

**Economic and Fiscal Impact Analysis  
Ashton Park  
Palm Bay (Brevard County), Florida**

**Prepared For:  
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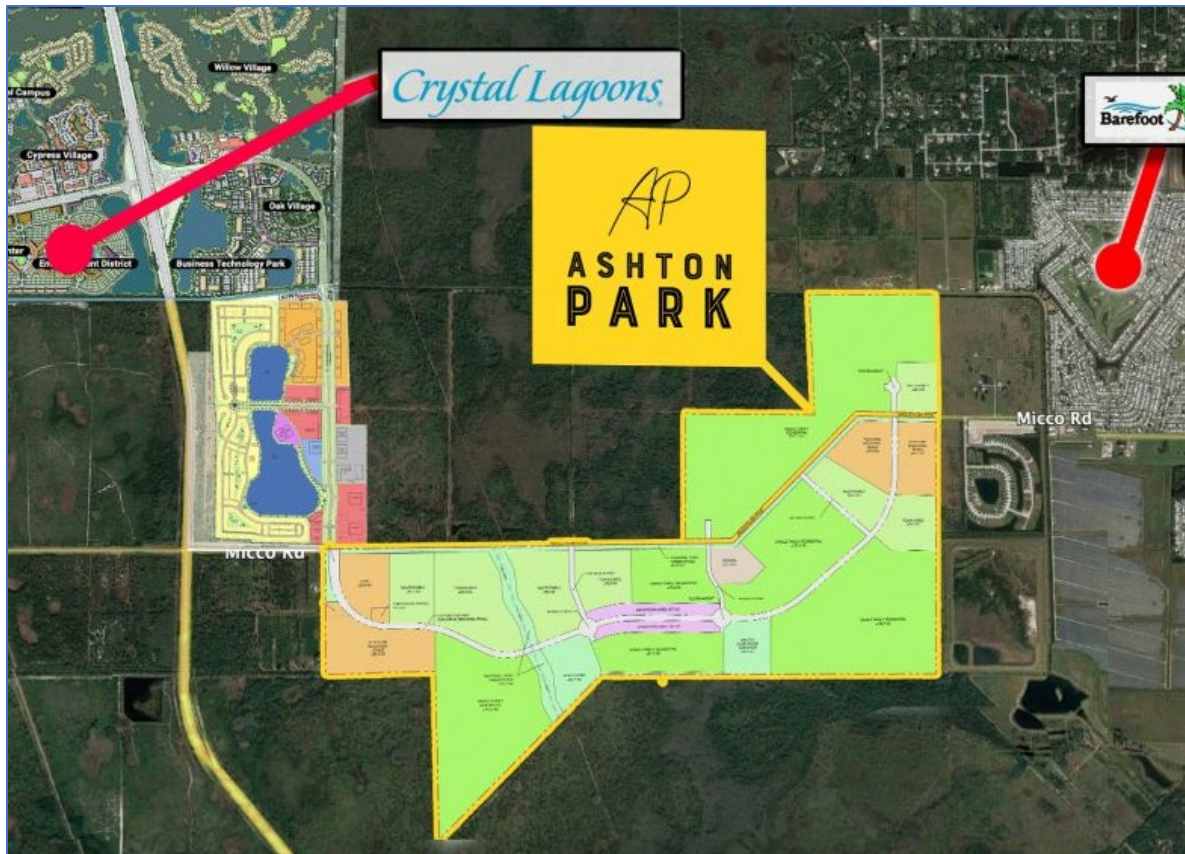
### *Report Disclaimer:*

*FEA makes no warranty, express or implied, regarding the completeness or accuracy of the base information provided to FEA that was used to generate the forecasts presented in this report. Future economic conditions not theorized in this analysis could substantially impact the rate and nature of forecasted projections within the area of study, thus resulting in outcomes that may substantially deviate from those offered in this document.*

## A: Study Introduction and Summary of Impacts

Florida Economic Advisors was retained by DIX Developments, LLC (the Client) to prepare an analysis which reviews the economic and fiscal impacts from the development of property referred to as *Ashton Park*, a mixed-use master-planned community in the City of Palm Bay (Brevard County), Florida.

### Subject Property Area



As part of this economic and fiscal impact analysis, FEA was asked to address the following:

1. Estimated annual ad valorem taxes directly generated by the proposed project for Brevard County, the City of Palm Bay, and Brevard County Public Schools;
2. The project's estimated impact fees;
3. Net operating fiscal impacts to the City of Palm Bay from project occupancy;
4. One-time construction economic impacts, and;
5. Annual ongoing economic impacts from project occupancy.

The proposed redevelopment is anchored by the following uses denoted in Table A.1.

**Table A.1:****Ashton Park - Palm Bay (Brevard County), Florida  
Development Program for Subject Property**

I. Single Family Residential	4,107 units
Average Size Per Unit	1,800 square feet
Average Market Value	\$181.17 per sq. foot
	\$326,107 per unit
II. Townhome	1,031 units
Average Size Per Unit	1,200 square feet
Average Market Value	\$158.81 per sq. foot
	\$190,574 per unit
III. Apartment	1,625 units
Average Size Per Unit	900 square feet
Average Market Value	\$138.61 per sq. foot
	\$124,745 per unit
IV. Commercial/Flex	5,400,000 square feet
Average Market Value	\$301.65 per sq. foot

Table A.2 presents the summary impacts to the City of Palm Bay and Brevard County (in addition to other taxing authorities) from successful construction and operation of the above-referenced program.

For this summary table, the following information is presented:

- Ad valorem revenue generation to local and regional taxing authorities, over 5, 10, and 20-year horizons from successful project development and operation.
- Net operating fiscal impacts (general fund revenues less costs of local service provision) to the City of Palm Bay over 5, 10, and 20-year horizons.
- One-time economic impacts from project construction. These impacts include output (sales), earnings (wages), and employment in Brevard County that is created and/or supported during the project's construction period.
- Annual recurring economic impacts from successful completion and operation of the project. Again, these impacts are focused on the Brevard County area, and include output (sales), earnings (wages), and employment.
- Estimated impact and connection fees to the City of Palm Bay from project development. These include fees for Roads, Police, Fire, Parks, Water, and Wastewater.

**Summary Table A.2**  
**Ashton Park**  
**City of Palm Bay (Brevard County), Florida**  
**Presentation of Economic and Fiscal Impacts**

FISCAL IMPACTS (5, 10, AND 20 YEAR HORIZONS)	5-Year Period	10-Year Period	20-Year Period
I. Ad Valorem Revenue			
City of Palm Bay	\$127,523,712	\$275,358,645	\$645,417,639
Brevard Co. Public Schools	\$102,704,417	\$221,766,984	\$519,803,267
St. Johns River WMD	\$2,884,992	\$6,229,488	\$14,601,398
Sebastian Inlet Dist.	\$1,715,227	\$3,703,644	\$8,681,032
Env. End LD/WTR	\$1,047,479	\$2,261,794	\$5,301,456
FIND	\$463,401	\$1,000,609	\$2,345,345
County Operating & Library	\$54,631,412	\$117,964,193	\$276,498,203
Mosquito Control	\$2,296,087	\$4,957,880	\$11,620,856
S. Brevard Rec. Dist.	\$4,233,359	\$9,140,983	\$21,425,699
Total Ad Valorem Revenue	\$297,500,085	\$642,384,220	\$1,505,694,896
II. Net Operating Fiscal Surplus to the City of Palm Bay Upon Completion	\$85,001,905	\$183,542,409	\$430,208,059
ECONOMIC IMPACTS	OUTPUT	EARNINGS	EMPLOYMENT
III. Construction Economic Impacts			
Direct	\$1,848,817,279	\$466,492,941	7,327
Indirect & Induced	\$1,101,895,098	\$618,577,920	13,632
Total	\$2,950,712,377	\$1,085,070,861	20,958
IV. Recurring Annual Economic Impacts			
Direct	\$2,480,388,270	\$507,468,974	13,715
Indirect & Induced	\$964,196,560	\$554,960,971	19,559
Total	\$3,444,584,830	\$1,062,429,945	33,274
IMPACT & CONNECTION FEE GENERATION			
Transportation Impact Fees		\$80,267,162	
Police Impact Fees		\$5,354,736	
Fire Impact Fees		\$8,339,561	
Parks Impact Fees		\$8,203,933	
Total Impact Fees		\$102,165,392	
Water Connection Fees		\$14,331,624	
Wastewater Connection Fees		\$23,081,678	

**B: Project Economic/Fiscal Impacts, and Explanation of Analysis and Methodologies for the Study**

The property comprising the Ashton Park project includes 19 tax parcels totaling 1512.2 +/- acres. These 19 parcels currently have an aggregate assessed value of \$21,095,440, for an average value of \$13,949.89 per acre. The vertical development program for the project’s income-generating uses, presented in Table A.1, includes the following:

- Single Family Residential: 4,107 units
- Townhome: 1,031 units
- Multifamily Rental: 1,625 units
- Commercial/Flex: 5.4 million square feet

Table B.1, presented below, estimates the buildout market value of this development at \$3.37 billion, almost 160x the property’s current assessed value. Assuming this value would be reflective of an assessed value, taxable values are calculated at 90% of assessed value. This would reflect a taxable value for project development of \$3.03 billion. This valuation drives the ad valorem revenue estimates presented in later report tables.

<b>Table B.1:</b>	
<b>Ashton Park - Palm Bay (Brevard County), Florida</b>	
<b>Project Valuation Assumptions</b>	
<b>(2023 Dollars)</b>	
	<u>Phase 1</u>
MARKET/JUST VALUATION	\$3,367,424,997
TAXABLE VALUATION @ 90%	\$3,030,682,498

The subject property is located within the city of Palm Bay, with a total ad valorem assessment of 18.4894 mills. The various taxing authorities and their corresponding millages are listed below in Table B.2. Project taxable value is multiplied by the millage rates for each of the corresponding local and regional taxing authorities to arrive at estimates of ad valorem revenue generation for each of the local and regional authorities. These authorities include:

- The City of Palm Bay
- Brevard County
- Brevard County Schools
- South Brevard Recreational District
- St. Johns River Water Management District
- Florida Inland Navigation District (FIND)

- Sebastian Inlet District
- Environmental End LD/WTR LD

Table B.3 presents annual estimates of ad valorem revenue generation for each of the taxing authorities previously noted from project development. These estimates are calculated over a 20-year time period and assume a fully built-out and occupied project, as well as 3 percent annual escalation in property values.

<b>Table B.2:</b>	
<b>Ashton Park - Palm Bay (Brevard County), Florida</b>	
<b>Applicable Ad Valorem Millages</b>	
<i>Millage Code - 34U0</i>	
City of Palm Bay	
Palm Bay Operating	7.0171
Palm Bay Road	0.9084
TOTAL CITY OF PALM BAY	7.9255
Brevard County Schools	
Operating + Voted Teacher Pay	4.8830
Capital Outlay	1.5000
TOTAL BREVARD CO. SCHOOLS	6.3830
Regional Millages	
St. Johns River WMD	0.1793
Sebastian Inlet District	0.1066
Env. End LD/WTR LD + DBTP	0.0651
FIND*	0.0288
Countywide Millages	
County Operating & Library	3.3953
Brevard Mosquito Control	0.1427
S. Brevard Rec. Dist + DBTP	0.2631
<i>*FIND = Florida Inland Navigation District</i>	



**Table B.3:**

**Ashton Park - Palm Bay (Brevard County), Florida  
Ad Valorem Revenue Estimates from Project**

Year	Assessed/Txbl. Valuation	City of Palm Bay	Brev. Co. Pub. Schools	St. Johns River WMD	Sebastian Inlet Dist.	Env. End LD/WTR	AD VALOREM REVENUE ESTIMATES					Mosquito Control	S. Brev. Rec. Dist	TOTAL
							FIND	County Op & Library						
1	\$3,030,682,498	\$24,019,674	\$19,344,846	\$543,401	\$323,071	\$197,297	\$87,284	\$10,290,076				\$432,478	\$797,373	\$56,035,501
2	\$3,121,602,973	\$24,740,264	\$19,925,192	\$559,703	\$332,763	\$203,216	\$89,902	\$10,598,779				\$445,453	\$821,294	\$57,716,566
3	\$3,215,251,062	\$25,482,472	\$20,522,948	\$576,495	\$342,746	\$209,313	\$92,599	\$10,916,742				\$458,816	\$845,933	\$59,448,063
4	\$3,311,708,594	\$26,246,946	\$21,138,636	\$593,789	\$353,028	\$215,592	\$95,377	\$11,244,244				\$472,581	\$871,311	\$61,231,505
5	\$3,411,059,851	\$27,034,355	\$21,772,795	\$611,603	\$363,619	\$222,060	\$98,239	\$11,581,572				\$486,758	\$897,450	\$63,068,450
6	\$3,513,391,647	\$27,845,385	\$22,425,979	\$629,951	\$374,528	\$228,722	\$101,186	\$11,929,019				\$501,361	\$924,373	\$64,960,504
7	\$3,618,793,396	\$28,680,747	\$23,098,758	\$648,850	\$385,763	\$235,583	\$104,221	\$12,286,889				\$516,402	\$952,105	\$66,909,319
8	\$3,727,357,198	\$29,541,169	\$23,791,721	\$668,315	\$397,336	\$242,651	\$107,348	\$12,655,496				\$531,894	\$980,668	\$68,916,598
9	\$3,839,177,914	\$30,427,405	\$24,505,473	\$688,365	\$409,256	\$249,930	\$110,568	\$13,035,161				\$547,851	\$1,010,088	\$70,984,096
10	\$3,954,353,252	\$31,340,227	\$25,240,637	\$709,016	\$421,534	\$257,428	\$113,885	\$13,426,216				\$564,286	\$1,040,390	\$73,113,619
11	\$4,072,983,849	\$32,280,433	\$25,997,856	\$730,286	\$434,180	\$265,151	\$117,302	\$13,829,002				\$581,215	\$1,071,602	\$75,307,028
12	\$4,195,173,365	\$33,248,847	\$26,777,792	\$752,195	\$447,205	\$273,106	\$120,821	\$14,243,872				\$598,651	\$1,103,750	\$77,566,238
13	\$4,321,028,566	\$34,246,312	\$27,581,125	\$774,760	\$460,622	\$281,299	\$124,446	\$14,671,188				\$616,611	\$1,136,863	\$79,893,226
14	\$4,450,659,423	\$35,273,701	\$28,408,559	\$798,003	\$474,440	\$289,738	\$128,179	\$15,111,324				\$635,109	\$1,170,968	\$82,290,022
15	\$4,584,179,205	\$36,331,912	\$29,260,816	\$821,943	\$488,674	\$298,430	\$132,024	\$15,564,664				\$654,162	\$1,206,098	\$84,758,723
16	\$4,721,704,581	\$37,421,870	\$30,138,640	\$846,602	\$503,334	\$307,383	\$135,985	\$16,031,604				\$673,787	\$1,242,280	\$87,301,485
17	\$4,863,355,719	\$38,544,526	\$31,042,800	\$872,000	\$518,434	\$316,604	\$140,065	\$16,512,552				\$694,001	\$1,279,549	\$89,920,529
18	\$5,009,256,390	\$39,700,862	\$31,974,084	\$898,160	\$533,987	\$326,103	\$144,267	\$17,007,928				\$714,821	\$1,317,935	\$92,618,145
19	\$5,159,534,082	\$40,891,887	\$32,933,306	\$925,104	\$550,006	\$335,886	\$148,595	\$17,518,166				\$736,266	\$1,357,473	\$95,396,689
20	\$5,314,320,105	\$42,118,644	\$33,921,305	\$952,858	\$566,507	\$345,962	\$153,052	\$18,043,711				\$758,353	\$1,398,198	\$98,258,590
<b>TOTALS:</b>		<b>\$645,417,639</b>	<b>\$519,803,267</b>	<b>\$14,601,398</b>	<b>\$8,681,032</b>	<b>\$5,301,456</b>	<b>\$2,345,345</b>	<b>\$276,498,203</b>	<b>\$11,620,856</b>	<b>\$21,425,699</b>	<b>\$1,505,694,896</b>			



Table B.4 illustrates the applicable impact fee schedule for Ashton Park, given the subject property's location:

<b>Table B.4:</b>				
<b>Ashton Park - Palm Bay (Brevard County), Florida</b>				
<b>Impact Fee Schedule - City of Palm Bay</b>				
	Single Family (Per DU)	Townhome (Per DU)	MF Apt. (Per DU)	Com./Flex (Per 1,000 SF)
Transportation	\$4,353.00	\$2,868.63	\$2,868.63	\$10,142.65
Police	\$398.15	\$323.07	\$323.07	\$529.90
Fire	\$620.09	\$503.16	\$503.16	\$825.27
Parks	\$1,310.08	\$1,063.04	\$1,063.04	\$0.00
<i>Total</i>	<i>\$6,681.32</i>	<i>\$4,757.90</i>	<i>\$4,757.90</i>	<i>\$11,497.82</i>
<i>Source: City of Palm Bay</i>				

Based on the rates denoted in Table B.4, applicable water and wastewater connection fee rates, and the project's development program, construction for Ashton Park is estimated to generate \$102.2 million in development impact fees, and \$37.4 million in water/wastewater connection fees.

<b>Table B.5:</b>					
<b>Ashton Park - Palm Bay (Brevard County), Florida</b>					
<b>Estimated Impact Fee Generation - City of Palm Bay</b>					
<i>Based on SF Inventory of;</i>	<i>4,107 DUs</i>				
<i>Townhome Inventory of;</i>	<i>1,031 DUs</i>				
<i>MF Apt. Inventory of</i>	<i>1,625 DUs</i>				
<i>and Comm./Flex Inventory of</i>	<i>5,400,000 sq. ft.</i>				
	<u>Single Family</u>	<u>Townhome</u>	<u>MF Apt.</u>	<u>Comm/Flex</u>	<u>Total</u>
Roads (Per SF)	\$17,877,771	\$2,957,558	\$4,661,524	\$54,770,310	\$80,267,162
Police	\$1,635,202	\$333,085	\$524,989	\$2,861,460	\$5,354,736
Fire	\$2,546,710	\$518,758	\$817,635	\$4,456,458	\$8,339,561
Parks	\$5,380,499	\$1,095,994	\$1,727,440	\$0	\$8,203,933
<b>Total Impact Fees</b>	<b>\$27,440,181</b>	<b>\$4,905,395</b>	<b>\$7,731,588</b>	<b>\$62,088,228</b>	<b>\$102,165,392</b>

**Table B.6:****Ashton Park - Palm Bay (Brevard County), Florida****Estimated Connection Charges - City of Palm Bay**

Water	\$2,049.00 per ERC
1 Multifamily ERC =	0.833 ERC
1 Comm. ERC (per 1,000 sq. ft.):	0.125 ERC
Wastewater	\$3,300.00 per ERC
1 Multifamily ERC =	0.833 ERC
1 Comm. ERC (per 1,000 sq. ft.):	0.125 ERC
Total Water Capital Charge	\$14,331,624
Total Wastewater Capital Charge	\$23,081,678

Fiscal impact analysis, as defined by Burchell, et. al. in *The New Practitioner's Guide to Fiscal Impact Analysis*, is "a projection of the direct, current, public costs and revenues associated with residential or nonresidential growth to the local jurisdiction in which this growth takes place." The Ashton Park fiscal analysis is the product of a customized input-output model based on the existing (FY 2022-23) general fund budget structure of the City of Palm Bay. The model uses a modified-per capita, average cost approach to determining net fiscal impacts. The "modified" per capita reference to the fiscal methodology indicates that operating revenue and cost projections are not *solely* based on new population growth.

**Table B.7:**  
**Ashton Park**  
**Fiscal Impact Analysis - City of Palm Bay FY 2023**

General Fund Revenue Sources	
Ad Valorem Taxes	46,620,000
Sales, Use & Fuel Taxes	3,610,000
Franchise Fees	6,749,000
Utility Taxes	9,835,000
Communications Services Tax	2,780,000
Licenses & Permits	719,800
Intergovernmental Revenues	15,687,559
Charges for Services	6,089,849
Fines & Forfeitures	436,800
Miscellaneous Revenues	2,103,613
Capital Contributions	0
Transfers In	2,411,759
TOTALS	97,043,380
Less Ad Val, Transfers In	48,011,621
GF Expenditures by Department	
Legislative	950,436
Office of City Manager	1,567,391
Office of City Attorney	530,220
Procurement	545,491
Finance	1,624,680
Information Technology	6,968,749
Human Resources	770,459
Growth Management	1,754,586
Community & Economic Development	1,222,985
Parks, Recreation & Facilities	10,155,094
Police	29,388,690
Fire	20,631,990
Public Works	7,987,628
Transfers Out	8,219,514
Non-Departmental	5,999,658
TOTALS	98,317,571
Less Transfers Out	90,098,057

In order to enhance the forecast accuracy of the fiscal model, several adjustments have been made:

- Ad valorem revenue projections are based on estimates of the future value of new residential and nonresidential development, applying local millages to the projected annual values.
- Major revenue and expense items were allocated across the local population and employment base, as opposed to just the population. This helps to account for the fact

that the city budget serves residents *and* employees, as well as residential *and* nonresidential development. To illustrate, we look at the modified per capita allocation for Public Works in the City of Palm Bay. Budget estimates indicate a FY 2022-23 general fund expenditure of nearly \$8 million. This cost allocation is divided by a city population of 126,748 and an employment base of 57,097:

$$\frac{\$7,987,628}{126,748 + 57,097} = \$43.45 \text{ per capita/employee}$$

The “employee” factor in the formula denominator is used as a proxy for local businesses served by City government functions, and should not be mis-interpreted as an FTE employment estimate. The per capita/employee estimates are applied to the forecasts of population and employment growth, in order to generate projections of annual non-ad valorem operating revenue and costs attributable to the City of Palm Bay from new population and employment within Ashton Park. The non-ad valorem aggregate revenue and cost metrics used for this project are as follows:

- Total non-ad valorem operating revenue: \$261.15 per capita/employee  
(this estimate also nets out transfers and carryforwards in as revenue sources)
- Total operating expenditures: \$490.08 per capita/employee

The “netting out” of the aforementioned budget items is necessary to isolate revenue and expenditure categories that are only attributable to new growth and development, as is the case with this project.

The Project buildout resident population for Ashton Park is estimated at 15,555 persons (@ 2.3 persons per household), and the attendant employment base is projected to be 13,715 FTE workers, considering the residential and nonresidential uses.

Given the aforementioned methodology and assumptions, Table B.8 illustrates the annual net fiscal impacts to the City of Palm Bay from Ashton Park over a 20-year horizon. In total, the project is estimated to generate a \$430.2 million operating fiscal surplus to the City of Palm Bay for the 20-year period following full project occupancy.

**Table B.8:****Ashton Park****Annual Operating (General Fund) Fiscal Impacts to the City  
of Palm Bay Upon Project Completion - 20 Year Horizon**

<u>Year</u>	<u>Ad Valorem Revenues</u>	<u>Non Ad-Valorem Revenues</u>	<u>Operating Expenditures</u>	<u>Net Fiscal Impact</u>
1	\$24,019,674	\$7,643,898	\$15,653,075	\$16,010,497
2	\$24,740,264	\$7,873,215	\$16,122,667	\$16,490,812
3	\$25,482,472	\$8,109,412	\$16,606,347	\$16,985,537
4	\$26,246,946	\$8,352,694	\$17,104,538	\$17,495,103
5	\$27,034,355	\$8,603,275	\$17,617,674	\$18,019,956
6	\$27,845,385	\$8,861,373	\$18,146,204	\$18,560,554
7	\$28,680,747	\$9,127,214	\$18,690,590	\$19,117,371
8	\$29,541,169	\$9,401,031	\$19,251,308	\$19,690,892
9	\$30,427,405	\$9,683,062	\$19,828,847	\$20,281,619
10	\$31,340,227	\$9,973,553	\$20,423,712	\$20,890,068
11	\$32,280,433	\$10,272,760	\$21,036,424	\$21,516,770
12	\$33,248,847	\$10,580,943	\$21,667,517	\$22,162,273
13	\$34,246,312	\$10,898,371	\$22,317,542	\$22,827,141
14	\$35,273,701	\$11,225,322	\$22,987,068	\$23,511,955
15	\$36,331,912	\$11,562,082	\$23,676,680	\$24,217,314
16	\$37,421,870	\$11,908,944	\$24,386,981	\$24,943,833
17	\$38,544,526	\$12,266,213	\$25,118,590	\$25,692,148
18	\$39,700,862	\$12,634,199	\$25,872,148	\$26,462,913
19	\$40,891,887	\$13,013,225	\$26,648,312	\$27,256,800
20	\$42,118,644	\$13,403,622	\$27,447,762	\$28,074,504
<b>TOTALS:</b>	<b>\$645,417,639</b>	<b>\$205,394,407</b>	<b>\$420,603,987</b>	<b>\$430,208,059</b>

We now turn to the discussion of estimated economic impacts to the Brevard County economy from the construction and occupancy of Ashton Park. While fiscal impact analysis focuses on revenues and costs attributable to local government from the development and operation of a project, economic impact analysis addresses matters related to the creation and sustainability of business activities. These activities are frequently measured in terms of business output (sales), job creation, and employee earnings. Another distinguishing feature of economic impact analysis is its ability to measure the dynamic nature of economic relationships, where the operation of a single enterprise spins off additional business activity in other supporting industry sectors. Economists use a technique called *multiplier analysis* to estimate what the overall impacts to an area may be, from a single economic activity or event. For purposes of this work program, FEA employed the RIMS-II Regional Input-Output Modeling System to estimate the expected economic impacts to Brevard County from

Ashton Park. Further technical descriptions of the RIMS-II system are provided at the end of this report section.

In order to have a basic understanding of the direct economic activity that will be created by project construction of Ashton Park we first need to determine the number of construction personnel that will be working onsite, and what level of output and earnings they will generate. This methodology is summarized in Table B.9.

<b>Table B.9:</b>	
<b>Ashton Park</b>	
<b>Palm Bay (Brevard County), Florida</b>	
<b>Estimates of Total Economic Activity from Construction</b>	
1 Total Value of Construction, United States	\$2,027,100,000,000
2 Total Construction Employment, United States	8,033,000
3 Constuction Value Output Per Employee (1 / 2)	\$252,347
4 Construction Value of Project	\$1,848,817,279
5 Estimated # of Construction Employees, Project (4 / 3)	7,327
6 Avg. Construction Wage, Brevard County	\$63,672
7 Aggregate Construction Employee Earnings, Project (5 x 6)	\$466,492,941
<i>Footnotes:</i>	
(1) Source: U.S. Bureau of the Census	
(2) Source: U.S. Department of Labor	
(4) Source: FEA (@ 54.9% of market value)	
(6) Source: Florida Commerce	

Aggregate labor estimates indicate that the 8.03 million construction employees in the United States were responsible for creating \$2.03 trillion worth of annual construction value, for a value per employee of \$252,347. Applying that value per employee to the subject property's estimated \$1.85 billion construction value would suggest the project will directly employ 6,829 full-time equivalent (FTE) construction workers. At an average annual wage of \$63,672, these workers would realize \$466.5 million in aggregate annual earnings for the project's construction life. This means that direct construction economic impacts to Brevard County of Ashton Park are as follows:

- Output: \$1,848,817,279
- Earnings: \$466,492,941
- Employment: 7,327 FTE Jobs

Now with an understanding of the direct economic impacts, we transition to the RIMS-II multiplier model to see how much additional economic activity would be generated or supported in Brevard County as a result of project construction.

Two additional waves of economic activity will be generated from the onsite construction activity at Ashton Park. These are called *indirect* and *induced* impacts. Indirect impacts result from the activity of area businesses who would be direct suppliers to the construction companies building the project. Examples could include building materials suppliers, accountants, or other businesses supporting the construction firms building the project. Induced impacts are those impacts created from the spending of the construction employees at local area businesses for personal goods and services. In this case, think grocers, dry cleaners, restaurants, etc.

<b>Table B.10:</b> <b>Ashton Park</b> <b>Palm Bay (Brevard County), Florida</b> <b>Estimates of Total Economic Activity from Construction</b>				
Economic Variable	RIMS-II Multipliers	Direct Impacts	Indirect/Induced Impacts	Total Impacts
Output	1.5960	\$1,848,817,279	\$1,101,895,098	\$2,950,712,377
Earnings	0.5869	\$466,492,941	\$618,577,920	\$1,085,070,861
Employment	11.3361	7,327	13,632	20,958

The RIMS-II final demand multipliers, developed by the U.S. Department of Commerce, are a result of systematic analysis conducted by regional economists that evaluate changes in the economic output of all area industries resulting from changes in a single industry. All multipliers are driven from direct output, and result in total impact projections for output, employment, and earnings. From these direct and total impact estimates, analysts can “back into” calculations for indirect and induced output, earnings, and employment for the market.

Thus, while construction at Ashton Park will generate \$1.85 billion in direct business output, \$466.5 million in direct employee earnings, and 7,327 FTE jobs, economic spinoff effects will create or support an additional \$1.1 billion in output, \$618.6 million in earnings, and 13,632 jobs. This creates total economic activity in Brevard County of \$2.95 billion in business output, \$1.09 billion in earnings, and 20,958 FTE jobs.

An important note: These impacts are evaluated as “one-time” impacts for the construction life of the project and should not be interpreted as recurring impacts once the project is completed. All values are shown in current year dollars.

Permanent (recurring) economic impacts for Ashton Park will come from the direct spending of households living in the project, as well as the ongoing business activities in the commercial/flex components of this project. Table B.11 summarizes these annual, ongoing impacts.



**Table B.11:**  
**Ashton Park**  
**Palm Bay (Brevard County), Florida**  
**Estimates of Total Economic Activity from Construction**

*Single Family Residential*

Economic Variable	RIMS-II Multipliers	Direct Impacts	Indirect/Induced Impacts	Total Impacts
Output**	1.0375	\$142,820,024	\$5,355,751	\$148,175,774
Earnings	0.2059	\$3,458,094	\$25,948,549	\$29,406,643
Employment	4.9956	82	631	713

*\*\*Note: Value Added multiplier of 0.3936 was added to the output multiplier of 0.6439 in order to account for output driven by household spending*

*Townhome*

Economic Variable	RIMS-II Multipliers	Direct Impacts	Indirect/Induced Impacts	Total Impacts
Output**	1.0375	\$20,952,039	\$785,701	\$21,737,741
Earnings	0.2059	\$2,170,255	\$2,143,770	\$4,314,025
Employment	4.9956	52	53	105

*\*\*Note: Value Added multiplier of 0.3936 was added to the output multiplier of 0.6439 in order to account for output driven by household spending*

*Multifamily Residential*

Economic Variable	RIMS-II Multipliers	Direct Impacts	Indirect/Induced Impacts	Total Impacts
Output**	1.0375	\$21,616,207	\$810,608	\$22,426,815
Earnings	0.2059	\$3,420,625	\$1,030,152	\$4,450,777
Employment	4.9956	81	27	108

*\*\*Note: Value Added multiplier of 0.3936 was added to the output multiplier of 0.6439 in order to account for output driven by household spending*

*Commercial/Flex*

Economic Variable	RIMS-II Multipliers	Direct Impacts	Indirect/Induced Impacts	Total Impacts
Output**	1.4171	\$2,295,000,000	\$957,244,500	\$3,252,244,500
Earnings	0.4463	\$498,420,000	\$525,838,500	\$1,024,258,500
Employment	14.0951	13,500	18,848	32,348

*Total*

Economic Variable	RIMS-II Multipliers	Direct Impacts	Indirect/Induced Impacts	Total Impacts
Output**		\$2,480,388,270	\$964,196,560	\$3,444,584,830
Earnings		\$507,468,974	\$554,960,971	\$1,062,429,945
Employment		13,715	19,559	33,274

*\*\*Note: Value Added multiplier of 0.3936 was added to the output multiplier of 0.6439 in order to account for output driven by household spending*

Once Ashton Park project is fully built-out and occupied, the project will generate \$2.48 billion in direct business output, \$507.5 million in direct employee earnings, and 13,715 FTE jobs. The economic spinoff effects will create or support an additional \$964.2 million in output, \$555 million in earnings, and 19,559 jobs. This creates total economic activity in Brevard County of \$3.44 billion in business output, \$1.06 billion in earnings, and 33,274 FTE jobs.

An important note: All of the economic impacts are evaluated as recurring, annual impacts for the duration of the project's life, once it is completed. All values are shown in current year dollars. The economic impacts to Brevard County from the proposed development program were estimated using the RIMS-II economic impact model methodology. This methodology is discussed in the final section of this report.

RIMS II multipliers can be estimated for any region composed of one or more counties and for any industry, or group of industries, in the national I-O table. These multipliers are best suited for estimating the impacts of small changes on a regional economy. To effectively use the multipliers for impact analysis, users must provide geographically and industrially detailed information on the initial changes in output, earnings, or employment that are associated with the project or program under study. The multipliers can then be used to estimate the total impact of the project or program on regional output, earnings, and employment.

Systematic analysis of economic impacts must account for the inter-industry relationships within regions because these relationships largely determine how regional economies are likely to respond to project and program changes. Thus, regional input-output (I-O) multipliers, which account for inter-industry relationships within regions, are useful tools for conducting economic impact analysis.

RIMS II is based on an accounting framework called an I-O table. For each industry, an I-O table shows the industrial distribution of inputs purchased and outputs sold. A typical I-O table in RIMS II is derived mainly from two data sources: The U.S. Bureau of Economic Analysis (BEA) national I-O table, which shows the input and output structure of nearly 500 U.S. industries, and BEA's regional economic accounts, which are used to adjust the national I-O table to show a region's industrial structure and trading patterns.

The national I-O table, which shows the input and output structure for approximately 500 industries. Since a particular region may not contain all the industries found at the national level, some direct input requirements cannot be supplied by that region's industries. Input requirements that are not produced in a study region are identified using BEA's regional economic accounts.

The RIMS II method for estimating regional I-O multipliers can be viewed as a three-step process. In the first step, the producer portion of the national I-O table is made region-specific by using four-digit SIC location quotients. In the second step, the household column

from the national I-O table is made region-specific. In the last step, the Leontief inversion approach is used to estimate multipliers. This inversion approach produces output, earnings, and employment multipliers, which can be used to trace the impacts of changes in final demand on the directly and indirectly affected industries.

Empirical tests indicate that RIMS II yields multipliers that are not substantially different in magnitude from those generated by regional I-O models based on highly specified and expensive surveys. For example, a comparison of 224 industry-specific multipliers from survey-based tables for Texas, Washington, and West Virginia indicates that RIMS II average multipliers overstate the average multipliers from the survey-based tables by approximately 5 percent. For the majority of individual industry-specific multipliers, the difference between RIMS II and survey-based multipliers is less than 10 percent. In addition, RIMS II and survey multipliers show statistically similar distributions of affected industries.

Industry Category	Spending has to be classified by spending category consistent with the industry classification used by RIMS (see section below on spending categories).
Year of Expenditure	The time of expenditure needs to be specified in order to determine the time period of the economic consequences and in order to adjust the spending to current dollars for use in the estimation of jobs. The RIMS models were calibrated on current dollars and the estimate of jobs requires spending inputs in terms of current dollars.
Location	The spending location also needs to be specified so that the multipliers for the appropriate region can be applied.

In order to apply RIMS II multipliers, direct economic data for the project in question is required. The results of a RIMS II analysis are expressed in terms of three measures of economic activity: Earnings (sometimes expressed as wages and salaries), Output (sometimes referred to as economic activity, or sales), and Jobs.

Earnings	Earnings refers to a measure, expressed in millions of dollars, of the change in the value earnings that are received by households from the production of regional goods and services for the time period covered by the cost estimate.
Output	This is a measure of the economic activity created by the spending. It refers to the change in the dollar value of production in all sectors of the economy to satisfy the new demands resulting from spending. Each time a dollar changes hands for products or services it increases the measure of output. By including products as well as labor, the output measure is inclusive of and typically significantly larger than the measure of earnings. Economic output is typically referred to as the Gross Domestic Product (GDP) at the national level. The measure of output is in the same year dollars as the measure of spending used in the calculation.

Jobs	This measure refers to the employment or jobs expressed as full-time person years of employment. The measure refers to person years of employment, regardless of the term over which spending is aggregated in the input. Jobs are estimated by adjusting the year of spending to calibration year dollars. The jobs multipliers are expressed in terms of jobs per million dollars of spending.
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For more technical detail on the RIMS II economic impact modeling process, the RIMS-II model user's guide may be accessed from the U.S. Department of Commerce Bureau of Economic Analysis at <https://www.bea.gov/resources/methodologies/RIMSI-user-guide>.