

**Market, Fiscal Impacts & Proffer Analyses**  
**Barrington Subdivision**  
**Spotsylvania County, Virginia**

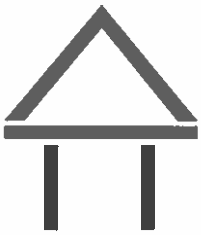
**Prepared For:**

**Mr. John Rayl & Mr. Robert Shircliff**

**June, 2017**

**S. Patz and Associates, Inc.**  
**46175 Westlake Plaza**  
**Suite 400**  
**Potomac Falls, Virginia 20165**





■ S. PATZ & ASSOCIATES, INC ■

■ REAL ESTATE CONSULTANTS ■

June 19, 2017

Mr. John Rayl  
Mr. Robert Shircliff  
9108 Snowy Egret Court  
Spotsylvania County, Virginia 22553

Dear Mr. Rayl & Mr. Shircliff:

Attached is our market analysis, Fiscal Impact Analysis (FIA) and Proffer Analysis (PA) for the proposed development of the 39-home Barrington subdivision that will be located on nearly 200-acres of property in Spotsylvania County. The market analysis section of the report supports the proposed development, based on the successful marketing of nearby large-lot subdivisions. Barrington is expected to be sold out within seven of so years from start of marketing with average home prices of \$675,000 and above, when home prices are calculated in constant 2017 dollars.

A large-lot subdivision is defined as homes on lots of two-plus acres. These subdivisions are typically in rural settings with sewer septic systems and drainage fields. Most have considerable open space and preserved natural features such as slopes, streambeds, wetlands, etc. These are the features planned for Barrington.

Based on the conclusions of the summary market study, at build out, the 39 homes at Barrington are expected to generate net fiscal impacts for Spotsylvania County of approximately \$244,000 at build out, annually, including on-site and off-site net fiscal benefits, as shown in the chart to follow.

<u>Total Fiscal Impacts</u>	<u>On-site</u>	<u>Off-site</u>	<u>Total</u>
Total Tax Revenue	\$298,790	\$207,690	\$506,480
Tax-supportable Costs	<u>\$298,790</u>	<u>\$207,690</u>	<u>\$506,480</u>
Net Fiscal Benefit	\$110,850	\$133,150	\$244,000

Mr. John Rayl  
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The FIA is based on the completion of the subdivision, including home and lot sales. Often in communities of this type, lots are sold and homes are built "later". At the home prices planned, this will likely not be the case, as proven by market trends at area large lot subdivisions. Thus, the FIA is based on home sales which include the lot.

The proffer analysis shows a recommended direct cost impact of approximately \$161 per housing unit. This is summarized in the following chart. The chart is based on our analysis of certain public data relating to expected capital costs to the County for schools, public safety, and park and recreation.

<b><u>Summary of Recommended Proffer Costs, Barrington Subdivision, Spotsylvania County, Virginia, 2017 Dollars</u></b>	
	<b><u>Amount</u></b>
Public Schools	\$0
Fire and Rescue	\$46
Parks and Recreation	<u>\$115</u>
Total Proffers	\$161

The FIA and PA are based on the methodology and data requirements of the Spotsylvania County. Please call if additional data or clarification are needed.

Sincerely,



Stuart M. Patz  
President

Cc: Charlie Payne

SMP/mes

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## Introduction

This will set forth our market analysis, and the resulting Fiscal Impacts Analysis (FIA), for the proposed development of the Bear Tract. Section III of the report is the proffer analysis for the development proposal. The nearly 198-acre property is planned for development with 39 new single family detached homes to be built on a minimum of two-acre plus lots with private wells and private drainage fields. The property is currently zoned RU which allows one home on the entire site. The rezoning proposal is for a PRR-2 zone, with an average density of one home per every five acres.

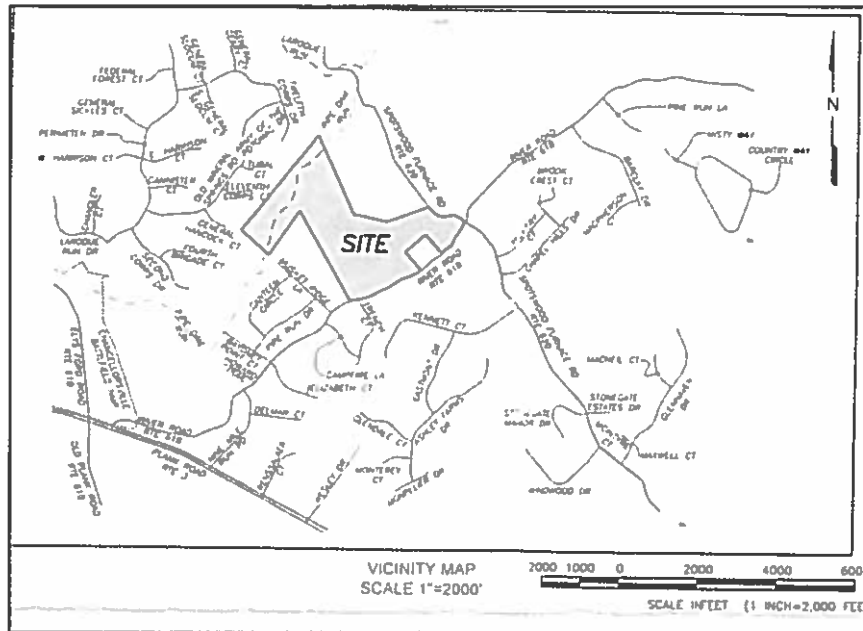
Under the proposed PRR-2 zone, 56.44 acres will be set aside for areas with steep slopes and wetlands. Approximately 46 acres will be set aside for usable open space. Of the 198 total property acreage, only 95± acres will be developed with homes on two-acre plus lots.

The following study evaluates market support for the 39 homes to be built at Barrington. Based on the identified market support for new home sales in Section I of the report, conservatively estimated at prices that average \$675,000 or more for the home and lot, reported in constant 2017 dollars. The second section of the report is a FIA that calculates the net annual tax benefits to the County once Barrington is built out. Section III is a proffer analysis based on input from public data and information.

The report follows the requirements of Spotsylvania County officials for these types of studies. The market analysis is presented to determine a lot and home sales price and pace for new large lot developments of the type proposed. This is essential, as it establishes the fact that the proposal is viable and that net revenues will flow to the County within a designated time frame. It reduces any speculation related to project feasibility and the level of tax revenue that can be expected.

## Site Analysis

The first map shows the site location and the site setting located in Spotsylvania County. The site is located on the north side of River Road (CR 618), to the immediate west of the intersection of River Road and Spotswood Furnace Road (CR 620). The site is irregular in shape and extends northwest to Pipe Dam Run. The square parcel not included in the 198± acre site is a parcel that contains the stately Manor House.



**Map A - Site Location & Setting**

The aerial to follow shows that the site is fully wooded and located in an area with very limited development. The manor house is evident in the aerial. The aerial shows that the property located across CR 620 is also fully wooded. The property on the south side of River Road also has level farmland. The area surrounding the intersection of Routes 618 and 620 is not developed other than 3 large lots directly on CR 620, but the area is a mix of heavily wooded properties and meadowland.



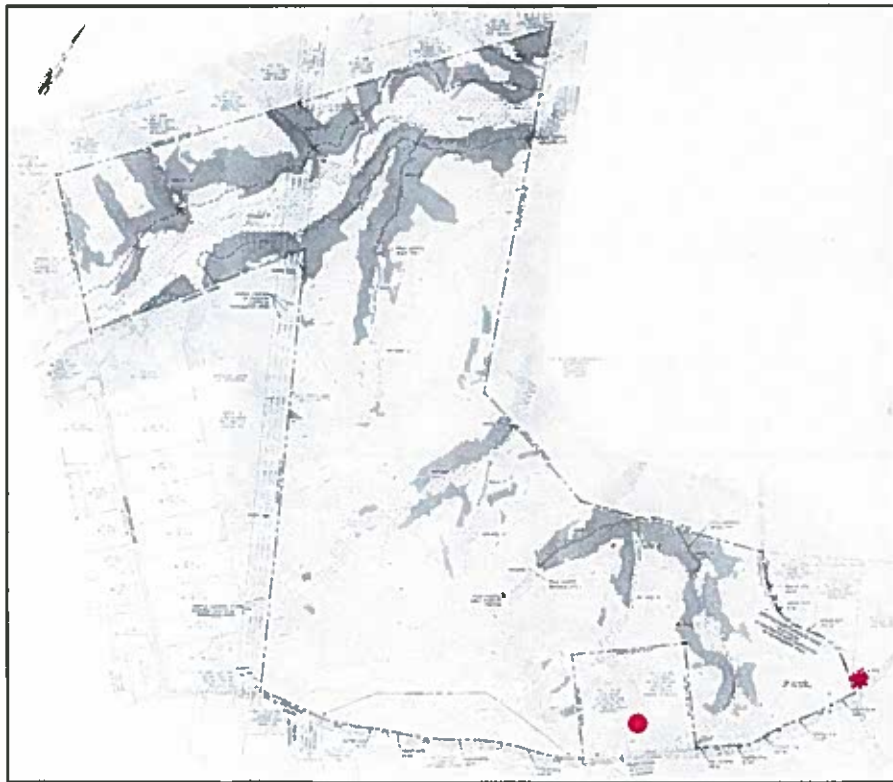
### **Aerial View of Barrington Property**

The three site photos show this more clearly. The top photo is a view of the site from the intersection on CR 620. It is a view west into the site's eastern boundary. The middle left photo is a view west along River Road. The Barrington site is on the right. Meadowland is on the left on the south side of River Road. In the third photo, the Barrington site is on the left. The non-wooded area is the location of the manor house. The property on the south side of River Road is not a wooded property.





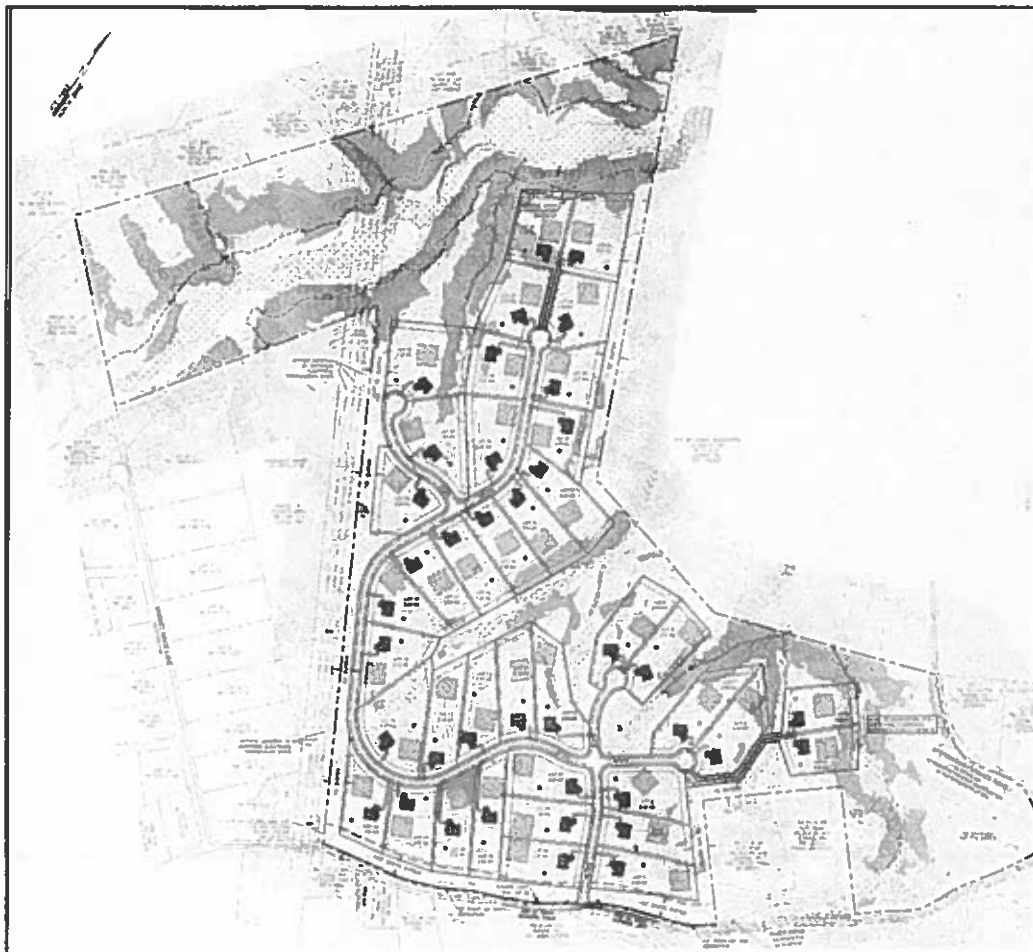
The existing conditions map on Page 9 shows that the site does have some topography and steep slopes, as noted above. There are a number of streams throughout the property and therefore wetland areas. These sections of the site will not be developed. A utility easement runs in a north-south direction along the western portion of the property. The area shown with a "star" is the intersection on CR 620 where the first photo was taken. The "circle" shows the location of the manor house on the subject site.



**Map B - Existing Conditions**



The last site map is the Generalized Development Plan (GDP) for the property. Site access is shown from River Road on the west side of the property's manor house. Site infrastructure shows a new north-south road to be built throughout the property with four cul-de-sacs that extend off of the primary subdivision road. The large area to the north, with considerable topographic and wetland areas will remain undeveloped. Another large area that will not be developed is on the far east side of the site and adjacent to the manor house property. Home sites and developed areas are shown for each of the 39 lots.



**Map C - Generalized Development Plan**

Map D is a highway map. Access to the site is via CR 620 north from Route 3. Route 3 interchanges with I-95. It runs west to CR 620 north, just past Harrison Road. Route 620 a two-lane, winding striped rural roadway that runs north to CR 618 and the

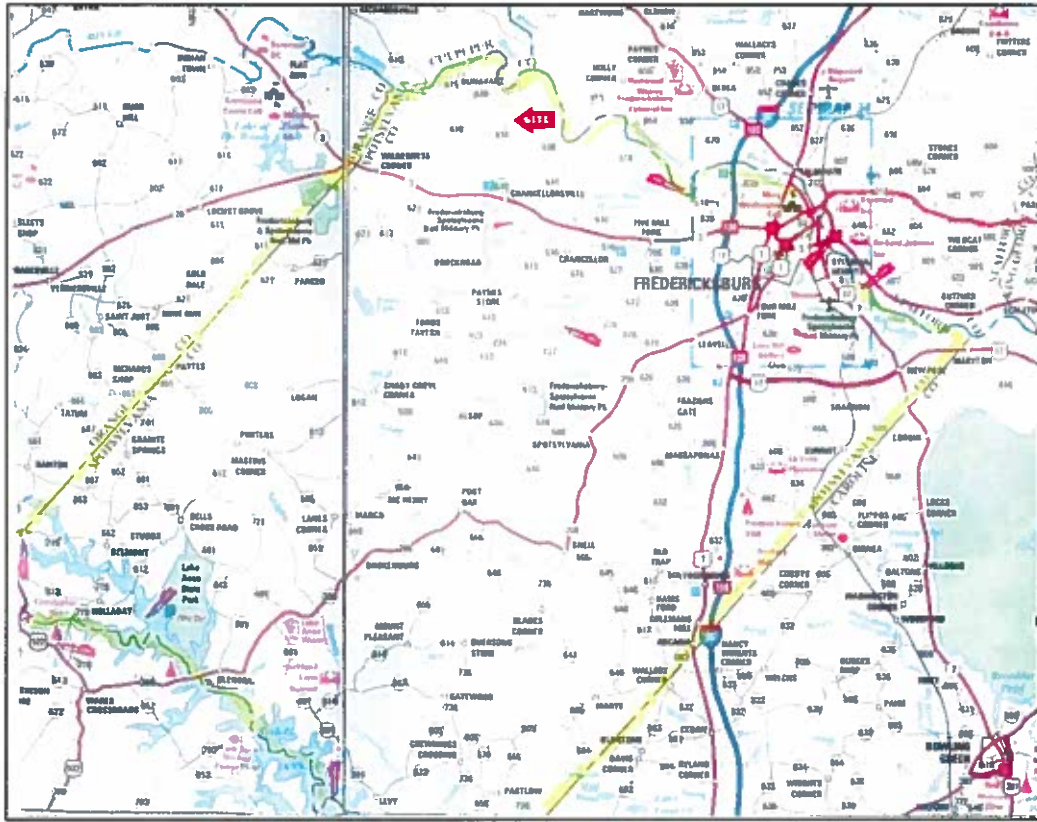
Barrington site. CR 618, River Road is a second access road to the site from Route 3. It intersects with Route 3 near Eleys Ford Road.



**Map D - Site Access Map**

On Map D are two numbered areas. Number 10 is the general location of an active large lot subdivision – River Glen. Number 9 is the Glen Haven subdivision. The locations are not exact, but are approximate. These are the two best comps for the proposed Barrington proposal.

Map E is a county-wide map. It shows the proximity of Barrington to the Route 3 corridor and to I-95. In spite of the rural setting of Barrington, it is only 10+ minutes driving time to Route 3 and retail corridor along Route 3. It is 15± minutes to the Route 3/I-95 interchange at Fredericksburg.



**Map E - Spotsylvania County Setting**

**Demographic Analysis**

Table 1 provides a summary of key demographic trends within Spotsylvania County, particularly related to higher-income households. We defined the market for homes at Barrington and subdivisions comparable to Barrington as households with incomes of \$150,000 and above, as homes are expected to be priced from \$600,000 to \$1.0 million, with the average likely to exceed \$675,000 for lot and home. The target market for buyers of homes in this price range is likely those with incomes of \$150,000 and above.

Data in Table 1 show that there are over 8,000 households in Spotsylvania County in this income category, using 2017 dollars, and by 2020, that total should increase to over 9,600 households.

**Table 1: Trends and Projections of Population and Household by Income, Spotsylvania County, Virginia, 1990-2020 (Constant 2017 Dollars)**

	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>
Population	57,400	90,400	122,400	129,000 1/	135,600
Group Quarters Population	340	550	520	550	570
Household Population	57,060	89,850	121,880	128,450	135,030
Persons Per Household	3.01	2.87	2.91	2.91	2.91
Total Households	18,950	31,310	41,940	44,140	46,400
<b>Target Market 2/</b>					
Percent Within Income Category	8.8%	12.8%	16.8%	18.8%	20.8%
Households Within Income Category	1,660	4,000	7,050	8,300	9,650

Notes: 1 / Based on estimates from the Weldon Cooper Center for Public Service.  
 2/ Households earning annual incomes exceeding \$150,000.

Source: 1990, 2000 and 2010 Census, U.S. Census Bureau, U.S. Department of Commerce;  
 S. Patz & Associates, Inc.

There is a large number of higher-income households in Spotsylvania County and that sector of the market is increasing. Data in Table 1 show an expected increase of 1,300+ households with incomes of \$150,000 and above over the 2015 to 2020 period.

## Section I Market Analysis

We identified four subdivisions in the County that are active and with lot sizes and home prices comparable with the Barrington proposal. These are listed in Table 2. As shown on Map A above, two – River Glen and Glen Haven – are located in close proximity to Barrington along Spotswood Furnace Road and River Road. Fortune’s Landing is a new property located along Catharpin Road and near the Ni River. The Woods of Catharpin is located on Catharpin Road and just north of Fortune’s Landing.

Data in Table 2 summarize the sales pace and total available lot and home inventory at these four large-lot subdivisions. These data show that 76 of the 147 lots are built and sold. River Glen has more lots sold than homes built. That means some home buyers buy the lot first and select a custom home builder later. That is not the case with Fortune’s Landing and Glen Haven. Lots and homes are sold at the same time.

**Table 2 Characteristics of Active Large Lot Subdivisions, Spotsylvania County, Winter, 2016/17**

	<u>Date Started</u>	<u>Total Lots</u>	<u>Homes Sold</u>	<u>Lots Sold</u>
River Glen	2014	43	15	34
Fortune’s Landing	6/16	49	4	4
Glen Haven	2007	40	25	25
Woods at Carpathian	NA	<u>15</u>	<u>14</u>	<u>13</u>
Total		147	58	76

Source: Field and telephone survey by SPA.

Following is a brief description of each of these communities.

- **River Glen** is located to the east on Route 618 and close to the Barrington site. It is a 220-acre property that is planned for 43 homes on 2+ acre lots. The following site plan shows the development plan. To date, 24 lots have been sold, and 12 of these have been developed since 2014. Lot prices average \$145,000 and home prices, with lots, start at \$550,000 and average somewhat over \$600,000. The following photo shows one of the newer homes built at the community.



- **Glen Haven** is also a nearby community along Spotswood Furnace Road. The community was started prior to the recession by Winchester Homes. At that time, home prices were as high as \$900,000. Classic Homes purchased the 20 remaining lots in 2016 (with no sales to date). Current home (and lot) prices are expected to average in the \$600,000+ range. The current home builder is Classic Homes. Lot sales are expected to be part of home sales. Lots are two- and three-acre.



- **Woods at Catharpin** is located along Catharpin Road. It is a 5+ year-old community with two- and three-acre lots. The community is near build out with one lot and the model home still available. This is a small community with only 15 lots. Home prices exceed \$500,000.



- **Fortune's Landing** is located off of Catharpin Road (CR 612), south of Route 3 and abutting the Ni River. There are several riverfront lots in the subdivision. The development opened in mid-2016 and has four home/lot sales to date. The property is large at 315 acres. Lot sizes range from three to 18 acres and over about five acres. Home prices start at \$500,000 and average somewhat over \$600,000.

**Market Analysis Summary.** Data in Table 2 above show that Woods at Catharpin is at or near build out. River Glen has 12 lots to sell after three years on the market. Fortune's Landing recently opened and Classic Homes has not had any sales at Glen Haven.

Since 2014, approximately 20 homes and 35 lots sales were realized at these communities. The developer of River Glen has 15 home sales and 28 lot sales in three years. At that pace, lot inventory could be closed out by 2019. Barrington may not be at full marketing until 2018/19. Barrington should be able to achieve the same level of success as River Glen, particularly if Woods at Catharpin and River Glen are no longer active at the time of home sales at Barrington.

Thus, market data support a five-home annual sales pace at Barrington from the start of active home sales with lots and homes sold simultaneously and with home prices of \$675,000+, including lot and home upgrades, based on 2017 dollar values.

There are other large communities in Spotsylvania County but those have home prices starting in the \$400,000's so they were not defined as competitive.



## **Section II: Fiscal and Economic Impact Analysis**

The fiscal and economic impacts analysis for Barrington is presented for the scenarios when all homes have been constructed on the lots. Based on the marketing experience at River Glen, lot and home sales can be expected at the same time. The impacts for Spotsylvania County from lot sales alone will involve the real property taxes only, as there will be no resident activity associated with just the lots. The analysis for the full development at buildout will focus on taxes from resident activities as well as on real property values. This is the scenario expected at Barrington.

Fiscal and economic impacts are treated in two ways: first, those impacts which occur directly from activities on-site at the property; and, second, those impacts which occur off-site due to the multiplier, spin-off or ripple effect of residents expenditures. The off-site impacts will be explained further on in this report; the present section deals with the on-site impacts. These include taxes generated by the Barrington development and its residents on-site to accrue to the County, such as the real property and personal property taxes for the development.

The fiscal impact analysis also projects the public service and facility costs to be incurred by Spotsylvania County by development on-site and for off-site spin-off effects. The results of the fiscal impact analysis compares the tax revenues generated by the property with the tax-supported costs incurred by the County to determine the net fiscal impacts in terms of a revenue surplus or deficit over costs. This is done for both on-site and off-site impacts. Total annual impacts for the property are projected at complete buildout of the project. Results are given in constant year 2016 dollars, rounded to the nearest ten dollars.

### **Summary of Fiscal Impacts**

The following chart summarizes the on-site and off-site (spin-off) effects that will accrue to Spotsylvania County once the Barrington has been fully built out with all 39 homes sold. The chart shows a three percent revenue surplus of over \$110,000 in on-site

impacts (real estate taxes, population and education costs, etc.), and a net revenue surplus of \$133,000 for off-site spin-off effects. The on-site surplus is less than the off-site surplus because of the high cost of educating pupils living in new homes at Barrington. Overall, this gives a net revenue surplus of \$244,000 annually for the County. The remainder of this report will give the derivation of these figures.

	<u>On Site</u> <u>Impacts</u>	<u>Off-site</u> <u>Impacts</u>	<u>Total</u> <u>Impacts</u>
Total Tax Revenues	\$298,790	\$207,690	\$506,480
Less: Tax-supported Costs	<u>-\$187,940</u>	<u>-\$74,540</u>	<u>-\$262,480</u>
Net Fiscal Benefit	\$110,850	\$133,150	\$244,000

**On-site Impacts: Tax Revenues**

The revenues to be considered in this report are taxes collected by Spotsylvania County for General Fund use. These include the property taxes, utility tax, and other smaller taxes. The paragraphs to follow document the derivation of the tax amounts for the on-site development at the property.

**Real Property Tax.** This is a tax on the assessed value of real estate. Homes at Barrington are likely to average in the \$675,000+ range. To be conservative, estimated home prices of \$675,000 are used for home prices, including the lot prices. For 39 homes at this price, taxed at the rate of \$0.85 per \$100 of valuation, the total real property tax at the site would be almost \$224,000 each year in constant 2017 dollars, as Table 3 shows.

**Table 3. Real Estate Taxes from Home Sales at Barrington at Buildout  
(constant \$2017)**

	<u>Amount</u>
Number of Homes	39
Total Home Price	\$675,000
Total Market Value	\$26,325,000
Tax Per \$100 Value	0.85
Real Estate Tax	\$223,760

Sources: S. Patz & Associates., Inc.

**Personal Property Taxes.** County residences are assessed personal property taxes. This is a tax on the assessed value of motor vehicles. To address residential personal property taxes, the first step is to estimate the average depreciated value per vehicle in the County. The sequence of calculation to achieve this are shown in Table 4 and summarized as follows:

- The FY 2017 Adopted Budget for Spotsylvania County gives an allocation of \$35.9 million for expected personal property taxes.
- Based on the percent of real estate assessments that are residential - 81 percent - it is estimated that residential personal property taxes are \$29.2 million.
- To this base is added the amount of Personal Property Tax Relief Act (PPTRA) funding the County is expected to receive from the State of Virginia, which has been set at \$14.5 million since 2004, bringing the total to \$43.7 million.
- Dividing the total residential personal property tax by the tax rate produces the total assessed value of vehicles in the County, \$667 million at a 50 percent assessment ratio, or a total depreciated value of vehicles of \$1.33 billion.
- It is estimated that there are 90,600 vehicles in the County. Dividing the number of vehicles into the total assessed value of vehicles gives an average assessed value per vehicle of \$14,700.

**Table 4. Estimation of the Average Depreciated Value of Residential Vehicles, Spotsylvania County, Virginia (constant \$2017)**

	<u>Amount</u>
Personal Property Tax	\$35,900,000
Percent Residential	81.26%
Residential Property Tax	\$29,172,340
PPTRA	\$14,509,422
Total Residential Tax	\$43,681,762
Property Tax Rate/\$100	\$6.55
Assessed Value	\$666,897,130
Assessment Ratio	0.50
Depreciated Value of Vehicles	\$1,333,794,260
Number of Vehicles	90,600
Average Value Per Vehicle	\$14,722
FY2016 Population	131,305
Vehicles Per Capita	0.69

Sources: FY 2017 Adopted Budget for Spotsylvania County, Virginia

Table 5 provides an estimate of the average depreciated value per vehicle for future residents at Barrington. For homes at \$600,000 and above, it is estimated that the average income of households in those homes is \$150,000+. This compares to an estimated average household income in the County of \$93,000. Assuming that home owners at Barrington have vehicles valued at the same ratio as compared with households in the County as a whole (61% higher), average value of vehicles at the site would be approximately \$25,000.

**Table 5 Estimation of the Average Depreciated Value of Vehicles at Barrington, Spotsylvania County, Virginia**  
(constant \$2017)

	<u>Amount</u>
Average Home Value	\$600,000
Income Ratio	4.0
Average Income	\$150,000
County Average Income	\$92,800
Income Ratio	1.60
County Value Per Vehicle	\$14,722
Average Value Per Vehicle	\$25,000

Sources: FY 2017 Adopted Budget for Spotsylvania County, Virginia, and U.S. Census of Population

The last step in deriving the personal property tax for Barrington residents is to estimate the number of vehicles at the site, apply the average vehicle depreciated value, and compute the property tax at the County rate of \$6.55 per \$100, assessed at 50 percent of value. In the analysis, an occupancy rate of 97 percent for homes is assumed to account for normal turnover. The result is a projection of the personal property tax at about \$51,100 annually.

**Table 6. Derivation of Personal Property Taxes from Residents at Barrington at Buildout, Spotsylvania County, Virginia (constant \$2017)**

	<u>Amount</u>
Number of Homes	39
Occupancy Rate	0.97
Number of Households	38
Persons Per Household	3.0
Numbers of Persons	113
Vehicles Per Capita	0.69
Number of Vehicles	78
Average Value of Vehicles	\$25,000
Total Vehicle Value	\$1,950,000
Assessment Ratio	0.50
Vehicle Assessed Value	\$978,800
Tax Rate per \$100	\$6.55
Personal Property Tax	\$64,100

Sources: FY 2017 Adopted Budget and Statistical Section for Spotsylvania County, Virginia, and S. Patz & Associates., Inc.

**Consumer Utility Taxes.** Expenditures on utilities are typically taxed in Virginia municipalities on the following utilities: electric, propane, cable (internet and phone) and cell phone. For households, most utility taxes are approximately \$2.50 per month per utility; for five utilities this is \$150 per household per year. For 38 households at the site, utility taxes would come to \$5,700 annually, as the following chart shows.

	<u>Amount</u>
Number of Utilities	5
Ave. Monthly Tax Per Utility	\$2.50
Number of Months	12
Annual Utility Tax	\$150
Households	38
Utility Tax	\$5,670

**Motor Vehicle License Fees.** It was shown above that there would be an estimated 78 vehicles at Barrington. Motor vehicle license fees in the County are \$25 per vehicle, yielding total fees at the site of \$1,960.

**Recordation Tax.** The last tax to be considered is the recordation tax, which yields a small amount per year for the property. At total property value of \$26.3 million, and assuming a resale every ten years plus the initial recordation, the total taxable amount over 20 years would be \$79.0 million. The state taxes the (re-)sales at \$0.25 per \$1,000 of valuation, of which one third is returned to the municipality. Total taxes over 20 years would come to \$65,800, or \$3,290 annually.

**Summary of Tax Revenues.** Table 7 summarizes the tax revenues that could be expected to flow from the homes at Barrington annually after buildout, in constant 2017 dollars. The total would come to just over \$299,000 each year.

**Table 7. Summary of Annual Taxes for Spotsylvania County from Barrington Annually at Buildout (constant \$2017).**

	<u>Amount</u>	<u>Percent</u>
Real Estate Tax	\$223,760	74.9%
Personal Property Tax	\$64,110	21.5%
Utility Tax	\$5,670	1.9%
Motor Vehicle Licenses	\$1,960	0.7%
Recordation Tax	<u>\$3,290</u>	<u>1.1%</u>
Total Tax Revenue	\$298,790	100.0%

Source: S. Patz & Associates., Inc.

**On-site Costs to Spotsylvania County**

The previous section has derived the major tax revenues that would accrue to Spotsylvania County from the on-site development at the property. The fiscal impacts analysis seeks to compare revenues with costs. In this case, since taxes are deposited in

the County's General Fund, those revenues for the site should be compared with the tax-supported costs that the County would incur in serving the residents at the site. Other sources of revenue can be ignored, since they accrue to separate funds in which expenditures generally equal revenues.

The source for determining the tax-supported costs the County would incur for services to Barrington households is the County's FY2017 Adopted Budget. In the succeeding paragraphs the budget is presented both in terms of budgeted expenses and the portion that must be tax supported. The tax-supported portion of the budgeted expenditures will be derived and expressed on a per capita basis - for population (representing residents) and pupils (representing costs of public education). The per capita costs to the County will be applied to the population and pupils at the site to determine the overall costs to the County from the development of the site.

**Tax-supported County Costs.** The FY2017 Adopted Budget for Spotsylvania County gives the proportion of each departmental or functional expenditure that must be supported by local taxes; these are shown in Table 8. Of the total General Fund budget, 90 percent must be supported by taxes. This is 100 percent for the transfer of school costs, and 78 percent for other Adopted Budget expenditures. The tax supported expenditures will be considered costs that must be made up by taxpayers, such as the residents of Barrington.



**Table 8. FY2017 Budget for Spotsylvania County, Virginia: Total Adopted Expenditures, Designated Revenue, and Net Tax Support**

<u>Department or Function</u>	<u>Adopted FY2017</u>	<u>Designated Revenue</u>	<u>Net Tax Support</u>	<u>Percent Taxes</u>
Executive Services	\$3,803,144	\$0	\$3,803,144	100.0%
Administrative Services	\$12,784,876	\$2,279,462	\$10,505,414	82.2%
Voter Services	\$381,529	\$0	\$381,529	100.0%
Judicial Administration	\$3,984,265	\$1,876,925	\$2,107,340	52.9%
Public Safety	\$51,536,119	\$12,122,366	\$39,413,753	76.5%
Public Works	\$9,194,157	\$2,226,394	\$6,967,763	75.8%
Health and Welfare	\$19,081,887	\$8,823,104	\$10,258,783	53.8%
Parks, Recreation, Culture	\$7,118,560	\$700,048	\$6,418,512	90.2%
Community Development	\$2,835,614	\$305,807	\$2,529,807	89.2%
Debt Service	\$10,243,879	\$0	\$10,243,879	100.0%
Appropriated Expenditures	\$118,737,288	\$26,107,364	\$92,629,924	78.0%
Tax Relief	\$992,774	\$0	\$992,774	100.0%
Adopted Budget	\$119,730,062	\$26,107,364	\$93,622,698	78.2%
Transfers Out (ex. Educ.)	\$14,084,186	\$0	\$14,084,186	100.0%
Transfers to Schools	<u>\$121,375,315</u>	<u>\$0</u>	<u>\$121,375,315</u>	100.0%
Total General Fund	\$255,189,563	\$26,107,364	\$229,082,199	(89.8%)

Source: Adopted FY2017 Annual Budget for Spotsylvania County, Virginia

**Per Capita County Costs.** In Table 9 budgeted General Fund expenditures for FY2017 are allocated to population (residents) and public school pupils. One hundred percent of the General Fund transfer to the School Fund is tax supported, meaning that General Fund tax-supported costs per pupil are \$5,131 based on recent enrollment of 23,655 pupils in the County school system. Non-school expenditures are allocated by department to the resident population. For most functional non-school departments, total FY2017 expenditures are allocated to population in proportion to their numbers compared to the total of population plus employment in the County, or 79 percent population. The exceptions are health and welfare, and parks, recreation and culture, which are allocated in their entirety to population. The table shows that the per capita cost of services and facilities for the population average \$678 per capita; per pupil cost is \$5,131.

**Table 9. Allocation of FY2017 Tax-supported General Fund Expenditures to Residents and Public School Pupils, Spotsylvania County, Virginia**

<u>Department or Function</u>	<u>Tax Supported Expenditures</u>	<u>Population Share (79.4%)</u>
Executive Services	\$3,803,144	\$3,020,766
Administrative Services	\$10,505,414	\$8,344,252
Voter Services	\$381,529	\$303,041
Judicial Administration	\$2,107,340	\$1,673,820
Public Safety	\$39,413,753	\$31,305,601
Public Works	\$6,967,763	\$5,534,363
Health and Welfare	\$10,258,783	\$10,258,783
Parks, Recreation, Culture	\$6,418,512	\$6,418,512
Community Development	\$2,529,807	\$2,009,378
Debt Service	\$10,243,879	\$8,136,520
Appropriated Expenditures	\$92,629,924	\$77,005,037
Tax Relief	<u>\$992,774</u>	<u>\$788,542</u>
Adopted Budget	\$93,622,698	\$77,793,578
Transfers Out (ex. Education)	<u>\$14,084,186</u>	<u>\$11,186,803</u>
Subtotal Except Schools	\$107,706,884	\$88,980,382
Number of Persons		131,305
Cost Per Capita		\$678
Transfers to Schools	\$121,375,315	\$121,375,315
Enrollment		23,655
Cost Per Pupil		\$5,131
Total General Fund	\$229,082,199	\$1,386

Sources: Spotsylvania County, Virginia Adopted FY2017 Annual Budget, U.S. Census of Population, Virginia Employment Commission, and S. Patz & Associates, Inc.

**On-site Costs to the County.** Both residents and public school pupils living on-site at Barrington would incur costs to Spotsylvania County for services and facilities. The table above derived the per capita costs for each of these. The discussion to follow estimates the numbers of residents and pupils that would be living at the site after buildout. The estimation of the number of residents is straightforward. The 38

households (occupied housing units) are expected to have 3.0 persons per household. This is a total of 113 people; at a cost of \$678 per person, the resident cost (including children) would come to \$76,910

County staff have surveyed subdivisions in the County to determine the pupil generation rate of 0.57 per single family home. For 38 households, this would generate 22 pupils; at \$5,131 in General Fund tax supported expenditures per pupil, the cost of education of \$111,030.

Total General Fund costs to the County of the development of Barrington would be almost \$188,000, as shown in the following chart:

	<u>Amount</u>
Population Costs	\$76,910
Pupil Costs	<u>\$111,030</u>
Total Tax-supported Cost	\$187,940

**Net Fiscal Impact On-Site**

The high cost of educating public school pupils brings the fiscal impact of Barrington at the site to a tax revenue surplus of nearly \$111,000 annually. (It will be shown below that an off-site revenue surplus for spin-off impacts would considerably increase this tax revenue surplus.)

<u>On-site Impacts</u>	<u>Amount.</u>
Total Tax Revenue	\$298,790
Tax-supportable Costs	<u>-\$187,940</u>
Net Fiscal Benefit	\$110,850

### Off-Site Impacts: Economic and Fiscal

In addition to the revenues and costs that accrue to Spotsylvania County from the development "on-site," as described above, there are also off-site impacts that occur as residents at Barrington spend their income for goods and services in the County, and these businesses then re-spend sales dollars off-site for the purchase of goods and services from other vendors in the County. The multipliers used in this analysis are specific to Spotsylvania County, Virginia. Consumer budgets are identified by the U.S. Bureau of Labor Statistics by area and income level. About 77 percent of this income is spent, other uses being taxes, savings and transfers to others not living in the household. Among the larger expenditures by consumers are 19 percent for shelter and 27 percent for retail trade, including automobiles.

Consumer expenditures made off-site in the County are translated into economic impacts specifically for the County using multiplier matrices provided for the local area by the U.S. Bureau of Economic Analysis. These multipliers capture the round-by-round flows of expenditures in the County initiated by residents on-site. There are separate matrices for off-site business receipts, employment and employee earnings. The items in the consumer budget are multiplied in turn by these expenditure-specific categories in each matrix and summed to give the "ripple effect," "spin-off," or "multiplier effect" of circulation of money through the economy. The ripple effects, plus the original consumer expenditures, equal the total economic impacts of apartment residents on the County economy.

**Business Receipts.** The chart below sets forth the economic dollar flows set in motion by activities on-site at the property. The direct expenditures represent the expenditures by residents directly. They total \$7.0 million for occupied housing units. Another \$18.5 million in indirect ripple effects or spin-off are created within the County. The indirect ripple effects are almost three times direct expenditures. Altogether, the business impact in Spotsylvania County from residents at Barrington would come to

\$25.5 million. These off-site impacts also create tax receipts and costs to the County as do on-site impacts (see above). These will be explained in paragraphs to follow.

<u>Source of Impacts Off-site</u>	<u>Amount</u>
Direct Expenditures	\$7,041,324
Indirect Ripple Effect	\$18,477,899
Total Business Receipts	\$25,519,223

**Employment and Earnings.** The expenditures off-site by residents living at the property would create 135 jobs in the County. These off-site employment impacts would generate almost \$3.7 million in employee earnings in the County annually. This is an average of about \$27,000 per employee. This is a modest amount since most of the job impacts are in services such as retail trade, eating establishments, and overnight accommodations.

**Off-Site Fiscal Impacts.** The methodology used in projecting fiscal impacts off-site mirror those used to project fiscal impacts on-site. As before, revenues are limited to taxes, and costs are those that must be tax-supported, as based on off-site employment. The RIMS II multipliers from the Bureau of Economic Analysis break receipts, employment and earnings impacts into 21 different sectors, and the impact dollar amounts (business revenues) in the sectors form the basis for determining taxes. Many taxes can be calculated directly from these receipts, such as the retail sales tax, the lodging tax, and the meals tax. Other taxes are based on employment impacts in particular sectors. For example, utility taxes in the County accrue from businesses at the rate of \$40 per employee. Similar relations to employment can be derived for real property taxes and personal property taxes, based on square footage per employee and costs per square foot for real property and personal property, from experience on-site and at other developments. To calculate each tax for 21 sectors for the impacts for the residential off-site expenditures would be tedious, so the results will be presented here in summary form according to the type of use on-site that generates the off-site spin-off impacts.

The residences at Barrington would generate \$207,700 in taxes off-site for the County annually some time after buildout and stabilized occupancies on-site. Off-site impacts would not be immediate, but would build over time as businesses gradually expanded to meet increased demand for goods and services. The cost to the County for serving expanded business off-site is based on projected employment. The property would generate about 135 jobs off-site in the County. It can be shown that each job represents about \$550 in costs to the County, for a total cost of about \$74,500 to the County from off-site uses. Deducting these tax-supported costs from projected tax revenues would leave a net fiscal benefit (tax revenue surplus) of over \$133,000 annually, in constant year 2017 dollars.

**Table 10. Summary of Fiscal Impacts Generated Off-site by Development of Barrington at Full Impact (constant \$2017)**

	<u>Amount</u>
Real Estate Tax	\$51,780
Business Property Tax	\$39,020
Retail Sales Tax	\$33,400
BPOL Tax	\$22,950
Meals Tax	\$31,810
Transient Occupancy	\$13,910
Utility Taxes	\$13,800
Recordation Tax	<u>\$1,020</u>
Total Taxes	\$207,690
Total Cost	<u>\$74,540</u>
Net Fiscal Benefit	\$133,150

Sources: Bureau of Economic Analysis, U.S. Department of Commerce, and S. Patz & Associates, Inc.

### Total Fiscal Impacts

With an off-site fiscal surplus of \$133,100 and an on-site surplus of \$110,900 per year, the net fiscal benefit to Spotsylvania County would be approximately \$244,000 per year. As noted above, the off-site impacts may not all happen coincident with the on-site impacts, as the expansion of the local economy from the development will lag slightly behind on-site development as businesses adjust to increased demand for their goods and services. The chart below summarizes the on-site and off-site fiscal impacts for Barrington, in constant year 2017 dollars.

<u>Total Fiscal Impacts</u>	<u>On-site</u>	<u>Off-site</u>	<u>Total</u>
Total Tax Revenue	\$298,790	\$207,690	\$506,480
Tax-supportable Costs	-\$187,940	-\$74,540	-\$262,480
Net Fiscal Benefit	\$110,850	\$133,150	\$244,000

### Section III: Proffer Analysis

The fiscal impacts analysis shows that Barrington will have a positive impact on the operating budget of Spotsylvania County, Virginia, yielding net surplus tax revenue for the County of over \$244,000 per year after full build out. However, pursuant to our analysis, Barrington will also have direct impacts on certain capital facilities of the County, and this section of the report calculates those impacts. In this regard, this report analyzes the reasonable and direct impacts of the new homes at Barrington and the public costs associated with these direct impacts. The report also provides our recommendations of cash proffers to address those impacts, all in accordance with §15.2-2303.4 et al. of the Code of Virginia 1950, as amended ("Code").

The public capital facilities which are to be analyzed for purposes of Code, and this application, are public schools, fire and rescue facilities, and public parks and recreation facilities. The impacts on libraries and solid waste facilities are no longer a study requirement for the new state code and the project is not expected to have an impact on the level of services or capacity of transportation/traffic within the immediate impact area.

We analyzed existing public data and information pertaining to the planned public facilities, which would most likely be impacted by Barrington. We also reviewed the County's Capital Improvements Plan (CIP), including the CIP for Schools, which are the source for determining the total costs of implementing the plans for those facilities likely to be impacted by Barrington. The methodology for determining recommended proffers is based on derivation of the per dwelling unit costs of each impacted facility.

The initially submitted Barrington proffer analysis was reviewed by Kimberly Pomatto of the County planning department staff, and review suggestions were applied to the following analysis in a number of instances. We believe that our revised report is consistent with the current state code and with Spotsylvania County staff policy.



Much reliance has been made on the County's Comprehensive Plan and on its Capital Improvements Plan for the proffer analysis. The key department personnel in the various County Government offices were helpful in providing information on planned new facilities in the County and how each should be treated in terms of allocated proffer costs from the 39 homes at Barrington.

The proposed Barrington subdivision, of 39 single family detached homes - less one lot developable by right, or a net of 38 homes -- will have only modest impact on most public facilities of the County. The subdivision is planned to be built over the 7+ year period from a start date of 2018/19. There is adequate capacity in the public schools in the Barrington attendance area, so there will be no overcapacity impact upon Spotsylvania County schools. Table 11, below, demonstrates the generation of students from Barrington.

These unit costs for the impacted facilities are summed up in the following paragraphs, which derive the total amounts recommended as proffers from Barrington for each new home development. The recommended proffers are about \$161 per new dwelling unit. The major source of these proffered costs is for fire and rescue and parks and recreation facilities.

**Public School Impacts.** Table 11 offers two approaches to the analysis of pupil generation by school grade. The first is the average per household rate for the County based on prior household surveys. This survey shows that most new home sales generate more elementary school children than pupils in higher grades. That is likely not indicative of the school generation rate for Barrington, which will have homes at higher sales prices compared with standard new subdivisions within the County. Larger lot and higher priced subdivisions will likely have more mature adults, i.e., buyers with children that are no longer in elementary school. Thus, the impact of the homes at Barrington could have a greater impact on middle and high schools, rather than on elementary schools. We therefore concluded that new students who reside at Barrington will be more evenly divided among area schools, as shown in Table 11.

**Table 11. Analysis of Pupil Generation for Public Schools, by School Level at Buildout, Barrington, Spotsylvania County, Virginia 1/, 2017**

	<u>Elementary Schools</u>	<u>Middle Schools</u>	<u>High Schools</u>	<u>Total, All Schools</u>
<b><u>Spotsylvania County Estimate 1/</u></b>				
Ave. Pupil Generation Rate	0.258	0.131	0.183	0.572
Barrington Dwelling Units	39	39	39	39
Number of Barrington Pupils	10.1	5.1	7.1	22.3
<b><u>Analysis for Barrington 2/</u></b>				
Recalculated Generation Rate 2/	0.15	0.20	0.25	0.60
Number of Barrington Pupils	5.9	7.8	9.8	23.4

Notes: 1/ Pupils per dwelling unit for standard single family detached homes.  
 2/ Pupils per dwelling unit for homes at higher-priced subdivisions.

Source: Spotsylvania County Planning Department and Public Schools, and S. Patz & Assoc. Inc.

Barrington will be located in the attendance areas of Chancellor Elementary School, Chancellor Middle School, and Riverbend High School. The design capacity enrollment, and space availability at each of these schools are shown in Table 12. The table shows that all three schools are nearing capacity.

**Table 12. Enrollment Characteristics at Schools in the Barrington Subdivision Attendance Areas in Spotsylvania County, Virginia**

	<u>School Capacity</u>	<u>2016-2017 Enrollment</u>	<u>Percent Of Capacity</u>	<u>Space Availability</u>
Chancellor Elementary School	455	440	96.7%	15
Chancellor Middle School	857	827	96.5%	30
Riverbend High School	<u>1,995</u>	<u>1,950</u>	97.7%	<u>45</u>
Total	3,307	3,217		90

Source: Spotsylvania County Schools

Data in Table 13 show that current combined pupil space availability at all of the schools in the Barrington attendance area is 90. It is 15 for the elementary school, 30 for the middle school and 45 for the high school. Barrington will likely not have home sales and occupancy until 2018/19 and full build out will occur on or about 2025.

Table 13 demonstrates that new pupils generated from homes at Barrington would represent from 20 percent to 40 percent of current school pupil availability. Because the elementary school has the smallest available capacity, Barrington’s share of capacity is highest for the elementary school. Data in Table 13 show that Barrington will generate net new enrollment growth for all schools in the attendance area.

**Table 13. Percent of Available School Capacity Represented by the Pupils Residing at Barrington, Spotsylvania County, Virginia, Post-2018**

	<b><u>Pupil Enrollment Availability</u></b>	<b><u>Barrington Pupils</u></b>	<b><u>Barrington as a Percentage of Availability</u></b>
Chancellor Elementary School	15	6	39.0%
Chancellor Middle School	30	8	26.0%
Riverbend High School	<u>45</u>	<u>10</u>	21.7%
<b>Total</b>	<b>90</b>	<b>24</b>	<b>(26.0%)</b>

Source: Spotsylvania County Schools & S. Patz & Assoc. Inc.

The above analysis shows that the 24 net new public school students expected to be generated by new homes at Barrington can be accommodated within existing school capacity and will not create over capacity at area schools. Therefore, there is no necessity for proffers for schools from Barrington.

**Public Safety Costs.** This cost constitutes additional categories of public facility improvements for which the County must plan. This includes fire and rescue stations. There are 11 Fire and Rescue stations in Spotsylvania County. Barrington is in the service area of Station #5, which is designed to serve 11,000 persons and can



accommodate Barrington without impact on overcapacity. No new stations are planned in the County until 2021 (Station #12). However, there is a new fire and rescue training center planned to be constructed in FY2018 to serve all stations, and thus, the entire County. This center will cost \$2,000,000.

The average per capita cost of the training center per single family dwelling unit comes to \$15.14, as derived in Table 15 and based on County data. At that average and an average household size of 3.04 persons, the average cost per dwelling units is \$46.02

<b>Table 15 <u>Fire and Rescue Cost for the Training Center, Spotsylvania County, Virginia,</u> (2017 dollars)</b>	
	<b><u>Amount</u></b>
Training and Logistics Center	\$2,000,000
County Population 1/	132,126
Cost Per Capita	\$15.14
Cost Per Dwelling Unit at 3.04 persons	\$46.02
<p>Note 1/ Includes Barrington.</p> <p>Sources: Fire and Rescue Department, Spotsylvania County Capital Improvements Plan, and Spotsylvania County Planning Department.</p>	

**Parks and Recreation.** There are no new park and recreation facilities planned for the Barrington vicinity. The impact of the subdivision will, therefore, be restricted to upgrades to five projects that have County-wide significance, two centers and three parks, as shown in Table 17. Planned improvements to these facilities total \$5.0 million. On a per dwelling unit basis, this comes to \$115 per home in proffers, as Table 17 shows.

**Table 17. Costs of Improvements to Parks and Facilities, Spotsylvania County, Virginia  
(2017 dollars)**

	<u>Amount</u>
Marshall Center Auditorium FY 2019	\$304,000
Ni River Park FY 2019-FY2020	\$3,370,000
Belmont Passive Park	\$420,000
Livingston Community Center	\$715,000
Patriot Park – Playground	\$198,700
Total	\$5,007,700
Population	132,126
Cost Per Capita	\$37.90
Cost Per Dwelling Unit at 3.04 persons	\$115.22

Sources: Park and Recreation Department, Capital Improvements Plan, and Planning Department. Spotsylvania County, Virginia

**Summary.** The total public improvements that might be impacted by the residents of Barrington come to \$161 (rounded) per single family detached dwelling unit, which will serve as the total recommended proffers per dwelling unit at Barrington. The costs of these improvements are summarized in the chart below:

**Table 18 Summary of Recommended Proffer Costs Per Dwelling Unit, Barrington Subdivision, Spotsylvania County, Virginia, 2017 Dollars**

	<u>Amount</u> (rounded)
Public Schools	\$0
Fire and Rescue	\$46
Parks and Recreation	<u>\$115</u>
Total Proffers	\$161