

Capital Improvements Program 2022-31

Fiscal Years



Prince William County

PUBLIC SCHOOLS

Providing A World-Class Education

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CAPITAL IMPROVEMENTS PROGRAM

Overview - Fiscal Years 2022-31

Prince William County Public Schools (PWCS) is the second largest of 132 school divisions in the Commonwealth of Virginia and the 36th largest school division in the country. The School Division provides services to over seven percent of the state's student enrollment.

The total 2020-21 enrollment is 89,076 students with permanent capacity for 90,199 students. This capacity is supplemented with 191 instructional portable classrooms. Capital needs are determined through the development of the Capital Improvements Program (CIP) which is annually updated to maintain a ten-year projection of the School Division's capital needs based upon student population growth and needed school facility renovations. Permanent capacity is set to increase by 10,728 seats over the next ten years with completion of the school facility construction identified within this CIP.

PWCS is organized to focus on meeting the needs of its students and employees while managing 95 schools, along with administrative and support facilities. The CIP serves as a tool for planning and implementing the capital improvement projects needed to house students and employees adequately.

Since it is difficult, if not impossible, to address all county and School Division needs in a single year, a long-term approach to balance expenditures with anticipated revenues must occur. Therefore, the CIP is an ongoing plan designed to reduce portable classrooms by addressing the need for construction of new school facilities and classroom additions to existing schools. Elements of the CIP also include site acquisition, renovations of existing facilities, upgrading and maintaining the School Division's infrastructure, Title IX improvements, Energy Infrastructure improvements, and technology improvements.

The CIP is a blueprint of work to be performed over the next ten-year period as determined in assessments of building infrastructure needs, school capacities, and school space utilization. Faced with continuing growth in enrollment, the CIP enables the School Division to address the changing enrollment patterns and utilize facilities in ways that are consistent with World-Class educational programs. As the CIP is reviewed and updated on an annual basis, long range plans are adjusted based on enrollment projections and fiscal limitations (debt service and budget constraints.)

The CIP addresses the need for new schools and/or additions, as well as renovations to existing school facilities, providing general guidance for the next ten years. It is not an inventory of all the work that must be performed on school facilities over the next ten years. It is, rather, a specific budget for the first year of the program (FY 2022) combined with a more general planning schedule for four additional years (FY 2023-26) and then an estimate of projects needed for FY 2027-31.

The projects designated for the first two years of the plan are the highest priority needs. Working cooperatively, the Prince William County School Board and the Prince William Board of County Supervisors, develop and implement a budget plan to address these needs.

Strategic Plan

The Prince William County School Board is responsible for the establishment of policies governing the education of students in Prince William County. The PWCS Strategic Plan is a roadmap for the School Division and schools to achieve the vision of *Providing A World-Class Education*. The comprehensive Strategic Plan includes objectives and measures that articulate the ways PWCS measures progress.

Strategic Goal

- **Goal 2: Climate.** The teaching, learning, and working environment is safe, caring, healthy, and values human diversity
 - **Objective 2.3: Physical Safety.** Enhance the appearance, condition, and capacity of physical plants, facilities, and instructional equipment

Critical Functions and Strategic Programs

- Planning and Financial—Acquire property for new facilities, administer the CIP with an annual budget ranging from \$100M-\$200M, support the Energy Conservation Program, manage student enrollment forecasting and attendance boundary functions, and provide financial management for Facilities Services
- New Construction—Coordinate the planning, design, and construction efforts for new facilities, additions, and renovations
- Facilities Management—Provide preventative maintenance, repairs, and major improvements to approximately 106 existing school facilities

Projects in Progress

Construction Projects scheduled to open Fall 2021

Gainesville High School



Potomac Shores Middle School
First new middle school designed with an auditorium

Gar-Field High School – Auxiliary Gym



Woodbridge High School – Auxiliary Gym

All high schools now have ADA accessible auxiliary gyms

Planning

Planning for capital improvements is an ongoing process to meet critical system-wide capacity demands associated with current and projected enrollment growth. Priorities shift as conditions change at individual facilities, as programs change, and as the student population totals change. The official student enrollment count for PWCS, as of September 30, 2020, is 89,076 students, a decrease of 2,448 students (-2.7 percent), specifically targeted at the elementary level. The Pandemic has led to an unprecedented decrease in enrollment.

- Elementary School: -2,032 (-5.0 percent)
 - Kindergarten: -712 students
- Middle School: -380 (-1.8 percent)
- High School: +285 (+1.0 percent)

Student enrollment projections are utilized for a variety of planning and decision-making functions, among which operational and capital budgeting needs are most prominent. Predicting future student enrollment is important for long-range planning, budgeting, staffing, and predicting future building and capital needs for housing PWCS students. The forecasting methodology used to predict the number of students who will be enrolling in PWCS for the next 10 years is a combination of the Housing-Unit Method and Grade Progression Method, along with judgmental adjustment to fine-tune the forecasts. This combination of methods provides for very accurate forecasts and at the same time is relatively inexpensive to produce.

Annually, the status of student housing is assessed for the next ten years. This assessment includes determining the availability of space for students, assessing current student enrollment, projecting future student enrollment, and preparing recommendations for current and future housing of students. Individual school forecasts provide a snapshot of the anticipated changes that PWCS will encounter in the course of the current planning period.

2021-22 enrollment is projected to be 89,991 students, an increase of 915 students overall. Examining student enrollment growth within school attendance areas, “Geographic Areas,” and school program capacities, guides the identification of the need for additional space for students. Possible solutions to overcrowding conditions include portable classrooms, relocation of special programs, changes in attendance area boundaries, additions, and the construction of new facilities. Where possible, additions are utilized as cost-effective alternatives to the construction of new facilities.

Planning Capacity vs. Program Capacity

The **Planning Capacity** of a school facility provides an estimate of the number of students who can be housed in a school based on averaged education program need and staffing. Whereas, the **Program Capacity** of a school facility provides an estimate of the number of students who can be housed in a school based on the specific educational program currently utilized at the school facility. It is a more accurate and representative means of calculating a school’s facility’s capacity, based on the actual “program” in place at the school. The calculation of current programs housed at a specific elementary school include the effect of K-3 Class Size Reduction Grant (based on three-year average of free lunch eligibility percentage), special education program needs, gifted education program needs, and Pre-Kindergarten program needs. The educational program profile that exists at a specific middle school is made up of special education program placements, as well as ELL, CTE, flex, foreign language, gifted, LD, math support, and reading support classrooms.

The 2020 enrollment capacities and projections at the elementary level utilize Program Capacity figures for the CIP and boundary planning and will be updated annually to recalculate program capacities. Program Capacity for middle schools have been calculated and will take effect for the 2021-22 school year. The capacity for high schools remains as Planning Capacity.

CIP Changes

New School Construction

- New capacity projects moved at least one year
 - 14th High School – 2025 to 2026
 - Potomac Shores Area Elementary – 2023 to 2024
 - Woodbridge Elementary – 2023 to 2024
 - Yorkshire Area Elementary – 2028 to 2030

Renovations

- Brentsville High School – Major renovation moved to coincide with available funding (2026)
 - Funding increased to \$31.4M

Specific Site-Based Improvement Projects

- Auditorium/Theater – Technical equipment upgrades, (newly identified need); 10-year projections revised to reflect current conditions

FY 2021 Deferred Projects restored to CIP -Funded in FY 2022 CIP

- Brentsville High School – Site Improvements (includes practice-field turf, stadium-field turf, and stadium restroom building)
- Bennett Elementary School Renovation
- Hylton High School – Artificial Turf
- Gar-Field High School – CTE Culinary Improvements
- Potomac High School – Tennis Court Lighting
- Unity Reed High School – Tennis Court Lighting

Total Deferred Projects Restored - \$16,848,008

Funding

This CIP is presented by the Superintendent as part of the annual budget and reviewed and adopted by the Prince William County School Board after a public hearing. The CIP is then presented to the Prince William Board of County Supervisors as part of the School Division's budget for funding appropriation. Once the budget is adopted by the Board of County Supervisors, it becomes the basis for the CIP during the fiscal year.

Facilities Services funding includes costs related to the operation and maintenance of school buildings and equipment. Funds are included in the approved budget to support the CIP. Prioritizing the work within the available funding to address the most critical needs is an ever-present challenge. The funding formula developed by the Associate Superintendent for Finance and Risk Management provides targets for construction and maintenance expenditures.

It is impossible to address all School Division needs in a single year; therefore, a long-term approach is needed to balance expenditures with anticipated revenues. Facilities Services funding includes costs related to the operation and maintenance of school buildings. Future enrollment projections provide the analytical basis to implement this long-term approach and are important for long-range planning, budgeting, staffing, and predicting future building capital needs. Projects are carefully evaluated and prioritized to optimize the use of limited capital funds and to meet operational and facility needs. Funding for long-range plans is adjusted for Prince William County's overall bonding capacity to maintain a Triple A bond rating, as directed by the Prince William Board of County Supervisors.

Funds from "Proffered," monetary contributions have also provided revenue. Monetary contribution proffers, or in-kind contributions from residential rezoning applications prior to July 2016, help the School Division to mitigate the capital costs associated with residential development.

Proffer Changes

In July 1, 2016, the Virginia General Assembly passed SB-549, which amended the Virginia Code relating to conditional zoning for residential rezonings and proffer amendments.

The 2016 SB-549 proffer law stated proposed proffers needed to address an impact specifically attributable to a proposed new residential development that created a need for one or more public facility improvements in excess of existing public facility capacity at the time of the rezoning. The 2016 SB-549 proffer law was revised in 2019 and now allows applicants to proffer contributions that the applicant believes are appropriate. The previous SB-549 proffer law calculated proffers on a per student basis for the proposed students that exceeded the current capacity. The 2019 proffer law allows proffer contributions per residential unit.

The School Division still collects proffered monetary contributions on rezoning cases filed prior to July 1, 2016.

New Schools and Additions

<i>School Year to Open</i>	<i>School/Facility</i>	<i>Projected Cost</i>
2021	Potomac Shores Middle School	\$58,119,000
	Gainesville High School	\$127,400,000
2022	Elementary School (Rosemount Lewis)	\$40,855,000
	Gainesville Middle School Addition (11 rooms)	\$10,337,000
	Reagan Middle School Addition (6 rooms)	\$7,057,000
2024	Elementary School (Woodbridge Area)	\$40,584,000
	Elementary School (Potomac Shores Area)	\$40,584,000
2025	Occoquan Elementary School Replacement	\$43,266,000
	Occoquan Elementary School – Net Zero Option	\$15,000,000
2026	14 th High School	\$157,000,000
2027	Kelly Leadership Center Addition	\$18,000,000
2029	Elementary School (Route 1 South Area)	\$49,465,000
2030	Elementary School (Yorkshire Area)	\$51,697,000
<i>New Schools and Additions TOTAL</i>		<i>\$659,364,000</i>

In the past five years, six new schools and additions to 12 existing schools have been constructed, adding capacity for more than 8,100 students. The new schools include three elementary schools, one high school, the Kilby Elementary School replacement, and the Independence Nontraditional School. The Western Transportation Facility was also completed. The new Rosemount Lewis Elementary School is under construction and scheduled to open September 2022.

Rosemount Lewis Elementary School



New 3-Story Design

Specific Site-Based Projects

<i>School Year to Open</i>	<i>School/Facility</i>	<i>Projected Cost</i>
2021	Brentsville High School – Site Improvement (including practice turf, stadium lights, restroom building.)	\$4,116,000
	Hylton High School – Artificial Turf	\$1,646,000
	Gar-Field High School – CTE Culinary Improvements	\$1,476,865
	Potomac High School – Tennis Court Lighting	\$337,500
	Unity Reed High School – Tennis Court Lighting	\$337,500
2022	Osborn Park High School – Fenestration Improvements	\$12,758,000
	Unity Reed High School – Fenestration Improvements	\$12,758,000
2023	Graham Park Middle School – Fenestration Improvements	\$2,650,000
2025	Gar-Field High School – Fenestration Improvements	\$11,277,000
	Woodbridge High School – Fenestration Improvements	\$11,277,000
2026	Gar-Field High School –Tennis Court Lighting	\$375,000
	Brentsville High School –Tennis Court Lighting	\$375,000
2027	Woodbridge High School – Tennis Court Lighting	\$375,000
	Osborn Park High School – Tennis Court Lighting	\$375,000
On-going	HVAC Controls – Building Automation System Upgrades	\$7,500,000
	Auditorium/Theater – Technical Equipment Upgrades	\$500,000
<i>Specific Site-Based Projects TOTAL</i>		<i>\$68,133,865</i>

Rippon Middle School – Fenestration Improvements

Before



After

Fenestration improvements enhance natural lighting within specific classrooms and enhance appearance of the school façade.

*Unity Reed High School –
New Concessions Building*



The new concessions building at Unity Reed High School adds parity and equivalent bathroom spaces at outdoor stadiums at all high schools.

Woodbridge High School is receiving similar work.



Brentsville High School - Greenhouse

The Brentsville High School Greenhouse shows the School Division's commitment to the CTE-Horticulture program.

Site Acquisition

FY 21 Property Acquisition

<i>School Facility</i>	<i>Acres</i>	<i>Date Acquired</i>	<i>Purchase Price</i>
Potomac Shores Elementary School #2	5.0	Final Settlement Pending	\$2,500,000
ES (Rosemount Lewis)	18	July 2020	\$0-Transfer from PWC
Vulcan (Rosemount ES Parking)	.9634	June 2021	\$109,000
14 th HS - 4 of 7 parcels	56.11	June 2021	\$8,812,797
<i>Property Acquisition TOTAL</i>			<i>\$11,421,797</i>

School Site Acquisition Needs

<i>Year to Open</i>	<i>Year to Acquire</i>	<i>Planned School Facility</i>	<i>Property Status</i>	<i>Estimated Funds Required</i>
2024	2021-22	ES (Woodbridge Area)	Site Needed	TBD
2026	2021	14 th High School	Acquisition on-going	TBD
2029	2024	ES (Route 1 South Area)	Site Needed	\$9,568,000
2030	2025	ES (Yorkshire Area)	Site Needed	\$9,380,000

Land acquisition for school sites is challenging as prime undeveloped land is purchased or optioned by developers for high-profit future residential, commercial, and industrial development. School staff reviews county residential development plans and maintains a database containing the number of anticipated housing units and the stage of development, which is used in making enrollment projections. The projected enrollments determine future school locations and attendance areas. School sites acquired must be located and sized in accordance with the adopted Prince William County Comprehensive Plan as determined by the Prince William County Planning Commission and the Prince William Board of County Supervisors.

Land acquisition will continue to figure prominently in this and future capital improvement budgets. Funding for school site acquisition comes from a combination of developer proffer contributions from rezoning cases submitted prior to July 1, 2016, bond funds, and the operating budget. “Proffered” fund contributions to the School Division have helped to offset the impact of new residential development on schools.

Sixteen school sites have been acquired by proffers since 2000, with an estimated value of almost \$64,000,000. The School Division purchased land for construction of 15 schools and facilities since 2000, spending over \$70,500,000. Even with purchased and proffered sites, there are still four school sites needed by 2031.

School Renovations

<i>School Year to Complete</i>	<i>School/Facility</i>	<i>Projected Cost</i>
2020	Mountain View Elementary School	\$11,263,667
2021	Beville Middle School	\$17,459,047
	Penn Elementary School	\$12,035,000
2022	Bennett Elementary School	\$11,320,000
2023	Hylton High School	\$36,220,000
	Bristow Run Elementary School	\$11,320,200
	Signal Hill Elementary School	\$11,320,200
	Parkside Middle School	\$18,619,000
2024	Swans Creek Elementary School	\$11,830,500
	Cedar Point Elementary School	\$11,830,500
2025	Benton Middle School	\$20,035,000
	Featherstone Elementary School	\$14,837,040
2026	Graham Park Middle School	21,252,000
	Brentsville High School	\$31,366,000
	Unspecified School Renovations	\$256,299,000
<i>School Renovations TOTAL</i>		<i>\$497,007,154</i>

New construction projects are only part of the CIP picture. Renovations are programmed to assure that all schools are safe, functional, and provide the facilities necessary to support the current educational programs regardless of the age of the building. School renovations are major infrastructure improvements that are important to improve capacity, provide adequate activity spaces, and to meet current instructional needs such as technology and music.

A school renovation project evaluates the school for major infrastructure needs. Improvements may include HVAC systems, roof replacements, flooring, painting, casework, plumbing, lighting, electrical systems, security systems, site improvements, and Title IX and ADA improvements.

Fifty-three of the School Division's 95 schools are 25 years or older. The goal of the school renovation program is to renovate schools prior to 25 years of age since the last renovation. The older buildings are well-maintained but are in constant need of repair. They must be renovated to provide quality space, continuity, and stability for a *World-Class Education*. The projects contained in this plan are based on the planning, design review, and input from a team of in-house facility maintenance professionals, administration, school principals, and facility-condition evaluations conducted by architect and engineer consultants.

The Office of Facilities Services continues to meet these challenges head-on to make dramatic improvements to the physical condition of schools. School building conditions are assessed annually, and consideration of critical needs and prior facility upgrades are evaluated. Recent renovations allow for changing the emphasis from systems replacements to maintenance in areas such as roofing and paving repairs.

This CIP addresses the backlog reduction of renovation projects at older buildings, with the age of each school building the first consideration. The order of renovations may be altered when major components are addressed with previous projects, accelerated deterioration conditions warrant, and with funding constraints.

Over the past five years, major renovations were completed at 14 schools and over \$10.1M in major maintenance and Title IX projects were completed. Also, lighting, boilers, chillers, and other infrastructure upgrades were completed at many schools. Additionally, the School Division continues to assess and improve school safety, including multi-million-dollar enhancements in new school design and upgrades to existing buildings by providing controlled access entryways.

Beville Middle School Renovation



Enhanced interior finishes, Improved lighting



New Science Lab

New Music Suite

As new school facilities are constructed, differences exist between the new school facilities and those previously constructed. It is important to review the features provided in new school facilities versus those available in existing schools in order to ensure consistency of educational opportunities provided within the School Division.

The School Board established an Infrastructure Task Force to examine, evaluate, recommend, and prioritize a long-term plan for resolving facility inequities amongst school facilities. Over two years, the School Board approved a one-time budget expenditure of \$742,000 for Elementary School security-related recommendations, as well as the auxiliary gymnasiums at Woodbridge High School and Gar-Field High School and renovations of front office space at Osbourn Park High School and Unity Reed High School.

Budget - Renovations

The School Division budgets for repairs and renovations using the National Building Research Board recommendations. The School Board recommends that 2 to 4 percent of current replacement value of facilities be budgeted annually for repairs and renovations. The projected FY 2022 replacement value of schools is approximately \$3,220,841,000.

The Budget focuses on sustainable facilities and support infrastructure, focusing on the Capital Improvements program investing in our oldest schools, including natural daylighting and door replacement (fenestration) projects.

Prince William County Schools has established an average annual renovation and repair target of 3 percent of the current replacement value of facilities with 1.5 percent for preventive maintenance and 1.5 percent for repairs and renovations. The amount targeted to be budgeted each year varies from approximately 2.2 percent to 3.4 percent, dependent upon the year of the Commonwealth of Virginia's biennium funding. The target to be budgeted in FY 2022 for repairs, renovations, and maintenance is \$96,625,000 (3.0 percent of value), with the estimated budget for maintenance renovations, technology, and energy improvements in FY 2022 at \$80,979,392 (2.5 percent of value); of which \$30,726,123 will be bond funded.

The schedule of renovations includes annual dollars for kitchen upgrades, energy infrastructure improvements, HVAC equipment and controls upgrades, Title IX and technology improvements, portable classroom relocations, and asphalt upgrades. The list of capital projects identified provides a clear statement of school facility requirements that have been categorized within the limitation of projected funding.

A school facility renovation prioritization list has been prepared by the Office of Facilities Services. The list is based on the year the school was built or the year of the last renovation.

Penn Elementary School Renovation

**New Casework, Ceiling
Tiles, Interactive
Whiteboards**



Renovated Hallways

New Lighting



New Lighting and Finishes



Independent Hill Complex Barracks 2 Renovation

School Maintenance & Repair

To improve and maintain current facilities, each school is evaluated at seven-year intervals and major maintenance repairs are scheduled. Major maintenance work extends the useful life of the school facilities by improving, exchanging, or replacing building components that are at or near the end of their useful life. Repairs are made on an ‘as need’ basis until other funding sources become available.

<i>School/Facility</i>	<i>Projected Cost</i>
Asphalt – Upgrades	\$16,700,000
Electrical Upgrades	\$900,000
Plumbing Upgrades	\$200,000
Fenestration Improvements	\$16,870,286
HVAC Equipment and Controls – Upgrades	\$31,061,000
Kitchen – Upgrades	\$15,306,000
Municipal Separate Storm Sewer Systems (MS4)	\$5,500,000
Portable Classroom Relocation	\$5,000,000
Roof Replacement/Repairs	\$51,850,000
Roof Repairs – Skylights	\$600,000
Roof Repairs – Gutters	\$750,000
School Lighting Improvements	\$1,900,000
Title IX Improvements	\$3,540,000
Energy Infrastructure Improvements	\$10,000,000
Total	\$160,177,286

School Maintenance and Repair – Highlights

Fenestration

Brentsville HS-Interior doors
 Gar-Field HS-Entrances
 Osbourn Park HS-Interior doors
 Unity Reed HS-Interior doors
 Woodbridge HS-Entrances
 Fred Lynn MS-Window Replacement
 Graham Park MS-Window Replacement
 Unity Braxton MS-Interior Doors

Asphalt

Battlefield HS-Tennis Court Paving
 Forest Park HS-Tennis Court Paving
 Beville MS-Parking Lot Paving
 Osbourn Park HS-Parking Lot Paving Phase 2
 Fred Lynn MS-Parking Lot/Asphalt Trail Paving
 Pennington TS-Parking Lot Paving
 Swans Creek ES-Parking Lot Paving

Electrical Improvements

School Lighting Upgrades

Graham Park MS
 Enterprise ES
 Kerrydale ES
 Marumsc Hills ES
 Minnieville ES
 Potomac View ES

Stadium Lighting

Potomac HS

Parking Lot Lighting

Gar-Field HS

Roof Replacements

Battlefield HS
 Forest Park HS
 Freedom HS
 Osbourn Park HS
 Neabsco ES-partial
 Rippon MS-partial

HVAC Upgrades

Brentsville HS-Replacement
 Forest Park HS-Cooling Tower
 Gar-Field HS-All RTU’s
 Potomac HS-Cooling Tower
 Woodbridge HS-All RTU’s
 Graham Park MS-25 RTU’s
 Unity Braxton MS-Auxiliary,
 Main Gym, Locker Rooms
 Woodbridge MS-Cooling Tower
 Coles ES-Replacement
 Ellis ES-Chiller
 Pattie ES-Air Unit
 West Gate ES-Chiller

Plumbing

Piping Replacement

Osbourn Park HS

Sustainability Initiative

On June 10, 2020, the School Board issued the “Sustainability Initiative” outlining a strategy to improve Prince William County Schools’ carbon footprint, reduce dependency on fossil fuels, and change the educational culture surrounding sustainability. This important and broad ranging set of goals will enhance the performance of energy consuming systems while increasing awareness and literacy for Sustainability. Prince William Board of County Supervisors also passed a similar resolution on energy sustainability to work collaboratively on these efforts.

- Encourage culture change among all stakeholders in the PWCS community
- Strive to achieve Zero Energy, incorporating sustainable, and maintainable high-performing design standards, while balancing CIP needs and available funding
- Develop means of creating and utilizing clean, renewable energies (e.g., solar arrays)
- Create healthy learning environments where students and staff love to be, and love to learn and teach
- Environmental literacy will lead students and leaders to explore other opportunities to enhance our environment

This CIP is taking its first steps towards the implementation of this initiative in several areas. With the creation of the Superintendent’s Advisory Council on Sustainability, future CIPs will contain the Council’s recommendations.

Steps Toward Sustainable Schools

- Solar – Power Purchasing
- Lighting Improvement Projects
 - Enhances the instructional environment
 - LED replacements conserve energy and reduce carbon footprint, while providing immediate financial return
 - Fenestrian improvements, including solartubes (passive means of increasing light at no ongoing cost)
- Smart Buildings – enhance building automation control technologies
 - Automated sensors, measurement
- Review CIP projects to determine applicability of net zero strategies
 - Potential multiple tiers of review, involving Facilities Services, Sustainability Council, and subcommittees
- Sustainability Council
 - To investigate and bring forward future projects

Virginia Walkability Action Institute

Prince William County Schools' staff participated in the Virginia Walkability Action Institute (VWAI) team to prepare a Community Walkability Action Plan. The program was hosted by the Virginia Health Department and members of the team included Prince William County Schools' staff, Prince William County Planning, Transportation, and Parks staff, and Prince William County Health Department. The desired outcome was to give communities the tools and technical assistance needed to develop policies, plans, and projects that improve pedestrian safety and accessibility for people of all ages and abilities.

Triangle was the study area, with the intent of the study to identify, then recommend an implementation plan to improve the connectivity for the Triangle residents to surrounding destinations, (including schools), and improve conditions of existing infrastructure to make the modes of mobility safe for all users.

VWAI's "Strategic Action 2" states that a pedestrian and bicycle audit will be conducted to study the Fuller Heights and Old Triangle Road connection of residents to amenities and services, including Graham Park Middle School and Triangle Elementary, and identify improvements needed to enhance the walkability and safety to the amenities. Recommendations will be identified as part of the mobility section of the County's Triangle Small Area Plan.

School Facility Renovation Prioritization List

Based on Year Built or Last Renovation

School Facility Name	Year Opened	Effective Facility Age ¹	Most Recent Previous Renovation	Next Scheduled Renovation ²
Hylton HS	1991	29		2023
Beville MS	1991	29		2021
Bennett ES	1996	24		2022
Bristow Run ES	1998	22		2023
Penn ES	1998	22		2021
Signal Hill ES	2000	20		2023
Brentsville HS	1965	20	2000	2026
Forest Park HS	2000	20		
Benton MS	2000	20		2025
Parkside MS	1963	20	2000	2023
Cedar Point ES	2001	19		2024
Swans Creek ES	2001	19		2024
Featherstone ES	1961	19	2001	2025
Graham Park MS	1963	19	2001	2026
Fred Lynn MS	1963	19	2001	
Occoquan ES	1927	18	2002	
Unity Braxton MS	1964	18	2002	
Ashland ES	2002	18		
Bull Run MS	2002	18		
Marsteller MS	2002	18		
Gar-Field HS	1972	17	2003	
Woodbridge MS	1964	17	2003	
Alvey ES	2003	17		
Mary Williams ES	2004	16		
Sudley ES	1972	16	2004	
Freedom HS	2004	16		
Woodbridge HS	1974	16	2004	
Battlefield HS	2004	16		
Porter TS	2004	16		
Ellis ES	2004	16		
Porter TS	2004	16		
Unity Reed HS	1973	15	2005	
Minnieville ES	1972	15	2005	
Vaughan ES	1964	15	2005	
Glenkirk ES	2005	15		
Victory ES	2005	15		
Potomac View ES	1964	15	2005	
Rosa Parks ES	2006	14		
Belmont ES	1967	14	2006	
Buckland Mills ES	2006	14		
Potomac MS	2006	14		
Marumco Hills ES	1966	14	2006	
Dale City ES	1967	14	2006	
Osborn Park HS	1975	14	2006	
Kerrydale ES	1973	13	2007	
Rockledge ES	1972	13	2007	
Tyler ES	1968	13	2007	
Gainesville MS	2007	13		
Kelly Leadership Center	2008	12		
Gravely ES	2008	12		

School Facility Name	Year Opened	Effective Facility Age ¹	Most Recent Previous Renovation	Next Scheduled Renovation ²
Fitzgerald ES	2008	12		
Bel Air ES	1968	12	2008	
Neabsco ES	1969	11	2009	
Enterprise ES	1978	11	2009	
Coles ES	1968	11	2009	
West Gate ES	1964	11	2009	
Sinclair ES	1968	11	2009	
Yorkshire ES	2009	11		
Rippon MS	1967	10	2010	
Triangle ES	2010	10		
Hampton MS	1970	10	2010	
T. Clay Wood ES	2011	9		
Patriot HS	2011	9		
Piney Branch ES	2011	9		
Reagan MS	2012	8		
Pennington TS	1969	8	2012	
PACE West SE	2012	8		
Potomac HS	1981	8	2012	
Pennington TS	1969	8	2012	
Pattie ES	1978	7	2013	
Washington-Reid	1951	7	2013	
Dumfries ES	1939	6	2014	
Nokesville School, The	2014	6		
Haymarket ES	2014	6		
Chris Yung ES	2015	5		
Loch Lomond ES	1962	4	2016	
King ES	1981	4	2016	
Springwoods ES	1985	4	2016	
Lake Ridge ES	1983	4	2016	
Kyle Wilson ES	2016	4		
Colgan HS	2016	4		
Henderson ES	1985	4	2016	
Kilby ES	2017	3		
Covington-Harper ES	2017	3		
Mullen ES	1990	2	2018	
Antietam ES	1990	2	2018	
River Oaks ES	1990	2	2018	
Westridge ES	1989	2	2018	
McAuliffe ES	1989	2	2018	
Saunders MS	1988	2	2018	
Independence NT	2018	2		
Lake Ridge MS	1989	2	2018	
Jenkins ES	2019	1		
Montclair ES	1991	1	2019	
Marshall ES	1994	1	2019	
Leesylvania ES	1996	1	2019	
Old Bridge ES	1995	1	2019	
Mountain View ES	1995	0	2020	
Woodbine Admin	1953	0	2021	

¹ Not including effect of scheduled renewals

² Per the Approved CIP

Summary

<i>Existing Conditions</i>	
Projected Growth in Students (2021-2030)	7,896
Student Enrollment (September 30, 2020)	89,076
Student Enrollment (September 30, 2030)	96,972
Current Student Capacity	90,199
Current Portable Classrooms in Use	191

<i>Proposed Capital Improvements Program</i>	
New School Facilities	9
New Elementary Schools	5
New Middle Schools	1
New High Schools	2
Replacement Elementary School	1
School Additions (Classrooms)	17
Elementary School Additions	----
Middle School Additions (2 Schools)	17
High School Additions	-----
Support Facilities	1
Kelly Leadership Center	1
Proposed Capacity to be Constructed	10, 728
Proposed Costs	\$1,467,182,305
New Construction	\$641,970,000
Additions	\$17,394,000
Specific Site-Based Projects	\$68,133,865
School Renovations	\$497,007,154
Maintenance & Repair	\$160,177,286
Technology Improvement Program	\$82,500,000

Key Highlights of Fiscal Year 2022 Budget - Capital Projects Funded

- Construction of “Rosemount Lewis” Elementary School
- Construction of additions at Reagan Middle School (six rooms) and Gainesville Middle School (11 rooms)
- Renovation of Bennett Elementary School
- Fenestration improvements at Osbourn Park High and Unity Reed High School

APPENDIX A

School Facility Information

- Count of Educational Facilities
- School Facilities – Detail Information
 - Elementary
 - Combined
 - Middle
 - High
 - Special
 - Administrative
 - Transportation
- Portable Classrooms

Count of Educational Facilities

Prince William County Schools 2015-16 to 2020-21

School Type	Count of School Facilities					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Elementary Schools	58	59	60	60	61	61
Combined Schools	3	3	3	3	3	3
Middle Schools	16	16	16	16	16	16
High Schools	11	12	12	12	12	12
Total (Regular Education)	88	90	91	91	92	92
Special Education	3	3	3	4	3	3
TOTAL	91	93	94	95	95	95

*Independence Non-Traditional School includes the New Dominion program, New Directions program and the PACE East program.

School Facilities – Summary Information Prince William County Schools 2020-21

Use Type	School Type	Facility Count	Program / Planning Capacity	Portable Class-rooms	Square Feet	Acres
Educational	Elementary	61	41,692	66	4,729,973	1,011.2
	Combined	3	2,295		271,423	80.1
	Middle	16	20,015	58	2,194,133	557.7
	High	12	26,197	67	3,564,328	842.8
	Special	3			187,559	32.6
Non-Educational	Administrative	5			339,812	65.3
	Transportation	6			98,350	104.2
Total		106	90,199	191	11,385,578	2,693.9

School Facilities – Detail Information by School Type

Prince William County Schools

Elementary School	Program Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)			Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year			# Classrooms
Alvey ES	838		41	2003						83,084	20.2
Antietam ES	939		45	1990		2018	2019	13		62,334	14.9
Ashland ES	960		46	2002			2008	5		98,461	18.1
Bel Air ES	392	2	28	1968		2008	2008	8		53,712	15.0
Belmont ES	536		36	1967		2006	2006	4	2017	74,142	14.3
Bennett ES	828	2	40	1996	2022		2000	8		83,969	15.3
Bristow Run ES	828	0	40	1998	2023		2004	8		83,885	21.7
Buckland Mills ES	919		43	2006						89,936	15.0
Cedar Point ES	838		41	2001	2024					83,084	15.5
Coles ES	368	3	25	1968		2009				52,745	17.0
Covington-Harper ES	783		45	2017						101,288	21.4
Dale City ES	371	3	25	1967		2006	2001	4		44,333	14.8
Dumfries ES	379	4	27	1939		2014	1989	8		44,925	10.0
Ellis ES	492	3	32	2004						76,724	10.5
Enterprise ES	398	6	26	1978		2009				54,281	15.0
Featherstone ES	415	3	29	1961	2025	2001	2015	6		56,246	12.0
Fitzgerald ES	773	1	46	2008						106,170	11.2
Glenkirk ES	823		41	2005						83,084	15.6
Gravely ES	936		43	2008						95,314	18.0
Haymarket ES	944	2	44	2014						98,736	24.3
Henderson ES	915		42	1985		2016	2017	10		75,495	14.9
Jenkins ES	662		43	2019						100,264	17.2
Kerrydale ES	355	1	24	1973		2007				49,928	15.4
Kilby ES	684		45	2017						98,615	12.8
King ES	430		26	1981		2016				63,832	15.2
Lake Ridge ES	871		42	1983		2016	2019	13		83,358	15.1
Leesylvania ES	760		46	1996		2019	2019	4		83,084	16.3
Loch Lomond ES	441	6	30	1962		2016	2013	4		58,278	10.7
Marshall ES	738		35	1994		2019	1999	4		62,700	24.2
Marunco Hills ES	579	4	35	1966		2006	2006	2	2009	56,651	12.2
McAuliffe ES	446	2	28	1989		2018				59,517	15.1
Minnieville ES	612		39	1972		2005	2019	10		75,070	15.2
Montclair ES	592	2	35	1991		2019	2008	4		70,928	15.9
Mountain View ES	721		36	1995		2020	2002	4	2020	73,415	30.0
Mullen ES	709	1	43	1990		2018	1999	4	2013	82,219	15.0
Neabscos ES	716		43	1969		2009	2017	8		76,945	12.8
Ocoquan ES	498	4	30	1927		2002	2003	5		55,225	10.1
Old Bridge ES	532		32	1995		2019	2019	0		77,804	17.9
Rosa Parks ES	851		41	2006						83,084	15.2
Pattie ES	785		37	1978		2013	2018	11	2011	69,375	15.0
Penn ES	663		39	1998	2021		2013	7		87,542	16.9
Piney Branch ES	931		44	2011						104,448	21.0
Potomac View ES	516	2	37	1964		2005	2005	4	2009	60,756	12.4
River Oaks ES	612	1	38	1990		2018	2014	7		80,618	15.2
Rockledge ES	522	1	31	1972		2007	2009	7		64,769	16.2
Signal Hill ES	819		41	2000	2023					83,084	24.5
Sinclair ES	662	3	42	1968		2009	2001	6	2013	75,698	15.0
Springwoods ES	946		42	1985		2016	2019	13		83,260	15.1
Sudley ES	639	1	38	1972		2004	2013	10		73,457	14.0
Swans Creek ES	632	1	38	2001	2024		2012	6		86,934	18.5
Triangle ES	752		44	2010						103,679	18.9
Tyler ES	574		28	1968		2007	2007	4		56,560	25.5
Vaughan ES	585	3	36	1964		2005	2001	4	2009	58,967	13.6
Victory ES	874		43	2005						89,911	21.2
West Gate ES	497	4	36	1964		2009	2013	4		59,727	12.1
Westridge ES	709		34	1989		2018	2012	6		70,559	15.0
Mary Williams ES	696	1	41	2004						83,084	13.6
Kyle Wilson ES	872		49	2016						106,345	19.5
T. Clay Wood ES	950		44	2011						104,448	33.8
Yorkshire ES	745		46	2009						106,614	13.3
Chris Yung ES	839		46	2015						107,273	20.8
Total	41,692	66	2,312					225	45	4,729,973	1,011.2

School Facilities – Detail Information

Prince William County Schools

Combined School	Planning Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Nokesville School, The	1,080		56	2014							141,832	48.2
Pennington TS	607		31	1969		2012					58,346	15.0
Porter TS	608		32	2004							71,245	16.9
Total	2,295		119								271,423	80.1

Middle School	Planning Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Benton MS	1,464	0	78	2000	2025		2013	11			151,130	48.2
Beville MS	1,191	0	65	1991	2021						134,140	42.1
Bull Run MS	1,233	0	65	2002							135,309	39.4
Gainesville MS	1,233	7	64	2007							135,309	39.4
Graham Park MS	867	8	48	1963	2026	2001	2001	4			110,514	21.9
Hampton MS	982	2	52	1970		2010	2002	8			124,610	30.0
Lake Ridge MS	1,464	0	78	1989		2018	2018	13			158,900	34.1
Fred Lynn MS	1,170	14	61	1963		2001					131,974	28.6
Marsteller MS	1,233	5	65	2002							135,309	36.4
Parkside MS	1,453	4	75	1963	2023	2000	2014	15			145,677	30.0
Potomac MS	1,464	0	76	2006			2013	11			151,130	36.4
Reagan MS	1,233	5	64	2012							134,765	41.9
Rippon MS	1,390	2	75	1967		2010	2016	8			156,094	30.2
Saunders MS	1,212	2	64	1988		2018					137,088	29.5
Unity Braxton MS	1,360	0	69	1964		2002	2019	17			127,673	32.2
Woodbridge MS	1,066	9	56	1964		2003					124,511	37.4
Total	20,015	58	1,055					87		0	2,194,133	557.7

High School	Planning Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Battlefield HS	2,053	21	101	2004							285,086	78.8
Brentsville HS	1,110	0	53	1965	2026	2000	2000	9	1980		163,066	29.0
Colgan HS	2,053	7	102	2016							308,058	108.4
Forest Park HS	2,053	0	101	2000							283,268	79.1
Freedom HS	2,053	8	101	2004							285,886	80.7
Gar-Field HS	2,839	0	128	1972		2003					353,742	91.5
Hylton HS	2,053	0	101	1991	2023						282,346	74.8
Osborn Park HS	2,430	4	115	1975		2006					328,386	56.1
Patriot HS	2,053	20	101	2011							320,124	60.0
Potomac HS	2,357	0	113	1981		2012	2013	30			273,329	75.1
Unity Reed HS	2,409	7	117	1973		2005					328,540	56.6
Woodbridge HS	2,734	0	125	1974		2004					352,497	52.7
Total	26,197	67	1,258					39		0	3,564,328	842.8

Special School	Planning Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Independence Nontraditional			57	2018							122,850	9.9
PACE West			21	2012							39,998	13.5
Washington-Reid Preschool Center			9	1951		2013					24,711	9.2
Total	0	0	87					0		0	187,559	32.6

Administrative	Planning Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Ann Ludwig				1975							14,220	4.8
Aquatics Center				2016							31,578	0.8
Independent Hill Complex				1968							139,947	37.6
Kelly Leadership Center				2008							145,747	20.3
Woodbine				1953							8,320	1.9
Total	0	0	0					0		0	339,812	65.3

School Facilities – Detail Information

Prince William County Schools

Transportation	Planning Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms		
McCuin Transportation Cntr				2002							8,400	11.5
New Dominion Transportation Ctr (Special Needs)				1975		2019					14,749	9.3
Transportation Center Central				2005							14,934	29.9
Transportation Center East				2002							14,565	16.8
Transportation Cntr (Hooe Rd)				1979							28,028	20.0
Western Transportation Center				2019							17,674	16.7
Total	0	0	0					0		0	98,350	104.2

All Facilities	School Capacity	Portable Classrooms 2020-21	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms		
Total	90,199	191	4,831					351		45	11,385,578	2,693.9

Portable Classrooms

Current and Historical Totals
By School Type, 1998 to 2020

Year	School Type					Total
	Elementary	Middle	High	Alternative	Special Education	
1998	101	21	28	0	5	155
1999	109	25	25	0	5	164
2000	118	31	5	10	5	169
2001	122	37	2	10	5	176
2002	130	26	2	10	5	173
2003	141	16	2	10	5	174
2004	168	19	2	10	5	204
2005	185	40	5	10	5	245
2006	179	27	8	10	5	229
2007	184	20	14	10	10	238
2008	171	20	21	10	10	232
2009	150	21	36	10	7	224
2010	145	21	37	10	10	223
2011	132	31	21	10	10	204
2012	136	29	18	10	9	202
2013	126	23	30	11	9	199
2014	121	22	37	11	9	200
2015	122	27	46	11	9	215
2016	128	30	41	11	1	211
2017	110	36	49	11	1	207
2018	107	47	51	0	1	206
2019	72	50	61	0	0	183
2020	66	58	67	0	0	191

Student Enrollment Data: Current and Projected Enrollment
Elementary Schools
SY 2020-21 to SY 2030-31

Elementary School	Available Space		2020-21			2021-22			2025-26			2030-31		
	Program Capacity	Portable Classrooms	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util
Alvey	838	0	498	340	59.4%	476	362	56.8%	366	472	43.6%	365	473	43.6%
Antietam	939	0	773	166	82.3%	761	178	81.0%	812	127	86.4%	810	129	86.3%
Ashland	960	0	784	176	81.7%	691	269	72.0%	669	291	69.7%	668	292	69.6%
Bel Air	392	2	383	9	97.7%	353	39	90.1%	351	41	89.4%	349	43	89.1%
Belmont	536	0	499	37	93.1%	501	35	93.5%	517	19	96.5%	546	-10	101.9%
Bennett	828	2	705	123	85.1%	759	69	91.7%	878	-50	106.0%	901	-73	108.8%
Bristow Run	828	0	574	254	69.3%	588	240	71.0%	605	223	73.1%	604	224	73.0%
Buckland Mills	919	0	705	214	76.7%	719	200	78.2%	802	117	87.2%	807	112	87.8%
Cedar Point	838	0	516	322	61.6%	476	362	56.8%	483	355	57.7%	499	339	59.6%
Coles	368	3	408	-40	110.9%	367	1	99.7%	310	58	84.2%	315	53	85.6%
Covington-Harper	783	0	704	79	89.9%	836	-53	106.8%	1,177	-394	150.3%	1,439	-656	183.8%
Dale City	371	3	415	-44	111.9%	421	-50	113.5%	464	-93	125.2%	463	-92	124.9%
Dumfries	379	4	418	-39	110.3%	474	-95	125.1%	614	-235	162.1%	732	-353	193.0%
Ellis	492	3	436	56	88.6%	450	42	91.5%	436	56	88.6%	517	-25	105.1%
Enterprise	398	6	376	22	94.5%	408	-10	102.5%	439	-41	110.2%	439	-41	110.2%
Featherstone	415	3	470	-55	113.3%	478	-63	115.2%	485	-70	116.9%	489	-74	117.8%
Fitzgerald	773	1	829	-56	107.2%	906	-133	117.2%	916	-143	118.6%	970	-197	125.5%
Glenkirk	823	0	654	169	79.5%	618	205	75.1%	671	152	81.5%	669	154	81.3%
Gravelly	936	0	755	181	80.7%	725	211	77.5%	618	318	66.0%	717	219	76.6%
Haymarket	944	2	814	130	86.2%	802	142	85.0%	756	188	80.1%	796	148	84.4%
Henderson	915	0	752	163	82.2%	771	144	84.3%	837	78	91.5%	840	75	91.8%
John D. Jenkins	662	0	582	80	87.9%	550	112	83.1%	556	106	84.0%	616	46	93.0%
Kerrydale	355	1	338	17	95.2%	335	20	94.4%	344	11	97.0%	343	12	96.6%
Kilby	684	0	597	87	87.3%	604	80	88.3%	655	29	95.8%	727	-43	106.3%
King	430	0	433	-3	100.7%	438	-8	101.9%	454	-24	105.6%	453	-23	105.4%
Lake Ridge	871	0	632	239	72.6%	617	254	70.8%	540	331	62.0%	540	331	62.0%
Leesylvania	760	0	684	76	90.0%	657	103	86.4%	761	-1	100.1%	765	-5	100.6%
Loch Lomond	441	6	526	-85	119.3%	534	-93	121.1%	615	-174	139.6%	615	-174	139.5%
Marshall	738	0	637	101	86.3%	591	147	80.1%	558	180	75.6%	564	174	76.4%
Marumscio Hills	579	4	558	21	96.4%	553	26	95.5%	542	37	93.6%	574	5	99.1%
McAuliffe	446	2	398	48	89.2%	394	52	88.3%	398	48	89.3%	397	49	89.1%
Minnieville	612	0	529	83	86.4%	528	84	86.3%	592	20	96.7%	590	22	96.5%
Montclair	592	2	638	-46	107.8%	652	-60	110.1%	693	-101	117.1%	693	-101	117.1%
Mountain View	721	0	458	263	63.5%	416	305	57.7%	305	416	42.3%	304	417	42.2%
Mullen	709	1	704	5	99.3%	729	-20	102.8%	797	-88	112.4%	801	-92	113.0%
Neabsco	716	0	643	73	89.8%	653	63	91.2%	715	1	99.9%	714	2	99.7%
Nokesville School, The (ES)	641	0	671	-30	104.7%	706	-65	110.1%	849	-208	132.5%	970	-329	151.3%
Occoquan	498	4	617	-119	123.9%	625	-127	125.5%	679	-181	136.3%	705	-207	141.5%
Old Bridge	532	0	476	56	89.5%	397	135	74.6%	409	123	76.8%	408	124	76.8%
Rosa Parks	851	0	587	264	69.0%	567	284	66.6%	546	305	64.1%	590	261	69.4%
Pattie	785	0	660	125	84.1%	691	94	88.0%	696	89	88.7%	697	88	88.8%
Penn	663	0	672	-9	101.4%	641	22	96.7%	712	-49	107.4%	713	-50	107.6%
Pennington (ES)	364	0	405	-41	111.3%	405	-41	111.3%	405	-41	111.3%	405	-41	111.3%
Piney Branch	931	0	724	207	77.8%	699	232	75.1%	692	239	74.3%	691	240	74.2%
Porter (ES)	356	0	419	-63	117.7%	420	-64	118.0%	420	-64	118.0%	420	-64	118.0%
Potomac View	516	2	510	6	98.8%	545	-29	105.6%	551	-35	106.8%	574	-58	111.2%
River Oaks	612	1	583	29	95.3%	611	1	99.8%	650	-38	106.2%	649	-37	106.1%
Rockledge	522	1	488	34	93.5%	507	15	97.1%	455	67	87.2%	483	39	92.6%
Signal Hill	819	0	663	156	81.0%	686	133	83.8%	759	60	92.7%	804	15	98.2%
Sinclair	662	3	772	-110	116.6%	806	-144	121.8%	848	-186	128.1%	847	-185	128.0%
Springwoods	946	0	759	187	80.2%	798	148	84.4%	712	234	75.2%	711	235	75.1%
Sudley	639	1	615	24	96.2%	621	18	97.2%	619	20	96.9%	618	21	96.7%
Swans Creek	632	1	621	11	98.3%	602	30	95.3%	661	-29	104.6%	693	-61	109.6%
Triangle	752	0	710	42	94.4%	728	24	96.8%	800	-48	106.3%	865	-113	115.0%
Tyler	574	0	443	131	77.2%	459	115	80.0%	511	63	89.1%	563	11	98.1%
Vaughan	585	3	555	30	94.9%	576	9	98.5%	596	-11	101.8%	594	-9	101.6%
Victory	874	0	589	285	67.4%	587	287	67.2%	590	284	67.5%	607	267	69.5%
West Gate	497	4	545	-48	109.7%	546	-49	109.9%	638	-141	128.4%	660	-163	132.8%
Westridge	709	0	660	49	93.1%	675	34	95.2%	659	50	92.9%	657	52	92.7%
Mary Williams	696	1	668	28	96.0%	701	-5	100.7%	631	65	90.7%	630	66	90.5%
Kyle Wilson	872	0	846	26	97.0%	842	30	96.6%	835	37	95.8%	851	21	97.6%
T. Clay Wood	950	0	858	92	90.3%	799	151	84.1%	896	54	94.3%	900	50	94.7%
Yorkshire	745	0	710	35	95.3%	724	21	97.2%	719	26	96.5%	825	-80	110.7%
Chris Yung	839	0	739	100	88.1%	808	31	96.3%	849	-10	101.2%	976	-137	116.3%
Total	43,053	66	38,390	4,663	89.2%	38,603	4,450	89.7%	40,118	2,935	93.2%	41,740	1,313	96.9%

Student Enrollment Data: Current and Projected Enrollment
Elementary Schools – Additional Space to be Constructed
SY 2020-21 to SY 2030-31

Elementary School	2020-21			2021-22			2025-26			2030-31				
	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util		
2022														
<i>Elementary School (West - Rosemont Lewis)</i>										702			702	
2024														
<i>Elementary School (Potomac Shores #2)</i>										726			726	
<i>Elementary (Occoquan/Woodbridge Area)</i>										640			640	
2025														
<i>Occoquan Replacement School</i>										226			226	
2029														
<i>Elementary School (Route 1 South Area)</i>													726	
2030														
<i>Elementary School (Yorkshire Area)</i>													702	
<i>Sum of Additional Seats</i>										2,294			3,722	
Totals (if new schools and additions were added)	38,390	4,663	89.2%	38,603	4,450	89.7%	40,118	5,229	88.5%	41,740	5,035	89.2%		

Student Enrollment Data: Current and Projected Enrollment
Middle Schools
SY 2020-21 to SY 2030-31

Middle School	Available Space			2020-21			2021-22			2025-26			2030-31		
	Planning Capacity ¹	Program Capacity ²	Portable Classrooms	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util
Benton	1,464	1,436	.	1,344	120	91.8%	1,279	157	89.1%	1,267	169	88.2%	1,056	380	73.5%
Beville	1,191	1,256	.	1,072	119	90.0%	1,120	136	89.2%	1,260	-4	100.3%	1,231	25	98.0%
Bull Run	1,233	1,153	.	1,157	76	93.8%	1,092	61	94.7%	1,126	27	97.7%	1,050	103	91.1%
Gainesville	1,233	1,209	7	1,397	-164	113.3%	1,336	-127	110.5%	1,371	-162	113.4%	1,407	-198	116.4%
Graham Park	867	863	8	978	-111	112.8%	789	74	91.4%	867	-4	100.5%	982	-119	113.8%
Hampton	982	1,039	2	1,011	-29	103.0%	983	56	94.6%	1,044	-5	100.5%	1,134	-95	109.1%
Lake Ridge	1,464	1,495	.	1,478	-14	101.0%	1,371	124	91.7%	1,465	30	98.0%	1,295	200	86.6%
Fred M. Lynn	1,170	1,139	14	1,366	-196	116.8%	1,142	-3	100.3%	1,287	-148	113.0%	1,238	-99	108.7%
Marsteller	1,233	1,217	5	1,246	-13	101.1%	1,199	18	98.5%	1,141	76	93.8%	1,140	77	93.7%
Nokesville School, The (MS)	439	448	.	391	48	89.1%	389	59	86.8%	474	-26	105.8%	538	-90	120.1%
Parkside	1,453	1,381	4	1,509	-56	103.9%	1,483	-102	107.4%	1,590	-209	115.1%	1,742	-361	126.1%
Pennington (MS)	243	243	.	252	-9	103.7%	243	0	100.0%	243	0	100.0%	243	0	100.0%
Porter (MS)	252	252	.	263	-11	104.4%	252	0	100.0%	252	0	100.0%	252	0	100.0%
Potomac	1,464	1,409	.	1,213	251	82.9%	1,088	321	77.2%	1,219	190	86.5%	1,272	137	90.3%
Potomac Shores	.	1,462	.	.	.	.	986	476	67.4%	1,118	344	76.5%	1,292	170	88.4%
Ronald Wilson Reagan	1,233	1,236	5	1,382	-149	112.1%	1,367	-131	110.6%	1,341	-105	108.5%	1,209	27	97.8%
Rippon	1,390	1,394	2	1,360	30	97.8%	1,277	117	91.6%	1,312	82	94.1%	1,360	34	97.6%
Saunders	1,212	1,244	2	1,212	0	100.0%	1,181	63	94.9%	1,091	153	87.7%	1,015	229	81.6%
Unity Braxton	1,360	1,307	.	1,128	232	82.9%	1,168	139	89.4%	1,292	15	98.9%	1,359	-52	104.0%
Woodbridge	1,066	1,081	9	1,219	-153	114.4%	1,083	-2	100.2%	1,046	35	96.8%	1,016	65	94.0%
Total	20,949	22,264	58	20,978	-29	100.1%	20,828	1,436	93.6%	21,805	459	97.9%	21,832	432	98.1%
<i>Middle School (East - Potomac Shores, 2021)³</i>															
<i>Gainesville Middle School Addition (11 room, 2022)</i>															
<i>Reagan Middle School Addition (Six room, 2022)</i>															
<i>Sum of Additional Seats</i>															
Total	20,949	22,264	58	20,978	-29	100.1%	20,828	1,436	93.6%	21,805	816	96.4%	21,832	789	96.5%

Notes: ¹ Planning Capacity is used for the 2020-21 School Year.
² Program Capacity will be replacing Planning Capacity starting in the 2021-22 School Year. The numbers in the table reflect the change starting in 2021-22.
³ Potomac Shores Middle School additional seats have been added in the totals, which is why they are not counted in the additional seats section on this page.

Student Enrollment Data: Current and Projected Enrollment
High Schools
SY 2020-21 to SY 2030-31

High School	Available Space		2020-21			2021-22			2025-26			2030-31		
	Capacity	Portable Classrooms	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util
Battlefield	2,053	21	2,908	-855	141.6%	2,534	-481	123.4%	1,754	299	85.4%	1,489	564	72.5%
Brentsville	1,110	.	976	134	87.9%	960	150	86.5%	1,159	-49	104.4%	1,334	-224	120.2%
Colgan	2,053	7	2,909	-856	141.7%	2,806	-753	136.7%	2,615	-562	127.4%	2,331	-278	113.5%
Forest Park	2,053	.	2,226	-173	108.4%	2,312	-259	112.6%	2,439	-386	118.8%	2,665	-612	129.8%
Freedom	2,053	8	2,168	-115	105.6%	2,220	-167	108.1%	2,517	-464	122.6%	2,848	-795	138.7%
Gainesville	2,557	.	.	.	.	1,296	1,261	50.7%	2,610	-53	102.1%	2,736	-179	107.0%
Gar-Field	2,839	.	2,280	559	80.3%	2,428	411	85.5%	2,428	411	85.5%	2,697	142	95.0%
C.D. Hylton	2,053	.	2,130	-77	103.8%	2,108	-55	102.7%	2,088	-35	101.7%	1,948	105	94.9%
Osborn Park	2,430	4	2,598	-168	106.9%	2,821	-391	116.1%	3,186	-756	131.1%	3,591	-1,161	147.8%
Patriot	2,053	20	2,817	-764	137.2%	2,354	-301	114.7%	1,831	222	89.2%	1,688	365	82.2%
Potomac	2,357	.	1,899	458	80.6%	2,008	349	85.2%	2,310	47	98.0%	2,581	-224	109.5%
Unity Reed	2,409	7	2,662	-253	110.5%	2,378	31	98.7%	2,143	266	89.0%	2,504	-95	103.9%
Woodbridge	2,734	.	2,771	-37	101.4%	2,812	-78	102.9%	3,057	-323	111.8%	3,198	-464	117.0%
Total	26,197 ¹	67	28,343	-2,146	108.2%	29,037	-283	101.0%	30,136	-1,382	104.8%	31,609	-2,855	109.9%
	28,754 ²													
<i>Gainesville High School - (West 2021)</i>														
<i>14th High School - (Mid-County 2026)</i>														
<i>Sum of Additional Seats</i>														
Total	26,197 ¹	67	28,343	-2,146	108.2%	29,037	-283	101.0%	30,136	-1,382	104.8%	31,609	-298	101.0%
	28,754 ²													

Notes:
I. Non-public middle and high school students may enroll in PWCS for one or two classes. These students are counted as 0.25 and 0.5 of a student, respectively, per Virginia State Guidelines. Such fractions of a student may affect totals because of rounding.
II. Gainesville High School additional seats have been added in the totals, which is why they are not counted in the additional seats section on this page.
¹ Capacity on which available space is calculated for the 2020-21 school years.
² Capacity on which available space is calculated for the 2021-22 through 2030-31 school years. It reflects the Gainesville High School opening for the 2021-22 school year.

Student Enrollment Data: Current Enrollment
Special Education and Alternative Schools
SY 2020-21

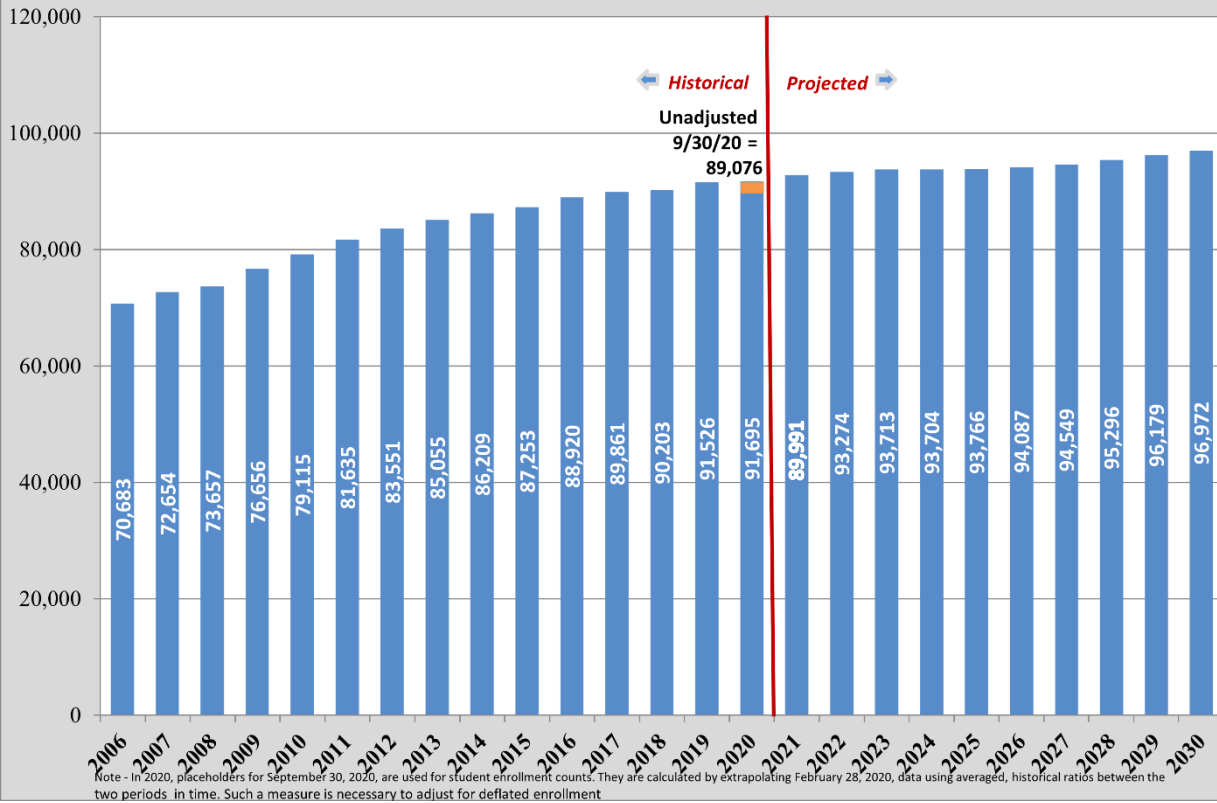
Pre School & Special Schools	2020-21	
	Portable Classrooms	Students
Pre-School Child Find		85
School Based Preschool		400
Washington-Reid Preschool		54
PACE (West)		74
Special Ed. Private Facility		192
Independence Nontraditional School - ED Center		78
Independence Nontraditional School - Middle		24
Independence Nontraditional School - High		388
TJHS Regional		70
Total	0	1,365

I. Non-public middle and high school students may enroll in PWCS for one or two classes. These students are counted as 0.25 and 0.5 of a student, respectively, per Virginia State Guidelines. Such fractions of a student may affect totals because of rounding.

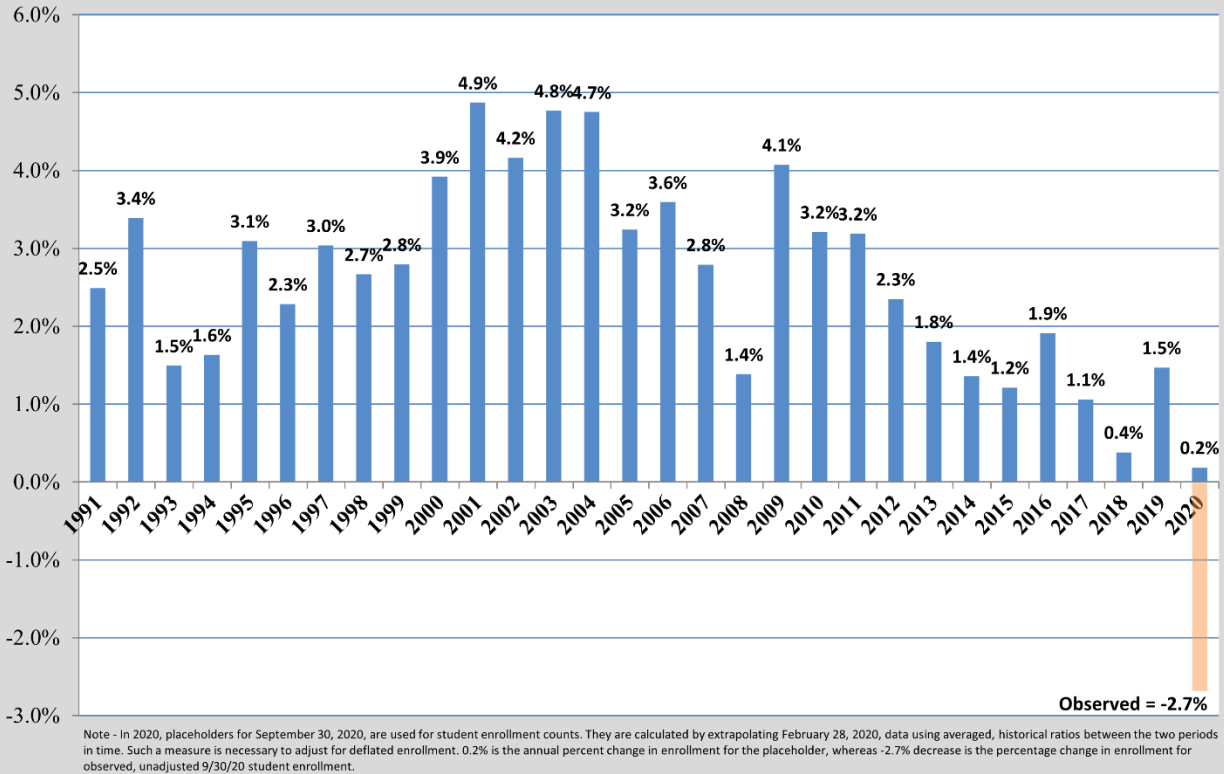
Student Enrollment Data: Historical and Projected
1990-2030

Year	School Type				Total	Annual Change	
	Elementary	Middle	High	Special Education		Number	Percentage
1990	20,702	9,320	11,638	686	42,346	812	2.0%
1991	20,984	9,861	11,846	709	43,400	1,054	2.5%
1992	21,768	10,212	12,178	712	44,870	1,470	3.4%
1993	21,605	10,654	12,501	779	45,539	669	1.5%
1994	21,826	10,733	12,822	900	46,281	742	1.6%
1995	22,473	11,085	13,329	825	47,712	1,431	3.1%
1996	22,886	11,327	13,828	760	48,801	1,089	2.3%
1997	23,529	11,636	14,366	751	50,282	1,481	3.0%
1998	24,044	11,744	14,839	994	51,621	1,339	2.7%
1999	24,690	12,212	15,292	868	53,062	1,441	2.8%
2000	25,653	12,774	16,079	633	55,139	2,077	3.9%
2001	26,814	13,445	16,881	683	57,823	2,684	4.9%
2002	27,717	14,256	17,558	698	60,229	2,406	4.2%
2003	28,820	15,035	18,525	719	63,099	2,870	4.8%
2004	30,101	15,580	19,652	760	66,093	2,994	4.7%
2005	31,286	15,623	20,448	877	68,234	2,141	3.2%
2006	32,704	15,748	21,228	1,003	70,683	2,449	3.6%
2007	33,858	16,040	21,792	964	72,654	1,971	2.8%
2008	34,428	16,273	21,930	1,027	73,657	1,003	1.4%
2009	36,055	17,034	22,328	1,239	76,656	2,999	4.1%
2010	37,261	17,700	22,857	1,298	79,115	2,459	3.2%
2011	38,436	18,351	23,500	1,348	81,635	2,520	3.2%
2012	39,269	18,902	24,015	1,365	83,551	1,916	2.3%
2013	39,538	19,473	24,665	1,379	85,055	1,504	1.8%
2014	39,920	19,703	25,249	1,337	86,208	1,153	1.4%
2015	40,070	20,004	25,861	1,319	87,253	1,045	1.2%
2016	40,569	20,095	26,923	1,333	88,920	1,667	1.9%
2017	40,482	20,713	27,261	1,405	89,861	941	1.1%
2018	40,110	20,997	27,610	1,486	90,203	342	0.4%
2019	40,422	21,357	28,058	1,689	91,526	1,323	1.5%
2020	38,390	20,978	28,343	1,365	89,076	-2,450	-2.7%
2021	38,603	20,828	29,037	1,523	89,991	915	1.0%
2022	40,606	21,341	29,709	1,618	93,274	3,283	3.6%
2023	40,447	21,466	30,176	1,624	93,713	439	0.5%
2024	40,237	21,659	30,164	1,644	93,704	-9	0.0%
2025	40,153	21,817	30,136	1,659	93,766	62	0.1%
2026	40,059	21,853	30,500	1,675	94,087	321	0.3%
2027	40,192	21,925	30,741	1,691	94,549	462	0.5%
2028	40,554	21,981	31,054	1,707	95,296	746	0.8%
2029	41,041	21,950	31,466	1,722	96,179	884	0.9%
2030	41,774	21,850	31,609	1,738	96,972	792	0.8%

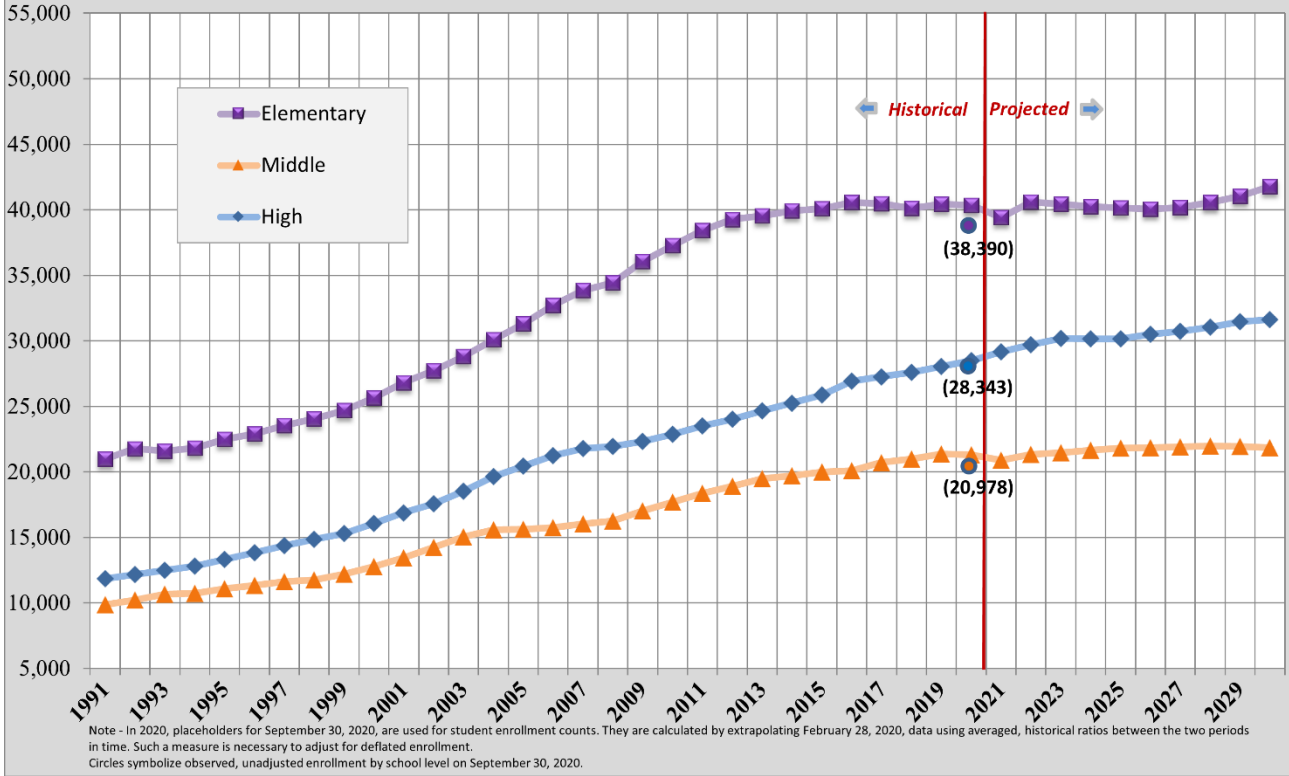
Prince William County Public Schools Historical and Projected Enrollment



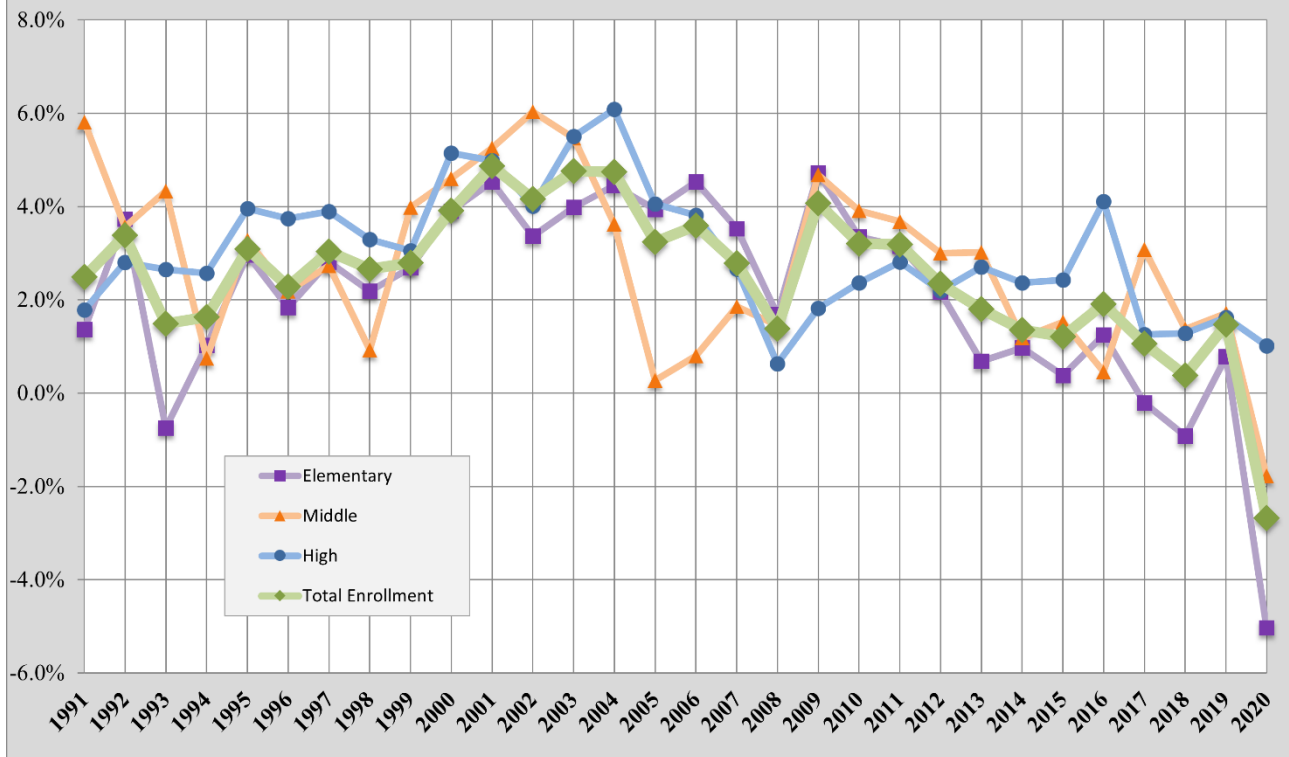
Prince William County Public Schools Annual Percentage Change in Enrollment



Prince William County Public Schools
Historical and Projected Enrollment by School Level

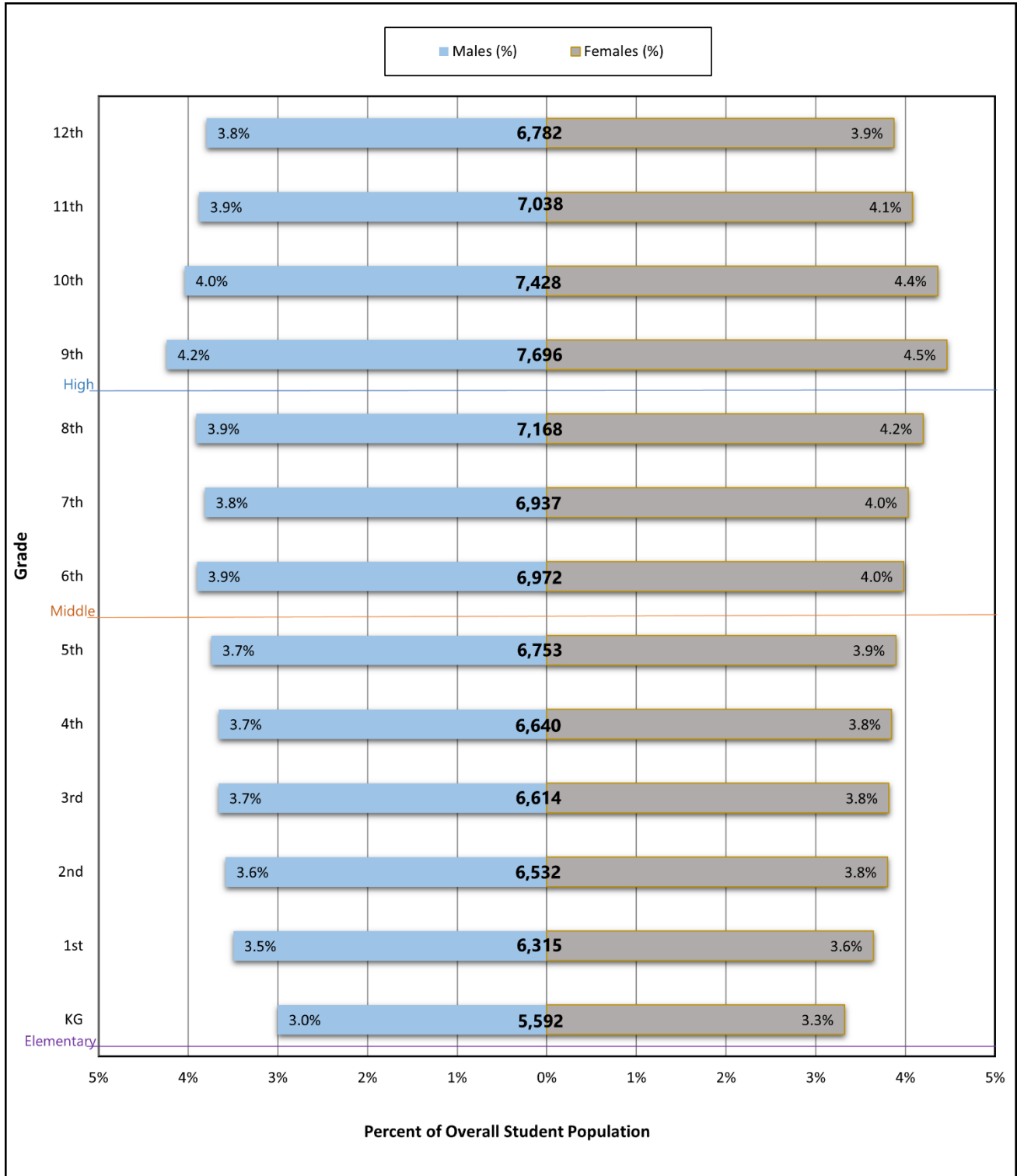


Prince William County Public Schools
Annual Percentage Change in Enrollment by School Level



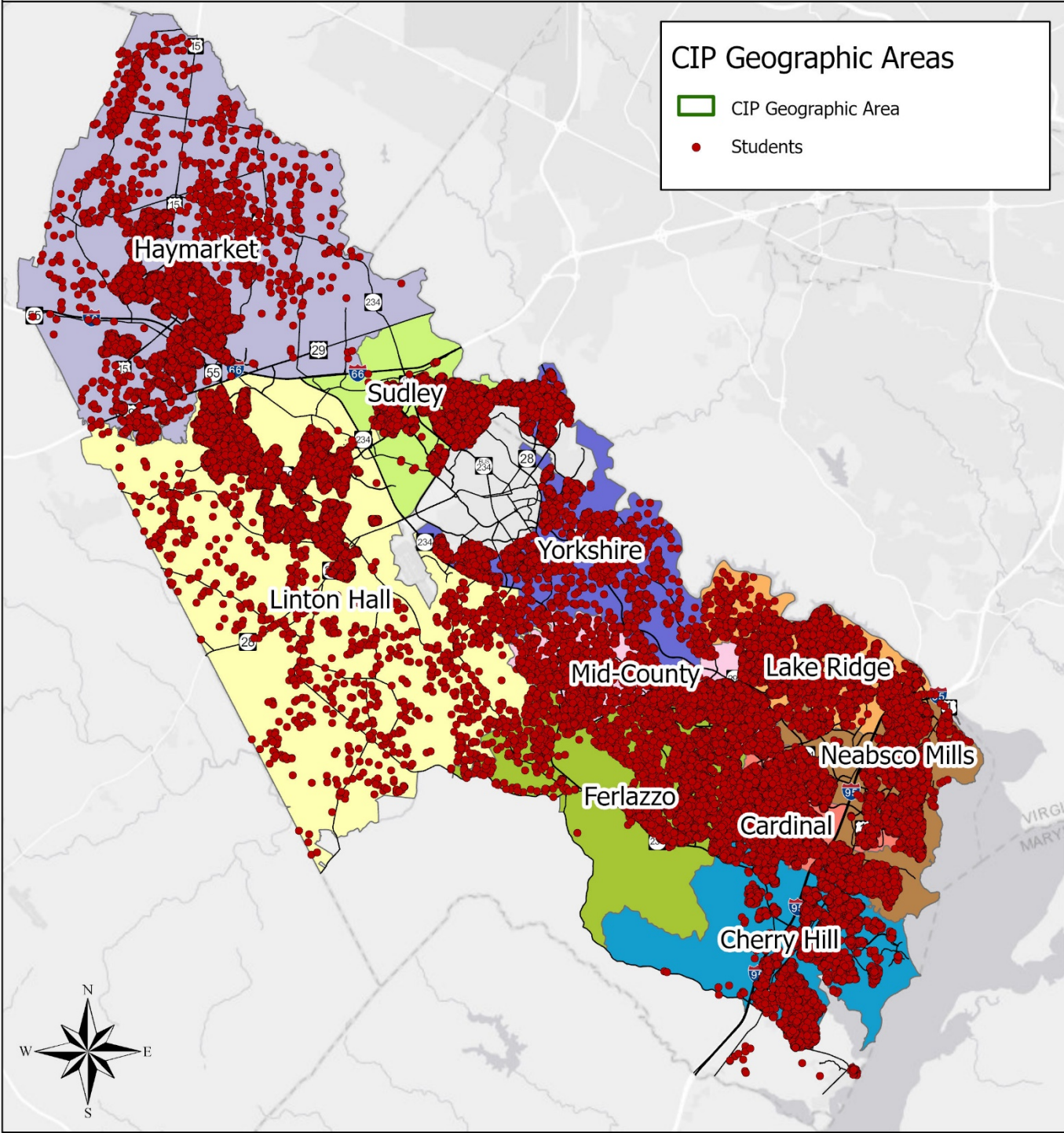
Student Enrollment by Grade and Gender

By Grade and Gender 2020-21



Student Distribution

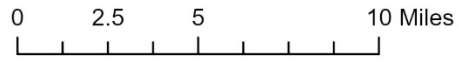
2020-21 School Year



CIP Geographic Areas

- CIP Geographic Area
- Students

Data:
Road_Shield
CIP_Areas
Students



Office of Facilities Services
January 2021

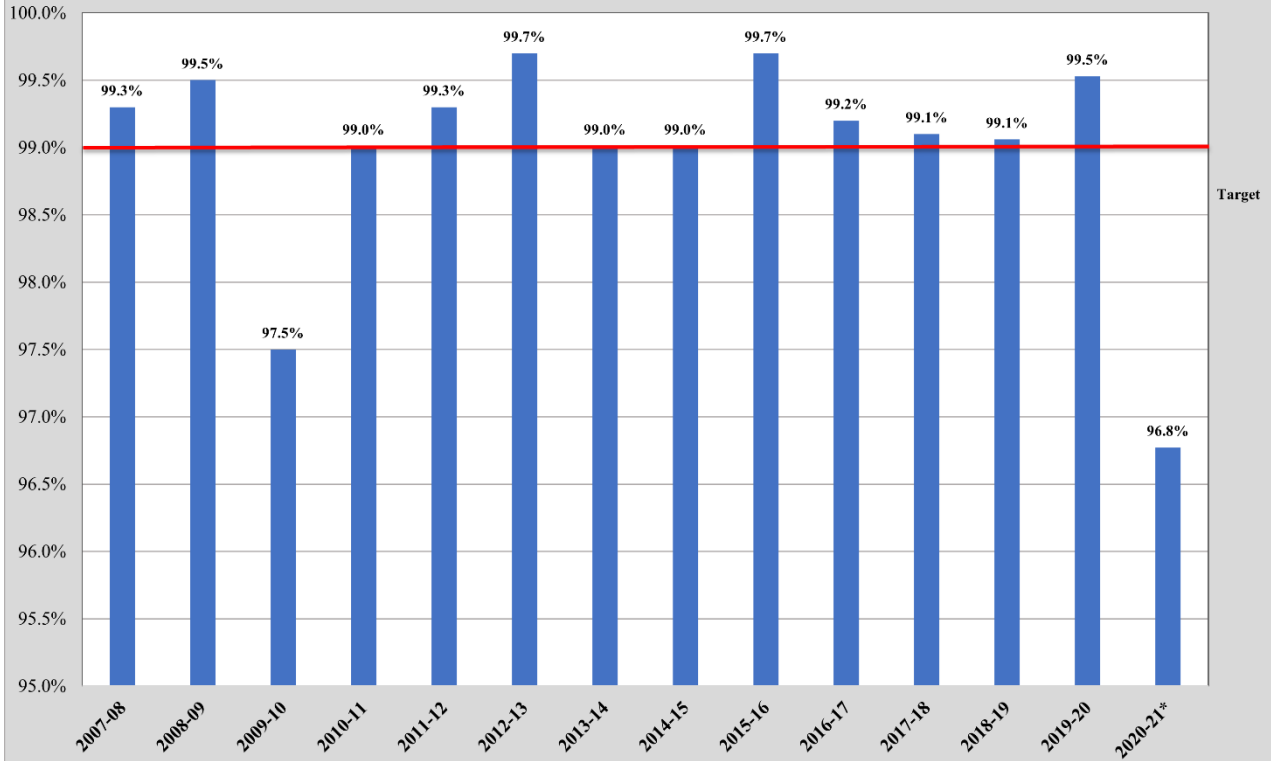
Student Enrollment Projections Error Rate Analysis

School Year	Actual Student Enrollment	Student Enrollment Projections									
		One Year Before			Two Years Before		Four Years Before		Five Years Before		
		Projection	Difference	% Error *	Projection	% Error *	Projection	% Error *	Projection	% Error *	
1984-85	35,864	36,046	182	-0.50%	35,215	1.84%	35,002	2.46%	34,672	3.44%	
1985-86	36,836	36,250	(586)	1.62%	35,228	4.56%	35,570	3.56%	35,408	4.03%	
1986-87	37,825	37,568	(257)	0.68%	36,713	3.03%	35,484	6.60%	35,977	5.14%	
1987-88	39,106	38,830	(276)	0.71%	37,418	4.51%	37,056	5.53%	35,844	9.10%	
1988-89	40,463	40,236	(227)	0.56%	39,586	2.22%	37,995	6.50%	37,669	7.42%	
1989-90	41,673	42,059	386	-0.92%	41,511	0.39%	40,369	3.23%	38,836	7.31%	
1990-91	42,176	42,268	92	-0.22%	42,984	-1.88%	42,565	-0.91%	41,163	2.46%	
1991-92	43,400	42,769	(631)	1.48%	45,230	-4.05%	44,223	-1.86%	43,656	-0.59%	
1992-93	44,868	44,697	(171)	0.38%	45,156	-0.64%	47,149	-4.84%	45,497	-1.38%	
1993-94	45,539	45,762	223	-0.49%	45,618	-0.17%	46,839	-2.78%	47,980	-5.09%	
1994-95	46,281	46,436	155	-0.33%	48,523	-4.62%	47,551	-2.67%	48,645	-4.86%	
1995-96	47,712	47,162	(550)	1.17%	47,255	0.97%	50,589	-5.69%	49,543	-3.70%	
1996-97	48,041	47,991	(50)	0.10%	46,928	2.37%	49,765	-3.46%	50,738	-5.32%	
1997-98	49,531	48,939	(592)	1.21%	49,033	1.02%	54,650	-9.37%	52,475	-5.61%	
1998-99	50,627	50,785	158	-0.31%	49,865	1.53%	48,731	3.89%	50,746	-0.23%	
1999-00	53,062	52,546	(516)	0.98%	53,102	-0.08%	52,567	0.94%	51,330	3.37%	
2000-01	55,139	54,269	(870)	1.60%	53,352	3.35%	53,038	3.96%	53,831	2.43%	
2001-02	57,823	57,026	(797)	1.40%	55,763	3.69%	54,788	5.54%	54,930	5.27%	
2002-03	60,229	59,916	(313)	0.52%	58,829	2.38%	55,688	8.15%	57,231	5.24%	
2003-04	63,109	62,391	(718)	1.15%	61,962	1.85%	58,059	8.70%	57,541	9.68%	
2004-05	66,093	65,721	(372)	0.57%	64,321	2.75%	62,185	6.28%	59,639	10.82%	
2005-06	68,234	68,988	754	-1.09%	68,181	0.08%	64,709	5.45%	63,717	7.09%	
2006-07	70,683	70,211	(472)	0.67%	71,511	-1.16%	67,804	4.25%	66,393	6.46%	
2007-08	72,654	72,187	(467)	0.65%	71,866	1.10%	71,555	1.54%	69,488	4.56%	
2008-09	73,657	73,321	(336)	0.46%	73,592	0.09%	75,914	-2.97%	74,270	-0.83%	
2009-10	76,656	74,736	(1,920)	2.57%	75,393	1.68%	74,840	2.43%	77,888	-1.58%	
2010-11	79,115	78,308	(807)	1.03%	75,996	4.10%	75,226	5.17%	75,433	4.88%	
2011-12	81,635	81,070	(565)	0.70%	79,866	2.21%	77,238	5.69%	76,766	6.34%	
2012-13	83,551	83,837	286	-0.34%	82,941	0.74%	79,079	5.66%	80,203	4.17%	
2013-14	85,055	85,926	871	-1.01%	86,191	-1.32%	83,659	1.67%	80,801	5.26%	
2014-15	86,209	87,108	899	-1.03%	88,420	-2.50%	86,614	-0.47%	85,436	0.90%	
2015-16	87,253	87,500	247	-0.28%	89,458	-2.46%	90,898	-4.01%	88,440	-1.34%	
2016-17	88,920	88,216	(704)	0.80%	88,777	0.16%	92,957	-4.34%	93,026	-4.41%	
2017-18	89,861	90,636	775	-0.86%	89,381	0.54%	93,460	-3.85%	94,793	-5.20%	
2018-19	90,203	91,054	851	-0.93%	92,282	-2.25%	91,496	-1.41%	95,615	-5.66%	
2019-20	91,524	91,095	(429)	0.47%	91,834	-0.34%	92,687	-1.25%	93,056	-1.65%	
2020-21	89,076	92,048	2,972	-3.23%	91,891	-3.06%	95,320	-6.55%	94,641	-5.88%	

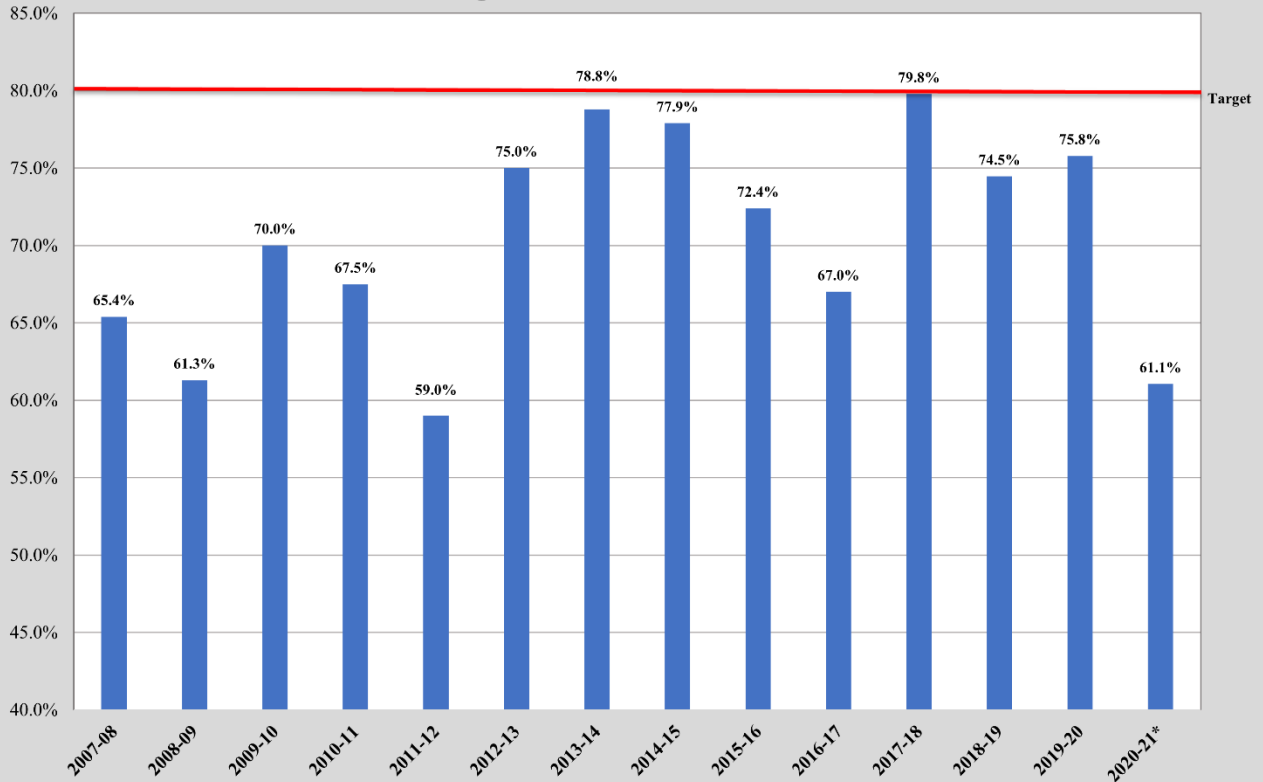
(MPE) Mean Percentage Error	0.27%	0.61%	1.10%	1.68%
(MAPE) Mean Absolute Percentage Error	0.89%	1.94%	4.15%	4.59%
10-Year (MPE) Mean Percentage Error	-0.57%	-0.83%	-0.89%	-0.75%
10-Year (MAPE) Mean Absolute Percentage Error	0.97%	1.56%	3.49%	4.05%

*A negative forecast error indicates that the projection was greater than the actual value.

Prince William County Public Schools Division-wide Projection Accuracy



Prince William County Public Schools Percentage of Schools Within 5% Error



Housing Units in Residential Development
By Elementary School Attendance Area and Stage of Development
September 2020

Elementary School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Alvey										71		71	71
Ashland					2	4		6					6
Belmont		30	310	340	43	60	179	282			1,522	1,522	2,144
Bennett	214	50		264	159	12		171	14	46		60	495
Bristow Run	4			4	4			4	34	39		73	81
Buckland Mills	68	28		96	29			29	90	130		220	345
Cedar Point					51			51					51
Coles	20			20	50			50	158	54	11	223	293
Covington-Harper	184	750		934	183	153	1,371	1,707			170	170	2,811
Dale City	4			4									4
Dumfries	21			21	830			356			285	285	1,492
Ellis					8			21	29	270	438	1,220	1,928
Featherstone					13			13					13
Fitzgerald		153		153	29	275	302	606	18			18	777
Glenkirk					1			1					1
Gravelly	629			629	261			261					890
Haymarket	221		24	245	94			94		79	36	115	454
Henderson	26			26	46			46					72
John D. Jenkins					175			216	391	21	16	37	428
Kilby					13	175	298	486					486
King	13			13					5			5	18
Leesylvania			118	118	41			41					159
Loch Lomond					8			8					8
Marshall	35			35	69			69	34			34	138
Marumscos Hills					131			131					131
Minnieville					1			1					1
Montclair	46			46	7	2		9					55
Mountain View	10			10	1			1	240			240	251
Mullen					2	18		20					20
Nokesville School, The	218			218	1,105			1,105	431			431	1,754
Occoquan	4			4	133	14		147			88	88	239
Old Bridge					7			7					7
Rosa Parks					13			199	212	10		10	222
Pattie	27			27	16			16					43
Penn	38	83		121	19			19	12			12	152
Piney Branch					3			3			80	80	83
Potomac View	4			4	142			142					146
River Oaks										112		112	112
Rockledge					160	3		163					163
Signal Hill	56	91	30	177	254			254	53	160	190	403	834
Sinclair					6			11	17				17
Swans Creek			73	73	69	93		162					235
Triangle	43	105	230	378	314			108	422				800
Tyler	22	94		116	83	1	167	251					367
Vaughan										25		25	25
Victory					100			100					100
West Gate										85	74	159	159
Westridge					5			5					5
Mary Williams	8		74	82							86	86	168
Kyle Wilson	53			53	11	36	163	210					263
T. Clay Wood	8			8	29			29		75		75	112
Yorkshire					263			420	683	12		12	695
Chris Yung	152	97	1	250	533			533		1,650	1,500	3,150	3,933
Total	2,128	1,481	860	4,469	5,516	846	3,811	10,173	1,402	2,964	5,278	9,644	24,286

Note:
Active = Rezoning approved by Board of County Supervisors and site development permit issued
Planned = Rezoning approved by Board of County Supervisors
Rezoning Submitted = rezoning application submitted, CPA request submitted or initiated (if applicable), or no recent progress has occurred
Schools without additional residential development within their respective attendance areas are omitted.

Housing Units in Residential Development By Middle School Attendance Area and Stage of Development September 2020

Middle School	Active				Planned				Rezoning Submitted				Total	
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total		
Benton	113	12		125	157	4		161	204	54	11	269	555	
Beville	13	71		84		6		6	5			5	95	
Bull Run	208	191	1	400	176	1	167	344	240	450	700	1,390	2,134	
Gainesville	35			35	541			541		1,200		880	2,080	2,656
Graham Park	91	105	230	426	1,160		464	1,624			285	285	2,335	
Hampton	4			4		32	163	195					199	
Fred M. Lynn	4	30	310	344	246	249	477	972		25	1,610	1,635	2,951	
Marsteller	8			8	182	18		200	34	552	1,220	1,806	2,014	
Nokesville School, The	218			218	1,105			1,105	431			431	1,754	
Parkside	270	141	30	441	683	12	441	1,136	349	206	190	745	2,322	
Potomac	192	750	147	1,089	286	246	1,371	1,903		112	256	368	3,360	
Ronald Wilson Reagan	863	28	24	915	292			292	90	280	36	406	1,613	
Rippon	30	153	118	301	176	275	302	753	18			18	1,072	
Saunders	79			79	24		199	223	10			10	312	
Unity Braxton					14		11	25		85	74	159	184	
Woodbridge					474	3	216	693	21		16	37	730	
Total	2,128	1,481	860	4,469	5,516	846	3,811	10,173	1,402	2,964	5,278	9,644	24,286	

Note:

Active = Rezoning approved by Board of County Supervisors and site development permit issued
 Planned = Rezoning approved by Board of County Supervisors
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 Schools without additional residential development within their respective attendance areas are omitted

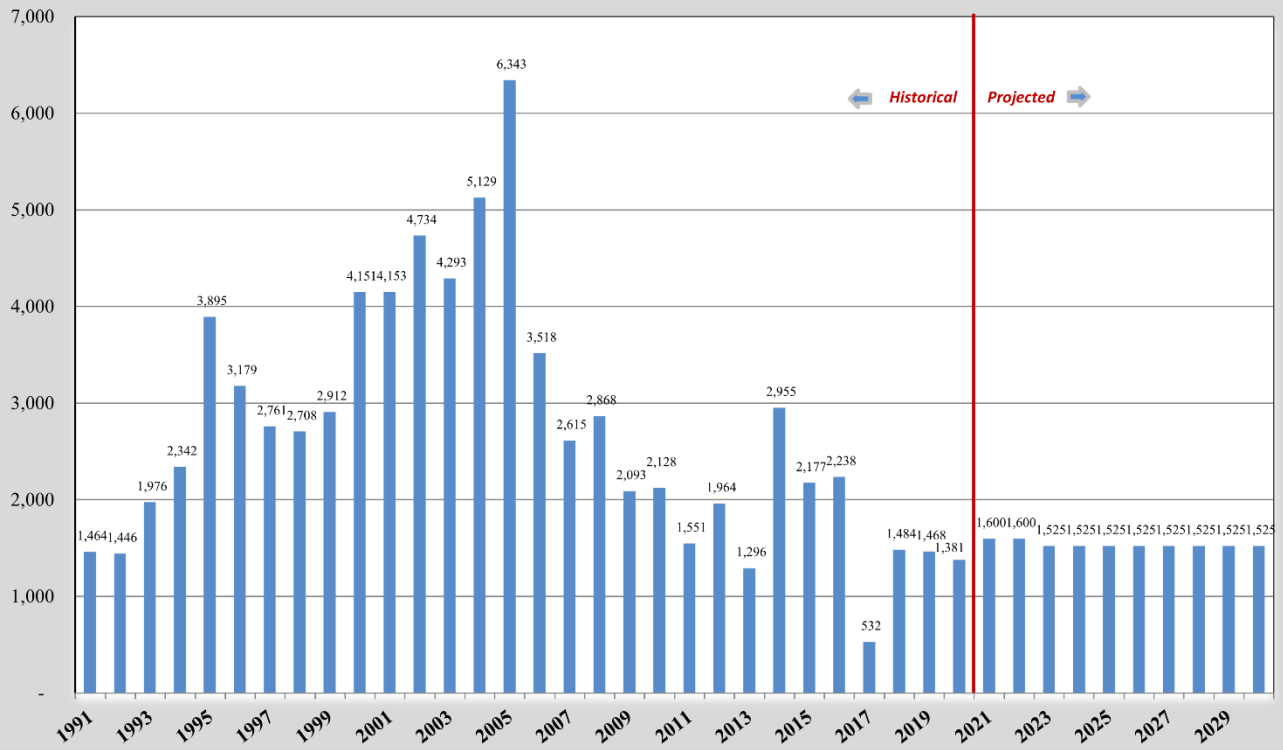
Housing Units in Residential Development By High School Attendance Area and Stage of Development September 2020

High School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Battlefield	950	94	24	1,068	464	1	167	632	330	600	736	1,666	3,366
Brentsville	218			218	1,192			1,192	431			431	1,841
Colgan	113	83		196	142			142	197	54	11	262	600
Forest Park	48	105	230	383	899	4	459	1,362			285	285	2,030
Freedom	4	183	428	615	329	335	629	1,293	18	25	1,522	1,565	3,473
Gar-Field	4			4	184	32	163	379	21		16	37	420
C.D. Hylton	92			92	13	6	199	218	10			10	320
Osborn Park	270	141	30	441	654	12	420	1,086	91	206	190	487	2,014
Patriot	12	28		40	140			140	34	244	80	358	538
Potomac	261	750	147	1,158	593	246	1,376	2,215		112	256	368	3,741
Unity Reed	152	97	1	250	558	18	32	608	270	1,723	2,094	4,087	4,945
Woodbridge	4			4	348	192	366	906			88	88	998
Total	2,128	1,481	860	4,469	5,516	846	3,811	10,173	1,402	2,964	5,278	9,644	24,286

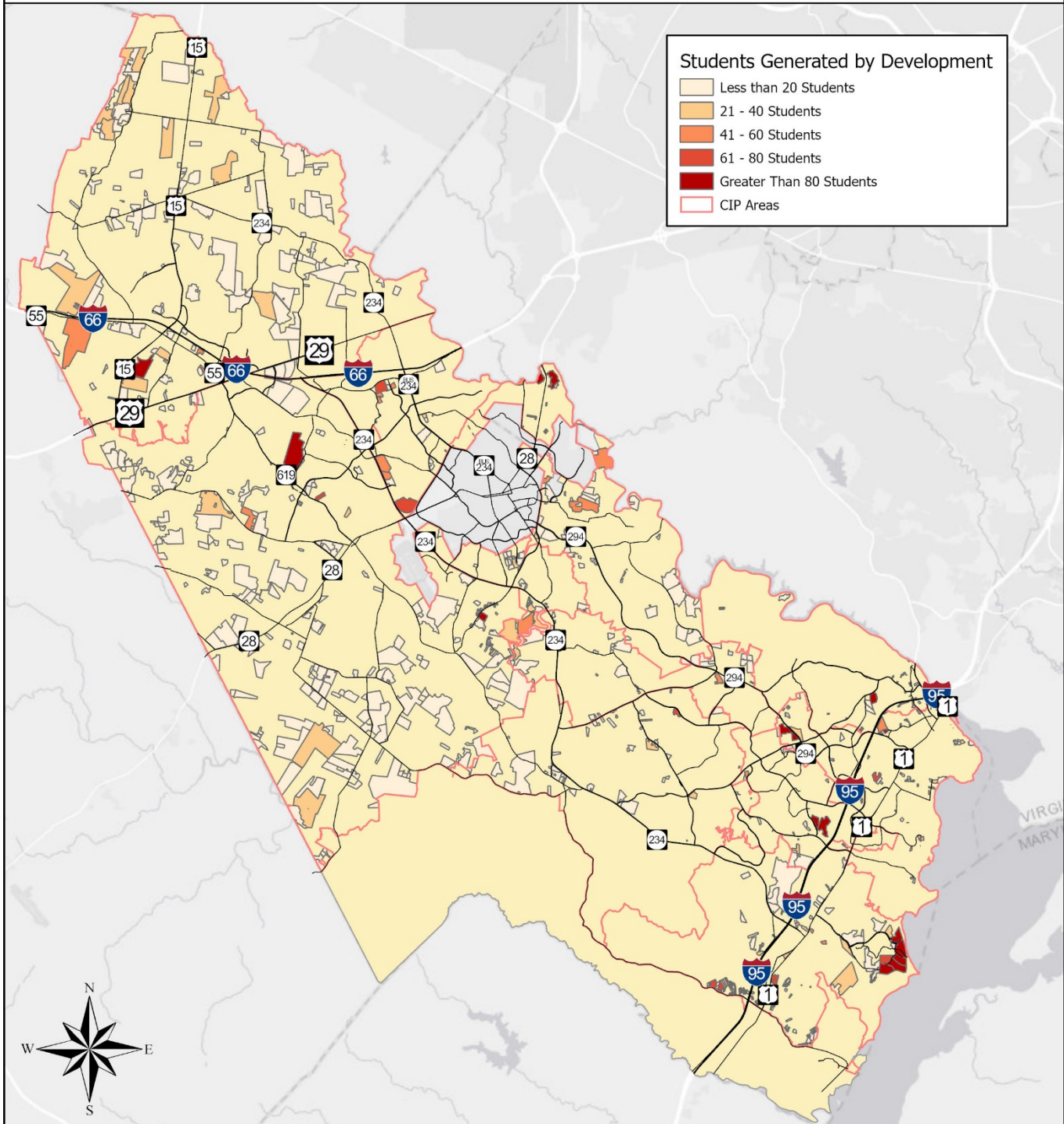
Note:

Active = Rezoning approved by Board of County Supervisors and site development permit issued
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 Rezoning Submitted = rezoning application submitted, CPA request submitted or initiated (if applicable), or no recent progress has occurred
 Schools without additional residential development within their respective attendance areas are omitted

Prince William County Historical and Projected Annual Housing Unit Change



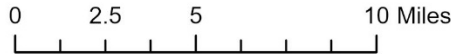
Students Generated per Built-Out Development



Students Generated by Development

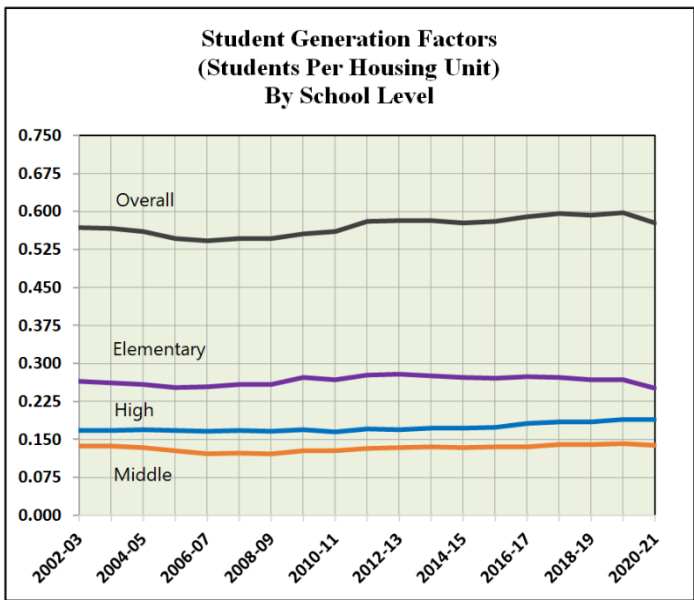
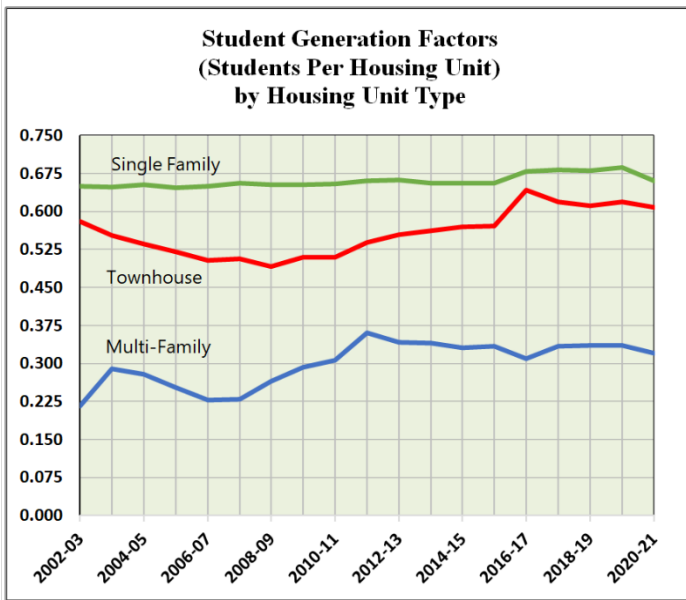
- Less than 20 Students
- 21 - 40 Students
- 41 - 60 Students
- 61 - 80 Students
- Greater Than 80 Students
- CIP Areas

Data:
Road_Shield
CIP_Areas
Developments



Office of Facilities Services
January 2021

Student Generation Factors By School Level and Housing Unit Type



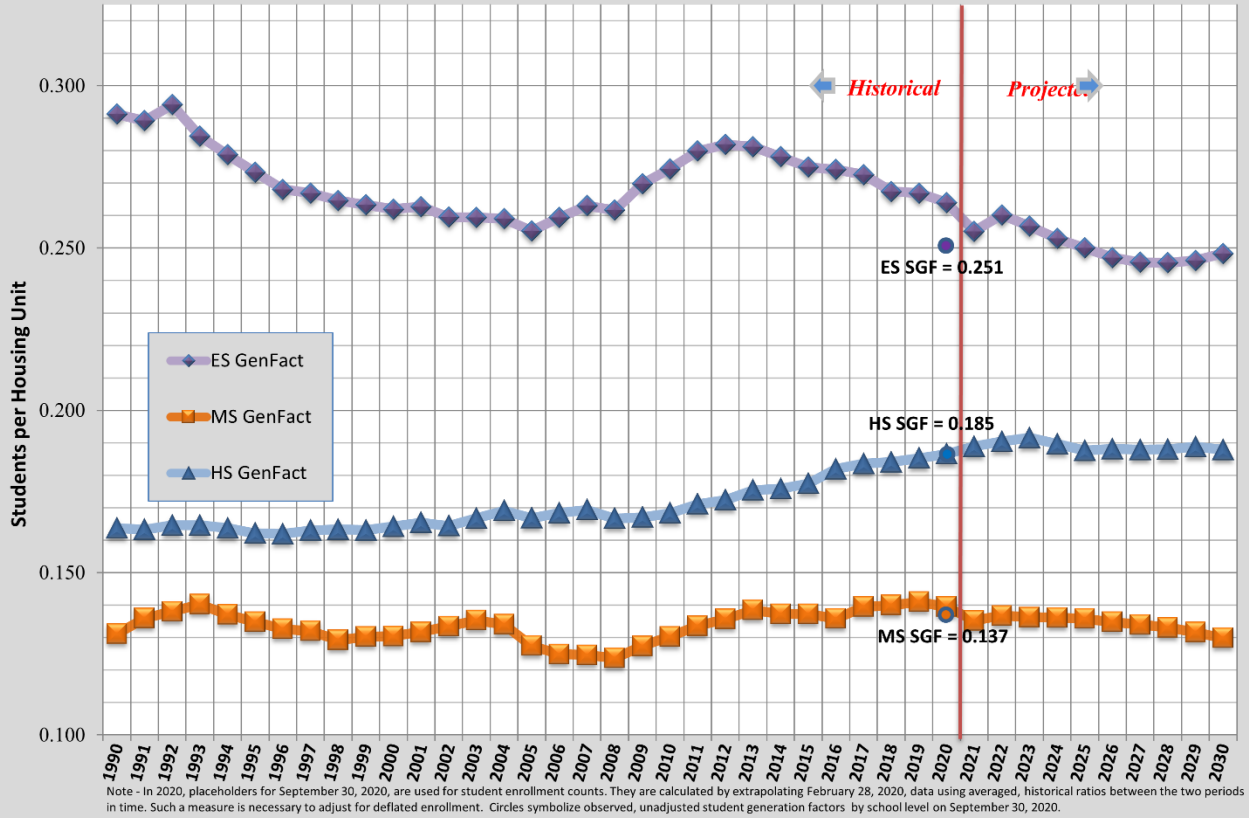
Historical Data					
	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
2020-21	Elementary	0.273	0.278	0.160	0.251
	Middle	0.159	0.143	0.073	0.138
	High	0.228	0.187	0.087	0.189
	Total	0.660	0.608	0.320	0.578
2014-15	Elementary	0.294	0.285	0.176	0.272
	Middle	0.156	0.128	0.070	0.134
	High	0.206	0.155	0.085	0.172
	Total	0.656	0.569	0.331	0.578
2019-20	Elementary	0.292	0.289	0.172	0.267
	Middle	0.164	0.145	0.076	0.142
	High	0.230	0.185	0.088	0.189
	Total	0.686	0.619	0.336	0.598
2012-13	Elementary	0.302	0.287	0.184	0.279
	Middle	0.156	0.120	0.075	0.133
	High	0.205	0.147	0.083	0.169
	Total	0.662	0.554	0.342	0.582
2018-19	Elementary	0.292	0.288	0.175	0.268
	Middle	0.163	0.144	0.075	0.140
	High	0.224	0.179	0.085	0.185
	Total	0.680	0.611	0.335	0.592
2010-11	Elementary	0.301	0.258	0.167	0.268
	Middle	0.152	0.111	0.067	0.127
	High	0.202	0.139	0.072	0.164
	Total	0.655	0.509	0.306	0.560
2016-17	Elementary	0.300	0.313	0.163	0.273
	Middle	0.159	0.145	0.064	0.135
	High	0.220	0.184	0.082	0.181
	Total	0.679	0.642¹	0.309¹	0.590
2008-09	Elementary	0.298	0.245	0.142	0.258
	Middle	0.148	0.107	0.055	0.122
	High	0.206	0.139	0.069	0.166
	Total	0.652	0.491	0.265	0.546

Note: 1) The 'Student Generation Factor' is a mathematical representation of the relationship between housing units in Prince William County and the number of students enrolled in Prince William County Public Schools on September 30 of each year. In other words, it is the number of enrolled students per total number of housing units by type.

2) Numbers are rounded up to the nearest thousandth; thus totals, may be affected because of rounding.

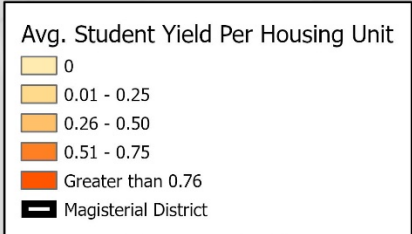
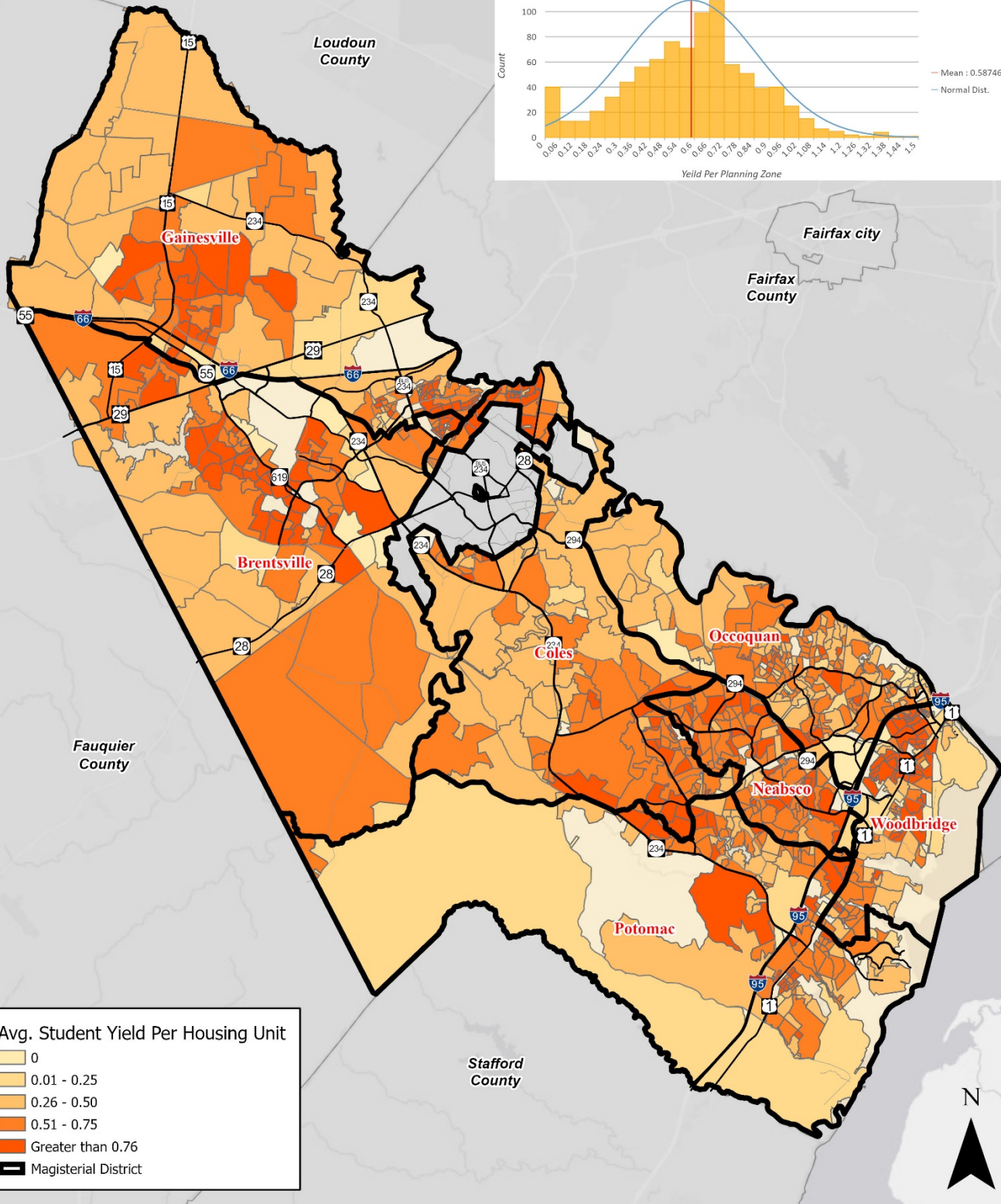
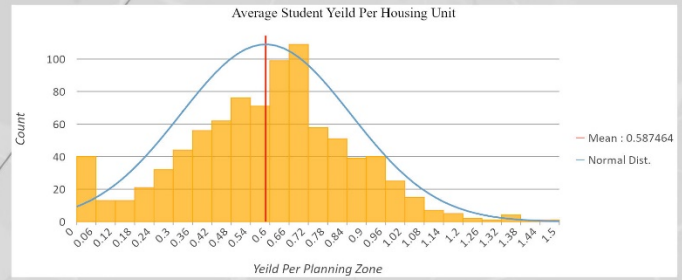
¹ In 2016-17, approximately 7,000 condo-style townhouses and 2-over-2 units were reclassified from townhouse to multi-family, thus contributing to a notable increase in student yields of townhouse units and a decrease in student yields of multi-family units.

Prince William County Public Schools
Student Generation Factors by School Level

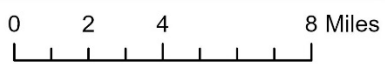




2020-21 Student Generation Factor by Planning Zone



October 2020



Office of Facilities Services



Elementary Schools
By CIP Geographic Areas

Geographic Area	Schools
Cardinal Area	Bel Air ES
	Dale City ES
	Fitzgerald ES
	Henderson ES
	Minnieville ES
	Neabsco ES
Cherry Hill Area	Covington-Harper ES
	Dumfries ES
	Pattie ES
	River Oaks ES
	Swans Creek ES
	Triangle ES
	Mary Williams ES
Ferlazzo Area	Ashland ES
	Coles ES
	Enterprise ES
	King ES
	McAuliffe ES
	Montclair ES
	Rosa Parks ES
	Kyle Wilson ES
Haymarket Area	Alvey ES
	Buckland Mills ES
	Gravelly ES
	Haymarket ES
	Mountain View ES
	Tyler ES
Lake Ridge Area	Antietam ES
	John D. Jenkins ES
	Lake Ridge ES
	Occoquan ES
	Old Bridge ES
	Rockledge ES
	Springwoods ES
	Westridge ES

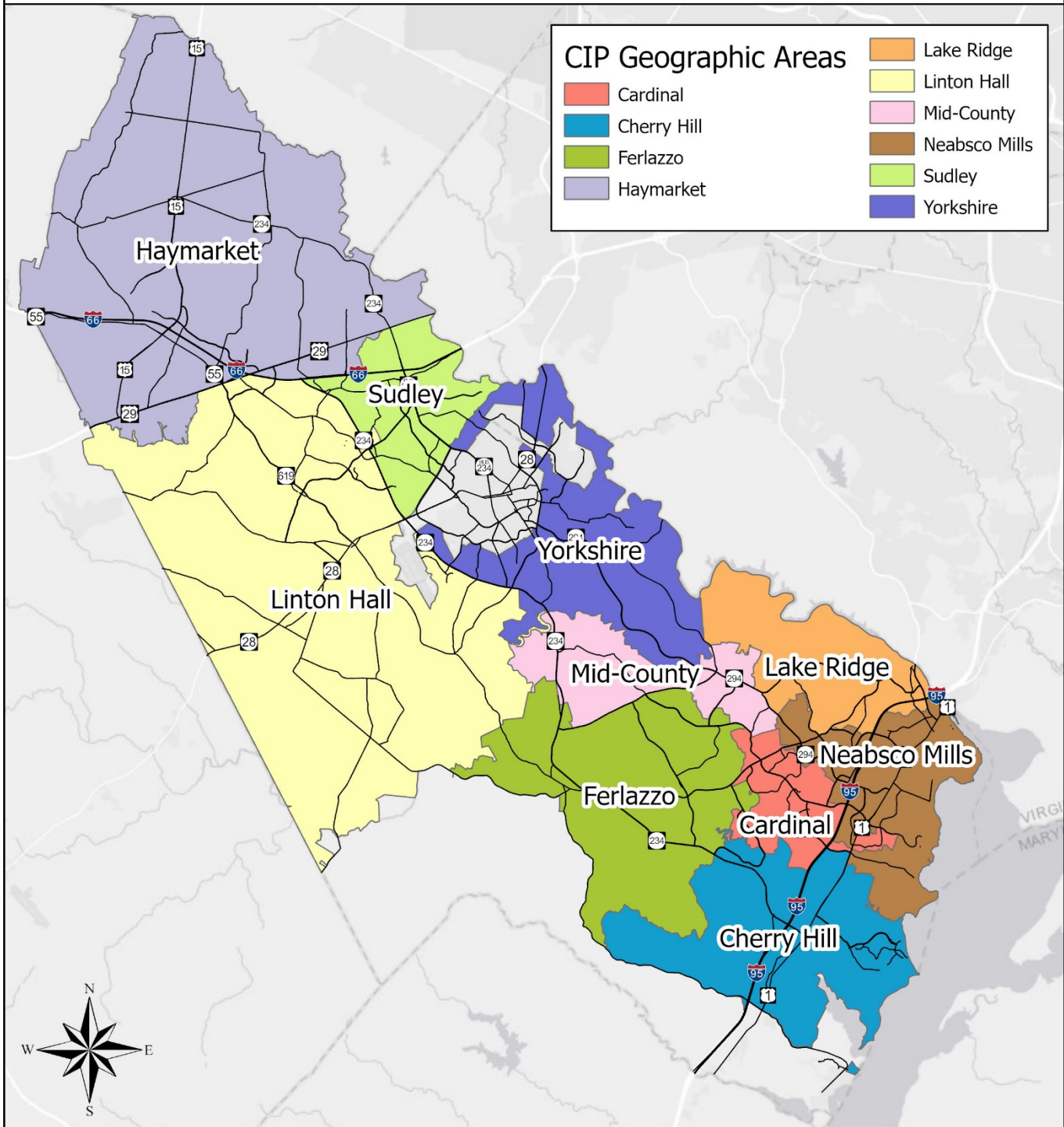
Geographic Area	Schools
Linton Hall Area	Bristow Run ES
	Cedar Point ES
	Ellis ES
	Glenkirk ES
	Nokesville School, The
	Piney Branch ES
	Victory ES
	T. Clay Wood ES
Chris Yung ES	
Mid-County Area	Kerrydale ES
	Marshall ES
	Penn ES
Neabsco Mills / Northern Route 1	Belmont ES
	Featherstone ES
	Kilby ES
	Leesylvania ES
	Marumscos Hills ES
	Potomac View ES
	Vaughan ES
Sudley Area	Mullen ES
	Sinclair ES
	Sudley ES
	West Gate ES
Yorkshire Area	Bennett ES
	Loch Lomond ES
	Signal Hill ES
	Yorkshire ES

CIP Geographic Areas

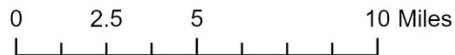
Prince William County



Prince William County
PUBLIC SCHOOLS
Providing A World-Class Education



CIP Geographic Areas	
■ Cardinal	■ Lake Ridge
■ Cherry Hill	■ Linton Hall
■ Ferlazzo	■ Mid-County
■ Haymarket	■ Neabsco Mills
	■ Sudley
	■ Yorkshire



Data:
 Road_Shield
 CIP_Areas

Office of Facilities Services
 January 2021

Fall Membership By Virginia School Division

Division Name	Division Membership, PK Grade 12						Change 2015 to 2020			
	2020-21	2019-20	2018-19 ¹	2017-18	2016-17	2015-16	Number	Rank in Virginia	Percent	Rank in Virginia
Alexandria City Public Schools	15,845	16,307	15,968	15,802	15,418	14,857	988	7	6.7%	5
Arlington County Public Schools	26,833	28,151	27,434	26,975	26,176	25,365	1,468	4	5.8%	6
Charlottesville City Public Schools	4,259	4,544	4,561	4,529	4,478	4,382	-123	50	-2.8%	43
Chesapeake City Public Schools	39,673	41,597	40,898	40,656	40,192	39,944	-271	83	-0.7%	29
Chesterfield County Public Schools	60,904	62,669	61,608	60,976	60,103	59,705	1,199	6	2.0%	14
Culpeper County Public Schools	8,256	8,521	8,235	8,210	8,204	8,135	121	12	1.5%	18
Fairfax County Public Schools	180,076	188,930	187,830	188,591	187,510	185,856	-5,780	132	-3.1%	47
Falls Church City Public Schools	2,500	2,649	2,621	2,680	2,672	2,519	-19	28	-0.8%	30
Fauquier County Public Schools	10,292	11,181	11,189	11,144	11,078	11,155	-863	123	-7.7%	81
Fredericksburg City Public Schools	3,545	3,755	3,710	3,617	3,581	3,532	13	22	0.4%	22
Harrisonburg City Public Schools	6,508	6,613	6,440	6,301	6,188	5,924	584	9	9.9%	3
Henrico County Public Schools	50,191	51,786	51,523	51,625	51,425	51,534	-1,343	125	-2.6%	42
Loudoun County Public Schools	81,319	83,933	82,238	80,965	78,713	76,251	5,068	1	6.6%	4
Manassas City Public Schools	7,607	7,789	7,723	7,820	7,713	7,605	2	23	0.0%	23
Manassas Park City Public Schools	3,500	3,641	3,724	3,723	3,588	3,443	57	14	1.7%	17
Prince William County Public Schools	89,577	92,270	90,876	90,595	89,378	87,823	1,754	3	2.0%	15
Spotsylvania County Public Schools	23,036	23,901	23,683	23,808	23,617	23,731	-695	119	-2.9%	44
Stafford County Public Schools	29,395	30,120	29,485	29,113	28,679	28,098	1,297	5	4.6%	8
Virginia Beach City Public Schools	65,612	68,706	68,624	68,986	69,085	69,777	-4,165	130	-6.0%	68
State Totals	1,252,756	1,298,083	1,290,513	1,293,049	1,288,481	1,284,680	-31,924		-2.5%	

Source: Virginia Department of Education, Fall Membership Report.

Note: Excluded from the September 30 Fall Membership count are special education preschool pupils, pupils in hospitals, clinics or detention homes, and local programs, such as vocational and alternative education centers (i.e., centers or schools that receive, but do not officially enroll students).

¹ Starting in the 2018-19 School Year the Virginia Department of Education changed their Fall Membership Report. The report no longer includes Post-Graduate students from their enrollment data in order to standardize reporting. Our data from 2013 through 2017 still include Post-Graduate students.

APPENDIX C

Capital Improvement Sites

Identified Capital Improvement Sites

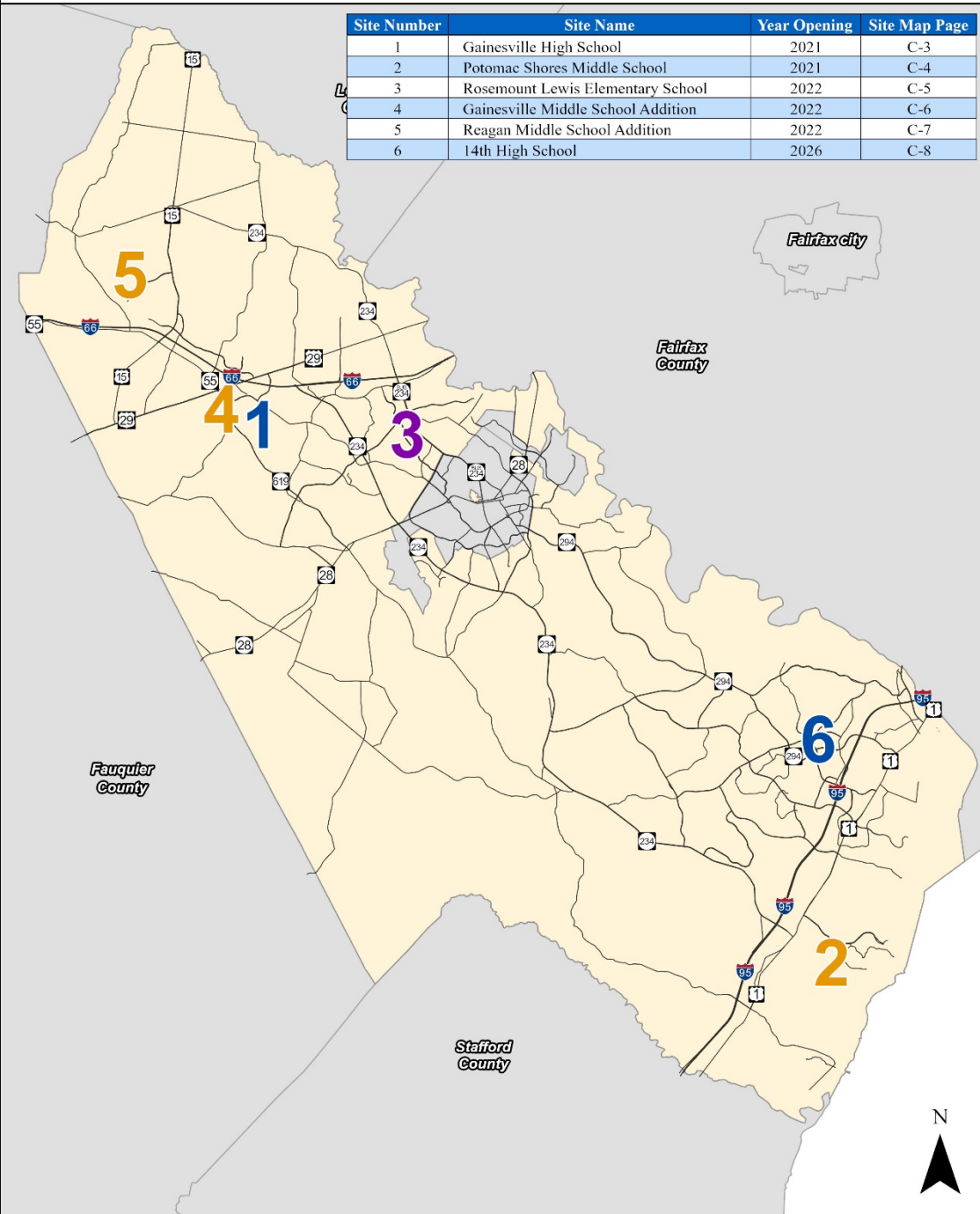
- Overall Map of Sites Identified in the Capital Improvements Program
 - Gainesville High School (2021)
 - Potomac Shores Middle School (2021)
 - Rosemount Lewis Elementary School (2022)
 - Gainesville Middle School Addition – 11-Room (2022)
 - Ronald Wilson Reagan Middle School Addition – Six-Room (2022)
 - 14th High School (2026)

Capital Improvement Site Maps

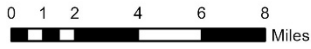
Appendix C details the Capital Improvement sites that have been acquired by the School Division. The year the facilities are scheduled to open at the identified site is shown on the site map and the overall map (2).

New School Facilities Identified in the Capital Improvements Program (CIP)

Site Number	Site Name	Year Opening	Site Map Page
1	Gainesville High School	2021	C-3
2	Potomac Shores Middle School	2021	C-4
3	Rosemount Lewis Elementary School	2022	C-5
4	Gainesville Middle School Addition	2022	C-6
5	Reagan Middle School Addition	2022	C-7
6	14th High School	2026	C-8



February 2021



Office of Facilities Services

Gainesville High School (2021)

Project Description

Address: 13150 University Boulevard, Gainesville

Magisterial District: Brentsville

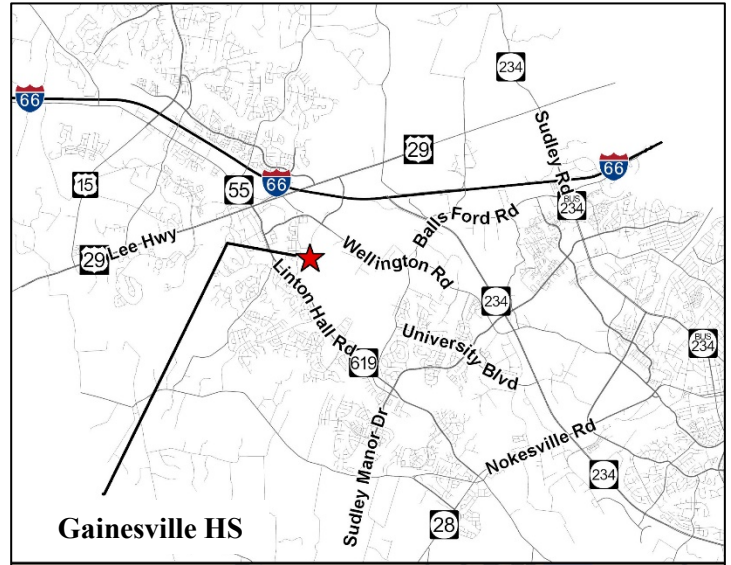
Acreage: 83.52

Project Budget: \$127,400,000

Funding Source: Virginia Public School Authority Bond (VPSA) FY17, FY18, FY19, FY20, FY21

Architect: Moseley Architects

Contractor: Dustin Construction Inc.



School Details

Square Feet: 334,885

Educational Programs: Grades 9-12, academic classrooms, fine arts rooms, science and computer labs, media center, vocational shops, auditorium (1,221 seats), stadium with artificial turf, competition and auxiliary sports fields, tennis courts, green roof, administrative area, clinic. Pedestrian connectivity from Gainesville MS to HS.

Project Schedule

Public Facility Review Approval: June 21, 2017

Contract Awarded: November 28, 2018

Construction Start: February 2019

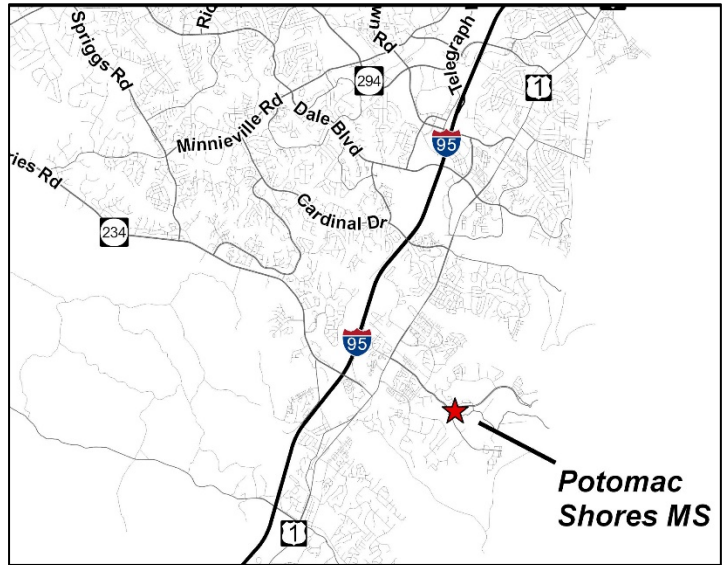
Scheduled Completion: August 2021



Potomac Shores Middle School (2021)

Project Description

Address:	17851 Woods View Drive, Dumfries
Magisterial District:	Potomac
Acreage:	52.52
Project Budget:	\$64,119,000
Funding Source:	Virginia Public School Authority Bond (VPSA) FY19, FY20, FY21
Architect:	Moseley Architects
Contractor:	V. F. Pavone

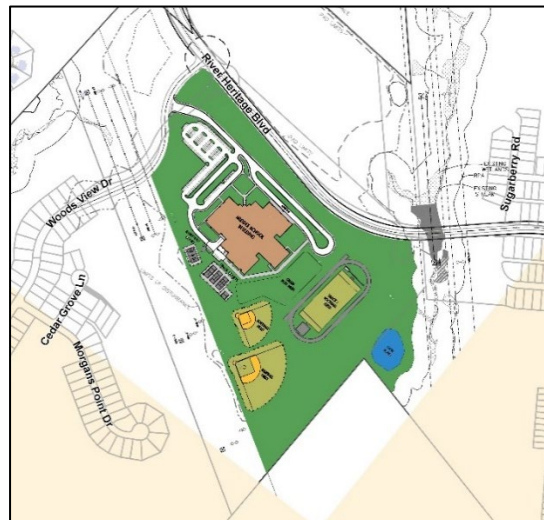


School Details

Square Feet:	197,954
Educational Programs:	Grade 6-8, 3-story academic grade house arrangement; academic classrooms, art and CTE rooms, labs, maker spaces, group activity rooms, auditorium (800 seats), cafeteria, gymnasium, administrative area, clinic, stadium and sports fields.

Project Schedule

Public Facility Review Approval:	Proffered Site
Contract Awarded:	November 7, 2018
Construction Start:	November 2018
Scheduled Completion:	August 2021



Rosemount Lewis Elementary School (2022)

Project Description

Address: 11000 Crestwood Drive and 8200 Ashton Ave. Manassas

Magisterial District: Brentsville

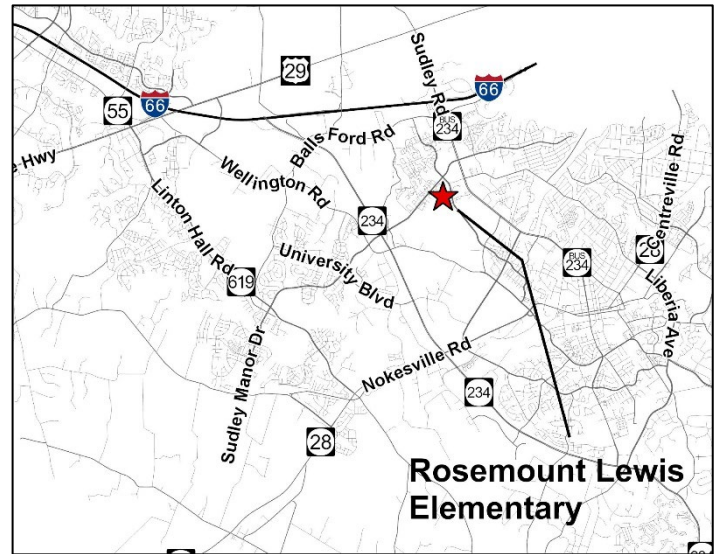
Acreage: 19.58

Project Budget: \$40,855,000

Funding Source: Virginia Public School Authority Bond (VPSA) FY20, FY21, FY22

Architect: Mosely Architects

Contractor: V.P. Pavone



School Details

Square Feet: 100,000 multi-story

Grade K-5, classrooms, resource rooms, fine arts rooms, science and computer labs, media center, gym/cafeteria, activity room, administration area, and clinic.

Educational Programs:

Project Schedule

Public Facility Review Approval: June 2019

Contract Awarded: March 2021

Construction Start: TBD

Scheduled Completion: August 2022



Gainesville Middle School Addition

Project Description

Address: 8001 Limestone Drive,
Gainesville VA 20155

Magisterial District: Brentsville

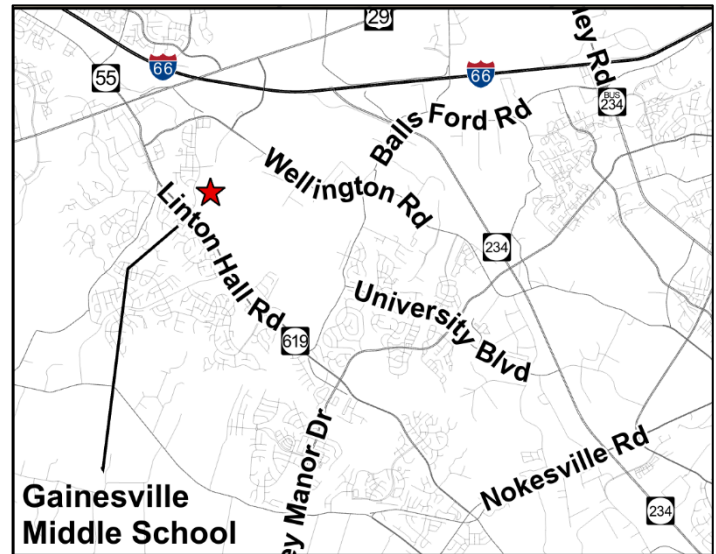
Acreage: 39.41

Project Budget: \$10,337,000

Funding Source: Virginia Public School
Authority Bond (VPSA) V20A,
V21A, and V22A

Architect: Brian Ulbrich - Architecture
Incorporated

Contractor: TBD



School Details

Addition Size: 11 Classroom

Additional Square Footage: 12,636 Sqft

Project Schedule

Contract Awarded: TBD

Construction Start: TBD

Scheduled Completion: August 2022



Reagan Middle School Addition

Project Description

Address: 15801 Tanning House Place,
Haymarket VA 20169

Magisterial District: Gainesville

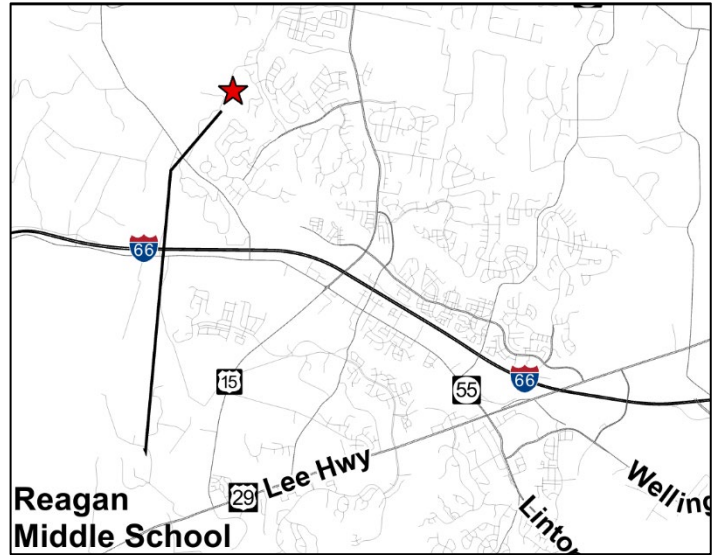
Acreage: 41.88

Project Budget: \$7,057,000

Funding Source: Virginia Public School
Authority Bond (VPSA) V20A,
V21A, and V22A

Architect: Brian Ulbrich - Architecture
Incorporated

Contractor: TBD



School Details

Addition Size: Six Classrooms

Additional Square Footage: 6,388 Sqft

Project Schedule

Contract Awarded: TBD

Construction Start: TBD

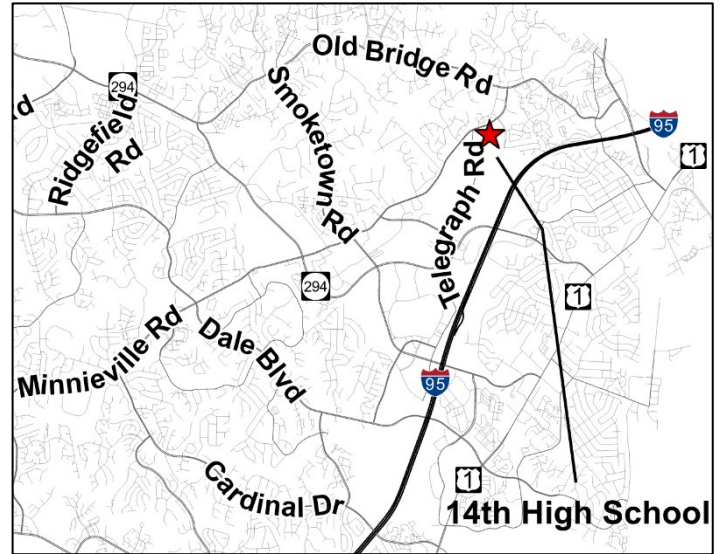
Scheduled Completion: August 2022



14th High School (2026)

Project Description

Address:	Summit School Road
Magisterial District:	Occoquan
Acreage:	97.8
Project Budget:	\$157,000,000
Funding Source:	Virginia Public School Authority Bond V22A, V23A, V24A, V25A, V26A
Architect:	TBD
Contractor:	TBD

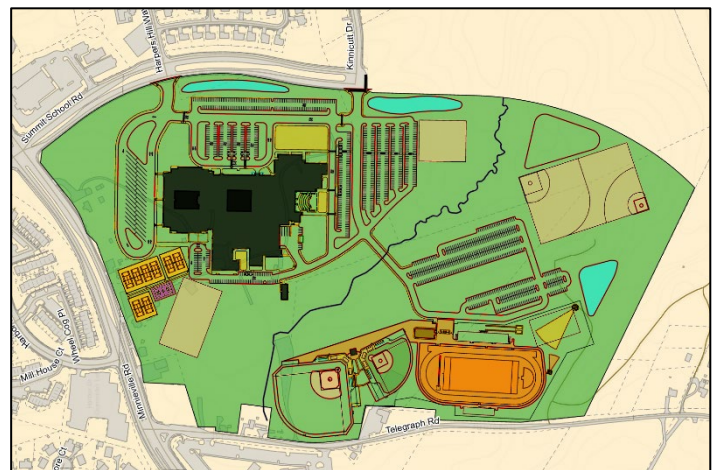


School Details

Square Feet:	334,885
Educational Programs:	Grades 9-12, academic classrooms, fine arts rooms, science and computer labs, media center, vocational shops, stadium with artificial turf, competition and auxiliary sports fields, tennis courts, administrative area, clinic.

Project Schedule

Contract Awarded:	TBD
Construction Start	TBD
Scheduled Completion:	August 2026



APPENDIX D

School Construction Financial Data

- School Construction Projects by Types of Expenditures
- Report of Bond Expenditures
- Commonwealth of Virginia Comparative School Construction Cost Data
 - New Elementary Schools
 - New Middle Schools
 - New High Schools
- Elementary School Construction Cost Comparatives

School Construction Projects by Types of Expenditures

School Construction Projects Types of Expenditures FY 2012 to FY 2021

Office of Facilities Services School Facility Construction Project Costs

PWCS Project Name	Opening Date	CIP Construction Project Budget	Construction Contract Bid ¹					Construction Expenditures					Total Project Construction Expenditures	Overseeing Fund / Start Up Costs ⁷	Site Acquisition Costs ⁸	Total Project Costs
			Construction Contract Bid ¹	Construction Contract Change Order Costs ²	Temporary Employees ³	Engineering Services ⁴	Furnishings & Equipment ⁵	Other Non-Construction Contract Costs ⁶	Project Costs Outside of Construction Contract	Total Project Costs Outside of Construction Contract						
Rosemount Lewis Elementary	Sep-22	\$ 40,855,000	\$ 35,000,000	\$ -	\$ -	\$ 1,737,750	\$ -	\$ 129,840	\$ 1,867,591	\$ -	\$ 36,867,591	\$ -	\$ -	\$ -	\$ 36,867,591	
13th High School	Sep-21	\$ 127,400,000	\$ 108,500,000	\$ 178,985	\$ 227,182	\$ 6,474,969	\$ 124,165	\$ 1,510,911	\$ 8,516,212	\$ 117,016,212	\$ -	\$ -	\$ 16,565,582	\$ -	\$ 133,581,794	
Potomac Shores Middle	Sep-21	\$ 64,119,000	\$ 52,474,000	\$ -	\$ 241,687	\$ 3,121,389	\$ 29,852	\$ 912,126	\$ 4,305,055	\$ 56,779,055	\$ -	\$ -	\$ -	\$ -	\$ 56,779,055	
Western Transportation Center	Sep-19	\$ 12,500,000	\$ 11,677,000	\$ 820,865	\$ 156,917	\$ 920,252	\$ 587,870	\$ 389,401.68	\$ 2,875,306	\$ 14,552,306	\$ -	\$ -	\$ 3,757,833	\$ -	\$ 18,310,139	
Jenkins Elementary	Sep-19	\$ 32,686,000	\$ 27,209,000	\$ 817,515	\$ 123,003	\$ 1,028,551	\$ 1,554,847	\$ 1,609,384	\$ 5,733,899	\$ 32,942,899	\$ -	\$ -	\$ 8,025,917	\$ -	\$ 40,968,817	
Independence Non-Traditional	Sep-18	\$ 35,850,000	\$ 27,180,000	\$ 1,458,528	\$ 180,077	\$ 2,112,436	\$ 1,906,731	\$ 3,570,028	\$ 9,227,801	\$ 36,407,801	\$ -	\$ -	\$ -	\$ -	\$ 36,407,801	
Covington-Harper Elementary	Sep-17	\$ 29,374,000	\$ 20,831,000	\$ (15,314)	\$ 21,731	\$ 1,155,231	\$ 1,785,236	\$ 536,680	\$ 3,483,563	\$ 24,314,563	\$ 434,000	\$ -	\$ -	\$ -	\$ 24,748,563	
Kilby Elementary Replacement	Sep-17	\$ 31,476,000	\$ 21,888,000	\$ 86,297	\$ 222,608	\$ 1,371,454	\$ 1,580,106	\$ 1,197,695	\$ 4,458,160	\$ 26,346,160	\$ -	\$ -	\$ 135,398	\$ -	\$ 26,481,558	
Kyle Wilson Elementary	Sep-16	\$ 28,534,000	\$ 20,753,000	\$ (16,905)	\$ 63,670	\$ 1,205,054	\$ 1,579,018	\$ 886,041	\$ 3,716,878	\$ 24,469,878	\$ 425,000	\$ -	\$ -	\$ -	\$ 24,894,878	
Maintenance Facility	Sep-16	\$ 11,444,000	\$ 8,074,000	\$ 37,561	\$ 130,361	\$ 1,328,485	\$ 322,155	\$ 836,349	\$ 2,654,911	\$ 10,728,911	\$ -	\$ -	\$ -	\$ -	\$ 10,728,911	
Colgan High School	Sep-16	\$ 110,943,000	\$ 97,907,000	\$ 145,919	\$ 521,568	\$ 5,126,308	\$ 4,776,207	\$ (6,670,372)	\$ 3,899,630	\$ 101,806,630	\$ 1,988,547	\$ 8,785,796	\$ -	\$ -	\$ 112,580,973	
Chris Young Elementary	Sep-15	\$ 25,987,000	\$ 20,286,000	\$ 54,809	\$ 197,660	\$ 1,004,729	\$ 1,412,402	\$ 770,928	\$ 3,440,527	\$ 23,726,527	\$ 419,000	\$ 3,345,844	\$ -	\$ -	\$ 27,491,371	
Haymarket Elementary	Sep-14	\$ 27,663,000	\$ 18,788,000	\$ (262,583)	\$ 135,764	\$ 1,133,312	\$ 1,120,361	\$ 994,540	\$ 3,121,494	\$ 21,909,494	\$ 339,295	\$ 16,679	\$ -	\$ -	\$ 22,285,468	
Nokesville School, The	Sep-14	\$ 31,000,000	\$ 28,402,000	\$ 174,854	\$ 124,920	\$ 2,252,698	\$ 1,363,551	\$ 2,213,724	\$ 6,129,747	\$ 34,531,747	\$ 230,000	\$ 236,665	\$ -	\$ -	\$ 34,998,412	
PACE West Special	Sep-12	\$ 11,526,000	\$ 7,698,000	\$ 265,453	\$ 156,019	\$ 753,631	\$ 644,474	\$ 882,705	\$ 2,702,282	\$ 10,400,282	\$ -	\$ -	\$ 93,537	\$ -	\$ 10,493,819	
Reagan Middle	Sep-12	\$ 26,382,000	\$ 18,914,000	\$ 196,592	\$ 188,871	\$ 1,017,882	\$ 2,178,833	\$ 1,442,048	\$ 5,024,226	\$ 23,938,226	\$ 719,000	\$ 4,261	\$ -	\$ -	\$ 24,661,487	

¹ Construction contract to build the facility may include site preparation work, road improvements, and other construction items as specified in the bid documents.
² Change orders include errors and omissions, design changes initiated by the owner, inspection outcomes, school-based staff generated changes, and unanticipated site conditions.
³ On-site construction project managers, cost/safety services.
⁴ Architectural and Engineering Services, traffic analyses, environmental analyses, archeological studies.
⁵ Offsetting costs for desks, smart boards, office furniture, computers, servers, athletic and PE equipment, lab equipment, and other equipment that is not part of the physical structure of the building.
⁶ Utility fees, easements, traffic signalization, inspection services, stormwater fees, wetlands mitigation and monitoring, erosion controls, and other unclassified expenses.
⁷ Expendable Equipment and Materials to include: instructional supplies, office supplies, instructional kits, textbooks, library books, glassware, P.E. equipment, uniforms for athletics / music programs, etc., as well as the salaries of the principal and bookkeeper during the initial startup period.
⁸ Purchase of properties, easements, rights of way, and associated settlement and title fees.

Bond Issuance:
Virginia Public School Authority 2020 (V20A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V20A	Construction	0370				\$ -
V20A	Rosemount Lewis ES	317A	\$ 3,200,000	\$ -		\$ 3,200,000
V20A	Bennett ES - Renovation	365F		\$ 1,457		\$ 1,457
V20A	Penn ES - Renovation	385F	\$ 9,229,500	\$ (1,457)		\$ 9,228,043
V20A	Reagan MS Addition (6 Rooms)	405B	\$ 657,000	\$ -		\$ 657,000
V20A	Potomac Shores MS Site - Building, New	414A	\$ 20,559,500	\$ -		\$ 20,559,500
V20A	Marsteller MS Addition	421B		\$ -		\$ -
V20A	Bull Run MS Addition	492B		\$ -		\$ -
V20A	Gainesville MS Addition	496D	\$ 700,000	\$ -		\$ 700,000
V20A	Woodbridge HS - Aux Gym Addition	506S		\$ -		\$ -
V20A	Osborn Park HS Renovation of Office / Admin Areas	508R	\$ 1,000,000	\$ -		\$ 1,000,000
V20A	Osborn Park HS - Fenestration Improvements	508S	\$ 1,600,000	\$ -		\$ 1,600,000
V20A	13th HS Site Building, New	513A	\$ 52,000,000	\$ 5,000,000		\$ 57,000,000
V20A	14th HS Site Building, New	517A		\$ -		\$ -
V20A	Unity Reed HS Renovation of Office / Admin	568U	\$ 1,000,000	\$ -		\$ 1,000,000
V20A	Unity Reed HS - Fenestration Improvements	568V	\$ 1,600,000	\$ -		\$ 1,600,000
V20A	Gar-Field HS - Aux Gym Addition	569U		\$ -		\$ -
V20A	Hylton HS Renewal	571M	\$ 24,429,000	\$ (5,000,000)		\$ 19,429,000
Total			\$ 115,975,000	\$ -	\$ -	\$ 115,975,000

Bond Issuance:
Virginia Public School Authority 2019 (V19A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V19A	Division-wide - REVENUE	0370		\$ 851,319	\$ (35,892)	\$ 815,427
V19A	Division-wide - SITE ACQUISITION	0370		\$ 21,568	\$ (21,568)	\$ -
V19A	Special Needs Facility	043K		\$ 1,553,858	\$ 619,373	\$ 2,173,231
V19A	Western Bus Facility	043M	\$ 1,000,000	\$ 1,328,296	\$ (574,316)	\$ 1,753,980
V19A	Ann Ludwig Special School Renovation	209B			\$ 57,378	\$ 57,378
V19A	Woodbine Renovation	219B			\$ 1,570,903	\$ 1,570,903
V19A	Minnieville Elementary School Addition (10 rooms)	303M	\$ 1,000,000	\$ 159,786	\$ (11,450)	\$ 1,148,336
V19A	Pattie ES Addition	313D			\$ 7,259	\$ 7,259
V19A	Rosemount Lewis Elementary	317A		\$ 1,900,000	\$ 60,595	\$ 1,960,595
V19A	Lake Ridge Elementary School Addition (13 rooms)	318C	\$ 1,000,000	\$ (687,195)	\$ 17,175	\$ 329,980
V19A	Jenkins Elementary School East - PW Parkway	319A	\$ 3,000,000	\$ 162,613	\$ (328,688)	\$ 2,833,925
V19A	Springwoods Elementary School Addition (13 rooms)	332D	\$ 1,100,000	\$ (243,872)	\$ (108,347)	\$ 747,781
V19A	Bennett ES Renovation	365F			\$ 185,405	\$ 185,405
V19A	Antietam Elementary School Addition (13 rooms)	376C	\$ 1,000,000	\$ (753,621)	\$ (67,538)	\$ 178,841
V19A	Marshall Elementary School - Renewal (Funding Phase 1a)	379F	\$ 1,866,000	\$ (1,300,396)	\$ (331,874)	\$ 233,730
V19A	Montclair Elementary School - Renewal (Funding Phase 1a)	380D	\$ 1,866,000	\$ (1,650,623)	\$ (59,646)	\$ 155,731
V19A	Mountain View Elementary School - Renovation	381F	\$ 6,451,000	\$ (333,769)	\$ 98,195	\$ 6,215,426
V19A	Old Bridge Elementary School - Renewal	382D	\$ 1,866,000	\$ (1,773,951)	\$ 2,630	\$ 94,679
V19A	Leesylvania Elementary School - Renewal (Funding Phase 1)	383E	\$ 600,000	\$ (119,899)	\$ (97,487)	\$ 382,614
V19A	Potomac Shores Middle School	414A	\$ 20,559,500	\$ (1,367,113)	\$ (13,974)	\$ 19,178,413
V19A	Potomac Middle School - Aquaponics Lab	417D		\$ 489,804	\$ 72,139	\$ 561,943
V19A	Stonewall Middle School Addition (17 rooms)	448K	\$ 1,500,000	\$ (248,993)	\$ 72,498	\$ 1,323,505
V19A	Parkside MS - Roof Replacement Partial	450M			\$ 20,128	\$ 20,128
V19A	Fred Lynn Middle School - Roof Replacement	452K		\$ 3,000	\$ -	\$ 3,000
V19A	Fred Lynn Middle School - Site Improvements	452N		\$ 380,959	\$ (343,609)	\$ 37,350
V19A	Beville Middle School - Renewal	478C	\$ 9,901,500	\$ (419,742)	\$ 467,403	\$ 9,949,161
V19A	Woodbridge High School - Turf Fields	506Q		\$ 429,384	\$ 22,727	\$ 452,111
V19A	Woodbridge High School - Stadium Upgrades	506R	\$ 2,150,000	\$ 310,650	\$ 395,000	\$ 2,855,650
V19A	Woodbridge High School - Aux Gym Addition	506S	\$ 8,000,000	\$ (1,932,242)	\$ 82,560	\$ 6,150,318
V19A	13th High School (West)	513A	\$ 52,000,000	\$ (2,975,616)	\$ (1,867,952)	\$ 47,156,432
V19A	Freedom High School - Turf Fields	530E		\$ 90,489	\$ (18,277)	\$ 72,212
V19A	Stonewall Jackson High School - Turf Fields	568S		\$ 346,342	\$ -	\$ 346,342
V19A	Stonewall Jackson High School - Stadium Upgrades	568T	\$ 1,650,000	\$ 319,042	\$ 294,518	\$ 2,263,560
V19A	Gar-Field High School - Aux Gym Addition	569U	\$ 8,000,000	\$ (1,698,084)	\$ -	\$ 6,301,916
V19A	Hylton High School - Renewal	571M		\$ 1,475,673	\$ 64,862	\$ 1,540,535
V19A	Independent Hill Complex - Site Improvements	603F		\$ 4,472,909	\$ (3,820,417)	\$ 652,492
V19A	Independent Hill New Maintenance Facility	603H		\$ 89,373	\$ -	\$ 89,373
V19A	Independent Hill Complex - Barracks 1 & 2 Renovation	603J			\$ 3,505,952	\$ 3,505,952
V19A	Independent Hill Complex - Water & Sewer Improvements	603L			\$ 15,834	\$ 15,834
V19A	Kelly Leadership Center - Internal Modifications	604B		\$ 178,116	\$ -	\$ 178,116
V19A	HVAC Equipment & Controls	HVAC		\$ 941,936	\$ 68,500	\$ 1,010,436
Total			\$ 124,510,000	\$ 1	\$ (1)	\$ 124,510,000

Bond Issuance:
Virginia Public School Authority 2018 (V18A)

Bond Issuance	Project Name	Func	Anticipated / Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V18A	Division-wide - REVENUE	0370	\$ -	\$ 2,082,800	\$ (2,082,800)	\$ 0
V18A	Division-wide - SITE ACQUISITION	0370	\$ -	\$ 1,825,409	\$ (1,821,568)	\$ 3,841
V18A	Special Needs Facility	043K	\$ -	\$ 2,390,798	\$ (1,561,740)	\$ 829,058
V18A	Western Bus Facility	043M	\$ 10,000,000	\$ -	\$ (1,428,296)	\$ 8,571,704
V18A	New Alternative Education School	201Z	\$ 3,000,000	\$ (3,000,000)	\$ 520	\$ 520
V18A	Ann Ludwig - ELL Relocation from Ann Ludwig	209B	\$ -	\$ 80,000	\$ (42,120)	\$ 37,880
V18A	Minnieville Elementary School Addition (10 rooms)	303M	\$ 11,043,000	\$ (1,980,000)	\$ (158,600)	\$ 8,904,400
V18A	Pattie Elementary School Addition (10 rooms) - Consolidation / Building Renovation @ Washington-Reid	313D	\$ 3,000,000	\$ (2,200,000)	\$ (30,268)	\$ 769,732
V18A	Lake Ridge Elementary School Addition (13 rooms)	318C	\$ 9,284,000	\$ (3,000,000)	\$ 73,365	\$ 6,357,365
V18A	Jenkins Elementary School East - PW Parkway	319A	\$ 27,685,000	\$ (7,500,000)	\$ 228,573	\$ 20,413,573
V18A	Springwoods Elementary School Addition (13 rooms)	332D	\$ 10,184,000	\$ (1,300,000)	\$ (421,847)	\$ 8,462,153
V18A	River Oaks Elementary School ***	375C	\$ -	\$ -	\$ 2,894	\$ 2,894
V18A	Antietam Elementary School Addition (13 rooms)	376C	\$ 8,784,000	\$ (2,893,000)	\$ 337,957	\$ 6,228,957
V18A	Marshall Elementary School - Renewal (Funding Phase 1a)	379F	\$ 3,945,000	\$ 675,222	\$ 2,827,511	\$ 7,447,733
V18A	Montclair Elementary School - Renewal (Funding Phase 1a)	380D	\$ 2,000,000	\$ 465,000	\$ 22,645	\$ 2,487,645
V18A	Mountain View Elementary School - Renovation	381F	\$ -	\$ 425,000	\$ 408,048	\$ 833,048
V18A	Old Bridge Elementary School - Renewal	382D	\$ -	\$ 19,841	\$ 690,258	\$ 710,099
V18A	Leesylvania Elementary School - Renewal (Funding Phase 1)	383E	\$ 13,485,000	\$ (2,033,838)	\$ (168,086)	\$ 11,283,076
V18A	Signal Hill Elementary School ***	397C	\$ -	\$ -	\$ 431,739	\$ 431,739
V18A	Potomac Shores Middle School	414A	\$ -	\$ 181,893	\$ 10,743,980	\$ 10,925,873
V18A	Potomac Middle School ***	417D	\$ -	\$ -	\$ 210,196	\$ 210,196
V18A	Stonewall Middle School Addition (17 rooms)	448K	\$ 14,630,000	\$ (2,225,000)	\$ (328,109)	\$ 12,076,891
V18A	Parkside Middle School - Roof Repl Partial	450M	\$ -	\$ 337,000	\$ (17,365)	\$ 319,635
V18A	Fred Lynn Middle School - Roof Replacement	452K	\$ -	\$ 400,000	\$ (383,959)	\$ 16,041
V18A	Rippon Middle School - Fenestration Improvements	459M	\$ -	\$ 1,041,317	\$ 3,641	\$ 1,044,958
V18A	Lake Ridge Middle School Addition (13 rooms)	472E	\$ 1,500,000	\$ (1,454,949)	\$ (43,176)	\$ 1,876
V18A	Beville Middle School - Renewal	478C	\$ -	\$ 85,500	\$ 1,038,533	\$ 1,124,033
V18A	Benton Middle School - Music Room Addition	488F	\$ -	\$ 1,485	\$ (1,485)	\$ (0)
V18A	Woodbridge High School - Turf Fields	506Q	\$ -	\$ 1,825,500	\$ (407,137)	\$ 1,418,363
V18A	Woodbridge High School ***	506R	\$ -	\$ -	\$ 940	\$ 940
V18A	Woodbridge High School - Aux Gym Addition	506S	\$ -	\$ 98,475	\$ (67,758)	\$ 30,717
V18A	13th High School (West)	513A	\$ 8,000,000	\$ (600,000)	\$ 3,475,616	\$ 10,875,616
V18A	Freedom High School - Turf Fields	530E	\$ -	\$ 203,266	\$ (90,489)	\$ 112,777
V18A	Stonewall High School - Turf Fields	568S	\$ -	\$ 1,731,798	\$ (333,097)	\$ 1,398,701
V18A	Gar-Field High School - Aux Gym Addition	569U	\$ -	\$ 351,561	\$ (301,916)	\$ 49,645
V18A	Hylton High School - Renewal	571M	\$ -	\$ 1,289,816	\$ (834,734)	\$ 455,082
V18A	Independent Hill Complex - Site Improvements	603F	\$ -	\$ 10,723,034	\$ (9,944,790)	\$ 778,244
V18A	Independent Hill New Maintenance Facility	603H	\$ -	\$ 601,633	\$ (89,372)	\$ 512,261
V18A	Kelly Leadership Center ***	604B	\$ -	\$ -	\$ 71,884	\$ 71,884
V18A	HVAC Equipment & Controls	HVAC	\$ -	\$ 1,350,437	\$ (9,588)	\$ 1,340,849
Total			\$ 126,540,000	\$ -	\$ -	\$ 126,540,000

Bond Issuance:
Virginia Public School Authority 2017 (V17A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V17A	Division-wide - Site Acquisition	0370	\$ -	\$ 15,611,270	\$(15,043,494)	\$ 567,776
V17A	Special Needs Transportation Center @ New Dominion	043K	\$ 1,700,000	\$ 270,257	\$ (1,299,999)	\$ 670,258
V17A	Western Bus Facility - New Construction A&E	043M	\$ 1,500,000	\$ 1,850,000	\$ 825,224	\$ 4,175,224
V17A	Alternative Education School - New Construction	201Z	\$ 25,850,000	\$(11,138,578)	\$ 986,723	\$ 15,698,145
V17A	Ann Ludwig - ELL Relocation from Ann Ludwig	209B	\$ -	\$ -	\$ 1,096,824	\$ 1,096,824
V17A	Woodbine PreSchool - Roof Replacement	219A	\$ -	\$ -	\$ 141,032	\$ 141,032
V17A	Minnieville Elementary School - Addition	303M	\$ -	\$ -	\$ 1,231,580	\$ 1,231,580
V17A	Potomac Shores ES site - Building, New	309A	\$ -	\$ -	\$ 30,000	\$ 30,000
V17A	Pattie Elementary School - Addition (10 rooms)	313D	\$ 8,300,000	\$ (3,570,000)	\$ (102,955)	\$ 4,627,045
V17A	Lake Ridge Elementary School - Addition (13 rooms)	318C	\$ 600,000	\$ 75,000	\$ 1,800,027	\$ 2,475,027
V17A	Elementary School East (PW Parkway) - New Construction	319A	\$ 2,000,000	\$ 7,250,000	\$ 828,342	\$ 10,078,342
V17A	Springwoods Elementary School - Addition (13 rooms)	332D	\$ 600,000	\$ 45,000	\$ 112,114	\$ 757,114
V17A	Westridge Elementary School - Renewal (Funding Phase	374C	\$ 98,000	\$ -	\$ (95,363)	\$ 2,637
V17A	River Oaks Elementary School - Renewal (Funding Phase 1)	375C	\$ 6,000,000	\$ -	\$ (175,000)	\$ 5,825,000
V17A	Antietam Elementary School - Renewal	376B	\$ -	\$ -	\$ 232,786	\$ 232,786
V17A	Antietam Elementary School - Addition (13 rooms) A&E	376C	\$ 600,000	\$ 85,000	\$ -	\$ 685,000
V17A	Montclair Elementary School - Renewal	380D	\$ -	\$ -	\$ 3,000,000	\$ 3,000,000
V17A	Mountain View Elementary School - Renovation	381F	\$ -	\$ -	\$ 431,445	\$ 431,445
V17A	Old Bridge Elementary School - Renewal	382D	\$ -	\$ -	\$ 4,616,512	\$ 4,616,512
V17A	Leesylvania Elementary School - Addition (4 rooms) A&E	383E	\$ 500,000	\$ 615,000	\$ 63,824	\$ 1,178,824
V17A	Middle School at Potomac Shores - New Construction	414A	\$ 2,000,000	\$ 1,195,924	\$ (1,000,000)	\$ 2,195,924
V17A	Saunders Middle School - Renewal (Funding Phase 2)	438F	\$ 2,600,000	\$ -	\$ (839,957)	\$ 1,760,043
V17A	Stonewall Middle School - Addition (17 rooms) A&E	448K	\$ 1,000,000	\$ -	\$ 54,409	\$ 1,054,409
V17A	Fred Lynn Middle School - Roof Replacement	452K	\$ -	\$ -	\$ 564,896	\$ 564,896
V17A	Rippon Middle School - Fenestration Improvement	459M	\$ -	\$ -	\$ 2,521,326	\$ 2,521,326
V17A	Lake Ridge Middle School - Renewal/Addition (13 rooms)	472E	\$ 13,037,000	\$ (4,350,000)	\$ (812,547)	\$ 7,874,453
V17A	Benton MS - Music Room Addition	488F	\$ -	\$ 3,200,000	\$ (100,000)	\$ 3,100,000
V17A	Woodbridge High School - Aux Gym Addition	506S	\$ -	\$ -	\$ 224,097	\$ 224,097
V17A	13th High School (West) - New Construction A&E	513A	\$ 3,000,000	\$ 239,635	\$ 600,000	\$ 3,839,635
V17A	Site Acquisition Funding	517A	\$ 14,000,000	\$(14,000,000)	\$ -	\$ -
V17A	Freedom HS - Turf Fields	530E	\$ -	\$ 1,849,177	\$ (300,000)	\$ 1,549,177
V17A	Gar-Field High School - Aux Gym Addition	569U	\$ -	\$ -	\$ 355,354	\$ 355,354
V17A	Independent Hill Complex - New Maintenance Facility	603H	\$ -	\$ 572,315	\$ 252,800	\$ 825,115
Total			\$ 83,385,000	\$ (200,000)	\$ 200,000	\$ 83,385,000

Bond Issuance:
Virginia Public School Authority 2016 (V16A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V16A	Division-wide - Site Acquisition	0370	\$ -	\$ 2,000,000	\$ 11,888,730	\$ 13,888,730
V16A	Special Needs Transportation Center @ New Dominion - A&E	043K	\$ 300,000		\$ (270,257)	\$ 29,743
V16A	PACE East Replacement/Multi-Space - A&E and initial construction	201Z	\$ 5,000,000		\$ 7,905,330	\$ 12,905,330
V16A	Minnieville ES - Activity Room	303J	\$ -		\$ 1,598,080	\$ 1,598,080
V16A	Minnieville ES - Addition	303M	\$ -		\$ 101,196	\$ 101,196
V16A	Elementary School (Potomac Shores)	309A	\$ 27,374,000	\$ (8,800,000)	\$ (3,630,240)	\$ 14,943,760
V16A	Pattie Elementary School Addition (10 rooms) - Consolidation / Building Renovation @ Washington-Reid - A&E	313D	\$ 900,000		\$ -	\$ 900,000
V16A	Elementary School - Site Acquisition Funds	319A	\$ 2,000,000	\$ (2,000,000)	\$ -	\$ -
V16A	Henderson Elementary School Addition (10 rooms)	333E	\$ 8,918,000		\$ (2,008,170)	\$ 6,909,830
V16A	Kilby Elementary School Replacement	344B	\$ 24,476,000	\$ (5,000,000)	\$ (4,040,588)	\$ 15,435,412
V16A	Belmont Elementary Addition (10 rooms)	360G	\$ 8,267,000		\$ (584,686)	\$ 7,682,314
V16A	Dale City ES - Activity Room	361H	\$ -		\$ 1,451,995	\$ 1,451,995
V16A	Neabsco Elementary School Addition (8 rooms)	370D	\$ 7,504,000		\$ (2,134,171)	\$ 5,369,829
V16A	McAuliffe Elementary School - Renewal	373C	\$ 5,000,000	\$ 2,120,000	\$ 746,118	\$ 7,866,118
V16A	Westridge Elementary School - Renewal	374C	\$ 5,000,000	\$ 1,000,000	\$ 124,039	\$ 6,124,039
V16A	Antietam Elementary School - Renewal	376B	\$ 5,000,000	\$ 2,800,000	\$ 310,970	\$ 8,110,970
V16A	Mullen Elementary School - Renewal	377D	\$ 5,000,000	\$ 880,000	\$ (247,629)	\$ 5,632,371
V16A	Marshall ES - Renewal	379F	\$ -		\$ 362,770	\$ 362,770
V16A	Montclair ES - Renewal	380D	\$ -		\$ 316,426	\$ 316,426
V16A	Old Bridge ES - Renewal/Addition	382D	\$ -		\$ 484,567	\$ 484,567
V16A	Middle School (Potomac Shores) - A&E	414A	\$ 3,000,000		\$ (1,195,924)	\$ 1,804,076
V16A	Saunders Middle School - Renewal	438F	\$ 6,175,000	\$ 5,800,000	\$ (3,584)	\$ 11,971,416
V16A	Lake Ridge Middle School - Renewal	472E	\$ 5,000,000		\$ (5,000,000)	\$ -
V16A	Lake Ridge Middle School Addition (13 rooms) - A&E	472E	\$ 1,000,000	\$ 1,200,000	\$ 6,859,162	\$ 9,059,162
V16A	13th High School -- Site Acquisition Funds	513A	\$ 13,500,000		\$(13,500,000)	\$ -
V16A	13th High School (West) - A&E	513A	\$ 2,000,000	\$ 1,000	\$ (239,635)	\$ 1,761,365
V16A	Freedom HS - Turf Fields	530E	\$ -		\$ 700,823	\$ 700,823
V16A	Independent Hill Complex - New Maintenance Facility	603H	\$ -		\$ 4,678	\$ 4,678
Total			\$ 135,414,000	\$ 1,000	\$ -	\$ 135,415,000

Bond Issuance:
Virginia Public School Authority 2015 (V15A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V15A	Site Acquisition	0370	\$ -	\$ 1,000,000		\$ 1,000,000
V15A	PACE East Replacement	201Z	\$ 2,000,000		\$ 5,200,000	\$ 7,200,000
V15A	Elementary School - Ferlazzo	306A	\$ 27,534,000	\$ (1,000,000)	\$(10,500,000)	\$ 16,034,000
V15A	Elementary School - Potomac Shores - A/E	309A	\$ 2,000,000			\$ 2,000,000
V15A	King ES - Renewal	316D			\$ 1,919,055	\$ 1,919,055
V15A	Lake Ridge ES - Renewal	318B			\$ 1,500,000	\$ 1,500,000
V15A	Occoquan ES - HVAC	326G			\$ 290,187	\$ 290,187
V15A	Springwoods ES - Renewal	332C			\$ 1,500,000	\$ 1,500,000
V15A	Henderson ES Addition - A/E	333D			\$ 1,332,206	\$ 1,332,206
V15A	Henderson ES - Addition A/E	333E	\$ 400,000			\$ 400,000
V15A	Kilby ES Replacement	344B	\$ 6,000,000			\$ 6,000,000
V15A	Featherstone ES - Roof Repl	345F			\$ 258,278	\$ 258,278
V15A	Belmont ES Addition - A/E	360G	\$ 400,000			\$ 400,000
V15A	Tyler ES - Activity Room	363F			\$ 1,000,000	\$ 1,000,000
V15A	Neabsco ES Addition - A/E	370D	\$ 400,000			\$ 400,000
V15A	McAuliffe ES - Renewal	373C			\$ 391,117	\$ 391,117
V15A	Antietam ES - Renewal	376B			\$ 389,318	\$ 389,318
V15A	Mullen ES - Renewal	377D			\$ 321,453	\$ 321,453
V15A	Marshall ES - HVAC	379E			\$ 260,063	\$ 260,063
V15A	Saunders MS - Renewal	438F			\$ 438,992	\$ 438,992
V15A	Rippon Middle Addition	459K	\$ 7,110,000			\$ 7,110,000
V15A	12th High School	501A	\$ 49,971,500		\$ (5,822,119)	\$ 44,149,381
V15A	Hylton HS - Roof	571H			\$ 1,521,449	\$ 1,521,449
V15A	Independent Hill Maintenance Facility	603H	\$ 10,000,000			\$ 10,000,000
Total			\$ 105,815,500	\$ -	\$ (0)	\$ 105,815,500

Bond Issuance:
Virginia Public School Authority 2014 (V14A)

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		Original Bond Disbursement			
V14A	Elementary School - Devlin Road	\$ 25,937,000		\$ (300,000)	\$ 25,637,000
V14A	Featherstone Elementary Addition (6 rooms)	\$ 8,531,000			\$ 8,531,000
V14A	12th High School/IHS (Mid-County)	\$ 49,971,500	\$ (3,000,000)		\$ 46,971,500
V14A	Elementary School/IHS (East - Ferlazzo)	\$ 2,000,000	\$ (850,000)		\$ 1,150,000
V14A	Rippon Middle Addition/IHS East (9 rooms)	\$ 350,000			\$ 350,000
V14A	Maintenance Facility	\$ 1,444,000			\$ 1,444,000
V14A	Kilby Elementary School Replacement	\$ 1,000,000			\$ 1,000,000
V14A	Kerrydale ES - Activity Room	\$ -	\$ 1,500,000	\$ -	\$ 1,500,000
V14A	Enterprise ES - Activity Room	\$ -	\$ 1,500,000	\$ -	\$ 1,500,000
V14A	Potomac Shores MS - site	\$ -	\$ 850,000	\$ -	\$ 850,000
V14A	Dale City ES - Activity Room	\$ -		\$ 150,000	\$ 150,000
V14A	Minnieville ES - Activity Room	\$ -		\$ 150,000	\$ 150,000
Total		\$ 89,233,500	\$ -	\$ -	\$ 89,233,500

Bond Issuance:
Virginia Public School Authority 2013 (V13A)

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		Original Bond Disbursement			
V13A	Nokesville School, The - Building, New	\$ 11,000,000			\$ 11,000,000
V13A	Haymarket ES - Building, New	\$ 27,663,000	\$ (1,320,000)	\$ (3,454,000)	\$ 22,889,000
V13A	Dumfries ES - Renewal	\$ 3,825,000		\$ 684,000	\$ 4,509,000
V13A	River Oaks ES - Addition	\$ 5,913,000	\$ 700,000	\$ (470,000)	\$ 6,143,000
V13A	Parkside MS - Addition	\$ 10,559,000			\$ 10,559,000
V13A	12th HS Site - Building, New	\$ 8,000,000	\$ 570,000	\$ 3,000,000	\$ 11,570,000
V13A	Featherstone ES - A/E, Addition	\$ 300,000	\$ 50,000		\$ 350,000
V13A	Kerrydale ES - Activity Room	\$ -	\$ -	\$ 80,000	\$ 80,000
V13A	Enterprise ES - Activity Room	\$ -	\$ -	\$ 80,000	\$ 80,000
V13A	Tyler ES - Activity Room	\$ -	\$ -	\$ 80,000	\$ 80,000
Total		\$ 67,260,000	\$ -	\$ -	\$ 67,260,000

**Bond Issuance:
Virginia Public School Authority 2012 (V12A)**

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		Original Bond Disbursement			
V12A	Potomac HS - Renewal/Addition	\$ 7,655,000	\$ 500,000		\$ 8,155,000
V12A	Pattie ES - Renewal	\$ 3,806,000	\$ (36,000)	\$ (100,000)	\$ 3,670,000
V12A	Loch Lomond ES - Addition	\$ 5,950,000	\$ 871,000	\$ (350,000)	\$ 6,471,000
V12A	Mullen ES - Addition	\$ 5,700,000	\$ 302,000	\$ (600,000)	\$ 5,402,000
V12A	Nokesville K-8 - Building, New	\$ 14,000,000	\$ 3,630,000		\$ 17,630,000
V12A	Penn ES - Addition	\$ 5,817,000	\$ (971,000)	\$ (550,000)	\$ 4,296,000
V12A	River Oaks ES - A/E, Addition	\$ 300,000	\$ 36,000	\$ (26,000)	\$ 310,000
V12A	Sinclair ES - Addition	\$ 6,260,000	\$ (33,000)		\$ 6,227,000
V12A	Sudley ES - Addition	\$ 6,100,000	\$ (118,000)	\$ (174,000)	\$ 5,808,000
V12A	West Gate ES - Addition	\$ 3,140,000	\$ 1,002,000		\$ 4,142,000
V12A	Benton MS - Addition	\$ 7,247,000	\$ (2,635,000)		\$ 4,612,000
V12A	Parkside MS - A/E, Addition	\$ 500,000			\$ 500,000
V12A	Potomac MS - Addition	\$ 7,770,000	\$ (2,548,000)		\$ 5,222,000
V12A	12th site - A/E	\$ 3,000,000			\$ 3,000,000
V12A	Loch Lomond ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Henderson ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	King ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Lake Ridge ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Springwoods ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Devlin Road ES - Building, New, A/E			\$ 50,000	\$ 50,000
	Total	\$ 77,245,000	\$ -	\$ -	\$ 77,245,000

**Bond Issuance:
Virginia Public School Authority 2011 (V11A)**

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		Original Bond Disbursement			
V11A	A&E Mullen, Sinclair, Sudley, West Gate, Loch Lomond	\$ 1,500,000	\$ 100,000		\$ 1,600,000
V11A	Bus Parking (Gar-Field HS)	\$ 1,009,000			\$ 1,009,000
V11A	PACE West SE	\$ 8,026,000		\$ (20,000)	\$ 8,006,000
V11A	Piney Branch Elementary	\$ 5,000,000	\$ (1,750,000)	\$ (730,000)	\$ 2,520,000
V11A	Potomac HS Addition	\$ 7,655,000			\$ 7,655,000
V11A	Reagan Middle	\$ 12,150,000		\$ (1,900,000)	\$ 10,250,000
V11A	Swans Creek	\$ 4,765,000	\$ (450,000)	\$ (1,365,925)	\$ 2,949,075
V11A	T. Clay Wood Elementary	\$ 4,000,000	\$ (450,000)	\$ (850,000)	\$ 2,700,000
V11A	Westridge ES Addition	\$ 4,130,000	\$ 450,000		\$ 4,580,000
V11A	Nokesville K-8 School (A&E)		\$ 500,000	\$ (203,053)	\$ 296,947
V11A	Penn Elementary School Addition (A&E)		\$ 350,000		\$ 350,000
V11A	Benton Middle School Addition (A&E)		\$ 450,000		\$ 450,000
V11A	Potomac Middle School Addition (A&E)		\$ 350,000		\$ 350,000
V11A	Parkside Middle School Addition (A&E)		\$ 450,000	\$ (65,075)	\$ 384,925
V11A	Devlin Road Elementary Site (A&E)			\$ 750,000	\$ 750,000
V11A	Haymarket Drive ES Site (A&E)			\$ 100,000	\$ 100,000
V11A	Occoquan ES Activity Room (A&E)			\$ 100,000	\$ 100,000
V11A	Dumfries ES Renewal (A&E)			\$ 300,000	\$ 300,000
V11A	Potomac HS Renewal / Addition			\$ 2,931,000	\$ 2,931,000
V11A	Occoquan ES Activity Room			\$ 953,053	\$ 953,053
	Total	\$ 48,235,000	\$ -	\$ -	\$ 48,235,000

Bond Issuance:
Virginia Public School Authority 2010 (V10A)

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		<i>Original Bond Disbursement</i>			
V10A	Linton Hall Road Elementary	\$ 16,224,000	\$ (200,000)	\$ (100,000)	\$ 15,924,000
V10A	Patriot High School	\$ 37,285,000		\$ (500,000)	\$ 36,785,000
V10A	Reagan Middle	\$ 14,232,000	\$ (500,000)	\$ 46,960	\$ 13,778,960
V10A	T. Clay Wood Elementary	\$ 14,494,000	\$ (200,000)	\$ (350,000)	\$ 13,944,000
V10A	Haymarket Drive Elementary (A&E)		\$ 900,000	\$ (141,275)	\$ 758,725
V10A	Patriot High School (A&E)			\$ 44,315	\$ 44,315
V10A	Potomac High School - Renewal/Addition			\$ 1,000,000	\$ 1,000,000
	Total	\$ 82,235,000	\$ -	\$ -	\$ 82,235,000

Commonwealth of Virginia - Comparative School Construction Data

New Elementary Schools – Commonwealth of Virginia
2015-16 through 2020-21

Year	Name	Grades	Division	Contract Award Date	Max ¹ Operating Capacity	Building Cost	Site Cost	Total ² Cost	Total Sq Ft	Total Cost/ Sq Ft	Building Only Cost/Sq Ft	Total Cost/ Pupil
2020-21	E. W. Chittum Elementary School Replacement	K-5	Chesapeake City (136)	Jun-21	928	\$21,696,780	3,420,156	25,116,936	125,113	\$200.75	\$173.42	\$27,066
	New Kent New Elementary	PK-5	New Kent County (063)	Jan-21	792	\$25,507,568	4,243,968	29,751,536	95,531	\$311.43	\$267.01	\$37,565
	Rosemount Lewis Elementary School	K-5	Prince William County (075)	Mar-21	847	\$25,100,000	9,900,000	35,000,000	116,500	\$300.43	\$215.45	\$41,322
	E.S.H. Greene Elementary Replacement	K-5	Richmond City (123)	Feb-21	1,069	\$31,690,966	5,340,111	37,031,077	118,901	\$311.44	\$266.53	\$34,641
	George Mason ES Replacement	K-5	Richmond City (123)	Feb-21	754	\$29,815,742	4,891,686	34,707,428	99,967	\$347.19	\$298.26	\$46,031
2019-20	New Elementary School-Reed Site	PK-5	Arlington County (007)	Sep-19	754	\$36,185,302	\$6,431,990	42,617,292	111,516	\$279.16	\$324.49	\$56,522
2018-19	Alice West Fleet Elementary	PK-5	Arlington County (007)	May-18	784	\$41,550,000	\$17,700,000	59,250,000	212,245	\$279.16	\$195.76	\$75,574
	New Harrowgate Elementary	K-5	Chesterfield County (021)	Feb-19	794	\$20,062,340	\$2,620,916	22,683,256	95,944	\$236.42	\$209.10	\$28,568
	Northwest County ES - McNair Site	4-6	Fairfax County (029)	Jan-19	750	\$22,080,000	\$5,000,000	27,080,000	105,652	\$256.31	\$208.99	\$36,107
	Twelfth Elementary School	K-5	Frederick County (034)	Sep-18	648	\$20,993,928	\$2,543,885	23,537,813	84,375	\$278.97	\$248.82	\$36,324
2017-18	Great Bridge Primary Repl	PK-2	Chesapeake City	Oct-17	636	\$14,841,235	\$3,509,765	\$18,351,000	90,936	\$201.80	\$163.21	\$28,854
	New Enon Elementary	K-5	Chesterfield County	May-17	794	\$17,963,384	\$3,157,635	\$21,121,019	91,276	\$231.40	\$196.80	\$26,601
	New Beulah Elementary	K-5	Chesterfield County	Apr-17	940	\$18,897,528	\$5,402,472	\$24,300,000	99,921	\$243.19	\$189.12	\$25,851
	Camp Allen Elementary Repl	PK-5	Norfolk City	Mar-16	645	\$21,639,187	\$2,998,327	\$24,637,514	97,492	\$252.71	\$221.96	\$38,198
	Jenkins Elementary	K-5	Prince William County	Feb-18	860	\$19,624,164	\$7,584,836	\$27,209,000	100,264	\$271.37	\$195.72	\$31,638
	Fallon Park Elementary	PK-5	Roanoke City	Jan-18	930	\$18,810,000	\$2,830,000	\$21,640,000	112,616	\$192.16	\$167.03	\$23,269
New Moncure Elementary	PK-5	Stafford County	Jul-16	984	\$24,097,476	\$4,150,000	\$28,247,476	108,794	\$259.64	\$221.50	\$28,707	
2016-17	Colonial Beach	PK-7	Colonial Beach	Jul-16	442	\$7,160,934	\$766,066	\$7,927,000	50,079	\$158.29	\$142.99	\$17,934
	Fort Belvoir Elementary School II	PK-6	Fairfax County	Apr-15	576	\$17,330,700	\$4,840,320	\$22,171,020	95,341	\$232.54	\$181.78	\$38,491
	New Harrisonburg Elementary	K-5	Harrisonburg City	Mar-16	916	\$21,414,376	\$4,496,390	\$25,910,766	103,703	\$249.86	\$206.50	\$28,287
	Meadow View Elementary	PK-5	Henry County	Jul-16	776	\$19,691,800	\$963,900	\$20,655,700	96,000	\$215.16	\$205.12	\$26,618
	Loudoun Elementary-ES 28	K-5	Loudoun County	Feb-17	988	\$24,310,000	\$4,000,000	\$28,310,000	136,200	\$207.86	\$178.49	\$28,654
	Covington-Harper ES	K-5	Prince William County	Mar-16	889	\$16,646,000	\$4,185,000	\$20,831,000	101,246	\$205.75	\$164.41	\$23,432
	Northern Suffolk Elementary (Bowser Repl)	PK-5	Suffolk City	Jun-16	984	\$18,190,000	\$2,630,000	\$20,820,000	114,881	\$181.23	\$158.34	\$21,159
2015-16	Hugh Cassell Elementary	PK-5	Augusta County	Dec-15	930	\$15,462,984	\$3,016,691	\$18,479,675	94,500	\$195.55	\$163.63	\$19,871
	Riverheads Elementary	PK-5	Augusta County	Dec-15	930	\$16,593,846	\$2,339,205	\$18,933,051	94,500	\$200.35	\$175.60	\$20,358
	Bowling Elementary	PK-5	Norfolk City	Dec-14	780	\$15,898,428	\$2,474,221	\$18,372,649	101,060	\$181.80	\$157.32	\$23,555
	New Ocean View Elementary Repl	K-5	Norfolk City	Dec-14	808	\$15,577,911	\$3,059,275	\$18,637,186	92,286	\$201.95	\$168.80	\$23,066
	New Larchmont Elementary Repl	K-5	Norfolk City	Dec-14	778	\$15,823,153	\$3,221,874	\$19,045,027	92,655	\$205.55	\$170.77	\$24,479
	Martin Luther King Pre-K	PK	Richmond City	Jun-14	260	\$4,879,986	\$454,818	\$5,334,804	22,097	\$241.43	\$220.84	\$20,518

* The final report for 2020-21 will be generated after June 30, 2021.

1 - Division operating capacity may differ from SOL maximum capacity. Pre-kindergarten classrooms counted at 16 students, grades K-3 classrooms counted at 24:1, grades 4-5 classrooms counted at 25:1.

2 - Usually includes construction, site development, water system, sewage disposal, built-in equipment and demolition. A&E fees, value engineering, construction management fees, cost of site, loose equipment, and furniture are excluded.

3 - Site cost include \$270,000 for egress road and \$924,000 for off site utilities.

4 - Excludes cost of community center, and includes cost for the demolition of the existing building.

5 - Includes cost of demolition of old school building.

6 - Site cost includes \$135,000 for demolition of existing school and abatement work.

New Middle Schools – Commonwealth of Virginia 2011-12 through 2020-21

Year	Name	Grades	Division	Contract Award Date	Maximum ¹ Operating Capacity	Building Cost	Site Cost	Total ² Cost	Total Sq Ft	Total Cost/ Sq Ft	Building Only Cost/Sq Ft	Total Cost/ Pupil
2020-21	River City Middle School	8-Jun	Richmond City (123)	Feb-21	1,583	\$49,386,632	\$8,106,914	\$57,493,546	183,759	\$313	\$268.76	\$36,319
2019-20	New Aylor Middle School	6-8	Frederick County (034)	Apr-19	1050	\$34,219,932	\$7,141,827	\$41,361,759	151,154	\$274	\$226.39	\$39,392
2018-19	Manchester Middle School	6-8	Chesterfield County (021)	Oct-18	1,108	\$35,293,004	\$4,683,944	\$39,976,948	139,011	\$288	\$253.89	\$36,080
	Potomac Shores Middle School	6-8	Prince William County (075)	Nov-18	1,491	\$45,474,000	\$7,000,000	\$52,474,000	197,954	\$265	\$229.72	\$35,194
	Pulaski County Middle School	6-8	Pulaski County (077)	Oct-18	1,091	\$33,868,896	\$6,887,094	\$40,755,990	164,900	\$247	\$205.39	\$37,357
	Princess Anne Middle School Replacement	6-8	Virginia Beach City (128)	Jun-18	1,516	\$57,680,024	\$7,147,194	\$64,827,218	257,784	\$251	\$223.75	\$42,762
2017-18	<i>No Projects Reported</i>											
2016-17	New Bedford Middle	6-8	Bedford County	Nov-16	754	\$23,098,130	\$5,701,235	\$28,799,365	123,822	\$233	\$186.54	\$38,195
	MS-7	6-8	Loudoun County	Feb-17	1,354	\$44,126,500	\$6,938,500	\$51,065,000	185,251	\$276	\$238.20	\$37,714
	Northern Suffolk Middle	6-8	Suffolk City	Jun-16	779	\$22,460,000	\$2,715,000	\$25,175,000	125,220	\$201	\$179.36	\$32,317
	James Blair Middle	6-8	Williamsburg James City	Sep-16	605	\$20,137,000	\$1,877,735	\$22,014,735	110,871	\$199	\$181.63	\$36,388
	Academies of Loudoun	9-12	Loudoun County	Oct-15	1,250	\$77,000,000	\$9,500,000	\$86,500,000	319,000	\$271	\$241.38	\$69,200
	Independence Nontraditional	1-12	Prince William County	Jun-16	480	\$23,383,520	\$3,796,418	\$27,179,938	122,659	\$222	\$190.64	\$56,625
	Dayton Learning Center	6-12	Rockingham County	Feb-17	180	\$4,095,912	\$727,388	\$4,823,300	19,544	\$247	\$209.57	\$26,796
2015-16	MS-9	6-8	Loudoun County	Aug-15	1,354	\$40,081,400	\$9,262,600	\$49,344,000	184,593	\$267	\$217.13	\$36,443
	Happy Creek Middle	6-8	Warren County	Jul-15	915	\$27,878,940	\$5,041,310	\$32,920,250	158,457	\$208	\$175.94	\$35,978
	Campostella STEM School	K-8	Norfolk City	Dec-14	1,151	\$27,017,178	\$2,815,912	\$29,833,090	181,489	\$164	\$148.86	\$25,919
2014-15	Frederick County Middle	6-8	Frederick County	Nov-15	921	\$35,592,328	\$5,907,672	\$41,500,000	186,163	\$223	\$191.19	\$45,060
	New Page Middle	6-8	Gloucester County	Sep-15	738	\$18,931,000	\$3,922,763	\$22,853,763	118,237	\$193	\$160.11	\$30,967
	Old Donation Center & Kemps Landing Magnet	2-8	Virginia Beach City	May-14	1,375	\$45,448,808	\$5,124,278	\$50,573,086	225,785	\$224	\$201.29	\$36,780
	Jefferson-Houston	PK-8	Alexandria City	Jun-13	805	\$31,961,348	\$4,695,397	\$36,656,745	124,500	\$294	\$256.72	\$45,536
2012-13	Trailside	6-8	Loudoun Co	Jun-12	1,154	\$26,874,012	\$3,221,898	\$30,095,910	175,064	\$172	\$153.51	\$26,080
	Martin Luther King ³	6-8	Richmond City	Apr-12	847	\$27,306,636	\$2,835,518	\$30,142,154	149,600	\$201	\$182.53	\$35,587
2011-12	Nokesville K-8 School	K-8	Prince William County	Jun-12	924	\$22,602,000	\$5,800,000	\$28,402,000	141,832	\$200	\$159.36	\$30,738

* The final report for 2020-21 will be generated after June 30, 2021.

1 - Division operating capacity may differ from SOL maximum capacity. State SOL capacity based on a pupil teacher ratio of 25:1 in core classrooms.

2 - Usually includes construction, site development, water system, sewage disposal, built-in equipment and demolition. A&E fees, value engineering, construction management fees, cost of site, loose

3 - Cost include \$400,000 for site and building demolition, and a 2,835 square foot auxiliary gym.

4 - Building cost includes technology system and storage shed. Site cost includes \$185,000 traffic signal.

5 - Site cost split proportionally with new elementary school being built on the same site.

6 - Site cost includes \$611,420 for demolition of existing middle school building and asbestos abatement.

7 - Site cost includes \$2,060,000 for water, sewer, watertank, and road widening.

New High Schools – Commonwealth of Virginia 2008-09 through 2020-21

Year	Name	Grades	Division	Contract Award Date	Maximum ¹ Operating Capacity	Building Cost	Site Cost	Total ² Cost	Total Sq Ft	Total Cost/ Sq Ft	Building Only Cost/Sq Ft	Total Cost/ Pupil
2020-21	Highland Springs High School	9-12	Henrico County (043)	Aug-21	2,028	\$77,400,000	\$20,900,000	\$98,300,000	265,101	\$370.80	\$291.96	\$48,471
	J. R. Tucker High School	9-12	Henrico County (043)	Aug-21	1,990	\$72,047,832	\$20,654,374	\$92,702,206	265,101	\$349.69	\$271.78	\$46,584
2019-20	Washington and Lee High School	9-12	Westmoreland County	Oct-19	837	\$41,722,000	\$4,801,000	\$46,523,000	141,089	\$329.74	\$295.71	\$55,583
2018-19	Lightridge High School (HS-9)	9-12	Loudoun County	Jul-18	1,903	\$87,875,296	\$22,330,000	\$110,205,296	305,133	\$361.17	\$287.99	\$57,911
	Gainesville High School	9-12	Prince William County	Nov-18	2,601	\$85,500,000	\$23,000,000	\$108,500,000	334,885	\$323.99	\$255.31	\$41,715
2017-18	<i>No Projects Reported</i>											
2016-17	<i>No Projects Reported</i>											
2015-16	<i>No Projects Reported</i>											
2014-15	New Heritage High	9-12	Lynchburg City	Apr-14	1,452	\$42,544,428	\$20,879,572	\$63,424,000	266,151	\$238.30	\$159.85	\$43,680
	Union High School	9-12	Wise County	Nov-11	863	\$23,562,210	\$943,772	\$24,505,982	126,508	\$193.71	\$186.25	\$28,396
	Central High School	9-12	Wise County	Nov-11	863	\$25,082,622	\$411,396	\$25,494,018	126,508	\$201.52	\$198.27	\$29,541
2013-14	Louisa County High School	9-12	Louisa County	Jul-13	2,011	\$46,473,432	\$2,059,570	\$48,533,002	272,834	\$177.88	\$170.34	\$24,134
	Colgan High School	9-12	Prince William County	Dec-13	2,053	\$70,481,000	\$19,000,000	\$89,481,000	425,176	\$210.46	\$165.77	\$43,585
	New Huguenot High School	9-12	Richmond City	Jun-12	1,574	\$51,991,220	\$10,283,262	\$62,274,482	253,821	\$245.35	\$204.83	\$39,564
	Stafford High School Repl	9-12	Stafford County	Jun-13	2,102	\$50,715,200	\$9,106,800	\$59,822,000	281,653	\$212.40	\$180.06	\$28,460
2012-13	HS-6 at Loudoun Valley Estates II	9-12	Loudoun County	Feb-13	1,949	\$56,548,276	\$6,971,776	\$63,520,052	283,422	\$224.12	\$199.52	\$32,591
	Blacksburg High School	9-12	Montgomery County	Jul-11	1,650	\$47,258,625	\$7,621,578	\$54,880,203	293,286	\$187.12	\$161.13	\$33,261
	New Auburn High School	9-12	Montgomery County	Jul-11	853	\$27,985,261	\$4,261,737	\$32,246,998	180,940	\$178.22	\$154.67	\$37,804
2011-12	Kellum Replacement ³	9-12	Va Beach City	Aug-11	2,000	\$58,909,096	\$15,013,694	\$73,922,790	350,952	\$210.64	\$167.86	\$36,961
2010-11	Wakefield	9-12	Arlington County	May-11	2,173	\$77,389,376	\$11,000,623	\$88,389,999	382,102	\$231.33	\$202.54	\$40,676
	NEW Clarke County	9-12	Clarke County	Jul-10	884	\$19,550,000	\$3,750,000	\$23,300,000	162,050	\$143.78	\$120.64	\$26,357
	John Champe ⁴	9-12	Loudoun County	Jan-11	1,955	\$40,996,000	\$19,766,000	\$60,762,000	275,574	\$220.49	\$148.77	\$31,080
2009-10	<i>No Projects Reported</i>											
2008-09	Henrico #1 ⁵	9-12	Henrico County	Oct-08	1,868	\$50,700,000	\$7,133,623	\$57,833,623	255,000	\$226.80	\$198.82	\$30,960
	Tuscarora ⁶	9-12	Loudoun County	Dec-08	1,895	\$45,071,040	\$11,000,000	\$56,071,040	279,426	\$200.67	\$161.30	\$29,589
	Woodgrove ⁷	9-12	Loudoun County	Jan-09	1,651	\$44,375,000	\$9,500,000	\$53,875,000	251,915	\$213.86	\$176.15	\$32,632
	Fluvanna ⁸	9-12	Fluvanna County	Mar-09	1,633	\$44,379,363	\$12,486,637	\$56,866,000	314,389	\$180.88	\$141.16	\$34,823
	Patriot High School	9-12	Prince William County	Jan-09	2,053	\$58,655,600	\$12,043,400	\$70,699,000	312,067	\$226.55	\$187.96	\$34,437

* The final report for 2020-21 will be generated after June 30, 2021.

1 - Division operating capacity may differ from SOL maximum capacity. State operating capacity is generally based on a pupil teacher ratio of 25:1 in all program areas, at 90 percent.

2 - Usually includes construction, site development, water system, sewage disposal, built-in equipment and demolition. A&E fees, value engineering, construction management fees, cost of site, loose equipment, and furniture are excluded.

3 - Project cost includes required road widening, new turning lanes, football stadium, track, play fields, and other outside practice facilities.

4 - \$3,250,000 for required off-site road improvements.

5 - Total cost includes fieldhouse at \$1,480,000 and terrazzo flooring at \$300,500.

6 - Heavy grading, rock removal, as well as environmental issues increased site cost.

7 - On-site water and sewer systems were additional site costs.

8 - The base high school capacity is 1,633 students. The building includes spaces for career, technical and vocational programs for 100 additional students and core support facilities were sized for an additional 250 students.

Elementary School Construction Cost Data

Elementary School Construction Cost Data Prince William County Schools 2003-04 through 2020-21

Elementary School	Building Square Footage	School Construction Contract			Building Cost		Site Cost	
		Bid Date	Bid Contract Total	Contract Cost Per Sq Ft	Bldg Cost Total	Bldg Cost Per Sq Ft	Site Cost Total	Site Cost Per Sq Ft
Rosemount Lewis ES	116,500	Jan-21	\$35,000,000	\$300.43	\$25,100,000	\$215.45	\$9,900,000	\$84.98
John D. Jenkins ES	100,264	Feb-18	\$27,209,000	\$271.37	\$19,624,164	\$195.72	\$7,584,836	\$75.65
Covington-Harper ES	101,528	Feb-16	\$20,831,000	\$205.17	\$15,981,000	\$157.40	\$4,850,000	\$47.77
Kilby ES Repl.	98,976	Mar-15	\$21,888,000	\$221.14	\$15,788,000	\$159.51	\$6,100,000	\$61.63
Kyle Wilson ES	106,854	Feb-15	\$20,753,000	\$194.22	\$16,753,000	\$156.78	\$4,000,000	\$37.43
Chris Yung ES	107,273	Dec-13	\$20,286,000	\$189.11	\$16,186,000	\$150.89	\$4,100,000	\$38.22
Haymarket ES ⁵	99,135	Jan-13	\$18,788,000	\$189.52	\$14,396,000	\$145.22	\$4,392,000	\$44.30
T. Clay Wood ES ⁴	104,958	Feb-10	\$13,859,000	\$132.04	\$12,437,000	\$118.50	\$1,422,000	\$13.55
Piney Branch ES	104,958	Feb-10	\$15,799,000	\$150.53	\$12,999,000	\$123.85	\$2,800,000	\$26.68
Triangle ES Repl	103,679	Feb-08	\$19,769,000	\$190.68	\$16,169,000	\$155.95	\$3,600,000	\$34.72
Yorkshire ES Repl	106,614	Jun-07	\$18,863,000	\$176.93	\$16,292,000	\$152.81	\$2,571,000	\$24.12
Samuel L. Gravely ES	95,074	Feb-07	\$17,250,000	\$181.44	\$15,449,000	\$162.49	\$1,801,000	\$18.94
Fannie Fitzgerald ES ³	106,170	Feb-07	\$17,580,000	\$165.58	\$15,880,000	\$149.57	\$1,700,000	\$16.01
Buckland Mills ES	89,911	Feb-05	\$12,765,000	\$141.97	\$10,245,000	\$113.95	\$2,520,000	\$28.03
Rosa Parks ES	83,084	Feb-05	\$12,277,000	\$147.77	\$9,622,000	\$115.81	\$2,655,000	\$31.96
Glenkirk ES	83,084	Feb-04	\$11,711,000	\$140.95	\$8,364,000	\$100.67	\$3,347,000	\$40.28
Victory ES ²	89,911	Feb-04	\$11,380,000	\$126.57	\$9,505,000	\$105.72	\$1,875,000	\$20.85
Mary Williams ES ¹	83,084	Feb-03	\$10,570,000	\$127.22	\$8,061,000	\$97.02	\$2,509,000	\$30.20
Suella Ellis ES	76,724	Feb-03	\$8,869,000	\$115.60	\$7,638,000	\$99.55	\$1,231,000	\$16.04
Mary Porter TS	71,245	Feb-03	\$8,945,000	\$125.55	\$7,338,000	\$103.00	\$1,607,000	\$22.56

1 Actual bid was \$ 12.57 million. Approximately \$ 2.0 million is for site work associated with adjacent middle school. For project comparison purposes bid amount and site sq. ft. amounts have been adjusted accordingly.

2 This site was pre-graded by the developer, value approximately \$ 1.2 million. For project comparison purposes add 13.35 to project sq. ft. cost and to site sq. ft. cost.

3 This site was pre-graded by the developer, value approximately \$ 700K. For project comparison purposes add \$ 6.59 to project sq. ft. cost and to site sq. ft. cost.

4 This site was pre-graded which included partial utilities infrastructure and bus loop as part of the adjacent high school project, value approximately \$ 650K. For project comparison purposes add \$ 6.19 to project sq. ft. cost and to site sq. ft. cost.

5 This site was heavily wooded and contained \$845k in offsite utility / roadwork cost.

APPENDIX B

Student Enrollment & Housing Data

Student Enrollment & Housing Data

- Student Enrollment Forecasting
 - Housing Unit Method
 - Grade Progression Ratio Method
- Alternative Solutions to School Overcrowding
- Student Enrollment Data: Current and Projected Enrollment
 - by School (Elementary, Middle, High, and Special/Alternative Education), School Years 2020-30
- Housing Units in Residential Development
 - by School (Elementary, Middle, and High)
- Historical and Projected Enrollment Data
- Student Enrollment Projections - Error Rate Analysis
- Portable Classrooms
- Various Charts and Graphs
- Geographic Areas – Map and Table

Student Enrollment Forecasting

Most forecasts share common features. They tend to be an extrapolation of the past, involve some level of judgment, and are inherently not perfect predictors of the future. These features contribute to why it's indispensable to continually evaluate the forecasting methods used and the accuracy of their projections.

The primary goal in the enrollment forecasting process is to reduce statistical error so that the projections can become better predictors of future student enrollments, resulting in the ability to place greater confidence in them when planning future capital improvements. The forecasts rely on spatial and aspatial data that are manipulated and processed by Geographic Information System (GIS) software and statistical software packages, respectively. The methods used to produce student enrollment forecasts in PWCS are discussed in greater detail and communicated through flow charts in the following pages.

Methodology

The student enrollment forecasts are calculated combining two widely-used techniques in projecting student enrollment that are commonly referred to as the **Housing-Unit Method** and the **Grade Progression Method**. One caveat is that judgmental adjustments, which are common in forecasting, are often used to fine-tune the enrollment forecasts. The combination of statistical methods was chosen for two primary reasons. First, the model produced by them is supported by industry best practices and scholarly literature. Second, it is relatively inexpensive to produce. Each primary method is now discussed more extensively.

Housing-Unit Method

The Housing-Unit Method establishes a relationship between housing units and student enrollment. The relationship is calculated for a specific geography in Prince William County (PWC) by dividing the number of students residing in the geographic region by the number of existing housing units. In Prince William County Schools (PWCS), the resulting value is referred to as a Student Generation Factor. It can be interpreted as the number of students on average that housing units generated in a specific region. Factors are calculated at varying geographies (e.g., county-wide, elementary school attendance area, and Planning Zone) and for each housing unit type (e.g., single-family detached, townhouse, and multifamily). For future years, the projected ratio of students per housing unit, in concert with moving these ratios forward in time via the Grade Progression Ratio Method, is multiplied by the number of predicted housing units by year to produce the forecasts of total students in PWCS. The amount of new housing growth is fairly consistent with housing forecasts used for projecting population in PWC for the Metropolitan Washington Council of Governments (COG). The spatial distribution of new housing throughout PWC is determined by two factors. First, residential projects in the inventory pipeline guide where residential development is most likely to occur. Second, locations where additional housing-unit density is permitted in accordance with current zoning are utilized to guide where future, new housing is most likely to be constructed. These processes described are similar in spirit to the Build-out Analysis produced by the Planning Office in PWC Government, but differs by only considering the current zoning’s maximum residential development potential or, in other words, the maximum number of housing units that could exist on the property without undergoing rezoning.

Grade Progression Ratio Method

The Grade Progression Ratio Method used in PWCS, is the weighted average of historical grade progression ratios. The calculated ratio for each grade level is multiplied by its corresponding grade level cohort for a particular year to project the subsequent year’s enrollment. An example below is provided to help explain the method.

Below is a table that tabulates the historical record of total sixth and seventh grade students for the current year (i.e., Year₍₀₎) and the previous three years. Beneath the table is Grade Progression Ratio Method used with the provided data. For the sake of simplicity, no weighting is included in the example calculation, although more recent years are weighted more significantly in the actual projections used in PWCS. Averaging progression ratios for multiple years in the progression ratio calculation lessens the effect of any given year on the forecast, effectively smoothing the historical data. The forecaster can adjust the number of years used to calculate the progression ratio with the intent of attempting to control for outliers and to include the previous years that are believed to most closely represent the years being forecasted.

Grade	Year ₍₋₃₎	Year ₍₋₂₎	Year ₍₋₁₎	Year ₍₀₎	Progression Ratio	Year ₍₊₁₎
6 th	3,888	4,066	4,348	4,581		
7 th	N/A	4,024	4,184	4,525	1.0350	4,741

1. **Progression Ratio** = $(7^{\text{th}}_{\text{Year}(-2)} + 7^{\text{th}}_{\text{Year}(-1)} + 7^{\text{th}}_{\text{Year}(0)}) / (6^{\text{th}}_{\text{Year}(-3)} + 6^{\text{th}}_{\text{Year}(-2)} + 6^{\text{th}}_{\text{Year}(-1)})$
 $7^{\text{th}}_{\text{Year}(0)}$ indicates the 7th grade cohort of Current Year.
2. **Progression Ratio** = $(4,024 + 4,184 + 4,525) / (3,888 + 4,066 + 4,348) = 1.0350$
3. **Forecasted 7th Year₍₊₁₎ Student Enrollment** = $4,581 \times 1.0350 = 4,741$

Student Enrollment Forecast Accuracy

The model used to project student enrollment in PWCS is effective, and with accurate data and correctly forecasted parameters, can provide reasonably accurate forecasts of future. Historically, it has yielded smaller errors at larger geographies. An average error of less than 1 percent has been associated with the Division-wide one-year projections since the mid-1990s. Success at the school level, a relatively smaller geography, has varied by school. See charts on page 15 and 16 for historical error rates.

Student Enrollment Data Preparation



Elementary School
Level Data



Middle School
Level Data



High School
Level Data



Special School
Level Data



SMS Student Database - Extract Active
Students via SPSS Syntax to produce
the Official September 30th Enrollment



Import PWC Government
Shapefiles for Premise
Addresses, Parcels, and Roads

Import dataset into GIS



"Geocode" or assign each
student to a point on a map
based on the student's
residential address on file



Spatial join PZs and School
Assignments to the "Geocoded" student
point file in GIS to produce dataset

Analysis of Housing Unit Information



Prince William County Planning Office
Premise Points with Housing Unit Data



Prince William County Geographic Information System



Prince William County Planning Office
Residential Development Plans



Residential Information
Geodatabase in GIS

PWCS Staff converts
information into
geographic data



Outside data vendors provide additional
information on pace of development (e.g.,
PWC Revenue Committee, COG Housing
Forecasts, Residential Development, etc.)



Current and 10-Year
Projection of Housing
Units by Unit Type and
Planning Zone



This allows us to
prepare for Student
Enrollment Forecasting
continued on Page 5

Student Enrollment Forecasting Preparation



Residential Construction
(Generates students from new housing units based on forecasted build rates)

County-Wide Projection
forecasts the number of students anticipated in PWCS for the next 10 years



SPSS Syntax

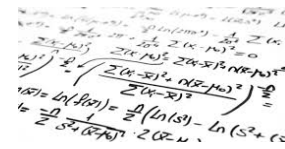
Calculate Current Student Generation Factors (SGF)
(Students per housing unit, by Unit Type, Planning Zone, and Grade)



Calculate Transfer Rates
(Percentage of students attending schools other than their geographically assigned school)



Progress student generation factor cohorts and transfer rates x-year forward



By Planning Zone:
Students (Grade X, Year Y) =
SGF_{Grade X-1 by Unit Type} * Units_{Year 0}
+ SGF_{Grade X by Unit Type} * Add'l Units_{Year 0 to Y}
* Transfer Rate_{Grade X}



Calculate new grade enrollments for each Planning Zone



Make "bottom-up" forecasts comply with "top-down" division-wide forecasts for improved accuracy

Allocate Planning Zones to Schools to create Enrollment Projections by School and Grade

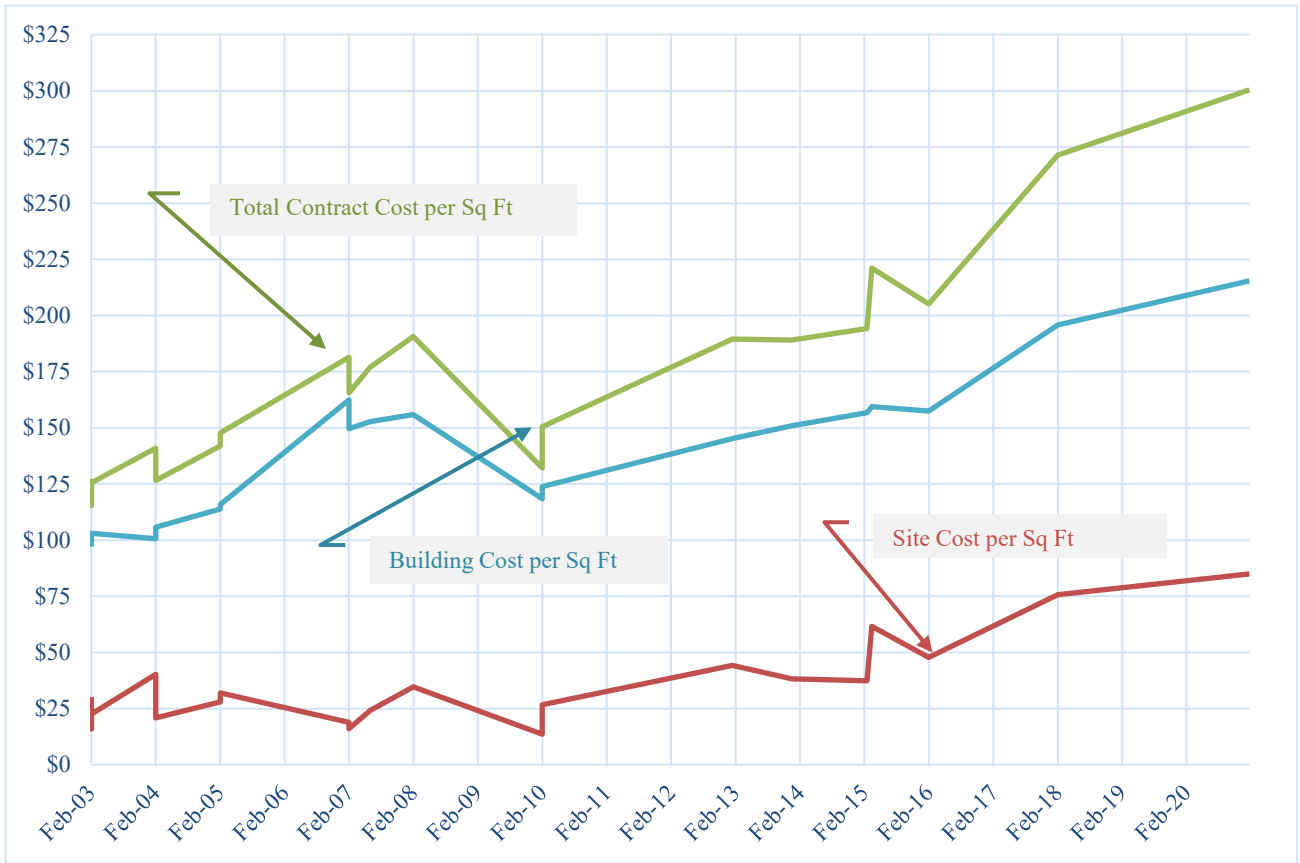
Alternative Solutions to School Overcrowding

There are several general methods that have been considered to alleviate overcrowding in schools.

- Boundary changes – For the opening of new schools or to shift student populations
- Optimization of boundaries so all available space in the county will be used
- Placement of portable classrooms
- New construction
- Freezing transfers
- Program changes – Examples:
 - Shifting eighth grade to a high school with unused space;
 - Moving PK Special Education programs;
 - Increasing pupil/teacher ratio;
 - Split shift.
- Year-Round Schooling

The method chosen for relieving overcrowding at a given school is determined by several criteria. These criteria include continuity and quality of educational program; maintenance of continuous communities; transportation considerations; using centerline on divided highways when possible; and topographical features.

Elementary School Construction Cost Per Square Foot Prince William County Schools 2003-04 through 2020-21



APPENDIX E

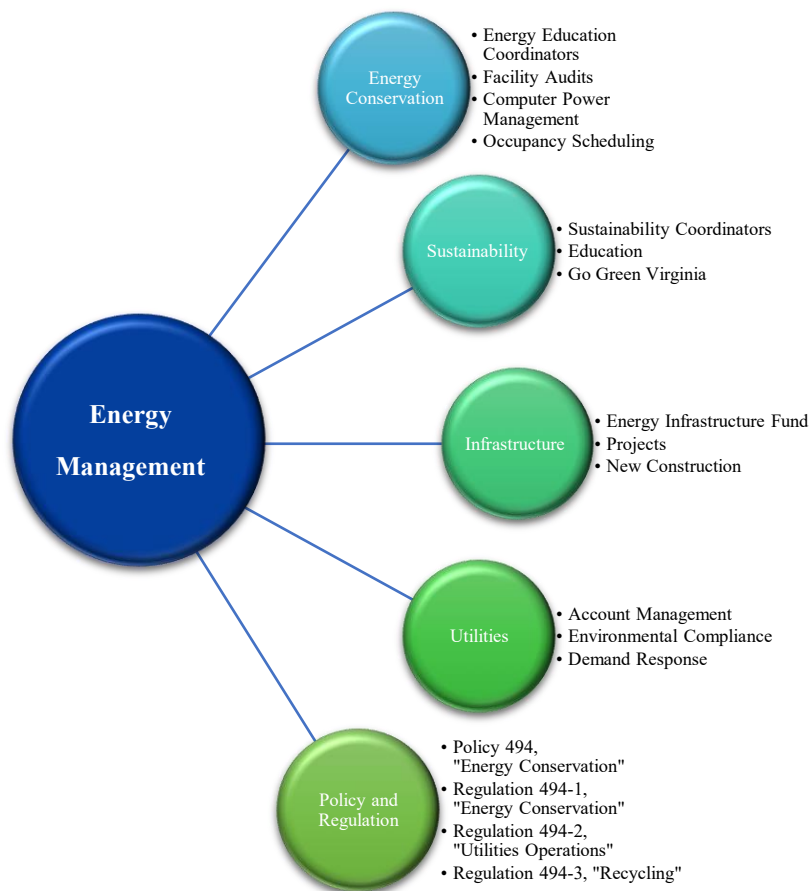
Energy Management

Energy Management

Energy Management in Prince William County Public Schools (PWCS) utilizes a multifaceted approach to energy stewardship and conservation. Policy 494 states that the School Board embraces energy conservation and believes it to be their responsibility to conserve energy and natural resources. Support and program oversight are the responsibility of the Office of Facilities Services. However, each school or facility designates a site administrator who is accountable for energy conservation and sustainability practices.

Implementation of the energy conservation and sustainability program shall be through a team led by the Office of Facilities Services' Supervisor of Energy Management and Sustainability, and Energy Education Coordinator(s), in accordance with Regulation 494-1. All decisions related to the implementation of this policy shall be firmly grounded in common sense.

Accurate records of energy consumption and cost will be maintained by the Office of Facilities Services for each site to provide verifiable performance results on the goals and progress of the energy conservation program.



Energy Education Coordinators

Energy Education Coordinators work to establish accountability for energy consumption at every level in the organization. These individuals are responsible for developing and monitoring the organization's energy management program, under School Board approved policies and regulations that are intended to reduce utility consumption.

Basic areas of responsibility include: administration and recordkeeping, accountability, reporting, program implementation, promoting organizational staff and student involvement, and validating energy management system compliance to the energy policy and guidelines. Energy Education Coordinators use EnergyCAP software to monitor energy usage trends.

The role of the Energy Education Coordinators is instrumental in the success of the energy conservation program and helping retain funds where they are most important – in the classroom.

Facility Audits

Sites within PWCS will be visited by an Energy Education Coordinator regularly. Audits conducted during the normal school week will assess the ability of staff to interpret and apply Policy 494 and Regulation 494-1. Audits will primarily be conducted after hours and during periods of low occupancy. Each site will also be reviewed during holiday periods, Code Red, and Code Green closings as well as extended shutdown periods such as the winter break, spring break, and summer vacation.

Computer Power Management

Computer Power Management refers to the mechanism for controlling the power use of personal computer hardware. In Prince William County Public Schools, this is done through globally deployed policy using software to implement and monitor computer energy consumption and cost. An established schedule of machine and monitor sleep settings as well as automated remote shutdown is enforced.

Facility Occupancy Scheduling

Facility use and scheduling is a critical component of energy management in PWCS. Each facility is assessed for its occupancy and use patterns to identify periods of inactivity and low usage. Mechanical systems are then programmed through automated building control systems to reduce mechanical operation and therefore energy consumption during periods of low usage. Schedules are reviewed regularly with site-based administrators and adjusted for seasonal patterns and system performance. School locations conducting events scheduled before or after normal school hours are required to enter these activities into “FacilityDirect” software.

Per Regulation 494-1, “Energy Conservation,” HVAC settings will revert to those designated for an unoccupied state after hours, during weekends, and on holidays. If heating or air conditioning is needed for a scheduled activity, staff is required to check the HVAC box to indicate as such in the request. Failure to do so will result in no available HVAC service. Events are entered no later than a week in advance, so that the service can be scheduled in a timely manner.

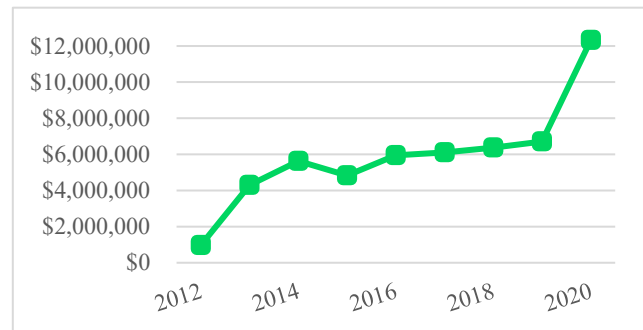
Energy Conservation Savings

July 2012 – December 2020

Period	Month	Savings		Period Totals
		\$	%	
Fast Track 2012	July - December	\$973,707	9.10%	\$973,707
Performance 2013	January - December	\$4,300,399	19.00%	\$4,300,399
Performance 2014	January - December	\$5,628,066	23.10%	\$5,628,066
Performance 2015	January - December	\$4,827,693	19.30%	\$4,827,693
Performance 2016	January - December	\$5,941,593	24.00%	\$5,941,593
Performance 2017	January - December	\$6,104,072	23.90%	\$6,104,072
Performance 2018	January - December	\$6,364,781	24.00%	\$6,364,781
Performance 2019	January-December	\$6,718,886	24.40%	\$6,718,886
3rd Performance Quarter FY2020	January	\$593,546	26.70%	\$2,046,532
	February	\$517,635	23.90%	
	March	\$935,351	42.60%	
4th Performance Quarter FY2020	April	\$1,461,654	64.30%	\$4,525,055
	May	\$1,779,093	68.50%	
	June	\$1,284,308	54.00%	
1st Performance Quarter FY2021	July	\$875,021	38.30%	\$2,738,135
	August	\$757,519	33.20%	
	September	\$1,105,595	46.70%	
2nd Performance Quarter FY2021	October	\$1,086,420	48.40%	\$3,014,941
	November	\$972,926	45.70%	
	December	\$955,595	41.10%	
Total Program Savings		\$53,183,859	35.01%	

Annual Energy Cost Avoidance

July 2012 – December 2020



Sustainability

Sustainability Coordinators

Sustainability is the dedicated effort of an organization, working together, to reduce the use of finite resources. By evaluating everything from the materials used in the construction of our new schools and renovations, to enhanced storm water management, sustainable purchasing, energy efficiency, and environmental literacy in the classroom, we as a group can decrease the negative impact our activities have on our world, starting today.

The role of a Sustainability Coordinator is not an intense one, but it is very important. Sustainability Coordinators function as ambassadors on behalf of Energy Management, conveying our collective message of environmental leadership to each individual site. Each coordinator is encouraged to create opportunities for discussions about sustainability and energy conservation. The Office of Facilities Services provides tools for the development of a sustainable culture within each school. Volunteers requiring recertification points could potentially earn up to five hours for participation as a site-based Sustainability Coordinator.

Education

The Office of Facilities Services incorporates education for students and staff into the overall Strategic Plan for the School Division. Energy Management staff support the development and implementation of Project Learning Tree (PLT) GreenSchools! modules that focus on Energy, Water, Waste and Recycling, and Environmental Quality. In 2018, Energy Management staff began offering a new certificate program, Green Classroom Professional (GCP). This certificate program is intended for educators, staff, custodians, and facilities personnel. Both courses are registered in the PWCS online Professional Learning Catalog.

PLT GreenSchools! investigations bolster science, technology, engineering, and math (STEM) education while promoting sustainable schools. They provide students with opportunities to actively engage in scientific

inquiry as they solve real-world environmental issues at their school. PLT GreenSchools! is a program of the American Forest Foundation, in partnership with the 50-state PLT network, the U.S. Forest Service, the Corporation for National and Community Service, and many other national, state, and local partners. This program is the foundation for the annual Energy Challenge where participating schools can earn up to \$2,000 annually for their efforts - \$1,800 for the site and \$200 for the supervising staff member.

Green Classroom Professional (GCP) certificate program provides participants with the skills to create sustainable learning spaces, identify features that support or impede environmentally healthy classrooms and energy savings, and help foster a culture that appreciates and models green practices. The GCP certificate program was created by the Center for Green Schools at the U.S. Green Building Council.

VSBA Green Schools Challenge

The VSBA Green Schools Challenge is sponsored by the Virginia School Board Association. The competition requires annual documentation and planning for issues relating to environmental stewardship, energy management, indoor air quality, and education of students in the classroom regarding sustainable strategies. PWCS has participated since 2009, earning both the Certified Green School Division award, Silver Green School certification, and Platinum Green School certification. In 2020, PWCS was recognized as the VSBA Green Schools Challenge Winner in the category for student population of 10,001 and up.

Energy Infrastructure Improvements

Energy Infrastructure Fund

The PWCS Capital Improvements Program (CIP) calls for a portion of the anticipated energy conservation savings to be directed towards continued investment in infrastructure improvements capable of generating additional savings and greater efficiency. Utilizing energy infrastructure improvement funding allocated in the CIP creates sustainable facility improvements that serve a wide range of priorities within the Office of Facilities Services, while creating measurable Return on Investment (ROI).

Energy Management has endeavored to work with a variety of stakeholders throughout the School Division to identify priorities.

Applicable infrastructure improvements include:

- Conversion of heating systems from fuel oil to natural gas to reduce point of use cost.
- Building management control system installation, upgrades, and modernization.
- Lighting control systems.
- Lifecycle modernization/replacement of inefficient and poorly performing mechanical systems.
- Building envelope improvements for better insulated entry points, windows, and exterior cladding.
- Sustainability focused enhancements designed to maximize educational opportunities derived directly from school facility sites (e.g. activity trails, ecological studies, civil engineering/ land survey training, renewable energy).

Anticipated Energy Infrastructure Funding Priorities

Fiscal Years 2022-2026

Energy Infrastructure Improvement Project	<i>FY2022</i>	<i>FY2023</i>	<i>FY2024</i>	<i>FY2025</i>	<i>FY2026</i>
Building Automation Improvements	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
LED Lighting Retrofits	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
Mechanical Infrastructure (Supplemental Heating, Cooling, Dehumidification)	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Building Envelope/Thermal Insulation	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Third-Party Energy Audits	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
TOTAL	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000

Energy Infrastructure Improvement Projects

Fiscal Year 2021

Location	Project Scope
Division-wide	LED Replacement Program
Antietam ES, Bel Air ES, Belmont ES, Covington-Harper ES, Dumfries ES, Enterprise ES, Featherstone ES, Haymarket ES, Henderson ES, King ES, Kyle Wilson ES, Lake Ridge ES, Leesylvania ES, Marshall ES, McAuliffe ES, Montclair ES, River Oaks ES, Springwoods ES, Tyler ES, Fred Lynn MS, Lake Ridge MS, Saunders MS, Woodbridge MS, Colgan HS	Predictive Maintenance Analytics
Division-wide	Switchgear Monitoring
Henderson ES, Kilby ES, Triangle ES, Tyler ES, Washington-Reid ES, Yorkshire ES, Pace West	SMART Irrigation
Dale City ES, Minnieville ES, Piney Branch ES	Building Automation Upgrade
Division-wide	Boiler Controls Upgrade
Woodbridge MS	Central Plant Sequence Commissioning
Bel Air ES, Haymarket ES, Loch Lomond ES, Marumscos Hills ES, Tyler ES, Vaughan ES, Victory ES, Washington-Reid ES, Forest Park HS, Gar-Field HS, Pace West	Performance Contracting

Fiscal Year 2022

Location	Project Scope
Division-wide	LED Replacement Program
Division-wide	Predictive Maintenance Analytics
Division-wide	Performance Contracting
Division-wide	SMART Irrigation
Division-wide	Building Automation Upgrade
Division-wide	Central Plant Sequence Commissioning

New Construction

The Office of Facilities Services is committed to the construction of energy efficient, highly performing facilities. Energy Management team members regularly review all energy consuming systems during the design and development of any building construction, renovation, or alteration.

The Supervisor of Energy Management and Sustainability provides final coordination with the Supervisor of Construction for energy management-related specifications and construction details.

Energy Management is committed to year-round advocacy for conservation efforts in PWCS.

Utilities

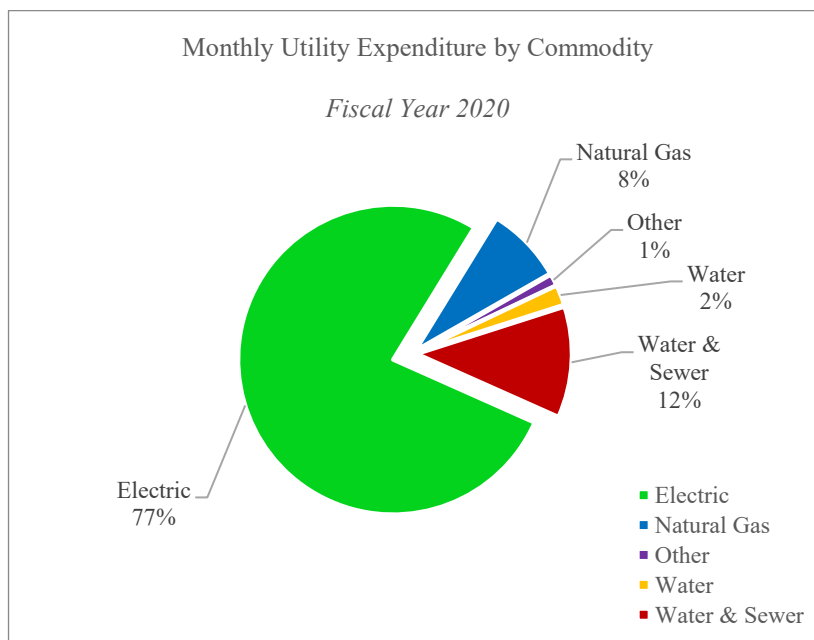
Account Management

Regulation 494-2 establishes responsibilities and operating procedures for the management of utilities by the Office of Facilities Services. It is the responsibility of staff to provide operating utilities and technical services supporting the proper maintenance and operation of school facilities. All utility invoices are processed using customized software called “EnergyCap”. The Supervisor of Energy Management and Sustainability functions as the liaison for third party contracts and utilities provided by private corporations and companies.

Utilities covered by this provision include:

- Heating Fuels
- Electrical Services
- Water and Sewer Services
- Motorized Fuels

Utility bill data for all PWCS sites is now available for access by the public through the PWCS Energy Management website.



Environmental Compliance

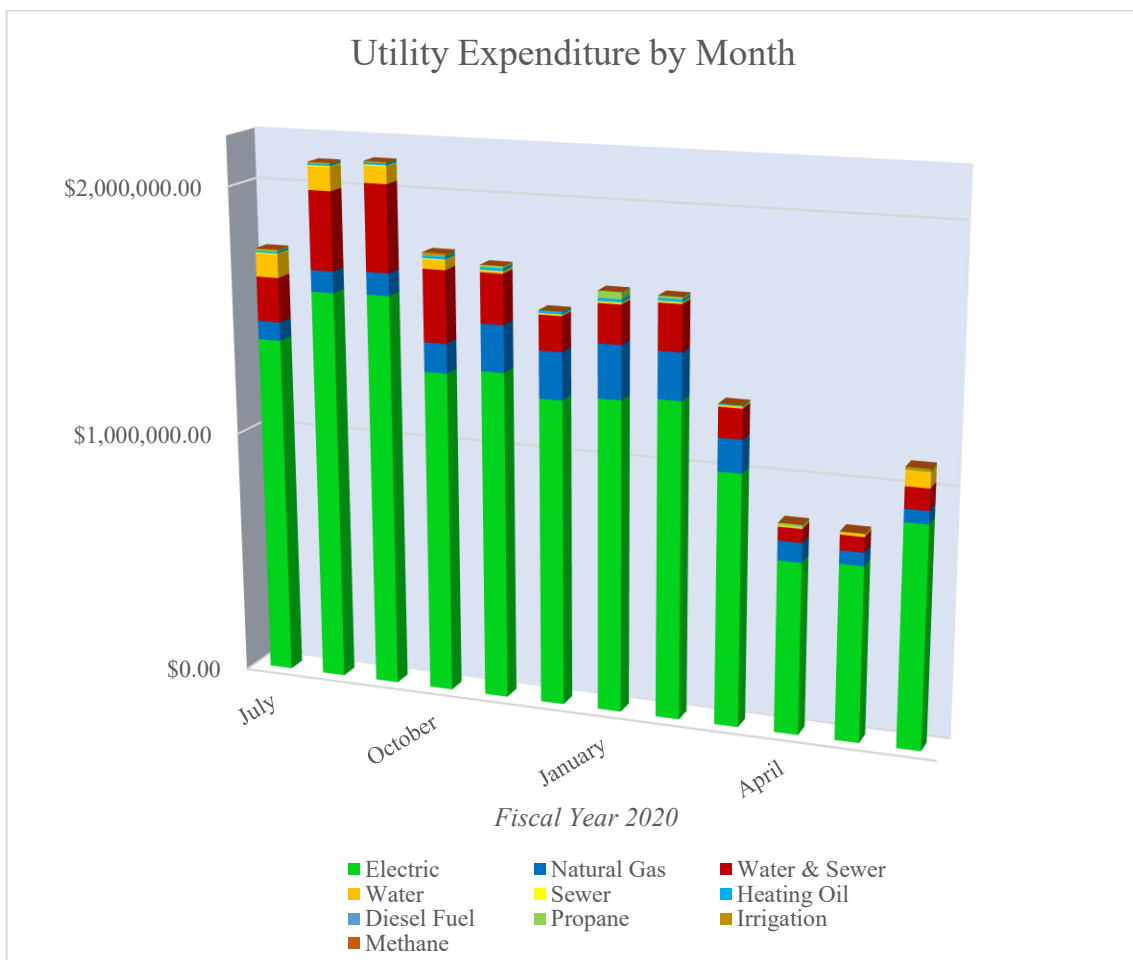
Prior to procurement, delivery, or payment of any heating and/or motorized fuels, the Supervisor of Energy Management and Sustainability ensures coordination with the Administrative Coordinator, Environmental Services, to verify proper delivery techniques, inspect spill control methods, and verify quantity delivered.

Required annual reporting of stored gallonage to the Department of Environmental Quality is the responsibility of the Supervisor of Energy Management and Sustainability.

Demand Response

Due to the constraints of available electrical utility capacity and required demand, it has become essential for utility providers at times to control the distribution of electricity. Demand response engages customers to reduce their personal or corporate consumption when possible, during critical times, so as not to overload the electrical grid. Utilities sub-contract the administration of demand response programs. Enrollment in such programs means utility customers may be notified of a critical period and subsequently, voluntarily, curtail usage where possible. A rebate is provided based on the extent of curtailment pursued. These peak periods are generally during the summer.

Over summer break, demand response presents a great opportunity for Prince William County Schools to pursue the benefits of demand response as a potential revenue source. Our facilities currently operate on a reduced schedule during these times.



APPENDIX F

Technology Improvement Plan

Future Ready Technology Improvement Plan

2021-2026

Innovative Learning and Engagement

Enabling learning and engagement anytime, anywhere on any device.



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Executive Summary

Prince William County Public Schools (PWCS) provides students with opportunities to learn to their fullest potential. By individualizing the education of each student, learning will be enhanced by national, global, and multicultural perspectives. Technology is a valuable tool implemented virtually and in classrooms to support and enhance the PWCS instructional program by promoting problem solving, critical and analytical thinking, creativity, collaboration, and decision-making skills. Students will access, process, and communicate information in a dynamic, integrated, and technological environment.

In alignment with ISTE standards and the Future Ready Schools framework, PWCS aligns, curates, creates, and consistently improves digital materials and apps used in the support of learning. Our careful selection of high-quality digital content is aligned to college and career readiness standards as an essential part of daily teaching and learning. Digital equity, a learning management system such as Canvas, and additional PWCS supported software allows teachers to transform teaching and learning using the power of technology to help drive continuous student improvement. Teaching and learning through the integration of technology not only increases student engagement, individualized differentiation of instruction, and ownership of learning, but it also allows for effective transformation to a digital curriculum.

Implementation of the PWCS Technology Improvement Plan allows for the Division to maintain a learning management system, digital equity, close the homework gap, and support a robust infrastructure for managing and optimizing safe and effective use of technology so students have opportunities to be active learners, creating and sharing content, not just consuming it.

Student Instructional Support

Prior to the Spring of 2020, PWCS was working to implement a five-year digital equity plan to ensure all PWCS students had equitable access to quality, authentic resources at home and school, preparing our students for their futures. In the Spring of 2020, PWCS closed schools due to the world-wide COVID-19 Pandemic. At that time, all learning became virtual for the remainder of the school year. Schools that were able to, provided portable device to students for continued learning from home.

The start of the 2020-21 school year remained closed due to the lingering COVID-19 Pandemic with the majority of students learning virtually and a small population of students attending in person. Utilizing VPSA funding, PWCS budget and CARES funding, Information Technology Services purchased HP ProBook x360 laptops to support virtual learning from home (*Figure 1*).

(*Figure 1*)

HP ProBook x360 11 G5 - Education Edition		
Month (FY20 & FY21)	Number of Devices Purchased	Cost
April	15,116	\$6,499,880
July	12,577	\$5,408,110
July	11,627	\$4,999,610
September	1,506	\$1,201,788
September	36,068	\$15,509,240
Total	76,894	\$33,618,628

With 76,894 new laptops purchased, and approximately 15,106 laptops 3 years of age or less in the Division, PWCS will be able to fully implement Digital Equity for students K-12 by January 2021. Implementing digital equity Division-wide will also assist with eliminating the traditional computer labs for schools. The exception to this would be specialized computer labs for courses (e.g., CTE, graphic arts).

To sustain PWCS Digital Equity, a three-year refresh plan will be implemented. Current PWCS laptops 3 years of age or less will be refreshed over FY22 and FY23 (7,553 per year).

- a. FY22: 7,553 new laptops allocated to elementary schools.
- b. FY23: 7,553 new laptops allocated to elementary schools.

The refresh of laptops purchased during the Pandemic (April 2020-September 2020) will begin in FY24. Amounts account for increase in device cost and enrollment (*Figure 2*):

- a. **FY24:** 25,632 new laptops allocated to high schools. High school laptops purchased during the Pandemic (3 years of age) will be reallocated to elementary schools.
- b. **FY25:** A total of 25,632 new laptops will be purchased. 3,000 will be allocated to high school, and 22,632 will be provided to middle schools. Middle school laptops purchased during the Pandemic will be reallocated to elementary schools.

- c. **FY26:** A total of 33,185 new laptops will be purchased (25,632 refreshed Pandemic laptops and 7,553 refreshed FY22 laptops). 21,000 laptops will be allocated for students in grades 3-5, and 12,185 laptops for students K-2 for one device per three student ratios.

(Figure 2)

Student Device Refresh	FY22	FY23	FY24	FY25	FY26
PWCS Laptops 3 years of age or less as of FY21 (7,553 per year)	\$3,345,979	\$3,247,790	\$0	\$0	\$0
25,632 laptops purchased during the Pandemic	\$0	\$0	\$11,688,192	\$0	\$0
25,632 laptops purchased during the Pandemic	\$0	\$0	\$0	\$12,047,040	\$0
33,185 laptops purchased during the Pandemic	\$0	\$0	\$0	\$0	\$16,061,540
Total	\$3,345,979	\$3,247,790	\$11,688,192	\$12,047,040	\$16,061,540

CTE Refresh

The Office of Student Learning supports schools with their Career and Technical Education courses. To support the robust needs of these courses, CTE labs will need to be on a five-year year refresh schedule (Figure 3).

(Figure 3)

Student Learning	FY22	FY23	FY24	FY25	FY26
CTE Refresh	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000

Closing the Homework Gap:

August 2020 survey data from PWCS families indicated approximately 7,274 (8 percent) students needed home internet access. To accommodate this need, CARES funding and GEER Vision Grant was used to purchase Wi-Fi hotspots and sponsor Comcast Cares Essentials for students whose families met the criteria.

With PWCS reaching digital equity by January 2021 for all students, it will be essential to continue providing Wi-Fi access at home for students beyond the Pandemic. Providing continued internet access will allow us to close the homework gap for our ESOL students and low-income families in the Division. Students will have access to 24/7 learning anytime, anywhere (Figure 4).

(Figure 4)

Home Internet Access	Initial Device Cost	Number Purchased	Total Device Cost	Annual Service Cost	Total Cost
Verizon Hotspots 8800L	\$149	500	\$74,500	\$111,000	\$185,500
Verizon Hotspots 900L	\$60	500	\$30,000	\$111,000	\$141,000
T-Mobile Hotspots	\$0	2,000	\$0	\$480,000	\$480,000
Comcast Cares 60 @ \$10 ea. p/m	\$0	60	\$0	\$7,200.00	\$7,200.00
Total	\$209	\$3,060	\$104,500	\$709,200	\$813,700

Teacher/Staff Support

Division-wide there are a combination of approximately 12,000 laptops, and desktops utilized by teachers, support staff, central office staff, and administrators. Best practice indicates devices should be refreshed every three years. To continue to support a refresh cycle similar to previous years, an additional \$4,000 per year will be needed for teachers and support staff (Figure 5).

(Figure 5)

Teacher/Staff Device Refresh	FY22	FY23	FY24	FY25	FY26
PWCS Laptops 3 years of age or less as of FY21 (2,436 per year)	\$2,333,688	\$2,392,152	\$0	\$0	\$0
2,915 laptops purchased during the Pandemic	\$0	\$0	\$2,947,065	\$0	\$0
2,915 laptops purchased during the Pandemic	\$0	\$0	\$0	\$3,034,515	\$0
2,915 laptops purchased during the Pandemic	\$0	\$0	\$0	\$0	\$3,124,880
Total	\$2,333,688	\$2,392,152	\$2,947,065	\$3,034,515	\$3,124,880

Division-wide Enterprise Systems

This section includes information regarding human resource management, financial, operational, technical, and functional support for applications within the School Division. It also includes centralized IT purchases on hardware and software (*Figure 6*).

(*Figure 6*)

Division-Wide Enterprise Systems	FY22	FY23	FY24	FY25	FY26
Financial/HR Payroll Upgrade	\$658,303	\$671,469	\$2,066,114	\$2,067,547	\$2,069,008
Central Content Management System (for schools and central office)	\$500,000	\$100,000	\$100,000	\$0	\$0
Interactive Display Refresh	\$963,375	\$963,375	\$963,375	\$963,375	\$963,375
Centralized Purchasing of IT Equipment	\$5,679,667	\$5,639,942	\$14,635,257	\$15,081,555	\$19,186,420
Total	\$7,801,345	\$7,374,786	\$17,7664,746	\$18,112,477	\$22,218,803

Learning and Business Information Technology Systems

This section includes information regarding the information security, management, and operational support for the PWCS I-Net wide area network, technical, and functional support of the Enterprise Data Centers that are critical to delivering support to students, teachers, parents and staff (Figures 7-9).

(Figure 7)

Network Services	FY22	FY23	FY24	FY25	FY26
Iron Mountain Data Center Project (including D.R.)	\$0	\$0	\$0	\$325,000	\$325,000
Network Infrastructure Upgrades	\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000
Wireless Trailer Maintenance	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000
Replace UPS in LAN Closets Division-Wide	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
Upgrade VoIP Equipment	\$500,000	\$250,000	\$250,000	\$250,000	\$250,000
Total	\$6,400,000	\$6,150,000	\$6,150,000	\$6,475,000	\$6,475,000

(Figure 8)

Information Security	FY22	FY23	FY24	FY25	FY26
Replacing Reverse Proxies (load balancer)	\$75,000	\$0	\$0	\$0	\$0
KLC IPS	\$0	\$0	\$200,000	\$0	\$0
Total	\$75,000	\$0	\$200,000	\$0	\$0

(Figure 9)

Information Systems Support	FY22	FY23	FY24	FY25	FY26
Physical Data Center AD/SQL Servers (2 per year)	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Disaster Recovery/Iron Mountain Move/ IHC Data Center	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
School Server and UPS Replacement	\$0	\$0	\$0	\$0	\$675,000
Server Virtualization and Storage Infrastructure	\$100,000	\$100,000	\$500,000	\$100,000	\$100,000
Backups	\$500,000	\$0	\$0	\$0	\$0
Total	\$720,000	\$220,000	\$620,000	\$220,000	\$895,000

Digital 2.0 Innovation

Currently, Virtual Prince William is the online learning program for PWCS. VPW is a supplemental program that offers certain high school level courses to high school students at a semester pace. Students can register to take courses either during the fall, spring, or summer. Virtual Prince William is looking to expand its program and offer a full-time online learning option for students. The expansion plan would begin with a full time online high school for the 2022-2023 school year followed by a full time online middle school in 2023-2024 and a full time online elementary school in 2024-2025 (*Figure 10*).

(*Figure 10*)

Virtual Prince William	FY22	FY23	FY24	FY25	FY26
High School (1)	\$540,000	\$8,700,000	\$8,700,000	\$8,700,000	\$8,700,000
Middle School (2)	\$0	\$460,000	\$5,800,000	\$5,800,000	\$5,800,000
Elementary School (3)	\$0	\$0	\$410,000	\$4,700,000	\$4,700,000
Total	\$540,000	\$9,160,000	\$14,910,000	\$19,200,000	\$19,200,000

1. *Preliminary assumption based on 1,200 seat count comprehensive school. Subject to change based on program of study and seats offered.*
2. *Preliminary assumption based on 800 seat count comprehensive school. Subject to change based on program of study and seats offered.*
3. *Preliminary assumption based on 600 seat count comprehensive school. Subject to change based on program of study and seats offered.*

Staffing Needs

Information Technology Services continues to have high staff turn-over with current positions that in some instances are not market competitive, this is especially true of information security and technology specialist positions (TSPEC). VA Standards of Quality allow funding for one technical support position per 1,000 students, which is a substantial number of students and staff to support per TSPEC. TIP does not include IT staffing which is funded through the operational budget, IT is pursuing additional support through the critical needs budget process.

TIP Summary

(Figure 11)

Comprehensive TIP Summary	FY22	FY23	FY24	FY25	FY26
Student Device Refresh (Figure 2)	\$3,345,979	\$3,247,790	\$11,688,192	\$12,047,040	\$16,061,540
CTE Refresh (Figure 3)	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Closing the Homework Gap (Figure 4)	\$813,700	\$813,700	\$813,700	\$813,700	\$813,700
Staff Refresh (Figure 5)	\$2,333,688	\$2,392,152	\$2,947,065	\$3,034,515	\$3,124,880
Division-wide Enterprise Systems (Figure 6)	\$7,801,345	\$7,374,786	\$17,764,746	\$18,112,477	\$22,218,803
Network Services (Figure 7)	\$6,400,000	\$6,150,000	\$6,150,000	\$6,475,000	\$6,475,000
Information Security (Figure 8)	\$75,000	\$0	\$200,000	\$0	\$0
Information Systems Support (Figure 9)	\$720,000	\$220,000	\$620,000	\$220,000	\$895,000
Virtual Prince William (Figure 10)	\$540,000	\$9,160,000	\$14,910,000	\$19,200,000	\$19,200,000
Projected Estimated Totals	\$23,029,712	\$30,358,428	\$56,093,703	\$60,902,732	\$69,788,923

Projected Local, State and Federal Revenue

(Figure 12)

Projected Local, State and Federal Revenue	FY22	FY23	FY24	FY25	FY26
PWCS Five-Year Budget Plan	\$6,000,000	\$6,500,000	\$7,000,000	\$7,500,000	\$8,000,000
Federal E-Rate, Type II	\$2,363,518	\$2,363,518	\$2,363,518	\$2,363,518	\$2,363,518
VPSA State Technology Funding	\$2,494,000	\$2,494,000	\$2,494,000	\$2,494,000	\$2,494,000
Local Cable Franchise Fees	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Local, State and Federal Totals	\$11,257,518	\$11,757,518	\$12,257,518	\$12,757,518	\$13,257,518
Comprehensive Estimated TIP Totals	\$23,029,712	\$30,358,428	\$56,093,703	\$60,902,732	\$69,788,923
Projected Revenue (+/-) VS. TIP Plan	-\$11,772,194	-\$18,600,910	-\$43,836,185	-\$48,145,214	-\$56,531,405

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*Vice Chairwoman
Coles District*

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Potomac District

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Student Representative

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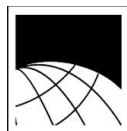
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