



Arlington
Public
Schools

SCHOOL BOARD'S ADOPTED
FY 2015 – FY 2024
CAPITAL IMPROVEMENT PLAN





SCHOOL BOARD'S ADOPTED **FY 2015 – FY 2024** **CAPITAL IMPROVEMENT PLAN**

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Noah Simon, Member
Emma Violand-Sanchez, Member

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SCHOOL BOARD MESSAGE



June 25, 2014

Mr. Jay Fisette
Chair, Arlington County Board
2100 Clarendon Boulevard
Arlington, Virginia 22201

Dear Mr. Fisette:

On behalf of the Arlington School Board, I am pleased to present the FY 2015-FY 2024 Capital Improvement Plan (CIP) for Arlington Public Schools (APS). One of our Strategic Plan goals is to provide optimal learning environments. Thoughtful and prudent capital planning is a critical part of achieving that goal. In addition, collaboration with Arlington County Government and the Arlington County Board is essential to successfully meeting the challenge of the continuing enrollment growth in Arlington. This CIP totals \$453.6 million over ten years, which is less than the \$538 million CIP presented to the County Board two years ago, and is focused on meeting the capacity needs of our growing student population. The CIP is detailed in the attached motion approving the CIP, as well as in the detailed report accompanying that motion.

As a result of population growth throughout the County and outstanding education that APS provides, preK-12 enrollment has grown steadily in recent years and is currently at its highest level in decades. Between FY 2009 and FY 2014, total enrollment has increased by nearly 3,800 students, a 19 percent increase, which is approximately the size of two high schools. Enrollment is projected to reach 30,000 students by the fall of 2023, which would result in the following seat deficits, based on existing facilities and those in process from the last CIP:

- 1,900 elementary school seats;
- 1,600 middle school seats; and
- 2,800 high school seats.

Planning for this CIP began a year ago and included an extensive community engagement process. As various options were considered to add capacity at the elementary, middle and high school levels, Arlington residents, both parents and those without children in APS, were consulted through a variety of means. In addition to the ongoing advice from the School Board's Facilities Advisory Council, outreach included six countywide community meetings, twenty informal Saturday morning community conversations, four midday Twitter town halls, and participation in many civic association and PTA meetings. APS provided ongoing communication through its website and APS School Talk messages and received more than 3,000 online feedback responses and hundreds of emails. In addition, School Board members met with citizens during open office hours, civic association meetings, community meetings and other informal gatherings to discuss CIP options. We heard from hundreds of citizens during our public meetings as well.

SCHOOL BOARD MESSAGE



As a result of this lengthy and thoughtful process, the School Board concluded that to meet its Strategic Plan goal of providing optimal learning environments, and focusing on the areas of most critical need, capital improvements for this CIP would focus on elementary seats in the southern part of the County, middle school seats in the northern part of the County, high school seats later in the ten-year planning horizon, and continued investment in the maintenance of our facilities. The School Board further concluded that identifying the funding needed for the 2014 bond to begin work on the areas of most critical need is the first priority of this CIP. The School Board also recognized that additional community input, and further collaboration with the Arlington County Board and Arlington County Government staff, is needed to make a final determination for some capital improvements in this CIP.

For the 2014 bond, this CIP includes:

- \$50,250,000 for a new elementary school, with the Jefferson site as the preferred location, adding 725 seats;
- \$28,750,000 for an addition/renovation at Abingdon Elementary School, adding 136 seats;
- \$10,310,000 for Minor Construction/Major Maintenance projects to maintain our school facilities;
- \$7,470,000 for an addition/renovation at McKinley Elementary School, adding 241 seats;
- \$5,000,000 for improvements at Washington-Lee High School, adding 300 seats; and
- \$4,000,000 for planning and design to add 1,300 secondary seats at a location to be determined in the northern part of the County.

As you know, staffs from APS and Arlington County government have begun work on designing a process, which will include all stakeholders, to make a final determination by January 31, 2015 regarding locating the new elementary school at the Jefferson site. If the Jefferson site is not selected, additions will be built at two elementary schools in the southern part of the County. In addition, APS will develop a process including all stakeholders to determine the location or locations of the 1,300 secondary seats by December 31, 2014. The Western Rosslyn Area Planning Study (WRAPS) process will include consideration of a secondary school on the APS property of up to 1,300 seats and, together with the APS community engagement process, will assist the School Board in making its decision about the location or locations of the 1,300 new secondary seats included in this CIP.

The School Board very much appreciates the County Board's willingness to consider sharing its bonding capacity with APS, which is needed to make this CIP a reality. As we discussed at our joint CIP meeting this spring, maintaining the County's triple, AAA bond rating is crucial, and can be done if the debt service ratio for the County and APS combined is under 10% of total expenditures. As the School Board developed its CIP, we made adjustments to our plan to stay within this 10% limit. This included delaying the Career Center project by one year, reducing the scope of the CIP by \$5 million, and using \$5 million in current revenues to fund the CIP.

SCHOOL BOARD MESSAGE



While this CIP adds 4,002 seats over the ten years of the CIP and nears the County and APS debt service ratio limits, it still leaves APS with a seat deficit of nearly 2,500 seats. The School Board will continue its efforts to consider non-capital options to address this shortage. As the School Board and County Board continue to plan together for the future and align our CIPs to best meet the needs of the Arlington community, the School Board recognizes that in addition to using non-capital options to address enrollment growth, we must consider other funding mechanisms for capital improvements.

The School Board appreciates the tremendous support that the County Board and the Arlington community provide to our students and our schools. Without this support, APS could not be as successful as it is. We are very mindful of our responsibility to the entire Arlington community and believe that this CIP represents a responsive and responsible approach to the continuing enrollment growth in APS as well as the need to invest in the maintenance of our facilities.

On behalf of the School Board, I wish to extend our thanks to the County Board for its continued commitment to the success of our students and our schools.

Sincerely,

A handwritten signature in black ink that reads 'Abby Raphael'.

Abby Raphael

School Board Chair, FY 2014

cc: Mary Hughes Hynes, Vice Chair, Arlington County Board

Libby Garvey, County Board Member

J. Walter Tejada, County Board Member

John Vihstadt, County Board Member

Hope Halleck, County Board Clerk

Barbara Donnellan, Arlington County Manager

James Lander, Vice Chair, Arlington School Board

Sally Baird, School Board Member

Noah Simon, School Board Member

Emma Violand-Sánchez, School Board Member

Dr. Patrick K. Murphy, Superintendent, Arlington Public Schools

MOTION FOR THE ADOPTION OF THE FY 2015 – FY 2024 CIP: June 16, 2014

Every two years, the School Board adopts a Capital Improvement Plan (CIP), planning for capital needs for the next ten years. This approach to capital planning anticipates needs for the next decade, while providing flexibility to adjust to changing circumstances.

During the development of the FY 2015-FY 2024 CIP, the School Board focused on the need to provide seats for students in the areas of most critical need, in light of the continued, sustained growth in student enrollment. That enrollment growth, and the process that began in the summer of 2013 and culminates in this CIP, is detailed in a report to be completed by June 20, 2014 and to be included as Attachment B to this motion.

After a robust community engagement process, the School Board concluded that to meet its Strategic Plan goal of providing optimal learning environments, and focusing on the areas of most critical need, capital improvements for this CIP would focus on elementary seats in the southern part of the County, middle school seats in the northern part of the County, high school seats later in the ten-year planning horizon, and continued investment in maintenance of our facilities.

The School Board recognizes that identifying the funding needed for the 2014 bond to begin work on the areas of most critical need is its first priority in this CIP. The School Board further recognizes that additional community input, and further collaboration with the Arlington County Board and Arlington County Government staff, is needed to make a final determination for some capital improvements in this CIP.

Consistent with these goals, I move that the School Board adopt the FY 2015-FY 2024 Capital Improvement Plan summarized on Attachment A, as follows:

ELEMENTARY SCHOOL CAPACITY

Addition and Renovation at Abingdon Elementary School

- Estimated Additional Seats: 136
- Projected Completion: start of school, September 2017
- Maximum Estimated Total Project Cost: \$28,750,000
- 2014 Bond Funding: \$28,750,000

New Elementary School—Jefferson Site Preferred

- Estimated Additional Seats: 725
- Projected Completion: start of school, September 2018
- Maximum Estimated Total Project Cost: \$50,250,000
- 2014 Bond Funding: \$50,250,000
- Joint process between Arlington Public Schools (APS) and Arlington County Government (ACG) to be developed to make a final determination by January 31, 2015 regarding locating the new elementary school at the Jefferson site. This process will include all stakeholders.
- If the Jefferson site is selected, a process to determine if the new elementary school will be a neighborhood school or a choice program school will commence. This determination will be made by April 30, 2015 and will include all stakeholders.

Alternative Elementary School Plan—Additions at Two Arlington Elementary Schools in the Southern Part of the County

If it is determined that a new elementary school will not be located at the Jefferson site, then two elementary schools will be selected for renovations/additions to add elementary school seats.

- Estimated Additional Seats: 225-250 at each school (450-500 total)
- Projected Completion: To be determined
- Maximum Estimated Total Project Cost: \$54,100,000
- 2014 Bond Funding: \$50,250,000
- Process to identify the two school sites to be developed. This process will commence in sufficient time so that the Alternative Elementary School Plan can be considered during the process to make a final determination about the Jefferson site.

MOTION FOR THE ADOPTION OF THE FY 2015 – FY 2024 CIP: June 16, 2014

McKinley Elementary School Addition/Renovation

- Estimated Additional Seats: 241
- Projected Completion: start of school, September 2016
- Maximum Estimated Total Project Cost: \$20,100,000
- 2014 Bond Funding: \$7,470,000 million (Project funding also includes \$12.0 million from the 2012 bond and a total of \$633,500 from FY 2015 and FY 2016 Minor Construction/ Major Maintenance funding.)

SECONDARY SCHOOL CAPACITY

Secondary Seats—Location or Locations to be Determined in the Northern Part of the County

- Estimated Additional Seats: 1,300
- Projected Completion: start of school, September 2019
- Maximum Estimated Total Project Cost: \$126,000,000 to include \$5,000,000 of current revenue for planning and design
- 2014 Bond Funding: \$4,000,000 (planning and design only)
- Process to determine the location or locations of these seats to be developed, to include all stakeholders, and to conclude by December 31, 2014.

Secondary Seats—Washington-Lee High School

- Estimated Additional Seats: 300
- Projected Completion Date: start of school, September 2016
- Maximum Estimated Total Project Cost: \$5,000,000
- 2014 Bond Funding: \$5,000,000

Secondary Seats—Arlington Career Center

- Estimated Additional Seats: 1,300
- Projected Completion Date: scheduled in three phases, for start of school, September 2020, 2021 and 2022
- Maximum Estimated Total Project Cost: \$153,400,000
- 2014 Bond Funding: \$0
- Process to explore the vision and program for the Career Center to be determined, to include all stakeholders, and to build on community and staff work already begun.

MINOR CONSTRUCTION/MAJOR MAINTENANCE

- Maximum Estimated Total Project Cost: \$70,110,000 over the 10 years of the CIP
- 2014 Bond Funding: \$10,310,000

SCHOOL BOARD ADOPTED CIP FY 2015 – FY 2024

ATTACHMENT A

TIMELINE	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
Seats Created (4,002 total)	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023	
McKinley Addition/Renovation*	\$7.5		241								\$20.1*
New ES (Jefferson site preferred)	\$2.0	\$17.5	\$20.6	\$10.2	725						\$50.3
Abington Addition/Renovation	\$3.4	\$19.0	\$6.4	136							\$28.8
Secondary Seats to be determined	\$4.0	\$5.0**	\$41.6	\$57.9	\$17.5	1300					\$126.0
Career Center			\$1.0	\$1.0	\$9.3	\$56.1	\$49.4	\$36.6	1300		\$153.4
Washington-Lee	\$3.0	\$2.0	300								\$5.0
MC/MM	\$4.1	\$6.2	\$7.7	\$5.9	\$7.2	\$7.4	\$7.6	\$7.8	\$8.0	\$8.2	\$70.1
TOTAL	\$24.0	\$49.7	\$77.3	\$75.0	\$34.0	\$63.5	\$57.0	\$44.4	\$8.0	\$8.2	\$453.6

BONDING CAPACITY											
Bond Issuance Capacity	\$58.3	\$33.2	\$69.0	\$34.0	\$52.0	\$35.0	\$51.0	\$44.4	\$8.0	\$8.2	\$393.1
Surplus/(Deficit)—Cumulative	\$34.3	\$22.8	\$14.6	(\$26.4)	(\$8.4)	(\$36.9)	(\$42.9)	(\$42.9)	(\$42.9)	(\$42.9)	
Bonding Capacity Needed				\$26.4		\$10.5	\$6.0				\$42.9
Overall Debt Ratio with Additional Debt	8.76%	9.02%	9.31%	9.56%	9.85%	9.84%	9.96%	9.86%	9.78%	9.55%	
Annual Debt Service Increase	\$0.5	\$2.9	\$1.8	\$4.5	\$4.0	\$1.0	\$2.5	\$2.0	\$1.4	(\$1.3)	
Cumulative Debt Service Increase		\$3.4	\$5.2	\$9.7	\$13.7	\$14.7	\$17.2	\$19.2	\$20.6	\$19.3	

BOND REFERENDA						
Year	2014	2016	2018	2020	2022	
Amount	\$105.8	\$132.6	\$166.0	\$15.4	\$16.2	

* Total project cost includes \$12.0 million from 2012 bond and \$633,500 from FY15 and FY16 MC/MM funds

** \$5 million to be funded with current revenue rather than bonds

\$ in millions and rounded; exact figures are contained in the CIP motion and Attachment B

EXECUTIVE SUMMARY

Strategic capital planning and thoughtful decision-making in prioritizing expenditures of limited funding resources are critical undertakings for all school divisions under any circumstances. However, the development of the 2015 APS Capital Improvement Plan (CIP) faced particularly compelling challenges, primarily the need to meet critical system-wide capacity demands associated with ongoing and projected enrollment growth. Furthermore, these challenges need to be met within limited timelines and established financial constraints while continuing to meet the expectations of students, their families, and the existing high performance standards set by APS.

Growing Enrollment

As a result of population growth throughout the County and the outstanding quality of the APS program, PK – 12 enrollment has grown steadily in recent years and is currently at its highest level in decades. Between FY 2009 and FY 2014, total enrollment increased by nearly 3,800 students (19%). At current rates, APS enrollment is projected to reach 30,000 students in fall 2023, which would result in total seat deficits (based on existing facility resources) of approximately:

- 1,900 elementary school seats;
- 1,600 middle school seats; and
- 2,800 high school seats.

For this reason, the key focus of the 2015 CIP is on *capacity development at all grade levels*. The development of the CIP, and the comprehensive community engagement process which informed and shaped the School Board's CIP direction, was therefore a countywide effort incorporating a wide range of community stakeholders.

Community Engagement and Plan Development

The Board's engagement with the APS community and work with staff in the development of this CIP extended over the course of the past year. The comprehensive process evolved as priorities were evaluated and new potential options became available. Throughout the process, efforts were made to reach the broadest spectrum of stakeholders possible through a variety of means, including six traditional county-wide community meetings, twenty informal Saturday morning "community conversations" with APS staff and trained community volunteer ambassadors, and four midday Twitter town halls. APS staff also communicated information about the process extensively through backpack mail and APS School Talk, received over 3,000 online feedback responses, and fielded hundreds of e-mail, phone, and in-person communications with members of the APS community.

Feedback gained throughout the multi-stage process informed the work of staff and Board members as the evaluation of various options progressed through and following the Superintendent's recommendation in May 2014 and the subsequent review and deliberation by the School Board. Close collaboration with the County Board, also informed by feedback from the community process, directly resulted in the identification of additional APS and County-owned options for consideration in the CIP, specifically the Wilson Boulevard and Jefferson Middle School sites. Continued collaboration between the School Board, APS staff, the County Board, County Manager and County staff, as well as a wide range of interested community stakeholders, will be essential in finalizing the locations for the development of 1300 secondary and 725 elementary seats identified in the CIP. Further community input will also be instrumental in future processes to determine the use and programming of the facilities and also to establish the appropriate community amenities associated with them.

EXECUTIVE SUMMARY

Addressing the Need for Seats

As noted above, the need to address continued and projected enrollment growth has been paramount in the development of the 2015 CIP. Accordingly, the CIP provides for:

- Seats for 1,102 elementary school students by FY 2019
- Seats for 1,300 more secondary school students by FY 2020
- Seats for 300 more high school students by FY 2017, plus 1,300 more high school seats by FY 2023

The School Board measured various capacity-generating options reviewed through the community engagement process and measured them against pre-determined criteria established by the Board in order to appropriately prioritize projects in light of competing perspectives and opportunities. Capital projects identified in the CIP and detailed in this report include \$383.5M in new school facilities and additions and needed renovations to existing facilities, as well as \$70.1M in Minor Construction/Major Maintenance projects focused mainly on HVAC, roofing, and related infrastructure investments at several schools.

Fiscal Responsibility

Analysis of APS financial capacity established that although APS could not fund all of the capital projects needed to meet the enrollment projections within its ten-year debt capacity, APS could fund sufficient capacity to meet its most urgent needs. Those projects could not be completed, however, according to the preferred schedule without exceeding APS' debt capacity in certain individual years within the ten-year CIP period.

Working together with the County Board, the County Manager and her staff, the Boards agreed to a funding plan in which the County would share its comprehensive debt capacity load with APS during the identified deficit years. In addition, \$5,000,000 of current APS revenues were allocated to fund the planning and design effort associated with the 1,300 secondary seats project identified in the CIP in order to reduce the amount of planning dollars that would need to be included in the 2014 bond funding request. *As a result, the funding plan outlined in the CIP allows APS to deliver the desired capital projects as close to when they are needed as possible and within the overall ten-year debt capacity without exceeding the County's overall 10 percent debt coverage ratio throughout the ten-year period.*

A Responsive and Responsible Approach

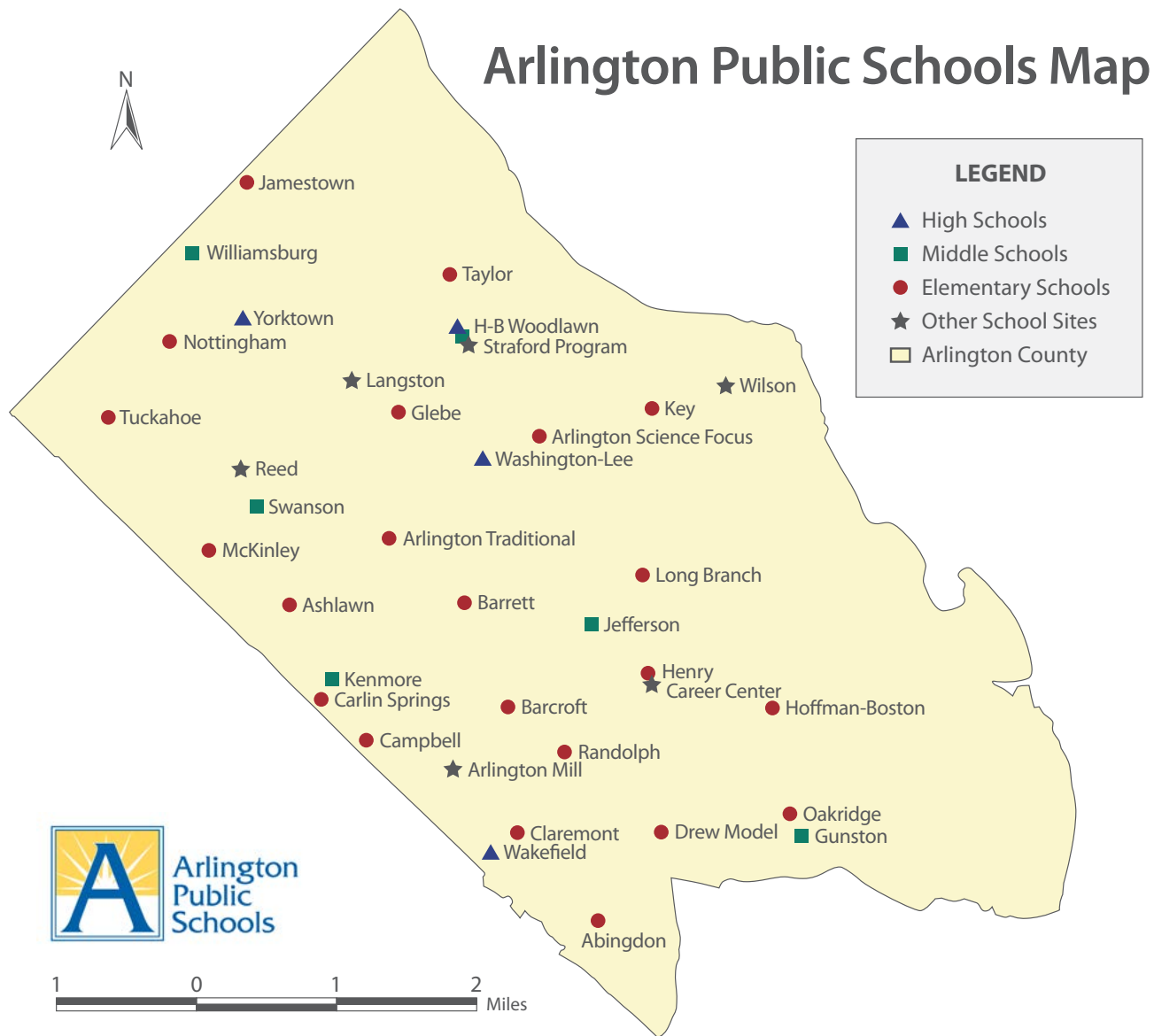
At its core, the 2015 CIP was developed to ensure that, notwithstanding the ongoing and projected growth in enrollment, APS will continue to provide optimal learning environments and meet the needs of the whole child in accordance with the APS Strategic Plan. The 2015 CIP provides a plan that delivers the necessary high-quality seats as close to when and where they are needed as possible; that has been and will continue to be informed and shaped by community input; and that represents a responsive and responsible approach to managing the urgent challenges of APS enrollment growth over the next ten years.

CIP DEVELOPMENT CALENDAR

September 19, 2013	School Board CIP Work Session
December 2, 2013	School Board CIP Work Session
December 10, 2013	School Board CIP Work Session
December 17, 2013	Community Stakeholder Meeting
December 19, 2013	School Board's CIP Framework–Information
December 2013–April 2014	Staff developed Superintendent's Proposed CIP
January 7, 2014	School Board CIP Work Session
January 23, 2014	School Board's CIP Framework—Action
January 28, 2014	School Board CIP Work Session
February 5, 2014	Community Stakeholder Meeting
February 19, 2014	Community Stakeholder Meeting
February 26, 2014	Community Stakeholder Meeting
March 12, 2014	School Board CIP Work Session
March 26, 2014	Community Stakeholder Meeting
April 23, 2014	Community Stakeholder Meeting
May 8, 2014	Superintendent's Proposed FY 2015–FY 2024 CIP
May 13, 2014	School Board CIP Work Session #1
May 13, 2014	County Manager presented County CIP
May 20, 2014	School Board CIP Work Session #2
May 22, 2014	CIP Public Hearing
May 27, 2014	School Board CIP Work Session #3
June 5, 2014	School Board's FY 2015–FY 2024 CIP—Information
June 10, 2014	School Board CIP Work Session #4
June 16, 2014	School Board's FY 2015–FY 2024 CIP—Action
July 19, 2014	County Board adopts County CIP and Bond Referenda Language

*Full agendas and all background materials for all meetings can be found at www.boarddocs.com/vsba/arlington/board.nsf/public.
Additional resources may be found at www.apsva.us/moreseats.*

ARLINGTON PUBLIC SCHOOLS MAP



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SCHOOL BOARD MESSAGE

MOTION FOR THE ADOPTION OF THE FY 2015–FY 2024 CIP: JUNE 16, 2014

ATTACHMENT A: SCHOOL BOARD ADOPTED CIP

EXECUTIVE SUMMARY

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SCHOOL BOARD'S CIP

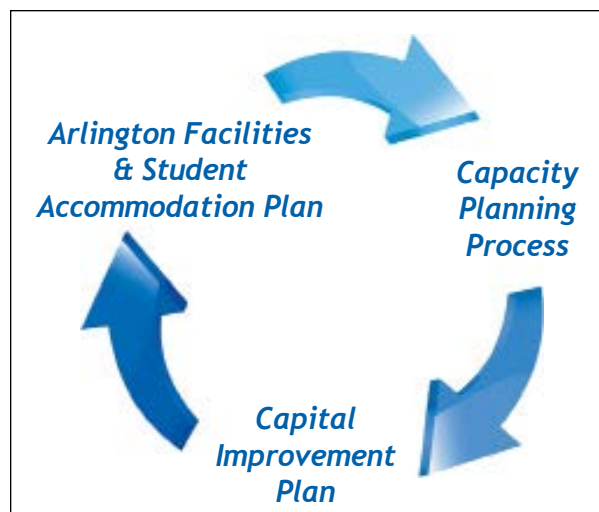
CAPITAL IMPROVEMENTS PLANS

Meeting capital needs is critical to the success of any school division. Constructing, renovating, adding to and renovating school buildings are all lengthy process. Typically, school construction takes years. It begins by identifying the needs of the division and is followed by obtaining bond authority from the citizens, after which design and then construction may begin. Because of the time required for construction and the importance of providing the instructional space needed to educate the community's students, the capital improvement plan and the planning process associated with it are among the most important activities a school division undertakes.

Arlington Public Schools (APS) develops a ten-year Capital Improvement Plan (CIP) every two years. Each plan reevaluates and/or confirms the previous plan to reflect changes in enrollment projections, changes to various conditions informing the plan and changes in School Board priorities. Every CIP includes two broad categories of projects: Major Construction (MC) and Minor Construction/Major Maintenance (MC/MM). MC projects include new buildings, additions and renovations. MC/MM projects primarily include HVAC, roofing, and infrastructure improvements. Regardless of the category, all CIP projects have a useful life of twenty years or more. Most CIP projects are funded by general obligation bonds but, as in this CIP, they may also be funded with current revenues set aside in capital project reserves.

ENROLLMENT GROWTH

APS enrollment has grown steadily in recent years and is currently at its highest level in decades. Between FY 2009 and FY 2014 total enrollment increased by nearly 3,800 students at a rate of 19 percent. APS is expected to reach capacity in all grade levels by fall 2015. Current enrollment projections indicate that total enrollment will exceed 30,000 students in FY 2024.



2015 CIP

The driving focus of this CIP, which spans fiscal years FY 2015 through FY 2024, is therefore student enrollment growth, as it was in the 2013 CIP.

This focus was confirmed by fall 2013 enrollment projections, the 2014 Arlington Facilities and Student Accommodation Plan (AFSAP) and by community input over the last year. The 2015 CIP is intended to increase student capacity by constructing new schools and making additions and renovations to existing schools, while also providing for significant ongoing capital maintenance. As in the 2013 CIP, the development of the 2015 CIP included systematic evaluations of various options measured against the criteria adopted by the School Board.

SCHOOL BOARD'S CIP

PROCESS

The CIP is the outcome of the School Board's year-long, seven step process (described below) for engaging the community and working together with staff before making decisions on critical issues including the Budget and the CIP. During this process the School Board has obtained substantial feedback from the community, given direction to staff, adopted evaluation criteria and applied them to the various capital options that were developed to create additional seating capacity in response to projected enrollment growth.

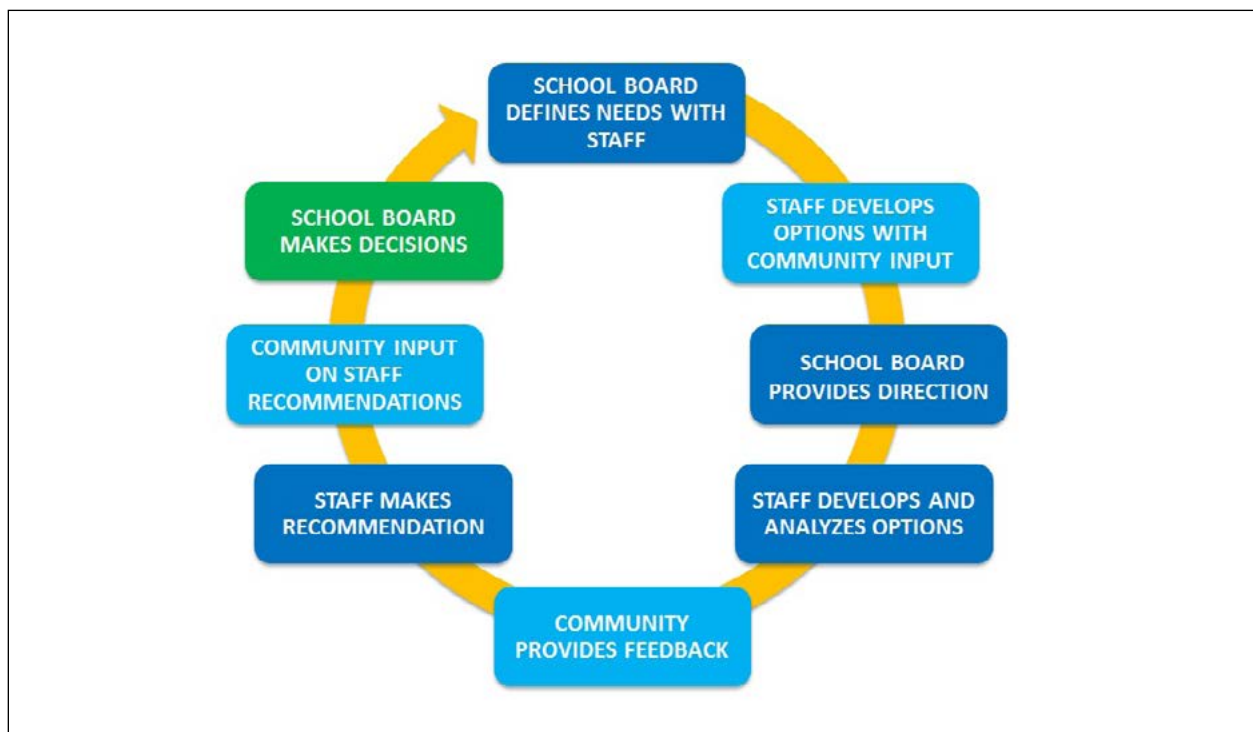
Critical factors that impacted the choice of projects included the 2015 CIP include:

- Capacity, or the number of seats, needed
- The preferred schedule for completing the work to add the seats needed to meet enrollment projections
- Placement of the new seats within the County to address the areas of enrollment growth and critical space needs
- The estimated total project cost of the various

capital options being considered, escalated according to the year in which they are needed

- The financial capacity of APS to fund the projects when they are needed

Analysis of APS' financial capacity established that APS could not fund all of the capital projects needed to meet the enrollment projections within its ten-year debt capacity, although the school division could fund sufficient capacity to meet the most urgent needs. Those capital projects could not be completed, however, according to the preferred schedule without exceeding its debt capacity in individual years within the ten-year CIP period. the Superintendent's proposed CIP, presented on May 8, 2014 outlined two CIP alternatives – one showing the capital projects completed when needed and the second showing those projects completed when fundable. Since May 8, 2014, Arlington County and APS staff and Boards have collaborated closely to develop a shared funding plan that would deliver the desired capital projects as close to when they are needed as possible.



SCHOOL BOARD DIRECTION

The 2015 CIP incorporates the School Board's direction which was articulated by the members throughout the the CIP planning process in a number of ways, including:

- The CIP Framework adopted at its regular meeting on January 23, 2014
- Criteria for Selection of Capital Improvement Plan Options adopted at its regular meeting on March 20, 2014
- Additional direction provided during the various CIP work sessions

CIP FRAMEWORK

Introduction

The purpose of the Superintendent's Proposed 2014 Capacity Development Plan/Capital Improvement Plan (CDP/CIP) for FY 2015 through FY 2024 is to ensure that Arlington Public Schools (APS), faced with ongoing growth in enrollment, continues to provide optimal learning environments and meet the needs of the whole child in accordance with Goals 4 and 5 of the APS Strategic Plan for 2011-2017. Development of the CDP/CIP will be framed first and foremost by the need to address growth in enrollment.

- The CIP will comprise capital construction projects to increase seat capacity.
- The CDP will comprise non-capital strategies to increase seat capacity.
- The CIP will be adopted by the Arlington School Board in June, 2014.
- It is anticipated that the non-capital strategies proposed in the CDP will be developed over a longer time-frame than the CIP.
- APS will develop solutions to meet short-term capacity needs prior to completion of the capital projects included in the CIP and prior to implementation of the non-capital strategies developed in the CDP.

Enrollment Growth

Enrollment at APS has grown by 3,782 students since 2008 at an average rate of 3.8% per year. It is currently projected to grow by another 3,300 students by 2018 at an average rate of 3.4% per year. Between 2019 and 2023 enrollment is projected to grow at an average rate of 2.2% per year yielding another 3,100 students. According to these projections the total student population will have grown from 18,864 in 2007 and 23,316 in 2013 to approximately 27,500 in 2018 and 30,600 in 2023. Projected enrollment growth to be accommodated in the CDP/CIP includes:

- 1,772 more elementary school students in 2018, plus another 497 students by 2023
- 1,328 more middle school students in 2018, plus another 630 students by 2023
- 1,007 more high school students in 2018, plus another 1,972 students by 2023
- Uneven distribution of growth through the various school attendance zones

Debt Capacity

Current debt capacity of APS is insufficient to construct all the seats that would be required to meet projected enrollment. Given past experience of APS with long-term fluctuations in enrollment, it would not be prudent to construct all seats required even if debt capacity were sufficient to do so. Due to this limited debt capacity, the CDP/CIP must:

- Achieve the greatest return on investment by addressing the most critical needs for new seats within available debt capacity
- Create new seats by means of both capital construction expenditure under the CIP and non-capital strategies funded from the operations budget under the CDP
- Recognize the value of relocatable classrooms as both vital to capacity development and a hedge against constructing too many seats should enrollment decline in the future

SCHOOL BOARD DIRECTION

Finance

Financial management of capital improvements is an integral part of the overall management of all APS finances. The CIP will consider capital expenditures in the context of APS budget priorities and Strategic Plan goals, and will:

- Provide an analysis of APS debt capacity under various funding scenarios to determine the ability of APS to fund future construction projects and the timelines for doing so
- Assess potential for capital funding from alternative sources such as public/private and higher education partnerships
- Optimize the value of existing assets
- Ensure continuation of the capital reserve

School Board Direction

The School Board has recently provided the following direction regarding the 2014 CDP/CIP:

- Do not plan a new comprehensive high school comparable to the three existing high schools because there is no APS land available to do so and acquisition of appropriate property, if possible, would reduce APS debt capacity to construct new seats
- Consider non-boundary options to balance capacity among the three comprehensive high schools at least until the means for addressing high school enrollment growth have been determined
- Reevaluate the second new elementary school proposed in the 2012 CIP to be constructed on the Kenmore Middle School/Carlin Springs Elementary School campus in the 2015 CIP

Framework Components

The following plans, studies and community engagement processes contribute to the framework for the 2014 CDP/CIP:

- APS Strategic Plan for 2011-2017
- Alignment with Arlington County Government's planning for SMART growth, particularly for land use, transportation, recreation and open space, environmental sustainability and joint-use of land and facilities
- Agreement between Arlington County Government and APS on joint-use of facilities
- APS Progressive Capacity Planning Model developed in 2010
- More Seats for Students community engagement process created during the 2012 CIP planning process
- Priorities established during the 2013 Community Survey on Boundaries for seven elementary schools in North Arlington
- Capital projects included in the 2012 CIP:
 - ◇ Addition/renovation for 225 students at Ashlawn Elementary School, currently under construction
 - ◇ New elementary school on the Williamsburg Middle School campus, scheduled to start construction in early 2014
 - ◇ Addition/renovation for 225 students at McKinley Elementary School, currently in planning/concept design
 - ◇ Addition/renovation for 225 students at Arlington Traditional School, scheduled to commence planning/concept design in mid-2014, to be reevaluated in the 2014 CIP
 - ◇ Second new elementary school proposed in the 2012 CIP to be constructed on the Kenmore Middle School/Carlin Springs Elementary School campus to be reevaluated in the 2015 CIP

SCHOOL BOARD DIRECTION

Capacity Development/Capacity Planning Process

APS will engage the Arlington community in the CDP/CIP planning process to develop, prioritize and make specific proposals for providing adequate seats to meet enrollment growth. APS will also engage with Arlington County Government to align its CIP with the County CIP and ensure that the needs of both APS and the County are appropriately reconciled. The proposals will include:

- Capital projects to be funded within available debt capacity
- Minor Capital/Major Maintenance Projects to be funded within available debt capacity
- Non-capital strategies to be funded from operations budget
- Action plan for relocatable classrooms
- Strategies to address immediate needs at schools with most critical capacity needs

Capital Projects

The 2014 capital investment planning process will result in proposals for specific, prioritized capital projects that can be constructed within available debt capacity timelines. The planning process will:

- Address most critical capacity shortfalls
- Continue to address growth in elementary school enrollment
- Reevaluate construction of second new elementary school
- Develop options and locations to address middle school enrollment growth
- Develop options and locations to address high school enrollment growth
- Evaluate relocation and/or expansion of existing programs and facilities necessitating new construction to address middle and/or high school enrollment growth

- Develop options for growth at the Arlington Career Center
- Evaluate potential of existing APS sites for new construction to address middle and/or high school enrollment growth
- Develop criteria that the School Board will use to evaluate possible locations for new construction
- Evaluate relocation of School Board and administrative offices from Education Center to leased space
- Align with Arlington County Government's planning for SMART growth, particularly for land use, transportation, recreation and open space, environmental sustainability and joint-use of land and facilities

Minor Construction/Major Maintenance (MC/MM)

MC/MM projects funded with available debt capacity promote optimal learning environments and meet the needs of the whole child. The MC/MM planning process will:

- Identify major maintenance investment needs for APS facilities, such as repair and/or replacement of HVAC, roofing, and building envelope systems
- Identify opportunities to supplement the MC/MM fund
- Evaluate performance contracting and funding methods to advance goals for energy and environmental performance

SCHOOL BOARD DIRECTION

Non-Capital Strategies

APS anticipates that multiple non-capital strategies funded from the operations budget will be required to address the shortfall between projected enrollment growth and the number of new seats that can be constructed within available debt capacity. Strategies to be developed, evaluated and prioritized during the CDM planning process include:

- Increasing class size
- Adjusting schedules and utilization factors to increase number of periods during school day
- Creating year-round schools
- Expanding virtual class offerings and developing twenty-four/seven learning
- Relocating programs, creating school-within-school programs and changing admissions/transfer policies to address uneven enrollment growth
- Teaming among elementary schools to address uneven enrollment growth among elementary schools
- Improving utilization of existing middle and high schools as has already been implemented, and will continue to be implemented, at elementary schools
- Expanding partnerships with higher education institutions
- Leasing/sharing available space in adjacent facilities

Action Plan for Relocatable Classrooms

Recognizing that relocatable classrooms are both vital to capacity development and a hedge against constructing too many seats should enrollment decline in the future, APS will develop an action plan for relocatable classrooms to:

- Evaluate/verify need for relocatables at each school
- Identify potential locations for future installation of relocatables
- Comply with new storm water regulations
- Comply with parking ordinance
- 1Balance reduction of site amenities
- Integrate relocatables better with their sites
- Enhance relocatables and the spaces around them as learning environments

Strategies for Most Immediate Capacity Needs

APS will analyze enrollment projections to identify and address the schools with the most immediate capacity needs in a tiered approach by fiscal year.

SCHOOL BOARD DIRECTION

CRITERIA FOR SELECTION OF CIP OPTIONS

To assist the School Board in developing a CIP focused on capacity-building projects, APS engaged Decision Lens, an Arlington-based developer of collaborative, decision-making software. Decision Lens computer modeling and facilitation guided the School Board in evaluating capital solutions based on pre-determined School Board criteria. The goals for using Decision Lens included:

- Creating a transparent framework around a very complex decision-making process
- Enabling clear articulation of strategy and alignment of solutions to objectives
- Rapidly adapting to changes in priorities and funding circumstances should they arise

Four criteria, each with a number of sub-criteria as indicated below, were prioritized by the School Board to evaluate capital improvement options:

1. ALIGNMENT WITH THE STRATEGIC PLAN

DEFINITION: This criterion is used to assess how the proposed solution will support instructional needs through alignment with the strategic plan.	
Challenge and Engage All Students	
Eliminate Achievement Gaps	
Recruit, Retain and Develop High Quality Staff	
Provide Optimal Learning Environments	
Meet the Needs of the Whole Child	

2. CAPACITY PLANNING

DEFINITION: This criterion assesses the degree to which the proposed approach helps to manage projected enrollment growth at APS.	
Address Areas of Critical Capacity Need	
Generate Capacity	
Flexibility of the Solution	
Maximize Use of Shared Physical Resources	
Ability to Generate Demand	

SCHOOL BOARD DIRECTION

3. FEASIBILITY

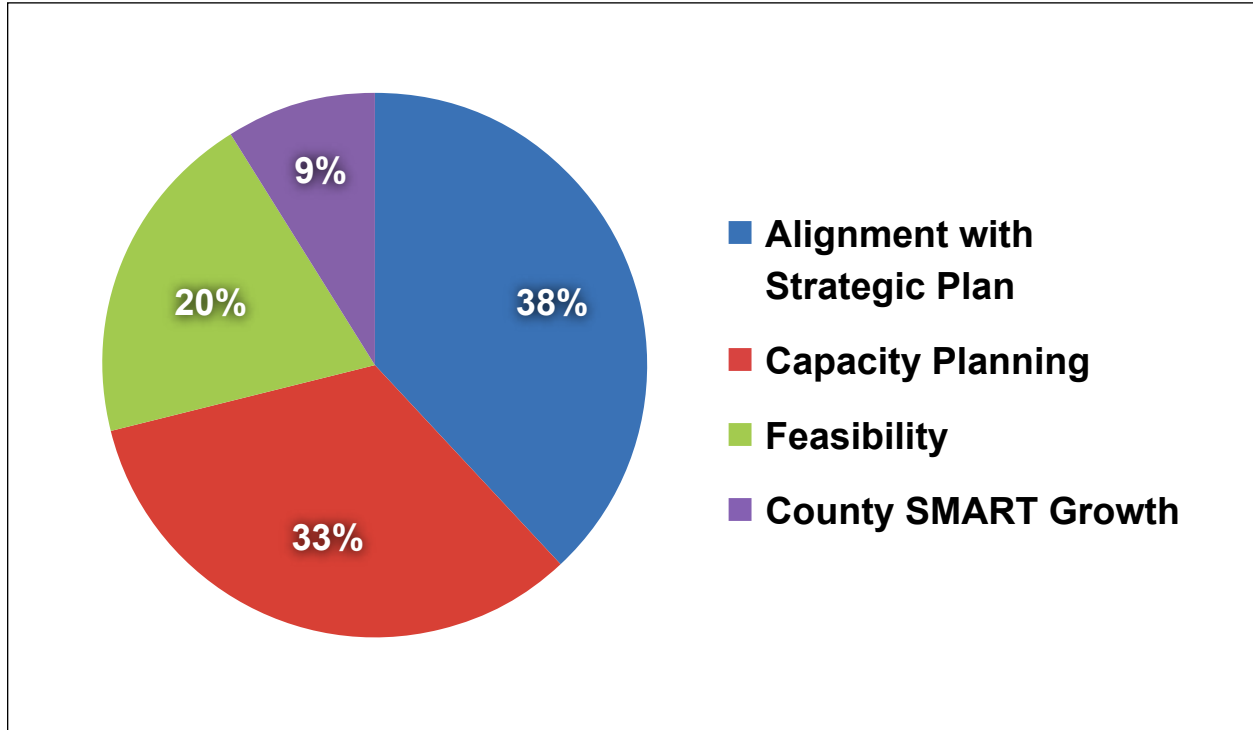
DEFINITION: This criterion is used to assess how feasible it will be to implement the solution.
LEVEL OF STAKEHOLDER SUPPORT Parents • Community • APS Staff • Students
EASE OF IMPLEMENTATION Time to Implement • Internal Complexity • External Complexity
CONSTRAINTS Operational Impact

4. COUNTY SMART GROWTH

DEFINITION: This criterion is used to assess whether the proposed solution is consistent with County SMART Growth planning parameters.
Maximize Efficient Use of Transportation for SMART Growth
Positive Effect on Sustainability and Efficiency
Promote Shared Use of Neighborhood Resources

SCHOOL BOARD DIRECTION

The School Board adopted the following weighted prioritization of the four criteria.



ADDITIONAL DIRECTION PROVIDED DURING THE CIP WORK SESSIONS

General Direction

- Address areas of critical need
- Build schools where the needs are
- Provide new seats as soon as possible
- Provide flexibility for future program & enrollment changes
- Maximize development at any specific site to accommodate future growth
- Respect preferred maximum school size
- Continue discussion on program after adoption of CIP on June 16, 2014

Build Schools Where the Needs Are

- New elementary school seats south of Arlington Boulevard
- New middle school seats north of Arlington Boulevard
- New high school seats centrally located

Preferred School Capacity for 2015 CIP

- Elementary schools: 700 seats plus pre-K
- Middle schools: 1,300 seats
- High schools: 2,200 seats

Leased Space

- Appropriate lease options for learning spaces are neither affordable nor available for consideration in the 2015 CIP.
- Continue to explore lease options in future CIPs

MAJOR PROJECTS

NEW 2015 CIP PROJECT

Additions and Renovations at Abingdon Elementary School



**Arlington County
School Boundaries**



PROJECT HIGHLIGHTS

- Estimated additional seats: 136
- Projected completion: start of school, September 2017
- Maximum estimated total project cost: \$28,750,000
- 2014 bond funding: \$28,750,000



OPERATING IMPACT

- Additional staffing, transportation and overhead costs will be required to operate the school.

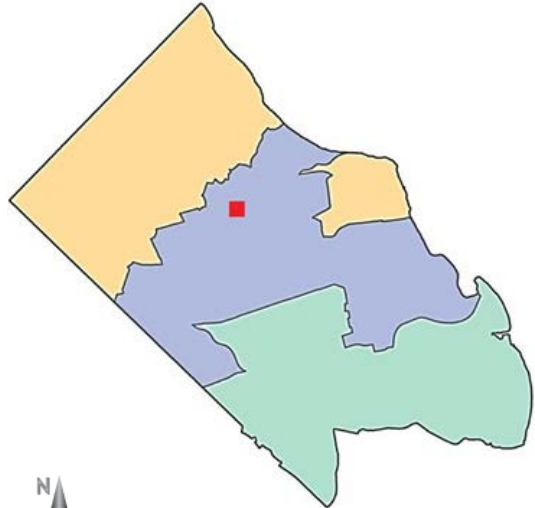
MAJOR PROJECTS

NEW 2015 CIP PROJECT	PROJECT HIGHLIGHTS
<p>NEW ELEMENTARY SCHOOL Jefferson Site Preferred</p>  <p>  Arlington County School Boundaries </p>	<ul style="list-style-type: none"> • Estimated additional seats: 725 • Projected completion date: start of school, September 2018 • Maximum estimated total project cost: \$50,250,000 • 2014 bond funding: \$50,250,000 • Joint process between Arlington Public Schools (APS) and Arlington County Government (ACG) to be developed to make a final determination by January 31, 2015 regarding locating the new elementary school at the Jefferson site. This process will include all stakeholders. <p> Note: If the Jefferson site is selected, a process to determine if the new elementary school will be a neighborhood school or a choice program school will commence. This determination will be made by April 30, 2015 and will include all stakeholders. </p> <p>OPERATING IMPACT</p> <ul style="list-style-type: none"> • Additional staffing, transportation and overhead costs will be required to operate the school.



MAJOR PROJECTS

NEW 2015 CIP PROJECT	PROJECT HIGHLIGHTS
<p>SECONDARY SEATS Location to be Determined in the Northern Part of the County</p>  <p>  </p> <p>Arlington County School Boundaries</p>	<p>PROJECT HIGHLIGHTS</p> <ul style="list-style-type: none"> • Estimated additional seats: 1,300 • Projected completion date: start of school, September 2019 • Maximum estimated total project cost: \$126,000,000, to include \$5,000,000 of current revenue for planning and design • 2014 bond funding: \$4,000,000 (planning and design only) • Process to determine the location or locations of these seats to be developed, to include all stakeholders, and to conclude by December 31, 2014. <p>OPERATING IMPACT</p> <ul style="list-style-type: none"> • Additional staffing, transportation and overhead costs will be required.



MAJOR PROJECTS

NEW 2015 CIP PROJECT	
<p>SECONDARY SEATS Washington-Lee High School Renovation</p>  <p>Arlington County School Boundaries</p>	<p>PROJECT HIGHLIGHTS</p> <ul style="list-style-type: none">• Estimated additional seats: 300• Projected completion date: start of school, September 2016• Maximum estimated total project cost: \$5,000,000• 2014 bond funding: \$5,000,000 <p>OPERATING IMPACT</p> <ul style="list-style-type: none">• Minor additional staffing, transportation and overhead costs will be required.

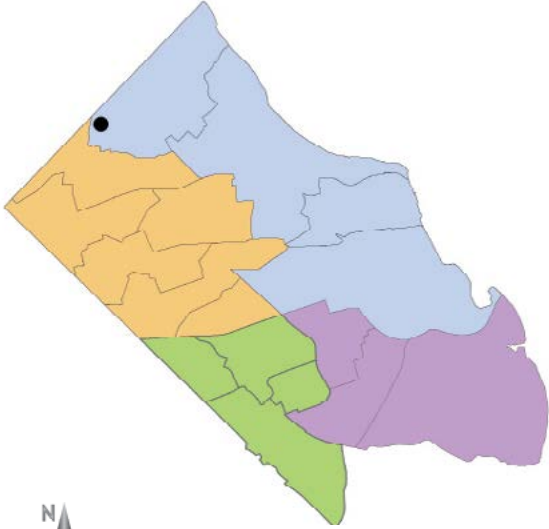

MAJOR PROJECTS

NEW 2015 CIP PROJECT	
<p>SECONDARY SEATS Arlington Career Center</p>  <p>  Arlington County School Boundaries </p>	<p>PROJECT HIGHLIGHTS</p> <ul style="list-style-type: none"> • Estimated additional seats: 1,300 • Projected completion date: scheduled in three phases, for start of school, September 2020, 2021 and 2022 • Maximum estimated total project cost: \$153,400,000 • 2014 bond funding: \$0 • Process to explore the vision and program for the Career Center to be determined, to include all stakeholders, and to build on community and staff work already begun. <p>OPERATING IMPACT</p> <ul style="list-style-type: none"> • Additional staffing, transportation and overhead costs will be required.

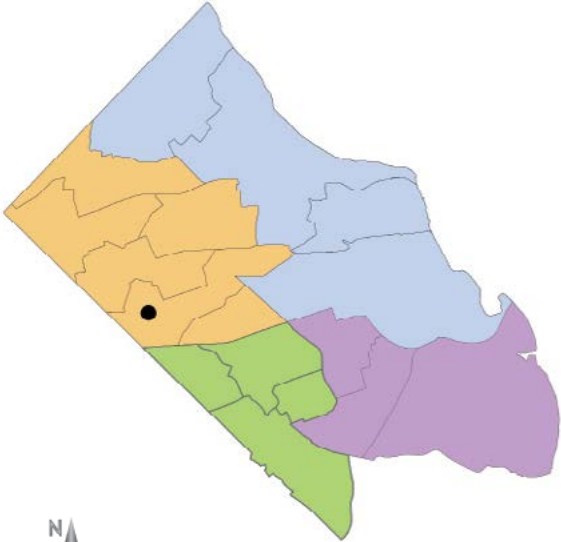

MAJOR PROJECTS

ONGOING CIP PROJECT	PROJECT HIGHLIGHTS
<p>Wakefield High School Replacement</p>  <p>  Arlington County School Boundaries </p>	<ul style="list-style-type: none"> • Capacity: 1,903 seats • Construction contract awarded: May 2011 • Completion of building: November 2013 • Projected completion date for site work: September 2014 • Approved budget for total project costs: \$118,186,000

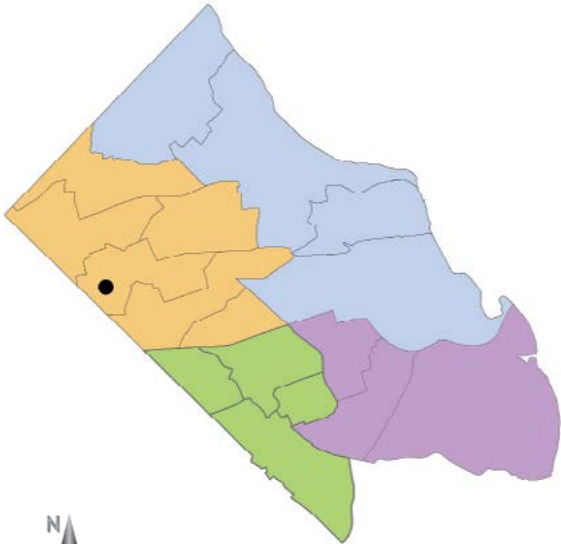

MAJOR PROJECTS

ONGOING CIP PROJECT	PROJECT HIGHLIGHTS
<p>New Elementary School on the Williamsburg Middle School Campus</p>  <p>  Arlington County School Boundaries </p>	<ul style="list-style-type: none"> • Capacity: 630 seats • Construction contract awarded: March 2014 • Projected completion date: start of school, September 2015 • Approved budget for total project costs: \$43,802,807

MAJOR PROJECTS

ONGOING CIP PROJECT	PROJECT HIGHLIGHTS
<p>Ashlawn Elementary School Addition/Renovation</p>  <p>  Arlington County School Boundaries </p>	<ul style="list-style-type: none"> • Capacity: 225 additional seats to create total capacity of 684 • Construction contract awarded: September 2013 • Projected completion date for full occupancy: December 2014 • Projected completion date for site work: March 2015 • Approved budget for total project costs: \$20,400,000

MAJOR PROJECTS

ONGOING CIP PROJECT	PROJECT HIGHLIGHTS
<p>McKinley Elementary School Addition/Renovation</p>  <p>  Arlington County School Boundaries </p>	<ul style="list-style-type: none"> • Estimated Additional Seats: 241 • Projected Completion: start of school, September 2016 • Maximum Estimated Total Project Cost: \$20,100,000 • 2014 Bond Funding: \$7,470,000 million (Project funding also includes \$12.0 million from the 2012 bond and a total of \$633,500 from FY 2015 and FY 2016 Minor Construction/Major Maintenance funding.)

MAJOR PROJECTS

HVAC PROJECT FUNDING

Total Cost:	\$ 18,500,000
Bond Referenda:	
2014	\$ 2,550,000
2016	\$ 3,200,000
2018	\$ 4,050,000
2020	\$ 4,250,000
2022	\$ 4,450,000



HVAC PROJECTS

Various Locations

Project Highlights

In 2007, APS created a task force to review HVAC needs throughout the system. The committee report, which was issued in July 2008, recommended a number of corrective steps to recover from a period of deferred maintenance and improve overall HVAC performance within APS. This report along with further detailed equipment and work order analysis became the long-term Master Plan, which was presented to the School Board in April 2010 and informed bond requests in the 2013 CIP. The key components of the Master Plan focused on achieving major gains in preventive maintenance (PM) and securing funds for major improvements outside of normal Minor Construction/Major Maintenance (MC/MM) program funding. Progress was made towards both objectives through the creation of an evening shift and successful infrastructure bond referenda. These actions have resulted in completion of major projects at Taylor and H-B Woodlawn and the Barrett project, which is currently under construction. Future projects will be prioritized using the Decision Lens process and coordinated with major renovation projects such as Ashlawn which is under construction and McKinley which is in design.

Operating Impact

The dedicated PM shift and the refurbished geothermal system at Taylor are already yielding measurable gains in energy efficiency. The three new high schools, however, are significantly larger and more complex in terms of HVAC systems than the schools they replaced. Operating and maintaining these systems to achieve the high performance learning environments and the energy efficiencies they were designed to achieve has presented a challenge. Accordingly, the HVAC Master Plan is currently being revised to address these issues through a combination of staff and contract solutions.

MAJOR PROJECTS

ROOFING PROJECTS

Various Locations

Project Highlights

As part of the Minor Construction/Major Maintenance (MC/MM) budget process, APS has provided funding for roofing repair projects in past years. To provide a more comprehensive approach to roof replacement throughout the system, APS completed a study during the 2013 CIP process to identify buildings which would have major roofing needs within the next ten years. Specific details of work to be performed at each school are available in the report. Roofing work recommended in the report exceeded normal MC/MM program funding. The first funding specifically for roofing projects was secured through a successful bond referendum request in 2010. New roofs have already been completed at the Career Center, Tuckahoe, the Facilities Building and Oakridge. The Ashlawn roof will be replaced during the addition/renovation project currently underway, as will the roof at McKinley during its upcoming addition/renovation project. The remaining roofing projects have been identified but the order in which they will be completed remains to be coordinated with the projects included in the 2015 CIP.

Operating Impact

Annual maintenance and energy costs are expected to decrease significantly after roofs have been replaced or undergone major repairs.

upgrades and lighting and window replacement programs in years six through ten of the 2015 CIP. These investments will further recover from a period of deferred maintenance and increase energy efficiency and secure optimal learning environments.

Operating Impact

Annual maintenance and energy costs are expected to decrease significantly after major infrastructure systems have been replaced or undergone major repairs.

ROOFING PROJECT FUNDING

Total Cost:	\$ 20,550,000
Bond Referenda:	
2014	\$ 3,900,000
2016	\$ 3,900,000
2018	\$ 4,050,000
2020	\$ 4,250,000
2022	\$ 4,450,000

INFRASTRUCTURE FUNDING

Total Cost:	\$ 31,060,000
Bond Referenda:	
2014	\$ 3,860,000
2016	\$ 6,500,000
2018	\$ 6,500,000
2020	\$ 6,900,000
2022	\$ 7,300,000

MAJOR INFRASTRUCTURE INVESTMENTS

Various Locations

Project Highlights

Following the early success of major HVAC and roofing replacement programs funded through bonds, APS proposes to expand these programs by adding major infrastructure investments in the form of electrical

OTHER CIP PROJECTS

MINOR CONSTRUCTION/MAJOR MAINTENANCE (MC/MM)

The MC/MM program provides annual funding from current revenues for replacement of major systems and components, improvements in the configuration of educational spaces and facility systems, and a budget reserve. Based on a series of annual inspections and condition reports, staff has developed a proactive, ten-year plan to run concurrently with the CIP. Schools and departments are also invited to participate directly in the MC/MM process by submitting requests for projects at individual buildings.

Each fall the MC/MM committee, comprising staff from Facilities and Finance departments, representatives from each principal's group and a member of the Facilities Advisory Counsel (FAC), convenes for a series of meetings to review and

prioritize projects from the ten-year plan and the new requests submitted that year according to the following criteria:

- Mandates
- Health and safety
- Immediate instructional needs
- Essential building repairs
- General Instructional enhancements
- General building enhancements

FUNDING SUMMARY

The chart below outlines MC/MM budgets for the current and next fiscal year and estimates needs for future years. The chart contains estimates only and is likely to change as budgets develop and funds become available.

MINOR CONSTRUCTION/MAJOR MAINTENANCE FUND BY ACCOUNT						
ACCOUNT DESCRIPTION	ADOPTED FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
ADA Upgrades	\$105,575	\$58,743	\$60,505	\$62,320	\$64,190	\$66,116
Annual Testing	\$211,150	–	–	–	–	–
Abestos Abatement	\$100,000	–	–	–	–	–
Concrete Improvements	\$52,788	–	–	–	–	–
Consulting	\$128,380	\$70,000	\$72,100	\$74,263	\$76,491	\$78,786
Flooring Repairs	\$300,889	\$28,334	\$29,184	\$30,060	\$30,961	\$31,890
Grounds Improvements	\$79,181	–	–	–	–	–
HVAC Reserve	\$316,725	\$200,000	\$206,000	\$212,180	\$218,545	\$225,102
Indoor Air Quality	\$102,500	\$55,575	\$57,242	\$58,960	\$60,728	\$62,550
Painting	\$36,951	\$38,060	\$39,201	\$40,377	\$41,589	\$42,836
Paving	–	\$54,372	–	–	–	–
Playgrounds	\$58,066	\$200,000	\$206,000	\$212,180	\$218,545	\$225,102
Plumbing	\$105,575	\$105,575	\$108,742	\$112,005	\$115,365	\$118,826
Relos	\$2,253,125	\$1,900,645	\$1,957,664	\$2,016,394	\$2,076,886	\$2,139,193
Roofing	\$95,018	\$97,869	\$100,805	\$103,829	\$106,944	\$110,152
Security	\$211,150	\$450,000	\$463,500	\$477,405	\$491,727	\$506,479
Specific Projects	\$2,079,844	\$2,309,244	\$2,378,521	\$2,449,877	\$2,523,373	\$2,599,074
Theater Safety Projects	\$316,725	\$250,000	\$257,500	\$265,225	\$273,182	\$281,377
Salaries	\$883,261	\$1,071,741	\$1,103,893	\$1,137,010	\$1,171,120	\$1,206,254
Capital Reserve	\$565,292	\$22,746	\$200,000	\$206,000	\$212,180	\$218,545
TOTAL	\$8,002,195	\$6,912,903	\$7,240,859	\$7,458,084	\$7,681,827	\$7,912,282

OTHER CIP PROJECTS



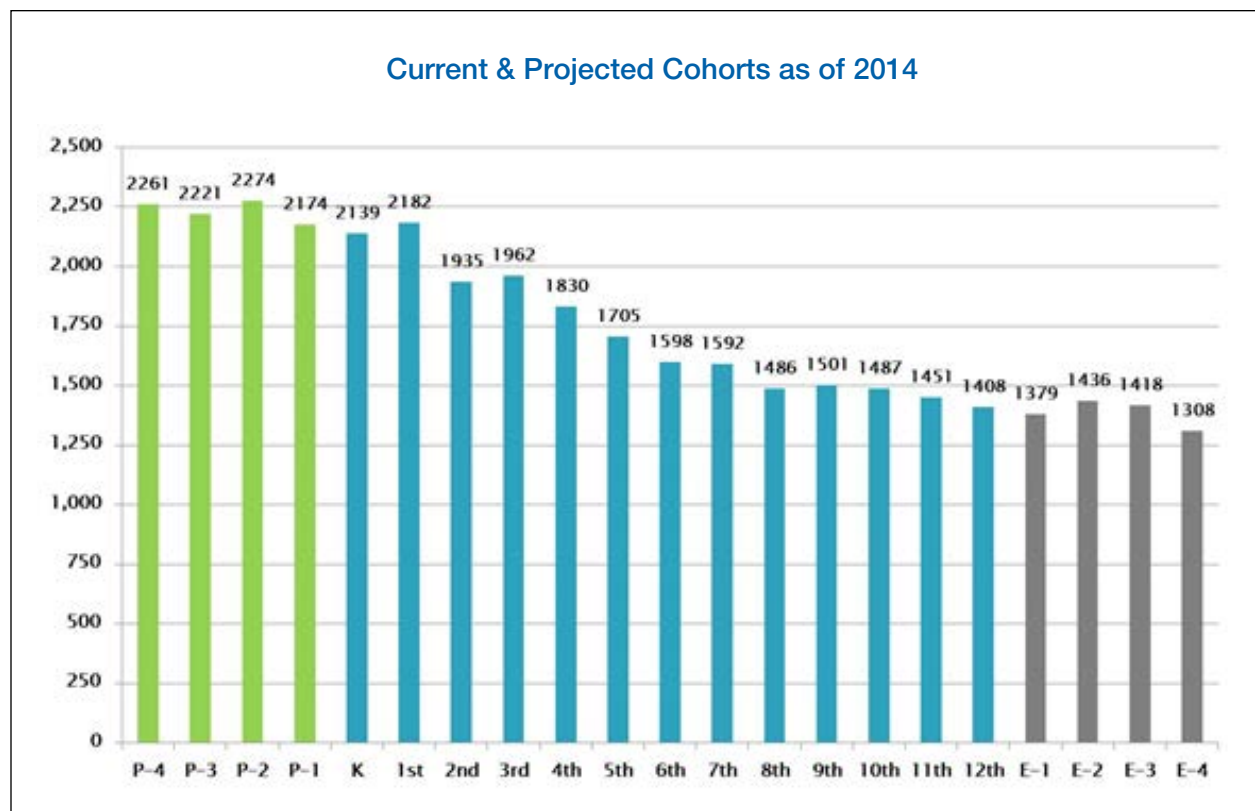
MINOR CONSTRUCTION/MAJOR MAINTENANCE FUND BY ACCOUNT (CONT.)						
ACCOUNT DESCRIPTION	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 15-24
ADA Upgrades	\$68,099	\$70,142	\$72,246	\$74,414	\$76,646	\$673,423
Annual Testing	—	—	—	—	—	—
Asbestos Abatement	—	—	—	—	—	—
Concrete Improvements	—	—	—	—	—	—
Consulting	\$81,149	\$83,584	\$86,091	\$88,674	\$91,334	\$802,472
Flooring Repairs	\$32,847	\$33,832	\$34,847	\$35,893	\$36,969	\$324,818
Grounds Improvements	—	—	—	—	—	—
HVAC Reserve	\$231,855	\$238,810	\$245,975	\$253,354	\$260,955	\$2,292,776
Indoor Air Quality	\$64,427	\$66,359	\$68,350	\$70,401	\$72,513	\$637,105
Painting	\$44,121	\$45,445	\$46,808	\$48,213	\$49,659	\$436,310
Paving	—	—	—	—	—	\$54,372
Playgrounds	\$231,855	\$238,810	\$245,975	\$253,354	\$260,955	\$2,292,776
Plumbing	\$122,390	\$126,062	\$129,844	\$133,739	\$137,751	\$1,210,299
Relos	\$2,203,368	\$2,269,470	\$2,337,554	\$2,407,680	\$2,479,911	\$21,788,765
Roofing	\$113,456	\$116,860	\$120,366	\$123,977	\$127,696	\$1,121,953
Security	\$521,673	\$537,324	\$553,443	\$570,047	\$587,148	\$5,158,746
Specific Projects	\$2,677,047	\$2,757,358	\$2,840,079	\$2,925,281	\$3,013,040	\$26,472,895
Theater Safety Projects	\$289,819	\$298,513	\$307,468	\$316,693	\$326,193	\$2,865,970
Salaries	\$1,242,442	\$1,279,715	\$1,318,106	\$1,357,649	\$1,398,379	\$12,286,309
Capital Reserve	\$225,102	\$231,855	\$238,810	\$245,975	\$253,354	\$2,054,567
TOTAL	\$8,149,650	\$8,394,140	\$8,645,964	\$8,905,343	\$9,172,503	\$80,473,554

BACKGROUND: Enrollment Growth

PROJECTING FUTURE ENROLLMENT

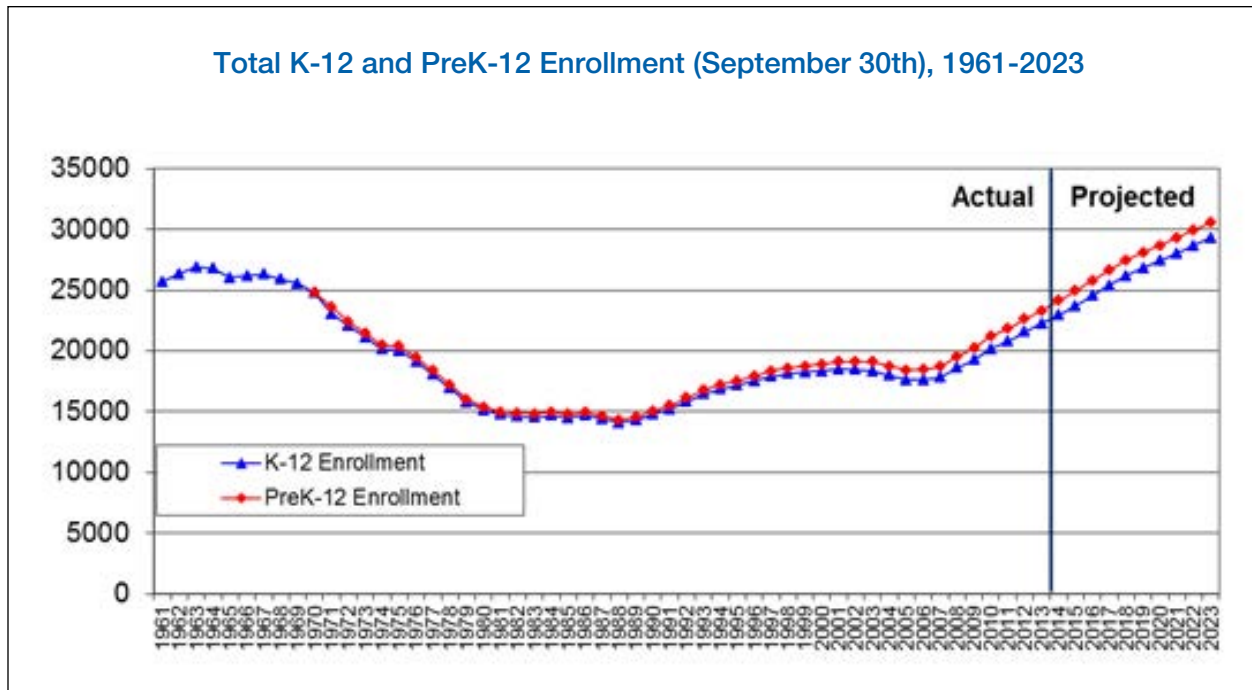
APS is projected to reach or exceed system-wide capacity in fall 2015 (see APS Building Capacities and Projected Student Enrollment 2013-23, Section V). The chart below provides the number of students by grade, referred to as cohorts, for the current school year (blue bars), the number of students who graduated from high school for the last four years (gray bars), and the estimated number of students who will enroll in kindergarten for the next four years (green bars). The 953 student difference between the cohort which graduated from high school four years ago (1,308) and the cohort which is expected to enter kindergarten in four years (2,261) highlights the scale of enrollment growth and the severity of the need to plan for new seats in this CIP.

The two key indicators of how many future students will be enrolled in APS are the number of children born to Arlington residents and the number of students who are enrolled in APS in kindergarten five years later. The projected size of incoming classes is therefore based on these two indicators. The number of children born to Arlington residents is provided by the Virginia Department of Health Statistics. The number of students enrolled in kindergarten is obtained from APS records. The retention rate is calculated annually by dividing the number of students entering kindergarten in a given year by the number of live births five years earlier. A three year average of this retention rate is used to project future enrollment in kindergarten. Similar retention rates are calculated for each grade from the previous grade with three year averages used to project future enrollment by grade. This method of projecting enrollment growth has proven to be very accurate in the near term, although all projections are less reliable in the out years.



As the 5,800 students currently in high school graduate over the next four years, 8,900 new students are projected to enter APS.

BACKGROUND: Enrollment Growth



Based on current enrollment trends, APS will grow by more than 7,000 students by School Year 2023.

The above chart shows actual student enrollment over the last half-century and projected student enrollment over the next ten years. At current rates, APS enrollment is projected to reach 30,000 students in fall 2023. At these rates, the total seat deficit in fall 2023, not including any capital improvements resulting from the 2015 CIP, is anticipated to be about:

- 1,900 elementary school seats
- 1,600 middle school seats
- 2,800 high school seats

BACKGROUND: Arlington Facilities and Student Accommodation Plan (AFSAP)

The AFSAP and CIP processes are conducted in alternate years. The AFSAP provides a comprehensive review of student enrollment trends division-wide and a focused analysis of student capacity at each school. The current AFSAP is available in electronic format on the APS Facilities and Operations website under the Facilities Planning section at www.apsva.us/afsap. Work on the next AFSAP will commence in fall 2014.

Information provided in the AFSAP includes:

- Current and projected enrollment by school and grade level
- Enrollment and capacity analysis
- Description of enrollment projection methodology
- Housing trends and impact on enrollment
- Capacity analysis maps



BACKGROUND: 2015 CIP Planning Process

COMMUNITY ENGAGEMENT

The School Board followed a seven-step process, as described below, to engage with the community and work with staff before making decisions on critical issues including the Budget and the Capital Improvement Plan. These processes are repeated annually or biannually and that the next cycle commences almost immediately after the previous cycle has been completed.

Unlike the 2013 CIP which focused on elementary enrollment growth, and previous CIPs that focused on replacement, reconstruction or renovation of existing schools during periods of slower enrollment growth, the 2015 CIP focuses on growth at all grade levels. Community engagement on the 2015 CIP was therefore extended to include a broader spectrum of stakeholders than previous CIPs and drew attention to enrollment growth as a county-wide issue requiring collaboration between APS and Arlington County Government.

Throughout the CIP planning process, a variety of school and community stakeholders provided valuable feedback that helped shape the scope of the projects included in the CIP. Those stakeholders included individual school communities, School Board advisory councils, citizen groups and civic associations, the broader Arlington community, County staff and APS teaching and administrative staff.



MORE Seats for Students

The Advisory Council on School Facilities and Capital Programs (FAC), comprised of parents and citizens, reports directly to the School Board and provides valuable input to staff. FAC members have played a vital role throughout the 2015 CIP planning process by acting as ambassadors for APS to school communities and civic associations. FAC ambassadors extended the reach of APS staff and expanded the quantity and quality of feedback received from stakeholders.

The 2015 CIP continued the More Seats for More Students engagement process, now familiar to the community from the 2013 CIP and the successful 2012-13 boundary process associated with the new elementary school on the Williamsburg Middle School campus and the additions/renovations at Ashlawn and McKinley elementary schools. In addition to FAC ambassadors, new methods for outreach to and feedback from community stakeholders for the 2015 CIP included Saturday morning community conversations, held simultaneously at multiple middle and high schools; Twitter town halls held at noon on Fridays; and online feedback forms, requesting pros, cons and comments on specific CIP options. A summary of community engagement is provided below.

Community engagement meetings:	6
Community conversations:	20
Twitter town halls:	4
School Board work sessions:	10
Joint School Board/County Board work session:	1
School Board monitoring items:	2
School Board information items:	4
School Board action items:	2
Total engagements:	49
Feedback forms completed on-line:	@3,000
More Seats for More Students emails:	325
Speakers at May 22, June 5, and June 16 School Board meetings:	139

BACKGROUND: 2015 CIP Planning Process



and renovations to existing schools, and also updated some of the studies completed for the 2013 CIP. FAC ambassadors and APS staff engaged with the community on the studies extensively through evening community meetings, Saturday morning community conversations, Friday noon Twitter town halls, online feedback forms, emails to More Seats for More Students stakeholders (APS families, civic and community leaders) and numerous informal conversations.

Eleven studies were completed to increase elementary school capacity, nine to increase middle school capacity and two to increase

Potential locations for capital projects that generated the most feedback from the community included Lubber Run Community Center, the H-B Woodlawn/Stratford building, the Wilson Boulevard property, Abingdon Elementary School and the park adjacent to Thomas Jefferson Middle School.

While much of the community feedback focused on the impact of options to increase capacity at individual schools or sites, there were a number of consistent themes that applied to the CIP as a whole:

- The number of students in a school is of great concern; smaller schools are preferred.
- Walkable neighborhood schools, facilitating multimodal transportation, are preferred.
- Alignment is sought between Arlington County Government and APS on planning and site selection.
- New schools and additions to existing schools should not reduce the amount of green space and outdoor amenities available to neighbors and students.

CIP OPTIONS

Staff commissioned new studies for the 2015 CIP to explore options to construct schools and make additions

high school capacity. With community feedback, these options were reduced to five sets of options to create elementary seats, six option sets to create middle school seats and one option set to create high school seats. The Superintendent's recommended CIP, presented to the School Board on May 8, comprised one option set to create elementary school seats, one to create middle school seats and one to create high school seats. All options considered during this CIP process may be found at www.apsva.us/moreseats.



BACKGROUND: 2015 CIP Planning Process

COLLABORATION WITH ARLINGTON COUNTY GOVERNMENT ON SITE SELECTION

Throughout the CIP process, County and APS boards and staff have collaborated to identify potential sites for new schools. Schools have been clearly included in the ongoing Public Land for Public Good discussion since January 1, 2014, when County Board Chair Jay Fiset added schools to affordable housing in his New Year's remarks at the County Board's organizational meeting. This collaboration resulted in recent announcements regarding two potential sites.

Pursuit of "an agreement for the sale of the Wilson property, which will provide resources to build more seats for our students where needed, while supporting the vision of Arlington County Government for redevelopment of the western Rosslyn area" was included in the School Board's priorities for the 2014 school year. After lengthy negotiations, the County and School Boards issued a joint press release on April 23, 2014 stating that "APS has decided to retain its Wilson Boulevard property in western Rosslyn for possible redevelopment as a new secondary school". The County Board's charge for the Western Rosslyn Area Planning Study (WRAPS) was then changed to include possible construction of a secondary school with up to 1,300 seats on the school property. APS staff subsequently released studies for construction of a secondary school on the site and added them to the option sets to be considered in the CIP.

On May 13, 2014, the County Manager and the Superintendent released a joint memorandum, titled Public Land for Schools, under which County owned land adjacent to Thomas Jefferson Middle School would be considered for construction of a new elementary school. APS staff subsequently released studies for construction of an elementary school on the site and added them to the option sets to be considered in the CIP.

A School Board decision to proceed with construction of a school on the Wilson Boulevard property is subject to the outcome of the County WRAPS process. Similarly, a School Board decision to construct a school on the Jefferson property is subject to a County community engagement process resulting in County agreement to permit such construction.

BUILDING LEVEL PLANNING COMMITTEES (BLPC)

Following a School Board decision, and in the case of the Wilson Boulevard and Jefferson properties a County Board decision, to proceed with a project included in the 2015 CIP, the School Board will appoint a BLPC. BLPC members include two representatives of the civic association within which the school is located, one representative from each civic association within the school attendance zone, parents, County, APS and school staff and other significant stakeholders. The BLPC works with the architect appointed by the School Board to determine how best to meet the goals and objectives for the project as approved in the CIP. Through consensus, the BLPC assists in developing the concept design and creating the schematic design that is recommended to the School Board for approval.

PUBLIC FACILITIES REVIEW COMMITTEE (PFRC)

The Public Facilities Review Committee (PFRC) was formed by the County Board to ensure that the highest quality of land use planning and the Principles of Civic Design in Arlington are applied to all County and APS capital projects. The PFRC is a standing committee comprising representatives of each County Commission to which are added representatives from affected civic associations for each specific project under review. The PFRC focuses on the placement of the building or additions on the site, site layout and amenities and the overall relationship to and impact of the project on the neighborhood in which it is to be located. On APS projects the PFRC works in concert with the BLPC during concept and schematic design and makes recommendations to the County Manager.

BACKGROUND: CIP Funding

DEFINITIONS

Major Construction projects include new facilities, additions, renewals, reconstructions, and renovations.

- **New Facilities:** a new school built on a new or existing site with playfields, common spaces, and attendance boundaries (or attendance policies in the case of choice schools)
- **Additions:** space added to an existing school to create new classrooms and other spaces as well as site work and other infrastructure required to support the new space
- **Renewal:** a comprehensive project in which virtually all building systems are replaced and substantial demolition leaving only the main structure may occur
- **Reconstruction:** complete demolition of a building and replacement with new construction
- **Renovation:** replacement of selected finishes or systems as necessary to bring the facility up to code and/or current standards

SOURCES OF FUNDS FOR MAJOR CONSTRUCTION PROJECTS

Major construction projects may be funded through bond financing, current revenues, County funds on joint-use projects, and in some cases through a combination of all three sources. Bond financing is generated through the sale of general obligation bonds by Arlington County as authorized by County voters at bond referenda. Arlington County schedules bond referenda for even-numbered calendar years, which correspond to odd-numbered fiscal years. In the past Arlington County voters have approved school bonds by a large majority.

As proposed for some projects in this CIP, APS has often funded design of a Major Construction project in one bond year and construction of the project in the next bond year. The practice of funding design and construction of projects in separate bond years allows the project to be well underway prior to the second bond year, by which time estimates of construction and total project costs will have been refined to reflect input from the school and community and more detailed development of the design.

Projects with total costs more than \$500,000 and useful lives of 20 years or more are typically funded with proceeds from bond sales, although, in past years, current revenues in the Capital Projects Fund have been allocated to fund portions of major construction projects. If a project is financed with bonds, it must have a useful life equal to or longer than the repayment schedule of the bonds issued for it.

ESTIMATED PROJECT COSTS

Costs included in the CIP for Major Construction projects are total project costs. Total project costs comprise construction costs, soft costs and contingencies calculated at current 2014 costs, plus an allowance for escalation through the midpoint of construction.

Construction cost estimates have been based on conceptual designs developed for the various options. Construction cost estimates were prepared by independent professional cost estimators active on K-12 projects in the DC Metro and Virginia markets.

Escalation allows for future variations in the costs of labor and materials and in the profit and productivity levels that contractors apply to their bids. Anticipated escalation causes the total cost of a project to vary according to the year in which it is scheduled for completion. Based on a survey of construction managers and professional cost estimators active in the region, 4.25% escalation has been included in the CIP projects for FY 2015, 5.25% for FY 2016, 4% for FY 2017, and 3.5% for FY 2018. A 3% escalation rate has been included for each of the remaining years of the CIP. Escalation may vary substantially for Major Construction projects scheduled for completion in the later years of the ten-year CIP.

Design and construction cost contingencies are included in all CIP project estimates. Contingencies are typically reduced as the design becomes increasingly well-defined from conceptual design through bid documents. Contingencies for projects included in the CIP are 15% for design and 5% for construction to reflect the conceptual nature of the designs on which they are based. A contingency for soft costs is included within the total provided for soft costs.

BACKGROUND: CIP Funding

Soft costs comprise architecture/engineering, construction management and commissioning fees, furniture, fixtures and equipment, data/communications, technology, and other miscellaneous costs needed to provide a complete project. Soft costs on recent Major Construction projects at APS have averaged approximately 22.5% of construction costs plus design and construction contingencies. Based on experience, 22.5% has been added to construction costs to determine the total project costs included in the CIP.

Costs for APS projects are frequently compared with costs of school projects elsewhere in Virginia and across the nation. In making such comparisons it is important to consider the following factors:

- Construction costs are frequently confused with total project costs when making comparisons.
- Construction costs in the DC Metro region are among the highest in the nation; construction costs elsewhere in Virginia are substantially lower than Arlington.
- Educational specifications approved by the School Board may result in more square feet per student than other school divisions because of low class size and the many spaces provided to support special programs.
- APS has always renovated existing buildings when making additions to them, unlike some other school divisions.
- The number of students for which a school is designed and hence the total area of the school are often not considered when comparing the costs of different schools.

FINANCIAL ANALYSIS

Projects proposed for inclusion in the 2015 CIP have been analyzed for their ability to generate capacity when and where needed in response to projected enrollment growth. The financial capacity of APS to meet those needs has also been analyzed, because analysis of both need and financial capacity is required to develop projects to be included in the CIP and to schedule their completion over the ten-year CIP period.

Financial capacity is defined as the ability to maintain service levels, withstand disruptions in the national,

regional and local economy, and meet the demands of normal growth and development. Because bond ratings reflect a jurisdiction's financial condition and management expertise, the effect of a bond proposal on these ratings is also of concern. Bond rating agencies use a number of measures to evaluate the capacity of a jurisdiction to take on additional debt. Typically these are measures of wealth and ability to service the debt, and include debt as a proportion of the market or assessed value of real estate and of total income.

Although there is no legal limit to the level of general obligation debt issued by Virginia counties, when developing both County and APS CIPs, Arlington County uses the following debt guidelines, as outlined in County policy, to retain its triple AAA bond rating and reflect strong fiscal management:

- Within the ten-year CIP period net tax-supported debt service payments should not exceed 10% of general expenditures, not including the Capital Projects Fund.
- The ratio of net tax-supported debt to income should not exceed 6% within the ten-year CIP period.
- Net tax-supported debt should not exceed 4% of full market value ratio within the ten-year CIP period
- Debt service growth over the ten-year CIP period should not exceed average ten-year historical revenue growth, currently 5.2%.

Historically, when assessing debt guidelines, County debt and APS debt have been combined for the debt to income ratio and the debt to property value ratio, but each entity has been assessed independently for debt service as a percent of general expenditures ratio. The FY 2015 – FY 2024 CIP marks a departure from this practice. In order to provide the bonding capacity required to complete the projects outlined in this CIP, the School Board has requested that the County evaluate the debt service as a percent of general expenditures ratio on a combined basis rather than an individual entity basis. This will allow APS to have greater bonding capacity in those years where it is needed while allowing the County overall to remain under the 10% limit for debt service as a percent of general expenditures ratio.

BACKGROUND: CIP Funding

During development of this CIP, APS staff prepared and analyzed numerous financial scenarios in which the variables were estimated project completion, estimated project costs, timing of bond sales, and growth in County revenues. These scenarios provided estimates of funds available for the CIP and schedules of the bond sales needed to fund and complete them when needed. The scenarios, combined with

the updated three-year budget forecast, provided the guidelines and framework for building a fiscally responsible CIP for FY 2015 through FY 2024.

The tables below show the Major Construction projects included in APS' FY 2015 – FY 2024 CIP as well as the timing of the bond sales that will provide APS with the funding to enable the projects to be completed as soon as possible.

FY 2015 – FY 2024 CIP PROJECTS BY YEAR AND FUNDING SOURCE

MAJOR CONSTRUCTION			BOND FUNDING										
Description	Previous Bonds	Capital Reserve	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Seats Available			Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023	
Prior CIP													
McKinley 12 Room Addition	\$126		\$7.5										\$20.1
Capacity Projects													
New Elementary School			\$2.0	\$17.5	\$20.6	\$10.2							\$50.3
Abington Addition/Renovation			\$3.4	\$19.0	\$6.4								\$28.8
Secondary Seats to be determined *		\$5.0	\$4.0		\$41.6	\$57.9	\$17.5						\$126.0
Career Center					\$1.0	\$1.0	\$9.3	\$56.1	\$49.4	\$36.6			\$153.4
Washington-Lee			\$3.0	\$2.0									\$5.0
MC/MM-Infrastructure Investments													
HVAC & Roofing Projects			\$3.4	\$3.1	\$4.5	\$2.6	\$4.0	\$4.1	\$4.2	\$4.3	\$4.4	\$4.5	\$39.1
Infrastructure Projects **			\$0.8	\$3.1	\$3.2	\$3.3	\$3.2	\$3.3	\$3.4	\$3.5	\$3.6	\$3.7	\$31.1
Grand Total Major Construction	\$12.6	\$5.0	\$24.0	\$44.7	\$77.3	\$75.0	\$34.0	\$63.5	\$57.0	\$44.4	\$8.0	\$8.2	\$453.6

		2014 Bond	2016 Bond	2018 Bond	2020 Bond	2022 Bond	
Referenda Total		\$105.8	\$132.6	\$166.0	\$15.4	\$16.2	\$436.0

MINOR CONSTRUCTION/ MAJOR MAINTENANCE		Previous Bonds	Capital Reserve	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Description														
Current Revenues (Annual Capital Projects Fund)														
Minor Construction/ Major Maintenance				\$6.9	\$7.2	\$7.5	\$7.7	\$7.9	\$8.2	\$8.4	\$8.7	\$8.9	\$9.2	\$80.5
Grand Total All Projects	\$12.6	\$5.0		\$30.9	\$51.9	\$84.7	\$82.6	\$41.9	\$71.7	\$65.4	\$53.1	\$16.9	\$17.4	\$534.1

* \$5 million for planning and design for secondary seats is funded from the Capital Reserve. ** Infrastructure Projects include replacement of lighting, electrical systems, and windows.

ANNUAL BOND ISSUANCE	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Bond Sales based on APS bonding capacity	\$58.3	\$33.2	\$69.0	\$34.0	\$52.0	\$35.0	\$51.0	\$44.4	\$8.0	\$8.2	\$393.1
Bond Sales based on additional capacity from County				\$26.4		\$10.5	\$6.0				\$42.9
Total Bond Sales	\$58.3	\$33.2	\$69.0	\$60.4	\$52.0	\$45.5	\$57.0	\$44.4	\$8.0	\$8.2	\$436.0

BACKGROUND: Environmental Stewardship



Washington-Lee Rooftop (Spring)

PROVIDING OPTIMAL LEARNING ENVIRONMENTS

Environmental sustainability is embedded in Goal 4 of the APS 2011-17 Strategic Plan to provide optimal learning environments. Goal 4 challenges APS to provide environments that are clean, safe, conducive to learning, and that apply best practices for energy efficiency and environmental sustainability. Desired outcomes of Goal 4 include:

- Using the opportunity for environmental stewardship, by designing or redesigning facilities and grounds to be high quality, energy-efficient, and sustainable
- Designing, developing, and maintaining facilities to provide optimal and safe learning environments, meeting or exceeding school facilities standards

- Practicing environmental stewardship and reducing energy intensity and greenhouse gas emissions by designing or redesigning facilities and grounds to be high quality, energy-efficient, and “green”
- Optimizing learning opportunities by providing environmentally sustainable facilities and engaging students in what it means to be responsible stewards of the environment

SUSTAINABLE DESIGN AND CONSTRUCTION

APS aims to achieve certification under the United States Green Buildings Council’s Leadership in Energy and Environmental Design (LEED®) on all new construction projects. Addition and renovation projects, where it is generally not feasible to obtain LEED® certification, are designed to LEED® standards.

BACKGROUND: Environmental Stewardship

To date, APS has collaborated with Arlington County Government to secure LEED® Silver certification on the Langston Brown School and Community Center and LEED® Gold certification on the Reed School and Westover Library, Washington-Lee High School and Yorktown High School. APS expects to achieve LEED® Gold certification on Wakefield High School and LEED® Platinum certification on the new elementary school currently under construction on the Williamsburg Middle School campus.

ENERGY EFFICIENCY AND GREENHOUSE GAS EMISSIONS REDUCTIONS

Energy efficiency is fundamental to reducing greenhouse gas emissions. Improperly procured, maintained or outdated equipment increases operations, maintenance, and energy costs and

adversely impacts learning environments. Though often challenged by limited budgets for maintenance and maintenance technicians, APS is committed to best practices in energy efficiency for heating and cooling, lighting, and building insulation, including:

- Automated, web-based control of heating and cooling systems
- Benchmarking and monitoring all APS facilities with the EPA's Energy Star Portfolio Manager and identification of top performing facilities with the Energy Star label
- Recent web-based upgrade of the TMA Talk maintenance work order system
- Installation of an extended transition to operations (ETOP) pilot program at Wakefield High School, including barcode labeling of all



BACKGROUND: Environmental Stewardship



Wakefield Solar PV Array

equipment requiring preventive maintenance and automated generation of preventive maintenance work orders through TMA Talk

- Lighting upgrades to energy efficient and easier to maintain T8, T5 and LED fixtures with occupancy sensors
- Specifying insulation values of R30 and highly reflective cool coatings on all roofing projects

RENEWABLE ENERGY

APS advocates renewable energy sources whenever feasible on its buildings to control energy costs and demonstrate environmental sustainability. APS continues to raise its standards for renewable energy installations.

Twenty years ago, APS installed its first geothermal heating and cooling system at Taylor Elementary School. This system achieves the lowest energy costs and carbon emissions of all schools in the division. Although the original geothermal wells at Taylor continue to function as intended, the HVAC systems they served were recently replaced.

The new Wakefield High School which opened in the fall of 2013 includes a 90kW solar photovoltaic array and a solar thermal system that provides 100% of the school's hot water. The original school building was recently demolished and a geothermal well field is currently being installed. When complete the well field will provide heating and cooling for the entire school.

The new elementary school under construction on the Williamsburg Middle School campus will be one of the first net-zero energy schools in the United States when it opens in fall 2015. Integrated sustainable design comprising highly insulated exterior walls and roofs and high efficiency heating, ventilating, air conditioning, LED lighting, electrical and technology systems will reduce energy demand to approximately one third used by a typical APS elementary school. Equipped with a 500kW solar photovoltaic array and a geothermal well field, the building will produce as much energy as it consumes during the course of a year, drawing from the utility grid when it is not producing sufficient power and returning power to the grid when it is producing more than it consumes.

WATER CONSERVATION AND QUALITY CONTROL

Conservation of potable water and management and control of the quality and quantity of water discharged to municipal storm sewer systems are now understood to be as significant to environmental stewardship as energy conservation. This is highlighted by the Municipal Separate Storm Sewer (MS4) permit, which APS obtained for the first time in spring 2014. Previously included in Arlington County Government's MS4 permit APS was required to obtain its own permit by the Commonwealth of Virginia Department of Environmental Quality. APS responsibilities under the MS4 permit include environmental education and escalating annual targets for reducing the quantity and improving the quality of water discharged to the storm sewer system and ultimately the Chesapeake Bay.

BACKGROUND: History of the CIP

BOND REFERENDA

The Arlington School Board approved its first CIP in 1988. Early CIPs included HVAC, window and roof replacements, and playground resurfacing as well as “facility alteration/new construction.” Facility alteration/new construction included kitchen construction, installation of elevators and renovation of science labs. With over two decades of CIP experience, APS now includes a broad range of projects in its CIP.

Arlington County first issued bonds for the school system in 1988. Since then Arlington voters has authorized the sale of bonds for school construction totaling \$654,530,500.

BOND REFERENDA 1988–2014

1988	\$	12,800,000
1990	\$	23,000,000
1992	\$	24,425,000
1994	\$	36,100,000
1996	\$	29,120,000
1998	\$	50,705,000
2000	\$	42,612,500
2002	\$	78,996,000
2004	\$	78,128,000
2006	\$	33,712,000
2008	\$	99,425,000
2010	\$	102,888,000
2012	\$	42,619,000
Total	\$	654,530,500
2014	\$	105,800,000
Total	\$	760,330,500



BACKGROUND: History of the CIP

COMPLETED CIP PROJECTS

Listed below are completed CIP projects. The total project cost and the year of final completion are provided for each project. Costs provided for joint-use projects at Drew, Gunston, Hoffman-Boston, Langston, and Reed are total project costs for both APS and the County.

PROJECT	TOTAL PROJECT COST	YEAR COMPLETED
Renewals and/or Expansion		
Abingdon	\$685,243	2004
Arlington Science Focus	\$8,213,531	2003
Arlington Traditional	\$5,967,856	2010
Ashlawn	\$1,022,579	2004
Barrett	\$3,417,215	2003
Campbell	\$2,325,153	2005
Claremont	\$7,596,177	2007
Glebe	\$10,351,385	2011
Gunston Phases II & III	\$18,787,032	II 2002 / III 2005
H-B Woodlawn	\$3,613,026	2009
Jamestown	\$5,907,181	2007
Jefferson	\$9,835,328	2011
Key	\$7,324,808	2002
Nottingham	\$12,803,533	2010
Oakridge	\$6,925,880	2003
Swanson	\$6,457,246	2010
Tuckahoe	\$5,892,673	2002
Williamsburg	\$3,485,959	2005
Replacement/Reconstruction		
Career Center	\$7,333,590	2013
Drew	\$13,077,017	2013
Hoffman-Boston	\$12,721,115	2005
Kenmore	\$37,898,469	2011
Langston	\$9,681,193	2007
Reed	\$16,623,334	2012
Washington-Lee	\$99,327,247	2011
Yorktown 2004 addition	\$5,599,840	2008
New School		
Carlin Springs	\$15,232,091	2004
Other		
Education Center Renovations	\$2,295,333	2006
Planetarium	\$831,647	2014
Syphax Education Center	\$6,970,491	2014
Washington-Lee Softball Field	\$1,222,791	2014
Washington-Lee Track	\$1,390,676	2002
MC/MM		
Career Center Roof	\$1,107,076	2013
HB Woodlawn HVAC	\$4,305,858	2014
Taylor HVAC	\$3,680,675	2013
Trade Center Roof	\$835,310	2014
Tuckahoe Roof	\$1,441,307	2013

BACKGROUND: History of the CIP

ONGOING CIP PROJECTS

Listed below are ongoing projects. The estimated total project cost/approved budget and the year in which the project is scheduled to be completed are provided for each project.		
PROJECT	TOTAL PROJECT COST	YEAR COMPLETED
<i>Renewals and/or Expansion</i>		
Ashlawn	\$20,400,000	2014
McKinley	\$20,100,00	2016
<i>Replacement/Reconstruction</i>		
Wakefield	\$118,186,000	2014
Yorktown Phases I, II & III	\$83,367,969	2014
<i>New School</i>		
New Elementary School on Williamsburg Campus	\$43,802,807	2015
<i>Other</i>		
Jefferson Waterproofing	\$2,598,600	2014
Wakefield Bleachers and Press Box	\$1,405,000	2014
<i>MC/MM</i>		
Barrett HVAC	\$2,214,350	2014
Key HVAC	\$445,000	2014
Oakridge Roof	\$1,066,562	2014

BACKGROUND: Enrollment Projections and Capacity Utilization

BUILDING CAPACITIES AND PROJECTED STUDENT ENROLLMENT FOR SCHOOL YEARS 2014 – 2023													
School	Capacity	2013		2014		2015		2016		2017		2018	
		Enrollment	% Utilized	Projection	% Utilized	Projection	% Utilized	Projection	% Utilized	Projection	% Utilized	Projection	% Utilized
Abingdon	589	573	97.3%	634	107.6%	706	119.9%	747	126.8%	808	137.2%	824	139.9%
Arlington Science Focus	553	608	109.9%	631	114.1%	647	117.0%	650	117.5%	665	120.3%	677	122.4%
Arlington Traditional	465	503	108.2%	502	108.0%	502	108.0%	689	99.9%	689	99.9%	689	99.9%
Ashlawn	459	563	122.7%	634	92.7%	721	105.4%	735	107.5%	753	110.1%	780	114.0%
Barcroft	460	490	106.5%	505	109.8%	519	112.8%	524	113.9%	506	110.0%	506	110.0%
Barrett	576	543	94.3%	562	97.6%	550	95.5%	554	96.2%	564	97.9%	552	95.8%
Campbell	436	430	98.6%	452	103.7%	470	107.8%	488	111.9%	506	116.1%	519	119.0%
Carlin Springs	585	584	99.8%	557	95.2%	534	91.3%	525	89.7%	518	88.5%	516	88.2%
Claremont	599	727	121.4%	777	129.7%	827	138.1%	853	142.4%	860	143.6%	862	143.9%
Drew	674	641	95.1%	670	99.4%	694	103.0%	696	103.3%	717	106.4%	721	107.0%
Glebe	510	561	110.0%	571	112.0%	574	112.5%	504	98.8%	512	100.4%	510	100.0%
Henry	463	453	97.8%	488	105.4%	506	109.3%	535	115.6%	548	118.4%	561	121.2%
Hoffman-Boston	566	404	71.4%	461	81.4%	497	87.8%	529	93.5%	547	96.6%	557	98.4%
Jamestown	597	604	101.2%	603	101.0%	507	84.9%	479	80.2%	471	78.9%	475	79.6%
Key	653	679	104.0%	703	107.7%	713	109.2%	712	109.0%	720	110.3%	729	111.6%
Long Branch	533	519	97.4%	524	98.3%	554	103.9%	570	106.9%	585	109.8%	605	113.5%
McKinley	443	533	120.3%	559	126.2%	484	109.3%	519	77.7%	542	81.1%	525	78.6%
New ES @ Williamsburg	630	0	0.0%	0	0.0%	538	85.4%	632	100.3%	656	104.1%	674	107.0%
Nottingham	513	725	141.3%	746	145.4%	617	120.3%	635	123.8%	674	131.4%	681	132.7%
Oakridge	674	703	104.3%	744	110.4%	784	116.3%	804	119.3%	823	122.1%	828	122.8%
Randolph	484	429	88.6%	439	90.7%	427	88.2%	430	88.8%	428	88.4%	423	87.4%
Taylor	659	737	111.8%	779	118.2%	679	103.0%	655	99.4%	682	103.5%	683	103.6%
Tuckahoe	545	680	124.8%	682	125.1%	559	102.6%	527	96.7%	534	98.0%	534	98.0%
Integration Station (Reed)	0	21	n/a	54	n/a	54	n/a	54	n/a	54	n/a	54	n/a
Elementary Total	12,036	12,710	105.6%	13,277	108.3%	13,663	106.0%	14,046	105.3%	14,362	107.7%	14,485	108.6%
Gunston	932	797	85.5%	836	89.7%	869	93.2%	917	98.4%	975	104.6%	1,119	120.1%
Jefferson	982	834	84.9%	857	87.3%	883	89.9%	905	92.2%	965	98.3%	1,013	103.2%
Kenmore	985	809	82.1%	838	85.1%	878	89.1%	906	92.0%	959	97.4%	994	100.9%
Swanson	948	994	104.9%	1,037	109.4%	1,090	115.0%	1,240	130.8%	1,285	135.5%	1,326	139.9%
Williamsburg	997	1,001	100.4%	1,044	104.7%	1,113	111.6%	1,199	120.3%	1,251	125.5%	1,325	132.9%
H-B Woodlawn	221	224	101.4%	227	102.7%	227	102.7%	227	102.7%	227	102.7%	227	102.7%
Stratford Program	n/a	17	n/a	21	n/a	21	n/a	21	n/a	21	n/a	21	n/a
Middle Total	5,065	4,676	92.3%	4,860	96.0%	5,081	100.3%	5,415	106.9%	5,683	112.2%	6,025	119.0%
Arlington Mill	n/a	161	n/a	172	n/a	210	n/a	214	n/a	214	n/a	234	n/a
Langston	n/a	71	n/a	54	n/a	50	n/a	46	n/a	81	n/a	90	n/a
Wakefield	1,903	1,483	77.9%	1,567	82.3%	1,622	85.2%	1,717	90.2%	1,767	92.9%	1,855	97.5%
Washington-Lee	1,908	1,952	102.3%	1,977	103.6%	2,094	109.7%	2,106	110.4%	2,210	115.8%	2,355	123.4%
Yorktown	1,879	1,738	92.5%	1,737	92.4%	1,717	91.4%	1,755	93.4%	1,830	97.4%	1,923	102.3%
H-B Woodlawn	390	411	105.4%	397	101.8%	397	101.8%	397	101.8%	397	101.8%	397	101.8%
Stratford Program	n/a	31	n/a	32	n/a	32	n/a	32	n/a	32	n/a	32	n/a
High Total	6,080	5,847	96.2%	5,936	97.6%	6,122	100.7%	6,267	103.1%	6,531	107.4%	6,886	113.3%
PK-12 Total	23,181	23,233		24,073		24,866		25,728		26,576		27,396	

BACKGROUND: Enrollment Projections and Capacity Utilization

BUILDING CAPACITIES AND PROJECTED STUDENT ENROLLMENT FOR SCHOOL YEARS 2014 – 2023											
School	Capacity	2019		2020		2021		2022		2023	
		Projection	% Utilized	Projection	% Utilized	Projection	% Utilized	Projection	% Utilized	Projection	% Utilized
Abingdon	589	845	143.5%	847	143.8%	845	143.5%	858	145.7%	869	147.5%
Arlington Science Focus	553	683	123.5%	693	125.3%	705	127.5%	718	129.8%	733	132.5%
Arlington Traditional	690	689	99.9%	689	99.9%	689	99.9%	689	99.9%	689	99.9%
Ashlawn	684	772	112.9%	763	111.5%	800	117.0%	797	116.5%	797	116.5%
Barcroft	460	512	111.3%	514	111.7%	511	111.1%	513	111.5%	516	112.2%
Barrett	576	561	97.4%	561	97.4%	558	96.9%	563	97.7%	563	97.7%
Campbell	436	521	119.5%	511	117.2%	497	114.0%	487	111.7%	478	109.6%
Carlin Springs	585	505	86.3%	509	87.0%	520	88.9%	518	88.5%	517	88.4%
Claremont	599	859	143.4%	860	143.6%	860	143.6%	859	143.4%	859	143.4%
Drew	674	717	106.4%	718	106.5%	718	106.5%	720	106.8%	723	107.3%
Glebe	510	506	99.2%	523	102.5%	535	104.9%	540	105.9%	547	107.3%
Henry	463	562	121.4%	571	123.3%	567	122.5%	571	123.3%	577	124.6%
Hoffman-Boston	566	567	100.2%	569	100.5%	565	99.8%	567	100.2%	569	100.5%
Jamestown	597	479	80.2%	477	79.9%	524	87.8%	533	89.3%	536	89.8%
Key	653	713	109.2%	714	109.3%	716	109.6%	717	109.8%	717	109.8%
Long Branch	533	605	113.5%	616	115.6%	613	115.0%	617	115.8%	625	117.3%
McKinley	668	533	79.8%	527	78.9%	545	81.6%	547	81.9%	546	81.7%
New ES @ Williamsburg	630	703	111.6%	713	113.2%	718	114.0%	727	115.4%	734	116.5%
Nottingham	513	685	133.5%	691	134.7%	697	135.9%	700	136.5%	700	136.5%
Oakridge	674	856	127.0%	870	129.1%	859	127.4%	872	129.4%	879	130.4%
Randolph	484	431	89.0%	438	90.5%	435	89.9%	440	90.9%	444	91.7%
Taylor	659	694	105.3%	697	105.8%	705	107.0%	733	111.2%	735	111.5%
Tuckahoe	545	538	98.7%	550	100.9%	552	101.3%	572	105.0%	575	105.5%
Integration Station (Reed)	0	54	n/a	54	n/a	54	n/a	54	n/a	54	n/a
Elementary Total	13,341	14,590	109.4%	14,675	110.0%	14,788	110.8%	14,912	111.8%	14,982	112.3%
Gunston	932	1,188	127.5%	1,240	133.0%	1,216	130.5%	1,241	133.2%	1,297	139.2%
Jefferson	982	1,103	112.3%	1,151	117.2%	1,162	118.3%	1,159	118.0%	1,181	120.3%
Kenmore	985	1,037	105.3%	1,029	104.5%	1,055	107.1%	1,058	107.4%	1,072	108.8%
Swanson	948	1,278	134.8%	1,314	138.6%	1,298	136.9%	1,328	140.1%	1,359	143.4%
Williamsburg	997	1,357	136.1%	1,403	140.7%	1,427	143.1%	1,453	145.7%	1,498	150.3%
H-B Woodlawn	221	227	102.7%	227	102.7%	227	102.7%	227	102.7%	227	102.7%
Stratford Program	n/a	21	n/a	21	n/a	21	n/a	21	n/a	21	n/a
Middle Total	5,065	6,211	122.6%	6,385	126.1%	6,406	126.5%	6,487	128.1%	6,655	131.4%
Arlington Mill	n/a	234	n/a	234	n/a	234	n/a	234	n/a	234	n/a
Langston	n/a	91	n/a	96	n/a	97	n/a	96	n/a	96	n/a
Wakefield	1,903	1,949	102.4%	2,057	108.1%	2,247	118.1%	2,406	126.4%	2,520	132.4%
Washington-Lee	1,908	2,478	129.9%	2,624	137.5%	2,791	146.3%	2,968	155.6%	3,173	166.3%
Yorktown	1,879	2,046	108.9%	2,113	112.5%	2,233	118.8%	2,352	125.2%	2,406	128.0%
H-B Woodlawn	390	397	101.8%	397	101.8%	397	101.8%	397	101.8%	397	101.8%
Stratford Program	n/a	32	n/a	32	n/a	32	n/a	32	n/a	32	n/a
High Total	6,080	7,227	118.9%	7,553	124.2%	8,031	132.1%	8,485	139.6%	8,858	145.7%
PK-12 Total	24,486	28,028		28,613		29,225		29,884		30,495	

