Arlington County

Affordable Housing Ordinance Review

August 2023

Arlington County Affordable Housing Ordinance Review

Background

The Affordable Housing Ordinance ("Ordinance") has been in place since December 2005. For several years, community members, including Housing Commissioners, have requested that the County review the Ordinance to assess how well it is delivering its intended benefits. Because the Affordable Housing Ordinance has been the primary land use tool to attain affordable housing, it is fitting that a review of the ordinance be conducted as a component of Housing Arlington.

Prior to the current Zoning Ordinance provisions for affordable housing in site plan projects, the County Board established a set of "affordable housing guidelines for site plan projects" in 2003 and adopted revised "affordable housing guidelines for site plan projects" in 2004. At that time, the County Board directed the County Manager to include a performance review of the Affordable Housing Guidelines for Site Plan Projects as part of the annual report on Housing Targets. However, this performance review did not materialize as the guidelines faced a legal challenge.

In 2005 the County convened a "Roundtable" to seek input from stakeholders on revisions to the affordable housing provisions of the Zoning Ordinance. The roundtable consisted of 19 members and was staffed by the County Manager, County Attorney, Planning Director, and Housing Director. The result was the creation of Section 15.5.8 of the Zoning Ordinance.

The language in the Ordinance was subsequently codified by the state legislature. Any proposed amendments to the Affordable Housing Ordinance must therefore pass through the state legislature as an amendment to the Code of Virginia prior to amending the Zoning Ordinance. As part of the 2012-2015 Affordable Housing Study, which preceded the adoption of the Affordable Housing Master Plan (AHMP), an assessment of the many housing programs and tools that the County employs to achieve its affordable housing policy goals was conducted. The assessment of the Affordable Housing Ordinance concluded:

"…nearly all developers are choosing to make cash contributions instead of dedicating on-site or nearby units as CAFs. This pattern is likely due to some combination of two key factors: 1) the cash contribution is not high enough; and 2) the cash contribution is far simpler than trying to integrate CAFs into a market rate development. If the County is interested in having more CAFs integrated into market-rate developments, the dynamics of this issue will need to be considered more deeply."

The 2015 Affordable Housing Implementation Framework, a component of the AHMP, recommended maintaining the provisions of the Affordable Housing Ordinance. The Implementation Framework also included an analysis of the benefit derived by the County resulting from the developer contributions prescribed by the Ordinance. However, this analysis did not focus on whether the formulas for those contributions were in line with current practices of other jurisdictions or appropriate to current market conditions.

The updated 2022 AHMP Implementation Framework recommends conducting "an analysis of the Affordable Housing Ordinance provisions to determine how it has performed over time, and whether to update the formula used for the affordable housing contribution in light of current conditions. If the results of the analysis find that an update is warranted, develop recommendations for adjustments to the Affordable Housing Ordinance and related sections of the Code of Virginia."

Arlington County Affordable Housing Ordinance Review

AHO Analysis Summary

In 2021, the County contracted a consultant to perform an analysis of the Affordable Housing Ordinance to determine how the cash contribution option compares to the value derived from the difference between revenue generated from restricted rents (i.e., from affordable units) and market rate rents. The analysis took into account average rents (as of November 2021) for site-plan projects subject to the Affordable Housing Ordinance that were completed between 2010 and November 2021 and the HUD-established rent limits for 60% AMI units. Values were calculated using a capitalization rate methodology applied to gross rental revenue for both the market rate and rent restricted units. Gross revenue was used rather than net operating income because operating costs should not be significantly different between the two types of units. A capitalization rate of 4.3% was used based on the CoStar cap rate for the selected properties in November 2021.

The analysis found that the AHO cash contribution required from developers — in lieu of providing affordable units on-site — **is about one-third to one-half the value of estimated revenue from market rate units.**

The analysis also assessed how the value of the cash contribution relative to the total development cost has changed over time. The analysis demonstrated that the AHO cash contributions have generally been at or under approximately 1.5 percent of estimated total development costs analyzed. Older projects that were analyzed ranged from .5 to 1.7 percent, while recent projects were generally lower, ranging from .3 to 1.4 percent. While this may indicate that the AHO contribution amount has not kept pace with construction cost increases, the results were not conclusive on this matter.

Current Status

The County has completed its review of the Affordable Housing Ordinance (AHO) based on specific concerns raised and has confirmed that an imbalance among the provisions within the Ordinance greatly undervalue the cash contribution option by a significant order of magnitude. However, given the current legislative climate in the Commonwealth, staff does not recommend pursuing amendments to the Code of Virginia pertaining to the Affordable Housing Ordinance at this time. Staff will continue to work with the County's legislative liaison to identify the appropriate time to proceed with a potential amendment.

The following pages contain the results of the consultant's analysis of the Affordable Housing Ordinance

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MEMORANDUM

TO: Russell Danao-Schroeder, Senior Housing Planner
Arlington County Department of Community Planning, Housing, and Development
(Work Product provided per County Attorney PO 286160)

FROM: Julie Herlands, TischlerBise

DATE: February 24, 2022

RE: Affordable Housing Ordinance (AHO) Cash Contribution Analysis: Findings

TischlerBise is under contract with Arlington County to conduct a Financial Analysis of the Arlington County Affordable Housing Ordinance (AHO).

The study seeks to address the following questions:

1. How does the AHO cash contribution requirement compare to the difference between revenue generated from restricted rents (i.e., from affordable units) and market rate rents? In other words, what is the value of foregone revenue from affordable units?

2. Has the AHO cash contribution requirement for affordable housing remained consistent as a share of total development cost over time, specifically comparing current conditions (2021) to time of the ordinance adoption (2005)? How has the share of other community benefit contributions to total development costs changed over time?

This memo includes the following sections:
1. Summary of findings
2. Background and understanding of the assignment
3. Summary of the study questions and approach
4. Calculation of the value of foregone rental revenue
5. Comparison of the value of foregone rental revenue to actual AHO cash contributions from recent projects.
6. Evaluation of AHO cash contributions and other community benefits to total development costs.
7. Appendix: Supporting detail for the above analyses

SUMMARY OF FINDINGS

Study Question 1: How does the AHO cash contribution requirement compare to the difference between revenue generated from restricted rents (i.e., from affordable units) and market rate rents? In other words, what is the value of foregone revenue from affordable units?

To address the first of the two key study questions, the analysis quantified the difference between market rate rents and restricted rents for two case study projects. The analysis found that the AHO cash contribution required from developers—in lieu of providing affordable units—**is about one-third to one-half the value of estimated revenue from market rate units.**[1]

If the cash contribution amount was closer to the value of foregone revenue from market rate units (i.e., set at a higher amount), developers might choose instead to provide on-site affordable units. In other words, the cash contribution option is the least costly means of compliance with the AHO, rather than one option among other comparable compliance mechanisms.

Study Question 2: Has the AHO cash contribution requirement for affordable housing remained consistent as a share of total development cost over time, specifically comparing current conditions (2021) to time of the ordinance adoption (2005)? How has the share of other community benefit contributions to total development costs changed over time?

To address this question, development costs from a sample of recent and older (vintage) housing projects are compared to contributions for AHO requirements and other community benefits.

AHO cash contributions have consistently been at or under approximately 1.5 percent of estimated total development costs over all time frames, with a few exceptions. Vintage projects were generally at a higher share, ranging from .5 to 1.7 percent, while recent projects are generally lower, ranging from .3 to 1.4 percent. This may indicate that the AHO contribution amount has not kept pace with construction cost increases.

For total Community Benefit Value[2] as a share of total development costs, no discernible patterns are evident. Vintage projects range from just under one percent to over 11 percent while recent projects range from .6 to 3.5 percent. Although the evaluation reflects a small sample size, total community benefit value as a share of development costs has fluctuated over time and tends to be specific to the project.

[1] It should be noted that findings are from two representative site plan projects using data on Countywide average market rate rents.

[2] Includes contributions for transportation management, utility undergrounding, public art, other proffered contributions, as well as the AHO base cash contribution.

BACKGROUND AND UNDERSTANDING OF THE ASSIGNMENT

What is commonly referred to as Arlington's Affordable Housing Ordinance (AHO) is section 15.5.8 of the Arlington County Zoning Ordinance. It is based on section 15.2-735.1 of the Code of Virginia. The County Zoning Ordinance section titled, "Affordable dwelling units for increased density within General Land Use Plan," is located in section 15.5 Site Plans. Additional provisions for affordable housing are also contained in the Zoning Ordinance, including 15.5.9A titled, "Additional building height and density above the zoning district regulations and the General Land Use Plan." This section is also applicable to Site Plans but is prompted when densities beyond those envisioned in the General Land Use Plan are sought; often referred to as bonus density.

The AHO bears some resemblance to an inclusionary ordinance. However, the AHO applies only to Site Plan projects and does not apply to by-right development (i.e., development that is within the existing parameters of a zoning district). Contributions for affordable housing are a component of Site Plan conditions (as specified in Administrative Regulation 4.1, which defines the requirements and the process for Site Plan projects). The affordable housing contribution is condition 42 out of the 53 standard Site Plan conditions.

The AHO was adopted approximately 17 years ago. *The County is seeking to better understand the current applicability of the ordinance, how it has performed over time, and whether it is appropriate to update the formula used to determine the affordable housing contribution in light of current conditions.*

Current Program

Approval of a Site Plan with a density equal to or greater than 1.0 Floor Area Ratio (FAR), requires the applicant to provide affordable dwelling units (ADU) or in-lieu monetary/cash contributions.

The AHO provides four options to meet the ADU requirement:

1. On-site units: Provide ADUs on-site at 5 percent of the project's Gross Floor Area (GFA) above 1.0 FAR.

2. Off-site units nearby: Provide ADUs off-site near the project at 7.5 percent of the project's GFA above 1.0 FAR. Near the site is defined as follows: "if the project is in a Metro station Area, the off-site units shall be within 0.5 miles from any Metro station; if the site plan project is not in a Metro station Area, the offsite units shall be within 0.5 miles of the project."

3. Off-site units elsewhere: Provide ADUs in locations in the county at 10 percent of the project's GFA above 1.0 FAR.

4. Cash contribution: In-lieu of providing housing units, the applicant makes a cash contribution to the Affordable Housing Investment Fund at rates set by ordinance by the level of density and type of land use (i.e., residential or commercial). The rates are updated annually based on CPI for Housing in the Washington-Baltimore MSA.

Affordable Housing Mitigation

Arlington County is not alone in addressing the provision of affordable housing and implementing mitigation programs that connect the impact/demand from private development to the need for additional affordable housing. Common approaches nationally include: inclusionary zoning, affordable housing impact fees (or excise taxes), linkage fees on nonresidential development, and direct construction of affordable units. Arlington County is limited to what is allowed under Virginia statutes.

Arlington County's program requires provision of affordable residential units—or payment in lieu—based on the amount of square footage approved above a base density. Most developers opt to contribute cash instead of dedicating affordable housing units.

STUDY QUESTIONS

The study seeks to address the following questions:

1. How does the Affordable Housing Ordinance cash contribution requirement compare to the difference between revenue generated from restricted rents (i.e., from affordable units) and market rate rents? In other words, what is the value of foregone revenue from affordable units?

2. Has the Affordable Housing Ordinance cash contribution requirement for affordable housing remained consistent as a share of total development cost over time, specifically comparing current conditions (2021) to time of the ordinance adoption (2005)? How has the share of other community benefit contributions to total development costs changed over time?

STUDY APPROACH

Developers have a choice to pay Affordable Housing ordinance (AHO) cash contribution or build affordable units. Developers overwhelming choose to pay the cash contribution raising the question of whether the established AHO cash contribution amount is reflective of an equivalent choice between paying the cash contribution or forgoing market rate rents.

Therefore, the analysis seeks to determine the current value of foregone revenue from an affordable unit relative to a market rate unit. The approach is as follows:

1. Obtain data on current market rents and average sizes (bedroom count and square footages) for Site Plan projects.
2. Derive average market rents per unit and per square foot by unit size (i.e., bedroom count).
3. Obtain latest restricted rents by unit size from U.S. Department of Housing and Urban Development (HUD).[3] Adjust monthly restricted rents for utility payments.

[3] Available at https://www.arlingtonva.us/Government/Programs/Housing/Income-and-Rent-Limits

4. Calculate the difference between market rate rents and restricted rents by unit size.
5. Convert monthly rent differences to annual amounts to determine foregone annual revenue.
6. Determine value of foregone revenue per unit and per square foot by applying current market capitalization rate.

The following assumptions are included in the analysis:

- Affordable unit rents are set at 60 percent Area Median Income (AMI).
- Square footage of units is converted from net area to gross area assuming a factor of 80 percent.
- Average market rents and size of Site Plan units[4] is from CoStar data provided by Arlington County staff as of November 2021. Data includes units built and occupied between 2010 and 2021.
- Market capitalization rate[5] is from CoStar as of November 2021. [6]
- It should be noted that the analysis reflects gross revenues and does not net out operating costs from the projected revenue stream. This follows from the County's methodology of determining values based on foregone gross revenue. However, this may overstate values for both market and affordable units as calculations do not use net operating income (NOI) (i.e., annual income from the property after deducting ongoing expenses).

VALUATION CALCULATION

As noted, the County wishes to quantify the value of the difference between market rate rents and restricted rents. The assumption is that the cash contribution amount required from developers in lieu of providing affordable units is lower than the additional revenue generated from maintaining units at market rate, thus disincentivizing developers from providing affordable units. If the cash contribution were reflective of the value of foregone revenue from market rate units (i.e., set at a higher amount), developers might choose instead to provide on-site affordable units. In other words, this sets the cash contribution option as the least costly means of compliance with the AHO, rather than one option among other comparable compliance mechanisms.

The following steps are followed to estimate the difference between market rate and affordable units.

- Because rents and sizes vary by bedroom count, data is used to delineate specifications by unit type (e.g., studio, one-bedroom, etc.).
- Average size in square feet is determined for each unit type (from CoStar data for Site Plan units built from 2010-2021).
- Gross market rent per square foot is calculated.

[4] See Appendix for list of Site Plan projects included in the data.
[5] Capitalization rate is a metric used to determine the return on investment of a real estate project. It is a measure of risk—a higher rate signifies higher risk with a lower rate indicating lower risk. It also reflects the length of time for an investor to recover the initial investment. The formula is Capitalization Rate = Net Operating Income (NOI) / Market Value.
[6] Current market capitalization rate from CoStar data for Arlington County reflecting same Site Plan project inventory used to determine average market rents. See the Appendix.

- Restricted rents are from HUD for Arlington County households at 60 percent AMI by type of unit. Utility allowances are subtracted from monthly restricted rents.
- Restricted rent per square foot is calculated by unit type.

Summary of Site Plan Project Units

To establish average sizes and rents for market-rate units, CoStar[7] data for multifamily properties built between 2010 and 2021 under the Site Plan process in the County is used. A total of 10,546 units are in the inventory with average sizes ranging from 547 net square feet for a studio unit to 1,648 net square feet for a three-bedroom unit. Average effective[8] rents range from $2,003 to $6,475 for a studio to a three-bedroom unit, respectively. Average effective rent for a three-bedroom unit is disproportionately high due to an outlier in the Crystal City submarket. After consulting with County staff, an adjusted monthly effective rent was calculated removing the outlier, resulting in $5,864 per unit. Further detail on Site Plan project characteristics is provided in the Appendix.

Figure 1. Summary of Site Plan Project Units

Unit Type	Number of Units (Site Plan Projects)^	Net Average Square Feet/Unit	Average Effective Monthly Rent/Unit	Adjusted Average Effective Monthly Rent/Unit*
Studio Units	1,005	547	$2,003	$2,003
1-Bedroom Units	5,843	745	$2,436	$2,436
2-Bedroom Units	3,336	1,117	$3,544	$3,544
3-Bedroom Units	362	1,648	$6,475	$5,864
Total	**10,546**			

Median 1- and 2-bdrm	931	$2,990	$2,990
Wtd. Avg. 1- and 2-bdrm	880	$2,839	$2,839

^ Site Plan Projects built between 2010-2021.

** Without Crystal City 3-bedroom average rent*

Source: CoStar via Arlington County, November 2021.

For affordable units, income and rent limits are based on median incomes for the Washington-Arlington-Alexandria Metro area set by HUD. Rent limits are shown below in Figure 2. As noted, the analysis of the County's Affordable Housing Ordinance cash contribution amount is based on the 60 percent AMI category. Also as noted in Figure 2 (as well as in the footnotes of Figure 3), utility allowances are subtracted from restricted rents to reflect effective rent limits.

[7] CoStar is a commercial real estate information and analytics provider. Data is available under license/subscription to Arlington County.

[8] "Effective" rents are actuals, which account for adjustments/concessions.

Figure 2. Restricted Rents for Affordable Rental Units in Arlington County

Rents by Percent of Area Median Income for Affordable Rental Units					
Unit Size	**80%**	**60%**	**50%**	**40%**	**30%**
Efficiency	$1,806	$1,354	$1,128	$903	$677
1	$1,935	$1,451	$1,209	$967	$725
2	$2,322	$1,741	$1,451	$1,161	$870
3	$2,684	$2,013	$1,677	$1,342	$1,006
4	$2,994	$2,245	$1,871	$1,497	$1,122

Note: Maximum rent amounts allowed for affordable rental units are based on size of the unit, not on number of persons living in the unit

Note 2: If tenants pay utilities, the rent charged will be adjusted downward from the amounts above by the estimated costs of those utilities.

Source: Arlington County at www.arlingtonva.us/Government/Programs/Housing/Income-and-Rent-Limits

Valuation Findings

Given the above market and restricted rent data, the difference between market and affordable rents can be calculated and converted to a per unit or per square foot market value. This reflects the value of potential foregone revenue had a unit been developed as an affordable unit instead of a market rate unit. The gross values are summarized in Figure 3 for each unit type in column K (per housing unit) and column L (per gross square foot of floor area).

Figure 3. Valuation of Foregone Revenue from Site Plan Projects: 60 Percent Area Median Income (AMI)

A	B	C	D	E	F	G	H	I	J	K	L
Unit Type	Avg Net Size	Market Rent per Month	Market Rent PSF	Restricted Rent at 60% AMI	Restricted Rent at 60% AMI PSF	Rent Difference Per Unit	Rent Difference PSF	Rent Difference Annualized	4.30% Cap Rate	Valuation of Foregone Rev Per Unit	Valuation of Foregone Rev Per GFA
Studio	547 SF	$2,003	$3.66	$1,249	$2.28	$754	$1.38	$9,048	4.30%	$210,419	$308
1-Bedroom	745 SF	$2,436	$3.27	$1,308	$1.76	$1,128	$1.51	$13,536	4.30%	$314,791	$338
2-Bedroom	1,117 SF	$3,544	$3.17	$1,550	$1.39	$1,994	$1.79	$23,928	4.30%	$556,465	$399
3-Bedroom	1,648 SF	$5,864	$3.56	$1,758	$1.07	$4,106	$2.49	$49,272	4.30%	$1,145,860	$556
Median 1- and 2-Bdrm*	931 SF	$2,990	$3.21	$1,429	$1.53	$1,561	$1.68	$18,732	4.30%	$435,628	$374

Column A - Multifamily unit types
Column B - Average size by unit type shown as net rentable area. Units built and occupied between 2010-2021. CoStar, 2021.
Column C - Effective monthly rent stated in absolute dollars. CoStar, 2021.
Column D - Average Rent per square foot calculated by dividing average rent by average square feet.
Column E - 60% of AMI HUD 2021 figure. Adjusted downward to account for utility allowances $105, $143, $191, and $255, respectively.
Column F - Rents from Column E divided by average square footage by unit type.
Column G - Column C minus Column E to determine developer's foregone base monthly gross rental revenue per unit.
Column H - Column D minus Column F to determine developer's foregone base monthly gross rental revenue per square foot.
Column I - Developer's foregone base rental gross revenue annualized.
Column J - 4.3% capitalization rate from CoStar, as of November 2021.
Column K - Column H divided by Column I to arrive at the absolute value of the developer's foregone base rental revenue by unit type.
Column L - Valuation per Gross Floor Area, by unit type. Column J divided by Column B converted to gross floor area by dividing by 80% factor (reflecting 20% common space).
* Median values for 1 and 2 bedroom units. Using a weighted average of the units in the sample (units built and occupied between 2010-2021) yields foregone revenue per GFA of $366, slightly lower than the median due to the distribution of 1- and 2-Bedroom units in the sample (64% 1-Bdrm; 36% 2-Bdrm).
Source: Arlington County.

- For each unit type, average net square footage and market rate rents is shown for the inventory of Site Plan projects from CoStar (via Arlington County) (Figure 1 and Figure 16 in the Appendix).
    - For example, a one-bedroom unit on average is 745 net square feet at a market rate rent of $2,436 per month.

- Market rate rents (per unit and per net square foot) are then compared to restricted rents, set by HUD based on unit type and Area Median Income (Figure 2). As noted elsewhere, the analysis is based on households at 60 percent AMI.[9]
    - Restricted rent for a one-bedroom unit at 60 percent AMI is $1,308 per month.

- The difference between market rate and restricted rents is calculated and annualized (i.e., multiplied by 12).
    - $2,436 - $1,308 = $1,128 per month x 12 months = $13,536 per year.

[9] A comparable calculation is included in the Appendix in Figure 20.

- This figure is then used to derive an estimated value of the amount of foregone revenue per unit and per gross floor area by dividing the annualized difference in rent by the current capitalization rate.
    - $13,536 is divided by capitalization rate of 4.3 percent to get a value of $314,791 per housing unit; or $338 per gross square foot of floor area, assuming 80 percent adjustment factor to convert net square feet to gross (($314,791 / (745/.8) = $338).

- It should be noted again that this reflects **gross** rental revenue from market rate and affordable units at the specified average rents.

COMPARISON CALCULATIONS

To further explore the question of whether the County's AHO cash contribution essentially equals potential foregone revenue from providing an affordable unit, comparison of two Site Plan projects is provided in this section.

For comparison purposes, we use the median value of one- and two-bedroom units to compare actual affordable housing cash contributions to the recalculated amount based on value of foregone revenue.

Comparison Project 1: Potomac Yard Land Bay C – East

Potomac Yard Land Bay C – East Site Plan was approved in 2021 with a total of 496 market rate units and a cash contribution for affordable housing units of $1,240,358. This project is used to compare the actual cash contribution to the calculated value per the above methodology. Figure 4 provides details of the comparison.

- The project's 5 percent affordable housing requirement was 6 units or a cash contribution of $1,240,358. The cash contribution equals $206,726 per affordable unit ($1,240,358 / 6 = $206,726). Based on the estimated calculations, it would cost an estimated $435,628 to provide an on-site affordable unit, while the developer paid a cash contribution of $206,726 per required unit. The cash contribution method of compliance with the ordinance is less than half the cost of providing an on-site unit. (The shortfall is calculated at almost $230,000 per affordable unit ($435,628 - $206,726 = $228,902).)

- On a square foot basis, the AHO requirement for the project is 6,372 gross square feet. The actual cash contribution of $195 per AHO square foot is $180 less per square foot than the calculated gross impact ($374 - $195 = $180 (rounded) per affordable unit square foot)—again, approximately half the cost to provide an on-site unit. .

- A third comparison is provided benchmarking against the current (2021) cash contribution amounts, which are as follows:

    - $2.08 per square foot of GFA for the first 1.0 FAR
    - $5.56 per square foot of GFA from 1.0 FAR to 3.0 FAR for residential projects and for all GFA above 1.0 FAR for commercial projects (including hotel and retail)
    - $11.15 per square foot of GFA over 3.0 FAR for residential projects

  As shown, the actual weighted average of the cash contribution is $3.19 per square foot of GFA ($1,240,358 / 388,421 sq. ft. = $3.19 per sq. ft.). The calculated amount (based on gross revenues) of $6.14 per square foot reveals a shortfall of $2.95 per square foot of GFA.

- The finding from this comparison indicates that the cash contribution was approximately half of the estimated cost to provide affordable on-site units—therefore paying the cash contribution is a lower cost option for the developer.

Figure 4. Comparison Calculation: Potomac Yard Land Bay C – East

POTOMAC YARD LAND BAY C – EAST		GROSS
Market Rate Units	# of Hsg Units	496
COMPARISON PER AFFORDABLE UNIT		
AHO Requirement at 5%	# of Hsg Units	6
Cash Contribution Actual	$	$1,240,358
Cash Contribution	per AHO Unit	$206,726
Calculated Value [1]	per AHO Unit	$435,628
AHO Requirement at 5%	# of Hsg Units	6
Contribution based on Calculated Value	$	$2,613,767
Shortfall Total	$	$1,373,409
Shortfall per Unit	per AHO Unit	$228,902
COMPARISON PER AFFORDABLE SQUARE FOOT		
Sq. Ft. of AHO Requirement [2]	Total	6,372
Cash Contribution Actual	$	$1,240,358
Cash Contribution	per AHO Sq. Ft.	$195
Calculated Value [1]	per AHO Sq. Ft.	$374
Sq. Ft. of AHO Requirement [2]	Total	6,372
Contribution based on Calculated Value	$	$2,385,238
Shortfall Total	$	$1,144,880
Shortfall per Sq. Ft.	per AHO Sq. Ft.	$180
COMPARISON PER SITE PLAN PROJECT SQUARE FOOT		
Site Plan Project Gross Floor Area (GFA) [3]	Sq. Ft.	388,421
Cash Contribution Actual	$	$1,240,358
Cash Contribution [4]	per Project Sq. Ft.	$3.19
Contribution based on Calculated Value [5]	Total	$2,385,238
Contribution based on Calculated Value	per Project Sq. Ft.	$6.14
Shortfall	per Project Sq. Ft.	$2.95

[1] Median of 1- and 2-bedroom units at 60% AMI; weighted average would modify the results marginally.

[2] Actual affordable housing square footage requirement from Site Plan Project (5% of GFA less 1.0 FAR)

[3] Site Plan project gross floor area on which the affordable housing contribution was calculated.

[4] Weighted average calculated by dividing cash contribution by Site Plan project GFA. Compare to the 2021 cash contribution rates of $2.08 per GFA up to 1.0 FAR; $5.56 per GFA between 1.0 and 3.0 FAR for residential projects and for all GFA above 1.0 FAR for commercial projects; $11.15 per GFA above 3.0 FAR for residential.

[5] Amount calculated based on the per AHO square foot amount above.

Comparison Project 2: 1901 N. Moore Street – Rosslyn RCA Site

Rosslyn RCA Site at 1901 N. Moore Street was approved in 2021 with 423 market rate units and ground floor retail. The project provided a cash contribution for affordable housing units of $1,504,235. This project is a second example used to compare the actual cash contribution to the calculated value per the above methodology. Findings are provided in Figure 5.

- The project's 5 percent affordable housing requirement was 10 units or a cash contribution of $1,504,235. The cash contribution equals $150,424 per affordable unit ($1,504,235 / 10 = $150,424). Based on the calculations, it would cost the developer an estimated $435,628 per unit to provide an on-site affordable unit, while the developer paid a cash contribution of $150,424 per required unit. The cash contribution method of compliance was about one-third the cost of providing an on-site unit. (The shortfall is calculated at approximately $285,000 per affordable unit ($435,628 - $150,424 = $285,204).)

- On a square foot basis, the requirement for the project was 8,756 gross square feet of affordable units resulting in a cash contribution of $172 per AHO square foot. This is approximately $200 less than the calculated gross impact ($374 - $172 = $203 per affordable unit square foot). (This is comparable to the per square foot shortfall calculated in Comparison 1 above.)

- A third comparison is provided to benchmark against the current (2021) adopted cash contribution amounts (repeated from above), which are as follows:
    - $2.08 per square foot of GFA for the first 1.0 FAR
    - $5.56 per square foot of GFA from 1.0 FAR to 3.0 FAR for residential projects and for all GFA above 1.0 FAR for commercial projects (including hotel and retail)
    - $11.15 per square foot of GFA over 3.0 FAR for residential projects

  As shown, the average cash contribution is $6.78 per square foot of GFA ($1,504,235 / 221,715 sq. ft. = $6.78 per sq. ft.). The calculated amount (based on gross revenues) of $14.80 per square foot reveals a shortfall of approximately $8 per square foot of GFA.

- Similar to the previous example, the finding from this project indicates that the cash contribution at approximately one-third of the estimated cost to provide affordable on-site units, is a lower cost option for the developer.

Figure 5. Comparison Calculation: 1901 N. Moore Street – Rosslyn RCA Site

1901 N. Moore St. – Rosslyn RCA Site		**GROSS**
Market Rate Units	# of Hsg Units	423

COMPARISON PER AFFORDABLE UNIT

AHO Requirement at 5%	# of Hsg Units	10
Cash Contribution Actual	$	$1,504,235
Cash Contribution	per AHO Unit	$150,424
Calculated Value [1]	per AHO Unit	$435,628
AHO Requirement at 5%	# of Hsg Units	10
Contribution based on Calculated Value	$	$4,356,279
Shortfall Total	$	$2,852,044
Shortfall per Unit	per AHO Unit	$285,204

COMPARISON PER AFFORDABLE SQUARE FOOT

Sq. Ft. of AHO Requirement [2]	Total	8,765
Cash Contribution Actual	$	$1,504,235
Cash Contribution	per AHO Sq. Ft.	$172
Calculated Value [1]	per AHO Sq. Ft.	$374
Sq. Ft. of AHO Requirement [2]	Total	8,765
Contribution based on Calculated Value	$	$3,281,013
Shortfall Total	$	$1,776,778
Shortfall per Sq. Ft.	per AHO Sq. Ft.	$203

COMPARISON PER SITE PLAN PROJECT SQUARE FOOT

Site Plan Project Gross Floor Area (GFA) [3]	Sq. Ft.	221,715
Cash Contribution Actual	$	$1,504,235
Cash Contribution [4]	per Project Sq. Ft.	$6.78
Contribution based on Calculated Value [5]	Total	$3,281,013
Contribution based on Calculated Value	per Project Sq. Ft.	$14.80
Shortfall	per Project Sq. Ft.	$8.01

[1] Median of 1- and 2-bedroom units at 60% AMI; weighted average would modify the results marginally.

[2] Actual affordable housing square footage requirement from Site Plan Project (5% of GFA less 1.0 FAR)

[3] Site Plan project gross floor area on which the affordable housing contribution was calculated.

[4] Weighted average calculated by dividing cash contribution by Site Plan project GFA. Compare to the 2021 cash contribution rates of $2.08 per GFA up to 1.0 FAR; $5.56 per GFA between 1.0 and 3.0 FAR for residential projects and for all GFA above 1.0 FAR for commercial projects; $11.15 per GFA above 3.0 FAR for residential.

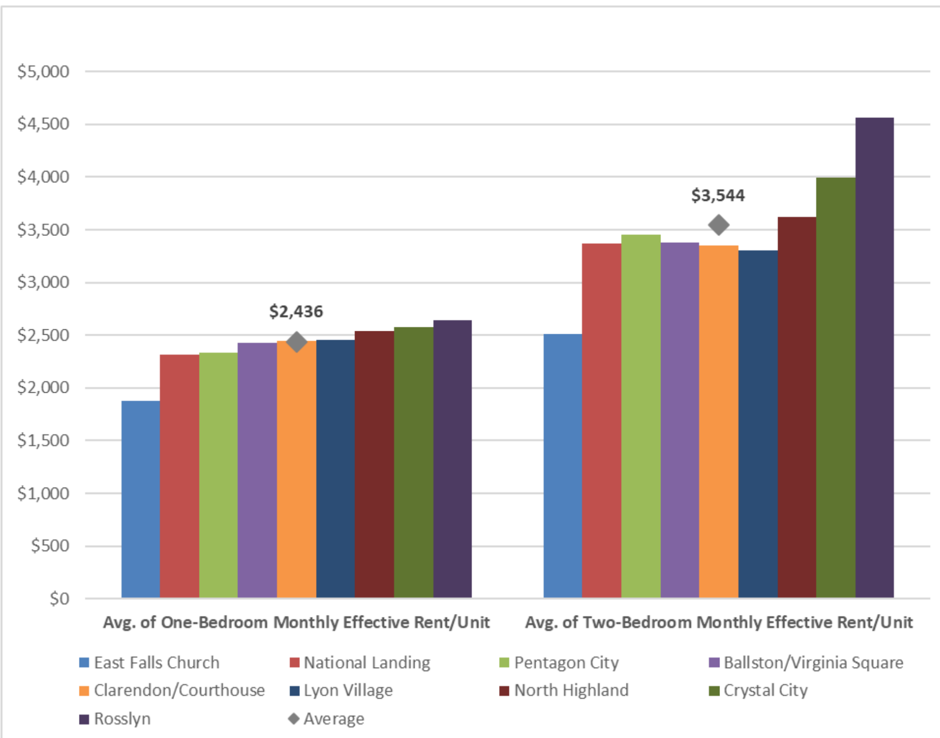
[5] Amount calculated based on the per AHO square foot amount above.

As shown by the two examples above, the cash contribution is the least costly option of affordable housing compliance for developers. The current cash contribution rates do not appear to incentivize developers to provide on-site affordable units—or disincentivize paying the AHO cash contribution—but instead provide a lower cost option to satisfy mitigation requirements.

SUBMARKET COMPARISON

While HUD restricted rents apply countywide (see Figure 2), market rate rents vary by subarea. Average rents by unit type and submarket are provided in this section to inform policy discussions about varying cash contribution amounts by County subarea. A summary of effective monthly rents by County submarket is provided in Figure 6 for one- and two-bedroom units. Further detail is provided in the Appendix.

Figure 6. Average Effective Rents for One- and Two-Bedroom Units by County Submarket



CASH CONTRIBUTION AS SHARE OF DEVELOPMENT COSTS

Another key study question is whether the AHO cash contribution requirement has stayed at a consistent share of total development cost over time, particularly comparing current conditions (2021) to conditions at the time of ordinance adoption (2005). As part of this analysis, the County is also interested in understanding how contributions for other community benefits (e.g., public art, transportation improvements) compare to total development costs.

To address this question, development costs from a sample of recent and older (vintage) housing projects are compared to AHO and other community benefit cash contribution amounts.

The following projects are included in the sample:

Vintage

- Two Metropolitan Park
- Clarendon Center
- Potomac Yard E - West
- Central Place

Recent

- 2025 Clarendon Blvd (Wendy's)
- Crystal Square Phase 1 & 2
- 1901 N. Moore St. – Rosslyn RCA Site
- Potomac Yard Land Bay C – East

Approach and assumptions include:

- Current dollars are used, reflecting the year the Site Plan Amendment was approved. This avoids the challenge of inflating/deflating costs and contribution amounts.
- However, given the confidentiality/proprietary nature of development costs, project development costs are estimated based on past and current residential and nonresidential projects. In some places, an adjustment is done using Engineering News Record Construction Cost Index (CCI).[10] Sources are noted throughout.

[10] Engineering News Record (ENR) has tracked construction costs on a monthly basis since the 1930s. The Construction Cost Index (CCI) includes 200 hours of common labor representing the 20-city average of common labor rates. For the materials component, the index uses 25 cwt of fabricated standard structural steel at the 20-city average price, 1.128 tons of bulk portland cement priced locally, and 1,088 board feet of 2x4 lumber priced locally. The ENR indexes measure how much it costs to purchase this hypothetical package of goods compared to what it was in the base year.

A summary of contribution comparisons is provided in Figure 7. Vintage (older) projects are shown at the top with recent projects at the bottom.

- AHO base cash contribution is shown separately to compare to total development costs (TDC) as well as to examine how the share has changed over time.
- “Total Community Benefit Value” includes the range of negotiated community benefits including contributions for Transportation Management, Public Art, and the County’s Green Building Fund. This value **includes the AHO base cash contribution.** Detail is provided for each Site Plan project in the following section.
- It should be noted that some community benefits were acknowledged in Site Plan documentation, but not quantified. This is noted where applicable.
- A weighted average is shown in Figure 7, however it should be used cautiously, because there are a limited number of projects evaluated as well as a relatively wide range of development costs and contributions.

Figure 7. Site Plan Project Contributions as a Share of Development Cost

Project Name	Project Type	Site Plan Year	Total Development Costs (TDC) (Estimated) (Current $)*	AHO Base Cash Contribution (Current $)*	AHO Base Cash Contribution % of TDC	Total Community Benefit Value (Current $)*	Total Community Benefit Value % of TDC
VINTAGE							
Two Metropolitan Park	Residential	2006	$99,441,650	$1,187,000	1.2%	$1,525,873	1.5%
Clarendon Center	Residential/Commercial	2006	$177,371,250	$1,439,632	0.8%	$1,639,781	0.9%
Potomac Yard E - West	Commercial	2007	$158,257,935	$766,338	0.5%	$3,984,207	2.5%
Central Place	Commercial/Residential	2007	$316,465,740	$5,448,128	1.7%	$35,715,913	11.3%
	WEIGHTED AVERAGE		**$751,536,575**	**$8,841,098**	**1.2%**	**$42,865,774**	**5.7%**
RECENT							
2025 Clarendon Blvd (Wendy's)	Commercial	2015	$88,141,500	$226,194	0.3%	$1,955,226	2.2%
Crystal Square Phase 1 & 2	Commercial	2018	$41,785,000	$565,831	1.4%	$866,949	2.1%
1901 N. Moore St. – Rosslyn RCA Site	Residential (Minor Comm)	2021	$209,711,500	$1,504,235	0.7%	$7,407,832	3.5%
Potomac Yard Land Bay C – East	Residential (Minor Comm)	2021	$240,215,300	$1,240,358	0.5%	$1,527,496	0.6%
	WEIGHTED AVERAGE		**$579,853,300**	**$3,536,618**	**0.6%**	**$11,757,503**	**2.0%**

* Current dollars: Estimates as of the Site Plan year.
Sources: Total development costs estimated by TischlerBise; contributions from Site Plan Amendments.

As shown above, the AHO cash contribution has ranged between .3 and 1.7 percent of estimated total development costs over all time frames.

- Vintage projects generally indicate a higher share, ranging from .5 to 1.7 percent.
- Recent projects are generally lower, ranging from .3 to 1.4 percent.

Total Community Benefit Value as a share of total development costs:

- Vintage projects range from just under one percent to over 11 percent. Central Place development—at 11.3 percent—includes a range of quantified community benefits not included in other Site Plan projects.
- Recent projects range from a share of .6 to 3.5 percent.

Although the evaluation reflects a small sample size, there does not appear to be a pattern regarding the level of AHO contributions or other community benefit contributions as a share of development costs.

- AHO contributions have consistently been at or under 1.5 percent of development costs—with some less than one percent. AHO contribution share of total development cost has decreased for recent projects—at about half what it was for vintage projects—indicating that the AHO contribution amount may not have kept pace with construction cost increases.
- Total community benefit value as a share of development costs has fluctuated over time and by project. Non-AHO contributions vary by type of project with proffered contributions reflective of location and project conditions.

Sample Project Detail

The following figures provide additional detail for the above projects.

Vintage Site Plan Projects

- Two Metropolitan Park
- Clarendon Center
- Potomac Yard E - West
- Central Place

Figure 8. Vintage: Two Metropolitan Park

PROJECT	**Two Metropolitan Park**
Site Plan #	**105**
Residential/Commercial	**Residential**
Time//Year	**Vintage// 2006**

DEVELOPMENT SPECS & COSTS	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2006					
SITE PLAN: Approved	Residential	HU	300	$322,000	$96,600,000
	Residential	*Sq. Ft.*	*342,999*		
	Commercial/Retail	Sq. Ft.	8,119	$350	$2,841,650
	Total	**Sq. Ft.**	**351,118**		**$99,441,650**

CONTRIBUTIONS	Amount $^^	
AHO Base	$1,187,000	
Other: Utility Undergrounding Fund	$128,339	
Other: Transportation Management Plan*	*$0*	
Other: Public Art	$75,000	
Other: Green Building Fund	$10,534	
Other: Urgent Care Relocation	$125,000	
TOTAL		**$1,525,873**

SUMMARY	
Contributions	**$1,525,873**
Total Development Cost	**$99,441,650**
Contribution % of TDC	**1.5%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index; residential estimated based on multifamily development project examples.

^^ Actual in current dollars as of Site Plan year.

* Indicated but not quantified

** Public space community benefits to be made by applicant valued at: $13,951,900 to construct observation deck, lobby, and access; $6,749,760 to provide Public Plaza improvements and programming (included in above).

Figure 9. Vintage: Clarendon Center

PROJECT	**Clarendon Center**
Site Plan #	**397**
Residential/Commercial	**Res/Comm**
Time//Year	**Vintage// 2006**

DEVELOPMENT SPECS & COST	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2006					
SITE PLAN: Approved	Residential	HU	244	$322,000	$78,568,000
	Residential	*Sq. Ft.*	*238,901*		
	Commercial/Retail & Office	Sq. Ft.	282,295	$350	$98,803,250
	Total	**Sq. Ft.**	**521,196**		**$177,371,250**

CONTRIBUTIONS	Amount $^^	
AHO Base	$1,439,632	
Other: Utility Undergrounding Fund	$110,893	
Other: Transportation Management Plan*	*$0*	
Other: Public Art	$75,000	
Other: Green Building Fund	$14,256	
TOTAL		**$1,639,781**

SUMMARY

Contributions	**$1,639,781**
Total Development Cost	**$177,371,250**
Contribution % of TDC	**0.9%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index; residential estimated based on multifamily development project examples.

^^ Actual in current dollars as of Site Plan year.

* Indicated but not quantified

** Public space community benefits to be made by applicant valued at: $13,951,900 to construct observation deck, lobby, and access; $6,749,760 to provide Public Plaza improvements and programming (included in above).

Figure 10. Vintage: Potomac Yard E – West

PROJECT	**Potomac Yard E - West**
Site Plan #	**346**
Residential/Commercial	**Commercial**
Time//Year	**Vintage// 2007**

DEVELOPMENT SPECS & COST	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2007					
SITE PLAN: Approved	Residential	HU	0		
	Commercial/Office	Sq. Ft.	374,379		
	Commercial/Retail	Sq. Ft.	71,418		
	Total	Sq. Ft.	445,797	$355	**$158,257,935**

CONTRIBUTIONS	Amount $^^	
AHO Base	$766,338	
Other: Utilty Undergrounding Fund	$133,739	
Other: Transit	$75,000	
Other: Transportation Management Plan*	$3,009,130	
Other: Open Space**	*$0*	
Other: Public Art**	*$0*	
Other: Green Building Fund	$13,374	
TOTAL		**$3,984,207**

SUMMARY

Contributions	**$3,984,207**
Total Development Cost	**$158,257,935**
Contribution % of TDC	**2.5%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index.

^^ Actual in current dollars as of Site Plan year.

* Sum of $.225 per sq. ft. GFA over 30 years (unadjusted)

** Indicated but not quantified

Figure 11. Vintage: Central Place

PROJECT	**Central Place**
Site Plan #	**335**
Residential/Commercial	**Commercial/Res**
Time//Year	**Vintage// 2007**

DEVELOPMENT SPECS & COSTS	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2007					
SITE PLAN: Approved	Residential	HU	350	$322,000	$112,700,000
	Commercial/Office	Sq. Ft.	529,434		
	Commercial/Retail	Sq. Ft.	44,554		
	Sutotal Comm.	Sq. Ft.	573,988	$355	$203,765,740
	Total				**$316,465,740**

CONTRIBUTIONS	Amount $^^	
AHO Base: Residential Share	$2,295,952	
AHO Base: Commercial Share	$3,152,176	
Other: Utility Undergrounding Fund	$99,400	
Other: Transportation Management Plan*	$8,686,000	
Other: Public Space**	$20,701,660	
Other: Public Art	$750,000	
Other: Green Building Fund	$30,725	
TOTAL		**$35,715,913**

SUMMARY	
Contributions	**$35,715,913**
Total Development Cost	**$316,465,740**
Contribution % of TDC	**11.3%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index; residential estimated based on multifamily development project examples.

^^ Actual in current dollars as of Site Plan year.

* Pedestrian signal; bus stop improvements; $46,000 annually for 10 years (unadjusted); other minor contributions. WMATA Metro Improvements to be made by applicant valued at $7,326,000 (included above).

** Public space community benefits to be made by applicant valued at: $13,951,900 to construct observation deck, lobby, and access; $6,749,760 to provide Public Plaza improvements and programming (included in above).

Recent Site Plan Projects

- 2025 Clarendon Blvd (Wendy's)
- Crystal Square Phase 1 & 2
- 1901 N. Moore St. – Rosslyn RCA Site
- Potomac Yard Land Bay C – East

Figure 12. Recent: 2025 Clarendon Blvd (Wendy's)

PROJECT	**2025 Clarendon Blvd (Wendy's)**
Site Plan #	**435**
Residential/Commercial	**Commercial**
Time//Year	**Recent// 2015**

DEVELOPMENT SPECS & COSTS	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2015					
SITE PLAN: Approved	Office	Sq. Ft.	188,910		
	Retail		6,960		
	Total	**Sq. Ft.**	**195,870**	$450	**$88,141,500**

CONTRIBUTIONS	Amount $^^	
AHO Base	$226,194	
AHO Additional	$624,500	
Other: Open Space	$557,250	
Other: Transportation Management Plan	$420,500	
Other: Utilty Undergrounding Fund	$51,782	
Other: Public Art Fund	$75,000	
TOTAL		**$1,955,226**

SUMMARY	
Contributions	**$1,955,226**
Total Development Cost	**$88,141,500**
Contribution % of TDC	**2.2%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index; residential estimated based on multifamily development project examples.

^^ Actual in current dollars as of Site Plan year.

Figure 13. Recent: Crystal Square Phase 1 & 2

PROJECT	**Crystal Square Phase 1 & 2**
Site Plan #	**90**
Residential/Commercial	**Commercial**
Time//Year	**Recent// 2018**

DEVELOPMENT SPECS & COSTS	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2018					
SITE PLAN: Approved	Office	Sq. Ft.	5,804		
	Retail	Sq. Ft.	77,766		
	Total	**Sq. Ft.**	**83,570**	$500	**$41,785,000**

CONTRIBUTIONS	Amount $^^	
AHO Base	$565,831	
Other: Public Art Contribution	$75,000	
Other: Green Building Fund	$3,226	
Other: Utility Undergrounding Fund Contribution	$72,466	
Other: Transportation Management Plan*	$150,426	
TOTAL		**$866,949**

SUMMARY	
Contributions	**$866,949**
Total Development Cost	**$41,785,000**
Contribution % of TDC	**2.1%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index; residential estimated based on multifamily development project examples.

^^ Actual in current dollars as of Site Plan year.

* Value of contribution of $.06 per sq. ft. GFA over 30 years (unadjusted)

Figure 14. Recent: 1901 N. Moore St. – Rosslyn RCA Site

PROJECT	**1901 N. Moore St. – Rosslyn RCA Site**
Site Plan #	**66**
Residential/Commercial	**Residential**
Time//Year	**Recent// 2021**

DEVELOPMENT SPECS & COSTS	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2021					
SITE PLAN: Total Proposed	Residential	HU	423	$480,000	$203,040,000
	Residential	*Sq. Ft.*	*452,116*		
	Retail	Sq. Ft.	12,130	$550	$6,671,500
	Total	**Sq. Ft.**	**464,246**		**$209,711,500**

CONTRIBUTIONS		Amount $^^	
AHO Base: Actual Cash Contribution		$1,504,235	
AHO Bonus: Valued Contribution	12 HU	$3,444,279 *	
Other: Utility Undergrounding Fund Contribution		$61,556	
Other: Transportation**		*$0*	
Other: Open Space Contribution		$2,247,762	
Other: Public Art Contribution		$150,000	
TOTAL			**$7,407,832**

SUMMARY	
Contributions	**$7,407,832**
Total Development Cost	**$209,711,500**
Contribution % of TDC	**3.5%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index; residential estimated based on multifamily development project examples.

^^ Actual in current dollars as of Site Plan year.

* Value is assumed as the calculated value of foregone revenue between market rate and affordable units

** Indicated but not quantified

Figure 15. Recent: Potomac Yard Land Bay C – East

PROJECT	**Potomac Yard Land Bay C – East**
Site Plan #	**346**
Residential/Commercial	**Residential**
Time//Year	**Recent// 2021**

DEVELOPMENT SPECS & COSTS	Use	Unit	Amount (in Units)	Cost per Unit ($)^	TOTAL COSTS
SITE PLAN YEAR: 2021					
SITE PLAN: Approved	Residential	HU	491	$480,000	$235,680,000
	Residential	*Sq. Ft.*	*518,614*		
	Retail	Sq. Ft.	8,246	$550	$4,535,300
	Total	**Sq. Ft.**	**526,860**		**$240,215,300**

CONTRIBUTIONS	Amount $^^	
AHO Base	$1,240,358	
Other: Utilty Undergrounding Fund	$208,109	
Other: Transit Station Fund	$79,029	
Other: Open Space*	*$0*	
Other: Public Art**	*$0*	
TOTAL		**$1,527,496**

SUMMARY	
Contributions	**$1,527,496**
Total Development Cost	**$240,215,300**
Contribution % of TDC	**0.6%**

^ Estimated value as of Site Plan year. Commercial adjusted from current estimate using Engineering News Record Construction Cost Index; residential estimated based on multifamily development project examples.

^^ Actual in current dollars as of Site Plan year.

* Indicated but not quantified (North Park Plaza (.62ac).

** Deleted in Site Plan.

APPENDIX

Site Plan Projects

Site Plan projects used in the analysis to derive average market rents and average unit sizes are listed below.

Figure 16. Site Plan Projects in the Analysis

Property Name	Property Address	Submarket Name	Year Built	TotalUnits
Crystal City Lofts	305 10th St S	National Landing	2010	184
The Millennium at Metropolitan Park	1330 S Fair St	Pentagon City	2010	300
Lyon Place at Clarendon Center	1200 N Garfield St	Clarendon/Courthouse	2010	244
Crescent Falls Church	2121 N Westmoreland St	East Falls Church	2010	214
2201 Pershing Apartments	2209 N Pershing Dr	Clarendon/Courthouse	2012	188
Thomas Court	470 N Thomas St	Ballston/Virginia Square	2012	49
Sedona | Slate	1510 Clarendon Blvd	Rosslyn	2013	474
The Beacon Clarendon	1128 N Irving St	Lyon Village	2014	187
Tellus	2009 14th St N	Clarendon/Courthouse	2014	254
The Maxwell	4200 N Carlin Springs Rd	Ballston/Virginia Square	2014	163
19Nineteen Clarendon	1919 Clarendon Blvd	Clarendon/Courthouse	2014	191
2001 Clarendon	2001 Clarendon Blvd	Clarendon/Courthouse	2014	153
Virginia Square Towers	3444 Fairfax Dr	Ballston/Virginia Square	2014	534
The View Ballston	4000 Wilson Blvd	Ballston/Virginia Square	2014	257
Acadia at Metropolitan Park	575 12th Rd S	National Landing	2015	411
Verde Pointe	1947 N Uhle St	North Highland	2015	198
The Bartlett	520 12th St S	Pentagon City	2016	699
Latitude Apartments	3601 Fairfax Dr	Ballston/Virginia Square	2016	265
The Ten at Clarendon	3110 10th St N	Clarendon/Courthouse	2017	130
Crystal Flats	505 18th St S	Crystal City	2017	198
Central Place	1800 N Lynn St	Rosslyn	2017	377
Altaire North	400 Army Navy Dr	Crystal City	2018	150
Altaire	400 Army Navy Dr	Crystal City	2018	451
672 Flats	672 N Glebe Rd	Ballston/Virginia Square	2018	173
The Witmer	710 12th St	Pentagon City	2019	440
Origin @ Ballston Quarter	700 N Randolph St	Ballston/Virginia Square	2019	406
Gables Pointe 14	1351 N Rolfe St	Clarendon/Courthouse	2019	370
The Clark	3400 S Clark St	National Landing	2020	342
The Sur	3400 Potomac Ave	National Landing	2020	360
J Sol Apartments	4000 Fairfax Dr	Ballston/Virginia Square	2020	326
The Waycroft	750 N Glebe Rd	Ballston/Virginia Square	2020	491
4040 Wilson	4040 Wilson Blvd	Ballston/Virginia Square	2020	250
Evo	1771 N Pierce St	Rosslyn	2021	453
The Earl	1122 N Hudson St	Lyon Village	2021	333
Aubrey	1788 N Pierce St	Rosslyn	2021	331

Figure 17. Site Plan Projects: Summary of Unit Counts by Submarket

Submarket	Sum of Number Of Studios Units	Sum of Number Of One-Bedrooms Units	Sum of Number Of Two-Bedrooms Units	Sum of Number Of Three-Bedrooms Units	Total Units
Ballston/Virginia Square	412	1,785	635	82	2,914
Clarendon/Courthouse	102	945	462	21	1,530
Crystal City	99	240	365	95	799
East Falls Church	n/a	62	152	n/a	214
Lyon Village	39	283	196	2	520
National Landing	117	629	506	45	1,297
North Highland	33	129	36	n/a	198
Pentagon City	83	770	519	67	1,439
Rosslyn	120	1,000	465	50	1,635
Grand Total	**1,005**	**5,843**	**3,336**	**362**	**10,546**

Source: CoStar via Arlington County, November 2021.

Figure 18. Site Plan Projects: Summary of Average Size (Net Square Feet) by Submarket

Submarket	Average of Studio Avg Sq. Ft.	Average of One-Bedroom Avg Sq. Ft.	Average of Two-Bedroom Avg Sq. Ft.	Average of Three-Bedroom Avg Sq. Ft.
Ballston/Virginia Square	543	739	1,074	1,691
Clarendon/Courthouse	549	719	1,067	1,431
Crystal City	576	727	1,067	2,463
East Falls Church	n/a	974	1,402	n/a
Lyon Village	561	722	1,018	1,326
National Landing	540	788	1,222	1,412
North Highland	552	770	1,109	n/a
Pentagon City	562	729	1,112	1,587
Rosslyn	518	734	1,223	1,725
Average	**547**	**745**	**1,117**	**1,648**

Low
High

Source: CoStar via Arlington County, November 2021.

Figure 19. Site Plan Projects: Summary of Average Monthly Effective Market Rents by Submarket

Submarket	Average of Studio Monthly Effective Rent/Unit	Average of One-Bedroom Monthly Effective Rent/Unit	Average of Two-Bedroom Monthly Effective Rent/Unit	Average of Three-Bedroom Monthly Effective Rent/Unit
Ballston/Virginia Square	$1,974	$2,428	$3,381	$4,645
Clarendon/Courthouse	$2,028	$2,448	$3,346	$6,731
Crystal City	$2,249	$2,577	$3,997	$11,978
East Falls Church	n/a	$1,875	$2,511	n/a
Lyon Village	$2,123	$2,451	$3,306	$4,190
National Landing	$1,855	$2,315	$3,367	$4,303
North Highland	$1,950	$2,541	$3,618	n/a
Pentagon City	$1,977	$2,331	$3,450	$5,049
Rosslyn	$2,001	$2,638	$4,566	$7,650
Average	**$2,003**	**$2,436**	**$3,544**	**$6,475**
Adj. Average*	**$2,003**	**$2,436**	**$3,544**	**$5,864**

Low
High

** Without Crystal City 3-bedroom average rent*

Source: CoStar via Arlington County, November 2021.

Valuation Calculation at 80 Percent Area Median Income

As noted, the analysis focuses on estimating the value of affordable units at 60 percent AMI. For additional information, the calculation is replicated for affordable units at 80 percent AMI in

Figure 20. Valuation of Foregone Revenue from Site Plan Projects: 80 Percent Area Median Income (AMI)

A	B	C	D	E	F	G	H	I	J	K	L
Unit Type	Avg Net Size	Market Rent per Month	Market Rent PSF	Restricted Rent at 80% AMI	Restricted Rent at 80% AMI PSF	Rent Difference Per Unit	Rent Difference PSF	Rent Difference Annualized	4.30% Cap Rate	Valuation of Foregone Rev Per Unit	Valuation of Foregone Rev Per GFA
Studio	547 SF	$2,003	$3.66	$1,701	$3.11	$302	$0.55	$3,624	4.30%	$84,279	$123
1-Bedroom	745 SF	$2,436	$3.27	$1,792	$2.41	$644	$0.86	$7,728	4.30%	$179,721	$193
2-Bedroom	1,117 SF	$3,544	$3.17	$2,131	$1.91	$1,413	$1.26	$16,956	4.30%	$394,326	$282
3-Bedroom	1,648 SF	$5,864	$3.56	$2,429	$1.47	$3,435	$2.08	$41,220	4.30%	$958,605	$465
Median 1- and 2-Bdrm*	931 SF	$2,990	$3.21	$1,962	$2.11	$1,029	$1.10	$12,342	4.30%	$287,023	$247

Column A - Multifamily unit types
Column B - Average size by unit type shown as net rentable area. Units built and occupied between 2010-2021. CoStar, 2021.
Column C - Effective monthly rent stated in absolute dollars. CoStar, 2021.
Column D - Average Rent per square foot calculated by dividing average rent by average square feet.
Column E - 80% of AMI HUD 2021 figure. Adjusted downward to account for utility allowances $105, $143, $191, and $255, respectively.
Column F - Rents from Column E divided by average square footage by unit type.
Column G - Column C minus Column E to determine developer's foregone base monthly gross rental revenue per unit.
Column H - Column D minus Column F to determine developer's foregone base monthly gross rental revenue per square foot.
Column I - Developer's foregone base rental gross revenue annualized.
Column J - 4.3% capitalization rate from CoStar, as of November 2021.
Column K - Column H divided by Column I to arrive at the absolute value of the developer's foregone base rental revenue by unit type.
Column L - Valuation per Gross Floor Area, by unit type. Column J divided by Column B converted to gross floor area by dividing by 80% factor (reflecting 20% common space).
* Median values for 1 and 2 bedroom units. Using a weighted average of the units in the sample (units built and occupied between 2010-2021) yields foregone revenue per GFA of $235, slightly lower than the median due to the distribution of 1- and 2-Bedroom units in the sample (64% 1-Bdrm; 36% 2-Bdrm).
Source: Arlington County.