

**NEED AND DEMAND ANALYSIS**  
**FOR**  
**WATERMARK GARDENS**  
**IN**  
**RICHMOND/CHESTERFIELD COUNTY, VIRGINIA**

**Prepared for**  
**Watermark Gardens VA LLC**  
**for submission to**  
**the Virginia Housing Development Authority**

**VHDA Application: 2020 C- 20**

As of February 22, 2020

**T Ronald Brown: Research & Analysis**

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## A. EXECUTIVE SUMMARY

The following provides a brief summary of each of the major sections in the market analysis.

Watermark Gardens will comprise the construction of 80 units for elderly households. Eight units will be targeted to households with incomes up to 30 percent of the median, 32 units will be targeted to households with incomes up to 50 percent of the median (including eight rent-assisted one-bedroom units), with 12 units targeted at 60 percent of the median, and 28 units will be targeted at 80 percent of the median, and therefore qualify the apartments for low income housing tax credit status. Given that the project will include units targeted to households with incomes in excess of 60 percent of the local area median income, income averaging is applied.

There are no apparent physical, environmental, or other constraints upon the construction and marketing of the proposed project at this location.

The market area for the proposed development is defined as north-central Chesterfield County.

In Chesterfield County, employment in 2009 was 156,218. Since then, employment has grown - to 179,055 - an increase of almost 23,000 jobs over that period.

In Chesterfield County, the most recent annual unemployment rate is 2.9 percent, down from 3.6 percent the previous year. The rate was 7.3 percent in 2010.

The population of the project market area is projected to increase from 83,610 in 2020 to 85,835 in 2025. The number of households is projected to increase from 30,733 in 2020 to 31,769 in 2025. The number of renter households is projected to increase from 8,088 to 8,849.

The elderly population (55 years and older) of the project market area is projected to increase from 23,868 in 2020 to 25,470 in 2025. The number of older households is projected to increase from 14,122 in 2020 to 15,070 in 2025. The number of older rents is projected to increase from 2,044 to 2,358 over this period.

There are five apartment complexes located in the northern Chesterfield area which cater to older persons. Four of these are financed with low income housing tax credits. There are no market rate complexes designated solely for seniors, and there is one property that is subsidized and is designated for the elderly handicapped or disabled.

The total net need for tax credit units such as is proposed in the northern Chesterfield area by 2025 is calculated to be for 1,212 units. Given the calculated need, the proposed 80-unit development amounts to 6.6 percent of the need, as calculated.

Consideration of the capture rate (6.6 percent), the (9.6 percent) affordability analysis capture rate and (32.3 percent) penetration rate suggests that the proposed development is marketable, as proposed.

Based on the above, the project could expect to lease-up (reach stabilized occupancy) over an estimated six- to nine month period, or so.

The proposed development will not have an impact on existing housing in the area.

The proposed development is considered marketable and can be developed as proposed.

Project Wide Capture Rate, LIHTC units: 6.6 percent

Project Wide Capture Rate, market units: n/a

Project Wide Capture Rate, all units: 6.6 percent

Project Wide Absorption Period (Months): six- to nine months

## B. INTRODUCTION AND SCOPE OF WORK

This report is a professional market analysis of the need and demand for the proposed development.

The report is prepared for Watermark Gardens VA LLC, for submission to the Virginia Housing Development Authority.

The report is designed to satisfy the underwriting criteria of the reviewing agency for which it was performed, and the conclusions, based on the results of our research, experience, and expertise reflect the predicted ability of the project, as presented to us, to meet or exceed that reviewing agency's guidelines. Thus, a positive conclusion does not necessarily imply that the project would be found to be feasible or successful under different underwriting standards, and this study does not necessarily incorporate generally accepted professional market study standards and elements pre-empted by the guidelines set out by the reviewing agency.

The report was completed using professional market techniques. The findings of this study are predicated upon the assumption that the proposed development, as presented to us, will be located at the site described in the report, that it will be funded through the program under which it was prepared, and within the stated projection period.

Further, the findings are based on the assumption that once funded, the complex will be well-designed, well-marketed, and professionally managed.

The site of the proposed apartments was visited (on February 22, 2020).

The site was visited by T. Ronald Brown.

T. Ronald Brown: Research & Analysis is a planning and economics consulting firm which provides real estate market analysis. The President of the firm is T. Ronald Brown. Mr. Brown has a Honours Master of Arts degree in Geographical Studies from the University of St. Andrews in St. Andrews, Scotland. He has 35 years experience in the provision of market studies for subsidized and unsubsidized apartment developments and for-sale housing. Over the last three decades or so, Mr. Brown has produced more than 3,000 studies in at least 20 states, predominantly in the Southeast.

Mr. Brown is responsible for the analysis and write-up of this report – performing the role of both analyst and author.

To the best of our knowledge, this report is an accurate representation of market conditions. While due care and professional housing market study techniques were used, no guarantee is made of the findings.

It is stated that we do not have, nor will have in the future, any material interest in the proposed development, and that there is no identity of interest between us and the party for whom the project was prepared. Further, we state that the payment of the fee is not contingent upon a favorable conclusion, nor approval of the project by any agency before or after the fact. The payment of the fee does not include payment for testimony nor further consultation.

**Submitted, and attested to, by:**

T. Ronald Brown, President  
T. Ronald Brown: Research & Analysis  
P.O. Box 18534  
Asheville, North Carolina 28814  
919. 233.0670 or 919.612.5328

A handwritten signature in black ink that reads "T. Ronald Brown" with a long horizontal flourish extending to the right.

Date: March 10, 2020

C. PROJECT DESCRIPTION

Watermark Gardens will comprise 80 units - eight one-bedroom units and 72 two-bedroom units. The project is new construction.

The project is to be configured as follows:

	<u>Units</u>	<u>sq. ft</u>	<u>Rent</u>	<u>Targeting*</u>
1 bedroom/1 bath	8	600	\$817	less than 50 percent **
2 bedroom/1½ bath	8	950	\$477	less than 30 percent
2 bedroom/1½ bath	24	950	\$860	less than 50 percent
2 bedroom/1½ bath	12	950	\$1,050	less than 60 percent
2 bedroom/1½ bath	28	950	\$1,250	less than 80 percent

\* percentage of area median income

\*\* rent assisted

Of the 80-unit total, all will be targeted to elderly households (55 years and older). Eight units will be targeted to households with incomes up to 30 percent of the median, 32 units will be targeted to households with incomes up to 50 percent of the median (including eight rent-assisted one-bedroom units), with 12 units targeted at 60 percent of the median, and 28 units will be targeted at 80 percent of the median, and therefore qualify the apartments for low income housing tax credit status. Given that the project will include units targeted to households with incomes in excess of 60 percent of the local area median income, income averaging is applied. Thus, the average target income, overall, cannot exceed 60 percent of the median.

Utilities (excluding trash collection) will be paid by the tenant - utility allowances are \$85 for the one-bedroom units and \$106 for the two-bedroom units. Based on information supplied by the developer, the proposed apartments will meet energy-saving standards, both for construction and for appliances provided.

The property will feature a single-three story building and will have a brick exterior. There will be an elevator. Common area and site amenities include a multi-purpose room and laundry. The property will offer various enhancements, as per VHDA guidelines.

There are 96 parking spaces.

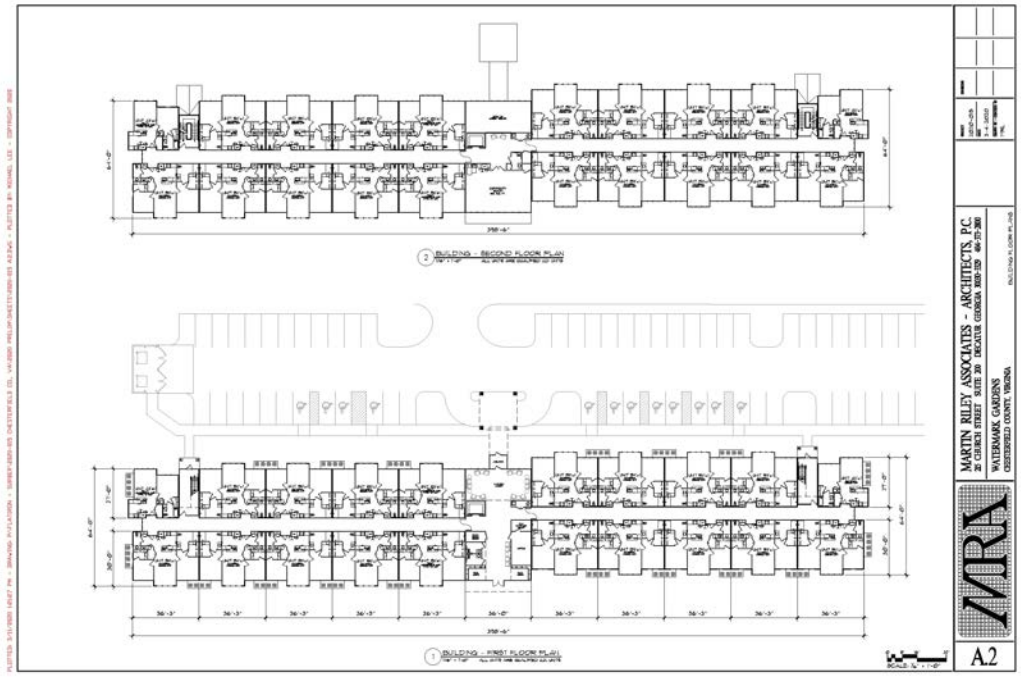
Representative architectural drawings are set out on the following pages.

It is understood that the construction program would commence in March 2021 and would be completed within 12 months, or so.

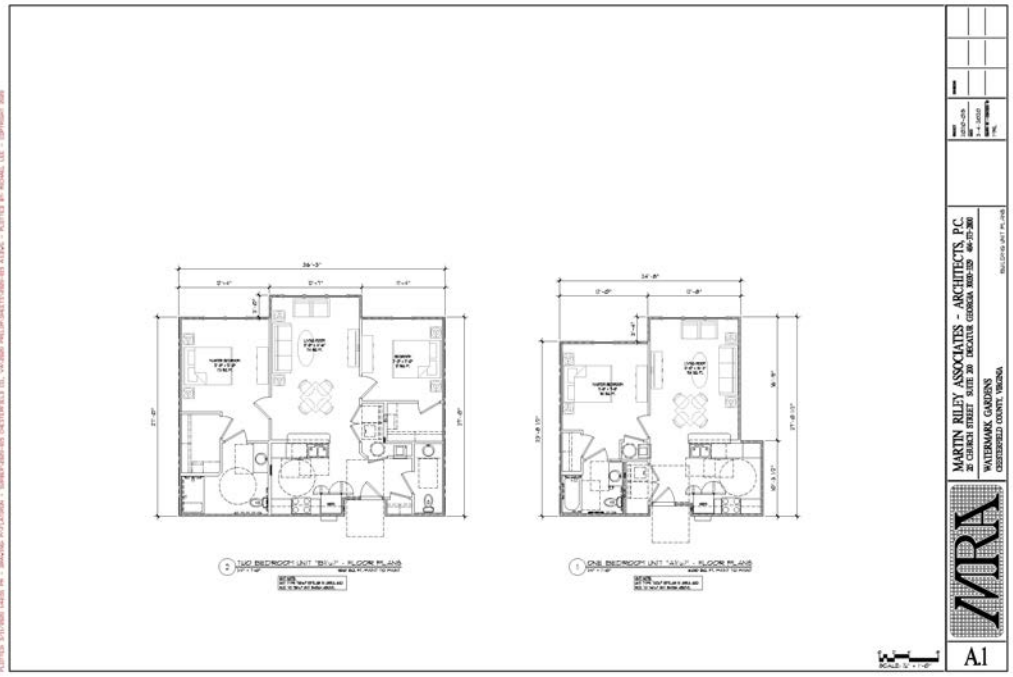




Floor plan



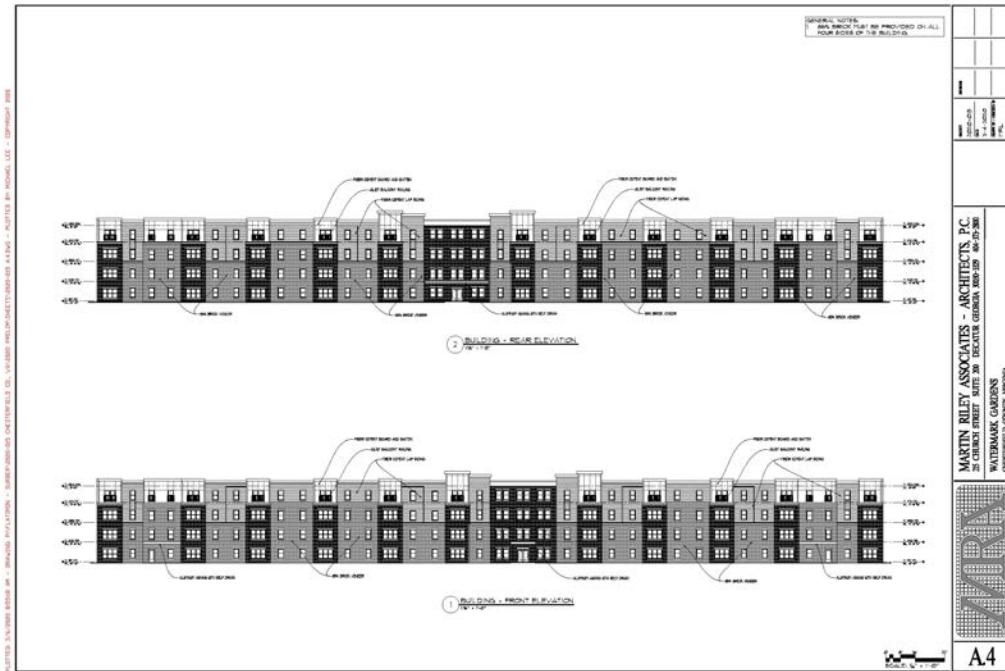
Unit plans



ARCHITECT: MARTIN RILEY ASSOCIATES, P.C. - 2000 W. BROAD STREET, SUITE 200, RICHMOND, VA 23220  
 PROJECT: WATERMARK GARDENS - 2000 W. BROAD STREET, SUITE 200, RICHMOND, VA 23220

<b>MARTIN RILEY ASSOCIATES - ARCHITECTS, P.C.</b> 2000 W. BROAD STREET, SUITE 200, RICHMOND, VA 23220 WATERMARK GARDENS CHESTERFIELD COUNTY, VIRGINIA	
<b>MRA</b> ARCHITECTS	AI

Elevations



D. LOCATION

Watermark Gardens are located off Iron Bridge Road in northern Chesterfield County, near the Richmond city limits. The site is part of the Watermark mixed-use development: adjacent uses include a former Walmart neighborhood store, a fast food restaurant and undeveloped land. Other developments in Watermark include single-family homes, townhomes, and the Meridian at Watermark Apartments. Cosby's Lake is adjacent to the site, to the south and west. The site is flat and is cleared.





View onto property



View on property



View across property



View from property



View from property



View of Cosby's Lake



View south on Iron Bridge Road, at site



View north on Iron Bridge Road, at site



The site is located on the Iron Bridge Road, between Cosby's Lake and Kingsland Glen Drive. Access to the site is very good.

Given the site location and its situation, the site is very visible.

Access from the site to major thoroughfares, shopping, and other services is good.

The site is located on Iron Bridge Road, a major north-south thoroughfare serving northern Chesterfield County. It is within two- to three miles of both the Veterans Memorial Highway (VA 288), and the Chippenham Parkway (VA 150). The site is within nine miles or so of Interstate 95.

It is understood that public transportation is available on-demand at the site through Access Chesterfield.

The closest shopping is a Food Lion supermarket and CVS drugstore approximately one and one-third miles to the north. Here, it should be noted that a former Walmart Neighborhood store is located adjacent to the site.

The site is located approximately mid-way between significant concentrations of shopping and other services (such as libraries and post offices) to be found in the Meadowdale area to the north and the Chesterfield Courthouse area to the south - each within three- to four miles of the site of the proposed development. A Walmart Supercenter is located on Iron Bridge Road just over six miles from the site, to the south.

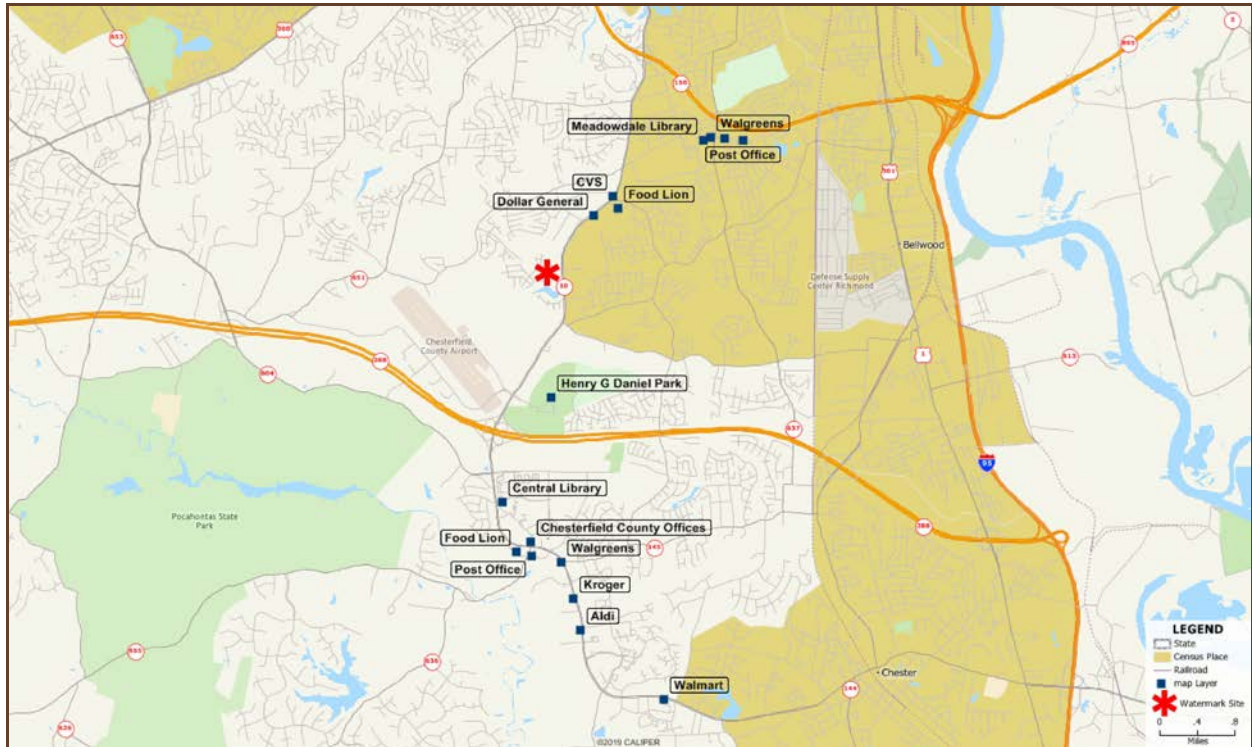
The site is within eight and one-half miles of the Chippenham Hospital and seven miles from the McGuire VA Medical Center.

The following table illustrates the noteworthy community amenities serving the site and the (driving) distance to the site.

Table 1 - Distance to Neighborhood and Community Amenities

<u>Category</u>	<u>Neighborhood/Community Amenity</u>	<u>Distance (miles)</u>
Highways	VA 10 - Iron Bridge Road	0.1
	VA 150 - Chippenham Parkway	2.7
	VA 288 - Veterans Memorial Highway	2.0
	Interstate 95	9.0
Public Transportation	Access Chesterfield	at site
Retail - Grocery	Food Lion (Iron Bridge)	1.3
	Food Lion (Meadowdale)	3.0
	Food Lion (Chesterfield)	3.8
	Kroger	4.6
	Aldi	4.7
Retail - Other	Wal-mart	6.2
Pharmacies	CVS	1.4
	Walgreens (Meadowdale)	2.8
	Walgreens (Chesterfield)	3.9
Medical	Chippenham Hospital	8.4
	McGuire VA Medical Center	7.0
County Offices	Chesterfield County	3.6
Post Office	Amphill	3.1
	Chesterfield	3.8
Library	Meadowdale	2.7
	Central	3.4

Source: T.Ronald Brown: Research & Analysis



Based on our observations during our site visit, there is no reason to expect that the risk of crime in this neighborhood would be greater or less than that for other parts of the market area.

There are no apparent physical, environmental, or other constraints upon the construction and marketing of the proposed project at this location.

The site is considered marketable.

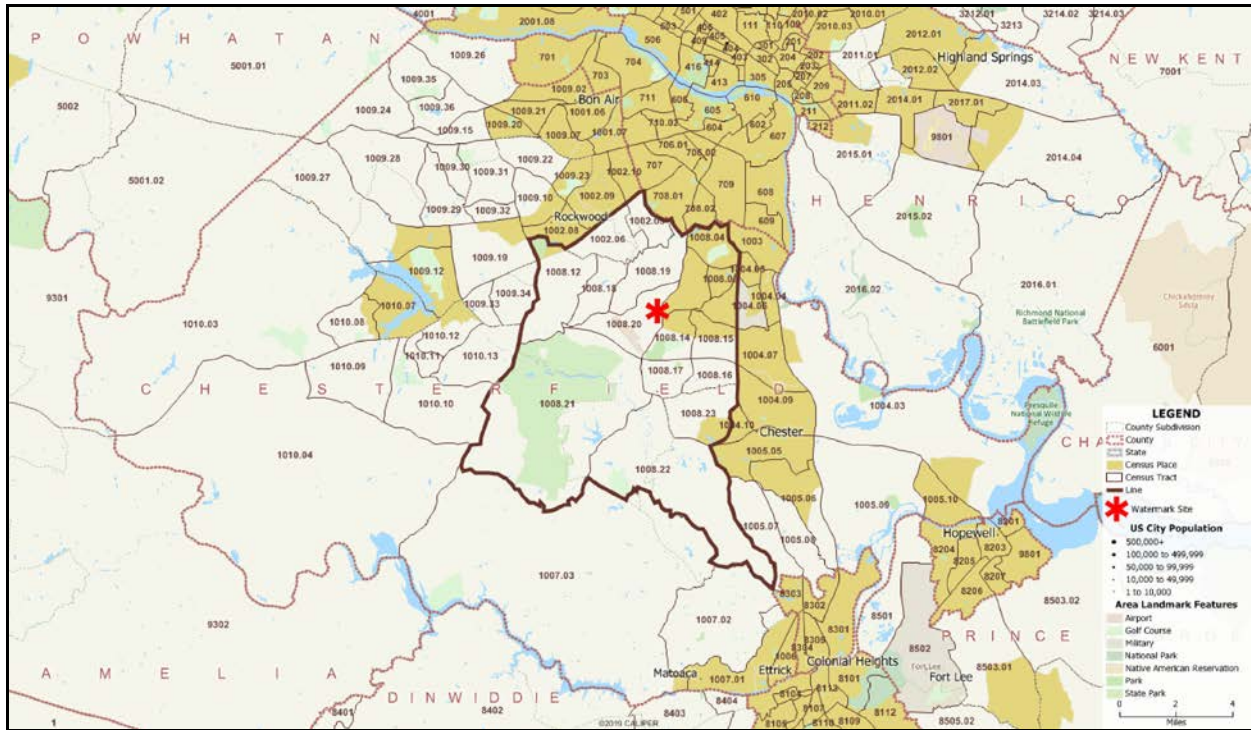
## E. MARKET AREA DEFINITION

Market areas are defined on the basis of the consideration of many inter-related factors. These include consideration of the site location, consideration of socio-demographic characteristics of the area (tenure, income, rent-levels, etc.), local commuting patterns, physical (or other) boundaries, census geographies, and especially the location of comparable and/or potentially competing communities.

In communities such as county seats where that community is the county's largest community and is centrally located and can draw from the entire county, the county may be the market area. In circumstances where there are potentially competing communities in one county, the market area will be that part of the county (and, potentially, portions of adjacent counties) which the proposed development is most likely to draw from. In urban or suburban markets, the market area will be areas adjacent to the site and will extend to all locations of relatively similar character, and with residents or potential residents likely to be interested in the project. Here combinations of census tracts, may be used to define the market area.

The proposed development is located in northern Chesterfield County, just south of the City of Richmond in central Virginia. The market area for the proposed development is north-central Chesterfield County, as defined by several census tracts. This area is focused on the site of the proposed development and extends to an approximately three- to four-mile hinterland, except where it extends to six miles or so, to the south. The market area, as defined, therefore is that which constitutes the area adjacent to the site of the proposed development and extends to all locations of relatively similar character, and with residents or potential residents likely to be interested in the project.

# Report for Watermark Gardens in Richmond/Chesterfield County, Virginia



F. EMPLOYMENT AND ECONOMY

The makeup and trends of the labor force and employment have a strong influence on the growth and stability of the local housing market in general.

Employment trends

Employment trends for Chesterfield County are illustrated in the table, below. Employment in 2009 was 156,218. Since then, employment has grown - to 179,055 - an increase of almost 23,000 jobs over that period.

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Table 2 - Total Employment

---

		Change over previous year	
		<u>number</u>	<u>percent</u>
2009	156,218		
2010	156,307	89	0.1
2011	159,940	3,633	2.3
2012	162,433	2,493	1.6
2013	164,793	2,360	1.5
2014	168,197	3,404	2.1
2015	170,258	2,061	1.2
2016	173,432	3,174	1.9
2017	176,938	3,506	2.0
2018	179,055	2,117	1.2

Source: Virginia Labor Market Information

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## Report for Watermark Gardens in Richmond/Chesterfield County, Virginia

### Employment trends, by sector

Information on employment, by industry for Chesterfield County in 2017 and 2018 (the most recent data) is set out in Table 2, below. From this it is seen that, with respect to employment, the largest subsectors were healthcare and retail trade which employed 12.3 percent and 11.7 percent, respectively.

Table 3 - Employment, by sector

	2017		2018		pct change
	number	percent	number	percent	
Agriculture, Forestry, etc	138	0.1	154	0.1	11.6
Mining, etc.	40	0.0	50	0.0	25.0
Utilities	877	0.6	850	0.6	-3.1
Construction	9,831	7.2	10,139	7.3	3.1
Manufacturing	8,401	6.2	8,136	5.9	-3.2
Wholesale trade	5,060	3.7	5,182	3.7	2.4
Retail trade	18,149	13.4	16,208	11.7	-10.7
Transp. and Warehousing	9,831	7.2	10,647	7.7	8.3
Information	1,770	1.3	1,775	1.3	0.3
Finance and Insurance	4,594	3.4	4,555	3.3	-0.8
Real estate	1,461	1.1	1,370	1.0	-6.2
Professional and Technical services	7,687	5.7	7,831	5.7	1.9
Management	1,207	0.9	1,306	0.9	8.2
Administrative and Waste services	10,771	7.9	10,599	7.7	-1.6
Educational services	11,242	8.3	11,446	8.3	1.8
Health Care and Social Assistance	16,365	12.1	17,000	12.3	3.9
Arts, Entertainment, Recreation	3,001	2.2	3,008	2.2	0.2
Accommodation and Food services	12,250	9.0	12,261	8.9	0.1
Other Services	5,090	3.7	5,418	3.9	6.4
Public Administration	7,725	5.7	7,919	5.7	2.5
Unclassified	312	0.2	384	0.3	23.1
<b>Total</b>	<b>135,801</b>		<b>138,236</b>		<b>1.8</b>

Source: Virginia Labor Market Information

Unemployment trends

Unemployment trends for Chesterfield County are illustrated in the table, below. Rates for Virginia and for the U.S as a whole are also shown, for reference. Here it is seen that the most recent annual unemployment rate is 2.9 percent, down from 3.6 percent the previous year. The rate was 7.3 percent in 2010.

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Table 4 - Unemployment trends

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	Chesterfield County	Virginia	U.S.
2009	6.6%	6.7%	9.3%
2010	7.3%	7.1%	9.6%
2011	6.8%	6.6%	8.9%
2012	6.1%	6.1%	8.1%
2013	5.7%	5.7%	7.4%
2014	5.1%	5.2%	6.2%
2015	4.3%	4.5%	5.3%
2016	3.9%	4.1%	4.9%
2017	3.6%	3.7%	4.4%
2018	2.9%	3.0%	3.9%

Source: Virginia Labor Market Information

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**Report for Watermark Gardens in Richmond/Chesterfield County, Virginia**

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**Major Employers**

The major employers in the Chesterfield County area are listed in Table 5, below. From this table it is seen that the area’s largest employers are the Defense Supply Center, Richmond, and Amazon.com - each which employs more than 2,500 persons. Other significant employers include DuPont, UPS, and Wal-Mart.

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Table 5 - Major Employers

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<u>Employer Name</u>	<u>Product/Service</u>	<u>Employees</u>
Alstom Power	Power generation equipment	600-999
Amazon.com	Internet fulfillment center	2,500-4,999
Bon Secours Richmond	Healthcare	1,000-1,499
Campofrio Food Group	Foodstuffs	100-299
Capital One	Financial services	1,000-1,499
Church and Dwight	Latex products	300-599
Defense Supply Center, Richmond	US Government	2,500-4,999
E.I. Dupont Nemours	Plastics, etc	1,500-2,499
Food Lion	Retail food distribution	600-999
HCA Virginia Health System	Healthcare	1,000-1,499
Hill Phoenix	Refrigeration equipment	1,000-1,499
Honeywell International	Synthetic fibers	600-999
Integrity Staffing Solutions	Administrative/ support services	600-999
Kroger	Retail food distribution	1,000-1,499
Martins Food Markets	Retail food distribution	1,000-1,499
Northrup Grumman	Computer services	600-999
Sabra Dipping	Hummus, dips	600-999
United Parcel Service	Express delivery service	1,500-2,499
Vangent	Call center	1,000-1,499
Wal-mart Stores	Retail trade	1,500-2,499

Source: Virginia Labor Market Information

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**Report for Watermark Gardens in Richmond/Chesterfield County, Virginia**

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Virginia Economic Development Partnership reports around 493 jobs lost through layoffs and/or closings or other reductions in Chesterfield County in recent years. With respect to expansions, the Virginia Economic Development Partnership reports a total of 1,396 new jobs: 602 at new firms and 794 additions at existing firms.

The proposed development is not located in a market - such as a resort area - that would need housing for employees in such a specific market.

**Wages by Industry Sector**

Information on wages, by employment sector, for Chesterfield County is set out in Table 6, below. Here, average wages show some variation - both between sectors and also over time - with average wages increasing by 2.6 percent between 2017 and 2018.

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Table 6 - Wages by Industry Sector

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	<u>2017</u>	<u>2018</u>	<u>pct change</u>
Agriculture, Forestry, etc	\$622	\$644	3.5
Mining, etc.	\$1,150	\$1,247	8.4
Utilities	\$1,711	\$1,795	4.9
Construction	\$1,102	\$1,113	1.0
Manufacturing	\$1,392	\$1,407	1.1
Wholesale trade	\$1,492	\$1,485	-0.5
Retail trade	\$550	\$563	2.4
Transp. and Warehousing	\$745	\$770	3.4
Information	\$1,168	\$1,200	2.7
Finance and Insurance	\$1,372	\$1,417	3.3
Real estate	\$987	\$1,081	9.5
Professional and Technical services	\$1,461	\$1,519	4.0
Management	\$2,519	\$2,815	11.8
Administrative and Waste services	\$650	\$669	2.9
Educational services	\$742	\$752	1.3
Health Care and Social Assistance	\$902	\$920	2.0
Arts, Entertainment, Recreation	\$305	\$314	3.0
Accommodation and Food services	\$315	\$324	na
Other Services	\$619	\$650	5.0
Public Administration	\$1,213	\$1,246	2.7
Unclassified	\$722	\$746	3.3
<b>Total</b>	<b>\$889</b>	<b>\$912</b>	<b>2.6</b>

Source: Virginia Labor Market Information

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Commuting patterns

With respect to commuting, data from the American Community Survey, 56.1 percent of workers resident in Richmond were employed there. The average driving time to work for residents of Richmond was 21.6 minutes.

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Table 7 - Commuting Data

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	<u>number</u>	<u>percent</u>
Total Workers	110,257	100.0
Worked in Place of residence	61,854	56.1
Worked in County of residence	61,854	56.1
Worked outside Place of residence	48,403	43.9
Worked outside County of residence	48,403	43.9
Mean travel time to work (minutes)	21.6	

Source: 2014 to 2018 American Community Survey; T.Ronald Brown: Research & Analysis

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**Report for Watermark Gardens in Richmond/Chesterfield County, Virginia**

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Census data for commuting patterns for persons who live and/or work in the wider Richmond area are set out, below.

Here it is seen that many persons who work in Chesterfield County commute into the County from elsewhere in the Richmond metropolitan area - for example, more than 10,00 persons commute to work there from both Henrico County and the City of Richmond. Likewise, many residents of Chesterfield County commute to work to locations throughout the Richmond area - again, notably to Henrico County and the City of Richmond.

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Table 8 - Commuting Patterns

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<u>Place of work</u>	<u>Place of Residence</u>	<u>Number of Workers</u>
Chesterfield County	Chesterfield County	72,593
Chesterfield County	Amelia County	1,356
Chesterfield County	Dinwiddie County	1,900
Chesterfield County	Hanover County	2,253
Chesterfield County	Henrico County	10,121
Chesterfield County	Powhatan County	3,385
Chesterfield County	Prince George County	1,643
Chesterfield County	Colonial Heights City	1,841
Chesterfield County	Hopewell City	1,976
Chesterfield County	Petersburg City	1,839
Chesterfield County	Richmond City	10,078
Colonial Heights City	Chesterfield County	2,709
Goochland County	Chesterfield County	1,466
Hanover County	Chesterfield County	2,731
Henrico County	Chesterfield County	22,793
Hopewell City	Chesterfield County	1,384
Petersburg City	Chesterfield County	3,013
Powhatan County	Chesterfield County	1,082
Prince George County	Chesterfield County	4,981
Richmond City	Chesterfield County	37,460

Source: US County to County Commuting Flows; T.Ronald Brown: Research & Analysis

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Given that the proposed development will offer rental housing for seniors, the local economic conditions will not have a direct positive or negative impact on the subject property.

**G. DEMOGRAPHIC CHARACTERISTICS**

Population and Household Trends

In 2000, the population of Chesterfield County was 56,297, and in 2010 the population was recorded as 65,187. Population projections for Chesterfield County are provided by the Virginia State Data Center. Based on these data, the population of the area is projected to be 353,841 by 2020, and to be around 374,633 by 2025.

In 2000, the population of the market area was 65,485, and in 2010 the population was recorded as 80,997. Population projections for the market area are based on the average of several small area population projection techniques using census tract trends for 2000 to 2010 in Chesterfield County, corrected for the official State Data Center numbers. Based on these data, the population of the area is projected to be 83,610 by 2020, and to be around 85,835 by 2025.

Information on population trends and changes between 2000 and 2025 are set out in Table 9, below.

Table 9- Population Trends

	Richmond	Market Area	Chesterfield County
2000	197,790	65,485	259,903
2010	204,214	80,997	316,236
2020	232,533	83,610	353,841
2025	238,921	85,835	374,633
absolute change			
2000-2010	6,424	15,512	56,333
2010-2020	28,319	2,613	37,605
2020-2025	6,388	2,225	20,792
annual change			
2000-2010	642	1,551	5,633
2010-2020	2,832	261	3,761
2020-2025	1,278	445	4,158

Source: 2000 and 2010 Census; Virginia State Data Center; T.Ronald Brown: Research & Analysis

**Report for Watermark Gardens in Richmond/Chesterfield County, Virginia**

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Projections of the number of households for Richmond, the market area, and for Chesterfield County are set out in Table 10, below.

In 2000, there were 93,772 households in Chesterfield County and 115,680 in 2010. Based on the population projections set out, above, there will be around 131,241 households in 2020 and 139,910 in 2025.

There were 23,354 households in the market area in 2000 and 28,951 in 2010. Projections show around 30,733 and 31,769 households in 2020 and 2025, respectively.

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Table 10 - Household Trends

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	Richmond	Market Area	Chesterfield County
2000	84,549	23,354	93,772
2010	87,151	28,951	115,680
2020	99,073	30,733	131,241
2025	101,710	31,769	139,910
absolute change			
2000-2010	2,602	5,597	21,908
2010-2020	11,922	1,782	15,561
2020-2025	2,637	1,036	8,669
annual change			
2000-2010	260	560	2,191
2010-2020	1,192	178	1,556
2020-2025	527	207	1,734

Source: 2000 Census and 2010 Census; T.Ronald Brown: Research & Analysis

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**Report for Watermark Gardens in Richmond/Chesterfield County, Virginia**

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Population and household characteristics

Age distribution

The distribution of the population, by age, for the Richmond, the market area, and Chesterfield County is set out in Table 11, below. These data are from the 2010 Census. Here it is seen that the median age of the population of Richmond was 32.0 years and that for Chesterfield County was recorded as 37.6 years. The estimated median age for the market area is 36.5 years.

Table 11 - Age Distribution

	Richmond		Market Area		Chesterfield County	
	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
Under 5 years	12,798	6.3	4,977	6.4	19,897	6.3
5 to 9 years	10,266	5.0	5,251	6.8	22,791	7.2
10 to 14 years	9,170	4.5	5,581	7.2	24,195	7.7
15 to 19 years	15,782	7.7	5,793	7.5	24,886	7.9
20 to 24 years	26,889	13.2	4,641	6.0	17,509	5.5
25 to 29 years	20,483	10.0	4,993	6.5	18,085	5.7
30 to 34 years	14,743	7.2	5,343	6.9	19,796	6.3
35 to 39 years	11,942	5.8	5,457	7.1	22,238	7.0
40 to 44 years	11,603	5.7	5,763	7.4	23,798	7.5
45 to 49 years	12,645	6.2	5,997	7.7	25,688	8.1
50 to 54 years	13,111	6.4	6,023	7.8	24,542	7.8
55 to 59 years	12,285	6.0	5,377	6.9	21,698	6.9
60 to 64 years	9,878	4.8	4,336	5.6	18,235	5.8
65 to 69 years	6,578	3.2	2,931	3.8	11,949	3.8
70 to 74 years	4,822	2.4	1,816	2.3	7,606	2.4
75 to 79 years	3,968	1.9	1,342	1.7	5,633	1.8
80 to 84 years	3,412	1.7	992	1.3	4,194	1.3
85 years and over	3,839	1.9	788	1.0	3,496	1.1
55 and older	44,782	21.9	17,582	22.7	72,811	23.0
65 and older	22,619	11.1	7,869	10.2	32,878	10.4
median	32.0		36.5 *		37.6	

\* Estimate

Source: 2010 Census; T.Ronald Brown: Research & Analysis

Age projections

Official population projections by age at the County level are provided by the Virginia State Data Center. Here, the population of Chesterfield County aged 55 years and older is projected to increase from 72,811 in 2010 to 99,078 in 2020 and to 105,774 by 2025.

In 2010, there were a total of 17,582 persons aged 55 years or older in the project market area, in 10,403 households. By 2020, it is projected (on the basis of survivorship rates and the County projections for Chesterfield County) that there will be 23,868 elderly persons in 14,122 households in the market area. By 2025 it is projected that there will be 25,470 elderly persons in 15,070 households in the market area. The number of older renters is projected to increase from 2,044 to 2,358 between 2020 and 2025.

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Table 12 - Population and Households, 55 years and older

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<b>Market Area</b>			
	<u>Population</u>	<u>Households</u>	<u>Renters</u>
2000	10,675	5,601	594
2010	17,582	10,403	1,289
2020	23,868	14,122	2,044
2025	25,470	15,070	2,358
<b>Chesterfield County</b>			
	<u>Population</u>	<u>Households</u>	<u>Renters</u>
2000	43,011	22,858	2,704
2010	72,811	44,009	5,973
2020	99,078	59,886	9,325
2025	105,774	63,933	10,663

Source: 2000 Census and 2010 Census; Virginia State Data Center; T.Ronald Brown: Research & Analysis

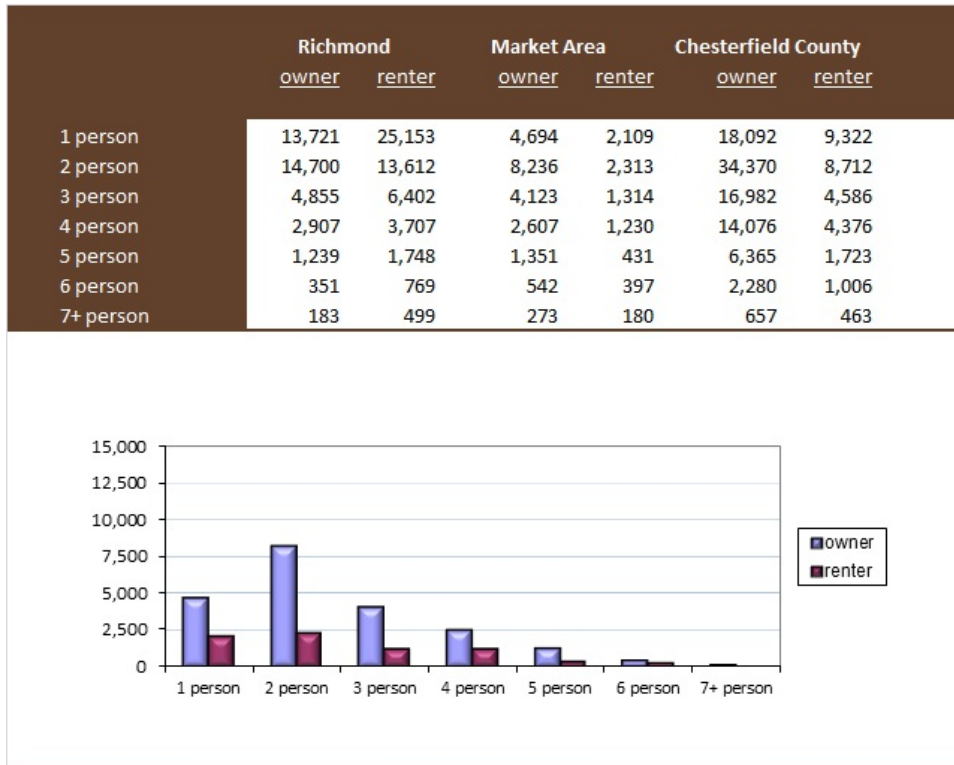
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Household size

Table 13 below, sets out household size, by tenure, for households in Richmond, the market area, and Chesterfield County.

Table 13 - Household Size



Source: 2014 to 2018 American Community Survey; T.Ronald Brown: Research & Analysis

Tenure

Table 14, below, sets out the number and proportion of owner and renter households for Richmond, the market area, and for Chesterfield County. In the years beyond 2010, the tenure proportions are based on 2000 to 2010 tenure trends. In 2010, 56.9 percent of households in Richmond were renters, 23.5 percent of households in the market area were renters, and 22.5 percent in Chesterfield County were renters.

Table 14 - Tenure

<b>Richmond</b>				persons per		Owner-occupied		Renter-occupied	
	<u>population</u>	<u>households</u>	<u>household</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
2000	197,790	84,549	2.34	39,008	46.1	45,541	53.9		
2010	204,214	87,151	2.34	37,596	43.1	49,555	56.9		
2020	232,533	99,073	2.35	39,604	40.0	59,469	60.0		
2025	238,921	101,710	2.35	38,982	38.3	62,728	61.7		
<b>Market Area</b>				persons per		Owner-occupied		Renter-occupied	
	<u>population</u>	<u>households</u>	<u>household</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
2000	65,485	23,354	2.80	18,458	79.0	4,896	21.0		
2010	80,997	28,951	2.80	22,151	76.5	6,800	23.5		
2020	83,610	30,733	2.72	22,645	73.7	8,088	26.3		
2025	85,835	31,769	2.70	22,920	72.1	8,849	27.9		
<b>Chesterfield County</b>				persons per		Owner-occupied		Renter-occupied	
	<u>population</u>	<u>households</u>	<u>household</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
2000	259,903	93,772	2.77	75,874	80.9	17,898	19.1		
2010	316,236	115,680	2.73	89,603	77.5	26,077	22.5		
2020	353,841	131,241	2.70	96,300	73.4	34,941	26.6		
2025	374,633	139,910	2.68	99,429	71.1	40,481	28.9		

Source: 2000 Census and 2010 Census; T.Ronald Brown: Research & Analysis

## Report for Watermark Gardens in Richmond/Chesterfield County, Virginia

### Tenure by age

Table 15, below, sets out the number of owner and renter households, by age of household head for older households in Richmond, the market area, and Chesterfield County, based on data in the 2014 to 2018 American Community Survey. From this table it can be seen that, for example, 1,692 out of 13,336 households headed by a person 55 years or older in the market area are renters (12.6 percent).

Table 15 - Tenure of Elderly Households

	Households	Owner-occupied		Renter-occupied	
		<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
<b>Richmond</b>					
55 to 59 years	8,038	4,514	56.2	3,524	43.8
60 to 64 years	8,280	4,464	53.9	3,816	46.1
65 to 74 years	10,849	6,463	59.6	4,386	40.4
75 to 84 years	4,964	3,273	65.9	1,691	34.1
85 years and older	2,914	1,838	63.1	1,076	36.9
total, 55 and older	35,045	20,552	58.6	14,493	41.4
total, 65 and older	18,727	11,574	61.8	7,153	38.2
<b>Market Area</b>					
55 to 59 years	3,364	2,856	84.9	508	15.1
60 to 64 years	3,152	2,784	88.3	368	11.7
65 to 74 years	4,164	3,829	92.0	335	8.0
75 to 84 years	1,943	1,645	84.7	298	15.3
85 years and older	763	580	76.0	183	24.0
total, 55 and older	13,386	11,694	87.4	1,692	12.6
total, 65 and older	6,870	6,054	88.1	816	11.9
<b>Chesterfield County</b>					
55 to 59 years	13,580	11,272	83.0	2,308	17.0
60 to 64 years	12,177	10,695	87.8	1,482	12.2
65 to 74 years	18,199	16,513	90.7	1,686	9.3
75 to 84 years	7,184	6,199	86.3	985	13.7
85 years and older	3,208	2,114	65.9	1,094	34.1
total, 55 and older	54,348	46,793	86.1	7,555	13.9
total, 65 and older	28,591	24,826	86.8	3,765	13.2

Source: 2014 to 2018 American Community Survey; T.Ronald Brown: Research & Analysis

Income Distribution

The distribution of household incomes for Richmond, the market area, and Chesterfield County. are set out in Table 16, below. These figures are taken from the 2014 to 2018 American Community Survey, and as such are subject to the limitations imposed by this source.

The median household income for Richmond is around \$45,117, and that for Chesterfield County as a whole is seen to be \$80,214. The median income for the market area is estimated at \$67,894.

Table 16 - Household Income

	Richmond		Market area		Chesterfield County	
	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
less than \$10,000	10,531	11.7	934	3.1	3,510	2.9
\$10,000 to \$14,999	6,160	6.9	632	2.1	2,844	2.3
\$15,000 to \$19,999	4,876	5.4	784	2.6	2,641	2.1
\$20,000 to \$24,999	4,951	5.5	927	3.1	3,051	2.5
\$25,000 to \$29,999	5,055	5.6	1,372	4.6	4,293	3.5
\$30,000 to \$34,999	4,664	5.2	1,246	4.2	4,309	3.5
\$35,000 to \$39,999	4,114	4.6	1,226	4.1	4,441	3.6
\$40,000 to \$44,999	4,492	5.0	1,503	5.0	4,812	3.9
\$45,000 to \$49,999	3,767	4.2	1,415	4.7	5,020	4.1
\$50,000 to \$59,999	6,532	7.3	2,844	9.5	10,216	8.3
\$60,000 to \$74,999	7,819	8.7	2,742	9.2	12,408	10.1
\$75,000 to \$99,999	9,050	10.1	4,916	16.5	18,853	15.3
\$100,000 to \$124,999	5,704	6.3	3,729	12.5	15,475	12.6
\$125,000 to \$149,999	3,360	3.7	2,152	7.2	10,550	8.6
\$150,000 to \$199,999	3,767	4.2	2,195	7.4	10,915	8.9
\$200,000 or more	5,004	5.6	1,183	4.0	9,672	7.9
median income	\$45,117		\$67,894 *		\$80,214	

\* Estimate

Source: 2014 to 2018 American Community Survey; T.Ronald Brown: Research & Analysis

Income, by age

The distribution of household incomes for persons aged 65 years and older in Richmond, the market area, and Chesterfield County are set out in Table 17, below. Again, these figures are taken from the 2014 to 2018 American Community Survey, and as such are subject to the limitations imposed by this source.

The median household income for older households in Richmond is around \$36,356, and that for Chesterfield County as a whole is seen to be \$59,843. The median income for the market area is estimated at \$56,080.

Table 17 - Household Income, Households aged 65 and older

	Richmond		Market area		Chesterfield County	
	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
less than \$10,000	1705	9.1	182	2.6	912	3.2
\$10,000 to \$14,999	2213	11.8	317	4.6	1,309	4.6
\$15,000 to \$19,999	1524	8.1	409	6.0	1,341	4.7
\$20,000 to \$24,999	1481	7.9	543	7.9	1,440	5.0
\$25,000 to \$29,999	1192	6.4	314	4.6	1,429	5.0
\$30,000 to \$34,999	1031	5.5	409	6.0	1,463	5.1
\$35,000 to \$39,999	947	5.1	241	3.5	1,344	4.7
\$40,000 to \$44,999	942	5.0	448	6.5	1,349	4.7
\$45,000 to \$49,999	867	4.6	260	3.8	1,278	4.5
\$50,000 to \$59,999	1203	6.4	513	7.5	2,464	8.6
\$60,000 to \$74,999	1275	6.8	622	9.1	3,036	10.6
\$75,000 to \$99,999	1756	9.4	881	12.8	3,616	12.6
\$100,000 to \$124,999	796	4.3	811	11.8	2,758	9.6
\$125,000 to \$149,999	486	2.6	394	5.7	1,834	6.4
\$150,000 to \$199,999	517	2.8	265	3.9	1,435	5.0
\$200,000 or more	792	4.2	261	3.8	1,583	5.5
median income	\$36,356		\$56,080 *		\$59,843	

\* Estimate

Source: 2014 to 2018 American Community Survey; T.Ronald Brown: Research & Analysis

Renter Income

The distribution of household incomes for renter households for Richmond, the market area, and Chesterfield County, are set out in Table 18, below. These figures are also taken from the 2014 to 2018 American Community Survey.

The median household income for Richmond is around \$31,522, and that for Chesterfield County as a whole is seen to be \$51,139. The median income for the market area is estimated at \$45,805.

Table 18 - Household Income, Renter Households

	Richmond		Market area		Chesterfield County	
	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>
less than \$10,000	8,946	17.2	570	7.1	1,766	5.9
\$10,000 to \$19,999	8,587	16.5	510	6.4	2,493	8.3
\$20,000 to \$34,999	10,544	20.3	1,698	21.3	5,011	16.6
\$35,000 to \$49,999	7,867	15.2	1,683	21.1	5,476	18.1
\$50,000 to \$74,999	7,803	15.0	1,527	19.1	6,318	20.9
\$75,000 to \$99,999	3,802	7.3	1,118	14.0	4,229	14.0
\$100,000 or more	4,341	8.4	868	10.9	4,895	16.2
median income	\$31,522		\$45,805 *		\$51,139	

\* Estimate

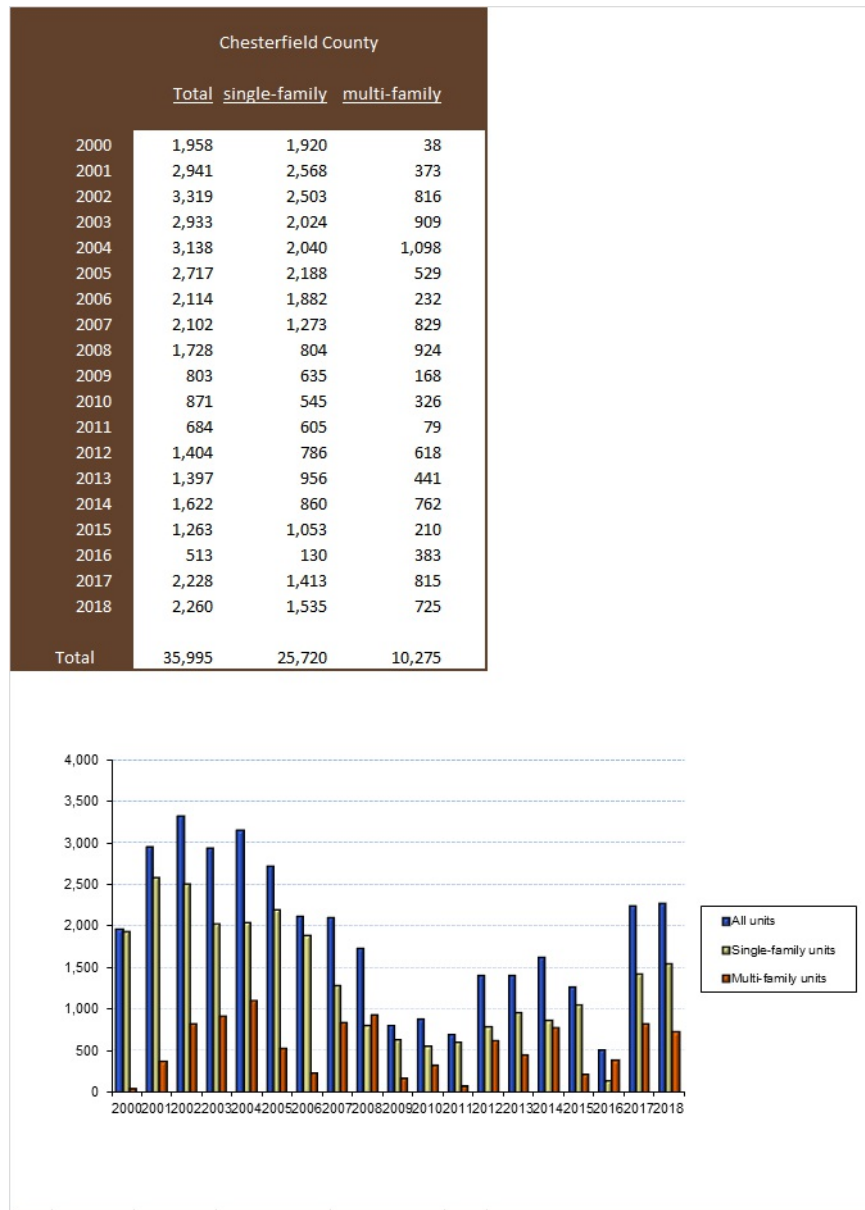
Source: 2014 to 2018 American Community Survey; T.Ronald Brown: Research & Analysis

## Report for Watermark Gardens in Richmond/Chesterfield County, Virginia

### Building permit trends

Table 19 below gives details of residential construction in Chesterfield County since 2000. Where the data exist, it can be seen that a total of 35,995 units were added in throughout the County. No data exist for the market area.

Table 19 - Residential Construction Since 2000



Source: Current Construction Reports, Bureau of the Census; T. Ronald Brown: Research & Analysis

## H. COMPETITIVE ENVIRONMENT

There are five apartment complexes located in the northern Chesterfield area which cater to older persons. Four of these are financed with low income housing tax credits. There are no market rate complexes designated solely for seniors, and there is one property that is subsidized and is designated for the elderly handicapped or disabled. These complexes were identified and surveyed, and where useful information was made available to us, this is presented, below.

The tax credit properties are as follows:

Chester Village Green (163 units)

Courthouse Seniors (69 units)

Grand Oaks (32 units)

Park at Ridgedale (120 units)

It should be noted that two of these complexes (the two complexes in Chester- Chester Village Green and Grand Oaks) are located just outside the market area for the proposed development, but are included here given their comparability and proximity.

There is no new comparable housing in the area.

Chester Village Green is a large single, three-story, development which opened in 2004. There are a total of 163 units - a mix of 65 one-bedroom units and 98 two-bedroom units. It is understood that 124 units are available at tax credit rents and that there are 39 market rate units. Tax credit rents are \$839 and \$999 for the one - and two-bedroom units, respectively. Market rents are \$1,250 for a one-bedroom unit and \$1,333 and \$1,370 for a two- bedroom unit. Rent includes water and sewer, and trash pick-up. The property is reported to have no vacant units at present, with typical occupancy reported to be around 100 percent. There is a waiting list.

Courthouse Seniors opened in 2002 at a site in Chesterfield. One-bedroom units (of which there are 56) rent for \$906 and the 13 two-bedroom (one and one-half bath) units are available for \$1,081. There is one vacant unit at this location at present. The complex is typically fully occupied, with a waiting list.

Grand Oaks is a 32-unit senior property located off West Hundred Road, adjacent to the 184-unit Grand Oaks family tax credit property. The 32 senior units have one bathroom and rent for \$1,085, including utilities. There is one vacant unit at this location at present - with the property staying effectively full, with a waiting list.

The Park at Ridgedale is a 120-unit LIHTC complex located off Iron Bridge Road, south of its intersection with Chippenham Parkway. There are three one-bedroom units which rent for \$850 and 117 two-bedroom/one bath units which rent for \$925. Ren includes utilities. Currently, six units are reported to be vacant, which equates to a 95 percent occupancy level, which is reported to be typical. There is a waiting list.



## Report for Watermark Gardens in Richmond/Chesterfield County, Virginia

The only subsidized complex which caters to seniors that is located in the Chesterfield area is the Rockwood Village complex, which is located just outside the market area, just off Courthouse Road, south of US 360. Here, there are 82 one-bedroom units that were built in 2000 and financed through the HUD §202 program. There are three vacant units at this location at present (96 percent occupancy), with typical occupancy reported at 100 percent, with a waiting list.

Based on our survey of the senior units in this area, there is a market-wide occupancy rate of 97.6 percent - there being eleven units out of a total of 466 units that are reported to be vacant.

With respect to tax credit financed complexes, the occupancy rate is 97.9 percent.

The one subsidized complex, as noted, reports a 96.3 percent occupancy level.

Again, there are no market rate senior properties in the market area (although, as noted, 39 units are available at market rents at Chester Village Green).

As noted, there are no potentially comparable market rate apartment developments that cater to the elderly in the market area. Thus, several market rate properties have been identified as potential comparable properties - they have been chosen on the basis of age, location, and bedroom mix.. Information for the one- and two-bedroom units at these various properties are summarized below.

Table 20 - Market Rate Properties

<u>Property</u>	<u>Year built</u>	<u>One-bedroom rents</u>	<u>Two-bedroom rents</u>
Rockwood Park	1990	\$949	\$1,149-1,199
Rollingwood	1978	\$799	\$899
Crystal Lakes	1969	\$730-910	\$990
Vinings	1998	\$979-1,290	\$1,048-1,564
Meridian Watermark	2011	\$860-1,175	\$1,045-1,440

Source: Apartment Managers; T. Ronald Brown: Research & Analysis

The location, rent levels, unit size, age, features, and amenities were analyzed in order to try to establish an estimate of market rent levels for the subject property. Following this approach we have determined that, all things being equal, these market properties suggest a rent of around \$925 for a one-bedroom unit and around \$1,030 for a two-bedroom unit. Here, it should be noted that the market rate units at the Chester Village Green property rent for \$1,250 for a one-bedroom unit and for \$1,333 to \$1,370 for a two-bedroom unit (including utilities).



Crystal Lakes



Meridian Watermark



Rockwood Park



Rollingwood



Rollingwood

**Report for Watermark Gardens in Richmond/Chesterfield County, Virginia**

The various complexes surveyed are summarized as follows:

Complex name	Location	Financing	Year built	Total units	Vacant units	Occupancy (%)
Chester Village Green	Chester	LIHTC/mkt	2004	163	0	100.0
Courthouse Seniors	Chesterfield	LIHTC	2002	69	1	98.6
Grand Oaks Senior	Chester	LIHTC	2008	32	1	96.9
Park at Ridgedale	Richmond	LIHTC	2003	120	6	95.0
Rockwood Village	Midlothian	HUD § 202	2000	82	3	96.3

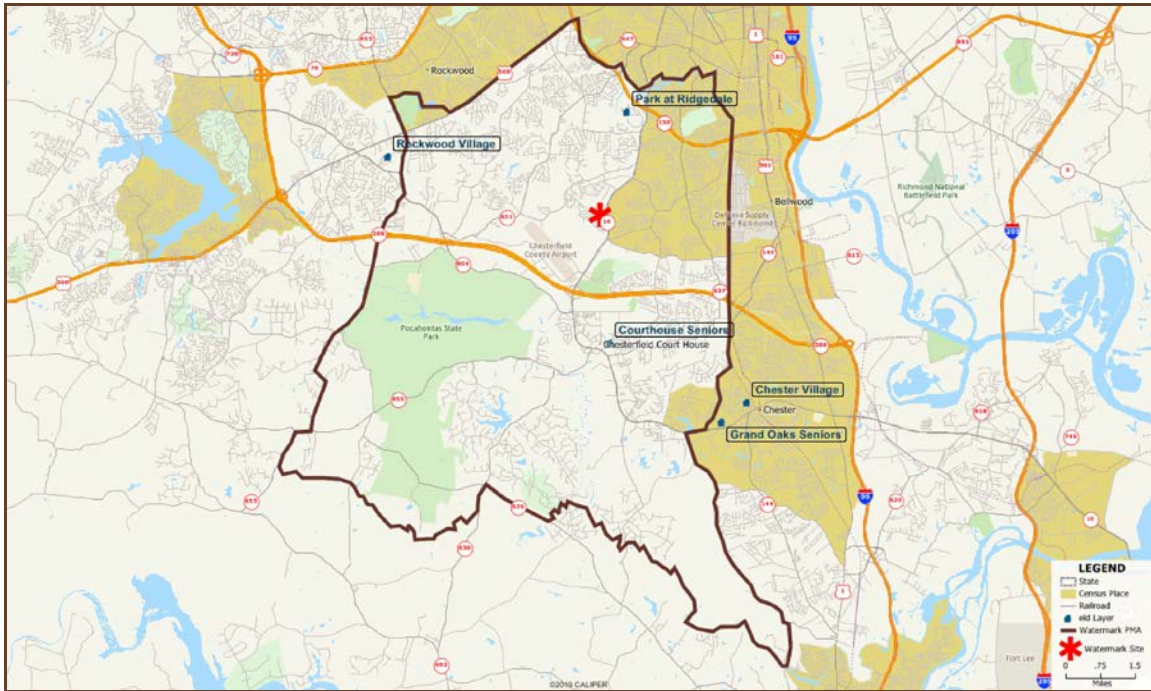
	0 br/1ba			1 br/1ba		
	<u>number</u>	<u>size (sq. ft.)</u>	<u>rent</u>	<u>number</u>	<u>size (sq. ft.)</u>	<u>rent</u>
Watermark				8	600	boi
Chester Village Green				n/a	786	\$839/1,250
Courthouse Seniors				56	640	\$906
Grand Oaks Senior						
Park at Ridgedale				3	520	\$850
Rockwood Village				82	540	boi

	2 br/1-1½ ba			2 br/2 ba		
	<u>number</u>	<u>size (sq. ft.)</u>	<u>rent</u>	<u>number</u>	<u>size (sq. ft.)</u>	<u>rent</u>
Watermark	72	950	\$477-1,250			
Chester Village Green	n/a	958	\$999/1,330-1,370			
Courthouse Seniors	13	894	\$1,081			
Grand Oaks Senior	32	998	\$1,085			
Park at Ridgedale	117	863	\$925			
Rockwood Village						

## Report for Watermark Gardens in Richmond/Chesterfield County, Virginia

The locations of these various complexes is shown below:





**Chester Village Green**

Location: 11701 Chester Village Drive, Chester

Telephone: 804.425.1200

Financing: LIHTC/market, elderly

Year built: 2004

Total units: 163

Vacant units: 0 (100 percent occupied, typically 100 percent, with waiting list)

	<u>1 br/1 ba</u>	<u>1 br/1 ba</u>	<u>2 br/1 ba</u>	<u>2 br/2 ba</u>
Units:	n/a	n/a	n/a	n/a
Unit size (sq. ft.):	786	786	958	958
Rent:	\$839*	\$1,250	\$999*	\$1,333-1,370
Rent/sq. ft.:	\$1.07*	\$1.59	\$1.04*	\$1.41

Management: Franklin Johnston Group (Chelice -[2/5])

Utilities in rent: Water/Sewer  Trash  Heat  Electricity

Amenities: Club House/Community Room  Fitness center  Pool  Tennis  Playground   
 Business Center  Controlled access/Security/gated  Elevator  Garages  Storage  Laundry

Unit features: Microwave  Dishwasher  9'+ ceilings  High-end kitchen  Washer/Dryer   
 Washer/Dryer Hook-up  Wood/wood style floor  Fireplaces  Patios/balconies

\*Tax credit



**Courthouse Seniors**

Location: 6500 Fore Circle, Chesterfield

Telephone: 804.736.9191

Financing: LIHTC, elderly

Year built: 2002

Total units: 69

Vacant unit: 1 (99 percent occupied, typically 100 percent, with waiting list)

	<u>1 br/1 ba</u>	<u>2 br/1½ ba</u>
Units:	56	13
Unit size (sq. ft.):	640	894
Rent:	\$906	\$1,081
Rent/sq. ft.:	\$1.42	\$1.21

Management: Fore Property Group (Barbara - [2/5])

Utilities in rent: Water/Sewer  Trash  Heat  Gas

Amenities: Club House/Community Room  Fitness center  Pool  Tennis  Playground   
 Business Center  Controlled access/Security/gated  Elevator  Garages  Storage  Laundry

Unit features: Microwave  Dishwasher  9'(+ ) ceilings  High-end kitchen  Washer/Dryer   
 Washer/Dryer Hook-up  Wood/wood style floor  Fireplaces  Patios/balconies



### Grand Oaks Senior

Location: 5301 Grand Oaks Forest Circle, Chester

Telephone: 804.251.3469

Financing: LIHTC, elderly

Year built: 2008

Total units: 32

Vacant units: 1 (97 percent occupied, typically 100 percent, with waiting list)

2 br/1 ba

Units: 32

Unit size (sq. ft.): 998

Rent: \$1,085

Rent/sq. ft.: \$1.09

Management: NRP Group (Kelsey - [2/6])

Utilities in rent: Water/Sewer  Trash  Heat  Electricity

Amenities: Club House/Community Room  Fitness center  Pool  Tennis  Playground   
Business Center  Controlled access/Security/gated  Elevator  Garages  Storage  Laundry

Unit features: Microwave  Dishwasher  9'(+ ) ceilings  High-end kitchen  Washer/Dryer   
Washer/Dryer Hook-up  Wood/wood style floor  Fireplaces  Patios/balconies



**Park at Ridgedale**

Location: 5001 Ridgedale Parkway, Richmond

Telephone: 804.271.4166

Financing: LIHTC, elderly

Year built: 2003

Total units: 120

Vacant units: 6 (95 percent occupied, typically 95 percent, with waiting list)

	<u>1 br/1 ba</u>	<u>2 br/1 ba</u>
Units:	3	117
Unit size (sq. ft.):	520	863
Rent:	\$850	\$925
Rent/sq. ft.:	\$1.53	\$1.07

Management: TRG Management ( [2/10] )

Utilities in rent: Water/Sewer  Trash  Heat  Electricity

Amenities: Club House/Community Room  Fitness center  Pool  Tennis  Playground   
 Business Center  Controlled access/Security/gated  Elevator  Garages  Storage  Laundry

Unit features: Microwave  Dishwasher  9'(+ ) ceilings  High-end kitchen  Washer/Dryer   
 Washer/Dryer Hook-up  Wood/wood style floor  Fireplaces  Patios/balconies





**Rockwood Village**

Location: 3901 Price Club Boulevard, Midlothian

Telephone: 804.745.0911

Financing: HUD § 202

Year built: 2000

Total units: 82

Vacant units: 3 (96 percent occupied, typically 100 percent, with waiting list)

1 br/1 ba

Units: 82

Unit size (sq. ft.): 540

Contract rent: \$515

Management: Better Housing Coalition (Candace )

Utilities in rent: Water/Sewer  Trash  Heat  Electricity  Gas

Amenities: Club House/Community Room  Fitness center  Pool  Tennis  Playground   
Business Center  Controlled access/Security/gated  Elevator  Garages  Storage  Laundry

Unit features: Microwave  Dishwasher  9'(+ ) ceilings  High-end kitchen  Washer/Dryer   
Washer/Dryer Hook-up  Wood/wood style floor  Fireplaces  Patios/balconies  A/C

I. AFFORDABILITY ANALYSIS, DEMAND ANALYSIS, CAPTURE RATES, AND PENETRATION RATES

Demand Analysis

The proposed development will rent to older adults - defined as those aged 55 years and older.

The market for the proposed apartments is derived from two principal sources: the population and household growth market, and from existing households currently living in the area who could move to the project were it to be made available. With respect to the latter, separate consideration is given to market area renter households and market area owner-occupied households.

Income is a key variable in the analysis of housing markets. Of the 80 units proposed, eight will be targeted to households with incomes up to 30 percent of the median, 32 will be targeted to households with incomes up to 50 percent of the median (of which eight will be rent-assisted), with 12 targeted at 60 percent of the median, and 28 units will be targeted at 80 percent of the median (and therefore applying income averaging).

The HUD income limits for Chesterfield County (the Richmond MSA) are set out below. The median income for Chesterfield County in 2019 is \$86,400 - having been \$83,200 in 2018, and \$73,200 in 2009. This represents a 3.8 percent increase over the previous year, and an 18.0 percent increase over the last decade (or an average of 1.67 percent per year).

The maximum housing expenses for the proposed units are based on the above income limits and assume an average 1.5 persons per household and that renters will pay no more than 30 percent of their incomes on housing expenses (rent plus utilities).

Table 21 - Income Limits and Maximum Housing Costs

Income Limits				
	<u>30 percent</u>	<u>50 percent</u>	<u>60 percent</u>	<u>80 percent</u>
1 person	\$24,200	\$30,250	\$36,300	\$48,400
2 person	\$27,680	\$34,600	\$41,520	\$55,360
3 person	\$31,120	\$38,900	\$46,680	\$62,240
Maximum Housing Costs				
	<u>30 percent</u>	<u>50 percent</u>	<u>60 percent</u>	<u>80 percent</u>
1 bedroom	\$486	\$811	\$973	\$1,297
2 bedroom	\$584	\$973	\$1,167	\$1,556

Source: HUD

Information as to rents and income targeting, and qualifying income ranges are set out in Table 22, below

Table 22 - Rents and Income Targeting

Income targeting					
	<u>30 percent</u>	<u>50 percent</u>	<u>60 percent</u>	<u>80 percent</u>	<u>Total</u>
1 bedroom	0	8	0	0	8
2 bedroom	8	24	12	28	72
total	8	32	12	28	80
proposed rents					
	<u>30 percent</u>	<u>50 percent</u>	<u>60 percent</u>	<u>80 percent</u>	
1 bedroom		\$817			
2 bedroom	\$477	\$860	\$1,050	\$1,250	
proposed rents as a proportion (%) of maximum					
	<u>30 percent</u>	<u>50 percent</u>	<u>60 percent</u>	<u>80 percent</u>	
1 bedroom		111.3			
2 bedroom	99.9	99.3	99.1	87.1	

Source: Applicant; T Ronald Brown: Research & Analysis

The utility allowances for the proposed development are \$85 for a one-bedroom unit, and \$106 for a two-bedroom unit.

From the table above, it can be seen that housing expenses at the proposed apartments effectively fall at or near the maximum allowable for the units targeted at each of the 30 percent, 50 percent, and 60 percent levels, and at 87 percent of the maximum for the units targeted at 80 percent. It should be noted that the rent for the eight one-bedroom units at 50 percent of the median - those units that are rent-assisted - exceed the maximum allowable for tax credit units and, based on VHDA market study guidelines, the maximum rent is to be used in the following calculations.

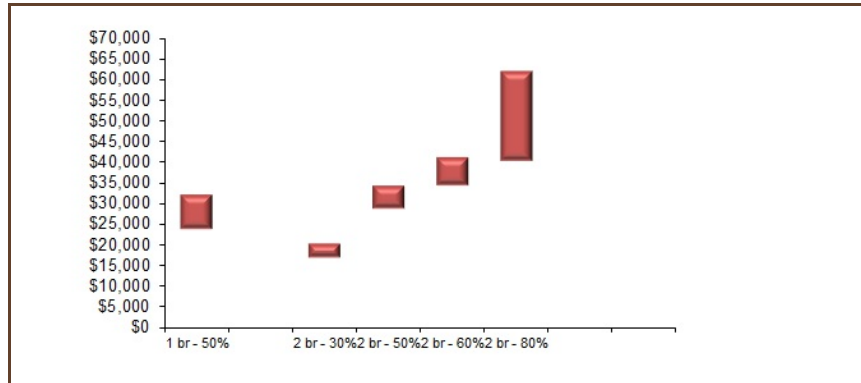
Qualifying income ranges are a function of the income needed to afford the proposed units and the mandated upper income limits. There is no official lower income limit for the proposed apartments. However, for the purposes of this report it is assumed that tenants will pay no more than 40 percent of their income on housing costs (rent and utilities). The upper limits are a function of household size - based on a standard of one and one-half persons per bedroom, capped at two persons for elderly complexes). The qualifying income limits for one- bedroom units (at the 30 percent , 60 percent, and 80 percent levels) are based on the proposed two-bedroom unit rent levels relative to the maximum allowable.

Table 23 - Qualifying Income Ranges

		<u>30 percent</u>	
		lower	upper
2 bedroom		\$17,490	\$20,760
		<u>50 percent</u>	
		lower	upper
1 bedroom		\$24,300	\$32,425
2 bedroom		\$28,980	\$34,600
		<u>60 percent</u>	
		lower	upper
2 bedroom		\$34,680	\$41,520
		<u>80 percent</u>	
		lower	upper
2 bedroom		\$40,680	\$62,240

Source: Applicant; T Ronald Brown: Research & Analysis

The various qualifying income ranges, by bedroom mix and income targeting are illustrated, below. It should be noted from the diagram that the target income ranges for the two-bedroom units are somewhat compressed because two-person households are to be used for the upper income limit (and 1.5 persons for one-bedroom units). Any gaps and/or overlaps between these target income ranges will necessarily be taken into consideration in our calculations.



The major variables to be examined are age, tenure, and income. These data are no longer available from the Decennial Census. Nonetheless, data can be extrapolated from the most recent American Community Survey - again, subject the limitations of those data. These data, for the market area for the proposed complex, are set out below.

Table 24 - Household Income, Older Households

Income	All Older Owners		All Older Renters		Overburdened Renters	
	Number	Percentage	Number	Percentage	Number	Percentage
Up to \$10,000	298	2.5	153	7.5	120	11.7
\$10,000 - \$19,999	798	6.6	437	21.4	265	26.0
\$20,000 - \$34,999	1,479	12.2	493	24.1	333	32.7
\$35,000 - \$50,000	1,703	14.1	374	18.3	184	18.1
\$50,000 - \$75,000	2,550	21.1	305	14.9	57	5.6
\$75,000 - \$100,000	1,758	14.6	129	6.3	26	2.5
\$100,000 and over	3,492	28.9	153	7.5	35	3.4
Total	12,078		2,044		1,019	

Source: 2014 to 2018 American Community Survey; T.Ronald Brown: Research & Analysis

As noted, these data are necessarily from the American Community Survey and are based on the 5-year average for the period from 2014 to 2018 - and not for a specific year.

From this table it can be seen that 7.5 percent of the market area older renter households have incomes less than \$10,000 and a further 21.4 percent have incomes between \$10,000 and \$20,000. Around 24.1 percent of older renters are seen to be in the \$25,000 to \$35,000 income range. Around 50 percent of all older renters are rent-overburdened. This table also illustrates how rent-overburdened households are concentrated in the lower income groups.

Based on the income ranges set out in Table 23 and the income distribution set out in Table 24, it is found that 8.5 percent of households at the 30 percent of the qualify for the proposed units, and around 11.1 percent of market area older renter households qualify for units at 50 percent of the median. The corresponding figures for units at the 60 percent and 80 percent levels are 11.5 percent and 21.7 percent, respectively.

Projections of need and demand are based upon a 2020 to 2025 projection period and the resulting calculations are corrected to account for any construction of comparable projects and/or planned comparable units.

With respect to household growth of older households, the projections of the older population and households for the project market area show that the number of elderly persons (55 years and older) was projected to increase from 23,868 in 2020 to 25,470 in 2025. Likewise, the number of older households was projected to increase from 14,122 to 15,070.

The number of elderly renters is projected to increase by 314 between 2020 and 2025 (from 2,044 to 2,350 households). Based on the distribution of elderly renter household incomes there are 146 new elderly renter households which qualify for the proposed development.

Again, the market for the proposed apartments comprises not only demand from population and household growth, but also from existing older households—both homeowners and renters—who would move to the new apartments were they made available. The extent to which any new development is able to attract a certain share of this market is largely a factor of several interrelated factors. These include the location of the development, the amenities it offers, the quality of design and the effectiveness of the development's marketing and management. That is, the perceived value of the community in terms of price, convenience, and life-style.

Our calculations show that there will be a total of 1,098 older renter households in the qualifying income ranges in the project market area. These figures have to be adjusted to reflect the proportion that are likely to move to a new complex. With respect to existing households in the project market area it is found that, based on the most recent American Community Survey data, 61.3 percent of renters at the 30 percent level are rent-overburdened, and 67.5 percent of renters qualifying at 50 percent are overburdened. Around 55.9 percent of those at 60 percent of the median are rent-overburdened, with the corresponding proportion for households at 80 percent of the median being 49.3 percent. Here, these proportions are applied to the number of income eligible existing renter households to estimate how many of those households are likely to consider moving to the proposed apartments.

State Agency market study guidelines allow for the replacement of rental units due to demolition, abandonment, obsolescence and the like. This based on an annual average rate of 0.6 percent of the rental housing stock. The proportion is based on a two-year loss of 1.2 percent of rental units detailed in the 2016 Edition of "Components of Inventory Change" published by HUD. Based on the number of rental units in the project market area this translates to a need for an additional 33 units.

Our calculations show that there will be a total of 4,140 older owner-occupied households in the qualifying income ranges in the market area. With respect to the existing elderly homeowners it is realistically assumed that perhaps 5 percent would consider moving to the proposed apartments. This translates to around 207 new older renters (where is number is capped at 20 percent of total demand).

Total demand is therefore seen to amount to 1,212 units. This total demand has to be segmented to determine demand by number of bedrooms per unit. For the purposes of this report, it can be reasonably assumed that up around one-half of older households would choose a one-bedroom unit, and one-half would chose a two-bedroom unit.

These figures are based on a 2020 to 2025 projection period and therefore have been corrected to account for the funding and/or construction of any directly comparable projects in the market area. No directly comparable project has been added in the project market area over the projection period, nor have any other comparable properties been funded or are under construction. The net need is therefore for 1,212 units.

The preceding calculations are summarized in the table, below.

Table 25 - Demand Calculations

	30 percent	50 percent	60 percent	80 percent	Total*
(i) income eligible new renter households	27	35	36	68	146
(ii) income eligible existing renter households	201	261	271	511	1,098
(iii) existing renter households, likely to move	123	176	151	252	826
(iv) renters in obsolete housing	6	8	8	16	33
(v) income eligible existing owner households	351	713	954	2,639	4,140
(vi) existing owner households, likely to move	18	36	48	132	207
Total demand (i)+(iii)+(iv)+(vi)	174	254	243	467	1,212
Supply	0	0	0	0	0
Net demand	174	254	243	467	1,212

Source: T. Ronald Brown: Research & Analysis



Capture rates are illustrated in the table, below.

Table 26 - Capture Rates

	<u>30 percent</u>	<u>50 percent</u>	<u>60 percent</u>	<u>80 percent</u>	<u>Total*</u>
<b>Total demand</b>					
1 bedroom	87	127	122	234	606
2 bedroom	87	127	122	234	606
<b>Total</b>	<b>174</b>	<b>254</b>	<b>243</b>	<b>467</b>	<b>1,212</b>
<b>Supply</b>					
1 bedroom	0	0	0	0	0
2 bedroom	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Net demand</b>					
1 bedroom	87	127	122	234	606
2 bedroom	87	127	122	234	606
<b>Total</b>	<b>174</b>	<b>254</b>	<b>243</b>	<b>467</b>	<b>1,212</b>
<b>Units proposed</b>					
1 bedroom	0	8	0	0	8
2 bedroom	8	24	12	28	72
<b>Total</b>	<b>8</b>	<b>32</b>	<b>12</b>	<b>28</b>	<b>80</b>
<b>Capture rates</b>					
1 bedroom	0.0%	6.3%	0.0%	0.0%	1.3%
2 bedroom	9.2%	18.9%	9.9%	12.0%	11.9%
<b>Total</b>	<b>4.6%</b>	<b>12.6%</b>	<b>4.9%</b>	<b>6.0%</b>	<b>6.6%</b>

Source: T. Ronald Brown: Research & Analysis

Given the calculated need, the proposed 80-unit development amounts to 6.6 percent of the total net need.

The capture rate, by bedroom, is determined to be 1.3 percent for the eight one-bedroom units, and 11.9 percent for the 72 two-bedroom units.

The eight one-bedroom units at 50 percent of the median amount to 6.3 percent of demand (assuming no rental assistance). The eight two-bedroom units targeted at 30 percent of the median amount to 9.2 percent of the demand at that target income level. The 24 two-bedroom units at 50 percent of the median amount to 18.9 percent of demand at that target level, and the 12 two-bedroom units targeted at the 60 percent level amount to around 4.9 percent of demand at that level. The 28 two-bedroom targeted at 80 percent represent 12.0 percent of demand at that level.

The capture rates presented above are considered reasonable for this property

As noted, the capture rates presented above are considered realistic. Based on the above, the project could expect to lease-up (reach stabilized occupancy) over an estimated six- to nine month period, or so.

### Affordability Analysis

Here, an affordability analysis addresses the total number of income eligible renter households in the market are relative to the size of the proposed development.

The minimum income is that associated with the rent for the least expensive unit offered, and the upper limit is based on the 80 percent limit (the highest target income range) for the largest unit size, by number of bedrooms. Here, the lower income is seen to be that for the proposed two-bedroom units that will be targeted to households at the 30 percent level; that is \$28,980. The upper income is \$62,240. Based on the income data set out in Table 24, there are found to be 832 older renter households in that range. Thus, the proposed 80- unit development corresponds to a 9.6 percent affordability analysis capture rate.

Penetration rate.

A penetration rate is defined, for the purposes of this analysis, as the proportion of income-eligible households needed to fill the proposed development, plus those in existing competitive units, plus any in competitive units that are approved and funded for future development.

The lower income limit for this analysis is the income needed to afford the least expensive competitive unit in the market (or the rent for the least-expensive proposed unit, if lower), and the upper income limit is the upper income limit for the competitive units (or the proposed units, if higher). Our survey of the existing, competitive inventory, shows that there are no properties that are comparable to the proposed units. Thus, given the rents for the proposed development, the target income range for this market is that as set out above. That is, from \$28,980 to \$62,240. Thus, given that there are as, noted, 832 qualifying elderly renter households in the market area. It is seen that 80 units are proposed, there are 189 comparable tax credit units (at Courthouse Seniors and the Park at Ridgewood), with none under construction or funded for future construction. Thus, the penetration rate - as defined - amounts to 32.3 percent.

### Summary

Consideration of the capture rate (6.6 percent), the (9.6 percent) affordability analysis capture rate and (32.3 percent) penetration rate suggests that the proposed development is marketable, as proposed.

## J. LOCAL PERSPECTIVES OF RENTAL HOUSING MARKET

As part of the research for this market study, interviews were held with property managers, local government officials, and others with particular knowledge of the local housing market. The proposed development will offer an attractive, new, apartment complex - to be leased subject to the provisions of the Low Income Housing Tax Credit program. Property managers of existing complexes and/or other representatives of management companies were a potential source of information.

As noted, property managers are a major source of information for a project such as that proposed (their contact details are provided as part of the rental survey set out in the previous pages). The manager at the Chester Village Green Apartments believes that there is a need for more tax credit projects catering to seniors in the area. Barbara, manager at Courthouse Seniors, reports a lot of enquiries from persons seeking immediate occupancy. The manager at Grand Oaks Seniors states that the area could always use more senior units. Candace, at Rockwood Village (HUD § 202) believes that northern Chesterfield County could use more senior housing. The manager at the Park at Ridgedale tax credit property also reports receiving a lot of enquiries.

#### K. ANALYSIS/CONCLUSIONS

Based on the above, the project could expect to lease-up (reach stabilized occupancy) over an estimated six- to nine-month period, or so.

Based on the proposed development's site, bedroom mix, amenities and features, the proposed development is considered marketable and should be accepted in this market.

The site location will offer a significant advantage as will the proposed rents, particularly those set to be affordable to households at 30 percent of the median.

The proposed development should not have a negative impact on existing housing.

It is our recommendation that, based upon our analysis, the proposed apartments should be developed as proposed, and that the project should be awarded low income housing tax credits. This conclusion is based on our analysis of the economic and demographic criteria of the project market area as defined and on our project specific demand analysis and survey of the supply of rental housing in the market--as set out in the foregoing report and summarized in the Executive Summary.

#### L. OTHER REQUIREMENTS

Statement and signature

I affirm the following:

1. that 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 Development Authority.
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 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 reservation or allocation of tax credits.



Market Analyst

Date March 10, 2020

As affirmed in the Scope of Work, there is no identity of interest between the analyst and the entity for which the report has been prepared.

Similarly, the recommendations and conclusions are based solely on the analyst's experience, opinion, and best efforts.

## Analyst Qualifications

T. Ronald Brown: Research & Analysis is a planning and economics consulting firm which provides real estate market analysis.

The President of the firm is T. Ronald Brown. He has 30 years experience in the provision of market studies for subsidized and unsubsidized apartment developments and for-sale housing. Over the last two decades or so, Mr. Brown has produced around 2,500 studies in at least 20 states, predominantly in the Southeast.

Mr. Brown has a Honours Master of Arts degree in Geographical Studies from the University of St. Andrews in St. Andrews, Scotland.

The firm has primary experience in market analysis for residential projects including both single-family homes and multi-family units (for sale and for rent). A significant proportion of the firm's business focuses on apartment market studies—for family renters and for elderly persons. These reports include conventionally financed projects (including HUD 221 (d) (4) projects), affordable housing (including low income tax credit financed projects) and subsidized housing.

Clients include for-profit developers, non-profit developers and community development corporations, state housing finance agencies, syndicators, and municipalities.



List of sources

The foregoing reports contains information from a variety of sources - those sources (such as contact numbers for property interviews) are cited at the appropriate place in the report itself. The major sources of data include:

The U.S. Census - 2000 and 2010, and the American Community Survey (2014-2018)  
Virginia Housing Development Authority  
U.S. Department of HUD  
U.S. Department of Agriculture  
Virginia State Data Center/Weldon Cooper Center for Public Service  
Virginia Employment Commission  
Virginia Economic Development Partnership  
Chesterfield County  
U.S. Bureau of Labor Statistics  
HUDUSER (e.g., SOCDs building permits database)

Market study Checklist

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## MARKET STUDY TERMINOLOGY

The following presents the accepted definitions of various terms typically found in real estate market studies. These definitions are typically followed unless reviewing agency requirements differ.

**Absorption period** - the period of time necessary for a newly constructed or renovated property to achieve the *stabilized level of occupancy*. The absorption period begins when the first certificate of occupancy is issued and ends when the last unit to reach the *stabilized level of occupancy* has a signed lease. Assumes a typical premarketing period, prior to the issuance of the certificate of occupancy, of about three to six months. The month that leasing is assumed to begin should accompany all absorption estimates.

**Absorption rate** - the average number of units rented each month during the *absorption period*.

**Acceptable rent burden** - the rent-to-income ratio used to qualify tenants for both income-restricted and non-income restricted units. The acceptable rent burden varies depending on the requirements of funding sources, government funding sources, target markets, and local conditions.

**Achievable rents** - See *Market Rent, Achievable Restricted Rent*.

**Affordable housing** - housing affordable to low or very low-income tenants.

**Amenity** - tangible or intangible benefits offered to a tenant. Typical amenities include on-site recreational facilities, planned programs, services and activities.

**Annual demand** - the total estimated demand present to the market in any one year for the type of units proposed.

**Assisted housing** - housing where federal, state or other programs *subsidize* the monthly costs to the tenants.

**Bias** - a proclivity or preference, particularly one that inhibits or entirely prevents an impartial judgment.

**Capture rate** - the percentage of age, size, and income qualified renter households in the *primary market area* that the property must capture to fill the units. Funding agencies may require restrictions to the qualified households used in the calculation including age, income, living in substandard housing, mover-ship and other comparable factors. The *Capture Rate* is calculated by dividing the total number of units at the property by the total number of age, size and income qualified renter households in the *primary market area*. See also: penetration rate.

**Comparable property** - a property that is representative of the rental housing choices of the subject's *primary market area* and that is similar in construction, size, amenities, location, and/or age. Comparable and *competitive* properties are generally used to derive market rent and to evaluate the subject's position in the market.

**Competitive property** - a property that is comparable to the subject and that competes at nearly the same

rent levels and tenant profile, such as age, family or income.

**Comprehensive market study** - NCHMA (the National Council of Housing Market Analysts) defines a comprehensive market study for the purposes of IRC Section 42 as a market study compliant with its Model Content Standards for Market Studies for Rental Housing. Additionally, use of the suggested wording in the NCHMA certification without limitations regarding the comprehensive nature of the study, shows compliance with the IRC Section 42 request for completion of a market study by a 'disinterested party.'

**Concession** - discount given to a prospective tenant to induce the tenant to sign a lease. Concessions typically are in the form of reduced rent or free rent for a specific lease term, or for free amenities, which are normally charged separately (i.e. washer/dryer, parking).

**Demand** - the total number of households in a defined market area that would potentially move into the proposed new or renovated housing units. These households must be the appropriate age, income, tenure and size for a specific proposed development. Components of demand vary and can include household growth; turnover, those living in substandard conditions, rent over-burdened households, and demolished housing units. Demand is project specific.

**Effective rents** - contract rent less concessions.

**Household trends** - changes in the number of households for a particular area over a specific period of time, which is a function of new household formations (e.e. at marriage or separation), changes in average household size, and net *migration*.

**Income band** - the range of incomes of households that can afford to pay a specific rent but do not have below any applicable program-specific maximum income limits. The minimum household income typically is based on a defined *acceptable rent burden* percentage and the maximum typically<sup>7</sup> is pre-defined by specific program requirements or by general market parameters.

**Infrastructure** - services and facilities including roads, highways, water, sewerage, emergency services, parks and recreation, etc. Infrastructure includes both public and private facilities.

**Market advantage** - the difference, expressed as a percentage, between the estimated market rent for an apartment property without income restrictions and the lesser of (a) the owner's proposed rents or (b) the maximum rents permitted by the financing program for the same apartment property.  $(\text{market rent} - \text{proposed rent}) / \text{market rent} * 100$

**Market analysis** - a study of real estate market conditions for a specific type of property.

**Market area** - See *primary market area*.

**Market demand** - the total number of households in a defined market area that would potentially move into any new or renovated housing units. Market demand is not project specific and refers to the universe of tenure appropriate households, independent of income. The components of market demand are similar to those used in determining project-specific demand. A common example of market demand used by HUD's MAP program, which is based on three years of renter household growth, loss of existing units due to demolition, and market conditions.

**Market rent** - the rent that an apartment, without rent or income restrictions or rent subsidies, would command in the *primary market area* considering its location, features and amenities. Market rent should be adjusted for *concessions* and owner paid utilities included in the rent.

**Market study** - a comprehensive study of a specific proposal including a review of the housing market in a defined market area. Project specific market studies are often used by developers, syndicators, and government entities to determine the appropriateness of a proposed development, whereas market specific market studies are used to determine what housing needs, if any, exist within a specific geography.

**Marketability** - the manner in which the subject fits into the market; the relative desirability of a property (for sale or lease) in comparison with similar or competing properties in the area.

**Market vacancy rate, economic** - percentage of rent loss due to concessions, vacancies, and non-payment of rent on occupied units.

**Market vacancy rate, physical** - average number of apartment units in any market which are unoccupied divided by the total number of apartment units in the same market, excluding units in properties which are in the lease-up stage.

**Migration** - the movement of households into or out of an area, especially a *primary market area*.

**Mixed income property** - an apartment property containing (1) both income restricted and unrestricted units or (2) units restricted at two or more income limits (i.e. low income tax credit property with income limits of 30%, 50%, and 60%).

**Mobility** - the ease with which people move from one location to another.

**Move-up demand** - an estimate of how many consumers are able and willing to relocate to more expensive or desirable units. Examples: tenants who move from class-C properties to class-B properties, or tenants who move from older tax credit properties to new tax credit properties.

**Multi-family** - structures that contain more than two housing units.

**Neighborhood** - an area of a city or town with common demographic and economic features that distinguish it from adjoining areas.

**Net rent (also referred to as contract rent or lease rent)** - Gross rent less *tenant paid utilities*.

**Penetration rate** - The percentage of age and income qualified renter households in the *primary market area* that all existing and proposed properties, to be completed with six months of the subject, and which are competitively priced to the subject that must be captured to achieve the *stabilized level of occupancy*. Funding agencies may require restrictions to the qualified households used in the calculation including age, income, living in substandard housing, mover ship and other comparable factors. Units in all proposals / households in market \* 100, see also: capture rate.

**Pent-up demand** - a market in which there is a scarcity of supply and vacancy rates are very low.

**Population trends** - changes in population levels for a particular area over a specific period of time – which is a function of the level of births, deaths, and net *migration*.

**Primary market area** - a geographic area from which a property is expected to draw the majority of its residents.

**Programmatic rents** - See *restricted rents*.

**Project based rent assistance** - rental assistance from any source that is allocated to the property or a specific number of units in the property and is available to each income eligible tenant of the property or an assisted unit.

**Redevelopment** - the redesign or rehabilitation of existing properties.

**Rent burden** - gross rent divided by adjusted monthly household income.

**Rent burdened households** - households with *rent burden* above the level determined by the lender, investor, or public program to be an acceptable rent-to-income.

**Restricted rent** - the rent charged under the restrictions of a specific housing program or subsidy.

**Restricted rent, achievable** - the rents that the project can attain taking into account both market conditions and rent in the *primary market area* and income restrictions.

**Saturation** - the point at which there is no longer demand to support additional unit. Saturation usually refers to a particular segment of a specific market.

**Secondary market area** - the portion of a market that supplies additional support to an apartment property beyond that provided by the primary market area.

**Special needs population** - specific market niche that is typically not catered to in a conventional apartment property. Examples of special needs population include: substance abusers, visually impaired person or persons with mobility limitations.

**Stabilized level of occupancy** - the underwritten or actual number of occupied units that a property is expected to maintain after the initial rent-up period, expressed as a percentage of the total units.

**Subsidy** - monthly income received by a tenant or by an owner on behalf of a tenant to pay the difference between the apartment's *contract rent* and the amount paid by the tenant toward rent.

**Substandard conditions** - housing conditions that are conventionally considered unacceptable which may be defined in terms of lacking plumbing facilities, one or more major systems not functioning properly, or overcrowded conditions.

**Target income band** - the *income band* from which the subject property will draw tenants.

**Target population** - the market segment or segments a development will appeal or cater to. State agencies often use target population to refer to various income set asides, elderly v. family, etc.

**Tenant paid utilities** - the cost of utilities (not including cable, telephone, or internet) necessary for the habitation of a dwelling unit, which are paid by the tenant.

**Turnover period** - 1. An estimate of the number of housing units in a market area as a percentage of total housing units in the market area that will likely change occupants in any one year. See also: vacancy period. Housing units with new occupants / housing units \* 100 2. The percent of occupants in a given apartment complex that move in one year.

**Unmet housing need** - new units required in the market area to accommodate household growth, homeless people, and housing in substandard conditions.

**Unrestricted rents** - rents that are not subject to *restriction*.

**Unrestricted units** - units that are not subject to any income or rent restrictions.

**Vacancy period** - the amount of time that an apartment remains vacant and available for rent.

**Vacancy rate-economic vacancy rate - physical** - maximum potential revenue less actual rent revenue divided by maximum potential rent revenue. The number of total habitable units that are vacant divided by the total number of units in the property.

## Other Terms

The following terms are also to be found in professional market studies - here, this information is drawn from various sources including HUD, the Census Bureau, and the Urban Land Institute.

**Area Median Income (AMI)** - 100% of the gross median household income for a specific Metropolitan Statistical Area, county or non-metropolitan area established annually by HUD.

**Attached housing** - two or more dwelling units connected with party walls (e.g. townhouses or flats).

**Basic rent** - the maximum monthly rent that tenants who do not have rental assistance pay to lease units developed through the USDA-RD Section 515 Program, the HUD Section 236 Program and HUD Section 223(d)(3) Below Market Interest Rate Program. The Basic Rent is calculated as the amount of rent required to operate the property, maintain debt service on a subsidized mortgage with a below-market interest rate, and provide a return on equity to the developer in accordance with the regulatory documents governing the property.

**Below Market Interest Rate program (BMIR)** - Program targeted to renters with income not exceeding 80% or area median income by limiting rents based on HUD's BMIR Program requirements and through the provision of an interest reduction contract subsidize the market interest rate to a below-market rate. Interest rates are typically subsidized to effective rates of one percent or three percent.

**Census tract** - a small, relatively permanent statistical subdivision delineated by a local committee of census data users for the purpose of presenting data. Census tract boundaries normally follow visible features, but may follow governmental unit boundaries and other non-visible features; they always nest within counties. They are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment. Census tracts average about 4,000 inhabitants.

**Central Business District (CBD)** - the center of commercial activity within a town or city; usually the largest and oldest concentration of such activity.

**Community Development Corporation (CDC)** - entrepreneurial institution combining public and private resources to aid in the development of socio-economically disadvantaged areas.

**Condominium** - a form of joint ownership and control of property in which specified volumes of space (for example, apartments) are owned individually while the common elements of the property (for example, outside walls) are owned jointly.

**Contract rent** - 1. The actual monthly rent payable by the tenant, including any rent subsidy paid on behalf of the tenant, to the owner, inclusive of all terms of the lease. (HUD & RD) 2. The monthly rent agreed to between a tenant and a landlord (Census).

**Difficult Development Area (DDA)** - an area designated by HUD as an area that has high construction, land,



and utility costs relative to the Area Median Gross Income. A project located in a DDA and utilizing the Low Income Housing Tax Credit may qualify for up to 130% of eligible basis for the purpose of calculating the Tax Credit allocation.

**Detached housing** - a freestanding dwelling unit, typically single-family, situated on its own lot.

**Elder or senior housing** - housing where (1) all units in the property are restricted for occupancy by persons 62 years of age or older or (2) at least 80% of the units in each building are restricted for occupancy by households where at least one household member is 55 years of age or older and the housing is designed with amenities and facilities designed to meet the needs of senior citizens.

**Extremely low income** - person or household with income below 30% of the Area Median Income adjusted for household size.

**Fair Market Rent (FMR)** - the estimates established by HUD of the Gross rents (Contract rent plus Tenant Paid Utilities) needed to obtain modest rental units in acceptable condition in a specific county or metropolitan statistical area. HUD generally set FMR so that 40% of the rental units have rents below FMR. In rental markets with a shortage of lower priced rental units HUD may approve the use of Fair Market Rents that are as high as the 50<sup>th</sup> percentile of rents.

**Garden apartments** - apartments in low-rise buildings (typically two or four stories) that feature low density, ample open-space around buildings, and on-site parking.

**Gross rent** - the monthly housing cost to a tenant which equals the Contract rent provided for in the lease plus the estimated cost of all Tenant Paid Utilities.

**High-rise** - a residential building having more than ten stories.

**Household** - one or more people who occupy a housing unit as their usual place of residence.

**Housing unit** - house, apartment, mobile home, or group of rooms used as a separate living quarters by a single household.

**Housing Choice Voucher (Section 8 Program)** - federal rent subsidy program under Section 8 of the U.S. Housing Act, which issues rent vouchers to eligible households in the use of the housing of their choice. The voucher payment subsidizes the difference between the Gross Rent and tenant's contribution of 30% of adjusted income, (or 10% of gross income, whichever is greater). In cases where 30% of the tenants' income is less than the utility allowance, the tenant will receive an assistance payment. In other cases, the tenant is responsible for paying his share of the rent each month.

**Housing Finance Agency (FHA)** - state or local agencies responsible for financing housing and administering assisted housing programs.

**HUD Section 8 Program** - federal program that provides project based rental assistance. Under the program HUD contracts directly with the owner for the payment of the difference between the contract rent and a specified percentage of tenants' adjusted income.

**HUD Section 202 Program** - federal program which provides direct capital assistance (i.e. grant) and operating or rental assistance to finance housing designed for occupancy by elderly households who have income not exceeding 50% of Area Median Income. The program is limited to housing owned by 501(c)(3) nonprofit organizations or by limited partnerships where the sole general partner is a 501(c)(3) nonprofit organization. Units receive HUD project based rental assistance that enables tenants to occupy units at rents based on 30% of tenant income.

**HUD Section 811 Program** - federal program which provides direct capital assistance and operating of rental assistance to finance housing designed for occupancy by persons with disabilities who have income not exceeding 50% of Area Median Income. The program is limited to housing owned by 501(c)(3) nonprofit organizations or by limited partnerships where the sole general partner is a 510(c)(3) nonprofit organization.

**HUD Section 236 Program** - federal program which provides interest reduction payments for loans which finance housing targeted to households with income not exceeding 80% of area median income who pay rent equal to the greater of Basic Rent or 30 percent of their adjusted income. All rents are capped at a HUD approved market rent.

**Income limits** - maximum household income by county or Metropolitan Statistical Area, adjusted for household size and expressed as a percentage of the Area Median Income for the purpose of establishing an upper limit for eligibility for a specific housing program. Income limits for federal, state and local rental housing programs typically are established at 30%, 50%, 60% or 80% of AMI. HUD publishes income limits each year for 30% median. Very low income (50%), and low income (80%), for households with 1 through 8 people.

**Low income** - person or household with gross household income below 80% of Area Median Income adjusted for household size.

**Low income housing tax credit** - a program to generate equity for investment in affordable rental housing authorized pursuant to Section 42 of the Internal Revenue Code, as amended. The program requires that a certain percentage of units built be restricted for occupancy to households earning 60% or less of Area Median Income, and that the rents on those units be restricted accordingly.

**Low rise building** - a building with one to three stories.

**Metropolitan Statistical Area (MSA)** - a geographic entity defined by the federal Office of Management and Budget for use by federal statistical agencies, based on the concept of a core area with a large population nucleus, plus adjacent communities have a high degree of economic and social integration with that core. Qualification of an MSA requires the presence of a city with 50,000 or more inhabitants, or the presence of an Urbanized Area (UA) and a total population of at least 100,000 (75,000 in New England). The county or counties containing the largest city and surrounding densely settled territory are central counties of the MSA. Additional outlying counties qualify to be included in the MSA by meeting certain other criteria of metropolitan character, such as a specified minimum population density or percentage of the population that is urban.

**Mid-rise** - a building with four to ten stories.

**Moderate income** - person or household with gross household income between 80 and 120 percent of area median income adjusted for household size.

**Public Housing or Low Income Conventional Public Housing** - HUD program administered by local (or regional) Housing Authorities which serves low- and very-low income households with rent based on the same formula used for HUD Section 8 assistance.

**Qualified Census Tract (QCT)** - any census tract (or equivalent geographic area defined by the Bureau of the Census) in which at least 50% of households have an income less than 60% of the area median income or where the poverty rate is at least 25%. A project located in a QCT and receiving Low Income Housing Tax Credit may qualify for up to 130% of the eligible basis for the purpose of calculating the Tax Credit allocation.

**Rural Development (RD) market rent** - a monthly rent that can be charged for an apartment under a specific USDA-RD housing program, that reflects the agency's estimate of the rent required to operate the property, maintain debt service on an unsubsidized mortgage and provide an adequate return to the property owner. The rent is the maximum rent that a tenant can pay at an RD Property.

**Rural Development (RD) Program (Formerly the Farmers Home Administration Section 515 Rural Rental Housing Program)** - federal program which provides the low interest loans to finance housing which serves low- and moderate-income persons in rural areas who pay 30 percent of their adjusted income on rent or the basic rent, which is the higher (but not exceeding the market rent). The program may include property based rental assistance and interest reduction contracts to write down the interest on the loan to as low as one percent.

**Single-family housing** - a dwelling unit, either attached or detached, designed for use by one household and with the direct access to a street. It does not share heating facilities or other essential building facilities with any other dwelling.

**State Data Center (SDC)** - a state agency or university facility identified by the governor of each state to participate in the Census Bureau's cooperative network for the dissemination of the census data.

**Tenant** - one who rents real property from another.

**Tenure** - the distinction between owner-occupied and renter-occupied housing units.

**Townhouse (or Row House)** - single-family attached residence separated from another by party walls, usually on a narrow lot offering small front and back-yards; also called row house.

**Very low income** - person or household whose gross household income does not exceed 50% of Area Median Income adjusted for household size.

**Zoning** - classification and regulation of land by local governments according to use categories (zones); often also includes density designations.