

# Approved Capital Improvements Program

Fiscal Years 2011 - 20





# Prince William County

**PUBLIC SCHOOLS**

*Providing A World-Class Education*

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**PRINCE WILLIAM COUNTY PUBLIC SCHOOLS**

**FISCAL YEARS  
2011-2020  
CAPITAL IMPROVEMENTS PROGRAM**

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## ***CAPITAL IMPROVEMENTS PROGRAM OVERVIEW***

The Capital Improvements Program (CIP) is a management tool for planning the capital improvements projects needed to house students adequately. It is a comprehensive plan designed to address the need for new construction, renewals of existing facilities, and upgrading and maintaining the School Division's infrastructure. The CIP is a blueprint of work to be performed over the next ten-year period as determined in assessments of building needs, capacity and utilization. It is developed to provide facilities and future school sites to sustain world-class educational programs at a reasonable cost.

The CIP enables the School Division to address changing enrollment patterns and utilize facilities in ways that are consistent with sound educational practices. Short- and long-range student enrollment projections are produced and updated annually. Based on the 2009-2010 enrollment projections, the CIP provides general guidance for the next ten years. This ten-year plan helps to better focus staff efforts.

To address future facility needs, the CIP process evaluates requirements for new facilities and renewals of existing facilities and infrastructure. It is a "cumulative" process that builds upon the prior year's plan and is updated annually based on enrollment projections. The plan identifies short- and long-range building projects and establishes priorities. The projects designated for the first two years of the plan are the highest priority needs.

The Capital Improvements Program must meet the following objective of the Strategic Plan:

***Objective 2.3: Enhance the appearance, condition and capacity of physical plants, facilities, and equipment.***

Each year:

- 2.3.1 All division facilities will pass compliance audits and meet building code regulations related to health, safety, and environmental quality.
- 2.3.2 At least 95% of students and all employees will be housed in permanent facilities.

This objective is addressed in two general program areas:

- New Construction – projects under construction and planned construction projects to include additions.
- Renovations/Renewals/Maintenance – managing existing school building conditions.

*School Board Priorities:*

Provide a reasonable, feasible, and equitable facilities renovation and new construction schedule, and study site acquisition strategies.

## *Recent Accomplishments*

Fewer dollars dramatically affect the CIP, reducing construction of new schools and renovation of existing schools. Many plans must be delayed. This past year, construction was completed on Yorkshire Elementary School Replacement and occupied in February 2009. Construction continues on Triangle Elementary School Replacement. The building was occupied in January 2010.

In 2009, major renovations to renew schools were completed at Coles Elementary, Enterprise Elementary, Neabsco Elementary, Sinclair Elementary, and Westgate Elementary Schools. Also in 2009, additions were completed at Marumscos Hills Elementary (4 classrooms), Potomac View Elementary (4 classrooms), Rockledge Elementary (7 classrooms), and Vaughan Elementary (9 classrooms).

In the past five years, a total of eight schools have been constructed; six elementary schools and two middle schools. The Kelly Leadership Center was also completed. In this same five-year time frame, additions were completed at Potomac View Elementary School (4 and 4 classrooms); Belmont Elementary School (4 classrooms); Bel Air Elementary School (8 classrooms); Marumscos Hills Elementary School (2 and 4 classrooms); Tyler Elementary School (4 classrooms); Ashland Elementary School (5 classrooms); Montclair Elementary School (4 classrooms); Rockledge Elementary School (7 classrooms); and Vaughan Elementary School (9 classrooms). These new schools and additions provided 8,046 additional student spaces at a cost of \$239,060,000.

## *Renewal / Maintenance*

Forty-six of the Division's 88 school facilities are over 25 years old. The goal of the school renewal program is to renovate buildings prior to 25 years. The older buildings are well maintained but are in constant need of repair. They must be renewed to provide quality space, continuity and stability for a *World-Class Education*.

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

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

School renewals may include plumbing, HVAC systems, lighting and electrical systems, fire alarm and security systems, American Disability Act (ADA) compliance, bleachers, lockers, telephone and intercom systems, roof replacement, kitchen upgrades, painting, casework, doors, hardware, data, flooring, site improvements, and Title IX improvements.

The projects contained in this plan are based on the planning, design review and input from a team of in-house facility maintenance professionals, administration, school principals, and facility- condition evaluations conducted by architect and engineer consultants. The list of capital projects identified provides a clear statement of school facility requirements.

## *Planning*

Planning for capital improvements is an ongoing process. Priorities shift as conditions change at individual facilities, programs change, and the student population increases. 2010-2011 enrollment is projected to be 78,308 students, an increase of 1,652 students overall. Prioritizing the work, with the available funding to address the most critical needs, is an ever-present challenge. Examining student enrollment growth within school attendance areas, “Geographic Areas,” and school program capacities determines the need for additional space for students. Possible solutions to overcrowding conditions include portable classrooms, relocation of special programs, changes in attendance areas, additions, and the construction of new facilities.

Building new school facilities and additions to existing school facilities addresses the overwhelming need for additional classrooms; where possible, additions are utilized as cost-effective alternatives to the construction of new facilities. The 11<sup>th</sup> high school (Patriot High School), T. Clay Wood Elementary School, Linton Hall Road Elementary School, and Silver Lake Middle School are now under construction, with scheduled openings in September 2011 and 2012.

The location, character and extent of all proposed public facilities must be consistent with Prince William County’s Comprehensive Plan as determined by the Prince William County Planning Commission and the Prince William Board of County Supervisors.

## *Funding*

This CIP is prepared by the Superintendent and reviewed and adopted by the Prince William County School Board. The CIP is then presented to the Prince William Board of County Supervisors as part of the School Division's budget for funding appropriation.

Funds are included in the approved budget to support the CIP. The funding formula developed by the Associate Superintendent for Finance and Support Services provides targets for construction and maintenance expenditures.

Funding for long-range plans was adjusted for Prince William County's overall bonding capability to maintain a Triple A bond rating, as directed by the Prince William Board of County Supervisors. Several renovations and additions of existing buildings will be delayed to accommodate the bonding capability.

Proffer funds also provide revenue. Proffers are negotiated at the time of rezoning to help mitigate the capital costs associated with development.

## *Inventory*

The Capital Improvements Program is not an inventory of all the work that must be performed over the next ten years. It is a specific budget for the first year of the program (FY 2011) combined with a more general planning schedule for four additional years (FY 2012-2015) and an estimate of projects needed for FY 2016-2020.

The CIP is useful for estimating capital improvement expenditures over the next five-year period, identifying short- and long-range (ten-year) building projects, and establishing priorities for the orderly completion of projects.

The School Division's current inventory of 88 schools includes 10 high schools, 15 middle schools, 55 elementary schools, 2 traditional schools and 6 special education/alternative schools.

## *Highlights*

Elements of the Capital Improvements Program include:

- New School Construction
- School Additions
- Site Acquisition
- Renewals and Major Maintenance Projects
- Financial Information
- Technology Improvements
- Title IX Improvements

The Capital Improvements Program:

- Identifies and addresses the ten-year capital needs of the School Division
- Assesses the status of student housing by “Geographic Areas” to examine space needs
- Provides sufficient classroom space for the projected student enrollment (14 new schools, additions at 18 schools)
- Continues the 20-25 year schedule for the major renewal of all schools
- Continues a Major Maintenance concept at the 7-year and 14-year level

Major changes from the 2010-2019 CIP include:

- Move Linton Hall Road Elementary School from 2012 to 2011
- Delay 6-classroom addition at Westridge Elementary School from 2011 to 2012
- Delay Potomac High School renewal/addition (approximately 30 classrooms) by one year from 2012 to 2013
- Delay Featherstone Elementary School 6-classroom addition from 2014 to 2015
- Add Henderson Elementary School 8-classroom addition to 2014
- Add Neabsco Elementary School 6-classroom addition to 2014
- Add New Dominion 10-classroom addition to 2014
- Add Maintenance Facility to 2016
- Add Bus Center West to 2016
- Add Kilby Elementary School 13-classroom addition to 2017
- Add 13<sup>th</sup> high school to 2019



**NEW SCHOOLS, ADDITIONS, AND OTHER BOND-FUNDED PROJECTS  
(FY 2011-2020)**

<b>Scheduled Completion</b>	<b>Project</b>	<b>CIP Cost</b>
September 2011	T. Clay Wood Elementary School	\$18,494,000
	Linton Hall Road Elementary School	\$21,224,000
	Patriot High School	\$84,110,000
		<b>\$123,828,000</b>
September 2012	Pace West Replacement	\$11,526,000
	Middle School @ Silver Lake	\$26,382,000
	Swans Creek Elementary Addition (6 rooms)	\$4,765,000
	Westridge Elementary Addition (6 rooms)	\$4,130,000
	Bus Parking Lot	\$1,009,000
		<b>\$47,812,000</b>
September 2013	Elementary School @ Stonewall Middle	\$28,121,000
	Penn Elementary Addition (7 rooms)	\$5,820,000
	Benton Middle Addition (11 rooms)	\$7,247,000
	Potomac Middle Addition (11 rooms)	\$7,768,000
	Potomac High School Addition (30 rooms)	\$15,310,000
	Renewal-Pattie Elementary School (Partial)	\$3,325,000
		<b>\$67,591,000</b>
September 2014	Elementary School (West - Haymarket)	\$28,162,000
	Nokesville K-8 School	\$25,000,000
	Henderson Elementary Addition (8 rooms)	\$6,643,000
	Neabsco Elementary Addition (6 rooms)	\$5,254,000
	River Oaks Elementary Addition (7 rooms)	\$5,550,000
	Parkside Middle Addition (15 rooms)	\$9,835,000
	New Dominion Addition (10 rooms)*	\$4,364,000
	Renewal-Dumfries Elementary School (Partial)	\$3,825,000
		<b>\$88,633,000</b>
September 2015	Elementary School (West - Linton Hall Area)	\$29,570,000
	Elementary School (East - Harbor Station)	\$29,570,000
	Featherstone Elementary Addition (6 rooms)	\$6,056,000
		<b>\$65,196,000</b>

**NEW SCHOOLS, ADDITIONS, AND OTHER BOND-FUNDED PROJECTS  
(FY 2011-2020)**

<b>Scheduled Completion</b>	<b>Project</b>	<b>CIP Cost</b>
September 2016	12th High School (East)	\$115,862,000
	Rippon Middle Addition (8 rooms)	\$6,620,000
	Maintenance Facility	\$10,000,000
	Bus Center (West I-66)	\$4,467,000
		<b>\$136,949,000</b>
September 2017	Elementary School (West - Linton Hall Area)	\$32,601,000
	Belmont Elementary Addition (4 rooms)	\$4,530,000
	Kilby Elementary Addition (13 rooms)	\$11,280,000
	McAuliffe Elementary Addition (10 rooms)	\$7,313,000
	Elementary School Addition TBD (6 rooms)	\$5,270,000
		<b>\$60,994,000</b>
September 2018	Elementary School ( East - Neabsco Area)	\$34,231,000
	Middle School (West - Linton Hall Area)	\$55,606,000
		<b>\$89,837,000</b>
September 2019	13th High School (TBD)	\$121,426,000
		<b>\$121,426,000</b>
<b>TOTAL (FY 2011-2020)</b>		<b>\$802,266,000</b>

\*Construction of the classroom addition to replace the existing aged modulars is contingent upon the sale of that site's excess property to generate the necessary funding.

## ***STUDENT HOUSING FACILITIES***

Prince William County Schools is the second largest of 138 School Divisions in the Commonwealth of Virginia and one of the 50<sup>th</sup> largest school divisions in the country. The School Division provides services to over six percent of the state student enrollment. 2009-2010 enrollment is 76,656 students with permanent capacity for 74,795 students. This capacity is supplemented with 224 portable classrooms. Additional permanent capacity is to increase by 19,152 seats with completion of new construction identified within this CIP.

Student enrollment projections are utilized for a variety of planning and decision-making functions, among which operational and capital budgeting needs are most prominent. The functional objectives of the Student Housing program are to ensure the accurate preparation of information to enable decision-making with respect to the housing of Prince William County students. Individual school forecasts provide a snapshot of the anticipated changes that Prince William County's public schools will encounter in the course of the current planning period.

Annually, the status of student housing is assessed for the next ten (10) years. This assessment includes determining the current availability of space for students, assessing current student enrollment, projecting future student enrollment, and preparing recommendations for current and future housing of students. During the next five years, student enrollment is projected to increase by an average annual rate of about two percent. This will result in almost 8,800 additional students during this period.

## ***SITE ACQUISITION***

School staff reviews county residential development plans and maintains a database containing number of units and stage of development. This information is used in making enrollment projections. The projected enrollments by geographic area determine future school locations and attendance areas.

The County's rapid development makes school site land acquisitions challenging as prime undeveloped land is purchased or optioned by developers for future residential, commercial, and industrial development. The School Board acquired an elementary school site for future use in the past 12 months, as well as various right-of-way and easements for road improvements. In addition to these acquisitions, there are five school sites needed by 2020.

Land acquisition will continue to figure prominently in this and future capital improvement budgets. Funding for school site acquisition comes from a combination of "proffered" funds or sites, bond funds and the operating budget. "Proffered" funds are a monetary and in-kind contribution to the School Division in order to offset the impact of new residential development on schools. Actual monetary amounts received by Prince William County Schools vary depending on the year a development was first proposed and the number and type of residential units to be constructed. Funds are received as individual units are permitted/built within the development, and are not received in one lump sum.

## Site Acquisition Funding

Year To Open	Year Acquired / To Acquire	New School	Property Status	Existing Funds	Funds Required
2011	2006	Patriot High School	PWCS Owned - 93 acres	N/A	N/A
	2008-09		Right-of-Way/Easements - PWCS Owned	N/A	N/A
2011	2006	T. Clay Wood Elementary School	PWCS Owned	N/A	N/A
2011	2009	ES @ Linton Hall Road	PWCS Owned - 21.7 acres	N/A	N/A
2012	2006	MS @ Silver Lake	Proffered	N/A	N/A
2012	N/A	Pace West Replacement	PWCS Owned	N/A	N/A
2013	N/A	ES @ Stonewall Middle	PWCS Owned	N/A	N/A
2014	2008	ES @ Haymarket	Proffered		
	2011-12		Easements Needed	\$1,200,000	N/A
2015	2002	ES @ Harbor Station	Proffered	N/A	N/A
2015	2010-11	ES West	Site Needed - Linton Hall Area	\$3,600,000	N/A
2016	2006-09	12th High School	PWCS Owned - 102 acres	N/A	N/A
2017	2011-12	ES West	Site Needed - Linton Hall Area	N/A	\$4,000,000*
2018	2012-13	ES East	Site Needed - Neabsco Area	N/A	\$4,000,000*
2018	2011-12	MS West	Site Needed - Linton Hall Area	N/A	\$8,000,000*
2019	2013-14	13th High School (TBD)	Site Needed	N/A	\$17,600,000*

*\*Sites needed by proffer or purchase. Funding not identified in current CIP; revision in next year's CIP if residential market picks up.*

## ***RENOVATIONS / RENEWALS***

New construction projects are only part of the CIP picture. Renovations/renewals 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 renewals are infrastructure improvements that are important to improve capacity, provide adequate activity spaces, and to meet current instructional needs.

The FY 2011 budget includes funds for Phase 1 renewal at Pennington School and Title IX improvements. Recognizing the current financial situation, many renovation projects are delayed rather than eliminated. In many cases, renewal projects are phased over two years.

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### ***School Renewals / Major Infrastructure Renovations may include:***

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HVAC Systems	Lockers
Lighting	Roof Replacement
Electrical System	Flooring
Plumbing	Painting
Fire Alarm System	Technology
Security System	Casework
Telephone and Intercom Systems	Doors / Hardware
American Disability Act (ADA)	Site Improvements
Bleachers	

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## ***Budget – Renovations / Renewals***

The School Division budgets for repairs and renewals using the National Building Research Board recommendations. This Board recommends that 2 to 4 % of current replacement value of facilities be budgeted annually for repairs and renewals. The current replacement value of schools is approximately \$1,589,438,000. This cost is based on 112 square feet per student at a cost of \$182 per square foot; i.e., \$20,345 per student. One percent (1%) of this expenditure is \$203.45 per student. Prince William County Schools has established an annual renewal and repair target of 3% of the current replacement value of facilities with 1.5% for preventive maintenance and 1.5% for repairs and renewals.

Renewal and repair targets are adjusted by 140% for the first year of the state's biennial budget and 60% for the second year over the past five years. Prince William County Schools has completed major renewals of 17 schools at a cost of \$90,926,000 over the past five years.

## ***MAJOR MAINTENANCE***

To improve and maintain current facilities, each school is evaluated at seven (7) –year intervals and major maintenance repairs are scheduled. Major maintenance may include:

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### ***Major Maintenance – 7-Year Cycle***

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Carpeting (Partial)  
Paint Hallways, Offices, Exterior Doors, Kitchens (Partial)  
Seal Coat Paved Areas and Repaint  
Minor HVAC Repairs  
Repair Concrete Sidewalks and Curbs  
Clean and Repair Storm Drains  
Repair Fencing  
Electrical System Preventive Maintenance  
Trim Trees / Landscaping  
Relamp Interior and Exterior Light Fixtures  
Stormwater Management Maintenance

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### ***Major Maintenance – 14-Year Cycle***

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Paint Exterior and Interior (Partial)  
Re-key Interior and Exterior Doors  
Repave / Seal Coat Parking Lot, Paved Areas and Tennis Courts  
Repair / Replace Fencing and Backstops  
Carpeting (Partial)  
Update Food Service Equipment (Partial)  
Major Roof Repairs  
Update Plumbing Fixtures  
Update Electrical Service  
Update HVAC Controls  
Minor Chiller Rebuilding  
Stage Lighting / Curtain  
Stormwater Management Maintenance

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## MAINTENANCE AND RENEWAL FUNDING

<i>Fiscal Year</i>	<i>Facilities Maintenance Funding</i>			<i>Renewals</i>	<i>Maintenance and Renewals Total</i>
	<i>Maintenance and Repairs</i>	<i>Major Maintenance</i>	<i>Total</i>		
2010	\$22,256,052	\$2,065,950	\$24,322,002	\$20,200,000	\$42,456,052
2011	\$21,203,135	\$1,344,472	\$22,547,607	\$6,270,000	\$27,473,135
2012	\$22,536,304	\$3,382,000	\$25,918,304	\$12,220,000	\$34,756,304
2013	\$24,243,720	\$3,633,000	\$27,876,720	\$23,920,000	\$48,163,720
2014	\$26,100,606	\$3,906,000	\$30,006,606	\$22,192,000	\$48,292,606
2015	\$28,022,786	\$4,189,000	\$32,211,786	\$48,767,000	\$76,789,786
2016	\$30,104,075	\$4,494,000	\$34,598,075	\$24,856,000	\$54,960,075
2017	\$32,305,279	\$4,817,000	\$37,122,279	\$55,409,000	\$87,714,279
2018	\$34,595,193	\$5,154,000	\$39,749,193	\$27,841,000	\$62,436,193
2019	\$37,039,603	\$5,512,000	\$42,551,603	\$62,751,000	\$99,790,603
2020	\$39,625,283	\$5,891,000	\$45,516,283	\$31,182,000	\$70,807,283
<b><i>10-Year Total</i></b>	<b><i>\$295,775,983</i></b>	<b><i>\$42,322,472</i></b>	<b><i>\$338,098,455</i></b>	<b><i>\$315,408,000</i></b>	<b><i>\$611,183,983</i></b>

*Note: "10-Year Total" does not include FY 2010.*

**SCHEDULE OF RENOVATIONS AND RENEWALS**  
**(FY 2011-2020)**

<i>Fiscal Year</i>	<i>Year Opened</i>	<i>Project</i>	<i>Proposed Funding</i>
<b>2011</b>	(1969)	<b>Pennington School - Renewal (Funding, Phase 1)</b>	\$6,070,000
		<b>Title IX Improvements</b>	\$200,000
		<b>Technology Improvement Program - Upgrades</b>	\$0
		<b>Total Fiscal Year 2011</b>	<b>\$6,270,000</b>
<b>2012</b>	(1928)	<b>Nokesville Elementary School - Renewal</b>	\$6,000,000
		<b>Montclair Elementary School - Roof Replacement</b>	\$500,000
		<b>Pennington School - Renewal (Funding, Phase 2)</b>	\$1,010,000
		<b>Title IX Improvements</b>	\$210,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
		<b>Total Fiscal Year 2012</b>	<b>\$12,220,000</b>
<b>2013</b>	(1978)	<b>Pattie Elementary School - Renewal (Partial Funding)</b>	\$4,481,000
		<b>Graham Park Middle School - HVAC Repair</b>	\$150,000
		<b>Occoquan Elementary School - Roof Replacement (Partial)</b>	\$600,000
		<b>Brentsville High School - Roof Replacement (Partial)</b>	\$250,000
		<b>Stonewall High School - Roof Replacement (Partial)</b>	\$600,000
		<b>Sinclair Elementary School - Roof Replacement (Partial)</b>	\$506,000
		<b>Roof Repairs (TBD)</b>	\$413,000
	(1981)	<b>Potomac High School - Renewal/Addition (Partial Funding)</b>	\$11,075,000
		<b>Nokesville Elementary School - Roof Replacement (Partial)</b>	\$325,000
		<b>Tyler Elementary School - Roof Replacement (Partial)</b>	\$500,000
		<b>Transportation Hooe Road - Roof Replacement</b>	\$300,000
		<b>Title IX Improvements</b>	\$220,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
		<b>Total Fiscal Year 2013</b>	<b>\$23,920,000</b>



<i>Fiscal Year</i>	<i>Year Opened</i>	<i>Project</i>	<i>Proposed Funding</i>
<b>2014</b>	(1918)	<b>Dumfries Elementary School - Renewal (Partial Funding)</b>	\$5,000,000
		<b>Woodbridge High School - Roof Replacement</b>	\$3,000,000
		<b>Woodbridge High School - Auditorium Upgrade</b>	\$1,200,000
		<b>Gar-Field High School - Roof Replacement (Partial)</b>	\$1,400,000
		<b>Gar-Field High School - Auditorium Upgrade</b>	\$1,200,000
		<b>Interior/Exterior Bleachers - Phase 5</b>	\$462,000
		<b>Fred Lynn Middle School - HVAC Repair</b>	\$1,000,000
		<b>Kitchen Upgrades - Phase 1 of 3</b>	\$2,000,000
	(1967)	<b>Independent Hill School - Renewal</b>	\$1,300,000
		<b>Transportation Bus Parking (TBD)</b>	\$900,000
		<b>Title IX Improvements</b>	\$230,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
		<b>Total Fiscal Year 2014</b>	<b>\$22,192,000</b>
<b>2015</b>		<b>Stonewall High School - HVAC Repair</b>	\$1,700,000
		<b>Osborn Park High School - HVAC Repair</b>	\$1,500,000
		<b>Kitchen Upgrades - Phase 2 of 3</b>	\$1,000,000
		<b>Graham Park Middle School - Roof Replacement</b>	\$3,000,000
		<b>Saunders Middle School - Roof Replacement</b>	\$2,800,000
		<b>Kitchen HVAC Upgrades - Phase 1 of 2</b>	\$1,200,000
	(1985)	<b>Henderson Elementary School - Renewal (Funding, Phase 1)</b>	\$6,365,000
	(1981)	<b>King Elementary School - Renewal (Funding, Phase 1)</b>	\$6,365,000
	(1983)	<b>Lake Ridge Elementary School - Renewal (Funding, Phase 1)</b>	\$6,365,000
	(1962)	<b>Loch Lomond Elementary School - Renewal (Funding, Phase 1)</b>	\$6,365,000
	(1985)	<b>Springwoods Elementary School - Renewal (Funding, Phase 1)</b>	\$6,365,000
		<b>Transportation Bus Parking (TBD)</b>	\$1,002,000
		<b>Title IX Improvements</b>	\$240,000
	<b>Technology Improvement Program - Upgrades</b>	\$4,500,000	
	<b>Total Fiscal Year 2015</b>	<b>\$48,767,000</b>	

<i>Fiscal Year</i>	<i>Year Opened</i>	<i>Project</i>	<i>Proposed Funding</i>
<b>2016</b>		<b>Lake Ridge Middle School - Roof Replacement</b>	\$2,800,000
		<b>Kitchen Upgrades - Phase 3 of 3</b>	\$500,000
		<b>Kitchen HVAC Upgrades - Phase 2 of 2</b>	\$1,450,000
		<b>Henderson Elementary School - Renewal (Funding, Phase 2)</b>	\$2,241,000
		<b>King Elementary School - Renewal (Funding, Phase 2)</b>	\$2,241,000
		<b>Lake Ridge Elementary School - Renewal (Funding, Phase 2)</b>	\$2,241,000
		<b>Loch Lomond Elementary School - Renewal (Funding, Phase 2)</b>	\$2,241,000
		<b>Springwoods Elementary School - Renewal (Funding, Phase 2)</b>	\$2,241,000
		<b>Beville Middle School - Roof Replacement</b>	\$2,800,000
		<b>HVAC Repairs (TBD)</b>	\$551,000
		<b>Roof Replacements/Repairs (TBD)</b>	\$800,000
		<b>Title IX Improvements</b>	\$250,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
	<b>Total Fiscal Year 2016</b>	<b>\$24,856,000</b>	
<b>2017</b>	<i>(1989)</i>	<b>Lake Ridge Middle School - Renewal (Funding, Phase 1)</b>	\$8,000,000
	<i>(1988)</i>	<b>Saunders Middle School - Renewal (Funding, Phase 1)</b>	\$8,000,000
	<i>(1990)</i>	<b>Antietam Elementary School - Renewal (Funding, Phase 1)</b>	\$7,360,000
	<i>(1989)</i>	<b>McAuliffe Elementary School - Renewal (Funding, Phase 1)</b>	\$7,360,000
	<i>(1990)</i>	<b>Mullen Elementary School - Renewal (Funding, Phase 1)</b>	\$7,360,000
	<i>(1989)</i>	<b>Westridge Elementary School - Renewal (Funding, Phase 1)</b>	\$7,360,000
		<b>Gar-Field High School - Roof Replacement (Partial)</b>	\$1,500,000
		<b>Hylton High School - Roof Replacement (Funding, Phase 1)</b>	\$3,000,000
		<b>Roof Replacements/Repairs (TBD)</b>	\$709,000
		<b>Title IX Improvements</b>	\$260,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
		<b>Total Fiscal Year 2017</b>	<b>\$55,409,000</b>

<i>Fiscal Year</i>	<i>Year Opened</i>	<i>Project</i>	<i>Proposed Funding</i>
<b>2018</b>	<i>(1990)</i>	<b>Lake Ridge Middle School - Renewal (Funding, Phase 2)</b>	\$2,603,000
		<b>Saunders Middle School - Renewal (Funding, Phase 2)</b>	\$2,603,000
		<b>Antietam Elementary School - Renewal (Funding, Phase 2)</b>	\$2,128,000
		<b>McAuliffe Elementary School - Renewal (Funding, Phase 2)</b>	\$2,128,000
		<b>Mullen Elementary School - Renewal (Funding, Phase 2)</b>	\$2,128,000
		<b>Westridge Elementary School - Renewal (Funding, Phase 2)</b>	\$2,128,000
		<b>River Oaks Elementary School - Renewal (Funding, Phase 1)</b>	\$6,353,000
		<b>Hylton High School - Roof Replacement (Funding, Phase 2)</b>	\$2,000,000
		<b>Roof Replacements/Repairs (TBD)</b>	\$1,000,000
		<b>Title IX Improvements</b>	\$270,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
		<b><i>Total Fiscal Year 2018</i></b>	
<b>2019</b>	<i>(1996)</i>	<b>River Oaks Elementary School - Renewal (Funding, Phase 2)</b>	\$3,609,000
		<b>Bennett Elementary School - Renewal (Funding, Phase 1)</b>	\$7,000,000
		<b>Leesylvania Elementary School - Renewal (Funding, Phase 1)</b>	\$7,000,000
		<b>Marshall Elementary School - Renewal (Funding, Phase 1)</b>	\$7,000,000
		<b>Montclair Elementary School - Renewal (Funding, Phase 1)</b>	\$7,000,000
		<b>Mountain View Elementary School - Renewal (Funding, Phase 1)</b>	\$7,000,000
		<b>Old Bridge Elementary School - Renewal (Funding, Phase 1)</b>	\$7,000,000
		<b>Penn Elementary School - Renewal (Funding, Phase 1)</b>	\$7,000,000
		<b>Roof Replacements/Repairs (TBD)</b>	\$5,362,000
		<b>Title IX Improvements</b>	\$280,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
		<b><i>Total Fiscal Year 2019</i></b>	

<i>Fiscal Year</i>	<i>Year Opened</i>	<i>Project</i>	<i>Proposed Funding</i>
<b>2020</b>		<b>Bennett Elementary School - Renewal (Funding, Phase 2)</b>	\$3,460,000
		<b>Leesylvania Elementary School - Renewal (Funding, Phase 2)</b>	\$3,460,000
		<b>Marshall Elementary School - Renewal (Funding, Phase 2)</b>	\$3,460,000
		<b>Montclair Elementary School - Renewal (Funding, Phase 2)</b>	\$3,460,000
		<b>Mountain View Elementary School - Renewal (Funding, Phase 2)</b>	\$3,460,000
		<b>Old Bridge Elementary School - Renewal (Funding, Phase 2)</b>	\$3,460,000
		<b>Penn Elementary School - Renewal (Funding, Phase 2)</b>	\$3,460,000
		<b>Roof Replacements/Repairs (TBD) (\$4,500,000 - 2021)</b>	\$2,172,000
		<b>Title IX Improvements</b>	\$290,000
		<b>Technology Improvement Program - Upgrades</b>	\$4,500,000
	<b>Total Fiscal Year 2020</b>	<b>\$31,182,000</b>	
<b>CIP TOTAL</b>			<b>\$315,408,000</b>

## SUMMARY

•	Projected Growth in Students, FY 2011 to FY 2020 .....	17,943	
•	Additional School Facilities.....	14	
	New Elementary Schools.....	8	
	New Middle Schools.....	2	
	New High Schools.....	3	
	Replacement School ( <i>Pace West</i> ).....	1	
•	Total Additional Classrooms (18 Schools).....	174	
	Elementary School Classroom Additions (12 Schools).....	89	
	Middle School Classroom Additions (4 Schools).....	45	
	High School Classroom Additions (1 School).....	30	
	New Dominion Classroom Additions.....	10	
•	Construction of New School Facilities.....		\$ 659,511,000
•	Additions.....		\$ 126,115,000
•	Renewals.....		\$ 315,408,000
	<b>TOTAL NEW CONSTRUCTION / RENEWALS.....</b>		<b>\$1,101,034,000</b>

### Capital Projects Funded Fiscal Year 2011

- Patriot High School
- T. Clay Wood Elementary School
- Linton Hall Road Elementary School
- Pennington School Renewal (Phase 1)
- Middle School at Silver Lake
- Title IX Improvements

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**APPENDIX A**  
**SCHOOL FACILITY SUMMARY**

Alpha Listing of Schools / Facilities - A listing of each school/facility, plus the minimum remaining work to be done at each school/facility, is on the following pages.

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***Alvey Elementary School***

***School & Site Information***

Construction (Year):	2003	Regular Classrooms:	41
Renovation (Year):		Square Feet:	83,084
Program Capacity:	780	Site Size (Acres):	20.17

***Ann Ludwig Special School***

***School & Site Information***

Construction (Year):	1975	Number of Rooms:	8
Renovation (Year):		Square Feet:	14,220
Program Capacity:	60	Site Size (Acres):	4.77

***Maintenance & Repair***

- Steel windows are old, do not close properly, are single-paned and are not energy efficient. Windows should be replaced.
- Building does not have an energy management system.

***Handicap Access***

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Water fountains are not at ADA standards.
- Building signage does not meet ADA standards.

***Antietam Elementary School (Scheduled for Renewal in FY 2017)***

***School & Site Information***

Construction (Year):	1990	Regular Classrooms:	31
Renovation (Year):		Square Feet:	62,334
Program Capacity:	616	Site Size (Acres):	14.85

***Maintenance and Repair***

- HVAC system replacement – classroom terminal units.

***Handicap Access***

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

***Ashland Elementary School***

***School & Site Information***

Construction (Year):	2002	Regular Classrooms:	44
Renovation (Year):	2008	Square Feet:	98,461
Addition			
Program Capacity:	900	Site Size (Acres):	18.05

### ***Battlefield High School***

#### ***School & Site Information***

Construction (Year):	2004	Regular Classrooms:	101
Renovation (Year):		Square Feet:	285,086
Program Capacity:	2,053	Site Size (Acres):	78.82

### ***Bel Air Elementary School***

#### ***School & Site Information***

Construction (Year):	1969	Regular Classrooms:	28
Renovation (Year):	2008	Square Feet:	53,712
Program Capacity:	568	Site Size (Acres):	15

#### ***Additional Space***

- School needs a security apartment.

### ***Belmont Elementary School***

#### ***School & Site Information***

Construction (Year):	1967	Regular Classrooms:	25
Renovation (Year):	2006	Square Feet:	45,790
Program Capacity:	462	Site Size (Acres):	14.28

#### ***Additional Space***

- School needs a security apartment.
- **A 4-classroom addition is scheduled for 2017.**

### ***Bennett Elementary School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	1996	Regular Classrooms:	40
Renovation (Year):		Square Feet:	85,728
Program Capacity:	780	Site Size (Acres):	15.29

### ***Benton Middle School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	2000	Regular Classrooms:	65
Renovation (Year):		Square Feet:	135,309
Program Capacity:	1,233	Site Size (Acres):	48.15

#### ***Additional Space***

- **An 11-classroom addition is scheduled for 2013.**

### ***Beville Middle School (Scheduled for Renewal in FY 2018)***

#### ***School & Site Information***

Construction (Year):	1991	Regular Classrooms:	65
Renovation (Year):		Square Feet:	134,140
Program Capacity:	1,191	Site Size (Acres):	42.13

#### ***Maintenance & Repair***

- Roof replacement.

#### ***Handicap Access***

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

## ***Brentsville District High School***

### ***School & Site Information***

Construction (Year):	1965	Regular Classrooms:	53
Renovation (Year):	1998-00	Square Feet:	163,066
Program Capacity:	1,110	Site Size (Acres):	77.22

### ***Handicap Access***

- In some areas, hardware, such as door handles, does not meet ADA standards and should be replaced.

### ***Maintenance & Repair***

- Roof replacement (partial).

## ***Bristow Run Elementary School (Scheduled for Renewal in FY 2019)***

### ***School & Site Information***

Construction (Year):	1998	Regular Classrooms:	40
Renovation (Year):		Square Feet:	85,724
Program Capacity:	780	Site Size (Acres):	21.69

## ***Buckland Mills Elementary School***

### ***School & Site Information***

Construction (Year):	2006	Regular Classrooms:	43
Renovation (Year):		Square Feet:	89,900
Program Capacity:	852	Site Size (Acres):	15

## ***Bull Run Middle School***

### ***School & Site Information***

Construction (Year):	2002	Regular Classrooms:	65
Renovation (Year):		Square Feet:	135,309
Program Capacity:	1,233	Site Size (Acres):	39.35

## ***Cedar Point Elementary School***

### ***School & Site Information***

Construction (Year):	2001	Regular Classrooms:	41
Renovation (Year):		Square Feet:	83,084
Program Capacity:	780	Site Size (Acres):	15.48

## ***Central Transportation Center***

### ***Site Information***

Construction (Year):	2005	Regular Classrooms:	N/A
Renovation (Year):	N/A	Square Feet:	15,615
Program Capacity:	N/A	Site Size (Acres):	29.92



## ***Coles Elementary School***

### ***School & Site Information***

Construction (Year):	1969	Regular Classrooms:	24
Renovation (Year):	2009	Square Feet:	52,745
Program Capacity:	472	Site Size (Acres):	17.04

### ***Additional Space***

- School needs a security apartment.

## ***Dale City Elementary School***

### ***School & Site Information***

Construction (Year):	1967	Regular Classrooms:	25
Renovation (Year):	2006	Square Feet:	45,264
Program Capacity:	496	Site Size (Acres):	14.83

### ***Additional Space***

- School needs a security apartment (has a security trailer).

## ***Dumfries Elementary School (Scheduled for Renewal in FY 2014)***

### ***School & Site Information***

Construction (Year):	1953	Regular Classrooms:	27
Renovation (Year):	1989	Square Feet:	44,925
Program Capacity:	520	Site Size (Acres):	10

### ***Maintenance & Repair***

- Some steel windows in older section of school do not close properly, are single-paned and are not energy efficient. They should be replaced.
- Install a generator to operate emergency lights and equipment, should a power failure occur.
- Drives, walks, and parking areas need to be repaired and resurfaced.
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Plumbing fixtures are outdated, expensive to maintain, and should be replaced.
- Acoustical ceilings need replacement.
- Fire doors are needed to separate auditorium from remainder of building.
- Boilers, heat transfer units need replacement.
- New casework is needed.
- Kitchen renovation, including enlarging freezer.
- HVAC system replacement.
- Roofing (except metal roof area) needs replacement.

### ***Handicap Access***

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.

### ***Additional Space***

- School needs a security apartment.
- Parking lot needs expansion.

## ***Ellis Elementary School***

### ***School & Site Information***

Construction (Year):	2004	Regular Classrooms:	32
Renovation (Year):		Square Feet:	76,700
Program Capacity:	626	Site Size (Acres):	10.47

### ***Enterprise Elementary School***

#### ***School & Site Information***

Construction (Year):	1978	Regular Classrooms:	26
Renovation (Year):	2009	Square Feet:	51,260
Program Capacity:	520	Site Size (Acres):	14.97

#### ***Additional Space***

- School needs a security apartment (has a security trailer).

### ***Featherstone Elementary School***

#### ***School & Site Information***

Construction (Year):	1961	Regular Classrooms:	23
Renovation (Year):	2001	Square Feet:	37,366
Program Capacity:	462	Site Size (Acres):	12

#### ***Maintenance & Repair***

- Kitchen renovation.

#### ***Additional Space***

- School needs a security apartment.
- **A 6-classroom addition is scheduled for 2015.**

### ***Fitzgerald Elementary School***

#### ***School & Site Information***

Construction (Year):	2008	Regular Classrooms:	42
Renovation (Year):		Square Feet:	106,170
Program Capacity:	852	Site Size (Acres):	11.18

### ***Forest Park High School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	2000	Regular Classrooms:	101
Renovation (Year):		Square Feet:	283,268
Program Capacity:	2,053	Site Size (Acres):	79.06

### ***Freedom High School***

#### ***School & Site Information***

Construction (Year):	2004	Regular Classrooms:	101
Renovation (Year):		Square Feet:	285,886
Program Capacity:	2,053	Site Size (Acres):	80.70

### ***Gainesville Middle School***

#### ***School & Site Information***

Construction (Year):	2007	Regular Classrooms:	65
Renovation (Year):		Square Feet:	135,309
Program Capacity:	1233	Site Size (Acres):	39.42

## ***Gar-Field High School (Auditorium Scheduled for Renewal in FY 2013)***

### ***School & Site Information***

Construction (Year):	1972	Regular Classrooms:	125
Renovation (Year):	2005	Square Feet:	353,742
Program Capacity:	2,734	Site Size (Acres):	91.53

### ***Maintenance & Repair***

- Replace operable auditorium partitions.
- Some fencing needs replacement.
- Areas of the building not renewed in 2005 (primarily auditorium, gymnasium and administrative areas)
- Roof replacement (partial).

## ***Glenkirk Elementary School***

### ***School & Site Information***

Construction (Year):	2005	Regular Classrooms:	41
Renovation (Year):		Square Feet:	83,084
Program Capacity:	780	Site Size (Acres):	15.57

## ***Godwin Middle School (Scheduled for Renewal in FY 2010)***

### ***School & Site Information***

Construction (Year):	1971	Regular Classrooms:	54
Renovation (Year):	2009, 2010	Square Feet:	124,610
Program Capacity:	982	Site Size (Acres):	29.98

### ***Maintenance & Repair***

- Outside playing areas need renovation.

### ***Handicap Access***

- Exterior walks and paths need upgrade to ADA standards.

### ***Additional Space***

- School needs a security apartment (has a security trailer).

## ***Graham Park Middle School***

### ***School & Site Information***

Construction (Year):	1963	Regular Classrooms:	47
Renovation (Year):	2001	Square Feet:	110,514
Program Capacity:	867	Site Size (Acres):	21.88

### ***Maintenance & Repair***

- Exterior lights need replacing.
- Building does not have an energy management system.
- Drives, walks and parking areas need to be repaired and resurfaced (partial).
- Outside playing areas need renovation (partial).
- HVAC system replacement (partial).
- Roof replacement.

### ***Additional Space***

- School needs a security apartment (has a security trailer).

## ***Gravelly Elementary School***

### ***School & Site Information***

Construction (Year):	2008	Regular Classrooms:	39
Renovation (Year):		Square Feet:	95,074
Program Capacity:	852	Site Size (Acres):	17.87

## ***Henderson Elementary School (Scheduled for Renewal in FY 2015)***

### ***School & Site Information***

Construction (Year):	1985	Regular Classrooms:	29
Renovation (Year):		Square Feet:	55,962
Program Capacity:	592	Site Size (Acres):	14.92

### ***Maintenance and Repair***

- Drives, walks, and parking areas need to be repaired and resurfaced.
- HVAC system replacement (partial).

### ***Handicap Access***

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

### ***Additional Space***

- School needs a security apartment.
- **An 8-classroom addition is scheduled for 2014**

## ***Hooe Road Transportation Center (Main Transportation Center)***

### ***School & Site Information***

Construction (Year):	1979	Regular Classrooms:	N/A
Renovation (Year):		Square Feet:	28,028
Program Capacity:	N/A	Site Size (Acres):	20

### ***Maintenance and Repair***

- Wash bay for vehicles.
- Paint booth needs upgrade.

### ***Handicap Access***

- Building signage does not meet ADA standards.

### ***Additional Space***

- Replace trailers with modular unit

## ***Hylton High School (Scheduled for Renewal in FY 2018)***

### ***School & Site Information***

Construction (Year):	1991	Regular Classrooms:	101
Renovation (Year):		Square Feet:	282,346
Program Capacity:	2,053	Site Size (Acres):	74.82

### ***Maintenance and Repair***

- Roof replacement.

### ***Handicap Access***

- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

## ***Independent Hill Administrative Complex***

### ***Site Information***

Occupied (Year):	1968	Regular Classrooms:	N/A
Renovation (Year):		Square Feet:	127,447
Program Capacity:	N/A	Site Size (Acres):	44.24

### ***Maintenance and Repairs***

- Renovate Barracks 3.
- Drives, walks and parking areas need to be repaired and resurfaced (partial).
- Warehouse needs to be refurbished including a new elevator.
- Water system needs to be upgraded for fire flow.
- Fencing needs to be replaced.
- Remove asbestos throughout complex.
- Renovate garage area.

### ***Additional Space***

- New warehouse.
- Print shop needs to be enlarged.

## ***Independent Hill School (Scheduled for Renewal in FY 2014)***

### ***Site Information***

Construction (Year):	Converted to School 1971/1972	Regular Classrooms:	N/A
Renovation (Year):		Square Feet:	40,304
Program Capacity:		Site Size (Acres):	Included with complex

### ***Maintenance and Repairs***

- Complete renovation including elevator, fire alarm system, and HVAC.

## ***Kerrydale Elementary School***

### ***School & Site Information***

Construction (Year):	1972	Regular Classrooms:	24
Renovation (Year):	2007	Square Feet:	46,300
Program Capacity:	496	Site Size (Acres):	15.41

### ***Handicap Access***

- ADA portable accessible ramp for stage.

### ***Additional Space***

- School needs a security apartment (has a security trailer).

## ***Kilby Elementary School***

### ***School & Site Information***

Construction (Year):	1959	Regular Classrooms:	24
Renovation (Year):	2001	Square Feet:	39,412
Program Capacity:	414	Site Size (Acres):	12.78

### ***Additional Space***

- School needs a security apartment (has a security trailer).
- **A 13-classroom addition is scheduled for 2017.**

### ***King Elementary School (Scheduled for Renewal in FY 2015)***

#### ***School & Site Information***

Construction (Year):	1981	Regular Classrooms:	26
Renovation (Year):		Square Feet:	51,260
Program Capacity:	520	Site Size (Acres):	15.19

#### ***Maintenance & Repair***

- Additional parking lot lighting is needed.
- Drives, walks, and parking areas need to be repaired and resurfaced.
- HVAC system replacement.

#### ***Handicap Access***

- Doors and gates need widening to meet ADA requirements.
- Exterior pathways and walks need ADA accessibility modifications.
- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### ***Additional Space***

- Parking lot needs expansion.
- School needs a security apartment.

### ***Lake Ridge Elementary School (Scheduled for Renewal in FY 2015)***

#### ***School & Site Information***

Construction (Year):	1983	Regular Classrooms:	27
Renovation (Year):		Square Feet:	53,400
Program Capacity:	544	Site Size (Acres):	15.07

#### ***Maintenance & Repair***

- Drives, walks, and parking areas need to be repaired and resurfaced.
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- HVAC system replacement.

#### ***Handicap Access***

- Stage is not handicap accessible.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Paths and walks need upgrading to ADA accessibility standards.

#### ***Additional Space***

- School needs a security apartment.

### ***Lake Ridge Middle School (Scheduled for Renewal in FY 2017)***

#### ***School & Site Information***

Construction (Year):	1989	Regular Classrooms:	65
Renovation (Year):		Square Feet:	132,258
Program Capacity:	1,191	Site Size (Acres):	34.09

#### ***Maintenance & Repair***

- HVAC system replacement (partial).
- Roof replacement.

#### ***Handicap Access***

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.

#### ***Additional Space***

- School needs a security apartment (has a security trailer).

### ***Leesylvania Elementary School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	1996	Regular Classrooms:	41
Renovation (Year):		Square Feet:	83,084
Program Capacity:	804	Site Size (Acres):	16.29

### ***Loch Lomond Elementary School (Scheduled for Renewal in FY 2015)***

#### ***School & Site Information***

Construction (Year):	1962	Regular Classrooms:	23
Renovation (Year):	1992	Square Feet:	34,822
Program Capacity:	414	Site Size (Acres):	10.70

#### ***Maintenance & Repair***

- Electrical rooms need ventilation.
- Loading dock room structure/supports need replacement.
- Outside play areas (including paved areas) need renovation.
- Install a generator to operate emergency lights and equipment, should a power failure occur.
- HVAC system replacement (partial).
- Kitchen renovation.

#### ***Handicap Access***

- Most door openings are inadequate for ADA.
- Need ramps to many entrances.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### ***Additional Space***

- School needs a security apartment.

### ***Lynn Middle School***

#### ***School & Site Information***

Construction (Year):	1964	Regular Classrooms:	64
Renovation (Year):	2001	Square Feet:	131,974
Program Capacity:	1,170	Site Size (Acres):	28.56

#### ***Maintenance & Repair***

- Playing fields and areas need repair/replacement.
- HVAC system replacement (partial).
- Boiler replacement.

#### ***Additional Space***

- School needs a security apartment (has a security trailer).

### ***Marshall Elementary School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	1994	Regular Classrooms:	35
Renovation (Year):		Square Feet:	62,700
Program Capacity:	698	Site Size (Acres):	24.16

#### ***Handicap Access***

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

### **Marsteller Middle School**

#### **School & Site Information**

Construction (Year):	2002	Regular Classrooms:	65
Renovation (Year):		Square Feet:	135,309
Program Capacity:	1,233	Site Size (Acres):	36.41

### **Marumsco Hills Elementary School**

#### **School & Site Information**

Construction (Year):	1966	Regular Classrooms:	31
Renovation (Year):	2006	Square Feet:	56,661
Addition	2009		
Program Capacity:	650	Site Size (Acres):	12.20

### **McAuliffe Elementary School (Scheduled for Renewal in FY 2017)**

#### **School & Site Information**

Construction (Year):	1989	Regular Classrooms:	28
Renovation (Year):		Square Feet:	59,517
Program Capacity:	568	Site Size (Acres):	15.05

#### **Handicap Access**

- Install a generator to operate emergency lights and equipment.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Drives, walks, and parking areas need to be repaired and resurfaced.

#### **Additional Space**

- School needs a security apartment.
- **A 10-classroom addition is scheduled for 2017.**

### **McCuin Transportation Center**

#### **School & Site Information**

Construction (Year):	2002	Regular Classrooms:	N/A
Renovation (Year):		Square Feet:	8,400
Program Capacity:	211 cars 170 buses	Site Size (Acres):	11.5

#### **Additional Space:**

- Wash bay for vehicles.

### **Minnieville Elementary School**

#### **School & Site Information**

Construction (Year):	1972	Regular Classrooms:	28
Renovation (Year):	2005	Square Feet:	53,028
Program Capacity:	544	Site Size (Acres):	15.24

#### **Additional Space**

- School needs a security apartment (has a security trailer).



### ***Montclair Elementary School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	1991	Regular Classrooms:	34
Renovation (Year):		Square Feet:	70,928
Addition	2008		
Program Capacity:	698	Site Size (Acres):	15.85

#### ***Maintenance & Repair***

- Roof replacement.

### ***Mountain View Elementary School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	1995	Regular Classrooms:	35
Renovation (Year):		Square Feet:	67,815
Program Capacity:	698	Site Size (Acres):	29.95

#### ***Maintenance & Repair***

- Fire alarm system upgrade.

### ***Mullen Elementary School (Scheduled for Renewal in FY 2017)***

#### ***School & Site Information***

Construction (Year):	1990	Regular Classrooms:	35
Renovation (Year):		Square Feet:	63,118
Program Capacity:	698	Site Size (Acres):	15

#### ***Handicap Access***

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

### ***Neabsco Elementary School***

#### ***School & Site Information***

Construction (Year):	1969	Regular Classrooms:	33
Renovation (Year):	2009	Square Feet:	58,354
Program Capacity:	626	Site Size (Acres):	12.79

#### ***Additional Space***

- School needs a security apartment.
- A 6-classroom addition is scheduled for 2014.**

### ***New Dominion School and Modular Additions***

#### ***School & Site Information***

Construction (Year):	1975	Regular Classrooms:	20
Renovation (Year):	1993	Square Feet:	14,749 plus modulars
Program Capacity:	N/A	Site Size (Acres):	9.3

#### ***Handicap Access***

- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### ***Additional Space***

- School needs a security apartment.
- One modular needs replacement.
- A 10-classroom addition is scheduled for 2014.**

## ***Nokesville Elementary School (Scheduled for Renewal in FY 2012)***

### ***School & Site Information***

Construction (Year):	1928	Regular Classrooms:	19
Renovation (Year):	1993	Square Feet:	50,373
Program Capacity:	342	Site Size (Acres):	10.06

### ***Maintenance & Repair***

- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Drives, walks and parking areas need to be repaired and resurfaced.
- Gym flooring needs replacing.
- Roofing, except metal roof area, needs replacement.
- Kindergarten modular needs replacement.

### ***Handicap Access***

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Building has 2<sup>nd</sup> floor; needs elevator to meet ADA standards.

### ***Additional Space***

- School needs a security apartment.
- Parking lot needs expansion.
- **A 10-classroom addition is scheduled for 2012.**

## ***Occoquan Elementary School***

### ***School & Site Information***

Construction (Year):	1927	Regular Classrooms:	30
Renovation (Year):	2002	Square Feet:	55,225
Program Capacity:	520	Site Size (Acres):	10.10

### ***Additional Space***

- School needs a security apartment.

### ***Maintenance & Repair***

- Roof replacement (partial).

## ***Old Bridge Elementary School (Scheduled for Renewal in FY 2019)***

### ***School & Site Information***

Construction (Year):	1995	Regular Classrooms:	32
Renovation (Year):		Square Feet:	74,433
Program Capacity:	626	Site Size (Acres):	17.85

## ***Osborn Park High School***

### ***School & Site Information***

Construction (Year):	1975	Regular Classrooms:	115
Renovation (Year):	2006	Square Feet:	328,386
Program Capacity:	2,430	Site Size (Acres):	56.06

### ***Maintenance & Repair***

- Resilient floor tile and carpet need replacing (partial).
- HVAC system replacement (partial).
- Kitchen renovation (partial).
- Areas of the building were not renewed in 2006 (primarily gymnasium and administrative areas).

## ***Pace East***

### ***School & Site Information***

Construction (Year):	1950	Regular Classrooms:	8
Renovation (Year):		Square Feet:	8,900
Program Capacity:	N/A	Site Size (Acres):	3.19

### ***Maintenance and Repair***

- Replace nine cottages.

## ***Pace West (Scheduled for Replacement in FY 2012)***

### ***School & Site Information***

Construction (Year):	1935	Regular Classrooms:	14
Renovation (Year):		Square Feet:	32,497
Program Capacity:	N/A	Site Size (Acres):	8.83

## ***Parks Elementary School***

### ***School & Site Information***

Construction (Year):	2006	Regular Classrooms:	41
Renovation (Year):		Square Feet:	83,084
Program Capacity:	780	Site Size (Acres):	15.20

## ***Parkside Middle School***

### ***School & Site Information***

Construction (Year):	1963	Regular Classrooms:	63
Renovation (Year):	1999-2000	Square Feet:	116,699
Program Capacity:	1,139	Site Size (Acres):	30

### ***Additional Space***

- School needs a security apartment (has a security trailer).
- **A 15-classroom addition is scheduled for 2014.**

## ***Pattie Elementary School (Scheduled for Renewal in FY 2013)***

### ***School & Site Information***

Construction (Year):	1978	Regular Classrooms:	36
Renovation (Year):		Square Feet:	51,260
Program Capacity:	698	Site Size (Acres):	15

(Includes Washington Reid)

### ***Maintenance & Repair***

- Additional parking lot lighting is required.
- Windows are old, do not close properly, and are not energy efficient. They should be replaced.
- Drives, walks, and parking areas need to be repaired and resurfaced.
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Kitchen renovation.
- Built-in casework in all rooms.

### ***Handicap Access***

- Sidewalk ramp is needed to grant access to Waterway Drive.
- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.

### ***Additional Space***

- School needs a security apartment.

### ***Penn Elementary School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	1996	Regular Classrooms:	32
Renovation (Year):		Square Feet:	71,245
Program Capacity:	626	Site Size (Acres):	16.93

#### ***Additional Space***

- **A 7-classroom addition is scheduled for 2013.**

### ***Pennington School (Scheduled for Renewal in FY 2011)***

#### ***School & Site Information***

Construction (Year):	1968	Regular Classrooms:	31
Renovation (Year):		Square Feet:	56,330
Program Capacity:	648	Site Size (Acres):	15

#### ***Additional Space***

- School needs a security apartment.

### ***Porter School***

#### ***School & Site Information***

Construction (Year):	2004	Regular Classrooms:	32
Renovation (Year):		Square Feet:	71,245
Program Capacity:	672	Site Size (Acres):	16.93

### ***Potomac High School (Scheduled for Renewal in FY 2013)***

#### ***School & Site Information***

Construction (Year):	1980	Regular Classrooms:	82
Renovation (Year):		Square Feet:	218,642
Program Capacity:	1,655	Site Size (Acres):	75.09

#### ***Maintenance & Repair***

- Doors in several rooms need to be reversed to swing in direction of egress for fire safety.
- Additional exits are needed in 6 rooms for fire safety.
- HVAC system replacement (partial).
- Orchestra pit needs rail.
- Drives, walks, and parking areas need to be repaired and resurfaced (partial).
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Acoustical ceilings need to be replaced.
- Kitchen renovation.
- Main water service upgrade.
- Built-in casework needed in all classrooms.
- Humidification system is needed in band room.
- Wood flooring is needed in performing arts area.

#### ***Handicap Access***

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### ***Additional Space***

- **A 30-classroom addition is scheduled for 2013.**

## **Potomac Middle School**

### **School & Site Information**

Construction (Year):	2006	Regular Classrooms:	65
Renovation (Year):		Square Feet:	135,309
Program Capacity:	1,233	Site Size (Acres):	36.43

### **Additional Space**

- **An 11-classroom addition is scheduled for 2013.**

## **Potomac Transportation Center**

### **Site Information**

Construction (Year):	Building 1-1988 Building 2-2000	Regular Classrooms:	N/A
Renovation (Year):		Square Feet:	15,431
Program Capacity:	N/A	Site Size (Acres):	16.76

### **Maintenance and Repair**

- Wash bay for vehicles.
- Complete unfinished storage area to provide additional restrooms and classroom space.

## **Potomac View Elementary School**

### **School & Site Information**

Construction (Year):	1964	Regular Classrooms:	35
Renovation (Year):	2005	Square Feet:	62,000
Program Capacity:	746	Site Size (Acres):	12.38

### **Additional Space**

- School needs a security apartment.

## **Rippon Middle School**

### **School & Site Information**

Construction (Year):	1967	Regular Classrooms:	63
Renovation (Year):	2009-2010	Square Feet:	132,607
Program Capacity:	1,139	Site Size (Acres):	30.23

### **Maintenance & Repair**

- Need lights in parking lot.
- Drives, walks, and parking areas need to be repaired, resurfaced and redesigned.
- Fencing needs replacement (partial).

### **Additional Space**

- School needs a security apartment.
- **An 8-classroom addition is scheduled for 2016.**

### ***River Oaks Elementary (Scheduled for Renewal in FY 2018)***

#### ***School & Site Information***

Construction (Year):	1990	Regular Classrooms:	31
Renovation (Year):		Square Feet:	63,118
Program Capacity:	616	Site Size (Acres):	15.18

#### ***Maintenance & Repair***

- Fire alarm system needs upgrade to provide both audio and visual notification in all occupied areas.
- Telephones should be installed in all classrooms.
- Playing fields/areas need renovation.
- Need steps from lower parking area to playing fields.

#### ***Additional Space***

- **A 7-classroom addition is scheduled for 2014.**

#### ***Handicap Access***

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas
- Hardware, such as door handles, does not meet ADA standards and should be replaced.

### ***Rockledge Elementary School***

#### ***School & Site Information***

Construction (Year):	1972	Regular Classrooms:	30
Renovation (Year):	2007	Square Feet:	64,769
Program Capacity:	650	Site Size (Acres):	16.15

#### ***Handicap Access***

- ADA portable accessible ramp is needed for stage.

#### ***Additional Space***

- School needs a security apartment (has a security trailer).

### ***Saunders Middle School (Scheduled for Renewal in FY 2017)***

#### ***School & Site Information***

Construction (Year):	1988	Regular Classrooms:	64
Renovation (Year):		Square Feet:	137,088
Program Capacity:	1,212	Site Size (Acres):	29.54

#### ***Maintenance & Repair***

- Track and tennis courts need repairs.
- Playing fields/area needs refurbishing.
- Roof replacement.

#### ***Handicap Access***

- Minor modifications are needed to paths, doorway entrances, and toilet rooms.
- Generator replacement.
- Telephones should be installed in all classrooms.

#### ***Additional Space***

- School needs a security apartment (has a security trailer).

### ***Signal Hill Elementary School (Scheduled for Renewal in FY 2019)***

#### ***School & Site Information***

Construction (Year):	2000	Regular Classrooms:	41
Renovation (Year):		Square Feet:	83,084
Program Capacity:	780	Site Size (Acres):	24.45

## ***Sinclair Elementary School***

### ***School & Site Information***

Construction (Year):	1968	Regular Classrooms:	29
Renovation (Year):	2009	Square Feet:	55,960
Program Capacity:	568	Site Size (Acres):	15

### ***Maintenance & Repair***

- Roof replacement (partial).

### ***Additional Space***

- School needs a security apartment.

## ***Springwoods Elementary School (Scheduled for Renewal in FY 2015)***

### ***School & Site Information***

Construction (Year):	1986	Regular Classrooms:	28
Renovation (Year):		Square Feet:	57,530
Program Capacity:	592	Site Size (Acres):	15.11

### ***Maintenance & Repair***

- Walks repaired and resurfaced (partial).
- HVAC system replacement (partial).
- Playing field needs to be refurbished.

### ***Handicap Access***

- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

### ***Additional Space***

- School needs a security apartment.

## ***Stonewall Jackson High School***

### ***School & Site Information***

Construction (Year):	1973	Regular Classrooms:	117
Renovation (Year):	2005	Square Feet:	328,540
Program Capacity:	2,409	Site Size (Acres):	56.61

### ***Maintenance & Repair***

- Clay unit masonry needs extensive re-pointing.
- Resilient floor tile and carpet need replacing. (Partial.)
- HVAC system replacement (partial).
- Roof replacement (partial).
- Kitchen renovation.
- Areas of the building were not renewed in 2005 (primarily gymnasium and administrative areas).

## ***Stonewall Middle School***

### ***School & Site Information***

Construction (Year):	1964	Regular Classrooms:	52
Renovation (Year):	2002	Square Feet:	127,673
Program Capacity:	1,003	Site Size (Acres):	32.22

### ***Additional Space***

- School needs a security apartment (has a security trailer).

### ***Maintenance & Repair***

- Fencing needs replacement (partial).

### ***Sudley Elementary School***

#### ***School & Site Information***

Construction (Year):	1972	Regular Classrooms:	22
Renovation (Year):	2004	Square Feet:	53,028
Program Capacity:	462	Site Size (Acres):	14

#### ***Additional Space***

- School needs a security apartment (has a security trailer).

### ***Swans Creek Elementary School***

#### ***School & Site Information***

Construction (Year):	2001	Regular Classrooms:	32
Renovation (Year):		Square Feet:	76,724
Program Capacity:	626	Site Size (Acres):	18.49

#### ***Additional Space***

- A 6-classroom addition is scheduled for 2012.

### ***Triangle Elementary School***

#### ***School & Site Information***

Construction (Year):	2009	Regular Classrooms:	40
Renovation (Year):		Square Feet:	103,679
Program Capacity:	924	Site Size (Acres):	18.87

### ***Tyler Elementary School***

#### ***School & Site Information***

Construction (Year):	1968	Regular Classrooms:	26
Renovation (Year):	2007	Square Feet:	56,014
Program Capacity:	568	Site Size (Acres):	42.18

#### ***Additional Space***

- School needs a security apartment.

### ***Vaughan Elementary School***

#### ***School & Site Information***

Construction (Year):	1964	Regular Classrooms:	32
Renovation (Year):	2005	Square Feet:	61,204
Addition			
Program Capacity:	698	Site Size (Acres):	13.55

### ***Victory Elementary School***

#### ***School & Site Information***

Construction (Year):	2005	Regular Classrooms:	39
Renovation (Year):		Square Feet:	89,911
Program Capacity:	852	Site Size (Acres):	21.23



## ***Washington-Reid Annex (Scheduled for Renewal in FY 2013 with Pattie ES)***

### ***School & Site Information***

Construction (Year):	1951,60,67	Regular Classrooms:	
Renovation (Year):	1990	Square Feet:	24,953
Program Capacity: (see Pattie E.S.)		Site Size (Acres):	9.21

### ***Maintenance & Repair***

- Old steel windows do not close properly, are single-paned, not energy efficient and should be replaced.
- Install a generator to operate emergency lights and equipment, should a power failure occur.
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Repair quarter flooring (settling).

### ***Handicap Access***

- Drinking fountains are not handicap accessible.
- Two classrooms are accessible by stairs only.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

### ***Additional Space***

- School needs a security apartment.

## ***West Gate Elementary School***

### ***School & Site Information***

Construction (Year):	1964	Regular Classrooms:	29
Renovation (Year):	1993 / 2009	Square Feet:	48,094
Program Capacity:	568	Site Size (Acres):	12.11

### ***Maintenance & Repair***

- Paved playing areas need repaving.

### ***Additional Space:***

- School needs a security apartment (has a security trailer).

## ***Westridge Elementary School (Scheduled for Renewal in FY 2017)***

### ***School & Site Information***

Construction (Year):	1989	Regular Classrooms:	28
Renovation (Year):		Square Feet:	57,349
Program Capacity:	568	Site Size (Acres):	15

### ***Handicap Access***

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

### ***Additional Space***

- School needs a security apartment.
- **A 6-classroom addition is scheduled for 2012.**

## ***Williams Elementary School***

### ***School & Site Information***

Construction (Year):	2004	Regular Classrooms:	41
Renovation (Year):		Square Feet:	83,084
Program Capacity:	780	Site Size (Acres):	13.56

## **Woodbine Pre-School Center**

### **School & Site Information**

Construction (Year):	1953	Regular Classrooms:	5
Renovation (Year):	1990	Square Feet:	8,320
Program Capacity:	120	Site Size (Acres):	1.91

### **Maintenance & Repair**

- Roof ventilation and exhaust fans need replacing.
- Electrical outlets are needed.

### **Handicap Access**

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Building signage does not meet ADA standards.

### **Additional Space**

- Additional parking needed.

## **Woodbridge High School (Auditorium Scheduled for Renewal in FY 2013)**

### **School & Site Information**

Construction (Year):	1974	Regular Classrooms:	125
Renovation (Year):	2006	Square Feet:	352,497
Program Capacity:	2,734	Site Size (Acres):	52.69

### **Maintenance & Repair**

- Resilient floor tile and carpet need replacing. (Partial.)
- Playing fields/areas need renovation.
- Kitchen renovation.
- Track resurfacing.
- Stadium light poles repaired.
- Fencing needs replacement (partial).
- Roof replacement (partial).
- Replace operable auditorium partitions.
- Areas of the building were not renewed in 2006 (primarily the auditorium, gymnasium and administrative areas).

## **Woodbridge Middle School**

### **School & Site Information**

Construction (Year):	1964	Regular Classrooms:	56
Renovation (Year):	2002-3	Square Feet:	124,511
Program Capacity:	1,066	Site Size (Acres):	37.36

### **Additional Space**

- School needs a security apartment (has a security trailer).

## **Yorkshire Elementary School**

### **School & Site Information**

Construction (Year):	2009	Regular Classrooms:	40
Renovation (Year):		Square Feet:	106,614
Program Capacity:	948	Site Size (Acres):	13.21

**Portable Classrooms** – replace lighting fixtures with energy efficient lighting.

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## **APPENDIX B**

### **STUDENT ENROLLMENT & HOUSING DATA**

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- Enrollment Forecast Methodology
  - Analysis of Student Information
  - Analysis of Housing Unit Information
  - Preparation of Student Enrollment Forecasts
- Student Generation Factors
- Cohort Progression
- Alternative Solutions to School Overcrowding
- Student Enrollment Data: Current and Projected Enrollment
  - by School (Elementary, Middle, High and Special/Alternative Education), School Years 2009-2019
- Housing Units in Residential Development
  - by School (Elementary, Middle and High)
- Historical and Projected Enrollment Data – *Prince William County Schools*
- Student Membership Projections - Error Rate Analysis
- Geographic Areas – Map and Table

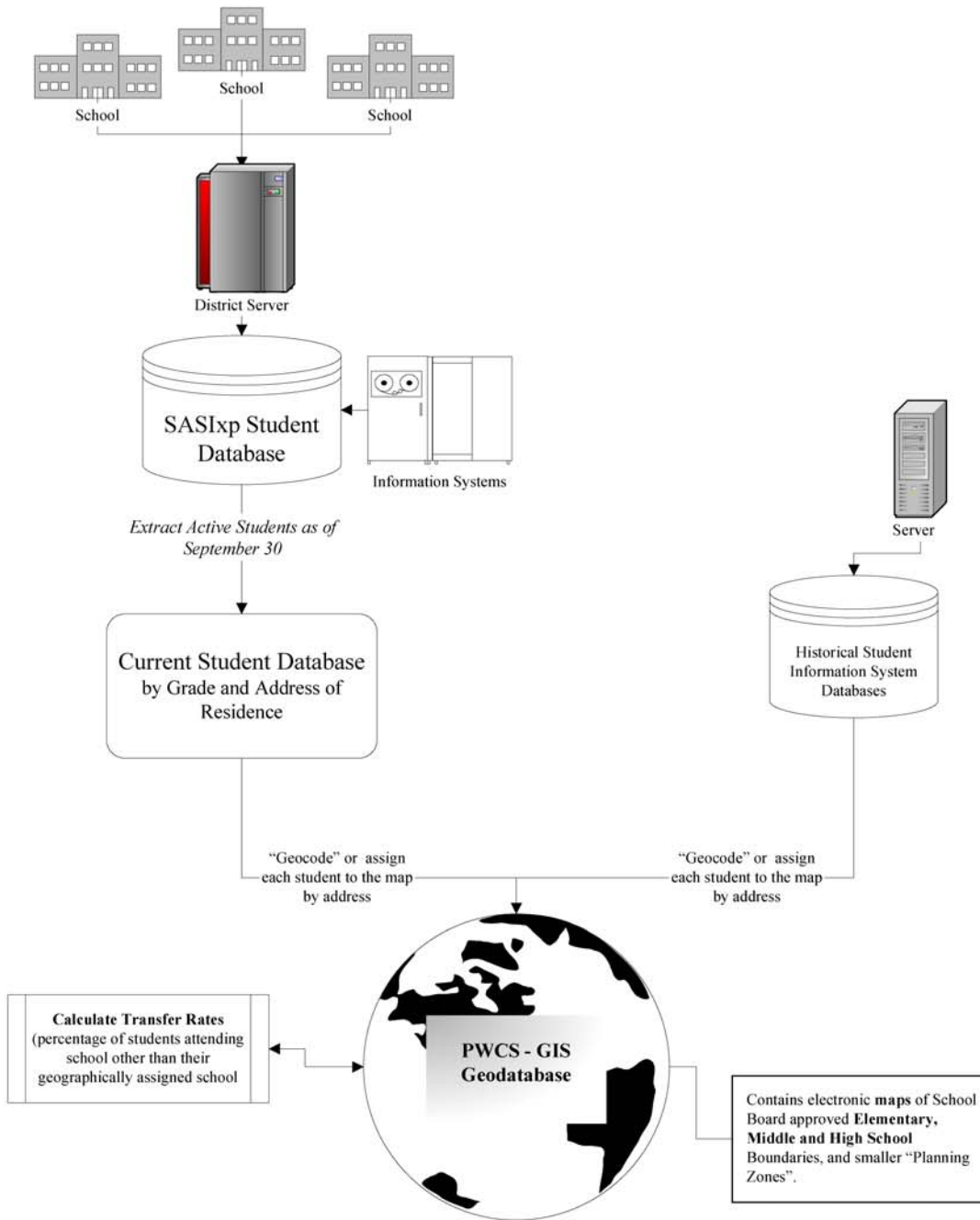
#### **Enrollment Forecast Methodology**

All forecasts have several things in common; all are an extrapolation of the past, all involve some level of judgment, and all forecasts are wrong. This is why judgment is so important when creating and evaluating the forecast. The real goal in the forecasting process is to reduce the range of error and monitor the process over time so it can continually be improved.

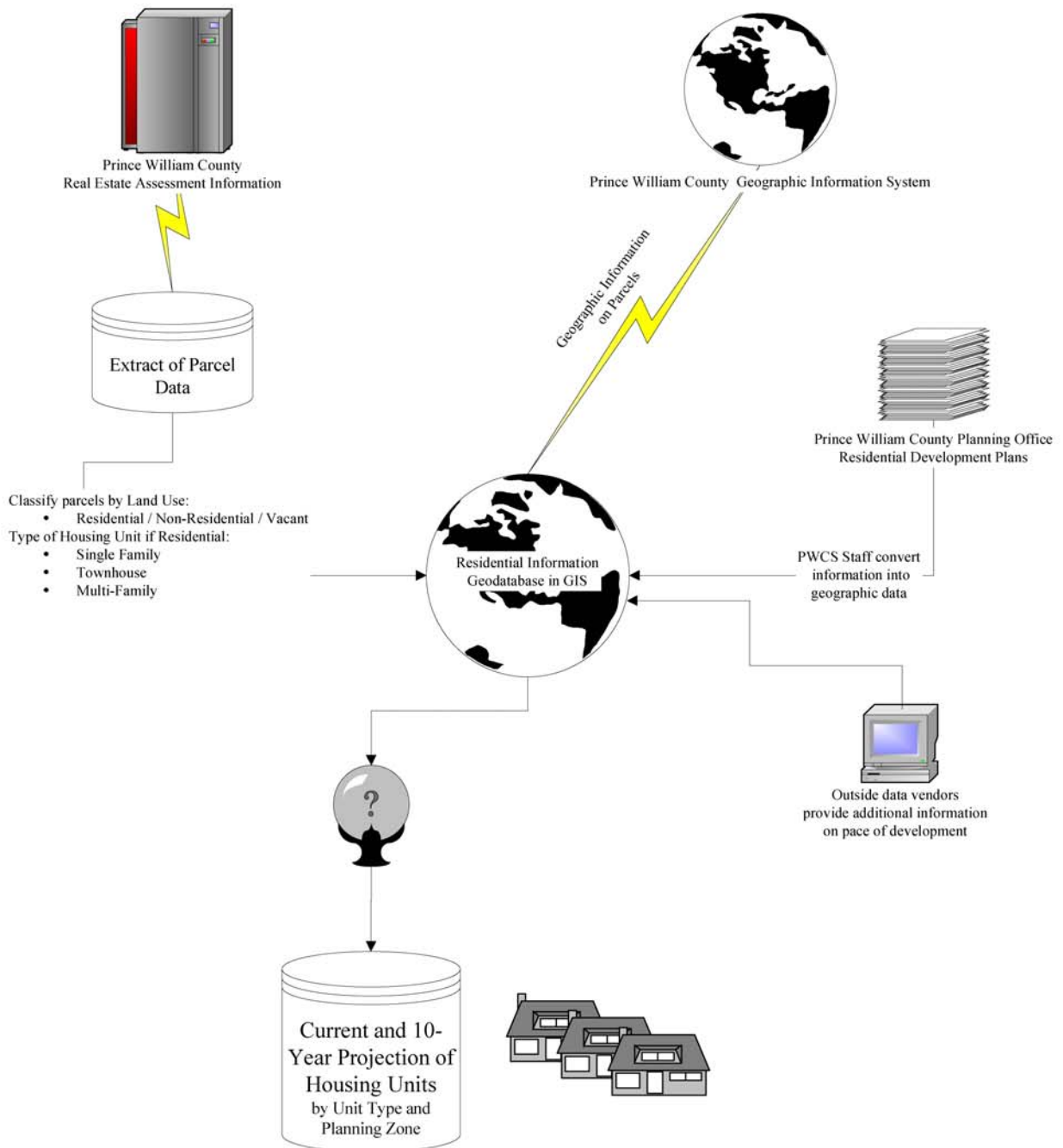
The forecasting methodology used to predict the number of students who will be enrolling in Prince William County Schools for the next 10 years is a combination of cohort progression method and student generation factors method, along with judgmental adjustment to fine-tune the forecasts. This combination of methods was chosen because it provides for very accurate forecasts and at the same time is relatively inexpensive to produce. The process is data intensive and involves the extensive use of Geographic Information System (GIS) to analyze the many geographic data involved.

The accuracy of this forecasting method has been very good in the past, with an average error of approximately 0.5% countywide. Success at the school level has not been as good but the forecasts have been well within the acceptable range. Countywide forecasts have been more successful than the school level forecasts because the population being forecasted is much larger. This phenomenon is common to all forecasting methodologies and is therefore expected.

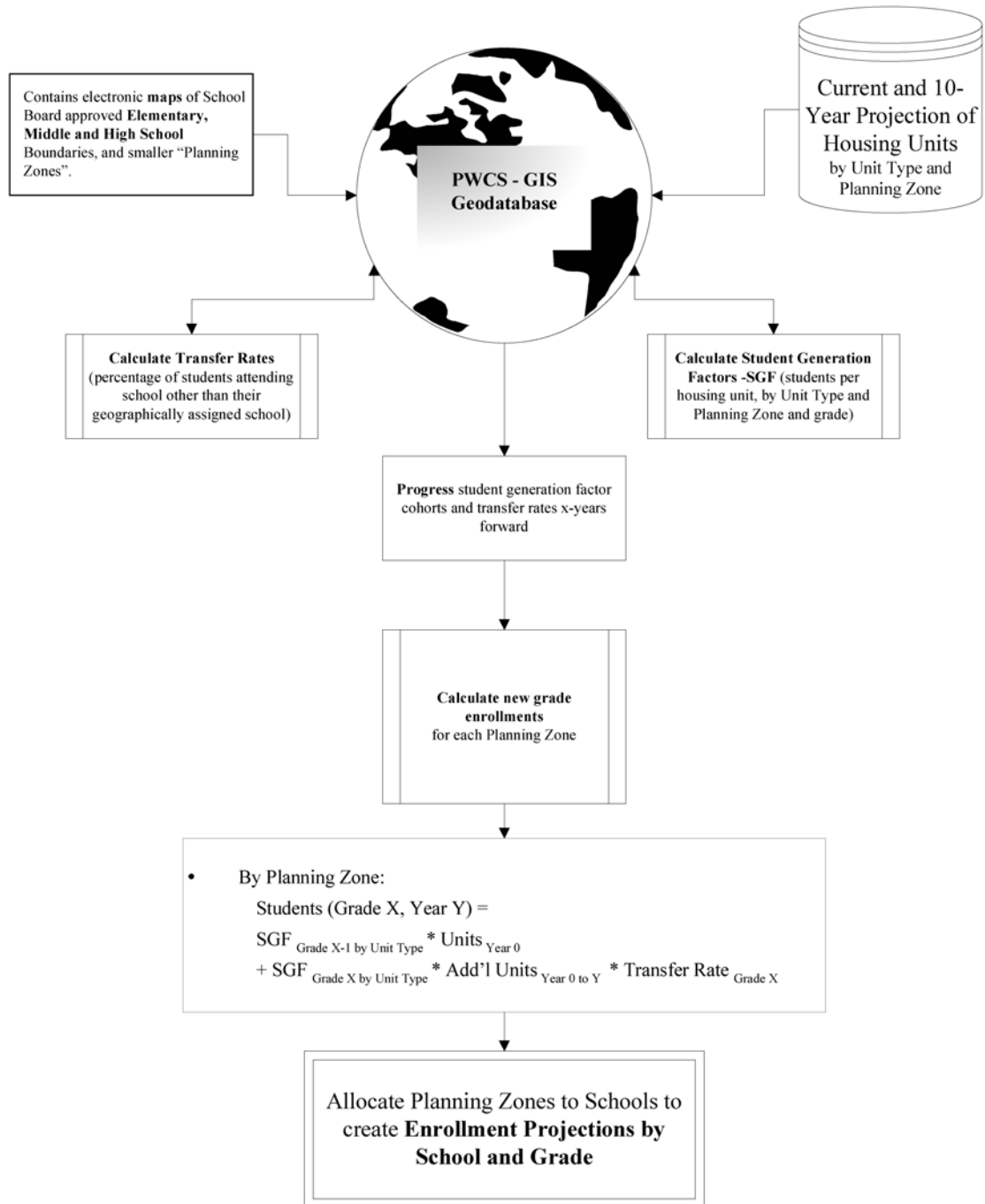
# Analysis of Student Information



# Analysis of Housing Unit Information



# Preparation of Student Enrollment Forecasts



### Student Generation Factors

The enrollment forecasts are now created using the **student generation factors** method combined with the **cohort progression method**. Together, these two means produce additional students using the current year’s housing unit totals as a baseline. The process is detailed in the attached flow charts. This is an effective method that can, with accurate data, provide highly accurate forecasts of future enrollments.

Generation factors are created by calculating the number of students by housing unit type to the number of housing unit types by small “Planning Zones”. The ratio is then applied to the number of predicted available units by year to produce the projections of new students in the Prince William County Schools.

In Prince William County, a year-by-year housing unit forecast is done, with a student generation factor then applied for the whole county on a grade-by-grade level to create the overall enrollment forecasts. These forecasts have been historically very accurate.

### Cohort Progression

The cohort progression method is, in basic terms, the application of an average growth rate over time to the current year’s enrollment by grade level cohort. This growth rate can be taken from the previous year, or from an average of several previous years. The resulting ratio or growth rate is then applied to the current year's enrollment by grade level cohort to project the next year’s enrollment.

The cohort ratio calculation in the following example describes the progression of sixth graders to seventh grade on average over 3 years. The same could be done over 2, 5, or any desired number of years. A greater number of years in the cohort calculation lessens the effects of any given year on the forecast, effectively “smoothing out” the historical data. Keeping this in mind, the forecaster can adjust the number of years used to calculate the cohort ratio to adjust for current and expected economic conditions and produce more accurate forecast results.

Grade	Year(-3)	Year(-2)	Year(-1)	Year(0)	Cohort Ratio	Year(+1)
6 <sup>th</sup>	3,888	4,066	4,348	4,581		
7 <sup>th</sup>	N/A	4,024	4,184	4,525	1.0350	4,741

1. **Cohort 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 7<sup>th</sup> grade cohort of Current Year.
2. **Cohort Ratio** =  $(4,024 + 4,184 + 4,525) / (3,888 + 4,066 + 4,348) = 1.0350$
3. **Forecasted 7<sup>th</sup> Year(+1) Grade Cohort** =  $4,581 \times 1.0350 = 4,741$

The number of years used to calculate the cohort ratio has changed several times over the period starting with 1980 in Prince William County. These changes were made to help adjust for the increasing growth rates in the late 80's and in the 2000's. The three-year cohort had been used up until 2001 to project the one-year growth in student enrollment by grade. However, due to the high growth rates experienced in Prince William County in the 2000's, a two-year cohort, or combination of the two- and three-year cohort, has been used to calculate the forecasts for 2009-2010. This is because it is believed that the growth pattern over the last two years is a better representation of the short-term future. In the future the use of mixed cohorts may also be employed to adjust for differing growth rates within the county.

After each of these forecasts is calculated there is a reconciliation of the two using the judgment of the forecasters. The result is a forecast that is used as a baseline for the out-year forecasts.

### *Alternative Solutions to School Overcrowding*

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

- Year Round Schooling
- 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 trailers
- 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.

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 contiguous communities; transportation considerations; using centerline on divided highways when possible; and topographical features.



## Student Enrollment Data: Current and Projected Enrollment

Elementary Schools  
SY 2009-10 to SY 2019-20

Elementary School	Available Space		2009-10			2010-11			2014-15			2019-20		
	Capacity	Trailers	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
Alvey ES	780	0	747	33	95.8%	776	4	99.5%	834	-54	106.9%	885	-105	113.5%
Antietam ES	616	0	577	39	93.7%	600	16	97.4%	593	23	96.3%	603	13	97.9%
Ashland ES	900	0	919	-19	102.1%	983	-83	109.2%	1,141	-241	126.8%	1,160	-260	128.9%
Bel Air ES	568	6	537	31	94.5%	565	3	99.5%	539	29	94.9%	549	19	96.6%
Belmont ES	462	2	396	66	85.7%	390	72	84.4%	379	83	82.0%	510	-48	110.4%
Bennett ES	780	0	762	18	97.7%	805	-25	103.2%	843	-63	108.0%	968	-188	124.1%
Bristow Run ES	780	9	1,157	-377	148.3%	1,172	-392	150.3%	1,191	-411	152.7%	1,212	-432	155.3%
Buckland Mills ES	852	0	881	-29	103.4%	971	-119	114.0%	1,152	-300	135.2%	1,302	-450	152.8%
Cedar Point ES	780	8	1,113	-333	142.7%	1,103	-323	141.4%	1,096	-316	140.5%	1,120	-340	143.5%
Coles ES	472	2	478	-6	101.3%	497	-25	105.3%	511	-39	108.2%	532	-60	112.7%
Dale City ES	496	2	444	52	89.5%	422	74	85.1%	422	74	85.2%	430	66	86.6%
Dumfries ES	520	6	416	104	80.0%	400	120	76.9%	420	100	80.7%	433	87	83.2%
Ellis ES	626	4	739	-113	118.1%	792	-166	126.5%	996	-370	159.2%	1,230	-604	196.5%
Enterprise ES	520	2	490	30	94.2%	449	71	86.3%	466	54	89.6%	474	46	91.1%
Featherstone ES	462	4	436	26	94.4%	421	41	91.1%	426	36	92.3%	465	-3	100.7%
Fitzgerald ES	852	0	872	-20	102.3%	935	-83	109.7%	1,209	-357	141.9%	1,274	-422	149.6%
Glenkirk ES	780	9	1,159	-379	148.6%	1,261	-481	161.7%	1,531	-751	196.2%	2,009	-1,229	257.6%
Gravelly ES	852	0	720	132	84.5%	700	152	82.2%	795	57	93.4%	906	-54	106.3%
Henderson ES	592	1	567	25	95.8%	590	2	99.7%	591	1	99.7%	601	-9	101.5%
Kerrydale ES	496	7	454	42	91.5%	446	50	89.9%	449	47	90.5%	457	39	92.0%
Kilby ES	414	1	366	48	88.4%	378	36	91.3%	385	29	92.9%	482	-68	116.5%
King ES	520	2	534	-14	102.7%	541	-21	104.0%	560	-40	107.6%	576	-56	110.7%
Lake Ridge ES	544	3	510	34	93.8%	526	18	96.7%	525	19	96.6%	534	10	98.2%
Leesylvania ES	804	0	637	167	79.2%	649	155	80.7%	695	109	86.5%	781	23	97.2%
Loch Lomond ES	414	3	362	52	87.4%	372	42	89.9%	366	48	88.3%	372	42	89.9%
Marshall ES	698	0	714	-16	102.3%	692	6	99.1%	719	-21	103.0%	734	-36	105.1%
Marumsc Hills ES	650	2	562	88	86.5%	609	41	93.7%	697	-47	107.2%	887	-237	136.4%
McAuliffe ES	568	0	424	144	74.6%	416	152	73.2%	429	139	75.5%	438	130	77.1%
Minnieville ES	544	5	486	58	89.3%	474	70	87.1%	530	14	97.4%	539	5	99.1%
Montclair ES	698	0	688	10	98.6%	704	-6	100.9%	732	-34	104.9%	755	-57	108.2%
Mountain View ES	698	1	789	-91	113.0%	764	-66	109.5%	801	-103	114.7%	829	-131	118.8%
Mullen ES	698	7	832	-134	119.2%	865	-167	123.9%	880	-182	126.1%	895	-197	128.2%
Neabsco ES	626	1	473	153	75.6%	472	154	75.4%	489	137	78.1%	497	129	79.4%
Nokesville ES	342	4	483	-141	141.2%	497	-155	145.3%	499	-157	145.8%	542	-200	158.6%
Occoquan ES	520	5	567	-47	109.0%	566	-46	108.8%	585	-65	112.5%	600	-80	115.4%
Old Bridge ES	626	0	610	16	97.4%	651	-25	104.0%	644	-18	102.9%	655	-29	104.7%
Parks ES	780	0	689	91	88.3%	707	73	90.6%	683	97	87.6%	695	85	89.2%
Pattie ES	698	1	627	71	89.8%	594	104	85.1%	661	37	94.7%	673	25	96.5%
Penn ES	626	0	629	-3	100.5%	634	-8	101.3%	823	-197	131.5%	879	-253	140.4%
Pennington TS	405	2	392	13	96.8%	405	0	100.0%	405	0	100.0%	405	0	100.0%
Porter TS	420	0	404	16	96.2%	420	0	100.0%	420	0	100.0%	420	0	100.0%
Potomac View ES	746	4	652	94	87.4%	677	69	90.8%	701	45	93.9%	712	34	95.5%
River Oaks ES	616	4	606	10	98.4%	612	4	99.4%	763	-147	123.9%	816	-200	132.5%
Rockledge ES	650	0	505	145	77.7%	500	150	76.9%	510	140	78.4%	518	132	79.7%
Signal Hill ES	780	0	673	107	86.3%	668	112	85.6%	703	77	90.1%	782	-2	100.3%
Sinclair ES	568	7	666	-98	117.3%	690	-122	121.5%	686	-118	120.8%	894	-326	157.4%
Springwoods ES	592	4	677	-85	114.4%	684	-92	115.5%	713	-121	120.5%	725	-133	122.4%
Sudley ES	462	2	446	16	96.5%	476	-14	103.0%	446	16	96.6%	454	8	98.3%
Swans Creek ES	626	0	619	7	98.9%	607	19	97.0%	901	-275	143.9%	1,190	-564	190.0%
Triangle ES	924	0	641	283	69.4%	641	283	69.4%	697	227	75.5%	773	151	83.6%
Tyler ES	568	2	621	-53	109.3%	662	-94	116.5%	730	-162	128.6%	742	-174	130.7%
Vaughan ES	698	0	682	16	97.7%	708	-10	101.4%	734	-36	105.1%	810	-112	116.1%
Victory ES	852	2	987	-135	115.8%	1,023	-171	120.1%	1,099	-247	128.9%	1,650	-798	193.6%
West Gate ES	568	11	537	31	94.5%	549	19	96.7%	623	-55	109.8%	634	-66	111.6%
Westridge ES	568	3	658	-90	115.8%	655	-87	115.3%	677	-109	119.1%	688	-120	121.2%
Williams ES	780	0	702	78	90.0%	750	30	96.2%	884	-104	113.4%	905	-125	116.0%
Yorkshire ES	948	0	741	207	78.2%	762	186	80.4%	915	33	96.5%	1,010	-62	106.5%
<b>Total</b>	<b>36,425</b>	<b>138</b>	<b>36,055</b>	<b>370</b>	<b>99.0%</b>	<b>36,878</b>	<b>-453</b>	<b>101.2%</b>	<b>39,893</b>	<b>-3,468</b>	<b>109.5%</b>	<b>43,611</b>	<b>-7,186</b>	<b>119.7%</b>

**Student Enrollment Data: Current and Projected Enrollment**  
**Elementary Schools - Additional Space to be Constructed**  
*SY 2009-10 to SY 2019-20*

Elementary School	Available Space		2009-10			2010-11			2014-15			2019-20		
	Capacity	Trailers	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
<b>2011</b>														
<i>T. Clay Wood ES</i>									852			852		
<b>2012</b>														
<i>Linton Hall Road ES</i>									852			852		
<i>Westridge ES (6 room addition)</i>									144			144		
<i>Nokesville ES (10 room addition)</i>									240			240		
<i>Swans Creek ES (6 room addition)</i>									144			144		
<b>2013</b>														
<i>Elementary School @ Stone wall Middle</i>									852			852		
<i>Penn ES (7 room addition)</i>									168			168		
<b>2014</b>														
<i>Elementary School @ Haymarket</i>									852			852		
<i>River Oaks ES (7 room addition)</i>									168			168		
<i>Henderson ES (8 room addition)</i>									192			192		
<i>Neabsco ES (6 room addition)</i>									144			144		
<b>2015</b>														
<i>Elementary School @ West-Linton Hall Area</i>												852		
<i>Elementary School @ Harbor Station</i>												852		
<i>Featherstone ES (6 room addition)</i>												144		
<b>2017</b>														
<i>Elementary School @ West-Linton Hall Area</i>												852		
<i>Belmont ES (4 room addition)</i>												96		
<i>Kilby ES (13 room addition)</i>												312		
<i>McAuliffe ES (10 room addition)</i>												240		
<i>Elementary TBD (6 room addition)</i>												144		
<b>2018</b>														
<i>Elementary School @ East-Neabsco Area</i>												852		
<b>Sum of Additional Seats</b>									4608			8952		
<b>Total</b>	36,425	138	36,055	370	99.0%	36,878	-453	101.2%	39,893	1,140	97.2%	43,611	1,766	96.1%

**Student Enrollment Data: Current and Projected Enrollment**

Middle Schools  
SY 2009-10 to SY 2019-20

Middle School	Available Space		2009-10			2010-11			2014-15			2019-20		
	Capacity	Trailers	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
Benton MS	1,233	1	1,352	-119	109.7%	1,300	-67	105.4%	1,444	-211	117.1%	1,522	-289	123.5%
Beville MS	1,191	0	1,051	140	88.2%	1,083	108	90.9%	1,140	51	95.8%	1,187	4	99.7%
Bull Run MS	1,233	10	1,526	-293	123.7%	1,613	-380	130.8%	1,787	-554	144.9%	1,992	-759	161.5%
Gainesville MS	1,233	0	1,259	-26	102.1%	1,360	-127	110.3%	1,649	-416	133.7%	2,223	-990	180.3%
Godwin MS	982	0	911	71	92.8%	925	57	94.2%	974	8	99.2%	1,008	-26	102.6%
Graham Park MS	867	0	779	88	89.9%	805	62	92.9%	871	-4	100.5%	937	-70	108.1%
Lake Ridge MS	1,191	0	1,211	-20	101.6%	1,160	31	97.4%	1,197	-6	100.5%	1,237	-46	103.9%
Lynn MS	1,170	0	856	314	73.2%	910	260	77.7%	951	219	81.3%	1,133	37	96.8%
Marsteller MS	1,233	10	1,424	-191	115.5%	1,455	-222	118.0%	1,559	-326	126.4%	1,710	-477	138.7%
Parkside MS	1,139	0	1,070	70	93.9%	1,137	2	99.8%	1,250	-111	109.7%	1,388	-249	121.9%
Pennington ES	243	0	238	5	97.9%	243	5	100.0%	243	5	100.0%	243	5	100.0%
Porter ES	252	0	247	5	98.0%	252	5	100.0%	252	5	100.0%	252	5	100.0%
Potomac MS	1,233	0	1,094	139	88.7%	1,108	125	89.8%	1,441	-208	116.9%	1,634	-401	132.5%
Rippon MS	1,139	0	846	293	74.3%	933	206	81.9%	1,103	36	96.9%	1,254	-115	110.1%
Saunders MS	1,212	0	1,075	137	88.7%	1,074	138	88.6%	1,220	-8	100.7%	1,270	-58	104.8%
Stonewall MS	1,003	0	1,065	-62	106.2%	1,031	-28	102.8%	1,115	-112	111.1%	1,153	-150	115.0%
Woodbridge MS	1,066	0	1,026	40	96.2%	1,065	1	99.9%	1,119	-53	105.0%	1,160	-94	108.9%
<i>Middle School @ Silver Lake (2012)</i>										1,233				1,233
<i>Benton MS (11 room addition, 2013)</i>										231				231
<i>Potomac MS (11 room addition, 2013)</i>										231				231
<i>Parkside MS (15 room addition, 2014)</i>										315				315
<i>New Dominion (10 room addition, 2014)</i>										210				210
<i>Rippon MS (8 room addition, 2016)</i>														168
<i>Middle School @ Linton Hall (2018)</i>														1,233
<b>Sum of Additional Seats</b>										2,220				3,621
<b>Total</b>	<b>17,620</b>	<b>21</b>	<b>17,029</b>	<b>591</b>	<b>96.6%</b>	<b>17,453</b>	<b>177</b>	<b>99.1%</b>	<b>19,314</b>	<b>536</b>	<b>97.3%</b>	<b>21,303</b>	<b>-52</b>	<b>100.3%</b>

**Student Enrollment Data: Current and Projected Enrollment**

High Schools  
SY 2009-10 to SY 2019-20

High School	Available Space		2009-10			2010-11			2014-15			2019-20		
	Capacity	Trailers	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
Battlefield HS	2,053	13	2,856	-803	139.1%	2,946	-893	143.5%	2,213	-160	107.8%	2,470	-417	120.3%
Brentsville HS	1,110	19	1,601	-491	144.2%	1,724	-614	155.3%	1,163	-53	104.8%	1,259	-149	113.4%
Forest Park HS	2,053	0	2,271	-218	110.6%	2,279	-226	111.0%	2,472	-419	120.4%	2,504	-451	122.0%
Freedom HS	2,053	0	1,710	344	83.3%	1,712	341	83.4%	1,887	166	91.9%	2,491	-438	121.3%
Gar-Field HS	2,734	0	2,488	246	91.0%	2,462	272	90.0%	2,480	254	90.7%	2,720	14	99.5%
Hylton HS	2,053	0	2,170	-117	105.7%	2,178	-125	106.1%	2,222	-169	108.2%	2,149	-96	104.7%
Osborn Park HS	2,430	0	2,700	-270	111.1%	2,766	-336	113.8%	2,889	-459	118.9%	2,870	-440	118.1%
Patriot HS	2,053	0							2,309	-256	112.5%	2,570	-517	125.2%
Potomac HS	1,655	4	1,714	-59	103.5%	1,765	-110	106.6%	2,226	-571	134.5%	2,735	-1,080	165.3%
Stonewall Jackson HS	2,409	0	2,305	104	95.7%	2,411	-2	100.1%	2,431	-22	100.9%	3,389	-980	140.7%
Woodbridge HS	2,734	0	2,515	219	92.0%	2,457	277	89.9%	2,551	183	93.3%	2,557	177	93.5%
<i>Potomac HS (30 room addition, 2014)</i>										630				630
<i>12th High School (2016)</i>														2,053
<i>13th High School (2019)</i>														2,053
<b>Total</b>	<b>21,284</b>	<b>36</b>	<b>22,329</b>	<b>-1,045</b>	<b>104.9%</b>	<b>22,699</b>	<b>-1,415</b>	<b>106.6%</b>	<b>24,843</b>	<b>-876</b>	<b>103.7%</b>	<b>27,715</b>	<b>358</b>	<b>98.7%</b>

**Student Enrollment Data: Current and Projected Enrollment**

Special Education and Alternative Schools  
SY 2009-10 to SY 2019-20

Special Education and Alternative Schools	2009-10	
	Trailers	Students
Independent Hill SE	6	153
PACE West SE	3	93
Pre-School Child Find		83
School Based Pre-K		288
Woodbine SE	1	66
New Directions Alt		399
New Dominion Alt	10	106
TJHS Regional Magnet		51
<b>Total</b>	<b>20</b>	<b>1,239</b>

## Housing Units in Residential Development

*By Elementary School Attendance Area and Stage of Development*

September 2009

Elementary School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Alvey	208			208	131			131					339
Ashland	69	29		98	480			480					578
Belmont					4		720	724			852	852	1,576
Bennett	94	13		107	223	117		340					447
Bristow Run	19			19									19
Buckland Mills	346	208	232	786	424	62	222	708	10	130		140	1,634
Cedar Point		33		33	18			18					51
Coles	43			43	60			60		76		76	179
Dale City					4			4					4
Dumfries	71		222	293	11			11					304
Ellis	146	132	960	1,238	173		168	341					1,579
Enterprise													
Featherstone					12		288	300					300
Fitzgerald	156	91	614	861	217	493		710					1,571
Glenkirk	706	267		973	158	60		218		1,200	880	2,080	3,271
Gravely	181			181	519			519			304	304	1,004
Henderson	26			26	21			21					47
Kilby							148	148			494	494	642
King	86			86	31			31	7			7	124
Lake Ridge													
Leesylvania	73	65		138	94	152	910	1,156					1,294
Marshall	49			49	58			58					107
Marumsco Hills			732	732			750	750			500	500	1,982
McAuliffe	30	27		57									57
Minnieville						30	289	319					319
Montclair	92			92	20			20					112
Mountain View	13			13	43			43					56
Mullen			150	150			20	20					170
Neabsco			82	82									82
Nokesville	232			232	18			18	303			303	553
Occoquan	46			46	73			73					119
Old Bridge			200	200	4			4					204
Parks					37			37	10			10	47
Pattie	11	12		23		69		69					92
Penn	185	30	188	403	314		168	482	12			12	897
Potomac View						25		25					25
River Oaks		245	230	475	318			318					793
Rockledge							72	72					72
Signal Hill	76			76	89	34	320	443		76		76	595
Sindair			15	15			70	70		150	941	1,091	1,176
Springwoods					21			21					21
Swans Creek	12		108	120	773	67	1,515	2,355			397	397	2,872
Triangle	63			63	108	291	46	445					508
Tyler	79	56	51	186		462		462					648
Vaughan	13			13	139		333	472					485
Victory	15	229		244	229			229	21			21	494
West Gate							484	484					484
Westridge	31			31									31
Williams	325			325	267			267			86	86	678
Yorkshire		15	352	367	27		525	552			400	400	1,319
<b>Total</b>	<b>3,496</b>	<b>1,452</b>	<b>4,136</b>	<b>9,084</b>	<b>5,118</b>	<b>1,862</b>	<b>7,048</b>	<b>14,028</b>	<b>363</b>	<b>1,632</b>	<b>4,854</b>	<b>6,849</b>	<b>29,961</b>

**Housing Units in Residential Development**  
*By Middle School Attendance Area and Stage of Development*  
 September 2009

Middle School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Benton	237	41	188	466	375		168	543	12	76		88	1,097
Beville	169	18		187	88			88	7			7	282
Bull Run	576	170	175	921	733	462	48	1,243		150	1,232	1,382	3,546
Gainesville	981	493	1,068	2,542	766	122	174	1,062	10	1,330	880	2,220	5,824
Godwin			82	82	4	30	289	323					405
Graham Park	145	12	222	379	119	360	46	525					904
Lake Ridge													
Lynn	46			46	77	25	1,201	1,303			1,346	1,346	2,695
Marsteller	388	262		650	214		20	234	324			324	1,208
Parkside	170	28	352	550	339	151	845	1,335		76	400	476	2,361
Potomac	406	310	338	1,054	1,452	219	1,515	3,186			483	483	4,723
Rippon	165	91	1,346	1,602	250	493	1,948	2,691			500	500	4,793
Saunders	200	27		227	537			537	10			10	774
Stonewall			165	165			722	722			13	13	900
Woodbridge	13		200	213	164		72	236					449
<b>Total</b>	<b>3,496</b>	<b>1,452</b>	<b>4,136</b>	<b>9,084</b>	<b>5,118</b>	<b>1,862</b>	<b>7,048</b>	<b>14,028</b>	<b>363</b>	<b>1,632</b>	<b>4,854</b>	<b>6,849</b>	<b>29,961</b>

**Housing Units in Residential Development**  
*By High School Attendance Area and Stage of Development*  
 September 2009

High School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Battlefield	765	170	283	1,218	1,062	462	48	1,572	10		304	314	3,104
Brentsville	339	13		352	223	60		283	8			8	643
Forest Park	294	41	222	557	599	360	46	1,005					1,562
Freedom	4	91	1,346	1,441	12	518	3,149	3,679			1,352	1,352	6,472
Gar-Field	13		282	295	173	30	289	492					787
Hylton	157	27		184	93			93	17	76		93	370
Osborn Park	321	45	540	906	556	91	1,013	1,660	12	76	400	488	3,054
Patriot	734	127		861	409	122	174	705	316	130	80	526	2,092
Potomac	588	310	338	1,236	1,690	219	1,515	3,424			483	483	5,143
Stonewall Jackson	235	628	1,125	1,988	224		742	966		1,350	1,741	3,091	6,045
Woodbridge	46			46	77		72	149			494	494	689
<b>Total</b>	<b>3,496</b>	<b>1,452</b>	<b>4,136</b>	<b>9,084</b>	<b>5,118</b>	<b>1,862</b>	<b>7,048</b>	<b>14,028</b>	<b>363</b>	<b>1,632</b>	<b>4,854</b>	<b>6,849</b>	<b>29,961</b>

# Historical and Projected Enrollment Data

## Prince William County Public Schools

Office of Facilities Services

Year	Elementary	Middle	High	Special Education	Total	Change	Percent Change
1966	11,361	5,242	4,511	133	21,247		
1967	11,782	5,843	4,991	83	22,699	1,452	6.8%
1968	13,083	6,488	5,641	97	25,309	2,610	11.5%
1969	14,266	7,164	6,496	97	28,023	2,714	10.7%
1970	15,377	7,873	7,008	106	30,364	2,341	8.4%
1971	15,794	8,368	8,053	107	32,322	1,958	6.4%
1972	15,975	8,738	8,741	107	33,561	1,239	3.8%
1973	16,583	9,498	9,464	80	35,625	2,064	6.1%
1974	19,462	9,865	10,338	148	39,813	4,188	11.8%
1975	19,538	10,261	10,800	201	40,800	987	2.5%
1976	18,693	9,799	10,277	238	39,007	(1,793)	-4.4%
1977	16,626	9,041	10,463	309	36,439	(2,568)	-6.6%
1978	15,378	8,466	10,729	273	34,846	(1,593)	-4.4%
1979	16,166	8,344	10,918	286	35,714	868	2.5%
1980	15,385	8,465	10,993	310	35,153	(561)	-1.6%
1981	15,429	8,757	11,031	367	35,584	431	1.2%
1982	15,141	8,775	10,927	382	35,225	(359)	-1.0%
1983	15,334	8,701	11,128	401	35,564	339	1.0%
1984	15,598	8,438	11,464	383	35,883	319	0.9%
1985	16,326	8,273	11,844	447	36,890	1,007	2.8%
1986	17,130	8,414	11,850	526	37,920	1,030	2.8%
1987	18,143	8,460	12,010	611	39,224	1,304	3.4%
1988	19,334	8,730	11,883	703	40,650	1,426	3.6%
1989	20,130	9,060	11,652	692	41,534	884	2.2%
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	3.7%
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	36,880	17,454	22,709	1,265	78,308	1,652	2.3%
2011	37,579	18,047	22,949	1,292	79,866	1,558	2.0%
2012	38,311	18,627	23,451	1,319	81,709	1,843	2.3%
2013	39,001	19,115	24,196	1,348	83,659	1,951	2.4%
2014	39,896	19,315	24,850	1,376	85,436	1,777	2.1%
2015	40,638	19,671	25,588	1,404	87,301	1,865	2.2%
2016	41,386	19,990	26,314	1,432	89,121	1,820	2.1%
2017	42,122	20,530	26,688	1,459	90,800	1,679	1.9%
2018	42,875	20,912	27,218	1,488	92,493	1,693	1.9%
2019	43,614	21,304	27,715	1,516	94,149	1,656	1.8%

# Student Membership Projections

## *Error Rate Analysis*

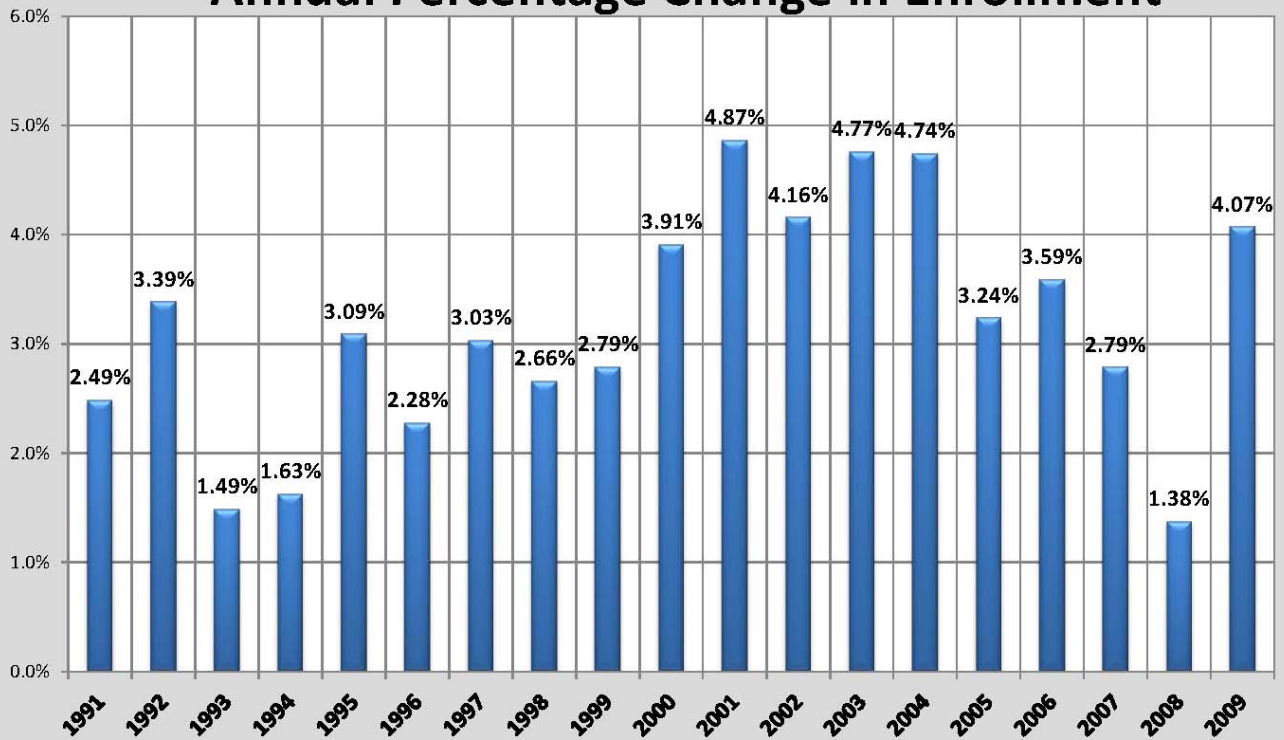
Prince William County Public Schools

School Year	Actual Student Membership	Student Membership Projections							
		One Year Before		Two Years Before		Four Years Before		Five Years Before	
		Projection	% Error *	Projection	% Error *	Projection	% Error *	Projection	% Error *
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%

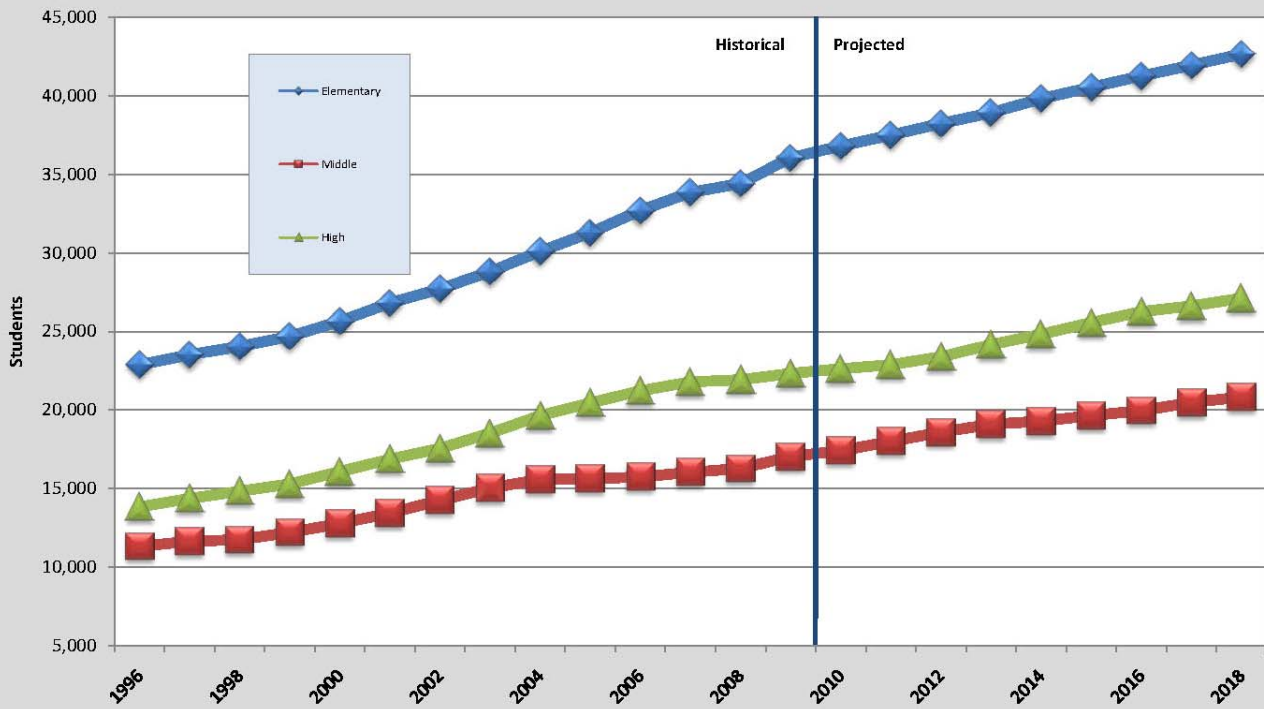
(MPE) Mean Percentage Error	0.56%	1.03%	1.71%	2.49%
(MAPE) Mean Absolute Percentage Error	0.86%	2.00%	4.37%	4.73%

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

## Prince William County Schools Annual Percentage Change in Enrollment

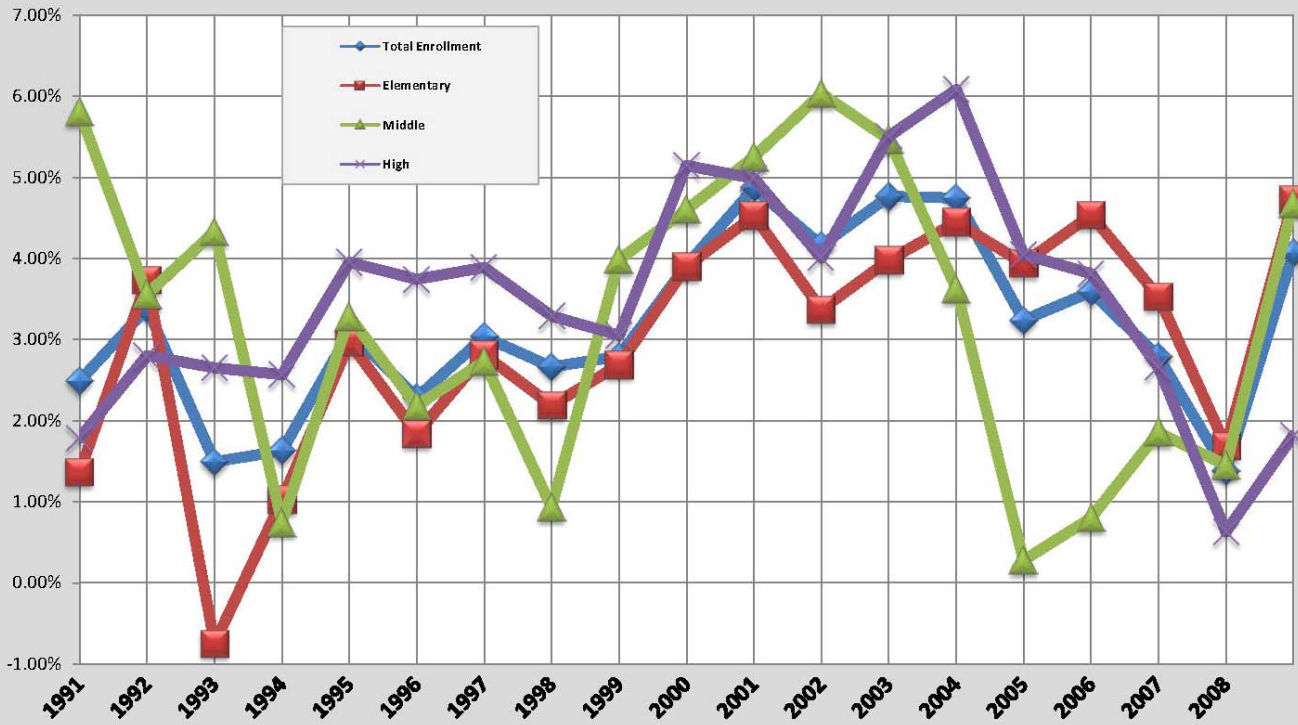


## Enrollment Growth by School Level



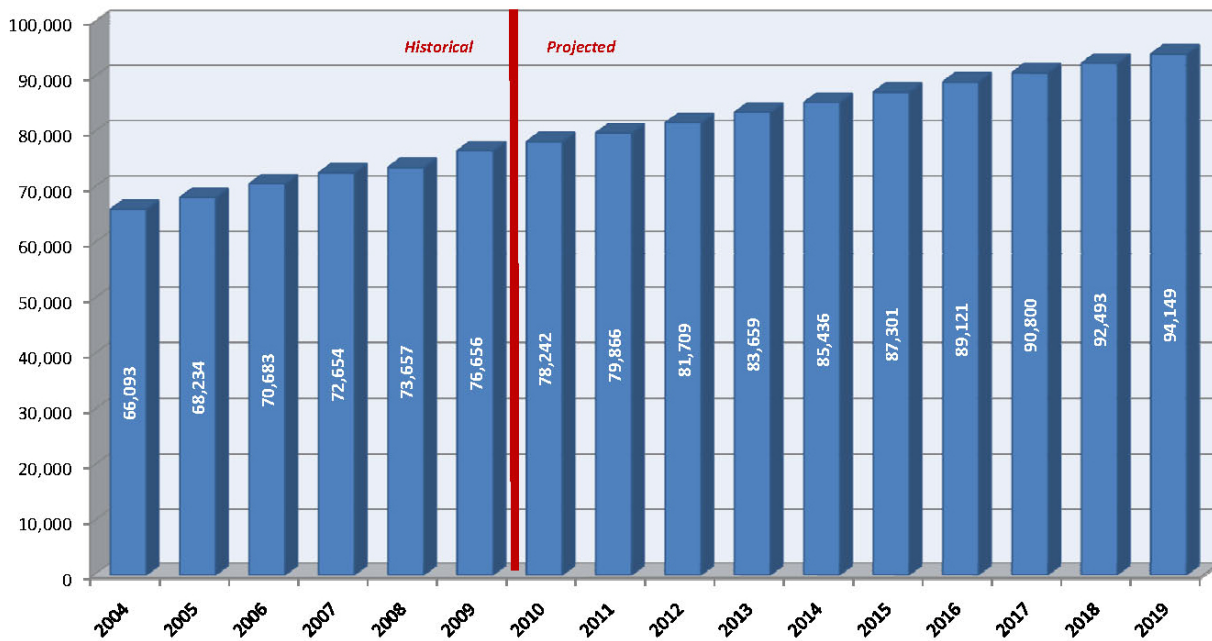


### Prince William County Schools Annual Percentage Change in Enrollment by School Level



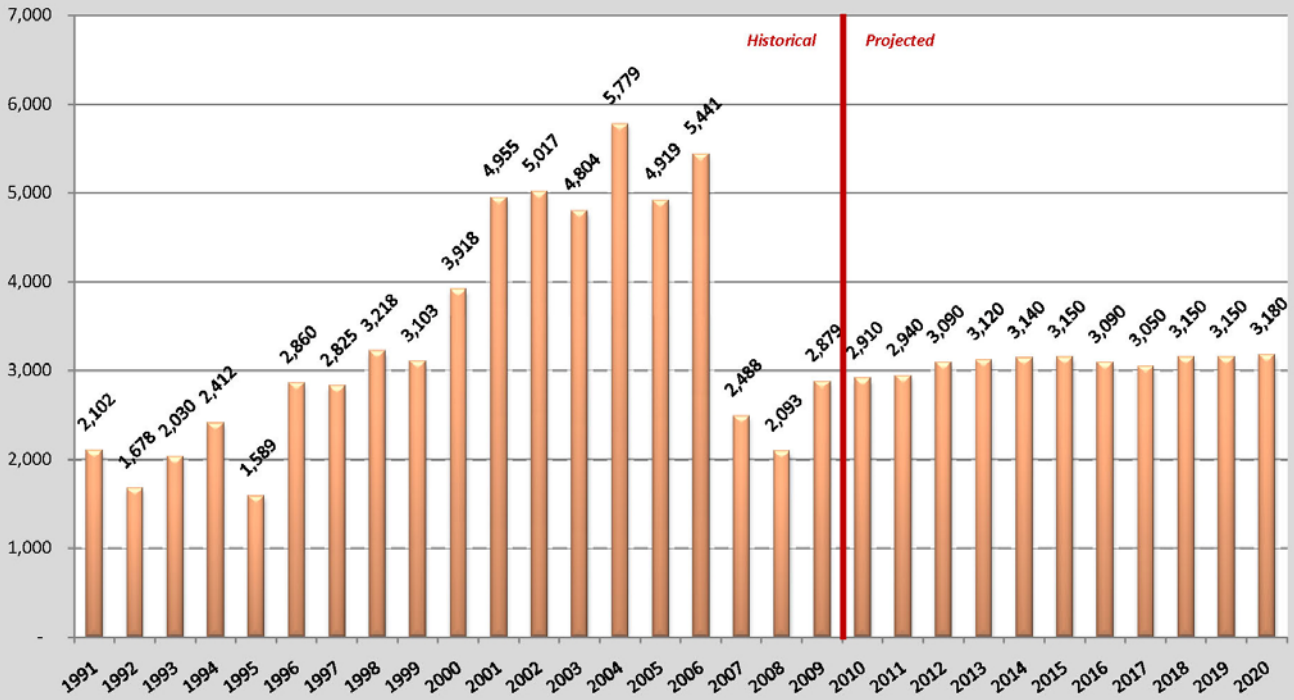
### Historical and Projected Enrollment

Prince William County Schools  
2004 to 2019

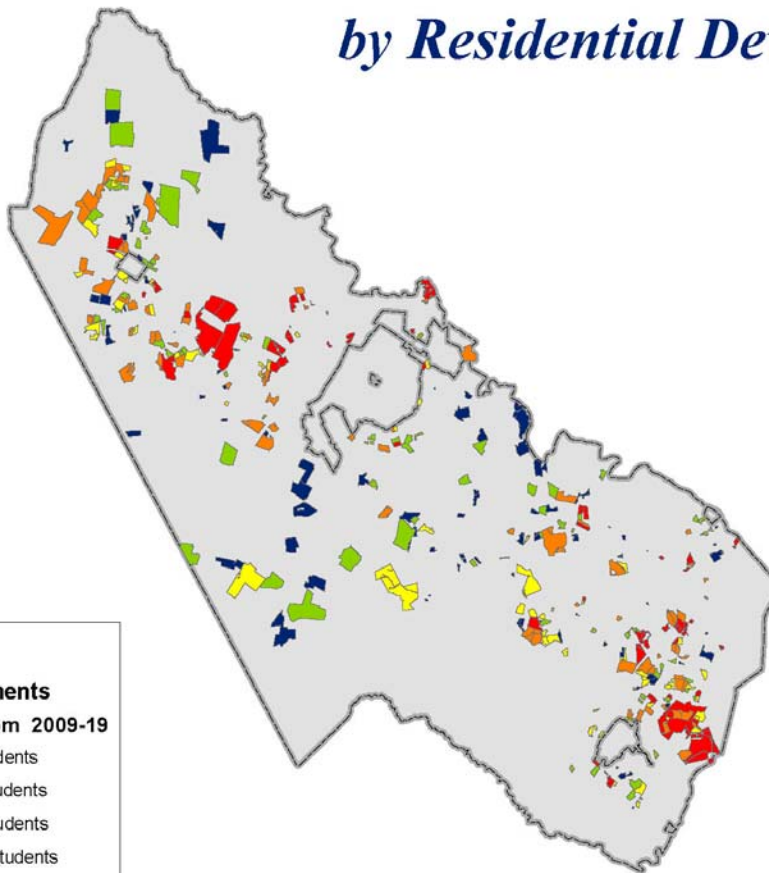


# Annual Housing Unit Change

Prince William County, Virginia



## Additional Students by Residential Development 2009-10



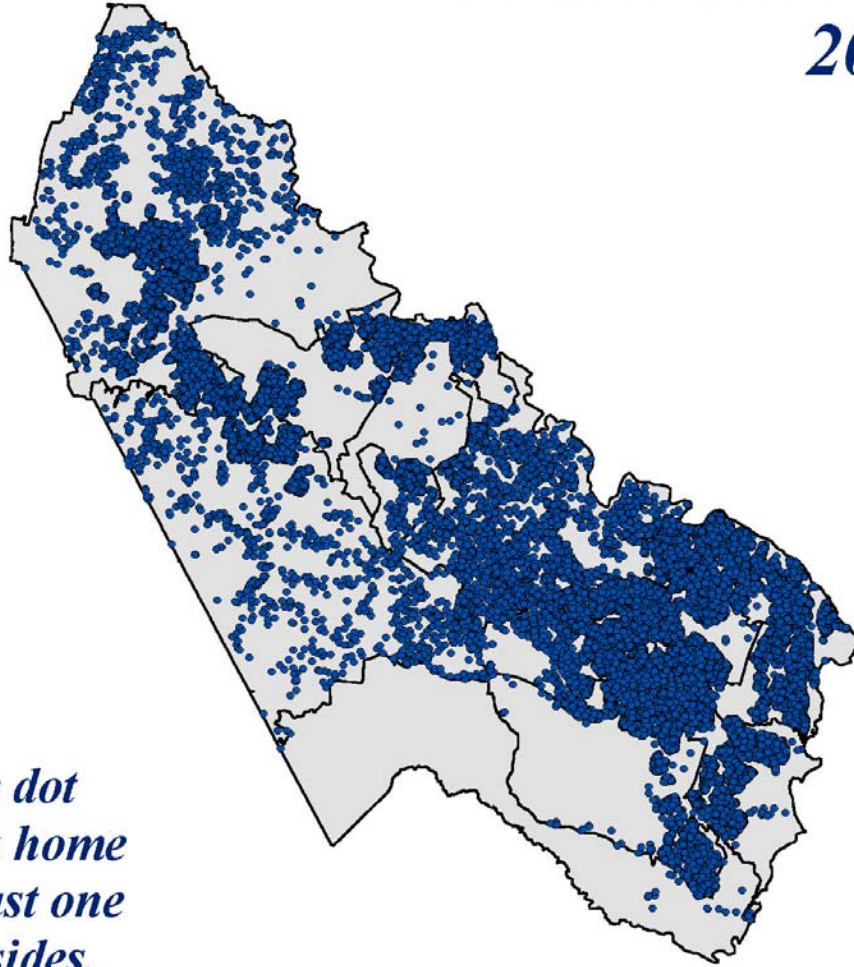
### Legend

#### Residential Developments

Additional Students from 2009-19

- 0 to 10 Additional Students
- 11 to 25 Additional Students
- 26 to 50 Additional Students
- 50 to 150 Additional Students
- Over 150 Additional Students

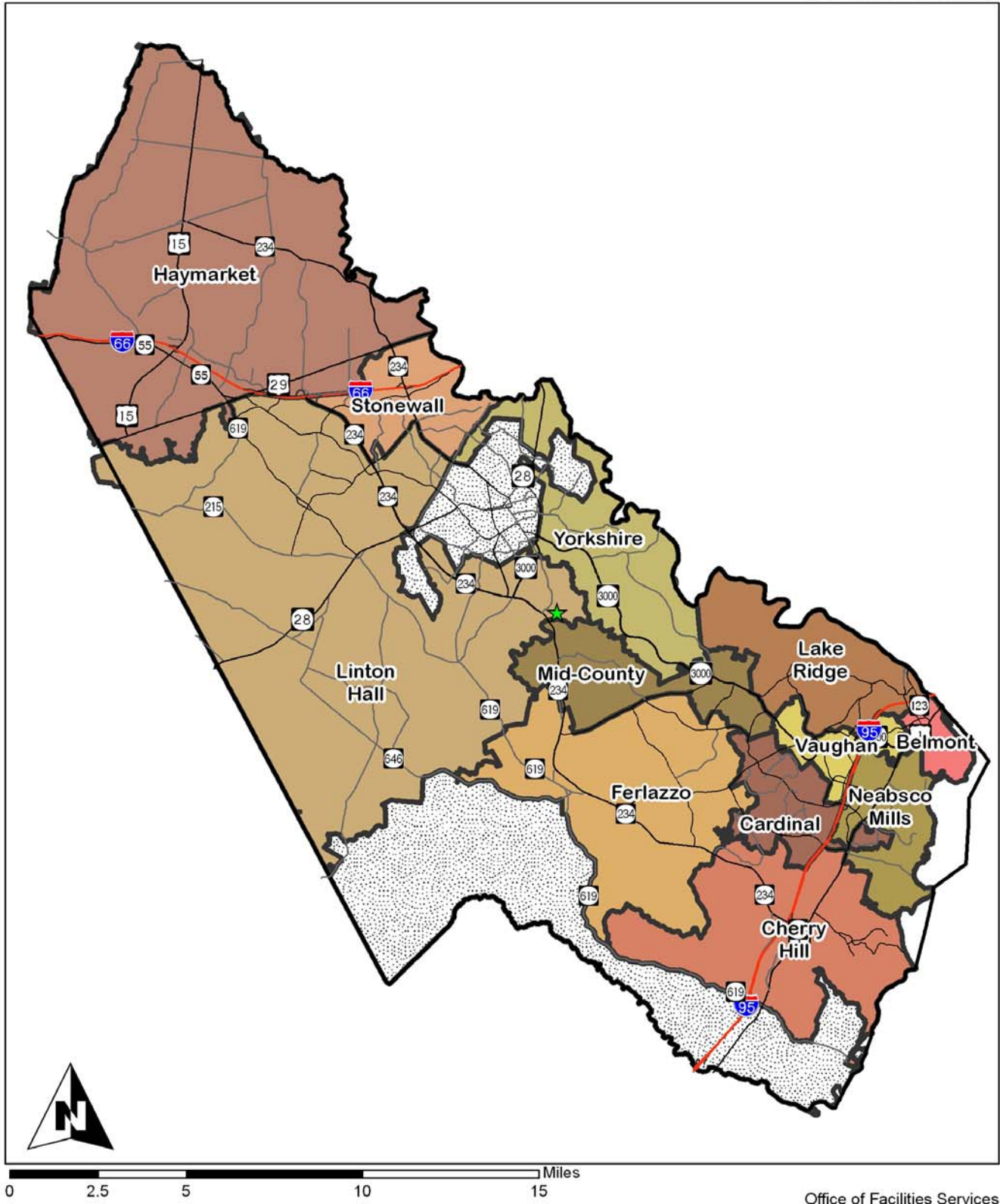
# *Student Distribution 2009-10*



*Each blue dot  
represents a home  
where at least one  
student resides.*

# Capital Improvements Program Elementary School Geographic Areas

FY 2011 -- FY 2020



# Elementary Schools by Geographic Area

*Prince William County Schools*

Geographic Area	Schools
<b>Belmont Area</b>	Belmont ES
<b>Cardinal Area</b>	Bel Air ES
	Dale City ES
	Fitzgerald ES
	Henderson ES
	Minnieville ES
	Neabsco ES
	Dumfries ES
<b>Cherry Hill Area</b>	Pattie ES
	River Oaks ES
	Swans Creek ES
	Triangle ES
	Williams ES
	Ashland ES
<b>Ferlazzo Area</b>	Coles ES
	Enterprise ES
	King ES
	McAuliffe ES
	Montclair ES
	Parks ES
	Alvey ES
	Buckland Mills ES
<b>Haymarket Area</b>	Gravely ES
	Mountain View ES
	Tyler ES
	Antietam ES
<b>Lake Ridge Area</b>	Lake Ridge ES
	Occoquan ES
	Old Bridge ES
	Rockledge ES
	Springwoods ES
	Westridge ES
	Bennett ES
<b>Linton Hall Area</b>	Bristow Run ES
	Cedar Point ES
	Ellis ES
	Glenkirk ES
	Nokesville ES
	Victory ES

Geographic Area	Schools
<b>Mid-County Area</b>	Kerrydale ES
	Marshall ES
	Penn ES
<b>Neabsco Mills Area</b>	Featherstone ES
	Leesylvania ES
	Marumsc Hills ES
	Potomac View ES
<b>Stonewall Area</b>	Mullen ES
	Sinclair ES
	Sudley ES
	West Gate ES
<b>Vaughan Area</b>	Kilby ES
	Vaughan ES
<b>Yorkshire Area</b>	Loch Lomond ES
	Signal Hill ES
	Yorkshire ES

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***APPENDIX C***  
***IDENTIFIED SCHOOL SITES***

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- Overall Map of School Sites Identified in the Capital Improvements Program
  - T. Clay Wood Elementary School (2011)
  - Patriot High School (2011)
  - Linton Hall Road Elementary School (2011)
  - Silver Lake Middle School (2012)
  - PACE West Special Education School (2012)
  - Nokesville Elementary School – Addition (2012)
  - Lomond Drive Elementary School (2013)
  - Haymarket Drive Elementary School (2014)
  - Harbor Station #1 Elementary School (2015)
  - 12<sup>th</sup> High School (2016)
  - Harbor Station #2 Elementary School (TBD)

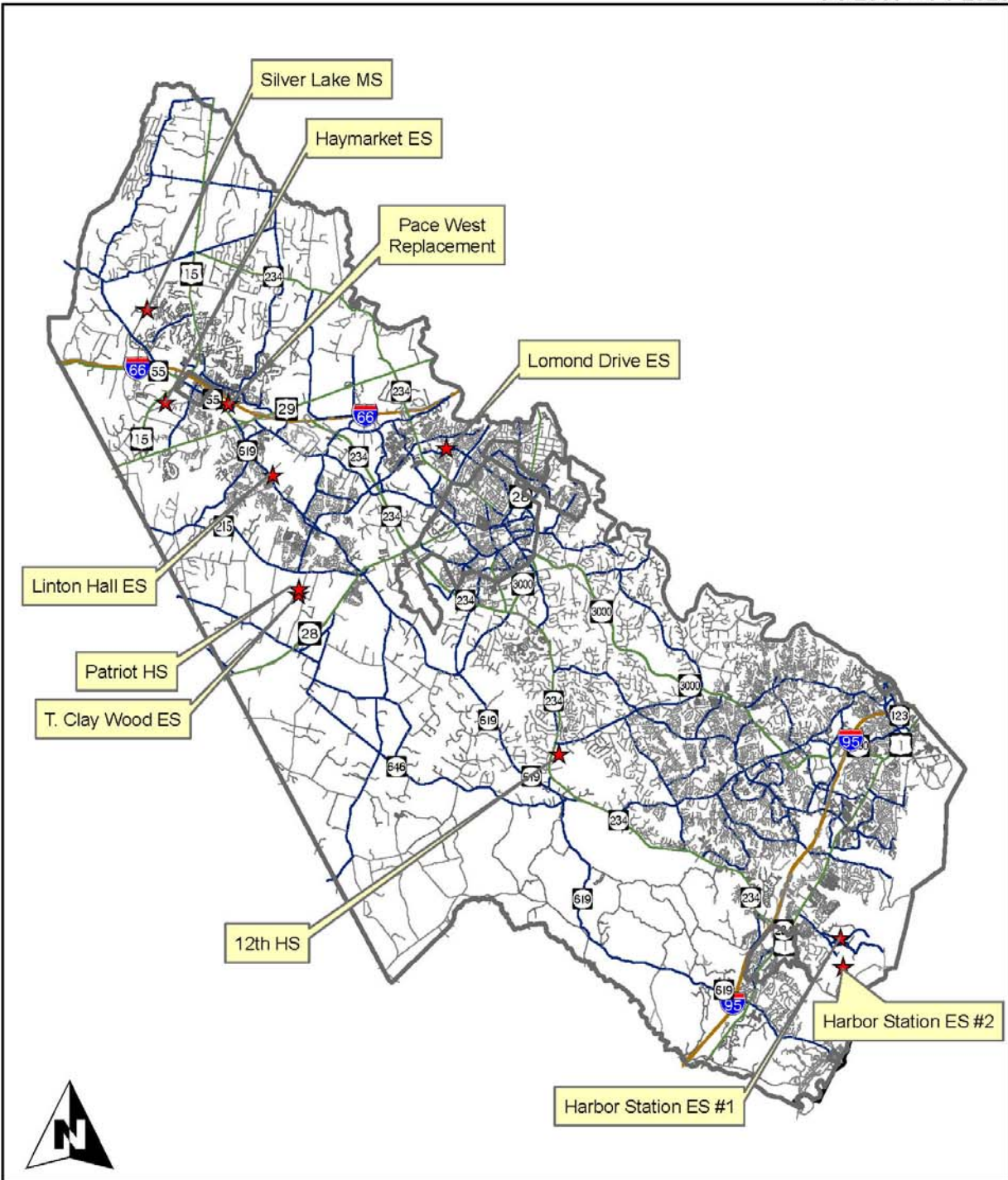
***School Site Maps***

Appendix C details the school sites that have been acquired by the School Division. Some of these sites are programmed to be utilized for new school facilities within this Capital Improvements Program document. Where this is true, the year that the site is to be constructed upon is shown on the map.

Other sites are depicted that are not currently scheduled to be constructed within the scope of this CIP document.

# School Sites Identified in the Capital Improvements Program (CIP)

FY 2011 -- FY 2020



Office of Facilities Services

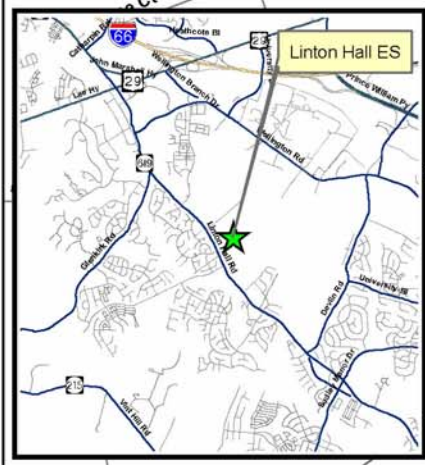


Office of Facilities Services





Office of Facilities Services



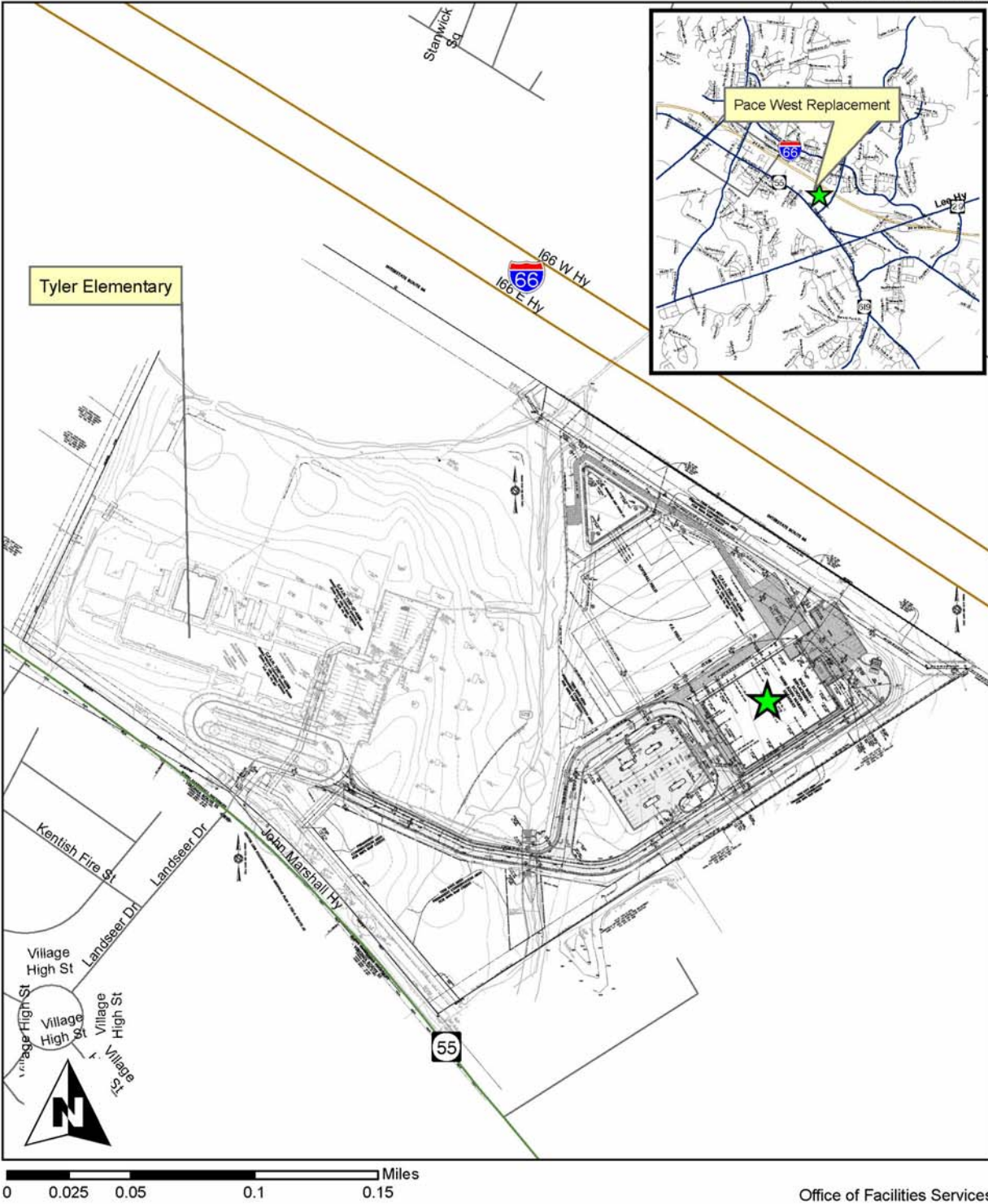
Office of Facilities Services

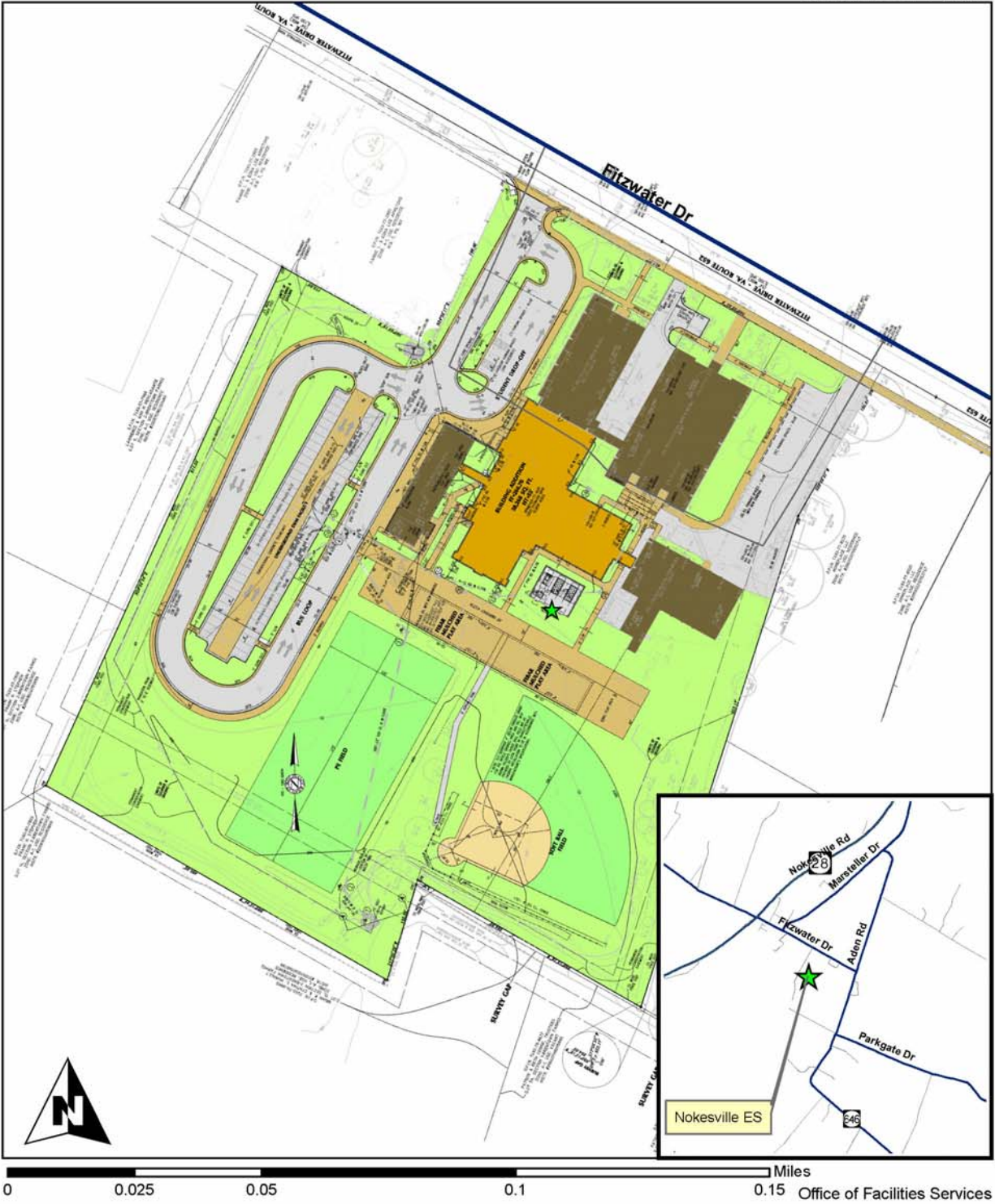
FY 2011 -- FY 2020



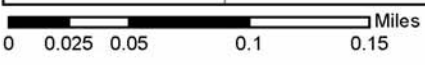
Office of Facilities Services

FY 2011 -- FY 2020



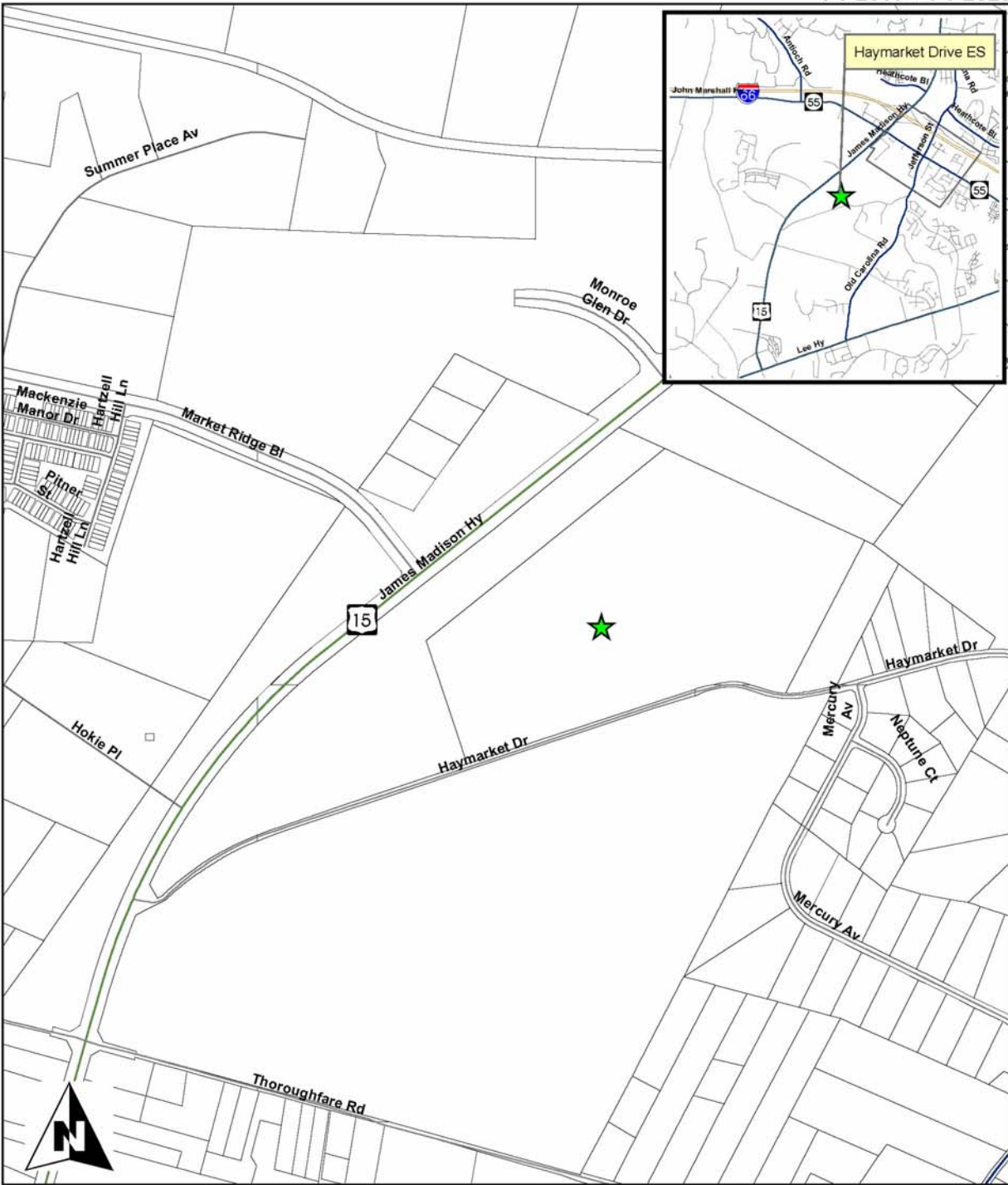


**FY 2011 -- FY 2020**



Office of Facilities Services

FY 2011 -- FY 2020



Office of Facilities Services

# Harbor Station Elementary School #1

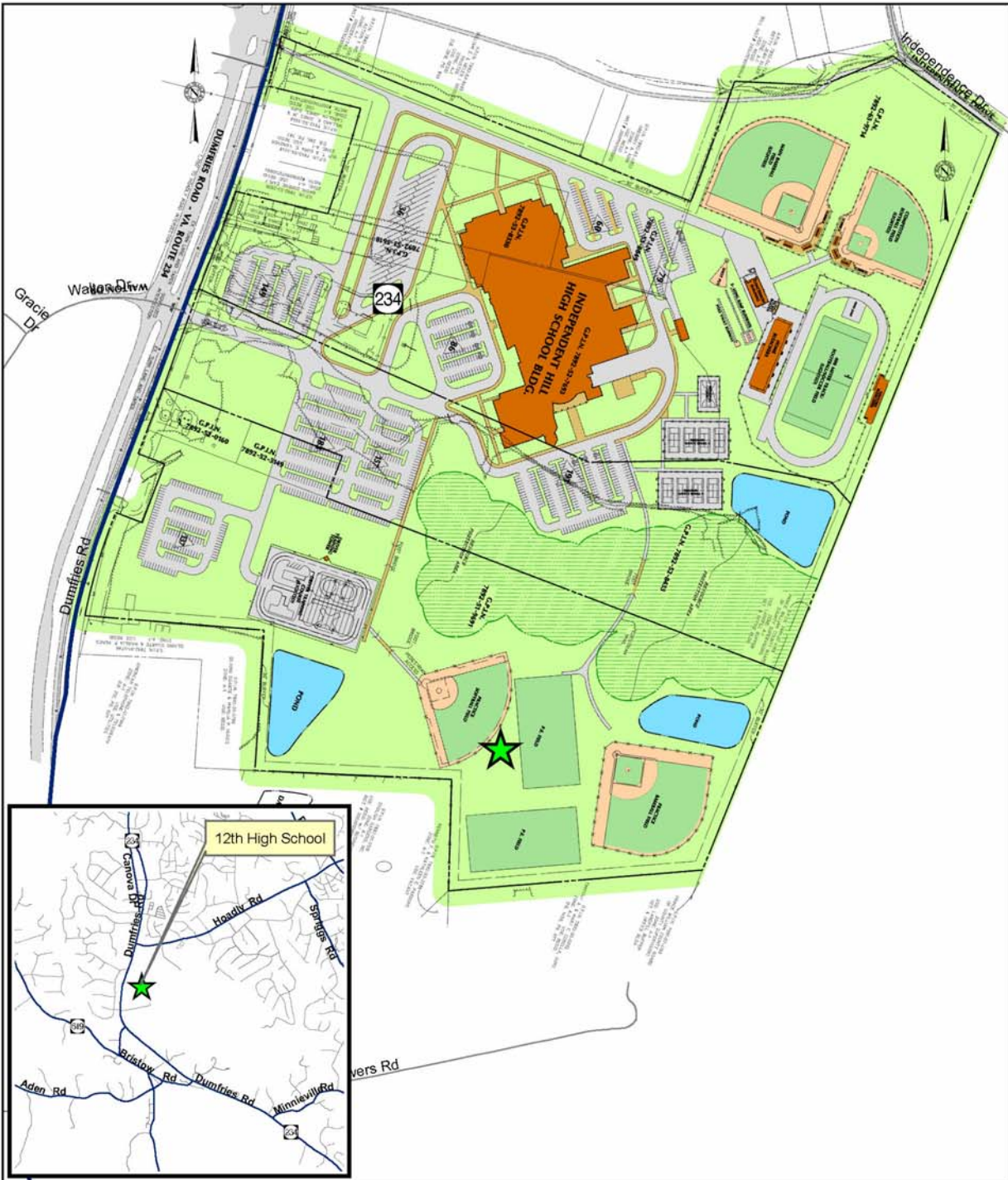
*Opens September 2015*

FY 2011 – FY 2020



Office of Facilities Services



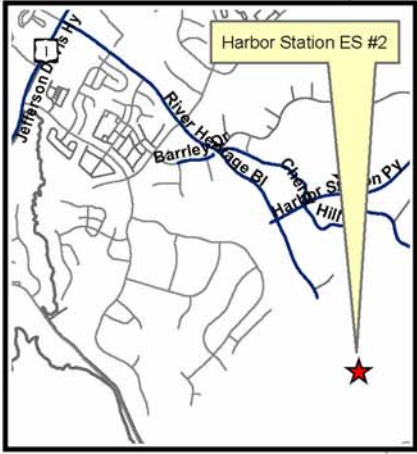
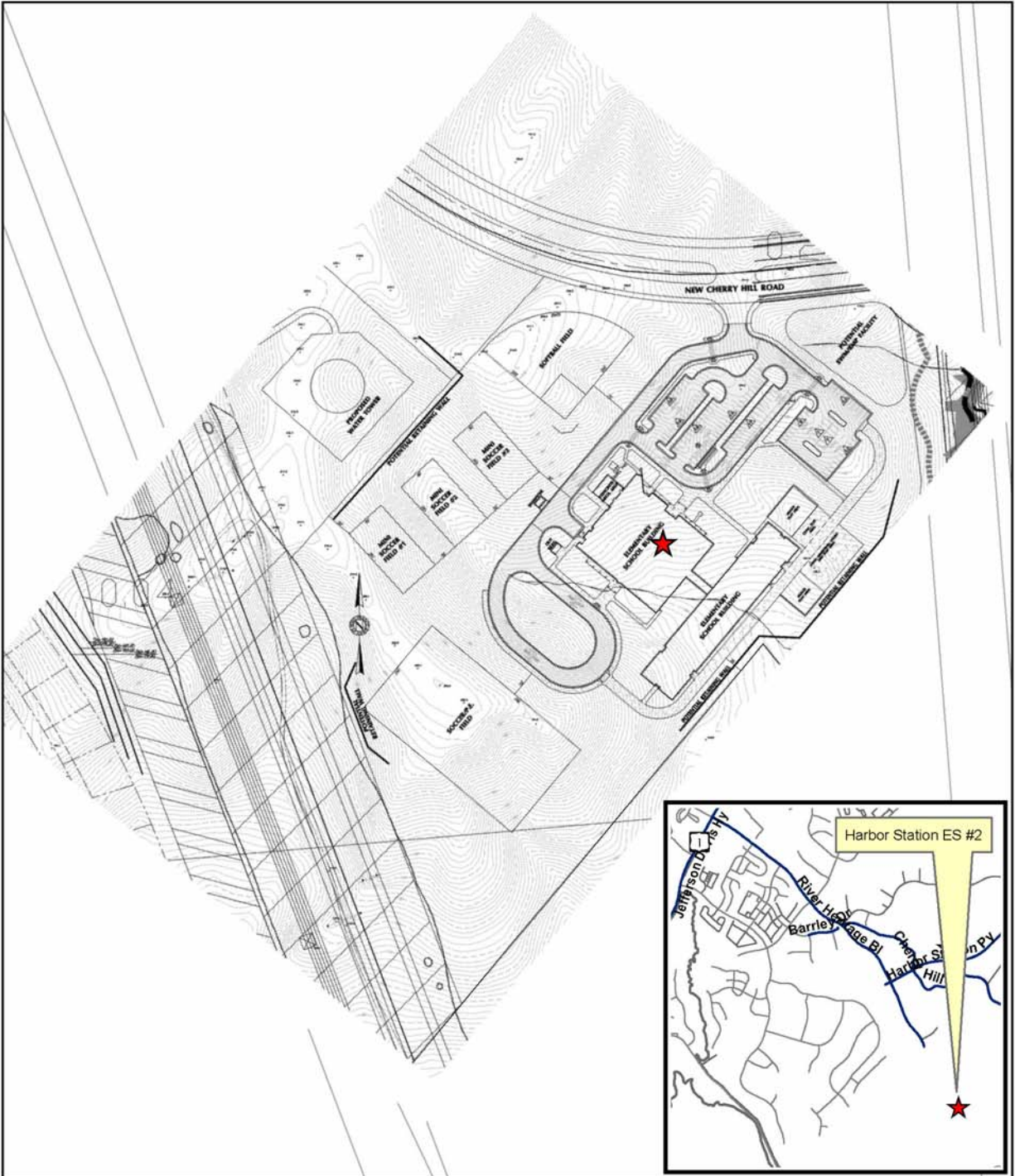


Office of Facilities Services

# Harbor Station #2 Elementary School

Opening Year To Be Determined

FY 2011 – FY 2020



Office of Facilities Services