



MONTGOMERY PLANNING

market STUDIES

aspen hill minor master plan amendment

May 2015

Residential Feasibility Study

Prepared by the

RESEARCH & SPECIAL PROJECTS DIVISION

Montgomery County Planning Department

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ASPEN HILL MINOR MASTER PLAN AMENDMENT

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April 15, 2014

INTRODUCTION

This report was prepared in support of the Aspen Hill Minor Master Plan Amendment and it focuses on the former BAE/Vitro headquarters office site (see Figure 1). The report seeks to determine the economic feasibility of redeveloping the headquarters site for residential uses, which would require a subsequent rezoning. The Research and Special Projects Division completed the following tasks for this effort:

- Economic and Market Due Diligence Analysis: Conducted economic, financial and market analyses of the site's surrounding residential market and competitive areas to confirm variables and test a residential development program at a scale generally in line with demand factors.
- Financial Feasibility Analysis: Analyzed the financial feasibility of a residential scenario based on development costs, projected revenues and development program variables based on the Economic and Market Due Diligence Analysis.

SITE BOUNDARIES

While the Aspen Hill Minor Master Plan Amendment covers a larger area than this study, the planning effort is focused primarily on the now vacant BAE/Vitro office site located at 4115 Aspen Hill Road in Aspen Hill, MD. The site comprises approximately 10 acres and is bounded by single-family homes and a church to the west. A Home Depot store and a conservation area are located to the north, Connecticut Avenue to the east and Aspen Hill Road to the south. A small site, zoned C-1, has been “carved out” from the property at the southeast corner and contains a gas station and Dunkin’ Donuts store.

The BAE/Vitro property is split into two zones. An area of about 5 acres containing the office building is zoned Commercial Office (C-O). The remaining 5 acres, primarily the parking areas, are zoned Residential (R)-

90 and an approved special exception allows the site to be used for parking (See Figure 1). The area zoned C-O would need to be rezoned to accommodate any residential uses.

The site is situated at the relatively busy intersection of Aspen Hill Road and Connecticut Avenue. It is surrounded by large commercial stores, particularly to the east. Across Connecticut Avenue is Northgate Shopping Center and Aspen Hill Shopping Center, both large regional shopping centers. However, the planning area lacks certain amenities, such as proximity to Metrorail, ample and well-connected sidewalks, walkable shopping/restaurants, easy access to freeways and major employment centers, and a highly desirable school district.

Figure 1: Aspen Hill Minor Master Plan Boundaries



ECONOMIC AND MARKET OVERVIEW

A residential market analysis typically addresses the appropriate scale and type of residential development for a site. However, this study just looks at the feasibility of townhouse development because townhouses can best serve as a transitional land use between the shopping centers to the east and single-family homes to the west.

Demographic and Economic Assessment

The demographic and economic assessment looks at households, age, incomes and Tapestry Segments^{®1} in the two primary zip codes (20853, 20906) comprising Aspen Hill (the “Trade Area”). Zip codes were used to define the Trade Area for two reasons:

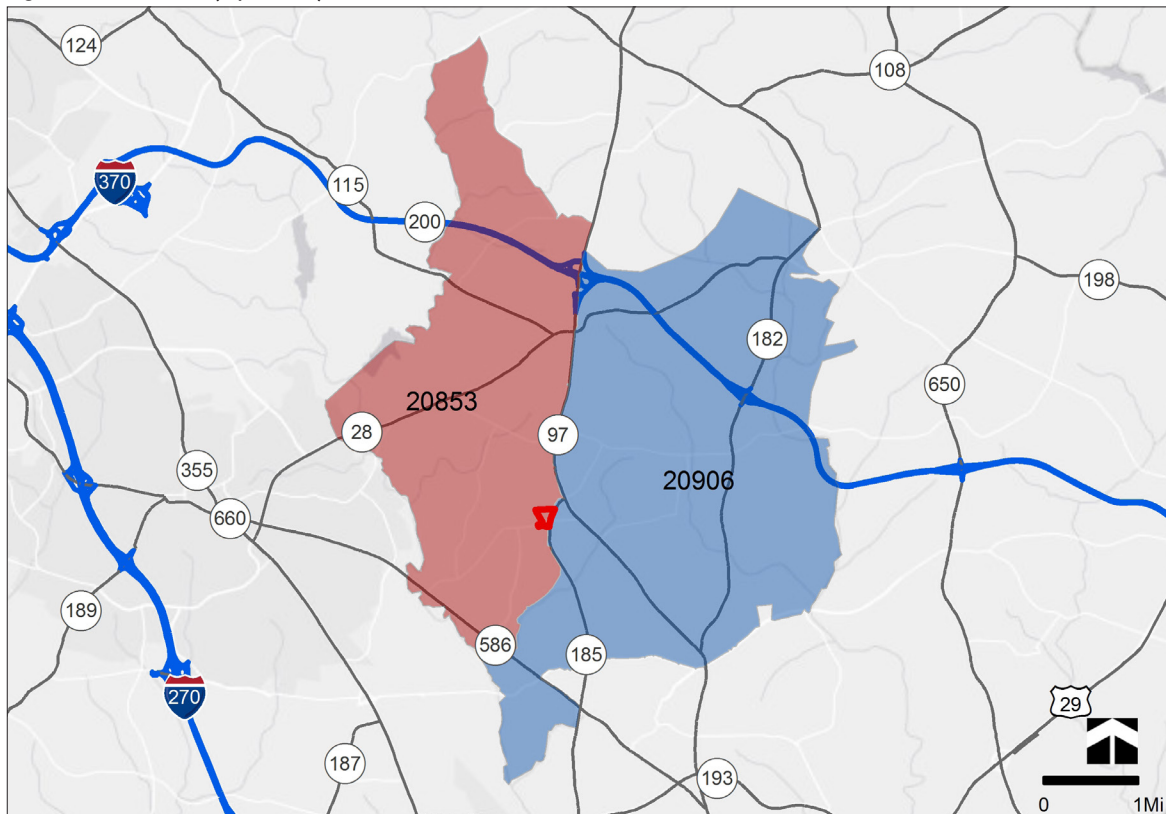
- Residential sales information is organized by zip code.
- Zip codes can be used to highlight the difference in the composition and characteristics between areas to support different residential market opportunities.

While new development at the site may draw residents from Montgomery County and the Washington, DC metro area, the Trade Area is the best indicator of trends, characteristics and consumer preferences that can be used to identify potential housing prices and the scale of development.

Trade Area

While land uses in both zip codes (see Figure 2) are primarily residential and retail, there are significant differences between the two. There is considerably less retail in 20853 than in 20906, which contains the majority of shopping centers in Aspen Hill. Additionally, residential in 20853 contains higher priced, single-family detached homes and fewer attached units or condominiums than 20906. The school districts in 20853 are also considered more desirable, contributing to the higher home prices. Lastly, Leisure World, a large, age-restricted community, is located in 20906, adding a large senior population to this area.

Figure 2: Trade Area (Zip Codes)



¹ Community Tapestry Segments are an ESRI trademarked classification system based on labor force characteristics, median income, age, spending habits, etc. to categorize neighborhoods.



Populations/Households

In 2013, the population for zip code 20853 was 29,963 (9,782 households), while for 20906, it was 49,345 (16,351 households). Household growth from 2013 to 2018 is expected to increase annually in zip codes 20853 and 20906, about 0.9 percent and 1.2 percent respectively. This increase is commensurate with the growth rate during the same period for Montgomery County as a whole (1.1 percent). See Table 1.

Household Age and Income Distribution

Age and income distribution were evaluated for the Trade Area, since different age groups generally prefer different types of residential units at differing prices. For example, the Leesborough townhome community, located one half mile north of the Wheaton Metrorail Station, offers townhomes to a primary market that includes singles, newlyweds and one-parent families. Since townhomes are usually two stories or higher, they are less appealing to seniors (65+) since they create mobility challenges.

In 2013, median ages for zip codes 20853 and 20906 were 42 and 36.1 respectively (see Table 2). Zip code 20906 had a slightly younger population, most likely because of more multi-family and less expensive residential units. However, the population in both zip codes was fairly well distributed. No age group represented more than 15 percent of the population, although the demographic composition can generally be characterized as families with children, as well as seniors. Families and seniors generally do not find townhomes a desirable housing choice. However, the groups that do find them attractive – singles and newlyweds (25-34 years) – are projected to decrease over the next five years.

As shown in Table 3, the median annual household income for this this age group (25-34 years) is \$81,014 and \$58,538 respectively for zip codes 20853 and 20906. It is also likely that many in this age group elect to live in Aspen Hill (characterized by lower residential densities, limited transit choice and a lack of mixed-use development) because they prefer single-family detached homes or older and more affordable attached homes.

Table 1: Population Growth in Trade Area

Montgomery County, MD
Source: ESRI Business Analyst Online

Zip Code 20853					Zip Code 20906				
Summary	2013	2018	Annual Growth 2013 - 2018	"% Annual Growth (2013 - 2018)"	Summary	2013	2018	Annual Growth 2013 - 2018	"% Annual Growth (2013 - 2018)"
Population	29,963	31,334	274	0.9%	Population	49,345	52,269	585	1.2%
Households	9,782	10,193	82	0.8%	Households	16,351	17,263	182	1.1%
Families	7,612	7,895	57	0.7%	Families	11,218	11,749	106	0.9%
Average Household Size	3.05	3.06			Average Household Size	2.99	3.00		
Owner Occupied Housing Units	8,287	8,675	78	0.9%	Owner Occupied Housing Units	10,840	11,570	146	1.3%
Renter Occupied Housing Units	1,495	1,518	5	0.3%	Renter Occupied Housing Units	5,511	5,693	36	0.7%
Median Age	42.0	42.8			Median Age	36.1	37.1		

Table 2: Population Age Profile

Montgomery County, MD
Source: ESRI Business Analyst Online

Zip Code 20853							Zip Code 20906						
	2013		2018		Pop Annual Growth 2013 - 2018			2013		2018		Pop Annual Growth 2013 - 2018	
Population by Age	Number	Percent	Number	Percent	Number	Percent	Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	1,676	5.6%	1,742	5.6%	13	0.79%	Age 0 - 4	3,735	7.6%	3,847	7.4%	22	0.60%
5 - 9	1,983	6.6%	2,054	6.6%	14	0.72%	Age 5 - 9	3,570	7.2%	3,795	7.3%	45	1.26%
10 - 14	2,067	6.9%	2,242	7.2%	35	1.69%	Age 10 - 14	3,136	6.4%	3,702	7.1%	113	3.61%
15 - 19	1,831	6.1%	1,877	6.0%	9	0.50%	Age 15 - 19	2,818	5.7%	3,019	5.8%	40	1.43%
20 - 24	1,548	5.2%	1,349	4.3%	-40	-2.57%	Age 20 - 24	3,043	6.2%	2,798	5.4%	-49	-1.61%
25 - 34	3,257	10.9%	3,199	10.2%	-12	-0.36%	Age 25 - 34	7,530	15.3%	7,244	13.9%	-57	-0.76%
35 - 44	3,827	12.8%	4,127	13.2%	60	1.57%	Age 35 - 44	7,410	15.0%	7,747	14.8%	67	0.91%
45 - 54	4,584	15.3%	4,402	14.0%	-36	-0.79%	Age 45 - 54	6,573	13.3%	6,854	13.1%	56	0.86%
55 - 64	4,157	13.9%	4,518	14.4%	72	1.74%	Age 55 - 64	5,712	11.6%	6,068	11.6%	71	1.25%
65 - 74	2,729	9.1%	3,257	10.4%	106	3.87%	Age 65 - 74	3,189	6.5%	4,178	8.0%	198	6.20%
75 - 84	1,720	5.7%	1,845	5.9%	25	1.45%	Age 75 - 84	1,760	3.6%	2,088	4.0%	66	3.73%
85+	584	1.9%	722	2.3%	28	4.73%	Age 85+	869	1.8%	929	1.8%	12	1.38%
Median Age	42.0		42.8				Median Age	36.1		37.1			

Table 3: Household Age and Income Profile

Montgomery County, MD
Source: ESRI Business Analyst Online

Zip Code 20853								Zip Code 20906							
2013 Households by Income and Age of Householder								2013 Households by Income and Age of Householder							
	<25	25-34	35-44	45-54	55-64	65-74	75+		<25	25-34	35-44	45-54	55-64	65-74	75+
HH Income Base	69	762	1,599	2,240	2,175	1,493	1,444	HH Income Base	508	2,792	3,851	4,406	4,404	3,357	5,536
<\$15,000	14	46	64	112	101	51	174	<\$15,000	107	186	213	292	282	225	647
\$15,000-\$24,999	9	37	78	89	70	84	134	\$15,000-\$24,999	55	170	192	183	228	239	716
\$25,000-\$34,999	12	72	116	127	113	97	169	\$25,000-\$34,999	108	376	373	371	350	422	648
\$35,000-\$49,999	6	66	118	118	106	84	180	\$35,000-\$49,999	70	426	482	455	464	570	956
\$50,000-\$74,999	16	121	204	202	199	221	227	\$50,000-\$74,999	103	544	634	734	679	686	1,307
\$75,000-\$99,999	4	128	206	257	244	250	105	\$75,000-\$99,999	41	395	519	555	513	295	475
\$100,000-\$149,999	8	194	434	605	610	341	267	\$100,000-\$149,999	19	486	848	955	990	547	526
\$150,000-\$199,999	0	59	201	352	339	194	92	\$150,000-\$199,999	4	143	332	458	460	202	136
\$200,000+	0	39	178	378	393	171	96	\$200,000+	1	66	258	403	438	171	125
Median HH Income	\$34,436	\$81,014	\$100,894	\$112,519	\$115,104	\$94,844	\$55,409	Median HH Income	\$33,011	\$58,538	\$76,145	\$81,188	\$83,183	\$55,968	\$45,966
Average HH Income	\$47,457	\$94,366	\$117,091	\$135,728	\$139,725	\$117,238	\$83,142	Average HH Income	\$42,309	\$75,089	\$95,621	\$104,071	\$106,134	\$80,496	\$59,925

Community Tapestry Segments

ESRI Business Analyst Online, a digital tool developed by a California-based software company, uses information such as labor force characteristics, median income, age and spending habits to categorize demographic information according to a trademarked Community Tapestry classification system². These tapestries provide insights into the housing and shopping preferences of Trade Area residents and can help inform the types of residential units that may be successful. The Community Tapestry Segments that characterize zip codes 20853 and 20906 include: Wealthy Seaboard Suburbs; The Elders, Connoisseurs and Pleasant-Ville.

- Wealthy Seaboard Suburbs, representing 27.8 percent of all households in zip codes 20853 and 11.0 percent in 20906, are generally described as older and more affluent. More than half work in professional or management positions and their median net worth is more than four times the national median. Three-fourths live in homes built before the 1970s and 89 percent of Wealthy Seaboard Suburbs households live in single-family homes. Slow to change, they are the least likely to have moved in the last five years.
- The Elders represent 20.4 percent of all households in zip code 20906. Their median age is 73.2, and most are married with no children living at home or single. Most are on a fixed income, receive Social Security benefits and have a median household income of \$42,293. They favor communities designed for senior living or with a large share of seniors. Residential choice is mixed; half reside in single-family homes, one-third in multi-unit buildings and 17 percent in mobile homes.
- Connoisseurs, representing 26.5 percent of the

households in zip code 20853, are somewhat older, being closer to retirement than child-rearing age. Of these, 64 percent hold a bachelor or graduate degree, and are in high-paying management, professional and sales jobs, although many are self-employed. Their median net worth is nearly 7 times the national average. The neighborhoods in which they reside are usually slow growing, established and affluent. Most live in single-family homes built before 1970.

- Pleasant-Ville represents 20.1 percent and 10.1 percent of the households in zip codes 20853 and 20906, respectively. They are characterized as middle-aged, married couples and nearly 40 percent of the households have children. Labor force participation is above average and employed residents work in diverse industry sectors, similar to those distributed nationwide. These households live in single-family homes, with nearly half built between 1950 and 1970. They enjoy where they live; two-thirds have lived in the same house since 1995.

These Tapestry Segments typically have a preference for single-family housing and are disinterested in moving, downsizing or upsizing their homes. These preferences suggest weak market support within the Trade Area for townhouse development on the BAE/Vitro site. For a townhome development to move forward, it would likely need to:

- Capture residents outside Aspen Hill.
- Be priced lower than comparable townhome developments (in areas with greater market support, such as Rockville or Wheaton).
- Be smaller scale so that inventory does not exceed market demand.

Table 4: Community Tapestry Segmentation

Montgomery County, MD
Source: ESRI Business Analyst Online

Zip Code 20853					
Tapestry Segment	Households		U.S. Households		Index
	Percent	Cumulative Percent	Percent	Cumulative Percent	
05. Wealthy Seaboard Suburbs	27.8%	27.8%	1.4%	1.4%	1,980
03. Connoisseurs	26.5%	54.3%	1.3%	2.7%	2,111
10. Pleasant-Ville	20.1%	74.4%	1.6%	4.3%	1,237
Zip Code 20906					
43. The Elders	20.4%	20.4%	0.6%	0.6%	3,178
05. Wealthy Seaboard Suburbs	11.0%	31.4%	1.4%	2.0%	783
10. Pleasant-Ville	10.4%	41.8%	1.6%	3.6%	636

²Community Tapestry segments descriptions provide national characteristics of the groups rather than Aspen Hill specific data.

Housing Inventory Assessment

The housing market in the Trade Area was analyzed to identify the potential size and price ranges for new residential. There were considerably more sales (see Table 5) of attached units and condominiums/co-ops in zip code 20906 (534 units sold) than in 20853 (33 units sold). This difference is because single-family detached homes are the dominant unit type in zip code 20853 and housing prices on average are lower in 20906 (-\$69K difference for detached units and -106K difference for attached units). Most attached residential units are located in zip code 20906 and were built during the 1970s or earlier, and are less expensive (see Table 5). The lower prices may be attributed to the age of homes, housing conditions and location in a less desirable school district.

Table 5:
Residential Sales from Feb. 2013 - Feb. 2014

Montgomery County, MD
Source: RealEstate Business Intelligence, Inc.

	Zip Code 20853		Zip Code 20906	
	Number	Price	Number	Price
Sold Dollar Volume		\$126,679,677		\$216,784,894
Avg. Sold Price		\$417,274		\$251,770
Median Sold Price		\$358,288		\$239,000
Units Sold	302		857	
Avg. Days on Market	49		46	
Detached Units Sold		Avg. Price		Avg. Price
2 BDR	-	N/A	26	\$180,774
3 BDR	60	\$338,691	94	\$315,737
4+ BDR	208	\$469,920	203	\$418,196
Overall	268	\$440,541	323	\$371,190
Attached Units Sold		Avg. Price		Avg. Price
2 BDR	2	\$349,200	4	\$261,000
3 BDR	11	\$391,294	75	\$323,429
4+ BDR	-	N/A	14	\$317,696
Condo/Co-Op	20	\$160,225	441	\$152,111
Overall	33	\$248,701	534	\$181,329

The prices and sizes of residential units similar to the townhomes being analyzed for this planning effort were derived from discussions with sales associates and brokers, and online research of home listings for the Rockville and Wheaton markets (see Table 6 for residential market segments in the Trade Area and competing areas).

If developed for residential uses, the BAE/Vitro site would offer townhomes at prices likely higher than for similar units sold in the Trade Area during the past 12 months- partly because they would be newly constructed. However, prices would still be lower than comparable units in Rockville and Wheaton because the Trade Area lacks amenities normally expected by residents; in this case, singles, newlyweds and one-parent households. Such amenities include a nearby Metrorail station, ample and well-connected sidewalks, walkable shopping/restaurants, good access to freeways and major employment centers, and desirable school districts.

Based on comparable sales information (see Table 6), past sales data and capitalized value of monthly payments affordable to the expected group of buyers³, an appropriate average unit size for a townhouse on the BAE/Vitro site should be around 1,800 square feet (SF) and the price per square foot (PSF) can be conservatively estimated to be between \$208 and \$226. Average unit size is slightly lower than comparison neighborhoods, in order to mitigate costs in a weaker market. The PSF is approximately 10 percent lower than for Wheaton North, the most comparable neighborhood based on proximity. These estimates would generate a per-unit price between \$375,000 and \$407,000 that would be affordable to expected buyers. In particular, this type of unit may appeal to a more budget-conscious buyer looking for a more affordable townhouse-style residence.

Table 6:
Attached Housing Price Ranges

Montgomery County, MD
Source: Zillow, Allan and Rocks, Leesborough Townhomes

	Avg. Size (SF)	Avg. Price (Per SF)	Avg. Price
Rockville (west of I-270)	2,127	\$332	\$706,164
Wheaton (near Metro)	2,069	\$213	\$440,697
Wheaton North (closer to Aspen Hill)	1,831	\$241	\$441,271
Past Sales Data (in 20906)			\$150,000 - \$323,000
"Townhome Affordability Factors" (Based on household incomes of 25-34 age group in Trade Area. See Table 3)			\$300,000 - \$415,000

³ Assume 30% of annual income from 25-34 age group in zip codes 20853 and 20906. Capitalized value derived from amortized monthly payments using a 30-year, fixed rate mortgage at 5% interest.

Project Scale / Market Absorption

While this study helps gauge the potential to redevelop the BAE/Vitro site for residential use and determine the number of units that could be supported by the market, it does so as an informed estimate. The estimate is based on observations of market demand and additional factors that may affect development scale. Should a residential option for the site proceed, these factors, including competition from similar townhome developments in the pipeline or under construction (limited in Aspen Hill) and financing that a developer can obtain based on credit or prevailing interest rates, may require further investigation.

The methodology to estimate the number of supportable residential units is based on buyer demand from:

- Singles.
- Newlyweds.
- One-parent families with children.
- Residents from nearby Rockville and Wheaton, which also have comparable townhouse developments and compete for similar buyers.
- People relocating within Montgomery County. About 20 percent of Montgomery County households will annually relocate based on a national home tenure of five years.
- Capture rates (how many new households and transfers a development can “capture” compared to projects elsewhere in the DC metro area) also play a role in estimating the number of units that can be supported in the Aspen Hill area. Capture rates are largely based on proximity of new housing to concentrations of households and competition from similar development.

Annual household capture estimates for the BAE/Vitro site are presented in Table 7.

Table 7: Annual Household Demand (On-Site)

Montgomery County, MD
Source: U.S. Census, ESRI Business Solutions

	New Households (Aspen Hill, Rockville, Wheaton)	Existing Household Relocations (Montgomery County)	TOTAL
Singles	6	16	22
Newlyweds	1	5	6
One-Parent Households	2	20	22
Total	9	41	50

A key group of potential home buyers, new single and newlywed households, are not expected to significantly grow over the next five years (see Table 2), affecting demand. In addition, competition from townhomes with better amenities in Rockville and Wheaton limits development potential further. Consequently, fewer than 10 new households are expected to be captured annually. Therefore, demand would be primarily generated by in-County transfers and relocations. In total, approximately 50 residential units could annually be absorbed by BAE/Vitro site development.

Typically, a developer will plan to sell out a project within 1.5 years to avoid increased risk and carrying costs. A longer time frame may also make it less attractive for financing. Based on these assumptions, a residential development program is estimated to be 70-80 market-rate units (50 x 1.5 = 75 unit average). An additional 9-10 Moderately Priced Dwelling Units (MPDU) will be added to the development program, resulting in a total development program of 79-90 total units. The MPDU program stems from a County regulatory policy that mandates affordable housing in conjunction with residential development.

⁴ Per DHCA policy, MPDUs represent an additional 12.5% of total number of market rate units.

FINANCIAL FEASIBILITY ANALYSIS

A financial feasibility analysis was conducted to determine the feasibility of a 70-80 unit residential development on the BAE/Vitro site. It also assumes a townhouse density of 12.5 dwelling units per acre in a Residential Townhouse (RT)-12.5 Zone (see Table 8 for requirements).

Table 8: Zoning Designation Regulations (RT-12.5)

Montgomery County, MD
Source: Montgomery County Planning Department

Maximum DU per Acre	15.25
Maximum Height	35'
Setback	30 ft. (from front line)
Open Space	45% of tract
Parking	Off-street, 1.5 spaces per DU

The analysis evaluated revenues and costs for the current property owner (Lee Development Group) and a future residential developer. It assumed a conventional development process where the property owner would demolish the existing building, prepare the site for development (obtaining RT-12.5 zoning) and then sell it to a residential developer. The developer would obtain all regulatory approvals, make all site improvements and then construct townhomes.

Table 9 presents the assumed costs for the landowner, while Table 10 presents the assumed revenues and expenditures for the developer. All revenues and costs are approximate and should be considered in order

of magnitude estimates. For a property owner and developer to arrive at key decisions on whether to proceed, they would have to prepare and assess more definitive studies and cost estimates.

Table 9: Landowner Costs for Site Preparation
Montgomery County, MD

Site Preparation Costs		
Hazardous Materials removal, Demolition (along with hauling, disposal, and recycling credit)	\$2,029,888.90	(Source: Lee Development Group + Independent Sources)
Site Grading	\$300,000.00	(Source: Homewyse.com + Independent Sources)
Pavement Removal	\$300,000.00	(Source: Independent Estimator)
Rezoning Administrative Costs (Engineering, Legal, Entitlements, etc.)	\$1,100,000.00	(Source: Lee Development Group)
Total Landowner Costs for Site Preparation	\$3,729,888.90	

Landowner Costs

Preparing the site for residential development is estimated to cost approximately \$3.5 to \$4.0 million. This expense includes remediating hazardous materials (asbestos, lead-based paint, etc.); building demolition, hauling and disposing of or recycling debris; site clearing and pavement removal; and site grading (assuming an earthwork balance).

The analysis assumes the landowner would secure a rezoning and all entitlements, market the site and sell it for the current assessed land value. It should be noted that the BAE/Vitro property owner has not indicated any plans to sell the property in the foreseeable future.

⁵ Since the development is expected to include moderately priced dwelling units (MPDU), zoning regulations are derived from zoning ordinance 59-C-1.74. Development including moderately priced dwelling units.

⁶ Since this assumes the opportunity cost of not preparing the site is \$0, it is assumed that the Lee Development Group would cover all the costs of site preparation.

⁷ Assumes soil is not hauled into or from the site, which could increase costs considerably.

Table 10: Residential Developer Summary
Montgomery County, MD

Development Revenue			
	Low Estimate	High Estimate	Source
Number of Units	70	80	
Average Price PSF	\$208	\$226	
Average Unit Size (2 Floor Townhouse)	1,800	1,800	
MPDU Number of Units	9	10	(DHCA)
MPDU Price Per Unit	\$150,000	\$180,000	(DHCA)
MPDU Unit Size (2 Floor Townhouse)	1,500	1,500	(DHCA)
Total Building Development (SF)	139,125	159,000	
Total Building Footprint (SF)	69,563	79,500	
Total Potential Revenue	\$27,520,500	\$34,344,000	
Expenditures			
Land Acquisition Cost	Low Estimate	High Estimate	Source
Assessed Value of Site	\$10,098,800	\$10,098,800	(County GIS Department)
Total Land Acquisition Cost	\$10,098,800	\$10,098,800	
Development Cost	Low Estimate	High Estimate	Source
Building Construction (@ \$140 PSF)	\$19,477,500	\$22,260,000	(RS Means)
Repaving (70% of non-building footprint) *Includes surface parking at 1.5 per DU*	\$714,279	\$694,956	(Independent Estimator at \$25/SY)
On-Site Open Space & Landscaping (30% of non-building footprint as concrete walkways, bermuda grass, garden landscaping)	\$492,240	\$478,924	(Homewyse, MNCPPC DR Historic Information)
Utilities (Electric)	\$80,000	\$80,000	(MNCPPC DR Historic Information)
Utilities (Gas)	\$120,000	\$120,000	(MNCPPC DR Historic Information)
Utilities (Sanitary Sewer + Water)	\$500,000	\$500,000	(MNCPPC DR Historic Information)
Utilities (Stormwater)	\$250,000	\$250,000	(MNCPPC DR Historic Information)
Amenities and Off-Site Improvements	\$300,000	\$300,000	
Planning, Design, Approvals, Contingency, and Soft Costs (25% of Hard Costs)	\$5,483,505	\$6,170,970	
Marketing (6.0% of sales)	\$1,651,230	\$2,060,640	(Urban Land Institute)
Administration and contingency (6.0% of sales)	\$1,651,230	\$2,060,640	(Urban Land Institute)
Financing Cost (2% of Loan)	\$816,376	\$901,499	
Developer Hurdle Rate (i.e. Rate of Return) @ 20% of equity @ 75% Loan To Value ratio	\$2,040,939	\$2,253,747	
Total Development Cost	\$33,577,299	\$38,131,375	
	Low Estimate	High Estimate	
Total Project Cost (Land Acquisition + Development Cost)	\$43,676,099	\$48,230,175	
Funding Gap	(\$16,155,599)	(\$13,886,175)	

⁸ All units assume 2-story townhome with 2 baths, fireplace, upgraded kitchen, no basement, and no garage. Parking provided via surface parking at 1.5 spaces per DU.

⁹ Approximate estimates from Lisa Schwartz, Senior Planning Specialist, DHCA

¹⁰ Due to MPDUs priced significantly below the market, 100% of the MPDUs are assumed to be absorbed independent of market forces.

Developer Revenues and Costs

The following section describes and considers both revenues (residential sales) and expenditures (land acquisition, building construction, site improvement, infrastructure, marketing and financing costs) associated with the development of a townhouse project on the BAE/Vitro site.

Developer Revenues

The analysis assumes 79-90 townhome units⁸, comprising 70-80 market-rate and 9-10 Moderately Priced Dwelling Units (MPDUs). Based on discussions with Montgomery County's Department of Housing and Community Affairs, each of the MPDUs is expected to sell from \$150,000 to \$180,000.^{9,10} The potential revenues under this program may be approximately \$27.5 to \$34.3 million (see Table 10).

Developer Expenditures

Expenditures are divided between land acquisition costs (\$10.1 million) and development costs (see Table 10). In addition, a developer would anticipate financing the project for 75 percent of the total cost of development and acquisition, and require a 20 percent "cash-on-cash" return on the total project investment (i.e., 20 percent of developer equity, which is represented as 25 percent of the total cost of development and acquisition). **Total development costs are estimated to be \$34 to \$38 million, while total project cost (acquisition and development costs) is estimated to be \$44 to \$48 million. Such an imbalance would result in a project funding gap of approximately \$14 to \$16 million** (see Table 10).

CONCLUSION

Given an estimated funding gap of \$14 to \$16 million, the analyses would indicate that a townhome development on the BAE/Vitro site – in balance with market supply and demand factors – is not economically feasible without some type of subsidy. Based on the financial model and assumptions, a profitable and economically feasible project would require considerably more units; approximately 270 to 300 units for revenues to exceed expenditures. This scale of development would not only exceed expected market demand, but it may also be difficult to meet the zoning standard that requires 40 percent of a site to remain as open space.

Although townhome demand in the Trade Area is limited, and prices are expected to be lower than comparable developments elsewhere in Montgomery County, opportunities to complement residential with other uses may provide enhanced value. More in-depth studies of mixing residential, commercial/retail and other uses on the property may be warranted. However, all development scenarios should carefully consider factors such as compatibility with surrounding land uses, project phasing/staging to evolve with the market and the interests and intentions of the current property owner.

¹¹ This assumes keeping the price per unit constant, assumes a decrease in soft costs as a percentage of hard costs (currently 25%) due to economies of scale, and assumes additional costs for utility connections.

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