments.

While redistricting plans are implied for new facilities proposed in this plan, formal approval of those plans will not occur until the year before they take effect. Changing circumstances may require different plans. For planning purposes, the school attendance areas are grouped into six planning regions. Redistricting plans may include more than one region. The schools and their regions are identified on the elementary, middle, and high school level pages found in the Supporting Data section.

Capital Planning and Growth Management

General Plan

The Capital Improvement Plan (CIP) is developed in alignment with the Board's strategic plan. However it must conform with another important planning document, the Howard County General Plan. Known as *PlanHoward 2030*, it includes annual residential development targets through 2030. The HCPSS will work closely with the Howard County Government to identify future funding sources so that our capital plan best supports the growth management goals of the Howard County General Plan. The capital budget is presented to the Howard County Planning Board so they may make a finding of plan conformance to the County Council.

The General Plan policy most relevant to this capital budget is Policy 6.1h -- Schools, which directs HCPSS to make efficient use of existing school capacity avoiding unnecessary capital outlays. HCPSS has conducted three years of redistricting since the adoption of *PlanHoward 2030* to make more efficient use of existing schools. A total of 4,326 students were moved. More than three quarters of these students were relocated to existing schools. In 2011, prior to these redistricting efforts, 51 percent of students were in schools which met the BOE target of 90–110 percent utilization. At the end of this redistricting cycle in 2014, 64 percent were in schools that meet this target. This was accomplished with only a four percent increase in capacity.

The General Plan also guides land development in accordance with relevant state growth management laws like the 1997 Priority Funding Areas Act and Smart Green and Growing Act which direct state spending to existing communities and places where local governments want state investment to support future growth, rather than farmland or undeveloped land. The HCPSS has invested heavily in priority funding areas of late with the construction of Ducketts Lane Elementary School and Thomas Viaduct Middle School. The only projects proposed outside of the priority funding area today are the systemic renovations necessary to maintain systems in existing schools, like boiler or HVAC upgrades.

Adequate Public Facilities Ordinance

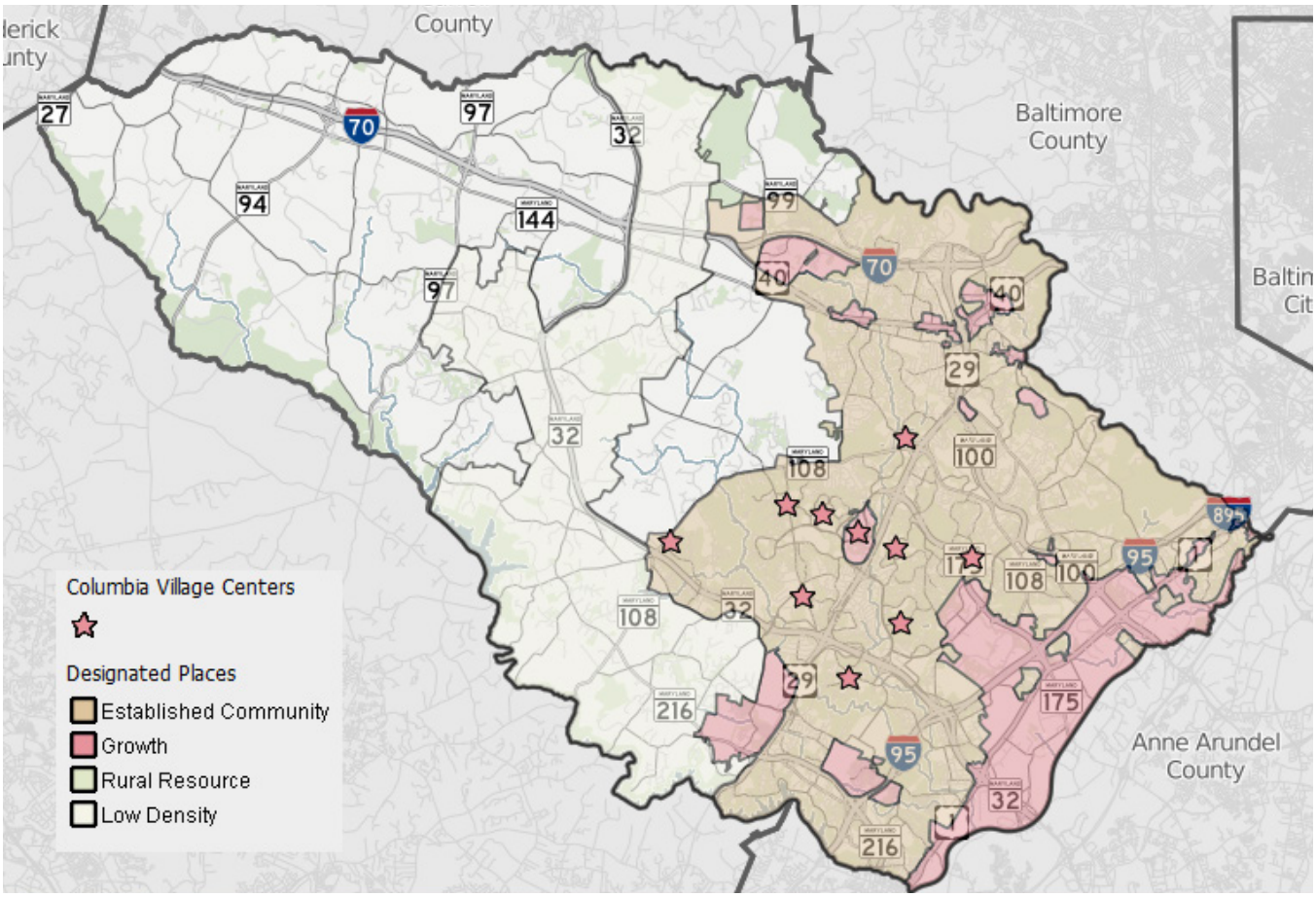
The Adequate Public Facilities Ordinance (APFO) ties future residential construction in Howard County to projected school enrollments and school capacities. Elementary and middle school attendance areas that show a projected enrollment over 115 percent of a school's program capacity are closed to future residential development until an attendance area adjustment or a capital improvement can be completed. The APFO test for opening or closing a school attendance area to residential building looks at the projected population of a school three years out from the current year. HCPSS is participating in an APFO task force but no changes to laws are expected before the end of 2016.

Capital Planning and Growth Management

The APFO charts that appear in the Supporting Data section are the charts that were approved for submission to the Howard County Council by the Board of Education on May 12, 2016, and subsequently submitted to the County Council and begin with the year 2019. The APFO charts do not include new schools or projects when their sites have not yet been acquired. As the school system secures deeds for the sites to these planned schools or projects, they will be reflected in that year's APFO chart.

Along with the elementary and middle school tests, a regional test within planning regions at the elementary level is also included in the ordinance. Using the APFO charts as indicators at the elementary level, one region is "closed" in 2019 and five schools are "closed" in 2019. At the middle school level, three schools are "closed" in 2019.

With the pre-/post-measures approach, the APFO formatted charts found in the Supporting Data section are in the pre-measures format. These charts represent the adjusted FY 2017 Capital Budget projects and the new projections. The post-measures charts represent the recommended capital projects for the FY 2018 Capital Budget and redistricting results from the 2016 Feasibility Study and are for demonstrative purposes only.



The General Plan process was followed by adoption of the growth tiers map. Future development and school needs are planned in growth areas or village centers.

Enrollment Projections and School Capacities

Methodologies

The formulation of the FY 2018 Capital Budget, FY 2019–2023 Capital Improvement Program, and the FY 2018–2027 Long-Range Master Plan begins with the annual completion of enrollment projections which were first published in the 2016 Feasibility Study. The projections included in this document are the result of a collaborative effort between the HCPSS, Howard County Department of Planning and Zoning, Maryland Department of Health and Mental Hygiene, and other county and state agencies.

The calculation of the future enrollment projection is based upon a "cohort survival ratio" method of projecting student enrollments. This methodology looks at past population patterns within the county to construct "survival ratios" in predicting a particular grade's migration through the school system. For example, cohort-survival ratios predict how many second graders will result from last year's first graders, how many third graders will result from last year's second graders, and continues until the number of twelfth graders from last year's eleventh graders is predicted. A geographical cohort survival ratio is used rather than a school-based cohort survival ratio to maintain comparability regardless of any redistricting. Finally, the effects of new housing, the net effect of resale of existing housing, and programs housed at the school that impact enrollment are added to the cohort.

Capacities

Equitable evaluation of the impact of projected enrollment growth requires calculation of the capacities of schools. Capacities are not necessarily fixed to the capacity designed when a building first opened. Changes in use, programs, and standards can effectively change capacity.

High school capacities were evaluated and updated by the Board of Education in March 2009. High school program capacities are a product of either 80 or 85 percent of the total number of teaching stations multiplied by 25 students, exclusive of special education classrooms, and factored with consideration that not all teaching stations can be scheduled for use every period of the school day. Further, special-use teaching stations may not be adaptable for academic programs even if the space is available for a period of the school day.

Middle school capacities were evaluated and approved by the Board on September 26, 2013, after a full study and report by Gilbert Architects Inc. Middle school program capacities are a product of 95 percent of the total number of teaching stations multiplied by 20.5 students, exclusive of special education classrooms. Like high schools, not all teaching stations can be scheduled for use every period of the school day.

Elementary school capacities were evaluated and approved by the Board on October 23, 2014, after a full study and report by Gilbert Architects Inc. Elementary school program capacities are based on 22 students for each Kindergarten classroom, 19 students for each classroom in Grades 1 and 2, and 25 students for each classroom in Grades 3–5. Elementary school special education classroom capacities are established by the mandated student/teacher ratios for the various programs. Not included in the capacities for elementary schools are resource/instructional spaces that are utilized on a schoolwide basis where no one group of students is assigned exclusively. Some examples of spaces not included in the capacity are gymnasiums or multipurpose rooms, cafetoriums, art rooms, music rooms, media centers, gifted and talented rooms, or rooms dedicated to regional programs such as prekindergarten.

Types of Capital Projects

The Capital Improvement Plan (CIP) provides for all facilities needs for the school system. Projects are identified by their purpose as described below.

Capacity Projects

New facilities or additions are proposed when projected enrollments cannot be accommodated reasonably within available capacity. The decision to construct a new facility or build an addition on an existing school involves consideration of fiscal implications as well as consideration of the following:

- Growth and location of the population to be served.
- Available capacity in surrounding schools.
- Housing needs of current and desired educational programs.

Each capacity project in the CIP has first been evaluated in the annual feasibility study which balances school boundary redistricting choices with capital investments. If the attending areas for existing schools can be adjusted, capital expenditures can be avoided or at least delayed. The Board of Education will review the CIP and set direction as appropriate during capital budget presentations each year. The opening of new schools requires redistricting. Redistricting is not annual but potential options are evaluated annually in the feasibility study.

From the receipt of planning funds until completion of a project, it typically requires a maximum of three years to plan and construct an elementary or middle school and four years for a high school. Some parts of the construction process can be expedited at cost.

Non-Capacity Projects

Capital projects which don't produce capacity are "systemic" and serve the long-term plans of HCPSS and the state of Maryland by keeping and maintaining the systems that support 30–40 year infrastructure investments. Most maintenance investments are covered by the operating budget and documented in the annual Comprehensive Maintenance Program published as a requirement of Maryland State Department of Education (MSDE). Each year staff evaluate comprehensive maintenance program plans to identify projects that exceed regular maintenance and add these projects to the capital improvement program as appropriate.

Renovations of existing schools are proposed when repairs of the structure's internal systems are no longer economically feasible. As the Comprehensive Facility Master Plan is updated using the results of ongoing facility assessments, specific projects are identified in the long-range master plan.

Types of Capital Projects

The decision to renovate an existing school involves the following considerations:

- Prioritization of needs based upon the current facility assessment.
- Optimal sequencing to ensure eligibility for state funding.
- Existing electrical, HVAC, roofing, and/or other major mechanical systems needs.
- Educational space needs.
- Health and safety needs.
- Americans with Disability Act (ADA) needs.
- Need to provide improved spaces for general teaching areas and/or supporting areas.

When renovating an older school, there are multiple considerations of how to best balance the existing footprint of the building against requirements defined in newer versions of the educational specifications. Renovation guidelines have been developed to provide a set of standards, guidelines, and procedures for use by HCPSS administrative staff and architectural/engineering firms engaged in the planning and design of renovation work for the school system.

Roofing Projects

A well-planned roofing program is critical to all other systems in a capital facility. When roofing systems wear, the damage from a failure can impact other systems and multiply costs. HCPSS regularly inspects roofing systems and provides reports to the state of Maryland. Planning and project execution must balance system warranties, state funding eligibility, and the risk of maintenance deferral.

Playground Equipment

Elementary school students are stimulated by interesting and engaging playground installations. The playground planning process considers the needs of a wide-range of ages and skills to develop strength, social skills, coordination, balance, and motor planning. Each year various playgrounds are replaced, repaired, or upgraded based upon need.

Types of Capital Projects

Relocatable Classrooms

Relocatable classrooms are pre-fabricated, stand-alone buildings which provide temporary capacity to a school to relieve overcapacity, provide temporary surge space during renovations/ additions, or provide space for a school's program needs. Currently there are 244 modular/relocatable classrooms for Grades K–12 being used by the HCPSS, including several larger modular units of at least five classrooms.

In some cases modular units are integrated into a building's core facility, such as at St. John's Lane Elementary School, Waverly Elementary School, and Clarksville Middle School. These units are included in building capacity as they are considered permanent additions.

In recent renovations, modular units have been replaced, like Bollman Bridge Elementary School and Deep Run Elementary School. Similar plans are underway at Patuxent Valley Middle School. The school system conducts annual reviews of the physical condition and usage of all relocatable/ modular units. When units are inspected, the cost of repairs is weighed against the option of retiring the units.

Site Acquisition and Construction Reserve

The selection and acquisition of appropriate school sites figures prominently in the development of a capital program. Each proposed school site is carefully evaluated prior to acquisition according to Board-approved selection criteria identified in Policy 6000 Site Selection and Acquisition. Delays in acquisition of suitable school sites may affect the timing of construction of needed schools, resulting in overcrowding situations.

The HCPSS continues to maintain a "land bank" to purchase potential sites or portions of land to augment sites. Larger sites identified in the subdivision review process may be reserved to be budgeted as line items in future capital budgets. This fund is also used as a reserve for unanticipated construction costs. Uses of the fund in this way has been infrequent.

Land Bank as of July 1, 2016

The Board maintains ownership and/or the rights to purchase parcels of land for future school sites, commonly known as the "Land Bank." The following schedules detail the current land in the Land Bank.

Owned Sites	Acreage	Location	Date Acquired	Cost
Sunny Spring Drive	10	Sunny Spring Drive	1974	$ 1
Future Middle School Site	41	2865 Marriottsville Road	2007	$ 1,700,000
ES #42 Site	8	Banbury Drive Parcel G	2013	$ 4,200,000
Faulkner Ridge Center	9.01	Marble Faun Lane	1968	$ 1

The following properties are held by other parties for future use by the Board of Education for school construction. Upon need for a school site, the Board may utilize these properties.

Reserved Sites	Acreage	Location
Clary's Forest	10	Little Patuxent Parkway near Bright Passage
Dickinson	11	Eden Brook Drive and Weather Worn Way
Dickinson	20	Sweet Hours Way east of Eden Brook Drive
Harper's Choice	5	Rivendell Lane and Cedar Lane
Hopewell	10	Rustling Leaf at Deepage Drive
Huntington	11	Vollmerhausen Road east of Murray Hill Road

Recent Capital Accomplishments

HCPSS completed impressive projects in the past year which provided urgently needed capacity and necessary renovations.

Renovated Facilities

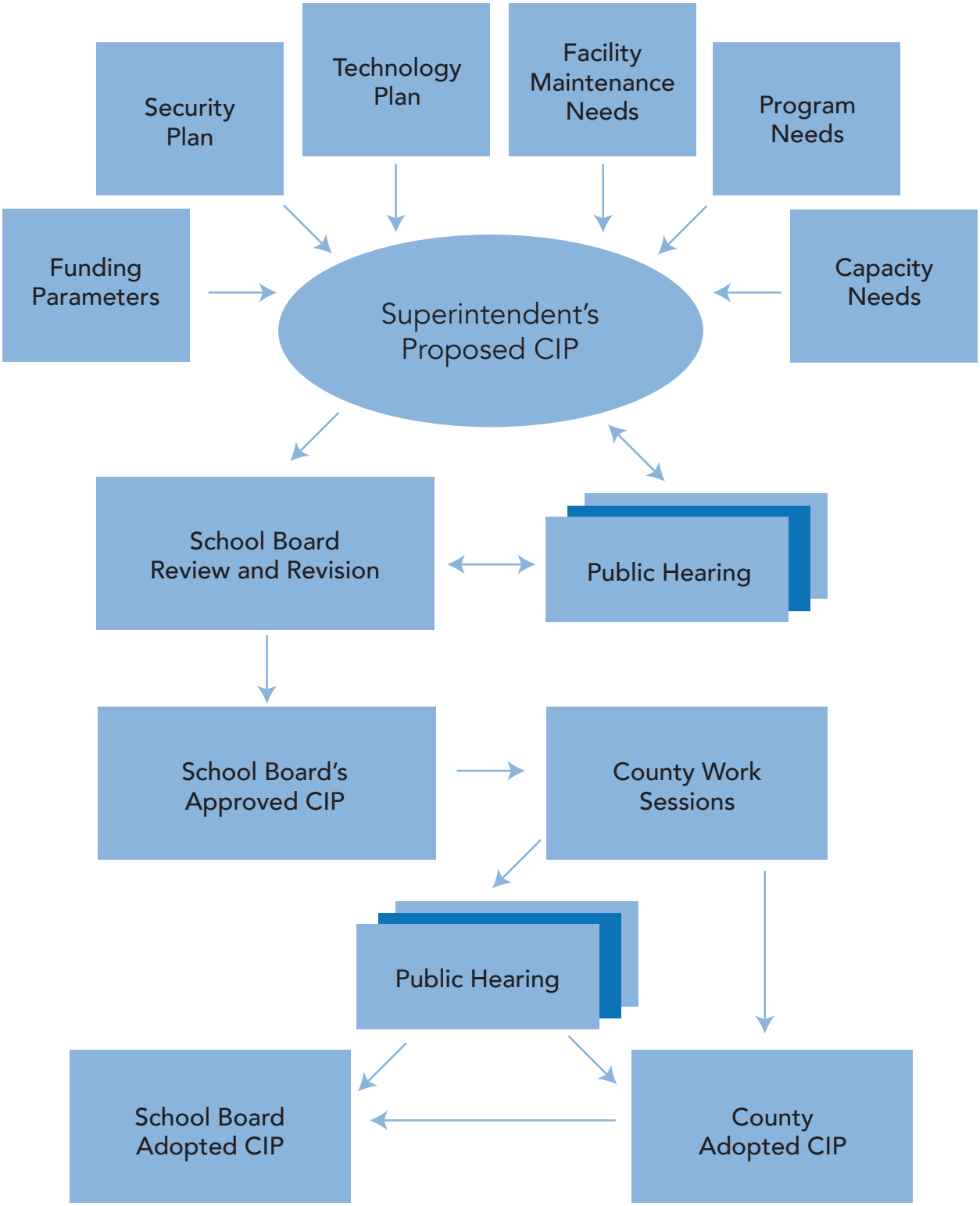
Deep Run Elementary School

The Deep Run Elementary School project renovated the existing one-story structure originally built in 1989 and renovated in 1997 and 2008, both expanding the footprint of the building. The focus of the project was replacing the modular classrooms with permanent construction, adding 100 seats, and converting the open space pods into individual classrooms. In addition, the administrative suite was relocated to the main entrance, two gifted and talented classrooms were relocated from portable classrooms, and the health suite was renovated to meet current state standards. The two-phase renovation addressed the school's numerous program and functional deficiencies, aging systems, and growing population.

Glenwood Middle School

The Glenwood Middle School Project focused on replacing and upgrading the HVAC systems. Phase I was completed over the summer of 2015 and focused on upgrading the HVAC systems in all the classrooms. Phase II was completed during the summer of 2016. The HVAC was upgraded including the installation of new direct digital controls throughout the remaining building, including the media center, administrative offices, gymnasium, cafeteria, and the kitchen. Architectural upgrades include the installation of new casework in the classrooms and the painting of walls throughout the facility. The project ensures the indoor air quality of the facility meets all county and state requirements and provides comfort to students and staff.

Capital Improvement Program (CIP) Development Process



Calendar for Development and Review/Approval

Superintendent's Proposed FY 2018 Capital Budget

Capital Improvement Program FY 2019–2023
Long-Range Master Plan FY 2018–2027

Thursday, June 23, 2016 7:30pm - Board Room	Staff presentation of Feasibility Study Report including 2016 enrollment projection.
Thursday, August 18, 2016 7:30pm - Board Room	Board of Education Public Hearing and Pre-Development Work Session.
Thursday, September 8, 2016 6:00pm - Board Room	Staff presentation of the Superintendent's Proposed Capital Budget.
Thursday, September 22, 2016 6:00pm - Board Room	Board of Education Public Hearing on Superintendent's Proposed Capital Budget. Work Session and Approval of Superintendent's Proposed Capital Budget following the Public Hearing.
Wednesday, October 5, 2016	Board of Education submission of Proposed Capital Budget to Maryland Public School Construction Program.
Thursday, October 6, 2016	Planning Board Public Hearing on Board of Education's Proposed Capital Budget.
Monday, November 7, 2016 7:00pm	County Council approval of Board of Education's Proposed Capital Budget for letter of support to interagency Committee on School Construction.
Tuesday, February 21, 2017 9:00am - Board Room	Board of Education Adoption of the Requested Capital Budget.
Mid-March	Board of Education submission of the Requested Capital Budget to the County Executive and Budget Administrator.
TBD	County Executive Public Hearing on Capital Budget.
TBD	County Executive presentation of the Capital Budget.
Thursday, May 4, 2017 6:00pm - Board Room	Board of Education Public Hearing.
TBD	County Council Public Hearing on the Education portion of the County Executive's Capital Budget.
Thursday, May 11, 2017 7:30pm - Board Room	Board of Education Work Session (If necessary).
TBD	Staff pre-file of the Adequate Public Facilities Ordinance Open/Closed Chart to County Council.
TBD	County Council Adoption of the Capital Budget.
Thursday, May 25, 2017 9:00am - Board Room	Board of Education Adoption of the Capital Budget
TBD	County Council Adoption of Adequate Public Facilities Ordinance Open/Closed Chart.

TBD (To Be Determined) - Please check Howard County's website for the full schedule: http://www.co.ho.md.us/

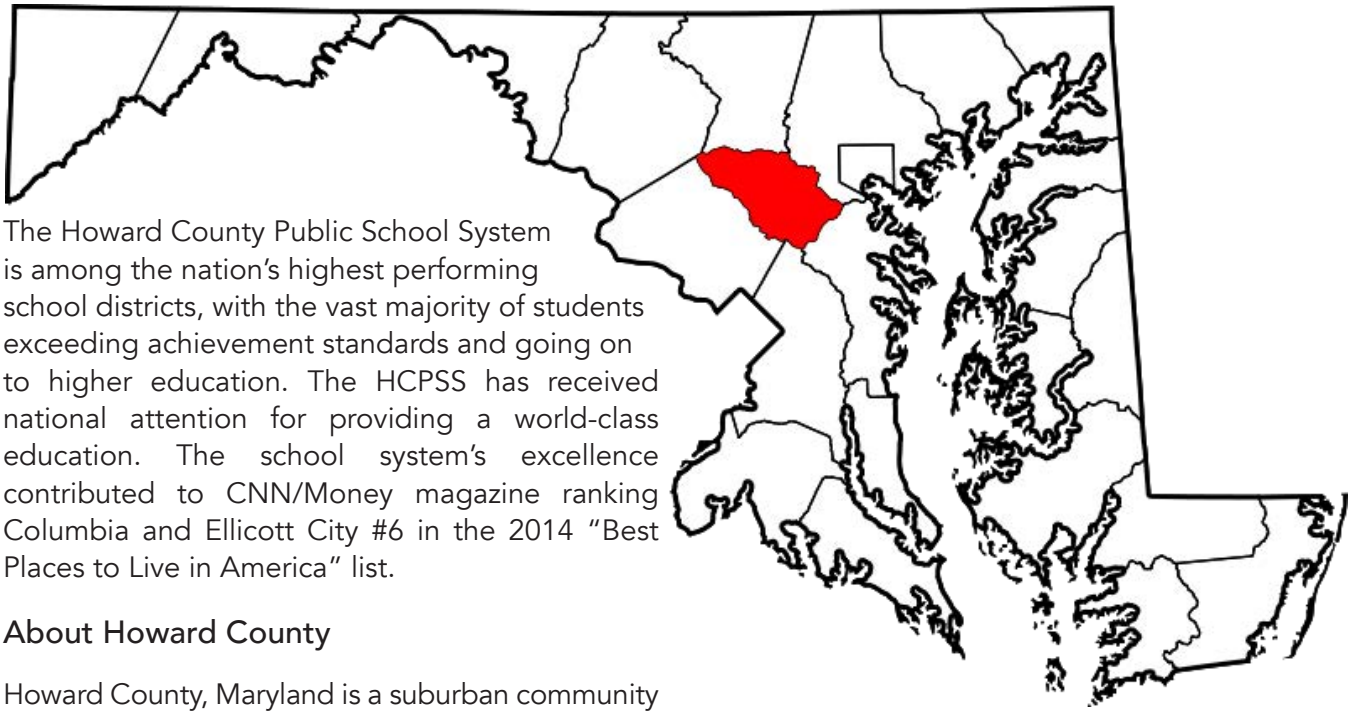
EXIT
EXIT

Section 2

System Information

September 2016

Howard County at a Glance



The Howard County Public School System is among the nation's highest performing school districts, with the vast majority of students exceeding achievement standards and going on to higher education. The HCPSS has received national attention for providing a world-class education. The school system's excellence contributed to CNN/Money magazine ranking Columbia and Ellicott City #6 in the 2014 "Best Places to Live in America" list.

About Howard County

Howard County, Maryland is a suburban community of over 300,000, situated midway along the Baltimore-Washington corridor. It is a county of contrast—a blend of old and new, urban and rural, historical and progressive. The county's borders encompass Ellicott City, one of the country's oldest towns, and Columbia, a planned community conceived and designed over 40 years ago by the Rouse Company.

Howard County boasts a number of historical landmarks, including the Bollman Truss Railroad Bridge, the Thomas Viaduct, and nine sites along the Maryland Civil War trails. The county's 30 regional and community parks, 7 golf courses, 5 lakes, and extensive hiking and biking trails also contribute to the $590.1 million in annual tourism revenue.

Howard County Race/Ethnicity

	Howard County	Maryland
American Indian/Alaskan	0.4%	0.6%
Asian	16.2%	6.%
Black/African American	18.2%	14.0%
Hawaiian/Pacific Islander	0.1%	0.1%
Hispanic/Latino	6.3%	9.0%
White	61.4%	60.5%
Two or More Races	3.5%	2.6%

2013 US Census Bureau Data

Howard County Fast Facts

- 95.2% of the population over 25 has graduated high school. (MD State 89%)
- 60.4% hold a Bachelor's degree or higher. (MD State 37.3%)
- $110,133 is the median household income.
- 73.3% homeownership rate with median value of owner-occupied housing of $426,300.
- 250.74 square miles land area and 1,144.9 persons per square mile.
  (MD State land area 9,707.24 square miles and 594.8 persons per square mile)
- Howard County is the smallest Maryland County by land area.
- 3.5% unemployment rate as of June 2016, lowest rate in Maryland. (MD State 4.3%)

HCPSS Facilities at a Glance

The HCPSS maintains well over seven million square feet of school facilities and other buildings in service of delivering the educational program and for use by the community. The school system owns or controls approximately 1,827 acres of land. Approximately seven percent of HCPSS staff are devoted in some way to the maintenance of facilities.

HCPSS Facilities

76 Schools

41 Elementary Schools

20 Middle Schools

12 High Schools

3 Special Schools

Ancillary Facilities

Ascend One

Central Office

Amberton Drive (Leased Storage)

Dorsey Building (Shared Space)

Faulkner Ridge (Vacant)

Harriet Tubman (Offices and Shops)

Ridge Road Center (Shops)

Old Bushy Park (Storage)

Old Cedar Lane (Offices)

Average Age of Facilities*

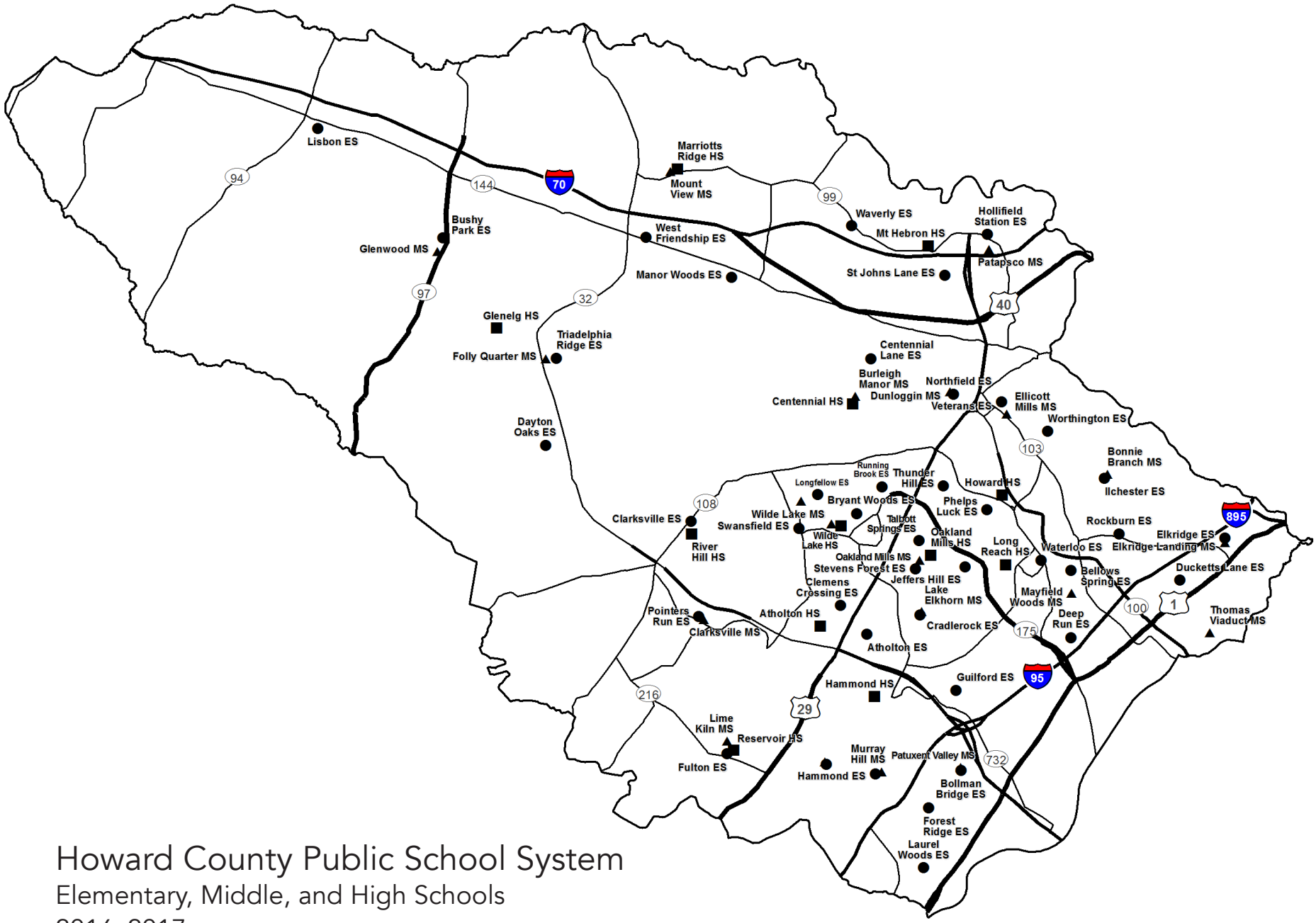
Elementary	Middle	High
14.5 years	20.4 years	19.7 years

* Including completed renovations.

Enrollment*

Total Enrollment (Pre-K–12)	**54,870**
Elementary (Pre-K–5)	25,478
Middle (6–8)	12,715
High (9–12)	16,574
Special Schools	103

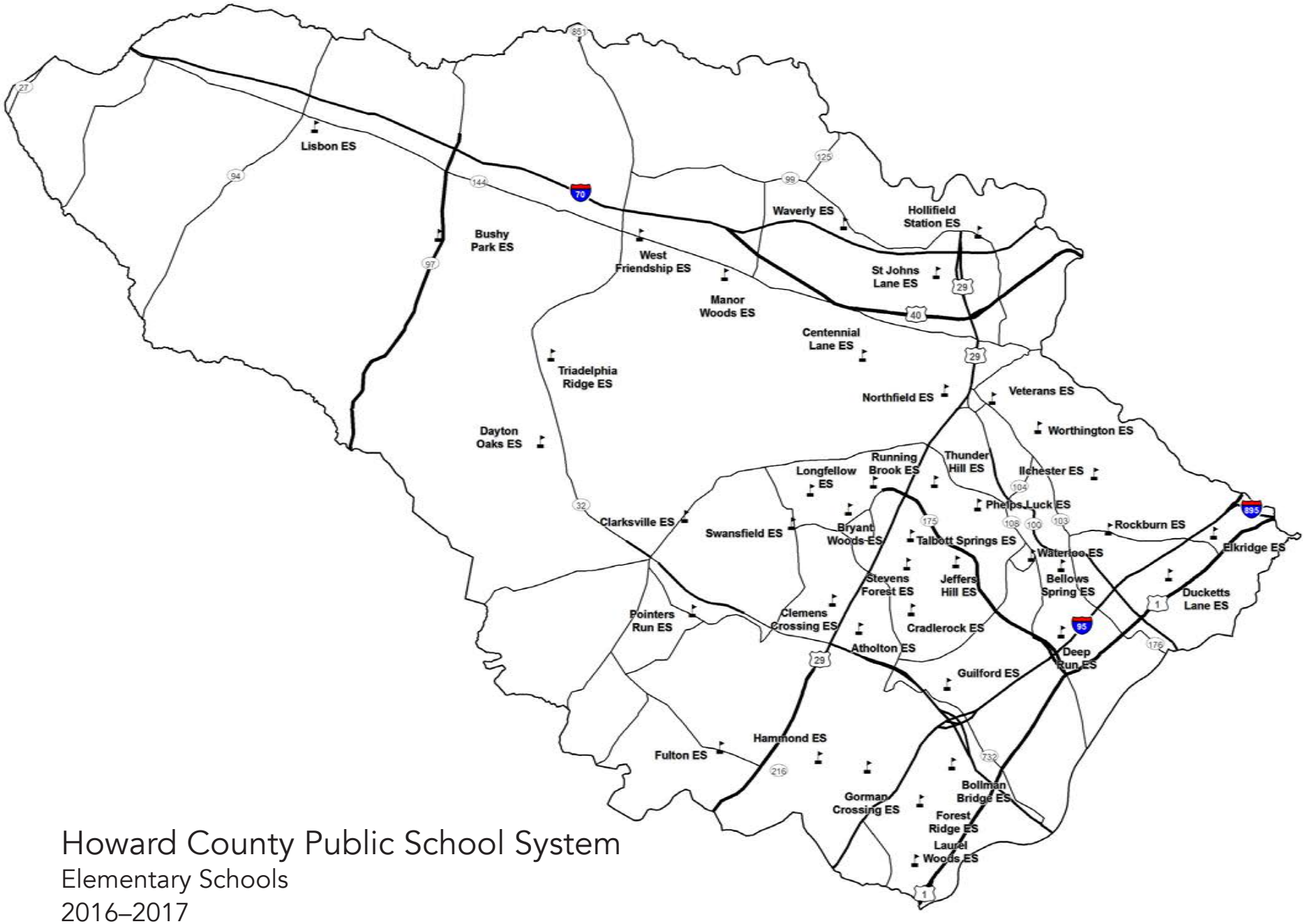
* Official September 30, 2015 Enrollment Report.



Howard County Public School System

Elementary, Middle, and High Schools

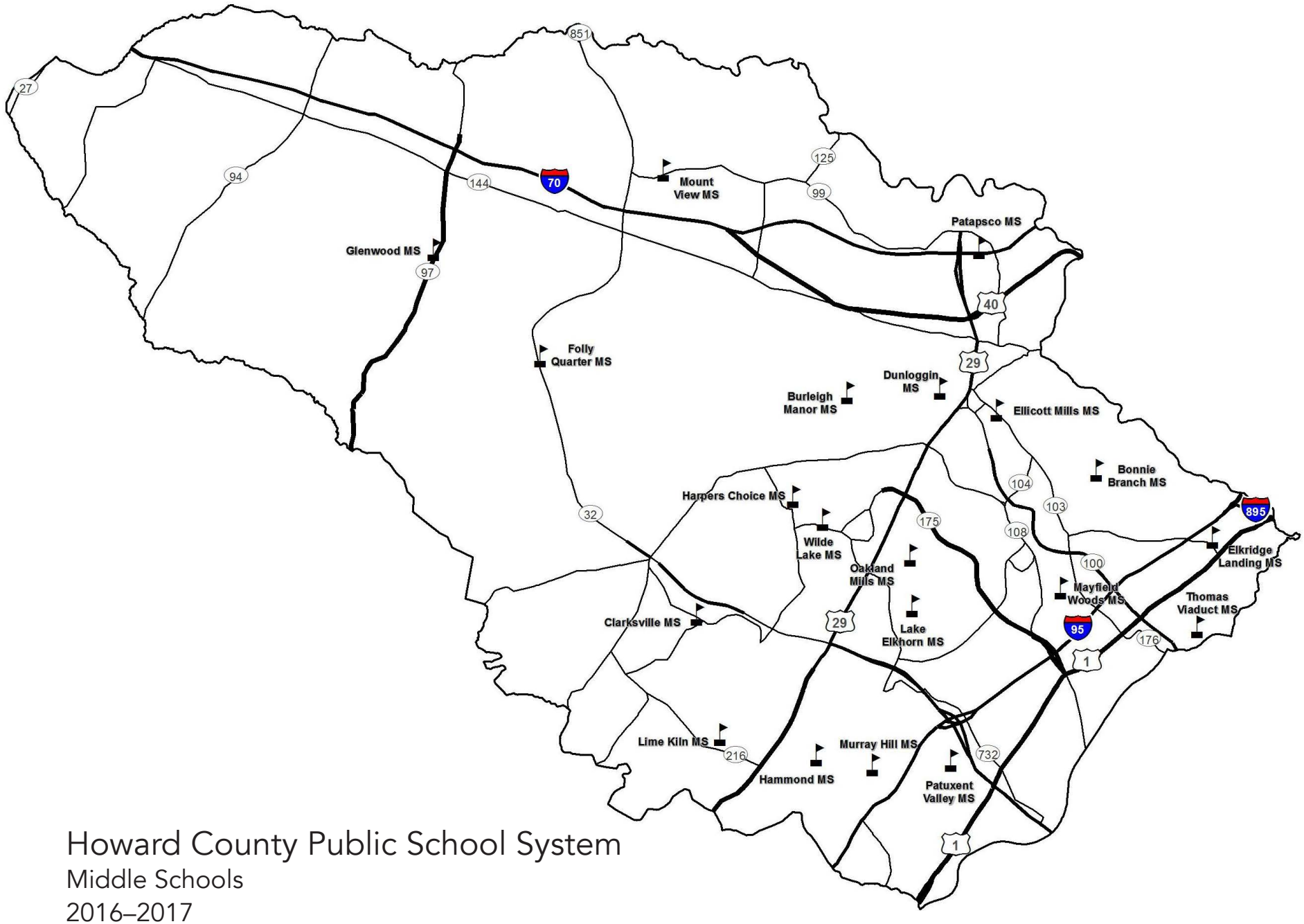
2016–2017



Howard County Public School System

Elementary Schools

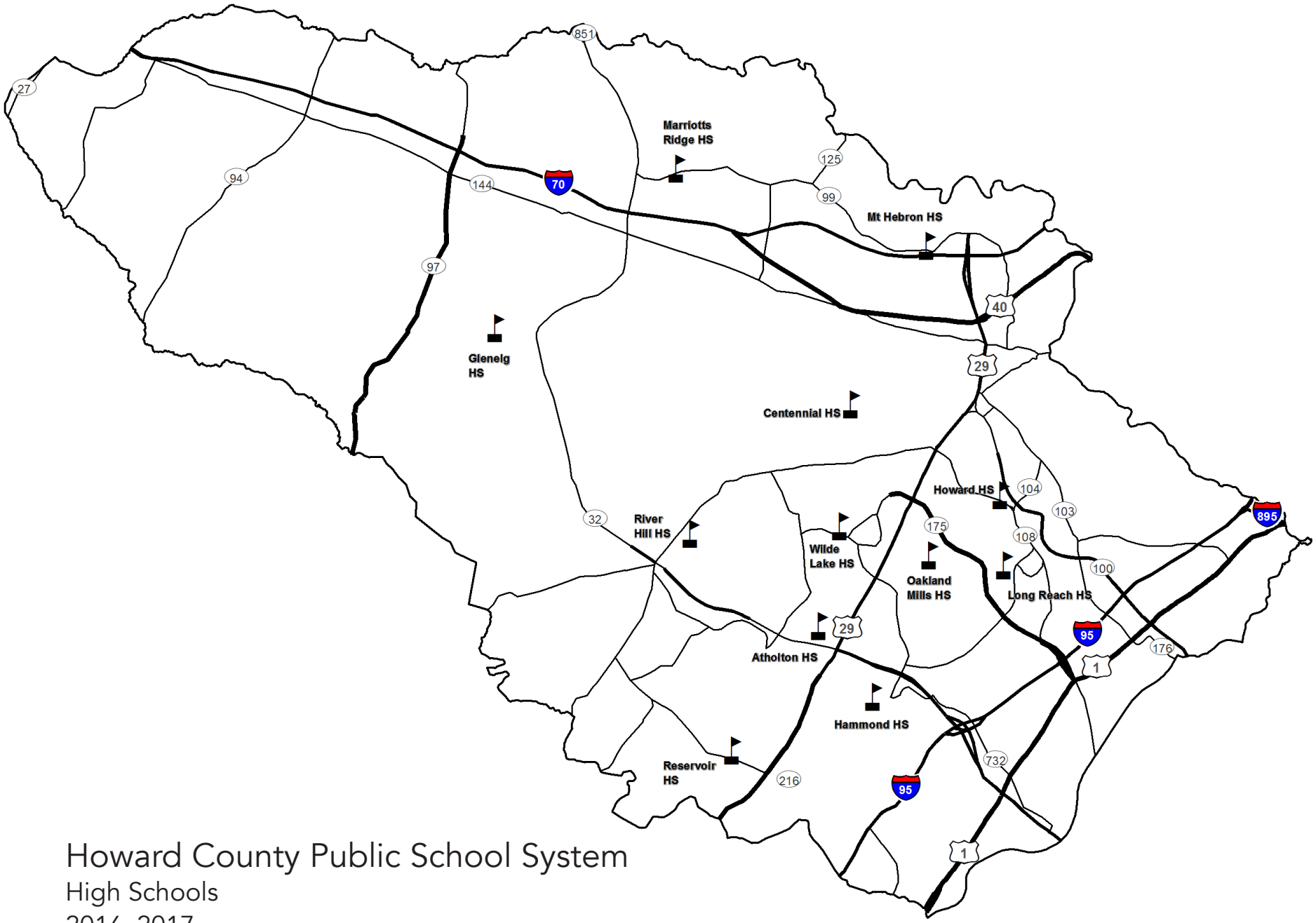
2016–2017



Howard County Public School System

Middle Schools

2016–2017



Howard County Public School System

High Schools

2016–2017

Section 3

Project Detail

September 2016

Wilde Lake Middle School Replacement School: Project 1031

10481 Cross Fox Lane, Columbia, MD 21044
http://wlms.hcpss.org

Anne Swartz, Principal
410.313.6957

Building Data	
Year Built	1969
Age	47
Site Area (acres)	21
Last Renovation/Addition	1998
Current Relocatables	9
Current Capacity	467
9/2015 Enrollment	564

Projections/Capacity Utilization	
2016 Projection	545
Projected Utilization	117%
2017 Projection	608
Projected Utilization	130%
Post-renovation Cap.	760
Projected Utilization	80%

Project Purpose

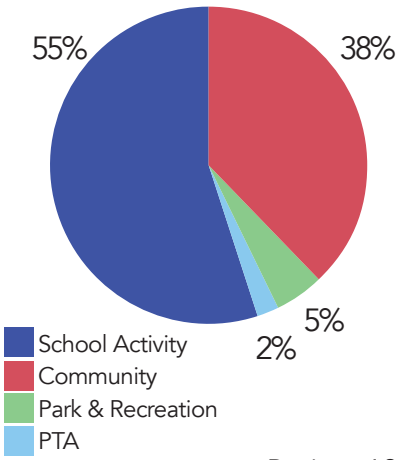
The Wilde Lake Middle School project will replace an aging middle school with a larger, modern facility in an area slated for growth. The replacement school will provide capacity for 760 students. A 2008 facility assessment concluded that the Wilde Lake Middle School building had a net program area deficiency of 13.6 percent, the largest deficiency of educational program area of the 19 middle schools operating at that time. A subsequent feasibility study determined that the cost of an ADA compliant renovation was comparable to a replacement.

Nearly twice as large as the current school but using less than half the energy, the new facility will be a showcase of energy efficiency. Solar power will allow the net draw from the power grid over the course of a year to be zero. This kind of capital investment can defray operating expenses. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Wilde Lake Middle School

Over 2,400 reservations brought citizens and students into Wilde Lake Middle School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of over 171,000 was estimated for these activities. Athletic events, after school activities, performance arts events, and camps accounted for the majority of the facility use. Other uses, which include training, elections, and other activities make up the balance of reservations.

Community Use in FY16



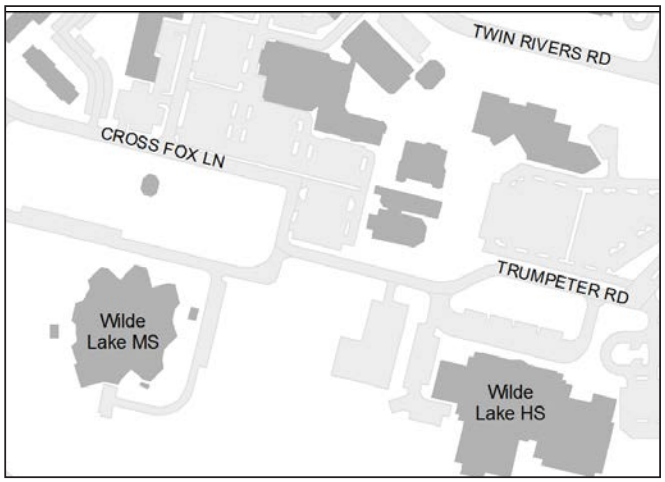
Project Details

Wilde Lake Middle School, located in Columbia, was opened in 1969 as an open concept school and was expanded in 1974. In 1998, it was renovated with classrooms enclosed. During the summer of 2009, Wilde Lake Middle School went through minor renovations including some miscellaneous interior finishes and demountable partitions.

This building will be Net Zero and US Green Building Council (USGBC) LEED Certified. The building will be powered by solar voltaic cells on the roof. The architectural design is highly efficient considering building orientation, mass, and scale. Daylight is well used. The mechanical systems finely control electric lighting and HVAC and controls. Training will help school-based staff make the most of the energy efficient design. These considerations position the new Wilde Lake Middle School to be the most energy conscious and efficient school in the state.

This is the fifth year of funding for Wilde Lake Middle School. During FY 2018, the fourth year of construction will be implemented. Based upon the current plan, the Board will request a final appropriation for this program in FY 2018 of $2 million to complete work and have the replacement school ready to open in August 2017.

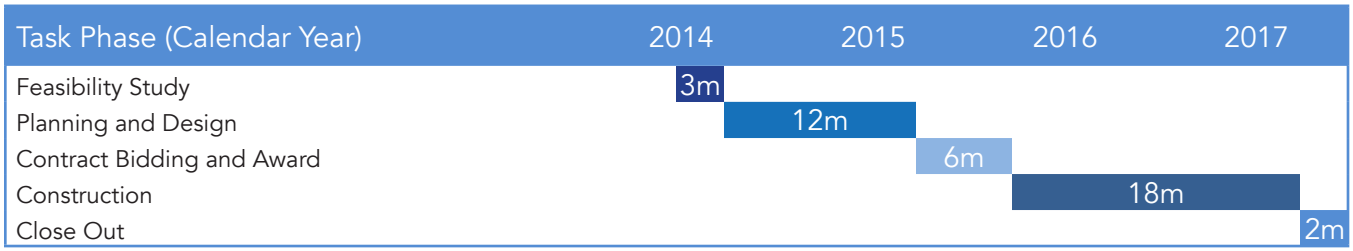
School Location Map



Budget Summary (In Thousands)

Approved Appropriations			
FY 2014	Planning	$	2,658
FY 2015	Construction	$	8,200
FY 2016	Construction	$	18,234
FY 2017	Construction	$	14,285
Current & Future Requests			
FY 2018	Construction	$	2,000
Total Project Cost Estimate			
Total		$	45,377

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Wilde Lake Middle School Replacement project is scheduled for completion in August of 2017.

Patuxent Valley Middle School Renovation: Project 1033

9151 Vollmerhausen Road, Jessup, MD 20794
http://pvms.hcpss.org/

Rick Robb, Principal
410.880.5840

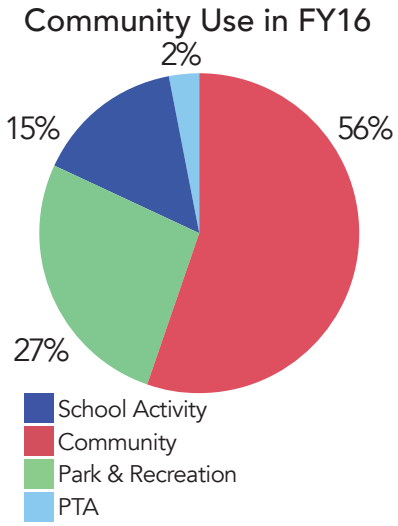
Building Data	
Year Built	1989
Age	27
Site Area (acres)	30
Last Renovation/Addition	N/A
Current Relocatables	6
Current Capacity	760
9/2015 Enrollment	631
Projections/Capacity Utilization	
2016 Projection	675
Projected Utilization	89%
2017 Projection	645
Projected Utilization	85%

Project Purpose

The Patuxent Valley Middle School project will expand educational program spaces and renovate the existing facility to remedy deficiencies in the design, particularly to improve operation and security. Open teaching stations will be reconfigured into self-contained classrooms. Operable walls will be replaced with full-height drywall partitions. Modular classrooms will be replaced with permanent additions to the building that will accommodate the classroom spaces and necessary program areas.

The project will include a complete systemic renovation of the existing building including new electrical, mechanical, plumbing, sprinkler, technology, roofing, and life safety systems. Ceilings will be removed and replaced, toilet rooms will be renovated, and ADA accessibility will be addressed to bring the facility into compliance with the HCPSS Guidance Manual for Renovations and Modernizations of Existing Schools.

Patuxent Valley Middle School will be another USGBC LEED Certified school facility for Howard County. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.



Community Use at Patuxent Valley Middle School

Over 940 community use reservations were registered for Patuxent Valley Middle School in FY 2015. An attendance of nearly 33,000 was estimated for a variety of community and student programs, meetings, activities, and events. Community events accounted for the majority of facility use. Other uses, which include after school activities and educational activities, make up the remaining reservations.

Project Details

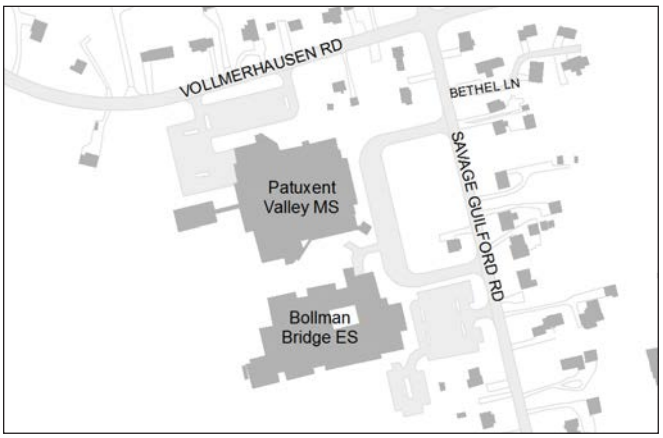
Patuxent Valley Middle School opened in 1989 and a group of six modular classrooms were connected to the building by a covered walkway sometime thereafter. No renovations to the 97,445 square foot school have occurred since the building was originally constructed.

The 2008 facility assessment of middle schools concluded that Patuxent Valley Middle School had a net 12.7 percent surplus of educational program area. While the net area meets specification, in 2013 Gilbert Architects found deficiencies in the design.

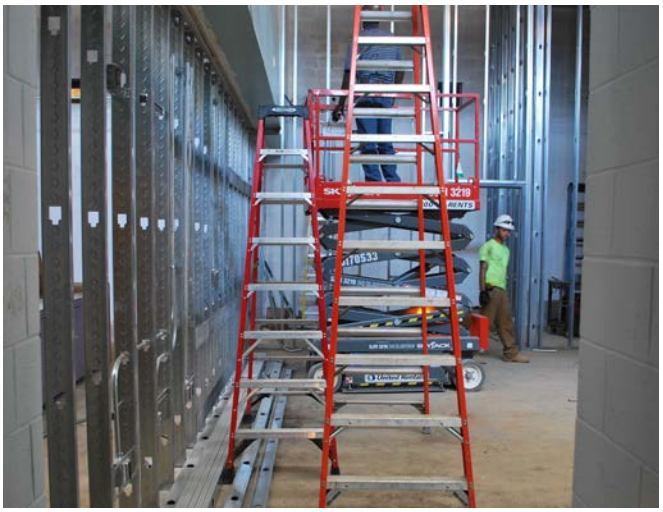
The systemic upgrades consist of a complete renovation of the existing building including new electrical, mechanical, plumbing, technology, roofing, and life safety systems with an emphasis on energy efficiency. The physical upgrades include relocating the administration office to the main floor, re-purposing the oversized library space, reconfiguring the cafeteria access to playground and bathrooms, and providing daylighting throughout the building. ADA improvements will include elevator access to the second floor from the main entrance lobby/stair tower and an upgrade to the Health Suite to present standards.

This is the fourth year of funding for Patuxent Valley Middle School. During FY 2017, the second year of construction will be implemented. Based upon the current plan, the Board will request a final appropriation for this program in FY 2018 of $1.5 million to complete work by August 2017.

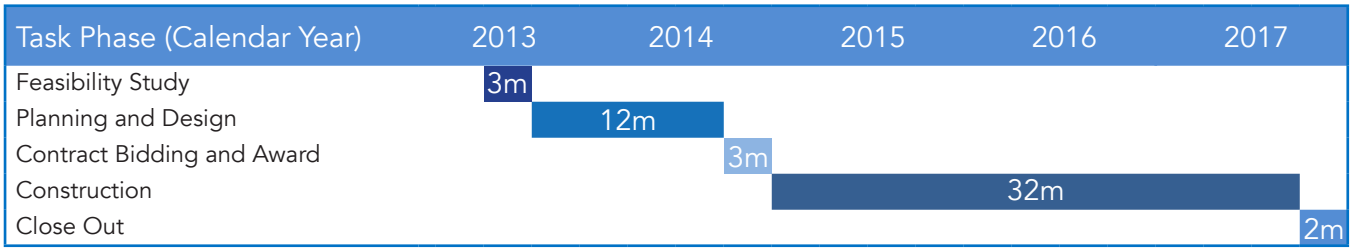
School Location Map



Budget Summary (In Thousands)			
Approved Appropriations			
FY 2014	Planning	$	8,145
FY 2016	Construction	$	10,000
FY 2017	Construction	$	9,890
Current & Future Requests			
FY 2018	Construction	$	1,500
Total Project Cost Estimate			
Total		$	29,535



Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Patuxent Valley Middle School Renovation project is scheduled for completion in August of 2017.

Swansfield Elementary School Renovation/Addition: Project 1034

5610 Cedar Lane, Columbia, MD 21044
http://ses.hcpss.org/

Maisha Strong, Principal
410.313.6907

Building Data	
Year Built	1972
Age	44
Site Area (acres)	10
Last Renovation/Addition	2008
Current Relocatables	12
Current Capacity	521
9/2015 Enrollment	608

Projections/Capacity Utilization	
2016 Projection	612
Projected Utilization	118%
2018 Projection	615
Projected Utilization	118%
Post-Renovation Cap.	621
Projected Util. 2021	99%

Project Purpose

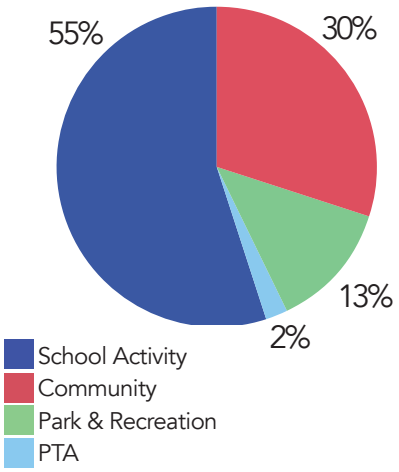
The Swansfield Elementary School project will expand educational program spaces with 100 seats of new capacity and renovate the existing facility. Swansfield Elementary School was opened in 1972 and renovated in 1998. The school was expanded in 1988 and 2008. In April 2009, HCPSS engaged Gilbert Architects Inc. to conduct a facility assessment of elementary schools. The report concluded that Swansfield Elementary School had 12.3 percent deficiency of educational program area of the 40 elementary schools operating at that time. The FY 2015 Capital Budget introduced this project to the capital improvement program. In previous budgets, it was listed as a systemic renovation. In the FY 2015 Capital Budget, the total project cost was estimated at $19.4 million. In the FY 2018 Capital Budget the total project cost estimate is $26.9 million. The $7.5 million increase is mainly attributed to the new plan including an addition.

The complete scope of this project will be defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Swansfield Elementary School

Over 2,600 reservations brought citizens and students into Swansfield Elementary School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of nearly 203,000 was estimated for these activities. After school activities and athletic events accounted for much of the facility use. Other uses, which include child care and camps, make up the remaining reservations.

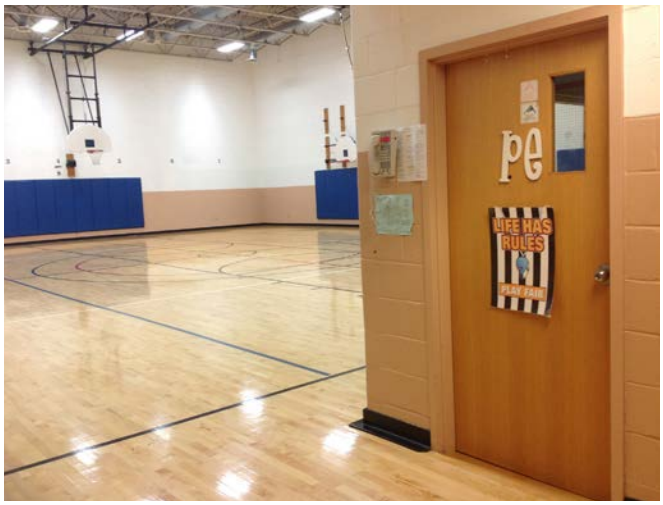
Community Use in FY16



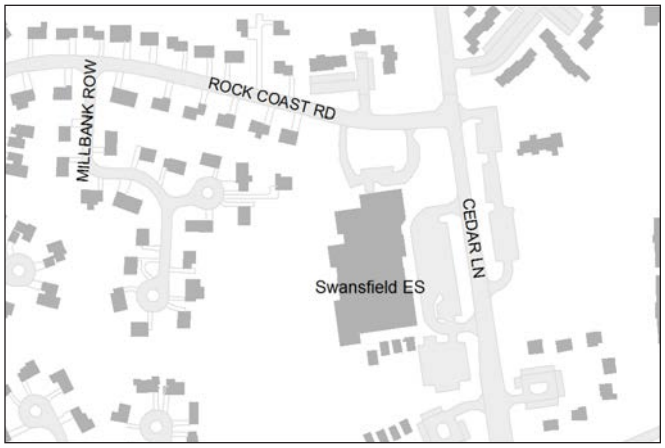
Project Details

The planned scope of work for the school includes programmatic, systemic, and physical upgrades as required to bring the facility into compliance with the HCPSS Guideline Manual for Renovations and Modernizations of Existing Schools. The programmatic changes include providing individual classrooms and corridors, creating a COMAR compliant health suite, and providing adjunct space to relocate existing portable classrooms inside of the building.

The systemic upgrades consist of a complete renovation of the existing building including new electrical, mechanical, plumbing, technology, partial roofing, and life safety systems with an emphasis on energy efficiency. The physical upgrades include a refinished gymnasium floor, new doors and hardware, additional exterior windows, as well as new casework and finishes. This project will provide an additional capacity of 100 seats and core infrastructure space necessary to operate effectively at the larger capacity.



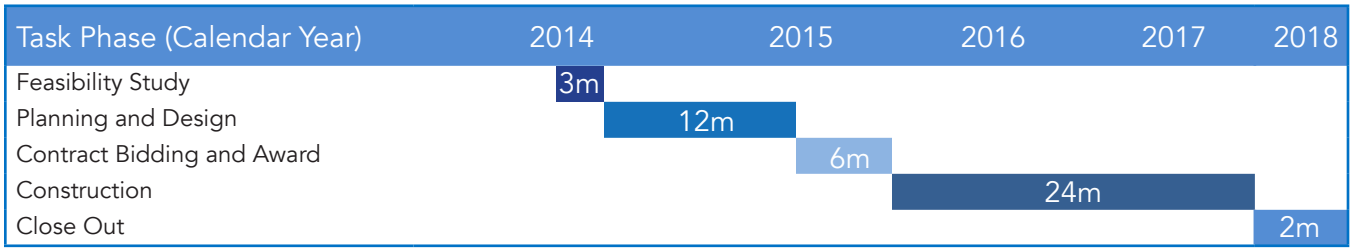
School Location Map



Budget Summary (In Thousands)			
Approved Appropriations			
FY 2015	Planning	$	1,898
FY 2016	Construction	$	9,875
FY 2017	Construction	$	10,722
Current & Future Requests			
FY 2018	Construction	$	4,407
Total Project Cost Estimate			
Total		$	26,902

This is the fourth year of funding for Swansfield Elementary School. During FY 2017, the second year of construction will be implemented. Based upon the current plan, the Board will request a final $4.4 million in FY 2018 to complete work and have the school ready by August 2018.

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Swansfield Elementary School Renovation/Addition project is scheduled for completion in August of 2018.

Waverly Elementary School Renovation/Addition: Project 0973

10220 Wetherburn Road, Ellicott City, MD 21043
http://waves.hcpss.org/

Kathy Jacobs, Principal
410.313.2819

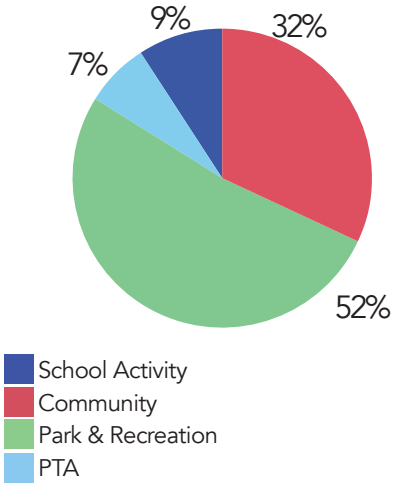
Building Data	
Year Built	1990
Age	26
Site Area (acres)	11.49
Last Renovation/Addition	2007
Current Relocatables	9
Current Capacity	638
9/2015 Enrollment	707

Projections/Capacity Utilization	
2016 Projection	698
Projected Utilization	109%
2018 Projection	669
Projected Utilization	105%
Post-Renovation Cap.	738
Projected Util. 2021	91%

Project Purpose

The Waverly Elementary School project will expand educational program spaces with 100 seats of new capacity and renovate the existing facility. Waverly Elementary School opened in 1990 and was renovated in 2007 to accommodate full-day kindergarten. The 2009 facility assessment of elementary schools concluded that Waverly Elementary School had 14.6 percent deficiency of educational program area of the 40 elementary schools operating at that time. The FY 2016 Capital Budget introduced this project in the CIP. In previous budgets, it was listed as a systemic renovation. In the FY 2016 Capital Budget, the total project cost was estimated at $29.5 million. In the FY 2018 Capital Budget, the total project cost estimate is $36.2 million. The $6.7 million increase is mainly attributed to the new plan including an addition. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use in FY16



Community Use at Waverly Elementary School

Waverly Elementary School hosted over 1,620 after school and weekend activities for a variety of community and student programs, meetings, activities, and events. An attendance of nearly 93,000 was estimated for these activities. Athletic events accounted for approximately half of the facility use. Other uses, which include child care and after school activities, make up the balance of reservations.

Project Details

This project calls for an expansion of the educational program spaces and renovation of the existing facility. This will consist of a complete systemic renovation of the existing building including new electrical, mechanical, plumbing, technology, roofing, and life safety systems as applicable per the recent feasibility assessment survey. The project will provide 100 seats of additional classroom space and core infrastructure space necessary to operate effectively at the larger capacity. Interior spaces will be reconfigured, new finishes provided, accessibility improved, and new spaces added as required bringing the facility into compliance with renovation specifications.

The Waverly Elementary School Addition supports a long-term plan as described in the 2016 Feasibility Study. In 2016 and beyond, Manor Woods Elementary School is projected to be above the 110 percent capacity utilization standard and eventually trends above 200 percent. Manor Woods Elementary School is not on public sewer and for that reason expansion is unlikely. Constructing this addition in 2018 can help relieve overcrowding at Manor Woods Elementary School. Beyond that, a new elementary school in Turf Valley has been considered after 2020.

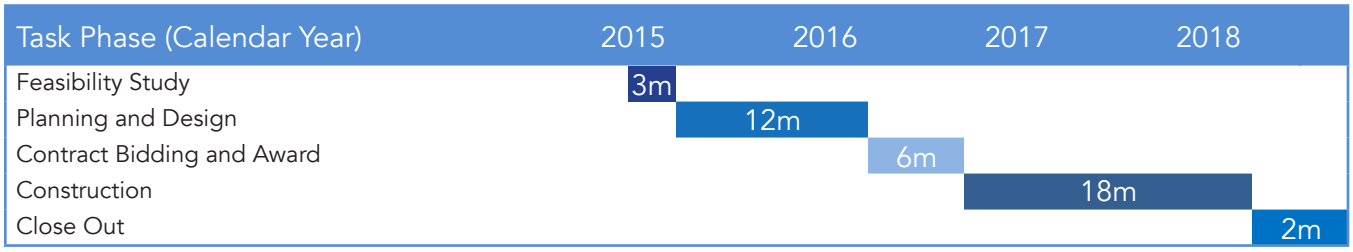
School Location Map

Budget Summary (In Thousands)			
Approved Appropriations			
FY 2015	Planning*	$	2,421
FY 2016	Construction	$	3,770
FY 2017	Construction	$	9,589
Current & Future Requests			
FY 2018	Construction	$	18,896
FY 2019	Construction	$	1,500
Total Project Cost Estimate			
Total		$	33,755

* Planning funds received in Systemic Renovation Project.

This is the fourth year of funding for Waverly Elementary School. Planning funds were received in the Systemic Renovation Line in FY 2014. During FY 2016, the first year of construction was implemented. In FY 2018 and FY 2019, an additional $22.4 million is planned to complete work and have the school ready by August 2018.

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Waverly Elementary School Renovation/Addition project is scheduled for completion in August of 2018.

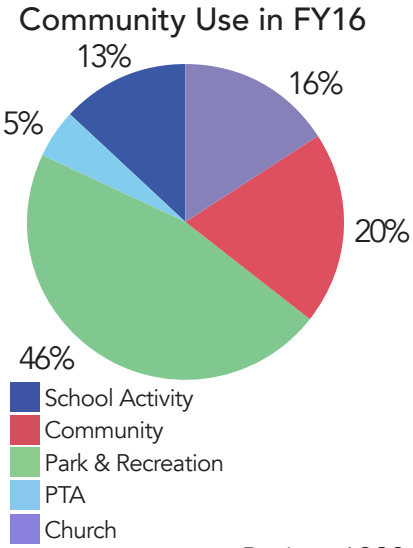
New ES #42: Project 1028

School Site located adjacent to Thomas Viaduct Middle School
7030 Banbury Drive, Hanover, MD

Architect rendering of Ducketts Lane Elementary School courtesy of Grimm + Parker Architects. This is the newest HCPSS elementary school based on the current education specifications.

Project Purpose

The New ES #42 will be a new facility. Capacity utilization at Ducketts Lane Elementary School, which opened in August 2013, in the northern Route 1 corridor, will continue to grow. Even with additional capacity that may have been found in the Gilbert study, we now know that at least one additional elementary school is needed in the eastern part of the county. The region will exceed 115 percent utilization in 2023 and require approximately 1,000 additional seats. The recently completed comprehensive zoning increased the entire housing projection this year by 996 units, most was initiated in FY 2016. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

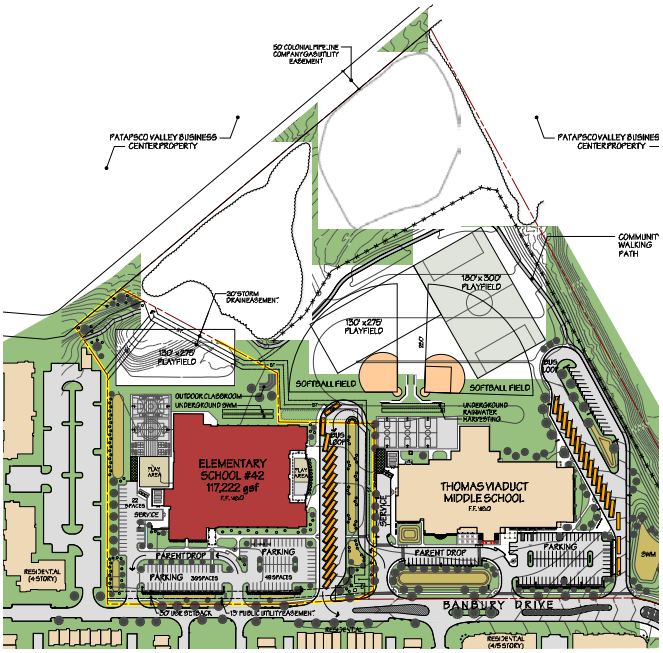


Community Use at New ES #42

Community use is anticipated in the planning for this new facility. Ducketts Lane Elementary School serves as a comparison. Ducketts Lane Elementary School hosted an estimated 87,000 attendees for over 1,940 reservations after school hours and on weekends for a variety of events. The majority of the events were athletic events, and remaining reservations were school and other community events.

Project Details

The New ES #42 will be designed in conformance with the General Educational Specifications for New Elementary Schools published in June 2003. The building design will provide the best possible learning environment for all elementary students in every aspect of educational programs by providing inclusive learning spaces, state-of-the art technology, and sustainable building practices. The prototype is a two-story elementary school designed for a 788 student capacity. The new school will also accommodate prekindergarten through fifth grade, as well as the Regional Early Childhood Center. The project will achieve USGBC LEED Gold certification in keeping with the sustainable goals of HCPSS to reduce negative impact on the environment and enhance health and comfort of the building occupants, thereby improving building performance.



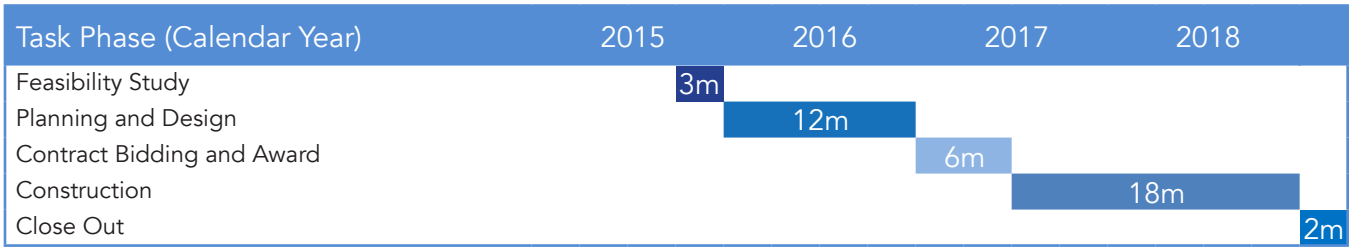
A school site is located adjacent to Thomas Viaduct Middle School at 7000 Banbury Drive in Hanover, MD.

Transit-oriented developments (TOD) are densely arranged communities of homes, offices, and stores near a rail station or bus line. Oxford Square is situated very close to the Dorsey MARC Station and will have a community shuttle until a pedestrian access can be constructed.

Budget Summary (In Thousands)			
Approved Appropriations			
FY 2016	Planning	$	2,807
FY 2017	Construction	$	14,526
Current & Future Requests			
FY 2018	Construction	$	20,658
FY 2019	Construction	$	6,132
Total Project Cost Estimate			
Total		$	44,123

This is the third year of funding for New ES #42. Planning funds were received in FY 2016. During FY 2017, the first year of construction will be implemented. In FY 2018 and FY 2019, an additional $26.8 million is planned to complete work and have the school ready by August 2018.

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The New ES #42 project is scheduled for opening in August of 2018.

Talbott Springs Elementary School Renovation: Project 1043

9550 Basket Ring Road, Columbia, MD 21045
http://tses.hcpss.org/

Nancy Thompson, Principal
410.313.6915

Building Data	
Year Built	1973
Age	43
Site Area (acres)	10
Last Renovation/Addition	2008
Current Relocatables	11
Current Capacity	377
9/2015 Enrollment	439

Projections/Capacity Utilization	
2016 Projection	448
Projected Utilization	119%
2021 Projection	453
Projected Utilization	120%

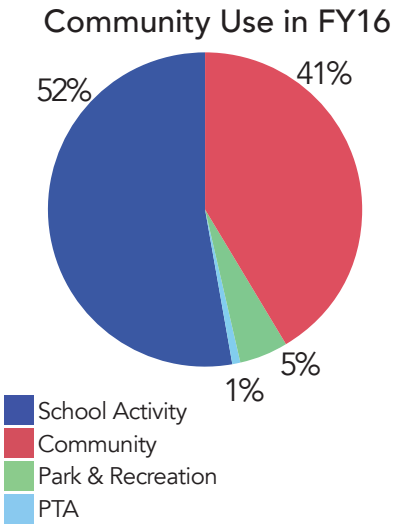
Project Purpose

The Talbott Springs Elementary School project will expand educational program spaces and renovate the existing facility. Talbott Springs Elementary School opened in 1973 and was renovated in 2000. The school was expanded in 2000 (art room and gymnasium) and 2008 (all day kindergarten). In April 2009, HCPSS engaged Gilbert Architects Inc. to conduct a facility assessment of elementary schools. The report concluded that Talbott Springs Elementary School had 18.7 percent deficiency of educational program area of the 40 elementary schools operating at that time. In the FY 2018 Capital Budget, the total project cost estimated is $28 million. Talbott Springs Elementary School will be another USGBC LEED Certified school facility for Howard County. Staff is currently conducting a feasibility study for state approval to possibly construct a replacement school.

The complete scope of this project will be defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Talbott Springs ES

Talbott Springs Elementary School hosted an estimated 64,000 attendees for over 1,600 reservations after school hours and on weekends for a variety of events. The majority of the events were after school activities, and remaining reservations were athletic, PTA, and other community events.

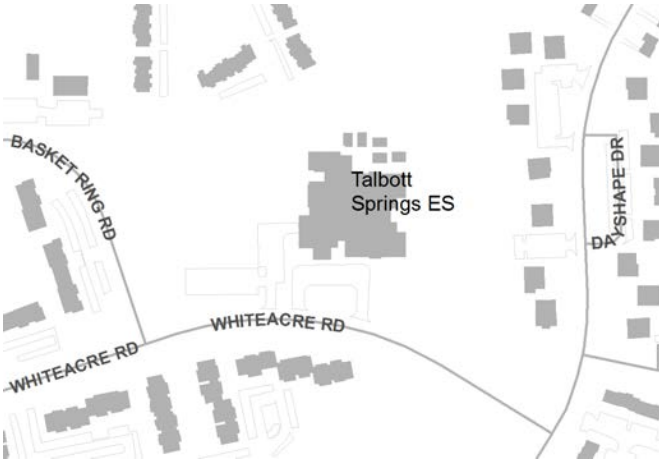


Project Details

The planned scope of work for the school includes programmatic, systemic, and physical upgrades as required to bring the facility into compliance with the HCPSS Guideline Manual for Renovations and Modernizations of Existing Schools. The programmatic changes include providing individual classrooms and corridors, creating a COMAR compliant health suite, and providing adjunct space to relocate existing portable classrooms inside of the building.

The systemic upgrades consist of a complete renovation of the existing building including new electrical, mechanical, plumbing, technology, roofing, and life safety systems with an emphasis on energy efficiency. The physical upgrades include a refinished gymnasium floor, new doors and hardware, additional exterior windows, as well as new casework and finishes.

School Location Map



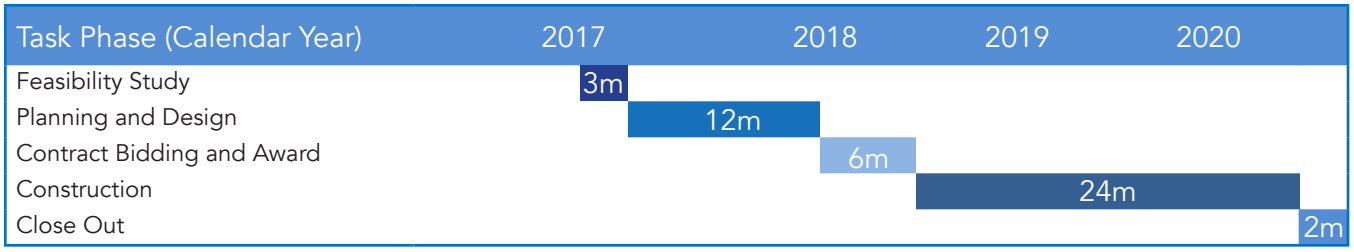
Budget Summary (In Thousands)

Current & Future Requests			
FY 2018	Planning	$	3,000
FY 2019	Construction	$	15,800
FY 2020	Construction	$	9,200

Total Project Cost Estimate		
Total	$	28,000

This is the first year of funding for Talbott Springs Elementary School. In previous budgets, it was listed as a systemic renovation. The requested sum of $3 million in FY 2018 will allow planning and design to begin. During FY 2019, construction will be started. Based upon the current plan, the Board will request a $25 million in FY 2019 and FY 2020 to complete work and have the school ready by August 2020.

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Talbott Springs Elementary School Renovation project is scheduled for completion in August of 2020.

Oakland Mills Middle School Renovation: Project 1036

9540 Kilimanjaro Road, Columbia, MD 21045
http://omms.hcpss.org/

Megan Chrobak, Principal
410.313.6937

Building Data	
Year Built	1972
Age	44
Site Area (acres)	20
Last Renovation/Addition	1998
Current Relocatables	0
Current Capacity	506
9/2015 Enrollment	454
Projections/Capacity Utilization	
2016 Projection	465
Projected Utilization	92%
2020 Projection	511
Projected Utilization	101%

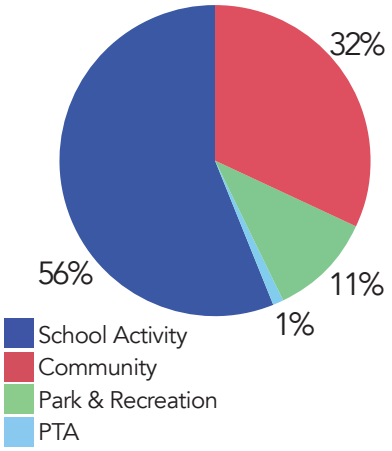
Project Purpose

The Oakland Mills Middle School project will renovate the existing facility. Oakland Mills Middle School opened in 1972 and was renovated in 1998. In August 2008, HCPSS engaged Gilbert Architects Inc. to conduct a facility assessment of middle schools. This project evaluated and scored each school according to the Council of Educational Facilities Planners, International (CEFPI) appraisal guidelines. The assessment included reviewing each school's plan layouts and measurements of spaces to compare to the educational specifications developed by HCPSS for middle schools. The report concluded that Oakland Mills Middle School had 8.8 percent deficiency of educational program area of the 19 middle schools operating at that time. The FY 2016 Capital Budget introduced this project to the Capital Improvement Plan. In previous budgets, it was listed as a systemic renovation. In the FY 2016 Capital Budget the cost for the limited renovation was estimated at $16.3 million. In the FY 2018 Capital Budget the complete renovation cost estimate is $30.1 million. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Oakland Mills Middle School

Citizens and students spent over 5,200 hours at Oakland Mills Middle School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of 76,000 was estimated for these activities. After school activities accounted for more than half of the facility use. Athletic activities and child care are included in the remaining reservations.

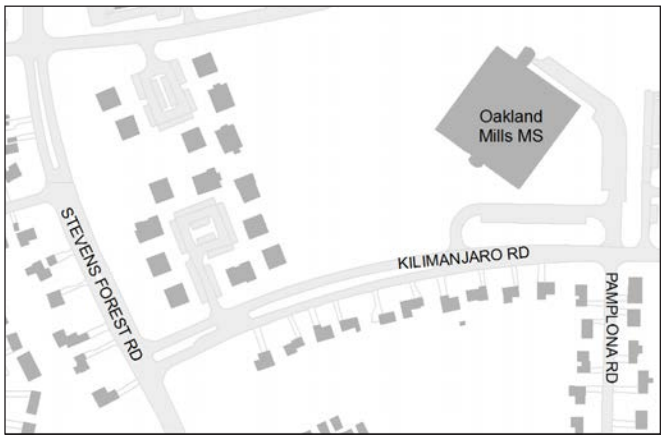
Community Use in FY16



Project Details

The project calls for a renovation of the existing building in accord with recommendations from the feasibility study. Renovation will include new electrical, mechanical, plumbing, technology, roofing, and life safety systems as applicable per the scope of work. Some Interior spaces will be reconfigured, new finishes provided, accessibility improved, and new spaces added as required, bringing the facility into compliance with the HCPSS Guidance Manual for Renovations and Modernizations of Existing Schools.

School Location Map

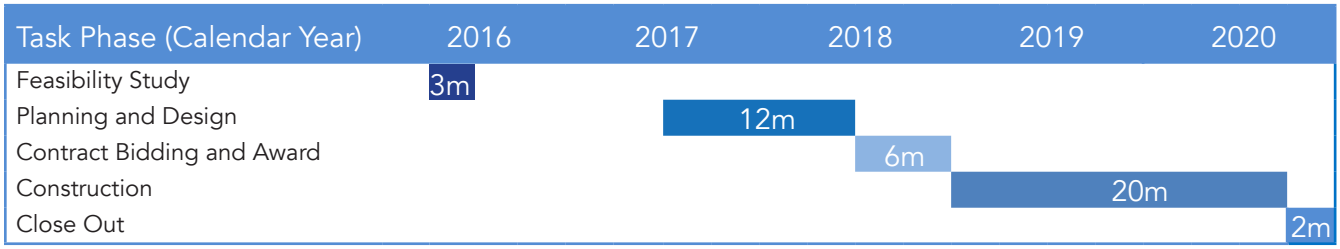


Budget Summary (In Thousands)			
Approved Appropriations			
FY 2015	Planning*	$	2,300
Current & Future Requests			
FY 2018	Construction	$	3,000
FY 2019	Construction	$	18,828
FY 2020	Construction	$	6,000
Total Project Cost Estimate			
Total		$	27,828

* Planning funds received in Systemic Renovation Project.

The second year of funding for Oakland Mills Middle School will be in FY 2018. Planning funds were received in the Systemic Renovation Line in FY 2015. During FY 2018, the first year of construction will be implemented. The requested sum of $27.8 million in FY 2018 through FY 2020 will allow construction to progress on schedule and work to be completed by August 2020.

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Oakland Mills Middle School Renovation project is scheduled for completion in August of 2020.

New HS #13: Project 1035

School site to be determined.

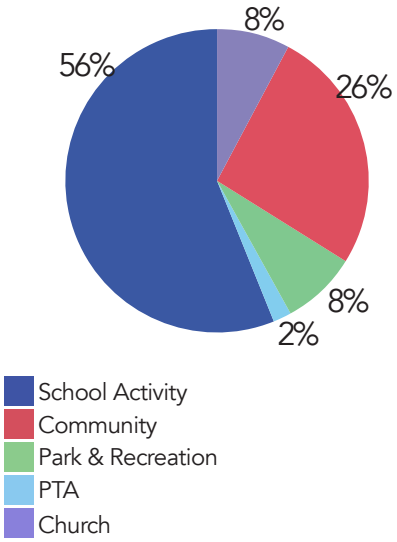
Architect rendering of Marriotts Ridge High School courtesy of TCA Architects.

Project Purpose

New HS #13 provides the HCPSS with the opportunity to expand college and career readiness programs for high school students across the county. Given the significant cost to build new facilities, it is recommended that this new high school be built to a larger capacity, up to 1,800 students.

Based upon enrollment projections, at least one additional high school is needed to accommodate growth. Balanced capacity utilization in the northeast region alone would require 1,100 additional seats by 2019. This capital budget recommends completion of New HS #13 in 2023. Planning would be initiated in FY 2018. The complete scope of this project would be defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use in FY16



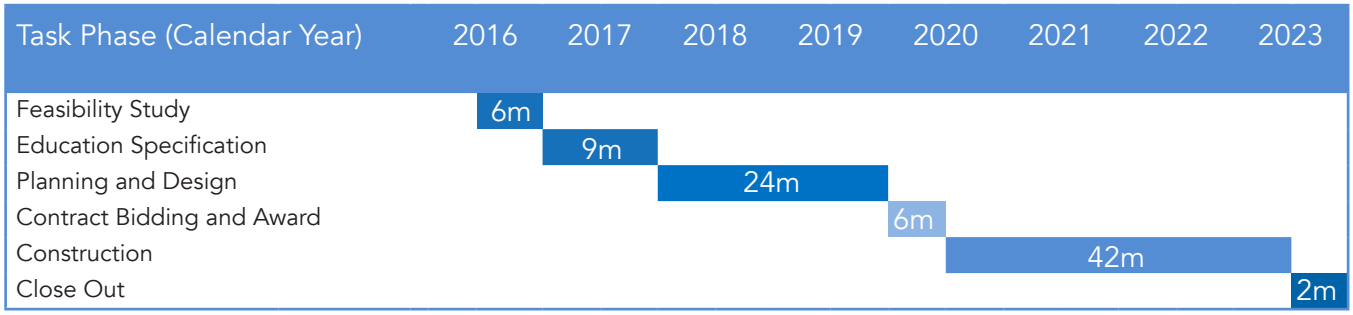
Community Use at New HS #13

Community use is anticipated in the planning for this new facility. Wilde Lake High School serves as a comparison. Wilde Lake High School hosted an estimated 1,160,000 attendees for over 7,200 reservations after school hours and on weekends for a variety of events. The majority of the events were community and school related events, and the remaining reservations were Park and Recreation, church events, and PTA meetings.

Planning for New HS #13 will occur during FY 2018 and FY 2019 with $14.3 million requested to allow planning to progress on schedule. An extended planning period is necessary to develop education specifications for this new facility. Based upon this timeline, the Board will request construction funding for this project in FY 2020 through FY 2023 to complete work and have the school ready by August 2023.

Budget Summary (In Thousands)			
Current & Future Requests			
FY 2018	Planning	$	3,300
FY 2019	Planning	$	10,950
FY 2020	Construction	$	35,250
FY 2021	Construction	$	27,200
FY 2022	Construction	$	36,500
FY 2023	Construction	$	25,325
Total Project Cost Estimate			
Total		$	138,525

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The New HS #13 project is scheduled for completion in August of 2023.

Ellicott Mills Middle School Addition: Project 1037

4445 Montgomery Road, Ellicott City, MD 21043
http://emms.hcpss.org/

Christopher Rattay, Principal
410.313.2839

Building Data	
Year Built	1939
Age	77
Site Area (acres)	16.22
Last Renovation/Addition	2001
Current Relocatables	3
Current Capacity	662
9/2015 Enrollment	808
Projections/Capacity Utilization	
2016 Projection	803
Projected Utilization	121%
2024 Projection	857
Projected Utilization	130%
Post-Renovation Cap.	818
Projected Utilization	105%

Project Purpose

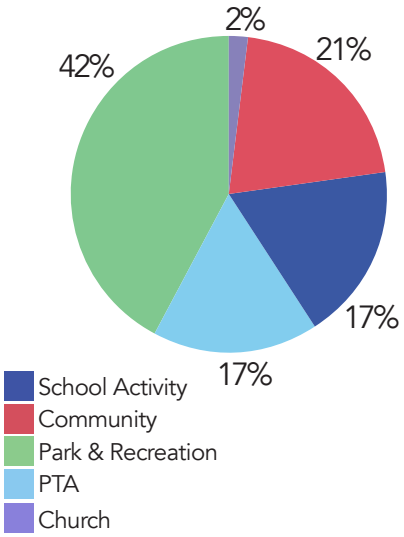
The Ellicott Mills Middle School project will add 156 seats of new capacity to the existing school. Ellicott Mills Middle School was originally built in 1939 and the replacement school is the third iteration of the current middle school prototype and opened in 2001. The projections in the 2015 Feasibility Study support the approved middle school capacity adjustments and the effort invested in redistricting. All middle schools in the northeast were relieved of overcrowding by the opening of Thomas Viaduct Middle School, except Ellicott Mills Middle School. Redistricting scenarios using western capacity failed to resolve crowding and created unacceptable travel distances and unusually elongated attending areas. With these findings, planned expansion of Ellicott Mills Middle School was contemplated in the 2015 Feasibility Study. This project is a next logical step after study of middle school capacity and analysis of redistricting scenarios.

The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Ellicott Mills Middle School

Over 2,200 reservations brought citizens and students into Ellicott Mills Middle School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of 170,000 was estimated for these activities. Athletic events and child care accounted for the largest portion of the facility use. Other uses, which include after school activities and performing arts, make up the remaining reservations.

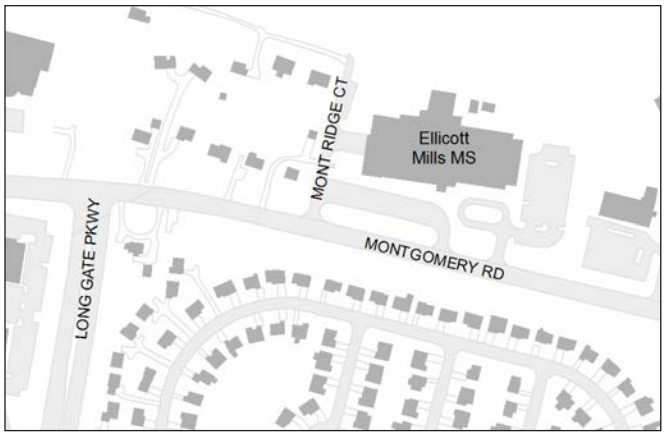
Community Use in FY16



Project Details

This project will include an addition and light renovation to ensure seamless operation of the expanded facility. The majority of existing walls will remain; therefore, most existing classrooms will remain as classrooms. The addition will be designed to retain the use of natural daylight. The cafetorium will be enlarged to meet educational program requirements.

School Location Map

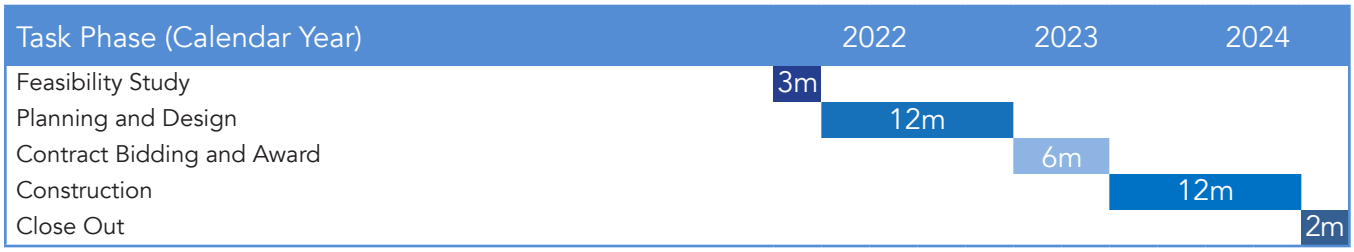


Budget Summary (In Thousands)

Current & Future Requests			
FY 2022	Planning	$	544
FY 2023	Construction	$	5,404
Total Project Cost Estimate			
Total		$	5,948

FY 2022 will be the first year of funding for Ellicott Mills Middle School. During FY 2022, the first year of planning will be implemented. The requested sum of $544 thousand in FY 2022 will allow planning to progress on schedule. Based upon the current plan, the Board will request construction funding for this program in FY 2023 totaling $5.4 million to complete work and have the school ready by August 2024.

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Ellicott Mills Middle School Addition project is scheduled for completion in August of 2024.

Hammond High School Renovation: Project 1024

8800 Guilford Road, Columbia, MD 21046
http://hahs.hcpss.org/

Marcy Leonard, Principal
410.313.7615

Building Data	
Year Built	1976
Age	40
Site Area (acres)	33.14
Last Renovation/Addition	2011
Current Relocatables	4
Current Capacity	1,220
9/2015 Enrollment	1,276

Projections/Capacity Utilization	
2016 Projection	1,289
Projected Utilization	106%
2021 Projection	2,034
Projected Utilization	167%

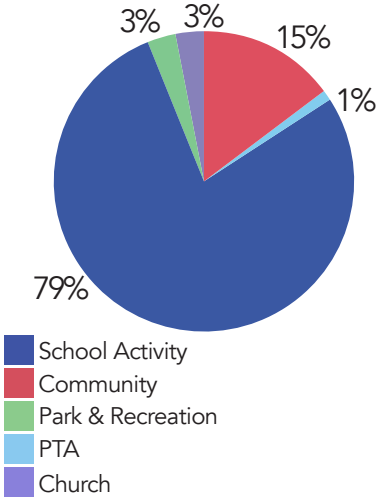
Project Purpose

The Hammond High School project will renovate the existing school. Hammond High School is a one-story building that first opened in 1976 and underwent some miscellaneous renovation and addition work in 1997, followed by a dance studio addition in 2011. The present need is a complete renovation of the school with systemic upgrades to bring it into compliance with the Howard County Public School Systems Guidelines Manual for Renovations and Modernizations of Existing Schools. The capacity of the school will remain unchanged upon completion of the proposed project. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Hammond High School

An attendance of 56,000 was estimated for over 2,900 reservations at Hammond High School outside of school hours for events. Most after school activities at any high school are school related including after school programming, athletic activities, educational activities and performing arts.

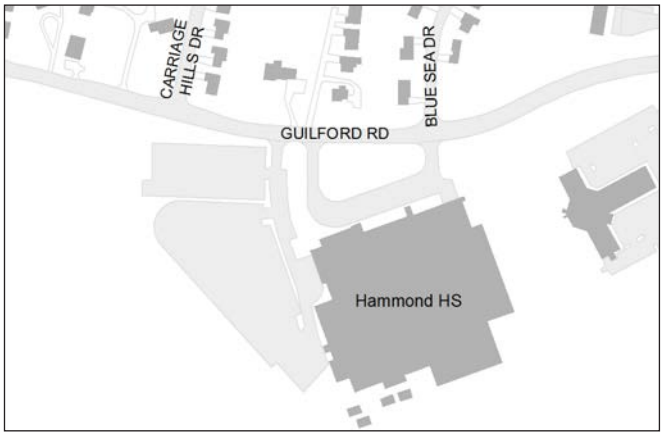
Community Use in FY16



Project Details

The project will consist of a complete systemic renovation of the school that will replace the aging heating and cooling systems, upgrade the plumbing and electrical systems, supply new data technology and security systems, provide new interior finishes throughout the building, create ADA accessibility compliance throughout, repartition select areas of the school, and construct building additions as necessary to fulfill program deficiencies. It is also the intent to concentrate on energy efficient systems and sustainable practices thus yielding another USGBC LEED certified facility.

School Location Map



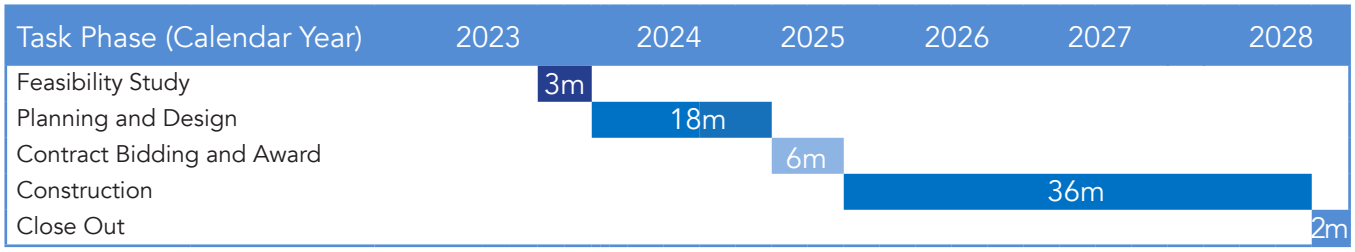
Budget Summary (In Thousands)

Current & Future Requests			
FY 2023	Planning	$	2,800
FY 2024	Planning/Construction	$	25,748
FY 2025	Construction	$	17,099
FY 2026	Construction	$	15,099
FY 2027	Construction	$	11,099
FY 2028*	Construction	$	16,100
Total Project Cost Estimate			
Total		$	87,945

*Outside of Long-Range Master Plan

The first year of funding for Hammond High School is planned for FY 2023. During FY 2023, the first year of planning will be implemented. Based upon the current plan, the Board will request construction funding for this program in FY 2024 through FY 2028 totaling $85 million to complete work and have the school ready by August 2028.

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Hammond High School Renovation project is scheduled for opening in August of 2028.

Long-Range Plan Adjustments: New Schools (Grades K–12)

Sites to be determined.

Responding to the 2016 Feasibility Study

Planning and zoning changes require changes to the CIP. While the HCPSS is peripheral to land development discussions, land planning decisions impact school system capital improvement plans. Staff continues to work closely with the Department of Planning and Zoning and Public Works staff to ensure that schools are central to new development. The annual feasibility study analyzes these trends and proposes adjustments to the CIP.

The projections indicate that the FY 2018–2027 long-range plan requires three new elementary schools. Previous budgets introduced ES #42, ES #43 and ES #44.

Elementary School Needs

Elementary enrollment is projected to increase by 4,000 students by 2024 and the capacity utilization of all elementary schools combined will begin to exceed 110 percent by 2022. This suggests more elementary capacity is needed in the long-range capital improvement plan. The three areas which will experience the greatest growth over the next five to ten years will be the Route 1 Corridor, Columbia Town Center, and Turf Valley.

ES #43 – Southeastern ES – 1039

The recently completed comprehensive zoning increased the entire housing projection in 2014 by 996 units, most of which was in the east. New ES #42 will be built in the northeast region at Oxford Square. The needs of the southeast region are evident in the projections of Bollman Bridge Elementary School and Forest Ridge Elementary School. The location of ES #43 is to be determined. A location in close proximity to the planned Transit Oriented Development is desirable.

Artist rendering of the redevelopment of the Columbia Town Center. The Columbia Town Center report anticipated future needs as a result of this project.

ES #44 – Columbia West ES – 1040

Running Brook Elementary School (with expansion) is expected to exceed 110 percent utilization by 2018. A redistricting strategy alone, which uses nearby schools like Clarksville Elementary School, will not provide an adequate solution to accommodate the projected growth. Faulkner Ridge Center was closed on July 1, 2011. This site is a likely location for redevelopment as a future school.

ES #45 – Turf Valley ES – 1041

Projections continue to support the need for elementary redistricting to relieve overcrowding at Manor Woods Elementary School associated with Turf Valley growth. The addition at Waverly Elementary School can absorb some growth. Considering the limited potential for expanding schools outside of the sewer service area, a Turf Valley school is planned. Land sites are being considered for this future school.

Systemic Renovations: Project 0980

Various locations.

School Facilities is charged with maintaining the facilities and grounds of the Howard County Public School System (HCPSS) in as near original condition and effectiveness as possible. Actual costs incurred in the Systemic Renovations Project over the past five years is below.

Systemic Renovations Actual Expenses

Fiscal Year	Actual Expense
FY 2012	$ 25,048,690
FY 2013	$ 21,798,947
FY 2014	$ 15,593,468
FY 2015	$ 11,565,498
FY 2016	$ 10,920,834

Project Purpose

The Systemic Renovations project will include projects that are needed to bring older facilities up to current standards in lighting, electrical, HVAC systems, reconfiguring space, handicap accessible improvements, and provide for upgrades to other building systems. For larger systemic renovation projects (see schools listed in project details section), the complete scope of projects are defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

FY 2018 Request Analysis

Project Funding (July 1, 2003 - June 30, 2017)	$	239,647,937
Project Cost-to-Date (through June 30, 2016)		(214,077,303)
FY 2017 Projected Costs		(19,712,053)
Available Project Funding (July 1, 2017)	$	5,858,580
Requested Budget FY 2018	$	26,750,000

Project Details

The FY 2018 Capital Budget request represents renovation work or planning for future construction at the following school system facilities:

Burleigh Manor Middle School RTUs
Elkridge Landing Middle School RTUs
Fulton Elementary School RTUs
Hollifield Station Elementary School RTUs
Rockburn Elementary School HVAC
Pointers Run Elementary School HVAC
Mount View Middle School HVAC
Kitchen Modernizations
Safety and Accessibility Projects

Systemic renovation projects include improvements and installation of systems at various school sites, including projects of a critical nature such as sprinkler repair, HVAC repair, and window replacement. The department publishes an annual Comprehensive Maintenance Program which reflects the objectives and methods utilized to provide a safe and secure learning environment for Howard County's school community as required by the Public School Construction Program's Administrative Procedures Guide. This document has been consulted in the development of this budget for potential systemic projects.

Due to the deferral of high school renovations as a result of significant budgetary constraints, staff is currently engaged in an assessment of core facility infrastructure needs to determine a scope of work to address the existing conditions of an immediate nature.

Roofing Projects: Project 0994

School Facilities oversees the Roofing Projects and provides maintenance and repairs for all HCPSS facilities. Actual costs incurred in Roofing Projects over the past five years is below.

Roofing Projects Actual Expenses	
Fiscal Year	Actual Expense
FY 2012	$ 4,841,087
FY 2013	$ 3,093,044
FY 2014	$ 5,468,035
FY 2015	$ 3,400,190
FY 2016	$ 2,220,940

Project Purpose

Roofing Projects will address aging roofs on various Howard County Public School System schools. A well-planned roofing program is critical to all other systems in a capital facility. When roofing systems wear, the damage can impact other systems and multiply costs. Roof planning is more than shingles and asphalt. Modern roofing systems are actually complex investments built to exact specifications. The HCPSS regularly inspects roofing systems and provides reports to the state of Maryland. Planning and project execution must balance system warranties, state funding eligibility, and the risk of maintenance deferral.

FY 2018 Request Analysis		
Project Funding (July 1, 2003 - June 30, 2017)	$	45,840,829
Project Cost-to-Date (through June 30, 2016)		(38,102,128)
FY 2017 Projected Costs		(7,738,700)
Available Project Funding (July 1, 2017)	$	-
Requested Budget FY 2018	$	-

Project Details

The roof system is the largest single area of the building that must endure the most severe weather conditions. The roof protects the structural integrity of the building, equipment, as well as its systems. Because of building age and environmental conditions, scheduled roof replacements must be completed to protect the investment that has been made in many facilities.

Roofing Projects include the design and construction of repairs to existing roof systems, the removal of old roof systems, and installation of new roof systems to include insulation membrane and flashings, sheet metal, drainage systems, and other associated components.

Due to the age and current condition of school facilities roofs, HCPSS will not request funds for roof replacement in FY 2018. When feasible, Roofing Projects will be considered in conjunction with systemic renovations.

Playground Equipment: Project 0990

Various locations.

The Safety and Risk Management Office oversees the Playground Equipment Project, managing safety requirements and a long-term replacement plan for all HCPSS playgrounds. Actual costs incurred in the Playground Equipment Project over the past five years is below.

Playgrounds Actual Expenses		
Fiscal Year	Actual Expense	
FY 2012	$	398,430
FY 2013	$	240,677
FY 2014	$	8,506
FY 2015	$	503,412
FY 2016	$	85,058

Project Purpose

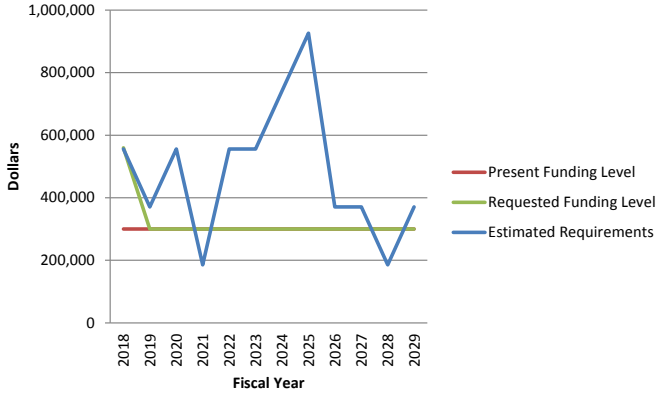
The Playground Equipment project will replace aging playgrounds at a variety of Howard County Public School System schools. This fund maintains a cycle of playground replacements. While playgrounds seem to be a standard installment at any elementary school, playgrounds can vary widely in design and are not specifically required by state or local codes or policies. Recess and unstructured play is a standard of Policy 9090 Health and Wellness. Research supports a link between learning and unstructured play. Elementary school students are stimulated by interesting and engaging playground installations. The playground planning process considers the needs of a wide-range of ages and skills to develop strength, social skills, coordination, balance, and motor planning.

FY 2018 Request Analysis		
Project Funding (July 1, 2003 - June 30, 2017)	$	2,680,000
Project Cost-to-Date (through June 30, 2016)		(2,321,569)
FY 2017 Projected Costs		(337,610)
Available Project Funding (July 1, 2017)	$	20,821
Requested Budget FY 2018	$	560,000

Project Details

Playground replacement is planned every 15 years. In the interim, they are maintained and repaired using operating funds. This schedule delivers new designs and safety improvements in a reasonable period without requiring a much larger share of the capital budget. The $560,000 request is adequate for the short-term. In future years, more than two playground replacements are needed per year. The long-term plan could be adjusted to smooth out the number of replacements per year by advancing or delaying some projects. Decisions about installing specific equipment are school based and require individual contracts. Better pricing may be possible through package bidding. Playground equipment at newly built schools is included in the funding request for the individual capital improvement project.

Projected Playground Replacement Cost per Fiscal Year



Long-Term Plan	
Playground Site	Fiscal Year
Hollifield Station Elementary School	FY 2018
Manor Woods Elementary School	FY 2018
Talbott Springs Elementary School	FY 2018
Bryant Woods Elementary School	FY 2019
Guilford Elementary School	FY 2019
Clarksville Elementary School	FY 2020
Triadelphia Ridge Elementary School	FY 2020
Worthington Elementary School	FY 2020
Bellows Spring Elementary School	FY 2021
Gorman Crossing Elementary School	FY 2022
Rockburn Elementary School	FY 2022
Thunder Hill Elementary School	FY 2022
Lisbon Elementary School	FY 2023
Centennial Lane Elementary School	FY 2023
St John's Lane Elementary School	FY 2023
West Friendship Elementary School	FY 2024
Atholton Elementary School	FY 2024
Dayton Oaks Elementary School	FY 2024
Cedar Lane School	FY 2024
Fulton Elementary School	FY 2025
Phelps Luck Elementary School	FY 2025
Bollman Bridge Elementary School	FY 2025
Bushy Park Elementary School	FY 2025
Cradlerock Elementary School	FY 2025
Veterans Elementary School	FY 2026
Ilchester Elementary School	FY 2026
Waterloo Elementary School	FY 2027
Clemens Crossing Elementary School	FY 2027
Northfield Elementary School	FY 2027
Ducketts Lane Elementary School	FY 2028
Stevens Forest Elementary School	FY 2028

The chart seen to the left shows the estimated funding requirements based upon the long-term plan listed above. Advancing or delaying some projects may help to smooth the funding profile but the graph shows that present funding levels will not be sufficient with future requirements. Risk management and purchasing staff are exploring different bidding methods with standard design options which may save on design costs.

Relocatable Classrooms: Project 0993

Project Purpose

The Relocatable Classrooms project will provide funds for the relocation of existing portable classrooms or purchase of new portable classrooms to be placed at schools in need of additional capacity. Relocation includes moving the structures as well as the installation of support services that make the portable structures functional classrooms. Additional classroom spaces are needed to help relieve overcapacity schools until permanent classroom spaces are available.

FY 2018 Request Analysis		
Project Funding (July 1, 2003 - June 30, 2017)	$	18,910,000
Project Cost-to-Date (through June 30, 2016)		(17,406,316)
FY 2017 Projected Costs		(1,503,684)
Available Project Funding (July 1, 2017)	$	-
Requested Budget FY 2018	$	1,500,000

Relocatable Classrooms Actual Expenses		
Fiscal Year	Actual Expense	
FY 2012	$	2,152,087
FY 2013	$	1,620,398
FY 2014	$	1,117,572
FY 2015	$	1,613,098
FY 2016	$	1,322,547

The School Planning Office evaluates relocatable classroom needs annually in a report to the Board of Education. After a decision is made, the Construction Office oversees the placing and connecting of all HCPSS relocatables. Actual costs incurred in the Relocatable Classrooms Project over the past five years is shown above.

Project Details

In some cases modular units are integrated into a building's core facility. These units are in use at St. John's Lane Elementary School, Waverly Elementary School, and Clarksville Middle School. These units are included in building capacity because they are considered permanent additions. In recent renovations, for example Bollman Bridge Elementary School and Deep Run Elementary School, they have been replaced. Similar plans are underway at Patuxent Valley Middle School.

The school system conducts annual reviews of the physical condition and usage of all relocatable/ modular units. When units are inspected, the cost of repairs is weighed against the option of retiring the units. Cycling out, and even reducing the inventory, can create operating economies. However, any dramatic reduction of inventory would require a considerable investment in brick and mortar construction.

In September 2016, there were 244 relocatable/ modular classrooms in use (four are used for administrative purposes at the Central Office, all others are at school sites). The school system will continue to conduct an annual review of all relocatables which will include condition and usage. The potential to either remove relocatables out-of-service, transport them to other locations where needed, or place them in excess to dispose of in an appropriate manner will be decided upon annually.

This work will be completed in the summer of 2017.

Site Acquisition and Construction Reserve: Project 0995

The School Construction Office oversees the Site Acquisition and Construction Reserve Project. Actual costs incurred in the Site Acquisition and Construction Reserve Project over the past five years is below.

Site Acquisition/Construction Reserve Actual Expenses

Fiscal Year	Actual Expense
FY 2012	$ 4,126,230
FY 2013	$ 526,091
FY 2014	$ 4,258,073
FY 2015	$ 22,850
FY 2016	$ 3,704

Project Purpose

The Site Acquisition and Construction Reserve project is needed as a contingency reserve providing funds for use on an as-needed basis. Site funds are needed for future enrollment growth. This account is also a contingency fund for school construction at various school sites. The county government is currently negotiating the purchase of a future school site that will be purchased directly by the county.

FY 2018 Request Analysis

Project Funding (July 1, 2003 - June 30, 2017)	$	20,836,241
Project Cost-to-Date (through June 30, 2016)		(17,963,164)
FY 2017 Projected Costs		(1,737,000)
Available Project Funding (July 1, 2017)	$	1,136,077
Requested Budget FY 2018	$	2,000,000

Project Details

This fund is for site acquisition. The selection and acquisition of appropriate school sites is integral to the development of a capital program. Each proposed school site is carefully evaluated prior to acquisition according to Board-approved selection criteria identified in Policy 6000 Site Selection and Acquisition.

Delays in acquisition of suitable school sites may affect the timing of construction of needed schools. This can result in extended periods of overcrowding situations. In an effort to reduce such delays, the HCPSS continues to maintain a "land bank" that will be called upon to pursue the purchase of potential sites or portions of land to augment sites.

Larger sites identified in the subdivision review process may be reserved to be budgeted as line items in future capital budgets. The state of Maryland regulates but does not pay the costs for site acquisitions; therefore, funds for the purchase of school sites are provided locally by the Howard County Government.

This fund also serves as a construction reserve. Capital planning has been fairly accurate and overruns have been minimal so the actual use of the majority of this fund has been to acquire land. In the past, initial pre-planning expenses have been charged to this account, but the FY 2016 Capital Budget introduced pre-planning as a separate project request.

Technology: Project 1021

The Technology Department oversees the Technology Project. A staff of 15 provides maintenance and support for approximately 37,000 computing devices, 4,000 printers, and 400 copier and multifunction devices (MFDs) throughout the system. Actual costs incurred in the Technology Project over the past five years is below.

Technology Actual Expenses	
Fiscal Year	Actual Expense
FY 2012	$ 5,335,262
FY 2013	$ 5,714,919
FY 2014	$ 3,606,457
FY 2015	$ 5,226,710
FY 2016	$ 5,559,784

Project Purpose

Technology project funds are required for continuous improvements and upgrades to the HCPSS network infrastructure and computer systems to ensure that instruction and business technology needs are met in a standard and equitable manner. Technology refresh programs, known as "Replacement Plans," have been established to ensure that all HCPSS students and school-based staff are equipped with the appropriate computing and network resources. Replacement Plans are designed to ensure that these essential resources are kept current in order to meet instruction and business technology requirements.

FY 2018 Request Analysis

Project Funding (July 1, 2003 - June 30, 2017)	$	39,486,000
Project Cost-to-Date (through June 30, 2016)		(33,470,774)
FY 2017 Projected Costs		(5,726,577)
Available Project Funding (July 1, 2017)	$	288,649
Requested Budget FY 2018	$	5,000,000

Project Details

This project provides funding for technology equipment replacement. Computers for teachers and students have historically been the most significant use of this funding. In FY 2018, this project will fund a portion of Replacement Plans 2.0 and 3.0 which provide computers, printers, and copiers/multifunction devices (MFDs) to administrative employees (RP2.0) and curriculum programs (RP3.0) in all schools. This initiative is in support of Goals 1, 2, 3, and 4 of Vision 2018 by providing new technologies for the aforementioned areas.

In FY 2018, the Technology Department plans to replace 100% of school administrative-position computers, MFDs, and printers, and 37 percent of school curriculum program computers and printers. As part of this process, devices will have the latest approved operating systems and software. Professional development will be provided to staff as needed.

Replace Technology Purchased in 2012–2013 with Like Models

Type	Position/Office/Program	Replacement Plan	Last Installed	Technology Type	Number	Total Cost
ES, MS, HS	School Administrative Positions	RP2.0	2012	Computers	1,472	$ 1,669,602
ES, MS, HS	School Administrative Positions	RP2.0	2012	Printers	641	$ 274,846
ES, MS, HS	School Administrative Offices	RP2.0	2012	MFDs	202	$ 496,934
ES, MS, HS	School Curriculum Programs	RP3.0	2013	Computers	2,196	$ 2,465,016
ES, MS, HS	School Curriculum Programs	RP3.0	2013	Printers	155	$ 94,094
Total Requested Funding					**4,666**	**$ 5,000,492**

In addition, there is a need to replace 1,830 General Purpose Fixed Lab computers in elementary and middle schools that were postponed due to reduced funding in FY 2015 and 1,610 computers in General Purpose Fixed Labs, General Purpose Mobile Labs, and high school media centers that were postponed due to reduced funding in FY 2016. Also, replacement of 3,720 MAP Testing Computers with a normal replacement schedule of FY 2017 will be deferred due to constrained funding available. The four-year warranties on all of these computers have expired and without costly upgrades the computers cannot reliably run the latest operating system and software. Also, deferred in FY 2018 will be 3,947 School Curriculum Programs computers from RP3.0.

Replace Technology Purchased in 2010–2013 with Like Models

Deferred from Year	Type	Position/Office/Program	Replacement Plan	Last Installed	Technology Type	Number	Total Cost
2015	ES, MS	School General Purpose Fixed Labs	RP1.0	2011	Computers	1,830	$ 2,239,920
2016	HS	School General Purpose Fixed Labs	RP1.5	2010	Computers	810	$ 1,008,450
2016	HS	School General Purpose Mobile Labs	RP1.5	2010	Computers	405	$ 282,285
2016	HS	School Media Centers	RP1.5	2010	Computers	395	$ 275,315
2017	ES, MS	School MAP Testing	N/A	2013	Computers	3,720	$ 2,046,000
2017	ES, MS, HS	School Curriculum Programs	RP3.0	2013	Computers	3,947	$ 4,431,415
Total Deferred Funding						**11,107**	**$10,283,385**

School Parking Lot Expansions: Project 1012

Various locations.

The Office of School Construction oversees the School Parking Lot Expansions Project. Actual costs incurred in the School Parking Lot Expansions Project over the past five years is shown below.

Parking Lot Expansion Actual Expenses	
Fiscal Year	Actual Expense
FY 2012	$ 1,976,199
FY 2013	$ -
FY 2014	$ -
FY 2015	$ -
FY 2016	$ -

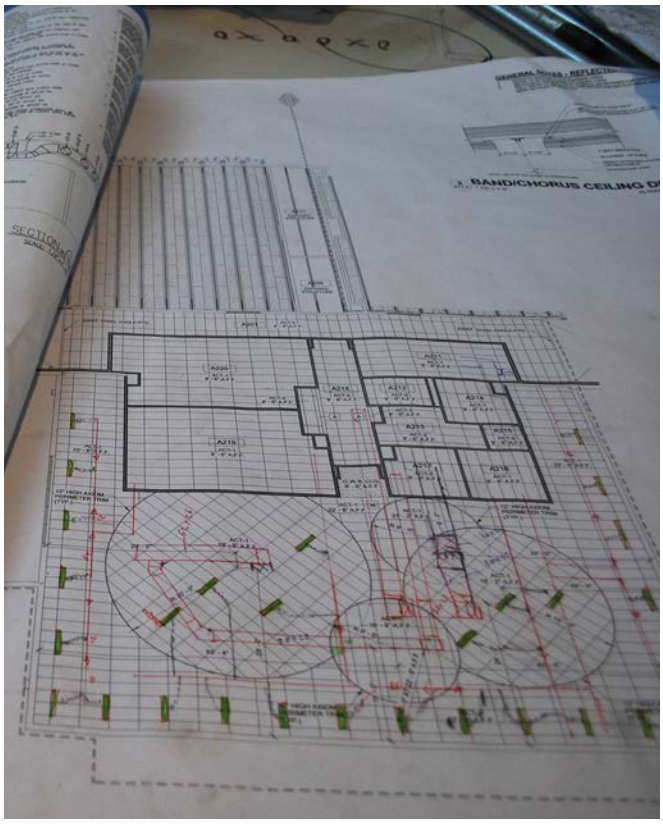
Project Purpose

Parking lot expansions are necessary due to the insufficient supply of spaces to meet existing needs. Funds are used for parking improvements on sites that are not scheduled for other construction projects. This project provides for the construction of additional parking spaces and modification of parking lots to improve traffic flow patterns at existing school sites.

FY 2018 Request Analysis

Project Funding (July 1, 2003 - June 30, 2017)	$	4,200,370
Project Cost-to-Date (through June 30, 2016)		(3,580,764)
FY 2017 Projected Costs		(450,000)
Available Project Funding (July 1, 2017)	$	169,606
Requested Budget FY 2018	$	600,000

Planning and Design: Project 1038



Project Purpose

The Planning and Design Project has been established to provide funding for feasibility studies prior to the funding of individual projects. During the concept development stage, each project is summarized, supporting documentation is gathered, and necessary approvals are obtained before construction begins. A feasibility study provides the analysis to determine the scope and breadth of a project under consideration.

The value of these studies is having the flexibility to ask technical questions about projects before the formal design process. With these studies, projects can be "right sized." The replacement of Wilde Lake Middle School is a good example. The feasibility study helped guide a decision to replace the school. Pricing for these studies is favorable because design consultants want to obtain the full design project. Through a feasibility study, the Board is able to examine the needs of an existing building as well as unexpected design circumstances. These studies ensure the selection of the most effective scope for each project. This process will reduce the costs associated with significant changes in scope, which often occur in a compressed planning schedule. In the construction phase, the reduced number of change orders will lessen the impact on the construction schedule and decrease incremental costs.

Proposed Feasibility Studies in FY 2018
New HS #13
Talbott Springs Elementary School Renovation
West Friendship Elementary School MBR

The Office of School Construction oversees the planning and design for capital projects. Staff serve as the fiduciary agent for the administration of the Howard County Public School System/Board of Education construction contracts. The office recommends the selection of design consultants of capital projects to the Board of Education and supervises these consultants.

Barrier-Free Projects: Project 0989

An accessibility ramp to access the upper level play area at Bryant Woods Elementary School.

Project Purpose

Barrier-Free Projects will include installation of ramps; alteration of restrooms, fixtures, and drinking fountains; and various modifications to make all remaining spaces (school buildings and school sites) accessible to the public, students, teachers, and staff. Federal, state, and local regulations require that school facilities be made accessible to the physically handicapped by removing barriers to access. Examples of projects include stadium bleacher ramps, play field access ramps, automatic door opening devices, reconfiguration of bathroom fixtures and partitions to allow wheelchair access, and other school-specific projects that remove barriers as described in project details.

School Facilities oversees the Barrier-Free Projects. Actual costs incurred in the Barrier-Free Projects over the past five years is shown below.

Barrier Free Actual Expenses		
Fiscal Year	Actual Expense	
FY 2012	$	74,420
FY 2013	$	77,734
FY 2014	$	119,445
FY 2015	$	23,580
FY 2016	$	54,747

Lift room for access to the stage.

FY 2018 Request Analysis

Project Funding (July 1, 2003 - June 30, 2017)	$	5,627,500
Project Cost-to-Date (through June 30, 2016)		(4,822,154)
FY 2017 Projected Costs		(356,389)
Available Project Funding (July 1, 2017)	$	448,957
Requested Budget FY 2018	$	200,000

Project Details

The Americans with Disabilities Act (ADA) of 1990 is a comprehensive civil rights law that makes it unlawful for public and private employers to discriminate against individuals with disabilities. This law as well as COMAR and best risk management practices require that HCPSS be ready to adjust our physical plant for access.

The barrier-free fund ensures our facilities provide full access to all students. When buildings are designed with accessibility in mind, issues are addressed in the schematic phase of a project. This practice generally produces buildings that are more accessible at the best cost.

With changing student enrollments, unique access issues may arise after the building is completed. This fund is used to make sensible, low-cost adjustments to improve overall access. This project is ongoing.

Elevator for transportation to the second-story level.

FY 2018
Board of Education's Proposed Capital Budget

Wilde Lake MS (Grades 6–8)

REPLACEMENT SCHOOL

Project: 1031

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 22,518	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,518
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	15,359	-	-	-	-	-	-	-	-	-	-	15,359
Transfer Tax	1,500	-	-	-	-	-	-	-	-	-	-	1,500
Z Bonds	4,000	-	-	-	-	-	-	-	-	-	-	4,000
Total Funds	$ 43,377	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,377

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ 2,658	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,658
Construction	38,519	2,000	-	-	-	-	-	-	-	-	-	40,519
Equip./Furnishings	2,200	-	-	-	-	-	-	-	-	-	-	2,200
Total Expenditures	$ 43,377	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,377

Project Commencement FY 2014

Project: 1031

Patuxent Valley MS (Grades 6–8)

RENOVATION

Project: 1033

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 16,031	$ 1,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 17,531
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	10,604	-	-	-	-	-	-	-	-	-	-	10,604
Transfer Tax	1,400	-	-	-	-	-	-	-	-	-	-	1,400
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 28,035	$ 1,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 29,535

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ 1,360	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,360
Construction	26,425	1,500	-	-	-	-	-	-	-	-	-	27,925
Equip./Furnishings	250	-	-	-	-	-	-	-	-	-	-	250
Total Expenditures	$ 28,035	$ 1,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 29,535

Project Commencement FY 2015

Project: 1033

Swansfield ES (Grades K–5)

RENOVATION / ADDITION

Project: 1034

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 14,956	$ 4,407	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 19,363
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	7,539	-	-	-	-	-	-	-	-	-	-	7,539
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 22,495	$ 4,407	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,902

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ 1,898	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,898
Construction	20,597	3,453	-	-	-	-	-	-	-	-	-	24,050
Equip./Furnishings	-	954	-	-	-	-	-	-	-	-	-	954
Total Expenditures	$ 22,495	$ 4,407	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,902

Project Commencement FY 2015

Project: 1034

Waverly ES(Grades K–5)

RENOVATION / PHASE II ADDITION

Project: 0973

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 3,770	$18,896	$ 1,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,166
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	9,589	-	-	-	-	-	-	-	-	-	-	9,589
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 13,359	$18,896	$ 1,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,755

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	13,359	17,746	1,500	-	-	-	-	-	-	-	-	32,605
Equip./Furnishings	-	1,150	-	-	-	-	-	-	-	-	-	1,150
Total Expenditures	$ 13,359	$18,896	$ 1,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,755

Project Commencement FY 2003

Project: 0973

New ES #42 (Grades K–5)

NEW SCHOOL

Project: 1028

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 5,333	$20,658	$ 6,132	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,123
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	12,000	-	-	-	-	-	-	-	-	-	-	12,000
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 17,333	$20,658	$ 6,132	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 44,123

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ 2,807	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,807
Construction	14,526	19,158	4,787	-	-	-	-	-	-	-	-	38,471
Equip./Furnishings	-	1,500	1,345	-	-	-	-	-	-	-	-	2,845
Total Expenditures	$ 17,333	$20,658	$ 6,132	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 44,123

Project Commencement FY 2016

Project: 1028

FY 2018
Board of Education's Proposed Capital Budget

Talbott Springs ES (Grades K–5)

RENOVATION

Project: 1043

(In Thousands)

Source of Funds

		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ 3,000	$15,800	$ 9,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,000
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ 3,000	$15,800	$ 9,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,000

Use of Funds

		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ 3,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,000
Construction	-	-	15,800	8,200	-	-	-	-	-	-	-	24,000
Equip./Furnishings	-	-	-	1,000	-	-	-	-	-	-	-	1,000
Total Expenditures	$ -	$ 3,000	$15,800	$ 9,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,000

Project Commencement FY 2019

Project: 1043

Oakland Mills MS (Grades 6–8)

RENOVATION

Project: 1036

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ 3,000	$18,828	$ 6,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,828
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ 3,000	$18,828	$ 6,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,828

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	3,000	18,828	4,875	-	-	-	-	-	-	-	26,703
Equip./Furnishings	-	-	-	1,125	-	-	-	-	-	-	-	1,125
Total Expenditures	$ -	$ 3,000	$18,828	$ 6,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,828

Project Commencement FY 2016

Project: 1036

New HS #13 (Grades 9–12)

NEW SCHOOL

Project: 1035

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ 3,300	$10,950	$35,250	$27,200	$36,500	$25,325	$ -	$ -	$ -	$ -	$ 138,525
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ 3,300	$10,950	$35,250	$27,200	$36,500	$25,325	$ -	$ -	$ -	$ -	$ 138,525

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ 3,300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,300
Construction	-	-	10,950	35,250	27,200	36,500	23,325	-	-	-	-	133,225
Equip./Furnishings	-	-	-	-	-	-	2,000	-	-	-	-	2,000
Total Expenditures	$ -	$ 3,300	$10,950	$35,250	$27,200	$36,500	$25,325	$ -	$ -	$ -	$ -	$ 138,525

Project Commencement FY 2018

Project: 1035

New ES #43 (Grades K–5)

NEW SCHOOL

Project: 1039

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ -	$ -	$ 5,380	$20,166	$22,125	$ 8,124	$ -	$ -	$ -	$ -	$ 55,795
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ 5,380	$20,166	$22,125	$ 8,124	$ -	$ -	$ -	$ -	$ 55,795

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ 5,380	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380
Construction	-	-	-	-	20,166	22,125	5,624	-	-	-	-	47,915
Equip./Furnishings	-	-	-	-	-	-	2,500	-	-	-	-	2,500
Total Expenditures	$ -	$ -	$ -	$ 5,380	$20,166	$22,125	$ 8,124	$ -	$ -	$ -	$ -	$ 55,795

Project Commencement FY 2024

Project: 1039

Ellicott Mills MS(Grades 6–8)

ADDITION

Project: 1037

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ 544	$ 5,404	$ -	$ -	$ -	$ 5,948
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ 544	$ 5,404	$ -	$ -	$ -	$ 5,948

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ 544	$ -	$ -	$ -	$ -	$ 544
Construction	-	-	-	-	-	-	-	5,154	-	-	-	5,154
Equip./Furnishings	-	-	-	-	-	-	-	250	-	-	-	250
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$ 544	$ 5,404	$ -	$ -	$ -	$ 5,948

Project Commencement FY 2022

Project: 1037

Hammond HS (Grades 9–12)

RENOVATION

Project: 1024

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,800	$25,748	$17,099	$15,099	$11,099	$ 71,845
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,800	$25,748	$17,099	$15,099	$11,099	$ 71,845

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,800	$ -	$ -	$ -	$ -	$ 2,800
Construction	-	-	-	-	-	-	-	25,748	17,099	15,099	10,849	68,795
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	250	250
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,800	$25,748	$17,099	$15,099	$11,099	$ 71,845

Project Commencement FY 2019

Project: 1024

New ES #44 (Grades K–5)

NEW SCHOOL

Project: 1040

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$23,099	$17,906	$ 9,410	$ 55,795
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$23,099	$17,906	$ 9,410	$ 55,795

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$ -	$ -	$ -	$ 5,380
Construction	-	-	-	-	-	-	-	-	23,099	17,906	9,410	50,415
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$23,099	$17,906	$ 9,410	$ 55,795

Project Commencement FY 2025

Project: 1040

FY 2018
Board of Education's Proposed Capital Budget

New ES #45 (Grades K–5)

NEW SCHOOL

Project: 1041

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$15,166	$ 20,546
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$15,166	$ 20,546

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$ -	$ 5,380
Construction	-	-	-	-	-	-	-	-	-	-	15,166	15,166
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,380	$15,166	$ 20,546

Project Commencement FY 2026

Project: 1041

Systemic Renovations

Project: 0980

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 118,215	$26,750	$27,300	$26,657	$37,703	$23,822	$42,775	$40,661	$42,694	$44,829	$47,070	$ 478,476
Paygo	4,555	-	-	-	-	-	-	-	-	-	-	4,555
State Aid	82,501	-	-	-	-	-	-	-	-	-	-	82,501
Transfer Tax	6,100	-	-	-	-	-	-	-	-	-	-	6,100
Z Bonds	28,323	-	-	-	-	-	-	-	-	-	-	28,323
Total Funds	$ 239,694	$26,750	$27,300	$26,657	$37,703	$23,822	$42,775	$40,661	$42,694	$44,829	$47,070	$ 599,955

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	239,694	26,750	27,300	26,657	37,703	23,822	42,775	40,661	42,694	44,829	47,070	599,955
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 239,694	$26,750	$27,300	$26,657	$37,703	$23,822	$42,775	$40,661	$42,694	$44,829	$47,070	$ 599,955

Project Commencement FY 2004

Project: 0980

Roofing Projects

Project: 0994

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 25,866	$ -	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 70,866
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	11,920	-	-	-	-	-	-	-	-	-	-	11,920
Transfer Tax	3,251	-	-	-	-	-	-	-	-	-	-	3,251
Z Bonds	4,500	-	-	-	-	-	-	-	-	-	-	4,500
Total Funds	$ 45,537	$ -	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 90,537

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	45,537	-	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	90,537
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 45,537	$ -	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 90,537

Project Commencement FY 2004

Project: 0994

Playground Equipment

Project: 0990

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 2,100	$ 560	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 5,360
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	580	-	-	-	-	-	-	-	-	-	-	580
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 2,680	$ 560	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 5,940

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	2,680	560	300	300	300	300	300	300	300	300	300	5,940
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 2,680	$ 560	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 5,940

Project Commencement FY 2002

Project: 0990

Relocatable Classrooms

Project: 0993

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 14,410	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 29,410
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	3,100	-	-	-	-	-	-	-	-	-	-	3,100
Z Bonds	1,400	-	-	-	-	-	-	-	-	-	-	1,400
Total Funds	$ 18,910	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 33,910

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	18,910	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	33,910
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 18,910	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 33,910

Project Commencement FY 2004

Project: 0993

Site Acquisition and Construction Reserve

Project: 0995

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ 9,425	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 29,425
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	2,594	-	-	-	-	-	-	-	-	-	-	2,594
Transfer Tax	8,817	-	-	-	-	-	-	-	-	-	-	8,817
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 20,836	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 40,836

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	20,836	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	40,836
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 20,836	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 40,836

Project Commencement FY 2004

Project: 0995

Technology

Project: 1021

(In Thousands)

Source of Funds

Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Total
		Five-Year Capital Program						Master Plan				
Bonds	$ 4,986	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,986
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	34,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	84,500
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 39,486	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 89,486

Use of Funds

Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Total
		Five-Year Capital Program						Master Plan				
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	-	-	-	-	-	-	-	-	-	-	-
Equip./Furnishings	39,486	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	89,486
Total Expenditures	$ 39,486	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 89,486

Project Commencement FY 2011

Project: 1021

School Parking Lot Expansions

Project: 1012

(In Thousands)

Source of Funds

Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Total
		Five-Year Capital Program						Master Plan				
Bonds	$ 2,779	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 8,779
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	1,421	-	-	-	-	-	-	-	-	-	-	1,421
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 4,200	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 10,200

Use of Funds

Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Total
		Five-Year Capital Program						Master Plan				
Plans/Engineering	$ 240	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 840
Construction	3,960	540	540	540	540	540	540	540	540	540	540	9,360
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 4,200	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 10,200

Project Commencement FY 2008

Project: 1012

Planning and Design

Project: 1038

(In Thousands)

Source of Funds

		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Bonds	$ -	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,000
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	600	-	-	-	-	-	-	-	-	-	-	600
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 600	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,600

Use of Funds

		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	**Total**
Plans/Engineering	$ 600	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,600
Construction	-	-	-	-	-	-	-	-	-	-	-	-
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 600	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,600

Project Commencement FY 2016

Project: 1038

Barrier-Free

Project: 0989

(In Thousands)

Source of Funds

Type	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Total
		Five-Year Capital Program						Master Plan				
Bonds	$ 3,875	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 5,875
Paygo	303	-	-	-	-	-	-	-	-	-	-	303
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	1,450	-	-	-	-	-	-	-	-	-	-	1,450
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 5,628	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 7,628

Use of Funds

Description	Approved Appropriation	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Total
		Five-Year Capital Program						Master Plan				
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	5,628	200	200	200	200	200	200	200	200	200	200	7,628
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 5,628	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 7,628

Project Commencement FY 1989

Project: 0989

THE JIM ROUSE THEATRE
FOR THE PERFORMING ARTS

Section 4

Supporting Data

September 2016

Pre-Measures

ELEMENTARY SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2017 Capital Budget Projects - Not Test for APFO

Chart reflects May 2016 Projections, Board of Education's FY 2017 approved capacities, and no redistricting.

		Capacity				2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28	
Columbia - East		2017	2018	2019	2020	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
Cradlerock ES		398	398	398	398	440	110.6	449	112.8	434	109.0	442	111.1	442	111.1	439	110.3	440	110.6	455	114.3	468	117.6 C	465	116.8 C	463	116.3 C
Jeffers Hill ES		421	421	421	421	451	107.1	448	106.4	442	105.0	440	104.5	439	104.3	437	103.8	439	104.3	441	104.8	450	106.9	455	108.1	462	109.7
Phelps Luck ES		616	616	616	616	565	91.7	553	89.8	565	91.7	588	95.5	608	98.7	624	101.3	632	102.6	636	103.2	643	104.4	655	106.3	666	108.1
Stevens Forest ES		399	399	399	399	422	105.8	409	102.5	401	100.5	413	103.5	412	103.3	415	104.0	416	104.3	415	104.0	423	106.0	428	107.3	433	108.5
Talbott Springs ES		377	377	377	377	450	119.4 C	446	118.3 C	457	121.2 C	457	121.2 C	453	120.2 C	449	119.1 C	453	120.2 C	466	123.6 C	462	122.5 C	469	124.4 C	476	126.3 C
Thunder Hill ES		509	509	509	509	599	117.7 C	588	115.5 C	587	115.3 C	571	112.2	572	112.4	564	110.8	561	110.2	572	112.4	577	113.4	585	114.9	594	116.7 C
Region Totals		**2720**	**2720**	**2720**	**2720**	**2927**	**107.6**	**2893**	**106.4**	**2886**	**106.1**	**2911**	**107.0**	**2926**	**107.6**	**2928**	**107.6**	**2941**	**108.1**	**2985**	**109.7**	**3023**	**111.1**	**3057**	**112.4**	**3094**	**113.8**
Columbia - West																											
Bryant Woods ES		361	361	361	361	397	110.0	406	112.5	416	115.2 C	412	114.1	410	113.6	411	113.9	412	114.1	415	115.0	423	117.2 C	428	118.6 C	430	119.1 C
Clemens Crossing ES		521	521	521	521	526	101.0	545	104.6	566	108.6	590	113.2	593	113.8	609	116.9 C	611	117.3 C	608	116.7 C	605	116.1 C	611	117.3 C	634	121.7 C
Longfellow ES		512	512	512	512	445	86.9	445	86.9	430	84.0	423	82.6	420	82.0	413	80.7	413	80.7	414	80.9	421	82.2	424	82.8	430	84.0
New ES #44	NS	0	0	0	0																						
Running Brook ES		515	515	515	515	539	104.7	605	117.5 C	668	129.7 C	724	140.6 C	806	156.5 C	868	168.5 C	945	183.5 C	1001	194.4 C	1044	202.7 C	1076	208.9 C	1099	213.4 C
Swansfield ES	A	521	621	621	621	611	117.3 C	615	99.0	599	96.5	597	96.1	587	94.5	597	96.1	601	96.8	602	96.9	609	98.1	617	99.4	623	100.3
Region Totals		**2430**	**2530**	**2530**	**2530**	**2518**	**103.6**	**2616**	**103.4**	**2679**	**105.9**	**2746**	**108.5**	**2816**	**111.3**	**2898**	**114.5**	**2982**	**117.9 C**	**3040**	**120.2 C**	**3102**	**122.6 C**	**3156**	**124.7 C**	**3216**	**96.9**
Northeastern																											
Bellows Spring ES		751	751	751	751	755	100.5	830	110.5	874	116.4 C	926	123.3 C	964	128.4 C	969	129.0 C	975	129.8 C	971	129.3 C	953	126.9 C	925	123.2 C	890	118.5 C
Deep Run ES		772	772	772	772	831	107.6	868	112.4	876	113.5	872	113.0	880	114.0	866	112.2	877	113.6	878	113.7	881	114.1	892	115.5 C	910	117.9 C
Ducketts Lane ES		770	770	770	770	940	122.1 C	1045	135.7 C	1129	146.6 C	1204	156.4 C	1296	168.3 C	1370	177.9 C	1404	182.3 C	1448	188.1 C	1470	190.9 C	1510	196.1 C	1536	199.5 C
Elkridge ES		760	760	760	760	817	107.5	837	110.1	834	109.7	843	110.9	828	108.9	810	106.6	812	106.8	823	108.3	877	115.4 C	882	116.1 C	907	119.3 C
Ilchester ES		653	653	653	653	625	95.7	598	91.6	584	89.4	595	91.1	660	101.1	687	105.2	717	109.8	724	110.9	722	110.6	707	108.3	681	104.3
New ES #42	NS	0	788	788	788																						
Rockburn ES		653	653	653	653	645	98.8	660	101.1	665	101.8	678	103.8	681	104.3	722	110.6	747	114.4	803	123.0 C	837	128.2 C	888	136.0 C	945	144.7 C
Veterans ES		788	788	788	788	881	111.8	898	114.0	913	115.9 C	937	118.9 C	916	116.2 C	912	115.7 C	900	114.2	906	115.0	887	112.6	881	111.8	913	115.9 C
Waterloo ES		663	663	663	663	591	89.1	597	90.0	560	84.5	572	86.3	554	83.6	554	83.6	554	83.6	551	83.1	565	85.2	572	86.3	579	87.3
Worthington ES		590	590	590	590	508	86.1	477	80.8	445	75.4	439	74.4	444	75.3	452	76.6	462	78.3	478	81.0	498	84.4	501	84.9	489	82.9
Region Totals		**6400**	**7188**	**7188**	**7188**	**6593**	**103.0**	**6810**	**94.7**	**6880**	**95.7**	**7066**	**98.3**	**7223**	**100.5**	**7342**	**102.1**	**7448**	**103.6**	**7582**	**105.5**	**7690**	**107.0**	**7758**	**107.9**	**7850**	**109.2**
Northern																											
Centennial Lane ES		647	647	647	647	773	119.5 C	772	119.3 C	800	123.6 C	786	121.5 C	785	121.3 C	799	123.5 C	786	121.5 C	795	122.9 C	801	123.8 C	805	124.4 C	818	126.4 C
Hollifield Station ES		694	694	694	694	768	110.7	789	113.7	805	116.0 C	823	118.6 C	825	118.9 C	833	120.0 C	818	117.9 C	831	119.7 C	833	120.0 C	869	125.2 C	908	130.8 C
Manor Woods ES		681	681	681	681	841	123.5 C	976	143.3 C	1089	159.9 C	1225	179.9 C	1368	200.9 C	1487	218.4 C	1606	235.8 C	1677	246.3 C	1693	248.6 C	1692	248.5 C	1651	242.4 C
New ES #45	NS	0	0	0	0																						
Northfield ES		700	700	700	700	723	103.3	720	102.9	711	101.6	715	102.1	717	102.4	724	103.4	718	102.6	738	105.4	762	108.9	771	110.1	818	116.9 C
St Johns Lane ES		612	612	612	612	709	115.8 C	736	120.3 C	733	119.8 C	721	117.8 C	722	118.0 C	737	120.4 C	747	122.1 C	739	120.8 C	754	123.2 C	787	128.6 C	809	132.2 C
Waverly ES	A	638	738	738	738	672	105.3	669	90.7	643	87.1	637	86.3	615	83.3	606	82.1	607	82.2	606	82.1	627	85.0	643	87.1	653	88.5
Region Totals		**3972**	**4072**	**4072**	**4072**	**4486**	**112.9**	**4662**	**114.5**	**4781**	**117.4 C**	**4907**	**120.5 C**	**5032**	**123.6 C**	**5186**	**127.4 C**	**5282**	**129.7 C**	**5386**	**132.3 C**	**5470**	**134.3 C**	**5567**	**136.7 C**	**5657**	**138.9 C**
Southeastern																											
Atholton ES		424	424	424	424	444	104.7	443	104.5	467	110.1	479	113.0	475	112.0	480	113.2	490	115.6 C	501	118.2 C	494	116.5 C	501	118.2 C	509	120.0 C
Bollman Bridge ES		666	666	666	666	706	106.0	725	108.9	730	109.6	739	111.0	753	113.1	781	117.3 C	805	120.9 C	819	123.0 C	827	124.2 C	829	124.5 C	840	126.1 C
Forest Ridge ES		669	669	669	669	798	119.3 C	794	118.7 C	852	127.4 C	909	135.9 C	936	139.9 C	978	146.2 C	1030	154.0 C	1062	158.7 C	1085	162.2 C	1103	164.9 C	1102	164.7 C
Gorman Crossing ES		700	700	700	700	705	100.7	750	107.1	734	104.9	780	111.4	797	113.9	807	115.3 C	795	113.6	774	110.6	778	111.1	796	113.7	786	112.3
Guilford ES		465	465	465	465	473	101.7	472	101.5	480	103.2	471	101.3	476	102.4	470	101.1	530	114.0	542	116.6 C	542	116.6 C	537	115.5 C	537	115.5 C
Hammond ES		653	653	653	653	667	102.1	675	103.4	679	104.0	704	107.8	749	114.7	815	124.8 C	844	129.2 C	876	134.2 C	918	140.6 C	929	142.3 C	948	145.2 C
Laurel Woods ES		640	640	640	640	561	87.7	552	86.3	534	83.4	532	83.1	540	84.4	545	85.2	547	85.5	553	86.4	554	86.6	571	89.2	576	90.0
New ES #43	NS	0	0	0	0																						
Region Totals		**4217**	**4217**	**4217**	**4217**	**4354**	**103.2**	**4411**	**104.6**	**4476**	**106.1**	**4614**	**109.4**	**4726**	**112.1**	**4876**	**115.6 C**	**5041**	**100.7**	**5127**	**102.4**	**5198**	**103.9**	**5266**	**105.2**	**5298**	**105.9**
Western																											
Bushy Park ES		788	788	788	788	597	75.8	568	72.1	552	70.1	551	69.9	527	66.9	520	66.0	502	63.7	503	63.8	524	66.5	523	66.4	560	71.1
Clarksville ES		612	612	612	612	418	68.3	392	64.1	378	61.8	364	59.5	374	61.1	368	60.1	367	60.0	366	59.8	364	59.5	365	59.6	361	59.0
Dayton Oaks ES		788	788	788	788	597	75.8	594	75.4	598	75.9	587	74.5	581	73.7	565	71.7	552	70.1	539	68.4	527	66.9	516	65.5	507	64.3
Fulton ES		788	788	788	788	853	108.2	883	112.1	947	120.2 C	982	124.6 C	1013	128.6 C	1004	127.4 C	992	125.9 C	971	123.2 C	939	119.2 C	923	117.1 C	892	113.2
Lisbon ES		527	527	527	527	448	85.0	475	90.1	472	89.6	461	87.5	450	85.4	456	86.5	448	85.0	451	85.6	478	90.7	524	99.4	538	102.1
Pointers Run ES		744	744	744	744	719	96.6	766	103.0	793	106.6	827	111.2	882	118.5 C	887	119.2 C	899	120.8 C	886	119.1 C	869	116.8 C	851	114.4	829	111.4
Triadelphia Ridge ES		581	581	581	581	558	96.0	595	102.4	595	102.4	634	109.1	646	111.2	647	111.4	657	113.1	657	113.1	655	112.7	645	111.0	641	110.3
West Friendship ES		414	414	414	414	313	75.6	308	74.4	304	73.4	304	73.4	291	70.3	319	77.1	336	81.2	337	81.4	336	81.2	341	82.4	345	83.3
Region Totals		**5242**	**5242**	**5242**	**5242**	**4503**	**85.9**	**4581**	**87.4**	**4639**	**88.5**	**4710**	**89.9**	**4764**	**90.9**	**4766**	**90.9**	**4753**	**90.7**	**4710**	**89.9**	**4692**	**89.5**	**4688**	**89.4**	**4673**	**89.1**
Countywide Totals		24981	25969	25969	25969	25381	**101.6**	25973	**100.0**	26341	**101.4**	26954	**103.8**	27487	**105.8**	27996	**107.8**	28447	**106.3**	28830	**107.7**	29175	**109.0**	29492	**110.2**	29788	**108.1**

'A' includes additions as reflected in FY 2017 CIP for Grades K-5

'NS' New School proposed in FY 2017 Capital Budget

Pre-Measures

MIDDLE SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2017 Capital Budget Projects - Not Test for APFO

Chart reflects May 2016 Projections, Board of Education's FY 2017 approved capacities, and no redistricting.

		Capacity				2017-18			2018-19			2019-20			2020-21			2021-22			2022-23			2023-24			2024-25			2025-26			2026-27			2027-28		
Columbia - East		2017	2018	2019	2020	Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.	
Lake Elkhorn MS		643	643	643	643	523	81.3		545	84.8		547	85.1		542	84.3		542	84.3		543	84.4		542	84.3		556	86.5		562	87.4		576	89.6		579	90.0	
Oakland Mills MS		506	506	506	506	479	94.7		513	101.4		515	101.8		511	101.0		501	99.0		512	101.2		522	103.2		510	100.8		509	100.6		509	100.6		515	101.8	
Region MS Totals		1149	1149	1149	1149	1002	87.2		1058	92.1		1062	92.4		1053	91.6		1043	90.8		1055	91.8		1064	92.6		1066	92.8		1071	93.2		1085	94.4		1094	95.2	
Columbia - West																																						
Harpers Choice MS		506	506	506	506	590	116.6	C	616	121.7	C	637	125.9	C	639	126.3	C	660	130.4	C	630	124.5	C	627	123.9	C	615	121.5	C	616	121.7	C	617	121.9	C	613	121.1	C
Wilde Lake MS	R	760	760	760	760	608	80.0		606	79.7		649	85.4		669	88.0		700	92.1		739	97.2		755	99.3		821	108.0		877	115.4	C	922	121.3	C	950	125.0	C
Region MS Totals		1266	1266	1266	1266	1198	94.6		1222	96.5		1286	101.6		1308	103.3		1360	107.4		1369	108.1		1382	109.2		1436	113.4		1493	117.9	C	1539	121.6	C	1563	123.5	C
Northeastern																																						
Bonnie Branch MS		662	662	662	662	769	116.2	C	805	121.6	C	800	120.8	C	757	114.4		737	111.3		750	113.3		779	117.7	C	790	119.3	C	805	121.6	C	813	122.8	C	833	125.8	C
Elkridge Landing MS		779	779	779	779	708	90.9		697	89.5		702	90.1		679	87.2		703	90.2		707	90.8		738	94.7		735	94.4		742	95.3		754	96.8		781	100.3	
Ellicott Mills MS	A	662	662	662	662	852	128.7	C	870	131.4	C	914	138.1	C	905	136.7	C	921	139.1	C	902	136.3	C	899	135.8	C	857	104.8		825	100.9		809	98.9		824	100.7	
Mayfield Woods MS		798	798	798	798	742	93.0		781	97.9		855	107.1		906	113.5		948	118.8	C	963	120.7	C	969	121.4	C	995	124.7	C	978	122.6	C	989	123.9	C	974	122.1	C
New MS #21	NS	0	0	0	0																																	
Thomas Viaduct MS		701	701	701	701	691	98.6		746	106.4		821	117.1	C	895	127.7	C	923	131.7	C	949	135.4	C	1037	147.9	C	1125	160.5	C	1210	172.6	C	1245	177.6	C	1282	182.9	C
Region MS Totals		3602	3602	3602	3602	3762	104.4		3899	108.2		4092	113.6		4142	115.0		4232	117.5	C	4271	118.6	C	4422	122.8	C	4502	119.8	C	4560	121.3	C	4610	122.7	C	4694	124.9	C
Northern																																						
Burleigh Manor MS		779	779	779	779	812	104.2		824	105.8		854	109.6		897	115.1	C	929	119.3	C	949	121.8	C	986	126.6	C	1025	131.6	C	1076	138.1	C	1096	140.7	C	1138	146.1	C
Dunloggin MS	A	565	565	565	662	613	108.5		631	111.7		639	113.1		652	98.5		673	101.7		674	101.8		689	104.1		672	101.5		667	100.8		654	98.8		675	102.0	
Patapsco MS		643	643	643	643	722	112.3		711	110.6		714	111.0		727	113.1		765	119.0	C	758	117.9	C	762	118.5	C	758	117.9	C	778	121.0	C	793	123.3	C	799	124.3	C
Region MS Totals		1987	1987	1987	2084	2147	108.1		2166	109.0		2207	111.1		2276	109.2		2367	113.6		2381	114.3		2437	116.9	C	2455	117.8	C	2521	121.0	C	2543	122.0	C	2612	125.3	C
Southeastern																																						
Hammond MS		604	604	604	604	585	96.9		599	99.2		637	105.5		694	114.9		737	122.0	C	799	132.3	C	818	135.4	C	836	138.4	C	876	145.0	C	886	146.7	C	895	148.2	C
Murray Hill MS		662	662	662	662	660	99.7		679	102.6		722	109.1		766	115.7	C	756	114.2		712	107.6		712	107.6		747	112.8		752	113.6		781	118.0	C	769	116.2	C
Patuxent Valley MS		760	760	760	760	645	84.9		727	95.7		722	95.0		746	98.2		707	93.0		744	97.9		768	101.1		782	102.9		785	103.3		815	107.2		851	112.0	
Region MS Totals		2026	2026	2026	2026	1890	93.3		2005	99.0		2081	102.7		2206	108.9		2200	108.6		2255	111.3		2298	113.4		2365	116.7	C	2413	119.1	C	2482	122.5	C	2515	124.1	C
Western																																						
Clarksville MS		643	643	643	643	561	87.2		570	88.6		608	94.6		619	96.3		575	89.4		537	83.5		508	79.0		533	82.9		537	83.5		549	85.4		544	84.6	
Folly Quarter MS		662	662	662	662	660	99.7		643	97.1		668	100.9		667	100.8		668	100.9		662	100.0		670	101.2		688	103.9		686	103.6		684	103.3		668	100.9	
Glenwood MS		545	545	545	545	564	103.5		564	103.5		594	109.0		602	110.5		593	108.8		560	102.8		565	103.7		575	105.5		605	111.0		606	111.2		608	111.6	
Lime Kiln MS		701	701	701	701	740	105.6		744	106.1		799	114.0		801	114.3		830	118.4	C	838	119.5	C	854	121.8	C	864	123.3	C	892	127.2	C	899	128.2	C	892	127.2	C
Mount View MS		798	798	798	798	791	99.1		821	102.9		837	104.9		829	103.9		866	108.5		912	114.3		958	120.1	C	996	124.8	C	1004	125.8	C	1039	130.2	C	1036	129.8	C
Region MS Totals		3349	3349	3349	3349	3316	99.0		3342	99.8		3506	104.7		3518	105.0		3532	105.5		3509	104.8		3555	106.2		3656	109.2		3724	111.2		3777	112.8		3748	111.9	
Countywide Totals		13379	13379	13379	13476	13315	99.5		13692	102.3		14234	106.4		14503	107.6		14734	109.3		14840	110.1		15158	112.5		15480	113.6		15782	115.8		16036	117.6		16226	119.0	

'A' includes additions as reflected in FY 2017 CIP for Grades 6-8
'R' = Replacement school scheduled to open August 2017
'NS' New School proposed in FY 2017 Capital Budget

Pre-Measures

HIGH SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2017 Capital Budget Projects - Not Test for APFO

Chart reflects May 2016 Projections, Board of Education's FY 2017 approved capacities, and no redistricting

	Capacity				2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28	
Columbia - East	**2017**	**2018**	**2019**	**2020**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Oakland Mills HS	1400	1400	1400	1400	1160	82.9	1124	80.3	1174	83.9	1179	84.2	1238	88.4	1275	91.1	1258	89.9	1276	91.1	1280	91.4	1272	90.9	1284	91.7
Columbia - West																										
Wilde Lake HS	1424	1424	1424	1424	1327	93.2	1382	97.1	1419	99.6	1480	103.9	1498	105.2	1574	110.5	1617	113.6	1648	115.7	1675	117.6	1665	116.9	1696	119.1
Northeastern																										
Howard HS	1420	1420	1420	1420	1944	136.9	1986	139.9	2075	146.1	2125	149.6	2157	151.9	2176	153.2	2178	153.4	2162	152.3	2164	152.4	2185	153.9	2215	156.0
Long Reach HS	1488	1488	1488	1488	1724	115.9	1867	125.5	1969	132.3	2070	139.1	2201	147.9	2328	156.5	2436	163.7	2540	170.7	2644	177.7	2713	182.3	2819	189.4
New HS #13 NS	0	0	0	0																						
Region HS Totals	2908	2908	2908	2908	3668	126.1	3853	132.5	4044	139.1	4195	144.3	4358	149.9	4504	154.9	4614	102.0	4702	104.0	4808	106.3	4898	108.3	5034	111.3
Northern																										
Marriotts Ridge HS	1615	1615	1615	1615	1254	77.6	1293	80.1	1327	82.2	1379	85.4	1408	87.2	1464	90.7	1484	91.9	1532	94.9	1588	98.3	1617	100.1	1687	104.5
Mt Hebron HS	1400	1400	1400	1400	1657	118.4	1696	121.1	1738	124.1	1765	126.1	1783	127.4	1816	129.7	1831	130.8	1867	133.4	1887	134.8	1903	135.9	1906	136.1
Region HS Totals	4375	4375	4375	4375	4497	102.8	4610	105.4	4726	108.0	4853	110.9	4913	112.3	5043	115.3	5125	117.1	5259	120.2	5357	122.4	5447	124.5	5551	126.9
Southeastern																										
Hammond HS	1220	1220	1220	1220	1333	109.3	1387	113.7	1461	119.8	1483	121.6	1561	128.0	1645	134.8	1689	138.4	1787	146.5	1835	150.4	1881	154.2	1945	159.4
Western																										
Atholton HS	1360	1360	1360	1360	1434	105.4	1466	107.8	1467	107.9	1514	111.3	1556	114.4	1601	117.7	1669	122.7	1683	123.8	1706	125.4	1706	125.4	1750	128.7
Glenelg HS	1420	1420	1420	1420	1173	82.6	1241	87.4	1249	88.0	1256	88.5	1301	91.6	1289	90.8	1313	92.5	1325	93.3	1303	91.8	1316	92.7	1350	95.1
River Hill HS	1488	1488	1488	1488	1238	83.2	1255	84.3	1255	84.3	1280	86.0	1287	86.5	1292	86.8	1320	88.7	1297	87.2	1283	86.2	1258	84.5	1260	84.7
Region HS Totals	5819	5819	5819	5819	5381	92.5	5592	96.1	5660	97.3	5809	99.8	5957	102.4	6057	104.1	6212	106.8	6249	107.4	6262	107.6	6263	107.6	6379	109.6
Countywide Totals	17146	17146	17146	17146	17366	101.3	17948	104.7	18484	107.8	18999	110.8	19525	113.9	20098	117.2	20515	109.3	20921	111.5	21217	113.1	21426	114.2	21889	116.7

'NS' New School proposed in FY 2017 Capital Budget

Post-Measures

Aggregate Plan

ELEMENTARY SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Proposed FY 2018 Capital Budget Projects - Not Test for APFO

Chart reflects May 2016 Projections, Board of Education's FY 2018 Requested capacities and estimated redistricting.

		Capacity				2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28	
Columbia - East		2017	2018	2019	2020	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
Cradlerock ES		398	398	398	398	440	110.6	449	112.8	434	109.0	442	111.1	442	111.1	439	110.3	440	110.6	455	114.3	468	117.6 C	465	116.8 C	463	116.3 C
Jeffers Hill ES		421	421	421	421	451	107.1	448	106.4	442	105.0	440	104.5	439	104.3	437	103.8	439	104.3	441	104.8	450	106.9	455	108.1	462	109.7
Phelps Luck ES		616	616	616	616	565	91.7	553	89.8	565	91.7	588	95.5	608	98.7	624	101.3	632	102.6	636	103.2	643	104.4	655	106.3	666	108.1
Stevens Forest ES		399	399	399	399	422	105.8	409	102.5	401	100.5	413	103.5	412	103.3	415	104.0	416	104.3	415	104.0	423	106.0	428	107.3	433	108.5
Talbott Springs ES		377	377	377	377	450	119.4 C	446	118.3 C	457	121.2 C	457	121.2 C	453	120.2 C	449	119.1 C	453	120.2 C	466	123.6 C	462	122.5 C	469	124.4 C	476	126.3 C
Thunder Hill ES		509	509	509	509	599	117.7 C	588	115.5 C	587	115.3 C	571	112.2	572	112.4	564	110.8	561	110.2	572	112.4	577	113.4	585	114.9	594	116.7 C
Region Totals		**2720**	**2720**	**2720**	**2720**	**2927**	**107.6**	**2893**	**106.4**	**2886**	**106.1**	**2911**	**107.0**	**2926**	**107.6**	**2928**	**107.6**	**2941**	**108.1**	**2985**	**109.7**	**3023**	**111.1**	**3057**	**112.4**	**3094**	**113.8**
Columbia - West																											
Bryant Woods ES		361	361	361	361	397	110.0	353	97.8	376	104.2	383	106.1	396	109.7	404	111.9	417	115.5 C	427	118.3 C	441	122.2 C	446	123.5 C	456	126.3 C
Clemens Crossing ES		521	521	521	521	526	101.0	569	109.2	608	116.7 C	653	125.3 C	685	131.5 C	730	140.1 C	764	146.6 C	795	152.6 C	823	158.0 C	847	162.6 C	869	166.8 C
Longfellow ES		512	512	512	512	445	86.9	518	101.2	501	97.9	492	96.1	489	95.5	482	94.1	482	94.1	483	94.3	492	96.1	496	96.9	503	98.2
New ES #44	NS	0	0	0	0																						
Running Brook ES		515	515	515	515	539	104.7	454	88.2	484	94.0	506	98.3	545	105.8	568	110.3	601	116.7 C	618	120.0 C	624	121.2 C	635	123.3 C	646	125.4 C
Swansfield ES	A	521	621	621	621	611	117.3 C	722	116.3 C	710	114.3	712	114.7	701	112.9	714	115.0	718	115.6 C	717	115.5 C	722	116.3 C	732	117.9 C	742	119.5 C
Region Totals		**2430**	**2530**	**2530**	**2530**	**2518**	**103.6**	**2616**	**103.4**	**2679**	**105.9**	**2746**	**108.5**	**2816**	**111.3**	**2898**	**114.5**	**2982**	**117.9 C**	**3040**	**120.2 C**	**3102**	**122.6 C**	**3156**	**124.7 C**	**3216**	**96.9**
Northeastern																											
Bellows Spring ES		751	751	751	751	755	100.5	751	100.0	796	106.0	847	112.8	886	118.0 C	886	118.0 C	889	118.4 C	885	117.8 C	868	115.6 C	838	111.6	802	106.8
Deep Run ES		772	772	772	772	831	107.6	868	112.4	876	113.5	872	113.0	880	114.0	866	112.2	877	113.6	878	113.7	881	114.1	892	115.5 C	910	117.9 C
Ducketts Lane ES		770	770	770	770	940	122.1 C	611	79.4	640	83.1	659	85.6	686	89.1	706	91.7	706	91.7	714	92.7	718	93.2	734	95.3	735	95.5
Elkridge ES		760	760	760	760	817	107.5	837	110.1	834	109.7	843	110.9	828	108.9	810	106.6	812	106.8	823	108.3	877	115.4 C	882	116.1 C	907	119.3 C
Ilchester ES		653	653	653	653	625	95.7	598	91.6	584	89.4	595	91.1	660	101.1	687	105.2	717	109.8	724	110.9	722	110.6	707	108.3	681	104.3
New ES #42	NS	0	788	788	788			612	77.7	671	85.2	731	92.8	811	102.9	894	113.5	946	120.1 C	1014	128.7 C	1049	133.1 C	1108	140.6 C	1172	148.7 C
Rockburn ES		653	653	653	653	645	98.8	561	85.9	561	85.9	571	87.4	558	85.5	575	88.1	585	89.6	609	93.3	625	95.7	643	98.5	662	101.4
Veterans ES	*	821	821	821	821	881	107.3	898	109.4	913	111.2	937	114.1	916	111.6	912	111.1	900	109.6	906	110.4	887	108.0	881	107.3	913	111.2
Waterloo ES		663	663	663	663	591	89.1	597	90.0	560	84.5	572	86.3	554	83.6	554	83.6	554	83.6	551	83.1	565	85.2	572	86.3	579	87.3
Worthington ES		590	590	590	590	508	86.1	477	80.8	445	75.4	439	74.4	444	75.3	452	76.6	462	78.3	478	81.0	498	84.4	501	84.9	489	82.9
Region Totals		**6433**	**7221**	**7221**	**7221**	**6593**	**102.5**	**6810**	**94.3**	**6880**	**95.3**	**7066**	**97.9**	**7223**	**100.0**	**7342**	**101.7**	**7448**	**103.1**	**7582**	**105.0**	**7690**	**106.5**	**7758**	**107.4**	**7850**	**108.7**
Northern																											
Centennial Lane ES		647	647	647	647	773	119.5 C	772	119.3 C	800	123.6 C	786	121.5 C	785	121.3 C	799	123.5 C	786	121.5 C	795	122.9 C	801	123.8 C	805	124.4 C	818	126.4 C
Hollifield Station ES		694	694	694	694	768	110.7	789	113.7	805	116.0 C	823	118.6 C	825	118.9 C	833	120.0 C	818	117.9 C	831	119.7 C	833	120.0 C	869	125.2 C	908	130.8 C
Manor Woods ES		681	681	681	681	841	123.5 C	635	93.2	670	98.4	722	106.0	763	112.0	806	118.4 C	856	125.7 C	876	128.6 C	896	131.6 C	898	131.9 C	877	128.8 C
New ES #45	NS	0	0	0	0																						
Northfield ES		700	700	700	700	723	103.3	720	102.9	711	101.6	715	102.1	717	102.4	724	103.4	718	102.6	738	105.4	762	108.9	771	110.1	818	116.9 C
St Johns Lane ES		612	612	612	612	709	115.8 C	736	120.3 C	733	119.8 C	721	117.8 C	722	118.0 C	737	120.4 C	747	122.1 C	739	120.8 C	754	123.2 C	787	128.6 C	809	132.2 C
Waverly ES	A	638	738	738	738	672	105.3	719	97.4	693	93.9	688	93.2	667	90.4	660	89.4	661	89.6	657	89.0	684	92.7	701	95.0	708	95.9
Region Totals		**3972**	**4072**	**4072**	**4072**	**4486**	**112.9**	**4371**	**107.3**	**4412**	**108.3**	**4455**	**109.4**	**4479**	**110.0**	**4559**	**112.0**	**4586**	**112.6**	**4636**	**113.9**	**4730**	**116.2 C**	**4831**	**118.6 C**	**4938**	**121.3 C**
Southeastern																											
Atholton ES		424	424	424	424	444	104.7	443	104.5	467	110.1	479	113.0	475	112.0	480	113.2	490	115.6 C	501	118.2 C	494	116.5 C	501	118.2 C	509	120.0 C
Bollman Bridge ES		666	666	666	666	706	106.0	725	108.9	730	109.6	739	111.0	753	113.1	781	117.3 C	805	120.9 C	819	123.0 C	827	124.2 C	829	124.5 C	840	126.1 C
Forest Ridge ES	*	713	713	713	713	798	111.9	736	103.2	791	110.9	847	118.8 C	872	122.3 C	914	128.2 C	961	134.8 C	990	138.8 C	1003	140.7 C	1021	143.2 C	1013	142.1 C
Gorman Crossing ES	*	735	735	735	735	705	95.9	750	102.0	734	99.9	780	106.1	797	108.4	807	109.8	795	108.2	774	105.3	778	105.9	796	108.3	786	106.9
Guilford ES		465	465	465	465	473	101.7	472	101.5	480	103.2	471	101.3	476	102.4	470	101.1	530	114.0	542	116.6 C	542	116.6 C	537	115.5 C	537	115.5 C
Hammond ES		653	653	653	653	667	102.1	675	103.4	679	104.0	704	107.8	749	114.7	815	124.8 C	844	129.2 C	876	134.2 C	918	140.6 C	929	142.3 C	948	145.2 C
Laurel Woods ES		640	640	640	640	561	87.7	610	95.3	595	93.0	594	92.8	604	94.4	609	95.2	616	96.3	625	97.7	636	99.4	653	102.0	665	103.9
New ES #43	NS	0	0	0	0																						
Region Totals		**4296**	**4296**	**4296**	**4296**	**4354**	**101.4**	**4411**	**102.7**	**4476**	**104.2**	**4614**	**107.4**	**4726**	**110.0**	**4876**	**113.5**	**5041**	**99.2**	**5127**	**100.8**	**5198**	**102.2**	**5266**	**103.6**	**5298**	**104.2**
Western																											
Bushy Park ES		788	788	788	788	597	75.8	575	73.0	641	81.3	719	91.2	794	100.8	849	107.7	890	112.9	932	118.3 C	936	118.8 C	931	118.1 C	937	118.9 C
Clarksville ES		612	612	612	612	418	68.3	392	64.1	378	61.8	364	59.5	374	61.1	368	60.1	367	60.0	366	59.8	364	59.5	365	59.6	361	59.0
Dayton Oaks ES		788	788	788	788	597	75.8	776	98.5	761	96.6	755	95.8	744	94.4	726	92.1	711	90.2	702	89.1	691	87.7	679	86.2	680	86.3
Fulton ES		788	788	788	788	853	108.2	883	112.1	947	120.2 C	982	124.6 C	1013	128.6 C	1004	127.4 C	992	125.9 C	971	123.2 C	939	119.2 C	923	117.1 C	892	113.2
Lisbon ES		527	527	527	527	448	85.0	475	90.1	472	89.6	461	87.5	450	85.4	456	86.5	448	85.0	451	85.6	478	90.7	524	99.4	538	102.1
Pointers Run ES		744	744	744	744	719	96.6	766	103.0	793	106.6	827	111.2	882	118.5 C	887	119.2 C	899	120.8 C	886	119.1 C	869	116.8 C	851	114.4	829	111.4
Triadelphia Ridge ES		581	581	581	581	558	96.0	564	97.1	580	99.8	618	106.4	627	107.9	632	108.8	643	110.7	642	110.5	642	110.5	634	109.1	626	107.7
West Friendship ES		414	414	414	414	313	75.6	441	106.5	436	105.3	436	105.3	433	104.6	471	113.8	499	120.5 C	510	123.2 C	513	123.9 C	517	124.9 C	529	127.8 C
Region Totals		**5242**	**5242**	**5242**	**5242**	**4503**	**85.9**	**4872**	**92.9**	**5008**	**95.5**	**5162**	**98.5**	**5317**	**101.4**	**5393**	**102.9**	**5449**	**103.9**	**5460**	**104.2**	**5432**	**103.6**	**5424**	**103.5**	**5392**	**102.9**
Countywide Totals		25093	26081	26081	26081	25381	**101.1**	25973	**99.6**	26341	**101.0**	26954	**103.3**	27487	**105.4**	27996	**107.3**	28447	**105.9**	28830	**107.3**	29175	**108.6**	29492	**109.8**	29788	**107.7**

'A' includes additions as reflected in FY 2018 CIP for Grades K-5

'NS' New School proposed in FY 2018 Capital Budget

* Capacity includes reclaimed classroom space from repurposing community rooms.

Post-Measures

Aggregate Plan

MIDDLE SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Proposed FY 2018 Capital Budget Projects - Not Test for APFO

Chart reflects May 2016 Projections, Board of Education's FY 2018 Requested capacities and estimated redistricting.

		Capacity				2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28	
Columbia - East		**2017**	**2018**	**2019**	**2020**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Lake Elkhorn MS		658	658	658	658	523	79.5	672	102.1	679	103.2	674	102.4	675	102.6	679	103.2	678	103.0	693	105.3	697	105.9	712	108.2	710	107.9
Oakland Mills MS		519	519	519	519	479	92.3	630	121.4 C	641	123.5 C	647	124.7 C	639	123.1 C	653	125.8 C	663	127.7 C	647	124.7 C	644	124.1 C	641	123.5 C	650	125.2 C
Region MS Totals		1177	1177	1177	1177	1002	85.1	1302	110.6	1320	112.1	1321	112.2	1314	111.6	1332	113.2	1341	113.9	1340	113.8	1341	113.9	1353	115.0	1360	115.5 C
Columbia - West																											
Harpers Choice MS		519	519	519	519	590	113.7	616	118.7 C	637	122.7 C	639	123.1 C	660	127.2 C	630	121.4 C	627	120.8 C	615	118.5 C	616	118.7 C	617	118.9 C	613	118.1 C
Wilde Lake MS	R	778	778	778	778	608	78.1	606	77.9	649	83.4	669	86.0	700	90.0	739	95.0	755	97.0	821	105.5	877	112.7	922	118.5 C	950	122.1 C
Region MS Totals		1297	1297	1297	1297	1198	92.4	1222	94.2	1286	99.2	1308	100.8	1360	104.9	1369	105.6	1382	106.6	1436	110.7	1493	115.1 C	1539	118.7 C	1563	120.5 C
Northeastern																											
Bonnie Branch MS		678	678	678	678	769	113.4	751	110.8	745	109.9	705	104.0	684	100.9	697	102.8	725	106.9	735	108.4	749	110.5	756	111.5	774	114.2
Elkridge Landing MS		798	798	798	798	708	88.7	766	96.0	775	97.1	754	94.5	779	97.6	784	98.2	817	102.4	816	102.3	823	103.1	838	105.0	867	108.6
Ellicott Mills MS	A*	718	718	718	718	852	118.7 C	694	96.7	725	101.0	713	99.3	727	101.3	712	99.2	709	98.7	675	76.9	652	74.3	640	72.9	653	74.4
Mayfield Woods MS		818	818	818	818	742	90.7	780	95.4	860	105.1	914	111.7	965	118.0 C	982	120.0 C	1003	122.6 C	1043	127.5 C	1038	126.9 C	1053	128.7 C	1044	127.6 C
Thomas Viaduct MS		718	718	718	718	691	96.2	643	89.6	704	98.1	769	107.1	787	109.6	808	112.5	880	122.6 C	952	132.6 C	1027	143.0 C	1056	147.1 C	1090	151.8 C
Region MS Totals		3730	3730	3730	3730	3762	100.9	3634	97.4	3809	102.1	3855	103.4	3942	105.7	3983	106.8	4134	110.8	4221	108.5	4289	110.3	4343	111.6	4428	113.8
Northern																											
Burleigh Manor MS		798	798	798	798	812	101.8	824	103.3	854	107.0	897	112.4	929	116.4 C	949	118.9 C	986	123.6 C	1025	128.4 C	1076	134.8 C	1096	137.3 C	1138	142.6 C
Dunloggin MS	A	579	579	579	579	613	105.9	697	120.4 C	712	123.0 C	725	125.2 C	748	129.2 C	746	110.0	762	112.4	743	109.6	734	108.3	719	106.0	741	109.3
Patapsco MS		658	658	658	658	722	109.7	648	98.5	652	99.1	666	101.2	701	106.5	694	105.5	699	106.2	697	105.9	716	108.8	730	110.9	735	111.7
Region MS Totals		2035	2035	2035	2035	2147	105.5	2169	106.6	2218	109.0	2288	112.4	2378	116.9 C	2389	111.9	2447	114.7	2465	115.5 C	2526	118.4 C	2545	119.3 C	2614	122.5 C
Southeastern																											
Hammond MS		618	618	618	618	585	94.7	554	89.6	589	95.3	640	103.6	681	110.2	738	119.4 C	756	122.3 C	772	124.9 C	810	131.1 C	820	132.7 C	829	134.1 C
Murray Hill MS		678	678	678	678	660	97.3	644	95.0	685	101.0	728	107.4	719	106.0	677	99.9	678	100.0	711	104.9	716	105.6	744	109.7	732	108.0
Patuxent Valley MS		778	778	778	778	645	82.9	762	97.9	759	97.6	784	100.8	744	95.6	779	100.1	802	103.1	818	105.1	821	105.5	852	109.5	888	114.1
Region MS Totals		2074	2074	2074	2074	1890	91.1	1960	94.5	2033	98.0	2152	103.8	2144	103.4	2194	105.8	2236	107.8	2301	110.9	2347	113.2	2416	116.5 C	2449	118.1 C
Western																											
Clarksville MS		658	658	658	658	561	85.3	538	81.8	574	87.2	585	88.9	543	82.5	508	77.2	480	72.9	504	76.6	508	77.2	520	79.0	516	78.4
Folly Quarter MS		678	678	678	678	660	97.3	643	94.8	668	98.5	667	98.4	668	98.5	662	97.6	670	98.8	688	101.5	686	101.2	684	100.9	668	98.5
Glenwood MS		559	559	559	559	564	100.9	564	100.9	594	106.3	602	107.7	593	106.1	560	100.2	565	101.1	575	102.9	605	108.2	606	108.4	608	108.8
Lime Kiln MS		718	718	718	718	740	103.1	744	103.6	799	111.3	801	111.6	830	115.6 C	838	116.7 C	854	118.9 C	864	120.3 C	892	124.2 C	899	125.2 C	892	124.2 C
Mount View MS		818	818	818	818	791	96.7	916	112.0	933	114.1	924	113.0	962	117.6 C	1005	122.9 C	1049	128.2 C	1086	132.8 C	1095	133.9 C	1131	138.3 C	1128	137.9 C
Region MS Totals		3431	3431	3431	3431	3316	96.6	3405	99.2	3568	104.0	3579	104.3	3596	104.8	3573	104.1	3618	105.5	3717	108.3	3786	110.3	3840	111.9	3812	111.1
Countywide Totals		13744	13744	13744	13744	13315	96.9	13692	99.6	14234	103.6	14503	105.5	14734	107.2	14840	107.2	15158	109.5	15480	110.5	15782	112.7	16036	114.5	16226	115.9

'A' includes additions as reflected in FY 2018 CIP for Grades 6-8

'R' = Replacement school scheduled to open August 2017

'NS' = New middle school

* Capacity includes reclaimed classroom space from repurposing community rooms.

Post-Measures

Aggregate Plan

HIGH SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Proposed FY 2018 Capital Budget Projects - Not Test for APFO

Chart reflects May 2016 Projections, Board of Education's FY 2018 Requested capacities and estimated redistricting

	Capacity				2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28	
Columbia - East	**2017**	**2018**	**2019**	**2020**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Oakland Mills HS	1400	1400	1400	1400	1160	82.9	1124	80.3	1174	83.9	1179	84.2	1238	88.4	1275	91.1	1258	89.9	1276	91.1	1280	91.4	1272	90.9	1284	91.7
Columbia - West																										
Wilde Lake HS	1424	1424	1424	1424	1327	93.2	1382	97.1	1419	99.6	1480	103.9	1498	105.2	1574	110.5	1617	113.6	1648	115.7	1675	117.6	1665	116.9	1696	119.1
Northeastern																										
Howard HS	1420	1420	1420	1420	1944	136.9	1986	139.9	2075	146.1	2125	149.6	2157	151.9	2176	153.2	2178	153.4	2162	152.3	2164	152.4	2185	153.9	2215	156.0
Long Reach HS	1488	1488	1488	1488	1724	115.9	1867	125.5	1969	132.3	2070	139.1	2201	147.9	2328	156.5	2436	163.7	2540	170.7	2644	177.7	2713	182.3	2819	189.4
New HS #13 NS	0	0	0	0																						
Region HS Totals	2908	2908	2908	2908	3668	126.1	3853	132.5	4044	139.1	4195	144.3	4358	149.9	4504	154.9	4614	102.0	4702	104.0	4808	106.3	4898	108.3	5034	111.3
Northern																										
Centennial HS	1360	1360	1360	1360	1586	116.6	1621	119.2	1661	122.1	1709	125.7	1722	126.6	1763	129.6	1810	133.1	1860	136.8	1882	138.4	1927	141.7	1958	144.0
Marriotts Ridge HS	1615	1615	1615	1615	1254	77.6	1293	80.1	1327	82.2	1379	85.4	1408	87.2	1464	90.7	1484	91.9	1532	94.9	1588	98.3	1617	100.1	1687	104.5
Mt Hebron HS	1400	1400	1400	1400	1657	118.4	1696	121.1	1738	124.1	1765	126.1	1783	127.4	1816	129.7	1831	130.8	1867	133.4	1887	134.8	1903	135.9	1906	136.1
Region HS Totals	4375	4375	4375	4375	4497	102.8	4610	105.4	4726	108.0	4853	110.9	4913	112.3	5043	115.3	5125	117.1	5259	120.2	5357	122.4	5447	124.5	5551	126.9
Southeastern																										
Hammond HS	1220	1220	1220	1220	1333	109.3	1387	113.7	1461	119.8	1483	121.6	1561	128.0	1645	134.8	1689	138.4	1787	146.5	1835	150.4	1881	154.2	1945	159.4
Western																										
Atholton HS	1460	1460	1460	1460	1434	98.2	1466	100.4	1467	100.5	1514	103.7	1556	106.6	1601	109.7	1669	114.3	1683	115.3	1706	116.8	1706	116.8	1750	119.9
Glenelg HS	1420	1420	1420	1420	1173	82.6	1241	87.4	1249	88.0	1256	88.5	1301	91.6	1289	90.8	1313	92.5	1325	93.3	1303	91.8	1316	92.7	1350	95.1
Reservoir HS	1551	1551	1551	1551	1536	99.0	1630	105.1	1689	108.9	1759	113.4	1813	116.9	1875	120.9	1910	123.1	1944	125.3	1970	127.0	1983	127.9	2019	130.2
River Hill HS	1488	1488	1488	1488	1238	83.2	1255	84.3	1255	84.3	1280	86.0	1287	86.5	1292	86.8	1320	88.7	1297	87.2	1283	86.2	1258	84.5	1260	84.7
Region HS Totals	5919	5919	5919	5919	5381	90.9	5592	94.5	5660	95.6	5809	98.1	5957	100.6	6057	102.3	6212	105.0	6249	105.6	6262	105.8	6263	105.8	6379	107.8
Countywide Totals	17246	17246	17246	17246	17366	100.7	17948	104.1	18484	107.2	18999	110.2	19525	113.2	20098	116.5	20515	108.8	20921	110.9	21217	112.5	21426	113.6	21889	116.1

PUBLIC SCHOOL ENROLLMENT
ACTUAL FOR 1973-2015 AND ESTIMATED FOR 2016-2027

	Year	Elementary Enrollment	K-5 Change	Middle Enrollment	6-8 Change	High Enrollment	9-12 Change	Sp. Ed. School Enrollment	Sp Ed. Change	K-12 Enrollment	Change
ACTUAL ENROLLMENTS	1973	10,481	-	5,289	-	6,177	-	30	-	21,977	-
	1974	10,798	317	5,652	363	6,638	461	35	5	23,123	1,146
	1975	10,891	93	6,025	373	7,032	394	44	9	23,992	869
	1976	11,069	178	6,117	92	7,410	378	61	17	24,657	665
	1977	11,246	177	6,175	58	7,957	547	62	1	25,440	783
	1978	10,968	-278	6,080	-95	8,488	531	70	8	25,606	166
	1979	10,627	-341	6,163	83	8,530	42	80	10	25,400	-206
	1980	10,261	-366	6,337	174	8,547	17	83	3	25,228	-172
	1981	9,856	-405	6,409	72	8,468	-79	112	29	24,845	-383
	1982	9,486	-370	6,245	-164	8,387	-81	106	-6	24,224	-621
	1983	9,414	-72	5,988	-257	8,458	71	103	-3	23,963	-261
	1984	9,808	394	5,597	-391	8,723	265	124	21	24,252	289
	1985	10,439	631	5,496	-101	8,900	177	143	19	24,978	726
	1986	11,135	696	5,551	55	8,737	-163	173	30	25,596	618
	1987	12,155	1,020	5,727	176	8,675	-62	191	18	26,748	1,152
	1988	13,225	1,070	5,776	49	8,441	-234	147	-44	27,589	841
	1989	14,160	935	6,235	459	8,305	-136	136	-11	28,836	1,247
	1990	15,001	841	6,603	368	8,248	-57	150	14	30,002	1,166
	1991	15,805	804	7,058	455	8,527	279	70	-80	31,460	1,458
	1992	16,456	651	7,382	324	8,858	331	60	-10	32,756	1,296
	1993	17,155	699	7,958	576	9,107	249	58	-2	34,278	1,522
	1994	17,767	612	8,510	552	9,611	504	62	4	35,950	1,672
	1995	18,226	459	8,843	333	10,181	570	73	11	37,323	1,373
	1996	18,795	569	9,066	223	10,713	532	82	9	38,656	1,333
	1997	19,241	446	9,293	227	11,387	674	89	7	40,010	1,354
	1998	19,849	608	9,669	376	12,020	633	95	6	41,633	1,623
	1999	20,395	546	10,177	508	12,481	461	103	8	43,156	1,523
	2000	20,821	426	10,672	495	12,927	446	105	2	44,525	1,369
	2001	21,000	179	11,138	466	13,479	552	115	10	45,732	1,207
	2002	21,012	12	11,446	308	14,080	601	112	-3	46,650	918
	2003	20,792	-220	11,689	243	14,629	549	101	-11	47,211	561
	2004	20,498	-294	11,754	65	15,235	606	95	-6	47,582	371
	2005	20,412	-86	11,716	-38	15,580	345	87	-8	47,795	213
	2006	20,318	-94	11,889	173	15,858	278	90	3	48,155	360
	2007	20,550	232	11,740	-149	16,094	236	96	6	48,480	325
	2008	20,811	261	11,748	8	16,231	137	98	2	48,888	408
	2009	21,292	481	11,649	-99	16,657	426	85	-13	49,683	795
	2010	21,814	522	11,472	-177	16,614	-43	91	6	49,991	308
	2011	22,246	432	11,523	51	16,627	13	93	2	50,489	498
	2012	22,735	489	11,483	-40	16,660	33	91	-2	50,969	480
	2013	23,327	592	11,890	407	16,378	-282	86	-5	51,681	712
	2014	23,698	371	12,276	386	16,438	60	99	13	52,511	830
	2015	24,245	547	12,715	439	16,574	136	100	1	53,634	1,123
PROJECTIONS	2016	24,800	555	12,957	242	16,824	250	100	0	54,681	1,047
	2017	25,381	581	13,315	358	17,366	542	100	0	56,162	1,481
	2018	25,973	592	13,692	377	17,948	582	100	0	57,713	1,551
	2019	26,341	368	14,234	542	18,484	536	100	0	59,159	1,446
	2020	26,954	613	14,503	269	18,999	515	100	0	60,556	1,397
	2021	27,487	533	14,734	231	19,525	526	100	0	61,846	1,290
	2022	27,996	509	14,840	106	20,098	573	100	0	63,034	1,188
	2023	28,447	451	15,158	318	20,515	417	100	0	64,220	1,186
	2024	28,830	383	15,480	322	20,921	406	100	0	65,331	1,111
	2025	29,175	345	15,782	302	21,217	296	100	0	66,274	943
	2026	29,492	317	16,036	254	21,426	209	100	0	67,054	780
	2027	29,788	296	16,226	190	21,889	463	100	0	68,003	949
	2028	30,044	256	16,405	179	22,231	342	100	0	68,780	777

Notes: (1) All "actual" enrollments are head count as of September 30th.
(2) "Change" column indicates change from prior year.
(3) Preschool enrollments are not included in these figures.
(4) Cedar Lane School's projected enrollment is based on Cedar Lane School's September 30, 2014 enrollment

Facility Use, Acreage, and Capital Projects

HCPSS Elementary Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Conversion (C), Projects
Atholton ES	12.31	3	$ 447,569	1961	1980(A), 2001(R), 2002(R), 2006, 2007
Bellows Spring ES	40.00	5	$ 15,105,663	2003	2009(A), 2011(A)
Bollman Bridge ES	16.95	2	$ 6,274,000	1988	1994(A), 2008(C),2013(R/A)
Bryant Woods ES	9.25	4	$ 695,406	1968	1983, 1984(A), 2004(R), 2007
Bushy Park ES	19.20	-	$ 24,000,000	2007	(Replacement) replaced Old Bushy Park with a new school
Centennial Lane ES	11.22	5	$ 1,101,140	1973	1987(A), 2007(R), 2008(A)
Clarksville ES	10.69	1	$ 435,986	1964	1980(A), 1986 HVAC, 2002(R), 2006
Clemens Crossing ES	10.80	3	$ 1,853,590	1979	1988(A), 2009(R)
Cradlerock ES	33.16	3	$ 4,249,000	1976	1998(A), 2001(R), 2003(R), 2007, 1996 Dasher Green Head Start
Dayton Oaks ES**	22.74	-	$ 21,804,000	2006	New school 2006
Deep Run ES	11.67	6	$ 6,403,575	1990	1998(A), 2009(A), 2016®
Ducketts Lane ES	10.03	9	$ 34,447,000	2013	New school 2013
Elkridge ES	48.581 shared	4	$ 7,139,588	1992	1998, 2009(A)
Forest Ridge ES	20.85	5	$ 6,050,000	1992	2001/2 (R)/(A), 2009(A)
Fulton ES	99.0 shared	-	$ 6,156,161	1997	2003(A)/(R), 2006
Gorman Crossing ES	15.00	2	$ 5,766,716	1998	2007,2013(A)
Guilford ES	11.00	5	$ 216,278	1954	1959(R), 1982, 1986(A), 1989, 2006
Hammond ES	35.00 shared	1	$ 2,381,673	1971	(includes Hammond MS & Hammond ES) 1987, 1988/9, 1996/7 (A), 2007, 2011(R/A)
Hollifield Station ES	14.50	3	$ 6,017,889	1997	2002(R)/(A), 2009(A)
Ilchester ES	27.22 shared	3	$ 6,430,404	1996	2000/1, 2008(A)
Jeffers Hill ES	10.00	2	$ 1,747,200	1975	1998/1999(R)
Laurel Woods ES	27.00	2	$ 1,658,399	1973	1987(A), 2004(R), 2005(ROOFING PROJECT), 2008(A)
Lisbon ES	22.55	1	$ 2,056,000	1976	1988(A), 2006
Longfellow ES	9.50	-	$ 775,481	1970	1986(R), 1994(A), 2008(A)
Manor Woods ES	43.23	1	$ 5,900,000	1994	2004(R)
Northfield ES	10.00	1	$ 20,330,000	1968	1986(A), 2007, 2011(R/A)
Phelps Luck ES	10.00	2	$ 1,036,792	1972	1989, 1999(A), 2007,2013(R/A)
Pointers Run ES	13.69	9	$ 6,645,000	1991	2000, 2001/2, 2006, 2008(A)
Rockburn ES	8.74	1	$ 5,849,000	1993	2004(A), 2007
Running Brook ES	9.00	3	$ 776,406	1970	1984(A)/(REMODELING), 2004 (ROOF REPLACEMENT), 2006, 2014(A)
St. John's Lane ES	10.00	7	$ 235,985	1954	1988(A), 1959, 1966, 1975(MODERNIZ)1988, 1995, 2000(A)/(R), 2009(A)
Stevens Forest ES	10.00	5	$ 764,941	1972	1995(A),2013(R/A)
Swansfield ES	10.00	12	$ 764,941	1972	1988(A), 1998(R), 2008(A)
Talbott Springs ES	10.00	11	$ 1,224,800	1973	1999(SPRINKLERS), 2000(A) & (R), 2008(A)
Thunder Hill ES	14.93	3	$ 14,515,430	1970	1987, 1988(A), 1988, 1989, 2007, 2012(R/A)
Triadelphia Ridge ES	78.3 shared	-	$ 6,219,488	1998	2005(A), 2006
Veterans ES	23.66	5	$ 19,000,000	2007	New school 2007
Waterloo ES	10.00	4	$ 435,221	1964	1987(A)/(MODERNIZATION), 1998(A), 2009(R)
Waverly ES	11.49	9	$ 6,669,587	1990	2007
West Friendship ES	17.85	-	unknown	1925	(7 rm school (1925)) 1950, 1962, 1971(MODERNIZATION), 1978(A), 2004(R), 2005(ROOF)
Worthington ES	19.69	1	$ 2,385,850	1976	1989, 1998, 2007, 2008(R)

* Estimated Investment: based on available records; in process of updating data.

**Dayton Oaks shares 12.66 acres with Recreation and Parks play fields.

Facility Use, Acreage, and Capital Projects

HCPSS Middle Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Conversion (C), Projects
Bonnie Branch MS	27.22 shared	2	$ 7,819,520	1999	1999(A)
Burleigh Manor MS	27.00	1	$ 8,107,000	1992	
Clarksville MS	20.43	5	$ 5,662,361	1979	2004, 2006(A), 2008®, 2010(Masonry)
Dunloggin MS	20.00	5	$ 1,963,323	1973	1999(R)
Elkridge Landing MS	48.58	2	$ 9,000,000	1995	
Ellicott Mills MS	16.22	3	$ 9,430,537	1939	(Replacement) 1957, 1962, 1973, 2001
Folly Quarter MS	78.3 shared	-	$ 11,077,000	2003	
Glenwood MS	30.00	6	$ 1,179,168	1967	1999(R), 2000(R), 1986(Air Conditioning), 2016 (HVAC)
Hammond ES/MS	35.00 shared	3	$ 22,650,672	1971	includes Hammond MS & Hammond ES, 2011
Harper's Choice MS	19.67	5	$ 1,974,697	1973	1999(R), 2000
Lake Elkhorn MS	33.16 shared	1	$ 4,244,500	1976	includes Dasher Green ES & Owen Brown MS
Lime Kiln MS	99.0 shared	-	$ 8,420,400	1999	2005(A)
Mayfield Woods MS	27.00	2	$ 8,501,354	1991	
Mount View MS	35.75	2	$ 8,617,000	1993	
Murray Hill MS	25.00	6	$ 7,858,000	1997	
Oakland Mills MS	20.00	-	$ 1,803,876	1972	1998 (R)
Patapsco MS	21.13	2	$ 1,391,791	1969	1974, 1996, 2003(R)/(A), 2004 (R)/(A)
Patuxent Valley MS	30.00	6	$ 8,261,000	1989	
Thomas Viaduct MS	20.21	-	$ 34,755,000	2014	
Wilde Lake MS	21.00	9	$ 1,323,314	1969	1974, 1998(R)

HCPSS High Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Projects
Atholton HS	36.28	-	$ 1,423,493	1966	1972, 1977, 1978, 1988, 1987(A), 1997(R), 2003(R)/(A),
Centennial HS	43.00	4	$ 6,337,867	1977	1998(R), 2002(R)/(A), 2011(A)
Glenelg HS	40.94	-	$ 56,345,257	1958	1963, 1967, 1969, 1971, 1972(R), 1986(A), 1988(A)/(R), 2003, 2008(A), 2009(Auditorium), 2011(HVA
Hammond HS	33.14	4	$ 6,321,000	1976	1996(A), 1998®, 2011(A)
Howard HS	41.00	15	$ 698,781	1951	1960, 1964,1971, 1975, 1977, 2001(A)/(R), 2002(R), 2004, 2006, 2009(Windows)
Long Reach HS	50.00	4	$ 20,373,000	1996	
Marriotts Ridge HS	42.40	-	$ 34,115,895	2005	
Mt. Hebron HS	40.05	4	$ 55,560,000	1965	1968,1972,1976, 1977-1978,1983(MODERNIZATION), 1997-99(A), 2004(R), 2005(R), 2011
Oakland Mills HS	28.60	-	$ 3,579,000	1973	1991-92(R), 1998(R), 2004(A)
Reservoir HS	99.0 shared	5	$ 27,224,000	2002	
River Hill HS	64.2	-	$ 21,473,000	1994	
Wilde Lake HS	31.25	-	$ 21,202,391	1996	(Replacement)

HCPSS Countywide Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Projects
Applications & Research Lab	45.48 shared	-	$ 1,502,581	1968	1970, 1974, 1986, 1997/1998(R),2002(NEW ROOF), 2006
Cedar Lane Special	99.0 shared	-	$ 18,663,069	2005	2005(A)
Homewood	45.48 shared	1	$ 8,620,912	2002	

HCPSS Other Facilities	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Projects
Admin. Building(Harriett Tubman)	3.58	-	$ 256,664	1948	1953, 1956
Admin. Building(Central Office)	45.48 shared	4	$ 3,657,660	1980	
Old Bushy Park	12.00 shared	-	$ 2,931,991	1976	1988(A), school replaced 2007
Faulkner Ridge Resource Center	9.01	-	$ 750,174	1969	
Old Cedar Lane	11	-	$ 3,839,731	1981	

ELEMENTARY SCHOOLS - MAY 2016 APFO Test

Capacity Utilization Rates with Board of Education's Approved FY 2017 Capital Budget Projects

Chart reflects May 2015 Projections, Board of Education's Requested FY 2017 capacities, and proposed redistricting associated with Capital Projects.

		Capacity				2019-20			2020-21			2021-22			2022-23			2023-24			2024-25			2025-26			2026-27			2027-28			2028-29		
Columbia - East		**2019**	**2020**	**2021**	**2022**	**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**	
Cradlerock ES		398	398	398	398	369	92.7		386	97.0		383	96.2		379	95.2		395	99.2		406	102.0		422	106.0		436	109.5		441	110.8		445	111.8	
Jeffers Hill ES		421	421	421	421	447	106.2		444	105.5		447	106.2		445	105.7		453	107.6		464	110.2		470	111.6		477	113.3		482	114.5		491	116.6	C
Phelps Luck ES		616	616	616	616	535	86.9		539	87.5		546	88.6		547	88.8		549	89.1		548	89.0		553	89.8		559	90.7		567	92.0		575	93.3	
Stevens Forest ES		399	399	399	399	397	99.5		419	105.0		423	106.0		429	107.5		424	106.3		425	106.5		429	107.5		433	108.5		438	109.8		442	110.8	
Talbott Springs ES		377	377	377	377	427	113.3		424	112.5		426	113.0		430	114.1		438	116.2	C	453	120.2	C	458	121.5	C	466	123.6	C	474	125.7	C	482	127.9	C
Thunder Hill ES		509	509	509	509	595	116.9	C	580	113.9		586	115.1	C	598	117.5	C	605	118.9	C	616	121.0	C	623	122.4	C	631	124.0	C	639	125.5	C	648	127.3	C
Region Totals		**2720**	**2720**	**2720**	**2720**	**2770**	**101.8**		**2792**	**102.6**		**2811**	**103.3**		**2828**	**104.0**		**2864**	**105.3**		**2912**	**107.1**		**2955**	**108.6**		**3002**	**110.4**		**3041**	**111.8**		**3083**	**113.3**	
Columbia - West																																			
Bryant Woods ES		361	361	361	361	345	95.6		342	94.7		343	95.0		347	96.1		351	97.2		358	99.2		363	100.6		369	102.2		370	102.5		376	104.2	
Clemens Crossing ES		521	521	521	521	520	99.8		530	101.7		526	101.0		523	100.4		519	99.6		504	96.7		504	96.7		506	97.1		509	97.7		511	98.1	
Longfellow ES		512	512	512	512	432	84.4		436	85.2		439	85.7		438	85.5		447	87.3		457	89.3		464	90.6		469	91.6		478	93.4		484	94.5	
Running Brook ES		515	515	515	515	674	130.9	O CIP	735	142.7	O CIP	807	156.7	O CIP	878	170.5	C	938	182.1	C	995	193.2	C	1041	202.1	C	1077	209.1	C	1115	216.5	C	1142	221.7	C
Swansfield ES	A	621	621	621	621	514	82.8		519	83.6		516	83.1		524	84.4		529	85.2		526	84.7		534	86.0		541	87.1		548	88.2		555	89.4	
Region Totals		**2530**	**2530**	**2530**	**2530**	**2485**	**98.2**		**2562**	**101.3**		**2631**	**104.0**		**2710**	**107.1**		**2784**	**110.0**		**2840**	**112.3**		**2906**	**114.9**		**2962**	**117.1**	C	**3020**	**119.4**	C	**3068**	**121.3**	C
Northeastern																																			
Bellows Spring ES		751	751	751	751	844	112.4		886	118.0	C	915	121.8	C	918	122.2	C	905	120.5	C	885	117.8	C	874	116.4	C	843	112.3		817	108.8		799	106.4	
Deep Run ES		772	772	772	772	884	114.5		903	117.0	C	911	118.0	C	905	117.2	C	895	115.9	C	898	116.3	C	906	117.4	C	917	118.8	C	928	120.2	C	939	121.6	C
Ducketts Lane ES		770	770	770	770	1224	159.0	O CIP	1354	175.8	O CIP	1441	187.1	O CIP	1531	198.8	O CIP	1588	206.2	C	1601	207.9	C	1617	210.0	C	1627	211.3	C	1636	212.5	C	1658	215.3	C
Elkridge ES		760	760	760	760	833	109.6		840	110.5		854	112.4		866	113.9		883	116.2	C	914	120.3	C	930	122.4	C	964	126.8	C	963	126.7	C	965	127.0	C
Ilchester ES		653	653	653	653	624	95.6		618	94.6		624	95.6		630	96.5		659	100.9		699	107.0		720	110.3		731	111.9		746	114.2		741	113.5	
New ES #42	NS	788	788	788	788																														
Rockburn ES		653	653	653	653	580	88.8		600	91.9		639	97.9		683	104.6		712	109.0		739	113.2		788	120.7	C	830	127.1	C	858	131.4	C	876	134.2	C
Veterans ES		788	788	788	788	836	106.1		836	106.1		811	102.9		822	104.3		843	107.0		851	108.0		869	110.3		875	111.0		883	112.1		897	113.8	
Waterloo ES		663	663	663	663	576	86.9		594	89.6		603	91.0		610	92.0		609	91.9		620	93.5		636	95.9		644	97.1		649	97.9		659	99.4	
Worthington ES		590	590	590	590	472	80.0		473	80.2		475	80.5		497	84.2		510	86.4		525	89.0		524	88.8		519	88.0		516	87.5		519	88.0	
Region Totals		**7188**	**7188**	**7188**	**7188**	**6873**	**95.6**		**7104**	**98.8**		**7273**	**101.2**		**7462**	**103.8**		**7604**	**105.8**		**7732**	**107.6**		**7864**	**109.4**		**7950**	**110.6**		**7996**	**111.2**		**8053**	**112.0**	
Northern																																			
Centennial Lane ES		647	647	647	647	769	118.9	C	769	118.9	C	774	119.6	C	780	120.6	C	783	121.0	C	789	121.9	C	803	124.1	C	814	125.8	C	822	127.0	C	832	128.6	C
Hollifield Station ES		694	694	694	694	809	116.6	C	834	120.2	C	866	124.8	C	892	128.5	C	913	131.6	C	938	135.2	C	946	136.3	C	931	134.1	C	911	131.3	C	893	128.7	C
Manor Woods ES		681	681	681	681	1100	161.5	O CIP	1257	184.6	O CIP	1376	202.1	O CIP	1475	216.6	O CIP	1573	231.0	O CIP	1597	234.5	O CIP	1565	229.8	O CIP	1508	221.4	O CIP	1451	213.1	O CIP	1392	204.4	O CIP
Northfield ES		700	700	700	700	717	102.4		731	104.4		746	106.6		756	108.0		770	110.0		776	110.9		808	115.4	C	816	116.6	C	822	117.4	C	830	118.6	C
St Johns Lane ES		612	612	612	612	732	119.6	C	721	117.8	C	721	117.8	C	720	117.6	C	720	117.6	C	719	117.5	C	724	118.3	C	726	118.6	C	744	121.6	C	756	123.5	C
Waverly ES	A	738	738	738	738	586	79.4		572	77.5		575	77.9		584	79.1		595	80.6		602	81.6		612	82.9		633	85.8		649	87.9		659	89.3	
Region Totals		**4072**	**4072**	**4072**	**4072**	**4713**	**115.7**	C	**4884**	**119.9**	C	**5058**	**124.2**	C	**5207**	**127.9**	C	**5354**	**131.5**	C	**5421**	**133.1**	C	**5458**	**134.0**	C	**5428**	**133.3**	C	**5399**	**132.6**	C	**5362**	**131.7**	C
Southeastern																																			
Atholton ES		424	424	424	424	396	93.4		399	94.1		405	95.5		406	95.8		412	97.2		420	99.1		426	100.5		433	102.1		440	103.8		446	105.2	
Bollman Bridge ES		666	666	666	666	778	116.8	O CIP	796	119.5	O CIP	816	122.5	O CIP	829	124.5	O CIP	839	126.0	C	847	127.2	C	862	129.4	C	868	130.3	C	879	132.0	C	893	134.1	C
Forest Ridge ES		669	669	669	669	794	118.7	O CIP	846	126.5	O CIP	875	130.8	O CIP	912	136.3	O CIP	954	142.6	C	979	146.3	C	995	148.7	C	1001	149.6	C	995	148.7	C	990	148.0	C
Gorman Crossing ES		700	700	700	700	775	110.7		764	109.1		749	107.0		729	104.1		720	102.9		700	100.0		687	98.1		679	97.0		679	97.0		684	97.7	
Guilford ES		465	465	465	465	557	119.8	C	553	118.9	C	556	119.6	C	563	121.1	C	567	121.9	C	573	123.2	C	574	123.4	C	580	124.7	C	583	125.4	C	585	125.8	C
Hammond ES		653	653	653	653	720	110.3		728	111.5		767	117.5	C	786	120.4	C	817	125.1	C	843	129.1	C	846	129.6	C	850	130.2	C	859	131.5	C	874	133.8	C
Laurel Woods ES		640	640	640	640	553	86.4		552	86.3		563	88.0		563	88.0		566	88.4		582	90.9		589	92.0		591	92.3		597	93.3		604	94.4	
Region Totals		**4217**	**4217**	**4217**	**4217**	**4573**	**108.4**		**4638**	**110.0**		**4731**	**112.2**		**4788**	**113.5**		**4875**	**115.6**	C	**4944**	**117.2**	C	**4979**	**118.1**	C	**5002**	**118.6**	C	**5032**	**119.3**	C	**5076**	**120.4**	C
Western																																			
Bushy Park ES		788	788	788	788	602	76.4		602	76.4		590	74.9		600	76.1		598	75.9		606	76.9		611	77.5		619	78.6		631	80.1		640	81.2	
Clarksville ES		612	612	612	612	427	69.8		430	70.3		430	70.3		435	71.1		435	71.1		432	70.6		436	71.2		435	71.1		437	71.4		437	71.4	
Dayton Oaks ES		788	788	788	788	605	76.8		591	75.0		578	73.4		578	73.4		566	71.8		567	72.0		566	71.8		566	71.8		569	72.2		573	72.7	
Fulton ES		788	788	788	788	861	109.3		878	111.4		875	111.0		884	112.2		866	109.9		865	109.8		870	110.4		876	111.2		873	110.8		859	109.0	
Lisbon ES		527	527	527	527	444	84.3		447	84.8		446	84.6		460	87.3		471	89.4		465	88.2		468	88.8		471	89.4		474	89.9		477	90.5	
Pointers Run ES		744	744	744	744	826	111.0		855	114.9		898	120.7	C	923	124.1	C	918	123.4	C	904	121.5	C	891	119.8	C	864	116.1	C	832	111.8		805	108.2	
Triadelphia Ridge ES		581	581	581	581	614	105.7		620	106.7		621	106.9		614	105.7		601	103.4		570	98.1		561	96.6		556	95.7		558	96.0		563	96.9	
West Friendship ES		414	414	414	414	241	58.2		236	57.0		242	58.5		242	58.5		250	60.4		253	61.1		257	62.1		258	62.3		264	63.8		271	65.5	
Region Totals		**5242**	**5242**	**5242**	**5242**	**4620**	88.1		**4659**	88.9		**4680**	89.3		**4736**	**90.3**		**4705**	89.8		**4662**	88.9		**4660**	88.9		**4645**	88.6		**4638**	88.5		**4625**	88.2	
Countywide Totals		25969	25969	25969	25969	26034	**100.3**		26639	**102.6**		27184	**104.7**		27731	**106.8**		28186	**108.5**		28511	**109.8**		28822	**111.0**		28989	**111.6**		29126	**112.2**		29267	**112.7**	

A: capacity includes additions as reflected in FY 2017 Capital Budget for Grades K-5 in 2017.

NS: New school scheduled to open in August 2018.

MIDDLE SCHOOLS - MAY 2016 APFO Test

Capacity Utilization Rates with Board of Education's Approved FY 2017 Capital Budget Projects

Chart reflects May 2015 Projections, Board of Education's Requested FY 2017 capacities, and proposed redistricting associated with Capital Projects.

		Capacity				2019-20			2020-21			2021-22			2022-23			2023-24			2024-25			2025-26			2026-27			2027-28			2028-29		
Columbia - East		**2019**	**2020**	**2021**	**2022**	**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**	
Lake Elkhorn MS		643	643	643	643	564	87.7		557	86.6		572	89.0		563	87.6		557	86.6		549	85.4		548	85.2		568	88.3		581	90.4		585	91.0	
Oakland Mills MS		506	506	506	506	474	93.7		489	96.6		477	94.3		472	93.3		478	94.5		478	94.5		484	95.7		482	95.3		493	97.4		498	98.4	
Region MS Totals		**1149**	**1149**	**1149**	**1149**	**1038**	**90.3**		**1046**	**91.0**		**1049**	**91.3**		**1035**	**90.1**		**1035**	**90.1**		**1027**	**89.4**		**1032**	**89.8**		**1050**	**91.4**		**1074**	**93.5**		**1083**	**94.3**	
Columbia - West																																			
Harpers Choice MS		506	506	506	506	574	113.4		542	107.1		566	111.9		549	108.5		549	108.5		553	109.3		555	109.7		564	111.5		559	110.5		565	111.7	
Wilde Lake MS	R	760	760	760	760	705	92.8		692	91.1		697	91.7		710	93.4		763	100.4		819	107.8		869	114.3		888	116.8	C	895	117.8	C	908	119.5	C
Region MS Totals		**1266**	**1266**	**1266**	**1266**	**1279**	**101.0**		**1234**	**97.5**		**1263**	**99.8**		**1259**	**99.4**		**1312**	**103.6**		**1372**	**108.4**		**1424**	**112.5**		**1452**	**114.7**		**1454**	**114.8**		**1473**	**116.4**	
Northeastern																																			
Bonnie Branch MS		662	662	662	662	734	110.9		690	104.2		652	98.5		657	99.2		663	100.2		681	102.9		686	103.6		696	105.1		703	106.2		716	108.2	
Elkridge Landing MS		779	779	779	779	677	86.9		672	86.3		685	87.9		697	89.5		714	91.7		712	91.4		731	93.8		743	95.4		781	100.3		796	102.2	
Ellicott Mills MS	A	662	662	662	662	909	137.3	C	904	136.6	C	899	135.8	C	861	130.1	C	856	129.3	C	826	101.0		851	104.0		867	106.0		896	109.5		912	111.5	
Mayfield Woods MS		798	798	798	798	827	103.6		858	107.5		906	113.5		920	115.3	C	968	121.3	C	1000	125.3	C	993	124.4	C	981	122.9	C	984	123.3	C	993	124.4	C
Thomas Viaduct MS		701	701	701	701	806	115.0	C	865	123.4	C	959	136.8	C	998	142.4	C	1088	155.2	C	1170	166.9	C	1253	178.7	C	1307	186.4	C	1338	190.9	C	1365	194.7	C
Region MS Totals		**3602**	**3602**	**3602**	**3602**	**3953**	**109.7**		**3989**	**110.7**		**4101**	**113.9**		**4133**	**114.7**		**4289**	**119.1**		**4389**	**116.8**		**4514**	**120.1**		**4594**	**122.2**		**4702**	**125.1**		**4782**	**127.2**	
Northern																																			
Burleigh Manor MS		779	779	779	779	860	110.4		868	111.4		899	115.4	C	953	122.3	C	997	128.0	C	1059	135.9	C	1092	140.2	C	1106	142.0	C	1091	140.1	C	1100	141.2	C
Dunloggin MS	A	565	662	662	662	656	116.1	C	660	99.7		672	101.5		678	102.4		679	102.6		687	103.8		683	103.2		697	105.3		697	105.3		714	107.9	
Patapsco MS		643	643	643	643	738	114.8		756	117.6	C	779	121.2	C	784	121.9	C	781	121.5	C	778	121.0	C	789	122.7	C	804	125.0	C	834	129.7	C	855	133.0	C
Region MS Totals		**1987**	**2084**	**2084**	**2084**	**2254**	**113.4**		**2284**	**109.6**		**2350**	**112.8**		**2415**	**115.9**		**2457**	**117.9**		**2524**	**121.1**		**2564**	**123.0**		**2607**	**125.1**		**2622**	**125.8**		**2669**	**128.1**	
Southeastern																																			
Hammond MS		604	604	604	604	648	107.3		710	117.5	C	717	118.7	C	743	123.0	C	759	125.7	C	804	133.1	C	814	134.8	C	829	137.3	C	834	138.1	C	845	139.9	C
Murray Hill MS		662	662	662	662	760	114.8		792	119.6	C	811	122.5	C	770	116.3	C	768	116.0	C	769	116.2	C	771	116.5	C	761	115.0	C	760	114.8		740	111.8	
Patuxent Valley MS		760	760	760	760	735	96.7		757	99.6		726	95.5		736	96.8		753	99.1		766	100.8		790	103.9		829	109.1		868	114.2		899	118.3	C
Region MS Totals		**2026**	**2026**	**2026**	**2026**	**2143**	**105.8**		**2259**	**111.5**		**2254**	**111.3**		**2249**	**111.0**		**2280**	**112.5**		**2339**	**115.4**		**2375**	**117.2**		**2419**	**119.4**		**2462**	**121.5**		**2484**	**122.6**	
Western																																			
Clarksville MS		643	643	643	643	562	87.4		562	87.4		552	85.8		548	85.2		552	85.8		572	89.0		584	90.8		590	91.8		588	91.4		585	91.0	
Folly Quarter MS		662	662	662	662	678	102.4		675	102.0		684	103.3		673	101.7		686	103.6		710	107.3		707	106.8		688	103.9		659	99.5		654	98.8	
Glenwood MS		545	545	545	545	559	102.6		578	106.1		590	108.3		559	102.6		567	104.0		570	104.6		596	109.4		590	108.3		579	106.2		580	106.4	
Lime Kiln MS		701	701	701	701	754	107.6		765	109.1		783	111.7		787	112.3		805	114.8		814	116.1	C	807	115.1	C	799	114.0		789	112.6		792	113.0	
Mount View MS		798	798	798	798	824	103.3		823	103.1		820	102.8		833	104.4		858	107.5		910	114.0		938	117.5	C	984	123.3	C	992	124.3	C	999	125.2	C
Region MS Totals		3349	3349	3349	3349	3377	100.8		3403	101.6		3429	102.4		3400	101.5		3468	103.6		3576	106.8		3632	108.5		3651	109.0		3607	107.7		3610	107.8	
Countywide Totals		**13379**	**13476**	**13476**	**13476**	**14044**	**105.0**		**14215**	**105.5**		**14446**	**107.2**		**14491**	**107.5**		**14841**	**110.1**		**15227**	**111.7**		**15541**	**114.0**		**15773**	**115.7**		**15921**	**116.8**		**16101**	**118.1**	

A: capacity includes additions as reflected in FY 2017 Capital Budget for Grades 6-8 between 2017 and 2024.

R: Replacement school scheduled to open August 2017.

Partially and Fully Funded Projects in Process

Project Name		Project Number	Appropriation	Proposed Completion	Project Status
Planning					
	New ES #42	E1028	$ 17,333,000	2018	Planning.
Construction					
	Wilde Lake MS Replacement	E1031	$ 10,858,000	2017	Under construction.
	Patuxent Valley MS Renovation	E1033	$ 8,145,000	2017	Under construction.
	Swansfield ES Renovation/Addition	E1034	$ 1,898,000	2017	Under construction.
	Waverly ES Renovation/Addition*	E0973	$ 13,359,000	2018	Under construction.

* Planning funds appropriated under E-0980.

Facilities Constructed With Assistance From Maryland School Construction Funds (1980–2015)

Completion (School year)	Elementary	Middle	High	Special
1980–1981				
1981–1982				Cedar Lane
1988–1989	Bollman Bridge			
1989–1990		Patuxent Valley		
1990–1991	Deep Run			
	Waverly			
1991–1992	Pointers Run	Mayfield Woods		
1992–1993	Elkridge	Burleigh Manor		
	Forest Ridge			
1993–1994	Rockburn	Mount View		
1994–1995	Manor Woods		River Hill	
1995–1996		Elkridge Landing		
1996–1997	Ilchester		Long Reach	
			Wilde Lake Replacement	
1997–1998	Fulton	Murray Hill		
	Hollifield Station			
1998–1999	Gorman Crossing			
	Triadelphia Ridge			
1999–2000		Bonnie Branch		
		Lime Kiln		
2001–2002		Ellicott Mills Replacement		
2002–2003			Reservoir	Homewood
2003–2004	Bellows Spring	Folly Quarter		
2005–2006			Marriotts Ridge	Cedar Lane
2006–2007	Dayton Oaks			
2007–2008	Veterans			
	Bushy Park Replacement			
2013–2014	Ducketts Lane			
2014–2015		Thomas Viaduct		

Additions/Renovations Constructed with Assistance From Maryland School Construction Funds (1980–2016)

Completion (School year)	Elementary	Middle	High	Special
1980–1981	Atholton			
1981–1982	Clarksville			
1983–1984	Guilford	Waterloo		
1985–1986			Mt. Hebron	
1986–1987	Guilford			School of Technology
1987–1988			Atholton	
1991–1992			Oakland Mills	
1994–1995	Northfield	Owen Brown		
	Centennial Lane			
	Dasher Green			
1995–1996		Wilde Lake		
		Oakland Mills		
1996–1997	Hammond		Hammond	
1998–1999	Swansfield	Dunloggin		
	Jeffers Hill			
	Waterloo			
2000–2001	Ilchester			
	Pointers Run			
	St. John's Lane			
	Talbott Springs			
2001–2002	Forest Ridge			
	Pointers Run			
2002–2003	Atholton		Centennial	
	Clarksville			
	Hollifield Station			
2003–2004	Fulton	Patapsco	Atholton	
2004–2005	Manor Woods	Clarksville	Mt. Hebron	
	Rockburn		Oakland Mills	
2006–2007	Clarksville		Howard	
	Fulton			
	Pointers Run			
	Triadelphia Ridge			
	All Day K			
2007–2008	All Day K			
	Waverly			
	Centennial Lane			
	Clarksville			
2008–2009	All Day K	Clarksville	Glenelg	
	Centennial Lane			
	Worthington			
2009–2010	All Day K			
	Clemens Crossing			
	Waterloo			
2010–2011	Northfield			
2011–2012	Hammond	Hammond	Hammond	
	Bellows Spring		Centennial	
2012–2013	Thunder Hill			
2013–2014	Bollman Bridge			
	Gorman Crossing			
	Phelps Luck			
	Stevens Forest			
2014–2015	Running Brook			
2015–2016	Longfellow			Atholton
	Laurel Woods			

Glossary of Terms

ADA: Americans with Disabilities Act.

ADDITION (SCHOOL): Any type of space that adds capacity or provides space for a new program.

BUILDING: A structure, either permanent or relocatable, consisting of constructed walls, a roof, and a floor. A structure that has the same floors, ceiling, and walls and is not separated by an open air space is considered one building.

PERMANENT: A structure built with a fixed foundation that has permanently attached walls, a roof, and a floor that cannot be moved or transported either as a unit or in sections.

RELOCATABLE: A building or portion of a building made up of prefabricated units that may be disassembled and reassembled frequently, or a single unit of construction consisting of walls, roof, and floor that is movable as a unit either on wheels or by a truck. Mobile, demountable, dividable, modular, and portable buildings are types of relocatable units.

CAFETORIUM: A space within an educational facility that is used as both a cafeteria and an auditorium.

CAPACITY: Number of students that may be housed in a facility at any given time based on a utilization percentage of the total number of existing satisfactory student stations.

CIP: Capital Improvement Program.

CLASSROOM: An instructional space requiring no special design or equipment and used for housing general programs such as language arts, social studies, and mathematics.

CLEAN AIR ACT: This program includes projects to convert or replace cooling equipment in school facilities so that they will no longer use ozone-depleting refrigerants.

COMAR: Code of Maryland Regulations.

COURTYARD: A large open space, usable by the student body or faculty, enclosed or surrounded by buildings.

COVERED WALKWAY: Enclosed or unenclosed covered passageways connected to a building outside the exterior walls.

EDUCATIONAL FACILITIES: Buildings and equipment, structures, and special educational use areas that are built, installed, or established to serve primarily educational purposes and secondarily social and recreational purposes of the community and which may lawfully be used as authorized by the Maryland Statutes and approved by Boards.

FEASIBILITY STUDY: The examination and analysis of information related to projected educational facilities to determine whether they are reasonable and possible.

FY: Fiscal Year.

G.S.F.: Gross Square Feet.

GYMNASIUM: An instructional area designed or adapted specifically for physical education activities. Regular or special classrooms connected to, or contained in, gymnasiums are recorded individually as regular or special classrooms and not as part of the gymnasium.

GYMNATORIUM: A space within an educational facility that is used both as a gym and an auditorium.

HVAC: Heating, ventilation, air conditioning, and refrigeration.

KINDERGARTEN CLASSROOM: A special classroom designed or provided with special built-in equipment for use by a group or class organized to provide educational experiences for children preceding the first grade. Room must not be located above the first floor and must have self-contained rest rooms.

Glossary of Terms

LABORATORY: An instructional area designed for and furnished with specialized equipment to serve the needs of a particular program of study. Included in this category are science laboratories, language laboratories, reading laboratories, and vocational/technology laboratories.

LEED: Leadership in Energy and Environmental Design is a green building certification program.

LIMITED RENOVATION (LR): Includes projects that upgrade or replace a minimum of five major building systems and include widespread educational or architectural enhancements in schools or part(s) of schools that have been in use for more than 15 years. A limited renovation upgrades an existing building and site, or a portion of a building and site, to achieve many, but not all, of the current educational, building performance, and aesthetic qualities of a new school. A limited renovation allows further participation by the state within 15 years after the project is placed in service for projects that were not included in the original awarded scope of the Limited Renovation.

LONG-RANGE PLANNING: Devising a systematic method based on educational information and needs, carefully analyzed, to provide the facilities to meet the goals and objectives of the educational agency for a period of five years.

MAINTENANCE AND REPAIRS: The upkeep of educational and ancillary plants, including, but not limited to, roof or roofing replacement short of complete replacement of membrane or structure; repainting of interior or exterior surfaces; resurfacing of floors; repair or replacement of glass; repair of hardware, furniture, equipment, electrical fixtures, and plumbing fixtures; and repair or resurfacing of parking lots, roads, and walkways. "Maintenance and repair" will not include renovations except for the replacement of equipment with new equipment of equal systems meeting current code requirements, provided that the replacement item neither places increased demand upon utilities services or structural supports nor adversely affects the function of safety to life systems.

MEDIA CENTER: An area specifically designed or adapted as a place for studying, reading, and the custody, circulation, and administration of a collection of books, manuscripts, and periodicals kept for use by the student body.

MULTIPURPOSE ROOM: An instructional area designed or adapted specifically for two or more of the combined functions that might normally be used for assemblies, physical education, lunch, music, clubs, audiovisual work, and library services. Separate gymnatoriums and cafetoriums are not classified as multipurpose rooms.

MUSIC ROOM: An instructional area designed or provided with special built-in equipment for learning activities involving choral and instrumental music.

NEW CONSTRUCTION: Any construction of a building or unit of a building in which the entire work is new or an entirely new addition connected to an existing building or which adds additional square footage to the space inventory.

N.S.F.: Net Square Feet.

PARCEL: The unique acreage of contiguous land. Typically consists of a plot of land that is not divided by a county, city, state, or federally owned or maintained road or highway.

PROJECT FEASIBILITY STUDY: A project and site evaluation study to determine the suitability of the site for the project in question. A pre-design architectural study which may look at various scenarios before an architect is engaged to design the renovation or new construction.

PUBLIC SCHOOL CONSTRUCTION PROGRAM (PSCP): The Maryland Public School Construction Program funds the cost of constructing certain school capital improvements or portions thereof up to the extent of the approvals by the Board of Public Works and consistent with the current regulations, subject to annual appropriations.

Glossary of Terms

RENOVATION: The rejuvenating or upgrading of existing facilities by installation or replacement of materials and equipment and includes, but is not limited to, interior or exterior reconditioning of facilities and spaces; air-conditioning, heating, or ventilation equipment; fire alarm systems; emergency lighting; electrical systems; and complete roofing or roof replacement, including replacement of membrane or structure. (In this context, the term "materials" does not include instructional materials.) PSCP distinguishes between different types of renovations, depending upon their scope.

REPLACEMENT: Projects to replace the majority or the entirety of an existing school where the cost of renovation is prohibitive, or site/building layout and other technical factors make renovation of the entire structure infeasible. Replacement may include expansion to increase capacity, and must typically be justified on the basis of a feasibility study.

RESOURCE ROOM: An instructional space used primarily to enhance and support, not supplant, instruction received in regular or special classrooms. Generally designed to accommodate fewer students than other classrooms.

ROOM: A space enclosed on all sides. Alcoves or recesses are not considered separate rooms and should be included in the NSF of the room where such spaces are found.

SITE: A space of ground occupied or to be occupied by an educational facility or program.

SITE DEVELOPMENT: Site development means work that must be performed on an unimproved site in order to make it usable for the desired purpose; or, work incidental to new construction or to make an addition usable.

SITE IMPROVEMENT: The work that must be performed on an existing site to improve its utilization, correct health and safety deficiencies meet special program needs or provide additional service areas. Site improvement incident to construction is the work that must be performed on a site as an accompaniment to the construction of an addition to an educational facility or for a modernization project.

USGBC: U.S. Green Building Council administers the LEED building program which certifies green buildings.

BOARD OF EDUCATION

POLICY 6020

SCHOOL PLANNING/SCHOOL CONSTRUCTION PROGRAMS

Effective: August 14, 2014

I. Policy Statement

The Board of Education is responsible for providing safe, engaging and supportive educational and work environments for all students and staff. The Board recognizes the continuing need to plan, design, and construct new educational facilities and to renovate or make additions to existing schools that are in accordance with all applicable code, as well as Maryland and federal law. Fulfilling this responsibility requires a comprehensive program that monitors population trends, enrollment trends, educational program spatial requirements, cost/benefit considerations, technologies that support environmentally responsible construction, and an annual six-year capital improvement program.

II. Purpose

The purpose of the policy is to establish guidelines for the administration of the School Planning and the School Construction programs.

III. Definitions

Within the context of this policy, the following definitions apply:

A. Architect/Engineering Firm (A/E) – A designation usually reserved by law for a person or organization professionally qualified and duly licensed to perform architectural and/or engineering services including, but not necessarily limited to, analysis of project requirements; creation and development of the project design; preparation of drawings, specifications, and bidding requirements; and general administration of the construction contract.

B. Beneficial Occupancy – The use by the owner of a project or portion thereof before all the terms of the contract are complete.

C. Bid – The price a contractor commits to for constructing a project.

D. Bid Procedures – Criteria to determine the award of a contract pursuant to Policy 4050 Procurement of Capital Materials, Supplies, Equipment and Services.

E. Bonds – General obligation documents issued by the county to borrow money to fund capital projects.

F. Capital Improvement Program (CIP) – All capital improvements listed as part of the Board's annual approved capital budget.

G. Capital Improvement Project – Any physical betterment or improvement and any preliminary studies and surveys relative thereto, including but not limited to, any property of a permanent nature, and equipment needed in connection with such improvement when first erected or acquired.

H. Change Order – A written document to the contractor signed by the owner and engineer or architect, issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum.

I. Construction Manager (CM) – A person or organization hired to coordinate and manage the construction phases of a project with the objective of minimizing project construction time and cost while maintaining the quality, function, and aesthetics of the building.

J. Design Stages – The three phases of an architect's basic services, which include:

1. Schematic Design (SD) – the first phase of the architect's basic services. In this phase, the architect meets with the project planning team to ascertain the requirements of the project and prepares schematic design studies consisting of drawings and other documents illustrating the scale and relationship of the project components for approval by the Board. A statement of probable construction cost is also submitted at this time.

2. Design Development (DD) – the second phase of the architect's basic services. In this phase the architect prepares, from the approved schematic design studies, the design development documents for approval by the Board. These design documents consist of drawings and other documents to fix and describe the size and character of the entire project as to structural, mechanical and electrical systems, materials and other essentials as may be appropriate. The architect also submits to the Board a further statement of probable construction costs.

3. Construction Documents (CD) – the third phase of the architect's basic services. In this phase the architect prepares, from the approved design development documents, the working drawings, specifications, and necessary bidding information for approval by the Board. A final cost estimate is prepared before the project is bid.

K. Facility Design – Plans, elevations, sections, and other drawings and specifications that may be necessary for a building or other structure.

L. Facility Planning – Educational and architectural planning and analysis used to produce and design the concept for school projects.

M. Final Occupancy – The point at which all or a designated portion of a building complies with the provisions of a contract and all applicable county and state statutes and regulations.

N. Interagency Committee on School Construction (IAC) – The state agency responsible for the review/approval of construction documents and funding of schools or school construction projects.

O. Office of Safety, Environment and Risk Management – The office that is responsible for reviewing and monitoring the design and construction phases related to environmental initiatives, such as Integrated Pest Management (IPM), Indoor Air Quality (IAQ), and Asbestos Abatement.

P. Office of School Construction – The office that is responsible for all phases of planning, design and construction of new schools as well as additions to and comprehensive modernization of existing schools, from planning through occupancy.

Q. Office of School Planning – The office that is responsible for projecting needs based on demographics for the purpose of assisting the Superintendent in the development of the Capital Improvement Program.

R. Punch List – List made near the completion of work, indicating items to be furnished or work to be performed by the contractor or subcontractor in order to complete the work as specified in the contract documents.

S. State of Maryland Public School Construction Program (PSCP) – Program that provides for the funding of public school construction.

T. Sustainable Design – Design that seeks to reduce negative impacts on the environment and the health and comfort of building occupants, thereby improving building performance. The objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments.

U. Warranty/Guarantee Period – Period of time in which the quality of work and/or satisfactory performance is guaranteed.

IV. Standards

A. This policy and associated implementation procedures apply to the capital improvement projects that are listed as part of the Board's annual approved capital budget requiring contracts and consultant agreements.

B. The Howard County Public School System (HCPSS) employs sustainable design construction that supports educational program needs and creates a safe and nurturing environment for students and staff within allotted budgetary resources.

C. The school planning/school construction program involves a sequential plan of action and is divided into ten general categories, each requiring professionally trained and experienced staff to plan and carry out the requirements of the program consistent with the Superintendent's Safety Guidelines for Renovation and Construction Projects and all applicable regulations.

1. Long-Range Planning and Student Population Projection

   a. This category involves the annual projection of pupil population and general population growth by the Office of School Planning. Short-range demographic studies to support the Capital Improvement Program, school attendance area studies, transportation planning, and other special needs are also included.

   b. By state regulation the Board is also required to develop, maintain, and annually update a master plan for the school system for submission to the IAC. This plan has as its basis a variety of population studies which guide the decision making for school facilities on both a long and short-term basis.

2. Capital Improvement Program

   a. The Capital Improvement Program is a projection of the school facility needs for the next fiscal year (Capital Budget) and the following five-year period. The Capital Improvement Program is based on needs to support the educational program of the system with new schools, modernizations, and other construction projects.

   b. The local Capital Improvement Program serves as the basis for state funding requests through the Interagency Committee for School Construction and the State of Maryland Public School Construction Program.

3. Site Selection

   Procedures for site selection and summarization of site size criteria for elementary, middle and high schools are addressed in Policy 6000 Site Selection and Acquisition. As part of the selection process, the Office of School Construction produces studies including site layouts and environmental assessments.

4. Architect/Engineering Firm and Construction Manager Selection

   Procedures for architectural/engineering and construction management services selection are addressed in Policy 6030 Procurement of Architectural/Engineering and Construction Management Services.

5. Facility Planning and Facility Design

   The facility planning and design process allows for orderly and systematic design of school facilities. This process is conducted using either the Board-approved General Elementary Educational Specifications for New Schools, General Educational Specifications for New Howard County Middle Schools, General Educational Specifications High Schools, or the Board approved Guidelines Manual for Renovations and Modernizations of Existing Schools as the basic references for the facility in question. These documents describe the basic educational philosophy, instructional program, and spatial requirements needed to implement the planning and construction program.

6. Bid and Award

   The bid and award procedures for school construction projects conform to those used for the procurement of other goods and services which are addressed in Policy 4050. In addition, these procedures comply with the requirements of the State of Maryland Public School Construction Program.

7. Contract and Construction Administration

   The Office of School Construction is responsible for monitoring construction work and administering the schedule, budget, and change orders that affect the scope and/or cost of the work. A school construction progress report which includes these topics is submitted monthly to the Board.

   In accordance with the provisions of Policy 6030, a construction manager may be hired to manage the construction process.

8. Official Acceptance of Capital Improvement Projects

   Capital improvement projects may be designed to be accepted in stages or upon total completion of work, based on staff recommendation to and approval by the Board.

9. Post-Acceptance Evaluation

   Use, occupancy, and evaluation by staff may occur only after the project has been officially accepted. The Board will receive a final report following the walk-through.

10. Temporary and Relocatable Facilities

    Relocatable classroom units should be considered under the following conditions and within the context of Policy 6010 School Attendance Areas:

    a. Where school population growth occurs
    b. Where school capacity is near maximum
    c. When boundary lines are adjusted
    d. Where population is projected to remain high for at least one year
    e. Where school construction or renovation projects require the provision of swing space to accommodate the student population and minimize the impact on instruction.

    Where excess population is projected to remain beyond four years, consideration should be given to an addition or new construction.

D. To the extent possible, school facilities and sites should be available for after school use by the community. The possibility of joint use development of school and recreational facilities, including joint construction of school and recreational space, is encouraged on a case-by-case basis.

V. Compliance

A. The Superintendent/Designee is responsible for the administration of the school planning and construction programs.

B. The Office of School Planning and the Office of School Construction are responsible for collaboration in order to obtain the efficient implementation of this policy.

C. For Capital Improvement Projects, the Principal is responsible for communicating project information to the parent community in a timely manner.

VI. Delegation of Authority

The Superintendent is authorized to develop appropriate procedures to implement this policy.

VII. References

A. Legal

The Annotated Code of Maryland, Education Article
- § 3-602.1 (requirements to design high performance buildings)
- § 4-115 (right to acquire land, school sites or buildings)
- § 4-116 (land use approval procedures)
- § 4-117 (construction and remodeling conformance to state and county building codes)
- § 5-301 (Board of Public Works role and procedures in school construction)
- § 5-302 (composition and role of the IAC in school construction)
- § 5-303 (procedure for determining the cost of renovating existing schools)
- § 5-312 (state funding support related to high performance buildings)
- § 7-108 (guidelines for community use of public school facilities)
- § 7-109 (use of public school facilities as day care centers)

COMAR 13A.01.02.03 (requirements for obtaining State Superintendent's approval for school construction projects)

COMAR 15.05.02 (regulations pertaining to integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds)

Americans with Disabilities Act (ADA)

Occupational Safety and Health Act (OSHA)

Maryland Occupational Safety and Health Act (MOSHA)

B. Other Board Policies

Policy 4050	Procurement of Capital Materials, Supplies, Equipment, and Services
Policy 6000	Site Selection and Acquisition
Policy 6010	School Attendance Areas
Policy 6030	Procurement of Architectural/Engineering and Construction Management Services

C. Other

General Elementary Educational Specifications for New Schools

General Educational Specifications for New Howard County Middle Schools

General Educational Specifications High Schools

Guidelines Manual for Renovations and Modernizations of Existing Schools

Safety Guidelines for Renovation and Construction Projects

VIII. History

ADOPTED: September 4, 1968
REVIEWED:
MODIFIED: August 14, 2014
REVISED: September 13, 1990
January 14, 2010
EFFECTIVE: August 14, 2014

POLICY 6020-PR

IMPLEMENTATION PROCEDURES

SCHOOL PLANNING/SCHOOL CONSTRUCTION PROGRAMS

Effective: July 1, 2010

These procedures apply to the construction of new schools and the modernization/renovation of existing facilities that are included in the Board's Capital Improvement Program.

I. Long-range Planning and Student Population Projection

The Office of School Planning will:

A. Gather enrollment, population, and housing data from appropriate sources

B. Provide an annual projection using the cohort survival method or other established demographic methodology

C. Provide an annual report of projection accuracy to the Board of Education.

II. Capital Improvement Program

The Office of School Planning and the Office of School Construction will:

A. Develop the Capital Improvement Program based on population growth and anticipated needs of that population

B. Present the Board's requested six-year Capital Improvement Program, which includes a request for the next fiscal year (capital budget) and the following five-year period

C. Prepare the State of Maryland Public School Construction Program (PSCP) budget funding request

D. Incorporate the state budget request with the Board six-year Capital Improvement Program to determine the annual county Capital Improvement Program request

E. Select and analyze site(s).

III. Site Selection

Site selection and acquisition is recommended to the Board after being analyzed for appropriateness for a school. (See Policy 6000 Site Selection and Acquisition.)

IV. Architect/Engineering Firm and Construction Manager Selection

Procurement of architectural/engineering and construction management services are recommended to and approved by the Board in compliance with Policy 6030 Procurement of Architectural/Engineering and Construction Management Services.

V. Facility Planning and Facility Design

A facility planning team is convened, consisting of school and community members, personnel from the Office of School Construction, a designee from the Office of Safety, Environment and Risk Management, other central office personnel, the project architect, and others who may be named by the Superintendent/Designee. The planning team provides input to the architect in developing a series of three design studies that meets Board policy as well as the objectives of the applicable educational specifications or renovation guidelines.

The series of three design studies is as follows:

A. Schematic Design Phase

1. Planning team named by the Superintendent/Designee
2. Description of conceptual design
3. Initial cost analysis
4. Presentation to and approval by the Board.

B. Design Development Phase

1. Description of the design
2. Detailed layouts of subject areas
3. Cost analysis
4. Presentation to and approval by the Board.

C. Construction Documents Phase

1. Description of the final design
2. Cost analysis and cost reduction
3. Final review of drawings and specifications
4. Presentation to and approval by the Board
5. Preparation of bid documents.

The above steps may be combined. In each phase, the effect on the occupants, the building structure, and/or systems is considered. Each phase is submitted for review and approval by the Board and the Interagency Committee on School Construction (IAC). Copies of the Howard County Public School System (HCPSS) response to the design

submission review letters from the IAC approving agencies will also be submitted to the Board

VI. Bid and Award

Pursuant to Policy 4050 Procurement of Capital Materials, Supplies, Equipment, and Services, these procedures call for a publicly announced bid period during which interested bidders examine the bid documents and submit a sealed bid by the date and time required. The bid documents are opened in public and the price submitted for each bid item is read aloud. At a subsequent meeting of the Board, the results of the bid are presented and a recommendation to award to the lowest responsible and responsive bidder is made.

The final decision is made by the Board. Upon submission of all documents, bonds, and other matters required in the contract, a formal contract is signed.

VII. Contract and Construction Administration

A. Office of School Construction

The project architect serves as the Board's representative and administers the contract, answers technical questions, approves submittals, and initiates change orders and requests for proposals subject to the Board's approval. The Office of School Construction coordinates the completion schedule with the principal/designee and other school system personnel to ensure that furniture and equipment deliveries, technology services, and food services satisfy the requirements for their respective sections. Prior to the opening of school, the Office of School Construction monitors each project to resolve any last minute problems and continues this supervision during the warranty period.

The Office of School Construction supervises the construction, budget, schedule, and quality of work, administers change order requests, and administers the warranty period. When school projects are technically complex, have a very short construction time, or require staff attention beyond the time available, a construction manager may be hired to manage the construction process.

B. Office of Safety, Environment and Risk Management

The Office of Safety, Environment and Risk Management monitors the design and construction phases at regular intervals and in response to specific concerns. Consistent with all statutory requirements, monitoring includes Integrated Pest Management (IPM), Indoor Air Quality (IAQ), and abatement of potentially hazardous materials.

VIII. Official Acceptance of Capital Improvement Projects

New facilities and other Capital Improvement Projects may be accepted in several ways. If conditions permit, the school system will wait until all major and minor building system corrections are fully complete and all minor repairs, deficiencies and discrepancies (punch list items) have been corrected. The project architect will then certify that the building is complete and has been constructed according to the drawings and specifications. This marks the beginning of the warranty period for the building. School facilities are typically scheduled so that all construction will be complete and the building ready for acceptance in early summer. Final inspection and acceptance involves a review of the project at substantial completion of construction, which includes listing items to be adjusted, corrected, or completed by the contractor's "punch list." In most cases, the project is complete except for minor system work and completion of the punch list items by late summer.

The Office of School Construction is responsible for certifying, as applicable, beneficial occupancy, final occupancy, move-in, punch list, and warranty/guarantee.

IX. Post-Acceptance Evaluation

A. After project acceptance, furnishings and movable equipment can be installed, supplies can be delivered and stored, and the staff can occupy the facility for operation. At this time, the construction project enters into a one year guarantee and a two year mechanical/electrical guarantee period during which time discrepancies in the workmanship, materials, and equipment supplied under the contract are noted and corrected. Some specifically identified warranties/guarantees may be longer than one to two years.

B. Following the move-in, the Office of School Construction works closely with the school administration and maintenance personnel to correct any problems that arise during the warranty period.

C. After the first instructional year following construction, a walk-through of the facility is conducted to evaluate the success of the facility as a teaching environment and the success of the educational concepts in the General Elementary Educational Specifications for New Schools, or General Educational Specifications for New Howard County Middle Schools, or General Educational Specifications High Schools or Guidelines Manual for Renovations and Modernizations of Existing Schools in effect at the time the project was designed. The facility is also evaluated as to use of materials, building systems, construction quality, and other aspects pertaining to the building.

D. A walk-through of the building by a representative team of stakeholders may include a:

1. Teacher representative
2. Administration personnel
3. Custodian
4. PTA representative
5. School facilities representative(s)
6. Designee from Safety, Environment and Risk Management.

X. Temporary and Relocatable Facilities

Placement of temporary and relocatable portable facilities is determined by and implemented as follows:

A. Presentation of current population projections

B. Identification of where new units are needed

C. Evaluation of site plans

D. Evaluation of cost implications

E. Presentation to and approval by the Board

F. Reassignment or procurement of units

G. Installation of units

H. Post installation inspection by the Office of School Construction.

ADOPTED: September 13, 1990
AMENDED: January 14, 2010
EFFECTIVE: July 1, 2010