

Market Analysis
Braddock Terrace
Loudoun County, Virginia

Prepared for:

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February, 2022

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February 25, 2022

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Charlie:

Attached is our full narrative market study for the 20-unit Braddock Terrace, which will be submitted to officials of Virginia Housing for 9% Low Income Housing Tax Credits. The proposal is for general occupancy apartments with a mix of income restrictions that include 30%, 50% and 60% of AMI. Construction of the community is expected to start by mid-2023 and be available for occupancy in 2024.

The site for Braddock Terrace is excellent in terms of proximity to employment, commercial establishments and highway access. Considerable housing demand exists to support an abundance of new job growth.

The market study to follow shows a sizable pent-up demand for affordable housing for families with a capture rate of 2.3 percent for project lease-up. The Braddock Terrace proposal is excellent in terms of supply/ demand and location. The report to follow, which carefully analyzes all required market and economic data required by Virginia Housing, is very positive.

Sincerely,

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Section I Introduction

Following is the detailed, full narrative market study for the proposed 20-unit Braddock Terrace. This will be a fully affordable, new construction general occupancy apartment community with construction expected to begin in mid-2023 on an attractive site on the south side of Braddock Road in the greater Aldie area of southeastern Loudoun County. Once built, Braddock Terrace will have rent and income restrictions, but no age restrictions. The proposal is likely to be available for occupancy by early- or mid-2024. The site visit and market study field research were undertaken on February 23, 2022.

Braddock Terrace is designed for moderate-income families and is proposed to be financed with 9% Low-Income Housing Tax Credit (LIHTC) through Virginia Housing. The market study is completed within the full guidelines of Virginia Housing. Thus, the report to follow is presented in three sections, which encompasses all of the economic and market data required for LIHTC market studies.

The first section of the report is the Introduction, which provides a detailed analysis of the study site and its setting along Braddock Road in Loudoun County. Included in the site description is an analysis of adjacent land uses, particularly commercial and public facilities that are needed to serve new residents of the apartment proposal.

The site development plan is also presented, which describes the number and types of apartment units being planned at Braddock Terrace. This analysis studies the types of amenities and building features to be built. A key to the description of the development is the identification of the target market for the apartment community, with particular emphasis of how the proposal meets the HUD income guidelines for LIHTC apartment properties in Loudoun County.

Section I has a second subsection, an economic overview of the market area economy. The key factors studied in this subsection are at-place jobs and employment growth, as these two economic factors are the best determination of the market area's economic stability. Additionally, at-place jobs and employment growth are the basis for determining population and household growth, including the type of housing under study. The economic overview includes trends on

at-place jobs and employment, but also presents data on new development proposals that are expected to generate net job growth. Also studied are the local employment impacts of the COVID-19 pandemic.

The second section is the supply/ demand analysis for new affordable rental housing. First presented is a demographic analysis of the market area defined for Braddock Terrace. The demographic analysis “solves” for the number of market area renter households earning 30% of AMI (\$29,000 to \$38,700), 50% of AMI (\$51,000 to \$64,500) and 60% of AMI (\$62,000 to \$77,740). These income categories are based on the proposed rents, as will be described below. The demographic analysis is studied to a forecast date of 2024, as Braddock Terrace is likely to open by that year.

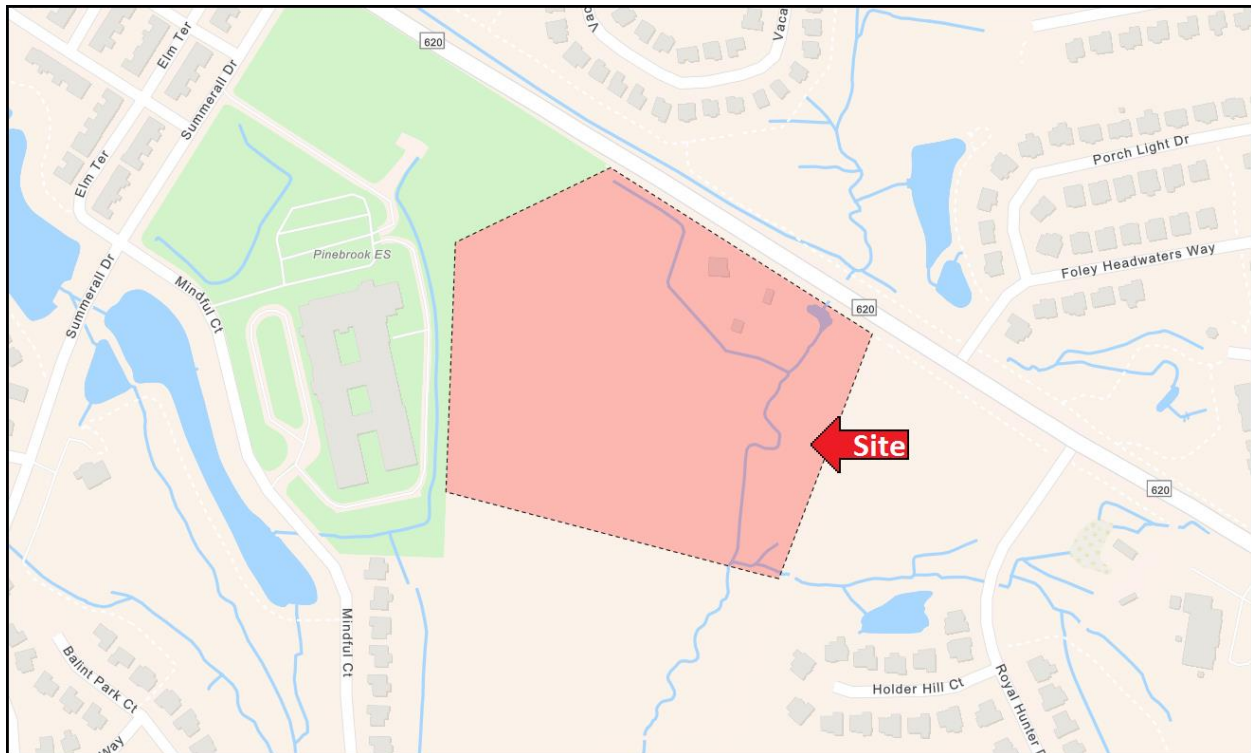
The second part of Section II is the analysis of the LIHTC general occupancy apartment properties in the defined market area. We identified 15 apartment properties that would be most competitive with Braddock Terrace, based on rent and income restrictions. These apartment properties are studied for rents, occupancy, unit sizes, characteristics, apartment amenities and features. These project characteristics are compared with the Braddock Terrace proposal to determine the subject’s competitive position.

The third and final section is the Conclusions, which is the net demand analysis for new affordable apartment units for families in the defined market area. Also, within this section is the determination of the achievable rents for the proposed apartment units, expressed in constant 2022 dollars, and the lease-up period for the 20 proposed apartment units.

Braddock Terrace

Site Description

The Braddock Terrace site is an irregularly-shaped parcel located near the southwestern intersection of Braddock Road and Royal Hunter Drive and directly east of Pinebrook Elementary School in the Aldie section of southeastern Loudoun County. The site is located approximately 2.5 miles south of the StoneSpring Hospital Center and U.S. Route 50. The communities of Chantilly and Centreville are located approximately nine miles east of the study site. The site location is shown in Map A below.



Map A - Site Location

The 18.19-acre study site has public utilities available, including telephone, cable TV, public water, public sewer and electricity. The site is zoned R8-Single-Family Residential, and therefore would need to be rezoned for apartment unit development to proceed as planned.

Braddock Terrace will be developed within the Van Metre Homes at Braddock development, which will consist of 124 market rate homes for sale with a variety of layouts

including single-family-detached, duplex and quadplex units. Home listing prices will range from the high-\$500's for the quadplex units to high-\$600's for the duplexes and low-\$800's for the single-family homes. The 20-unit Braddock Terrace will be indistinguishable from the market rate units within the community with similar exteriors. Development of both components are likely to occur simultaneously.

Next shown is a northern aerial of the study site. Apart from a 2,530± square foot single-family home that was constructed in the late-1930's and two detached garages, the site is fully vacant with a mix of trees and grassy areas. A small stream (Foley Branch) runs along the eastern side of the property. The existing structures on the property will be demolished as part of the development program.

The aerial shows the site to be located in a largely residential part of Loudoun County. Nearby subdivisions include Braddock Corner (Note 1) and Kirkpatrick Farms (Note 2) to the north and west, with a mix of townhomes, single-family homes and condominiums. To the south is Seven Hills (Note 3), which includes only single-family homes. These adjacent subdivisions are attractive and well-maintained. None of these nearby residential units are apartments. The success of these communities confirms the area's viability for housing unit development.

Apart from Pinebrook Elementary School (Note 4) to the west, the only other nearby non-residential development is a Chesterbrook Academy Preschool (Note 5).



Northern Aerial

Shown next are photos of the study site from Braddock Road. The existing structures are shown to front this roadway. To the rear of the property is a mix of grassy and treed areas. The site has excellent visibility from Braddock Road.

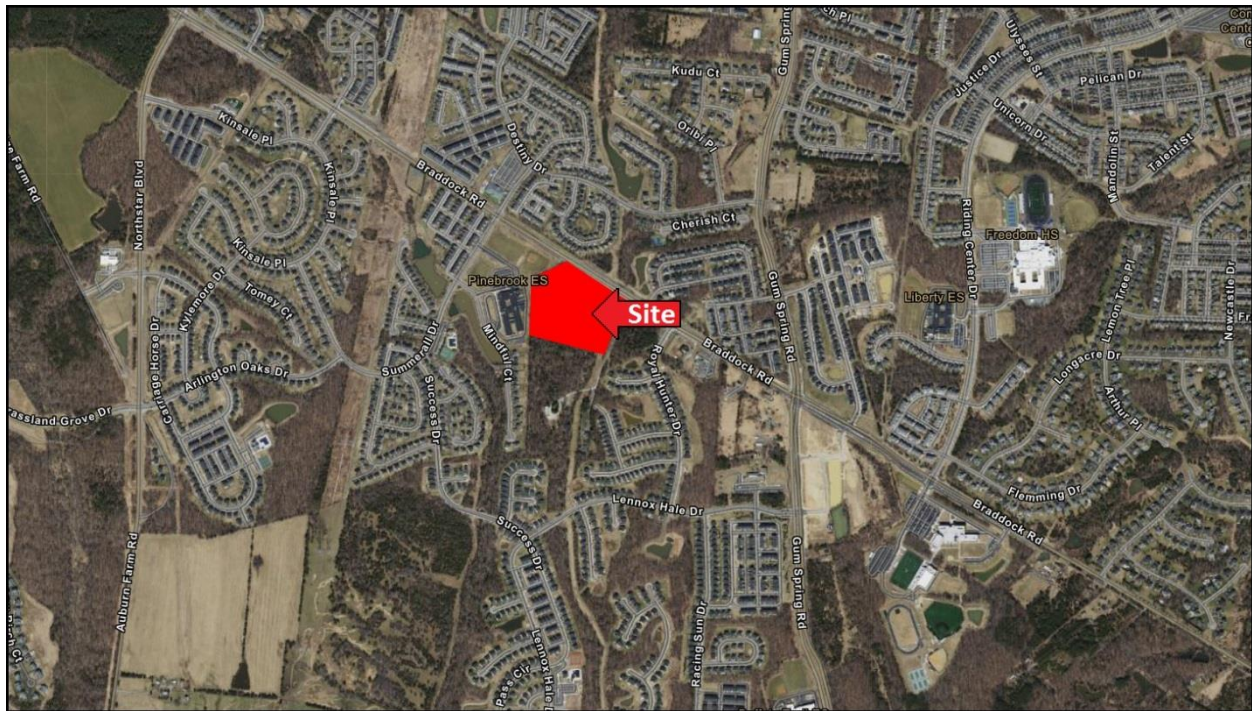


View of Study Site from Braddock Road



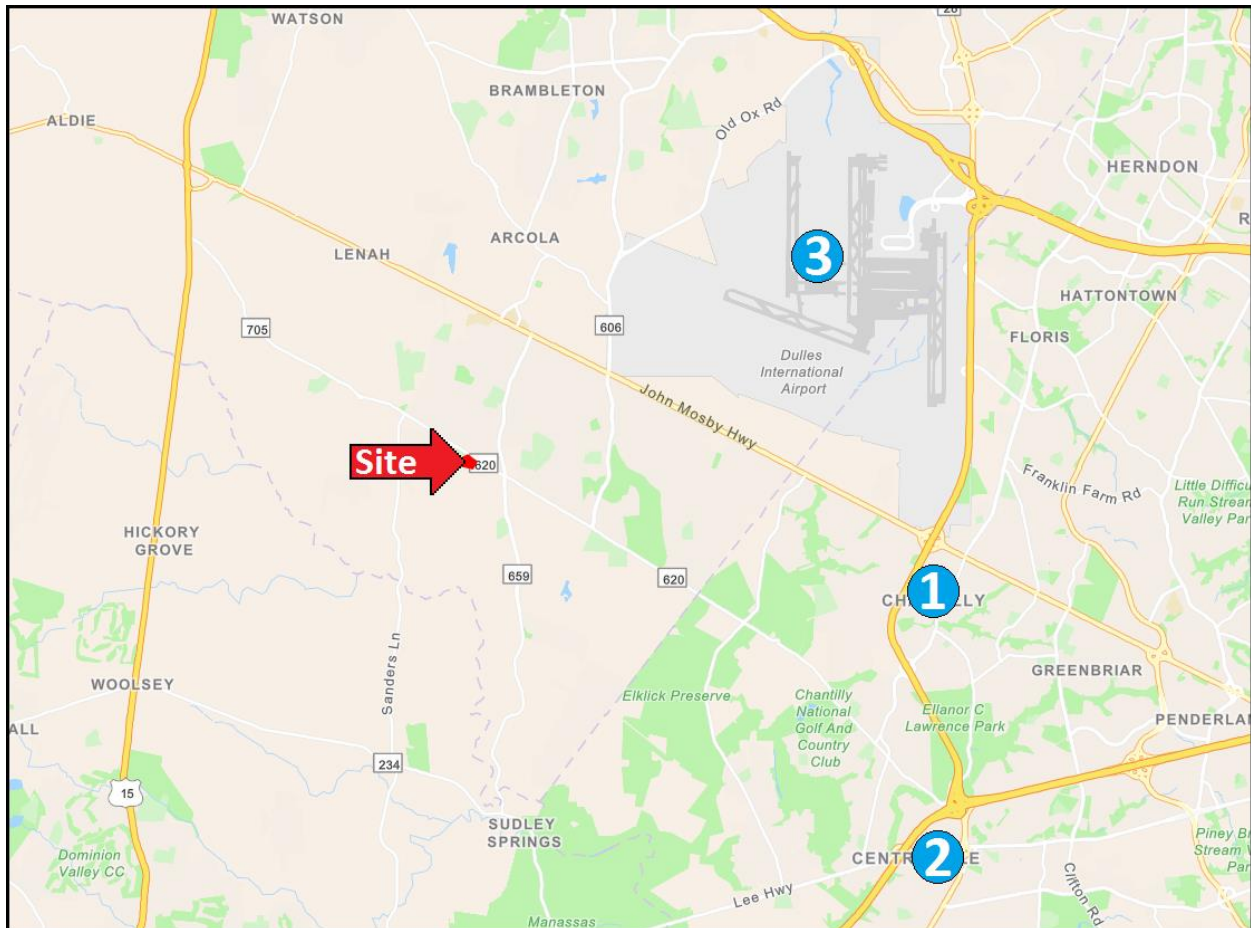
View of Study Site from Braddock Road

Next shown is a wider aerial view of the study site, which provides a clearer depiction of the site setting along the south side Braddock Road. This roadway is a major commuter route in Centreville and Eastern Loudoun County, as it empties onto SR 28, which has a nearby interchange with I-66. The roadway also has major junctions with SR 123, Fairfax County Parkway, and I-495 (Capital Beltway). The aerial shows that essentially all development along and near this roadway is residential.



Wide Aerial View

Shown next, in Map B, is the site's regional setting within eastern Loudoun County. It is shown to be located roughly midway between Route 15 in the west and Route 28 in the east. Chantilly (Note 1) and Centerville (Note 2) are located approximately 10 miles east of the study site. These are the locations of several major employers as well as large clusters of shopping centers, grocery stores and restaurants. North of these communities is Dulles International Airport, with approximately 20,000± employees. Most of the other nearby areas are residential with scattered shopping centers.



Map B - Site Setting

Following are brief descriptions of the public and commercial facilities that will serve the resident population at Braddock Terrace.

Medical Care. The closest hospital to the study site is the StoneSprings Hospital Center, located at 24440 Stone Springs Boulevard and approximately 2.5 miles north of the site and along

U.S. Route 50. The 234,000± square foot, 124-bed facility opened in November, 2015. This is a full-service care medical and surgical hospital that is part of the HCA Virginia Health System. It includes an emergency room.

The hospital is planning to add a new 17-bed adult behavioral health unit on the building's fifth floor. The hospital also plans to start work on a new orthopedic and spine outpatient surgery center with two operating rooms, to be located on the hospital campus. This work follows the hospital's September, 2019 opening of a Level II neonatal intensive care unit, which it runs alongside providers from Children's National Hospital. In 2019, the hospital also established a total joint replacement program and evolved its minimally invasive robotic surgery program, as one of 40 robotic training sites in the U.S. for general surgery.

Adjacent to the hospital is the five-story, 100,000± square foot Medical Office Building at 24430 Stone Springs Boulevard, which offers a variety of medical services including primary and specialty care.

Community Facilities. The closest post office to the study site is located approximately 8.8 miles east of the study site at 4410 Brookfield Corporate Drive. South Riding Fire and Police Station is the closest fire station to the study site. It is located at 2516 Loudoun County Parkway. Brambleton Library is the closest library to the study site. It is located at 22850 Brambleton Plaza.

Education. Braddock Terrace will be served by Loudoun County Public Schools, which enrolls nearly 84,000 students in 94 schools. School-aged children residing in the community will be served by the following public schools:

<u>Schools to Braddock Terrace</u>		
<u>School</u>	<u>Address</u>	<u>Distance</u>
Pinebrook Elementary School	25480 Mindful Court	Adjacent
Willard Middle School	40915 Braddock Road	2.2 miles W
Lightridge High School	41025 Collaboration Drive	2.4 miles W
Source: Loudoun County Public Schools		

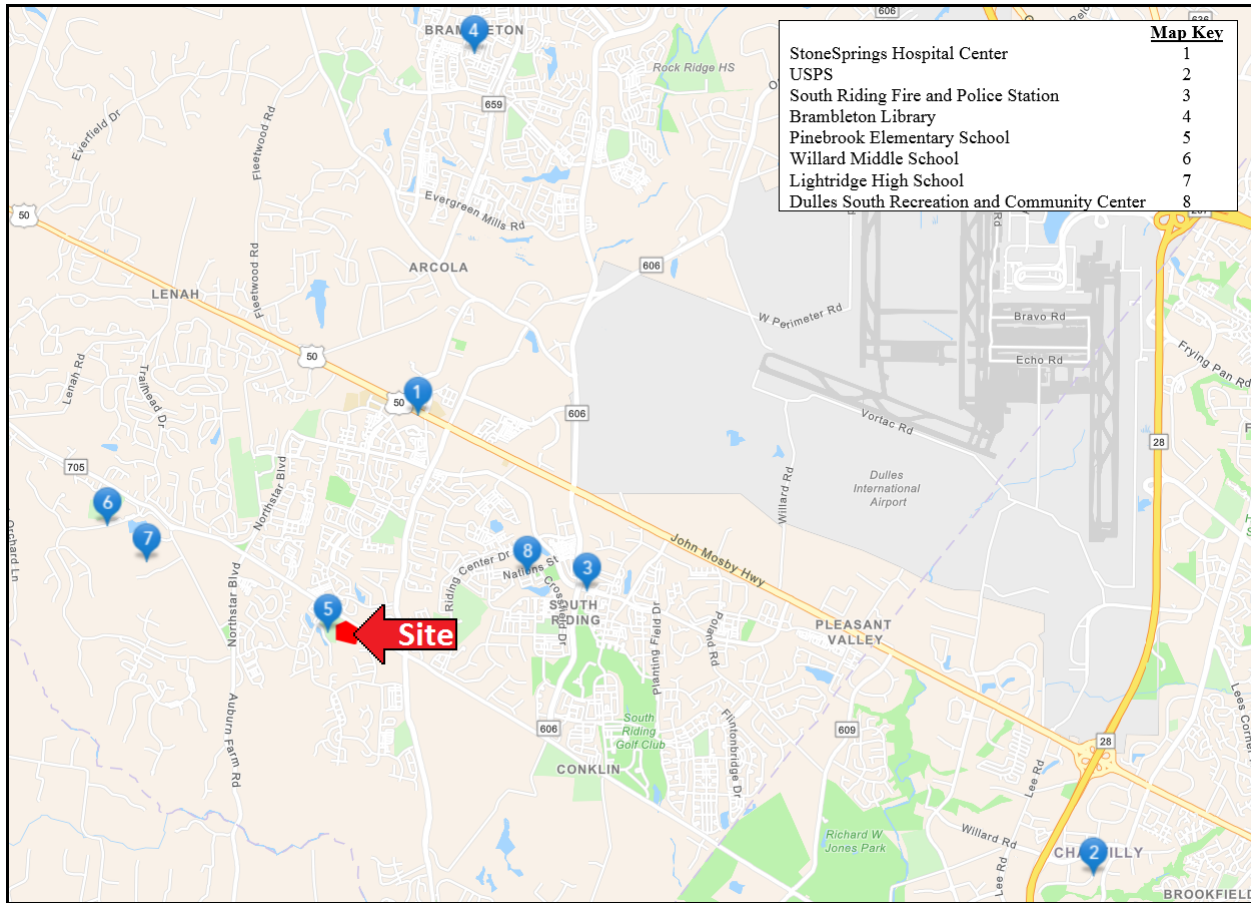
Parks and Recreation. Several playgrounds and park areas of various size and scope are located near the study site. Most of these are affiliated with various HOAs. The closest recreation facility to the site is the Dulles South Recreation and Community Center, which is located at 24950 Riding Center Drive. It includes a climbing wall, swimming pool, senior center and childcare services.

Shopping. Several grocery stores and shopping centers are located near the study site. Map C shows the close proximity to several shopping centers along the U.S. Route 50 corridor, including the nearby 52,760± square foot Harris Teeter grocery store at East Gate Marketplace. Other nearby big box retailers include Kohl's, Walmart, Dick's Sporting Goods, Home Depot and Giant.



Map C - Nearby Shopping Centers

Map D shows the location of the community facilities that will serve residents at Braddock Terrace. Most important is that the setting has a full array of basic services for area residents.



Map D - Location of Area Community and Public Facilities

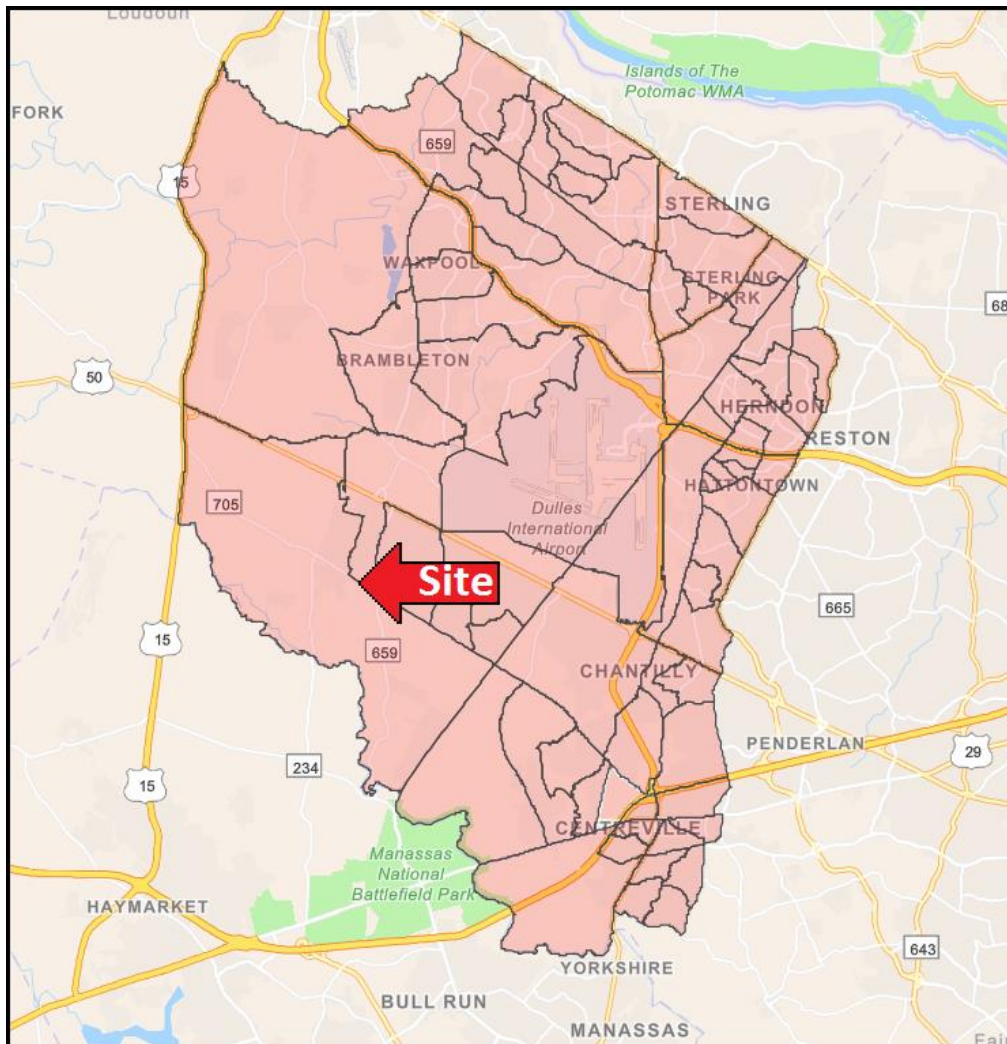
Market Area Definition

Map E shows the census tracts that comprise the defined market area for the Braddock Terrace proposal, based on input from area on-site managers at affordable apartment properties. As will be fully described in the competitive apartment market, the area's affordable apartments are scattered. Although the site is located in Loudoun County, it is located near the communities of Centerville, Chantilly and Herndon in western Fairfax County. These nearby areas are fully competitive with the study site and were therefore included in the market area. Several of the competitive affordable apartments are located in these neighboring communities.

The market area is shown to include the eastern part of Loudoun County, from Route 7 in the north to the Loudoun County line in the south. Within Fairfax County, the market area includes the portion of the County from the Town of Herndon in the north to the Prince William County line on the south, with Fairfax County Parkway generally marking the eastern boundary

All of the defined “comps” are located within this geographic area. The market area is connected by several major arterials. The Route 50 corridor is connected to the Route 7 corridor by Loudoun County Parkway, Route 28 and Centreville Road. Route 50 intersects Route 28, which runs south to Manassas. Route 50 also interchanges with Fairfax County Parkway in Chantilly and Centreville.

The determination is that the site setting is “convenient enough” to be fully competitive with the nearby communities in western Fairfax County. The Town of Leesburg was excluded from the market area based on input for area property managers. Reston and Prince William County were also identified as sperate housing markets.



Map E - Market Area

Braddock Terrace Development Program

Table 1 provides a detailed description of the Braddock Terrace proposal, with data on apartment unit sizes, unit mix and proposed rents. The community will have a total of 20 units, including two that are restricted to 30% of AMI, eight that are restricted to 50% of AMI and ten that are restricted to 60% of AMI.

The table shows an even mix of ten two-bedroom and ten three-bedroom units. A two-bedroom and three-bedroom unit will be accessible. The two-bedroom units will have 1.5 bathrooms while the three-bedroom units will each have 2.5 bathrooms. The two-bedroom units will range in size between 1,098 and 1,116 square feet. The three-bedroom units will range in size between 1,540 and 1,598 square feet.

Also shown in Table 1 are the proposed net rents, which will exclude all utilities but will include trash collection. These rents will also include a full-size washer and dryer at no additional cost to the tenant. The two-bedroom units will rent for between \$700 and \$1,550. The three-bedroom apartment units will rent for between \$800 and \$1,775.

Table 1: <u>Proposed Unit Characteristics, Braddock Terrace</u> 1/					
	<u>Units</u>	<u>Size (Sq. Ft.)</u>	<u>Net Rent</u>	<u>Utility Allowance</u>	<u>Gross Rent</u>
<u>Two-Bedroom</u>					
30% of AMI	1	1,098-1,116	\$700	\$143	\$843
50% of AMI	4	1,098-1,116	\$1,275	\$143	\$1,418
60% of AMI	5	1,098-1,116	\$1,550	\$143	\$1,693
(Subtotal)	(10)				
<u>Three-Bedroom</u>					
30% of AMI	1	1,540-1,598	\$800	\$182	\$982
50% of AMI	4	1,540-1,598	\$1,425	\$182	\$1,607
60% of AMI	5	1,540-1,598	\$1,775	\$182	\$1,957
(Subtotal)	(10)				
Total	20				
Notes: 1/ Rents to exclude utilities. Includes trash collection. All units to include washers and dryers.					
Source: Flatiron Partners					

Rent Comparison

Table 2 shows gross rents for the apartment units with a utility allowance (UA) added to net rents. The UA was calculated for the sponsor based on the unit sizes and energy efficient HVAC system and appliances. They are consistent with Virginia Housing’s accepted utility costs. Adding UA to net rent generates a gross rent.

The apartment building will be energy efficient within the Virginia Housing guidelines. The gross rents shown are compared with the HUD maximum allowable gross rents for the Washington-Arlington-Alexandria, DC-VA-MD HUD Metro FMR Area. The comparison shows that the proposed gross rents, based on the calculated UA, are below the maximum allowable rates.

Table 2: <u>Rent Comparison Chart, Braddock Terrace and HUD Maximum Allowable Rates</u>				
	<u>Braddock Terrace</u>			<u>HUD Maximum Allowable</u>
	<u>Net Rent</u>	<u>UA</u>	<u>Gross Rent</u>	
<u>Two-Bedroom</u>				
30% of AMI	\$700	\$143	\$843	\$870
50% of AMI	\$1,275	\$143	\$1,418	\$1,451
60% of AMI	\$1,550	\$143	\$1,693	\$1,741
<u>Three-Bedroom</u>				
30% of AMI	\$800	\$182	\$982	\$1,006
50% of AMI	\$1,425	\$182	\$1,607	\$1,677
60% of AMI	\$1,775	\$182	\$1,957	\$2,013
Source: HUD and Flatiron Partners				

Site Plan and Building Design

Shown next is the proposed site plan for Braddock Terrace. There will be five residential structures, each with the four apartment units. Site access will be from Braddock Road in the north into a newly built network of roads to serve both Braddock Terrace as well as the remainder of the overall development. There will be a total of 40 surface parking spaces, which equates to a parking ratio of two spaces per unit. There will be no additional charges for parking.



Braddock Terrace Site Plan

Shown next is a rendering of a typical building at Braddock Terrace. These will be two-story, townhome-style buildings with pitched roofs. Exteriors will be 55 percent brick and 45 percent siding. The units will have an abundance of windows which will provide natural light. No balconies or patios are planned.



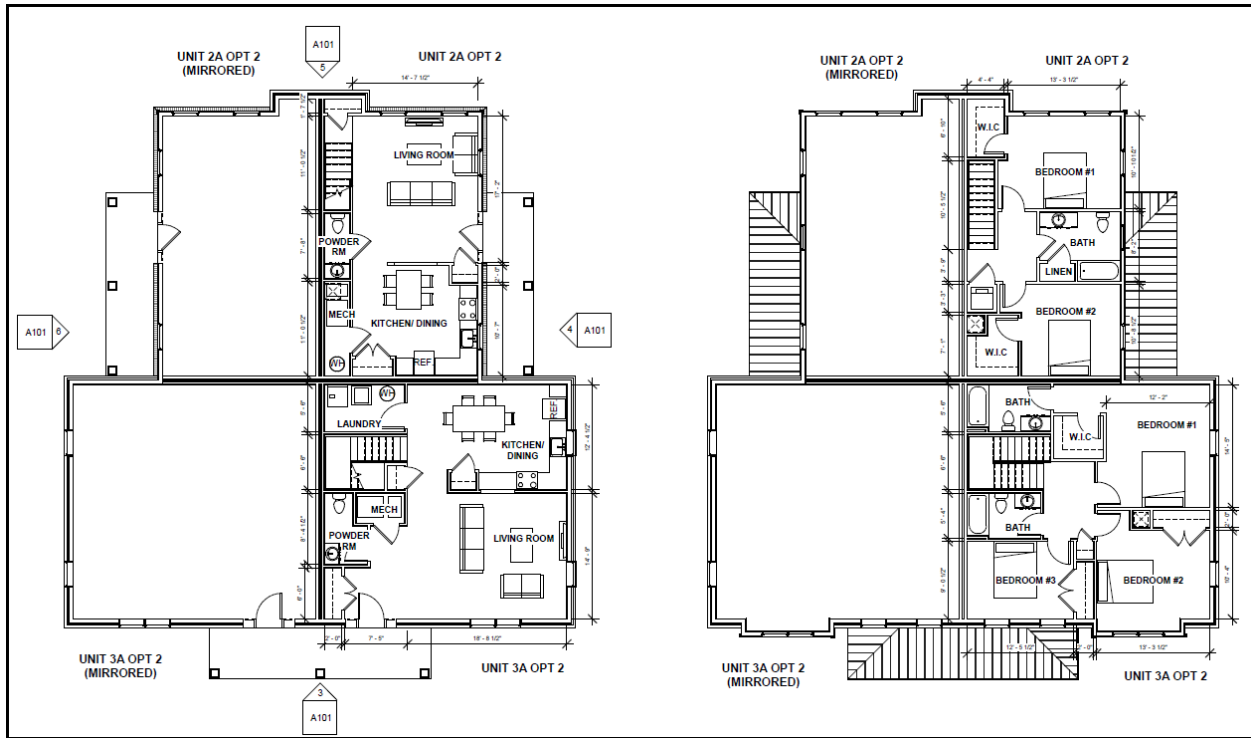
Typical Building Rendering

Unit Floor Plans

Typical unit floor plans are presented next. All units will have vinyl flooring in the kitchens, foyers, hallways, laundry rooms and living areas. All bedrooms and closets will be carpeted. There will be GE appliances to include a refrigerator, range, dishwasher and microwave. The kitchens will have laminate countertops while the bathrooms will have cultured marble. All units will have shaker style cabinets.

The floor plans show that these will be two-level units, with the living and dining areas on the ground level and the bedrooms on the upper level. These units will have a contemporary design with open floor plans. There will be a combined living and dining area. The ground levels will each contain a powder room. A laundry room will be located on the ground level in the three-bedroom units and on the upper level in the two-bedroom units.

The upper level of two-bedroom units will have a full bathroom and two walk-in closets in the bedrooms. The upper level for the three-bedroom units will have two full bathrooms. One will be in the master bedroom, which will also contain a walk-in closet.



Typical Unit Floor Plans

Development Costs

The proposed building costs, including soft costs and land acquisition, is \$6.2± million, or \$311,000± per apartment unit.

Market Area Economic Overview

This part of the market analysis presents an economic overview of the defined market area. Three economic factors are presented and analyzed: (1) at-place job growth, (2) employment and labor force trends, and (3) an evaluation of active development plans that are expected to generate new job and employment growth. These are the primary factors that show the level of economic stability in the market area and the ability for new investments, particularly for new housing.

The economic overview describes the growth trends for at-place jobs and employment. These are the two economic indicators that support population and household growth, and the

resulting demand for new housing units. Data are available from the U.S. Department of Commerce, Bureau of Labor Statistics (BLS) to year-end 2020.

Data are presented for all of Loudoun County, as BLS data are published on a countywide or citywide basis. Loudoun County is the primary jurisdiction to study for new job and employment growth. Nearby sections of Fairfax County are built up with limited land for new company locations or expansions.

At-Place Jobs

At-place employment refers to jobs physically based at employers in the market area, whether the job is based in private sector or government offices, manufacturing facilities, schools, retail stores, restaurants, nursing home, or other facilities. For this analysis, we have focused on Loudoun County, because that is where the study site is located.

As of year-end 2019, and prior to the pandemic, Loudoun County had nearly 175,500 at-place jobs. That total is 42,560± jobs above the pre-recession peak in 2008. The County witnessed significant job losses in 2009, when 3,200± jobs were eliminated. Nevertheless, the total jobs exceeded the pre-recession levels in 2011 and employment growth has continued every year since. 4,540± new jobs were created in 2018 while an additional 6,420 new jobs were added most recently in 2019.

The largest private employment sector in Loudoun County is the Local Government, which accounts for nearly 12.2 percent of total employment. This sector grew by over 41 percent since 2008, adding 6,260± new jobs during that period. This growth has been driven by overall population growth in the County, particularly on its eastern side. Much of this employment is part of the Loudoun County Public School system, which is the largest employer in the County with 11,580± employees. The public-school system alone has added 1,740± jobs since 2010.

The second largest employment sector in Loudoun County is the Professional and Technical Services sector, which accounts for over 12 percent of total employment and has added over 6,000 new jobs over the past decade. There have been several major job announcements over

the past ten years that have driven this high level of employment growth. Major announcements in this sector since 2010 include:

<u>Major Job Announcements, Professional and Technical Services, Loudoun County, VA, 2010-2019</u>			
	<u>Business Description</u>	<u>Year Announced</u>	<u>New Jobs</u>
Submer Inc.	Immersion cooling solutions for data centers	2019	10
Aperiomics	Technology that identifies infections	2019	34
Hanley Energy	Manufacturing facility for data center	2019	21
Uavionix	Develops GPS receivers for aviation	2018	8
Cynet Systems Inc.	Staffing services	2018	17
DMY Engineering Consultants	Offers geotechnical services	2018	7
Remington Mulch Company	Supplies mulch, soils, and woodchips	2018	30
Discovery, Inc.	American media company	2018	240
Verite Group	Data protection	2017	75
ePurchasing Network	Develops purchasing intranet platform	2017	17
FCi Federal	Federal contractor	2016	100
Sentry Control Systems	Parking systems technology	2016	10
Lowers Risk Group	IT company providing risk mitigation,	2015	282
Saab Defense and Security USA	Technology solutions for defense	2015	10
Telos Corporation	IT solutions and services	2014	160
VoodooLunchbox, Inc.	Multi-tenant cloud analytic platform	2013	27
Perceptive Software	Data capture	2013	30
ePlus Inc.	Technology solutions integration	2012	45
iGATE	Integrated technology and operations	2012	250
Perceptive Software	Data capture and enterprise search	2012	100
Metron Aviation	Air traffic management	2012	350
Infinitive	Process engineering	2011	61
Technica Corporation	IT solutions	2011	25
Symantec Corporation	Internet infrastructure services	2010	250
NeuStar, Inc.	Directory and network services	2010	280
Consult America, Inc.	IT consulting services provider	2010	<u>30</u>
Total			<u>2,469</u>

Source: Virginia Economic Development Partnership

Apart from the Information sector, every other employment sector has added employment between 2008 and 2019. Sectors that have added over 2,000 jobs during that period include: Accommodations/Food Services (5,570± new jobs), Health Care (5,360± new jobs), Manufacturing (3,250± new jobs), Administrative/Waste Services (2,760± new jobs), Transportation/Warehousing (2,230± new jobs) and Construction (2,060± new jobs).

Employment losses were only recorded in the Information sector, which has shed 910± since 2008. Many of these jobs were related to AOL laying off nearly 1,200 people earlier in the decade. Employment in this sector has risen steadily by nearly 400 jobs since 2017.

Industry	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	430	409	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mining	190	182	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Utilities	ND	ND	90	95	120	126	130	132	137	143	152	146
Construction	15,188	13,114	13,745	13,264	12,756	12,694	13,419	13,879	14,502	15,675	16,246	17,250
Manufacturing	4,637	4,301	4,441	4,675	4,808	6,191	6,047	6,350	6,841	7,084	7,495	7,888
Wholesale Trade	ND	ND	2,899	3,199	3,185	3,406	3,320	3,235	3,174	3,282	3,339	3,386
Retail Trade	16,292	15,822	16,337	16,876	17,103	17,005	17,114	17,754	18,051	17,923	17,956	17,725
Transport./ Wareh.	9,652	9,273	9,311	9,554	9,860	9,763	9,980	9,835	10,364	10,806	10,746	11,877
Information	8,191	7,833	7,231	7,368	7,007	6,940	7,504	7,245	7,018	6,887	7,045	7,277
Finance/Insurance	2,625	2,628	2,584	2,713	2,959	3,208	3,170	3,251	3,400	3,665	3,696	3,741
Real Estate	1,542	1,601	1,712	1,776	1,798	1,844	1,643	1,740	1,892	2,039	2,177	2,273
Prof./Tech.	15,070	15,310	15,676	16,484	17,123	17,550	17,085	18,296	18,775	19,651	20,717	21,149
Mgmt of Co.s	921	1,065	1,158	1,145	1,266	1,331	1,330	1,353	1,360	1,438	1,461	1,412
Admin./Waste	7,332	7,145	7,339	7,825	8,791	9,631	9,961	10,938	10,703	10,045	9,677	10,094
Education	1,807	1,847	1,880	2,156	2,300	2,483	2,613	2,814	2,848	2,922	2,928	3,467
Health Care	8,287	8,701	9,138	9,645	9,907	10,480	10,863	11,255	11,533	12,148	12,807	13,647
Arts/Enter./Rec.	1,765	1,874	2,125	2,244	2,286	2,607	2,590	3,003	3,390	3,508	3,554	3,535
Accom./Food	11,221	10,730	11,018	11,834	12,465	13,340	13,840	14,723	15,696	16,345	16,406	16,791
Other Services	4,044	3,916	4,244	4,473	4,841	4,957	5,008	5,209	5,451	5,535	5,730	5,719
Local Gov.	15,119	15,665	15,625	16,144	16,761	17,106	17,454	17,921	18,512	19,009	20,301	21,381
State Gov.	936	930	948	1,010	1,022	1,077	1,111	1,099	1,060	1,058	1,082	1,064
Federal Gov.	4,336	4,154	4,269	4,391	4,301	4,049	3,814	3,758	4,070	4,189	4,358	4,536
Total	132,938	129,736	132,340	137,434	141,249	146,358	148,593	154,560	159,753	164,537	169,077	175,497

Notes: ND = Data do not meet BLS or State agency disclosure standards.
Source: United States Department of Labor, Bureau of Labor Statistics

Much of this job growth occurred along the Route 7 corridor on the north side of the County and along the Dulles Access Road (SR 267). Considerable net new jobs were also realized along the Route 28 Corridor, the evolving primary commercial corridor in the County. Job growth throughout the County generated considerable population and household growth, as will be presented below.

Table 4 shows the net change in at-place job between 2008 and 2019. As shown, the only sector with job losses during this period is the Information sector. Besides the diversified economy, the key figure shown in Table 4 is the 32 percent net growth in new jobs since 2008, for a net increase of 42,560± jobs.

Table 4: <u>Change in Total At-Place Employment,</u> <u>Loudoun County, Virginia, 2008-2019</u>		
	<u>Net Change</u>	<u>Percent Increase</u>
Construction	2,062	13.6%
Manufacturing	3,251	70.1%
Retail Trade	1,433	8.8%
Transport. & Warehousing	2,225	23.1%
Information	-914	-11.2%
Finance/Insurance	1,116	42.5%
Real Estate	731	47.4%
Professional/Tech. Services	6,079	40.3%
Management of Companies	491	53.3%
Admin./Waste Services	2,762	37.7%
Educational Services	1,660	91.9%
Health Care	5,360	64.7%
Arts/Enter./Recreation	1,770	100.3%
Accommodations/Food	5,570	49.6%
Other Services	1,675	41.4%
Local Government	6,262	41.4%
State Government	128	13.7%
Federal Government	200	4.6%
Total	42,559	32.0%

Source: United States Department of Labor, Bureau of Labor Statistics

Next shown, in Table 5, are the employment changes that occurred in 2020, which is an outlier year given the unusual impact of the COVID-19 pandemic. The data show a significant loss of jobs, with a reduction in employment of over 10,000, or by nearly six percent.

These losses occurred across essentially all employment sectors, with the heaviest job losses impacting the Accommodations/ Food Services sector (3,540± jobs lost), Retail Trade sector (1,570± jobs lost) and Transportation and Warehousing sector (1,370± jobs lost). Although these losses are severe, a significant number of these layoffs are expected to be temporary and will likely be recovered once 2021 employment data is released. Of note is that these job losses did not impact occupancy at the area apartments under study.

	<u>2019</u>	<u>2020</u>	<u>Net Change</u>
Utilities	146	159	13
Construction	17,250	16,468	-782
Manufacturing	7,888	8,041	153
Wholesale Trade	3,386	3,066	-320
Retail Trade	17,725	16,152	-1,573
Transport. & Warehousing	11,877	10,506	-1,371
Information	7,277	6,942	-335
Finance/Insurance	3,741	3,776	35
Real Estate	2,273	2,039	-234
Professional/Tech. Services	21,149	20,968	-181
Management of Companies	1,412	1,333	-79
Admin./Waste Services	10,094	10,078	-16
Educational Services	3,467	2,893	-574
Health Care	13,647	13,116	-531
Arts/Enter./Recreation	3,535	2,700	-835
Accommodations/Food	16,791	13,255	-3,536
Other Services	5,719	5,163	-556
Local Government	21,381	21,391	10
State Government	1,064	1,044	-20
Federal Government	4,536	4,792	256
Total	175,497	165,116	-10,381

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

Employment and Labor Force

At-place jobs refer to where the job is located, and in this instance, that relates to jobs physically located in Loudoun County. Employment refers to the number of market area residents who are employed, no matter where the job is located. At-place job totals are significantly lower compared with employment, which means that some net out-commuting occurs into neighboring counties and cities, particularly to Fairfax County, Arlington County and Washington, DC.

Table 6 details employment data in Loudoun County. Employment grew by 43,710± over the past thirteen years, which is slightly larger than at-place job growth. That is the reason for the high demand for new housing in the County. That is likely the result of increased residential growth. The same “growth” pattern exists for employment and labor force as for at-place jobs – net increase until 2008 and then a decline. For market area employment, growth rebounded from the pre-recession employment level in 2011.

Total employment increased every year between 2010 and 2019, which is a positive sign. Employment grew by 5,350± in 2019. The increase in the labor force since 2009 is also a positive economic indicator, suggesting growing confidence in the economy among the County’s population.

Data for 2020 show heavy employment losses, mirroring the losses in at-place jobs. This is fully attributable to the impact of the COVID-19 pandemic. Total employment in 2020 declined by 11,890±, pushing the unemployment rate up from a very low 2.2 percent in 2019 to 5.1 percent, the highest unemployment rate since 2010. As with at-place jobs, many of these losses are expected to be temporary.

Table 6: Trends in Employment and Unemployment, Loudoun County, Virginia, 2008-2020				
	<u>Labor Force</u>	<u>Employment</u>	<u>Unemployment</u>	<u>Percent Unemployed</u>
2008	172,780	167,549	5,231	3.0%
2009	174,974	166,583	8,391	4.8%
2010	175,593	166,403	9,190	5.2%
2011	181,241	172,808	8,433	4.7%
2012	185,858	177,761	8,097	4.4%
2013	191,165	182,994	8,171	4.3%
2014	196,697	188,499	8,198	4.2%
2015	200,891	193,830	7,061	3.5%
2016	207,602	201,078	6,524	3.1%
2017	215,207	208,739	6,468	3.0%
2018	220,649	215,251	5,398	2.4%
2019	228,192	223,136	5,056	2.2%
2020	223,194	211,258	11,936	5.3%
Net Change	50,414	43,709	6,705	2.3%

Source: United States Department of Labor, Bureau of Labor Statistics

COVID-19 and Employment

Table 7 shows monthly employment data until November, 2021 in Loudoun County to illustrate the local employment impact of the COVID-19 pandemic. This is the date for which the most recent data are available.

Trend data show that since January, 2020, employment has fallen by over 8,400, with the number of unemployed growing by nearly 500. The disparity between these two figures is

because the labor force contracted by nearly 9,000 people, meaning that many of those who have lost their jobs have retired, quit searching for employment altogether or relocated from the area.

The data show significant employment improvements since the start of the pandemic, with 14,190± jobs recovered since April, 2020. Of note is that these job losses have not impacted occupancy rates at the competitive apartments under study.

Table 7: Trends in Employment and Unemployment, Loudoun County, Virginia, 2020-2021				
	Labor Force	Employment	Unemployment	Percent Unemployed
January, 2020	229,710	224,641	5,069	2.2%
February, 2020	230,822	226,317	4,505	2.0%
March, 2020	229,850	224,780	5,070	2.2%
April, 2020	224,143	202,031	22,112	9.9%
May, 2020	219,065	202,188	16,877	7.7%
June, 2020	223,852	206,030	17,822	8.0%
July, 2020	222,956	207,496	15,460	6.9%
August, 2020	225,265	211,774	13,491	6.0%
September, 2020	219,658	207,774	11,884	5.4%
October, 2020	218,649	208,167	10,482	4.8%
November, 2020	217,712	207,619	10,093	4.6%
December, 2020	216,648	206,280	10,368	4.8%
January, 2021	215,898	205,964	9,934	4.6%
February, 2021	216,341	207,039	9,302	4.3%
March, 2021	217,806	208,823	8,983	4.1%
April, 2021	216,720	210,054	6,666	3.1%
May, 2021	218,315	211,190	7,125	3.3%
June, 2021	220,993	213,050	7,943	3.6%
July, 2021	221,856	214,727	7,129	3.2%
August, 2021	220,388	213,771	6,617	3.0%
September, 2021	218,396	212,978	5,418	2.5%
October, 2021	220,933	216,034	4,899	2.2%
November, 2021 1/	220,795	216,220	4,575	2.1%
Net Change	-8,915	-8,421	-494	-0.1%
Notes: 1/ Preliminary data. Subject to change.				
Source: U.S. Department of Labor, Bureau of Labor Statistics				

Net Job Growth

Table 8 provides a list of new job announcements tracked by the Virginia Economic Development Partnership and the Loudoun Economic Development. Compared with net job growth listed from BLS since 2021, this list appears to be very limited. Economic development

staff report that these are the only data that they have, as they do not track job growth at medical, office or retail businesses.

There is no doubt that job growth in Loudoun County is significantly larger than what is listed in Table 8. Of note is the relatively large number of data centers announcements, many of which are not attributed to specific companies due to privacy and security concerns. These jobs are classified under Professional and Technical Services in Table 3 above.

<u>Company Name</u>	<u>Business Description</u>	<u>Date Announced</u>	<u>New Jobs</u>
Not Publicly Announced	Data center	12/2021	50
Athari Biosciences	Biotechnology	12/2021	50
Not Publicly Announced	Data center	12/2021	50
Not Publicly Announced	Data center	11/2021	25
Not Publicly Announced	Data center	10/2021	20
Publicly Announced	Data center	10/2021	0
Not Publicly Announced	Aerospace	10/2021	45
Not Publicly Announced	Data center	10/2021	5
MBF Bioscience	Software	10/2021	3
DXC Technology Co.	IT	09/2021	125
Not Publicly Announced	Logistics	09/2021	45
Not Publicly Announced	Data center	09/2021	50
Not Publicly Announced	Data center	08/2021	30
Not Publicly Announced	Data center	08/2021	25
Not Publicly Announced	Data center	08/2021	125
Not Publicly Announced	Data center	08/2021	60
Not Publicly Announced	Data center	08/2021	64
Not Publicly Announced	Data center	08/2021	18
Not Publicly Announced	Data center	08/2021	20
Raytheon Technologies	Aerospace	07/2021	175
Euclid Systems Corporation	Myopia Management	06/2021	100
Hanley Energy	Manufacturing facility for data centers	05/2021	170
TA Realty	Data center	05/2021	0
Kyrus Technology	Software development	04/2021	5
Not Publicly Announced	Data center	03/2021	50
Not Publicly Announced	Data center	03/2021	50
Zasti Federal Services, Inc.	Artificial Intelligence	03/2021	60
Not Publicly Announced	Data center	03/2021	50
Not Publicly Announced	Data center	02/2021	20
Total			1,490

Notes: 1/ Only announcements with ten or more new employees shown.

Source: Virginia Economic Development Partnership, Loudoun Economic Development

In addition to the above is a major announcement by the U.S. Customs and Border Protection to occupy 445,000± square feet of space formerly occupied by MCI/WorldCom. The

agency will employ 3,700 people at the facility. This is a relocation and consolidation and not net growth.

Largest Employers

Table 9 lists the largest employers in Loudoun County. The list is long and quite diverse. It includes numerous large public agencies, several high-tech firms, and primary firms with salaried jobs. Many of these employers are associated with Dulles International Airport.

Table 9: <u>Largest Employers, Loudoun County, Virginia, 2021</u>		
<u>Employer</u>	<u>Sector</u>	<u>Employees</u>
Loudoun County Schools	Educational Services	1,000+ employees
County of Loudoun	Justice, Public Order, and Safety Activities	1,000+ employees
United Airlines Inc	Air Transportation	1,000+ employees
U.S. Department of Homeland Defense	Administration of Economic Programs	1,000+ employees
M.C. Dean, Inc.	Specialty Trade Contractors	1,000+ employees
Orbital Sciences Corporation	Computer and Electronic Product Manufacturing	1,000+ employees
Raytheon Company	Computer and Electronic Product Manufacturing	1,000+ employees
Loudoun Hospital Center	Hospitals	1,000+ employees
Swissport U.S.A., Inc.	Support Activities for Transportation	1,000+ employees
God Bless America Inc	Support Activities for Transportation	1,000+ employees
Amazon Fulfillment Services Inc.	Administrative and Support Services	1,000+ employees
Postal Service	Postal Service	1,000+ employees
Wal Mart	General Merchandise Stores	1,000+ employees
Dynaletric Company	Specialty Trade Contractors	1,000+ employees
Worldcom	Telecommunications	1,000+ employees
Harris Teeter Supermarket	Food and Beverage Stores	500 to 999 employees
Gate Gourmet	Food Services and Drinking Places	500 to 999 employees
Loudoun Medical Group	Ambulatory Health Care Services	500 to 999 employees
Wegmans Store #07	Food and Beverage Stores	500 to 999 employees
U.S. Department of Transportation	Support Activities for Transportation	500 to 999 employees
George Washington University	Educational Services	500 to 999 employees
Metro Washington Airports	Administration of Economic Programs	500 to 999 employees
Bowers	Specialty Trade Contractors	500 to 999 employees
Giant Food	Food and Beverage Stores	500 to 999 employees

Source: Virginia Employment Commission

Section II Affordable Apartment Market Analysis

Following is the supply/demand analysis for the proposed 20-unit Braddock Terrace. Section II has two subsections. The first is the demographic analysis that “solves” for the number and growth of renter households with incomes, reported in constant 2022 dollar values, of the three demographic cohorts planned within Braddock Terrace. The demographic analysis “solves” for the number of market area renter households earning 30% of AMI (\$29,000 to \$38,700), 50% of AMI (\$51,000 to \$64,500) and 60% of AMI (\$62,000 to \$77,740). The upper income limits are based on the HUD maximum allowable incomes. The forecast date for the demographic analysis is 2024, as Braddock Terrace is likely to be ready for occupancy by in that year.

The second part of Section II is the analysis of the defined competitive affordable apartment market for families within the defined market area. We identified 15 apartment properties to study. All are LIHTC properties that were built between 1996 and 2021.

These apartment properties are studied for occupancy, rent, unit and property features and characteristics, and curb appeal. They are compared with Braddock Terrace to determine its competitive market position.

Market Area Demographic Analysis

Population Trends and Projections

As of 2020, the market area’s population totals 391,050±. This is based on recently released census data. The population increased by 64,230± since the 2010 census count due to a considerable level of housing unit development during the post-2010 period, particularly in the Loudoun County portion of the market area. This represents an annual average population increase of 6,420± since 2010. This level of population growth is compared to an annualized population growth rate of 9,370± during the 2000’s. The slower pace of population growth in the post-2010 period is largely attributed to limited availability and high prices of developable land in the market area.

Based on recent population trends and economic development activity, the market area population is projected to increase by 25,690± by 2024 to reach 416,740±. The net population growth for the post-2020 period, based on past trends, could be conservative, given the sizable amount of new commercial and residential developments proposed over the next few years.

**Table 10: Trends and Projections of Population and Households
Braddock Terrace Market Area, 1990-2024**

	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2024</u>
Market Area Population	124,750	233,140	326,820	391,050	416,740
Loudoun County Portion 1/	27,460	72,700	152,970	206,190	--
Fairfax County Portion 2/	97,290	160,430	173,840	184,860	--
Group Quarters Population	70	140	70	80	80
Household Population	124,680	233,000	326,750	390,970	416,660
Persons Per Household	3.01	2.94	2.99	2.99	2.99
Total Households	41,380	79,230	109,150	130,760	139,350
Renter Households	8,970	18,190	28,540	38,180	42,360
Percent Renter Households	21.7%	23.0%	26.1%	29.2%	30.4%

Notes: 1/ Includes the following 2010 U.S. Census tracts from Loudoun County: 6110.04, 6110.05, 6110.06, 6110.12, 6110.13, 6110.14, 6110.15, 6110.16, 6110.17, 6110.18, 6110.19, 6110.20, 6110.21, 6110.22, 6110.23, 6110.24, 6110.25, 6113, 6114, 6115.01, 6115.02, 6116.01, 6116.02, 6117, 6118.01, 6118.02, 6118.03, 6118.04, 6118.05, 6118.06, 6119, 9801.

2/ Includes the following 2010 U.S. Census tracts from Fairfax County: 4805.02, 4805.03, 4808.01, 4808.02, 4809.01, 4809.02, 4809.03, 4810, 4811.01, 4811.02, 4811.03, 4811.04, 4811.05, 4812.01, 4825.01, 4825.02, 4825.03, 4826.01, 4901.01, 4901.03, 4905.01, 4910, 4911.01, 4911.02, 4911.03, 4912.01, 4912.02, 4913.01, 4913.02, 4913.03, 4914.01, 4914.02, 4914.3, 4914.04, 4914.05, 4915.01, 4915.02, 4916.01, 4916.02, 9802

Source: 1990-2020 Census, U.S. Census Bureau, S. Patz & Associates, Inc.

Group Quarters Population

The market area has a very small Group Quarters population, well below one percent of total population. The vast majority of the Group Quarters population consists of seniors in assisted living and nursing facilities. Thus, household population is nearly equal to total population. Persons in Group Quarters were subtracted from the total population to determine the Household Population. Household Population is the basis for the analysis of housing unit demand.

Households

As of 2020 the market area is estimated to have approximately 130,760± households, an increase of 21,610± households from the 2010 Census and 51,530± households compared with the Census figure of 79,230± in 2000. The net increase of households over the past two decades is the result of new housing unit construction, particularly in the Loudoun County portion of the market area. The continuation of past trends is likely to expand the number of market area households to 139,350± by 2024.

Data in Table 10 also show that the market area has a large average household size of nearly 3.0 in 2020. This high average household size denotes a large homeownership market with an abundance of single-family homes and townhomes occupied by families. The average household size did decrease somewhat during the 1990's, but increased during the 2010 decade. The most recent increase was likely due to the recession and households doubling up. It also indicates that the market area attracts mostly families, even in apartment units.

Renter Households

In 2020, market area renter households equaled nearly 29.2 percent of total households. The percent of renters has increased steadily over the past two decades. This “uptick” in renters is the direct result of considerable housing unit development, including several apartments for rent. By 2024, an estimated 30.4 percent of households in the market area will be renters. This will represent 42,360± households, an increase of 4,180± over the 2020 total.

Target Renter Households

Braddock Terrace will have rents restricted to households earning 30%, 50% and 60% of the Area Median Income (AMI). The paragraphs below detail each of these demographic cohorts:

- **30% of AMI.** Qualified renter households for this income category must earn annual incomes ranging between \$29,000 and \$38,700, when reported in constant 2022 dollars. The demographic analysis shows that as of 2020, the market area had 2,200± renter households within this income range. The 2020 total exceeds the 2010 total by 630±

households. By 2024, the market area is projected to add 250± households within this income category to reach a total of 2,450± households.

- **50% of AMI.** Qualified renter households for this income category must earn annual incomes ranging between \$51,000 and \$64,500, when reported in constant 2022 dollars. As of 2020, the market area totaled 3,410± renter households in this income range, an increase of 910± over the 2010 total. By 2024, the market area is projected to total 3,770± renter households within this income category. This represents an increase of 360± households.
- **60% of AMI.** Qualified renter households for this income category must earn annual incomes ranging between \$62,000 and \$77,740, when reported in constant 2022 dollars. As of 2020, the market area totaled 4,220± renter households in this income range. This represents an increase of 1,170± over the 2010 total. The market area is projected to add 500± households within this income category by 2024 to reach a total of 4,720± households.

Table 11: Trends and Projections of Target Market, Braddock Terrace Market Area, 1990-2024 (Constant 2022 Dollars)					
	1990	2000	2010	2020	2024
Renter Households	8,970	18,190	28,540	38,180	42,360
30% of AMI (\$29,000-\$38,700)					
Total Households	340	950	1,570	2,200	2,450
Percent of Renter Households	3.8%	5.2%	5.5%	5.8%	5.8%
50% of AMI (\$51,000-\$64,500)					
Total Households	830	1,630	2,500	3,410	3,770
Percent of Renter Households	9.3%	9.0%	8.8%	8.9%	8.9%
60% of AMI (\$62,000-\$77,740)					
Total Households	1,020	1,960	3,050	4,220	4,720
Percent of Renter Households	11.4%	10.8%	10.7%	11.1%	11.1%
Source: U.S. Department of Commerce; S. Patz and Associates, Inc.					

Households by Size

As of 2010, approximately 29 percent of all renter households are single-person households in Loudoun County. An additional 25.7 percent are two-person. This is shown in Table 12 below.

**Table 12: Trends in Household Size,
Loudoun County, Virginia, 2010**

	<u>Number</u>	<u>Percent</u>
Renter Households	23,199	100.0%
1-person household	6,717	29.0%
2-person household	5,958	25.7%
3-person household	3,891	16.8%
4-person household	3,420	14.7%
5-person household	1,820	7.8%
6-person household	774	3.3%
7-or-more-person household	619	2.7%
Source: 2010 U.S. Department of Commerce		

Competitive Apartment Market

This subsection analyzes the 15 affordable apartment properties identified in the market area that would be competitive with Braddock Terrace, once built. Data shown on each competitive apartment community includes the date built, current occupancy, apartment unit characteristics, unit mix and project amenities. These data are compared with the Braddock Terrace proposal to establish the competitive position and market support for the proposed 20 rental units, which are the basis for establishing competitive rents and market support.

Characteristics of Affordable Apartments

Table 13 presents a list of the 15 general occupancy LIHTC apartment complexes in the market area. Excluded from this list are properties with deep rent subsidies and apartments with age-restrictions. These complexes would not be competitive with the Braddock Terrace proposal. The communities under study are generally competitive, even though some were built prior to 2000. All have rents restricted to 30%, 50% and 60% of AMI.

Six of these apartment complexes, with 577 apartment units, have opened since 2010. The newest to open is the 55-unit Woods at Brambleton Town Center. The community opened in July, 2021 and is fully leased. All units are three-bedroom townhomes that are restricted to 60% of AMI. Tenants have access to local homeowners' association amenities, including a pool, business center, community room, hiking trails and recreation facilities.

Also to open recently is the 96-unit Ashburn Chase, which opened in December, 2020. Management pre-leased approximately 60 percent of the apartment units prior to opening and the community is now full. This is an attractive elevator-served building.

One apartment complex – Stone Springs – opened in September, 2019 with 128 units. The community achieved stabilized occupancy in under a year and now has only six vacant units and over 150 people on a waitlist. Also recent to open is the 96-unit Heronview, which opened in April, 2018 with a mix of rent restricted units. This complex is also fully occupied. The only other apartment to open since 2010 is the 202-unit Woods at Brambleton. It opened in in 2015 and is at near full occupancy with a waitlist of nearly 330 people

The remaining ten competitive apartments are older, having been largely built in the 1990's and 2000's. They total 2,383 apartment units and maintain a vacancy rate of 1.5 percent

Other salient points in Table 13 are as follows:

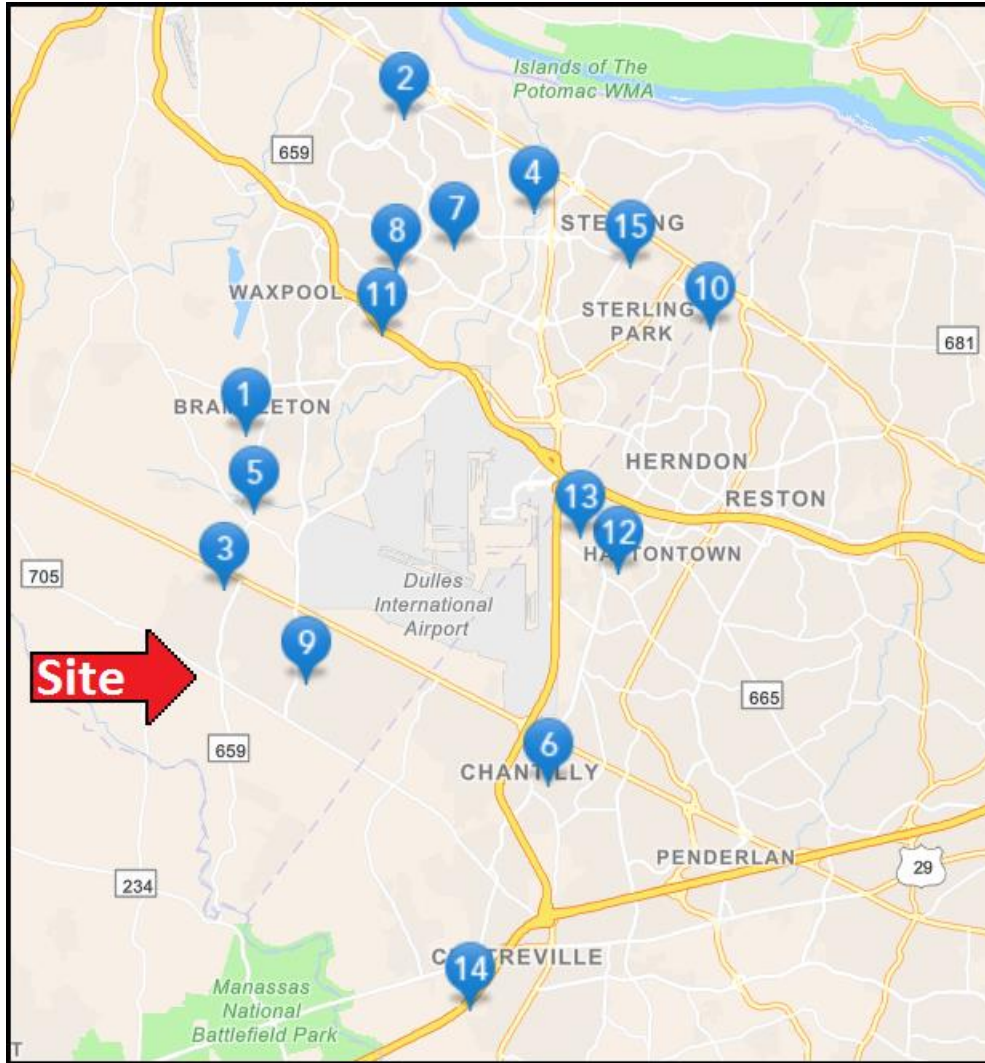
- The market area has a very low vacancy rate of only 1.5 percent, or 44 apartment units.
- Several properties maintain waitlists. These waitlists total approximately 600 people.
- None of the apartment properties are facing any vacancy issues.
- Nine of the apartment properties under study have three or fewer vacant units.
- The addition of new apartments since 2010 has not adversely impacted occupancy at the older apartment properties.
- An estimated 440± units are occupied by residents with vouchers (15 percent), which is below the norm at most marketplaces.

Table 13: Characteristics of Affordable Apartment Properties, Braddock Terrace Market Area, February, 2022

	<u>Map F Key</u>	<u>Date Built</u>	<u>Restrictions</u>	<u>Total Units</u>	<u>Vacant Units</u>
Woods at Brambleton Town Center	1	Jul-21	60%	55	0
Ashburn Chase	2	Dec-20	30%/50%/60%	96	0
Stone Springs	3	Sep-19	60%	128	6
Heronview	4	Apr-18	30%/40%/50%	96	0
Woods at Brambleton	5	2015	50%	202	3
Fields of Chantilly	6	2001	60%	360	5
Ashburn Meadows I & II	7	2000/02	60%	336	1
Acclaim at Ashburn I & II	8	1999/00	50%	174	7
Abbey at South Riding	9	1999	30%/60%	168	2
Acclaim at Sterling	10	1998	60%	102	1
Grove at Flynn's Crossing	11	1998	60%	168	1
Coppermine Run	12	1996	60%	288	5
Dulles Center	13	1996	50%/60%	272	5
Lee Overlook	14	1996	60%	195	7
Fields at Cascades	15	1995	50%/60%	<u>320</u>	<u>1</u>
Total				2,960	44
Vacancy Rate					1.5%

Source: S. Patz & Associates, Inc.

Map F shows the locations of the 15 apartments under study. Four are located west of Dulles International Airport while seven are located north of the airport. One complex is located in the Chantilly area, two are located in Herndon and one is located in Centreville.



Map F - Locations of Competitive Apartments

Shown next are photos of each of the apartment properties under study. Woods at Brambleton Town Center consists of three-story townhomes, each with two car garages. The other three newest complexes - Ashburn Chase, Stone Spring and Heronview – have contemporary designs and are elevator-served buildings. The remaining apartment buildings are multistory garden-style apartment buildings without elevators. Braddock Terrace will have an equal or more attractive exterior design in comparison with the newer market area properties.



Woods at Brambleton Town Center



Ashburn Chase



Stone Springs



Hernoview



Woods at Brambleton



Fields of Chantilly



Ashburn Meadows



Acclaim at Ashburn



Abbey at South Riding



Acclaim at Sterling



Grove at Flynn's Crossing



Coppermine Run



Dulles Center



Lee Overlook



Fields at Cascades

Net Rent Analysis

The net rent analysis is presented next in Table 14. Rents were adjusted to exclude the costs of utilities to be consistent with the rental structure at Braddock Terrace. The data also show that ten of the apartment properties under study provide in-unit washers and dryers at no additional cost. That is a \$40± premium. The data show a wide mix of rents due to various income restrictions. As previously noted, Braddock Terrace is proposed to include only two- and three-bedroom units.

Three properties—Ashburn Chase, Heronview and Abbey at South Riding—offer two-bedroom apartment units restricted to 30% of AMI. Rents for these units range between \$870 and \$931, which is considerably higher than the proposed rent of \$700 for the two-bedroom 30% units proposed for Braddock Terrace.

The two-bedroom 50% units are proposed to rent for \$1,275 at Braddock Terrace. Similar units in the market area rent for between \$1,120 and \$1,470. These more expensive apartment units have leased well. The two-bedroom 60% units are proposed to rent for \$1,550 at Braddock Terrace. Seven of the apartments under study generate higher rents for two-bedroom units with 60% rents.

The three apartment properties with 30% three-bedroom apartment units lease them for over \$1,000. This is compared to a proposed three-bedroom 30% rent of \$800 at Braddock Terrace. The 50% three-bedroom apartment units in the market area rent for between \$1,120 and \$1,690. This is compared to a proposed three-bedroom 50% rent of \$1,425 at Braddock Terrace. The three-bedroom 60% rents at Braddock Terrace are proposed to rent for \$1,775. Eight of the apartment properties under study generate higher rents for similar units.

The key point in Table 14 is that most of the existing rents in the market area are above those proposed for Braddock Terrace. This will place this attractive proposal in a uniquely competitive position. Braddock Terrace will also have 2.5 bathrooms in all three-bedroom units, a design that no other existing competitive property offers.

Table 14: Rental Rates at LIHTC Apartment Communities, Braddock Terrace Market Area, February, 2022 1/

	<u>One-Bedroom</u>	<u>Two-Bedroom</u>	<u>Three-Bedroom</u>
Woods at Brambleton Town Center 6/	--	--	\$1,755 (60%)
Ashburn Chase 2/ 6/	\$730 (30%)-\$1,215 (50%)-\$1,280 (60%)	\$900 (30%)-\$1,470 (50%)-\$1,650 (60%)	\$1,010 (30%)-\$1,690 (50%)-\$1,900 (60%)
Stone Springs 6/	\$1,316 (60%)	\$1,571 (60%)	\$1,801 (60%)
Heronview	\$725 (30%)-\$967 (40%)-\$1,209 (50%)	\$870 (30%)-\$1,161 (40%)-\$1,451 (50%)	\$1,006 (30%)-\$1,342 (40%)-\$1,677 (50%)
Woods at Brambleton 3/ 4/ 6/	\$1,075 (50%)	\$1,120 (50%)	\$1,120 (50%)
Fields of Chantilly 3/ 6/	--	\$1,666 (60%)	\$1,908 (60%)
Ashburn Meadows I & II 3/	--	\$1,636 (60%)	\$1,895 (60%)
Acclaim at Ashburn I & II 5/	--	\$1,252 (50%)	\$1,468 (50%)
Abbey at South Riding 6/	\$847 (30%)-\$1,317 (60%)	\$931 (30%)-\$1,576 (60%)	\$1,020 (30%)-\$1,820 (60%)
Acclaim at Sterling 5/ 6/	--	\$1,455 (60%)	\$1,544 (60%)
Grove at Flynn's Crossing	\$1,322 (60%)	\$1,537-\$1,582 (60%)	\$1,828 (60%)
Coppermine Run 3/ 6/	--	\$1,614 (60%)	\$1,862 (60%)
Dulles Center	--	\$1,140 (50%)-\$1,597 (60%)	\$1,264 (50%)-\$1,828 (60%)
Lee Overlook 6/	--	\$1,520 (60%)	\$1,734 (60%)
Fields at Cascades 3/ 6/	--	\$1,350 (50%)-\$1,626 (60%)	\$1,875 (60%)
Proposed Rents 30% Rents 6/	--	\$700	\$800
Proposed Rents 50% Rents 6/	--	\$1,275	\$1,425
Proposed Rents 60% Rents 6/	--	\$1,550	\$1,775

Notes: 1/ Rents adjusted to exclude utilities.

2/ Estimate

3/ Smaller two-bedroom units have 1.0 bathrooms.

4/ Larger two-bedroom and all three-bedroom units are townhomes. Three-bedroom units have 2.5 bathrooms.

5/ Smaller two-bedroom units have 1.5 bathrooms.

6/ Includes in-unit washer and dryer.

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

Rent per Square Foot

Table 15 shows the rent per square foot calculation for each of the properties under study. The average one-bedroom rent per square foot is \$1.56. This is compared to an average of \$1.46 for the two-bedroom apartment units and \$1.33 for the three-bedroom apartment units. The rent per square foot calculation for Braddock Terrace is lower due to the presence of 30% apartment units, relatively modest rents and spacious floor plans.

Table 15: Rent per Square Foot at Competitive Apartment Communities, Braddock Terrace Market Area, February, 2022

	<u>One-Bedroom</u>	<u>Two-Bedroom</u>	<u>Three-Bedroom</u>
Woods at Brambleton Town Center	--	--	\$0.75
Ashburn Chase	\$1.66	\$1.51	\$1.56
Stone Springs	\$1.75	\$1.47	\$1.46
Heronview	\$1.30	\$1.04	\$1.00
Woods at Brambleton	\$1.49	\$1.09	\$0.88
Fields of Chantilly	--	\$1.68	\$1.54
Ashburn Meadows I & II	--	\$1.73	\$1.61
Acclaim at Ashburn I & II	--	\$1.42	\$1.33
Abbey at South Riding	\$1.50	\$1.28	\$1.21
Acclaim at Sterling	--	\$1.65	\$1.40
Grove at Flynn's Crossing	\$1.64	\$1.50	\$1.44
Coppermine Run	--	\$1.74	\$1.58
Dulles Center	--	\$1.36	\$1.28
Lee Overlook	--	\$1.52	\$1.31
Fields at Cascades	--	\$1.50	\$1.59
Average	\$1.56	\$1.46	\$1.33
Braddock Terrace	--	\$1.03	\$0.82

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

Apartment Unit Sizes

Table 16 lists the unit sizes at each of the properties under study. The two-bedroom units at Braddock Terrace are proposed to range in size between 1,098 and 1,116 square feet, which is larger than the LIHTC properties by an average of 128 square feet. The three-bedroom apartment units at the LIHTC properties average 1,272 square feet, which is 297 square feet smaller than the proposed three-bedroom units at Braddock Terrace. Overall, the proposed floor plans at Braddock Terrace will be spacious and larger than most of the existing affordable apartment units in the market area.

**Table 16: Unit Sizes at Competitive Apartment Communities,
Braddock Terrace Market Area, February, 2022**

	<u>One-Bedroom</u>	<u>Two-Bedroom</u>	<u>Three-Bedroom</u>
Woods at Brambleton Town Center	--	--	2,355
Ashburn Chase	606	847	933
Stone Springs	753	1,072	1,236
Heronview	744	1,113	1,340
Woods at Brambleton	720	1,024	1,267
Fields of Chantilly	--	994	1,237
Ashburn Meadows I & II	--	944	1,178
Acclaim at Ashburn I & II	--	884	1,101
Abbey at South Riding	720	976	1,172
Acclaim at Sterling	--	884	1,101
Grove at Flynn's Crossing	807	1,045	1,267
Coppermine Run	--	930	1,178
Dulles Center	--	1,009	1,209
Lee Overlook	--	1,000	1,325
Fields at Cascades	--	994	1,178
Average	725	979	1,272
Braddock Terrace	--	1,098-1,116	1,540-1,598

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

Apartment Unit Mix

Table 17 lists the apartment unit mix at each of the apartment properties under study. These data show that only 6.7 percent of units are one-bedroom units. This is compared to 70.1 percent of units that have two bedrooms and 22.9 percent of units that have three bedrooms. The fact that 93 percent of the units under study have two or more bedrooms denotes a market area with an abundance of families. Nine of the apartment properties are designed with no one-bedroom apartment units.

	<u>Studio</u>	<u>One-Bedroom</u>	<u>Two-Bedroom</u>	<u>Three-Bedroom</u>	<u>Total</u>
Woods at Brambleton Town Center	0	0	0	55	0
Ashburn Chase	0	19	58	19	0
Stone Springs	0	32	84	12	0
Heronview	0	18	58	20	0
Woods at Brambleton	7	58	135	2	7
Fields of Chantilly	0	0	288	72	0
Ashburn Meadows I & II	0	0	280	56	0
Acclaim at Ashburn I & II	0	0	138	36	0
Abbey at South Riding	0	48	84	36	0
Acclaim at Sterling	0	0	80	22	0
Grove at Flynn's Crossing	0	24	126	18	0
Coppermine Run	0	0	240	80	0
Dulles Center	0	0	216	72	0
Lee Overlook	0	0	136	136	0
Fields at Cascades	<u>0</u>	<u>0</u>	<u>153</u>	<u>42</u>	<u>0</u>
Total	7	199	2076	678	7
Percent of Total	0.2%	6.7%	70.1%	22.9%	0.2%
Braddock Terrace 30% of AMI	0	0	1	1	2
Braddock Terrace 50% of AMI	0	0	4	4	8
Braddock Terrace 60% of AMI	<u>0</u>	<u>0</u>	<u>5</u>	<u>5</u>	<u>10</u>
Braddock Terrace Total	0	0	10	10	20

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

Community Amenities

Table 18 lists the community amenities at each of the apartments under study. The data show that all are amenitized. They each either have either a clubhouse or clubroom, and most have fitness centers, outdoor swimming pools and playgrounds. Communities that do not offer in-unit washers and dryers typically have on-site laundry facilities.

Table 18: Community Amenities at Competitive Apartment Communities, Braddock Terrace Market Area, February, 2022

	<u>Clubhouse</u>	<u>Fitness</u>	<u>Business</u>	<u>Pool</u>	<u>Playground</u>	<u>Laundry</u>
Woods at Brambleton Town Center	●	●	●	●	●	○
Ashburn Chase	●	●	●	○	○	○
Stone Springs	●	●	●	●	●	○
Heronview	●	●	○	○	○	●
Woods at Brambleton	●	○	○	○	○	○
Fields of Chantilly	●	●	●	●	●	○
Ashburn Meadows I & II	●	●	●	●	●	●
Acclaim at Ashburn I & II	●	●	●	●	●	●
Abbey at South Riding	●	●	●	●	●	○
Acclaim at Sterling	●	●	●	●	●	○
Grove at Flynn’s Crossing	●	●	●	●	●	●
Coppermine Run	●	●	○	●	●	○
Dulles Center	●	●	○	●	○	○
Lee Overlook	●	●	○	●	●	●
Fields at Cascades	●	●	○	●	○	○
Braddock Terrace	○	○	○	○	○	○

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

Section III Market Study Conclusions

The analysis presented above shows a very strong affordable apartment market for families in the market area. With the level of population and household growth, a pent-up demand clearly exists. The current competitive affordable apartment market for families has a low vacancy rate of 1.5 percent and a waitlist of at least 600 households. There are only 44 available apartment units at the 15 properties under study.

The market area has had limited development of income restricted apartment units that has not kept pace with demand. Five apartment complexes with 580± apartment units have delivered over the past decade. This represents fewer than 20 percent of the area affordable apartment units. These newer properties are all at or near full occupancy and several maintain waitlists. Nevertheless, there are several affordable apartment communities in active planning, which will be detailed further below.

The following Analysis of Demand will show the evolving supply/demand analysis for family rental housing for the projection period of 2024.

Demand Analysis

Competitive Pipeline Proposals

Table 18 details the affordable apartments that are under construction and in active planning in the market area. Excluded from this list are several age-restricted proposals that represent a separate housing market.

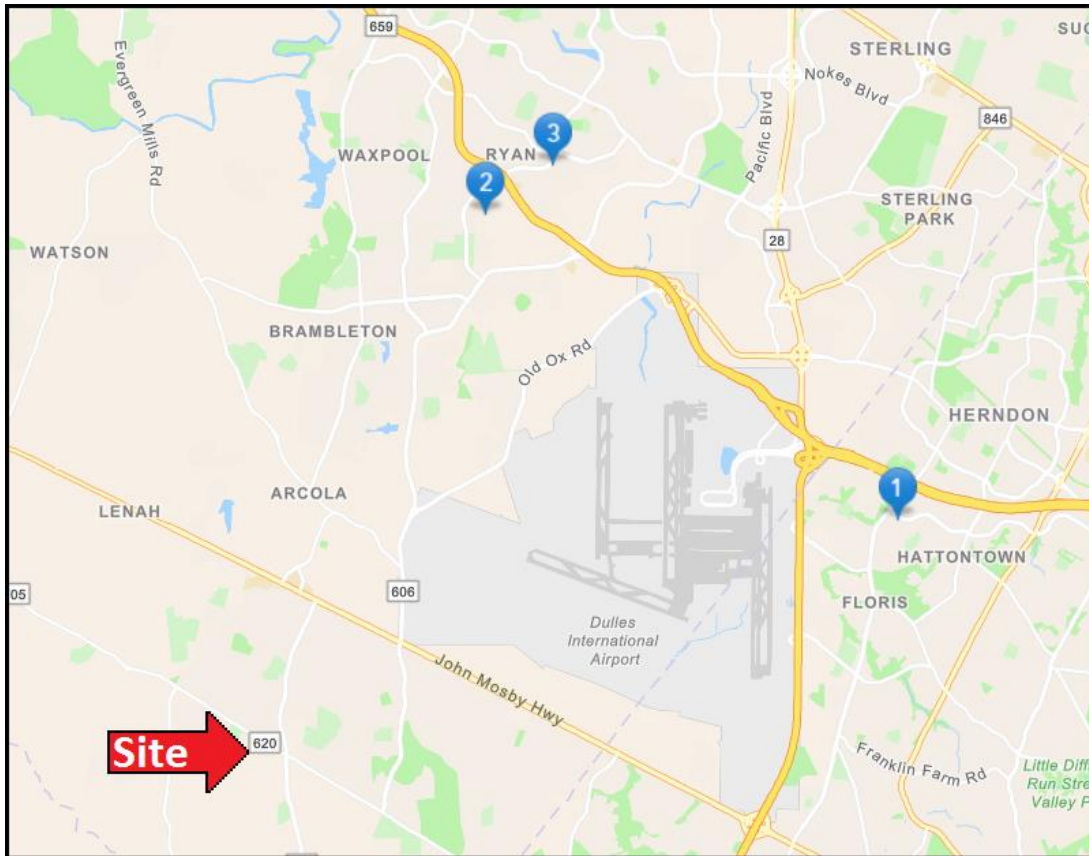
One apartment complex, Ovation at Arrowbrook, is under construction with 274 affordable apartment units. The community is expected to open in the summer of 2022. Two additional apartment communities with 145 apartment units are in active planning, with construction expected to begin between March and July of 2022.

In total, these apartment proposals will add 419 affordable apartment units to the market area. Within this total will be 18 units restricted to 30% of AMI, 14 units restricted to 40% of AMI,

46 units restricted to 50% of AMI, 339 units restricted to 60% of AMI and seven units restricted to 70% of AMI.

Table 18: Affordable Apartment Pipeline, Braddock Terrace Market Area, February, 2022							
	<u>Map G Key</u>	<u>30% of AMI</u>	<u>40% of AMI</u>	<u>50% of AMI</u>	<u>60% of AMI</u>	<u>Total Units</u>	<u>Status</u>
<u>Under Construction</u>							
Ovation at Arrowbrook	1	13	14 1/	36	211	274	Summer-2022 Opening
<u>Planned</u>							
View at Broadlands 2/	2	0	0	10	76	93	March, 2022 Start
Waxpool Apartments	3	<u>0</u>	<u>0</u>	<u>0</u>	<u>52</u>	<u>52</u>	July, 2022 Start
(Subtotal)		<u>(0)</u>	<u>(0)</u>	<u>(10)</u>	<u>(128)</u>	<u>(145)</u>	
Total		18	14	46	339	419	
Notes: 1/ All 40% units to have Project Based Vouchers 2/ To include seven units restricted to 70% of AMI.							
Source: S. Patz & Associates, Inc.							

Map G shows the locations of each of these pipeline apartment proposals. It shows that all three apartment proposals will be built near the Dulles Toll Road. Ovation at Arrowbrook is under construction in the Herndon area. View at Broadlands and Waxpool Apartments will be built in the Broadlands area of eastern Loudoun County.



Map G - Locations of Pipeline Apartments

The paragraphs below briefly detail these three apartment proposals. None will have townhome designs similar to Braddock Terrace.

- **Ovation at Arrowbrook**. Construction is ongoing and is expected to be completed in the summer of 2022 on this 274-unit affordable apartment complex at 2296 Centreville Road in Herndon. Within this total will be 13 units restricted to 30% of AMI, 14 units with vouchers restricted to 40% of AMI, 36 units restricted to 50% of AMI and 211 units restricted to 60% of AMI. Units will vary between 422 square feet for studio and 1,305 square feet for three-bedroom units. Common area amenities 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 and access to a dog park.
- **The View at Broadlands**. This is a proposal for a 93-unit apartment building to be built at the southwestern intersection of Mooreview Parkway and Old Ryan Road, just south of the Dulles Greenway (SR 267) and within walking distance of the Ashburn Station Metro Station. The community will contain a mix of 37 one-bedroom, 48 two-bedroom and eight three-bedroom apartment units. Within this total will be ten units restricted to 50% of

AMI, 76 units restricted to 60% of AMI and seven units restricted to 70% of AMI. Construction is expected to begin in March, 2022

- **Waxpool Apartments** is proposed for 52 apartment units in a single building at 21685 Romans Drive in Ashburn. The sponsor is in underwriting now with Virginia Housing and their equity investor. Construction is expected to begin in July of 2022 with the start of lease-up by August, 2023. All units will be restricted to 60% of AMI.

Shown next are photos of the Ovation at Arrowbrook site, it shows that construction is well underway. Site work as not yet begun on The View at Broadlands or Waxpool Apartments.



Ovation at Arrowbrook Construction Site

Demand Table

The Virginia Housing Demand Table is presented next. It shows a projected net growth of 250± targeted family households for the 2020 to 2024 period for the 30% apartment units. The growth amount is 360± households for the 50% apartment units and 500± households for the 60% apartment units.

Added to this total is a 15 percent factor to account for expected tenants with vouchers for an increased demand of 40± renter households for the 30% apartment units, 50± renter households for the 50% apartment units and 80± renter households for the 60% apartment units.

We excluded households in substandard housing in our demand analysis, as that is not a major issue for residents of the market area. Braddock Terrace will not be a senior property. Thus,

the total demand is comprised of net target household growth, plus a likely number of households with rent restriction vouchers.

For supply, we noted that that one affordable apartment complex is under construction and two others are in planning, likely with an early-to-mid-2022 start date. These proposals will add 18 units restricted to 30% of AMI, 46 units restricted to 50% of AMI and 339 units restricted to 60% of AMI. The other available apartment units are part of normal market area vacancy. Therefore, these are excluded from the demand analysis.

This generates a net potential net demand of 270± units for the 40% income category, 360± units for the 50% income category and 240± units for the 60% income category.

<u>Demand Table (2020-2024)</u>				
	<u>Up to 30% of AMI</u>	<u>Up to 50% of AMI</u>	<u>Up to 60% of AMI</u>	<u>Total</u>
New Rental Households	250	360	500	1,110
PLUS				
Existing Households - Over-Burdened (Rounded)	40	50	80	170
PLUS				
Existing Households-Substandard Housing	0	0	0	0
PLUS				
Elderly Households-Likely to Convert to Rental Housing	0	0	0	0
PLUS				
Existing Qualifying Tenants – to Remain After Renovation	0	0	0	0
Total Demand	290	410	580	1,280
MINUS				
Supply (includes directly comparable vacant units completed or in pipeline in PMA)	18	46	339	403
Equals				
Net Demand	272	364	241	877
Proposed Units	2	8	10	20
Capture Rate	0.7%	2.2%	4.2%	2.3%
Absorption Period (in months)	0	1	1	1

At the rents proposed, the two 30% apartment units are expected to be pre-leased prior to project opening. It is likely that most of the 50% and 60% apartment units will be pre-leased, with stabilized occupancy to be achieved within the first month of project opening.

Capture Rate

The capture rate of total demand is 2.3 percent, or 0.7 percent for the 30% apartment units, 2.2 percent for the 50% apartment units and 4.2 percent for the 60% apartment units. These are conservative calculations, as it does not account for extensive market area waitlists and the level of voucher holders could exceed 15 percent. The lease-up period is shown as one month.

The Virginia Housing capture rate chart is as follows:

Project Wide Capture Rate - LIHTC Units	<u>2.3%</u>
30% of AMI (2 units)	<u>0.7%</u>
50% of AMI (8 units)	<u>2.2%</u>
60% of AMI (10 units)	<u>4.2%</u>
Project Wide Capture Rate - Market Rate Units	<u>N/A</u>
Project Wide Capture Rate - All Units	<u>2.3%</u>
Project Wide Absorption Period (Months)	<u>1 Month 1/</u>

Notes: 1/ Includes units to be pre-leased.

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 the 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 the Virginia Housing.
4. Neither I nor anyone at my firm has any interest in the proposed development or 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 Virginia Housing or in any way acting for, at the request of, or on behalf of Virginia Housing.
6. Compensation for my services is not contingent upon this development receiving a LIHTC reservation or allocation.

Ariel Goldring

Market Analyst

February, 2022

Date