
APPENDIX A: REVENUE AND EXPENDITURE DETAIL

*Fiscal Impact Analysis
Anne Arundel County, Maryland*

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Prepared By:



APPENDIX A: REVENUE AND EXPENDITURE DETAIL

Supporting Documentation for the Fiscal Impact Analysis conducted for
Anne Arundel County, Maryland

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INTRODUCTION

BACKGROUND

TischlerBise is under contract with Anne Arundel County, Maryland, to conduct a Fiscal Impact Analysis of future growth scenarios. Documentation for the Fiscal Impact Analysis is provided in multiple reports: (1) *Fiscal Impact Analysis Report*, (2) **Appendix A: Revenue and Expenditure Detail of the Fiscal Impact Analysis (this document)**, and (3) *Appendix B: Level of Service / Cost & Revenue Assumptions*. The results of the Fiscal Impact Analysis are provided in the *Fiscal Impact Analysis Report*, issued under separate cover. This document is devoted to detail on projected revenues and expenditures generated from each scenario evaluated in the Fiscal Impact Analysis.

A fiscal impact evaluation analyzes revenue generation and operating and capital costs to the County associated with the provision of public services and facilities under a set of assumptions. The fiscal impact shows direct revenues and costs from new development only and does not include revenues or costs generated from existing development. The development scenarios evaluated in the analysis are represented by numerical projections of population, housing units, employment, and nonresidential building area through the year 2045.

TischlerBise worked with County staff to identify scenarios to evaluate for the fiscal impact analysis. The scenarios represent a number of “what if” situations given the County’s recent development trends.

After scenarios are identified, the next major step of the fiscal impact analysis is to determine current service levels and capacities and associated revenues and costs. This was done through departmental interviews and follow-up discussions and correspondence as well as a review of applicable budgets and other relevant documents. The level of service/capacity analysis forms the foundation of the fiscal impact model to determine the fiscal impact of the County Growth Scenarios. The results of this step have been approved by the County and are issued as *Appendix B: Level of Service / Cost & Revenue Assumptions*.

As noted above, a fiscal impact analysis determines whether revenues generated by development are sufficient to cover the resulting costs from that development for service and facility demands placed on the County under current levels of service. It is intended to be used to help guide policy decisions regarding levels of service and revenue enhancements. **It should not be viewed as a budget-forecasting document.** A fiscal analysis essentially looks at revenues and expenditures separately. It does not project

expenditures based on revenues available—unlike the annual budget process where a budget is balanced with the resources available.

It should also be noted that the level of capital expenditures assumed in the analysis and the resulting costs are projected independent of certain policy-making decision points such as capital improvement plans, debt capacity guidelines, or expectations for levels of service. Rather, the costs projected in this analysis **reflect the costs to serve new growth, regardless of whether the resources are available to cover the costs.**

SUMMARY OF MODELED GROWTH SCENARIOS

The County in consultation with the TischlerBise team developed three main growth scenarios for the fiscal analysis. The scenarios represent a number of “what if” situations given County recent development trends and market demands. The scenarios are as follows:

Scenario 1: Base Case (Trends, Lower, and Higher Growth Alternatives)

- *Scenario 1A: Base Case Trends.* Projections of residential and nonresidential development for Anne Arundel County are from Round 10 Baltimore Metropolitan Council (BMC) projections to 2045. These projections include land use and policy assumptions adopted in the Anne Arundel General Development Plan Update in 2021.¹ The distribution of new housing units by type is based on recent development trends in the County with a higher share of single family attached and multifamily units relative to single family detached. The distribution assumed is 40 percent single family attached, 24 percent multifamily, and 36 percent single family detached.
- *Scenario 1B: Base Case Lower Growth.* This is an alternative of Scenario 1A with less growth in both residential (population and housing units) and nonresidential development (jobs and nonresidential square footage) assumed at 50 percent of Trends growth. (Housing unit distribution is kept the same throughout.)
- *Scenario 1C: Base Case Higher Growth.* This is also an alternative of Scenario 1A with higher growth in both residential (population and housing units) and nonresidential development (jobs and nonresidential square footage) assumed at an increase of 50 percent of Trends growth. (Housing unit distribution is kept the same throughout.)

¹ TischlerBise is currently conducting an Impact Fee Study for Anne Arundel County. The Trends Scenario for the Fiscal Impact Analysis is consistent with the land use projections documented for the Impact Fee Study with the exception of the distribution by type of new housing units (as noted), which assumes a shift to single family attached and multifamily units for purposes of this study.

Scenario 2: Shift from Projected Retail/Office Growth to Industrial Growth

- This scenario tests the fiscal impact of a shift in nonresidential growth from retail/office uses to industrial, given recent trends indicating a declining market demand for new retail and office and an increasing demand for warehouse distribution, storage, industrial flex space, and similar types of development. This scenario reduces projected retail and office jobs/square footage and shifts to industrial development. The decrease in retail and office is assumed across the County and the increase in industrial is assumed to occur in RPAs 1, 2, 3, and 7. Residential growth is held constant at the Base Case Trends scenario (Scenario 1A) with housing unit distribution held constant from Scenario 1.

Scenario 3: Shift from Projected Retail/Office Growth to Residential Growth

- This scenario tests the fiscal impact of a shift in land use from retail and office growth to residential growth. This scenario tests a reduction in retail and office growth countywide and shifts the growth to residential development in RPAs 1, 2, 3, 4, 5, and 7. (Base case trends in industrial growth is maintained.) The additional residential modeled in this scenario is in addition to the base case (trends) growth. (Housing unit distribution is kept the same as Scenario 1.)

A summary of growth projections for each scenario is provided below in Figure 1.

Figure 1. Summary of County Growth Scenarios: Net Increases 2024-2045

Net Growth (2024-2045) - Scenario Comparisons					
LAND USE SUMMARY					
Anne Arundel County, Maryland, Fiscal Impact Analysis					
Category	SCENARIO				
	1A. Base Case Trends	1B. Base Case Lower Growth	1C. Base Case Higher Growth	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	3. Shift Nonresidential to Residential in Select RPAs
POPULATION	76,845	38,422	115,267	76,845	80,502
<i>Growth from Base Year</i>	13%	6%	19%	13%	13%
Single Family Detached Units	11,542	5,771	17,313	11,542	12,154
Single Family Attached Units	12,824	6,412	19,236	12,824	13,504
Multifamily Units	7,695	3,847	11,542	7,695	8,102
TOTAL UNITS	32,061	16,030	48,091	32,061	33,760
<i>Growth from Base Year</i>	13%	7%	20%	13%	14%
Retail Jobs	17,694	8,847	26,542	15,571	13,552
Office Jobs	19,129	9,565	28,694	16,642	14,277
Industrial Jobs	18,189	9,095	27,284	22,736	18,189
Institutional Jobs	18,196	9,098	27,295	18,196	18,196
TOTAL JOBS	73,209	36,605	109,815	73,146	64,215
<i>Growth from Base Year</i>	20%	10%	30%	20%	18%
Retail 1,000 Sq. Ft.	8,334	4,167	12,501	7,334	6,383
Office 1,000 Sq. Ft.	5,873	2,936	8,809	5,109	4,383
Industrial 1,000 Sq. Ft.	11,587	5,793	17,380	14,483	11,587
Institutional 1,000 Sq. Ft.	6,369	3,184	9,553	6,369	6,369
TOTAL NONRES 1,000 SQ. FT.	32,163	16,081	48,242	33,295	28,721
<i>Growth from Base Year</i>	20%	10%	30%	21%	18%
Elementary Enrollment	5,244	2,622	7,866	5,244	5,522
Middle School Enrollment	2,410	1,205	3,615	2,410	2,537
High School Enrollment	2,956	1,478	4,434	2,956	3,113
TOTAL ENROLLMENT	10,610	5,305	15,914	10,610	11,172
<i>Growth from Base Year</i>	13%	7%	20%	13%	14%

REVENUE AND EXPENDITURE OUTPUTS

The remainder of this document is devoted to detail on projected revenues and expenditures generated from each scenario evaluated in the Fiscal Impact Analysis.

REVENUE DETAIL

Further details on revenue projections for Anne Arundel County are presented and discussed in this section. For additional detail on projection methodologies and revenue components / assumptions, see *Appendix B. Level of Service / Revenue and Document*, issued separately. Detail on operating and capital revenue projections for each scenario are presented below.

OPERATING REVENUES

Revenues are detailed in this section for each scenario. All General Fund and Capital Projects Fund revenues were evaluated. Some revenues, such as investment income are not tied directly to growth and are therefore assumed to be fixed. (See the *Level of Service Document* issued under separate cover for assumptions.)

Projected operating revenues are shown below in two ways. First, *cumulative* revenues over the 22-year development timeline are shown in Figure 2. Next, *average annual* revenues (total revenues divided by 22 years) are shown in Figure 3. Revenues are in constant 2023 dollars and are shown in thousands.

Figure 2. Cumulative Operating Revenues from New Growth – Scenario Comparisons (x\$1,000)

Cumulative (2024-2045) Operating Revenue from New Growth - Scenario Comparisons (x\$1,000)										
GROWTH SCENARIOS										
Anne Arundel County, Maryland, Fiscal Impact Analysis										
Category	SCENARIO									
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%
Property Taxes	\$1,569,997	58.5%	\$784,966	58.5%	\$2,354,960	58.5%	\$1,557,545	58.3%	\$1,561,444	57.5%
Income Tax	\$579,993	21.6%	\$289,986	21.6%	\$869,984	21.6%	\$579,993	21.7%	\$610,256	22.5%
State Shared Revenue	\$11,506	0.4%	\$5,753	0.4%	\$17,259	0.4%	\$11,506	0.4%	\$12,053	0.4%
Recordation & Transfer Taxes	\$426,424	15.9%	\$213,204	15.9%	\$639,626	15.9%	\$424,004	15.9%	\$431,502	15.9%
Local Sales Taxes	\$20,463	0.8%	\$10,232	0.8%	\$30,695	0.8%	\$20,449	0.8%	\$18,623	0.7%
Licenses and Permits	\$6,758	0.3%	\$3,379	0.3%	\$10,137	0.3%	\$6,755	0.3%	\$6,543	0.2%
Investment Income	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Fees for Service and Other Revenues	\$70,257	2.6%	\$35,128	2.6%	\$105,385	2.6%	\$70,257	2.6%	\$73,634	2.7%
Interfund Reimbursements	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Fund Balance	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
TOTAL-General Fund	\$2,685,397	100.0%	\$1,342,647	100.0%	\$4,028,046	100.0%	\$2,670,508	100.0%	\$2,714,055	100.0%
<i>Component Units</i>										
Community College Revenue	\$64,636		\$32,318		\$96,955		\$64,609		\$62,337	
Library Revenue	\$0		\$0		\$0		\$0		\$0	
Schools Revenue	\$0		\$0		\$0		\$0		\$0	
TOTAL-Component Units	\$64,636		\$32,318		\$96,955		\$64,609		\$62,337	
GRAND TOTAL	\$2,750,033		\$1,374,965		\$4,125,001		\$2,735,117		\$2,776,392	

Figure 3. Average Annual Operating Revenues from New Growth – Scenario Comparisons (x\$1,000)

Average Annual Operating Revenue from New Growth - Scenario Comparisons (x\$1,000)										
GROWTH SCENARIOS										
Anne Arundel County, Maryland, Fiscal Impact Analysis										
Category	SCENARIO									
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%
Property Taxes	\$71,363	58.5%	\$35,680	58.5%	\$107,044	58.5%	\$70,797	58.3%	\$70,975	57.5%
Income Tax	\$26,363	21.6%	\$13,181	21.6%	\$39,545	21.6%	\$26,363	21.7%	\$27,739	22.5%
State Shared Revenue	\$523	0.4%	\$261	0.4%	\$784	0.4%	\$523	0.4%	\$548	0.4%
Recordation & Transfer Taxes	\$19,383	15.9%	\$9,691	15.9%	\$29,074	15.9%	\$19,273	15.9%	\$19,614	15.9%
Local Sales Taxes	\$930	0.8%	\$465	0.8%	\$1,395	0.8%	\$929	0.8%	\$847	0.7%
Licenses and Permits	\$307	0.3%	\$154	0.3%	\$461	0.3%	\$307	0.3%	\$297	0.2%
Investment Income	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Fees for Service and Other Revenues	\$3,193	2.6%	\$1,597	2.6%	\$4,790	2.6%	\$3,193	2.6%	\$3,347	2.7%
Interfund Reimbursements	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Fund Balance	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
TOTAL-General Fund	\$122,064	100.0%	\$61,029	100.0%	\$183,093	100.0%	\$121,387	100.0%	\$123,366	100.0%
<i>Component Units</i>										
Community College Revenue	\$2,938		\$1,469		\$4,407		\$2,937		\$2,833	
Library Revenue	\$0		\$0		\$0		\$0		\$0	
Schools Revenue	\$0		\$0		\$0		\$0		\$0	
TOTAL-Component Units	\$2,938		\$1,469		\$4,407		\$2,937		\$2,833	
GRAND TOTAL	\$125,002		\$62,498		\$187,500		\$124,324		\$126,200	

As shown, property taxes account for almost 60 percent of the revenues generated in the General Fund followed by income taxes at 22 percent. Local governments in Maryland have diversified revenues available to fund operations—including two relatively large sources in property taxes and income taxes by place of residence. Recordation and transfer taxes also are generated from growth and account for almost 20 percent of ongoing operating revenue sources.

Major Revenue Sources

As shown, almost 60 percent of General Fund revenue is generated from property taxes in each scenario, followed by local income tax and recordation and transfer taxes. Property taxes are from real and personal property from both residential and nonresidential development. The real property portion of the tax is projected based on assessed values for projected residential and nonresidential development and using approved FY23 tax rates (\$.933 per \$100 valuation for properties outside of Annapolis and \$.559 per \$100 valuation for properties within Annapolis). To reflect valuation differences by geographic area, Fiscal Analysis Zones (FAZ) based on the County’s existing Region Plan Areas (RPA) are used. Assessed values by FAZ are shown below for residential and nonresidential development.

Figure 4. Residential Values by Fiscal Analysis Zones

	2021 AA County* Median All Units	% of County Median	Median Sales Price [^] (2023)						Assessed Values**		
			SFD		SFA		MF ^{^^}		SFD	SFA	MF ^{^^}
			\$560,000	Median	\$425,000	Median	\$280,000	Median			
Countywide	\$389,397		Scaled to County Median						86% of Market Value		
RPA1	\$279,843	72%	\$402,448	\$400,000	\$305,429	\$310,000	\$201,224	\$200,000	\$344,000	\$266,600	\$172,000
RPA2	\$360,226	93%	\$518,049	\$520,000	\$393,162	\$390,000	\$259,024	\$260,000	\$447,200	\$335,400	\$223,600
RPA3	\$325,832	84%	\$468,586	\$470,000	\$355,623	\$360,000	\$234,293	\$230,000	\$404,200	\$309,600	\$197,800
RPA4	\$450,680	116%	\$648,132	\$650,000	\$491,886	\$490,000	\$324,066	\$320,000	\$559,000	\$421,400	\$275,200
RPA5	\$376,711	97%	\$541,756	\$540,000	\$411,154	\$410,000	\$270,878	\$270,000	\$464,400	\$352,600	\$232,200
RPA6	\$583,407	150%	\$839,010	\$840,000	\$636,749	\$640,000	\$419,505	\$420,000	\$722,400	\$550,400	\$361,200
RPA7	\$473,173	122%	\$680,480	\$680,000	\$516,436	\$520,000	\$340,240	\$340,000	\$584,800	\$447,200	\$292,400
RPA8	\$579,111	149%	\$832,832	\$830,000	\$632,060	\$630,000	\$416,416	\$420,000	\$713,800	\$541,800	\$361,200
RPA9	\$443,882	114%	\$638,356	\$640,000	\$484,467	\$480,000	\$319,178	\$320,000	\$550,400	\$412,800	\$275,200

*Source: AA County (Values by RPA under "Constituent Services")

<https://gis.aacounty.org/portal/apps/MapSeries/index.html?appid=0eeae7fd35a04b85abb33203fc519bcd>

Produced by: Research & GIS, Anne Arundel County Office of Planning and Zoning.

Source: 2021 ESRI Enrichment data, 2010 Decennial Census Data, 2000 Decennial Census Data. Esri develops annual demographic estimates using a variety of sources, beginning with the latest U.S. Census five-year American Community Survey base, then adding a mixture of administrative records and private sources to capture changes.

[^] Source: Data from Redfin.com, Realtor.com, Trulia.com for median values and sales prices countywide by type of unit.

^{^^} Maryland Department of Assessment and Taxation; average assessment value for apartments and condos converted to value with current assessment ratio.

** Residential assessment value to market value is 86%; source: State Dept of Assessment and Taxation (SDAT), Assessment Ratios Survey Report 2022

Figure 5. Nonresidential Values by Fiscal Analysis Zones

	Average Mkt Value [^]			Assessed Values (88% of Market Value)*		
	Retail	Office	Industrial	Retail	Office	Office
RPA1	\$165	\$140	\$80	\$145	\$123	\$70
RPA2	\$220	\$190	\$110	\$194	\$167	\$97
RPA3	\$220	\$270	\$90	\$194	\$238	\$79
RPA4	\$290	\$210	\$100	\$255	\$185	\$88
RPA5	\$200	\$220	\$80	\$176	\$194	\$70
RPA6	\$190	\$430	\$120	\$167	\$378	\$106
RPA7	\$400	\$250	\$80	\$352	\$220	\$70
RPA8	\$260	\$195	\$70	\$229	\$172	\$62
RPA9	\$260	\$195	\$170	\$229	\$172	\$150

[^] Maryland Department of Planning: MDProperty View (2022), accessed at <https://planning.maryland.gov/Pages/OurProducts/downloadFiles.aspx> TischlerBise analysis by RPA.

* Nonresidential assessment value to market value is 88%; source: State Dept of Assessment and Taxation (SDAT), Assessment Ratios Survey Report 2022

Another significant source of revenue is local income tax. Income tax revenues are from place of residence and are calculated as a function of the market value of housing, as shown above. Approximately 22 percent of General Fund revenue is projected from income taxes in each scenario.

As noted above, recordation and transfer taxes are one-time sources of revenue based on market values. It is also assumed that residential units will transfer ownership on average every 9 years. Therefore, this revenue source is generated as appropriate to reflect this assumed turnover, which accounts for a larger share of the overall budget than is currently reflected in the FY23 budget.

Other revenues from investments, interfund reimbursements, and fund balances are not assumed to increase due to growth and are therefore shown as \$0.

Component Units

Also shown in Figure 2 above are component units of the County—Schools (Board of Education), Community College, and Libraries. County revenues are shown as “Fixed” because they are modeled under General Fund revenues. Other revenues are handled as follows:

- For Schools, no other revenues are projected because expenses are limited to County-funded operations and capital needs.
- For Libraries, revenues are assumed fixed because sources are not directly tied to growth.
- For Community College, State funding and tuition and fees are projected based on projected enrollment growth.

CAPITAL REVENUES

Revenues earmarked for capital improvements are detailed in this section for each scenario. Projected capital revenues are from impact fees only.² Capital costs included in the analysis reflect only locally funded improvements, therefore State funding is not projected. (See the *Level of Service Document* for detail on assumptions.)

Detail on capital revenues is shown below in two ways. First, *cumulative* revenues for capital over the 22-year development timeline are shown in Figure 6. Next, *average annual* capital revenues (total revenues divided by 22 years) are shown in Figure 7. Revenues are in constant 2023 dollars and are shown in thousands.

² Development impact fee schedule effective July 1, 2023, to June 30, 2024.

Figure 6. Cumulative Capital Revenues from New Growth – Scenario Comparisons (x\$1,000)

Cumulative (2024-2045) Capital Revenue from New Growth - Scenario Comparisons (x\$1,000)										
GROWTH SCENARIOS										
Anne Arundel County, Maryland, Fiscal Impact Analysis										
Category	SCENARIO									
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%
Schools (Impact Fees)	\$293,172	45%	\$146,581	45%	\$439,753	45%	\$293,172	45%	\$308,703	47%
Transportation (Impact Fees)	\$339,550	52%	\$169,769	52%	\$509,309	52%	\$339,828	52%	\$318,828	49%
Public Safety (Impact Fees)	\$25,408	4%	\$12,703	4%	\$38,110	4%	\$24,426	4%	\$22,961	4%
TOTAL	\$658,129	100%	\$329,054	100%	\$987,172	100%	\$657,425	100%	\$650,492	100%

Figure 7. Average Annual Capital Revenues from New Growth – Scenario Comparisons (x\$1,000)

Average Annual Capital Revenue from New Growth - Scenario Comparisons (x\$1,000)										
GROWTH SCENARIOS										
Anne Arundel County, Maryland, Fiscal Impact Analysis										
Category	SCENARIO									
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%
Schools (Impact Fees)	\$13,326	45%	\$6,663	45%	\$19,989	45%	\$13,326	45%	\$14,032	47%
Transportation (Impact Fees)	\$15,434	52%	\$7,717	52%	\$23,150	52%	\$15,447	52%	\$14,492	49%
Public Safety (Impact Fees)	\$1,155	4%	\$577	4%	\$1,732	4%	\$1,110	4%	\$1,044	4%
TOTAL	\$29,915	100%	\$14,957	100%	\$44,871	100%	\$29,883	100%	\$29,568	100%

EXPENDITURE DETAIL

Further detail on expenditure projections for Anne Arundel County are presented and discussed in this section. For additional detail on projection methodologies and expenditure components and assumptions, see *Appendix B: LOS Document*.

All General Fund expenditures are included in this section, including the component units of Schools (Board of Education), Community College, and Libraries. Detail on operating and capital expenditures for each scenario are presented below.

OPERATING EXPENDITURES

Operating expenditures are shown below in two ways. First, *cumulative* operating expenditures over the 22-year development timeline are shown in Figure 8. Next, *average annual* operating expenditures (total operating expenditures divided by 22 years) are shown in Figure 9. Costs are in constant 2023 dollars and are shown in thousands.

Figure 8. Cumulative Operating Expenditures from New Growth – Scenario Comparisons (x\$1,000)

Cumulative (2024-2045) Operating Expenditures from New Growth - Scenario Comparisons (x\$1,000)										
GROWTH SCENARIOS										
Anne Arundel County, Maryland, Fiscal Impact Analysis										
Category	SCENARIO									
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%
Legislative	\$1,114	0.1%	\$557	0.1%	\$1,672	0.1%	\$1,114	0.1%	\$1,075	0.1%
County Executive	\$198	0.0%	\$99	0.0%	\$297	0.0%	\$198	0.0%	\$191	0.0%
Office of Law/Office of Admin Hearings	\$341	0.0%	\$171	0.0%	\$511	0.0%	\$341	0.0%	\$329	0.0%
CAO	\$322	0.0%	\$161	0.0%	\$483	0.0%	\$322	0.0%	\$310	0.0%
Central Services	\$5,577	0.3%	\$2,730	0.3%	\$8,587	0.3%	\$5,494	0.3%	\$5,495	0.3%
Finance	\$4,333	0.2%	\$2,166	0.2%	\$6,499	0.2%	\$4,331	0.2%	\$4,179	0.2%
Finance (Non-Departmental)	\$36,089	1.8%	\$18,045	1.9%	\$54,134	1.8%	\$36,074	1.9%	\$34,805	1.7%
Budget	\$222	0.0%	\$111	0.0%	\$333	0.0%	\$222	0.0%	\$214	0.0%
Personnel	\$3,516	0.2%	\$1,758	0.2%	\$5,274	0.2%	\$3,514	0.2%	\$3,391	0.2%
Information Technology	\$31,642	1.6%	\$15,821	1.7%	\$47,463	1.6%	\$31,629	1.6%	\$30,516	1.5%
Transportation	\$9,907	0.5%	\$4,954	0.5%	\$14,861	0.5%	\$9,903	0.5%	\$9,555	0.5%
Planning and Zoning	\$5,938	0.3%	\$2,969	0.3%	\$8,908	0.3%	\$5,932	0.3%	\$5,743	0.3%
Inspections and Permits	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Public Works	\$10,578	0.5%	\$4,986	0.5%	\$17,219	0.6%	\$10,523	0.5%	\$10,921	0.5%
Recreation and Parks	\$46,230	2.4%	\$21,820	2.3%	\$71,565	2.4%	\$46,230	2.4%	\$48,429	2.4%
Social Services	\$2,315	0.1%	\$1,157	0.1%	\$3,473	0.1%	\$2,315	0.1%	\$2,425	0.1%
Emergency Management	\$846	0.0%	\$423	0.0%	\$1,269	0.0%	\$846	0.0%	\$816	0.0%
State Agencies (Courts, State's Atty, Etc)	\$26,758	1.4%	\$10,694	1.1%	\$40,621	1.4%	\$26,735	1.4%	\$26,686	1.3%
Sheriff	\$7,464	0.4%	\$1,326	0.1%	\$13,841	0.5%	\$7,464	0.4%	\$8,112	0.4%
Aging	\$3,230	0.2%	\$2,365	0.2%	\$4,101	0.1%	\$3,230	0.2%	\$3,612	0.2%
Health	\$47,620	2.4%	\$23,665	2.5%	\$71,165	2.4%	\$47,620	2.4%	\$49,381	2.5%
Police	\$138,757	7.1%	\$73,667	7.7%	\$206,393	7.0%	\$136,150	7.0%	\$134,490	6.7%
Fire	\$83,058	4.2%	\$16,805	1.8%	\$147,881	5.0%	\$73,427	3.8%	\$72,403	3.6%
Detention	\$19,203	1.0%	\$9,602	1.0%	\$28,805	1.0%	\$19,044	1.0%	\$19,485	1.0%
Other	\$6,514	0.3%	\$3,257	0.3%	\$9,771	0.3%	\$6,514	0.3%	\$6,824	0.3%
TOTAL-General Fund	\$491,774	25%	\$219,309	23%	\$765,125	26%	\$479,171	25%	\$479,387	24%
<i>Component Units</i>										
Community College	\$92,315	4.7%	\$46,158	4.8%	\$138,474	4.7%	\$92,277	4.7%	\$89,032	4.4%
Library	\$45,092	2.3%	\$22,545	2.4%	\$67,637	2.3%	\$45,092	2.3%	\$47,237	2.3%
Schools	\$1,327,565	67.8%	\$663,762	69.7%	\$1,991,328	67.2%	\$1,327,565	68.3%	\$1,397,926	69.4%
TOTAL-Component Units	\$1,464,973	75%	\$732,465	77%	\$2,197,438	74%	\$1,464,934	75%	\$1,534,194	76%
GRAND TOTAL	\$1,956,746	100%	\$951,774	100%	\$2,962,564	100%	\$1,944,105	100%	\$2,013,582	100%

Figure 9. Average Annual Operating Expenditures from New Growth – Scenario Comparisons (x\$1,000)

Average Annual Operating Expenditures from New Growth - Scenario Comparisons (x\$1,000)										
<i>GROWTH SCENARIOS</i>										
Anne Arundel County, Maryland, Fiscal Impact Analysis										
Category	SCENARIO									
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%
Legislative	\$51	0.1%	\$25	0.1%	\$76	0.1%	\$51	0.1%	\$49	0.1%
County Executive	\$9	0.0%	\$5	0.0%	\$13	0.0%	\$9	0.0%	\$9	0.0%
Office of Law/Office of Admin Hearings	\$16	0.0%	\$8	0.0%	\$23	0.0%	\$15	0.0%	\$15	0.0%
CAO	\$15	0.0%	\$7	0.0%	\$22	0.0%	\$15	0.0%	\$14	0.0%
Central Services	\$254	0.3%	\$124	0.3%	\$390	0.3%	\$250	0.3%	\$250	0.3%
Finance	\$197	0.2%	\$98	0.2%	\$295	0.2%	\$197	0.2%	\$190	0.2%
Finance (Non-Departmental)	\$1,640	1.8%	\$820	1.9%	\$2,461	1.8%	\$1,640	1.9%	\$1,582	1.7%
Budget	\$10	0.0%	\$5	0.0%	\$15	0.0%	\$10	0.0%	\$10	0.0%
Personnel	\$160	0.2%	\$80	0.2%	\$240	0.2%	\$160	0.2%	\$154	0.2%
Information Technology	\$1,438	1.6%	\$719	1.7%	\$2,157	1.6%	\$1,438	1.6%	\$1,387	1.5%
Transportation	\$450	0.5%	\$225	0.5%	\$675	0.5%	\$450	0.5%	\$434	0.5%
Planning and Zoning	\$270	0.3%	\$135	0.3%	\$405	0.3%	\$270	0.3%	\$261	0.3%
Inspections and Permits	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Public Works	\$481	0.5%	\$227	0.5%	\$783	0.6%	\$478	0.5%	\$496	0.5%
Recreation and Parks	\$2,101	2.4%	\$992	2.3%	\$3,253	2.4%	\$2,101	2.4%	\$2,201	2.4%
Social Services	\$105	0.1%	\$53	0.1%	\$158	0.1%	\$105	0.1%	\$110	0.1%
Emergency Management	\$38	0.0%	\$19	0.0%	\$58	0.0%	\$38	0.0%	\$37	0.0%
State Agencies (Courts, State's Atty, Etc)	\$1,216	1.4%	\$486	1.1%	\$1,846	1.4%	\$1,215	1.4%	\$1,213	1.3%
Sheriff	\$339	0.4%	\$60	0.1%	\$629	0.5%	\$339	0.4%	\$369	0.4%
Aging	\$147	0.2%	\$107	0.2%	\$186	0.1%	\$147	0.2%	\$164	0.2%
Health	\$2,165	2.4%	\$1,076	2.5%	\$3,235	2.4%	\$2,165	2.4%	\$2,245	2.5%
Police	\$6,307	7.1%	\$3,348	7.7%	\$9,382	7.0%	\$6,189	7.0%	\$6,113	6.7%
Fire	\$3,775	4.2%	\$764	1.8%	\$6,722	5.0%	\$3,338	3.8%	\$3,291	3.6%
Detention	\$873	1.0%	\$436	1.0%	\$1,309	1.0%	\$866	1.0%	\$886	1.0%
Other	\$296	0.3%	\$148	0.3%	\$444	0.3%	\$296	0.3%	\$310	0.3%
TOTAL-General Fund	\$22,353	25.1%	\$9,969	23.0%	\$34,778	25.8%	\$21,780	24.6%	\$21,790	23.8%
<i>Component Units</i>										
Community College	\$4,196	4.7%	\$2,098	4.8%	\$6,294	4.7%	\$4,194	4.7%	\$4,047	4.4%
Library	\$2,050	2.3%	\$1,025	2.4%	\$3,074	2.3%	\$2,050	2.3%	\$2,147	2.3%
Schools	\$60,344	67.8%	\$30,171	69.7%	\$90,515	67.2%	\$60,344	68.3%	\$63,542	69.4%
TOTAL-Component Units	\$66,590	74.9%	\$33,294	77.0%	\$99,884	74.2%	\$66,588	75.4%	\$69,736	76.2%
GRAND TOTAL	\$88,943	100.0%	\$43,262	100.0%	\$134,662	100.0%	\$88,368	100.0%	\$91,526	100.0%

As shown above, the single largest annual operating cost is for Schools. The next highest amount is for Public Safety services, which includes Police, Fire, and Detention. A portion of operating costs are triggered by the construction of a capital facility. This is done for Fire Stations, Police Stations, and Senior Centers. Therefore, if a facility is built toward the end of the projection period, operating expenditures would be incurred in only a few years—generating a relatively lower cumulative and average annual operating cost.

CAPITAL EXPENDITURES

As documented in *Appendix B: LOS Document*, the approach of the Fiscal Impact Analysis is to project future capital needs primarily based on *current levels of service*, as articulated in the *Draft Development Impact Fee Study* (September 19, 2023, TischlerBise). No judgment is made as to whether the levels of service are adequate, inadequate, or better than adequate, nor are any assumptions made regarding future changes in levels of service (unless the assumption is based on a planned improvement). Additionally, it should be noted that a fiscal impact analysis, while projecting specific capital facilities, is different from a facility plan. Particularly, the results shown and discussed below reflect capacity needs due to *new growth only*. This may be different from a facility plan where needs may be due to existing deficiencies, different policies, demographic shifts, technological changes, etc.

All capital costs included in the analysis are modeled as “pay go.” By assuming pay go funding for all capital improvements, the true costs of capital impacts are depicted. If those facilities were bond financed, debt service would continue beyond the last projection year and therefore would not adequately be captured in this analysis. Furthermore, the interest cost associated with bond financing is largely offset by the time value of money gained by the County.

Capital expenditures are further detailed and shown below in two ways. First, *cumulative* capital costs reflecting needs from new growth over the 22-year development timeline are shown in Figure 10. Next, *average annual* capital expenditures (total capital expenditures divided by 22 years) are shown in Figure 11. Costs are in constant 2023 dollars and are shown in thousands.

Figure 10. Cumulative Capital Expenditures from New Growth – Scenario Comparisons (x\$1,000)

Cumulative (2024-2045) Capital Expenditures from New Growth - Scenario Comparisons (x\$1,000)										
GROWTH SCENARIOS										
Anne Arundel County, Maryland, Fiscal Impact Analysis										
Category	SCENARIO									
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%
Schools	\$340,057	33.0%	\$196,083	37.6%	\$520,372	33.6%	\$340,057	33.4%	\$340,599	33.8%
Recreation and Parks	\$111,740	10.8%	\$55,700	10.7%	\$164,770	10.6%	\$111,740	11.0%	\$115,210	11.4%
Roads	\$394,957	38.3%	\$197,472	37.9%	\$592,419	38.2%	\$384,684	37.7%	\$374,175	37.1%
Community College	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Library	\$33,600	3.3%	\$11,200	2.1%	\$44,800	2.9%	\$33,600	3.3%	\$33,600	3.3%
Aging (Senior Centers)	\$12,000	1.2%	\$6,000	1.2%	\$18,000	1.2%	\$12,000	1.2%	\$12,000	1.2%
Health (Health Centers)	\$15,680	1.5%	\$7,840	1.5%	\$23,520	1.5%	\$15,680	1.5%	\$15,680	1.6%
Police	\$42,784	4.1%	\$21,740	4.2%	\$64,292	4.1%	\$41,784	4.1%	\$41,016	4.1%
Fire	\$74,906	7.3%	\$22,563	4.3%	\$113,246	7.3%	\$74,120	7.3%	\$70,959	7.0%
Detention	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
General County	\$5,400	0.5%	\$3,000	0.6%	\$8,400	0.5%	\$5,400	0.5%	\$5,400	0.5%
TOTAL	\$1,031,124	100%	\$521,599	100.0%	\$1,549,819	100.0%	\$1,019,065	100.0%	\$1,008,639	100.0%

Figure 11. Average Annual Capital Expenditures from New Growth – Scenario Comparisons (x\$1,000)

Average Annual Capital Expenditures from New Growth - Scenario Comparisons (x\$1,000)											
GROWTH SCENARIOS											
Anne Arundel County, Maryland, Fiscal Impact Analysis											
Category	SCENARIO										
	1A. Base Case Trends	%	1B. Base Case Lower Growth	%	1C. Base Case Higher Growth	%	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	%	3. Shift Nonresidential to Residential in Select RPAs	%	
Schools	\$15,457	33.0%	\$8,913	37.6%	\$23,653	33.6%	\$15,457	33.4%	\$15,482	33.8%	
Recreation and Parks	\$5,079	10.8%	\$2,532	10.7%	\$7,490	10.6%	\$5,079	11.0%	\$5,237	11.4%	
Roads	\$17,953	38.3%	\$8,976	37.9%	\$26,928	38.2%	\$17,486	37.7%	\$17,008	37.1%	
Community College	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Library	\$1,527	3.3%	\$509	2.1%	\$2,036	2.9%	\$1,527	3.3%	\$1,527	3.3%	
Aging (Senior Centers)	\$545	1.2%	\$273	1.2%	\$818	1.2%	\$545	1.2%	\$545	1.2%	
Health (Health Centers)	\$713	1.5%	\$356	1.5%	\$1,069	1.5%	\$713	1.5%	\$713	1.6%	
Police	\$1,945	4.1%	\$988	4.2%	\$2,922	4.1%	\$1,899	4.1%	\$1,864	4.1%	
Fire	\$3,405	7.3%	\$1,026	4.3%	\$5,148	7.3%	\$3,369	7.3%	\$3,225	7.0%	
Detention	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	
General County	\$245	0.5%	\$136	0.6%	\$382	0.5%	\$245	0.5%	\$245	0.5%	
TOTAL	\$46,869	100.0%	\$23,709	100.0%	\$70,446	100.0%	\$46,321	100.0%	\$45,847	100.0%	

As shown above, road improvements represent the largest single growth-related capital cost item for the County in each scenario. The share of road capital costs to total projected capital costs is approximately 38 percent in all scenarios.

School capital costs are highest in the faster growth scenario (Scenario 1C). Due to the faster pace of growth, capacity in existing schools is used up faster and additional facilities are required. Approximately a third of capital costs are for schools in each scenario.

Public safety facilities vary based on the type and pace of growth with the need for fire and police stations being affected by the amount of growth projected. Additionally, facilities serving residential needs such as recreation and parks, library, aging, and health are affected by the pace of growth.

A summary of projected school capital facility needs is provided in Figure 12 and projections for all other County capital facility needs is summarized in Figure 13. (For level of service assumptions and cost factors, see the *LOS Document* issued under separate cover.)

Figure 12. Cumulative School Capital Needs and Costs

Category	Unit	SCENARIO									
		1A. Base Case Trends	Cost x\$1,000	1B. Base Case Lower Growth	Cost x\$1,000	1C. Base Case Higher Growth	Cost x\$1,000	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	Cost x\$1,000	3. Shift Nonresidential to Residential in Select RPAs	Cost x\$1,000
Elementary Schools	seats	2,500	\$125,500	1,000	\$50,200	4,000	\$200,800	2,500	\$125,500	2,500	\$125,500
Middle Schools	seats	400	\$21,000	200	\$10,500	800	\$42,000	400	\$21,000	400	\$21,000
High Schools	seats	3,500	\$183,400	2,500	\$131,000	5,000	\$262,000	3,500	\$183,400	3,500	\$183,400
Activity / Sp Ed Buses	vehicles	4	\$504	0	\$0	7	\$882	4	\$504	6	\$756
Admin Office Space	sq ft	28,000	\$6,695	13,000	\$3,107	42,000	\$10,282	28,000	\$6,695	28,000	\$6,695
Support Vehicles	vehicles	50	\$2,958	22	\$1,276	75	\$4,408	50	\$2,958	55	\$3,248
TOTAL			\$340,057		\$196,083		\$520,372		\$340,057		\$340,599

Figure 13. Cumulative County Capital Needs and Costs

Category	Unit	SCENARIO									
		1A. Base Case Trends	Cost x\$1,000	1B. Base Case Lower Growth	Cost x\$1,000	1C. Base Case Higher Growth	Cost x\$1,000	2. Conversion of Retail/Office to Industrial in Select RPAs/Residential Trends	Cost x\$1,000	3. Shift Nonresidential to Residential in Select RPAs	Cost x\$1,000
Parks Land	acres	992	\$76,640	500	\$38,500	1,491	\$114,620	992	\$76,640	1,023	\$78,630
Parks Amenities	units	124	\$32,300	62	\$16,400	186	\$48,550	124	\$32,300	130	\$33,780
Recreation Facilities	sq. ft.	7,000	\$2,800	2,000	\$800	4,000	\$1,600	7,000	\$2,800	7,000	\$2,800
County Roads	In mile	54	\$394,957	27	\$197,472	81	\$592,419	52	\$384,684	51	\$374,175
Community College	sq. ft.	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Library	sq. ft.	30,000	\$33,600	10,000	\$11,200	40,000	\$44,800	30,000	\$33,600	30,000	\$33,600
Senior Centers	sq. ft.	20,000	\$12,000	10,000	\$6,000	30,000	\$18,000	20,000	\$12,000	20,000	\$12,000
Health (Health Centers)	sq. ft.	14,000	\$15,680	7,000	\$7,840	21,000	\$23,520	14,000	\$15,680	14,000	\$15,680
Police Stations	sq. ft.	40,000	\$28,400	20,000	\$14,200	60,000	\$42,600	39,000	\$27,690	38,000	\$26,980
Police Vehicles	vehicle	248	\$14,384	130	\$7,540	374	\$21,692	243	\$14,094	242	\$14,036
County Offices	sq. ft.	9,000	\$5,400	5,000	\$3,000	14,000	\$8,400	9,000	\$5,400	9,000	\$5,400
Detention	beds	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Fire Stations	sq. ft.	20,000	\$28,000	0	\$0	30,000	\$42,000	20,000	\$28,000	20,000	\$28,000
Fire Apparatus	vehicle	26	\$20,236	13	\$10,117	40	\$30,352	25	\$19,450	24	\$18,067
Fire Facilities (Non-Station)	sq. ft.	15,000	\$26,670	7,000	\$12,446	23,000	\$40,894	15,000	\$26,670	14,000	\$24,892
TOTAL			\$691,067		\$325,516		\$1,029,447		\$679,008		\$668,040

Vehicles (under schools, police, and fire) are assumed to have useful lives shorter than the 22-year projection period. After the initial vehicle purchase, the model “repurchases” the vehicle once its useful life is reached. Figures shown above include both the initial purchase and replacement vehicles.

FISCAL ANALYSIS ZONE MAP

Figure 14. Region Plan Areas/Fiscal Analysis Zones

