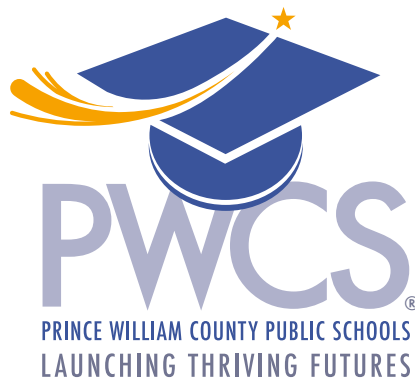




Capital Improvements Program

Fiscal Years 2024-33



Capital Improvements Program - School Board, Superintendent, and Superintendent's Staff Listing

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Student Representative

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Mr. Matthew Guilfoyle

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Mr. Keith F. Wolfe

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The following individuals will handle inquiries regarding nondiscrimination policies, including Section 504 and Title IX:

Mailing Address

P.O. Box 389, Manassas, VA 20108

**Civil Rights, Section 504, Compliance (Employees),
Equal Employment Opportunity,
Americans with Disabilities Act, Grievance Procedures:**
Equity and Employee Relations Office • 703-791-8764

Section 504 Compliance (Students):
Director of Special Education • 703-791-7287

Title IX Compliance:
Title IX Coordinator and Student Equity Office • 571-374-6839
Family Educational Rights and Privacy Act (FERPA):
FERPA Officer • 703-791-7445

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FOIA Officer • 571-402-3150

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CAPITAL IMPROVEMENTS PROGRAM

Overview - Fiscal Years 2024-33

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 7% of the state's student enrollment. The total 2022-23 enrollment is 90,226 students with permanent capacity for 94,482 students. This capacity is supplemented with 171 instructional portable classrooms.

PWCS is organized to focus on meeting the needs of its students and employees while managing 97 schools, along with administrative and support facilities. 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. It is a list of facility projects and associated funding allocations identified for the budget.

The CIP serves as a tool for planning and implementing the capital improvement projects needed to house students and employees adequately. Permanent capacity is set to increase by 6,184 seats over the next ten years with completion of the school facility construction identified within this CIP.

The School Division establishes a long-term approach to balance expenditures with anticipated revenues to address capital needs. The CIP is an ongoing plan designed to provide necessary capacity enhancements via new school facilities and classroom additions to existing schools to reduce the need for portable classrooms. Elements of the CIP also include site acquisition, renovations of existing facilities, upgrading and maintaining the School Division's infrastructure, Title IX improvements, energy efficiencies, and sustainability initiatives.

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. The CIP enables the School Division to address the changing enrollment patterns and utilize facilities in ways that are consistent with PWCS Vision 2025, Launching Thriving Futures Strategic Plan. The School Division budget provides funding for the CIP that focuses on the need for new facilities and additions to address growth. The CIP also funds multiple renovation projects to modernize schools to include updated instructional standards, building system upgrades, and safety measures.

The CIP is reviewed and updated on an annual basis, with long range plans adjusted based on enrollment projections and fiscal constraints. The Prince William County School Board and the Prince William Board of County Supervisors work cooperatively to develop and implement a budget plan.

Strategic Plan

The vision, mission, values, and commitments included in the PWCS Vision 2025, Launching Thriving Futures Strategic Plan, reflect a collective vision of the future of PWCS. The budget development process for Fiscal Year (FY) 2024 includes a commitment to align investments with the priorities and outcomes outlined in the PWCS Strategic Plan. The CIP specifically aligns with the following commitments and goals:

Commitment 2 – Positive Climate and Culture

Objective 2.3 - PWCS facilities will be welcoming, safe, and sustainable.

Goals

- 100% of all School Division facilities provide a welcoming environment conducive to learning by meeting PWCS established standards of quality and all applicable building code regulations
- 100% of schools will actively integrate Environmental Literacy into all grade levels
- PWCS will have at least five schools earn the U.S. Department of Education Green Ribbon School designation
- A 10% reduction of Division-wide greenhouse gas emissions year over year between FY23-FY26
- Complete the first Net Zero new construction school replacement in PWCS

Commitment 4 – Organizational Coherence

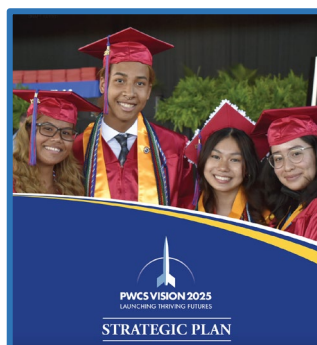
Objective 4.3 - PWCS will ensure that strategic priorities are driving investments.

Goal

- PWCS will complete eight school renovations between FY23 and FY26

Incorporating the PWCS Strategic Plan concentrates on the need for new facilities and additions to address growth, funding renovation projects to existing facilities, and focusing on advancing sustainability goals. Strategies include:

- Develop an annual Division-wide maintenance and facility plan
- High-quality learning experiences that promote environmental literacy
- Project-based learning, utilizing the school building as a teaching tool
- High-performing maintenance strategies and construction standards
- Base CIP investments on a facility condition index



Completed Projects

New Construction

Gainesville Middle School
11-Classroom Addition



Reagan Middle School
6-Classroom Addition



Renovations

Bennett Elementary School



Completed Projects (Cont.)

Specific School Projects

Osborn Park High School
Fenestration Improvements



Unity Reed High School
Fenestration Improvements



Graham Park Middle School
Fenestration Improvements



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, 2022, is 90,226 students, an increase of 758 students over September 30, 2021 (0.8%).

- Elementary School: +636 (1.6%)
- Middle School: -242 (-1.2%)
- High School: +62 (0.2%)
- Other School: +302 (22.6%)

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.

2023-24 enrollment is projected to be 91,631 students, an increase of approximately 1,405 students overall. Growth of 3,448 students is projected in the next five years, with a total projection of 93,674 students in 2027-28. 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 construction of new facilities. Where possible, additions are utilized as cost-effective alternatives to 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 average 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. It is a more accurate and representative means of calculating a school’s capacity, based on the actual “program” in place at the school. The calculation of current programs housed at each 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 each 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 2022 enrollment capacities and projections at the elementary and middle school levels utilize Program Capacity figures for CIP and boundary planning and will be updated annually to recalculate program capacities. The capacity for high schools remains as Planning Capacity.

CIP Changes

New School Construction

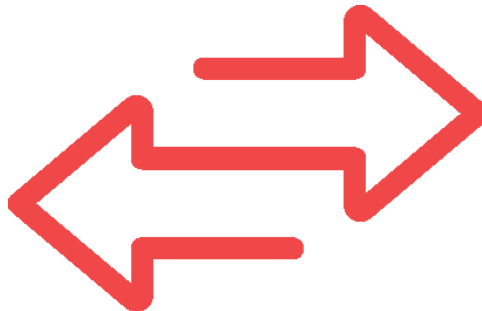
- Woodbridge Area Elementary School – moved from 2024 to 2025
- Route 1 South Area Elementary School – moved from 2031 to 2032
- Yorkshire Area Elementary School – moved from 2031 to 2032
- Kelly Leadership Center Office Addition - postponed indefinitely

Renovations

- Security Operations Center – Bldg. 19 – added to 2024
- Cedar Point Elementary School – moved from 2024 to 2025
- Swans Creek Elementary School – moved from 2024 to 2025

Specific School Projects

- Washington-Reid Preschool Center – Site Access/Parking Enhancements – added
- Fenestration Improvements
 - Gar-Field High School – moved from 2024 to 2025
 - Woodbridge High School – moved from 2024 to 2025
- Parkside Middle School - Window Replacement – added to 2027



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 Department 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 projects. The funding formula developed by the Chief Financial Officer provides targets for the construction and maintenance expenditures. The Facilities Department then prioritizes the work within the available funding to address the most critical needs.

Addressing School Division needs is a multi-year program; therefore, a long-term approach is needed to balance expenditures with anticipated revenues. 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, or in-kind contributions from residential rezoning applications, have also provided revenue to help the School Division mitigate the capital costs associated with residential development.

Construction Industry - Price Trends

The ongoing pandemic and other economic issues are causing a volatile market of rising construction material prices, supply chain breakdowns, and a shortage of skilled and unskilled labor. PWCS has experienced challenges with current construction projects, including higher than expected prices, extreme lead times for certain products, fewer vendors responding to bid solicitations, and vendors refusing to guarantee pricing for the required period.

These industry trends have direct impacts on current construction projects. The HVAC projects and renovations are seeing higher bids than initial estimates and mechanical systems projects are delayed due to equipment deliveries.

PWCS continues to analyze market trends, both locally and nationally, to prepare appropriately for current and future projects. Staff will continue to minimize negative consequences and adjust projects as necessary. The unexpected increase in costs has been built into the proposed construction costs.

New Construction

<i>Scheduled Completion</i>	<i>School/Facility</i>	<i>Total Project Budget</i>	<i>Additional Budget in FY 2024-33 CIP</i>
2023	Innovation Elementary School	\$40,855,000	
2025	Occoquan Elementary School Replacement	\$73,755,000	\$70,755,000
	Woodbridge Area Elementary School	\$52,144,000	\$37,820,000
2026	14 th High School	\$295,987,000	\$291,277,000
	Potomac Shores Area Elementary School	\$76,485,000	\$76,485,000
2032	Route 1 South Area Elementary School	\$99,986,000	\$99,986,000
	Yorkshire Area Elementary School	\$99,986,000	\$99,986,000
<i>New Construction TOTAL</i>		<i>\$739,198,000</i>	<i>\$676,309,000</i>

In the past five years, four new schools and additions to eleven existing schools have been constructed, adding capacity for approximately 7,330 students. The new schools include one elementary school (John D. Jenkins), one middle school (Potomac Shores), one high school (Gainesville) and one nontraditional school (Independence). The existing schools receiving classroom additions include six elementary schools (Antietam, Lake Ridge, Leesylvania, Minnieville, Pattie and Springwoods) and five middle schools (Beville, Gainesville, Lake Ridge, Reagan, and Unity Braxton).

New Construction

Innovation Elementary School

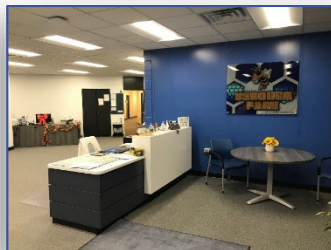
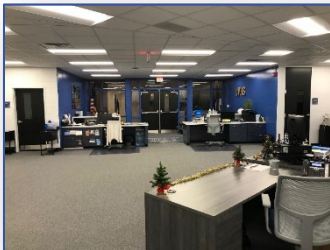


Woodbridge Area Elementary School



Specific School Projects

**Osborn Park High School
Admin. Area Renovation Completed**



**Unity Reed High School
Admin. Area Renovation Completed**



Specific School Projects

<i>Scheduled Completion</i>	<i>School/Facility</i>	<i>Total Project Budget</i>	<i>Additional Budget in FY 2024-33 CIP</i>
	Washington-Reid Elementary School – Site Access / Parking Enhancements	\$400,000	\$400,000
2024	Gar-Field High School – Artificial Turf / Concession Building	\$5,112,000	\$4,672,000
	Osborn Park High School – Artificial Turf / Concession Building / 8-Lane Track	\$5,576,000	\$5,096,000
	Rippon Middle School – Artificial Turf with Lighting	\$2,118,000	\$1,918,000
	Woodbridge High School – Cosmetology Lab Renovation	\$1,109,000	\$1,019,000
2025	Gar-Field High School – Fenestration Improvements	\$8,575,000	\$7,984,440
	Woodbridge High School – Fenestration Improvements	\$8,575,000	\$7,984,440
2026	Brentsville High School – Tennis Court Lighting	\$512,000	\$512,000
	Gar-Field High School – Tennis Court Lighting	\$512,000	\$512,000
2027	Osborn Park High School – Tennis Court Lighting	\$535,000	\$535,000
	Parkside Middle School – Window Replacement	\$4,092,000	\$4,092,000
<i>Specific School Projects TOTAL</i>		<i>\$37,116,000</i>	<i>\$34,724,880</i>

Site Acquisition

FY 2023 Property Acquisition

<i>School Facility</i>	<i>Acres</i>	<i>Date Acquired</i>	<i>Purchase Price</i>
Potomac Shores Area Elementary School	6.0	Final Settlement Pending	\$3,600,000
14 th High School	95.94	Oct. 2021	\$16,811,368
Woodbridge Area Elementary School	9.69	Dec. 2022	\$7,410,000
<i>Property Acquisition TOTAL</i>			<i>\$27,821,368</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>
2032	2026	Route 1 South Area Elementary School	Site Needed	\$10,000,000
2032	2026	Yorkshire Area Elementary School	Site Needed	\$10,000,000

Land acquisition for school sites is challenging as undeveloped land is often purchased or optioned by developers for 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 in conformance 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, 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.

Fifteen 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 17 schools and facilities since 2000, at a cost of more than \$85,000,000. Beyond the currently acquired properties, two additional school sites needed by 2032 to meet the anticipated need for increased capacity.

Renovations

<i>Scheduled Completion</i>	<i>School/Facility</i>	<i>Total Project Budget</i>	<i>Additional Budget in FY 2024-33 CIP</i>
2024	Security Operations Center– Bldg 19	\$1,300,000	\$1,300,000
	Transportation – Brentsville Center	\$5,950,000	\$5,550,000
2025	Benton MS	\$18,960,000	\$17,824,000
	Cedar Point ES	\$11,233,999	\$4,529,000
	Featherstone ES	\$17,250,000	\$16,365,000
	Swans Creek ES	\$12,722,000	\$5,129,000
	Transportation - Potomac Center	\$3,284,000	\$3,284,000
2026	Brentsville HS	\$44,919,000	\$44,919,000
	Graham Park MS	\$19,646,000	\$19,646,000
	Transportation - Central Center	\$3,465,000	\$3,465,000
2027	Fred Lynn MS	\$45,120,000	\$45,120,000
	Transportation - McCuin Center	\$4,367,000	\$4,367,000
2028	Unity Braxton MS	\$40,296,000	\$40,296,000
	Woodbridge MS	\$40,624,000	\$40,624,000
	Division-wide Facility Assessments	\$2,362,000	\$2,112,000
	Major Renovations (locations TBD)	\$685,656,000	\$685,656,000
<i>Renovations TOTAL</i>		<i>\$957,154,999</i>	<i>\$940,186,000</i>

Buildings and equipment require continual maintenance. 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 fine arts.

The Facilities Department maintains the current building inventory with periodic minor improvements through the “7/14-Year Maintenance Program,” which provides a minor refresh of building finishes every seven years. The goal is that when a building reaches approximately 25 years old, or approximately 25 years since its last major renovation, a major renovation will be provided. At that time, the Facilities Department will evaluate the building for physical or spatial needs and repair or replace building equipment including, but not limited to, mechanical, plumbing, electrical, technology, hardware, windows, and finishes such as paint, carpet, and tile.



Bristow Run Elementary School Renovation



55 of the School Division's 97 schools are 25 years or older. The Facilities Department continues to meet these challenges head-on to make dramatic improvements to the physical condition of schools. 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.

This CIP addresses reducing the backlog 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 17 facilities and over \$21.9M 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.

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 to ensure consistency of educational opportunities provided within the School Division. Facilities Department staff examine, evaluate, recommend, and prioritize a long-term plan for resolving facility inequities amongst school facilities.

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% of the current replacement value of facilities be budgeted annually for repairs and renovations. The projected FY 2024 replacement value of schools is approximately \$5,177,307,000.

Prince William County Schools has established an average annual renovation and repair target of 3% of the current replacement value of facilities with 1.5% for preventive maintenance and 1.5% for repairs and renovations. The amount targeted to be budgeted each year averages 2.4%. The target to be budgeted in FY 2024 for repairs, renovations, and maintenance is \$125,253,000 (2.4% of value), with the estimated budget for maintenance, renovations, and energy improvements in FY 2024 at \$151,241,479 (2.9% of value); of which \$108,311,482 will be bond funded.

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 Facilities Department. The list is based on the year the school was built or the year of the last renovation.

Hylton High School Renovation



Classrooms



Admin. Areas



Hallways/Lockers

Sustainability Initiative

In June 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.

Initiatives

- Encourage culture change among all stakeholders in the PWCS community
- Strive to achieve Net 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

The Superintendent’s Advisory Council on Sustainability recommends steps towards the implementation of sustainable schools.

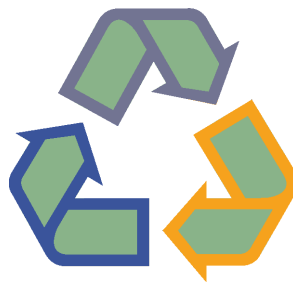
Advisory Council Recommendations

Achievements/Initiatives In Progress

- Site-specific design for new construction
- Feasibility studies
 - Renovating HVAC with geothermal where possible
 - Replacing fleet vehicles with electric models
 - Including walkability/bikeability impact assessments

FY24 Budget Considerations

- Budget requests for staffing
- LED replacement plan
 - Interior and exterior at all schools by 2026



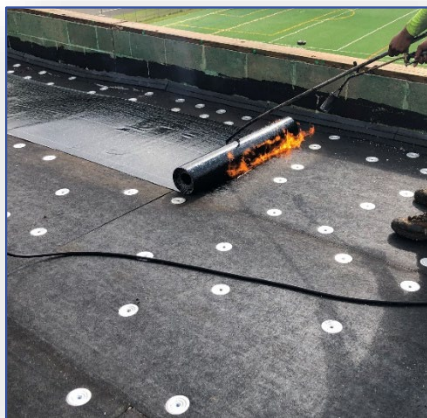
School Maintenance and Repair

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 needed’ basis until other funding sources become available.

<i>Project</i>	<i>Total Project Budget</i>	<i>Additional Budget in FY 2024-33 CIP</i>
Asphalt	\$21,209,000	\$21,149,000
Fenestration	\$11,654,000	\$11,654,000
HVAC	\$62,334,000	\$51,129,000
Kitchen	\$6,300,000	\$5,000,000
Maintenance	\$4,910,752	\$4,415,000
Municipal Separate Storm Sewer System (MS4)	\$9,888,000	\$8,003,000
Plumbing	\$210,000	\$110,000
Security Upgrades	\$10,300,000	\$7,770,000
Portable Classrooms (Trailers)	\$5,500,000	\$5,000,000
Roof Replacements and Repairs	\$60,897,000	\$57,197,000
Safety Improvements	\$710,000	\$710,000
Sustainability Initiatives	\$9,964,000	\$6,000,000
Energy Infrastructure Improvements	\$12,000,000	\$10,000,000
Title IX Improvements	\$4,370,000	\$3,750,000
<i>School Maintenance and Repair TOTAL</i>	<i>\$220,246,752</i>	<i>\$191,887,000</i>

Roofing Improvements

Battlefield and Freedom High Schools Roof Replacements



School Maintenance and Repair – Highlights

<i>Project Area</i>	<i>Facility and Project</i>
Sustainability	Bel Air ES-Geothermal HVAC Replacement
	HVAC Controls Retrocomissioning
	Kelly Center-Chiller and Controls Replacement
	Washington-Reid PK-HVAC Replacement
	LED Lighting Upgrades - Interior and Exterior
Security Upgrades	Hampton MS – Security Residence Modular
	Secure Vestibules <ul style="list-style-type: none"> • Bull Run MS • Gainesville MS • Marsteller MS
Roof Replacements	Forest Park HS (Phases 1 & 2)
	Mountain View ES (Partial)
	Rippon MS
Environmental	Various Schools - Stormwater Pond Repairs
HVAC	Antietam Elementary – Chiller
	Brentsville High – Chiller
	Colgan Aquatics Center
Plumbing	Various Schools - Water Heater Replacements
Asphalt	Battlefield HS – Tennis Court Resurfacing
	Potomac MS – Tennis Court Resurfacing

Capital Improvements Program – 5-Year Summary

Category	Sched. Compl.	Location	Project	Budgets Approved in Prior Years	VDOE Grant Funds	Project Total	5 Year Totals by Revenue Source			
							Bonds	General Revenue	Grants	Total
New Construction	2023	Innovation ES	Innovation ES	\$40,855,000		\$40,855,000				
	2025	Woodbridge Area ES	Elementary School (Woodbridge Area)	\$14,324,000		\$52,144,000	\$37,820,000			\$37,820,000
	2025	Ocoquan ES	Ocoquan Elementary School (Replacement)	\$3,000,000		\$73,755,000	\$70,755,000			\$70,755,000
	2026	Potomac Shores Area ES	Elementary School (Potomac Shores Area)			\$76,485,000	\$76,485,000			\$76,485,000
	2026	14th HS	14th High School	\$4,710,000		\$295,987,000	\$291,277,000			\$291,277,000
	2032	Route 1 South Area ES	Elementary School (Route 1 South Area)			\$99,986,000				
	2032	Yorkshire Area ES	Elementary School (Yorkshire Area)			\$99,986,000				
Renovation	2025	Cedar Point ES	Cedar Point Elementary School	\$6,704,999		\$11,233,999	\$3,324,000	\$1,205,000		\$4,529,000
	2025	Swans Creek ES	Swans Creek Elementary School	\$7,593,000		\$12,722,000	\$3,764,000	\$1,365,000		\$5,129,000
	2024	Transportation	Transportation - Brentsville Center	\$400,000		\$5,950,000	\$5,550,000			\$5,550,000
	2024	Independent Hill Complex	Security Operations Center - Bldg 19			\$1,300,000	\$1,300,000			\$1,300,000
	2025	Featherstone ES	Featherstone Elementary School	\$885,000		\$17,250,000	\$11,564,000	\$4,801,000		\$16,365,000
	2025	Benton MS	Benton Middle School	\$1,136,000		\$18,960,000	\$12,387,000	\$5,437,000		\$17,824,000
	2025	Transportation	Transportation - Potomac Center			\$3,284,000	\$3,284,000			\$3,284,000
	2026	Brentsville HS	Brentsville High School			\$44,919,000	\$34,177,000	\$10,742,000		\$44,919,000
	2026	Graham Park MS	Graham Park Middle School			\$19,646,000	\$15,195,000	\$4,451,000		\$19,646,000
	2026	Transportation	Transportation - Central Center			\$3,465,000	\$3,465,000			\$3,465,000
	2027	Fred Lynn MS	Fred Lynn MS			\$45,120,000	\$43,425,240	\$1,694,760		\$45,120,000
	2027	Transportation	Transportation - McCuin Center			\$4,367,000	\$4,367,000			\$4,367,000
	2028	Unity Braxton MS	Unity Braxton MS			\$40,296,000	\$40,296,000			\$40,296,000
	2028	Woodbridge MS	Woodbridge MS			\$40,624,000	\$40,624,000			\$40,624,000
	Various	Unspecified School Renovations			\$685,656,000	\$95,499,014	\$22,029,986		\$117,529,000	
	Division-wide	Facility Assessments	\$250,000		\$2,362,000		\$2,112,000		\$2,112,000	
Specific School Project	2025	Gar-Field HS	Gar-Field HS - Fenestration Improvements	\$590,560		\$8,575,000	\$7,984,440			\$7,984,440
	2024	Woodbridge HS	Woodbridge HS Cosmetology Lab Renovation	\$90,000		\$1,109,000	\$1,019,000			\$1,019,000
	2025	Woodbridge HS	Woodbridge HS - Fenestration Improvements	\$590,560		\$8,575,000	\$7,984,440			\$7,984,440
	2027	Parkside MS	Parkside MS Window Replacement			\$4,092,000	\$1,187,000	\$2,905,000		\$4,092,000
	2024	Gar-Field HS	Gar-Field HS Artificial Turf / Concession Bldg	\$440,000		\$5,112,000	\$4,672,000			\$4,672,000
	2024	Osborn Park HS	Osborn Park Artificial Turf / Concession Bldg, 8-lane track	\$480,000		\$5,576,000	\$5,096,000			\$5,096,000
	2024	Rippon MS	Rippon MS - Artificial Turf w/ Lighting	\$200,000		\$2,118,000	\$1,918,000			\$1,918,000
	2026	Brentsville HS	Brentsville HS - Tennis Court Lighting			\$512,000		\$512,000		\$512,000
	2026	Gar-Field HS	Gar-Field HS - Tennis Court Lighting			\$512,000		\$512,000		\$512,000
	2027	Osborn Park HS	Osborn Park HS - Tennis Court Lighting			\$535,000		\$535,000		\$535,000
	Washington-Reid ES	Site Access / Parking Enhancements			\$400,000	\$400,000			\$400,000	
School Maintenance and Repair		Various Facilities (TBD based on existing conditions)	Asphalt	\$60,000		\$21,209,000		\$11,669,000		\$11,669,000
			Fenestration			\$11,654,000	\$2,230,000	\$1,426,000		\$3,656,000
			HVAC	\$11,205,000	\$3,639,129	\$62,334,000	\$19,506,742	\$18,382,129	\$3,639,129	\$41,528,000
			Kitchen	\$1,300,000		\$6,300,000		\$2,500,000		\$2,500,000
			Maintenance	\$495,752		\$4,910,752	\$3,425,000	\$990,000		\$4,415,000
			MS4	\$1,885,000		\$9,888,000		\$4,825,000		\$4,825,000
			Plumbing	\$100,000		\$210,000	\$110,000			\$110,000
			Security Upgrades	\$2,530,000		\$10,300,000	\$7,770,000			\$7,770,000
			Trailer	\$500,000		\$5,500,000		\$2,500,000		\$2,500,000
			Roof Replacements and Repairs	\$3,700,000		\$60,897,000	\$2,324,000	\$22,751,000		\$25,075,000
			Safety Improvements			\$710,000	\$710,000			\$710,000
			Sustainability Initiatives	\$3,964,000		\$9,964,000	\$6,000,000			\$6,000,000
	Energy Infrastructure	\$2,000,000		\$12,000,000		\$5,000,000		\$5,000,000		
	Title IX	\$620,000		\$4,370,000		\$1,750,000		\$1,750,000		
FY 2024 - 33 Capital Improvements Program Total				\$110,608,871	\$3,639,129	\$1,953,715,751	\$866,894,876	\$130,094,875	\$3,639,129	\$1,000,628,880

Capital Improvements Program – 10-Year Summary

Category	Sched. Compl.	Location	Project	10-Year Totals by Revenue Source				Additional Capacity		
				Bonds	General Revenue	Grants	Total	5-Year	10-Year	
New Construction	2023	Innovation ES	Innovation ES					649	649	
	2025	Woodbridge Area ES	Elementary School (Woodbridge Area)	\$37,820,000			\$37,820,000	632	632	
	2025	Occoquan ES	Occoquan Elementary School (Replacement)	\$70,755,000			\$70,755,000	226	226	
	2026	Potomac Shores Area ES	Elementary School (Potomac Shores Area)	\$76,485,000			\$76,485,000	721	721	
	2026	14th HS	14th High School	\$291,277,000			\$291,277,000	2,557	2,557	
	2032	Route 1 South Area ES	Elementary School (Route 1 South Area)	\$99,986,000			\$99,986,000		721	
Renovation	2032	Yorkshire Area ES	Elementary School (Yorkshire Area)	\$99,986,000			\$99,986,000		678	
	2025	Cedar Point ES	Cedar Point Elementary School	\$3,324,000	\$1,205,000		\$4,529,000			
	2025	Swans Creek ES	Swans Creek Elementary School	\$3,764,000	\$1,365,000		\$5,129,000			
	2024	Transportation	Transportation - Brentsville Center	\$5,550,000			\$5,550,000			
	2024	Independent Hill Complex	Security Operations Center - Bldg 19	\$1,300,000			\$1,300,000			
	2025	Featherstone ES	Featherstone Elementary School	\$11,564,000	\$4,801,000		\$16,365,000			
	2025	Benton MS	Benton Middle School	\$12,387,000	\$5,437,000		\$17,824,000			
	2025	Transportation	Transportation - Potomac Center	\$3,284,000			\$3,284,000			
	2026	Brentsville HS	Brentsville High School	\$34,177,000	\$10,742,000		\$44,919,000			
	2026	Graham Park MS	Graham Park Middle School	\$15,195,000	\$4,451,000		\$19,646,000			
	2026	Transportation	Transportation - Central Center	\$3,465,000			\$3,465,000			
	2027	Fred Lynn MS	Fred Lynn MS	\$43,425,240	\$1,694,760		\$45,120,000			
	2027	Transportation	Transportation - McCuin Center	\$4,367,000			\$4,367,000			
	2028	Unity Braxton MS	Unity Braxton MS	\$40,296,000			\$40,296,000			
	Specific School Project	2025	Gar-Field HS	Gar-Field HS - Fenestration Improvements	\$7,984,440			\$7,984,440		
2024		Woodbridge HS	Woodbridge HS Cosmetology Lab Renovation	\$1,019,000			\$1,019,000			
2025		Woodbridge HS	Woodbridge HS - Fenestration Improvements	\$7,984,440			\$7,984,440			
2027		Parkside MS	Parkside MS Window Replacement	\$1,187,000	\$2,905,000		\$4,092,000			
2024		Gar-Field HS	Gar-Field HS Artificial Turf / Concession Bldg	\$4,672,000			\$4,672,000			
2024		Osborn Park HS	Osborn Park Artificial Turf / Concession Bldg, 8-lane track	\$5,096,000			\$5,096,000			
2024		Rippon MS	Rippon MS - Artificial Turf w/ Lighting	\$1,918,000			\$1,918,000			
2026		Brentsville HS	Brentsville HS - Tennis Court Lighting		\$512,000		\$512,000			
2026		Gar-Field HS	Gar-Field HS - Tennis Court Lighting		\$512,000		\$512,000			
2027		Osborn Park HS	Osborn Park HS - Tennis Court Lighting		\$535,000		\$535,000			
School Maintenance and Repair		Various Facilities (TBD based on existing conditions)	Washington-Reid ES	Site Access / Parking Enhancements	\$400,000		\$400,000			
			Asphalt		\$21,149,000		\$21,149,000			
			Fenestration		\$2,230,000	\$9,424,000		\$11,654,000		
			HVAC		\$19,506,742	\$27,983,129	\$3,639,129	\$51,129,000		
			Kitchen			\$5,000,000		\$5,000,000		
			Maintenance		\$3,425,000	\$990,000		\$4,415,000		
			MS4			\$8,003,000		\$8,003,000		
			Plumbing		\$110,000			\$110,000		
			Security Upgrades		\$7,770,000			\$7,770,000		
			Trailer			\$5,000,000		\$5,000,000		
			Roof Replacements and Repairs		\$2,324,000	\$54,873,000		\$57,197,000		
			Safety Improvements		\$710,000			\$710,000		
	Sustainability Initiatives		\$6,000,000			\$6,000,000				
	Energy Infrastructure			\$10,000,000		\$10,000,000				
	Title IX			\$3,750,000		\$3,750,000				
FY 2024 - 33 Capital Improvements Program Total				\$1,584,993,876	\$254,473,875	\$3,639,129	\$1,843,106,880	4,785	6,184	

School Facility Renovation Prioritization List

Based on Year Built or Last Renovation

School Facility Name	Year Opened	Effective Facility Age ¹	Most Recent Renovation	Next Scheduled Renovation ²	School Facility Name	Year Opened	Effective Facility Age ¹	Most Recent Renovation	Next Scheduled Renovation ²
C.D. Hylton High School	1991	31		2023	Neabco Elementary School	1969	13	2009	
Bristow Run Elementary School	1998	24		2023	Sinclair Elementary School	1968	13	2009	
Benton Middle School	2000	22		2025	West Gate Elementary School	1964	13	2009	
Brentsville District High School	1965	22	2000	2026	Yorkshire Elementary School	2009	13		
Forest Park High School	2000	22			Hampton Middle School	1970	12	2010	
Parkside Middle School	1963	22	2000	2023	Rippon Middle School	1967	12	2010	
Signal Hill Elementary School	2000	22		2023	Triangle Elementary School	2010	12		
Cedar Point Elementary School	2001	21		2025	Patriot High School	2011	11		
Featherstone Elementary School	1961	21	2001	2025	Piney Branch Elementary School	2011	11		
Fred M. Lynn Middle School	1963	21	2001	2027	T. Clay Wood Elementary School	2011	11		
Graham Park Middle School	1963	21	2001	2026	PACE West	2012	10		
Swans Creek Elementary School	2001	21		2025	Pennington Traditional School	1969	10	2012	
Ashland Elementary School	2002	20			Potomac High School	1981	10	2012	
Bull Run Middle School	2002	20			Ronald Wilson Reagan Middle School	2012	10		
Marsteller Middle School	2002	20			Pattie Elementary School	1978	9	2013	
Occoquan Elementary School	1927	20	2002		Washington-Reid Preschool Center	1951	9	2013	
Unity Braxton Middle School	1964	20	2002	2028	Dumfries Elementary School	1939	8	2014	
Alvey Elementary School	2003	19			Haymarket Elementary School	2014	8		
Gar-Field High School	1972	19	2003		The Nokesville School	2014	8		
Woodbridge Middle School	1964	19	2003	2028	Chris Yung Elementary School	2015	7		
Battlefield High School	2004	18			Charles J. Colgan Sr. High School	2016	6		
Ellis Elementary School	2004	18			Henderson Elementary School	1985	6	2016	
Freedom High School	2004	18			King Elementary School	1981	6	2016	
Mary Williams Elementary School	2004	18			Kyle Wilson Elementary School	2016	6		
Porter Traditional School	2004	18			Lake Ridge Elementary School	1983	6	2016	
Sudley Elementary School	1972	18	2004		Loch Lomond Elementary School	1962	6	2016	
Woodbridge High School	1974	18	2004		PWCS Aquatics Center	2016	6		
Glenkirk Elementary School	2005	17			Springwoods Elementary School	1985	6	2016	
Minnieville Elementary School	1972	17	2005		Covington-Harper Elementary School	2017	5		
Potomac View Elementary School	1964	17	2005		Kilby Elementary School	2017	5		
Unity Reed High School	1973	17	2005		Antietam Elementary School	1990	4	2018	
Vaughan Elementary School	1964	17	2005		Independence Nontraditional School	2018	4		
Victory Elementary School	2005	17			Lake Ridge Middle School	1989	4	2018	
Belmont Elementary School	1967	16	2006		McAuliffe Elementary School	1989	4	2018	
Buckland Mills Elementary School	2006	16			Mullen Elementary School	1990	4	2018	
Dale City Elementary School	1967	16	2006		River Oaks Elementary School	1990	4	2018	
Marumscos Hills Elementary School	1966	16	2006		Saunders Middle School	1988	4	2018	
Osborn Park High School	1975	16	2006		Westridge Elementary School	1989	4	2018	
Potomac Middle School	2006	16			John D. Jenkins Elementary School	2019	3		
Rosa Parks Elementary School	2006	16			Leesylvania Elementary School	1996	3	2019	
Gainesville Middle School	2007	15			Marshall Elementary School	1994	3	2019	
Kerrydale Elementary School	1973	15	2007		Montclair Elementary School	1991	3	2019	
Rockledge Elementary School	1972	15	2007		Old Bridge Elementary School	1995	3	2019	
Tyler Elementary School	1968	15	2007		Mountain View Elementary School	1995	2	2020	
Bel Air Elementary School	1968	14	2008		Beville Middle School	1991	1	2021	
Fitzgerald Elementary School	2008	14			Gainesville High School	2021	1		
Gravelly Elementary School	2008	14			Penn Elementary School	1998	1	2021	
Kelly Leadership Center	2008	14			Potomac Shores Middle School	2021	1		
Coles Elementary School	1968	13	2009		Woodbine	1953	1	2021	
Enterprise Elementary School	1978	13	2009		Bennett Elementary School	1996	0	2022	

¹ Not including effect of scheduled renewals

² Per the Approved CIP

Summary

<i>Existing Conditions</i>	
Projected Growth in Students (2022-2032)	5,499
Student Enrollment (September 30, 2022)	90,226
Student Enrollment (September 30, 2032)	95,725
Current Student Capacity	94,482
Current Portable Classrooms in Use	171

<i>Proposed Capital Improvements Program</i>	
New School Facilities	7
New Elementary Schools	5
New Middle Schools	----
New High Schools	1
Replacement Elementary School	1
School Additions (Classrooms)	----
Elementary School Additions	----
Middle School Additions	----
High School Additions	----
Proposed Capacity to be Constructed	6,184
Proposed Costs	\$1,843,106,880
New Construction	\$676,309,000
Renovations	\$940,186,000
Specific School Projects	\$34,724,880
Maintenance & Repair	\$191,887,000

Expenditure Highlights of Fiscal Year 2024 Budget

- Start up costs for “Woodbridge Area” Elementary School scheduled to open August 2025
- Specific School Projects at:
 - Woodbridge HS Cosmetology Lab Renovation
 - Gar-Field HS Artificial Turf / Concession Bldg
 - Osbourn Park Artificial Turf/Concession Bldg, 8-lane track
- Renovations at:
 - Transportation - Brentsville Center
 - Security Operations Center - Bldg 19

APPENDIX A

School Facility Information

School Facility Information

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

Count of Educational Facilities

School Facilities Prince William County Schools 2017-18 to 2022-23

School Type	Count of School Facilities					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Elementary Schools	60	60	61	61	61	61
Combined Schools	3	3	3	3	3	3
Middle Schools	16	16	16	16	17	17
High Schools	12	12	12	12	13	13
Total (<i>Regular Education</i>)	91	91	92	92	94	94
Other Schools	3	4	3	3	3	3
TOTAL	94	95	95	95	97	97

*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 2022-23

Use Type	School Type	Facility Count	Program / Planning Capacity	Portable Class-rooms	Square Feet	Acres
Educational	Elementary	61	41,687	86	4,729,973	1,011.2
	Combined	3	2,388	4	271,423	80.1
	Middle	17	21,653	24	2,442,461	610.2
	High	13	28,754	56	3,940,005	926.3
	Other	3		1	187,559	32.6
Non-Educational	Administrative	5			339,812	65.3
	Transportation	6			98,350	104.2
TOTAL		108	94,482	171	12,009,583	2,829.9

School Facilities – Detail Information by School Type

Prince William County Schools

Elementary School	Program Capacity	Portable Classrooms 2022-23	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 Elementary School	807		41	2003							83,084	20.2
Antietam Elementary School	898		45	1990		2018	2019	13			62,334	14.9
Ashland Elementary School	924		46	2002			2008	5			98,461	18.1
Bel Air Elementary School	428	2	28	1968		2008	2008	8			53,712	15.0
Belmont Elementary School	561		36	1967		2006	2006	4	2017	10	74,142	14.3
Bennett Elementary School	797	1	40	1996		2022	2000	8			83,969	15.3
Bristow Run Elementary School	797		40	1998	2023		2004	8			83,885	21.7
Buckland Mills Elementary School	884		43	2006							89,936	15.0
Cedar Point Elementary School	807		41	2001	2025						83,084	15.5
Chris Yung Elementary School	839		46	2015							107,273	20.8
Coles Elementary School	384	3	25	1968		2009					52,745	17.0
Covington-Harper Elementary School	795		45	2017							101,288	21.4
Dale City Elementary School	388	3	25	1967		2006	2001	4			44,333	14.8
Dumfries Elementary School	415	6	27	1939		2014	1989	8			44,925	10.0
Ellis Elementary School	506	1	32	2004							76,724	10.5
Enterprise Elementary School	386	9	26	1978		2009					54,281	15.0
Featherstone Elementary School	443	3	29	1961	2025	2001	2015	6			56,246	12.0
Fitzgerald Elementary School	788	6	46	2008							106,170	11.2
Glenkirk Elementary School	805		41	2005							83,084	15.6
Gravely Elementary School	900		43	2008							95,314	18.0
Haymarket Elementary School	908	1	44	2014							98,736	24.3
Henderson Elementary School	880		42	1985		2016	2017	10			75,495	14.9
John D. Jenkins Elementary School	760		43	2019							100,264	17.2
Kerrydale Elementary School	382	1	24	1973		2007					49,928	15.4
Kilby Elementary School	720		45	2017							98,615	12.8
King Elementary School	437		26	1981		2016					63,832	15.2
Kyle Wilson Elementary School	896		49	2016							106,345	19.5
Lake Ridge Elementary School	817		42	1983		2016	2019	13			83,358	15.1
Leesylvania Elementary School	771		46	1996		2019	2019	4			83,084	16.3
Loch Lomond Elementary School	463	7	30	1962		2016	2013	4			58,278	10.7
Marshall Elementary School	710		35	1994		2019	1999	4			62,700	24.2
Marumco Hills Elementary School	578	5	35	1966		2006	2006	2	2009	4	56,651	12.2
Mary Williams Elementary School	707	1	41	2004							83,084	13.6
McAuliffe Elementary School	453	3	28	1989		2018					59,517	15.1
Minnievile Elementary School	630	1	39	1972		2005	2019	10			75,070	15.2
Montclair Elementary School	601	1	35	1991		2019	2008	4			70,928	15.9
Mountain View Elementary School	694		36	1995		2020	2002	4	2020	1	73,415	30.0
Mullen Elementary School	743	1	43	1990		2018	1999	4	2013	6	82,219	15.0
Neabsco Elementary School	709		43	1969		2009	2017	8			76,945	12.8
Occoquan Elementary School	514	5	30	1927		2002	2003	5			55,225	10.1
Old Bridge Elementary School	598		32	1995		2019	2019				77,804	17.9
Pattie Elementary School	748	4	37	1978		2013	2018	11	2011		69,375	15.0
Penn Elementary School	768		39	1998		2021	2013	7			87,542	16.9
Piney Branch Elementary School	882		44	2011							104,448	21.0
Potomac View Elementary School	574	2	37	1964		2005	2005	4	2009	4	60,756	12.4
River Oaks Elementary School	643	1	38	1990		2018	2014	7			80,618	15.2
Rockledge Elementary School	530	1	31	1972		2007	2009	7			64,769	16.2
Rosa Parks Elementary School	711		41	2006							83,084	15.2
Signal Hill Elementary School	782		41	2000	2023						83,084	24.5
Sinclair Elementary School	687	8	42	1968		2009	2001	6	2013	11	75,698	15.0
Springwoods Elementary School	863		42	1985		2016	2019	13			83,260	15.1
Sudley Elementary School	658	1	38	1972		2004	2013	10			73,457	14.0
Swans Creek Elementary School	663		38	2001	2025		2012	6			86,934	18.5
T. Clay Wood Elementary School	912		44	2011							104,448	33.8
Triangle Elementary School	743		44	2010							103,679	18.9
Tyler Elementary School	552		28	1968		2007	2007	4			56,560	25.5
Vaughan Elementary School	594	3	36	1964		2005	2001	4	2009	9	58,967	13.6
Victory Elementary School	835		43	2005							89,911	21.2
West Gate Elementary School	551	6	36	1964		2009	2013	4			59,727	12.1
Westridge Elementary School	682		34	1989		2018	2012	6			70,559	15.0
Yorkshire Elementary School	786		46	2009							106,614	13.3
Total	41,687	86	2,312					225		45	4,729,973	1,011.2

School Facilities – Detail Information

Prince William County Schools

Combined School	Program Capacity	Portable Classrooms 2022-23	Regular Classrooms	Year Opened	School Renovation		School Addition(s)			Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year		
Pennington Traditional School	657		30	1969		2012				58,346	15.0
Porter Traditional School	675		32	2004						71,245	16.9
The Nokesville School	1,056	4	56	2014						141,832	48.2
Total	2,388	4	118					0	0	271,423	80.1

Middle School	Program Capacity	Portable Classrooms 2022-23	Regular Classrooms	Year Opened	School Renovation		School Addition(s)			Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year		
Benton Middle School	1,393		78	2000	2025		2013	11		151,130	48.2
Beville Middle School	1,236		67	1991		2021	2021	2		137,540	42.1
Bull Run Middle School	1,151		65	2002						135,309	39.4
Fred M. Lynn Middle School	1,131	4	61	1963	2027	2001				131,974	28.6
Gainesville Middle School	1,439		75	2007			2022	11		149,210	39.4
Graham Park Middle School	910		48	1963	2026	2001	2001	4		110,514	21.9
Hampton Middle School	1,027	4	52	1970		2010	2002	8		124,610	30.0
Lake Ridge Middle School	1,484		78	1989		2018	2018	13		158,900	34.1
Marsteller Middle School	1,205	5	65	2002						135,309	36.4
Parkside Middle School	1,343	7	75	1963	2023	2000	2014	15		145,677	30.0
Potomac Middle School	1,427		76	2006			2013	11		151,130	36.4
Potomac Shores Middle School	1,524		81	2021						197,954	52.5
Rippon Middle School	1,380		75	1967		2010	2016	8		156,094	30.2
Ronald Wilson Reagan Middle School	1,347	1	70	2012			2022	6		142,962	41.9
Saunders Middle School	1,243	2	64	1988		2018				137,088	29.5
Unity Braxton Middle School	1,311		69	1964	2028	2002	2019	17		152,549	32.2
Woodbridge Middle School	1,102	1	56	1964	2028	2003				124,511	37.4
Total	21,653	24	1,155					106	0	2,442,461	610.2

High School	Planning Capacity	Portable Classrooms 2022-23	Regular Classrooms	Year Opened	School Renovation		School Addition(s)			Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year		
Battlefield High School	2,053	14	101	2004						285,086	78.8
Brentsville District High School	1,110		53	1965	2026	2000	2000	9	1980	163,066	29.0
C.D. Hylton High School	2,053		101	1991	2023					282,346	74.8
Charles J. Colgan Sr. High School	2,053	7	102	2016						308,058	108.4
Forest Park High School	2,053		101	2000						283,268	79.1
Freedom High School	2,053	9	101	2004						285,886	80.7
Gainesville High School	2,557		126	2021						334,885	83.5
Gar-Field High School	2,839		128	1972		2003	2021			374,138	91.5
Osborn Park High School	2,430	7	115	1975		2006				328,386	56.1
Patriot High School	2,053	10	101	2011						320,124	60.0
Potomac High School	2,357		113	1981		2012	2013	30		273,329	75.1
Unity Reed High School	2,409	9	117	1973		2005				328,540	56.6
Woodbridge High School	2,734		125	1974		2004	2021			372,893	52.7
Total	28,754	56	1,384					39	0	3,940,005	926.3

Other School	Planning Capacity	Portable Classrooms 2022-23	Regular Classrooms	Year Opened	School Renovation		School Addition(s)			Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year		
Independence Nontraditional School			57	2018						122,850	9.9
PACE West		1	21	2012						39,998	13.5
Washington-Reid Preschool Center			9	1951		2013				24,711	9.2
Total	0	1	87					0	0	187,559	32.6

Administrative	Planning Capacity	Portable Classrooms 2022-23	Regular Classrooms	Year Opened	School Renovation		School Addition(s)			Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year		
Ann Ludwig				1975						14,220	4.8
Independent Hill Complex				1968						139,947	37.6
Kelly Leadership Center				2008						145,747	20.3
PWCS Aquatics Center				2016						31,578	0.8
Woodbine				1953		2021				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 2022-23	Regular Classrooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms		
Brentsville Transportation Center				1979	2024						28,028	20.0
Central Transportation Center				2005	2026						14,934	29.9
McCuin Transportation Center				2002	2027						8,400	11.5
New Dominion Transportation Center				1975		2020					14,749	9.3
Potomac Transportation Center				2002	2025						14,565	16.8
Western Transportation Center				2019							17,674	16.7
Total	0	0	0					0		0	98,350	104.2

All Facilities	School Capacity	Portable Classrooms 2022-23	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	94,482	171	5,056					370		45	12,009,583	2,829.9

Portable Classrooms

Portable Classrooms – Current and Historical Totals By School Type, 1999 to 2022

Year	School Type					Total
	Elementary	Middle	High	Alternative	Other	
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
2021	74	46	67	1	0	188
2022	90	24	56	1	0	171

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 Other), School Years 2022-32
- Historical and Projected Enrollment Data
- Student Enrollment Projections – Error Rate Analysis
- Housing Units in Residential Development
 - by School (Elementary, Middle, and High)
- Student Generation Factors Maps and Charts
- Geographic Areas – Map and Table
- Virginia Fall Membership Report Overview

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 16 and 17 for historical error rates.

Student Enrollment Data Preparation



Elementary School
Level Data



Middle School
Level Data



High School
Level Data



Other School
Level Data



HUB 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

$$\frac{d}{dx} \ln(x^2 + 1) = \frac{2x}{x^2 + 1}$$

$$\frac{d}{dx} \ln(x^2 - 1) = \frac{2x}{x^2 - 1}$$

$$\frac{d}{dx} \ln(x^2 + 1) - \frac{d}{dx} \ln(x^2 - 1) = \frac{2x}{x^2 + 1} - \frac{2x}{x^2 - 1}$$

$$= \frac{2x(x^2 - 1) - 2x(x^2 + 1)}{(x^2 + 1)(x^2 - 1)}$$

$$= \frac{2x^3 - 2x - 2x^3 - 2x}{x^4 - 1}$$

$$= \frac{-4x}{x^4 - 1}$$

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.

Student Enrollment Data: Current and Projected Enrollment
Elementary Schools
SY 2022-23 to SY 2032-33

Elementary School	Available Space		2022-23			2023-24			2027-28			2032-33		
	Program Capacity	Portable Classrooms	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized
Alvey Elementary School	807	0	585	222	72.5%	539	268	66.8%	374	433	46.3%	349	458	43.3%
Antietam Elementary School	898	0	716	182	79.7%	691	207	76.9%	625	273	69.6%	583	315	64.9%
Ashland Elementary School	924	0	746	178	80.7%	754	170	81.6%	693	231	75.0%	647	277	70.0%
Bel Air Elementary School	428	2	368	60	86.0%	371	57	86.7%	344	84	80.3%	320	108	74.8%
Belmont Elementary School	561	0	463	98	82.5%	455	106	81.1%	473	88	84.3%	520	41	92.7%
Bennett Elementary School	797	1	721	76	90.5%	735	62	92.2%	766	31	96.1%	742	55	93.1%
Bristow Run Elementary School	797	0	587	210	73.7%	588	209	73.8%	529	268	66.3%	494	303	62.0%
Buckland Mills Elementary School	884	0	772	112	87.3%	789	95	89.3%	793	91	89.7%	742	142	83.9%
Cedar Point Elementary School	807	0	503	304	62.3%	486	321	60.2%	453	354	56.2%	424	383	52.6%
Chris Yung Elementary School	839	0	739	100	88.1%	750	89	89.4%	724	115	86.2%	836	3	99.6%
Coles Elementary School	384	3	406	-22	105.7%	394	-10	102.6%	396	-12	103.0%	390	-6	101.5%
Covington-Harper Elementary School	795	0	851	-56	107.0%	962	-167	121.0%	1,137	-342	143.0%	1,197	-402	150.5%
Dale City Elementary School	388	3	399	-11	102.8%	417	-29	107.5%	441	-53	113.6%	411	-23	106.0%
Dumfries Elementary School	415	6	439	-24	105.8%	462	-47	111.3%	633	-218	152.6%	652	-237	157.1%
Ellis Elementary School	506	1	460	46	90.9%	389	117	76.9%	550	-44	108.7%	703	-197	138.9%
Enterprise Elementary School	386	9	382	4	99.0%	369	17	95.6%	356	30	92.1%	332	54	86.0%
Featherstone Elementary School	443	3	457	-14	103.2%	440	3	99.3%	369	74	83.2%	348	95	78.6%
Fitzgerald Elementary School	788	6	958	-170	121.6%	1,004	-216	127.4%	1,116	-328	141.7%	1,088	-300	138.1%
Glenkirk Elementary School	805	0	580	225	72.0%	553	252	68.7%	467	338	58.0%	436	369	54.1%
Gravelly Elementary School	900	0	793	107	88.1%	787	113	87.4%	788	112	87.6%	774	126	86.0%
Haymarket Elementary School	908	1	907	1	99.9%	963	-55	106.1%	1,068	-160	117.7%	1,028	-120	113.3%
Henderson Elementary School	880	0	843	37	95.8%	865	15	98.3%	825	55	93.8%	769	111	87.4%
Innovation Elementary School	649	0	N/A	N/A	N/A	559	90	86.1%	672	-23	103.5%	627	22	96.6%
John D. Jenkins Elementary School	760	0	553	207	72.8%	587	173	77.2%	631	129	83.0%	630	130	82.9%
Kerrydale Elementary School	382	1	319	63	83.5%	320	62	83.8%	369	13	96.6%	344	38	89.9%
Kilby Elementary School	720	0	595	125	82.6%	608	112	84.4%	680	40	94.5%	712	8	98.9%
King Elementary School	437	0	386	51	88.3%	365	72	83.5%	256	181	58.6%	239	198	54.6%
Kyle Wilson Elementary School	896	0	887	9	99.0%	893	3	99.7%	855	41	95.4%	801	95	89.4%
Lake Ridge Elementary School	817	0	638	179	78.1%	635	182	77.7%	572	245	70.1%	534	283	65.3%
Leesylvania Elementary School	771	0	700	71	90.8%	730	41	94.7%	736	35	95.4%	691	80	89.6%
Loch Lomond Elementary School	463	7	528	-65	114.0%	436	27	94.2%	432	31	93.3%	403	60	87.0%
Marshall Elementary School	710	0	698	12	98.3%	688	22	96.9%	698	12	98.3%	656	54	92.4%
Marumsco Hills Elementary School	578	5	548	30	94.8%	579	-1	100.2%	657	-79	113.7%	649	-71	112.4%

Student Enrollment Data: Current and Projected Enrollment
Elementary Schools continued
SY 2022-23 to SY 2032-33

Elementary School	Available Space		2022-23			2023-24			2027-28			2032-33		
	Program Capacity	Portable Classrooms	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized
Mary Williams Elementary School	707	1	664	43	93.9%	660	47	93.4%	642	65	90.8%	598	109	84.6%
McAuliffe Elementary School	453	3	418	35	92.3%	413	40	91.2%	333	120	73.4%	310	143	68.5%
Minnieville Elementary School	630	1	550	80	87.3%	591	39	93.8%	610	20	96.8%	568	62	90.2%
Montclair Elementary School	601	1	613	-12	102.0%	639	-38	106.3%	678	-77	112.8%	632	-31	105.2%
Mountain View Elementary School	694	0	455	239	65.6%	433	261	62.4%	374	320	53.8%	374	320	53.9%
Mullen Elementary School	743	1	699	44	94.1%	649	94	87.3%	751	-8	101.1%	701	42	94.3%
Neabsco Elementary School	709	0	613	96	86.5%	598	111	84.3%	533	176	75.1%	497	212	70.0%
Occoquan Elementary School	514	5	624	-110	121.4%	645	-131	125.5%	733	-219	142.7%	717	-203	139.6%
Old Bridge Elementary School	598	0	466	132	77.9%	466	132	77.9%	360	238	60.3%	339	259	56.6%
Pattie Elementary School	748	4	725	23	96.9%	697	51	93.2%	667	81	89.2%	624	124	83.4%
Penn Elementary School	768	0	698	70	90.9%	702	66	91.4%	728	40	94.7%	684	84	89.1%
Pennington Traditional School	405	0	405	0	100.0%	405	0	100.0%	405	0	100.0%	405	0	100.0%
Piney Branch Elementary School	882	0	745	137	84.5%	741	141	84.0%	685	197	77.7%	639	243	72.5%
Porter Traditional School	414	0	417	-3	100.7%	420	-6	101.4%	420	-6	101.4%	420	-6	101.4%
Potomac View Elementary School	574	2	571	3	99.5%	571	3	99.5%	614	-40	106.9%	609	-35	106.1%
River Oaks Elementary School	643	1	643	0	100.0%	663	-20	103.1%	763	-120	118.7%	712	-69	110.7%
Rockledge Elementary School	530	1	507	23	95.7%	530	0	100.0%	629	-99	118.6%	586	-56	110.6%
Rosa Parks Elementary School	711	0	573	138	80.6%	584	127	82.1%	513	198	72.2%	520	191	73.1%
Signal Hill Elementary School	782	0	704	78	90.0%	716	66	91.6%	731	51	93.4%	721	61	92.2%
Sinclair Elementary School	687	8	778	-91	113.2%	668	19	97.2%	695	-8	101.2%	651	36	94.8%
Springwoods Elementary School	863	0	815	48	94.4%	838	25	97.1%	869	-6	100.7%	811	52	94.0%
Sudley Elementary School	658	1	646	12	98.2%	654	4	99.4%	606	52	92.0%	565	93	85.8%
Swans Creek Elementary School	663	0	595	68	89.7%	585	78	88.2%	517	146	77.9%	502	161	75.7%
T. Clay Wood Elementary School	912	0	828	84	90.8%	799	113	87.6%	719	193	78.9%	671	241	73.6%
The Nokesville School	633	4	763	-130	120.5%	763	-130	120.5%	823	-190	130.0%	964	-331	152.3%
Triangle Elementary School	743	0	744	-1	100.1%	732	11	98.5%	813	-70	109.5%	818	-75	110.0%
Tyler Elementary School	552	0	428	124	77.5%	447	105	81.0%	449	103	81.4%	430	122	77.9%
Vaughan Elementary School	594	3	550	44	92.6%	579	15	97.5%	581	13	97.9%	542	52	91.2%
Victory Elementary School	835	0	619	216	74.1%	603	232	72.2%	554	281	66.4%	518	317	62.0%
West Gate Elementary School	551	6	546	5	99.1%	493	58	89.5%	510	41	92.6%	476	75	86.4%
Westridge Elementary School	682	0	677	5	99.3%	643	39	94.3%	523	159	76.7%	489	193	71.7%
Yorkshire Elementary School	786	0	764	22	97.2%	769	17	97.8%	859	-73	109.3%	857	-71	109.1%
Total	43,139 ¹ 43,788 ²	90	39,370	3,769	91.3%	39,859	3,929	91.0%	40,165	3,623	91.7%	39,018	4,770	89.1%

¹ Program Capacity on which available space is calculated for the 2022-23 school year.

² Program Capacity on which available space is calculated for the 2023-24 through 2032-33 school year.

Student Enrollment Data: Current and Projected Enrollment
Elementary Schools – Additional Space to be Constructed
SY 2022-23 to SY 2032-33

Elementary School	2022-23			2023-24			2027-28			2032-33		
	Students	Space	% Util	Students	Space	% Util	Students	Space	% Util	Students	Space	% Util
2023												
<i>Elementary School (West - Innovation)</i>					649			649			649	
2025												
<i>Elementary (Woodbridge Area)</i>								632			632	
<i>Occoquan Replacement School</i>								226			226	
2026												
<i>Elementary School (Potomac Shores #2)</i>								721			721	
2032												
<i>Elementary School (Route 1 South Area)</i>											721	
<i>Elementary School (Yorkshire Area)</i>											678	
<i>Sum of Additional Seats</i>								1,579			2,978	
Totals (if new schools and additions were added)	39,370	3,769	91.3%	39,859	3,929	91.0%	40,165	5,202	88.5%	39,018	7,748	83.4%

Student Enrollment Data: Current and Projected Enrollment
Middle Schools
SY 2022-23 to SY 2032-33

Middle School	Available Space		2022-23			2023-24			2027-28			2032-33		
	Program Capacity	Portable Classrooms	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized
Benton Middle School	1,393	.	1,384	10	99.4%	1,363	30	97.8%	1,271	122	91.2%	1,149	244	82.5%
Beville Middle School	1,236	.	1,109	127	89.7%	1,126	110	91.1%	1,107	129	89.6%	1,175	61	95.1%
Bull Run Middle School	1,151	.	1,059	92	92.0%	1,076	75	93.5%	1,100	51	95.6%	1,178	-27	102.3%
Fred M. Lynn Middle School	1,131	4	1,013	118	89.6%	1,071	60	94.7%	1,243	-112	109.9%	1,415	-284	125.1%
Gainesville Middle School	1,439	.	1,404	35	97.6%	1,356	83	94.2%	1,278	161	88.8%	1,241	198	86.2%
Graham Park Middle School	910	.	673	237	74.0%	680	230	74.7%	892	18	98.0%	938	-28	103.1%
Hampton Middle School	1,027	4	932	95	90.7%	909	118	88.5%	1,062	-35	103.4%	1,095	-68	106.6%
Lake Ridge Middle School	1,484	.	1,361	123	91.7%	1,393	91	93.9%	1,432	52	96.5%	1,348	136	90.8%
Marsteller Middle School	1,205	5	1,167	38	96.8%	1,150	55	95.4%	1,180	25	97.9%	1,124	81	93.3%
Parkside Middle School	1,343	7	1,429	-86	106.4%	1,408	-65	104.8%	1,654	-311	123.2%	1,720	-377	128.1%
Pennington Traditional School	252	.	248	4	98.4%	243	9	96.4%	243	9	96.4%	243	9	96.4%
Porter Traditional School	261	.	258	3	98.9%	252	9	96.6%	252	9	96.6%	252	9	96.6%
Potomac Middle School	1,427	.	920	507	64.5%	970	457	68.0%	1,064	363	74.6%	1,090	337	76.4%
Potomac Shores Middle School	1,524	.	1,154	370	75.7%	1,228	296	80.6%	1,402	122	92.0%	1,413	111	92.7%
Ronald Wilson Reagan Middle School	1,347	1	1,351	-4	100.3%	1,335	12	99.1%	1,404	-57	104.2%	1,344	3	99.8%
Rippon Middle School	1,380	.	1,176	204	85.2%	1,194	186	86.5%	1,348	32	97.7%	1,337	43	96.9%
Saunders Middle School	1,243	2	1,272	-29	102.3%	1,198	45	96.4%	1,180	63	94.9%	1,027	216	82.6%
The Nokesville School	423	.	435	-12	102.8%	454	-31	107.3%	468	-45	110.6%	588	-165	139.0%
Unity Braxton Middle School	1,311	.	1,109	202	84.6%	1,104	207	84.2%	1,354	-43	103.3%	1,450	-139	110.6%
Woodbridge Middle School	1,102	1	929	173	84.3%	941	161	85.4%	1,052	50	95.5%	1,018	84	92.4%
Total	22,589	24	20,383	2,206	90.2%	20,451	2,138	90.5%	21,983	606	97.3%	22,144	445	98.0%
<i>Currently, no additional seats planned by 2032-33</i>														

Notes: Table displayed on this page employ rounded figures; thus their summation may not equal the displayed total.

Student Enrollment Data: Current and Projected Enrollment
High Schools
SY 2022-23 to SY 2032-33

High School	Available Space		2022-23			2023-24			2027-28			2032-33				
	Capacity	Portable Classrooms	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized	Students	Space	Pct. Utilized		
Battlefield High School	2,053	14	2,307	-254	112.4%	2,158	-105	105.1%	2,229	-176	108.6%	2,019	34	98.3%		
Brentsville District High School	1,110	.	867	243	78.1%	907	203	81.7%	1,006	104	90.6%	1,169	-59	105.3%		
Charles J. Colgan Sr. High School	2,053	7	2,856	-803	139.1%	2,801	-748	136.4%	2,658	-605	129.5%	2,472	-419	120.4%		
Forest Park High School	2,053	.	2,273	-220	110.7%	2,183	-130	106.3%	2,574	-521	125.4%	2,769	-716	134.9%		
Freedom High School	2,053	9	2,306	-253	112.3%	2,407	-354	117.2%	2,610	-557	127.1%	3,141	-1,088	153.0%		
Gainesville High School	2,557	.	1,997	560	78.1%	2,268	289	88.7%	2,098	459	82.0%	2,299	258	89.9%		
Gar-Field High School	2,839	.	2,407	432	84.8%	2,436	403	85.8%	2,498	341	88.0%	2,745	94	96.7%		
C.D. Hylton High School	2,053	.	1,919	134	93.5%	1,989	64	96.9%	1,793	260	87.3%	1,769	284	86.2%		
Osborn Park High School	2,430	7	2,739	-309	112.7%	2,929	-499	120.5%	2,732	-302	112.4%	3,400	-970	139.9%		
Patriot High School	2,053	10	2,092	-39	101.9%	1,974	79	96.2%	1,937	116	94.3%	1,828	225	89.0%		
Potomac High School	2,357	.	1,999	358	84.8%	2,084	273	88.4%	2,295	62	97.4%	2,751	-394	116.7%		
Unity Reed High School	2,409	9	2,234	175	92.7%	2,317	92	96.2%	2,447	-38	101.6%	3,215	-806	133.5%		
Woodbridge Senior High School	2,734	.	2,840	-106	103.9%	2,897	-163	106.0%	3,027	-293	110.7%	3,304	-570	120.8%		
Total	28,754	56	28,834	-80	100.3%	29,350	-596	102.1%	29,903	-1,149	104.0%	32,880	-4,126	114.3%		
<i>14th High School - (Mid-County 2026)</i>											2,557					
<i>Sum of Additional Seats</i>											2,557					
Total	28,754	56	28,834	-80	100.3%	29,350	-596	102.1%	29,903	1,408	95.5%	32,880	-1,569	105.0%		

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.

Student Enrollment Data: Current Enrollment
Preschools and Other Schools
SY 2022-23

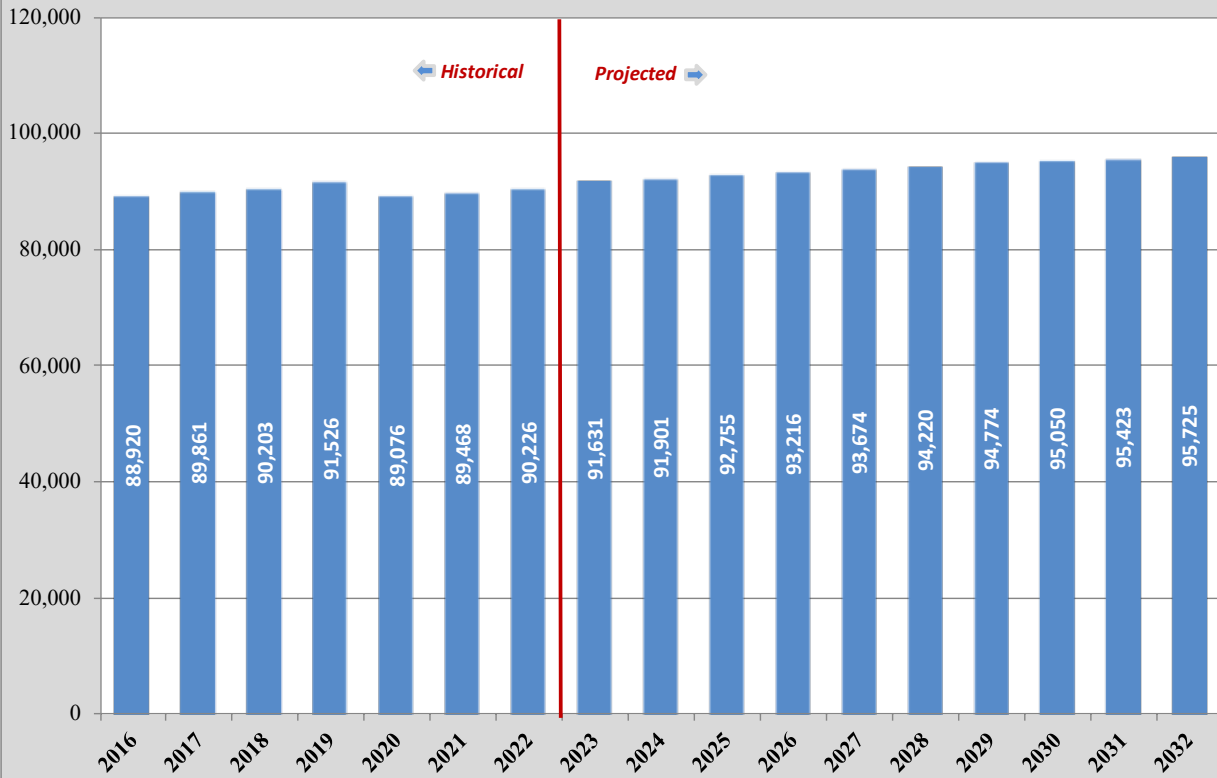
Preschool & Other Schools	2022-23	
	Portable Classrooms	Students
Preschool Child Find		12
School-based Preschool		616
Washington-Reid Preschool Center		82
PACE West	1	58
Special Ed. Private Facility		186
Independence Nontraditional School - ED Center		59
Independence Nontraditional School - Middle		22
Independence Nontraditional School - High		432
TJHS Regional		172
Total	1	1,639

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.

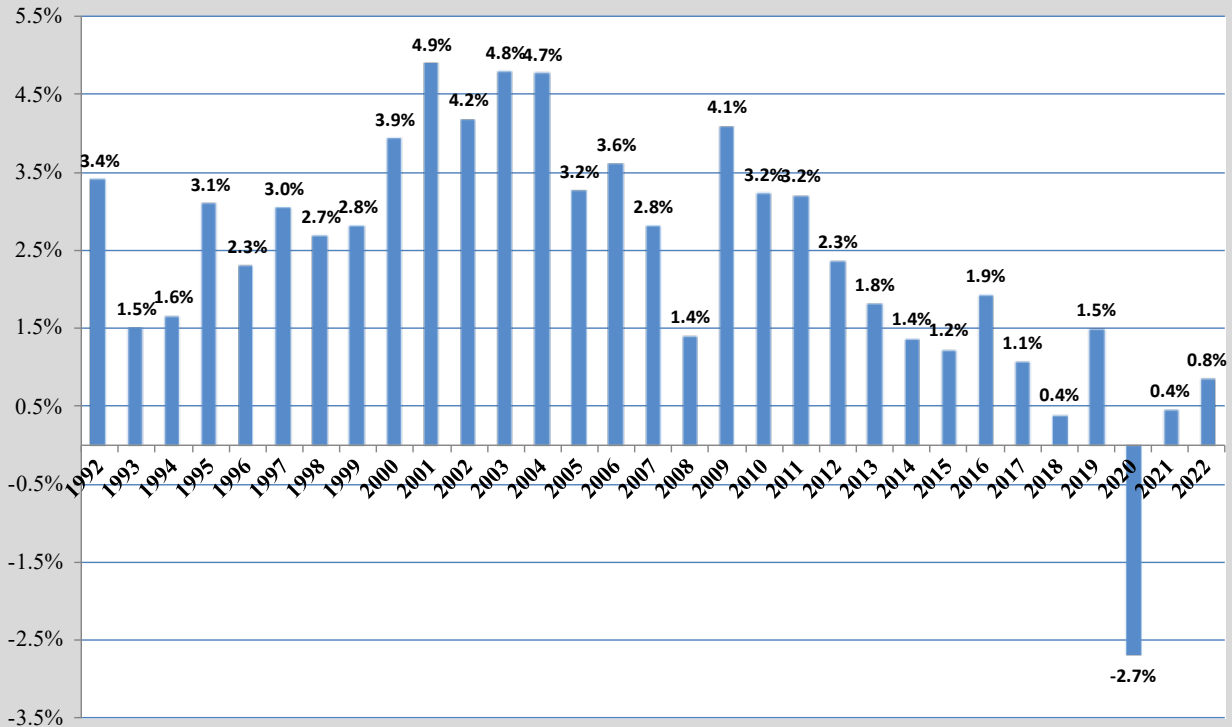
Student Enrollment Data: Historical and Projected
1990-2032

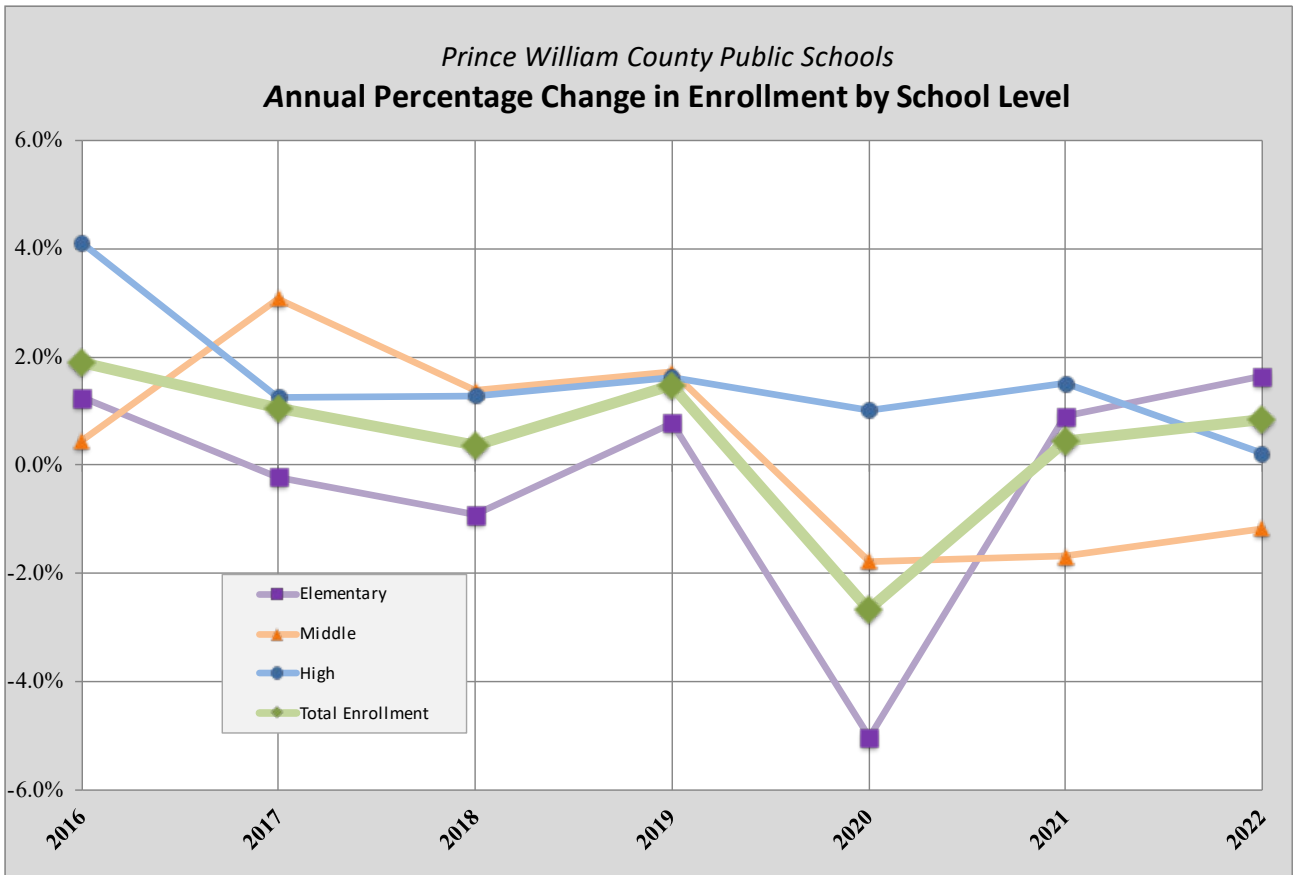
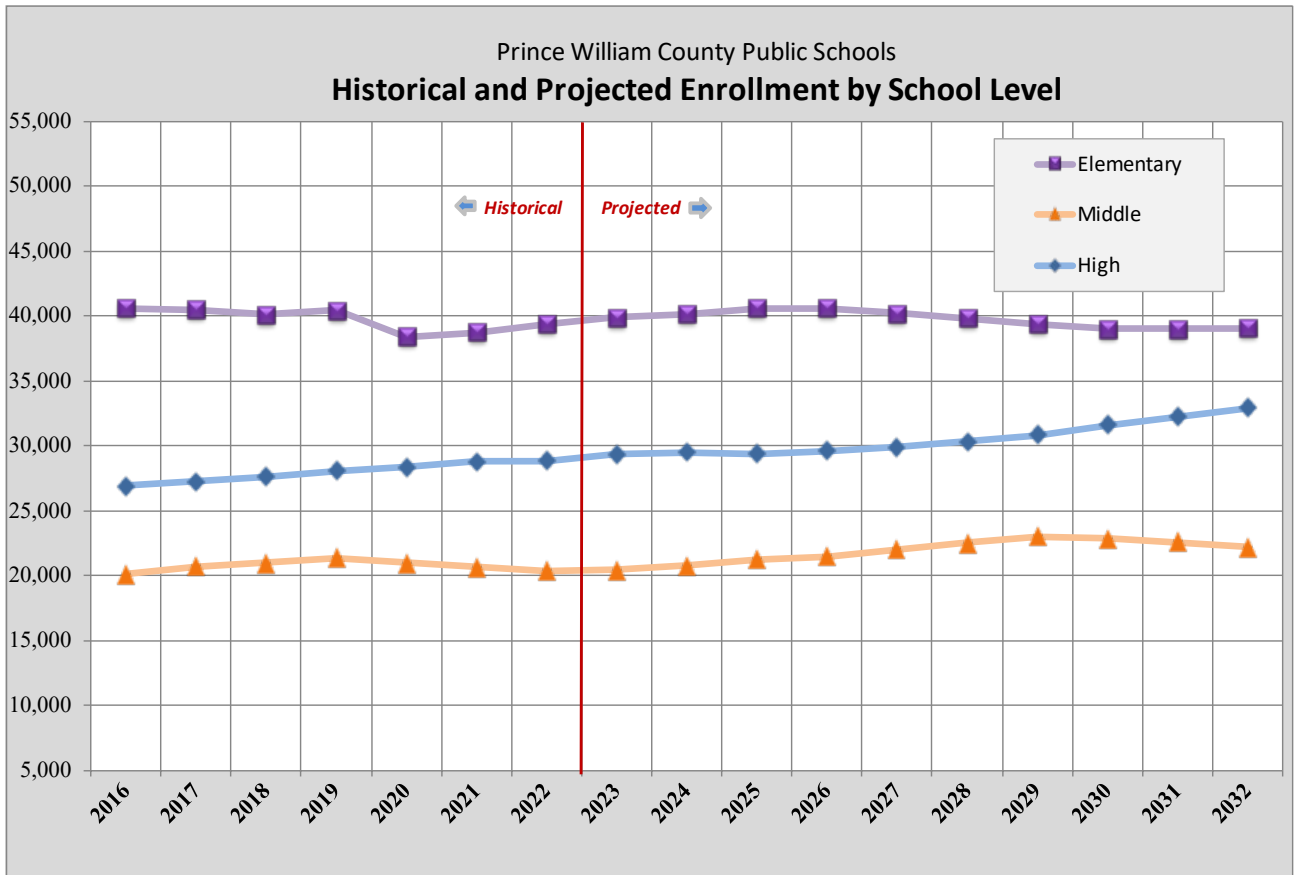
Year	School Type				Total	Annual Change	
	Elementary	Middle	High	Other		Number	Percentage
1990	20,702	9,320	11,638	686	42,346	812	2.0%
1991	20,984	9,861	11,846	709	43,400	1,054	2.5%
1992	21,768	10,212	12,178	712	44,870	1,470	3.4%
1993	21,605	10,654	12,501	779	45,539	669	1.5%
1994	21,826	10,733	12,822	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	38,734	20,625	28,772	1,337	89,468	392	0.4%
2022	39,370	20,383	28,834	1,639	90,226	758	0.8%
2023	39,859	20,450	29,351	1,971	91,631	1,405	1.6%
2024	40,134	20,739	29,496	1,532	91,901	270	0.3%
2025	40,567	21,258	29,386	1,544	92,755	854	0.9%
2026	40,587	21,445	29,627	1,558	93,216	461	0.5%
2027	40,193	22,005	29,903	1,573	93,674	457	0.5%
2028	39,809	22,532	30,292	1,587	94,220	546	0.6%
2029	39,371	22,987	30,814	1,602	94,774	554	0.6%
2030	39,011	22,862	31,560	1,616	95,050	276	0.3%
2031	39,019	22,553	32,220	1,631	95,423	373	0.4%
2032	39,041	22,158	32,880	1,645	95,725	302	0.3%

Prince William County Public Schools
Historical and Projected Enrollment



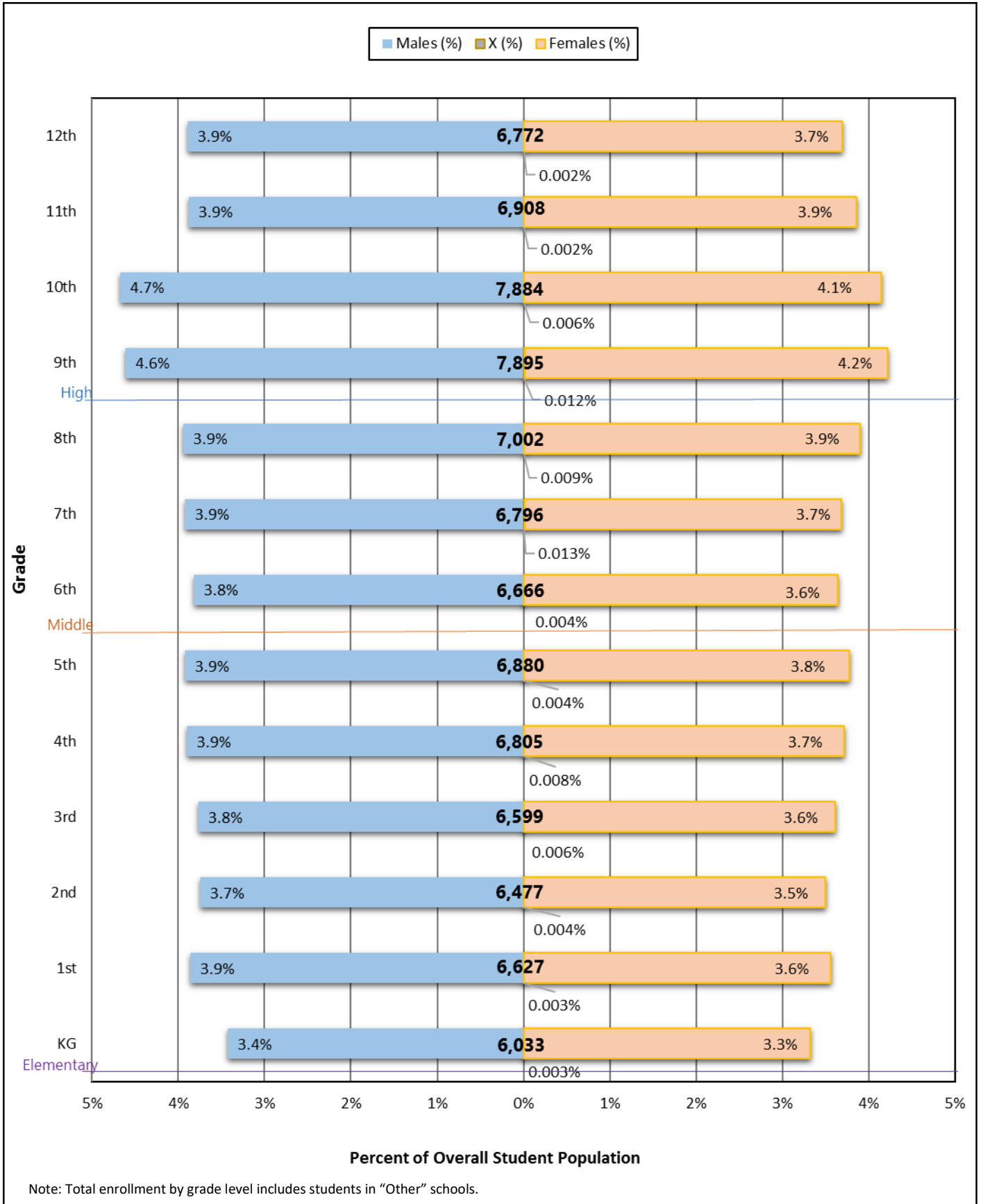
Prince William County Public Schools
Annual Percentage Change in Enrollment





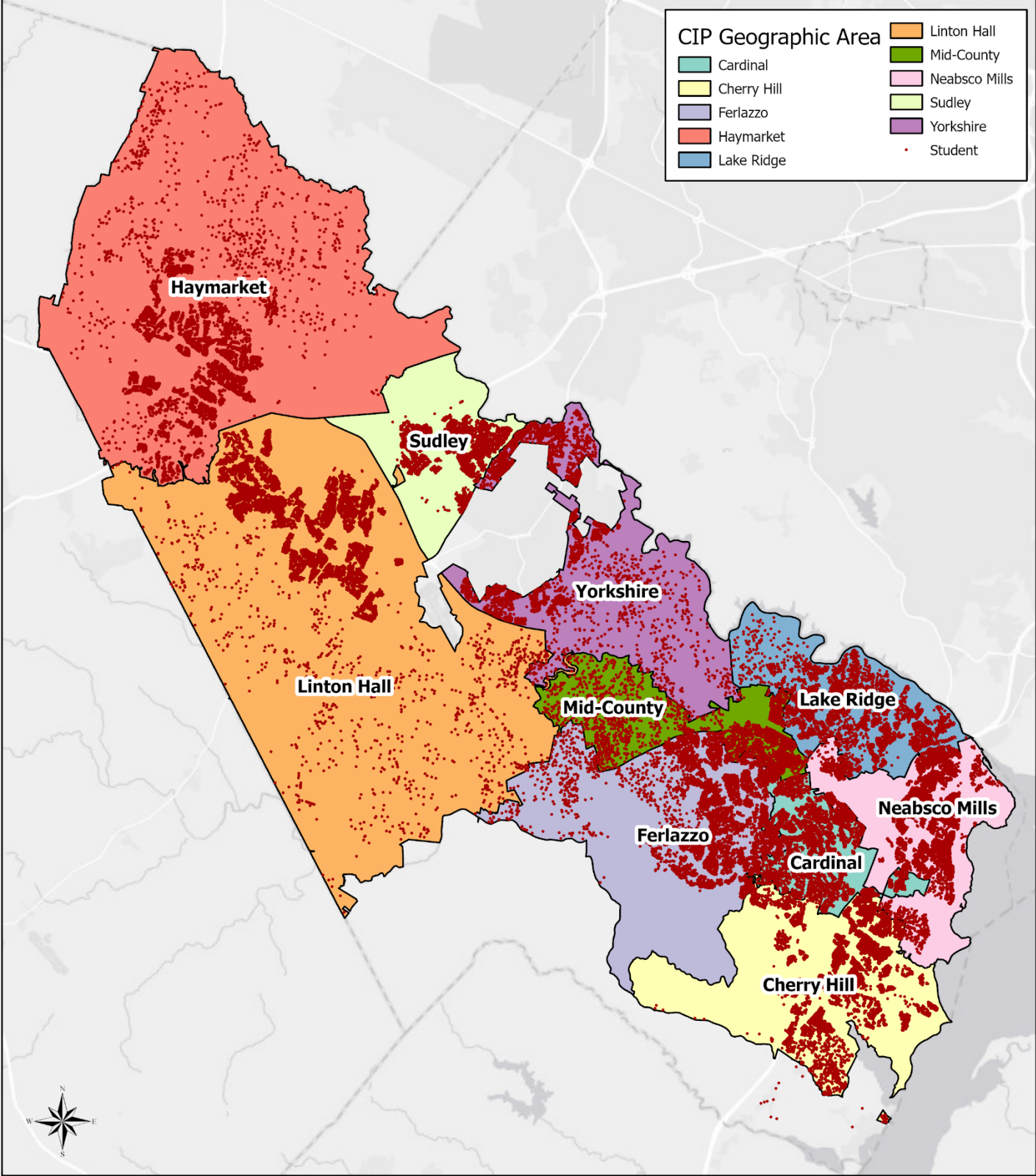
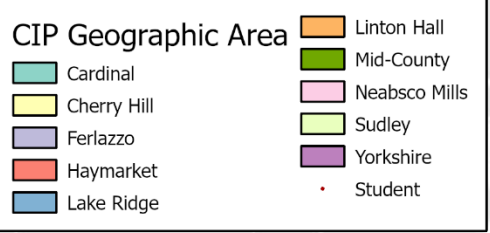
Student Enrollment by Grade and Gender

By Grade and Gender 2022-23

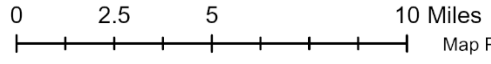


2022-23 School Year Student Distribution

Prince William County Public Schools



Data:
CIP_Area
Geocode_2022



Prepared by Planning, Facilities Department
Prince William County Public Schools
Map Projection: WGS 1984 Web Mercator Auxiliary Sphere
March 2023

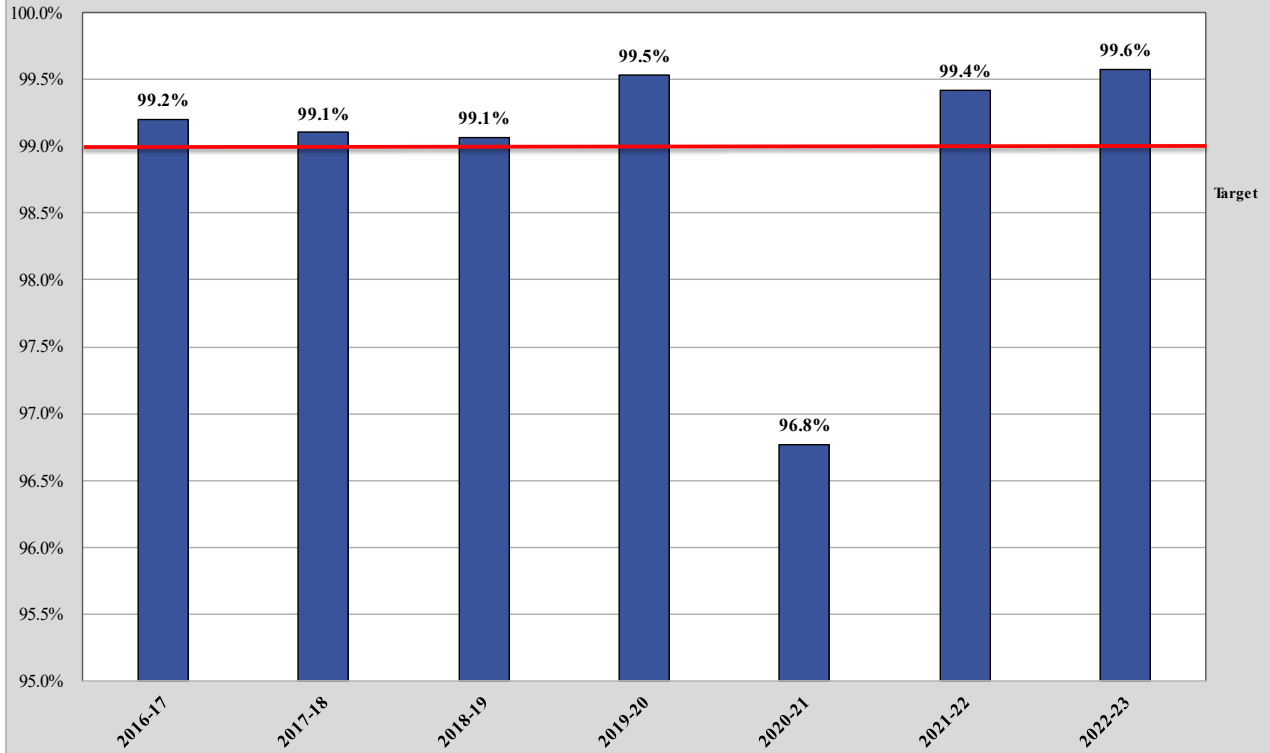
Student Enrollment Projections Error Rate Analysis

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%	
2021-22	89,468	89,991	523	-0.58%	92,989	-3.79%	94,630	-5.45%	97,416	-8.16%	
2022-23	90,226	89,837	(389)	0.43%	93,274	-3.27%	93,552	-3.56%	96,066	-6.08%	

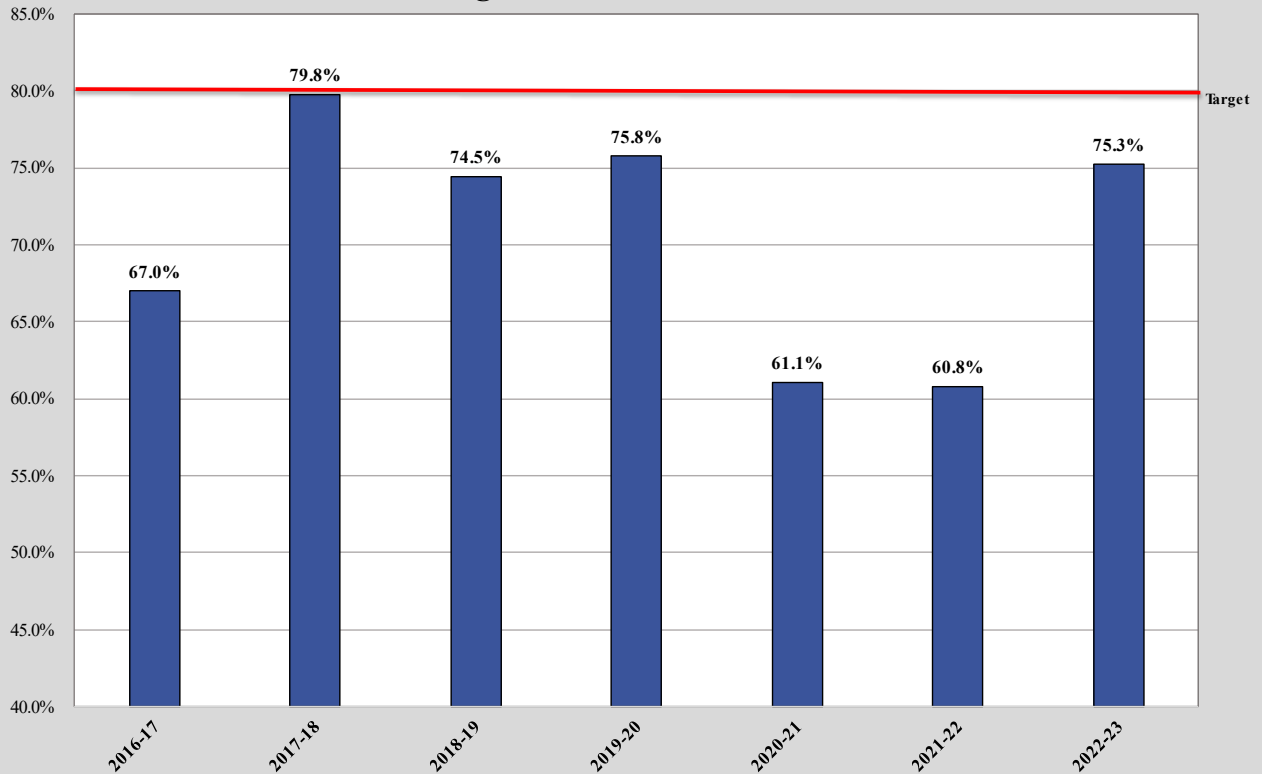
(MPE) Mean Percentage Error	0.25%		0.40%		0.81%		1.23%
(MAPE) Mean Absolute Percentage Error	0.87%		2.02%		4.17%		4.59%
10-Year (MPE) Mean Percentage Error	-0.62%		-1.83%		-2.92%		-3.22%
10-Year (MAPE) Mean Absolute Percentage Error	0.96%		1.97%		3.26%		3.56%

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

Prince William County Public Schools
Divisionwide 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 2022

Elementary School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Alvey Elementary School						19		19					19
Ashland Elementary School					4			4					4
Belmont Elementary School			652	652	53	188	1,258	1,499	20	404	966	1,390	3,541
Bennett Elementary School	208	55		263	149			149					412
Bristow Run Elementary School	4			4	4			4					8
Buckland Mills Elementary School	14	38		52	28			28	237	130		367	447
Cedar Point Elementary School	32			32									32
Chris Yung Elementary School	58			58	518			518					576
Coles Elementary School	30			30	204	43		247	10			10	287
Covington-Harper Elementary School	209	402	148	759	11	56	1,024	1,091					1,850
Dumfries Elementary School	21			21	807	7	317	1,131	12		120	132	1,284
Ellis Elementary School						391	812	1,203			120	120	1,323
Featherstone Elementary School					13			13					13
Fitzgerald Elementary School		78	230	308	29	275		304	18			18	630
Glenkirk Elementary School					1			1					1
Gravely Elementary School	309			309	222			222	299			299	830
Haymarket Elementary School	20			20	150	79		229	18	27		45	294
Henderson Elementary School					10			10					10
John D. Jenkins Elementary School					21		571	592	38	610	581	1,229	1,821
Kilby Elementary School					13	175	298	486					486
King Elementary School					1			1		23		23	24
Kyle Wilson Elementary School		30	163	193	17			17					210
Leesylvania Elementary School			47	47	41			41					88
Loch Lomond Elementary School					10			10					10
Marshall Elementary School	27			27	26			26	60			60	113
Marumscow Hills Elementary School					131			131					131
Mary Williams Elementary School			74	74									74
Montclair Elementary School	19			19	2			2	7			7	28
Mountain View Elementary School	6			6	225			225					231
Mullen Elementary School		18		18	2			2					20
The Nokesville School	125			125	1,176			1,176	429			429	1,730
Occoquan Elementary School		6		6	117		52	169	4			4	179
Old Bridge Elementary School					11			11					11
Pattie Elementary School	4			4	3	27		30	6			6	40
Penn Elementary School		12		12	18			18	12			12	42
Piney Branch Elementary School					1			1			80	80	81
Potomac View Elementary School					173			173	18			18	191
Rosa Parks Elementary School							199	199	11			11	210
Signal Hill Elementary School	11			11	295		16	311	110	240		350	672
Sinclair Elementary School						11		11		190	173	363	374
Swans Creek Elementary School			73	73	147			147	15			15	235
T. Clay Wood Elementary School	6			6	1			1		75		75	82
Triangle Elementary School	26	105	265	396	436	24		460			25	25	881
Tyler Elementary School	5	42		47	56			56	16		20	36	139
Victory Elementary School					1			1					1
West Gate Elementary School						81	76	157					157
Westridge Elementary School					5			5					5
Yorkshire Elementary School	12			12	260		454	714					726
Total	1,146	786	1,652	3,584	5,392	1,376	5,077	11,845	1,340	1,699	2,085	5,124	20,553

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 2022

Middle School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Benton Middle School	57	12		69	269	43		312	95			95	476
Beville Middle School					7			7	38	633	581	1,252	1,259
Bull Run Middle School	67	42		109	323			323	16	190	193	399	831
Fred M. Lynn Middle School		6	652	658	183	363	1,460	2,006	24	404	966	1,394	4,058
Gainesville Middle School	52			52	524			524			80	80	656
Graham Park Middle School	47	105	265	417	1,245	31	317	1,593	12		145	157	2,167
Hampton Middle School		30	163	193	2			2	7			7	202
Marsteller Middle School	38	18		56	4	370	812	1,186		75	120	195	1,437
The Nokesville School	125			125	1,176			1,176	429			429	1,730
Parkside Middle School	231	55		286	713	21	470	1,204	97	240		337	1,827
Potomac Middle School		78	138	216	70	275		345	18			18	579
Potomac Shores Middle School	213	402	221	836	159	83	1,024	1,266	21			21	2,123
Rippon Middle School			213	213	315		148	463	18			18	694
Ronald Wilson Reagan Middle School	297	38		335	358	98		456	554	157		711	1,502
Saunders Middle School	19			19	3		199	202	11			11	232
Unity Braxton Middle School						92	76	168					168
Woodbridge Middle School					41		571	612					612
Total	1,146	786	1,652	3,584	5,392	1,376	5,077	11,845	1,340	1,699	2,085	5,124	20,553

Note:

Active = Rezoning approved by Board of County Supervisors and site development permit issued
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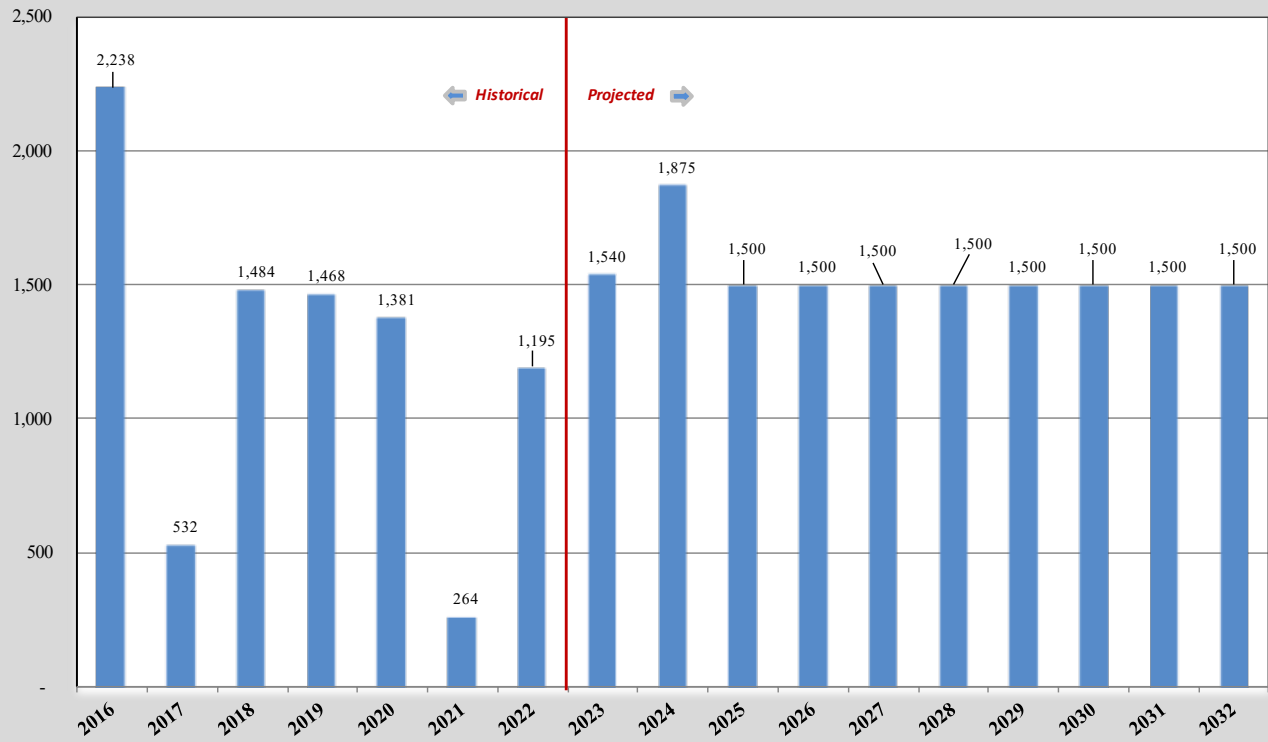
Housing Units in Residential Development
By High School Attendance Area and Stage of Development
September 2022

High School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Battlefield High School	320			320	521	19		540	319			319	1,179
Brentsville District High School	135			135	1,202			1,202	429			429	1,766
Charles J. Colgan Sr. High School	57	12		69	251	43		294	83			83	446
Forest Park High School	25	105	265	395	868	53	317	1,238	18		145	163	1,796
Freedom High School		78	929	1,007	371	463	1,406	2,240	56	404	966	1,426	4,673
Gainesville High School	82	80		162	678	79		757	251	157	100	508	1,427
Gar-Field High School		30	163	193	34		355	389	45	610	581	1,236	1,818
C.D. Hylton High School	19			19	6		199	205	11	23		34	258
Osborn Park High School	221	55		276	702		470	1,172	109	240		349	1,797
Patriot High School	42			42	6			6		75		75	123
Potomac High School	235	402	295	932	584	61	1,024	1,669	15			15	2,616
Unity Reed High School	10	18		28	4	483	888	1,375		190	293	483	1,886
Woodbridge High School		6		6	165	175	418	758	4			4	768
Total	1,146	786	1,652	3,584	5,392	1,376	5,077	11,845	1,340	1,699	2,085	5,124	20,553

Note:

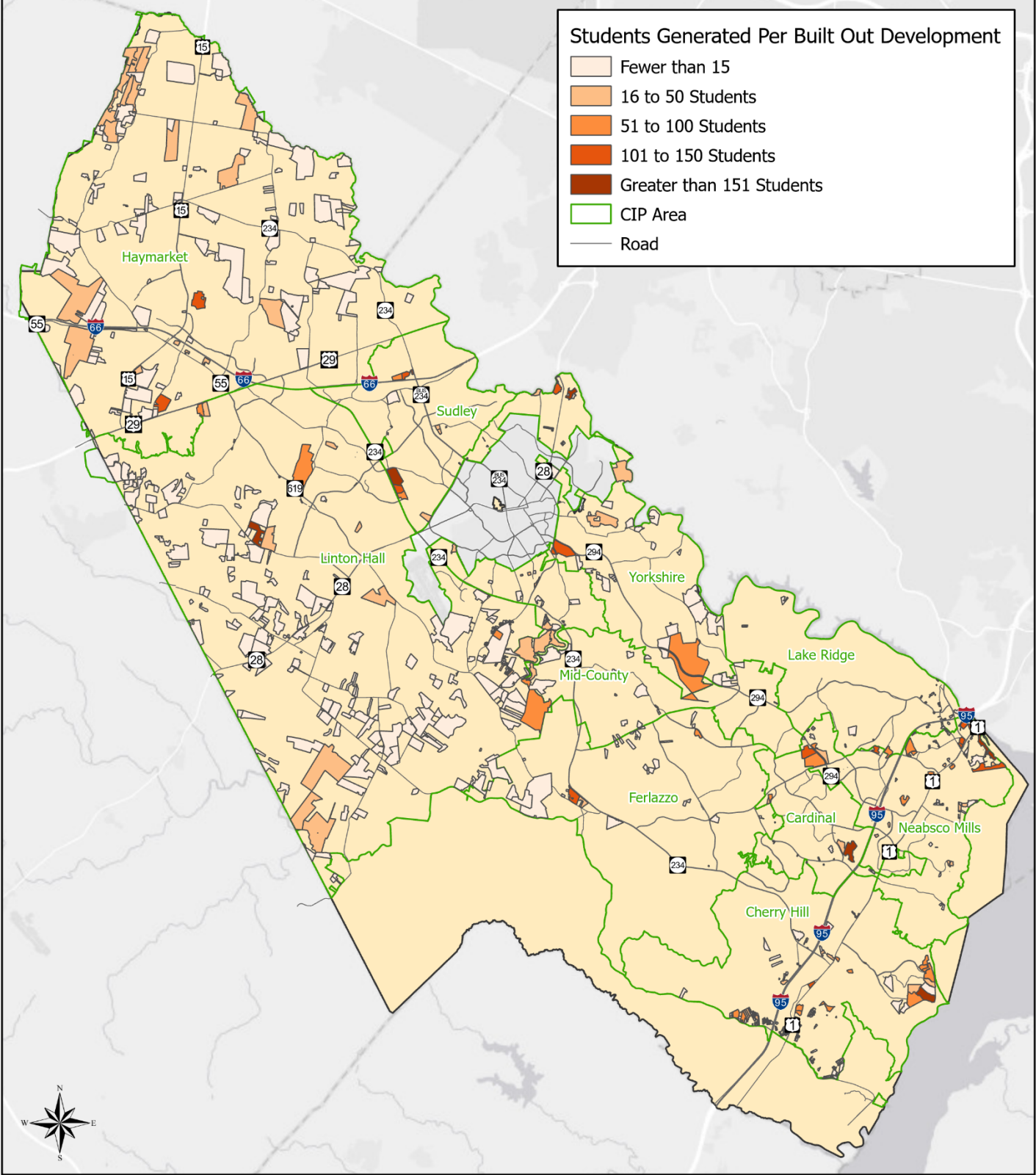
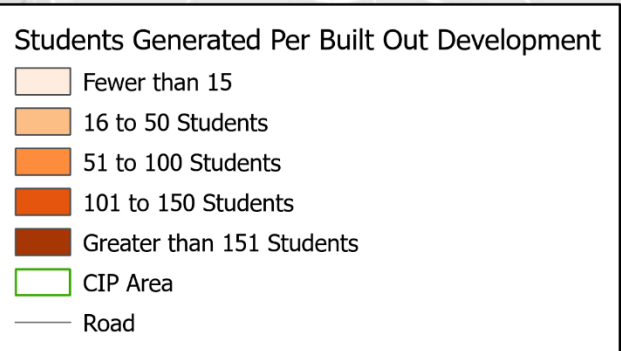
Active = Rezoning approved by Board of County Supervisors and site development permit issued
Planned = Rezoning approved by Board of County Supervisors
Rezoning Submitted = rezoning application submitted, CPA request submitted or initiated (if applicable), or no recent progress has occurred
Schools without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

Prince William County
Historical and Projected Annual Housing Unit Change

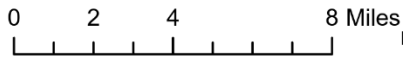


Students Generated per Built-Out Development

as of September 30, 2022

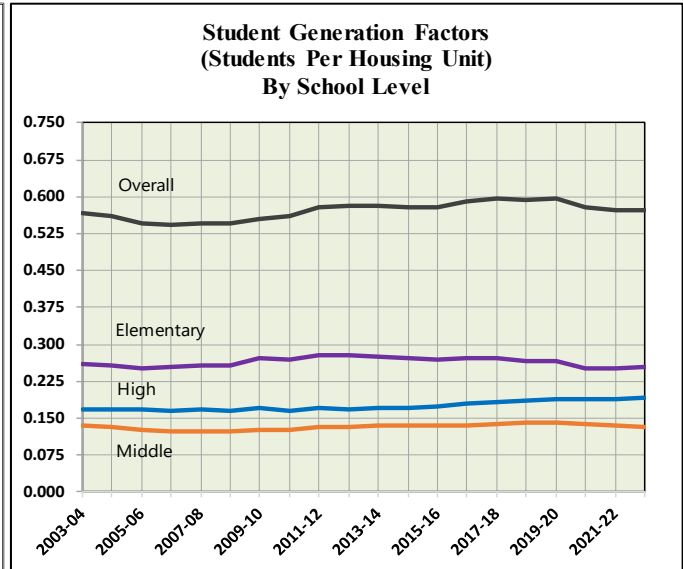
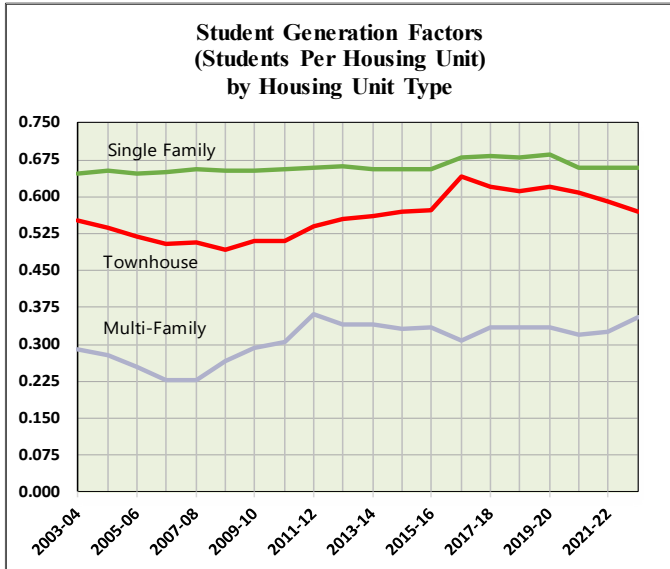


Data:
Dev22,
Roads, Road_Shields,
CIP_Areas



Prepared by Planning, Facilities Department
Prince William County Public Schools
Map Projection: WGS 1984 Web Mercator Auxiliary Sphere
January 2023

Student Generation Factors By School Level and Housing Unit Type



Historical Data					
2022-23	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	Elementary	0.277	0.265	0.176	0.251
	Middle	0.153	0.129	0.077	0.134
	High	0.228	0.176	0.102	0.189
	Total	0.659	0.570	0.354	0.574
2016-17	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	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	0.642	0.309	0.590
2021-22	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	Elementary	0.275	0.271	0.161	0.251
	Middle	0.156	0.135	0.075	0.134
	High	0.228	0.186	0.089	0.189
	Total	0.659	0.591	0.325	0.574
2014-15	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	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
2020-21	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	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
2012-13	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	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	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	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	School Type	Unit Type			Total
		Single Family	Tow nhouse	Multi-Family	
	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

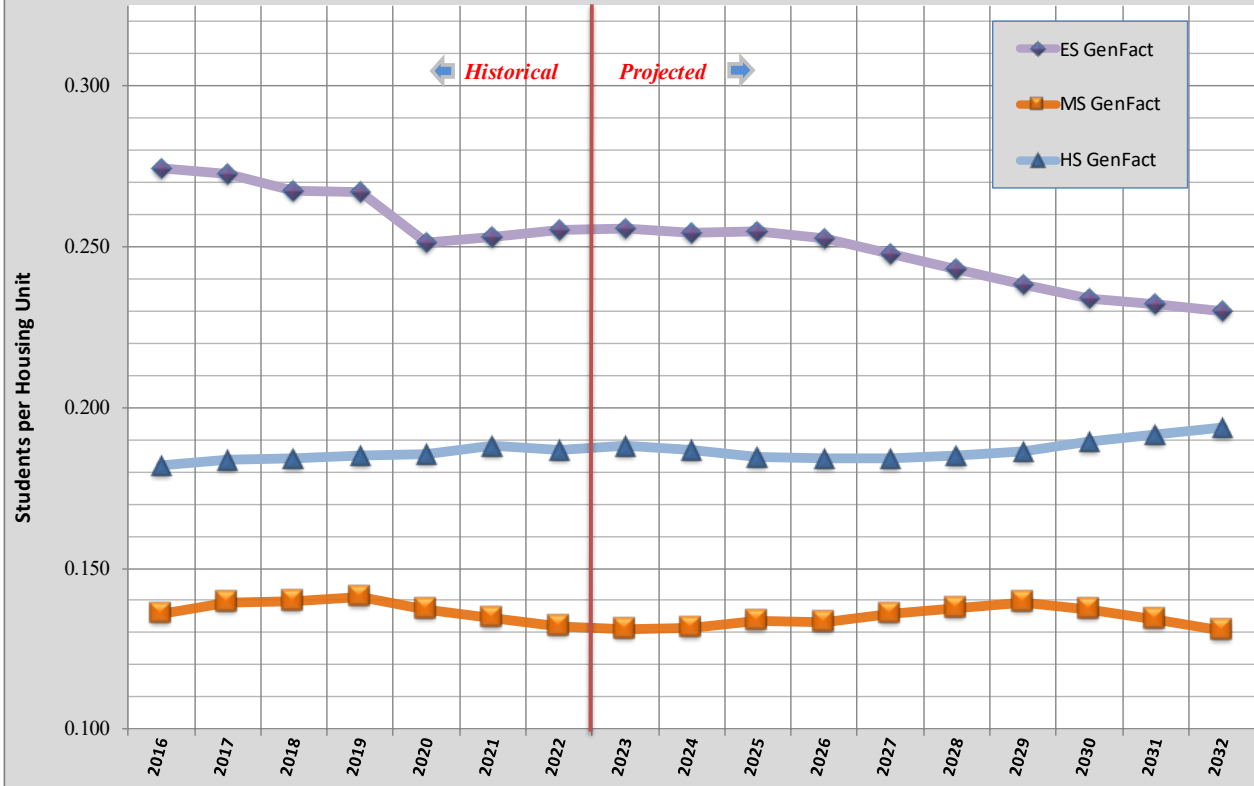
Note: 1) The 'Student Generation Factor' is a mathematical representation of the relationship between housing units in Prince William County and the number of students enrolled in Prince William County Public Schools on September 30 of each year. In other words, it is the number of enrolled students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

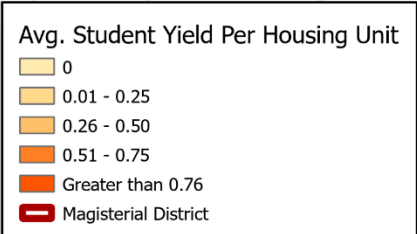
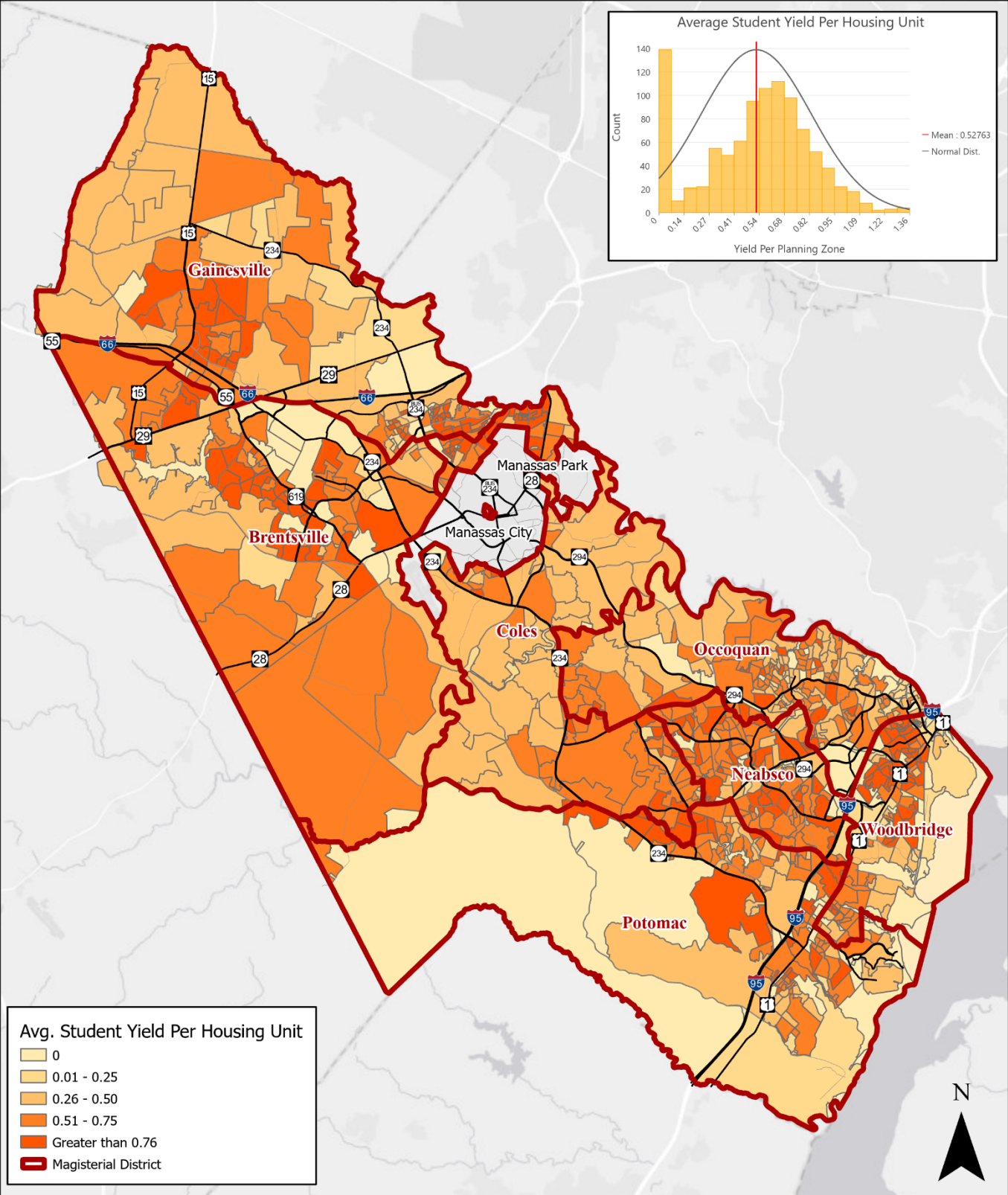
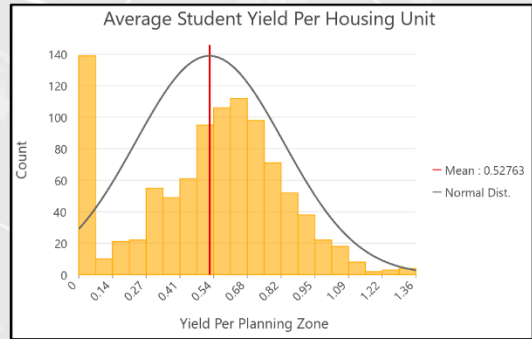
3) In 2016-17, approximately 7,000 condo-style townhouses and 2-over-2 units were reclassified from townhouse to multi-family, thus contributing to a notable increase in student yields of townhouse units and a decrease in student yields of multi-family units.

4) In 2022-23, approximately 3,500 2-over-2 multi-family units were reclassified from multi-family to townhouse, thus contributing to a notable increase in student yields in multi-family units and a decrease in student yields of townhouse units.

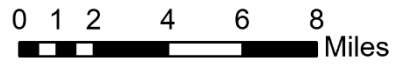
Prince William County Public Schools
Student Generation Factors by School Level



2022-23 Student Generation Factor by Planning Zone



Data:
PZ22
PZ_SGF_STO_TotGT_PK



Prepared by Planning, Facilities Department
Prince William County Public Schools
Map Prj. WGS 1984 Web Mercator Auxiliary Sphere
October 2022

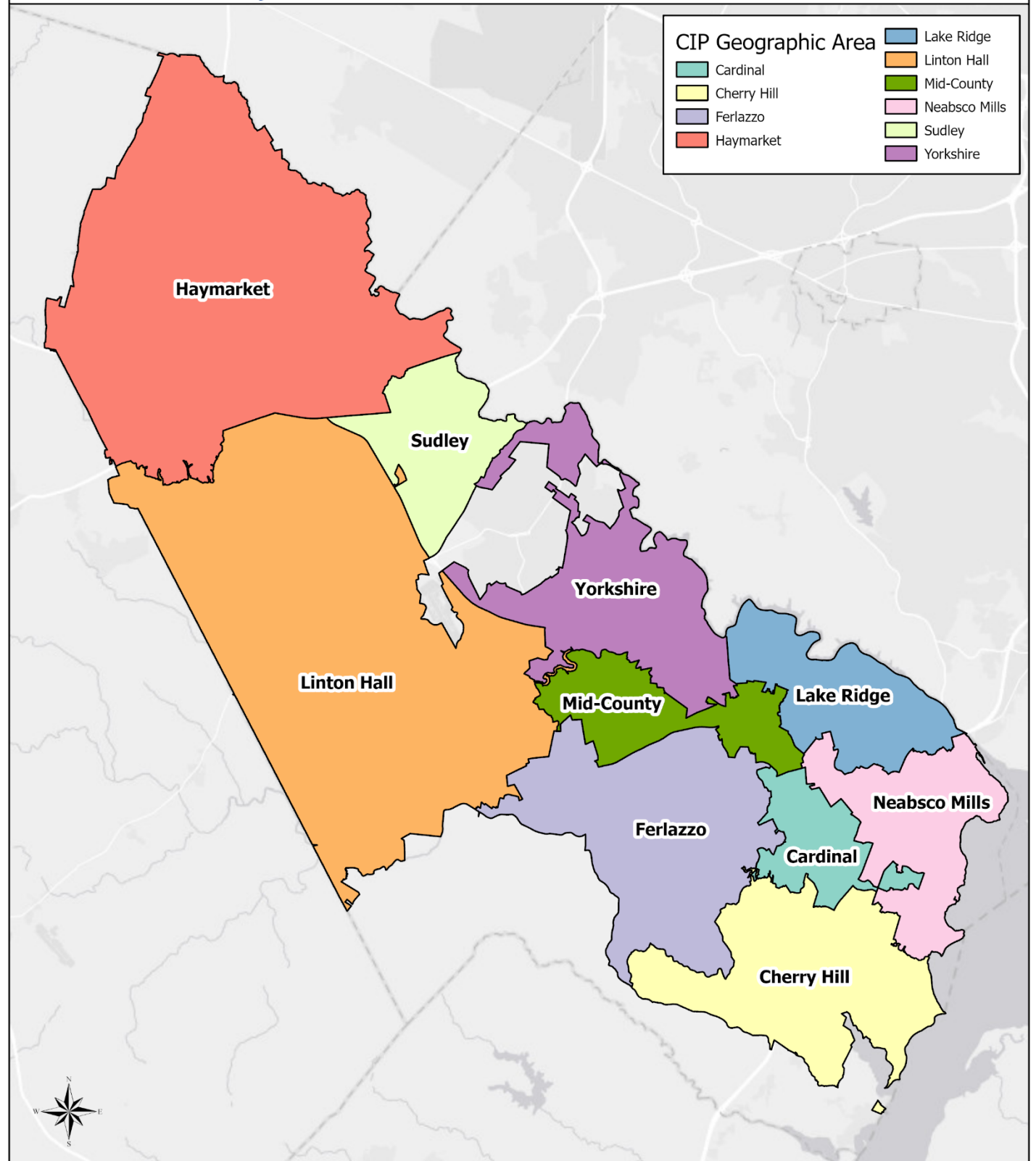
Elementary Schools
By CIP Geographic Areas

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

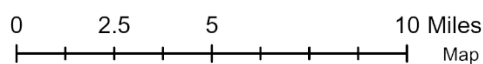
Geographic Area	Schools
Linton Hall Area	Bennett Elementary School
	Bristow Run Elementary School
	Cedar Point Elementary School
	Chris Yung Elementary School
	Glenkirk Elementary School
	Piney Branch Elementary School
	T. Clay Wood Elementary School
	The Nokesville School
Victory Elementary School	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

CIP Geographic Areas

Prince William County Public Schools



Data:
CIP_Area



Prepared by Planning, Facilities Department
Prince William County Public Schools
Map Projection: WGS 1984 Web Mercator Auxiliary Sphere
March 2023

Fall Membership By Virginia School Division

Division Name	Division Membership, PK- Grade 12						Change 2017 to 2022			
	2022-23	2021-22	2020-21	2019-20	2018-19 ¹	2017-18	Number	Rank in Virginia	Percent	Rank in Virginia
Alexandria City Public Schools	16,089	15,712	15,845	16,307	15,968	15,802	287	13	1.8%	23
Arlington County Public Schools	27,582	27,045	26,833	28,151	27,434	26,975	607	7	2.3%	18
Charlottesville City Public Schools	4,491	4,290	4,259	4,544	4,561	4,529	-38	43	-0.8%	42
Chesapeake City Public Schools	40,821	40,478	39,673	41,597	40,898	40,656	165	16	0.4%	32
Chesterfield County Public Schools	63,962	62,500	60,904	62,669	61,608	60,976	2,986	1	4.9%	11
Culpeper County Public Schools	8,353	8,366	8,256	8,521	8,235	8,210	143	20	1.7%	25
Fairfax County Public Schools	180,127	178,635	180,076	188,930	187,830	188,591	-8,464	131	-4.5%	69
Falls Church City Public Schools	2,507	2,483	2,500	2,649	2,621	2,680	-173	78	-6.5%	83
Fauquier County Public Schools	10,839	10,874	10,292	11,181	11,189	11,144	-305	102	-2.7%	57
Fredericksburg City Public Schools	3,762	3,624	3,545	3,755	3,710	3,617	145	19	4.0%	12
Harrisonburg City Public Schools	6,684	6,660	6,508	6,613	6,440	6,301	383	12	6.1%	8
Henrico County Public Schools	50,389	49,991	50,191	51,786	51,523	51,625	-1,236	126	-2.4%	53
Loudoun County Public Schools	82,082	81,511	81,319	83,933	82,238	80,965	1,117	4	1.4%	27
Manassas City Public Schools	7,711	7,592	7,607	7,789	7,723	7,820	-109	64	-1.4%	44
Manassas Park City Public Schools	3,434	3,508	3,500	3,641	3,724	3,723	-289	98	-7.8%	92
Prince William County Public Schools	91,180	90,135	89,577	92,270	90,876	90,595	585	8	0.6%	30
Spotsylvania County Public Schools	24,260	23,794	23,036	23,901	23,683	23,808	452	10	1.9%	21
Stafford County Public Schools	31,160	30,473	29,395	30,120	29,485	29,113	2,047	3	7.0%	7
Virginia Beach City Public Schools	65,550	65,498	65,612	68,706	68,624	68,986	-3,436	129	-5.0%	73
State Totals	1,263,342	1,251,970	1,252,756	1,298,083	1,290,513	1,293,049	-29,707		-2.3%	

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

Identified Capital Improvement Sites

Identified Capital Improvement Sites

- Overall Map of Sites Identified in the Capital Improvements Program
 - Innovation Elementary School (2023)
 - Occoquan Elementary School (Replacement) (2025)
 - Woodbridge Area Elementary School (2025)
 - 14th High School (2026)

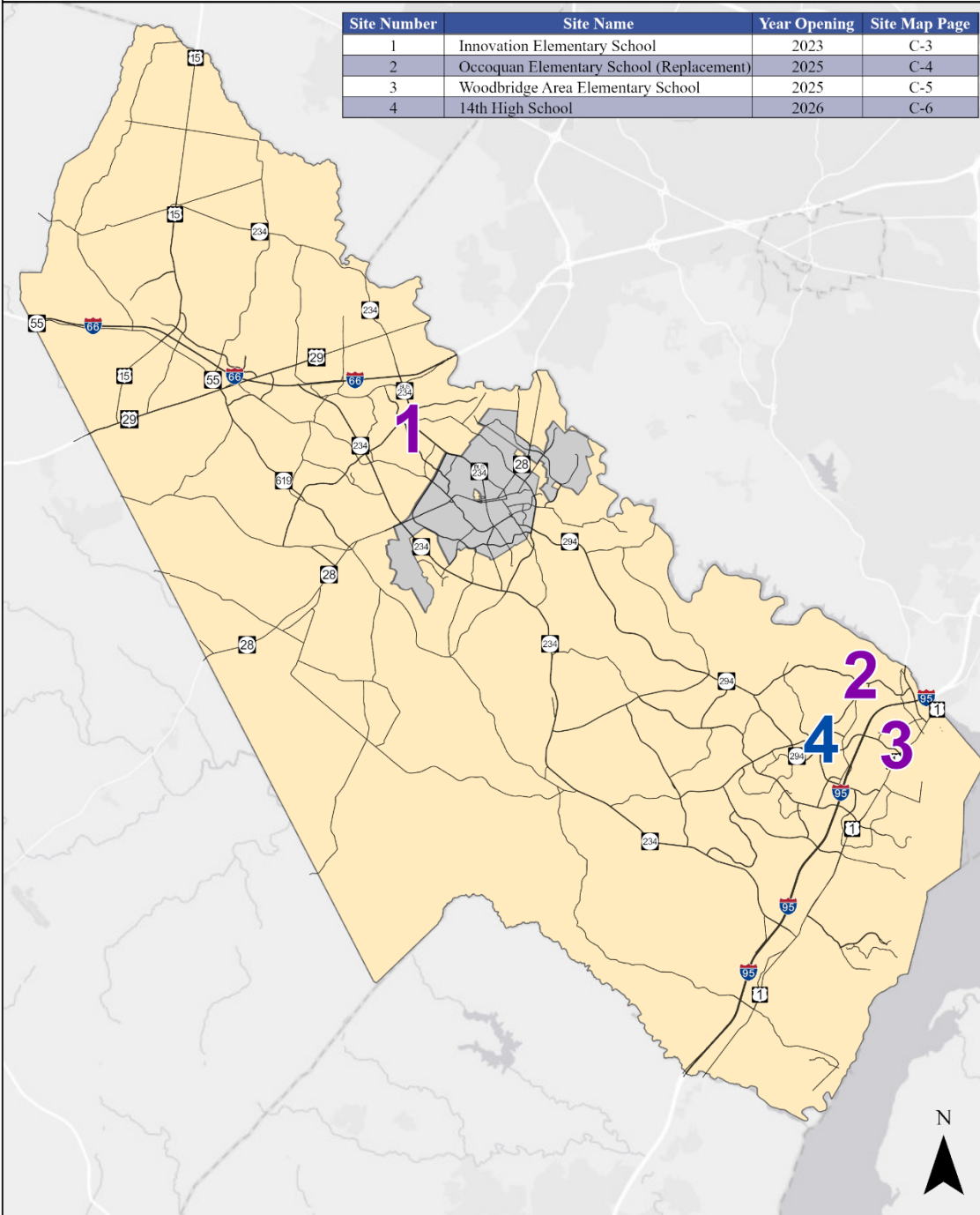
[Capital Improvement Site Maps](#)

Appendix C details the Capital Improvement sites that the Division has acquired. 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	Innovation Elementary School	2023	C-3
2	Occoquan Elementary School (Replacement)	2025	C-4
3	Woodbridge Area Elementary School	2025	C-5
4	14th High School	2026	C-6



Data:
 Roads
 Road_Shields
 County_Background

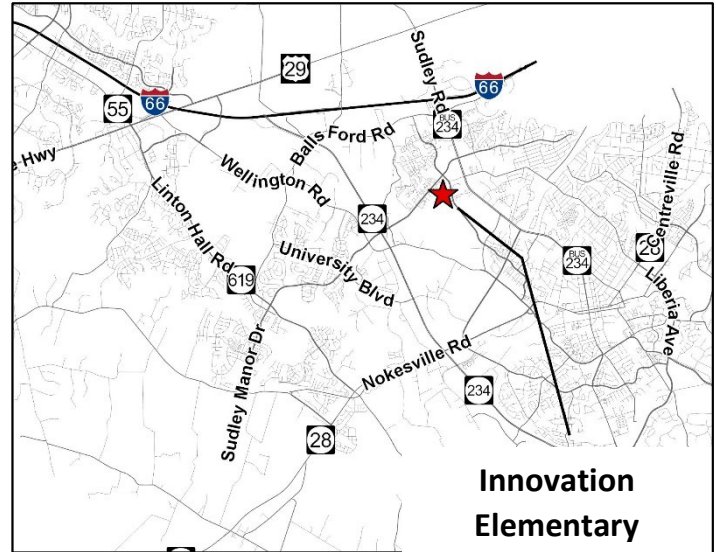


Prepared by Planning, Facilities Department
 Prince William County Public Schools
 Map Prj. WGS 1984
 February 2023

Innovation Elementary School (2023)

Project Description

Address:	8250 Ashton Avenue Manassas, VA 20109
Magisterial District:	Brentsville
Acreage:	19.58
Project Budget:	\$40,855,000
Funding Source:	Virginia Public School Authority Bond (VPSA) FY20, FY21, FY22
Architect:	Moseley Architects
Contractor:	V.F. Pavone



School Details

Square Feet:	129,833
Educational Programs:	Grade K-5, classrooms, resource rooms, fine arts rooms, science lab, media center, gym/cafeteria, activity room, administration area, and clinic.



Project Schedule

Public Facility Review Approval:	June 2019
Contract Awarded:	March 2021
Construction Start:	April 2021
Scheduled Completion:	July 2023



Occoquan Elementary School (Replacement) (2025)

Project Description

Address: 12915 Occoquan Road
Woodbridge, VA 22192

Magisterial District: Occoquan

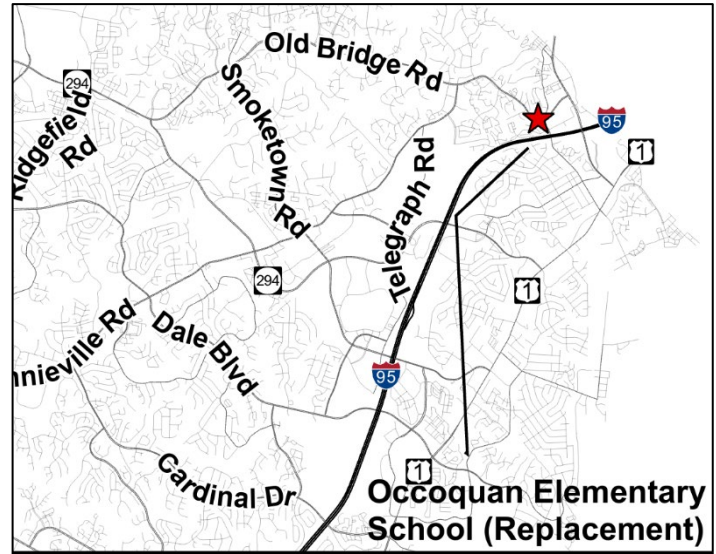
Acreage: 10.69

Project Budget: \$73,755,000

Funding Source: Virginia Public School Authority Bond (VPSA) V22A, V23A, V24A, V25A

Architect: Perkins Eastman

Contractor: TBD



School Details

Square Feet: 117,761

Educational Programs: Grade K-5, classrooms, resource rooms, fine arts rooms, science lab, media center, gym/cafeteria, activity room, administration area, and clinic

Design Elements: Pursuing minimum LEED Silver and net zero design elements

Project Schedule

Contract Awarded: TBD

Construction Start: TBD

Scheduled Completion: TBD



Woodbridge Area Elementary (2025)

Project Description

Address: 1550 Prince William Parkway Woodbridge, VA 22191

Magisterial District: Woodbridge

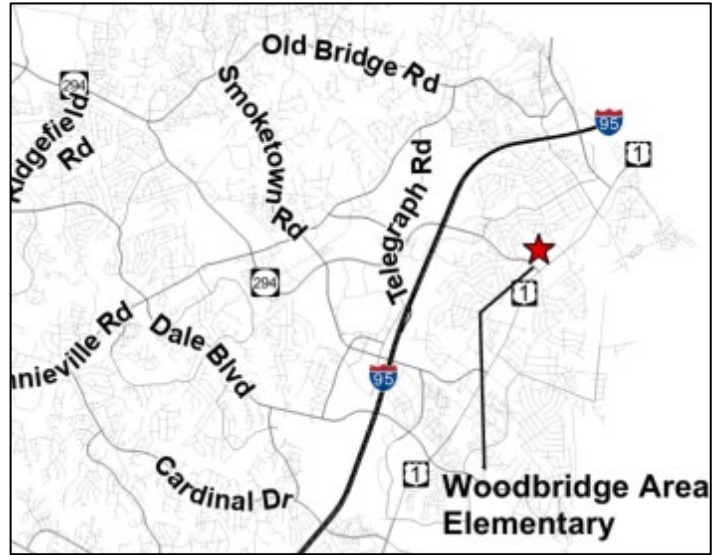
Acreage: 9.68

Project Budget: \$52,144,000

Funding Source: Virginia Public School Authority Bond (VPSA) V22A, V23A, and V24A

Architect: Moseley Architects

Contractor: V.F. Pavone



School Details

Square Feet: 129,903

Educational Programs: Grade K-5, classrooms, resource rooms, fine arts rooms, science lab, media center, gym/cafeteria, activity room, administration area, and clinic

Project Schedule

Contract Awarded: March 3, 2023

Construction Start: April 2023

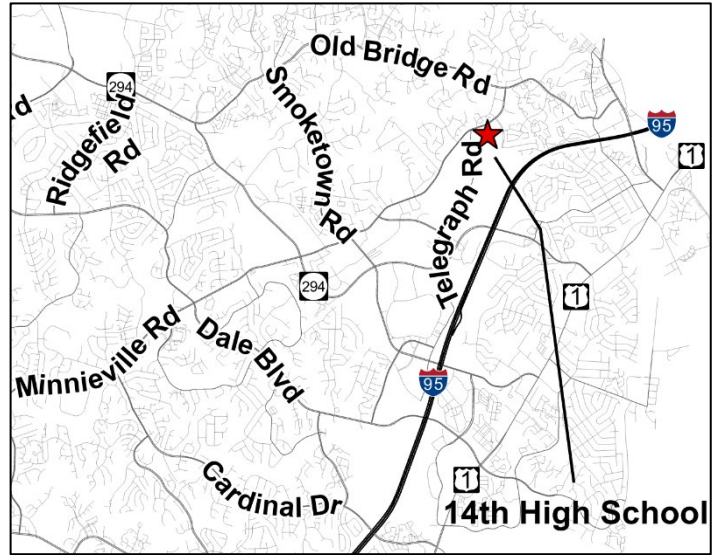
Scheduled Completion: August 2025



14th High School (2026)

Project Description

Address:	Summit School Road
Magisterial District:	Occoquan
Acreage:	97.8
Project Budget:	\$295,987,000
Funding Source:	Virginia Public School Authority Bond V22A, V23A, V24A, V25A, V26A
Architect:	Moseley Architects
Contractor:	TBD

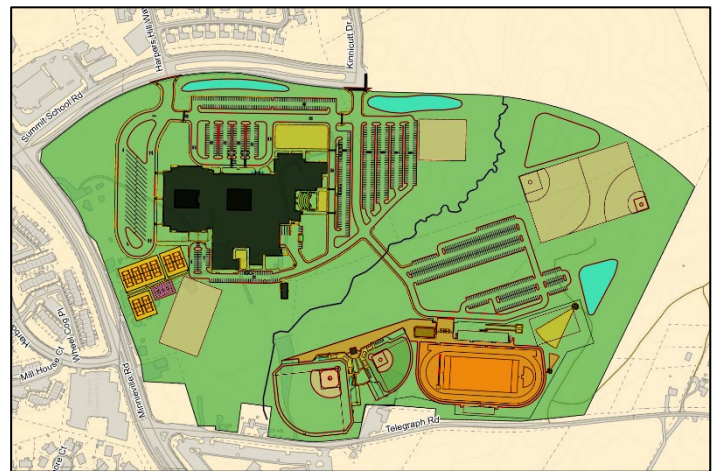


School Details

Square Feet:	334,885
Educational Programs:	Grades 9-12, academic classrooms, fine arts rooms, science lab, 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 2023

PWCS Project Name	Opening Date	CIP Construction Project Budget	Construction Expenditures							Total Project Costs Outside of Construction Contract	Total Construction Expenditures	Opening Fund / Start Up Costs ⁷	Site Acquisition Costs ⁸	Total Project Costs
			Construction Contract Bid ¹	Project Costs Outside of Construction Contract					Total Project Costs Outside of Construction Contract					
				Construction Contract Change Order Costs ²	Temporary Employees ³	Engineering Services ⁴	Furnishings & Equipment ⁵	Other Non-Construction Contract Costs ⁶						
14th High School	Sep 26	\$ 295,987,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,016,732	\$ 17,016,732	
Occoquan Elementary Replacement	Sep 25	\$ 73,755,000	\$ -	\$ -	\$ -	\$ 3,073,966	\$ -	\$ -	\$ 3,073,966	\$ 3,073,966	\$ -	\$ -	\$ 3,073,966	
Elementary School (Woodbridge Area)	Sep 24	\$ 52,344,000	\$ 45,533,000	\$ -	\$ -	\$ 1,166,505	\$ -	\$ 671,094	\$ 1,837,599	\$ 47,370,599	\$ -	\$ 7,763,738	\$ 55,134,338	
Innovation Elementary	Sep 22	\$ 40,855,000	\$ 35,000,000	\$ 133,388	\$ 159,977	\$ 2,822,401	\$ 285,877	\$ 1,354,638	\$ 4,756,282	\$ 39,756,282	\$ -	\$ 64,187	\$ 39,820,469	
Gainesville High School	Sep 21	\$ 127,400,000	\$ 108,500,000	\$ 853,294	\$ 330,318	\$ 6,690,857	\$ 5,107,005	\$ 3,858,498	\$ 16,839,972	\$ 125,339,972	\$ -	\$ 16,655,233	\$ 141,995,205	
Potomac Shores Middle	Sep 21	\$ 64,119,000	\$ 52,474,000	\$ 67,298	\$ 272,553	\$ 3,191,858	\$ 3,041,754	\$ 1,410,290	\$ 7,983,754	\$ 60,457,754	\$ -	\$ -	\$ 60,457,754	
Western Transportation Center	Sep 19	\$ 12,300,000	\$ 11,677,000	\$ 820,865	\$ 156,917	\$ 920,252	\$ 987,870	\$ 389,402	\$ 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	\$ 1,637,732	\$ 1,561,780	\$ 1,610,634	\$ 5,750,664	\$ 32,959,664	\$ -	\$ 8,026,917	\$ 40,986,582	
Independence Nontraditional	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	\$ 494,000	\$ -	\$ 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	\$ 28,594,000	\$ 20,753,000	\$ (16,905)	\$ 63,670	\$ 1,205,054	\$ 1,579,038	\$ 886,041	\$ 3,716,878	\$ 24,469,878	\$ 425,000	\$ -	\$ 24,894,878	
Maintenance Facility	Sep 16	\$ 11,444,000	\$ 8,074,000	\$ 537,561	\$ 130,361	\$ 1,344,226	\$ 322,155	\$ 1,048,806	\$ 2,883,109	\$ 10,957,109	\$ -	\$ -	\$ 10,957,109	
Colgan High School	Sep 16	\$ 110,943,000	\$ 97,907,000	\$ 145,919	\$ 521,568	\$ 5,126,308	\$ 4,776,207	\$ (6,670,372)	\$ 3,899,620	\$ 101,806,630	\$ 1,988,547	\$ 8,785,796	\$ 112,580,973	
Chris Yung 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	\$ 994,640	\$ 3,121,494	\$ 21,909,494	\$ 39,295	\$ 16,679	\$ 22,265,468	
Nokesville School, The	Sep 14	\$ 31,000,000	\$ 28,402,000	\$ 174,854	\$ 124,920	\$ 2,252,698	\$ 1,363,551	\$ 2,213,734	\$ 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, changes initiated by the owner, inspection outcomes, school-based staff generated changes, and unanticipated site conditions.
³ On-site construction project managers, custodial services.
⁴ Architectural and Engineering Services, traffic analysis, environmental analyses, archeological studies.
⁵ Outfitting costs for desks, whiteboards, 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, instruction kits, textbooks, library books, glasses, 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 settlements and title fees.

**Bond Issuance:
Virginia Public School Authority 2022 (V22A)**

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V22A	Elementary School (Occoquan/Woodbridge Area)	305A	\$ 3,520,440	\$ -	\$ -	\$ 3,520,440
V22A	Occoquan ES Replacement	326H	\$ 3,000,000	\$ -	\$ -	\$ 3,000,000
V22A	Bennett ES - Renovation	365F	\$ 4,000,000	\$ -	\$ -	\$ 4,000,000
V22A	Bristow Run ES - Renewal	386E	\$ 9,500,000	\$ -	\$ -	\$ 9,500,000
V22A	Cedar Point ES - Renovation	390D	\$ 4,872,000	\$ 595,458	\$ -	\$ 5,467,458
V22A	Parkside MS - Renewal	450N	\$ 5,994,000	\$ -	\$ -	\$ 5,994,000
V22A	Graham Park MS - Fenestration	451M	\$ 2,350,000	\$ -	\$ -	\$ 2,350,000
V22A	Benton MS - Renovation	488G	\$ 1,136,000	\$ -	\$ -	\$ 1,136,000
V22A	Gainesville MS Addition	496D	\$ 337,000	\$ -	\$ -	\$ 337,000
V22A	Woodbridge HS - Fenestration	506T	\$ 590,560	\$ -	\$ -	\$ 590,560
V22A	Woodbridge HS - Cometogogy Lab Renovation	506U	\$ 90,000	\$ -	\$ -	\$ 90,000
V22A	Osborn Park HS - Roof Replacement	508T	\$ 2,750,000	\$ -	\$ -	\$ 2,750,000
V22A	Osborn Park HS - Artificial Turf	508V	\$ 480,000	\$ -	\$ -	\$ 480,000
V22A	Battlefield HS - Roof Replacement	529G	\$ 1,000,000	\$ (12,900)	\$ -	\$ 987,100
V22A	Freedom HS Roof Replacement	530F	\$ 2,000,000	\$ (582,558)	\$ -	\$ 1,417,442
V22A	Gar-Field HS Artificial Turf/Concession Bldg	569Z	\$ 440,000	\$ -	\$ -	\$ 440,000
V22A	Hylton HS - Artificial Turf	571Q	\$ 400,000	\$ -	\$ -	\$ 400,000
V22A	Forest Park HS - Roof Replacement	587F	\$ 1,500,000	\$ -	\$ -	\$ 1,500,000
V22A	Transportation - Brentsville Renovation	702B	\$ 400,000	\$ -	\$ -	\$ 400,000
Total			\$ 44,360,000	\$ -	\$ -	\$ 44,360,000

**Bond Issuance:
Virginia Public School Authority 2021 (V21A)**

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V21A	Innovation ES	317A	\$ 34,155,000	\$ (2,342,197)	\$ (732,897)	\$ 31,079,906
V21A	Neabsco ES - Roof Repl	370E	\$ 800,000	\$ -	\$ (28,194)	\$ 771,806
V21A	Bristow Run ES Renewal	386E	\$ -	\$ -	\$ 1,175,000	\$ 1,175,000
V21A	Signal Hill ES Renewal	397D	\$ -	\$ -	\$ 1,175,000	\$ 1,175,000
V21A	Reagan MS Addition (6 Rooms)	405B	\$ 3,500,000	\$ -	\$ (1,401,653)	\$ 2,098,347
V21A	Potomac Shores MS Site - Building, New	414A	\$ 1,000,000	\$ (1,000,000)	\$ -	\$ -
V21A	Graham Park MS - Fenestration	451M	\$ 302,000	\$ -	\$ -	\$ 302,000
V21A	Gainesville MS Addition	496D	\$ 3,800,000	\$ -	\$ 5,470	\$ 3,805,470
V21A	Osborn Park HS - Fenestration Improvements	508S	\$ 4,258,000	\$ -	\$ (1,650,000)	\$ 2,608,000
V21A	Osborn Park HS - Artificial Turf	508V	\$ -	\$ -	\$ 992,500	\$ 992,500
V21A	13th HS Site Building, New	513A	\$ 2,400,000	\$ -	\$ (1,523,595)	\$ 876,405
V21A	Battlefield HS - Roof Replacement	529G	\$ 1,750,000	\$ -	\$ (276,624)	\$ 1,473,376
V21A	Freedom HS Roof Replacement	530F	\$ 2,000,000	\$ -	\$ (100,000)	\$ 1,900,000
V21A	Brentsville HS - Artificial Turf	553P	\$ 4,116,000	\$ -	\$ 732,896	\$ 4,848,896
V21A	Stonewall Jackson HS - Fenestration Improvements	568V	\$ 4,658,000	\$ -	\$ (2,175,000)	\$ 2,483,000
V21A	Gar-Field HS Artificial Turf/Concession Bldg	569Z	\$ -	\$ -	\$ 645,645	\$ 645,645
V21A	Hylton HS Renewal	571M	\$ -	\$ 3,342,197	\$ 3,161,452	\$ 6,503,649
V21A	Hylton HS - Artificial Turf	571Q	\$ 1,646,000	\$ -	\$ -	\$ 1,646,000
Total			\$ 64,385,000	\$ -	\$ -	\$ 64,385,000

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			\$ 32,896	\$ 32,896
V20A	Innovation 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 - Building, New	414A	\$ 20,559,500	\$ -		\$ 20,559,500
V20A	Gainesville MS Addition	496D	\$ 700,000	\$ -		\$ 700,000
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	\$ -	\$ 1,000,000	\$ 2,600,000
V20A	Gainesville HS Site Building, New	513A	\$ 52,000,000	\$ 5,000,000		\$ 57,000,000
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	\$ -	\$ 1,000,000	\$ 2,600,000
V20A	Hylton HS Renewal	571M	\$ 24,429,000	\$ (5,000,000)	\$ (32,896)	\$ 19,396,104
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	Final Adjustments	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	\$ (298,920)	\$ 1,874,311
V19A	Western Bus Facility	043M	\$ 1,000,000	\$ 1,328,296	\$ (574,316)	\$ (42,772)	\$ 1,711,208
V19A	Ann Ludwig Special School Renovation	209B			\$ 57,378	\$ (999)	\$ 56,379
V19A	Woodbine Renovation	219B			\$ 1,570,903	\$ (47,599)	\$ 1,523,304
V19A	Minnieville Elementary School Addition (10 rooms)	303M	\$ 1,000,000	\$ 159,786	\$ (11,450)	\$ (740)	\$ 1,147,596
V19A	Pattie ES Addition	313D			\$ 7,259		\$ 7,259
V19A	Innovation Elementary	317A		\$ 1,900,000	\$ 60,595	\$ 2,049,331	\$ 4,009,926
V19A	Lake Ridge Elementary School Addition (13 rooms)	318C	\$ 1,000,000	\$ (687,195)	\$ 17,175	\$ (142)	\$ 329,838
V19A	Jenkins Elementary School East - PW Parkway	319A	\$ 3,000,000	\$ 162,613	\$ (328,688)	\$ (155,343)	\$ 2,678,582
V19A	Springwoods Elementary School Addition (13 rooms)	332D	\$ 1,100,000	\$ (243,872)	\$ (108,347)	\$ (2)	\$ 747,779
V19A	Bennett ES Renovation	365F			\$ 185,405	\$ (445)	\$ 184,960
V19A	Antietam Elementary School Addition (13 rooms)	376C	\$ 1,000,000	\$ (753,621)	\$ (67,538)	\$ (4,456)	\$ 174,385
V19A	Marshall Elementary School - Renewal (Funding Phase 1a)	379F	\$ 1,866,000	\$ (1,300,396)	\$ (331,874)	\$ (10,679)	\$ 223,051
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	\$ (28,348)	\$ 6,187,078
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)	\$ (1,526)	\$ 381,088
V19A	Potomac Shores Middle School	414A	\$ 20,559,500	\$ (1,367,113)	\$ (13,974)	\$ 791,447	\$ 19,969,860
V19A	Potomac Middle School - Aquaponics Lab	417D		\$ 489,804	\$ 72,139	\$ (30,378)	\$ 531,565
V19A	Stonewall Middle School Addition (17 rooms)	448K	\$ 1,500,000	\$ (248,993)	\$ 72,498	\$ (349,895)	\$ 973,610
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	\$ (53,708)	\$ 9,895,453
V19A	Woodbridge High School - Turf Fields	506Q		\$ 429,384	\$ 22,727	\$ (38,624)	\$ 413,487
V19A	Woodbridge High School - Stadium Upgrades	506R	\$ 2,150,000	\$ 310,650	\$ 395,000	\$ (189,408)	\$ 2,666,242
V19A	Woodbridge High School - Aux Gym Addition	506S	\$ 8,000,000	\$ (1,932,242)	\$ 82,560	\$ (38,414)	\$ 6,111,904
V19A	Gainesville High School	513A	\$ 52,000,000	\$ (2,975,616)	\$ (1,867,952)	\$ (9,202)	\$ 47,147,230
V19A	Freedom High School - Turf Fields	530E		\$ 90,489	\$ (18,277)		\$ 72,212
V19A	Stonewall Jackson High School - Turf Fields	568S		\$ 346,342	\$ -	\$ (6,383)	\$ 339,959
V19A	Stonewall Jackson High School - Stadium Upgrades	568T	\$ 1,650,000	\$ 319,042	\$ 294,518	\$ (251,817)	\$ 2,011,743
V19A	Gar-Field High School - Aux Gym Addition	569U	\$ 8,000,000	\$ (1,698,084)	\$ -	\$ (32,807)	\$ 6,269,109
V19A	Hylton High School - Renewal	571M		\$ 1,475,673	\$ 64,862	\$ 3,108	\$ 1,543,643
V19A	Independent Hill Complex - Site Improvements	603F		\$ 4,472,909	\$ (3,820,417)	\$ (304,267)	\$ 348,225
V19A	Independent Hill New Maintenance Facility	603H		\$ 89,373	\$ -	\$ (33,206)	\$ 56,167
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	\$ -	\$ (98,291)	\$ 79,825
V19A	HVAC Equipment & Controls	HVAC		\$ 941,936	\$ 68,500	\$ (88)	\$ 1,010,348
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	Independence Nontraditional 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	Gainesville 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	Independence Nontraditional School	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	Covington-Harper Elementary School - 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	Jenkins Elementary School	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	Potomac Shores Middle School	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	Gainesville High School	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	Independence Nontraditional School - 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	Covington-Harper Elementary School	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	Jenkins 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	Gainesville High School -- Site Acquisition Funds	513A	\$ 13,500,000		\$(13,500,000)	\$ -
V16A	Gainesville High School - A&E	513A	\$ 2,000,000	\$ 1,000	\$ (239,635)	\$ 1,761,365
V16A	Freedom HS - TurfFields	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	Independence Nontraditional School	201Z	\$ 2,000,000		\$ 5,200,000	\$ 7,200,000
V15A	Jenkins Elementary School	306A	\$ 27,534,000	\$ (1,000,000)	\$(10,500,000)	\$ 16,034,000
V15A	Covington-Harper Elementary School - 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	Colgan 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	Chris Yung Elementary School	\$ 25,937,000		\$ (300,000)	\$ 25,637,000
V14A	Featherstone Elementary Addition (6 rooms)	\$ 8,531,000			\$ 8,531,000
V14A	Colgan High School	\$ 49,971,500	\$ (3,000,000)		\$ 46,971,500
V14A	Kyle Wilson Elementary School	\$ 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	Colgan HS - 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	The Nokesville School - 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	Colgan High School - 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	Chris Yung 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 School	\$ 5,000,000	\$ (1,750,000)	\$ (730,000)	\$ 2,520,000
V11A	Potomac HS Addition	\$ 7,655,000			\$ 7,655,000
V11A	Reagan Middle School	\$ 12,150,000		\$ (1,900,000)	\$ 10,250,000
V11A	Swans Creek Elementary School	\$ 4,765,000	\$ (450,000)	\$ (1,365,925)	\$ 2,949,075
V11A	T. Clay Wood Elementary School	\$ 4,000,000	\$ (450,000)	\$ (850,000)	\$ 2,700,000
V11A	Westridge ES Addition	\$ 4,130,000	\$ 450,000		\$ 4,580,000
V11A	The Nokesville 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	Chris Yung Elementary School (A&E)			\$ 750,000	\$ 750,000
V11A	Haymarket 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
		Original Bond Disbursement			
V10A	Piney Branch Elementary School	\$ 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 School	\$ 14,232,000	\$ (500,000)	\$ 46,960	\$ 13,778,960
V10A	T. Clay Wood Elementary School	\$ 14,494,000	\$ (200,000)	\$ (350,000)	\$ 13,944,000
V10A	Haymarket Elementary School (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

New Elementary Schools – Commonwealth of Virginia
2017-18 through 2022-23

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
2022-23	New 360 West Area Elementary	PK-5	Chesterfield County (021)	Aug-23	928	\$28,250,636	4,055,413	32,306,049	104,621	\$308.79	\$270.03	\$34,813
	New Goochland Elementary School Replacement	PK-5	Goochland County (037)	Jan-23	882	\$35,386,622	9,519,592	44,906,214	104,826	\$428.39	\$337.57	\$50,914
	Consolidated John M. Gandy, Henry Clay Elementary School	PK-5	Hanover County (042)	Nov-23	890	\$42,699,776	5,054,968	47,754,744	150,722	\$316.84	\$283.30	\$53,657
	ES-32	K-2	Loudoun County (053)	Feb-23	984	\$48,993,636	4,158,972	53,152,608	114,328	\$464.91	\$428.54	\$54,017
	Woodbridge Area Elementary School	K-5	Prince William County (075)	Mar-23	847	\$39,291,000	6,262,000	45,553,000	129,903	\$350.67	\$302.46	\$53,782
2021-22	Ridgeview Elementary School	K-5	Dickenson County (026)	Feb-21	720	\$18,251,032	1,078,069	19,329,101	65,551	\$294.87	\$278.42	\$27,066
	Hardy Elementary Replacement	PK-4	Isle of Wight County (046)	Oct-23	917	\$36,868,640	4,512,136	41,380,776	108,162	\$382.58	\$340.86	\$37,565
	New Elementary on Middle Road	PK-5	Prince George County (074)	May-21	968	\$24,873,676	5,515,000	30,388,676	98,231	\$309.36	\$253.22	\$41,322
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
	Innovation 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

* The final report for 2022-23 will be generated after June 30, 2023.

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.

New Middle Schools – Commonwealth of Virginia 2011-12 through 2022-23

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
2022-23	Riverheads Middle School	6-8	Augusta County (008)	Aug-23	450	\$27,280,508	\$3,780,363	\$31,060,871	62,033	\$501	\$439.77	\$69,024
	Buffalo Gap Middle School	6-8	Augusta County (008)	Aug-23	450	\$24,007,230	\$3,655,496	\$27,662,726	66,483	\$416	\$361.10	\$61,473
	New Falling Creek Middle School	6-8	Chesterfield County (021)	Sep-23	1,916	\$71,531,048	\$10,087,770	\$81,618,818	238,963	\$342	\$299.34	\$42,599
	MS-14	6-8	Loudoun County (053)	Aug-23	1,390	\$96,387,896	\$14,278,704	\$110,666,600	210,165	\$527	\$458.63	\$79,616
	Scott Memorial Middle School	6-8	Wythe County (097)	Jul-23	450	\$24,260,348	\$2,789,652	\$27,050,000	70,206	\$385	\$345.56	\$60,111
2021-22	<i>No Projects Reported</i>											
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
2013-14	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 2022-23 will be generated after June 30, 2023.

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 equipment,

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 2022-23

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
2022-23	<i>No Projects Reported</i>											
2021-22	New George Mason High School	9-12	Falls Church City (109)	Jul-18	1,448	\$72,856,800	\$12,926,798	\$85,783,598	294,700	\$291.09	\$247.22	\$59,243
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 2022-23

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
Woodbridge Area ES	129,903	Jan-23	\$45,533,000	\$350.52	\$39,291,000	\$302.46	\$6,262,000	\$48.21
Innovation 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.

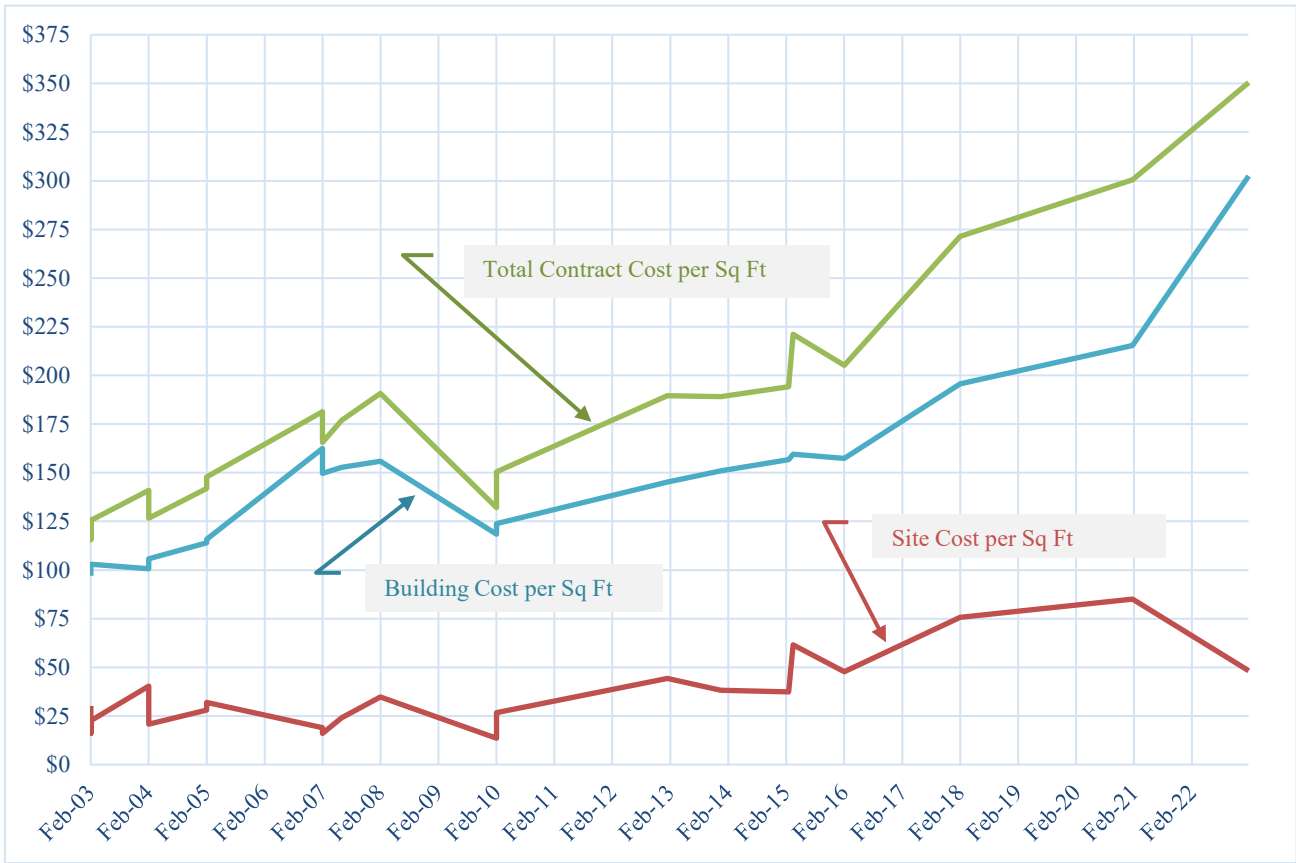
2 This site was pre-graded by the developer, value approximately \$ 1.2 million. For project comparison purposes add 13.35 to project sq. ft. cost and to site sq. ft. cost.

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.

Elementary School Construction Costs Per Square Foot Prince William County Schools 2003-04 through 2022-23



APPENDIX E

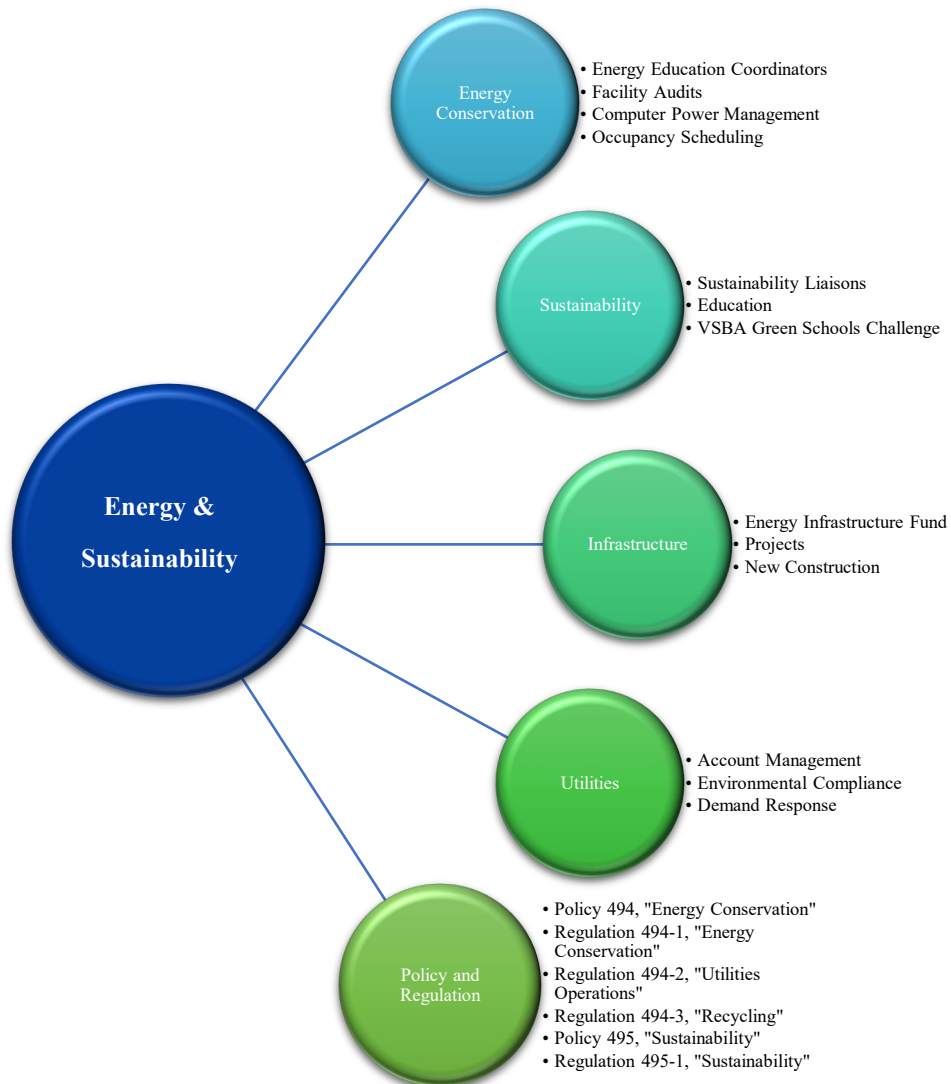
Energy Management and Sustainability

Energy Management and Sustainability

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. Policy 495 recognizes the importance of a robust sustainability program to reduce the School Division's overall carbon footprint, protect the environment, and contribute to overall user experience and wellness. Support and program oversight are the responsibility of the Facilities Department. 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 Facilities Department's Supervisor of Energy Management and Sustainability, and Energy Education Coordinator(s), in accordance with Regulations 494-1 and 495-1. All decisions related to the implementation of these policies shall be firmly grounded in common sense.

Accurate records of energy consumption and cost will be maintained by the Facilities Department 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, Code Orange, 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.

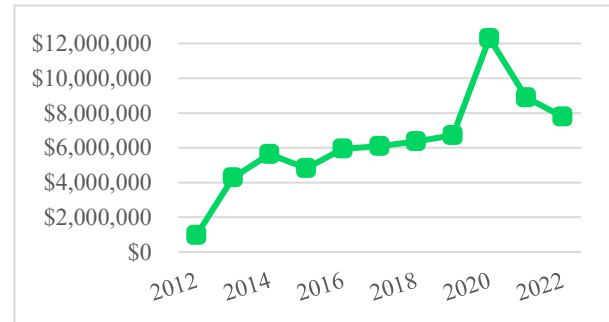
Energy Conservation Savings

July 2012 – December 2022

Period	Month	Savings		Period Totals
		\$	%	
Fast Track 2012	July - December	\$973,706	9.1%	\$973,706
Performance 2013	January - December	\$4,300,398	19.0%	\$4,300,398
Performance 2014	January - December	\$5,628,065	23.1%	\$5,628,065
Performance 2015	January - December	\$4,827,693	19.3%	\$4,827,693
Performance 2016	January - December	\$5,941,593	24.0%	\$5,941,593
Performance 2017	January - December	\$6,104,072	23.9%	\$6,104,072
Performance 2018	January - December	\$6,364,782	24.0%	\$6,364,782
Performance 2019	January-December	\$6,718,885	24.4%	\$6,718,885
Performance 2020	January-December	\$12,309,474	44.4%	\$12,309,474
Performance 2021	January-December	\$8,903,945	32.9%	\$8,903,945
3rd Performance Quarter FY2022	January	\$542,115	22.9%	\$1,518,049
	February	\$472,952	20.7%	
	March	\$502,982	22.8%	
4th Performance Quarter FY2022	April	\$722,849	32.1%	\$2,141,610
	May	\$636,106	25.4%	
	June	\$782,655	29.8%	
1st Performance Quarter FY2023	July	\$729,248	28.4%	\$1,819,403
	August	\$513,200	18.7%	
	September	\$576,955	21.7%	
2nd Performance Quarter FY2024	October	\$800,134	31.3%	\$2,305,654
	November	\$808,472	30.9%	
	December	\$697,048	27.4%	
Total Program Savings		\$62,072,613	25.3%	

Annual Energy Cost Avoidance

July 2012 – December 2022



Sustainability

Sustainability Liaisons

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 Liaison is not an intense one, but it is very important. Sustainability Liaisons function as ambassadors on behalf of Energy Management and Sustainability, conveying our collective message of environmental leadership to each individual site. Each liaison is encouraged to create opportunities for discussions about sustainability and energy conservation. The Facilities Department 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 Liaison.

Education

The Facilities Department incorporates education for students and staff into the overall Strategic Plan for the School Division. Energy Management and Sustainability 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 and Sustainability 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 Facilities Department, while creating measurable Return on Investment (ROI).

Energy Management and Sustainability 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 2024-2028

Energy Infrastructure Improvement Project	<i>FY2024</i>	<i>FY2025</i>	<i>FY2026</i>	<i>FY2027</i>	<i>FY2028</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 2023

Location	Project Scope
Enterprise ES, Fitzgerald ES, Loch Lomond ES, Marumsc Hills ES, Potomac View ES, Sinclair ES, Tyler ES, Victory ES, Washington-Reid ES, The Nokesville School	LED Replacement Program
Divisionwide	Predictive Maintenance Analytics
Divisionwide	Switchgear Monitoring
Divisionwide	SMART Irrigation
Fitzgerald ES, Kilby ES, Old Bridge ES, Westridge ES, Wood ES, Patriot HS, Independence Nontraditional School	Building Automation Upgrade

Fiscal Year 2024

Location	Project Scope
Divisionwide	LED Replacement Program
Divisionwide	Predictive Maintenance Analytics
Divisionwide	Performance Contracting
Divisionwide	Building Automation Upgrade

New Construction

The Facilities Department is committed to the construction of energy efficient, highly performing facilities. Energy Management and Sustainability 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 and Sustainability is committed to year-round advocacy for conservation efforts in PWCS.

High-performing maintenance strategies and construction standards are integral to achieving strategic priorities for sustainability as identified in Commitment 2, Objective 2.3 of the *PWCS Vision 2025 Launching Thriving Futures Strategic Plan*. One of the goals related to this strategic priority is to complete the first net-zero new construction school replacement in PWCS. Occoquan Elementary School has been identified for this project.

To achieve net-zero energy at Occoquan Elementary School, certain elements are taken into consideration when designing a sustainable building. Incorporating the *PWCS Sustainable Design Principles for High-Performing Buildings*, all new construction and major renovation projects have guidance for third-party certifications, environmental impact, materials and resources, energy efficiency, water use efficiency, life-cycle analysis, user experience, and commissioning and sustainability review.

The Occoquan Elementary School replacement project is designed using PWCS-specific design principles. In addition, aspects of net-zero design in this project include: maximizing solar orientation on the site, focusing on daylighting and indoor environmental quality, using a ground source heat pump, targeting an Energy Use Intensity (EUI) of 24, generating energy via a photovoltaic (PV) solar array, and incorporating educational opportunities throughout the building and grounds.

Utilities

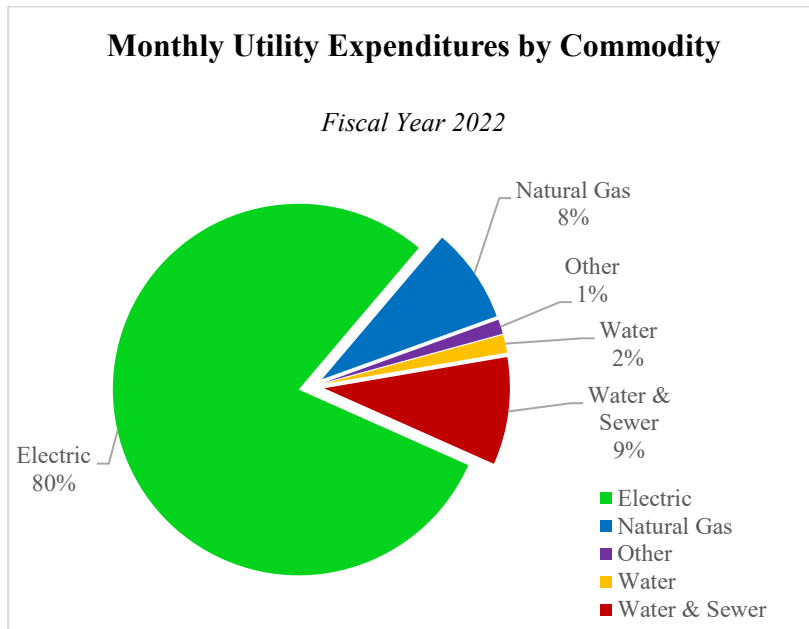
Account Management

Regulation 494-2 establishes responsibilities and operating procedures for the management of utilities by the Facilities Department. 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 and Sustainability 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.

Utility Expenditures by Month

