



REAL PROPERTY **RESEARCH** GROUP

ATLANTA ■ WASHINGTON/BALTIMORE

Market Feasibility Analysis

Arrowbrook Centre Apartments I

Herndon, Virginia

Prepared for:

SCG Development

Project #19-6270

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EXECUTIVE SUMMARY

Real Property Research Group, Inc. (RPRG) has been retained by SCG Development to conduct a market feasibility study for a proposed new construction multifamily rental community to be located in Arrowbrook Centre in the Herndon area of Fairfax County, immediately south of the Dulles Access Road. The Arrowbrook Centre mixed use campus currently contains Arrowbrook Centre Park, for-sale townhomes and condominiums, and office buildings. The rental community will include a total of 274 apartments, all of which will target households with incomes at or below 30 percent, 40 percent, 50 percent, and 60 percent of the Area Median Income (AMI). Five percent of units (14) will have project based state and federal vouchers provided by Fairfax County, all targeted to households at 40% AMI. A portion of the community, 126 units (46 percent), will be financed with equity raised from the sale of nine percent Low Income Housing Tax Credits, while the remaining 148 units (54 percent) will be financed with four percent Low Income Housing Tax Credits and tax-exempt bond financing.

The subject of this report, Arrowbrook Centre Apartments I, is that portion of the proposed rental community that includes the first 126-unit phase financed with equity raised from the sale of nine percent Low Income Housing Tax Credits. Given that this community only contains one structure, all common area amenities are shared by both portions of the development.

This analysis has been conducted and formatted in accordance with the 2019 Market Study Guidelines of the Virginia Housing Development Authority (VHDA) and the guidelines of the National Council of Housing Market Analysts (NCHMA). The intended use of this report is to accompany applications to VHDA for nine percent (competitive) Low-Income Housing Tax Credits.

The following data summarizes key conclusions in the market study:

- Project Wide Capture Rate – LIHTC Units: 6.5 percent (page 69)
- Project Wide Capture Rate – Market Units: N/A
- Project Wide Capture Rate – All Units: 6.5 percent (page 69)
- Project Wide Absorption Period: 12 to 14 months (page 73)
- Stabilized Market Area Vacancy Rate: 3.4 percent (page 45)

Arrowbrook Centre Apartments will include a total of 274 studio, one-, two-, and three-bedroom units. Forty-four percent of units (126) will be financed through the sale of 9 percent LIHTC credits that include units targeted to households earning up to 30, 40, 50, and 60 percent AMI. Fifty-four percent of units (148) will be financed with equity proceeds from the sale of four percent (non-competitive) tax credits and tax-exempt bond financing. All 148 units are targeted to households earning up to 60 percent AMI.

AMI	LIHTC Type	# Units	%
30%	9%	13	5%
40% (Vouchers)	9%	14	5%
50%	9%	36	13%
60%	9%	63	23%
Total 9% Credits		126	46%
60%	4%	148	54%
Total 4% Credits		148	54%
Total		274	

Note: Total of 211 60% AMI Units

Source: Stratford Capital Group

The following table summarizes the subject's project's proposed unit distribution, average unit sizes, net rents, utility allowances, and income targeting:



Floor Plan Type	ID	Income Target (% AMI)	LIHTC Type	# of Units	% of Total Units	Net Avg SF	Utility Allowance	Proposed Net Rent (1)	Net Rent/ Net SF
Studio/1 BA	A	60%	4%	10	4%	422	\$81	\$1,120	\$2.65
Studio Subtotal				10	4%	422			
1 BR/1 BA	B1	30%	9%	4	1%	615	\$100	\$559	\$0.91
1 BR/1 BA	B3	30%	9%	1	0%	595	\$100	\$559	\$0.94
1 BR/1 BA	B2	40% (Vouchers)	9%	4	1%	796	\$100	\$1,354	\$1.70
1 BR/1 BA	B	50%	9%	1	0%	796	\$100	\$999	\$1.25
1 BR/1 BA	A	50%	9%	1	0%	706	\$100	\$999	\$1.41
1 BR/1 BA	C	60%	9%	8	2.9%	659	\$100	\$1,219	\$1.85
1 BR/1 BA	B	60%	9%	2	1%	607	\$100	\$1,219	\$2.01
9 % 1 BR Subtotal				21	8%	677			
1 BR/1 BA	A	60%	4%	5	2%	952	\$100	\$1,219	\$1.28
1 BR/1 BA	B	60%	4%	9	3%	679	\$100	\$1,219	\$1.80
1 BR/1 BA	B1	60%	4%	6	2%	635	\$100	\$1,219	\$1.92
1 BR/1 BA	D	60%	4%	5	2%	708	\$100	\$1,219	\$1.72
4 % 1 BR Subtotal				25	9%	729			
1 BR Subtotal				46	17%	705			
2 BR/1.5 BA	B	30%	9%	6	2.2%	882	\$124	\$667	\$0.76
2 BR/2 BA	B	40% (Vouchers)	9%	5	2%	1,196	\$124	\$1,541	\$1.29
2 BR/1.5 BA	B	50%	9%	13	5%	875	\$124	\$1,195	\$1.37
2 BR/1.5 BA	D1	50%	9%	2	1%	882	\$124	\$1,195	\$1.36
2 BR/2 BA	G	50%	9%	13	5%	995	\$124	\$1,195	\$1.20
2 BR/2 BA	C	60%	9%	9	3%	969	\$124	\$1,458	\$1.51
2 BR/2 BA	D	60%	9%	5	2%	896	\$124	\$1,458	\$1.63
2 BR/2 BA	D1	60%	9%	5	2%	972	\$124	\$1,458	\$1.50
2 BR/2 BA	E	60%	9%	1	0%	995	\$124	\$1,458	\$1.47
2 BR/1.5 BA	H	60%	9%	1	0%	885	\$124	\$1,458	\$1.65
2 BR/1.5 BA	H	60%	9%	5	2%	920	\$124	\$1,458	\$1.58
2 BR/1.5 BA	F	60%	9%	12	4%	875	\$124	\$1,458	\$1.67
9 % 2 BR Subtotal				77	28%	940			
2 BR/2 BA	A	60%	4%	1	0.4%	1,280	\$124	\$1,458	\$1.14
2 BR/2 BA	B2	60%	4%	10	4%	1,026	\$124	\$1,458	\$1.42
2 BR/2 BA	D	60%	4%	22	8%	1,016	\$124	\$1,458	\$1.44
2 BR/2 BA	D1	60%	4%	6	2%	899	\$124	\$1,458	\$1.62
2 BR/2 BA	D2	60%	4%	4	1%	935	\$124	\$1,458	\$1.56
2 BR/2 BA	D3	60%	4%	4	1%	958	\$124	\$1,458	\$1.52
2 BR/2 BA	D4	60%	4%	9	3%	949	\$124	\$1,458	\$1.54
2 BR/2 BA	E	60%	4%	5	2%	1,265	\$124	\$1,458	\$1.15
2 BR/2 BA	J	60%	4%	5	2%	1,298	\$124	\$1,458	\$1.12
2 BR/2 BA	K	60%	4%	5	2%	1,041	\$124	\$1,458	\$1.40
2 BR/2 BA	L	60%	4%	5	2%	1,276	\$124	\$1,458	\$1.14
2 BR/2 BA	M	60%	4%	4	1%	896	\$124	\$1,458	\$1.63
2 BR/2 BA	M1	60%	4%	1	0.4%	819	\$124	\$1,458	\$1.78
2 BR/2 BA	N	60%	4%	5	2%	1,048	\$124	\$1,458	\$1.39
4 % 2 BR Subtotal				86	31%	1,040			
2 BR Subtotal				163	59%	993			
3 BR/2 BA	B2	30%	9%	2	1%	1,161	\$147	\$767	\$0.66
3 BR/2 BA	UD	40% (Vouchers)	9%	4	1%	1,275	\$147	\$2,029	\$1.59
3 BR/2 BA	UD1	40% (Vouchers)	9%	1	0%	1,216	\$147	\$2,029	\$1.67
3 BR/2 BA	D	50%	9%	3	1%	1,126	\$147	\$1,377	\$1.22
3 BR/2 BA	D	50%	9%	4	1%	1,290	\$147	\$1,377	\$1.07
3 BR/2 BA	A	60%	9%	1	0%	1,290	\$147	\$1,681	\$1.30
3 BR/2 BA	B1	60%	9%	4	1%	1,182	\$147	\$1,681	\$1.42
3 BR/2 BA	B2	60%	9%	4	1%	1,483	\$147	\$1,681	\$1.13
3 BR/2 BA	C	60%	9%	1	0%	1,280	\$147	\$1,681	\$1.31
3 BR/2 BA	D	60%	9%	4	1%	1,204	\$147	\$1,681	\$1.40
9 % 3 BR Subtotal				28	10%	1,258			
3 BR/2 BA	A	60%	4%	2	1%	1,263	\$147	\$1,681	\$1.33
3 BR/2 BA	B	60%	4%	5	2%	1,291	\$147	\$1,681	\$1.30
3 BR/2 BA	E	60%	4%	8	3%	1,265	\$147	\$1,681	\$1.33
3 BR/2 BA	E1	60%	4%	2	1%	1,225	\$147	\$1,681	\$1.37
3 BR/2 BA	F	60%	4%	4	1%	1,382	\$147	\$1,681	\$1.22
3 BR/2 BA	F1	60%	4%	1	0%	1,294	\$147	\$1,681	\$1.30
3 BR/2 BA	G	60%	4%	4	1%	1,386	\$147	\$1,681	\$1.21
3 BR/2 BA	D	60%	4%	1	0%	1,305	\$147	\$1,681	\$1.29
4 % 3 BR Subtotal				27	10%	1,305			
3 BR Subtotal				55	20%	1,281			
Total				274		981			

Project Based Section 8 Vouchers

(1) Proposed rents assume tenants pay for all utilities except trash; structured parking included
Source: SCG Development



Based on our research, including a site visit on February 16, 2018, we arrived at the following findings:

- **Site:** Located in a neighborhood with a mix of residential, office, retail and recreational uses, the subject site affords excellent access to regional transportation and employment opportunities and is within one-half mile of the Innovation Station, part of the Phase II expansion of Metro’s Silver Line slated to open in 2020. The site has excellent visibility fronting on Centreville Road, one of the main arterials in western Fairfax County, and is located just south of the Dulles Access Road providing easy connections to the Silver Line Metro, Dulles Airport, and major retail, employment, and service nodes throughout the region. The subject will be bordered on the west by a new upscale townhome and condominium community and on the south by Arrowbrook Centre Park, a unique public recreation amenity offering a soccer field, tennis courts, basketball, playground, pet park, and amphitheater for outdoor entertainment.
- **Economic Analysis:** Despite the ebb and flow in at-place employment, the county economy is robust with unemployment rates consistently below the state and the nation. As of September 2018, the unemployment rate averaged 2.5 percent, less than the statewide rate of 3.1 percent and the national rate of 4.0 percent. The high-paying Professional-Business sector dominates the local economy, accounting for 2.5 times the national proportion. While the Fairfax County economy shed approximately 15,300 net jobs in 2009, it subsequently added back 17,800 net jobs over the next three years. Although Fairfax County again experienced a net loss of more than 11,000 jobs between 2013 and 2014, the local economy has since gained 30,600 positions, ending Q2 2018 at a new peak.
- **Demographic Analysis:** The Arrowbrook Centre Market Area’s household base is projected to increase at a steady pace over the next five year albeit at a lesser pace than healthier rates during the 2000 to 2010 decade. The market area is a younger, affluent section of an equally affluent county. Households in the Arrowbrook Centre Market Area are projected to grow at an annual rate of 1.3 percent, a healthy rate even though substantially below the more robust rates of the 2000’s decade (2.6 percent). Given the substantial pipeline of rental units and local trends, RPRG projects renter households will continue to contribute roughly 78.1 percent of net household growth over the next five years that matches renter share of household growth over the past 19 years. Forty percent of the primary market area’s renters are younger adults under the age of 35. Households between the ages of 35 and 54 represent another 41 percent of all renters. The estimated 2019 median household income in the Arrowbrook Centre Market Area is high at \$121,459; the median rental income is also elevated at \$91,690. Twenty-three percent of renter households pay more than 40 percent towards housing.
- **Competitive Housing Analysis:** Based on no vacancies and waiting lists reported at income restricted general occupancy rental communities and low vacancy rates in the “Lower Tier” market rate rental market, the affordable rental market in the Arrowbrook Centre Market Area is tight, pointing to its ability to support the proposed subject apartments.

The multifamily rental housing stock has expanded steadily over the past ten years although most new apartments have targeted the highest income renter households. These rental communities typically have a mid-rise elevator structure and have effective average rents far in excess of those being achieved in the Lower Tier market rate and affordable tax credit communities. The effective rents for Upper Tier studios average \$1,469 (\$2.59 per square foot); one bedroom units average \$1,625 (\$2.09 per square foot); two-bedroom apartments average \$2,038 (\$1.76 per square foot); and the three-bedroom units average \$2,282 (\$1.63 per square foot). The Lower Tier rental communities are generally older (30+ years) but several



have been renovated in recent years. These communities are typically walk-up garden apartment buildings. However, the rent differential between the Upper and Lower Tier (Upper Tier units command a rent premium of 12 to 18 percent relative to Lower Tier units) is not substantial further underscoring the need for affordable rental product. Income-restricted affordable rental units in the Arrowbrook Centre Market Area account for less than eight percent of the surveyed multifamily stock and all operate under LIHTC guidelines. Affordable Dwelling Units mandated under Fairfax County's affordable housing policy account for only an additional 1.9 percent of units (152). The last market area LIHTC community opened in 1997 – 22 years ago. The current combined stabilized vacancy rate across the 26 surveyed rental communities is 3.4 percent with 253 available units. The vacancy rate in the income restricted rental supply is zero with waiting lists at all three communities. This is indicative of a very tight affordable rental market.

RPRG identified three market rate communities in the near term pipeline totaling 1,038 rental units targeting upper-income households. None are LIHTC communities.

- **Net Demand:** The demand analysis demonstrates a rental market virtually in balance that should be viewed as a conservative estimate given the scheduled opening of Phase II in 2020 of the Silver Line expansion to Herndon and Dulles Airport. The three pipeline market rate Upper Tier projects will be within walking distance of the new Silver Line stations and thus regional demand for transit oriented residences should overcome the more tightly focused market area demand analysis. Additionally, the subject will be providing affording units in an area with a limited inventory of such product. As such, the demand for these proposed affordable units will be separate and distinct from the general marketplace since all three existing market area LIHTC projects are fully leased with extensive waiting lists.
- **Effective Demand – Affordability/Capture and Penetration:** Assuming a 35 percent rent burden, RPRG judges that the tax credit renter capture rate of 6.5 percent is achievable, particularly since the proposed apartments will be the newest and most attractive affordable rental community within the market area. The relatively high capture rate for 60% units is a function of the limited moderate income households in this market due to the limited inventory of affordable apartments. Given the excellent location of the subject within walking distance of the Innovation Silver Line Metro Station, there should no issue in attracting a sufficient pool of qualified renters from the region.

RPRG considers the calculated penetration rate for the tax credit units of 28.4 percent of income-restricted renter households to be reasonable and also illustrates the lack of affordable housing within the Arrowbrook Centre Market Area. In essence, our analysis suggests that the most directly competitive rental units will need to capture less than three out of every ten income-qualified renter households. Both the capture and penetration rates are well within a reasonable and achievable range.

- **VHDA Demand Methodology:** RPRG considers the key captures rates for Arrowbrook Centre Apartments to be both reasonable and readily achievable since there is a limited pool of qualified renters in this very affluent market area (renter median income of \$91,690). The renter capture rate for all units is 19.6 percent. All three existing LIHTC properties are fully leased with extensive waiting lists – these properties will be 25 to 27 years old when the subject opens in 2022. The subject will be the only affordable contemporary community within walking distance of a Metro station. The Residences at Government Center (a similar property to the subject developed by SCG Development), located in Fair Oaks south of the subject, took only ten months to fully lease its 270 units after opening in September 2016. Taking into consideration all of these factors, we have conservatively estimated an overall project lease



up pace of roughly 12 to 14 months to achieve 95 percent occupancy, reflecting an average absorption pace of 19 to 21 units per month.

- **Target Market:** As indicated in the Effective Demand Analysis (Affordability/Capture & Penetration), the subject's income-restricted units would serve households with incomes between \$0 and \$73,140. The groups most likely to reside at the subject's income restricted units include individuals working in service sectors such as retail, leisure and hospitality, or in civilian positions associated with the numerous military installations in the area. Other persons likely to reside at the subject project include government or contract workers; local public servants such as firefighters, police officers, and teachers; and early career workers in the professional-business, financial activities, information, and health sectors.

With studio, one-, two- and three-bedroom units, the proposed community would have the capacity to serve single-person households, married and unmarried couples, roommate households, and single- and dual-parent families with as many as four children.

Considered in the context of the competitive environment, the relative position of the proposed Arrowbrook Centre Apartments is as follows:

- **Structure Type:** Most Upper Tier properties are mid-rise elevator served properties similar to the subject. Given that the existing three LIHTC properties are garden-style, the subject will have a competitive advantage by offering elevators, interior hallways, direct access to structured garage parking, and first floor retail.
- **Project Size:** The surveyed rental communities within the market area range in size from 44 to 806 units, with an average size of 304 units (close to the subject's size of 274 units). The Arrowbrook Centre Apartments will also be similar in size to two of the three existing LIHTC properties sized at 272 and 288 units. The subject's size will appropriately allow it to provide on-site management and services similar to other market area rental communities.
- **Unit Distribution:** The subject will offer studios (4 percent); one-bedroom units (17 percent); two-bedroom units (59 percent); and three-bedroom units (20 percent). The subject's two bedroom distribution is similar to the distribution of units in the other tax credit/ affordable rental properties where two-bedroom units account for 60 percent of all units. The subject offers a greater proportion of one bedroom units and a lesser percentage of three bedrooms relative to the affordable supply (at 8 percent and 31.5 percent respectively). The small number of studios (10) will also appeal to single person households. This distribution is reasonable given the 29 percent of one-person renters in the market area. The proposed unit distribution positions the subject to target a wide variety of households, including single-person households, couples, roommates, single parent households and families. We believe that the proposed unit distribution is reasonable within the context of the directly competitive rental supply.
- **Income Targeting:** The subject's income targeting is as follows: 13 units (5 percent) will address incomes at or below 30 percent of AMI; 14 units (5 percent) will address incomes at or below 40 percent of AMI; 36 units (13 percent) will address households with incomes at or below 50 percent of AMI; and 211 units (77 percent) will target households with incomes at or below 60 percent of AMI. RPRG's penetration analysis indicates that all of the subject's units as well as those existing and future units addresses less than three out of ten (28 percent) of all income-qualified households. Furthermore the 14 units at 40 percent of AMI will address low income households with the availability of project based rental assistance.
- **Unit Size** The proposed unit sizes for Arrowbrook Centre Apartments average 422 square feet for studios, 692 square feet for one-bedroom units; 1,040 square feet for two-bedroom units;



and 1,305 square feet for the three-bedroom units. Though some of the floor plans are small by market area standards, all of the subject floor plans are adequately sized.

- The **studio** floor plan is smaller than the surveyed floor plans ranging in size from 524 to 588 square feet. However, the units are efficiently designed and are within the standard range for studio floor plans generally.
- The **one bedroom** floor plans are smaller than the average size of the Upper Tier one bedroom units (776 square feet) and the Lower Tier one bedroom units (749 square feet) but comparable in size to the one affordable one bedroom units (733 square feet). Five of the 16 affordable one bedroom floor plans are smaller than or within ten square feet of the subject floor plans.
- The **two bedroom** floor plans fall between the average size of the Upper Tier two bedroom units (1,159 square feet) and the Lower Tier two bedroom units (971 square feet). The average size of the affordable two bedroom floor plans is moderately larger at 1,052 square feet; however 12 of the 19 models are smaller than or within ten square feet of the subject floor plans.
- The **three bedroom** floor plans are generously sized - the Upper Tier average size is larger at 1,401 square feet but both the Lower Tier and affordable average are smaller at 1,204 and 1,244 square feet respectively.
- **Number of Bathrooms:** All of the subject's studio and one-bedroom units will have one full bathroom, while the two- and three-bedroom units will have two bathrooms, similar to the offerings at the other LIHTC properties and the market rate inventory.
- **Kitchen Features:** All unit kitchens at Arrowbrook Centre Apartments will include features competitive with market rate communities including dishwasher, garbage disposals, and microwaves. Additionally, the fact that the units will have energy-efficient and modern appliances is also a positive feature.
- **Laundry:** The Developer intends to equip all units at Arrowbrook Centre Apartments with full-size washers and dryers that is standard in 21 of the 26 surveyed market area communities including two of the three LIHTC communities.
- **Other Unit Features:** Units at Arrowbrook Centre Apartments will have carpeted bedrooms and living areas and attractive wood vinyl flooring in the kitchen, hallway and bath that is also standard in the market area.
- **Utilities Included in Rent:** The Developer proposes to have tenants pay for all utilities except trash which is standard practice at seven of the 26 surveyed communities and one of the three LIHTC communities.
- **Common Area Amenities:** The Developer intends to provide a significant offering of common area amenities at the subject, Common area amenities which will be available to all residents will include a furnished clubroom with on-site management, conference center, fitness room, and cyber lounge/ study area. Other amenities include an outdoor lounge with grilling area; bicycle storage, access to a dog park; one-half mile walking path to Metro; adjacency to Arrowbrook Centre Park; first floor restaurant and shops; and structured parking with direct access by floor. Other than not providing a pool, the proposed amenities are consistent with amenities provided at most Upper Tier communities. The subject has a competitive advantage with two key amenities – adjacency to Arrowbrook Centre Park that offers a soccer field, pet park, tennis courts, basketball court, playground, and amphitheater for entertainment plus walking distance to a Metro station – that will set it apart from most market rate and affordable communities.



- **Parking:** The subject will have free structured garage parking with direct access by floor that is only available at select Upper Tier communities and will provide Arrowbrook Centre Apartments with a distinct competitive advantage

Price Position/Rents: The tax credit rents proposed by the Developer for Arrowbrook Centre Apartments are at or below the allowable maximums for all unit types, given the assumed utility allowances of \$81 for studios, \$100 for one-bedroom units; \$124 for two-bedroom units; and \$146 for three-bedroom units. The proposed rents are considered to be reasonable when viewed within the context of the directly competitive rental supply. The scatter charts indicate that the rents for the affordable rental supply are generally far below those without income restrictions.

Absorption Estimate: In estimating an absorption pace for the subject community, we consider recent absorption activity in the market in addition to demand and supply factors. We only have two examples of recent absorption – Station on Silver (inside the market area) has leased at a pace of roughly 21 units per month since opening in September 2017 and Residences at Government Center (a similar project built the same development team as the subject outside the market area in Fair Oaks) leased at a pace of 27 units per month over the ten month period after opening in September. Given the strategic positioning of the subject close to the Metro, the Dulles Access Road, Dulles Airport, and the entire Herndon/ Reston employment node, the strong pent up demand for affordable products (the last LIHTC property opened in 1997) and lack of any competition in the near term, a healthy rental market, and attractive contemporary product features and amenities including direct access structured parking and elevators, the subject should be very marketable when it opens in 2022.

As a result, we project an absorption pace of 19 to 21 units per month. Assuming this absorption pace, we would expect that the subject would attain stabilized occupancy in approximately 12 to 14 months. However, the 9 percent units which offer more affordable product than the 4 percent (all 60 percent AMI) units, should lease at a faster pace

Impact on Existing Market: RPRG does not anticipate that the subject will have an adverse impact on the existing rental market. The overall vacancy rate for the income-restricted rental communities within the market area is very low at 0 percent and overall vacancies are low. The subject's capture rate and penetration rates are reasonable, especially given the fact that there are limited moderate income households in this desirable area due to the dearth of affordable housing options. The capture rate is reflective of a limited pool of market area lower income households rather than any weakness in demand.



I. INTRODUCTION

A. Overview of Subject

Arrowbrook Centre Apartments is a proposed new construction multifamily rental community to be located in the Herndon area of Fairfax County, immediately south of the Dulles Access Road. The Arrowbrook Centre mixed use campus currently contains Arrowbrook Centre Park, Pulte for-sale townhomes and condominiums, and office buildings. The rental community will include a total of 274 rental units, all of which will be income-restricted in accordance with the Department of Housing and Urban Development's 2018 median household income for the Washington-Arlington-Alexandria, DC-VA-MD FMR Area (Table 1). Five percent of units (14) will have project based state and federal vouchers provided by Fairfax County, all targeted to households at 40% AMI. Approximately 40,000 square feet of retail will be located on the first floor; the residential component is the sole focus of this study.

Phase I will consist of 126 apartments (46 percent) to be financed, in part, with equity raised from the sale of nine percent Low Income Housing Tax Credits. Phase II will include 148 units (54 percent) to be financed with four percent Low Income Housing Tax Credits and tax-exempt bond financing. The project will be developed in two phases, but constructed simultaneously.

This report is intended to be submitted as part of an application for nine percent Low Income Housing Tax Credits for the 126 rental units planned for Phase I.

B. Purpose

The purpose of this study is to perform a market feasibility report and analysis. This report examines the subject site, the economic context of the jurisdiction in which the site is located, a demographic analysis of the defined market area, a competitive housing analysis, a derivation of net demand and effective demand (affordability/penetration analyses). In accordance with Virginia Housing Development Authority's 2019 Market Study Guidelines, both net and effective demand will include all of the subject's units proposed for both phases of development.

C. Format of Report

The report format is Comprehensive. Accordingly, the market study addresses all required items set forth in the 2019 Market Study Guidelines of the Virginia Housing Development Authority (VHDA). Furthermore, the market analyst has considered the recommended model content and market study index of the National Council of Housing Market Analysts (NCHMA).

D. Client, Intended User, and Intended Use

SCG Development is Real Property Research Group's (RPRG's) Client for this market study. Along with the Client, the Intended Users are representatives of Fairfax County, VHDA, and potential investors. This report is intended to be submitted to VHDA as part of an application for 9 percent tax credits in 2019. A separate report will be submitted to VHDA as part of an application for four percent (non-competitive) tax credits

Table 1 HUD Rent & Income Limits

HUD 2018 Median Household Income										
Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area		\$117,200								
Very Low Income for 4 Person Household		\$58,600								
2018 Computed Area Median Gross Income		\$117,200								
Utility Allowance:		Efficiency \$81								
		1 Bedroom \$100								
		2 Bedroom \$124								
		3 Bedroom \$147								
Household Income Limits by Household Size:										
Household Size	30%	40%	50%	60%	80%	100%	120%	150%	200%	
1 Person	\$24,630	\$32,840	\$41,050	\$49,260	\$65,680	\$82,100	\$98,520	\$123,150	\$164,200	
2 Persons	\$28,140	\$37,520	\$46,900	\$56,280	\$75,040	\$93,800	\$112,560	\$140,700	\$187,600	
3 Persons	\$31,650	\$42,200	\$52,750	\$63,300	\$84,400	\$105,500	\$126,600	\$158,250	\$211,000	
4 Persons	\$35,160	\$46,880	\$58,600	\$70,320	\$93,760	\$117,200	\$140,640	\$175,800	\$234,400	
5 Persons	\$37,980	\$50,640	\$63,300	\$75,960	\$101,280	\$126,600	\$151,920	\$189,900	\$253,200	
6 Persons	\$40,800	\$54,400	\$68,000	\$81,600	\$108,800	\$136,000	\$163,200	\$204,000	\$272,000	
Imputed Income Limits by Number of Bedroom (Assuming 1.5 persons per bedroom):										
Persons	# Bed-rooms	30%	40%	50%	60%	80%	100%	120%	150%	200%
1	0	\$24,630	\$32,840	\$41,050	\$49,260	\$65,680	\$82,100	\$98,520	\$123,150	\$164,200
1.5	1	\$26,385	\$35,180	\$43,975	\$52,770	\$70,360	\$87,950	\$105,540	\$131,925	\$175,900
3	2	\$31,650	\$42,200	\$52,750	\$63,300	\$84,400	\$105,500	\$126,600	\$158,250	\$211,000
4.5	3	\$36,570	\$48,760	\$60,950	\$73,140	\$97,520	\$121,900	\$146,280	\$182,850	\$243,800
6	4	\$40,800	\$54,400	\$68,000	\$81,600	\$108,800	\$136,000	\$163,200	\$204,000	\$272,000
LIHTC Tenant Rent Limits by Number of Bedrooms (assumes 1.5 persons per bedroom):										
# Persons	30%		40%		50%		60%		80%	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Efficiency	\$615	\$534	\$821	\$740	\$1,026	\$945	\$1,231	\$1,150	\$1,642	\$1,561
1 Bedroom	\$659	\$559	\$879	\$779	\$1,099	\$999	\$1,319	\$1,219	\$1,759	\$1,659
2 Bedroom	\$791	\$668	\$1,055	\$932	\$1,318	\$1,194	\$1,582	\$1,459	\$2,110	\$1,987
3 Bedroom	\$914	\$768	\$1,219	\$1,073	\$1,523	\$1,376	\$1,828	\$1,682	\$2,438	\$2,292

Source: U.S. Department of Housing and Urban Development

E. Applicable Requirements

This market study will conform to the requirements of the following:

- VHDA's 2019 Market Study Guidelines.
- NCHMA's Model Content Standards and Market Study Checklist.

F. Scope of Work

To determine the appropriate scope of work for the assignment, we considered the intended use of the market study, the needs of the user, the complexity of the property, and other pertinent factors. Our concluded scope of work is described below.

- Please refer to Appendix 2 for a detailed list of NCHMA requirements and the corresponding pages of requirements within the report.
- Jerry Levin, Senior Analyst for Real Property Research Group, Inc., conducted a visit to the subject site, its immediate neighborhood, and wider primary market area on February 15, 2019.



- RPRG gathered primary information through field and phone interviews with rental community leasing agents and property managers. In the course of research, we obtained information on proposed developments through interviews with Fairfax County Department of Planning; City of Herndon Department of Planning; and Patrick Dieter with the Baltimore office of the Department of Housing and Urban Development. We also reviewed the Virginia Housing Development Authority and local development websites for potential rental developments in the market area.
- All information obtained is incorporated in the appropriate section(s) of this report.

G. Report Limitations

The conclusions reached in a market feasibility analysis are inherently subjective and should not be relied upon as a determinative predictor of results that will actually occur in the marketplace. There can be no assurance that the estimates made or assumptions employed in preparing this report will in fact be realized or that other methods or assumptions might not be appropriate. The conclusions expressed in this report are as of the date of this report, and an analysis conducted as of another date may require different conclusions. The actual results achieved will depend on a variety of factors, including the performance of management, the impact of changes in general and local economic conditions, and the absence of material changes in the regulatory or competitive environment. Reference is made to the statement of Underlying Assumptions and Limiting Conditions contained in Appendix 1 of this report.

H. Other Pertinent Remarks

While this study will be submitted to VHDA as part of an application for 9 percent tax credits, it will evaluate the entire residential component of the community including units potentially financed by both 9 percent and 4 percent tax credits. The study will not evaluate the non-residential component of the project.

II. PROJECT DESCRIPTION

A. Project Overview

Arrowbrook Centre Apartments is a proposed Low Income Housing Tax Credit (LIHTC) multifamily rental community to be located in the Arrowbrook Centre campus south of the Dulles Access Road and east of Dulles International Airport in Herndon, Fairfax County, Virginia (Figure 1). The rental community will include 274 apartments and associated community amenities. The project will have two separate financing structures. Phase I, the subject of this report, will consist of 126 rental units. These apartments will be financed, in part, with equity raised from the sale of nine percent (competitive) tax credits. Phase II will include the remaining 148 units to be constructed with equity proceeds from the sale of four percent (non-competitive) tax credits and tax-exempt bond financing. The Developer for Phase I is Arrowbrook Apartments I, LLC and for Phase II is Arrowbrook Apartments II, LLC. Approximately 40,000 square feet of retail will be located on the first level; the residential component is the sole focus of this study.

Figure 1 Arrowbrook Centre Mixed-Use Development



Source: SCG Development

B. Project Type and Target Market

Arrowbrook Centre Apartments will be a general occupancy multifamily rental complex that will target low- and moderate-income renter households. These units will restrict occupancy to households with incomes at or below 30 percent, 40 percent, 50 percent, and 60 percent of the area median income (AMI) for the Washington-Arlington-Alexandria, DC-VA-MD FMR Area as adjusted for household size. Arrowbrook Centre Phase I 126 units will be financed, in part, with equity raised from the sale of nine percent (competitive) tax credits. The remaining 148 units in a second phase will be financed with four percent (non-competitive) tax credits and tax-exempt

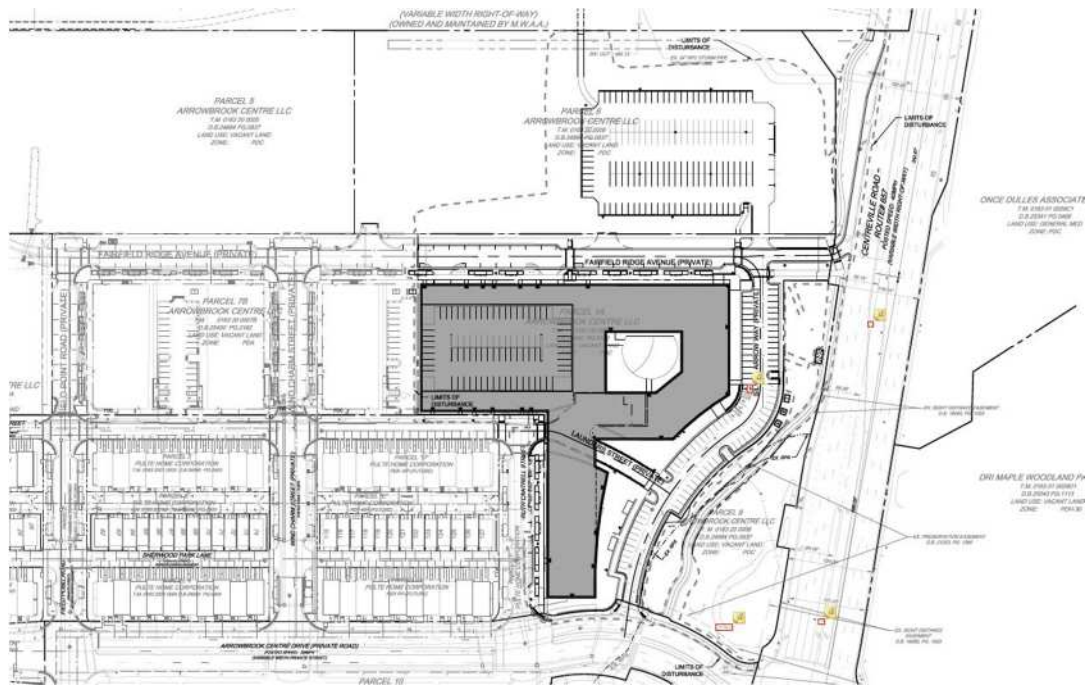
bonds. With a unit mix of studios, one-, two- and three-bedroom units, the community will target a range of renter households, including single-person households, couples, roommates, and families with as many as four to five persons.

C. Building Types and Placement

Both phases of the proposed Arrowbrook Centre Apartments will be part of a single five story mid-rise structure on a 4.4 acre parcel. Most of the structure will face Centreville Road; the rear of the structure will wrap around the Pulte for-sale condominium and townhome community located west of the parcel (Figure 2). The structured parking garage will be located in the rear of the structure (western end) surrounded on three sides by apartments. An interior courtyard is located in the heart of the structure. Surface parking for the retail component and visitors is located along the eastern edge of the structure plus an overflow parking lot north of the structure. A narrow wing of the building stretches south to Arrowbrook Centre Drive.

The main entrance into the rental community will be from the south along Arrowbrook Centre Drive and then entering the property via the surface parking lot flanking the eastern edge of the property.

Figure 2 Site Plan, Arrowbrook Centre Apartments



Source: SCG Development

D. Detailed Project Description

1. Project Description

Arrowbrook Centre Apartments will include a total of 274 studio, one-, two-, and three-bedroom units. All of the apartments and community amenities will be constructed as one project, although with two different financing structures. From a renter perspective, there will be no visible



distinction between the portions of the rental community financed with nine percent tax credits compared with the portion financed with four percent tax credits. Table 3 summarizes the proposed project’s financing structure. Forty-four percent of units (126) will be financed through the sale of 9 percent LIHTC credits that include units targeted to households earning up to 30, 40, 50, and 60 percent AMI. All fourteen 40 percent AMI units will have project based state and federal vouchers provided by Fairfax County. Fifty-four percent of units (148) will be financed with equity proceeds from the sale of four percent (non-competitive) tax credits and tax-exempt bond financing. All 148 units are targeted to households earning up to 60 percent AMI.

AMI	LIHTC Type	# Units	%
30%	9%	13	5%
40% (Vouchers)	9%	14	5%
50%	9%	36	13%
60%	9%	63	23%
Total 9% Credits		126	46%
60%	4%	148	54%
Total 4% Credits		148	54%
Total		274	

Note: Total of 211 60% AMI Units

Source: SCG Development

Table 2 Financing Structure

Table 3 summarizes the subject’s unit distribution, income targeting, unit sizes, net rents, and utility allowances. The utility allowances were provided by Viridian, a consultant to SCG Development (the client).

At Arrowbrook Apartments Phase I, the proposed one-bedroom units will have one bathroom while the two- and three-bedroom units will have two full bathrooms. The one-bedroom units will average 667 square feet ranging in size from 607 to 796 square feet; the two-bedroom units will average 940 square feet ranging in size from 875 to 1,196 square feet; and the three-bedroom units will average 1,258 square feet ranging in size from 1,126 to 1,483 square feet. The monthly net rents at Arrowbrook Centre Apartments will not include any utilities except for trash. General electricity, electric-fueled hot water, cooking, heating and cooling, and water/ sewer will be the direct responsibility of future tenants. The proposed utility allowances as provided by the developer are as follows: \$81 for studios; \$100 for one-bedrooms; \$126 for two-bedrooms; and \$147 for three-bedrooms. The site will include unrestricted structured garage parking.

While most units in Phase I (as well as in the second phase) will require that tenants pay a contract rent or utilize their own Housing Choice voucher, 14 units (5 percent) will have project-based state and federal rental subsidies. These units will be located in the portion of the community financed with nine percent tax credits (Arrowbrook Apartments I).

All units at Arrowbrook Centre Apartments will be equipped with Energy Star appliances including electric range, refrigerator with an icemaker, dishwasher, microwave, range hood, and garbage disposal (Table 4). Kitchen appliances will have standard finishes. The kitchens will have laminate countertops and will feature breakfast bars with an open floor design.

Common area amenities which will be available to all residents will include a furnished clubroom with on-site management, conference center, fitness room, and cyber lounge/ study area. Other amenities include an outdoor lounge with grilling area; bicycle storage, access to a dog park; one-half mile walking path to Metro; adjacency to Arrowbrook Centre Park; first floor restaurant and shops; and structured parking with direct access by floor.

2. Other Proposed Uses

The first floor will include approximately 40,000 square feet of retail space devoted to restaurant, shopping, and service uses.



Table 3 Unit Distribution, Unit Sizes and Net Rents, Arrowbrook Centre Apartments

Floor Plan Type	ID	Income Target (% AMI)	LIHTC Type	# of Units	% of Total Units	Net Avg SF	Utility Allowance	Proposed Net Rent (1)	Net Rent/Net SF
Studio/1 BA	A	60%	4%	10	4%	422	\$81	\$1,120	\$2.65
Studio Subtotal				10	4%	422			
1 BR/1 BA	B1	30%	9%	4	1%	615	\$100	\$559	\$0.91
1 BR/1 BA	B3	30%	9%	1	0%	595	\$100	\$559	\$0.94
1 BR/1 BA	B2	40% (Vouchers)	9%	4	1%	796	\$100	\$1,354	\$1.70
1 BR/1 BA	B		9%	1	0%	796	\$100	\$999	\$1.25
1 BR/1 BA	A	50%	9%	1	0%	706	\$100	\$999	\$1.41
1 BR/1 BA	C	60%	9%	8	2.9%	659	\$100	\$1,219	\$1.85
1 BR/1 BA	B	60%	9%	2	1%	607	\$100	\$1,219	\$2.01
9% 1 BR Subtotal				21	8%	677			
1 BR/1 BA	A	60%	4%	5	2%	952	\$100	\$1,219	\$1.28
1 BR/1 BA	B	60%	4%	9	3%	679	\$100	\$1,219	\$1.80
1 BR/1 BA	B1	60%	4%	6	2%	635	\$100	\$1,219	\$1.92
1 BR/1 BA	D	60%	4%	5	2%	708	\$100	\$1,219	\$1.72
4% 1 BR Subtotal				25	9%	729			
1 BR Subtotal				46	17%	705			
2 BR/1.5 BA	B	30%	9%	6	2.2%	882	\$124	\$667	\$0.76
2 BR/2 BA	B	40% (Vouchers)	9%	5	2%	1,196	\$124	\$1,541	\$1.29
2 BR/1.5 BA	B		50%	9%	13	5%	875	\$124	\$1,195
2 BR/1.5 BA	D1	50%	9%	2	1%	882	\$124	\$1,195	\$1.36
2 BR/2 BA	G	50%	9%	13	5%	995	\$124	\$1,195	\$1.20
2 BR/2 BA	C	60%	9%	9	3%	969	\$124	\$1,458	\$1.51
2 BR/2 BA	D	60%	9%	5	2%	896	\$124	\$1,458	\$1.63
2 BR/2 BA	D1	60%	9%	5	2%	972	\$124	\$1,458	\$1.50
2 BR/2 BA	E	60%	9%	1	0%	995	\$124	\$1,458	\$1.47
2 BR/1.5 BA	H	60%	9%	1	0%	885	\$124	\$1,458	\$1.65
2 BR/1.5 BA	H	60%	9%	5	2%	920	\$124	\$1,458	\$1.58
2 BR/1.5 BA	F	60%	9%	12	4%	875	\$124	\$1,458	\$1.67
9% 2 BR Subtotal				77	28%	940			
2 BR/2 BA	A	60%	4%	1	0.4%	1,280	\$124	\$1,458	\$1.14
2 BR/2 BA	B2	60%	4%	10	4%	1,026	\$124	\$1,458	\$1.42
2 BR/2 BA	D	60%	4%	22	8%	1,016	\$124	\$1,458	\$1.44
2 BR/2 BA	D1	60%	4%	6	2%	899	\$124	\$1,458	\$1.62
2 BR/2 BA	D2	60%	4%	4	1%	935	\$124	\$1,458	\$1.56
2 BR/2 BA	D3	60%	4%	4	1%	958	\$124	\$1,458	\$1.52
2 BR/2 BA	D4	60%	4%	9	3%	949	\$124	\$1,458	\$1.54
2 BR/2 BA	E	60%	4%	5	2%	1,265	\$124	\$1,458	\$1.15
2 BR/2 BA	J	60%	4%	5	2%	1,298	\$124	\$1,458	\$1.12
2 BR/2 BA	K	60%	4%	5	2%	1,041	\$124	\$1,458	\$1.40
2 BR/2 BA	L	60%	4%	5	2%	1,276	\$124	\$1,458	\$1.14
2 BR/2 BA	M	60%	4%	4	1%	896	\$124	\$1,458	\$1.63
2 BR/2 BA	M1	60%	4%	1	0.4%	819	\$124	\$1,458	\$1.78
2 BR/2 BA	N	60%	4%	5	2%	1,048	\$124	\$1,458	\$1.39
4% 2 BR Subtotal				86	31%	1,040			
2 BR Subtotal				163	59%	993			
3 BR/2 BA	B2	30%	9%	2	1%	1,161	\$147	\$767	\$0.66
3 BR/2 BA	UD	40% (Vouchers)	9%	4	1%	1,275	\$147	\$2,029	\$1.59
3 BR/2 BA	UD1		9%	1	0%	1,216	\$147	\$2,029	\$1.67
3 BR/2 BA	D	50%	9%	3	1%	1,126	\$147	\$1,377	\$1.22
3 BR/2 BA	D	50%	9%	4	1%	1,290	\$147	\$1,377	\$1.07
3 BR/2 BA	A	60%	9%	1	0%	1,290	\$147	\$1,681	\$1.30
3 BR/2 BA	B1	60%	9%	4	1%	1,182	\$147	\$1,681	\$1.42
3 BR/2 BA	B2	60%	9%	4	1%	1,483	\$147	\$1,681	\$1.13
3 BR/2 BA	C	60%	9%	1	0%	1,280	\$147	\$1,681	\$1.31
3 BR/2 BA	D	60%	9%	4	1%	1,204	\$147	\$1,681	\$1.40
9% 3 BR Subtotal				28	10%	1,258			
3 BR/2 BA	A	60%	4%	2	1%	1,263	\$147	\$1,681	\$1.33
3 BR/2 BA	B	60%	4%	5	2%	1,291	\$147	\$1,681	\$1.30
3 BR/2 BA	E	60%	4%	8	3%	1,265	\$147	\$1,681	\$1.33
3 BR/2 BA	E1	60%	4%	2	1%	1,225	\$147	\$1,681	\$1.37
3 BR/2 BA	F	60%	4%	4	1%	1,382	\$147	\$1,681	\$1.22
3 BR/2 BA	F1	60%	4%	1	0%	1,294	\$147	\$1,681	\$1.30
3 BR/2 BA	G	60%	4%	4	1%	1,386	\$147	\$1,681	\$1.21
3 BR/2 BA	D	60%	4%	1	0%	1,305	\$147	\$1,681	\$1.29
4% 3 BR Subtotal				27	10%	1,305			
3 BR Subtotal				55	20%	1,281			
Total				274		981			

Project Based Section 8 Vouchers

(1) Proposed rents assume tenants pay for all utilities except trash; structured parking included
Source: SCG Development



Table 4 Salient Project Information, Arrowbrook Centre Apartments

Arrowbrook Centre Apartments Herndon, Fairfax County, Virginia			
Project Information		Additional Information	
Number of Residential Buildings	1	Construction Start Date	June 2020
Building Type	Mid-Rise, Wood Frame, Elevators, Interior Corridors	Delivery of First Units	Spring 2022
Number of Stories	5 stories wrapped around structured garage	Delivery of Final Units	Spring 2022
Construction Type	New Construction	Pre-Leasing Start Date	TBD
Exterior Design Elements	Brick , Hardi-plank	Parking Type & Cost	Structured parking garage; no cost for 1st space; 474 spaces (429 residential; 49 retail)
Common Area Amenities	Controlled access; club room with wifi; business center with conference rooms; fitness center, cyber lounge/ study area; outdoor lounge with grilling area; bicycle storage; access to dog park; 1/2 mile walking path to Metro; first floor restaurants and shops; structured parking with direct access by floor	Kitchen Amenities	
		Dishwasher	Yes
		Disposal	Yes
		Microwave	Yes
		Range	Yes
		Refrigerator w/ Icemaker	Yes
Unit Features	Energy Star white appliances - refrigerator, stove, dishwasher, garbage disposal; microwave; laminate wood flooring in kitchen and living areas; carpeted bedrooms; ceramic tile surrounds, programmable thermostats; ceramic tile bathrooms; pre-wired to cable TV, phone, and high speed internet	Utilities Included	
		Cold Water/Sewer	Tenant
		Trash Removal	Owner
		Heat	Tenant
		Hot Water	Tenant
		Electricity	Tenant
		Cooking	Tenant
		Cooking Source	Electric
Hot Water Source	Electric		
		Heat Source	Electric

Source: SCG Development

Salient features of the proposed Arrowbrook Centre Apartments include:

- The community will be the first affordable multi-family development constructed in the market area since 1997.
- Arrowbrook will have convenient access to the Innovation Silver Line Metro Station scheduled to open in 2020 (one-half mile via a walking path).
- Except for not providing a pool, community amenities will be commensurate with other nearby market rate properties. In addition, a park and soccer field are located directly south of the subject.
- All utilities, except trash, are included in the rent.

3. Zoning and Government Review

According to the developer, the present zoning for the site allows the proposed use.

4. Proposed Timing of Development

The Developer intends to begin construction in June 2020 with construction expected to take 24 months that translates to a late spring opening in 2022.

III. SITE AND NEIGHBORHOOD ANALYSIS

A. Site Analysis

1. Site Location

The subject site is situated along the west side of Centreville Avenue, just south of the Dulles Access Road in Herndon, Fairfax County, Virginia (Map 1). The site is part of the Arrowbrook Centre campus that includes the Pulte for-sale townhomes and condominiums, Arrowbrook Centre Park, and offices. The site has good visibility from Centreville Avenue and limited visibility from the Dulles Access Road.

2. Size, Shape and Topography

The subject acreage is 4.4 acres and is irregularly rectangular in shape. The site’s overall topography is flat.

3. Existing Uses

As observed during RPRG’s recent site visit on February 15, 2019, the subject site has been largely cleared covered by a mixture of dirt, gravel, grass, and scrub (Figure 3).

Map 1 Site Location



Figure 3 Views of Subject Site



Looking north at site from Arrowbrook Center Drive



Looking northeast at site from Arrowbrook Centre Drive



Looking northwest at site from Arrowbrook Centre Drive (Woodland Park in background)



Looking northeast across site.

4. General Description of Land Uses Surrounding the Subject Site

The subject is part of the Arrowbrook Centre mixed use development that includes Arrowbrook Centre Park; an actively selling Pulte for-sale townhome and condominium community, and several office buildings. Two parcels located north of the Pulte parcel and west of the parking outparcel are slated for future offices and/or hotels (Map 2).

- Arrowbrook Centre Park:** Located directly south of the subject parcel, the park offers a variety of recreational uses includes a full-size soccer field, tennis courts, basketball court, children’s playground, landscaped courtyard with benches, a dog park, and amphitheater that offers musical entertainment during the summer.
- MetroPark at Arrowbrook:** Opened in spring 2018, Pulte is actively selling three and four level townhomes and two over two townhome condominiums. The last phase of the community, located directly west of the subject, is currently under construction (preliminary footprints with utility rough-ins have been completed). When completed the community will contain 147 residences including 39 townhomes and 108 condominiums. To date 31 of the 39 three and four story townhomes have sold at prices ranging from \$600,000 to \$700,000, and 50 of the 108 condominiums have sold at prices ranging from \$500,000 to \$615,000.

Map 2 Aerial View of Site



5. Specific Identification of Land Uses Surrounding the Subject Site

The land uses directly bordering the subject site are as follows and are presented in Figure 4:

- North:** Parking outparcel for retail uses; Dulles Access Road and Silver Line Metro
- East:** Centreville Road; Woodland Park campus (offices, hotels, apartments)
- South:** Arrowbrook Centre Drive; Arrowbrook Center Park
- West:** MetroPark at Arrowbrook (Pulte for-sale community); office buildings

Figure 4 Views of Surrounding Land Uses



Pulte Condominiums under construction west of subject



Entrance to Arrowbrook Centre Park south of subject



Soccer field in Arrowbrook Centre Park



Woodland Park neighborhood on east side of Centreville Road



Looking north along Centreville Road (subject is on left)



Office building on western portion of Arrowbrook Centre campus

B. Neighborhood Analysis

The subject site is located south of the Dulles Access Road and west of Dulles International Airport along the Silver Line Metro corridor. Two stations in the Phase II of the Silver Line expansion—Innovation and Herndon – will be opening in 2020¹. The Innovation Station is located 0.5 mile northwest of the site and the Herndon Station is located 1.5 miles northeast of the site. The opening of the final leg of the extension of the Metro to Dulles Airport is expected to spur substantial transit-oriented development proximate to these stations.

The Innovation Station is planned to service the existing and proposed expansion of the Center for Innovation Technology (CIT) campus. Plans are underway to transform land around the CIT Complex into Innovation Center, a nationally recognized center for innovation comprised of a smart growth, transit-oriented development that includes a mix of high-rise research, office, residential and retail establishments directly connected to the new Metro stop, also named Innovation Center, and Dulles International Airport (Figure 5).

Arrowbrook Centre is located in the heart of the Reston/ Herndon neighborhood that is increasingly characterized by an array of mixed-used developments that include offices, hotels, apartments, retail centers, and institutional uses. The area immediately west of the Arrowbrook development (east of Dulles Airport) contains several recently built Upper Tier multi-family communities, office buildings, and scattered older apartment complexes. The Woodland Park neighborhood, located directly east of the site and Centreville Road, also contains a mix of offices, hotels, multi-family communities, and single family and townhome developments. Woodland Park contains Alexan Woodland Park, a 294 luxury apartment community, which is currently under construction.

¹ Exact date is uncertain – depends on results on testing and inspections.

Figure 5 CIT Campus adjacent to Innovation Silver Line Station


Source: CIT website

C. Site Visibility and Accessibility

1. Visibility

The subject site will enjoy excellent visibility as it is located on the west side of Centreville Road, one of the main north-south arterials in western Fairfax County Road. Centreville Road provides direct access to the Dulles Access Road and Herndon to the north and travels south to Chantilly and Route 50.

2. Vehicular Access

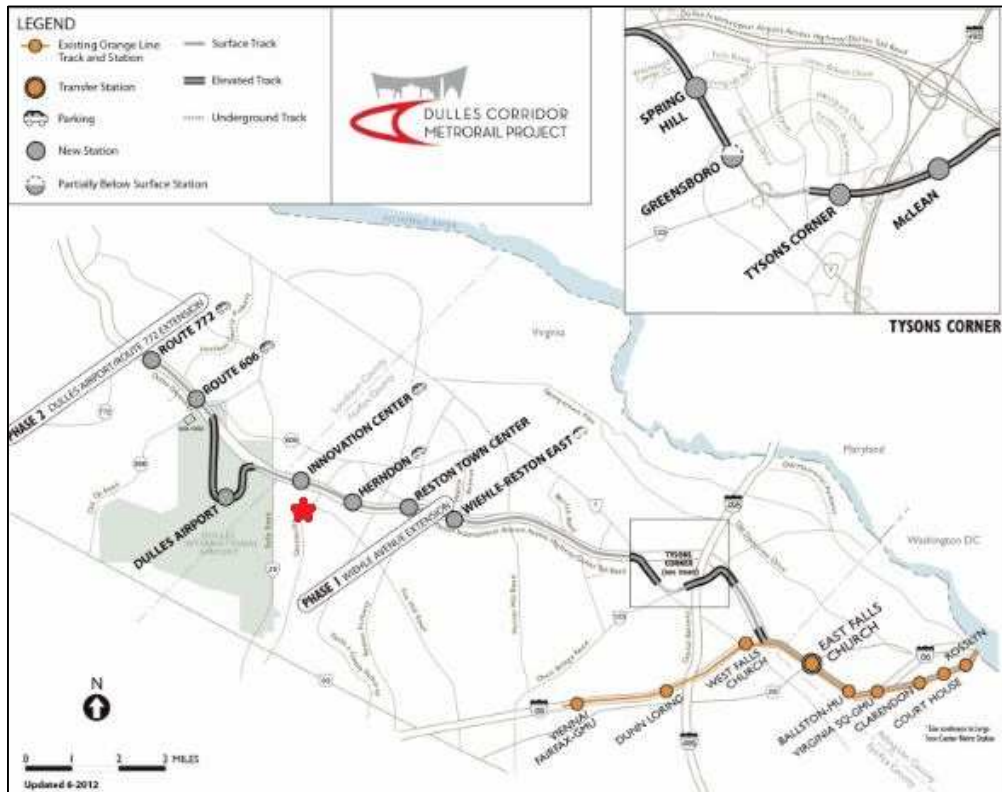
The subject's general neighborhood is well connected to both local and regional thoroughfares. Access to the subject is via Arrowbrook Center Drive, which is directly south of the subject and intersects with Centreville Road on the east. Centreville Road provides easy access to all parts of the immediate neighborhood including Herndon to the north and Reston to the northeast and the communities of Chantilly, Fair Oaks, and Fairfax located south along the Route 50 corridor. In addition, Centreville Road provides direct access to the Dulles Access Road and then Route 28 and Dulles International Airport to the west and the 495 Beltway and the Tysons Corner commercial, employment, and residential hub 12 miles to the east. Route 28 provides access to Route 7 and the Loudoun growth corridor to the north and northwest and to Interstate 66 to the south.

3. Availability of Public Transit

While bus service is convenient (the closest Fairfax Connector Bus Route is located one-half mile to the south at the intersection of Coppermine Road and Centreville Road), future residents of the subject site are most likely to avail themselves of rapid transit if using public transportation. When the Innovation Station of the Silver Line opens in 2020, it will be located within one-half mile walking distance of the subject via a direct pathway.

The Silver Line is a 23-mile extension of the Metrorail system with new tracks extending from East Falls Church, through Tysons and Reston, and eventually to Washington Dulles International Airport and further west to Ashburn (Figure 6). The project is being built in two phases. Phase 1 of the project opened on July 26, 2014, adding four new stations in Tysons, Virginia’s largest employment center, and one in Reston at Wiehle Avenue. Construction is underway on Phase 2 with completion in 2020 (two years prior to the opening of the subject), which will provide a transfer-free ride from Washington Dulles International Airport to downtown Washington. Phase 2 picks up at the Phase 1 terminus location, Wiehle-Reston East, and continues in the median of the Dulles Toll Road and the Dulles Access Highway with three stations, includes an aerial station at Dulles Airport and continues on with two stops in Loudoun County. Two of the stations, Innovation and Herndon, are located within one-half mile and 1.5 miles, respectively, of the subject. The six stations in Phase 2 will run westward through Reston and Herndon to the Dulles Airport and ends at Route 772 in eastern Loudoun County. All stations in this phase will have commuter parking except for the Reston Town Center and the Dulles Airport Stations.

Figure 6 Silver Line Metro Stations



Source: Washington Metro website



4. Availability of Inter Regional Transit

Three major transit hubs are convenient to the site. Dulles International Airport, located three miles to the west, can be accessed via the Dulles Access Road that lies immediately north of the site; in two years, Dulles can also be accessed by Metro via the Silver Line. Reagan National Airport, located 25 miles to the southeast, can be accessed via the Silver Line Metro and the Orange and Blue lines. Union Station, one of the busiest train stations in the country, is served by Amtrak, MARC and Virginia Railway Express commuter rail services, as well as by Washington Metro subway trains and local busses. Union Station is accessed by Metro by travelling along the Silver Line, the Orange Line, to the Red Line.

5. Pedestrian Access

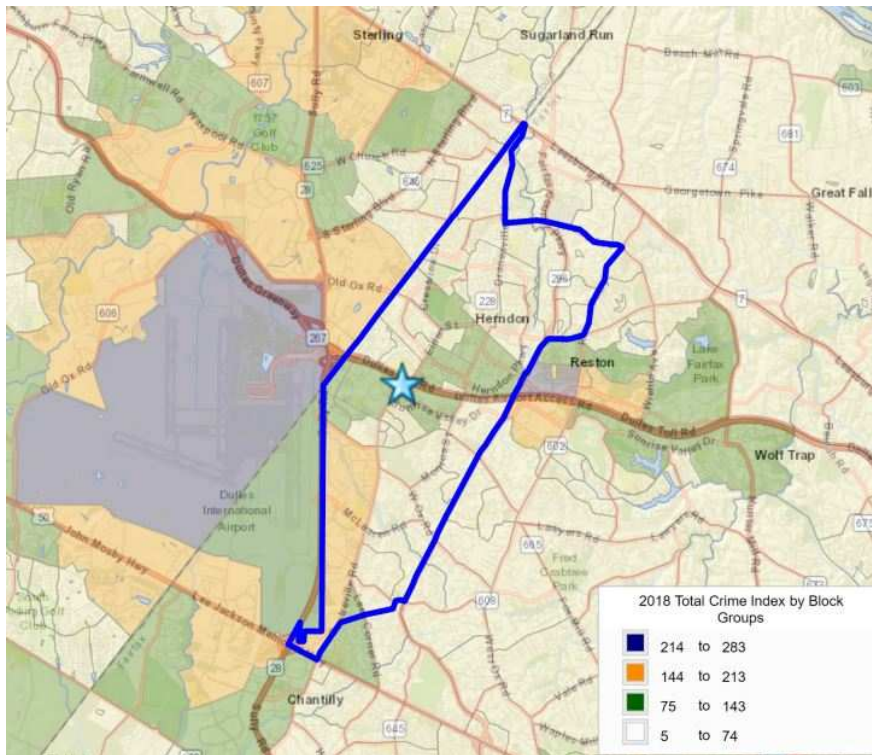
The subject site is planned with sidewalks to encourage pedestrian access within the Arrowbrook Centre campus. A walking path, parallel to Centreville Road, will connect directly with the Innovation Station.

D. Public Safety

In order to gauge the topic of crime in the vicinity of the subject site, RPRG considered CrimeRisk data provided by Applied Geographic Solutions (AGS). CrimeRisk is an index that measures the relative risk of crime compared to a national average at the narrow geographic level of U.S. Census block groups. AGS analyzes known socio-economic indicators for local jurisdictions that report crime statistics to the Federal Bureau of Investigations (FBI) under the Uniform Crime Reporting (UCR) program. The UCR program tracks violent crimes (murder, forcible rape, robbery, and aggravated assault) and property crimes (burglary, larceny-theft, auto theft, and arson).

Based on modeling of these relationships, CrimeRisk provides a detailed view of the risk of total crime as well as specific crime types at the block-group level. Aggregate indexes have been prepared as a total crime index (as well as separately for violent and property crimes in accordance with the reporting procedures used in the UCR reports). An index value of 100 reflects a total crime risk on par with the national average, with values below 100 reflecting below average risk and values above 100 reflecting above average risk. In considering the indexes, note that they are not weighted, such that a murder is weighted no more heavily than a purse snatching. The indexes provide a useful measure of the relative overall crime risk in an area but are most useful when considered in conjunction with other measures.

Map 3 displays the 2018 CrimeRisk index for the block groups near the subject site. The relative risk is displayed in gradations from light beige (least risk) to deep red (most risk). The block groups that contain the subject site and immediately adjacent parcels are shaded green and light beige, indicative of an overall lower level of crime. Inspections of the subject site and surrounding neighborhood as well as interviews with local property managers indicate crime or the perception of crime are not expected to negatively impact the subject site. The local fire and police stations are within two to three miles of the site.

Map 3 Total Crime Index by Block Group


E. Residential Support Network

1. Key Facilities and Services near the Subject Site

The appeal of a residential community is based in part on its proximity to facilities and services that are required on a day-to-day basis. Key facilities and services and their distances from the subject site are listed in Table 5 and the locations of those facilities are plotted on Map 4.

2. Essential Services

a. Health Care

The site has good access to local medical services within one to three miles of the site plus access to the many major medical centers within Washington DC region. Reston Hospital Center, about three miles northwest of the subject in Reston Town Center, is a 187-bed, full-service, medical/surgical hospital. Services include The Family Center; the Critical Care, Progressive Care, Medical/Oncology and Surgical units; an Endoscopy suite; and Emergency and Radiology departments. Surrounding business campuses house a wide array of physicians' offices and related medical services. The Inova Emergency Room, also located in Reston Town Center, is a freestanding emergency center open 24 hours a day. The Comprehensive Urgent Medical Care facility is located one mile from the site in Herndon. Additional medical facilities are located in Fair Oak six miles to the south (Inova Fair Oaks Hospital) and in Fairfax 16 miles to the east (Inova Fairfax Hospital)



Table 5 Key Facilities and Services Near Subject Site

	Type	Address	Community	Dist (mi)
Arrowbrook Centre Soccer Field	Recreation	Field Point Rd/ Centreville Rd - SW corner	Herndon	<0.1 S
Village Center at Dulles (Giant, CVS, Homegoods)	Supermarket, Pharmacy	2445 Centreville Rd	Herndon	0.5 SE
Sunoco Gas	Gas, Convenience	2150 Centreville Rd	Herndon	0.6 NE
Elden Street Marketplace (Giant, Kohls)	Supermarket, bank, retail	1228 Elden St	Herndon	0.8 NE
Coates Elementary School	Public School (K-6)	2480 River Birch Road	Herndon	0.9 W
Comprehensive Urgent Medical Care	Medical Services	1110 Elden St	Herndon	1.0 NE
Herndon Station - Silver Line (U/C)	Shopping, Recreation	12530 Sunrise Valley Dr (Median Strip-Dulles Toll Rd)	Herndon	1.4 E
Herndon Fire Station	Safety	680 Spring St	Herndon	1.7 NE
Carson Middle School	Public School (7-8)	13618 McLearen Rd	Herndon	1.9 E
Herndon Fortnightly Library	Public Library	768 Centreville Rd	Herndon	1.9 NE
U.S. Post Office	Post Office	590 Grove St	Herndon	2.1 NE
Herndon Police Dept	Safety	3600 Joseph Siewick Dr.	Herndon	2.7 NE
Reston Hospital Center	Medical Services	1850 Town Center Pkwy	Reston	3.1 NE
Reston Town Center (banks, restaurants, Balducci's, Hyatt Regency, Chico, Ann Taylor, Sephora, Gap, Pottery Barn)	Comparison Shopping/ Movies/ Hotel	Library and Market Sts	Reston	3.3 E
Inova Emergency	Med/ Emergency Services	11701 Baron Cameron Rd	Reston	3.4 NE
Dulles International Airport	Transportation	One Saarinen Circle	Dulles	3.5 W
Spectrum Center (banks & insurance, Harris Teeter, Lane Bryant, Best Buy, Petsmart, Office Depot, restaurants, hotels)	Comparison Shopping/ Eating/ Services	11846 Spectrum Center	Reston	3.7 NE
Wiehle Reston Station - Silver Line	Transportation	Median Strip, Dulles Toll Rd.	Reston	4.2 E
Westfield High School	Public School (9-12)	4700 Stonecroft Blvd	Chantilly	4.4 E
Walmart Super Center	General Retail	24635 Dulles Landing	Sterling	6.8 NW
George Mason University	Higher Education	21335 Signal Hill Plaza	Sterling	8.3 N
Northern Virginia Comm Coll	Higher Education	1000 Harry Byrd Hgwy	Sterling	8.7 N
Fair Oaks Mall (Lord & Taylor, Macy's, Sears, JC Penney)	Regional Mall	11750 Fair Oaks Mall	Fairfax	9.1 SE
Wolf Trap Center for the Performing Arts	Recreation	1551 Trap Road	Vienna	11.4 E
Tyson's Corner Center (Macy's, Nordstroms, Lord & Taylor, Bloomingdale's, LL Bean, AMC Theatres)	Regional Mall	1961 Chain Bridge Rd	McLean	12.2 E
Eagle Bank Arena (Patriot Center)	Sports, Concert Venue	4500 Patriot Cir.	Fairfax	13.4 SE
George Mason Center for the Arts	Cultural	4373 Mason Pond Dr.	Fairfax	14.0 SE
Leesburg Premium Outlets	Regional Retail	241 Ft Evans Rd NE	Leesburg	14.9 NW

Compiled by Real Property Research Group, Inc.

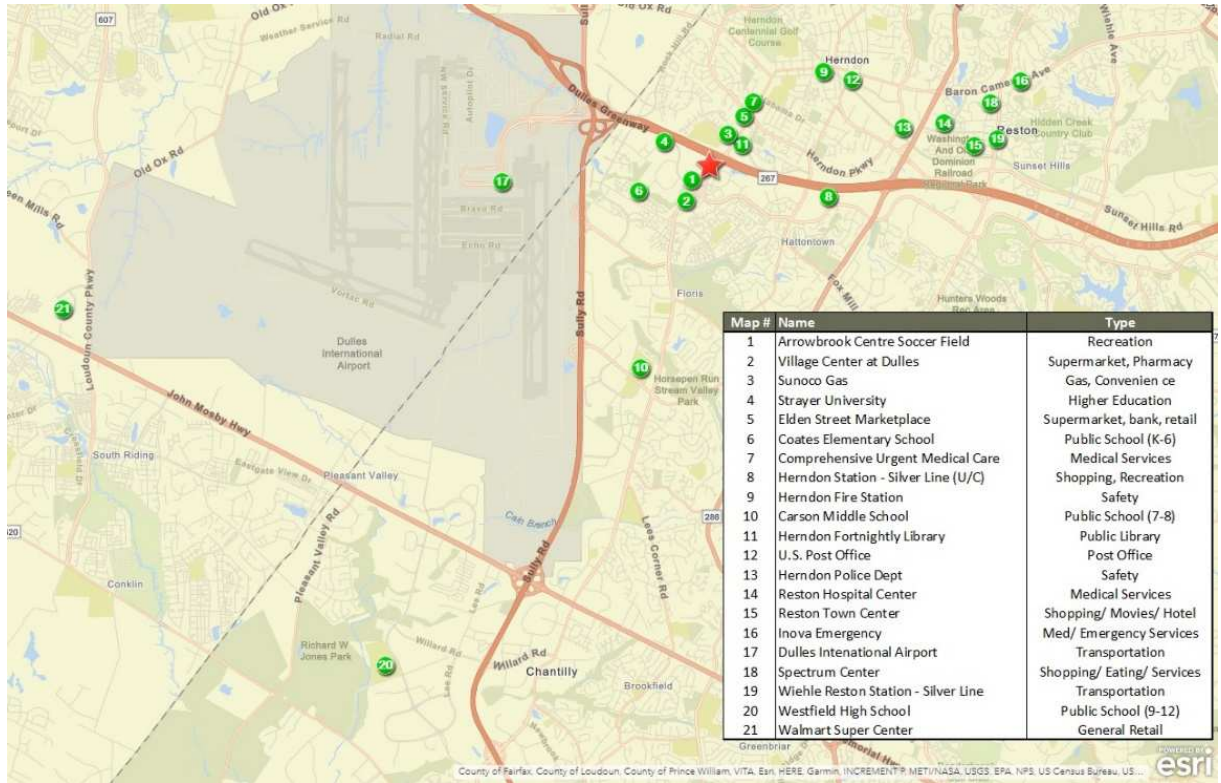
b. Education

The Commonwealth of Virginia administers Standards of Learning (SOL) Assessment Tests to monitor student performance and the quality of classroom instruction in public school systems across the state. The most comprehensive testing occurs in the 3rd, 5th, 8th, and 11th grades. Elementary and middle school students are tested in core areas including English, history, mathematics, science, and writing. High school tests are conducted upon students' completion of relevant coursework and focus on more specific subject areas such as algebra I, algebra, biology, chemistry, and geometry, in addition to English and writing.

The results of SOL tests can be used to compare the performance of students in various schools and school districts. To construct this comparison, we compiled data on the percentage of students testing at the state-defined 'proficient' level or 'advanced' level in core subject areas. We compiled data for the 2016 to 2017 school year to compare school performance across the school district.



Map 4 Neighborhood Amenities



The site for Arrowbrook Centre Apartments lies in the jurisdiction of the Fairfax County Public Schools. According to current attendance zones, school-age residents of Arrowbrook Centre Apartments attending public schools would be assigned to Coates Elementary School (Grades K-6), Carson Middle School (Grades 7-8), and Westfield High School. Coates Elementary is 0.9 mile from the subject site at 2480 River Birch Road. Carson Middle School is located 1.9 miles from the site at 13618 McLaren Road. Westfield High School is located 4.4 miles from the subject site at 4700 Stonecroft Boulevard in Chantilly

Based on the measure employed in this analysis (2016-2017 SOL results), the elementary school serving Arrowbrook Centre Apartments ranked 84th out of the 138 public elementary schools in Fairfax County with 77.5 percent of students tested as either proficient or advanced (Table 6). In comparison, 79.2 percent of all students in the Fairfax County Schools achieved at either a proficient or advanced level. In the Commonwealth of Virginia, the overall corresponding proportion was 80.0 percent.

At Carson Middle School, 90.0 percent of students achieved proficient or advanced ratings on the 2016-2017 SOL assessments. With this achievement level, Carson Middle ranked 8th out of 28 public middle schools in Fairfax County. Students in the school district had an average performance score of 83.4 percent while the statewide performance score with 75.0 percent.

At the high school level, 89.0 percent of students at Westfield High School achieved SOL assessment scores that qualified them as ‘proficient’ or advanced. In comparison, the countywide average was 84.1 percent while the statewide average was 88.5 percent. Westfield High School ranked 6th out of 24 public high schools in Fairfax County.



Table 6 Test Results, Fairfax County – 2016/2017 School Year

Elementary Schools					Middle Schools				
VSLA - 2017		Grade 5			VSLA - 2017		Grade 8		
Rank	Elementary Schools	English	Math	Composite	Rank	Middle Schools	English	Math	Composite
1	Chesterbrook Elementary	97.0%	98.0%	97.5%	1	Kilmer Center	100.0%	100.0%	100.0%
2	Wolftrap Elementary	99.0%	96.0%	97.5%	2	Cooper Middle	95.0%	96.0%	95.5%
3	Colvin Run Elementary	98.0%	96.0%	97.0%	3	Longfellow Middle	95.0%	94.0%	94.5%
4	Keene Mill Elementary	96.0%	98.0%	97.0%	4	Franklin Middle	94.0%	94.0%	94.0%
5	Kent Gardens Elementary	99.0%	95.0%	97.0%	5	Rocky Run Middle	95.0%	93.0%	94.0%
6	Westbriar Elementary	100.0%	93.0%	96.5%	6	Frost Middle	93.0%	94.0%	93.5%
7	Flint Hill Elementary	96.0%	96.0%	96.0%	7	Liberty Middle	88.0%	96.0%	92.0%
8	Spring Hill Elementary	99.0%	93.0%	96.0%	8	Carson Middle	91.0%	89.0%	90.0%
9	Poplar Tree Elementary	96.0%	95.0%	95.5%	9	Thoreau Middle	88.0%	92.0%	90.0%
10	Wakefield Forest Elementary	95.0%	95.0%	95.0%	10	Key Center School	78.0%	100.0%	89.0%
11	Floris Elementary	98.0%	92.0%	95.0%	11	Kilmer Middle	90.0%	86.0%	88.0%
12	Vienna Elementary	92.0%	98.0%	95.0%	12	Lake Braddock Secondary	87.0%	89.0%	88.0%
27	Fairview Elementary	94.0%	86.0%	90.0%	27	Whitman Middle	67.0%	68.0%	67.5%
28	Lemon Road Elementary	94.0%	86.0%	90.0%	28	Herdon Middle	71.0%	62.0%	66.5%
29	Canterbury Woods Elementary	94.0%	85.0%	89.5%		Fairfax County Average	83.3%	83.6%	83.4%
30	Shrevewood Elementary	91.0%	88.0%	89.5%		State Average	76.0%	74.0%	75.0%
31	Stenwood Elementary	97.0%	82.0%	89.5%					
32	Sunrise Valley Elementary	88.0%	90.0%	89.0%					
33	Waynewood Elementary	94.0%	84.0%	89.0%					
34	Camelot Elementary	85.0%	92.0%	88.5%					
35	Lees Corner Elementary	89.0%	88.0%	88.5%					
36	Cub Run Elementary	88.0%	88.0%	88.0%					
37	Island Creek Elementary	92.0%	84.0%	88.0%					
38	Marshall Road Elementary	90.0%	85.0%	87.5%					
39	Churchill Road Elementary	94.0%	80.0%	87.0%					
40	Oak Hill Elementary	93.0%	81.0%	87.0%					
41	Orange Hunt Elementary	92.0%	82.0%	87.0%					
53	Fairhill Elementary	83.0%	85.0%	84.0%					
56	Willow Springs Elementary	92.0%	76.0%	84.0%					
57	Bonnie Brae Elementary	84.0%	82.0%	83.0%					
58	Cunningham Park Elementary	84.0%	82.0%	83.0%					
59	Lane Elementary	91.0%	75.0%	83.0%					
60	Fairfax Villa Elementary	83.0%	82.0%	82.5%					
61	Columbia Elementary	86.0%	79.0%	82.5%					
82	Virginia Run Elementary	77.0%	79.0%	78.0%					
83	Westgate Elementary	83.0%	73.0%	78.0%					
84	Coates Elementary	82.0%	73.0%	77.5%					
85	Stratford Landing Elementary	89.0%	66.0%	77.5%					
86	Terraset Elementary	83.0%	72.0%	77.5%					
116	Brookfield Elementary	62.0%	72.0%	67.0%					
123	Woodlawn Elementary	60.0%	68.0%	64.0%					
137	Armstrong Elementary	79.0%	19.0%	49.0%					
138	Mount Vernon Woods Elementary	39.0%	37.0%	38.0%					
	Fairfax County Average	83.2%	75.2%	79.2%					
	State Average	81.0%	79.0%	80.0%					

High Schools				
EOC - 2017				
Rank	High Schools	Reading	Algebra II	Composite
1	Thom Jefferson Sci/Tech	100.0%	100.0%	100.0%
2	Langley High	97.0%	90.0%	93.5%
3	McLean High	96.0%	89.0%	92.5%
4	Marshall High	96.0%	87.0%	91.5%
5	Oakton High	96.0%	83.0%	89.5%
6	Westfield High	93.0%	85.0%	89.0%
7	Woodson High	96.0%	80.0%	88.0%
19	South Lakes High	92.0%	66.0%	79.0%
22	Lee High	85.0%	60.0%	72.5%
23	Herdon High	87.0%	56.0%	71.5%
24	Fairfax County Adult		40.0%	40.0%
	Fairfax County Average	91.1%	77.1%	84.1%
	State Average	87.0%	90.0%	88.5%

Source: Virginia Department of Education

The Loudoun Campus of Northern Virginia Community College (NVCC; informally NOVA), located in Sterling about nine miles north of the subject, provides a variety of academic programs, workforce development classes, student activities, events and campus facilities to more than 11,000 students each year. NOVA is a two-year college composed of six campuses and four centers located in the Northern Virginia suburbs of Washington, D.C. The College includes 77,332 students and more than 2,500 faculty and staff members. Located on 93 acres, the Loudoun Campus consists of eight buildings including the Waddell Theater and Art Gallery. The campus features state-of-the-art science and computer labs, a veterinary teaching hospital, a commercial grade greenhouse and an interior design resource library. George Mason University in Sterling, Loudoun County is co-located with Northern Virginia Community College at Signal Hill Plaza and offers coursework in nursing, education, information technology, and business, along with undergraduate general education courses.



3. Commercial Goods and Services

a. Convenience Goods

The term “convenience goods” refers to inexpensive, nondurable items that households purchase on a frequent basis and for which they generally do not comparison shop. Examples of convenience goods are groceries, health and personal care products, household cleaning products, newspapers, and gasoline. Restaurants, banks, gas stations, and personal care establishments such as salons and barbershops are examples of convenience services.

Convenience shopping in this portion of Herndon is primarily located along Centreville Road. The Village Center at Dulles, located 0.5 mile to the southeast, contains a Giant and CVS drugstore in addition to a Home Goods, restaurants, and banks. Elden Street Marketplace, located 0.8 mile to the northeast, contains a Giant supermarket, restaurants, and Kohl’s. A Sunoco Gas Station and Convenience Store is located nearby. Reston Town Center, about three miles from the site, offers a large array of eating and shopping options both for everyday needs and comparison goods including Harris Teeter supermarket, the shops and restaurants at Reston Town Center (Ann Taylor, The Gap, J. Crew, Jos. Bank), and the “Big Box” outlets at Spectrum Center (Best Buy, Office Depot, Barnes & Noble, PetSmart). This center includes over 70 shops and restaurants, including Rite Aid Pharmacy and the U.S. Post Office. A Wal-Mart Super Center is located in Sterling seven miles to the northwest. The subject itself will feature approximately 40,000 square feet of retail space devoted to dining, retail, and services.

b. Shoppers Goods

The term “shoppers goods” refers to larger ticket merchandise that households purchase on an infrequent basis and for which they usually comparison shop. The category is sometimes called “comparison goods.” Examples of shoppers goods are apparel and accessories, furniture and home furnishings, appliances, jewelry, and sporting goods.

The closest regional shopping center, Fair Oaks, is located roughly nine miles south of the subject along Route 50. Fair Oaks is anchored by Lord and Taylor, JC Penney, Macy’s, and Sears. Tysons Corner is a long-established destination for comparison-shopping, drawing patrons from throughout the Washington, DC region due to easy access to the Beltway. Tysons Corner, 12 miles to the east, can be easily accessed via the Dulles Access Road or via the Silver Line Metro. Two indoor shopping malls – one on either side of Route 123 – anchor the Tysons Corner retail environment. Tysons Corner Center features more than 200 tenants occupying more than 2 million square feet of enclosed space. Tysons Corner Center contains four department store anchors (Bloomingdale’s, Nordstrom, Lord & Taylor, and Macy’s), an L.L. Bean store, Barnes & Noble, a 16-screen AMC theater complex, and many in-line national chains. The Tysons Galleria is located north of Route 123. The tenant base of the Tysons Galleria trends toward high-end luxury goods, with department store anchors Neiman Marcus, Saks Fifth Avenue, and Macy’s and dozens of in-line boutiques.

In addition to high-end retail offerings at both Tysons Corner Center and Tysons Galleria, the district incorporates strip centers with more mid-range establishments. Among these are three along the west side of Route 7 between Spring Hill Road and Route 123 featuring big-box retailers such as Best Buy, TJ Maxx, DSW, Staples, Marshalls, and Sports Authority. The big-box centers also incorporate personal services establishments and specialty shops. The Leesburg Premium Outlets are located 15 miles to the northwest.



4. Recreational and Other Community Amenities

The proposed Arrowbrook Centre Apartments is located directly north of Arrowbrook Centre Park which boasts tennis courts, a soccer field, basketball court and playground. Jogging, walking, and biking trails meander through a nearby wetlands nature preserve. Numerous golf courses are scattered throughout the Herndon/ Reston area and two nearby parks, Hutchison Park in Herndon and Lake Fairfax Park in Reston, provide a variety of outdoor recreational activities. Venues hosting sports and cultural events within 11 to 15 miles of the subject include Eagle Bank Arena, George Mason Center for the Arts, and the nationally renowned Wolf Trap Center for the Performing Arts. Downtown DC, 24 miles to the east, with its enormous concentration of employment centers, recreational and cultural amenities, and government offices is easily accessed either by car via the Dulles Toll Road or by METRO.

F. Site and Neighborhood Conclusions

Located in a neighborhood with a mix of residential, office, retail and recreational uses, the subject site affords excellent access to regional transportation and employment opportunities and is within one-half mile of the Innovation Station, part of the Phase II expansion of Metro's Silver Line slated to open in 2020. The site has excellent visibility fronting on Centreville Road, one of the main arterials in western Fairfax County, and is located just south of the Dulles Access Road providing easy connections to the Silver Line Metro, Dulles Airport, and major retail, employment, and service nodes throughout the region.



IV. ECONOMIC CONTEXT

A. Introduction

This section focuses on economic trends and conditions in Fairfax County, including the two modestly-sized cities of Fairfax (which is fully surrounded by the county) and Falls Church (adjoining the county to the east). This definition of Fairfax County is consistent with that of the U.S. Department of Commerce’s Bureau of Economic Analysis (BEA). For purposes of comparison, we also discuss economic trends in the Commonwealth of Virginia and the nation.

B. Labor Force, Resident Employment, and Unemployment

1. Trends in County Labor Force and Resident Employment

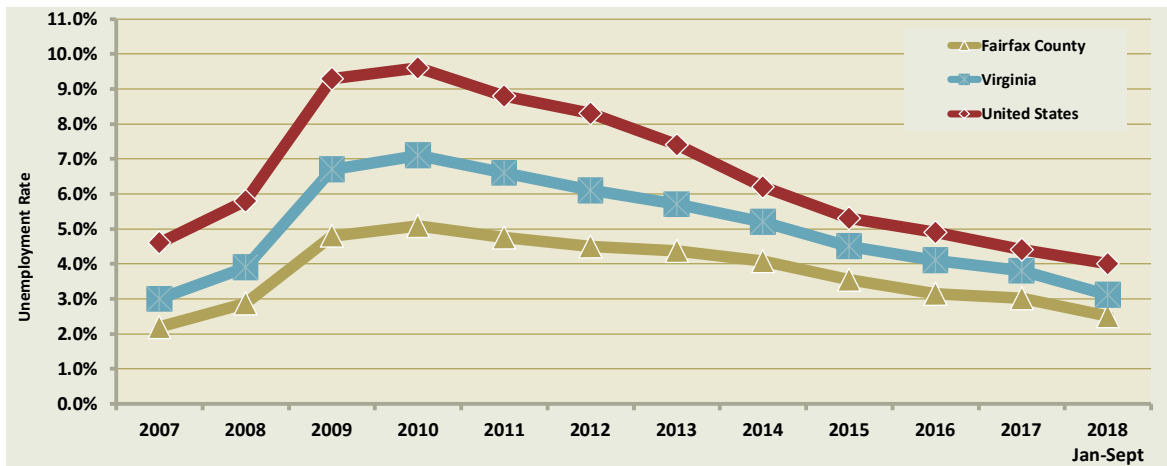
Fairfax County’s labor force has increased most years since 2007 with a net increase of 59,348 workers or 9.9 percent through September 2018 (Table 7). The county’s labor force reached a peak of 661,288 workers in September 2018. The county added 26,000 employed residents since 2015, while the number of unemployed workers fell by 27 percent from 22,754 to 16,562 unemployed residents during the same period.

Table 7 Labor Force and Unemployment Rates, Fairfax County

Annual Unemployment Rates - Not Seasonally Adjusted

Annual Unemployment	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Jan-Sept
Labor Force	601,940	614,229	609,368	630,565	640,813	645,511	646,503	648,711	641,448	643,453	656,790	661,288
Employment	588,738	596,647	580,124	598,494	610,363	616,494	618,224	622,274	618,693	623,273	636,971	644,726
Unemployment	13,202	17,582	29,244	32,071	30,450	29,017	28,279	26,437	22,754	20,179	19,818	16,562
Unemployment Rate												
Fairfax County	2.2%	2.9%	4.8%	5.1%	4.8%	4.5%	4.4%	4.1%	3.5%	3.1%	3.0%	2.5%
Virginia	3.0%	3.9%	6.7%	7.1%	6.6%	6.1%	5.7%	5.2%	4.5%	4.1%	3.8%	3.1%
United States	4.6%	5.8%	9.3%	9.6%	8.8%	8.3%	7.4%	6.2%	5.3%	4.9%	4.4%	4.0%

Source: U.S. Department of Labor, Bureau of Labor Statistics



2. Trends in County Unemployment Rate

Since 2007, the annual unemployment rate among residents of Fairfax County has tracked consistently lower than the statewide annual unemployment rate for Virginia, which, in turn, has recorded an annual unemployment rate well below the national unemployment rate. Between 2007 and 2008, the local unemployment rate in Fairfax County ranged from 2.2 percent to 2.9 percent. After the onset of the national recession, the annual unemployment rates for Fairfax



County climbed to a high of 5.1 percent in 2010. While high in terms of the area’s recent historical context, the 5.1 percent 2010 unemployment rate was two percentage points below the statewide unemployment rate of 7.1 percent and was slightly more than half the national unemployment rate of 9.6 percent in this same year.

Unemployment data since 2011 suggests an improving economic situation with the average unemployment rate for Fairfax County dropping steadily in each subsequent year. As of September 2018, Fairfax County’s unemployment rate averaged 2.5 percent, compared to 3.1 percent in Virginia and 4.0 percent in the nation.

C. Commuting Patterns

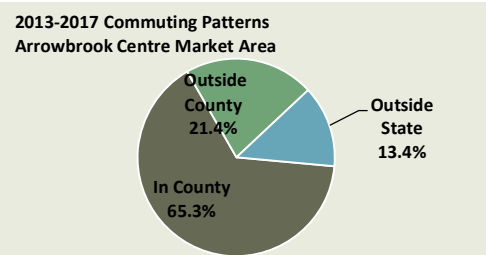
Fairfax County is one of the economic engines of the large and economically diverse Washington, D.C. region, comprised of the District of Columbia and suburban counties and cities in both Virginia and Maryland. Commuting patterns of residents of the primary market area, labeled the Arrowbrook Market Area and defined in the following section, demonstrate the economic integration of the D.C. region. Data from the 2013-2017 American Community Survey (ACS) show that two-thirds (65.3 percent) of the working residents of the primary market area commuted to jobs located within their home jurisdiction of Fairfax County (Table 8). Twenty-one percent of market area workers commuted to other counties within the state and 13 percent worked outside of the state of Virginia (primarily either Washington DC or Maryland).

Twenty-two percent of Arrowbrook Centre Market Area workers reported average commute times less than 15 minutes as of 2013-2017 and one-third of workers commuted between 15 and 29 minutes. Thirty-nine percent of workers commuted thirty minutes or more.

Table 8 2013-2017 Commutation Data, Arrowbrook Centre Market Area

Travel Time to Work			Place of Work		
Workers 16 years+	#	%	Workers 16 years and over	#	%
Did not work at home:	44,737	94.6%	Worked in state of residence:	40,972	86.6%
Less than 5 minutes	701	1.5%	Worked in county of residence	30,870	65.3%
5 to 9 minutes	3,366	7.1%	Worked outside county of residence	10,102	21.4%
10 to 14 minutes	6,540	13.8%	Worked outside state of residence	6,321	13.4%
15 to 19 minutes	7,454	15.8%	Total	47,293	100%
20 to 24 minutes	5,789	12.2%			
25 to 29 minutes	2,554	5.4%			
30 to 34 minutes	5,088	10.8%			
35 to 39 minutes	1,335	2.8%			
40 to 44 minutes	2,044	4.3%			
45 to 59 minutes	4,123	8.7%			
60 to 89 minutes	4,257	9.0%			
90 or more minutes	1,486	3.1%			
Worked at home	2,556	5.4%			
Total	47,293				

Source: American Community Survey 2013-2017



Source: American Community Survey 2013-2017

D. At-Place Employment

1. Trends in Total At-Place Employment

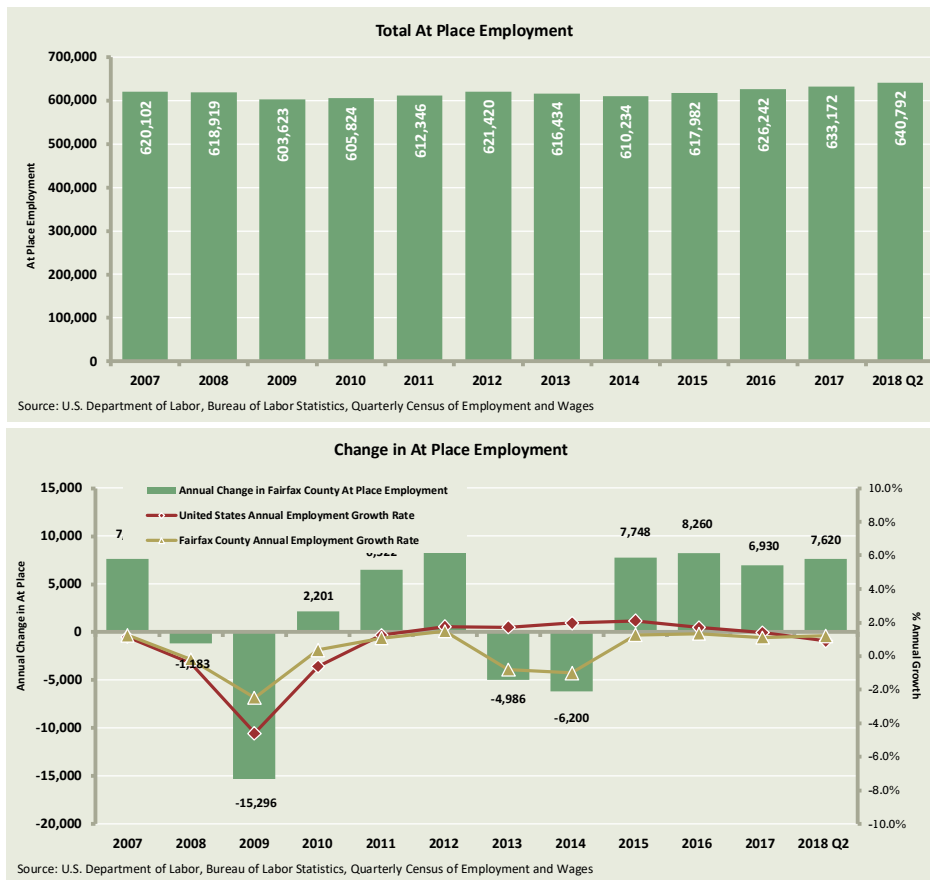
As of 2007, aggregate at-place employment in Fairfax County – the total number of jobs located within Fairfax County, Fairfax City, and Falls Church – totaled 620,102 positions (Figure 7). During the recession years of 2008 and 2009, Fairfax County’s employment base decreased by 16,479



jobs. The downward trend was short-lived, however, as local employers added 17,797 net jobs over the next three years. Losses were registered in 2013 and 2014, but were more than offset the following 3.5 years as 30,600 net new jobs were added including several high-profile expansions such as Bechtel (700 jobs); Navy Federal Credit Union (600 jobs); Agilex (250 jobs); and the consolidation of jobs at Fort Belvoir. The base was a major beneficiary of the Base Realignment and Closure Act of 2005 (BRAC) in that roughly 19,300 net new military and civilian jobs were transferred to Fort Belvoir. Growth continued during 2017, with a net increase of 6,930 positions and an additional gain of 7,620 jobs through Q2 2018. Since 2007, at-place employment in Fairfax County has increased by 20,690 jobs, or 3.3 percent.

As illustrated by the lines in the bottom portion of Figure 7 has generally followed national trends in terms of year to year job change. The county’s job losses were less pronounced during the national recession, but employment dipped during 2013 and 2014 while the national rate of job growth remained steady.

Figure 7 At-Place Employment, Fairfax County



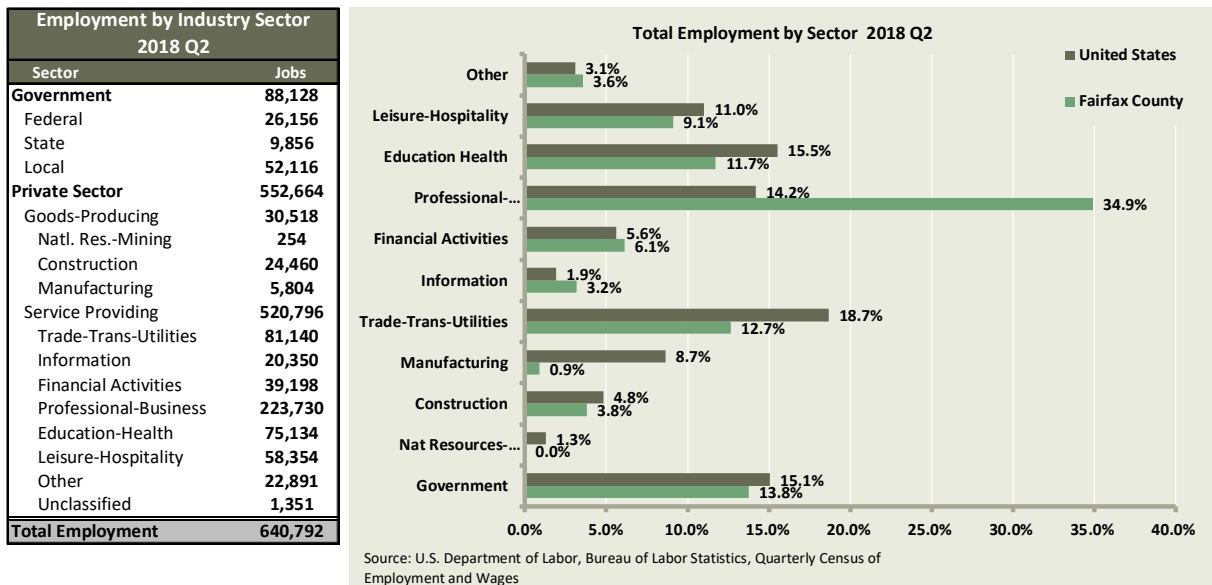
2. At-Place Employment by Industry Sector

The local economy is dominated by the Professional-Business sector (Figure 8). As of Q2 2018, employers in this white-collar sector account for 35 percent of the county’s employment base, a concentration that is more than twice the national average. Government contractors, law firms, lobbying groups, and national non-profit or membership organizations are among the entities



constituting the Professional-Business sector in the Washington, DC area. Employers in the white-collar Financial Activities and Information sectors account for an additional nine percent of all jobs in Fairfax County. Owing to the high concentration of white-collar employment in the county, the percentages of total jobs in the Government, Trade-Transportation-Utilities, Education-Health, and Leisure-Hospitality sectors (ranging from nine to fourteen percent) trail the national averages for these sectors. Fairfax County has a limited base of Manufacturing sector employment, representing just one percent of all jobs.

Figure 8 Total Employment by Sector, Q2 2018



Six of eleven economic sectors added jobs in Fairfax County from 2011 to Q2 2018 including 21 percent growth in Education-Health, 20 percent growth in Leisure-Hospitality, and 18 percent growth in Financial Activities. Sectors which grew by five percent or less include Other, Trade-Transportation-Utilities, and Government. Over this period, Fairfax County’s substantial Professional – Business sector decreased by 0.2 percent compared to 17.9 percent growth on a national basis. Three additional sectors, Manufacturing, Information, and Construction, experienced losses as well, but these sectors represent a relatively small portion of the local economy. The Natural Resources-Mining sector also lost ground but represents negligible portion of the county’s jobs.

3. Major Employers

Table 9 outlines Fairfax County’s largest private employers in terms of number of employees, as reported by the Virginia Employment Commission. All of the county’s largest employers have at least 1,000 employees each. Four of the largest employers are in the Professional-Business sector and conduct significant contracting work for the federal government. Much of this work is affiliated with national defense, and accordingly, both the US Department of Defense and the Department of Homeland Defense are major employers. Four of the top employers are in the Financial Services sector. The remaining employers are in the Education-Health and Government sectors. As shown in Map 5, most of the major employers in the county are within reasonable commuting distance from the subject community except for three organizations located in the Alexandria area.



Figure 9 Employment Change by Sector, 2011 – Q2 2018

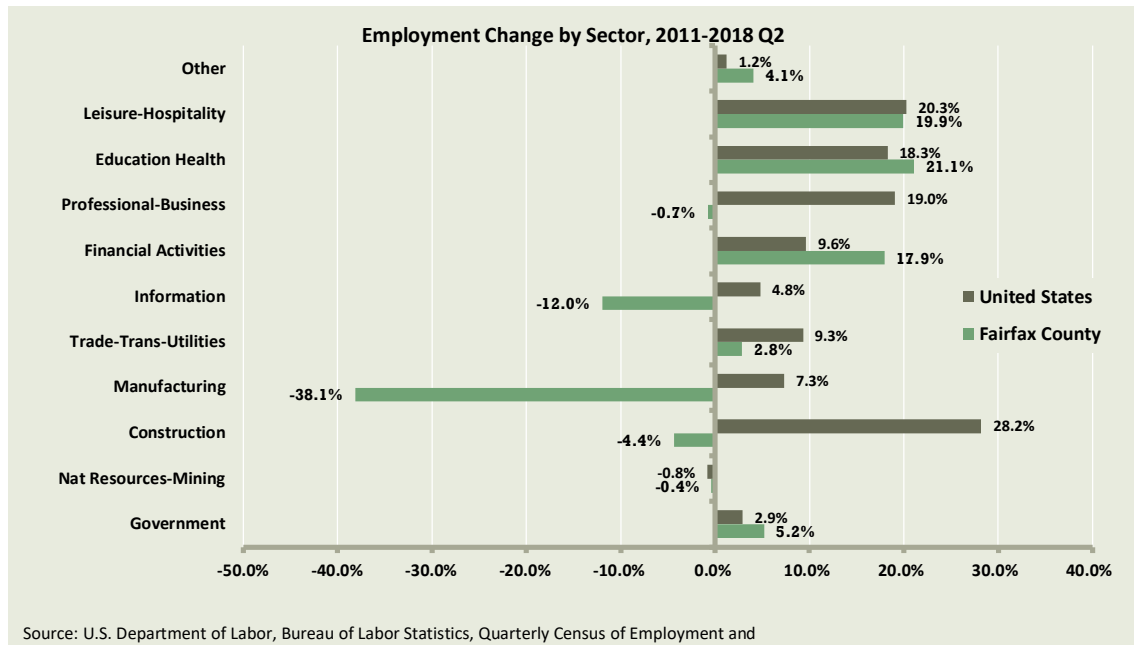


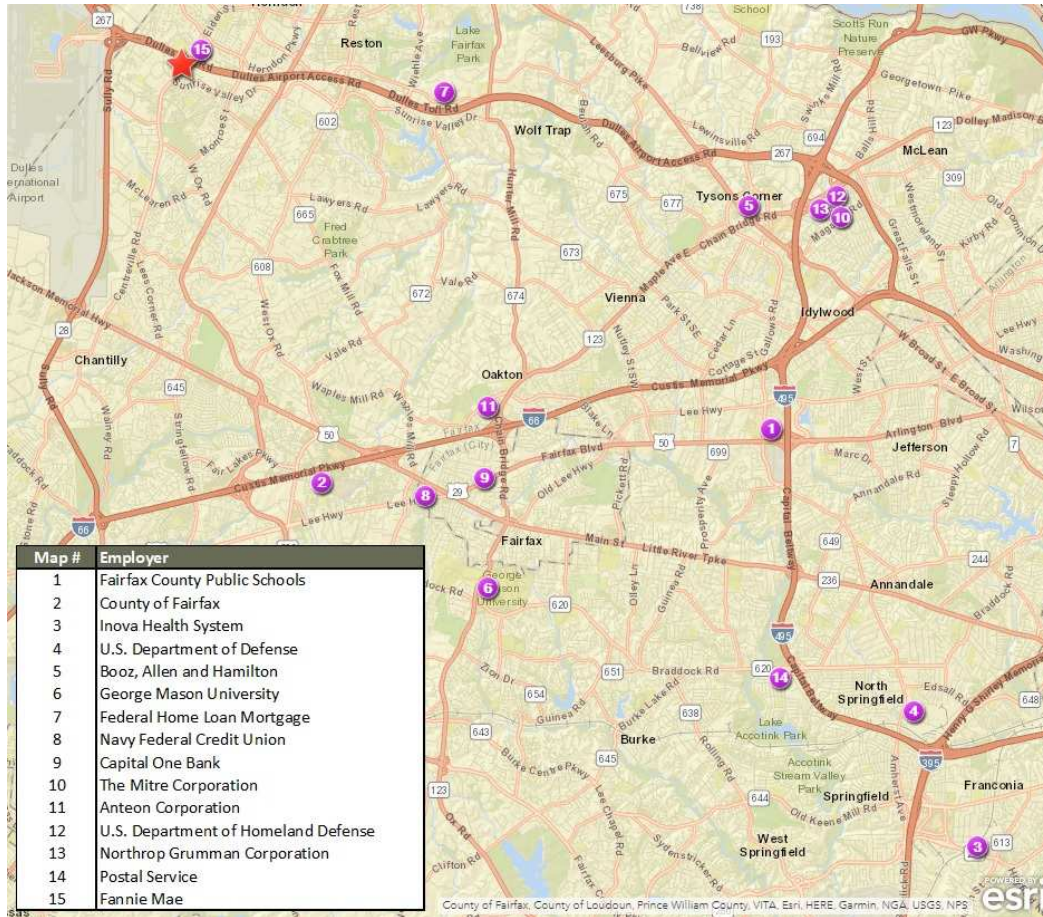
Table 9 Largest Employers in Fairfax County 2017

Rank	Name	Sector	Employment
1	Anteon Corporation	Professional, Scientific, and Technical Services	1000 +
2	Booz, Allen and Hamilton	Professional, Scientific, and Technical Services	1000 +
3	Capital One Bank	Credit Intermediation and Related Activities	1000 +
4	County of Fairfax	County Government	1000 +
5	Fairfax County Public Schools	Educational Services	1000 +
6	Fannie Mae	Credit Intermediation and Related Activities	1000 +
7	Federal Home Loan Mortgage	Credit Intermediation and Related Activities	1000 +
8	George Mason University	Educational Services	1000 +
9	Inova Health System	Hospitals	1000 +
10	Navy Federal Credit Union	Finance and Insurance	1000 +
11	Northrop Grumman Corporation	Computer and Electronic Product Manufacturing	1000 +
12	Postal Service	Postal Service	1000 +
13	The Mitre Corporation	Professional, Scientific, and Technical Services	1000 +
14	U.S. Department of Defense	National Security and International Affairs	1000 +
15	U.S. Department of Homeland Defense	National Security	1000 +

Source: Virginia Employment Commission



Map 5 Major Employers- Fairfax County



E. Wage Trends

The average annual wage in 2017 for Fairfax County was \$84,119 (Table 10). In 2017, the county’s average annual wage was 49 percent higher than the average annual wage throughout Virginia (\$56,503) and 52 percent higher than the average wage nationally (\$55,375). The average annual wage in Fairfax County has steadily increased each year between 2010 and 2017.

Table 10 Average Annual Wage

	2010	2011	2012	2013	2014	2015	2016	2017
Fairfax County	\$74,398	\$76,204	\$77,744	\$78,108	\$78,839	\$80,942	\$81,467	\$84,119
Virginia	\$49,651	\$50,657	\$51,646	\$51,918	\$52,929	\$54,276	\$54,855	\$56,503
United States	\$46,751	\$48,043	\$49,289	\$49,804	\$51,361	\$52,942	\$53,621	\$55,375

Source: U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages

The average wage in Fairfax County exceeds the national average for all sectors (Figure 10). The highest wage sectors in the county as of 2016 were Information (\$135,065), Financial Activities (\$119,008), and Professional-Business (\$114,898).



Figure 10 Annualized Wage Data by Sector



Source: U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages

F. Economic Expansions, Contractions, and Projections

The Fairfax County Economic Development Authority provides quarterly data on new and expanding businesses. The following is a summary of larger job additions announced in the first and second quarters of 2018:

- Appian, an IT firm in Tysons Corner, expanded with 600 positions.
- The College Board, an Education firm in Reston, expanded with 120 positions.
- Favor TechConsulting LLC, an IT firm in Tysons Corner, expanded with 800 positions.
- The Boat Owners Association of the United States, an Association in Springfield, relocated with 375 positions.
- 22nd Century Technologies, Inc., an IT firm in Tysons Corner, expanded with 100 positions.

RPRG did not identify any large-scale layoffs or closures that were recently reported in Fairfax County.

G. Economic Conclusions and Projections

Despite the ebb and flow in at-place employment, the county economy is robust with unemployment rates consistently below the state and the nation. As of September 2018, the unemployment rate averaged 2.5 percent, less than the statewide rate of 3.1 percent and the national rate of 4.0 percent. The high-paying Professional-Business sector dominates the local economy, accounting for 2.5 times the national proportion. While the Fairfax County economy shed approximately 15,300 net jobs in 2009, it subsequently added back 17,800 net jobs over the next three years. Although Fairfax County again experienced a net loss of more than 11,000 jobs between 2013 and 2014, the local economy has since gained 30,600 positions, ending Q2 2018 at a new peak.



V. HOUSING MARKET AREA

A. Introduction

The primary market area for any new residential community is defined as the geographic area from which future residents of the community would primarily be drawn and in which competitive housing alternatives are located. In defining the primary market area, RPRG sought to accommodate the joint interests of conservatively estimating housing demand and reflecting the realities of the local rental housing marketplace.

B. Delineation of Market Area

The primary market area defined by RPRG to evaluate the proposed Arrowbrook Centre Apartments rental community is depicted in Map 6. The nineteen 2010 Census tracts comprising the primary market area are listed on the edge of the map. The primary market area will be referred to as the Arrowbrook Centre Market Area for the remainder of this report.

The Arrowbrook Centre Market Area includes the western portion of Fairfax bisected by the Dulles Access Road (Route 267). The market area generally runs from Route 7 on the north to Lee Jackson Memorial Highway (US Route 50) on the south and from the Fairfax/ Loudoun County boundary and Washington Dulles International Airport on the west and Fairfax County Parkway (Route 286) on the east. The incorporated area of the Fairfax County lies entirely within the market area; the unincorporated area of Reston lies immediately east of the market area.

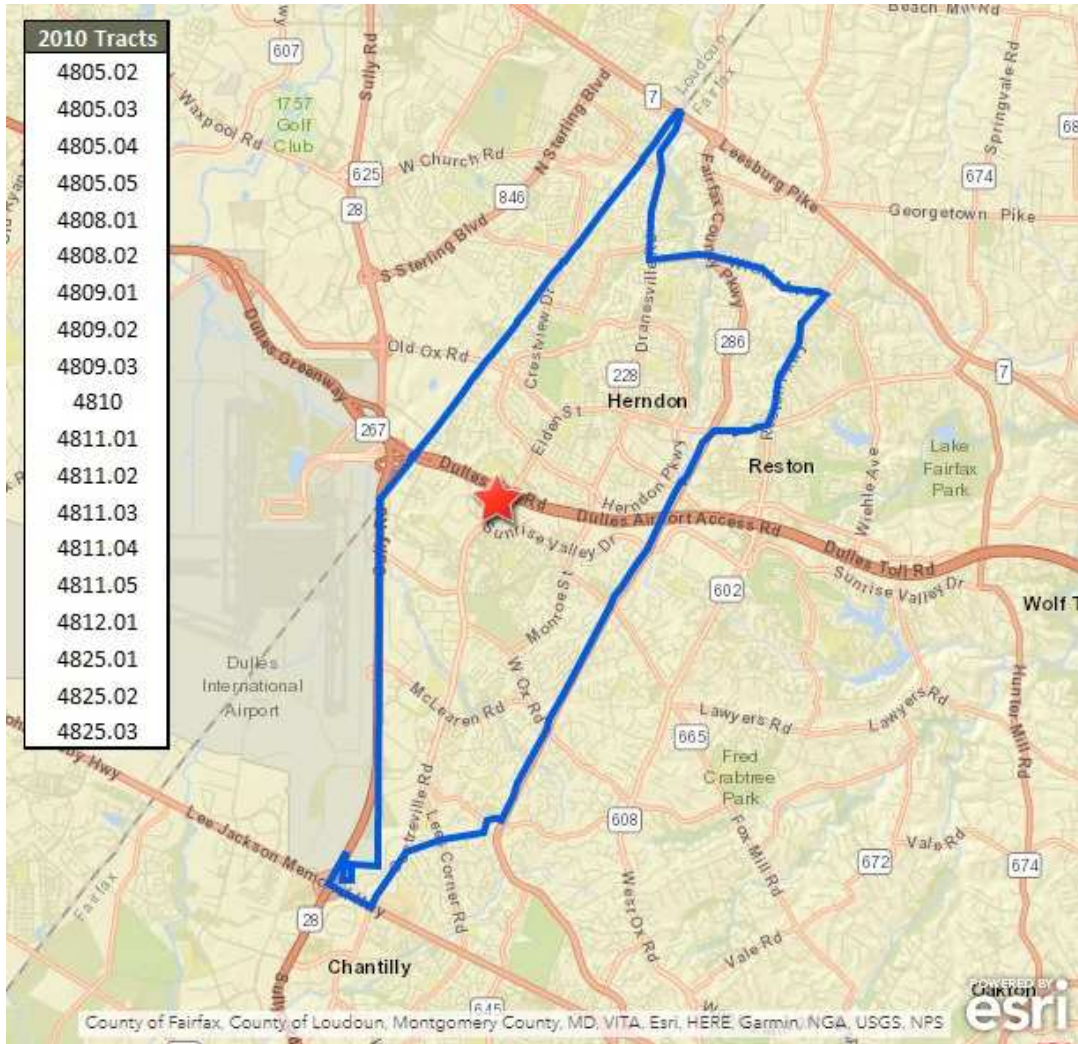
The approximate boundaries of the Arrowbrook Centre Market Area and their distances from the subject site are as follows:

- **North:** Leesburg Pike (Route 7); Dranesville Road; Wiehle Avenue (4.3 miles)
- **East:** Reston Parkway; Baron Cameron Avenue; Fairfax County Parkway (2.0 miles).
- **South:** Lee Jackson Memorial Highway; (4.5 miles)
- **West:** Fairfax County/ Loudoun County boundary; Sully Road (1.5 miles)

As appropriate for this analysis, RPRG compares and contrasts the Arrowbrook Centre Market Area with Fairfax County. We consider Fairfax County to be the secondary market area for Arrowbrook Centre Apartments.



Map 6 Arrowbrook Centre Market Area





VI. DEMOGRAPHIC ANALYSIS

A. Introduction and Methodology

RPRG analyzed recent trends in population and households in the Arrowbrook Centre Market Area and Fairfax County using the following data sources:

- The U.S. Census Bureau's 2000 & 2010 Census of Population and Housing
- The U.S. Census Bureau's American Community Survey for the years 2013 through 2017
- 2019 estimates and 2024 projections by Census tract from Esri, which incorporate 2010 Census data. Esri is a private national vendor of demographic data.
- We also examined the Round 9.1 forecasts by traffic analysis (TAZ) from the area's metropolitan planning organization, the Metropolitan Washington Council of Governments (MWCOG). The forecasts were released on October 10, 2018. This data incorporates the 2010 Census Data.
- Data on permits for new residential units in Fairfax County, compiled by the U.S. Census Bureau

In considering population and household trends moving forward from the 2010 Census, RPRG evaluated both MWCOG and Esri estimates and projections. Both MWCOG and Esri project that population and household totals have continued to increase since 2010 and will continue to increase, though at lower rates than recorded between 2000 and 2010.

Given available information, RPRG elects to base our analysis on the estimates and projections from MWCOG as these projections have recently been updated and incorporate 2010 as their base. In general, local planning organizations are in the best position to incorporate new residential projects and developable land in their forecasts.

B. Trends in Population and Households

1. Recent Past Trends

At the time of the 2000 Census, 62,997 persons and 20,993 households resided in Arrowbrook Centre Market Area (Table 11). Based on the 2010 Census, the population of the market area stood at 76,763 in 2010, reflecting a 21.9 percent increase since 2000. The primary market area's 2010 household base of 27,047 increased by 28.8 percent versus the 2000 base. These overall increases translate to annual growth rates of 2.0 percent for population and 2.6 percent for household growth. As of 2010, 1,116,623 persons and 405,075 households resided in the Fairfax County; the population and household bases increased by 1.1 percent annually since 2000.

Based on MWCOG trends, RPRG estimates that the primary market area's population grew by 1,028 persons (1.3 percent) per year and its household base grew by 285 households (1.0 percent) annually. The estimated population and household totals for the Arrowbrook Centre Market Area as of 2019 are 86,017 persons and 29,612 households. For Fairfax County, RPRG estimates that the population and household bases increased by 0.7 percent, respectively, each year between 2010 and 2019.

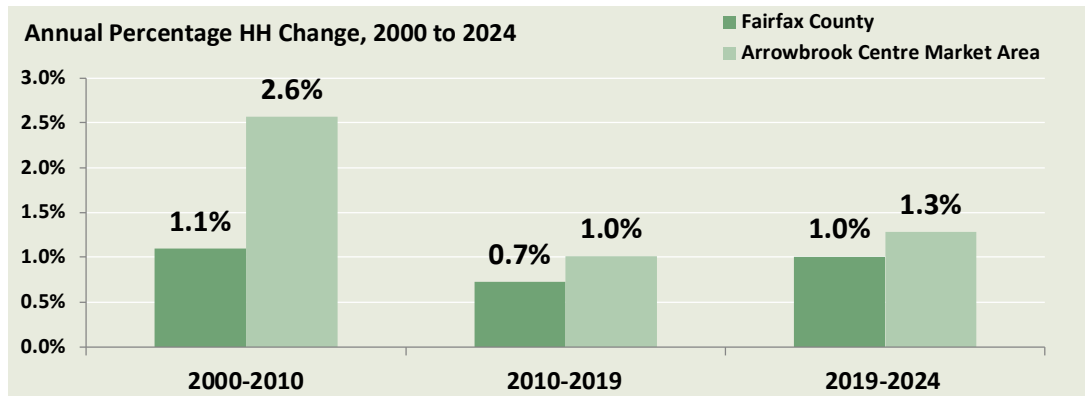


Table 11 Population and Household Trends, 2000 to 2023

		Fairfax County				Arrowbrook Centre Market Area				
Population	Count	Total Change		Annual Change		Count	Total Change		Annual Change	
		#	%	#	%		#	%	#	%
2000	1,001,711					62,997				
2010	1,116,623	114,912	11.5%	11,491	1.1%	76,763	13,766	21.9%	1,377	2.0%
2019	1,193,840	77,217	6.9%	8,580	0.7%	86,017	9,254	12.1%	1,028	1.3%
2024	1,244,823	50,983	4.3%	10,197	0.8%	90,660	4,643	5.4%	929	1.1%

		Fairfax County				Arrowbrook Centre Market Area				
Households	Count	Total Change		Annual Change		Count	Total Change		Annual Change	
		#	%	#	%		#	%	#	%
2000	363,258					20,993				
2010	405,075	41,817	11.5%	4,182	1.1%	27,047	6,054	28.8%	605	2.6%
2019	432,159	27,084	6.7%	3,009	0.7%	29,612	2,565	9.5%	285	1.0%
2024	454,336	22,177	5.1%	4,435	1.0%	31,558	1,946	6.6%	389	1.3%

Source: 2000 Census; 2010 Census; Esri; and Real Property Research Group, Inc.



2. Projected Trends

Based on MWCOC data, RPRG projects that the Arrowbrook Centre Market Area will continue to experience steady net population increases, though moderately slower than over the past 19 years. The population will grow at an average rate of 1.1 percent or 929 persons per year over the next five years. In contrast to population forecasts, the market area’s household base will expand at a faster rate compared to the 2010 to 2019 period but still well below 2000 to 2010 rates. RPRG projects that the market area’s household base will expand at an annual rate of 389 households (1.3 percent) through 2024. The county will experience population and household growth rates of 0.8 and 1.0, respectively, percent on an annual basis through 2024.

3. Building Permit Trends

Trends in residential building permits across the county (including the cities of Fairfax and Falls Church) generally reflect the strong household growth in this portion of Northern Virginia. Between 2007 and 2017, Fairfax County authorized an average of 1,711 new residential units per year with much greater activity during the last four years of this period (Table 12). During 2007 to 2008, permits averaged 1,485 units and then dropped to an average of 861 units during the recession years. In 2012, permit activity rebounded to the 1,500 level but then dropped to 1,106 permits in 2013. The true recovery started in 2014 when permits jumped to 2,850 permits and remained about the 2,000 level through 2017 (averaging 2,662 permits over the four year period).

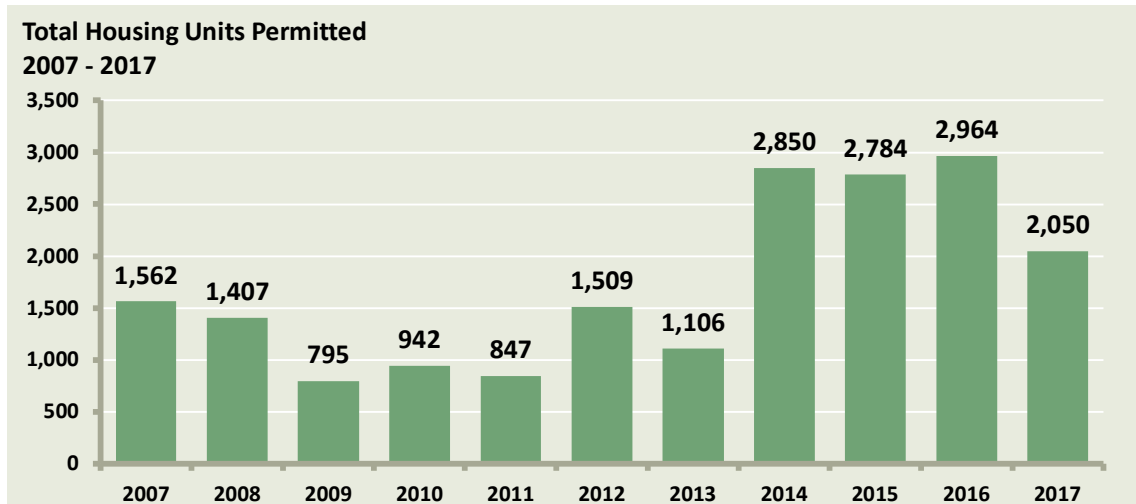


Over this 11-year period, an annual average of 951 single family units were permitted, compared to the multifamily (structures with five or more units) average of 758 units. Multifamily rental units accounted for 44 percent of the new construction housing supply over this 17-year period while single-family units accounted for the remaining 56 percent. However, between 2014 and 2016, the number of multifamily units permitted nearly doubled relative to the single-family homes permitted, accounting to 65 percent of permitted units. Many of these multifamily units are being developed around the new Silver Line Metro stations (as well as other Metrorail locations) where residential density is increasing significantly because of efforts to encourage transit-oriented development.

Table 12 Building Permits for New Residential Units, Fairfax County

Fairfax County (Includes Falls Church and Fairfax City)												2007-2017	Annual Average
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017			
Single Family	1,312	914	795	942	847	781	793	1,016	886	1,083	1,090	10,459	951
Two Family	0	0	0	0	0	2	0	0	14	0	0	16	1
3 - 4 Family	0	0	0	0	0	0	0	0	3	0	0	3	0
5+ Family	250	493	0	0	0	726	313	1,834	1,881	1,881	960	8,338	758
Total	1,562	1,407	795	942	847	1,509	1,106	2,850	2,784	2,964	2,050	18,816	1,711

Source: U.S. Census Bureau, C-40 Building Permit Reports.



C. Demographic Characteristics

1. Age Distribution and Household Type

The median age in the Arrowbrook Centre Market Area is 34, four years younger than the median age of residents of Fairfax County (38 years) (Table 13). Young adults comprise a higher percentage of the primary market area’s population than that of the county’s population – 22.7 percent versus 19.3 percent. Adults ages 35 to 61 account for roughly similar percentages in both areas – 38 percent. Senior citizens aged 62 and older account for only 12.0 percent of the primary market area’s population, significantly below the 18.2 percent share in the county. Children and youth under age 20 comprise roughly one-quarter of the population in the county and 27 percent in the market area.



According to the 2010 Census, 58.5 percent of households were married in the market area, slightly above the 57.2 percent proportion in the county. Individuals living alone – a category that typically includes many young adults and seniors – accounted for 21 percent of the households in the Arrowbrook Centre Market Area and 23 percent of the households throughout the county as of 2010 (Table 14). In the primary market area, 7.2 percent of households fell into the ‘non-family without children’ category, a designation that includes roommate living arrangements and unmarried couples. The percentage of households with children in the market area (41.4 percent) is greater than the percentage of households with children throughout in Fairfax County (36.6 percent). Households without children account for 37.4 percent of all households in the primary market area and 40.5 percent in the county.

Table 13 2019 Age Distribution

2019 Age Distribution	Fairfax County		Arrowbrook Centre Market Area	
	#	%	#	%
Children/Youth	298,678	25.0%	23,296	27.1%
Under 5 years	69,619	5.8%	6,340	7.4%
5-9 years	75,733	6.3%	6,073	7.1%
10-14 years	80,312	6.7%	5,919	6.9%
15-19 years	73,014	6.1%	4,964	5.8%
Young Adults	230,076	19.3%	19,535	22.7%
20-24 years	66,650	5.6%	4,929	5.7%
25-34 years	163,425	13.7%	14,606	17.0%
Adults	448,186	37.5%	32,885	38.2%
35-44 years	168,580	14.1%	14,105	16.4%
45-54 years	167,367	14.0%	11,750	13.7%
55-61 years	112,239	9.4%	7,030	8.2%
Seniors	216,901	18.2%	10,302	12.0%
62-64 years	48,102	4.0%	3,013	3.5%
65-74 years	105,579	8.8%	5,339	6.2%
75-84 years	45,686	3.8%	1,533	1.8%
85 and older	17,533	1.5%	418	0.5%
TOTAL	1,193,840	100%	86,017	100%
Median Age	38		34	

Source: Esri; RPRG, Inc.

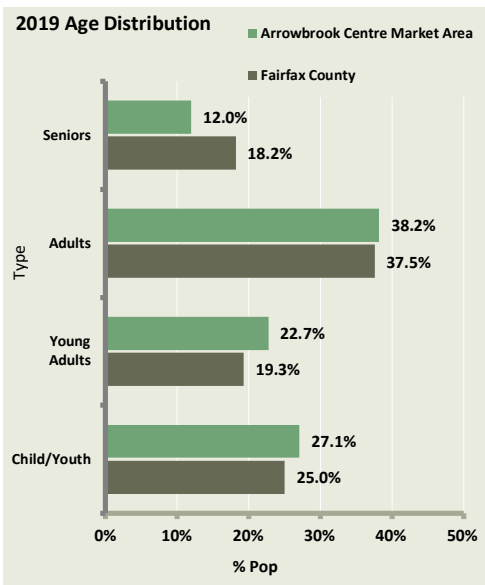
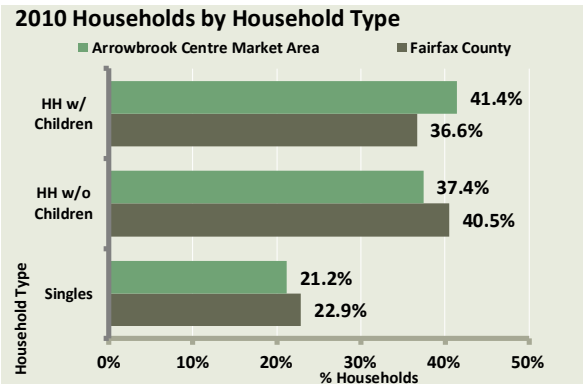


Table 14 2010 Households by Household Type

2010 Households by Household Type	Fairfax County		Arrowbrook Centre Market Area	
	#	%	#	%
Married w/Children	117,171	28.9%	8,938	33.0%
Other w/ Children	31,225	7.7%	2,258	8.3%
Households w/ Children	148,396	36.6%	11,196	41.4%
Married w/o Children	114,591	28.3%	6,907	25.5%
Other Family w/o Children	22,973	5.7%	1,282	4.7%
Non-Family w/o Children	26,480	6.5%	1,935	7.2%
Households w/o Children	164,044	40.5%	10,124	37.4%
Singles	92,635	22.9%	5,727	21.2%
Total	405,075	100%	27,047	100%

Source: 2010 Census; RPRG, Inc.





2. Households by Tenure

a. Recent Past Trends

The number of renter households in the Arrowbrook Centre Market Area increased from 6,151 in 2000 to 11,967 in 2019 for a net increase of 5,816 renter households or 94.6 percent² (Figure 11). By comparison, the number of owner households in the market area increased by only 11.0 percent during the same period, from 14,842 to 16,475.

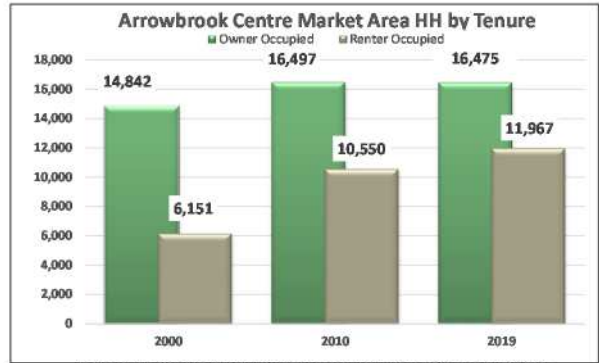


Figure 11 Arrowhead Centre Market Area HH by Tenure, 2000 to 2019

The Arrowbrook Centre Market Area’s renter percentage of 42.1 percent in 2019 is substantially above the county’s 33.8 percent (Table 15). The market area’s annual average growth by tenure over the past 19 years was 306 renter households (3.6 percent) compared to a gain of 86 owner households (0.6 percent). The last column of Table 15 (blue shaded) quantifies the market area’s net growth by tenure over the past 19 years; renter households contributed 78.1 percent of net household growth over this period. Renter households contributed a lesser share of net household growth in the region at 58.0 percent of net household growth over the past 19 years. The region’s renter households increased at an average annual rate of 1.7 percent compared to 0.6 percent for owner households.

Table 15 Households by Tenure 2000-2019

Fairfax County	2000		2010		2019		Change 2000-2019				% of Change 2000 - 2019
	#	%	#	%	#	%	Total Change		Annual Change		
Housing Units	#	%	#	%	#	%	#	%	#	%	
Owner Occupied	257,105	70.8%	281,123	69.4%	286,039	66.2%	28,934	11.3%	1,523	0.6%	42.0%
Renter Occupied	106,153	29.2%	123,952	30.6%	146,120	33.8%	39,967	37.7%	2,104	1.7%	58.0%
Total Occupied	363,258	100%	405,075	100%	432,159	100%	68,901	19.0%	3,626	0.9%	100%
Total Vacant	9,121		17,092		17,300						
TOTAL UNITS	372,379		422,167		449,459						

Arrowbrook Centre Market Area	2000		2010		2019		Change 2000-2019				% of Change 2000 - 2019
	#	%	#	%	#	%	Total Change		Annual Change		
Housing Units	#	%	#	%	#	%	#	%	#	%	
Owner Occupied	14,842	70.7%	16,497	61.0%	16,475	57.9%	1,633	11.0%	86	0.6%	21.9%
Renter Occupied	6,151	29.3%	10,550	39.0%	11,967	42.1%	5,816	94.6%	306	3.6%	78.1%
Total Occupied	20,993	100%	27,047	100%	28,442	100%	7,449	35.5%	392	1.6%	100%
Total Vacant	808		1,124		1,298						
TOTAL UNITS	21,801		28,171		29,740						

Source: U.S. Census of Population and Housing, 2000, 2010; Esri, RPRG, Inc.

² Based on change from 2000 to 2010 Census counts and Esri’s 2018 Estimate



b. Projected Tenure Trends

Esri projects the renter household growth in the market area to slow significantly over the next five years despite an increase in overall household growth, a significant departure from past census trends and Esri’s previous estimates/projections. Esri changed its methodology for determining household tenure in its most recent³ data release to include national multi-family property data from Axiomtrics in addition to other changes⁴. Esri’s new methodology is producing significant deviations from recent past trends that are inconsistent with verified construction and lease-up activity in many markets across the United States, including the Arrowbrook Centre Market Area.

As detailed in Table 16, Esri projects renter households to increase by 130 households over the next five years or annual growth of roughly 26 renter households; the market area added an average of 306 renter household year over the past 19 years. This decrease in renter household growth is also not supported by current development activity, which includes three short term and two longer term multi-family rental developments that exceeds the pace of one new multifamily community introduced over the past five years.

Based on our research including an analysis of demographic and multi-family trends, RPRG projects renter households will continue to contribute roughly 78.1 percent of net household growth over the next five years that matches renter share of household growth over the past 19 years.

Table 16 Households by Tenure, 2019-2024

Arrowbrook Centre Market Area	2019		2024 Esri HH by Tenure		Esri Change by Tenure	
	#	%	#	%	#	%
Housing Units						
Owner Occupied	16,475	57.9%	17,002	58.4%	527	80.2%
Renter Occupied	11,967	42.1%	12,097	41.6%	130	19.8%
Total Occupied	28,442	100%	29,099	100%	657	100%
Total Vacant	1,290		1,617			
TOTAL UNITS	29,732		30,716			

Arrowbrook Centre Market Area	2019		2024 RPRG HH by Tenure		RPRG Change by Tenure	
	#	%	#	%	#	%
Housing Units						
Owner Occupied	17,153	57.9%	17,579	55.7%	427	21.9%
Renter Occupied	12,459	42.1%	13,978	44.3%	1,519	78.1%
Total Occupied	29,612	100%	31,558	100%	1,946	100%
Total Vacant	1,290		1,617			
TOTAL UNITS	30,901		33,174			

Source: Esri, RPRG, Inc.

³ July 2018 Release

⁴ Correspondence with Douglas Skuta or Esri on 7/27/18



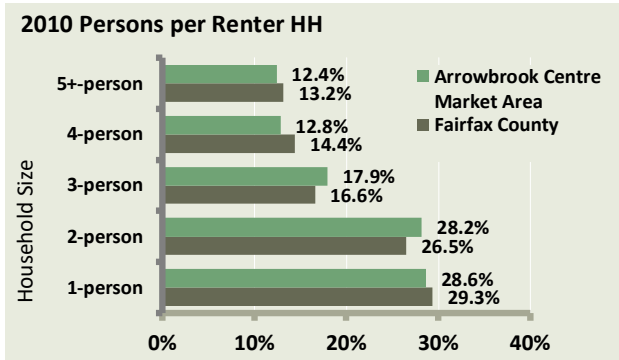
3. Renter Household Characteristics

One- and two-person households combined accounted for 57.8 percent of the renter households in the Arrowbrook Centre Market Area and a lesser proportion (55.8 percent) throughout the county, as of the 2010 Census (Table 17). Renter households with three to four members accounted for 31 percent of all renter households in the market area and county. Renter households with five or more members were slightly less common in the primary market area (12.4 percent of renters) than throughout Fairfax County (13.2 percent).

Table 17 Renter Households by Household Size

Renter Occupied	Fairfax County		Arrowbrook Centre Market Area	
	#	%	#	%
1-person hhld	36,362	29.3%	3,021	28.6%
2-person hhld	32,838	26.5%	2,973	28.2%
3-person hhld	20,560	16.6%	1,893	17.9%
4-person hhld	17,857	14.4%	1,353	12.8%
5+-person hhld	16,335	13.2%	1,310	12.4%
TOTAL	123,952	100%	10,550	100%

Source: 2010 Census

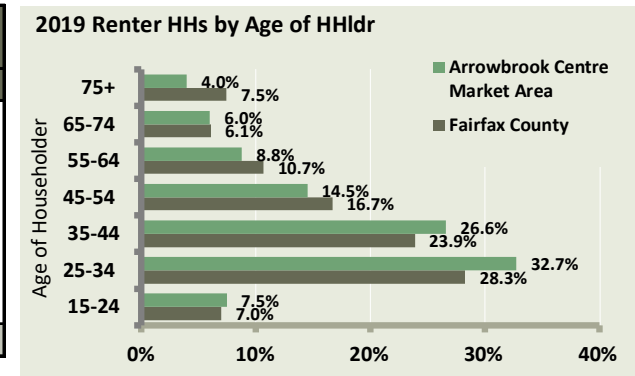


The Arrowbrook Centre Market Area has a higher proportion of younger renters than does the county as a whole (Table 18). Forty percent of primary market area renters as of 2019 are estimated to be below the age of 35 while only 35 percent are represented throughout the county. Renter households between the ages of 35 and 54 account for 41 percent of all renter households within the market area and county. These are the households who are most likely to be permanent renters, renting more out of necessity than lifestyle preference. Seniors aged 55 and older represent 18.8 percent of all renters within the market area, considerably less than the 24.3 percent share countywide.

Table 18 Renter Households by Age of Householder

Renter Households	Fairfax County		Arrowbrook Centre Market Area	
Age of HHldr	#	%	#	%
15-24 years	10,211	7.0%	931	7.5%
25-34 years	41,303	28.3%	4,077	32.7%
35-44 years	34,887	23.9%	3,315	26.6%
45-54 years	24,366	16.7%	1,806	14.5%
55-64 years	15,577	10.7%	1,092	8.8%
65-74 years	8,871	6.1%	745	6.0%
75+ years	10,904	7.5%	494	4.0%
Total	146,120	100%	12,459	100%

Source: Esri, Real Property Research Group, Inc.





D. Income Characteristics

The Arrowbrook Centre Market Area and Fairfax County as a whole are affluent communities with comparable median incomes in the \$121,000 to \$122,000 range (Table 19). Twenty seven percent of market area households earn between \$0 and \$74,999, the income range for the target 30 percent to 60 percent AMI rents. Twelve percent of households earn between \$75,000 and \$99,000 and 61 percent of households earn \$100,000 and above.

Table 19 2018 Household Income

Estimated 2019 Household Income		Fairfax County		Arrowbrook Centre Market Area	
		#	%	#	%
less than \$15,000		15,239	3.5%	784	2.6%
\$15,000 - \$24,999		12,804	3.0%	877	3.0%
\$25,000 - \$34,999		14,815	3.4%	1,041	3.5%
\$35,000 - \$49,999		26,356	6.1%	1,756	5.9%
\$50,000 - \$74,999		52,383	12.1%	3,375	11.4%
\$75,000 - \$99,999		51,702	12.0%	3,687	12.5%
\$100,000 - \$149,999		95,318	22.1%	7,659	25.9%
\$150,000 Over		163,543	37.8%	10,434	35.2%
Total		432,159	100%	29,612	100%
Median Income		\$122,440		\$121,459	

Source: Esri; Real Property Research Group, Inc.

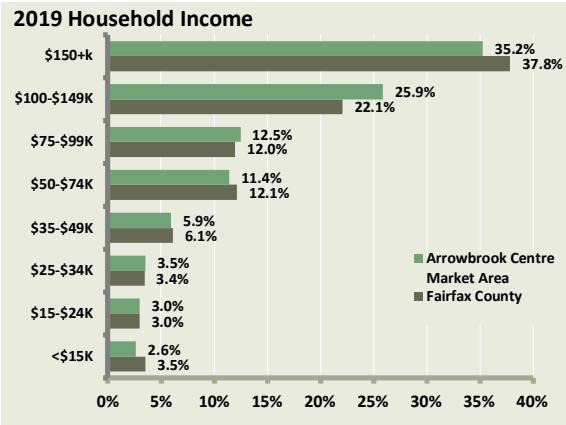
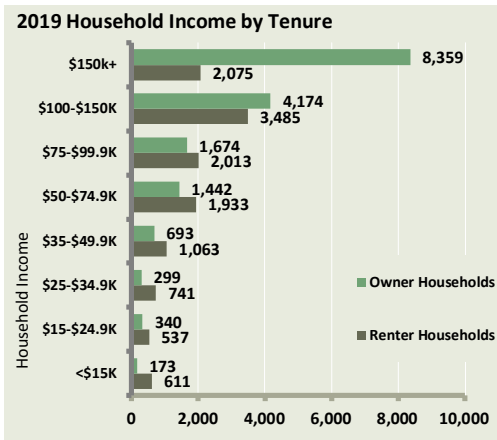


Table 20 presents distributions of 2019 household incomes for renter and homeowner households in the Arrowbrook Centre Market Area. Based on income estimate data from the 2013-2017 ACS, Esri income projections, and RPRG’s household estimates, the median annual income among the primary market area’s renter households as of 2019 is estimated at a substantial \$91,690. The median income of homeowner households in the market area (\$147,394) is 61 percent higher than the median renter income. Only nine percent of the primary market area’s renters have annual incomes below \$25,000. Roughly 39 percent of rental households earn between \$0 and \$74,999 (the income range for the target 30 percent to 60 percent AMI rents), while the remaining 61 percent have incomes of \$75,000 or more.

Table 20 2019 Household Income by Tenure

Estimated 2019 HH Income		Renter Households		Owner Households	
Arrowbrook Centre Market Area		#	%	#	%
less than \$15,000		611	4.9%	173	1.0%
\$15,000 - \$24,999		537	4.3%	340	2.0%
\$25,000 - \$34,999		741	5.9%	299	1.7%
\$35,000 - \$49,999		1,063	8.5%	693	4.0%
\$50,000 - \$74,999		1,933	15.5%	1,442	8.4%
\$75,000 - \$99,999		2,013	16.2%	1,674	9.8%
\$100,000 - \$149,999		3,485	28.0%	4,174	24.3%
\$150,000 over		2,075	16.7%	8,359	48.7%
Total		12,459	100%	17,153	100%
Median Income		\$91,690		\$147,394	

Source: American Community Survey 2013-2017 Estimates, RPRG, Inc.





E. Cost-Burdened Renter Households

‘Rent Burden’ is defined as the ratio of a household’s gross monthly housing costs – rent paid to landlords plus utility costs – to that household’s monthly income. VHDA requires that household rent burdens under the LIHTC program be no higher than 35 percent.

Rent burden data from the 2013-2017 ACS highlights that a significant portion of households (primarily lower-income) in the Arrowbrook Centre Market Area tend to pay a very high percentage of their monthly income toward housing costs (Table 21). Twenty-three percent of all renter households residing in the Arrowbrook Centre Market Area have rent burdens of 40 percent or higher. The cost-burdened situation of many low- to moderate-income renter households is a primary indicator of a need for new affordable income- and rent-restricted rental housing in the primary market area. Additionally, 9.1 percent of the rental housing stock within the market area can be considered substandard, i.e., lacking complete plumbing facilities, or overcrowded with more than 1.0 occupants per room.

Table 21 Rent Burden by Household Income, 2013-2017, Arrowbrook Centre Market Area

Rent Cost Burden			Substandardness	
Total Households	#	%	Total Households	
Less than 10.0 percent	179	1.5%	Owner occupied:	
10.0 to 14.9 percent	1,331	11.5%	Complete plumbing facilities:	16,178
15.0 to 19.9 percent	2,246	19.4%	1.00 or less occupants per room	15,896
20.0 to 24.9 percent	2,120	18.3%	1.01 or more occupants per room	282
25.0 to 29.9 percent	1,544	13.3%	Lacking complete plumbing facilities:	5
30.0 to 34.9 percent	996	8.6%	Overcrowded or lacking plumbing	287
35.0 to 39.9 percent	396	3.4%	Renter occupied:	
40.0 to 49.9 percent	987	8.5%	Complete plumbing facilities:	11,543
50.0 percent or more	1,608	13.9%	1.00 or less occupants per room	10,536
Not computed	178	1.5%	1.01 or more occupants per room	1,007
Total	11,585	100%	Lacking complete plumbing facilities:	42
			Overcrowded or lacking plumbing	1,049
> 40% income on rent	2,595	22.7%	Substandard Housing	1,336
			% Total Stock Substandard	4.8%
			% Rental Stock Substandard	9.1%

Source: American Community Survey 2013-2017



VII. COMPETITIVE HOUSING ANALYSIS

A. Introduction and Sources of Information

This section presents data and analyses pertaining to the supply of housing in the Arrowbrook Centre Market Area. We provide data regarding structure types, structure age, and home values from the 2013-2017 ACS. We then report the results of our survey of competitive rental communities in February 2019. Furthermore, we identify residential rental projects actively planned or that currently under construction, based on interviews with local government officials, on-line resources, and RPRG site visit observations.

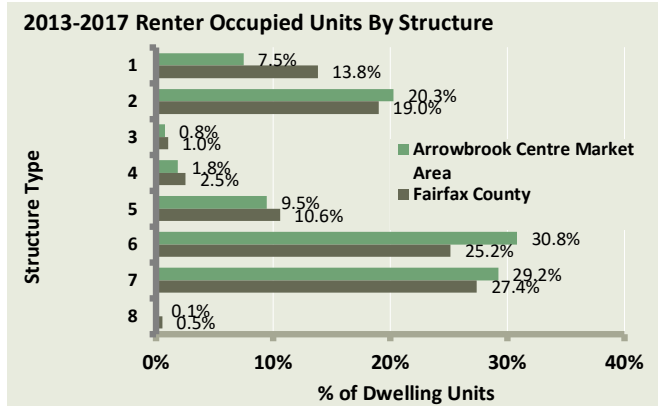
B. Overview of Market Area Housing Stock

As recorded in the 2013-2017 ACS, 60 percent of the renter-occupied housing stock of the Arrowbrook Centre Market Area was found in larger multifamily structures evenly divided between structures with 10 to 19 units and structures with 20 or more units (Table 22). Another 20 percent of all units were in single-family attached homes. Eleven percent of units were in medium-sized structures containing from three to nine units and 7.5 percent of rental units were in single-family detached homes. Throughout Fairfax County, more renter-occupied units were in single-family structures (32.8 percent) and fewer were in large multifamily structures (52.6 percent), while 13.1 percent of rental units were in medium-sized multifamily buildings.

Table 22 Rental Dwelling Units by Structure Type

Structure Type	Renter Occupied			
	Fairfax County		Centre Market Area	
	#	%	#	%
1, detached	18,133	13.8%	866	7.5%
1, attached	24,943	19.0%	2,351	20.3%
2	1,320	1.0%	88	0.8%
3-4	3,313	2.5%	214	1.8%
5-9	13,893	10.6%	1,096	9.5%
10-19	33,025	25.2%	3,573	30.8%
20+ units	35,945	27.4%	3,386	29.2%
Mobile home	702	0.5%	11	0.1%
TOTAL	131,274	100%	11,585	100%

Source: American Community Survey 2013-2017



The median age of the rental housing stock of the Arrowbrook Centre Market Area at 23 years is significantly younger than the median age of the Fairfax County rental housing stock at 36 years (Table 23). Nearly 38 percent of the market area rental stock has been built since 2000, double the 19 percent share in the county. Another 32 percent of the market area rental stock was built during the 1990's, larger than the 18 percent share in the county. Almost all of the remaining rental stock in the market area (one quarter) was built during the 1970's and 1980's. In the county, 40 percent of the rental stock was built during the 1970's and 1980's and another 14 percent was built during the 1960's.

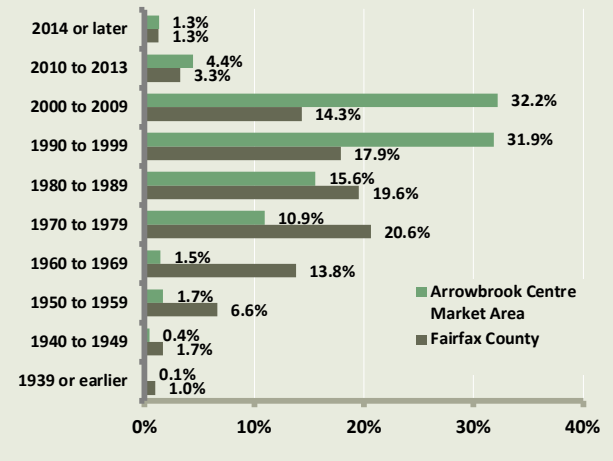


Table 23 Rental Dwelling Units by Year Built

Year Built	Renter Occupied			
	Fairfax County		Arrowbrook Centre Market Area	
	#	%	#	%
2014 or later	1,684	1.3%	152	1.3%
2010 to 2013	4,290	3.3%	508	4.4%
2000 to 2009	18,826	14.3%	3,732	32.2%
1990 to 1999	23,504	17.9%	3,691	31.9%
1980 to 1989	25,707	19.6%	1,806	15.6%
1970 to 1979	27,079	20.6%	1,267	10.9%
1960 to 1969	18,110	13.8%	169	1.5%
1950 to 1959	8,706	6.6%	196	1.7%
1940 to 1949	2,180	1.7%	52	0.4%
1939 or earlier	1,267	1.0%	12	0.1%
TOTAL	131,353	100%	11,585	100%
MEDIAN YEAR BUILT	1983		1996	

Source: American Community Survey 2013-2017

2013-2017 Rental Units by Year Built



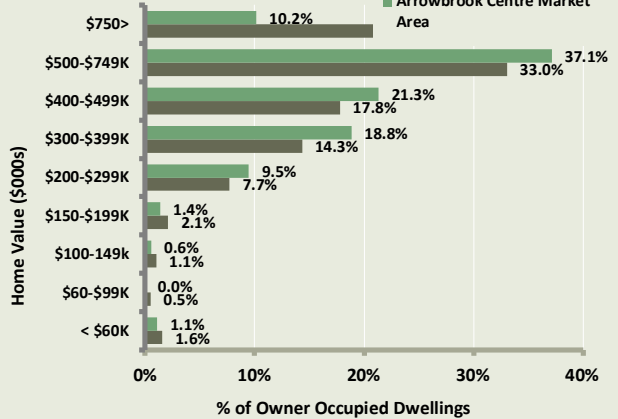
Per the 2013-2017 ACS, both the Arrowbrook Centre Market Area and Fairfax County offer relatively high priced for-sale housing (Table 24). The median value across the owner-occupied housing stock in the primary market area as of 2013-2017 was \$487,180. The median homeownership unit in the county as a whole was 10.1 percent higher at \$536,532. Affordable homeownership opportunities in the Arrowbrook Centre Market Area are limited, as an estimated 500 units (3.1 percent) are valued at less than \$200,000.

Table 24 Value of Owner Occupied Housing Stock

2013-2017 Home Value	Fairfax County		Arrowbrook Centre Market Area	
	#	%	#	%
less than \$60,000	4,434	1.6%	183	1.1%
\$60,000 - \$99,999	1,402	0.5%	0	0.0%
\$100,000 - \$149,999	2,916	1.1%	93	0.6%
\$150,000 - \$199,999	5,848	2.1%	224	1.4%
\$200,000 - \$299,999	21,321	7.7%	1,534	9.5%
\$300,000 - \$399,999	39,534	14.3%	3,048	18.8%
\$400,000 - \$499,999	49,142	17.8%	3,452	21.3%
\$500,000 - \$749,999	91,150	33.0%	6,005	37.1%
\$750,000 over	60,087	21.8%	1,644	10.2%
Total	275,834	100%	16,183	100%
Median Value	\$536,532		\$487,180	

Source: American Community Survey 2013-2017

2013-2017 Home Value



C. Survey of General Occupancy Rental Communities

1. Introduction

To gauge the status of the rental market within which the proposed subject would compete, RPRG surveyed 26 general occupancy rental communities in the Arrowbrook Centre Market Area in



August 2018. Twenty-three properties offer strictly conventional market rate units and three communities are LIHTC properties; and one rental community includes both market rate and tax credit units.

We have divided the rental communities into three categories for ease of comparison: Upper Tier market rate; Lower Tier market rate; and Affordable/Tax Credit. The 13 Upper Tier market rate communities represent the most modern (mostly built after 2000) and highest priced rental product available within the market area (one bedroom rents generally in excess of \$1,500; two bedroom threshold rents in excess of \$1,900). The ten Lower Tier market rate communities surveyed are lower priced, older communities (built between 1960 and 2000). The Affordable/Tax Credit rental communities are typically older properties that were financed with tax credit equity during the 1990's.

Eight of the surveyed communities also offer Affordable Dwelling Units (ADU's) which are primarily market rate communities with a small portion of units dedicated as income restricted (targeted to 50 and 70 percent AMI) through Fairfax County's ADU program (started in 1996). Six of the communities are part of the Upper Tier group and two of the communities are part of the Lower Tier group.

Since 2007, Fairfax County has also mandated the Workforce Dwelling Unit (WDU's) program that targets households earning 80, 100, and 120 percent AMI. Only one community, Station on Silver, currently participates in this program. According to the county, the limits are maximum rents – developers are allowed to charge lower rents if more compatible with market conditions. In today's marketplace, the 80 percent rents are consistent with Upper Tier market rate rents – the 100 percent and 120 percent rents are substantially greater than the Upper Tier rent continuum. As a result, we did not isolate the 58 WDU's at Station on Silver in the rent salient since all units will probably be rented at comparable levels to market rate apartments.

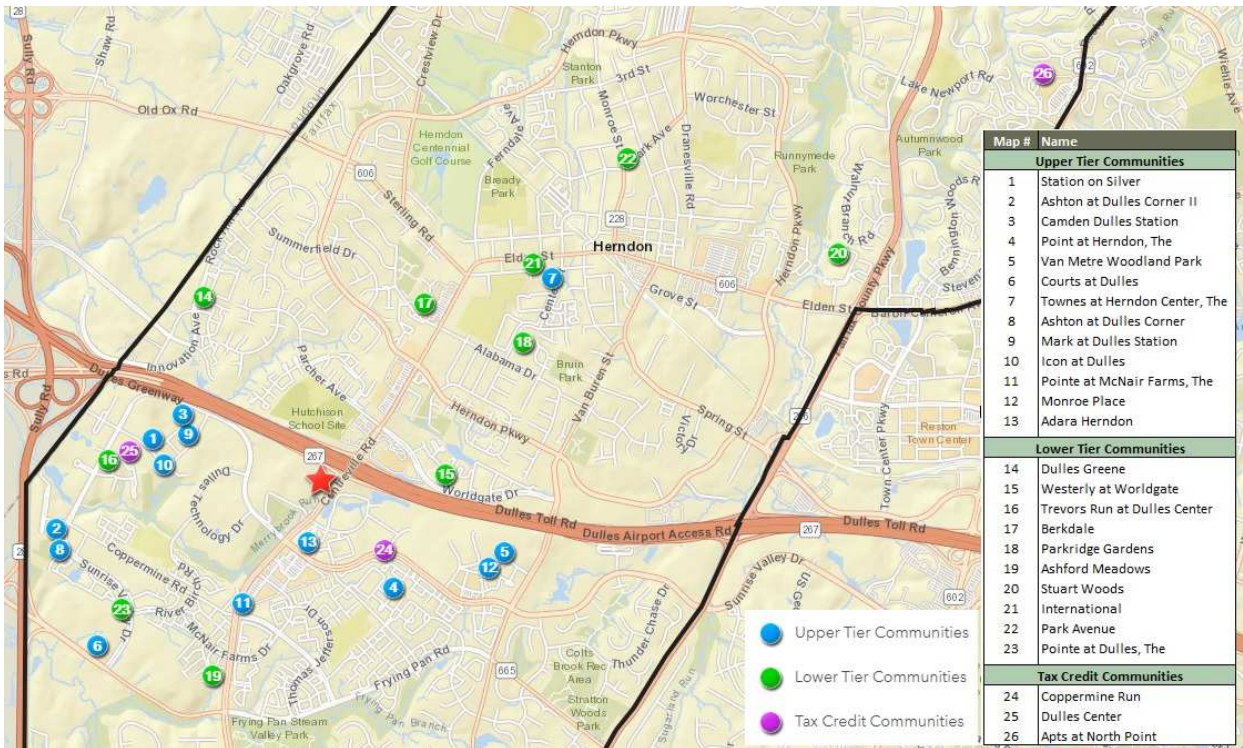
The detailed competitive survey excludes age-restricted senior rental properties. Other than properties containing ADU's and WFHU's, there are no market area subsidized communities. Profile sheets with detailed information on each surveyed general occupancy community, including photographs, are attached as Appendix 2.

2. Location

Map 7 shows the locations of the 26 surveyed competitive communities in relation to the subject site. Of the three rental communities with income-restricted units, two are located close to the subject just south of the Dulles Access Road; Apartments at North Point is located in the northeastern portion of the market area east of Fairfax County Parkway in Reston. Most of the Upper Tier communities (12 of 13) are located south of the Dulles Access Road within a one mile radius of the site (north of Frying Pan Road and east of Monroe Street). Two of the Lower Tier communities are also located within this general vicinity. Six of the remaining communities, including just one Upper Tier property is located north of the Dulles Access Road and south of Sterling Road/ Elden Street. The last two Lower Tier communities are located north of Sterling Road/ Elden Street and east of Herndon Parkway.



Map 7 Competitive Rental Communities, Arrowbrook Centre Market Area



3. Age of Communities

The surveyed stock of market rate general occupancy rental communities has an average year built of 1995, translating to an average structure age of 24 years (Table 25). The Upper Tier market rate rental communities are relatively newer with an average year built of 2005, while the Lower Tier market rate and tax credit communities are older with an average year built of 1982 and 1996, respectively. Only two Upper Tier communities have opened since 2010 – the Icon at Dulles in 2013 and Station on Silver in September 2017 (currently in lease-up). The limited inventory of new rental product in the market area should expand over the next few years once the three Phase II Silver Line stations open in Reston Town Center and Herndon in 2020. Five of the Lower Tier communities opened during the period 1990 to 2000, concurrent with the three tax credit communities.

Among the Upper and Lower Tier market rate communities, five properties have reported significant renovations.

4. Structure Type

Among the Upper Tier communities, the mid-rise structure is the most common with seven properties having this structure type. Generally, these communities are elevator served with four to five stories. Four of the Upper Tier communities, seven of the Lower Tier communities, and all three tax credit communities are exclusively garden style. One Upper Tier property and three Lower Tier properties have a mix of both garden and townhouse units. The Upper Tier community of Townes at Herndon Center is the sole property offering exclusively townhouse units.



Table 25 Rental Communities Summary, Arrowbrook Centre Market Area

Map #	Community	Year Built	Year Rehab	Structure Type	Total Units	Vacant Units	Vacancy Rate	Avg 1BR Rent (1)	Avg 2BR Rent (1)	Incentive
Upper Tier Communities										
1	Station on Silver ## (A)	2017		Mid Rise	400	43	10.8%	\$1,690	\$2,200	Daily Pricing; none
2	Ashton at Dulles Corner II	2009		Mid Rise	282	18	6.4%	\$1,624	\$2,181	none
3	Camden Dulles Station	2008		Mid Rise	382	8	2.1%	\$1,741	\$2,173	None
4	Point at Herndon, The	2004		Garden	244	15	6.1%	\$1,659	\$2,070	Daily Pricing; none
5	Van Metre Woodland Park	2001		Garden/TH	753	22	2.9%	\$1,614	\$2,017	Daily Pricing; none
6	Courts at Dulles	2000		Garden	411	9	2.2%	\$1,595	\$2,014	None
7	Townes at Herndon Center, The	2001	2013	Townhouse	215	14	6.5%		\$2,003	none
8	Ashton at Dulles Corner	2008		Mid Rise	171	11	6.4%	\$1,568	\$1,952	none
9	Mark at Dulles Station	2007		Mid Rise	119	5	7.6%	\$1,659	\$1,939	None
10	Icon at Dulles	2013		Mid Rise	457	7	1.5%	\$1,736	\$1,930	None
11	Pointe at McNair Farms, The	1990		Garden	283	8	2.8%	\$1,533	\$1,923	none
12	Monroe Place	2008		Mid Rise	205	7	3.4%	\$1,625	\$1,906	Daily Pricing; none
13	Adara Herndon	2000		Garden	392	17	4.3%	\$1,482	\$1,883	none
Sub-Total/Average		2005			4,314	184	4.3%	\$1,627	\$2,015	
Stabilized Sub-Total/Average					3,914	141	3.6%			
Lower Tier Communities										
14	Dulles Greene	1998		Garden/TH	806	34	4.2%	\$1,824	\$1,916	1 month free
15	Westerly at Worldgate	1995	2013	Garden	320	22	6.9%	\$1,505	\$1,865	Daily Pricing; 1 month free
16	Trevors Run at Dulles Center	1999		Garden	170	4	2.4%	\$1,677	\$1,838	None
17	Berkdale	1972	2008	Garden	184	5	2.7%	\$1,515	\$1,795	Daily Pricing; none
18	Parkridge Gardens	1964		Garden/TH	144	6	4.2%	\$1,530	\$1,795	None
19	Ashford Meadows	1997		Garden	440	17	3.9%	\$1,470	\$1,776	Daily Pricing; none
20	Stuart Woods	1972	2006	Garden	450	15	3.3%	\$1,564	\$1,718	\$1000 off 1st month
21	International	1959	2003	Garden	90	1	1.1%	\$1,395	\$1,685	1 mo free w/ 13 mo lease
22	Park Avenue	1965		Garden	44	0	0.0%		\$1,500	None
23	Pointe at Dulles, The	1999		Garden/TH	328	8	2.4%	\$1,075	\$1,264	none
Sub-Total/Average		1982			2,976	112	3.8%	\$1,506	\$1,715	
Tax Credit Communities										
25	Dulles Center**	1996		Garden	272	0	0.0%		\$1,470	None
24	Coppermine Run**	1996		Garden	288	0	0.0%		\$1,403	None
26	Apts at North Point**	1997		Garden	48	0	0.0%	\$1,048	\$1,250	None
Sub-Total/Average		1996			608	0	0.0%	\$1,048	\$1,374	
Total/Average		1995			7,898	296	3.7%	\$1,551	\$1,826	
Stabilized Total/Average					7,498	253	3.4%			

(**) Tax Credit Communities

(##) Communities in lease-up

Primarily Market Rate communities with a small portion of units dedicated as income-restricted Affordable Dwelling Units (ADU's) through Fairfax County's program

(A) 58 of the 400 units at Station on Silver are dedicated as Workforce Housing Units targeted to 80%, 100%, 120% AMI

Source: Field Survey, Real Property Research Group, Inc. February 2019.

5. Size of Communities

The 26 surveyed rental communities offer 7,898 market rate and affordable units, with an overall average size of 304 units per community. The average size among the Upper Tier market rate rental communities is larger with 332 units, while the Lower Tier market rate communities have an average size of 298 units. The tax credit communities are smaller with an average size of 203 units.

6. Vacancy Rates

As of our survey, 253 of the 7,498 stabilized units were reported vacant, yielding an overall low vacancy rate of 3.4 percent. Among the Upper Tier market rate communities, the stabilized vacancy rate is 3.6 percent. The Lower Tier market rate communities reported an overall vacancy rate of 3.8 percent while the Affordable/Tax Credit communities are fully leased and all properties report waiting lists. Adding the one community currently in lease-up (Upper Tier), the overall vacancy rate increase to 3.7 percent and the Upper Tier vacancy rate increases to 4.3 percent. The



low stabilized vacancy rates for the surveyed communities are indicative of a tight rental market, given that 5.0 percent is a typical stabilized vacancy standard.

7. Rent Concessions

Among the 26 surveyed rental communities, four market rate rental properties (all Lower Tier) are advertising some leasing concessions, ranging from \$1,000 off the first month's rent to up to one month of free rent. None of the Upper Tier or tax credit communities are offering any type of leasing specials. Seven communities operate under a daily pricing regime where it is difficult to ascertain rent specials.

8. Absorption History

Station on Silver, opened in September 2017 and currently in lease-up, is the only community for which we have absorption history given that the next oldest community, Icon at Dulles, is five years old. The 400 unit Station on Silver is currently 89 percent leased that translates to a monthly lease-up pace of 21 units.

D. Analysis of Rental Products and Pricing

1. Payment of Utility Costs

Among all communities, twelve communities do not include any utilities in the rent and eight communities include only trash removal (Table 26). At three communities, nearly all utilities are included. Two communities include water, sewer, and trash and one community includes water, sewer, trash, and heat.

2. Parking

Among Upper Tier communities, seven communities offer free parking for the first car in structured garages and one community charges \$50. Three communities offer surface parking exclusively; three also provide detached garages for monthly fees ranging from \$129 to \$150. Among Lower Tier communities, seven communities only offer surface parking and two communities offer detached garages for monthly fees ranging from \$110 to \$150. The three tax credit communities only provide surface parking.

3. Unit Features & Finishes

All kitchens at the surveyed rental communities are equipped with stoves/ranges and refrigerators; dishwashers are available in all units except in two Lower Tier market rate properties. Microwaves are available in ten Upper Tier properties, seven Lower Tier properties, and only one tax credit community. Full size washer-dryer units are provided in all Upper Tier communities, six Lower Tier communities, and two tax credit communities. One Lower Tier community and one tax credit community offer washer-dryer units in select units and one Lower Tier property provides hook-ups.

As expected, the Upper Tier market rate communities have the highest level of finishes, including units with granite countertops, stainless steel appliances, cherry or maple cabinetry, open kitchen floor plans with breakfast bars, laminate hardwood or ceramic tile flooring in the kitchen, as well as laminate wood flooring (or similar) in the main living area. Some communities also provide walk-in showers.



Table 26 Utility Arrangement and Unit Features, Arrowbrook Centre Market Area Communities

Community	Heat Type	Utilities Included in Rent						Dish-washe r	Micro-wave	Parking	In-Unit Laundry	Storage
		Heat	Hot Water	Cooking	Electric	Water	Trash					
Upper Tier Communities												
Station on Silver		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Structured Garage	Std - Full	
Ashton at Dulles Corner II	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Structured Garage	Std - Full	In Building/Fee
Ashton at Dulles Corner	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Structured Garage	Std - Full	In Building/Fee
Icon at Dulles		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Structured Garage	Std - Full	
Monroe Place	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Surf; Struct Gar \$50	Std - Full	
Adara Herndon	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	N/A	Surf; Det Gar \$150	Std - Full	Std - In Building
Pointe at McNair Farms, The	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	N/A	Surface	Std - Full	
Mark at Dulles Station	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Struct Gar; Res \$50	Std - Full	
Courts at Dulles	gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Surf; Det Gar \$130	Std - Full	In Building/Fee
Townes at Herndon Center, The	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	N/A	Surface	Std - Full	
Camden Dulles Station	Elec	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Struct Gar; Res \$45	Std - Full	In Building/Fee
Van Metre Woodland Park	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Surf; Det Gar \$129	Std - Full	In Building/Fee
The Pointe at Herndon	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Structured Garage	Std - Full	In Building/Fee
Lower Tier Communities												
Westerly at Worldgate	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Surface	Std - Full	N/A
Parkridge Gardens	Elec	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Surface	Select	Std - In Building
Ashford Meadows	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	N/A	Surf; Det Gar \$150	Std - Full	In Building/Fee
Berkdale	Gas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Std	N/A	Surface	N/A	
Dulles Greene	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Surf; Det Gar \$110; Att	Std - Full	In Building/Fee
Trevors Run at Dulles Center	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Surface	Std - Full	Std - In Unit
Pointe at Dulles, The	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Surf; Attached	Std - Full	In Building/Fee
Stuart Woods	Elec	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	Std	Surf; Res \$35	Std - Full	
International	Gas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	Std	Surface	Hook Ups	
Park Avenue	Gas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	Surface	N/A	Std - In Building
Tax Credit Communities												
Coppermine Run	Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Std	N/A	Surface	Std - Full	
Dulles Center	Elec	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Std	N/A	Surface	Select	yes
Apts at North Point	Elec	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Std	Std	Surface	Std - Full	

Source: Field Survey, Real Property Research Group, Inc. February 2019.

The level of finishes among the Lower Tier market rate and income-restricted rental supply is more basic, generally including laminated countertops, standard cabinets and lighting, white appliances and standard bathtubs/ showers.

Private outdoor space in the form of patios or balconies is incorporated in some or all of the units at most rental communities. Within the Upper Tier market rate supply, this feature is available in only select units in the elevator-serviced communities but is available in all units at garden-style communities. Within the Lower Tier and tax credit rental communities, this feature is typically available.

Other features that are available in some rental communities include fireplaces; extra storage; and unit alarms. Some Upper Tier market rate communities include extra features, such as high ceilings; track or recessed lighting; built-in computer nooks, etc.

4. Community Amenities

As shown in Table 27, all surveyed rental communities in the Arrowbrook Centre Market, except for four smaller communities with 180 units or less, provide a full slate of amenities including a clubhouse (or dedicated community center space) with fitness center and outdoor swimming pool. Sixteen of these communities have a business center and eight communities (mostly garden style)



have playgrounds and tennis courts. Other features available within the competitive rental supply, particularly in the Upper Tier, include dog parks, yoga studios, outdoor grilling areas, bike storage, and game rooms.

Among the income-restricted rental supply, the 288 unit Coppermine Run offers a clubhouse, fitness room, pool, and tennis courts; the 272 unit Dulles Center offers a clubhouse, fitness room, pool, playground, and tennis courts; and the 48 unit Apartments at North Point offers only a playground.

Table 27 Community Amenities, Arrowbrook Centre Market Area Rental Communities

Community	Clubhouse/ Resident	Fitness Room	Pool	Hot Tub	Sauna	Playground	Tennis Court	Business Center	Gated Entry
Upper Tier Communities									
Station on Silver	☒	☒	☒	☐	☐	☐	☐	☒	☐
Ashton at Dulles Corner II	☒	☒	☒	☐	☐	☐	☐	☒	☐
Ashton at Dulles Corner	☒	☒	☒	☐	☐	☐	☐	☒	☐
Icon at Dulles	☒	☒	☒	☐	☐	☐	☐	☒	☐
Monroe Place	☒	☒	☒	☐	☐	☐	☐	☒	☐
Adara Herndon	☒	☒	☒	☐	☐	☐	☐	☒	☐
Pointe at McNair Farms, The	☒	☒	☒	☒	☐	☒	☒	☒	☐
Mark at Dulles Station	☒	☒	☒	☐	☐	☐	☐	☒	☐
Courts at Dulles	☒	☒	☒	☐	☐	☐	☐	☒	☐
Townes at Herndon Center, The	☒	☒	☒	☐	☐	☒	☐	☐	☒
Camden Dulles Station	☒	☒	☒	☐	☐	☒	☒	☐	☐
Van Metre Woodland Park	☒	☒	☒	☐	☐	☒	☒	☒	☐
The Pointe at Herndon	☒	☒	☒	☒	☐	☐	☐	☒	☐
Lower Tier Communities									
Westerly at Worldgate	☒	☒	☒	☐	☐	☐	☐	☒	☐
Berkdale	☐	☐	☐	☐	☐	☒	☐	☒	☐
Ashford Meadows	☒	☒	☒	☐	☐	☒	☐	☒	☐
Parkridge Gars	☒	☒	☐	☐	☒	☒	☐	☐	☐
Dulles Greene	☒	☒	☒	☒	☒	☐	☒	☒	☒
Trevors Run at Dulles Center	☒	☒	☒	☐	☐	☒	☐	☐	☐
Pointe at Dulles, The	☒	☒	☒	☐	☐	☒	☒	☒	☒
Stuart Woods	☒	☒	☒	☐	☐	☐	☒	☐	☐
International	☐	☐	☐	☐	☐	☒	☐	☐	☐
Park Avenue	☐	☐	☐	☐	☐	☒	☐	☐	☐
Tax Credit Communities									
Coppermine Run	☒	☒	☒	☐	☐	☐	☒	☐	☐
Dulles Center	☒	☒	☒	☐	☐	☒	☒	☐	☐
Apts at North Point	☐	☐	☐	☐	☐	☒	☐	☐	☐

Source: Field Survey, Real Property Research Group, Inc. February 2019.

5. Unit Distribution

Table 28 presents details on the unit distribution of those properties within our competitive survey. Of the 13 Upper Tier market rate communities, the unit distribution is known for 3,705 units, or 88 percent of the total. One-bedroom (including den units) and two-bedroom units account for nearly



Table 28 Unit Distribution, Size and Pricing, Arrowbrook Centre Market Area Communities

Community	Total Units	Studio Units			One Bedroom Units			One Bedroom Den Units			Two Bedroom Units			Three Bedroom Units							
		Units	Rent(1)	SF	Rent/SF	Units	Rent(1)	SF	Rent/SF	Units	Rent(1)	SF	Rent/SF	Units	Rent(1)	SF	Rent/SF				
SUBJECT SITE-30%	13				5	\$559	615	\$0.91					6	\$667	882	\$0.76	2	\$767	1,161	\$0.66	
SUBJECT SITE-40% (Vouchers)	14				4	\$1,354	796	\$1.70					5	\$1,541	1,196	\$1.29	5	\$2,029	1,275	\$1.59	
SUBJECT SITE-50%	37				2	\$999	796	\$1.26					8	\$1,195	917	\$1.30	7	\$1,377	1,290	\$1.07	
SUBJECT SITE-60%	62				10	\$1,219	659	\$1.85					28	\$1,458	930	\$1.57	14	\$1,681	1,288	\$1.31	
	126				21								77				28				
Upper Tier Communities																					
Station on Silver*	400	30	\$1,546	588	\$2.63	240	\$1,690	763	\$2.22				130	\$2,200	1,091	\$2.02					
Ashton at Dulles Corner II	282	5	\$1,366	524	\$2.61	134	\$1,624	842	\$1.93				143	\$2,181	1,393	\$1.57					
Pointe at Herndon, The	223	11	\$1,496	588	\$2.54	63	\$1,799	746	\$2.41	43	\$1,579	927	\$1.70	74	\$2,179	1,058	\$2.06	32	\$1,972	1,232	\$1.60
Camden Dulles Station	382						\$1,697	751	\$2.26		\$1,919	908	\$2.11		\$2,173	1,223	\$1.78		\$2,360	1,465	\$1.61
Van Metre Woodland Park	711				220	\$1,615	823	\$1.96	66	\$1,691	956	\$1.77	362	\$2,067	1,232	\$1.68	63	\$2,249	1,307	\$1.72	
Ashton at Dulles Corner	156				70	\$1,612	892	\$1.81	9	\$1,811	819	\$2.21	54	\$2,048	1,290	\$1.59	23	\$2,697	1,588	\$1.70	
Courts at Dulles	408				111	\$1,558	725	\$2.15	82	\$1,654	906	\$1.83	178	\$2,018	1,126	\$1.79	37	\$2,185	1,308	\$1.67	
Townes at Herndon Center, The	215												161	\$2,003	1,272	\$1.57	54	\$2,256	1,427	\$1.58	
Monroe Place	195				80	\$1,585	806	\$1.97	47	\$1,770	990	\$1.79	68	\$1,960	973	\$2.01					
Icon at Dulles	453				123	\$1,745	799	\$2.18	60	\$1,718	995	\$1.73	180	\$1,930	1,136	\$1.70	90	\$2,366	1,417	\$1.67	
Pointe at McNair Farms, The	283				176	\$1,508	655	\$2.30	25	\$1,709	843	\$2.03	82	\$1,923	1,045	\$1.84					
Mark at Dulles Station	119					\$1,570	772	\$2.03		\$1,700	958	\$1.78		\$1,909	1,140	\$1.68		\$2,360	1,556	\$1.52	
Adara Herndon	379				135	\$1,494	745	\$2.01					182	\$1,904	1,094	\$1.74	62	\$2,096	1,306	\$1.60	
Sub-Total/Average	4,206		\$1,469	567	\$2.59		\$1,625	776	\$2.09		\$1,728	922	\$1.87		\$2,038	1159	\$1.76		\$2,282	1401	\$1.63
Unit Distribution	3,705	46				1,352				332			1,614					361			
% of Total	88.1%	1.2%				36.5%				9.0%			43.6%					9.7%			
Lower Tier Communities																					
Trevors Run at Dulles Center	159				18	\$1,679	800	\$2.10	41	\$1,738	956	\$1.82	85	\$1,875	1,105	\$1.70	15	\$2,157	1,256	\$1.72	
Pointe at Dulles, The	312		\$1,459	535	\$2.73		\$1,525	739	\$2.06		\$1,737	940	\$1.85		\$1,825	1,160	\$1.57		\$1,799	1,306	\$1.38
Parkridge Gardens	144				72	\$1,516	675	\$2.24	6	\$1,695	792	\$2.14	54	\$1,795	862	\$2.08	12	\$2,195	1,266	\$1.73	
Ashford Meadows	440					\$1,470	896	\$1.64						\$1,776	1,256	\$1.41		\$2,074	1,426	\$1.45	
Dulles Greene	806				80	\$1,525	750	\$2.03	179	\$1,722	995	\$1.73	421	\$1,746	1,186	\$1.47	126	\$1,967	1,327	\$1.48	
Westerly at Worldgate	320				114	\$1,370	684	\$2.00					172	\$1,700	992	\$1.71	34	\$2,051	1,248	\$1.64	
Berkdale	184				17	\$1,400	599	\$2.34					52	\$1,655	667	\$2.48	115	\$1,555	806	\$1.93	
Stuart Woods	450				225	\$1,471	895	\$1.64					225	\$1,625	1,032	\$1.58					
International	90												49	\$1,395	800	\$1.74	5	\$1,700	1,000	\$1.70	
Park Avenue	44				36	\$1,158	700	\$1.65					44	\$1,385	650	\$2.13					
Sub-Total/Average	2,949		\$1,459	535	\$2.73		\$1,457	749	\$1.95		\$1,723	921	\$1.87		\$1,678	971	\$1.73		\$1,937	1204	\$1.61
Unit Distribution	2,197	0				562				226			1,102					307			
% of Total	74.5%	0.0%				25.6%				10.3%			50.2%					14.0%			
Affordable Communities																					
Dulles Center-60%**	254												127	\$1,476	1,009	\$1.46	127	\$1,700	1,209	\$1.41	
Monroe Place-ADU 70%**	6				3	\$1,280	628	\$2.04					3	\$1,438	982	\$1.46					
Pointe at Dulles, The-ADU 70%**	7				1	\$1,280	783	\$1.63					5	\$1,438	1,132	\$1.27	1	\$1,597	1,131	\$1.41	
Ashton at Dulles Corner-ADU 70%**	10				5	\$1,270	696	\$1.82					4	\$1,428	1,264	\$1.13	1	\$1,587	1,527	\$1.04	
Adara Herndon-ADU 70%**	7				3	\$1,270	721	\$1.76					3	\$1,428	1,021	\$1.40	1	\$1,587	1,306	\$1.22	
Courts at Dulles-ADU 70%**	2												1	\$1,428	830	\$1.72	1	\$1,587	1,240	\$1.28	
Pointe at Herndon-ADU 70%**	11				5	\$1,270	742	\$1.71					5	\$1,428	1,059	\$1.35					
Trevors Run at Dulles Center-ADU 70%**	6	1	\$999	588	\$1.70	1	\$1,270	800	\$1.59				4	\$1,428	1,123	\$1.27	1	\$1,587	1,256	\$1.26	
Van Metre Woodland Park-ADU 70%**	24				6	\$1,270	819	\$1.55					15	\$1,428	1,119	\$1.28	3	\$1,587	1,272	\$1.25	
Coppermine Run-60%**	288												216	\$1,393	926	\$1.50	72	\$1,574	1,178	\$1.34	
Apts at North Point-60%**	48				12	\$1,048	791	\$1.32					24	\$1,250	967	\$1.29	12	\$1,437	1,137	\$1.26	
Monroe Place-ADU 50%**	4				2	\$987	539	\$1.83					2	\$1,109	940	\$1.18					
Pointe at Dulles, The-ADU 50%**	9				2	\$987	783	\$1.26					5	\$1,109	1,132	\$0.98	2	\$1,231	1,131	\$1.09	
Ashton at Dulles Corner-ADU 50%**	8				5	\$977	696	\$1.40					3	\$1,099	1,264	\$0.87					
Adara Herndon-ADU 50%**	6				2	\$977	721	\$1.36					3	\$1,099	1,021	\$1.08	1	\$1,221	1,306	\$0.93	
Pointe at Herndon-ADU 50%**	11		\$843	588	\$1.43	5	\$977	742	\$1.32				5	\$1,099	1,059	\$1.04					
Trevors Run at Dulles Center-ADU 50%**	5				3	\$977	800	\$1.22					2	\$1,099	1,008	\$1.09					
Van Metre Woodland Park-ADU 50%**	18				5	\$977	819	\$1.19					10	\$1,099	1,119	\$0.98	3	\$1,221	1,272	\$0.96	
Dulles Center-ADU 50%**	18												9	\$1,079	1,009	\$1.07	9	\$1,196	1,209	\$0.99	
Courts at Dulles-ADU 50%**	1				1	\$977	650	\$1.50													
Sub-Total/Average	743		\$921	588	\$1.57		\$1,112	733	\$1.52					\$1,282	1052	\$1.22		\$1,470	1244	\$1.18	
Unit Distribution	743	2				61				0			446					234			
% of Total	100.0%	0.3%				8.2%				0.0%			60.0%					31.5%			
Total/Average	7,898		\$1,285	564	\$2.28		\$1,362	750	\$1.82		\$1,726	923	\$1.87		\$1,610	1067	\$1.51		\$1,838	1286	\$1.43
Unit Distribution	6,645	48				1,975				558			3,162					902			
% of Total	84.1%	0.7%				29.7%				8.4%			47.6%					13.6%			

(**) Tax Credit and Affordable Dwelling Communities (ADU's)

*Contains 58 Workforce Dwelling Units (WU's) targeted to 80%, 100%, and 120% AMI that are equivalent to Upper Tier market rents

(1) Rent is adjusted to include only incentives

Source: Field Survey, Real Property Research Group, Inc. February 2019.



90 percent of all units, evenly divided among one bedroom models (45.5 percent) and two bedroom models (43.6 percent). Three-bedroom units represent 10 percent of the Upper Tier unit distribution while only 1.2 percent of all Upper Tier rental units (46) are efficiencies.

The unit distribution is known for 74.5 percent of the Lower Tier rental communities. Of these, two-bedroom units account for 50 percent of all units; one-bedroom units (including dens make up 36 percent; and three-bedroom units account for 14 percent. A single Lower Tier rental community offers studio units for which no unit count is available.

The income-restricted rental supply has a higher proportion (60 percent) of two-bedroom units and three bedroom units (31.5 percent) than the market rate supply. Only eight percent of income-restricted units are one bedroom units and only two units are a studio.

6. Unit Size

The average unit sizes for the surveyed Upper Tier market rate units are 567 square feet for studios; 776 square feet for the one-bedroom units; 1,159 square feet for two-bedroom units; and 1,401 square feet for three-bedroom units. The Lower Tier market rate units are smaller in size across all unit types with average sizes of 535 square feet for studios; 749 square feet for the one-bedroom units; 971 square feet for the two-bedroom units; and 1,204 square feet for the three-bedroom units.

Among the affordable rental supply, efficiencies are sized at 588 square feet (larger than both tiers); one bedroom units are sized at 733 square feet (smaller than both tiers); two bedroom units are sized at 1,052 square feet, and three bedroom units are sized at 1,244 square feet. The two and three bedroom average floor plans fall between the average floor plans of the Upper and Lower Tiers.

7. Unit Pricing

The rents listed in Table 28 are net or effective rents, as opposed to published or street rents. We calculated effective rents in order to facilitate an 'apples to apples' comparison of tenants' housing costs across the surveyed communities. To derive effective rents, we first applied downward adjustments to relevant published rents for units impacted by current rental incentives. Second, the effective rents reflect upward or downward adjustments to published rents to equalize the impact of utility expenses across properties. Specifically, the effective rents reflect the hypothetical situation where tenants of each community are responsible for all utility bills except trash. This is the proposed utility billing arrangement for Arrowbrook Centre Apartments.

The Upper Tier studio net rent averages \$1,469; the one-bedroom net rent averages \$1,625; the two-bedroom average net rent is \$2,038, and the three-bedroom net rent averages \$2,282. Average per square foot rents for Upper Tier units in the Arrowbrook Centre Market Area are \$2.59 for studios; \$2.09 for one-bedroom units; \$1.76 for two-bedroom units; and \$1.63 for three-bedroom units. Upper Tier rents enjoy a rent premium of 12 to 18 percent relative to Lower Tier rents (except for studios which are comparably priced).

The Lower Tier studio net average rent is \$1,459; the one-bedroom net rent averages \$1,457; the two-bedroom average net rent is \$1,678; and the three-bedroom net rent averages \$1,937. Average per square foot rents for Lower Tier units in the Arrowbrook Centre Market Area are \$2.73 for studio units; \$1.95 for one-bedroom units; \$1.73 for two-bedroom units; and \$1.61 for three-bedroom units



Since the income-restricted units target households earning from 50 to 70 percent AMI, we did not derive rent averages for this grouping.

E. Subsidized Rental Communities & Housing Choice Voucher Statistics

We have identified no market area communities with project-based rental subsidies, commonly referred to as “deep” subsidy rental housing. Deep subsidy units include those where rental assistance is provided in the form of project-based state and federal rent subsidies or other governmental programs, such as in public housing. In many subsidized arrangements, tenants pay an amount roughly equivalent to 30 percent of their income toward housing costs (rents plus utility costs), while the rent subsidy covers the remainder of the relevant housing costs.

In addition, the Department of Housing and Neighborhood Preservation with the Fairfax County administers the Housing Choice Voucher (HCV) program. According to statistics provided by Andrew Friedman, Director, there are 2,059 vouchers. Of these, 1,959 (95.0 percent) are actively utilized at this time.

The waiting list for the HCV program is extensive with 10,603 active applications. Of these, the screening preference make-up is as follows: 1,563 persons are homeless; 7,500 are comprised of families with children; 201 are elderly/disabled; and 219 are veterans. Additionally, of those on the waiting list, nearly three-quarters (7,847 persons or 73.5 percent) are considered to be extremely low income; 2,656 persons (24.9 percent) are very low income; 81 persons (0.8 percent) are low income; and 82 persons (0.8 percent) are over-income.

F. Derivation of Market Rent

To better understand how the proposed contract rents for Arrowbrook Centre Apartments compare with the surveyed rental market, the contract rents of comparable communities can be adjusted for differences in a variety of factors including curb appeal, structure age, square footage, the handling of utilities, and shared amenities. Market-rate communities are the most desirable comparables to be used in this type of analysis, as the use of market-rate communities allows RPRG to derive an estimate of market rent.

The purpose of this exercise is to determine whether the proposed LIHTC rents for the subject offer a value relative to market-rate rent levels within a given market area. **The rent derived for bedroom type is not to be confused with an appraisal or rent comparability study (RCS) based approach, which is more specific as it compares specific models in comparable rental communities to specific floor plans at the subject and is used for income/expense analysis and valuation.**

We elected to compare the units at the subject to the comparable floor plans at three market rate communities built in the late 1990’s and 2000’s located in the same general neighborhood as the subject (south of Dulles Access Road; west of Centreville Road; and east of Dulles Airport) – Camden Dulles Station, Mark at Dulles Station; and The Pointe at Dulles. Two additional communities, Station on Silver and the Point on Herndon (both in the same general neighborhood) were used to evaluate the studios at the subject. Once a particular floor plan’s market rent has been determined, it can be used to evaluate a.) whether or not thine subject project has a rent advantage or disadvantage versus competing communities, and b.) the extent of that rent advantage or disadvantage.

The derivation of achievable rent calculations for the 60 percent of AMI units are displayed in Table 30, Table 31, Table 32, and Table 32. The results of the calculations are summarized in Table 33. The assumptions used in the calculations are shown in Table 34. Since the subject will not be



offering a pool (standard for larger communities in the market area), we added an adjustment factor for the adjacency to Arrowbrook Centre Park. The park provides a unique recreational asset for the Arrowbrook Centre Apartments and counterbalances the lack of a pool amenity.

Table 29 Market Rent Analysis – Studios

One Bedroom Units							
Subject Property	Comparable Property #1		Comparable Property #2		Comparable Property #3		
Arrowbrook Centre Apartments Arrowbrook Centre Drive Herndon, Virginia 20171	Camden Dulles Station		Mark at Dulles Station		The Pointe at Dulles		
	2320 Dulles Station Rd		2323 Dulles Station Blvd		13690 Legacy Circle		
	Herndon	VA	Herndon	VA	Herndon	VA	
A. Rents Charged	Subject	Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Street Rent - 60% AMI	\$1,219	\$1,779	\$0	\$1,595	\$0	\$1,515	\$0
Utilities Included	T	None	\$10	W/S/T	(\$5)	None	\$10
Rent Concessions		None	\$0	None	\$0	None	\$0
Effective Rent	\$1,219	\$1,789		\$1,590		\$1,525	
<i>In parts B thru D, adjustments were made only for differences</i>							
B. Design, Location, Condition		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structure / Stories	Mid-rise/5	Mid-rise/4	\$0	Mid-rise/4	\$0	Mid-rise/4	\$0
Year Built / Renovated	2022	2008	\$14	2007	\$15	1998	\$24
Quality/Street Appeal	Excellent	Excellent	\$0	Excellent	\$0	Excellent	\$0
Location	Excellent	Above Average	\$20	Above Average	\$20	Above Average	\$20
C. Unit Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Number of Bedrooms	1	1	\$0	1	\$0	1	\$0
Number of Bathrooms	1	1	\$0	1	\$0	1	\$0
Unit Interior Square Feet	659	766	(\$27)	772	(\$28)	739	(\$20)
Balcony / Patio / Porch	No	Yes	(\$5)	No	\$0	Yes	(\$5)
AC Type:	Central	Central	\$0	Central	\$0	Central	\$0
Range / Refrigerator	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Microwave / Dishwasher	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Washer / Dryer: In Unit	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Washer / Dryer: Hook-ups	No	No	\$0	No	\$0	No	\$0
D. Site Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structured Parking	Yes	Yes	\$0	Yes	\$0	Surface	\$15
Club House	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Pool	No	Yes	(\$15)	Yes	(\$15)	Yes	(\$15)
Recreation Areas	No	Yes	(\$5)	Yes	(\$5)	Yes	(\$5)
Fitness Center	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Adjacency to Park	Yes	No	\$15	No	\$15	No	\$15
E. Adjustments Recap		Positive	Negative	Positive	Negative	Positive	Negative
Total Number of Adjustments		3	4	3	3	4	4
Sum of Adjustments B to D		\$49	(\$52)	\$50	(\$48)	\$74	(\$45)
F. Total Summary							
Gross Total Adjustment			\$101		\$98		\$119
Net Total Adjustment			(\$3)		\$2		\$29
G. Adjusted And Achievable Rents		Adj. Rent		Adj. Rent		Adj. Rent	
Adjusted Rent		\$1,786		\$1,592		\$1,554	
% of Effective Rent		99.8%		100.1%		101.9%	
Estimated Market Rent	\$1,644						
Rent Advantage \$	\$425						
Rent Advantage %	25.9%						



Table 30 Market Rent Analysis – One-Bedroom Units

One Bedroom Units							
Subject Property	Comparable Property #1		Comparable Property #2		Comparable Property #3		
Arrowbrook Centre Apartments Arrowbrook Centre Drive Herndon, Virginia 20171	Camden Dulles Station		Mark at Dulles Station		The Pointe at Dulles		
	2320 Dulles Station Rd		2323 Dulles Station Blvd		13690 Legacy Circle		
	Herndon	VA	Herndon	VA	Herndon	VA	
A. Rents Charged	Subject	Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Street Rent - 60% AMI	\$1,219	\$1,779	\$0	\$1,595	\$0	\$1,515	\$0
Utilities Included	T	None	\$10	W/S/T	(\$5)	None	\$10
Rent Concessions		None	\$0	None	\$0	None	\$0
Effective Rent	\$1,219	\$1,789		\$1,590		\$1,525	
<i>In parts B thru D, adjustments were made only for differences</i>							
B. Design, Location, Condition		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structure / Stories	Mid-rise/5	Mid-rise/4	\$0	Mid-rise/4	\$0	Mid-rise/4	\$0
Year Built / Renovated	2022	2008	\$14	2007	\$15	1998	\$24
Quality/Street Appeal	Excellent	Excellent	\$0	Excellent	\$0	Excellent	\$0
Location	Excellent	Above Average	\$20	Above Average	\$20	Above Average	\$20
C. Unit Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Number of Bedrooms	1	1	\$0	1	\$0	1	\$0
Number of Bathrooms	1	1	\$0	1	\$0	1	\$0
Unit Interior Square Feet	659	766	(\$27)	772	(\$28)	739	(\$20)
Balcony / Patio / Porch	No	Yes	(\$5)	No	\$0	Yes	(\$5)
AC Type:	Central	Central	\$0	Central	\$0	Central	\$0
Range / Refrigerator	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Microwave / Dishwasher	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Washer / Dryer: In Unit	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Washer / Dryer: Hook-ups	No	No	\$0	No	\$0	No	\$0
D. Site Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structured Parking	Yes	Yes	\$0	Yes	\$0	Surface	\$15
Club House	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Pool	No	Yes	(\$15)	Yes	(\$15)	Yes	(\$15)
Recreation Areas	No	Yes	(\$5)	Yes	(\$5)	Yes	(\$5)
Fitness Center	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Adjacency to Park	Yes	No	\$15	No	\$15	No	\$15
E. Adjustments Recap		Positive	Negative	Positive	Negative	Positive	Negative
Total Number of Adjustments		3	4	3	3	4	4
Sum of Adjustments B to D		\$49	(\$52)	\$50	(\$48)	\$74	(\$45)
F. Total Summary							
<i>Gross Total Adjustment</i>		\$101		\$98		\$119	
<i>Net Total Adjustment</i>		(\$3)		\$2		\$29	
G. Adjusted And Achievable Rents		Adj. Rent		Adj. Rent		Adj. Rent	
Adjusted Rent		\$1,786		\$1,592		\$1,554	
% of Effective Rent		99.8%		100.1%		101.9%	
Estimated Market Rent	\$1,644						
Rent Advantage \$	\$425						
Rent Advantage %	25.9%						



Table 31 Market Rent Analysis – Two-Bedroom Units

Two Bedroom Units							
Subject Property	Comparable Property #1		Comparable Property #2		Comparable Property #3		
Arrowbrook Centre Apartments Arrowbrook Centre Drive Herndon, Virginia 20171	Camden Dulles Station		Mark at Dulles Station		The Pointe at Dulles		
	2320 Dulles Station Rd		2323 Dulles Station Blvd		13690 Legacy Circle		
	Herndon	VA	Herndon	VA	Herndon	VA	
A. Rents Charged	Subject	Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Street Rent - 60%	\$1,458	\$2,139	\$0	\$1,819	\$0	\$2,119	\$0
Utilities Included	T	10	\$0	W/S/T	(\$10)	None	\$0
Rent Concessions		None	\$0	None	\$0	\$500 off 1st Mo	\$0
Effective Rent	\$1,458	\$2,139		\$1,809		\$2,119	
<i>In parts B thru D, adjustments were made only for differences</i>							
B. Design, Location, Condition		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structure / Stories	Mid-rise/5	Mid-rise/4	\$0	Mid-rise/4	\$0	Mid-rise/4	\$0
Year Built / Condition	2022	2008	\$14	2007	\$15	1998	\$24
Quality/Street Appeal	Excellent	Excellent	\$0	Excellent	\$0	Excellent	\$0
Location	Excellent	Above Average	\$20	Above Average	\$20	Above Average	\$20
C. Unit Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Number of Bedrooms	2	2	\$0	2	\$0	2	\$0
Number of Bathrooms	2	2	\$0	1	\$30	2	\$0
Unit Interior Square Feet	995	1,045	(\$13)	1,032	(\$9)	1,264	(\$67)
Balcony / Patio / Porch	No	Yes	(\$5)	No	\$0	Yes	(\$5)
AC: (C)entral / (W)all / (N)on	Central	Central	\$0	Central	\$0	Central	\$0
Range / Refrigerator	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Microwave / Dishwasher	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Washer / Dryer: In Unit	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Washer / Dryer: Hook-ups	No	No	\$0	No	\$0	No	\$0
D. Site Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structured Parking	Yes	Yes	\$0	Yes	\$0	Surface	\$15
Club House	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Pool	No	Yes	(\$15)	Yes	(\$15)	Yes	(\$15)
Recreation Areas	No	Yes	(\$5)	No	\$0	Yes	(\$5)
Fitness Center	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Adjacency to Park	Yes	No	\$15	No	\$15	No	\$15
E. Adjustments Recap		Positive	Negative	Positive	Negative	Positive	Negative
Total Number of Adjustments		3	4	4	2	4	4
Sum of Adjustments B to D		\$49	(\$38)	\$80	(\$24)	\$74	(\$92)
F. Total Summary							
<i>Gross Total Adjustment</i>		\$87		\$104		\$166	
<i>Net Total Adjustment</i>		\$11		\$56		(\$18)	
G. Adjusted And Achievable Rents		Adj. Rent		Adj. Rent		Adj. Rent	
Adjusted Rent		\$2,150		\$1,865		\$2,101	
% of Effective Rent		100.5%		103.1%		99.2%	
Estimated Market Rent	\$2,039						
Rent Advantage \$	\$581						
Rent Advantage %	28.5%						



Table 32 Market Rent Analysis – Three-Bedroom Units

Three Bedroom Units							
Subject Property	Comparable Property #1		Comparable Property #2		Comparable Property #3		
Arrowbrook Centre Apartments Arrowbrook Centre Drive Herndon, Virginia 20171	Camden Dulles Station		Mark at Dulles Station		The Pointe at Dulles		
	2320 Dulles Station Rd		2323 Dulles Station Blvd		13690 Legacy Circle		
	Herndon	VA	Herndon	VA	Herndon	VA	
A. Rents Charged	Subject	Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Street Rent - 60%	\$1,681	\$2,250	\$0	\$2,395	\$0	\$1,870	\$0
Utilities Included	T	None	\$10	W/S/T	(\$15)	None	\$10
Rent Concessions	\$0	None	\$0	None	\$0	None	\$0
Effective Rent	\$1,681	\$2,260		\$2,380		\$1,880	
<i>In parts B thru D, adjustments were made only for differences</i>							
B. Design, Location, Condition		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structure / Stories	Mid-rise/5	Mid-rise/4	\$0	Mid-rise/4	\$0	Mid-rise/4	\$0
Year Built / Condition	2022	2008	\$14	2007	\$15	1998	\$24
Quality/Street Appeal	Excellent	Excellent	\$0	Excellent	\$0	Excellent	\$0
Location	Excellent	Above Average	\$20	Above Average	\$20	Above Average	\$20
C. Unit Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Number of Bedrooms	3	3	\$0	3	\$0	3	\$0
Number of Bathrooms	2	2	\$0	2	\$0	2	\$0
Unit Interior Square Feet	1,290	1,503	(\$53)	1,556	(\$67)	1,425	(\$34)
Balcony / Patio / Porch	No	Yes	(\$5)	No	\$0	Yes	(\$5)
AC: (C)entral / (W)all / (N)on	Central	Central	\$0	Central	\$0	Central	\$0
Range / Refrigerator	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Microwave / Dishwasher	Yes / Yes	Yes / Yes	\$0	Yes / Yes	\$0	Yes / Yes	\$0
Washer / Dryer: In Unit	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Washer / Dryer: Hook-ups	No	No	\$0	No	\$0	No	\$0
D. Site Equipment / Amenities		Data	\$ Adj.	Data	\$ Adj.	Data	\$ Adj.
Structured Parking	Yes	Yes	\$0	Yes	\$0	Surface	\$15
Club House	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Pool	No	Yes	(\$15)	Yes	(\$15)	Yes	(\$15)
Recreation Areas	No	Yes	(\$5)	No	\$0	Yes	(\$5)
Fitness Center	Yes	Yes	\$0	Yes	\$0	Yes	\$0
Adjacency to Park	Yes	No	\$15	No	\$15	No	\$15
E. Adjustments Recap		Positive	Negative	Positive	Negative	Positive	Negative
Total Number of Adjustments		3	4	3	2	4	4
Sum of Adjustments B to D		\$49	(\$78)	\$50	(\$82)	\$74	(\$59)
F. Total Summary							
Gross Total Adjustment		\$127		\$132		\$133	
Net Total Adjustment		(\$29)		(\$32)		\$15	
G. Adjusted And Achievable Rents		Adj. Rent		Adj. Rent		Adj. Rent	
Adjusted Rent		\$2,231		\$2,348		\$1,895	
% of Effective Rent		98.7%		98.7%		100.8%	
Estimated Market Rent	\$2,158						
Rent Advantage \$	\$477						
Rent Advantage %	22.1%						



Table 33 Market Rent Advantage - Summary

30% AMI Units				
	One Bedroom	Two Bedroom	Three Bedroom	
	Units	Units	Units	
Subject Rent	\$559	\$667	\$767	
Estimated Market Rent	\$1,644	\$2,039	\$2,158	
Rent Advantage (\$)	\$1,085	\$1,372	\$1,391	
Rent Advantage (%)	66.0%	67.3%	64.5%	

40% AMI Units (Vouchers)				
	One Bedroom	Two Bedroom	Three Bedroom	
	Units	Units	Units	
Subject Rent	\$1,354	\$1,541	\$2,029	
Estimated Market Rent	\$1,644	\$2,039	\$2,158	
Rent Advantage (\$)	\$290	\$498	\$129	
Rent Advantage (%)	17.6%	24.4%	6.0%	

50% AMI Units				
	One Bedroom	Two Bedroom	Three Bedroom	
	Units	Units	Units	
Subject Rent	\$999	\$1,195	\$1,377	
Estimated Market Rent	\$1,644	\$2,039	\$2,158	
Rent Advantage (\$)	\$645	\$844	\$781	
Rent Advantage (%)	39.2%	41.4%	36.2%	

60% AMI Units				
	Studio	One Bedroom	Two Bedroom	Three Bedroom
	Units	Units	Units	Units
Subject Rent	\$1,120	\$1,219	\$1,458	\$1,681
Estimated Market Rent	\$1,494	\$1,644	\$2,039	\$2,158
Rent Advantage (\$)	\$374	\$425	\$581	\$477
Rent Advantage (%)	25.0%	25.9%	28.5%	22.1%

Table 34 Market Rent Advantage – Adjustment Table

Rent Adjustments Summary	
B. Design, Location, Condition	
Structure / Stories	
Year Built / Renovated	\$1.00
Quality/Street Appeal	\$10.00
Location	\$20.00
C. Unit Equipment / Amenities	
Number of Bedrooms	\$25.00
Number of Bathrooms	\$30.00
Unit Interior Square Feet	\$0.25
Balcony / Patio / Porch	\$5.00
AC Type:	\$5.00
Range / Refrigerator	\$25.00
Microwave / Dishwasher	\$5.00
Washer / Dryer: In Unit	\$25.00
Washer / Dryer: Hook-ups	\$5.00
D. Site Equipment / Amenities	
Structured Parking	\$15.00
Learning Center	\$10.00
Club House	\$10.00
Pool	\$15.00
Recreation Areas	\$5.00
Adjacency to Park	\$15.00
Fitness Center	\$10.00



After adjustments, the estimated market rent for a studio/ one bath is \$1,494, providing the subject's 60 percent AMI studios with a market advantage of 25.0 percent. The estimated market rent for a one-bedroom/one bath unit is \$1,644, resulting in the subject's 60 percent AMI one bedroom units with a 25.9 percent rent advantage. The estimated market rent for a two-bedroom/two bath unit is \$2,039, resulting in the subject's 60 percent AMI two bedrooms units with a 28.5 percent rent advantage. The estimated market rent for three-bedroom/two bath unit is \$2,158 resulting in the subject's 60 percent AMI three bedroom units having a 22.1 percent rent advantage.

Based on the same derived market rent, the subject's 50 percent AMI one-bedroom units have a market advantage of 39.2 percent; the 50 percent AMI two-bedroom units have a market advantage of 41.4 percent; and the 50 percent AMI three-bedroom units have a market advantage of 36.2 percent. The subject's 40 percent AMI rents reflect the state and federal voucher rent and would not be the rent charged if housing assistance were not available. Despite that, the state and federal voucher rents are below the derived market rents. The subject's 30 percent AMI one-bedroom units have a market advantage of 66.0 percent, the 30 percent AMI two-bedroom units have a market advantage of 67.3 percent, and the 30 percent AMI three-bedroom units have a market advantage of 64.5 percent.

G. Achievable Restricted Rents

The market rent derived above is an estimate of what a willing landlord might reasonably expect to receive, and a willing tenant might reasonably expect to pay for a unit at the subject. However, as a tax credit community, the maximum rent that a project owner can charge for a low-income unit is a gross rent based on bedroom size and applicable HUD's median household income for the subject area. If these LIHTC maximum gross/net rents are below the market rent (adjusted downward by ten percent), then the maximum rents also function as the achievable rents for each unit type and income band. Conversely, if the adjusted market rents are below the LIHTC maximum rents, then the adjusted market rents (less ten percent) act as the achievable rents. Therefore, achievable rents are the lower of the market rent or maximum LIHTC rent.

As shown in Table 35, all the maximum LIHTC rents are well below estimated adjusted market rents. Therefore, the maximum LIHTC rents are the achievable rents for all LIHTC units. All proposed LIHTC rents for the subject are equal to or below the achievable rents except for the 40 percent units, which are set at state and federal voucher rents.

Table 35 Achievable Tax Credit Rent

30% AMI Units				
	One Bedroom Units	Two Bedroom Units	Three Bedroom Units	
Estimated Market Rent	\$1,644	\$2,039	\$2,158	
Less 10%	\$1,480	\$1,835	\$1,942	
Maximum LIHTC Rent*	\$559	\$667	\$767	
Achievable Rent	\$559	\$667	\$767	
SUBJECT RENT	\$559	\$667	\$767	
40% AMI Units (Vouchers)				
	One Bedroom Units	Two Bedroom Units	Three Bedroom Units	
Estimated Market Rent	\$1,644	\$2,039	\$2,158	
Less 10%	\$1,480	\$1,835	\$1,942	
Maximum LIHTC Rent*	\$779	\$931	\$1,072	
Achievable Rent	\$779	\$931	\$1,072	
SUBJECT RENT	\$1,354	\$1,541	\$2,029	
50% AMI Units				
	One Bedroom Units	Two Bedroom Units	Three Bedroom Units	
Estimated Market Rent	\$1,644	\$2,039	\$2,158	
Less 10%	\$1,480	\$1,835	\$1,942	
Maximum LIHTC Rent*	\$999	\$1,194	\$1,376	
Achievable Rent	\$999	\$1,194	\$1,376	
SUBJECT RENT	\$999	\$1,194	\$1,376	
60% AMI Units				
	Studio Units	Studio Units	Two Bedroom Units	Three Bedroom Units
Estimated Market Rent	\$1,494	\$1,644	\$2,039	\$2,158
Less 10%	\$1,345	\$1,480	\$1,835	\$1,942
Maximum LIHTC Rent*	\$1,150	\$1,219	\$1,458	\$1,681
Achievable Rent	\$1,150	\$1,219	\$1,458	\$1,681
SUBJECT RENT	\$1,120	\$1,219	\$1,458	\$1,681

*Assumes utility allowances of \$81 (Studio); \$100(1BR); \$124 (2BR); \$147 (3BR)

H. Proposed and Pipeline Rental Communities

Based on our research, the pipeline communities are divided into three categories; under construction, short term, and longer term (Table 36). All properties are market rate; no LIHTC developments were identified. These projects are described below and their location in relation to the subject site is highlighted on Map 8.

Alexan Woodland Park is the one project currently under construction. Located in Woodland Park just east of the site on the east side of Centreville Road, the 294 Class A multi-family project is expected to be completed in March 2020 with first units available in fall 2019.

According to the city of Herndon Planning Department, two projects are in the pre-development stages. One project is located in downtown Herndon at the intersection of Center and Elden Streets. Even though Comstock (the developer) had threatened to pull out of the deal, the project now appears to be on track with site plans being reviewed by the city of Herndon; construction is expected to start in fall 2019 with completion in 2021. The two phase 555 Herndon Parkway project is now actively proceeding with review of development plans by the city of Herndon. The first phase, containing 470 units, is expected to start construction in spring 2020 with completion in early 2022. These two projects would add another 744 units of multi-family development to the market area.

**Table 36 Pipeline Projects – Arrowbrook Centre Market Area**

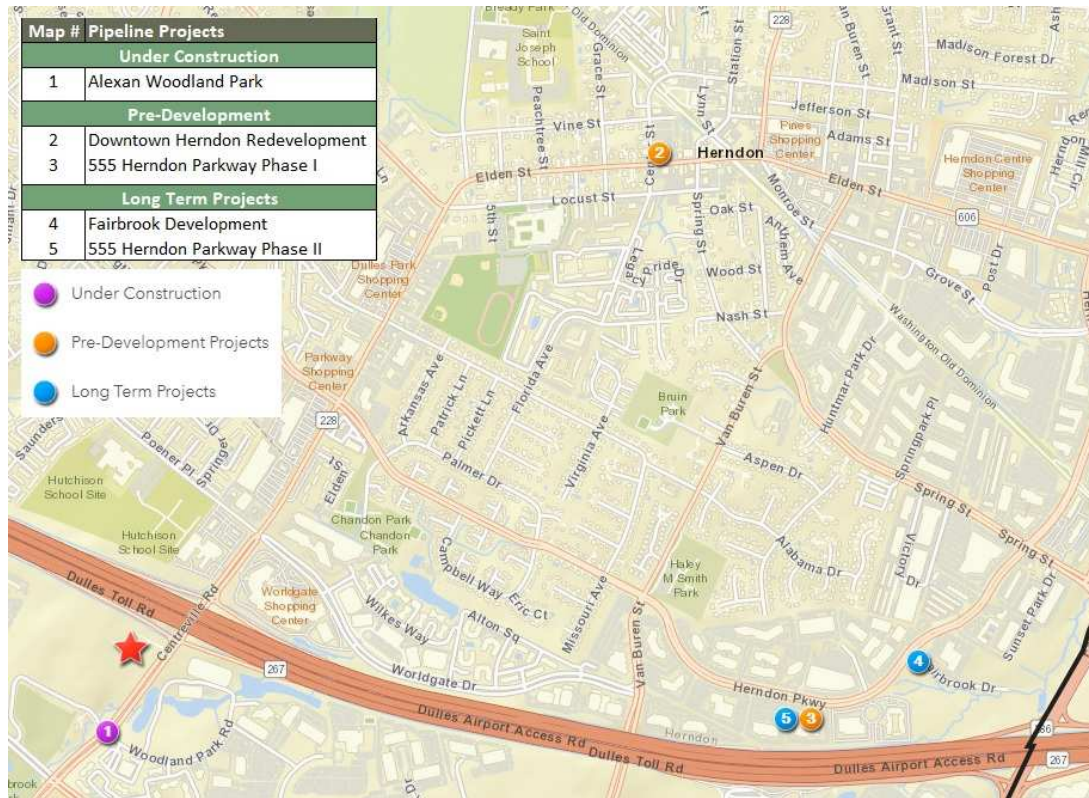
Name	Developer	Address	Units	Status	Timing
Under Construction					
Alexan Woodland Park	Trammel Crow Residential	13826 Woodland Park Rd	294	Class A Mid-rise apartments started construction Feb 2018 with completion March 2020	Spring 2020
Financing and/ or public approvals Total			294		
Pre-Development					
Downtown Herndon Redevelopment	Comstock	NE Center/ Elden St	274	After several starts, review process is again underway. Site plan being reviewed by Planning; expect construction to start fall 2019.	2021
555 Herndon Parkway Phase I	Penzance Properties	555 Herndon Pkwy	470	Development Plan Approval Process underway for entire project; Phase II is longer term. Phase I construction is expected to start spring 2020 with completion early 2022.	Early 2022
Replacement of Existing Inventory Total			744		
Total Three Year Pipeline			1038		
Longer Term					
Fairbrook Development	Quadrangle	SE Herndon Pkwy/ Fairbrook Dr	300	Developer seeking zoning amendment to increase FAR to incorporate residential development. Exact unit count uncertain. Process has moving very slowly.	TBD
555 Herndon Parkway Phase II	Penzance Properties	555 Herndon Pkwy	755	Development Plan Approval Process underway for entire project; Phase II is longer term	TBD
Total Longer Term Pipeline			1055		

Sources: VHDA website; City of Herndon and Fairfax County Planning Depts; Local HUD office; development websites; RPRG field research; February 2019

Two longer term projects, both in the city of Herndon, have been identified. Phase II of 555 Herndon Parkway, containing 755 units, will start once Phase I has been completed. Fairbrook Development is a large mixed use project being developed by Quadrangle. Herndon's Planning Department indicates that the project is moving slowly and timing is problematic. Quadrangle is seeking a zoning amendment that would allow additional residential development. The project size of 300 units was estimated by RPRG pending final zoning approval.



Map 8 Pipeline Communities in Arrowbrook Market Area





VIII. FINDINGS AND CONCLUSIONS

A. Key Findings

Based on the preceding review of the subject project, its neighborhood surroundings, and economic, demographic and competitive housing trends in the Arrowbrook Market Area, RPRG offers the following key findings:

1. Site and Neighborhood Analysis

Located in a neighborhood with a mix of residential, office, retail and recreational uses, the subject site affords excellent access to regional transportation and employment opportunities and is within one-half mile of the Innovation Station, part of the Phase II expansion of Metro's Silver Line slated to open in 2020.

- The site has excellent visibility fronting on Centreville Road, one of the main arterials in western Fairfax County, and is located just south of the Dulles Access Road providing easy connections to the Silver Line Metro, Dulles Airport, and major retail, employment, and service nodes throughout the region.
- The site will be connected via a one-half mile pathway to the Innovation Station slated to open in 2020 which will provide public transit access to all parts of the DC area including Dulles Airport, Tysons Corner, Reagan National Airport, and Downtown DC.
- The subject will be bordered on the west by a new upscale townhome and condominium community and on the south by Arrowbrook Centre Park, a unique public recreation amenity offering a soccer field, tennis courts, basketball, playground, pet park, and amphitheater for outdoor entertainment.

2. Economic Context

Despite the ebb and flow in at-place employment, the county economy is robust with unemployment rates consistently less than those of the state and the nation.

- As of Q2 2018, the unemployment rate averaged 2.5 percent, less than the statewide rate of 3.1 percent and the national rate of 4.0 percent.
- The high-paying Professional-Business sector dominates the local economy, accounting for 2.5 times the national proportion.
- Four of the largest employers are in the Professional-Business sector and conduct significant contracting work for the federal government. Much of this work is affiliated with national defense, and accordingly, both the US Department of Defense and the Department of Homeland Defense are major employers.
- While the Fairfax County economy shed approximately 15,300 net jobs in 2009, it subsequently added back 17,800 net jobs over the next three years. Although Fairfax County again experienced a net loss of more than 11,000 jobs between 2013 and 2014, the local economy has since gained 30,500 positions, ending Q2 2018 at a new peak.

3. Demographic Analysis

The Arrowbrook Centre Market Area's household base is projected to increase at a steady pace over the next five year albeit at a lesser pace than healthier rates during the 2000 to 2010 decade. The market area is a younger, affluent section of an equally affluent county.



- Households in the Arrowbrook Centre Market Area are projected to grow at an annual rate of 1.3 percent, a healthy rate even though substantially below the more robust rates of the 2000's decade (2.6 percent).
- Given the substantial pipeline of rental units and local trends, RPRG projects renter households will continue to contribute roughly 78.1 percent of net household growth over the next five years that matches renter share of household growth over the past 19 years.
- Forty percent of the primary market area's renters are younger adults under the age of 35. Households between the ages of 35 and 54 represent another 41 percent of all renters.
- The estimated 2019 median household income in the Arrowbrook Centre Market Area is high at \$121,459; the median rental income is also elevated at \$91,690.
- Twenty-three percent of renter households pay more than 40 percent towards housing. This excludes those households who reside in subsidized rent situations because their housing expenses are capped at 30 percent of their income.

4. Competitive Housing Analysis

Based on no vacancies and waiting lists reported at income restricted general occupancy rental communities and low vacancy rates in the "Lower Tier" market rate rental market, the affordable rental market in the Arrowbrook Centre Market Area is tight, pointing to its ability to support the proposed subject apartments.

- The multifamily rental housing stock has expanded steadily over the past ten years although most new apartments have targeted the highest income renter households. These rental communities typically have a mid-rise elevator structure and have effective average rents far in excess of those being achieved in the Lower Tier market rate and affordable tax credit communities. The effective rents for Upper Tier studios average \$1,469 (\$2.59 per square foot); one bedroom units average \$1,625 (\$2.09 per square foot); two-bedroom apartments average \$2,038 (\$1.76 per square foot); and the three-bedroom units average \$2,282 (\$1.63 per square foot).
- The Lower Tier rental communities are generally older (30+ years) but several have been renovated in recent years. These communities are typically walk-up garden apartment buildings. However, the rent differential between the Upper and Lower Tier (Upper Tier units command a rent premium of 12 to 18 percent relative to Lower Tier units) is not substantial further underscoring the need for affordable rental product. (Note: studio units are comparably priced).
- Income-restricted affordable rental units in the Arrowbrook Centre Market Area account for less than eight percent of the surveyed multifamily stock and all operate under LIHTC guidelines. Affordable Dwelling Units mandated under Fairfax County's affordable housing policy account for only an additional 1.9 percent of units (152). The last market area LIHTC community opened in 1997 – 22 years ago. The introduction of 14 project based state and federal voucher units in the market area will be first for the market area.
- The current combined stabilized vacancy rate across the 26 surveyed rental communities is 3.4 percent with 253 available units. The vacancy rate in the income restricted rental supply is zero with waiting lists at all three communities. This is indicative of a very tight affordable rental market.
- RPRG identified three market rate communities in the near term pipeline totaling 1,038 rental units targeting upper-income households (none are LIHTC communities).



B. Derivation of Demand

1. Net Demand Methodology

RPRG's Derivation of Demand calculation is intended to gauge whether sufficient demand from renter households would be available in the primary market area to absorb the number of units proposed for the subject Arrowbrook Centre Apartments plus those units proposed at other pipeline rental communities that are expected to be brought online over a coming typical three-year period. The result of this analysis can be either a positive number (which shows the extent to which available demand for rental units would exceed available supply) or a negative number (which shows the extent to which available supply would exceed the number of units needed/demanded over the period in question). The closer the concluded number is to zero, the closer the rental market would be to an effective balance of supply and demand.

The three-year period in question for this analysis is the period from February 2019 through February 2022. Since spring 2022 (the expected completion date) is only one to two months removed from February 2022, we have maintained the demand analysis period at three years.

RPRG's Derivation of Demand calculation is a gross analysis, meaning that the calculation balances the demand for new rental housing units of all types (i.e. luxury market-rate, more affordable market-rate, tax credit, rent-subsidized, and age-restricted) versus the upcoming supply of rental housing units of all types. The Derivation of Demand calculation is an incremental or net analysis, in that it focuses on the change in demand over the period in question as opposed to focusing on the market's total demand. Considerations such as household incomes and the floor plan types and proposed rents for the subject and other pipeline projects are not factored into the Derivation of Demand; rather, we address the interplay of these factors within the Affordability Analysis and Penetration Analysis in the next section of this report.

RPRG sums demand generated from three broad sources in order to arrive at 'Net Demand for New Rental Units' over the February 2019 to February 2022 period:

- **Projected Change in the Household Base.** Earlier in this report, RPRG presented projections of household change within the primary market area over the 2019 to 2024 period. For this analysis, we factor in three years' worth of the household change suggested by the annual rate of household growth or decline (2019 to 2020, 2020 to 2021, and 2021 to 2022). Note that net household change incorporates growth or decline stemming from both household migration into and out of the market area and organic changes within existing households (i.e. new household formation as a result of children moving out of their parents' homes, divorces, roommates beginning to rent separately).
- **Units Removed from the Housing Stock.** A number of factors contribute to the removal of housing units in a given geographic area. An April 2016 report prepared for the U.S. Department of Housing and Urban Development by Econometrica, Inc. provides quantitative evidence of such removal factors. Using data collected as part of the national American Housing Survey (AHS) in 2011 and 2013, Econometrica highlighted the portions of the total number of housing units lost attributable to each of the following: units lost through demolition or natural disasters; units badly damaged or condemned (and thus unlivable); units lost due to merger of two or more units into a single unit or the conversion of a single unit into multiple units; units changed from residential to non-residential use; units (primarily mobile homes) moved out from their 2011 location; and units lost in other (unclassified) ways. Econometrica tabulated Components of Inventory Change (CINCH) data based on a range of unit characteristics such as occupancy (occupied, vacant, or seasonal); region (Northeast,



Midwest, South, or West); tenure (owner- or renter-occupied); metro status (units located in central cities, suburban areas, or outside of metro areas); and year built.

- Competitive Multifamily Vacancy Rates.** The final source of demand that factors into RPRG’s calculation of net demand for new rental units is the observed vacancy rate in the primary market area’s competitive rental market. RPRG assumes that a 5.0 percent vacancy rate – a typical underwriting standard – is required to keep a rental market relatively elastic. Elasticity in this context means that an adequate number of quality housing units are vacant and available at any given time so that households seeking rental units can be accommodated and can have some choice among units. When the market vacancy rate is below 5.0 percent, additional units are needed to ensure an adequate number of available units from which to choose. When the market vacancy rate is above 5.0 percent, the market has the capacity to absorb some additional demand, whereby that amount of demand would not need to be met through the development of new units. In considering competitive vacancy rates, we focus on multifamily units in part because the scattered market in single-family homes, condominiums, and other properties is extremely fluid and cannot be relied upon to consistently serve renter households, since the inventory can convert to homeownership very quickly.

Table 37 US Components of Inventory Change (CINCH) 2011 - 2013

A. Characteristics	C. Present in 2011	D. 2011 units present in 2013	2011 Unit change ('000 Units)							TOTAL Lost to Stock	Total exclude MH	2011-13 Annual
			E. Change in characteristics	F. lost due to conversion /merger	G. house or mobile home moved out	H. changed to non residential use	I. lost through demolition or disaster	J. badly damaged or condemned	K. lost in other ways			
Total Housing Stock	132,420	130,852		98	161	202	470	212	424	1,567	1,406	703
				0.07%	0.12%	0.15%	0.35%	0.16%	0.32%	1.18%	1.06%	0.53%
Occupancy												
Occupied units	114,907	105,864	8,313	58	99	68	238	59	207	729	630	315
				0.05%	0.09%	0.06%	0.21%	0.05%	0.18%	0.63%	0.55%	0.27%
Vacant	13,381	5,123	7,642	38	50	85	175	110	158	616	566	283
				0.28%	0.37%	0.64%	1.31%	0.82%	1.18%	4.60%	4.23%	2.11%
Seasonal	4,132	2,132	1,778	2	11	49	57	43	59	221	210	105
				0.05%	0.27%	1.19%	1.38%	1.04%	1.43%	5.35%	5.08%	2.54%
Region (All Units)												
Northeast	23,978	23,718		38	0	28	55	40	99	260	260	130
				0.16%	0.00%	0.12%	0.23%	0.17%	0.41%	1.08%	1.08%	0.54%
Midwest	29,209	28,849		14	28	49	117	56	95	359	331	166
				0.05%	0.10%	0.17%	0.40%	0.19%	0.33%	1.23%	1.13%	0.57%
South	50,237	49,526		29	120	75	235	94	159	712	592	296
				0.06%	0.24%	0.15%	0.47%	0.19%	0.32%	1.42%	1.18%	0.59%
West	28,996	28,759		17	13	50	63	23	71	237	224	112
				0.06%	0.04%	0.17%	0.22%	0.08%	0.24%	0.82%	0.77%	0.39%
Owner occupied	76,092	69,324	6,418	14	83	14	116	26	97	350	267	134
				0.02%	0.11%	0.02%	0.15%	0.03%	0.13%	0.46%	0.35%	0.18%
Renter occupied	38,815	31,181	7,253	45	16	54	122	33	110	380	364	182
				0.12%	0.04%	0.14%	0.31%	0.09%	0.28%	0.98%	0.94%	0.47%
Metro Status												
In Central Cities	37,400	36,974		49	3	70	124	67	112	425	422	211
				0.13%	0.01%	0.19%	0.33%	0.18%	0.30%	1.14%	1.13%	0.56%
In Suburbs	65,872	65,311		26	57	54	169	69	186	561	504	252
				0.04%	0.09%	0.08%	0.26%	0.10%	0.28%	0.85%	0.77%	0.38%
Outside Metro Area	29,148	28,567		23	101	78	177	76	125	580	479	240
				0.08%	0.35%	0.27%	0.61%	0.26%	0.43%	1.99%	1.64%	0.82%

Source: American Housing Survey, Components of Inventory Change 2011-2013; Prepared by Ecometrica, Inc. for U.S. Department of Housing & Urban Development Office of Policy Development & Research; April 2016



2. Net Demand Calculation

Table 38 applies the discussion of sources of demand for new rental units to the Arrowbrook Centre Market Area. The steps in our Derivation of Demand analysis for the three-year period between February 2019 and February 2022 are as follows:

- Based on Esri trends, RPRG estimates that there are 29,644 households in the Arrowbrook Centre Market Area as of February 2019, a number that is projected to increase to 30,812 by February 2022. The Arrowbrook Centre Market Area is expected to add approximately 1,168 net households during the four-year period.
- Using national statistical observations from 2011-2013 CINCH data, Econometrica determined that the average annual loss of occupied housing units in the United States (for all reasons other than the moving of homes, particularly mobile homes) was 0.27 percent of the total occupied stock (Table 37).

We determined the size of the housing stock in the primary market area for 2019, 2020, and 2021 by applying the ratio of occupied to total housing units from the 2010 Census to RPRG's projected household totals. Applying the average 0.27 percent removal rate over the three years in question, we estimate that 254 units are likely to be lost.

- Summing the net household increases from the number of units removed from the market, we calculate the net new demand for housing units of all types over the three-year period to be 1,422 units.
- Given the substantial pipeline of rental units and local trends, RPRG projects renter households will continue to contribute roughly 78.1 percent of net household growth over the next five years that matches renter share of household growth over the past 19 years. Applying this rate to new housing demand results in demand for 1,110 new rental units over the next three years.
- RPRG's survey of the stabilized general occupancy rental communities in the primary market area consisted of 7,498 units. Of these, 253 units are currently vacant, yielding a 3.4 percent vacancy rate. Additionally, one community is currently in lease-up with 43 of its 400 units vacant. In total, RPRG calculates that the competitive inventory consists of 7,898 units with 296 vacant units, or an overall vacancy rate of 3.7 percent.
- Typically, it is assumed that a 5.0 percent vacancy rate is required to keep a rental market relatively fluid. There must be some number of quality units vacant and available at any given time so that households seeking rental units can be accommodated and can have some choice among units. Given the total competitive inventory of 7,898 units, 395 vacancies would be required to arrive at a 5.0 percent vacancy rate. Subtracting the 296 vacant units in the market from this number reveals an unmet demand for 99 units at 5.0 percent vacancy. Thus, we add 99 units to demand.
- Summing demand from household change, projected unit removals, and the vacancy rate in the existing market, there would be total demand for 1,209 new rental units in the primary market area over the next three years.
- Net demand for new rental units must be balanced against new rental stock likely to be added to the market area's inventory over this period. In addition to the subject's proposed 274 units, three market rate communities in the near term pipeline are expected to deliver an additional 1,038 market rate units to the existing rental supply. After adjusting for 95 percent occupancy, all near term pipeline projects, including the subject, will add 1,246 rental units to the existing supply.

Table 38 Derivation of Net Demand, Arrowbrook Centre Market Area

Demand			
<i>Projected Change in Household Base</i>			Units
February 2019 Households			29,644
February 2022 Households			30,812
Net Change in Households			1,168
Add: Units Removed from Housing Stock	Housing Stock	Removal Rate	Units Removed
2019 Housing Stock	30,910	0.27%	83
2020 Housing Stock	31,360	0.27%	85
2021 Housing Stock	31,812	0.27%	86
Total Units Removed from Housing Stock			254
New Housing Demand			1,422
Average Percent Renter Households over Analysis Period			78.1%
New Rental Housing Demand			1,110
Add: Multifamily Competitive Vacancy	Inventory		Vacant
Stabilized Multifamily Communities	7,498		253
Communities Under Lease Up	400		43
Total Competitive Inventory	7,898		296
Market Vacancy at 5%			395
Less: Current Vacant Units			-296
Vacant Units Required to Reach 5% Market Vacancy			99
Total Demand for New Rental Units			1,209
Planned Additions to the Supply			
		Total Units	95% Occupancy
Subject Property - Phase II (4 %)		148	141
Alexan Woodland Park		294	279
Comstock's Downtown Herndon		274	260
555 Herndon Parkway Phase I		470	447
Subject Property - Phase I (9 %)		126	120
Total New Rental Supply		1312	1246
Excess Demand for Rental Housing			-38

Source: RPRG, Inc.

- Upon subtracting the expected additions to the supply (1,246 units) from net demand for new rental units (1,209 units), we arrive at an excess supply of 38 rental units in the Arrowbrook Centre Market Area between 2019 and 2022.

3. Conclusions on Net Demand

The demand analysis demonstrates a rental market virtually in balance that should be viewed as a conservative estimate given the scheduled opening of Phase II in 2020 of the Silver Line expansion to Herndon and Dulles Airport. The three pipeline market rate Upper Tier projects will be within walking distance of the new Silver Line stations and thus regional demand for transit oriented residences should overcome the more tightly focused market area demand analysis. Most importantly, the subject will be providing affordable units in an area with a limited inventory of

such product. As such, the demand for these proposed affordable units will be separate and distinct from the general marketplace since all three existing market area LIHTC projects are fully leased with extensive waiting lists. The demand for the subject's units as well as for all of the income-restricted units within the market area will be addressed more specifically in the next section related to Effective Demand.

C. Effective Demand – Affordability/Capture & Penetration Analyses

1. Methodology

Following our estimate of the depth of demand for net new rental units in the primary market area, we next test whether enough income-qualified households would be available to support the specific units at the subject property and properties in the same broad segment of the rental market in terms of pricing. This analysis is conducted independently of the Net Demand Analysis as units at the subject property are likely to be filled by a combination of new households (either moving to or created in the market area) and existing households moving within the market area. The total demand – comprised of the net or incremental demand and the demand from existing households – is the relevant frame of reference for the analysis.

The Affordability/Capture Analysis tests the percentage of income-qualified households in the primary market area that the subject community must capture in order to achieve full occupancy. The Penetration Analysis tests the percentage of income-qualified households in the market area that the subject community and comparable competitive communities combined must capture to achieve full occupancy. The combination of the Net Demand, Affordability/Capture, and Penetration Analyses determines if the primary market area can support additional rental units and if sufficient households exist in the targeted income range to support the proposed units.

The first component of the Effective Demand analysis involves looking at total income and renter income among Arrowbrook Centre Market Area households for the target year. The Developer projects that units at Arrowbrook Centre Apartments will initially be placed in service in 2022 and as such, 2022 is used as the target year for these analyses. RPRG calculated 2022 income distributions for total households and renter households based on RPRG household projections, income estimates from the 2013-2017 ACS, and income projections from Esri (Table 39).

Table 39 2022 Total and Renter Income Distribution, Arrowbrook Centre Market Area

Arrowbrook Centre Market Area		Total Households		Renter Households	
		#	%	#	%
2022 Income					
less than	\$15,000	699	2.3%	488	3.7%
	\$15,000	788	2.6%	551	4.1%
	\$25,000	942	3.1%	517	3.9%
	\$35,000	1,628	5.3%	1,038	7.8%
	\$50,000	3,236	10.5%	1,755	13.1%
	\$75,000	3,707	12.0%	1,902	14.2%
	\$100,000	8,335	27.1%	4,075	30.5%
	\$150,000	11,444	37.2%	3,034	22.7%
	Over				
Total		30,779	100%	13,360	100%
Median Income		\$126,331		\$105,270	

Source: American Community Survey 2013-2017 Projections, RPRG, Inc.



A particular housing unit is typically said to be affordable to households that would be expending a certain percentage of their annual income or less on the expenses related to living in that unit. In the case of rental units, these expenses are generally of two types – monthly contract rents paid to property owners and payment of utility bills for which the tenant is responsible. The sum of the contract rent and utility bills is referred to as a household’s ‘gross rent burden’. For the Affordability/Capture and Penetration Analyses, RPRG employs a 35 percent gross rent burden. The 35 percent rent burden is the rent burden mandated by VHDA for use in evaluating proposed general occupancy LIHTC communities. Rent burdens of 35 percent are also typically used in underwriting multifamily rental communities in the Mid-Atlantic region, particularly communities with rents targeting low- and moderate-income households in areas with high housing costs.

All units at the subject will be restricted to households with incomes at 30 percent, 40 percent, 50 percent, and 60 percent of AMI. Since all of the 40 percent AMI have project based state and federal vouchers, there is no income floor for these units. The household sizes assume 1.5 persons per bedroom for the one-, two-, and three-bedroom units but assumes one person for the studio units.

2. Affordability Analysis

The steps in our Affordability Analysis for Arrowbrook Centre Apartments at the Developer’s proposed rents are as follows (Table 40). We note, per instructions from VHDA, that both components of the project (the units which are expected to be financed with nine percent tax credits and the units which are expected to be financed with four percent tax credits) are analyzed as one combined property.

- The overall shelter cost (gross rent) for a 30 percent one-bedroom unit at Arrowbrook Centre Apartments would be \$659 per month (\$559 rent plus a \$100 utility allowance for all utility costs).
- By applying a 35 percent rent burden to this gross rent, we determined that the 30 percent one-bedroom unit would be affordable to renter households earning at least \$22,594 per year. The projected number of primary market area renter households earning at least \$22,594 in 2022 is 12,454.
- A household occupying a one-bedroom unit (assuming 1.5 persons/bedroom) and earning 30 percent of AMI for the Washington-Arlington-Alexandria DC-VA-MD HUD Metro FMR area would have an income of up to \$26,385. According to the interpolated income distribution for 2022, there would be 12,250 renter households in the primary market area with incomes exceeding the upper income bound.
- Subtracting the 12,250 renter households with incomes above the 30 percent maximum income limit from the 12,454 renter households that could afford to rent this unit, we calculate that 204 renter households in the primary market area as of 2022 would be in the band of affordability for the subject’s 30 percent one-bedroom units. Arrowbrook Centre Apartments would need to capture 2.5 percent of these income-qualified renter households to absorb all 5 of the 30 percent one-bedroom units.
- Following the same methodology, we tested the affordability of the remaining unit types at each of the income bands. The capture rates among income-qualified renter households for these distinct unit types by income band range from less than one percent (for the 40 percent AMI units) to 9.4 percent (for the 60 percent AMI units).
- The 274 tax credit units would need to capture 6.5 percent of the income-qualified renter households.



If state and federal vouchers are not available and 40 percent AMI rents were set at maximum rent the overall capture rate would increase to 8.2 percent.

Table 40 2022 Affordability Analysis for Arrowbrook Centre Apts., Assuming 35% Rent Burden

30% AMI		35% Rent Burden		One Bedroom Units		Two Bedroom Units		Three Bedroom Units	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Number of Units				5		6		2	
Net Rent				\$559		\$667		\$767	
Gross Rent				\$659		\$791		\$914	
Income Range (Min, Max)				\$22,594	\$26,385	\$27,120	\$31,650	\$31,337	\$36,570
Renter Households									
Range of Qualified Hhlds				12,454	12,250	12,212	11,978	11,994	11,696
# Qualified Hhlds				204		234		298	
Renter HH Capture Rate				2.5%		2.6%		0.7%	

40% AMI		35% Rent Burden		One Bedroom Units		Two Bedroom Units		Three Bedroom Units	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Number of Units				4		5		5	
Net Rent				\$1,354		\$1,541		\$2,029	
Gross Rent				\$1,454		\$1,665		\$2,176	
Income Range (Min, Max)				no min\$	\$35,180	no min\$	\$42,200	no min\$	\$48,760
Renter Households									
Range of Qualified Hhlds				13,360	11,792	13,360	11,306	13,360	10,852
# Qualified Hhlds				1,568		2,054		2,508	
Renter HH Capture Rate				0.3%		0.2%		0.2%	

50% AMI		35% Rent Burden		One Bedroom Units		Two Bedroom Units		Three Bedroom Units	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Number of Units				2		28		7	
Net Rent/Gross Rent				\$999		\$1,195		\$1,377	
Gross Rent				\$1,099		\$1,319		\$1,524	
Income Range (Min, Max)				\$37,680	\$43,975	\$45,223	\$52,750	\$52,251	\$60,950
Renter Households									
Range of Qualified Hhlds				11,619	11,183	11,097	10,573	10,608	9,998
# Qualified Households				436		524		611	
Renter HH Capture Rate				0.5%		5.3%		1.1%	

60% AMI		35% Rent Burden		Efficiency Units		One Bedroom Units		Two Bedroom Units		Three Bedroom Units	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Number of Units				10		35		124		41	
Net Rent				\$1,120		\$1,219		\$1,458		\$1,681	
Gross Rent				\$1,201		\$1,319		\$1,582		\$1,828	
Income Range (Min, Max)				\$41,177	\$49,260	\$45,223	\$52,770	\$54,240	\$63,300	\$62,674	\$73,140
Renter Households											
Range of Qualified Hhlds				11,377	10,818	11,097	10,572	10,469	9,833	9,877	9,142
# Qualified Households				559		525		636		735	
Renter HH Capture Rate				1.8%		6.7%		19.5%		5.6%	

Income Target	# Units	Renter Households = 13,360			
		Band of Qualified Hhlds		# Qualified Hh	Capture Rate
30% AMI	13	Income Households	\$22,594 - \$36,570	758	1.7%
40% AMI	14	Income Households	no min\$ - \$48,760	2,508	0.6%
50% AMI	36	Income Households	\$37,680 - \$60,950	1,621	2.2%
60% AMI	211	Income Households	\$41,177 - \$73,140	2,235	9.4%
Total Units	274	Income Households	no min\$ - \$73,140	4,218	6.5%

3. Penetration Analysis

To provide further insight into the market dynamics, we have also conducted a Penetration Analysis (Table 41). The Penetration Analysis evaluates the capacity of the market area to serve the entire inventory of directly competitive rental units. Our analysis utilizes the same target date of 2022; the same 35 percent rent burden; and income levels as presented in the Affordability Analysis.



The steps in our Penetration Analysis for Arrowbrook Centre Apartments follow:

- Based on effective rents from RPRG’s survey, the stock of existing rental units that would be closely competitive with the subject’s 30 percent, 40 percent, 50 percent, and 60 percent of AMI units consists of a total of 834 units in the existing affordable rental communities ((including three market rate communities – International, Berkdale, and Park – that offer net effective rents in the 60% tax credit range plus 79 fifty percent AMI ADU units). There are no affordable pipeline projects; we assumed ten 50 percent AMI ADU units at Alexan Woodland Park. Summing the existing units with the anticipated supply, the relevant stock of directly competitive studio, one-bedroom, two-bedroom and three-bedroom units consists of 1,045 units, including the subject.
- The range of household incomes employed in our analysis ranges from \$0 for the subject’s 40 percent one-bedroom units (with vouchers) up to the maximum allowable household income for a three-bedroom unit at 60 percent of AMI (\$73,140). This analysis utilizes the subject’s proposed utility allowances when calculating the minimum income required for the total housing cost as well as a 35 percent housing affordability ratio.
- As of 2022, an estimated 4,218 renter households in the primary market area will be in the band of affordability for the relevant income-restricted tax credit studio, one-, two- and three-bedroom rental stock. The existing and planned affordable supply would need to capture 28.4 percent of these renter households in order to reach full occupancy.

Table 41 Penetration Analysis for Arrowbrook Centre Apartments, Assuming 35% Rent Burden

30% Units		40% Units		50% Units		60% Units	
Competitive Units	Units	Competitive Units	Units	Competitive Units	Units	Competitive Units	Units
				Dulles Center (ADU)	18	Dulles Center	254
				Ashton at Dulles Center (ADU)	8	Coppermine	288
				Pointe at Dulles (ADU)	9	Apts at North Point	48
				Adara Herndon (ADU)	6	Berkdale (market)	115
				Monroe Place (ADU)	4	International (market)	85
				Courts at Dulles (ADU)	1	Park Avenue (market)	44
				Halstead Dulles (ADU)	10		
				Trevors Run at Dulles Center (ADU)	5		
				Van Metre Woodland Park (ADU)	18		
subtotal	0	subtotal	0	subtotal	79	subtotal	834
Pipeline Units	Units	Pipeline Units	Units	Pipeline Units	Units	Pipeline Units	Units
	0		0	Alexan Woodland Park (ADU)	10		
subtotal	0	subtotal	0	subtotal	10	subtotal	0
Subject Property	Units	Subject Property	Units	Subject Property	Units	Subject Property	Units
	13		14		36		211
Total	13	Total	14	Total	125	Total	1,045

Income Target	Total Competitive Units	Renter Households = 13,360		# Qualified HHs	Penetration Rate
		Band of Qualified HHlds			
		One Bedroom	Three Bedroom		
30% Units	13	\$21,909 12,492	\$36,570 11,696	796	1.6%
40% Units	14	no min\$ 13,360	\$48,760 10,852	2,508	0.6%
50% Units	125	\$41,109 11,382	\$60,950 9,998	1,384	9.0%
60% Units	1,045	Efficiency \$41,177 11,377	Three Bedroom \$73,140 9,142	2,235	46.8%
Total Units	1,197	no min\$ 13,360	\$73,140 9,142	4,218	28.4%



4. Conclusions on Affordability and Penetration

RPRG judges that the tax credit renter capture rate of 6.5 percent is achievable, particularly since the proposed apartments will be the newest and most attractive affordable rental community within the market area. The relatively high capture rate for 60% units is a function of the limited moderate income households in this market due to the limited inventory of affordable apartments. Given the excellent location of the subject within walking distance of the Innovation Silver Line Metro Station, there should be no issue in attracting a sufficient pool of qualified renters from the region. RPRG considers the calculated penetration rate for the tax credit units of 28.4 percent of income-restricted renter households to be reasonable and also illustrates the lack of affordable housing within the Arrowbrook Centre Market Area. In essence, our analysis suggests that the most directly competitive rental units will need to capture less than three out of every ten income-qualified renter households. Both the capture and penetration rates are well within a reasonable and achievable range.

D. VHDA Demand Methodology

1. VHDA Demand Analysis

The Virginia Housing Development Authority (VHDA) mandates a particular demand methodology in evaluating applications for Low-Income Housing Tax Credits. VHDA opts for a need-driven demand methodology which factors the topics of cost-burdened renters and substandard rental housing into the demand equation. In this section, RPRG calculates demand according to the VHDA methodology for Arrowbrook Centre Apartments. VHDA's demand methodology for general occupancy LIHTC projects such as the subject accounts for as many as four primary components of potential need/demand:

- **Household Growth or Decline.** The household trend required by VHDA is the net increase or decrease in the number of income-qualified renter households in the primary market area between a base year of 2019 and a target year of 2022.
- **Cost Burdened Renters.** VHDA's second component of demand is cost burdened renters, a designation which is typically defined as those renter households paying more than 35 percent of household income for housing costs. To be conservative, RPRG uses the 2013-2017 ACS data on cost-burdened renter households presented earlier in Table 21 to estimate the percentage and number of income-qualified renters for the subject project that will be cost-burdened as of 2019 as defined by spending 40 percent of income on rent, or 22.7 percent of renters.
- **Renter Households in Substandard Housing.** VHDA's third component of demand accounts for income-qualified renter households living in substandard units, defined as overcrowded units (having 1.01 or more persons per room) and/or units lacking complete plumbing facilities. According to the 2013-2017 ACS, the percentage of renter households in the primary market area that lived in substandard conditions was 9.1 percent.
- **Existing Tenants Likely to Remain.** For projects that constitute the renovation of an existing property with current tenants, VHDA requests that analysts consider the percentage of current tenants that are likely to remain following the proposed renovation. Arrowbrook Centre Apartments will be a new construction project and, as such, VHDA's fourth component of demand is not relevant.

Table 42 outlines the detailed VHDA demand calculations for Arrowbrook Centre Apartments that stem from the three relevant demand components. Total demand available for the 274-unit proposed affordable project is expected to include 155 net new renter households, 895 cost-



burdened households, and 356 households currently residing in substandard housing. The calculation thus yields a total demand for 1,406 additional units of rental housing serving the targeted income bands.

Table 42 VHDA Demand by Overall Income Targeting

Income Target	30% AMI	40% AMI	50% AMI	60% AMI	Project Total
Minimum Income Limit	\$21,909	no min\$	\$41,109	\$41,177	no min\$
Maximum Income Limit	\$36,570	\$48,760	\$60,950	\$73,140	\$73,140
(A) Renter Income Qualification Percentage	6.0%	18.8%	10.4%	16.7%	31.6%
Demand from New Renter Households - Calculation (C-B)*F*A	29	92	51	82	155
+ Demand from Rent Overburdened HHs - Calculation: B*E*F*A	169	532	294	474	895
+ Demand from Substandard Housing - Calculation B*D*F*A	67	212	117	189	356
Total Income Qualified Renter Demand	265	836	461	745	1,406
Less: Comparable Vacant Units	0	0	0	0	0
Less: Comparable Pipeline Units	0	0	10	0	10
Net Demand	265	836	451	745	1,396
Subject Proposed Units	13	14	36	211	274
Capture Rate	4.9%	1.7%	8.0%	28.3%	19.6%
Estimated Absorption Period					13 to 15 months

Demand Calculation Inputs	
A). % of Renter HHlds with Qualifying Income	see above
B). 2019 Households	29,612
C). 2022 Households	30,779
D). Substandard Housing (% of Rental Stock)	9.1%
E). Rent Overburdened (% of Renter HHlds at >40%)	22.7%
F). Renter Percentage (% of all 2019 HHlds)	42.1%

Project wide Capture Rate - LIHTC units w/o subsidies 24.9%
 Project wide Capture Rate - LIHTC units w subsidies 19.6%

Comparable units that are presently available or that would likely be available constitute supply that must be subtracted from total VHDA demand to arrive at VHDA net demand. Based on our February 2019 competitive survey, no subsidized or income-restricted units were reported vacant in the affordable rental supply. There are no affordable projects in the near term pipeline except for an estimated ten 50 percent AMI ADU units at Alexan Woodland Park. Subtracting the vacant existing and pipeline units, VHDA net demand totals 1,396 units.

Given net demand for 1,396 units, the 274-unit Arrowbrook Centre Apartments would need to capture 19.6 percent of income-qualified renter households per VHDA’s demand methodology.

Given that 20 percent of units will offer three bedrooms, Table 43 calculates demand for the proposed subject’s three-bedroom units. In this analysis, we have applied a large family factor of 43.2 percent in order to reflect the proportion of three-person and larger households within the market area, as referenced in Table 17. The VHDA capture rate for this unit type is 9.4 percent.

Table 43 VHDA Three-Bedroom Demand

Project Total	Three Bedroom Units
Minimum Income Limit	\$31,337
Maximum Income Limit	\$73,140
Renter Income Qualification Percentage	31.57%
Total Income Qualified Renter Demand	1,406
Large HH Size Adjustment (% renter 3+ hhlds)	43.2%
Total Income Qualified Renter Demand	607
Vacant and Comparable Units	0
Net Demand	607
Proposed Units	57
Capture Rate	9.4%



2. Conclusions on VHDA Demand

RPRG considers the key captures rates for Arrowbrook Centre Apartments to be both reasonable and readily achievable since there is a limited pool of qualified renters in this very affluent market area (renter median income of \$91,690). The renter capture rate for all units is 19.6 percent. All three existing LIHTC properties are fully leased with extensive waiting lists – these properties will be 25 to 27 years old when the subject opens in 2022. The subject will be the only affordable contemporary community within walking distance of a Metro station. The Residences at Government Center (a similar property to the subject developed by SCG Development), located in Fair Oaks south of the subject, took only ten months to fully lease its 270 units after opening in September 2016. Taking into consideration all of these factors, we have conservatively estimated an overall project lease up pace of roughly 12 to 14 months to achieve 95 percent occupancy, reflecting an average absorption pace of 19 to 21 units per month.

E. Target Markets

As indicated in the Effective Demand Analysis (Affordability/Capture & Penetration), the subject's income-restricted units would serve households with incomes between \$0 and \$73,140. The groups most likely to reside at the subject's income restricted units include individuals working in service sectors such as retail, leisure and hospitality, or in civilian positions associated with the numerous military installations in the area. Other persons likely to reside at the subject project include government or contract workers; local public servants such as firefighters, police officers, and teachers; and early career workers in the professional-business, financial activities, information, and health sectors.

With studio, one-, two- and three-bedroom units, the proposed community would have the capacity to serve single-person households, married and unmarried couples, roommate households, and single- and dual-parent families with as many as four children.

F. Product Evaluation

Considered in the context of the competitive environment, the relative position of the proposed Arrowbrook Centre Apartments is as follows:

- **Structure Type:** Most Upper Tier properties are mid-rise elevator served properties similar to the subject. Given that the existing three LIHTC properties are garden-style, the subject will have a competitive advantage by offering elevators, interior hallways, direct access to structured garage parking, and first floor retail.
- **Project Size:** The surveyed rental communities within the market area range in size from 44 to 806 units, with an average size of 304 units (close to the subject's size of 274 units). The Arrowbrook Centre Apartments will also be similar in size to two of the three existing LIHTC properties sized at 272 and 288 units. The subject's size will appropriately allow it to provide on-site management and services similar to other market area rental communities.
- **Unit Distribution:** The subject will offer studios (4 percent); one-bedroom units (17 percent); two-bedroom units (59 percent); and three-bedroom units (20 percent). The subject's two bedroom distribution is similar to the distribution of units in the other tax credit/ affordable rental properties where two-bedroom units account for 60 percent of all units. The subject offers a greater proportion of one bedroom units and a lesser percentage of three bedrooms relative to the affordable supply (at 8 percent and 31.5 percent respectively). The small number of studios (10) will also appeal to single person households. This distribution is reasonable given the 29 percent of one-person renters in the market area. The proposed unit distribution positions the subject to target a wide variety of households, including single-



person households, couples, roommates, single parent households and families. We believe that the proposed unit distribution is reasonable within the context of the directly competitive rental supply.

Table 44 Unit Distribution, Unit Sizes and Net Rents, Arrowbrook Centre Apartments

Floor Plan Type	ID	Income Target (% AMI)	LIHTC Type	# of Units	% of Total Units	Net Avg SF	Utility Allowance	Proposed Net Rent (1)	Net Rent/ Net SF
Studio/1 BA	A	60%	4%	10	4%	422	\$81	\$1,120	\$2.65
Studio Subtotal				10	4%	422			
1 BR/1 BA	B1	30%	9%	4	1%	615	\$100	\$559	\$0.91
1 BR/1 BA	B3	30%	9%	1	0%	595	\$100	\$559	\$0.94
1 BR/1 BA	B2	40% (Vouchers)	9%	4	1%	796	\$100	\$1,354	\$1.70
1 BR/1 BA	B	50%	9%	1	0%	796	\$100	\$999	\$1.25
1 BR/1 BA	A	50%	9%	1	0%	706	\$100	\$999	\$1.41
1 BR/1 BA	C	60%	9%	8	2.9%	659	\$100	\$1,219	\$1.85
1 BR/1 BA	B	60%	9%	2	1%	607	\$100	\$1,219	\$2.01
9 % 1 BR Subtotal				21	8%	677			
1 BR/1 BA	A	60%	4%	5	2%	952	\$100	\$1,219	\$1.28
1 BR/1 BA	B	60%	4%	9	3%	679	\$100	\$1,219	\$1.80
1 BR/1 BA	B1	60%	4%	6	2%	635	\$100	\$1,219	\$1.92
1 BR/1 BA	D	60%	4%	5	2%	708	\$100	\$1,219	\$1.72
4 % 1 BR Subtotal				25	9%	729			
1 BR Subtotal				46	17%	705			
2 BR/1.5 BA	B	30%	9%	6	2.2%	882	\$124	\$667	\$0.76
2 BR/2 BA	B	40% (Vouchers)	9%	5	2%	1,196	\$124	\$1,541	\$1.29
2 BR/1.5 BA	B	50%	9%	13	5%	875	\$124	\$1,195	\$1.37
2 BR/1.5 BA	D1	50%	9%	2	1%	882	\$124	\$1,195	\$1.36
2 BR/2 BA	G	50%	9%	13	5%	995	\$124	\$1,195	\$1.20
2 BR/2 BA	C	60%	9%	9	3%	969	\$124	\$1,458	\$1.51
2 BR/2 BA	D	60%	9%	5	2%	896	\$124	\$1,458	\$1.63
2 BR/2 BA	D1	60%	9%	5	2%	972	\$124	\$1,458	\$1.50
2 BR/2 BA	E	60%	9%	1	0%	995	\$124	\$1,458	\$1.47
2 BR/1.5 BA	H	60%	9%	1	0%	885	\$124	\$1,458	\$1.65
2 BR/1.5 BA	H	60%	9%	5	2%	920	\$124	\$1,458	\$1.58
2 BR/1.5 BA	F	60%	9%	12	4%	875	\$124	\$1,458	\$1.67
9 % 2 BR Subtotal				77	28%	940			
2 BR/2 BA	A	60%	4%	1	0.4%	1,280	\$124	\$1,458	\$1.14
2 BR/2 BA	B2	60%	4%	10	4%	1,026	\$124	\$1,458	\$1.42
2 BR/2 BA	D	60%	4%	22	8%	1,016	\$124	\$1,458	\$1.44
2 BR/2 BA	D1	60%	4%	6	2%	899	\$124	\$1,458	\$1.62
2 BR/2 BA	D2	60%	4%	4	1%	935	\$124	\$1,458	\$1.56
2 BR/2 BA	D3	60%	4%	4	1%	958	\$124	\$1,458	\$1.52
2 BR/2 BA	D4	60%	4%	9	3%	949	\$124	\$1,458	\$1.54
2 BR/2 BA	E	60%	4%	5	2%	1,265	\$124	\$1,458	\$1.15
2 BR/2 BA	J	60%	4%	5	2%	1,298	\$124	\$1,458	\$1.12
2 BR/2 BA	K	60%	4%	5	2%	1,041	\$124	\$1,458	\$1.40
2 BR/2 BA	L	60%	4%	5	2%	1,276	\$124	\$1,458	\$1.14
2 BR/2 BA	M	60%	4%	4	1%	896	\$124	\$1,458	\$1.63
2 BR/2 BA	M1	60%	4%	1	0.4%	819	\$124	\$1,458	\$1.78
2 BR/2 BA	N	60%	4%	5	2%	1,048	\$124	\$1,458	\$1.39
4 % 2 BR Subtotal				86	31%	1,040			
2 BR Subtotal				163	59%	993			
3 BR/2 BA	B2	30%	9%	2	1%	1,161	\$147	\$767	\$0.66
3 BR/2 BA	UD	40% (Vouchers)	9%	4	1%	1,275	\$147	\$2,029	\$1.59
3 BR/2 BA	UD1	40% (Vouchers)	9%	1	0%	1,216	\$147	\$2,029	\$1.67
3 BR/2 BA	D	50%	9%	3	1%	1,126	\$147	\$1,377	\$1.22
3 BR/2 BA	D	50%	9%	4	1%	1,290	\$147	\$1,377	\$1.07
3 BR/2 BA	A	60%	9%	1	0%	1,290	\$147	\$1,681	\$1.30
3 BR/2 BA	B1	60%	9%	4	1%	1,182	\$147	\$1,681	\$1.42
3 BR/2 BA	B2	60%	9%	4	1%	1,483	\$147	\$1,681	\$1.13
3 BR/2 BA	C	60%	9%	1	0%	1,280	\$147	\$1,681	\$1.31
3 BR/2 BA	D	60%	9%	4	1%	1,204	\$147	\$1,681	\$1.40
9 % 3 BR Subtotal				28	10%	1,258			
3 BR/2 BA	A	60%	4%	2	1%	1,263	\$147	\$1,681	\$1.33
3 BR/2 BA	B	60%	4%	5	2%	1,291	\$147	\$1,681	\$1.30
3 BR/2 BA	E	60%	4%	8	3%	1,265	\$147	\$1,681	\$1.33
3 BR/2 BA	E1	60%	4%	2	1%	1,225	\$147	\$1,681	\$1.37
3 BR/2 BA	F	60%	4%	4	1%	1,382	\$147	\$1,681	\$1.22
3 BR/2 BA	F1	60%	4%	1	0%	1,294	\$147	\$1,681	\$1.30
3 BR/2 BA	G	60%	4%	4	1%	1,386	\$147	\$1,681	\$1.21
3 BR/2 BA	D	60%	4%	1	0%	1,305	\$147	\$1,681	\$1.29
4 % 3 BR Subtotal				27	10%	1,305			
3 BR Subtotal				55	20%	1,281			
Total				274		981			

Project Based Section 8 Vouchers

(1) Proposed rents assume tenants pay for all utilities except trash; structured parking included
Source: SCG Development



- **Income Targeting:** The subject's income targeting is as follows: 13 units (5 percent) will address incomes at or below 30 percent of AMI; 14 units (5 percent) will address incomes at or below 40 percent of AMI; 36 units (13 percent) will address households with incomes at or below 50 percent of AMI; and 211 units (77 percent) will target households with incomes at or below 60 percent of AMI. RPRG's penetration analysis indicates that all of the subject's units as well as those existing and future units addresses less than three out of ten (28 percent) of all income-qualified households. Furthermore the 14 units at 40 percent of AMI will address low income households with the availability of project based rental assistance.
- **Unit Size:** The proposed unit sizes for Arrowbrook Centre Apartments average 422 square feet for studios, 692 square feet for one-bedroom units; 1,040 square feet for two-bedroom units; and 1,305 square feet for the three-bedroom units. Though some of the floor plans are small by market area standards, all of the subject floor plans are adequately sized.
 - The **studio** floor plan is smaller than the surveyed floor plans ranging in size from 524 to 588 square feet. However, the units are efficiently designed and are within the standard range for studio floor plans generally.
 - The **one bedroom** floor plans are smaller than the average size of the Upper Tier one bedroom units (776 square feet) and the Lower Tier one bedroom units (749 square feet) but comparable in size to the one affordable one bedroom units (733 square feet). Five of the 16 affordable one bedroom floor plans are smaller than or within ten square feet of the subject floor plans.
 - The **two bedroom** floor plans fall between the average size of the Upper Tier two bedroom units (1,159 square feet) and the Lower Tier two bedroom units (971 square feet). The average size of the affordable two bedroom floor plans is moderately larger at 1,052 square feet; however 12 of the 19 models are smaller than or within ten square feet of the subject floor plans.
 - The **three bedroom** floor plans are generously sized - the Upper Tier average size is larger at 1,401 square feet but both the Lower Tier and affordable average are smaller at 1,204 and 1,244 square feet respectively.
- **Number of Bathrooms:** All of the subject's studio and one-bedroom units will have one full bathroom, while the two- and three-bedroom units will have two bathrooms, similar to the offerings at the other LIHTC properties and the market rate inventory.
- **Kitchen Features:** All unit kitchens at Arrowbrook Centre Apartments will include features competitive with market rate communities including dishwasher, garbage disposals, and microwaves. Additionally, the fact that the units will have energy-efficient and modern appliances is also a positive feature.
- **Laundry:** The Developer intends to equip all units at Arrowbrook Centre Apartments with full-size washers and dryers that is standard in 21 of the 26 surveyed market area communities including two of the three LIHTC communities.
- **Other Unit Features:** Units at Arrowbrook Centre Apartments will have carpeted bedrooms and living areas and attractive wood vinyl flooring in the kitchen, hallway and bath that is also standard in the market area.
- **Utilities Included in Rent:** The Developer proposes to have tenants pay for all utilities except trash which is standard practice at seven of the 26 surveyed communities and one of the three LIHTC communities.
- **Common Area Amenities:** The Developer intends to provide a significant offering of common area amenities at the subject, Common area amenities which will be available to all residents will include a furnished clubroom with on-site management, conference center, fitness room,



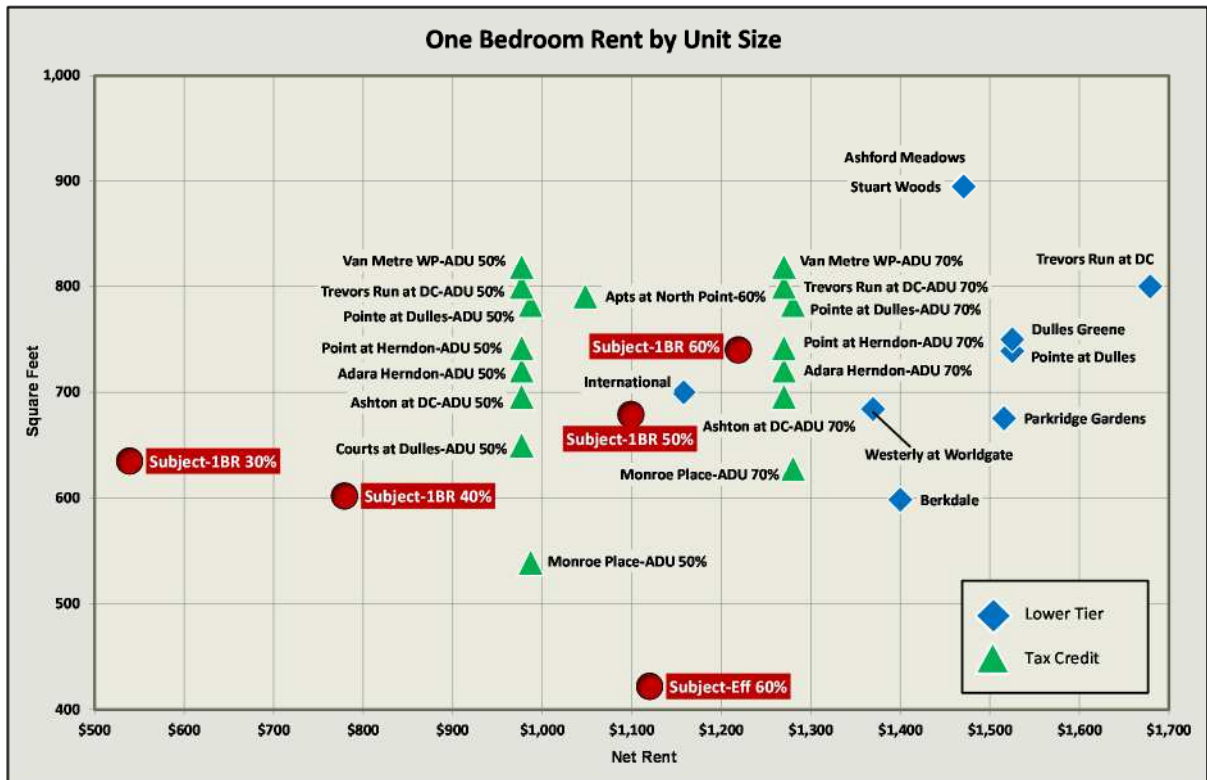
and cyber lounge/ study area. Other amenities include an outdoor lounge with grilling area; bicycle storage, access to a dog park; one-half mile walking path to Metro; adjacency to Arrowbrook Centre Park; first floor restaurant and shops; and structured parking with direct access by floor. Other than not providing a pool, the proposed amenities are consistent with amenities provided at most Upper Tier communities. The subject has a competitive advantage with two key amenities – adjacency to Arrowbrook Centre Park that offers a soccer field, pet park, tennis courts, basketball court, playground, and amphitheater for entertainment plus walking distance to a Metro station – that will set it apart from most market rate and affordable communities.

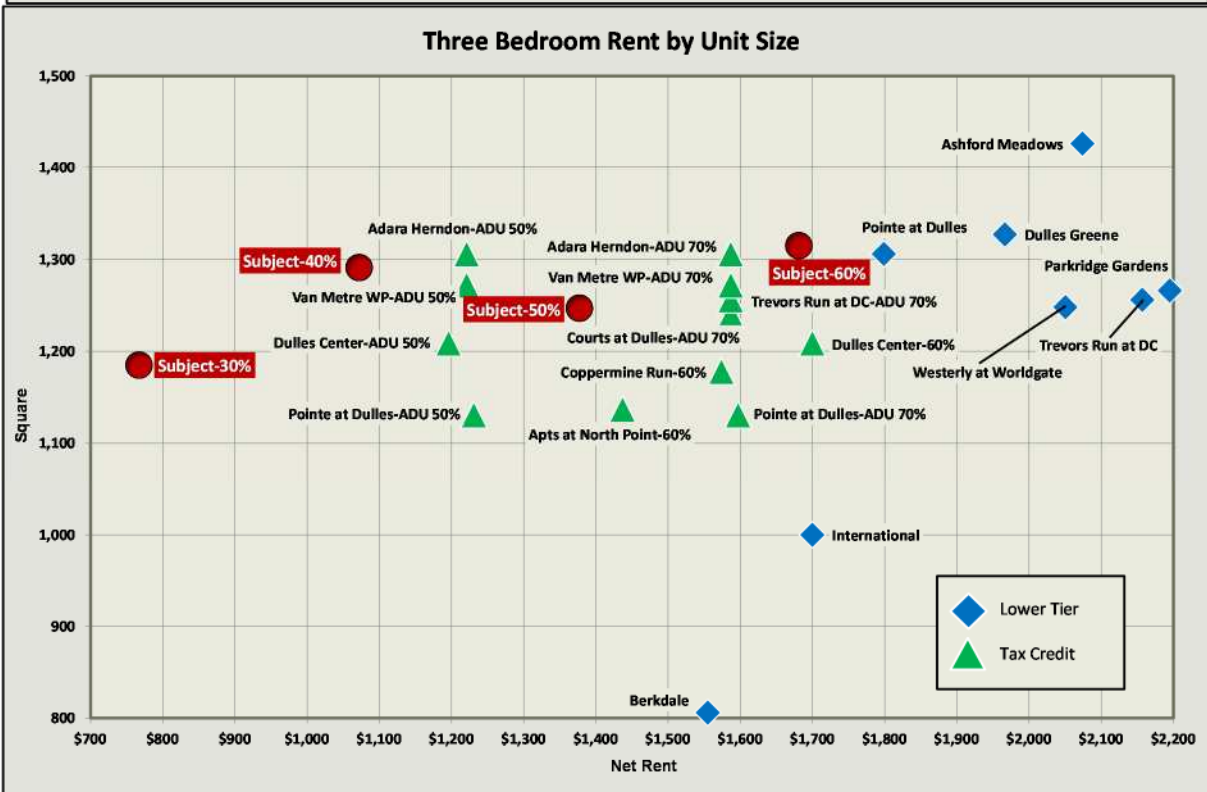
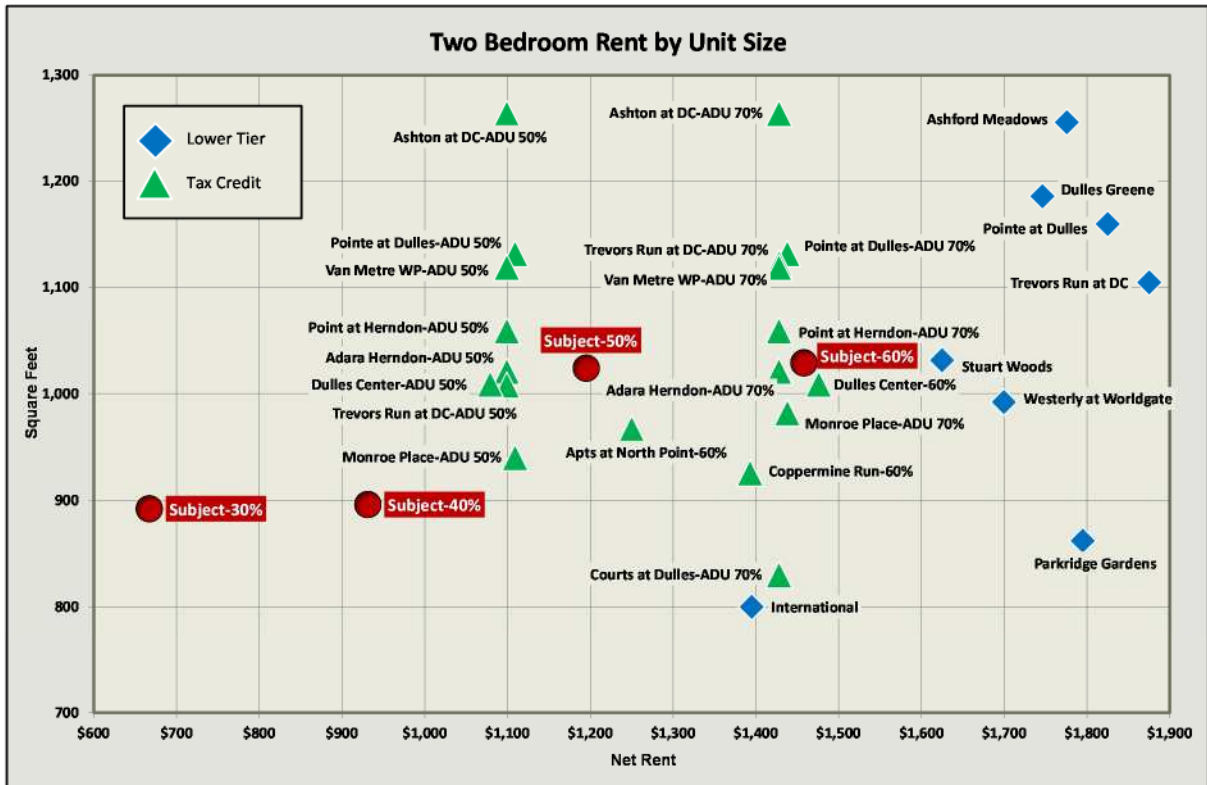
- **Parking:** The subject will have free structured garage parking with direct access by floor that is only available at select Upper Tier communities and will provide Arrowbrook Centre Apartments with a distinct competitive advantage.

G. Price Position

The tax credit rents proposed by the Developer for Arrowbrook Centre Apartments are at or below the allowable maximums for all unit types, given the assumed utility allowances of \$81 for studios, \$100 for one-bedroom units; \$124 for two-bedroom units; and \$146 for three-bedroom units. The proposed rents are considered to be reasonable when viewed within the context of the directly competitive rental supply. The scatter charts indicate that the rents for the affordable rental supply are generally far below those without income restrictions. Figure 12 provides a graphic representation of the competitive positions of the rents and square footages proposed for the subject’s studio, one-, two, and three-bedroom units relative to market rate Lower Tier rents. The 40 percent AMI rents indicated on the chart are maximum LIHTC rents.

Figure 12 Price Position of Arrowbrook Centre Apartments







H. Absorption Estimate

In estimating an absorption pace for the subject community, we consider recent absorption activity in the market in addition to demand and supply factors. We only have two examples of recent absorption – Station on Silver (inside the market area) has leased at a pace of roughly 21 units per month since opening in September 2017 and Residences at Government Center (a similar project built the same development team as the subject outside the market area in Fair Oaks) leased at a pace of 27 units per month over the ten month period after opening in September. Given the strategic positioning of the subject close to the Metro, the Dulles Access Road, Dulles Airport, and the entire Herndon/ Reston employment node, the strong pent up demand for affordable products (the last LIHTC property opened in 1997) and lack of any competition in the near term, a healthy rental market, and attractive contemporary product features and amenities including direct access structured parking and elevators, the subject should be very marketable when it opens in 2022.

As a result, we project an absorption pace of:

19 to 21 units per month

Assuming this absorption pace, we would expect that the subject would attain stabilized occupancy in approximately 12 to 14 months. However, the 9 percent units which offer more affordable product than the 4 percent (all 60 percent AMI) units, should lease at a faster pace.

I. Impact on Existing Market

RPRG does not anticipate that the subject will have an adverse impact on the existing rental market. The overall vacancy rate for the income-restricted rental communities within the market area is very low at 0 percent and overall vacancies are low. The subject's capture rate and penetration rates are reasonable, especially given the fact that there are limited moderate income households in this desirable area due to the dearth of affordable housing options. The capture rate is reflective of a limited pool of market area lower income households rather than any weakness in demand.

We hope you find this analysis helpful in your decision making process.

Handwritten signature of Jerry Levin in black ink.

Jerry Levin
Senior Analyst

Handwritten signature of Robert M. Lefenfeld in black ink.

Robert M. Lefenfeld
Founding Principal



IX. APPENDIX 1 UNDERLYING ASSUMPTIONS AND LIMITING CONDITIONS

In conducting the analysis, we will make the following assumptions, except as otherwise noted in our report:

1. There are no zoning, building, safety, environmental or other federal, state or local laws, regulations or codes which would prohibit or impair the development, marketing or operation of the subject project in the manner contemplated in our report, and the subject project will be developed, marketed and operated in compliance with all applicable laws, regulations and codes.
2. No material changes will occur in (a) any federal, state or local law, regulation or code (including, without limitation, the Internal Revenue Code) affecting the subject project, or (b) any federal, state or local grant, financing or other program which is to be utilized in connection with the subject project.
3. The local, national and international economies will not deteriorate, and there will be no significant changes in interest rates or in rates of inflation or deflation.
4. The subject project will be served by adequate transportation, utilities and governmental facilities.
5. The subject project will not be subjected to any war, energy crisis, embargo, strike, earthquake, flood, fire or other casualty or act of God.
6. The subject project will be on the market at the time and with the product anticipated in our report, and at the price position specified in our report.
7. The subject project will be developed, marketed and operated in a highly professional manner.
8. No projects will be developed which will be in competition with the subject project, except as set forth in our report.
9. There are no existing judgments nor any pending or threatened litigation, which could hinder the development, marketing or operation of the subject project.



The analysis will be subject to the following limiting conditions, except as otherwise noted in our report:

1. The analysis contained in this report necessarily incorporates numerous estimates and assumptions with respect to property performance, general and local business and economic conditions, the absence of material changes in the competitive environment and other matters. Some estimates or assumptions, however, inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material.
2. Our absorption estimates are based on the assumption that the product recommendations set forth in our report will be followed without material deviation.
3. All estimates of future dollar amounts are based on the current value of the dollar, without any allowance for inflation or deflation.
4. We have no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal matters, environmental matters, architectural matters, geologic considerations, such as soils and seismic stability, and civil, mechanical, electrical, structural and other engineering matters.
5. Information, estimates and opinions contained in or referred to in our report, which we have obtained from sources outside of this office, are assumed to be reliable and have not been independently verified.
6. The conclusions and recommendations in our report are subject to these Underlying Assumptions and Limiting Conditions and to any additional assumptions or conditions set forth in the body of our report.



X. APPENDIX 2 RENTAL COMMUNITY PROFILES

Adara Herndon

Multifamily Community Profile

3929 Glen Echo Road
Herndon, VA 20171

Map Ref: FA-5-D04

CommunityType: Market Rate - General

Structure Type: 4-Story Garden

392 Units 4.3% Vacant (17 units vacant) as of 2/21/2019

Opened in 2000



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	35.7%	\$1,497	745	\$2.01	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One/Den	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
Two	48.0%	\$1,903	1,092	\$1.74	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Two/Den	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Three	16.3%	\$2,099	1,306	\$1.61	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Four+	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>

Features	
Standard: Dishwasher; Disposal; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; Carpet	
Select Units: Ceiling Fan; Fireplace; HighCeilings	
Optional(\$): --	
Security: --	
Parking 1: Free Surface Parking Fee: --	Parking 2: Detached Garage Fee: \$150
Property Manager: Avalon Bay Commun Owner: --	

Comments

74 garages detached priced at \$125/mo.
Extra parking spaces are \$35/month
Referred to website for rents & vacancy.

Amenity Fee: \$ 500

Floorplans (Published Rents as of 2/21/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Garden	--	1	1	75	\$1,466	721	\$2.03	Market	2/21/19	4.3%	\$1,497	\$1,903	\$2,099
Garden	--	1	1	2	\$977	721	\$1.36	ADU/ 50%	8/20/18	1.3%	\$1,550	\$1,736	\$2,142
Garden	--	1	1	3	\$1,270	721	\$1.76	ADU/ 70%	10/2/13	2.8%	--	--	--
Garden	--	1	1	60	\$1,530	776	\$1.97	Market	10/20/11	4.1%	--	--	--
Garden	--	2	2	3	\$1,099	1,021	\$1.08	ADU/ 50%					
Garden	--	2	2	3	\$1,428	1,021	\$1.40	ADU/ 70%					
Garden	--	2	2	66	\$1,893	1,021	\$1.85	Market					
Garden	--	2	2	116	\$1,910	1,136	\$1.68	Market					
Garden	--	3	2	62	\$2,096	1,306	\$1.60	Market					
Garden	--	3	2	1	\$1,587	1,306	\$1.22	ADU/ 70%					
Garden	--	3	2	1	\$1,221	1,306	\$.93	ADU/ 50%					

Adjustments to Rent

Incentives:
none

Utilities in Rent: Heat Fuel: Natural Gas
Heat: Cooking: Wtr/Swr:
Hot Water: Electricity: Trash:

Adara Herndon

VA059-002005

Apts at North Point

Multifamily Community Profile

11694 North Point Court
Reston, VA 20194

CommunityType: LIHTC - General
Structure Type: Garden

48 Units 0.0% Vacant (0 units vacant) as of 2/19/2019

Opened in 1997



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
One	25.0%	\$1,073	791	\$1.36	Comm Rm:	Basketball:
One/Den	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
Two	50.0%	\$1,280	967	\$1.32	Centrl Lndry:	Tennis:
Two/Den	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
Three	25.0%	\$1,472	1,137	\$1.29	Elevator:	Volleyball:
Four+	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
					Fitness:	CarWash:
					<input type="checkbox"/>	<input type="checkbox"/>
					Hot Tub:	BusinessCtr:
					<input type="checkbox"/>	<input type="checkbox"/>
					Sauna:	ComputerCtr:
					<input type="checkbox"/>	<input type="checkbox"/>
					Playground:	<input checked="" type="checkbox"/>

Features	
Standard: Dishwasher; Disposal; Microwave; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; Carpet	
Select Units:	--
Optional(\$):	--
Security:	--
Parking 1: Free Surface Parking	Parking 2: --
Fee: --	Fee: --
Property Manager: Quantum RE Mgmt	
Owner: --	

Comments

Waitlist: 1BR-1-3 years; 2BR- 3-6 months; 3BR- 3-6 years

Floorplans (Published Rents as of 2/19/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Garden	--	1	1	12	\$1,048	791	\$1.32	LIHTC/ 60%	2/19/19	0.0%	\$1,073	\$1,280	\$1,472
Garden	--	2	2	24	\$1,250	967	\$1.29	LIHTC/ 60%	8/21/18	0.0%	\$1,073	\$1,280	\$1,472
Garden	--	3	2	12	\$1,437	1,137	\$1.26	LIHTC/ 60%					

Adjustments to Rent

Incentives:

None

Utilities in Rent: Heat Fuel: Electric

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Ashford Meadows

Multifamily Community Profile

2551 Cornelia Road
Herndon, VA 20171

Map Ref: FA-05-C06

CommunityType: Market Rate - General

Structure Type: 4-Story Garden

440 Units

3.9% Vacant (17 units vacant) as of 2/19/2019

Opened in 1997



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	--	\$1,495	896	\$1.67	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One/Den	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
Two	--	\$1,806	1,256	\$1.44	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Two/Den	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Three	--	\$2,109	1,426	\$1.48	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Four+	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
					<input checked="" type="checkbox"/>	<input type="checkbox"/>

Features	
Standard: Dishwasher; Disposal; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; Carpet	
Select Units: Fireplace; HighCeilings; ADA Access	
Optional(\$): --	
Security: --	
Parking 1: Free Surface Parking Fee: --	Parking 2: Detached Garage Fee: \$150
Property Manager: Lincoln Property Owner: --	

Comments

Units have french doors. Valet trash \$35.
Storage units for \$50, \$75 and \$100
picnic/grill area, walking trails surrounding community

Floorplans (Published Rents as of 2/19/2019) (2)									Historic Vacancy & Eff. Rent (1)				
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Jefferson / Garden	--	1	1	--	\$1,611	1,004	\$1.60	Market	2/19/19	3.9%	\$1,495	\$1,806	\$2,109
Ashford / Garden	--	1	1	--	\$1,357	760	\$1.79	Market	8/20/18	3.9%	\$1,625	\$1,968	\$2,414
Ashford Loft / Garden	Loft	1	1	--	\$1,442	923	\$1.56	Market	10/20/11	3.9%	--	--	--
Jefferson Loft / Garden	Loft	2	2	--	\$1,677	1,165	\$1.44	Market	3/30/09	4.3%	--	--	--
Montpelier / Garden	--	2	2	--	\$1,729	1,182	\$1.46	Market					
Shenandoah / Garden	--	2	2	--	\$1,851	1,248	\$1.48	Market					
Montpelier Loft / Garden	Loft	2	2	--	\$1,846	1,428	\$1.29	Market					
Madison / Garden	--	3	2	--	\$1,821	1,298	\$1.40	Market					
Chesterfield / Garden	--	3	3	--	\$1,926	1,400	\$1.38	Market					
Lexington / Garden	--	3	2	--	\$2,475	1,581	\$1.57	Market					

Adjustments to Rent

Incentives:
Daily Pricing: none

Utilities in Rent: Heat Fuel: Natural Gas
Heat: Cooking: Wtr/Swr:
Hot Water: Electricity: Trash:

Ashford Meadows

VA059-001938

Ashton at Dulles Corner

Multifamily Community Profile

13959 Mansarde Avenue
Herndon, VA 20171

Community Type: Market Rate - General
Structure Type: 4-Story Mid Rise

171 Units 6.4% Vacant (11 units vacant) as of 2/22/2019

Opened in 2008



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	52.0%	\$1,593	863	\$1.85	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	35.7%	\$1,982	1,287	\$1.54	Elevator: <input checked="" type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	14.0%	\$2,676	1,585	\$1.69	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Gas Fireplace; Patio/Balcony; HighCeilings; Carpet	
Select Units: --	
Optional(\$): --	
Security: --	
Parking 1: Structured Garage Fee: \$0	Parking 2: Free Surface Parking Fee: --
Property Manager: Greystar Owner: --	

Comments

Stainless steel appliances & granite counters standard.

Unit Mix: 86-1BR 61-2BR 24-3BR

Floorplans (Published Rents as of 2/22/2019) (2)									Historic Vacancy & Eff. Rent (1)				
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Mid Rise - Elevator	Loft	1	1	3	\$2,038	1,066	\$1.91	Market	2/22/19	6.4%	\$1,593	\$1,982	\$2,676
Mid Rise - Elevator	Sunroom	1	1	3	\$1,755	696	\$2.52	Market	8/20/18	1.8%	\$1,670	\$2,053	\$2,849
Mid Rise - Elevator	Sunroom	1	1	3	\$1,611	696	\$2.31	Market	10/20/11	4.1%	--	--	--
Mid Rise - Elevator	--	1	1	5	\$977	696	\$1.40	ADU/ 50%	4/3/09	5.3%	--	--	--
Mid Rise - Elevator	--	1	1	5	\$1,270	696	\$1.82	ADU/ 70%					
Mid Rise - Elevator	--	1	1	38	\$1,630	834	\$1.95	Market					
Mid Rise - Elevator	--	1	1	32	\$1,569	962	\$1.63	Market					
Mid Rise - Elevator	--	2	2	46	\$1,991	1,264	\$1.58	Market					
Mid Rise - Elevator	--	2	2	3	\$1,099	1,264	\$.87	ADU/ 50%					
Mid Rise - Elevator	--	2	2	4	\$1,428	1,264	\$1.13	ADU/ 70%					
Mid Rise - Elevator	Loft	2	2	8	\$2,311	1,439	\$1.61	Market					
Mid Rise - Elevator	--	3	2	17	\$2,757	1,527	\$1.81	Market					
Mid Rise - Elevator	--	3	2	1	\$1,587	1,527	\$1.04	ADU/ 70%					
Mid Rise - Elevator	Loft	3	2	4	\$2,416	1,733	\$1.39	Market					
Mid Rise - Elevator	Loft	3	2	2	\$2,641	1,811	\$1.46	Market					

Adjustments to Rent

Incentives: none

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Ashton at Dulles Corner

VA059-011525

Ashton at Dulles Corner II

Multifamily Community Profile

13959 Mansarde Avenue
Herndon, VA 20171

Community Type: Market Rate - General
Structure Type: 4-Story Mid Rise

282 Units 6.4% Vacant (18 units vacant) as of 2/22/2019

Opened in 2009



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	1.8%	\$1,389	524	\$2.65	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	47.5%	\$1,649	842	\$1.96	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	44.3%	\$2,165	1,356	\$1.60	Elevator: <input checked="" type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	6.4%	\$2,536	1,647	\$1.54	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	--	--	--	--	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	
Features						
Standard: Dishwasher; Disposal; Microwave; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Gas Fireplace; Patio/Balcony; HighCeilings; Carpet						
Select Units: --						
Optional(\$): --						
Security: --						
Parking 1: Structured Garage			Parking 2: Structured Garage			
Fee: \$0			Fee: \$25			
Property Manager: Greystar						
Owner: --						

Comments

SS appl & granite counters standard.

Parking: 1st \$0, 2nd \$25, 3rd \$45

5 Studios, 134 1BR, 143 2BR

Floorplans (Published Rents as of 2/22/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Mid Rise - Elevator	--	Eff	1	5	\$1,366	524	\$2.61	Market	2/22/19	6.4%	\$1,649	\$2,211	--
Mid Rise - Elevator	--	1	1	27	\$1,551	696	\$2.23	Market	8/20/18	1.8%	\$1,728	\$2,204	--
Mid Rise - Elevator	--	1	1	27	\$1,683	742	\$2.27	Market	10/20/11	3.9%	--	--	--
Mid Rise - Elevator	--	1	1	27	\$1,691	834	\$2.03	Market	6/3/11	1.4%	--	--	--
Mid Rise - Elevator	--	1	1	26	\$1,577	949	\$1.66	Market	* Indicates initial lease-up.				
Mid Rise - Elevator	Loft	1	1	27	\$1,619	992	\$1.63	Market					
Mid Rise - Elevator	--	2	2	26	\$1,724	1,122	\$1.54	Market					
Mid Rise - Elevator	--	2	2	26	\$1,721	1,187	\$1.45	Market					
Mid Rise - Elevator	--	2	2	18	\$2,375	1,286	\$1.85	Market	Adjustments to Rent				
Mid Rise - Elevator	Loft	2	2	18	\$2,211	1,382	\$1.60	Market	Incentives: none				
Mid Rise - Elevator	Loft	2	2	19	\$2,336	1,474	\$1.58	Market	Utilities in Rent: Heat Fuel: Natural Gas				
Mid Rise - Elevator	Den	2	2	18	\$2,506	1,647	\$1.52	Market	Heat: <input type="checkbox"/> Cooking: <input type="checkbox"/> Wtr/Swr: <input type="checkbox"/>				
Mid Rise - Elevator	--	2	2	18	\$2,796	1,857	\$1.51	Market	Hot Water: <input type="checkbox"/> Electricity: <input type="checkbox"/> Trash: <input type="checkbox"/>				

Ashton at Dulles Corner II

VA059-012101

Berkdale

Multifamily Community Profile

611 Dulles Park Court
Herndon, VA 20170

Map Ref: FA-05-E02

CommunityType: Market Rate - General

Structure Type: Garden

184 Units 2.7% Vacant (5 units vacant) as of 2/19/2019

Last Major Rehab in 2008 Opened in 1972



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
One	9.2%	\$1,425	599	\$2.38	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input checked="" type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	28.3%	\$1,685	667	\$2.53	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	62.5%	\$1,590	778	\$2.04	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input checked="" type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	
Features						
Standard: Disposal; Central A/C; Hardwood						
Select Units: Ceiling Fan; ADA Access						
Optional(\$): --						
Security: --						
Parking 1: Free Surface Parking			Parking 2: --			
Fee: --			Fee: --			
Property Manager: Gates & Hudson						
Owner: --						

Comments

2008 - interior renovations - floors, appliances, windows

Water not included in rent.

Floorplans (Published Rents as of 2/19/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Garden	--	1	1	17	\$1,515	599	\$2.53	Market	2/19/19	2.7%	\$1,425	\$1,685	\$1,590
Garden	--	2	1	52	\$1,795	667	\$2.69	Market	8/21/18	0.0%	\$1,415	\$1,855	\$2,158
Garden	--	3	1	115	\$1,725	778	\$2.22	Market	8/19/13	0.0%	--	--	--
									9/6/12	1.1%	--	--	--
Adjustments to Rent													
Incentives:													
Daily Pricing: none													
Utilities in Rent: Heat Fuel: Natural Gas													
Heat: <input checked="" type="checkbox"/> Cooking: <input checked="" type="checkbox"/> Wtr/Swr: <input type="checkbox"/>													
Hot Water: <input checked="" type="checkbox"/> Electricity: <input checked="" type="checkbox"/> Trash: <input checked="" type="checkbox"/>													

Berkdale

VA059-001965

Camden Dulles Station

Multifamily Community Profile

2320 Dulles Station Blvd
Herndon, VA 20171

Community Type: Market Rate - General

Structure Type: 4-Story Mid Rise

382 Units 2.1% Vacant (8 units vacant) as of 2/22/2019

Opened in 2008



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	--	\$1,766	813	\$2.17	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One/Den	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Two	--	\$2,203	1,223	\$1.80	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Two/Den	--	--	--	--	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Three	--	\$2,395	1,465	\$1.63	<input type="checkbox"/>	<input type="checkbox"/>
Four+	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
					<input checked="" type="checkbox"/>	<input type="checkbox"/>

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; High Ceilings; Cable TV; Hardwood / Ceramic	
Select Units: --	
Optional(\$): --	
Security: Intercom; Keyed Bldg Entry	
Parking 1: Structured Garage Fee: \$0	Parking 2: Fee for Reserved Fee: \$45
Property Manager: Camden Owner: --	

Comments

Not all floorplans shown.
Mandatory technology package-\$105, Valet trash-\$30
SS appl, laminate flooring in kitchen, foyer, LR standard.

Floorplans (Published Rents as of 2/22/2019) (2)										Historic Vacancy & Eff. Rent (1)			
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Alberta / Mid Rise - Eleva	--	1	1	--	\$1,619	646	\$2.51	Market	2/22/19	2.1%	\$1,269	\$2,203	\$2,395
Boston / Mid Rise - Eleva	--	1	1	--	\$1,779	766	\$2.32	Market	8/20/18	2.1%	\$923	\$772	\$1,060
Bridleton/Signature / Mid	--	1	1	--	\$1,719	781	\$2.20	Market	10/21/11	2.6%	--	--	--
Copenhagen / Mid Rise -	--	1	1	--	\$1,669	812	\$2.06	Market	4/3/09*	42.1%	--	--	--
Brighton/Brisbane / Mid	--	1	1	--	--	865	--	Market	* Indicates initial lease-up.				
Brussels / Mid Rise - Elev	Loft	1	1	--	\$1,919	908	\$2.11	Market					
Barcelona / Mid Rise - El	--	1	1	--	--	912	--	Market					
Georgetown / Mid Rise -	--	2	2	--	\$2,139	1,045	\$2.05	Market					
Melbourne / Mid Rise - El	--	2	2	--	\$1,809	1,151	\$1.57	Market					
Lucia/Monterrey / Mid Ris	--	2	2	--	\$2,009	1,305	\$1.54	Market	Adjustments to Rent Incentives: None Utilities in Rent: Heat Fuel: Electric Heat: <input type="checkbox"/> Cooking: <input type="checkbox"/> Wtr/Swr: <input type="checkbox"/> Hot Water: <input type="checkbox"/> Electricity: <input type="checkbox"/> Trash: <input type="checkbox"/>				
Vienna LiveWork / Mid Ri	--	2	2	--	\$2,939	1,677	\$1.75	Market					
Florence / Mid Rise - Elev	--	2	1	--	\$1,969	938	\$2.10	Market					
New York/Rome / Mid Ris	--	3	2	--	\$2,469	1,427	\$1.73	Market					
Hamilton / Mid Rise - Ele	--	3	2	--	\$2,250	1,503	\$1.50	Market					

Camden Dulles Station

VA059-011526

Coppermine Run

Multifamily Community Profile

2450 Masons Ferry Drive
Herndon, VA 20171

Map Ref: FA-05-D05

CommunityType: LIHTC - General
Structure Type: Garden

288 Units 0.0% Vacant (0 units vacant) as of 2/21/2019

Opened in 1996



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	--	--	--	--	Comm Rm: <input type="checkbox"/>	Basketball: <input checked="" type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input checked="" type="checkbox"/>
Two	75.0%	\$1,423	926	\$1.54	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	25.0%	\$1,609	1,178	\$1.37	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; In Unit Laundry (Full Size); Patio/Balcony; Carpet	
Select Units: Ceiling Fan; ADA Access	
Optional(\$): --	
Security: --	
Parking 1: Free Surface Parking Fee: --	Parking 2: -- Fee: --
Property Manager: CRC Communities Owner: --	

Comments

Previously called The Fields of Herndon.
No wait list. First come, first serve.

Floorplans (Published Rents as of 2/21/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Turquoise / Garden	--	2	2	72	\$1,403	1,010	\$1.39	LIHTC/ 60%	2/21/19	0.0%	--	\$1,423	\$1,609
Garnet / Garden	--	2	1	72	\$1,403	877	\$1.60	LIHTC/ 60%	8/21/18	0.0%	--	\$1,424	\$1,429
Topaz / Garden	--	2	1.5	72	\$1,403	890	\$1.58	LIHTC/ 60%	3/30/09	9.0%	--	--	--
Amethyst / Garden	--	3	2	72	\$1,584	1,178	\$1.34	LIHTC/ 60%					

Adjustments to Rent

Incentives:

None

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Courts at Dulles

Multifamily Community Profile

13800 Jefferson Park Drive
Herndon, 20170

Map Ref: FA-5-B05

CommunityType: Market Rate - General

Structure Type: 0-Story Garden

411 Units 2.2% Vacant (9 units vacant) as of 2/22/2019

Opened in 2000

Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	27.3%	\$1,568	724	\$2.16	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	20.0%	\$1,669	906	\$1.84	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	43.6%	\$2,034	1,124	\$1.81	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	9.2%	\$2,194	1,306	\$1.68	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	
Features						
Standard: Dishwasher; Disposal; Microwave; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; HighCeilings; Carpet / Hardwood						
Select Units: Fireplace						
Optional(\$): --						
Security: --						
Parking 1: Free Surface Parking Fee: \$0			Parking 2: Detached Garage Fee: \$130			
Property Manager: UDR Owner: --						

Comments

Previously called Oakwood Dulles.

Attached garages \$150

Unit Mix: 196-1BR, 178-2 BR, 37-3BR

Floorplans (Published Rents as of 2/22/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
	--	1	1	1	\$977	650	\$1.50	ADU/ 50%	2/22/19	2.2%	\$1,610	\$2,034	\$2,194
	--	1	1	28	\$1,514	650	\$2.33	Market	8/21/18	5.6%	\$1,602	\$1,940	\$2,172
	--	1	1	55	\$1,554	725	\$2.14	Market					
	--	1	1	28	\$1,609	800	\$2.01	Market					
	Den	1	1	28	\$1,573	830	\$1.90	Market					
	Den	1	1	54	\$1,696	945	\$1.79	Market					
	--	2	2	30	\$1,972	1,040	\$1.90	Market					
	--	2	2	60	\$2,088	1,100	\$1.90	Market					
	--	2	2	88	\$1,985	1,173	\$1.69	Market					
	--	2	1	1	\$1,428	830	\$1.72	ADU/ 70%					
	--	3	2	1	\$1,587	1,240	\$1.28	ADU/ 70%					
	--	3	2	37	\$2,185	1,308	\$1.67	Market					
Adjustments to Rent													
Incentives: None													
Utilities in Rent: Heat Fuel: gas													
Heat: <input type="checkbox"/> Cooking: <input type="checkbox"/> Wtr/Swr: <input type="checkbox"/>													
Hot Water: <input type="checkbox"/> Electricity: <input type="checkbox"/> Trash: <input checked="" type="checkbox"/>													

Courts at Dulles

VA600-004818

Dulles Center

Multifamily Community Profile

2410 Little Current Drive
Herndon, VA 20170

Map Ref: FA-05-B03

CommunityType: LIHTC - General

Structure Type: Garden

272 Units 0.0% Vacant (0 units vacant) as of 2/21/2019

Opened in 1996



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	--	--	--	--	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input checked="" type="checkbox"/>
Two	50.0%	\$1,470	1,009	\$1.46	Elevator: <input type="checkbox"/>	Volleyball: <input checked="" type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	50.0%	\$1,692	1,209	\$1.40	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	
Features						
Standard: Dishwasher; carpet						
Select Units: Ceiling Fan						
Optional(\$): --						
Security: --						
Parking 1: Free Surface Parking			Parking 2: --			
Fee: --			Fee: --			
Property Manager: Van Metre						
Owner: --						

Comments

Affordable Dwelling Units 50% & LIHTC 60%AMI

ADU-resident responsible for electric & water. Tax Credit-resident responsible for electric only.

WL: 2BR-1 year; 3BR-3 years

Floorplans (Published Rents as of 2/21/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Garden	--	2	2	127	\$1,496	1,009	\$1.48	LIHTC/ 60%	2/21/19	0.0%	--	\$1,470	\$1,692
Garden	--	2	2	9	\$1,099	1,009	\$1.09	ADU/ 50%	8/20/18	0.0%	--	\$1,470	\$1,692
Garden	--	3	2	127	\$1,725	1,209	\$1.43	LIHTC/ 60%	3/30/09	0.7%	--	--	--
Garden	--	3	2	9	\$1,221	1,209	\$1.01	ADU/ 50%					

Adjustments to Rent

Incentives:

None

Utilities in Rent: Heat Fuel: Electric

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Dulles Center

VA059-001953

Dulles Greene

Multifamily Community Profile

2150 Astoria Circle
Herndon, VA 20170

Map Ref: FA-05-C02

Community Type: Market Rate - General

Structure Type: 4-Story Garden/TH

806 Units

4.2% Vacant (34 units vacant) as of 2/21/2019

Opened in 1998



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	9.9%	\$1,550	750	\$2.07	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input checked="" type="checkbox"/>
One/Den	22.2%	\$1,747	995	\$1.76	Centrl Lndry: <input type="checkbox"/>	Tennis: <input checked="" type="checkbox"/>
Two	46.0%	\$1,772	1,163	\$1.52	Elevator: <input type="checkbox"/>	Volleyball: <input checked="" type="checkbox"/>
Two/Den	6.2%	\$1,807	1,360	\$1.33	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	15.6%	\$2,002	1,327	\$1.51	Hot Tub: <input checked="" type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input checked="" type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; Carpet / Vinyl/Linoleum	
Select Units: Fireplace; HighCeilings; ADA Access	
Optional(\$): --	
Security: Unit Alarms; Fence; Gated Entry	
Parking 1: Free Surface Parking Fee: \$0	Parking 2: Detached Garage Fee: \$115
Property Manager: Harbor Group Mgmt Owner: --	

Comments

Attached garages available with Astoria, Biltmore, Dorchester, Carlyle, Grande for \$100-150 more than listed rent.

Garages \$115-\$170. Storage-\$35-\$75

Garden tubs standard. Some units have vaulted ceilings.

Amenity Fee: \$ 250

Floorplans (Published Rents as of 2/21/2019) (2)										Historic Vacancy & Eff. Rent (1)			
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Astoria / Garden	--	1	1	80	\$1,675	750	\$2.23	Market	2/21/19	4.2%	\$1,686	\$1,776	\$2,002
Biltmore / Garden	Den	1	1	179	\$1,890	995	\$1.90	Market	8/21/18	5.2%	\$1,614	\$1,720	\$2,059
Dorchester / Garden	--	2	2	30	\$1,965	1,095	\$1.79	Market	9/3/13	2.2%	--	--	--
Carlton / Garden	--	2	2	121	\$1,870	1,125	\$1.66	Market	8/26/13	--	--	--	--
Fairmount / Townhouse	!l, private en	2	2	60	\$1,885	1,165	\$1.62	Market					
Carlyle / Garden	Garage	2	2	100	\$1,915	1,190	\$1.61	Market					
Essex / Townhouse	!l, private en	2	2	60	\$1,990	1,225	\$1.62	Market					
Carlyle LOFT / Garden	Den	2	2	50	\$1,950	1,360	\$1.43	Market					
Grande / Garden	--	3	2	30	\$2,015	1,190	\$1.69	Market					
Greenbriar / Garden	--	3	2	96	\$2,200	1,370	\$1.61	Market					

Adjustments to Rent

Incentives:
1 month free

Utilities in Rent: Heat Fuel: Natural Gas
Heat: Cooking: Wtr/Swr:
Hot Water: Electricity: Trash:

Dulles Greene

VA059-001937

Icon at Dulles

Multifamily Community Profile

2341 Dulles Station Road
Herndon, VA 20171

Community Type: Market Rate - General

Structure Type: 5-Story Mid Rise

457 Units 1.5% Vacant (7 units vacant) as of 2/22/2019

Opened in 2013



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	6.6%	\$1,465	699	\$2.10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	26.9%	\$1,770	799	\$2.22	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One/Den	13.1%	\$1,743	995	\$1.75	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Two	34.6%	\$1,914	1,112	\$1.72	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Two/Den	4.8%	\$2,291	1,308	\$1.75	<input type="checkbox"/>	<input type="checkbox"/>
Three	19.7%	\$2,401	1,417	\$1.69	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Four+	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>

Features	
Standard: Dishwasher; Disposal; Microwave; Ceiling Fan; Central A/C; Patio/Balcony; HighCeilings; Hardwood	
Select Units: --	
Optional(\$): --	
Security: --	
Parking 1: Structured Garage Fee: \$0	Parking 2: -- Fee: --
Property Manager: -- Owner: --	

Comments

SS appl, Granite CT, Maple cabinets.

Walk-in showers, track lighting, gourmet kitchen

Courtyard, grilling area, demo kitchen, electric car charging, yoga station, billiards room, media room

Floorplans (Published Rents as of 2/22/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Mid Rise - Elevator	--	Eff	1	15	\$1,441	662	\$2.18	Market	2/22/19	1.5%	\$1,761	\$1,960	\$2,401
Mid Rise - Elevator	--	Eff	1	15	\$1,442	736	\$1.96	Market	8/21/18	3.9%	\$1,825	\$2,062	\$2,551
Mid Rise - Elevator	Den	1	1	30	\$1,730	1,023	\$1.69	Market					
Mid Rise - Elevator	--	1	1	61	\$1,675	740	\$2.27	Market					
Mid Rise - Elevator	--	1	1	62	\$1,814	858	\$2.12	Market					
Mid Rise - Elevator	Den	1	1	30	\$1,705	966	\$1.77	Market					
Mid Rise - Elevator	--	2	1	23	\$1,707	1,017	\$1.68	Market					
Mid Rise - Elevator	--	2	2	23	\$1,824	1,078	\$1.69	Market					
Mid Rise - Elevator	--	2	2	23	\$1,907	1,122	\$1.70	Market					
Mid Rise - Elevator	--	2	2	23	\$1,907	1,142	\$1.67	Market					
Mid Rise - Elevator	--	2	2	23	\$2,018	1,236	\$1.63	Market					
Mid Rise - Elevator	Loft	2	2	20	\$2,132	1,257	\$1.70	Market					
Mid Rise - Elevator	Den	2	2	22	\$2,261	1,308	\$1.73	Market					
Mid Rise - Elevator	--	2	1	23	\$1,723	949	\$1.82	Market					
Mid Rise - Elevator	--	3	2	45	\$2,255	1,352	\$1.67	Market					
Mid Rise - Elevator	--	3	2	45	\$2,477	1,482	\$1.67	Market					

Adjustments to Rent	
Incentives: None	
Utilities in Rent:	Heat Fuel: Electric
Heat: <input type="checkbox"/>	Cooking: <input type="checkbox"/> Wtr/Swr: <input type="checkbox"/>
Hot Water: <input type="checkbox"/>	Electricity: <input type="checkbox"/> Trash: <input type="checkbox"/>

International

Multifamily Community Profile

831 Locust Street
Herndon, VA 20170

Map Ref: FA-05-F01

CommunityType: Market Rate - General

Structure Type: Garden

90 Units 1.1% Vacant (1 units vacant) as of 2/22/2019

Last Major Rehab in 2003 Opened in 1959



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
One	40.0%	\$1,183	700	\$1.69	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input checked="" type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	54.4%	\$1,425	800	\$1.78	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	5.6%	\$1,735	1,000	\$1.74	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	
Features						
Standard: Disposal; In Unit Laundry (Hook-ups); Patio/Balcony; Hardwood						
Select Units: Ceiling Fan; ADA Access						
Optional(\$): --						
Security: --						
Parking 1: Free Surface Parking			Parking 2: --			
Fee: --			Fee: --			
Property Manager: Cassow						
Owner: --						

Comments

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Floorplans (Published Rents as of 2/22/2019) (2)										Historic Vacancy & Eff. Rent (1)				
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$	
Garden	--	1	1	36	\$1,395	700	\$1.99	Market	2/22/19	1.1%	\$1,183	\$1,425	\$1,735	
Garden	--	2	1	49	\$1,685	800	\$2.11	Market	8/20/18	2.2%	\$1,183	\$1,407	\$1,589	
Garden	--	3	1.5	5	\$1,895	1,000	\$1.90	Market	8/20/13	5.6%	--	--	--	
									9/6/12	3.3%	--	--	--	
Adjustments to Rent														
Incentives: 1 mo free w/ 13 mo lease														
Utilities in Rent: Heat Fuel: Natural Gas														
Heat: <input checked="" type="checkbox"/> Cooking: <input checked="" type="checkbox"/> Wtr/Swr: <input checked="" type="checkbox"/>														
Hot Water: <input checked="" type="checkbox"/> Electricity: <input checked="" type="checkbox"/> Trash: <input checked="" type="checkbox"/>														

Mark at Dulles Station

Multifamily Community Profile

2323 Dulles Station Blvd
Herndon, VA 20171

CommunityType: Market Rate - General
Structure Type: Mid Rise

119 Units 4.2% Vacant (5 units vacant) as of 2/22/2019

Opened in 2007



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	27.7%	\$1,595	772	\$2.07	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	26.9%	\$1,725	958	\$1.80	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	42.9%	\$1,939	1,140	\$1.70	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	2.5%	\$2,395	1,556	\$1.54	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input checked="" type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Carpet	
Select Units: --	
Optional(\$): --	
Security: Keyed Bldg Entry	
Parking 1: Free Surface Parking Fee: --	Parking 2: Structured Garage Fee: \$0
Property Manager: BET Investments Owner: --	

Comments

Also has 50 furnished units that are managed like a hotel. 1 Free parking space in garage.
Previously called Ave Dulles

Floorplans (Published Rents as of 2/22/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Mid Rise - Elevator	--	1	1	33	\$1,595	772	\$2.07	Market	2/22/19	4.2%	\$1,659	\$1,939	\$2,395
Mid Rise - Elevator	Den	1	1	32	\$1,725	958	\$1.80	Market	8/21/18	7.6%	\$1,714	\$1,909	\$2,395
Mid Rise - Elevator	--	2	1	17	\$1,819	1,032	\$1.76	Market	10/21/11	3.4%	--	--	--
Mid Rise - Elevator	--	2	2	17	\$2,149	1,407	\$1.53	Market	4/3/09	0.0%	--	--	--
Mid Rise - Elevator	--	2	2	17	\$1,849	980	\$1.89	Market					
Mid Rise - Elevator	--	3	2	3	\$2,395	1,556	\$1.54	Market					

Adjustments to Rent

Incentives:

None

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Mark at Dulles Station

VA059-012099

Monroe Place

Multifamily Community Profile

2300 Woodland Crossing Drive
Herndon, VA 20171

Community Type: Market Rate - General

Structure Type: 4-Story Mid Rise

205 Units 3.4% Vacant (7 units vacant) as of 2/21/2019

Opened in 2008



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	41.5%	\$1,575	793	\$1.99	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	22.9%	\$1,785	990	\$1.80	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	32.7%	\$1,914	951	\$2.01	Elevator: <input checked="" type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	2.9%	\$2,180	1,214	\$1.80	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	--	--	--	--	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; In Unit Laundry (Full Size); Central A/C; High Ceilings; Carpet / Ceramic	
Select Units: Patio/Balcony	
Optional(\$): --	
Security: Intercom	
Parking 1: Free Surface Parking Fee: --	Parking 2: Structured Garage Fee: \$50
Property Manager: Gates Hudson Owner: --	

Comments

Valet trash-\$35

Floorplans (Published Rents as of 2/21/2019) (2)										Historic Vacancy & Eff. Rent (1)			
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Mid Rise - Elevator	Den	1	1	30	\$1,750	1,001	\$1.75	Market	2/21/19	3.4%	\$1,650	\$1,936	--
DEN & LOFT / Mid Rise -	Den	1	1	4	\$1,870	1,050	\$1.78	Market	8/20/18	0.5%	\$1,664	\$2,003	--
Mid Rise - Elevator	--	1	1	2	\$977	539	\$1.81	ADU/ 50%	8/19/13	2.0%	--	--	--
Mid Rise - Elevator	--	1	1	3	\$1,270	628	\$2.02	ADU/ 70%	9/7/12	3.9%	--	--	--
Mid Rise - Elevator	--	1	1	80	\$1,575	806	\$1.96	Market	* Indicates initial lease-up.				
LOFT / Mid Rise - Elevator	Den	1	1	13	\$1,750	947	\$1.85	Market					
Mid Rise - Elevator	--	2	2	23	\$2,100	1,079	\$1.95	Market					
Mid Rise - Elevator	--	2	2.5	4	\$1,985	1,123	\$1.77	Market					
Mid Rise - Elevator	Den	2	2	6	\$2,150	1,214	\$1.77	Market					
Mid Rise - Elevator	--	2	1	35	\$1,814	845	\$2.15	Market	Incentives:				
Mid Rise - Elevator	--	2	2	2	\$1,099	940	\$1.17	ADU/ 50%	Daily Pricing: none				
Mid Rise - Elevator	--	2	2	3	\$1,428	982	\$1.45	ADU/ 70%	Utilities in Rent: Heat Fuel: Gas				
									Heat: <input type="checkbox"/> Cooking: <input type="checkbox"/> Wtr/Swr: <input type="checkbox"/>				
									Hot Water: <input type="checkbox"/> Electricity: <input type="checkbox"/> Trash: <input type="checkbox"/>				

Monroe Place

VA059-011527

Park Avenue

Multifamily Community Profile

901 Park Avenue
Herndon, VA 20170

Map Ref: FA-01-H03

CommunityType: Market Rate - General

Structure Type: Garden

44 Units 0.0% Vacant (0 units vacant) as of 2/21/2019

Opened in 1965

Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
One	--	--	--	--	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input checked="" type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	100.0%	\$1,415	650	\$2.18	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	--	--	--	--	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	

Features	
Standard: Hardwood	
Select Units: Ceiling Fan; ADA Access	
Optional(\$): --	
Security: --	
Parking 1: Free Surface Parking	Parking 2: --
Fee: --	Fee: --
Property Manager: Privately Managed	
Owner: --	

Comments

No vacancies in over a year.

Floorplans (Published Rents as of 2/21/2019) (2)										Historic Vacancy & Eff. Rent (1)				
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$	
Garden	--	2	1	44	\$1,500	650	\$2.31	Market	2/21/19	0.0%	--	--	--	
									8/20/18	0.0%	--	\$1,415	--	
									8/19/13	0.0%	--	--	--	
									9/10/12	0.0%	--	--	--	

Adjustments to Rent	
Incentives: None	
Utilities in Rent:	Heat Fuel: Natural Gas
Heat: <input checked="" type="checkbox"/>	Cooking: <input checked="" type="checkbox"/> Wtr/Swr: <input checked="" type="checkbox"/>
Hot Water: <input checked="" type="checkbox"/>	Electricity: <input type="checkbox"/> Trash: <input checked="" type="checkbox"/>

Parkridge Gardens

Multifamily Community Profile

560 Florida Avenue
Herndon, VA 20170

Map Ref: FA-05-F03

CommunityType: Market Rate - General

Structure Type: Garden/TH

144 Units 4.2% Vacant (6 units vacant) as of 2/19/2019

Opened in 1964



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One	50.0%	\$1,541	675	\$2.28	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	4.2%	\$1,720	792	\$2.17	Centrl Lndry: <input checked="" type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	37.5%	\$1,825	862	\$2.12	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	8.3%	\$2,230	1,266	\$1.76	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input checked="" type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	
Features						
Standard: Dishwasher; Disposal; Microwave; Central A/C; Patio/Balcony; Carpet						
Select Units: Ceiling Fan; In Unit Laundry; ADA Access						
Optional(\$): --						
Security: --						
Parking 1: Free Surface Parking			Parking 2: --			
Fee: --			Fee: --			
Property Manager: Promark Partners, LL						
Owner: --						

Comments

Phase I 1964, Phase II 1989

All tenants have free access to Herndon Community Center 1 mile northwest for amenities.

Floorplans (Published Rents as of 2/19/2019) (2)										Historic Vacancy & Eff. Rent (1)			
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
A / Garden	--	1	1	30	\$1,405	596	\$2.36	Market	2/19/19	4.2%	\$1,555	\$1,825	\$2,230
C-w/d / Garden	--	1	1	42	\$1,595	732	\$2.18	Market	8/20/18	0.7%	\$1,511	\$1,775	\$2,440
B-w/d / Garden	Den	1	1	6	\$1,695	792	\$2.14	Market	8/20/13	0.7%	--	--	--
D / Garden	--	2	1	54	\$1,795	862	\$2.08	Market	9/7/12	1.4%	--	--	--
E-w/d / Townhouse	--	3	1.5	12	\$2,195	1,266	\$1.73	Market					
Adjustments to Rent													
Incentives: None													
Utilities in Rent: Heat Fuel: Electric													
Heat: <input type="checkbox"/>				Cooking: <input type="checkbox"/>				Wtr/Swr: <input type="checkbox"/>					
Hot Water: <input type="checkbox"/>				Electricity: <input type="checkbox"/>				Trash: <input type="checkbox"/>					

Parkridge Gardens

VA059-001961

Point at Herndon, The

Multifamily Community Profile

13161 Fox Hunt Lane
Herndon, VA 20171

Community Type: Market Rate - General

Structure Type: 4-Story Garden

244 Units 6.1% Vacant (15 units vacant) as of 2/22/2019

Opened in 2004



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	5.3%	\$1,433	588	\$2.44	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	37.7%	\$1,676	773	\$2.17	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	9.8%	\$1,667	964	\$1.73	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	34.4%	\$2,090	1,059	\$1.97	Elevator: <input checked="" type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	13.1%	\$1,997	1,232	\$1.62	Hot Tub: <input checked="" type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input checked="" type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; HighCeilings	
Select Units: Fireplace	
Optional(\$): --	
Security: --	
Parking 1: Structured Garage Fee: \$0	Parking 2: Structured Garage Fee: \$70
Property Manager: Panco Mgmt Owner: KSI Services	

Comments

Previously called Metropolitan of Fairfax. Media Room, Rock Climbing Wall, Billiards, Cyber Café, Verizon FIOs.

Crown moulding & garden tubs standard

1 parking space is free, additional spaces are \$70 per month; uncovered special \$25(Reg.\$50)

Floorplans (Published Rents as of 2/22/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Garden	--	Eff	1	1	\$1,011	588	\$1.72	ADU/ 70%	2/22/19	6.1%	\$1,674	\$2,090	\$1,997
Garden	--	Eff	1	11	\$1,508	588	\$2.56	Market	8/20/18	0.8%	\$1,724	\$1,782	\$1,827
Garden	--	Eff	1	1	\$855	588	\$1.45	ADU/ 50%	10/21/11	2.9%	--	--	--
Garden	--	1	1	5	\$977	742	\$1.32	ADU/ 50%	6/2/11	0.8%	--	--	--
Garden	--	1	1	5	\$1,270	742	\$1.71	ADU/ 70%					
Garden	--	1	1	59	\$1,812	742	\$2.44	Market					
Garden	--	1	1	4	\$1,622	802	\$2.02	Market					
Loft / Garden	Loft	1	1	19	\$1,487	881	\$1.69	Market					
Den / Garden	Den	1	1	24	\$1,652	964	\$1.71	Market					
Garden	--	2	2	62	\$2,260	1,059	\$2.13	Market					
Garden	--	2	2	5	\$1,428	1,059	\$1.35	ADU/ 70%					
Garden	--	2	2	5	\$1,099	1,059	\$1.04	ADU/ 50%					
Garden	--	2	2	6	\$1,848	1,145	\$1.61	Market					
Garden	--	2	2	6	\$1,668	966	\$1.73	Market					
Garden	Den	3	2	32	\$1,972	1,232	\$1.60	Market					

Adjustments to Rent

Incentives:
Daily Pricing: none

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:
Hot Water: Electricity: Trash:

Point at Herndon, The

VA059-008958

Pointe at Dulles, The

Multifamily Community Profile

13690 Legacy Circle
Herndon, VA 20171

Map Ref: FA-38-J05

Community Type: Market Rate - General

Structure Type: 4-Story Garden/TH

328 Units 2.4% Vacant (8 units vacant) as of 2/21/2019

Opened in 1999



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	\$1,484	535	\$2.77	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	0.9%	\$1,100	783	\$1.40	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One/Den	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
Two	3.0%	\$1,294	1,132	\$1.14	<input type="checkbox"/>	<input type="checkbox"/>
Two/Den	--	\$1,812	1,002	\$1.81	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Three	0.9%	\$1,378	1,131	\$1.22	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Four+	--	--	--	--	<input type="checkbox"/>	<input type="checkbox"/>
					Playground:	<input checked="" type="checkbox"/>

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; Carpet / Vinyl/Linoleum	
Select Units: Fireplace; HighCeilings	
Optional(\$): --	
Security: Unit Alarms; Gated Entry; Patrol	
Parking 1: Free Surface Parking Fee: --	Parking 2: -- Fee: --
Property Manager: Penco Owner: --	

Comments

Storage \$35-\$75
Valet trash-\$25

Floorplans (Published Rents as of 2/21/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Efficiency / Garden	--	Eff	1	--	\$1,461	535	\$2.73	Market	2/21/19	2.4%	\$1,100	\$1,294	\$1,378
Alexander/Avonleigh / Ga	--	1	1	--	\$1,515	739	\$2.05	Market	8/20/18	5.8%	\$1,100	\$1,294	\$1,378
Avonleigh / Garden	--	1	1	2	\$977	783	\$1.25	ADU/ 50%	10/21/11	3.0%	--	--	--
Avonleigh / Garden	--	1	1	1	\$1,270	783	\$1.62	ADU/ 70%	4/1/09	2.1%	--	--	--
Abingdon/Ashbury / Gard	Loft	1	1	--	\$1,727	940	\$1.84	Market					
Bishop / Garden	Den	2	1	--	\$1,782	1,002	\$1.78	Market					
Barrington / Garden	--	2	2	5	\$1,099	1,132	\$0.97	ADU/ 50%					
Barrington / Garden	--	2	2	5	\$1,428	1,132	\$1.26	ADU/ 70%					
Barrington / Garden	--	2	2	--	\$1,675	1,132	\$1.48	Market					
Thorton/Trecastle / Town	Garage	2	2	--	\$1,954	1,301	\$1.50	Market					
Beacon / Garden	Garage	2	2	--	\$1,846	1,303	\$1.42	Market					
Bainbridge/Talbot / Gard	--	2	2	--	\$2,025	1,332	\$1.52	Market					
Baldwin / Garden	--	2	1	--	\$1,607	893	\$1.80	Market					
Cambridge / Garden	--	3	1	2	\$1,221	1,131	\$1.08	ADU/ 50%					
Cambridge / Garden	--	3	1	1	\$1,587	1,131	\$1.40	ADU/ 70%					
Cambridge / Garden	--	3	1	--	\$1,729	1,131	\$1.53	Market					
Coventry / Garden	--	3	2	--	\$1,769	1,362	\$1.30	Market					
Carlisle / Garden	Loft	3	2	--	\$1,870	1,425	\$1.31	Market					

Adjustments to Rent

Incentives: none

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Pointe at McNair Farms, The

Multifamily Community Profile

2511 Farmcrest Drive
Herndon, VA 20171

Map Ref: FA-05-C05

Community Type: Market Rate - General

Structure Type: Garden

283 Units 2.8% Vacant (8 units vacant) as of 2/21/2019

Opened in 1990



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	62.2%	\$1,533	655	\$2.34	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	8.8%	\$1,734	843	\$2.06	Centrl Lndry: <input type="checkbox"/>	Tennis: <input checked="" type="checkbox"/>
Two	29.0%	\$1,953	1,045	\$1.87	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	--	--	--	--	Hot Tub: <input checked="" type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input checked="" type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; Carpet	
Select Units: Fireplace; HighCeilings; ADA Access	
Optional(\$): --	
Security: Unit Alarms	
Parking 1: Free Surface Parking Fee: --	Parking 2: Fee for Reserved Fee: \$50
Property Manager: Penco Owner: --	

Comments

Trash-\$12

Floorplans (Published Rents as of 2/21/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Aspen / Garden	--	1	1	85	\$1,360	585	\$2.32	Market	2/21/19	2.8%	\$1,558	\$1,953	--
Birch / Garden	--	1	1	91	\$1,647	721	\$2.28	Market	8/20/18	2.1%	\$1,458	\$1,826	--
Chestnut / Garden	Den	1	1	25	\$1,709	843	\$2.03	Market	10/21/11	6.0%	--	--	--
Evergreen / Garden	--	2	2	59	\$1,873	1,076	\$1.74	Market	3/30/09	7.1%	--	--	--
Dogwood / Garden	--	2	2	23	\$2,051	967	\$2.12	Market					

Adjustments to Rent

Incentives:

none

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Station on Silver

Multifamily Community Profile

2340 Carta Way
Herndon, VA 20171

Community Type: Market Rate - General
Structure Type: 6-Story Mid Rise

400 Units 10.8% Vacant (43 units vacant) as of 2/21/2019

Opened in 2017



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	\$1,569	588	\$2.67	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	--	\$1,715	763	\$2.25	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	--	\$2,230	1,091	\$2.04	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	--	--	--	--	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; HighCeilings; Carpet / Hardwood	
Select Units:	--
Optional(\$):	--
Security:	--
Parking 1: Structured Garage Fee: \$35	Parking 2: 2nd Car Fee: \$50
Property Manager: Greystar Owner: --	

Comments

Quartz counters, SS appliances, upgraded cabinets, gourmet kitchen, upscale baths.

Cyber café, yoga studio, fire pit, rooftop terrace, courtyard w/grilling area.

Unit Mix: Eff-30 1BR-240 2BR-130. Amenity fee is 1 time.

Amenity Fee: \$ 500

Floorplans (Published Rents as of 2/21/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Mid Rise - Elevator	--	Eff	1	--	\$1,429	551	\$2.59	Market	2/21/19*	10.8%	\$1,715	\$2,230	--
Mid Rise - Elevator	--	Eff	1	--	\$1,665	585	\$2.85	Market	8/21/18*	40.0%	\$1,596	\$2,120	--
Mid Rise - Elevator	--	Eff	1	--	\$1,533	603	\$2.54	Market	* Indicates initial lease-up.				
Mid Rise - Elevator	--	Eff	1	--	\$1,558	612	\$2.55	Market					
Mid Rise - Elevator	--	1	1	--	\$1,703	660	\$2.58	Market					
Mid Rise - Elevator	--	1	1	--	\$1,636	740	\$2.21	Market					
Mid Rise - Elevator	--	1	1	--	\$1,597	770	\$2.07	Market					
Mid Rise - Elevator	--	1	1	--	\$1,737	789	\$2.20	Market					
Mid Rise - Elevator	--	1	1	--	\$1,778	855	\$2.08	Market					
Mid Rise - Elevator	--	2	2	--	\$1,999	1,026	\$1.95	Market	Incentives:				
Mid Rise - Elevator	--	2	2	--	\$2,286	1,062	\$2.15	Market	Daily Pricing: none				
Mid Rise - Elevator	--	2	2	--	\$2,134	1,083	\$1.97	Market	Utilities in Rent: Heat Fuel:				
Mid Rise - Elevator	--	2	2	--	\$2,224	1,130	\$1.97	Market	Heat: <input type="checkbox"/> Cooking: <input type="checkbox"/> Wtr/Swr: <input type="checkbox"/>				
Mid Rise - Elevator	--	2	2	--	\$2,358	1,154	\$2.04	Market	Hot Water: <input type="checkbox"/> Electricity: <input type="checkbox"/> Trash: <input type="checkbox"/>				

Adjustments to Rent

Station on Silver

VA600-028990

Stuart Woods

Multifamily Community Profile

140A Laurel Way
Herndon, VA 20170

Map Ref: FA-05-K01

CommunityType: Market Rate - General

Structure Type: Garden

450 Units 3.3% Vacant (15 units vacant) as of 2/19/2019

Last Major Rehab in 2006 Opened in 1972



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	50.0%	\$1,496	895	\$1.67	Comm Rm: <input checked="" type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input checked="" type="checkbox"/>
Two	50.0%	\$1,655	1,032	\$1.60	Elevator: <input type="checkbox"/>	Volleyball: <input checked="" type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	--	--	--	--	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; Carpet	
Select Units: Ceiling Fan; ADA Access	
Optional(\$): --	
Security: --	
Parking 1: Free Surface Parking Fee: --	Parking 2: Fee for Reserved Fee: \$35
Property Manager: AJ Dwoskin Owner: --	

Comments

--

Floorplans (Published Rents as of 2/19/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Aspen / Garden	--	1	1	120	\$1,543	853	\$1.81	Market	2/19/19	3.3%	\$1,496	\$1,655	--
Cedar / Garden	--	1	1	105	\$1,588	943	\$1.68	Market	8/20/18	0.0%	\$1,570	\$1,708	--
Elm / Garden	--	2	2	105	\$1,847	1,055	\$1.75	Market	8/19/13	4.0%	--	--	--
Dogwood / Garden	--	2	1	60	\$1,637	1,055	\$1.55	Market	9/7/12	15.1%	--	--	--
Bayberry / Garden	--	2	1	60	\$1,573	967	\$1.63	Market					

Adjustments to Rent

Incentives:

\$1000 off 1st month

Utilities in Rent: Heat Fuel: Electric

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Stuart Woods

VA059-001960

Townes at Herndon Center, Th

Multifamily Community Profile

640 Center Street
Herndon, VA 20170

CommunityType: Market Rate - General

Structure Type: 3-Story Townhouse

215 Units 6.5% Vacant (14 units vacant) as of 2/19/2019

Last Major Rehab in 2013 Opened in 2001



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	--	--	--	--	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	74.9%	\$2,033	1,272	\$1.60	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input checked="" type="checkbox"/>
Three	25.1%	\$2,291	1,427	\$1.61	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Patio/Balcony; HighCeilings	
Select Units: --	
Optional(\$): --	
Security: Unit Alarms; Gated Entry	
Parking 1: Free Surface Parking Fee: --	Parking 2: -- Fee: --
Property Manager: Hampshire Assets Owner: --	

Comments

Renovations on kitchens, baths, & adding hardwood flr to 2nd floor units.

Partial renovations & partial classic units as of 8/20/18.

Trash-\$19

Floorplans (Published Rents as of 2/19/2019) (2)										Historic Vacancy & Eff. Rent (1)			
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Amelia / Townhouse	--	2	2	113	\$1,990	1,264	\$1.57	Market	2/19/19	6.5%	--	\$2,033	\$2,291
Caroline / Townhouse	--	2	2	24	\$2,075	1,292	\$1.61	Market	8/20/18	3.3%	--	\$1,914	\$2,023
Essex / Townhouse	--	2	2	24	\$1,990	1,292	\$1.54	Market	8/21/13	8.4%	--	--	--
Madison / Townhouse	--	3	2.5	35	\$2,170	1,411	\$1.54	Market	9/7/12	7.4%	--	--	--
Shenandoah / Townhous	--	3	3	19	\$2,415	1,457	\$1.66	Market					

Adjustments to Rent

Incentives:

none

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Trevors Run at Dulles Center

Multifamily Community Profile

2411 Little Current Drive
Herndon, VA 20171

Map Ref: FA-05-B03

Community Type: Market Rate - General

Structure Type: 4-Story Garden

170 Units 2.4% Vacant (4 units vacant) as of 2/19/2019

Opened in 1999



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input type="checkbox"/>	<input checked="" type="checkbox"/>
One	12.9%	\$1,580	800	\$1.97	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	24.1%	\$1,753	956	\$1.83	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	53.5%	\$1,858	1,104	\$1.68	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	9.4%	\$2,146	1,256	\$1.71	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Gas Fireplace; Patio/Balcony; Storage (In Unit); Cable TV; Carpet / Vinyl/Linoleum	
Select Units: HighCeilings; ADA Access	
Optional(\$): --	
Security: Unit Alarms	
Parking 1: Free Surface Parking Fee: --	Parking 2: -- Fee: --
Property Manager: Allen & Rocks, Inc. Owner: --	

Comments

--	--	--	--	--	--	--	--	--	--	--

Floorplans (Published Rents as of 2/19/2019) (2)										Historic Vacancy & Eff. Rent (1)			
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Garden	--	1	1	18	\$1,679	800	\$2.10	Market	2/19/19	2.4%	\$1,692	\$1,858	\$2,146
Garden	--	1	1	3	\$977	800	\$1.22	ADU/ 50%	8/20/18	1.2%	\$1,618	\$1,724	\$1,992
Garden	--	1	1	1	\$1,270	800	\$1.59	ADU/ 70%	10/21/11	2.9%	--	--	--
Garden	Den	1	1	41	\$1,738	956	\$1.82	Market	3/30/09	0.6%	--	--	--
Garden	--	2	2	2	\$1,099	1,008	\$1.09	ADU/ 50%					
Garden	--	2	2	13	\$1,832	1,008	\$1.82	Market					
Garden	--	2	2	4	\$1,428	1,123	\$1.27	ADU/ 70%					
Garden	--	2	2	72	\$1,883	1,123	\$1.68	Market					
Garden	--	3	2	15	\$2,157	1,256	\$1.72	Market					
Garden	--	3	2	1	\$1,587	1,256	\$1.26	ADU/ 70%					

Adjustments to Rent

Incentives: None

Utilities in Rent: Heat Fuel: Natural Gas

Heat: Cooking: Wtr/Swr:

Hot Water: Electricity: Trash:

Trevors Run at Dulles Center

VA059-001954

Van Metre Woodland Park

Multifamily Community Profile

13025 Elm Tree Drive
Herndon, VA 20171

Community Type: Market Rate - General

Structure Type: Garden/TH

753 Units 2.9% Vacant (22 units vacant) as of 2/21/2019

Opened in 2001



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	30.7%	\$1,607	823	\$1.95	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	8.8%	\$1,706	956	\$1.78	Centrl Lndry: <input type="checkbox"/>	Tennis: <input checked="" type="checkbox"/>
Two	29.1%	\$2,060	1,172	\$1.76	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	22.3%	\$2,008	1,293	\$1.55	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	9.2%	\$2,201	1,304	\$1.69	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input checked="" type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; Ice Maker; Ceiling Fan; In Unit Laundry (Full Size); Central A/C; Gas Fireplace; Patio/Balcony; Cable TV; Broadband Internet	
Select Units: --	
Optional(\$): --	
Security: --	
Parking 1: Free Surface Parking Fee: --	Parking 2: Fee for Reserved Fee: \$50
Property Manager: Van Metre Property Owner: --	

Comments

2 Swimming Pools, One Heated; Bocce Ball Court
Cable included. Detached garage \$129.
Latest phase opened 2012. Unit mix is an estimate.

Floorplans (Published Rents as of 2/21/2019) (2)									Historic Vacancy & Eff. Rent (1)				
Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
Dogwood Loft / Garden	Den	1	1	46	\$1,708	1,014	\$1.68	Market	2/21/19	2.9%	\$1,629	\$2,037	\$2,201
Dogwood / Garden	--	1	1	150	\$1,606	819	\$1.96	Market	8/21/18	1.3%	\$1,585	\$1,820	\$2,013
Dogwood / Garden	--	1	1	5	\$977	819	\$1.19	ADU/ 50%	10/2/13	2.0%	--	--	--
Dogwood / Garden	--	1	1	6	\$1,270	819	\$1.55	ADU/ 70%	10/21/11	1.1%	--	--	--
Oak / Garden	Den	1	1	20	\$1,654	824	\$2.01	Market					
Maple / Garden	--	1	1	70	\$1,635	832	\$1.97	Market					
Chestnut / Garden	--	2	2	92	\$1,953	1,080	\$1.81	Market					
Chestnut / Garden	--	2	2	10	\$1,099	1,119	\$.98	ADU/ 50%					
Chestnut / Garden	--	2	2	15	\$1,428	1,119	\$1.28	ADU/ 70%					
Cypress / Townhouse	TH	2	2	16	\$2,368	1,148	\$2.06	Market					
Hawthorne / Garden	Den	2	2	128	\$1,982	1,289	\$1.54	Market					
Redwood / Townhouse	--	2	2.5	86	\$2,288	1,290	\$1.77	Market					
Chestnut Loft / Garden	Den	2	2	40	\$2,008	1,305	\$1.54	Market					
Cedar / Townhouse	--	3	2.5	3	\$1,221	1,272	\$.96	ADU/ 50%					
Cedar / Townhouse	--	3	2.5	3	\$1,587	1,272	\$1.25	ADU/ 70%					
Cedar / Townhouse	--	3	2.5	25	\$2,161	1,272	\$1.70	Market					
Spruce / Townhouse	--	3	2.5	38	\$2,307	1,330	\$1.73	Market					

Adjustments to Rent

Incentives:
Daily Pricing: none
Utilities in Rent: Heat Fuel: Gas
Heat: Cooking: Wtr/Swr:
Hot Water: Electricity: Trash:

Westerly at Worldgate

Multifamily Community Profile

13000 Wilkes Way
Herndon, VA 20170

CommunityType: Market Rate - General

Structure Type: Garden

320 Units 6.9% Vacant (22 units vacant) as of 2/19/2019

Last Major Rehab in 2013 Opened in 1995



Unit Mix & Effective Rent (1)					Community Amenities	
Bedroom	%Total	Avg Rent	Avg SqFt	Avg \$/SqFt	Clubhouse:	Pool-Outdr:
Eff	--	--	--	--	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
One	--	\$1,395	684	\$2.04	Comm Rm: <input type="checkbox"/>	Basketball: <input type="checkbox"/>
One/Den	--	--	--	--	Centrl Lndry: <input type="checkbox"/>	Tennis: <input type="checkbox"/>
Two	--	\$1,730	992	\$1.74	Elevator: <input type="checkbox"/>	Volleyball: <input type="checkbox"/>
Two/Den	--	--	--	--	Fitness: <input checked="" type="checkbox"/>	CarWash: <input type="checkbox"/>
Three	--	\$2,086	1,248	\$1.67	Hot Tub: <input type="checkbox"/>	BusinessCtr: <input checked="" type="checkbox"/>
Four+	--	--	--	--	Sauna: <input type="checkbox"/>	ComputerCtr: <input type="checkbox"/>
					Playground: <input type="checkbox"/>	

Features	
Standard: Dishwasher; Disposal; Microwave; In Unit Laundry (Full Size); Central A/C; HighCeilings; Cable TV; Carpet	
Select Units: Ceiling Fan; Fireplace; Patio/Balcony	
Optional(\$): --	
Security: Unit Alarms	
Parking 1: Free Surface Parking Fee: --	Parking 2: Fee for Reserved Fee: \$50
Property Manager: Kettler Owner: --	

Comments

Trash-\$27
Vaulted ceilings
Unit Mix: 1BR-114 2BR-172 3BR-34

Floorplans (Published Rents as of 2/19/2019) (2)

Historic Vacancy & Eff. Rent (1)

Description	Feature	BRs	Bath	#Units	Rent	SqFt	Rent/SF	Program	Date	%Vac	1BR \$	2BR \$	3BR \$
A1 / Garden	--	1	1	--	\$1,437	623	\$2.31	Market	2/19/19	6.9%	\$1,395	\$1,730	\$2,086
A4 / Garden	--	1	1	--	\$1,480	673	\$2.20	Market	8/20/18	6.6%	\$1,609	\$1,778	\$2,044
A2 / Garden	--	1	1	--	\$1,532	704	\$2.18	Market	8/19/13	5.3%	--	--	--
A5/A6 / Garden	--	1	1	--	\$1,571	737	\$2.13	Market	9/7/12	6.9%	--	--	--
B3/B4 / Garden	--	2	2	--	\$1,927	1,093	\$1.76	Market					
B5 / Garden	--	2	2	--	\$2,079	1,115	\$1.86	Market					
B1 / Garden	--	2	1	--	\$1,710	846	\$2.02	Market					
B2 / Garden	--	2	1	--	\$1,745	915	\$1.91	Market					
C1/C2 / Garden	--	3	2	--	\$2,248	1,248	\$1.80	Market					

Adjustments to Rent

Incentives:
Daily Pricing; 1 month free

Utilities in Rent: Heat Fuel: Natural Gas
Heat: Cooking: Wtr/Swr:
Hot Water: Electricity: Trash:

Westerly at Worldgate

VA059-012083



XI. APPENDIX 3 NCHMA CERTIFICATION

This market study has been prepared by Real Property Research Group, Inc., a member in good standing of the National Council of Housing Market Analysts (NCHMA). This study has been prepared in conformance with the standards adopted by NCHMA for the market analysts' industry. These standards include the Standard Definitions of Key Terms Used in Market Studies for Affordable Housing Projects and Model Content Standards for the Content of Market Studies for Affordable Housing Projects. These Standards are designed to enhance the quality of market studies and to make them easier to prepare, understand, and use by market analysts and by the end users. These Standards are voluntary only, and no legal responsibility regarding their use is assumed by the National Council of Housing Market Analysts.

Real Property Research Group, Inc. is duly qualified and experienced in providing market analysis for Affordable Housing. The company's principals participate in NCHMA educational and information sharing programs to maintain the highest professional standards and state-of-the-art knowledge. Real Property Research Group, Inc. is an independent market analyst. No principal or employee of Real Property Research Group, Inc. has any financial interest whatsoever in the development for which this analysis has been undertaken.

While the document specifies Real Property Research Group, Inc., the certification is always signed by the individual completing the study and attesting to the certification.

Real Property Research Group, Inc.



Bob Lefenfeld
Name

Managing Principal
Title

February 21, 2019
Date



XII. APPENDIX 4 NCHMA CHECKLIST

Introduction: The National Council of Housing Market Analysts provides a checklist referencing all components of their market study. This checklist is intended to assist readers on the location and content of issues relevant to the evaluation and analysis of market studies. The page number of each component referenced is noted in the right column. In cases where the item is not relevant, the author has indicated "N/A" or not applicable. Where a conflict with or variation from client standards or client requirements exists, the author has indicated a "V" (variation) with a comment explaining the conflict. More detailed notations or explanations are also acceptable.

Component (*First occurring page is noted)		*Page(s)
Executive Summary		
1.	Executive Summary	VI
Project Summary		
2.	Project description with exact number of bedrooms and baths proposed, income limitation, proposed rents, and utility allowances	7
3.	Utilities (and utility sources) included in rent	8
4.	Project design description	5
5.	Unit and project amenities; parking	8
6.	Public programs included	4
7.	Target population description	4
8.	Date of construction/preliminary completion	8
9.	If rehabilitation, existing unit breakdown and rents	N/A
10.	Reference to review/status of project plans	8
Location and Market Area		
11.	Market area/secondary market area description	30
12.	Concise description of the site and adjacent parcels	9
13.	Description of site characteristics	9
14.	Site photos/maps	11
15.	Map of community services	9
16.	Visibility and accessibility evaluation	14
17.	Crime information	16
Employment and Economy		
18.	Employment by industry	26
19.	Historical unemployment rate	23



20.	Area major employers	26
21.	Five-year employment growth	24
22.	Typical wages by occupation	28
23.	Discussion of commuting patterns of area workers	24
Demographic Characteristics		
24.	Population and household estimates and projections	32
25.	Area building permits	33
26.	Distribution of income	38
27.	Households by tenure	36
Competitive Environment		
28.	Comparable property profiles	81
29.	Map of comparable properties	42
30.	Comparable property photos	81
31.	Existing rental housing evaluation	41
32.	Comparable property discussion	42
33.	Area vacancy rates, including rates for tax credit and government-subsidized communities	45
34.	Comparison of subject property to comparable properties	73
35.	Availability of Housing Choice Vouchers	4
36.	Identification of waiting lists	N/A
37.	Description of overall rental market including share of market-rate and affordable properties	45
38.	List of existing LIHTC properties	42
39.	Discussion of future changes in housing stock	51
40.	Discussion of availability and cost of other affordable housing options, including homeownership	42
41.	Tax credit and other planned or under construction rental communities in market area	51
Analysis/Conclusions		
42.	Calculation and analysis of Capture Rate	68
43.	Calculation and analysis of Penetration Rate	69
44.	Evaluation of proposed rent levels	76
45.	Derivation of Achievable Market Rent and Market Advantage	51
46.	Derivation of Achievable Restricted Rent	57
47.	Precise statement of key conclusions	61



48.	Market strengths and weaknesses impacting project	62
49.	Recommendation and/or modification to project description	N/A
50.	Discussion of subject property's impact on existing housing	78
51.	Absorption projection with issues impacting performance	78
52.	Discussion of risks or other mitigating circumstances impacting project	N/A
53.	Interviews with area housing stakeholders	2
Certifications		
54.	Preparation date of report	Cover
55.	Date of field work	Cover
56.	Certifications	82
57.	Statement of qualifications	86
58.	Sources of data not otherwise identified	N/A
59.	Utility allowance schedule	6



XIII. APPENDIX 5 ANALYST RESUMES

ROBERT M. LEFENFELD **Founding Principal**

Mr. Lefenfeld, Founding Principal of the firm, with over 30 years of experience in the field of residential market research. Before founding Real Property Research Group in 2001, Bob served as an officer of research subsidiaries of Reznick Fedder & Silverman and Legg Mason. Between 1998 and 2001, Bob was Managing Director of RF&S Realty Advisors, conducting residential market studies throughout the United States. From 1987 to 1995, Bob served as Senior Vice President of Legg Mason Realty Group, managing the firm's consulting practice and serving as publisher of a Mid-Atlantic residential data service, Housing Market Profiles. Prior to joining Legg Mason, Bob spent ten years with the Baltimore Metropolitan Council as a housing economist. Bob also served as Research Director for Regency Homes between 1995 and 1998, analyzing markets throughout the Eastern United States and evaluating the company's active building operation.

Bob provides input and guidance for the completion of the firm's research and analysis products. He combines extensive experience in the real estate industry with capabilities in database development and information management. Over the years, he has developed a series of information products and proprietary databases serving real estate professionals.

Bob has lectured and written extensively about residential real estate market analysis. Bob has created and teaches the market study module for the MBA HUD Underwriting course and has served as an adjunct professor for the Graduate Programs in Real Estate Development, School of Architecture, Planning and Preservation, University of Maryland College Park. He is the past National Chair of the National Council of Housing Market Analysts (NCHMA) and currently chairs its FHA Committee.

Areas of Concentration:

- **Strategic Assessments:** Mr. Lefenfeld has conducted numerous corridor analyses throughout the United States to assist building and real estate companies in evaluating development opportunities. Such analyses document demographic, economic, competitive, and proposed development activity by submarket and discuss opportunities for development.
- **Feasibility Analysis:** Mr. Lefenfeld has conducted feasibility studies for various types of residential developments for builders and developers. Subjects for these analyses have included for-sale single-family and townhouse developments, age-restricted rental and for-sale developments, large multi-product PUDs, urban renovations and continuing care facilities for the elderly.
- **Information Products:** Bob has developed a series of proprietary databases to assist clients in monitoring growth trends. Subjects of these databases have included for sale housing, pipeline information, and rental communities.

Education:

Master of Urban and Regional Planning; The George Washington University.
Bachelor of Arts - Political Science; Northeastern University.



Gerald Levin

Senior Analyst

Mr. Levin has over 30 years of experience in all aspects of real estate development, financial and market feasibility analyses, financing and due diligence, project management, marketing, and development programming. Along with research experience with Real Property Research Group and Gladstone Associates, his work experience has included development and asset management. Prior to joining Real Property Research Group as a Director, Mr. Levin was part of senior management at Landex Corporation, a regional development and property management firm specializing in redevelopment of multi-family properties, and at Struever Bros., Eccles & Rouse, Baltimore's largest developer of historic properties. He served 12 years as Vice President of Chevy Chase/ B. F. Saul Co. in Washington DC where he managed \$300 million plus residential and commercial real estate portfolios in both the development and work-out departments; served as Director of Development for RS Properties in Baltimore, a real estate investment firm specializing in the historic redevelopment of urban properties; and served as Financial Services Officer for the Baltimore Economic Development Corporation.

Areas of Concentration:

- **Feasibility Analysis:** Mr. Levin's experience has encompassed a wide range of studies including: residential (single-family, townhouse, multi-family, condominium, senior, active adult, lot sales, tax credit), industrial, office, retail, research & development, special purpose (retreat facilities, performing arts Centers, self-storage facilities, convention centers, conference facilities), and mixed- use development. Recent studies have focused on family and senior tax credit communities, inner-city revitalization projects, and due diligence for investment funds in locations throughout the Mid-Atlantic and Midwest.
- **Site Analysis and Development Programming:** Mr. Levin has a comprehensive background in development including analysis of zoning and public ordinance compatibility, the neighborhood setting, availability of utilities, public transit and road connections, market feasibility, community issues, and developer experience. His development experience has included preparation of development profiles based on site features and market, development of public/ private partnerships to showcase "anchor" projects impacted by public infrastructure (i.e., transit stations), project scheduling, coordination of financing, due diligence, community participation, and coordination of critical issues – environment review, historic certification, historic tax credits, transportation linkages, and parking.
- **Financial Analyses and Financial Packaging:** Mr. Levin has a broad background in the preparation of proforma development budgets and operating statements, analysis of economic returns to owners and investors, the preparation of financial loan packages for review by potential lenders, investors, and owners including project overview, project financial information, market overview, status of required public approvals/ actions, and the oversight of the due diligence process required for transfer of property and loan closings.

Education:

Master of Urban and Regional Planning; University of North Carolina at Chapel Hill
Bachelor of Arts, Economics; Yale University



XIV. APPENDIX 6 VHDA CERTIFICATION

I affirm the following:

- 1.) I have made a physical inspection of the site and market area.
- 2.) The appropriate information has been used in the comprehensive evaluation of the need and demand for proposed rental units.
- 3.) To the best of my knowledge, the market can support the demand shown in this study. I understand that any misrepresentation in this statement may result in the denial of participation in the Low Income Housing Tax Credit Program in Virginia as administered by VHDA.
- 4.) Neither I nor anyone at my firm has any interest in the proposed development or a relationship with the ownership entity.
- 5.) Neither I nor anyone at my firm nor anyone acting on behalf of my firm in connection with the preparation of this report has communicated to others that my firm is representing VHDA or in any way acting for, at the request of, or on behalf of VHDA.
- 6.) Compensation for my services is not contingent upon this development receiving a LIHTC reservation or allocation.

A handwritten signature in dark ink, appearing to read 'Jerry Levin', written in a cursive style.

Jerry Levin
Market Analyst

February 21, 2019

Date