Market & Fiscal Impacts Analyses
Rappahannock Landing Apartments
Stafford County, Virginia

Prepared for:

Mr. Timothy A. Faulkner
The Breeden Company

September, 2017

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

▪ S. PATZ & ASSOCIATES, INC ▪

▪ REAL ESTATE CONSULTANTS ▪

September 28, 2017

Mr. Timothy A. Faulkner
Chief Operating Officer
The Breeden Company
560 Lynnhaven Parkway
Virginia Beach, Virginia 23452

Dear Mr. Faulkner:

This will submit our market study and resulting Fiscal Impacts Analysis for the proposed Rappahannock Landing Apartments in Stafford County, Virginia. The report, undertaken within the County's expected format, is quite positive related to each issue under study. Full market support exists for the proposed 324 apartment units over a development and marketing period to 2020 and possibly slightly beyond that date. The fiscal impacts analysis is very positive, with a net annual revenue surplus of $175,100+, at build out, including on-site and off-site fiscal impacts.

The detailed market data that support these findings and conclusions are presented in the attached report. Please call if additional data or clarification are required.

Sincerely,

Stuart M. Patz
President

Cc: Mr. Charles Payne
Ms. Diana Lupe

SMP/mes

46175 Westlake Drive ▪ Suite 400 ▪ Potomac Falls, Virginia 20165 ▪ 703.421.8101 ▪ 703.421.8109 fax ▪ spatzec@comcast.net

Introduction

This will set forth our market study and the resulting Fiscal Impacts Analysis (FIA) for the proposed 324-unit apartment complex, known as Rappahannock Landing, planned for development during 2018 and 2019 in southern Stafford County, Virginia, and near the I-95 corridor in the County. Once built, Rappahannock Landing will have no age, income or rent restrictions.

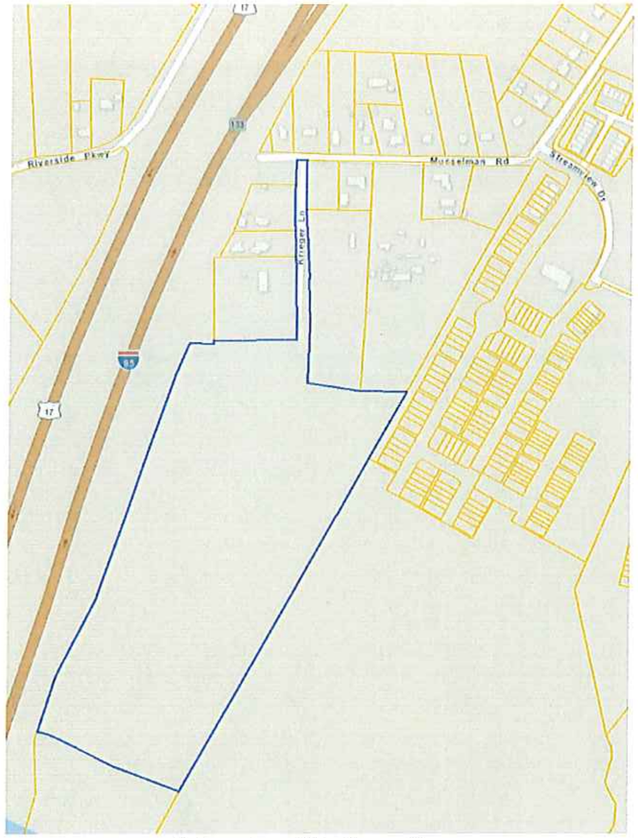
The report to follow is prepared in two separate sections, following the Introduction. The Introduction includes a brief description of the apartment proposal and the site setting in south Stafford County. This is followed by the following sections: (1) a brief analysis of the apartment market in the greater Fredericksburg area that is the defined market area for the apartment proposal; and (2) the FIA for the 324 proposed apartment units. A proffer analysis, as required by Section I5.2-2303.4, et. al. of the Code of Virginia 1950, as amended, is prepared as a separate report.

The market study is presented in support of the FIA, as it documents a need and market support for the apartment units. The FIA shows the level of net tax benefits that will accrue to Stafford County, at build out of the 324 apartment units. The FIA includes the evaluation of both on-site and off-site net tax benefits for Stafford County.

Site Description

The Rappahannock Landing Apartments site consists of an irregularly-shaped 25.3-acre parcel located at the southern terminus of Krieger Lane, on the southern edge of Stafford County. The study site is located approximately 0.8 miles south of Route 17 Business and its intersection at I-95.

As shown in Map A below, the Rappahannock Landing site is bordered on the west by I-95 and on the south by the Rappahannock River. Access will be provided from the north via Musselman Road. Mature single-family homes are located north of the site and the Rappahannock Landing townhome subdivision is located east of the site.

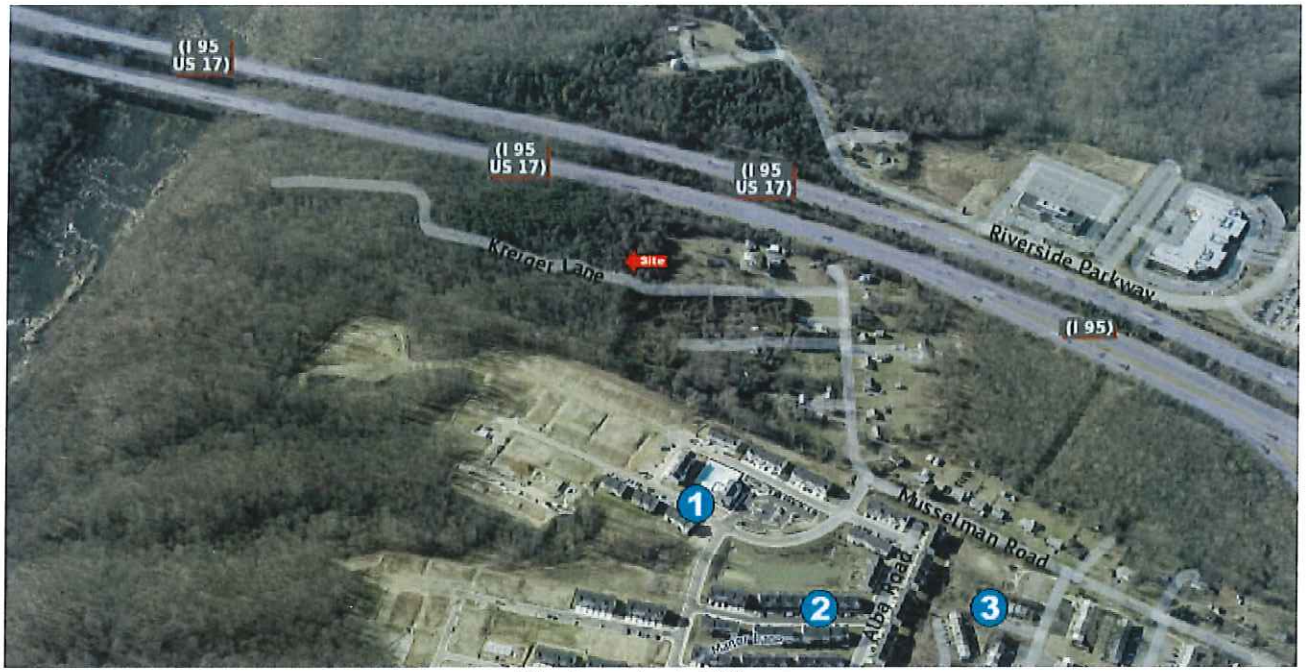


Map A - Site Location

The adjacent land uses are better shown in the western aerial view of the site shown next. The aerial view also shows the site to be entirely wooded and served by a gravel roadway from the north. As shown, mature single-family homes front northern portions of Krieger Lane and Musselman Road, north of the study site. These homes were largely built in the 1950's and have most recently sold between the mid-$100,000's and mid-$200,000's.

To the east of the site is Rappahannock Landing Sec. 2-4 (Note 1). This townhome subdivision, which began in 2016, is being built by Ryan Homes and Lennar Homes off Musselman Road and will have a total of 561 units at build-out. Amenities in this community include a large clubhouse, fitness center and outdoor swimming pool. Homes in this community are selling in the upper $200,000's.

North of this subdivision is the first phase of Rappahannock Landing (Note 2), which is built out with 131 townhome-style condominium units. Homes in this community were sold beginning in 2011 in the $200,000's. Further north is Olde Forge (Note 3), a townhome subdivision that was built in the 1970's.



Western Aerial View

Photos of the site, which is fully wooded are shown next.

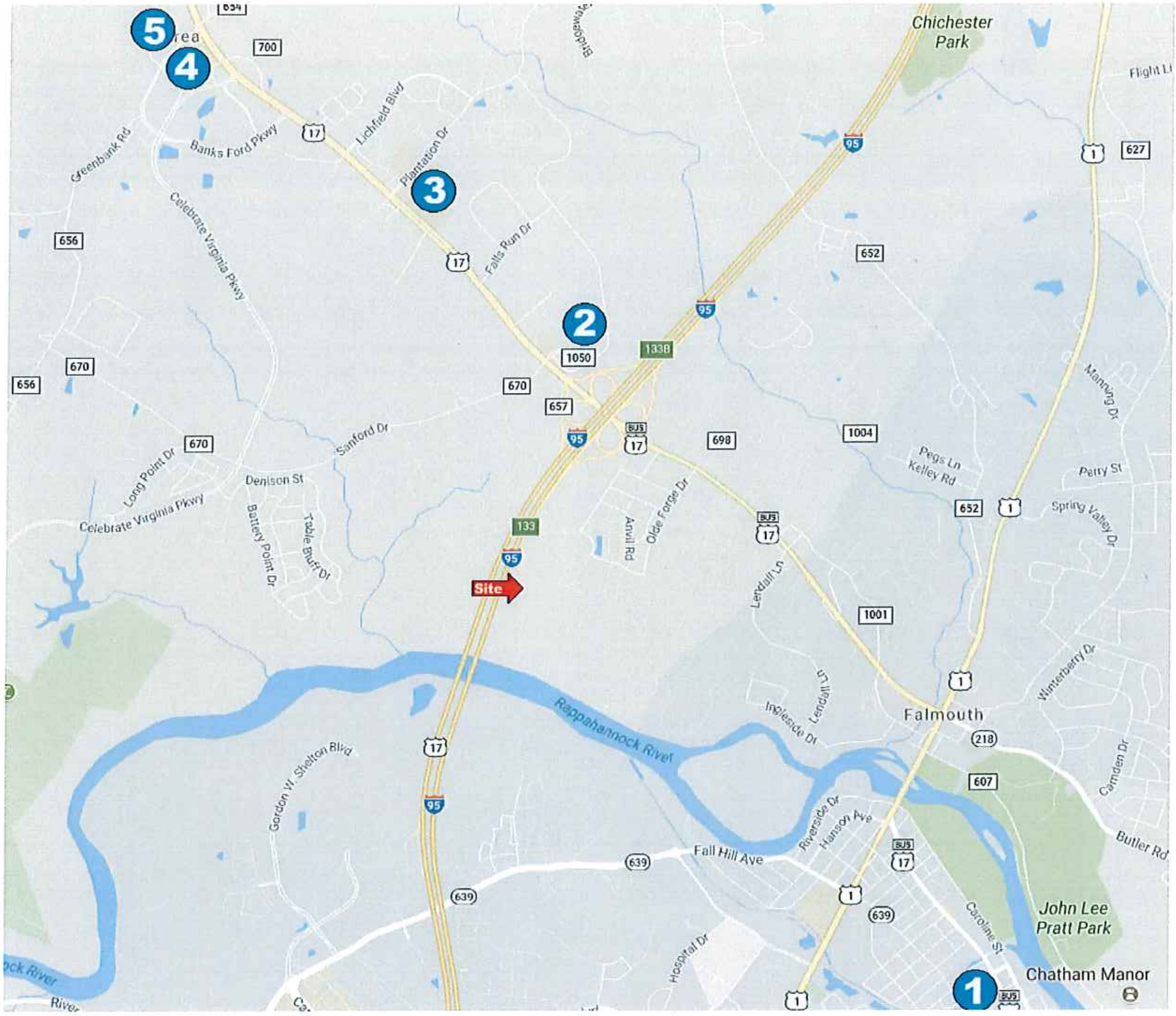
Rappahannock Landing Apartments Site

Next shown is a wider map showing the site setting of the proposed Rappahannock Landing Apartments. The site is located within close proximity to Downtown Fredericksburg (Note 1), which is less than a fifteen-minute drive.

Map B shows that Warrenton Road, a major east-west roadway connector, is located less than a mile north of the study site, which accesses Falmouth to the east. Development along this roadway, near the study site consists of a mix of mature commercial uses, including two hotels (Knights Inn and Motel 6) as well as several gas stations and auto body shops. Development west along this roadway consists of light industrial and residential uses.

More substantial development is located west of I-95 along Warrenton Road. This includes ten hotels, plus a number of shopping centers, including the Target-anchored Carter's Crossing Shopping Center (Note 2), Weis-anchored Plantation Crossing (Note 3) and Giant-anchored Celebrate Virginia North Shopping Center (Note 4).

Major employers in this area include the Geico's operations center with over 4,000 employees (Note 5). North of this facility is the University of Mary Washington's Graduate and Professional campus, with approximately 1,000 students.



Map B - Site Setting

Overall, the site is well-located with quick access to I-95, the Warrenton Road commercial corridor where several big box retailers and grocery stores are located, and nearby historic downtown Fredericksburg.

Development Proposal

Rappahannock Landing will have a mix of one-, two- and three-bedroom apartment units with sizes that are quite spacious. The unit mix is presented on Page 8. Based on net rents, the apartment units will be affordable for families with incomes of generally $45,000 and above. The apartment complex will include a wide range of amenities, commensurate with other new apartment complexes within the market area. These data are summarized in the chart below, following elevations of a typical apartment building. The garden apartment buildings will have large recessed balconies, open stairwells, and large windows that offer an abundance of light and air for each apartment unit.

Rappahannock Landing Proposal, Stafford, VA, September, 2017			
	Unit Mix	Unit Sizes (in sq. ft.)	Proposed Net Rents
One-Bedroom	108	809	$1,150
Two-Bedroom/Two	144	1,092	$1,400
Three-Bedroom/Three	72	1,390	$1,650
Total	324		

Apartment Market Analysis

Overview Apartment Market Analysis

Competitive apartment Properties

The competitive market area includes the south portion of Stafford County, the City of Fredericksburg, and the area in Spotsylvania County that is adjacent to the City on the south. All of the apartment communities in this geographic area are in close proximity to each other and generally compete for the same "market" of renters.

Data in Table 1 list the apartment properties under study, with many of these being built prior to 2000. We separated these properties with nine newer complexes, and nine pre-2000 built apartment properties. The newer apartment properties contain a total of 2,228 apartment units, with a 3.7 percent vacancy rate. The newest apartment property is the 280-unit Abberly at Southpoint, which opened in December, 2016. Also recently opened is Phase II of Station Square at Cosner's Corner, which opened in early-2016. Silver Collection at Cosner's Corner opened in June, 2016 and is nearly full.

Six of these apartment properties were built since 2011. The number of units built since 2011 is 1,823, with 1,670 units occupied. For the seven-year period of 2011 to 2017, the market area realized a net absorption of 240± new apartment units per year. These trends suggest a very strong apartment market at this time.

Data presented in Table 1 can be summarized as follows:

- The vacancy rate is very low for newly built apartment units. Net lease-up since 2011 is approximately 240 units annually.
- Three of the new apartment properties are large with over 300 units per property. Seasons and Station Square were built in two phases.
- The addition of 1,670± occupied new apartment units since 2011 has had no effect on occupancy at existing more mature properties. The vacancy rate for the pre-2000 built properties is a low 5.2 percent.
- The new apartment units built in the market area represent net growth.

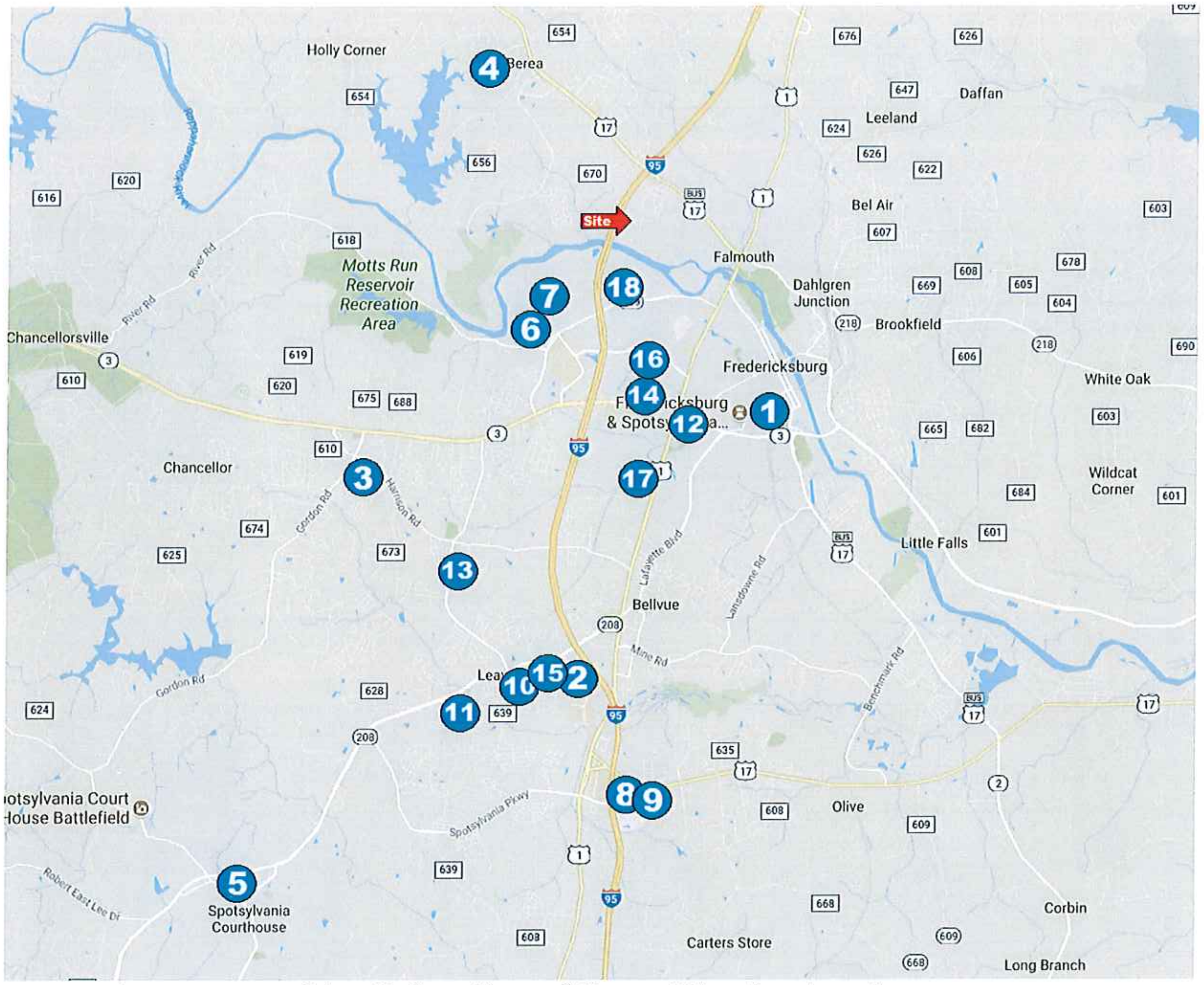
Table 1: Characteristics of Competitive Apartment Communities by Date Built, Rappahannock Landing Market Area, September, 2017

	Map C Key	Year Built	Total Units	Vacant Units
Newer Properties 6/				
Cobblestone Square	1	2011	314	--
Abberly at Southpoint	2	12/2016	280	5/
Kilburn Crossing	3	2004	220	--
Malvern Lakes	4	2001	150	--
Merchant's Square	5	2013/15	92	--
Riverside Manor 1/	6	2000	36	--
Seasons at Celebrate Virginia	7	2011/12	483	--
Silver Collection at Cosner's Corner	8	06/2016	274	--
Station Square at Cosner's Corner	9	2012/16 2/	380	--
(Subtotal)			*(2,228)*	*(167)*
Remaining Properties				
Breezewood Apartments	10	1987/02	300	--
Brittany Commons	11	1998/00/02	576	--
Colonial Village at Greenbrier	12	1960/90	256	--
Mark at Salem Station	13	1987/96	244	--
Riverwoods Apartments	14	1979	187	--
Southpoint Reserve at Stoney Creek 3/	15	1985/15	156	--
The Residences at Belmont	16	1987	300	--
Townsend Square	17	1995	200	--
Weston Circle	18	2003	150	--
(Subtotal)			*(2,371)*	*(124)*
Total			**4,599**	**291**
Vacancy Rate				**4.5% 4/**

Notes: 1/ Excludes 152 LIHTC units.
2/ 259 units in Phase I and 121 units in Phase II, which opened in January, 2016.
3/ Formerly Steeplechase Apartments. Currently undergoing renovations.
4/ Excludes communities in lease-up.
5/ In lease-up.
6/ **List excludes Abberly at Stafford which is outside of our defined market area and Allure, which is under development.**

Source: Field and Telephone Survey by S. Patz and Associates, Inc.

Map C shows the locations of these 18 apartment properties. The only "new" apartment community in Stafford County at this time is Malvern Lakes, which opened in 2001 on a site located just west of Route 17 off Stafford Lakes Parkway. The two primary clusters of apartments are in and around the immediate vicinity of the City of Fredericksburg, as well as along the I-95 corridor near Route 208 (Courthouse Road) and the Spotsylvania Regional Medical Center. Within Spotsylvania County, Cosner Corner is the setting for much of the new apartment unit development. Cosner Corner is slightly south of the City of Fredericksburg.



Map C - Locations of Competitive Apartments

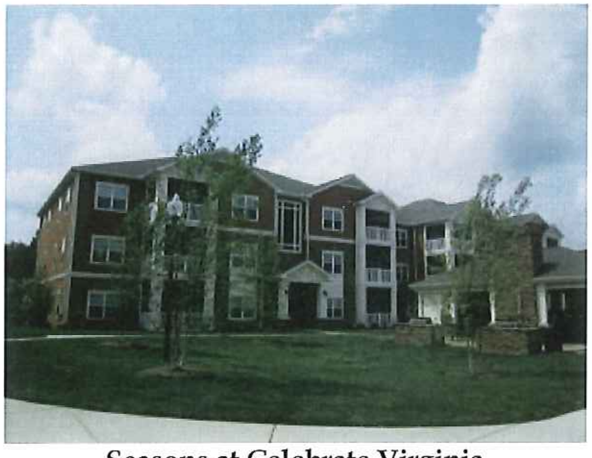
Next shown are photos of the competitive apartment complexes. The newer properties are quite attractive. Rappahannock Landing should be fully competitive.

Merchant's Square

Abberly at Southpoint

Kilburn Crossing

Malvern Lakes



Seasons at Celebrate Virginia

Silver Collection at Cosner's Corner

Net Rental Rates

The rent comparison table presented below shows that the proposed rents at Rappahannock Landing, reported in constant 2017 dollars, are below the market area average, which will provide a strong competitive advantage for unit marketing.

Table 2: Rental Rates at Competitive Apartment Communities, Rappahannock Landing Market Area, September, 2017 1/

	One-Bedroom	Two-Bedroom	Three-Bedroom
Newer Properties			
Cobblestone Square	$1,380-$1,545	$1,610-$1,763	$1,927
Abberly at Southpoint	$1,305	$1,623	$2,057
Kilburn Crossing 2/	$1,181	$1,402	$1,743
Malvern Lakes	$1,167-$1,315	$1,381-$1,468	$1,550-$1,626
Merchant's Square	$850-$1,190	$1,195-$1,425	--
Riverside Manor	--	$1,291-$1,667	$1,416-$1,607
Seasons at Celebrate Virginia 3/	$1,260-$1,335	$1,616-$1,676	$1,972
Silver Collection at Cosner's Corner 4/	$1,277-$1,392	$1,558-$2,313	$2,234
Station Square at Cosner's Corner 3/	$1,245-$1,345	$1,396-$1,451	$1,852-$1,912
(Average)	*($1,267)*	*($1,548)*	*($1,864)*
Rappahannock Landing	**$1,150**	**$1,400**	**$1,600**

Notes: 1/ Rents adjusted to include water, sewage and trash collection. All communities include in-unit washer and dryer.
2/ Larger units have dens.
3/ Larger one-bedroom units have dens.
4/ Larger two-bedroom units are townhomes.
Source: Field and Telephone Survey by S. Patz and Associates, Inc.

Apartment Unit Analysis

The apartment units proposed at Rappahannock Landing are spacious. The unit mix will allow for a wide range of renters.

Apartment Unit Market Support

The analysis above shows that the greater Fredericksburg apartment market is "strong" and expanding. The vacancy rate is low and a considerable number of new apartment units have been built and occupied since 2011. This total, 1,800+ new apartment units built since 2011, is compared with the growth of market area renters with incomes of $45,000 and above of approximately 2,700. At that "capture" ratio of 67 percent of net target renter growth, market support should exist for another 1,200 to 1,300 apartment units by 2020, the date when Rappahannock Landing could be completed and in lease-up.

Our research identified two competitive apartment properties that are now under construction and should be completed prior to 2020, including:

- Silver Collection in Stafford-278 units
- Orchard Ridge in Spotsylvania - 245 units

Along with the Rappahannock Landing proposal, market support should exist for these proposals.

There are also several apartment properties under study that could enter the market by or likely after 2020. These are not expected to affect market support for Rappahannock Landing, due to development timing, but also due to the fact that Rappahannock Landing will be at more affordable rents compared with the competitive market, and all of the planned properties will be in Fredericksburg or Spotsylvania County, not Stafford County. Continued demographic growth will support net new apartment unit development.

Fiscal Impacts Analysis

Detailed Fiscal and Economic Impact Analysis

Fiscal and economic impacts will be treated in two ways: first, those impacts which occur directly from activities on-site at the Rappahannock Landing property; and, second, those impacts which occur off-cite 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 development 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 Stafford County by development on-site and for off-site spin-off effects. The results of the fiscal impact analysis will be to compare 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 this phase of the project. Results are given in constant year 2017 dollars, rounded to the nearest ten dollars. **It should be noted that calculations do not round internal data, only the results. Hence, repeating calculations using unrounded data, reported in the tables, may not exactly equal the rounded results.**

Summary of Fiscal Impacts

The following chart summarizes the on-site and off-site (spin-off) effects that will accrue to Stafford County once the Rappahannock Landing property has been fully built out and stabilized occupancies have been achieved. The chart shows a net revenue surplus of $175,100. On site, there is a small deficit of $14,300 due primarily to the cost of education of school children, and off-site there is a revenue surplus of $189,000 due to off-site spin-off effects. The on-site deficit is fairly typical of apartment developments, which lack the high real estate values more typical of single family detached homes. This is an on-site deficit of 1.9 percent, which is within the margin of error of such analysis. Hence, this is essentially a break-even result. The remainder of this report will give the derivation of these figures.

	On Site Impacts	**Off-site Impacts**	**Total Impacts**
Total Tax Revenues	$739,430	$297,030	$1,036,460
Less: Tax-supported Costs	-$753,760	-$107,590	-$861,350
Net Fiscal Benefit	-$14,330	$189,440	$175,110

On-site Impacts: Tax Revenues

The revenues to be considered in this report are taxes collected by Stafford 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. Rappahannock Landing will represent a development cost of $50.7 million. For 324 units, this is an average cost of $156,500 per unit. Real estate in Stafford County is taxed at the rate of $0.99 per $100 of valuation. This will bring the total real property tax at the site to $502,000 each year in constant 2017 dollars.

Real Estate Taxes for the Rappahannock Landing Development at Buildout (constant $2017)

	Amount
Number of Units	324
Taxable Value	$50,714,140
Taxable Value per Unit	$156,530
Tax Rate/$100 Of Value	$0.99
Real Estate Tax	$502,070

Sources: The Breeden Company

Personal Property Taxes. Residences are assessed personal property taxes. For residents, this is a tax on 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 3 and summarized as follows:

- The FY 2018 Adopted Budget for Stafford County gives an allocation of $48.1 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 $38.9 million.
- Dividing the total residential personal property tax by the tax rate produces the total assessed value of vehicles in the County, $603 million at a 40 percent assessment ratio, or a total depreciated value of vehicles of $1.51 billion.
- It is estimated that there are 93,500 vehicles in the County. Dividing the number of vehicles into the total assessed value of vehicles gives an average assessed value per vehicle of about $16,100.

Table 3. Estimation of the Average Depreciated Value of Residential Vehicles, Stafford County, Virginia (constant $2017)

	Amount
Personal Property Tax	$48,057,000
Percent Residential	0.81
Residential Property Tax	$38,926,170
Property Tax Rate/$100	$6.46
Assessed Value	$602,572,291
Assessment Ratio	0.40
Depreciated Value of Vehicles	1,506,430,728
Number of Vehicles	93,500
Average Value Per Vehicle	$16,112
FY2016 Population	146,884
Vehicles Per Capita	0.64

Sources: FY 2018 Adopted Budget and Statistical Section for Stafford County, Virginia, and U.S. Census of Population

The last step in deriving the personal property tax for Rappahannock Landing 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 $6.46 per $100, assessed at 40 percent of value. In the analysis, an occupancy rate of 93 percent for the apartments is assumed to account for normal lease-up and turnover. The result is a projection of the personal property tax at $175,700 annually.

Table 4. Derivation of Personal Property Taxes at Rappahannock Landing at Buildout, Stafford County, Virginia (constant $2017)

	Amount
Number of Homes	324
Occupancy Rate	0.93
Number of Households	301
Persons Per Household	2.2
Numbers of Persons	663
Vehicles Per Capita	0.64
Number of Vehicles	422
Average Value of Vehicles	$16,112
Total Vehicle Value	$6,798,691
Assessment Ratio	0.40
Vehicle Assessed Value	$2,719,476
Tax Rate per $100	$6.46
Personal Property Tax	$175,680

Sources: FY 2018 Adopted Budget for Stafford County, Virginia, The Breeden Company, and S. Patz & Associates., Inc.

<u>Consumer Utility Taxes</u>. Expenditures on utilities are typically taxed in Virginia municipalities on the following utilities: electric, gas, water, land line, cell phone, and internet. For households, most utility taxes are approximately $2.50 per month per utility; for five utilities, this is $150 per household per year. For 301 households at the site, utility taxes would come to $45,200 annually, as the following chart shows.

	Amount
Number of Utilities	5
Ave. Monthly Tax/Utility	$2.50
Number of Months	12
Annual Utility Tax	$150
Households	301
Utility Tax	$45,200

Motor Vehicle License Fees. It was shown above that there would be an estimated 422 vehicles at Rappahannock Landing. Motor vehicle license fees in the County are $23 per vehicle, yielding total fees at the site of $9,710.

Recordation Tax. It is assumed that there will be two recordations of sales of homes in 20 years, the initial sale after construction, and a second sale after 20 years. Both the grantee and the grantor of the transaction is taxed, the grantee at the rate of $0.25 per $100 of valuation, and the grantor at the rate of $0.10 per $100 of valuation. One third of the grantee tax is returned to the municipality, and one half of the grantor tax remains with the municipality. Table 5 traces out these two types of recordation taxes and expresses the results as annual averages over 20 years. This comes to a total of $6,770.

Table 5. Recordation Taxes at Rappahannock Landing (constant $2017)

	Amount
Total Property Value	$50,714,140
Original Sale Plus Every	20
Total Turns In 20 Years	2
Total Taxable Value	$101,428,280
State Grantee Tax / $100	$0.25
Local Share of State	0.33
Local Tax Per $100	$0.0833
Total Local Grantee Tax	$84,523
Annual Average 20 Years	$4,230
Total Taxable Value	$101,428,280
Grantor Tax Per $100	$0.10
Local Share	0.50
Total Local Grantor Tax	$50,714
Annual Average 20 Years	$2,540
Total Recordation Tax	$6,770

Sources: S. Patz & Assoc., Inc.

Summary of On-site Taxes. Table 6 lists the taxes to be received by County annually. The total would come to almost $740,000 each year.

Table 6 **Summary of Taxes Annually after Buildout of Rappahannock Landing, in constant $2017.**		
	Amount	**Percent**
Real Estate Tax	$502,070	67.9%
Personal Property Tax	$175,680	23.8%
Consumer Utility Tax	$45,200	6.1%
Motor Vehicle License	$9,710	1.3%
Recordation Tax	$6,770	0.9%
Total Annual Taxes ($2017)	$739,430	100.0%

Source: S. Patz & Associates., Inc.

On-site Costs to Stafford County

The previous section has derived the major tax revenues that would accrue to Stafford 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 and businesses 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 service to the site is the County's FY2018 Adopted Budget. In the succeeding paragraphs, the budget will be 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), employment (representing businesses), 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 FY2018 Adopted Budget for Stafford County gives the proportion of each departmental or functional expenditure that must be supported by local taxes; these are shown in Table 7. Of the total General Fund budget, 76 percent must be supported by taxes. This is 86 percent for the transfer to the schools, and 64 percent for all other expenditures. The tax supported expenditures will be considered costs that must be made up by taxpayers, such as the residents of Rappahannock Landing.

Table 7 FY2018 Budget for Stafford County, Virginia: Total Adopted Expenditures, Designated Revenue, and Net Tax Support

Department or Function	Adopted FY2018	Designated Revenue	Net Tax Support	Percent Taxes
General Government	$13,465,154	$3,106,659	$10,358,495	76.9%
Judicial Administration	$5,745,351	$3,038,979	$2,706,372	47.1%
Public Safety	$55,389,466	$18,770,652	$36,618,814	66.1%
Health and Welfare	$15,147,136	$10,346,687	$4,800,449	31.7%
Recreation & Culture	$12,119,286	$4,083,818	$8,035,468	66.3%
Community Development	$18,588,940	$7,771,402	$10,817,538	58.2%
Miscellaneous	$18,237,200	$3,105,097	$15,132,103	83.0%
Subtotal Except Schools	$138,692,533	$50,223,294	$88,469,239	63.8%
Local School Funding	$147,722,626	$20,034,627	$127,687,999	86.4%
Total General Fund	$286,415,159	$70,257,921	$216,157,238	75.5%

Source: Adopted FY2018 Annual Budget for Stafford County, Virginia, p. 125

Per Capita County Costs. In Table 8 budgeted General Fund expenditures for FY2018 are allocated to population (residents), employment (businesses), and public school pupils. Most of the General Fund transfer to the School Fund is tax support, meaning that General Fund tax-supported costs per pupil are $4,472 based on recent enrollment of 28,550 pupils in the County school system. Non-school expenditures are allocated by department to the two other classes of users, population and employment. For most functional non-school departments, total FY2018 expenditures are allocated to the users in proportion to their numbers, 77 percent population and 23 percent employment. The exceptions are health and welfare, and parks and recreation, which are allocated in their entirety to population. The table shows that the per capita cost of services and facilities for the population average $487 per capita; for employees, the amount is $399 per capita. Per pupil cost is $4,472.

Table 8. Allocation of FY2018 Tax-supported General Fund Expenditures to Residents, Employees, and Public School Pupils, Stafford County, Virginia

Department or Function	Population Share	Employment Share	Total Tax Support
General Government Admin.	$8,026,865	$2,331,630	$10,358,495
Judicial Administration	$2,097,185	$609,187	$2,706,372
Public Safety	$28,376,156	$8,242,658	$36,618,814
Health and Welfare	$4,800,449	$0	$4,800,449
Parks and Recreation	$8,035,468	$0	$8,035,468
Community Development	$8,382,580	$2,434,958	$10,817,538
Miscellaneous	$11,725,964	$3,406,139	$15,132,103
Total Except Schools	$71,444,667	$17,024,572	$88,469,239
Persons	146,844	42,655	189,499
Expenditures Per Capita	$487	$399	$467
Local School Funding	$127,687,999	$0	$127,687,999
Enrollment	28,551	0	28,551
Expenditure Per Pupil	$4,472	$0	$4,472
Total General Fund	$270,724,664	$34,092,198	$216,157,238

Sources: Stafford 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 the Rappahannock Landing would incur costs to Stafford 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 301 households (occupied housing units) are expected to have 2.2 persons per household.

This is a total of 633 people; at a cost of $487 per person, the resident cost (including children) would come to $322,530

Calculation of the costs of public school pupils is straightforward. For 301 apartment households, this would give 96 pupils at a pupil generation rate of 0.32 public school pupils per apartment for new development, according to the Stafford County Planning Department. At $4,472 in General Fund tax supported expenditures per pupil, the cost of education of $431,230.

Total General Fund costs to the County of the development of Rappahannock Landing would be 753,760 as shown in the following chart:

	Amount
Population Costs	$322,530
Pupil Costs	$431,230
Total Tax-supported Cost	$753,760

Net Fiscal Impact On-site

The cost of educating public school pupils limits the fiscal impact at Rappahannock Landing at the site to a tax revenue deficit on-site of over $14,000 annually, which it has been pointed out is within the margin of error of the analysis, producing essentially a break-even result. This result is common for multi-family developments because they do not have the high value of homes found for single family developments. (It will be shown below that an off-site revenue surplus for spin-off impacts would add a substantial tax revenue surplus.)

On-site Impacts	**Amount.**
Total Tax Revenue	$739,430
Tax-supportable Costs	-$753,760
Net Fiscal Benefit	-$14,330

Off-site Impacts: Economic and Fiscal

In addition to the revenues and costs that accrue to Stafford County from the development "on-site," as described above, there are also off-site impacts that occur as residents and businesses on-site spend their income and receipts off-site in the County, and as other businesses then re-spend the business receipts off-site for the purchase of goods and services from other vendors in the County. The multipliers used in this analysis are specific to Stafford 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 and businesses from on-site. There are separate matrices for 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 City 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 at Rappahannock Landing. They total $14.0 million for occupied housing units. Another $36.8 million in indirect ripple effects or spin-off are created within the County. The indirect ripple effects are 2.6 times direct expenditures. Altogether, the business impact in Stafford County would come to $50.8 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.

Source of Impacts Off-site	Amount
Direct Expenditures	$14,021,224
Indirect Ripple Effect	$36,794,612
Total Business Receipts	$50,815,836

Employment and Earnings

The expenditures off-site by residents living at the property would create 270 jobs in the County. These off-site employment impacts would generate $7.4 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 will be limited to taxes, and costs will be those that must be tax-supported, as based on employment. The RIMS II multipliers from the Bureau of Economic Analysis break receipts, employment and earnings impacts down 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 $78 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 use on site 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 on-site would generate $297,000 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. As with tax-supported costs to the County for on-site uses, the cost to the County for serving expanded business is based on projected employment. The property would generate about 270 jobs off-site in the County. It was shown previously that each job represents about $399 in costs to the County, for a total cost of about $108,000 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 $189,000 annually, in constant year 2017 dollars.

Table 9. Summary of Fiscal Impacts Generated Off-site by Development of Rappahannock Landing at Full Impact (constant $2017)	
	Amount
Real Estate Tax	$120,090
Business Property Tax	$19,590
Retail Sales Tax	$43,200
Meals Tax	$49,360
Transient Occupancy	$23,560
Utility Taxes	$21,020
Recordation Tax	$20,210
Total Taxes	$297,030
	-
Total Cost	$107,590
Net Fiscal Benefit	$189,440
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 $189,400 and an on-site deficit of $14,300 per year, the net fiscal benefit to Stafford County would be a surplus of approximately $175,100 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 the Rappahannock Landing, in constant year 2017 dollars.

Total Fiscal Impacts	**On-site**	**Off-site**	**Total**
Total Tax Revenue	$739,430	$297,030	$1,036,460
Tax-supportable Costs	-$753,760	-$107,590	-$861,350
Net Fiscal Benefit	-$14,330	$189,440	$175,110