Martin County
Impact Fee Update Study

Final Report
September 8, 2023

Prepared for:

Martin County
2401 SE Monterey Road
Stuart, Florida 34996
ph (772) 288-5495

Prepared by:

Benesch
1000 N. Ashley Dr., Suite 400
Tampa, Florida 33602
ph (813) 224-8862
fax (813) 226-2106
E-mail: nkamp@benesch.com

Martin County
Impact Fee Update Study

Table of Contents

Appendices:

I. Introduction

Martin County is continuing to experience growth, ranking among the top half of Florida counties in terms of its growth rate. To address growth related infrastructure needs, the County implemented impact fees in seven service areas. The technical study for these fees was last updated in 2012. To reflect current data and analysis, Martin County retained Benesch to update the technical study for the following impact fee areas:

- Fire Rescue
- Law Enforcement/Correctional
- Public Buildings
- Libraries
- Parks & Recreation
- Conservation/Open Space
- Transportation

It should be noted that the inventory, cost, and credit figures included in this study reflect data collected and analyzed from 2019 to 2021. The demand component was updated in 2023 to reflect the recently published ITE Trip Generation Handbook 11th Edition and new population estimates provided by the US Census 2020 and American Community Survey. This report serves as the technical study to support the calculation of the updated impact fees. All data and support material used in this analysis are incorporated by reference as set forth in this document.

The figures calculated in this study represent the technically defensible level of impact fees that the County could charge; however, the Board of County Commissioners may choose to discount the fees as a policy decision.

Methodology

In updating the County's impact fee program, a consumption-based impact fee methodology is utilized, which is commonly used throughout Florida and is also the County's current adopted methodology. A consumption-based impact fee charges new development based upon the burden placed on services from each land use (demand). The demand component is measured in terms of population per unit in the case of all impact fee program areas in this study except for transportation. In the case of multi-modal transportation impact fee, person-miles of travel is used.

A consumption-based impact fee charges new growth the proportionate share of the cost of providing additional infrastructure available for use by new growth. Unlike a "needs-based" approach, the consumption-based approach ensures that the impact fee is set at a rate that does not generate sufficient revenues to correct existing deficiencies. Under this methodology, the County does not need to go through the process of estimating the portion of each capacity expansion project that may be related to existing deficiencies. In addition, per legal requirements, a credit is subtracted from the total cost to account for the value of future tax contributions of new development toward any capacity expansion projects. In other words, case law requires that the new development should not be charged twice for the same service.

Legal Overview

In Florida, legal requirements related to impact fees have primarily been established through case law since the 1980's. Impact fees must comply with the "dual rational nexus" test, which requires that they:

- Be supported by a study demonstrating that the fees are proportionate in amount to the need created by new development paying the fee; and
- Be spent in a manner that directs a proportionate benefit to new development, typically accomplished through establishment of benefit districts (if needed) and a list of capacity-adding projects included in the County's Capital Improvement Plan, Capital Improvement Element, or another planning document/Master Plan.

In 2006, the Florida legislature passed the "Florida Impact Fee Act," which recognized impact fees as "an outgrowth of home rule power of a local government to provide certain services within its jurisdiction." § 163.31801(2), Fla. Stat. The statute – concerned with mostly procedural and methodological limitations – did not expressly allow or disallow any particular public facility type from being funded with impact fees. The Act did specify procedural and methodological prerequisites, such as the requirement of the fee being based on most recent and localized data, a 90-day requirement for fee changes, and other similar requirements, most of which were common to the practice already.

More recent legislation further affected the impact fee framework in Florida, including the following:

- **HB 227 in 2009:** The Florida legislation statutorily clarified that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the

evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard.

- **SB 360 in 2009:** Allowed fees to be decreased without the 90-day notice period required to increase the fees and purported to change the standard of legal review associated with impact fees. SB 360 also required the Florida Department of Community Affairs (now the Department of Commerce) and Florida Department of Transportation (FDOT) to conduct studies on "mobility fees," which were completed in 2010.
- **HB 7207 in 2011:** Required a dollar-for-dollar credit, for purposes of concurrency compliance, for impact fees paid and other concurrency mitigation required.
- **HB 319 in 2013:** Applied mostly to concurrency management authorities, but also encouraged local governments to adopt alternative mobility systems using a series of tools identified in section 163.3180(5)(f), Florida Statutes, including:
    1. Adoption of long-term strategies to facilitate development patterns that support multi-modal solutions, including urban design, and appropriate land use mixes, including intensity and density.
    2. **Adoption of an area-wide level of service not dependent on any single road segment function.**
    3. Exempting or discounting impacts of locally desired development, such as development in urban areas, redevelopment, job creation, and mixed use on the transportation system.
    4. Assigning secondary priority to vehicle mobility and primary priority to ensuring a safe, comfortable, and attractive pedestrian environment, with convenient interconnection to transit.
    5. Establishing multi-modal level of service standards that rely primarily on non-vehicular modes of transportation where existing or planned community design will provide adequate level of mobility.
    6. Reducing impact fees or local access fees to promote development within urban areas, multi-modal transportation districts, and a balance of mixed-use development in certain areas or districts, or for affordable or workforce housing.

Also, under HB 319, a mobility fee funding system expressly must comply with the dual rational nexus test applicable to traditional impact fees. Furthermore, any mobility fee revenues collected must be used to implement the local government's plan, which served as the basis for the fee. Finally, under HB 319, an alternative mobility system, that is not mobility fee-based, must not impose upon new development any responsibility for funding an existing transportation deficiency.

- **HB 207 in 2019:** Included the following changes to the Impact Fee Act along with additional clarifying language:
    1. Impact fees cannot be collected prior to building permit issuance; and
    2. Impact fee revenues cannot be used to pay debt service for previously approved projects unless the expenditure is reasonably connected to, or has a rational nexus with, the increased impact generated by the new residential and commercial construction.
- **HB 7103 in 2019:** Addressed multiple issues related to affordable housing/linkage fees, impact fees, and building services fees. In terms of impact fees, the bill required that when local governments increase their impact fees, the outstanding impact fee credits for developer contributions should also be increased. This requirement was to operate prospectively; however, HB 337 that was signed in 2021 deleted that clause and making all outstanding credits eligible for this adjustment. This bill also allowed local governments to waive/reduce impact fees for affordable housing projects without having to offset the associated revenue loss.
- **SB 1066 in 2020:** Added language allowing impact fee credits to be assignable and transferable at any time after establishment from one development or parcel to another that is within the same impact fee zone or impact fee district or that is within an adjoining impact fee zone or district within the same local government jurisdiction. In addition, added language indicating any new/increased impact fee not being applicable to current or pending permit applications submitted prior to the effective date of an ordinance or resolution imposing new/increased fees.
- **HB 1339 in 2020:** Requires reporting of various impact fee related data items within the annual financial audit report submitted to the Department of Financial Services.
- **HB 337 in 2021:** Placed limits on the amount and frequency of fee increases, but also included a clause to exceed these restrictions if the local governments can demonstrate extraordinary circumstances, hold two public workshops discussing these circumstances and the increases are approved by two-thirds of the governing body. This act is retroactive to January 1, 2021.

The following paragraphs provide further detail on the generally applicable legal standards.

<u>Impact Fee Definition</u>

- An impact fee is a one-time capital charge levied against new development.

- An impact fee is designed to cover the portion of the capital costs of infrastructure capacity consumed by new development.
- The principal purpose of an impact fee is to assist in funding the implementation of projects identified in the Capital Improvements Element (CIE) and other capital improvement programs for the respective facility/service categories.

Impact Fee vs. Tax

- An impact fee is generally regarded as a regulatory function established based upon the specific benefit to the user related to a given infrastructure type and is not established for the primary purpose of generating revenue for the general benefit of the community, as are taxes.
- Impact fee expenditures must convey a proportional benefit to the fee payer. This is accomplished through the establishment of benefit districts as needed, where fees collected in a benefit district are spent in the same benefit district.
- An impact fee must be tied to a proportional need for new infrastructure capacity created by new development.

This technical report has been prepared to support legal compliance with existing case law and statutory requirements and documents the methodology used for impact fee calculations for each fee in the following sections, including an evaluation of the inventory, service area, level of service (LOS), cost, credit, and demand components. Information supporting this analysis was obtained from the County and other sources, as indicated.

Land Use Changes/Additions

As part of this update study, the following land uses were revised/added to the Martin County impact fee schedules to reflect the most recent data on demand variables:

- Refinement of residential land use: The County's current schedule included a combined residential category. This report separates single family and multi-family residential categories and continues to tier single family (by square feet).
- Refinement of hotel/motel land use: The County's current schedule included a combined hotel/motel category. For this update report, these land uses are separated to reflect the difference in demand variables.
- College (Private) – new land use added to the impact fee schedule and charged per 1,000 square feet.

- General Office – land use square footage tiering was removed. This is because ITE 11th Edition revisions resulted in minimal variation among different tiers.
- Retail/Shopping Center – land use square footage tiering altered to match ITE 11th Edition configuration. Unlike previous versions, ITE 11th created separate land use categories for retail establishments based on square footage parameters:
    - Retail/Shopping Center less than 40,000 sfgla (square feet of gross leasable area)
    - Retail/Shopping Center 40,000 to 150,000 sfgla
    - Retail/Shopping Center greater than 150,000 sfgla

II. Fire Rescue Facilities

This section provides the results of the fire rescue impact fee analysis. Martin County provides fire rescue services to the unincorporated county, Town of Ocean Breeze, and Village of Indiantown. Several elements addressed in this section include:

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Calculated Impact Fee Schedule
- Impact Fee Schedule Comparison

Facility Inventory

Table II-1 presents the County-owned stations, buildings and land inventory associated with the fire rescue services in Martin County, which includes 122,000 square feet of building space and approximately 31 acres of land. Stations that are not owned by Martin County but operated by Martin County Fire Rescue are excluded from the inventory for impact fee calculation purposes.

Cost estimate for buildings is based primarily on upcoming construction cost estimates, insurance values and information from other jurisdictions. Land values are based on the current value of land where existing facilities are located as well as vacant land sales and values of similarly sized and located parcels based on information obtained from the Martin County Property Appraiser.

Based on this review and analysis, the building value is estimated at $350 per square foot for stations, $300 per square foot for fire administrative buildings, and the land value is estimated at $165,000 per acre. Using these cost estimates results in a total building and land value of approximately $46.7 million for fire rescue services. A more detailed explanation of building and land value estimates is included in Appendix B.

Table II-1

Fire Rescue Buildings and Land Inventory

Facility Description[1]	Location[1]	Bays[1]	Square Feet[1]	Allocated Acreage[2]	Building Value[3]	Land Value[4]	Total Building and Land Value[5]
Fire Station 14[6]	801 NE Ocean Blvd. Stuart, FL 34996	3	5,344	1.00	$1,870,400	$165,000	$2,035,400
Fire Station 16	2710 NE Savannah Rd. Jensen Beach, FL 34957	3	12,717	2.18	$4,450,950	$359,700	$4,810,650
Fire Station 18	1995 NW Britt Rd. Stuart, FL 34994	3	5,710	1.14	$1,998,500	$188,100	$2,186,600
Fire Station 21[7]	3290 SW Mapp Rd. Palm City, FL 34990	3	13,056	2.41	$4,569,600	$397,650	$4,967,250
Fire Station 22[8]	8446 SW Tropical Ave. Stuart, FL 34997	3	6,317	1.40	$2,210,950	$231,000	$2,441,950
Fire Station 23[9]	4181 S Kanner Hwy. Stuart, FL 34997	2	9,547	3.56	$3,341,450	$587,400	$3,928,850
Fire Station 24[10]	16550 SW Warfield Blvd. Indiantown, FL 34956	3	8,300	1.50	$2,905,000	$247,500	$3,152,500
Fire Station 30[11]	4725 SE Dixie Hwy. Stuart, FL 34997	3	10,299	1.05	$3,604,650	$173,250	$3,777,900
Fire Station 32[12]	12155 SE Federal Hwy. Hobe Sound, FL 33455	3	9,549	0.75	$3,342,150	$123,750	$3,465,900
Fire Station 33	7555 SE Federal Hwy, Hobe Sound, FL 33455	3	13,310	12.43	$4,658,500	$2,050,950	$6,709,450
Fire Station 36[13]	18405 SE County Line Rd. Tequesta, FL 33469	2	4,770	N/A	$1,669,500	N/A	$1,669,500
Fire Administration[14]	800 SE Monterey Rd. Stuart, FL 34994	N/A	23,310	3.20	$6,993,000	$528,000	$7,521,000
Total			**122,229**	**30.62**	**$41,614,650**	**$5,052,300**	**$46,666,950**
Building Value per Square Foot[15]					**$340**		
Land Value per Acre[16]						**$165,000**	

1) Source: Martin County
2) Represents the acreage associated with fire rescue services and is based on information provided by Martin County
3) Building square feet multiplied by $350 for fire stations and $300 for the Fire Administration building
4) Land value per acre (Item 16) multiplied by allocated acreage (Item 2)
5) Sum of building value (Item 3) and land value (Item 4)
6) Station is co-located at Stuart Beach Park and occupies approximately 1.0 acre. The remaining property acreage is included in the parks and recreation impact fee.
7) Based on information provided by Martin County, approximately 50 percent of the property is preserve and water retention. Acreage utilized in the impact fee is 50 percent of the total acres (4.82 acres).
8) Station is co-located at Tropical Farms Park and occupies approximately 1.40 acres. The remaining property acreage is included in the parks and recreation impact fee.
9) Based on information provided by Martin County, approximately 45 percent of the property is preserve and water retention. The acreage utilized in the impact fee is 45 percent of the total acres (7.9 acres).

10) Based on information provided by Martin County, the station is co-located with the Sheriff's Office and other constitutional offices and that the station occupies 50 percent of the total property. The acreage utilized in the impact fee is 50 percent of the total acres (3 acres).
11) Station is co-located at Paul Larson Park and occupies approximately 1.03 acres.
12) Station is co-located at JV Reed Park and occupies approximately 0.75 acres. The remaining property acreage is included in the parks and recreation impact fee.
13) Station is located on State owned land. Acreage is excluded from impact fee calculations.
14) Fire rescue related portion of the Public Safety Building.
15) Total building value divided by total square footage. See Appendix B for further detail.
16) Source: Appendix B

In addition to land and buildings, the Martin County fire rescue impact fee inventory includes the necessary vehicles and equipment required to perform its services. As presented in Table II-2, the total vehicle and equipment value is approximately $25 million for fire rescue services.

Table II-2
Fire Rescue Vehicle and Equipment Inventory

Description	Total Units	Unit Value	Total Value
Vehicles			
Engine (Pierce Heavy Rescue)	1	$850,000	$850,000
Pumper	13	$650,000	$8,450,000
Quint/Ladder	3	$900,000	$2,700,000
Brush Truck (Am General 5 Ton/Kaiser 2.5 Ton)	10	$50,000	$500,000
Trailer (Hackney)	1	$100,000	$100,000
Freightliner Tractor Hazmat	1	$400,000	$400,000
Ambulance (Freightliner)	17	$265,000	$4,505,000
Tanker (Pierce / S&S Ford / GMC Walker)	6	$275,000	$1,650,000
Cars/Sedans (Kubota, Gator, Command Post)	3	$30,000	$90,000
Service Truck	1	$75,000	$75,000
Subtotal - Vehicle	**56**		***$19,320,000***
Equipment			
Cardiac Monitors/Auto Pulse CPR	38	$42,000	$1,596,000
Power Pro Ambulance	17	$16,000	$272,000
Medical Ventilator	15	$7,500	$112,500
Bunker Gear	770	$2,500	$1,925,000
Thermal Imaging Camera	7	$9,000	$63,000
Extrication Equipment	11	$40,000	$440,000
Truck Alignment Machine	1	$75,000	$75,000
Air Pack/SCBA	143	$8,200	$1,172,600
Subtotal - Equipment	**1,002**		***$5,656,100***
Total Value		**-**	**$24,976,100**

Source: Martin County

Service Area and Demand Component

As mentioned previously, Martin County provides fire rescue services to the unincorporated county, Town of Ocean Breeze, and Village of Indiantown. Given this, the appropriate benefit district for fire rescue services includes the unincorporated county and the two municipalities.

In this technical study, the 2023 weighted and functional population estimates are used to measure level of service and the demand component. Because simply using weighted (permanent, plus weighted seasonal) population estimates does not fully address daily workers and visitors who also benefit from fire rescue services, the "functional" weekly 24-hour population approach is used to establish a common unit of demand across different land uses. Functional population accounts for residents, visitors, and workers traveling in and out of the service area throughout the day and calculates the presence of population at the different land uses during the day, which represents the demand component of the impact fee equation. Appendix A provides further detail on the population analysis conducted.

Level of Service

Martin County is served by 11 County-owned fire rescue stations. In addition, there is a leased station (Fire Station 11). However, for impact fee calculation purposes only the County-owned stations are included in the inventory. Based on associated service area populations, the resulting current achieved level of service (LOS) is one station per 13,640 weighted seasonal residents for fire rescue services.

In terms of functional residents, the County's achieved LOS is 12,345 functional residents per fire rescue station or 0.081 stations per 1,000 functional residents. The use of current LOS in the impact fee calculations implies that the County intends to continue to provide this level of infrastructure in the future.

Table II-3

Current Level of Service (2023)

Variable	2023 Population	
	Weighted	Functional
Fire Service Area Population[(1)]	150,039	135,799
Number of Stations[(2)]	11	11
Population per Station[(3)]	13,640	12,345
LOS (Stations per 1,000 Population)[(4)]	**0.073**	**0.081**

1) Source: Appendix A, Table A-1 for weighted population, Table A-11 for functional population
2) Source: Table II-1
3) Population (Item 1) divided by the number of stations (Item 2)
4) Number of stations (Item 2) divided by the population (Item 1) multiplied by 1,000

Tables II-4 compares the levels of service for other select Florida counties to the level of service of Martin County. The LOS is displayed in terms of permanent population for 2020 for the service area of all entities since this is the most recent population data available for all jurisdictions.

Table II-4

Level of Service Comparison – Fire Rescue (2020)

Jurisdiction	Service Area Population (2020)[1]	Number of Stations[2]	Residents per Station[3]	LOS (Stations) per 1,000 Residents)[4]
Palm Beach County	933,088	49	19,043	0.053
St.Lucie County	322,265	17	18,957	0.053
Osceola County	260,514	15	17,368	0.058
Martin County	**156,761**	**12**	**13,063**	**0.077**
Okeechobee County	36,424	3	12,141	0.082
Hernando County	183,203	14	13,086	0.076
Charlotte County	167,499	16	10,469	0.096
Brevard County	225,616	33	6,837	0.146
Highlands County	82,425	13	6,340	0.158

1) Source: University of Florida, Bureau of Economic and Business Research (BEBR), April 1, 2020 Final Population Estimates
2) Source: County websites. For Martin County, the number of stations include the leased FS 11 for comparative purposes.
3) Service area population (Item 1) divided by the number of stations (Item 2)
4) Number of stations (Item 2) divided by the service area population (Item 1) divided by 1,000

Cost Component

The cost component of the study evaluates the cost of all capital assets, including buildings, land, vehicles, and equipment. Table II-5 provides a summary of all capital costs, amounting to approximately $71.6 million for fire rescue services.

In addition, Table II-6 also provides the impact cost per functional resident, which is calculated by multiplying the net asset value per station by the current LOS (stations per 1,000 functional residents) and dividing by 1,000. As shown, this calculation results in $528 per functional resident for fire rescue services.

Table II-5

Total Impact Cost per Functional Resident

Description	Figure	Percent of Total[9]
Building Value[1]	$41,614,650	58%
Land Value[2]	$5,052,300	7%
Vehicle and Equipment Value[3]	$24,976,100	35%
Total Asset Value[4]	**$71,643,050**	**100%**
Number of Stations[5]	11	
Total Asset Value per Station[6]	**$6,513,005**	
LOS (Stations per 1,000 Functional Residents)[7]	0.081	
Total Impact Cost per Functional Resident[8]	**$527.55**	

1) Source: Table II-1
2) Source: Table II-1
3) Source: Table II-2
4) Sum of building value (Item 1), land value (Item 2), and vehicle and equipment value (Item 3)
5) Source: Table II-1
6) Total asset value (Item 4) divided by the number of stations (Item 5)
7) Source: Table II-3
8) Total asset value per station (Item 6) multiplied by the current LOS (Item 7) divided by 1,000
9) Distribution of building, land, and vehicle and equipment values (Items 1,2 and 3)

Credit Component

To avoid overcharging new development, a review of the capital funding allocation for fire rescue services is completed. The purpose of this review is to determine any potential revenues generated by future development that is likely to be used for capital facilities, land, vehicle, and equipment expansion of the fire rescue. Revenue credits are then applied against the total impact cost per functional resident so that new development is not charged twice for capital revenue contributions used to expand the fire rescue facilities. This review indicated that the County has been funding capacity projects through use of impact fee revenues and bonds. Therefore, a debt service credit is calculated for the outstanding payments associated with capacity projects.

Debt Service Credit

Any outstanding bond issues related to the fire facilities will result in a credit to the impact fee. Martin County used bond proceeds for Fire Administration Building as well as for rebuilding and expanding some of the existing fire stations. The capital expansion portion of the remaining

payments of debt service are divided by the population during the same period to determine the debt service credit per resident. Table II-6 presents these calculations for individual bonds/notes.

Table II-6

Debt Service Credit

Description[1]	Funding Source[1]	Number of Remaining Payments[1]	Present Value of Remaining Payments[2]	Average Annual Functioanl Population[3]	Debt Service Credit per Resident[4]
Series 2004	Fire Non-Ad Valorem Fees	3	$247,660	138,018	$1.79
Series 2005	Fire Non-Ad Valorem Fees	4	$191,618	139,189	$1.38
Series 2019	Ambulance Fees	18	$8,552,004	146,436	$58.40
Total Debt Service Credit per Functional Resident					**$61.57**

1) Source: Martin County
2) Present value of remaining payments associated with bond issues used for funding capacity projects in 2021 dollars
3) Source: Appendix A, Table A-11
4) Present value of remaining payments (Item 2) divided by the average annual functional population during the same period (Item 3)

Net Fire Rescue Impact Cost

Table II-7 summarizes the net impact cost per functional resident, which is the difference between the cost component and the credit component. The resulting net impact cost is $466 per resident.

Table II-7

Net Impact Cost

Variable	Per Resident
Impact Cost	
Total Impact Cost[1]	$527.55
Impact Credit	
Debt Service Credit[2]	$61.57
Net Impact Cost	
Net Impact Cost[3]	**$465.98**

1) Source: Table II-5
2) Source: Table II-6
3) Total impact cost (Item 1) less total revenue credit (Item 5)

Calculated Fire Rescue Impact Fee Schedule

Table II-8 presents the calculated fire rescue impact fee schedule for Martin County for both residential and non-residential land uses, based on the net impact cost per functional resident previously presented in Table II-7. The changes to cost and credit components of the impact fee calculations since the last study account for approximately 35 percent increase in the fee. The remaining changes are due to fluctuations on the demand side.

Table II-8

Calculated Fire Rescue Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Residents per Unit[1]	Calculated Impact Fee[2]	Current Adopted Impact Fee[3]	Percent Change[4]
	RESIDENTIAL:					
210	Single Family (Detached/Attached):					
	800 sq ft or less	du	0.82	**$382**	$208.00	84%
	801 - 1,100 sq ft	du	1.06	**$494**	$286.00	73%
	1,101 sq ft to 2,300 sf	du	1.52	**$708**	$599.00	18%
	Greater than 2,300 sq ft	du	2.08	**$969**	$780.00	24%
220/221	Multi-Family	du	0.91	**$424**	$599.00	-29%
	TRANSIENT, ASSISTED, GROUP:					
254	Assisted Living Facility	1,000 sf	1.23	**$573**	$86.94	245%
310	Hotel	room	0.92	**$429**	$119.00	261%
320	Motel	room	0.76	**$354**	$119.00	198%
620	Nursing Home	1,000 sf	2.58	**$1,202**	$166.16	623%
	RECREATIONAL:					
411	Public Park	acre	0.05	**$23**	$36.00	-35%
416	RV Park	site	0.48	**$224**	$89.00	151%
420	Marina	boat berth	0.14	**$65**	$18.00	262%
-	Boat Storage	slip	0.11	**$51**	$18.00	185%
430	Golf Course	hole	0.86	**$401**	$218.00	84%
445	Movie Theater	1,000 sf	3.96	**$1,845**	$319.00	479%
491	Racquet/Tennis Club	1,000 sf	1.07	**$499**	$373.25	34%
492	Health/Fitness Club	1,000 sf	2.56	**$1,193**	$444.00	169%
	INSTITUTIONAL:					
520-525	Elementary/Middle/High School (Private)	1,000 sf	0.60	**$280**	$352.35	-21%
540	College (Private)	1,000 sf	0.96	**$447**	N/A	N/A
560	Place of Worship	1,000 sf	0.41	**$191**	$158.43	21%
565	Day Care Center	1,000 sf	0.81	**$377**	$288.20	31%
590	Library	1,000 sf	3.10	**$1,445**	$568.97	154%
732	Post Office	1,000 sf	1.54	**$718**	$299.20	140%
	MEDICAL:					
610	Hospital	1,000 sf	1.31	**$610**	$361.90	69%
	OFFICE:					
710	Office	1,000 sf	0.97	**$452**	$80.00	465%
720	Medical Office	1,000 sf	1.22	**$569**	$351.01	62%
	RETAIL:					
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	2.09	**$974**	$309.10	215%
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	2.59	**$1,207**	$319.00	278%
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	1.42	**$662**	$319.00	107%
840/841	New/Used Auto Sales & Service	1,000 sf	1.58	**$736**	$92.00	700%
851	Convenience Store	1,000 sf	6.45	**$3,006**	$1,302.35	131%

Table II-8 (Continued)

Calculated Fire Rescue Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Residents per Unit[1]	Calculated Impact Fee[2]	Current Adopted Impact Fee[3]	Percent Change[4]
	RETAIL:					
853	Convenience Store w/Gas	1,000 sf	5.46	**$2,544**	$1,421.64	79%
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	1.85	**$862**	$237.60	263%
	SERVICES:					
911	Bank/Savings Walk-In	1,000 sf	1.17	**$545**	$80.00	581%
912	Bank/Savings Drive-In	1,000 sf	1.48	**$690**	$80.00	763%
931	Fine Dining Restaurant	1,000 sf	5.37	**$2,502**	$575.00	335%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	9.16	**$4,268**	$575.00	642%
948	Car Wash	1,000 sf	1.92	**$895**	$92.00	873%
	INDUSTRIAL:					
110	General Industrial	1,000 sf	0.50	**$233**	$12.00	1842%
140	Manufacturing	1,000 sf	0.58	**$270**	$12.00	2150%
150	Warehousing	1,000 sf	0.12	**$56**	$12.00	367%
151	Mini-Warehouse	1,000 sf	0.05	**$23**	$12.00	92%

1) Source: Appendix A, Table A-13 for residential and transient, assisted, group land uses and Table A-15 for non-residential land uses
2) Net impact cost per functional resident from Table III-8 multiplied by the functional resident coefficient (Item 1) for each land use
3) Source: Martin County
4) Percent change from current impact adopted fee (Item 3) to calculated impact fee (Item 2)N/A – indicates the land use was separated or the impact unit is different.

Impact Fee Schedule Comparison

As part of the work effort in developing the Martin County fire rescue impact fee schedule, the County's calculated impact fee schedule was compared to the adopted fee schedules of other select Florida counties. Tables II-9 presents this comparison.

Table II-9

Fire/Rescue Impact Fee Schedule Comparison

Land Use	Unit[2]	Martin County		Brevard County[5]	Charlotte County[6]	Hernando County[7]	Indian River County[8]	Osceola County[9]	Palm Beach County[10]	St. Lucie County[11]
		Calculated[3]	Existing[4]							
Date of Last Update		2023	2012	2000	2021	2022	2020	2017	2022	2022
Adoption percentage[1]		N/A	100%	100%	100%	100%	100%	100%	Varies	100%
Residential:										
Single Family (2,000 sq ft)	du	$708	$599	$93	$362	$347	$278	$391	$295	$650
Non-Residential:										
Light Industrial	1,000 sf	$233	$12	N/A	$92	$103	$95	$43	$86	$91
Office (50,000 sq ft)	1,000 sf	$452	$80	$44	$270	$212	$169	$267	$53	$702
Retail (125,000 sq ft)	1,000 sfgla	$1,207	$319	$129	$563	$556	$287	$543	$127	$621
Bank w/Drive-Thru	1,000 sf	$690	$80	$105	$406	$319	$283	$543	$53	$621
Fast Food w/Drive-Thru	1,000 sf	$4,268	$575	$552	$1,388	$2,105	$1,845	$2,623	$127	$621

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
2) du = dwelling unit
3) Source: Table II-8
4) Source: Martin County Growth Management Department
5) Source: Source: Brevard County Planning & Development Department. Fees shown are the sum of the fire rescue fee and emergency medical services fee.
6) Source: Charlotte County Community Development Department. All fees shown include a 2.55% administrative fee.
7) Source Benesch Hernando County Impact Fee Update Study 2022. Fee shown is sum of Fire Rescue and EMS fee. Fees shown are not yet adopted.
8) Source: Indian River County Planning Division. Fees shown for unincorporated county.
9) Source: Osceola County Community Development Department
10) Source: Palm Beach County Administration Division. Fees are adopted in compliance with the 50% fee increase limit per F.S. 163.31801.
11) Source: St. Lucie County planning & Development Services Department. Fees are effective January 1st, 2024.

III. Law Enforcement and Correctional Facilities

This section discusses the analysis used in developing the law enforcement and correctional facilities impact fee. Several elements addressed in this section include:

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Impact Cost
- Calculated Impact Fee Schedules
- Impact Fee Schedule Comparison

These elements are summarized throughout this section.

Facility Inventory

The facility inventory for the County's law enforcement/correctional services includes land, buildings, vehicles and equipment. According to information provided by Martin County, building and land related capital assets for correctional facilities include 242,000 square feet of building space and approximately 33 acres of land. Building and land related capital assets for law enforcement include 111,000 square feet of building space and approximately 29 acres of land. Table III-1 presents this information.

Cost estimate for buildings is based on recent and upcoming construction, insured values of existing buildings, and information obtained from other Florida jurisdictions for similar facilities. Land values are based on current value of land where existing facilities are located as well as vacant land sales and values of similarly sized and located parcels based on information obtained from the Martin County Property Appraiser. Appendix B provides additional detail on unit cost estimates.

Based on this data and analysis, building value is estimated at $300 per square foot and the land value is estimated at $65,000 per acre. These cost estimates result in total building and land value for correctional facilities of approximately $75 million, of which $73 million is for buildings and $2 million is for land.

The total building and land value for law enforcement is approximately $35 million which is presented in Table III-1. Of this amount, $33 million represents the building value and $2 million is the land value.

In addition to land and buildings, the Martin County law enforcement and correctional facilities impact fee inventory includes the necessary vehicles required to provide services. As presented in Table III-2, the total vehicle value is approximately $500,000 for correctional facilities and approximately $14.5 million for law enforcement.

Table III-1

Correctional Facilities & Law Enforcement - Land & Buildings Inventory

Facility Description	Address	Number of Acres[1]	Square Feet[1]	Total Square Footage on Site[2]	Allocated Acreage[3]	Number of Beds[4]	Building Value[5]	Land Value[6]	Total Building and Land Value[7]
Correctional Facilities									
Holt Complex:									
Holt Correctional (Jail)	800 SE Monterey Rd, Stuart	48.85	187,600	355,838	25.75	600	$56,280,000	$1,673,750	$57,953,750
Holt Correctional - B4			27,914		3.83	N/A	$8,374,200	$248,950	$8,623,150
Holt Correctional Boot Camp & Education Building			18,464		2.53	N/A	$5,539,200	$164,450	$5,703,650
Holt Reduced Custody Building			8,369		1.15	96	$2,510,700	$74,750	$2,585,450
Total - Correctional Facilities			**242,347**		**33.26**	**696**	**$72,704,100**	**$2,161,900**	**$74,866,000**
Building Value per Square Foot[8]							**$300**		
Land Value per Acre[9]								**$65,000**	
Law Enforcement Facilities									
Indiantown Annex - Sheriff's Portion	16550 SW Warfield Blvd. Indiantown	3.00	4,900	18,226	0.81	N/A	$1,470,000	$52,650	$1,522,650
Public Safety Complex - Sheriff's Portion	800 SE Monterey Rd, Stuart	48.85	47,326	355,838	6.50	N/A	$14,197,800	$422,500	$14,620,300
Sheriff's Administration Building			26,000		3.57	N/A	$7,800,000	$232,050	$8,032,050
Holt Evidence Storage			3,000		0.41	N/A	$900,000	$26,650	$926,650
PSC Storage Building			7,920		1.09	N/A	$2,376,000	$70,850	$2,446,850
MCSD Fleet Maintenance Shop			10,000		1.37	N/A	$3,000,000	$89,050	$3,089,050
Fleet Maintenance Shop			6,000		0.82	N/A	$1,800,000	$53,300	$1,853,300
MCSD Gun Range Modular Building	8355 SW Busch St, Palm City	13.70	1,800	1,800	13.70	N/A	$540,000	$890,500	$1,430,500
MCSD Sheriffs Office Special Unit[8]	3481 SE Willoughby Blvd 101, Stuart	N/A	2,200	N/A	N/A	N/A	$660,000	N/A	$660,000
New Monrovia MCSD Substation	5465 SE 46th Ave, Stuart	0.52	1,440	1,440	0.52	N/A	$432,000	$33,800	$465,800
Total - Law Enforcement Facilities			**110,586**		**28.79**		**$33,175,800**	**$1,871,350**	**$35,047,150**
Building Value per Square Foot[9]							**$300**		
Land Value per Acre[10]								**$65,000**	

1) Source: Martin County and Martin County Property Appraiser
2) Represents the total square footage on the associated acreage
3) Square feet of each facility divided by the total square footage on site (Item 2) multiplied by the number of acres
4) Source: Martin County
5) Square feet multiplied by the estimated building value per square foot (Item 9)
6) Allocated acreage (Item 3) multiplied by land value per acre (Item 10)
7) Sum of building and land value (Items 5 and 6)
8) Located on the same parcel as the Tax Collector and MPO offices. Acreage included in the public buildings inventory.
9) Source: Appendix B
10) Source: Appendix B

Table III-2

Vehicle Inventory

Description	Units[1]	Unit Value[2]	Total Value[3]
Correctional Facilities			
CAR	4	$25,964	$103,855
SUV AWD	3	$44,689	$134,067
TRUCK	1	$35,049	$35,049
VAN	5	$45,090	$225,450
Subtotal - Correctional			**$498,421**
Law Enforcement			
SLICK TOP	1	$44,049	$44,049
BUS	1	$34,974	$34,974
CAR	135	$34,939	$4,716,814
MC	4	$24,211	$96,843
SUV	46	$43,325	$1,992,949
SUV 4X2	3	$45,009	$135,027
SUV 4X4	12	$44,929	$539,148
SUV AWD	113	$44,288	$5,004,582
TRUCK	26	$32,171	$836,451
TRUCK	1	$24,076	$24,076
TRUCK 2WD	2	$24,076	$48,152
TRUCK 4WD	2	$24,076	$48,152
TRUCK 4X4	13	$33,829	$439,771
VAN	13	$39,527	$513,849
Subtotal - Law Enforcement			**$14,474,838**

1) Source: Martin County
2) Calculated by dividing total value by number of units
3) Source: Martin County

Service Area and Demand Component

Martin County provides law enforcement services to the unincorporated areas of the county, the Town of Ocean Breeze and Village of Indiantown while correctional facility services are provided countywide. Given the differences in service areas, fees for law enforcement and correctional facilities are calculated separately. In this technical study, the current 2023 weighted and functional population estimates are used. Because simply using weighted (permanent, plus weighted seasonal) population estimates does not fully address daily workers and visitors who also benefit from law enforcement and correctional services, the "functional" weekly 24-hour

population approach is used to establish a common unit of demand across different land uses. Functional population accounts for residents, visitors, and workers traveling in and out of the service area throughout the day and calculates the presence of population at the different land uses during the day, which represents the demand component of the impact fee equation. Appendix A provides further detail on the population analysis conducted.

Level of Service

Based on the number of beds and sworn officer counts provided by the Martin County and population estimates included in Appendix A, the 2023 current level of service (LOS) is calculated as 3.90 beds and 1.90 sworn officers per 1,000 weighted seasonal residents. The County's current adopted LOS standard for correctional facilities is 4 beds per 1,000 weighted population. While the achieved LOS represents the investment made into correctional facilities, the adopted LOS standard indicates the intended LOS going forward. For impact fee purposes, the lower of the two measures is used not to overcharge new development, which is the achieved LOS in the case of correctional facilities. Table III-3 presents the calculation of the current achieved LOS. The County does not have an adopted LOS standard for law enforcement facilities. This study is using the current achieved LOS for law enforcement services with the assumption that the County will continue to provide this service level.

While the 2023 achieved LOS figures are 3.90 beds and 1.90 sworn officers per 1,000 weighted seasonal residents, to calculate the law enforcement and correctional facilities impact fee, the LOS needs to be calculated in terms functional residents. As shown, the current LOS are 3.90 beds and 2.10 sworn officers per 1,000 functional residents which are utilized in calculating the law enforcement and correctional facilities impact fee for Martin County.

Table III-3

Current Level of Service (2023)

Variable	Year 2023	
	Weighted Population	Functional Population
Correctional Facilities		
Population[(1)]	178,618	178,448
Number of Beds[(2)]	696	696
LOS (beds per 1,000 residents)[(3)]	**3.90**	**3.90**
Adopted LOS Standard (beds per 1,000 residents)[(4)]	**4.00**	**4.00**
Law Enforcement		
Population[(1)]	149,178	135,203
Number of Officers[(5)]	284	284
LOS (officers per 1,000 residents)[(6)]	**1.90**	**2.10**

1) Source: Appendix A, Table A-1 for weighted population and Table A-11 for functional population
2) Source: Table III-1
3) Number of beds (Item 2) divided by the population (Item 1), multiplied by 1,000
4) Source: Martin County for adopted LOS standard. For functional population, the adopted standard is converted by using the ratio of achieved LOS per weighted vs. functional population.
5) Source: Martin County
6) Number of officers (Item 5) divided by the population (Item 1), multiplied by 1,000

Table III-4 and Table III-5 provide a comparison of LOS between Martin County and other Florida counties for correctional and law enforcement facilities. The LOS is displayed in terms of permanent population for all jurisdictions because a functional population analysis has not been completed for these entities. In addition, the LOS comparison is based on the permanent population for 2020. As presented in this table, Martin County's LOS is in the mid-range of the communities reviewed.

Table III-4

Level of Service Comparison -- Correctional Facilities

Jurisdiction	Service Area Population[1]	Total Available Beds[2]	LOS (beds per 1,000 Residents)[3]
Palm Beach County	1,466,494	3,148	2.15
Osceola County	387,055	1,057	2.73
Hernando County	192,186	812	4.23
Martin County	**161,301**	**696**	**4.31**
St. Lucie County	322,265	1,370	4.25
Indian River County	158,834	711	4.48
Highlands County	104,834	512	4.88
Okeechobee County	42,112	232	5.51
Charlotte County	187,904	1,074	5.72

1) Source: Bureau of Economic and Business Research (BEBR), 2020 Florida Estimates of Population
2) Source: Discussions with each county's sheriff's/corrections office and/or website research
3) Total available beds (Item 2) divided by service area population (Item 1), multiplied by 1,000

Table III-5

Level of Service Comparison -- Law Enforcement Facilities

Jurisdiction	Service Area Population[1]	Number of Officers[2]	LOS (Officers per 1,000 Residents)[3]
Hernando County	192,186	284	1.48
Osceola County	260,514	452	1.74
Highlands County	90,786	171	1.88
Indian River County	106,261	213	2.00
Charlotte County	167,499	345	2.06
Palm Beach County	873,584	1,828	2.09
Martin County	**141,534**	**307**	**2.17**
Brevard County	244,620	657	2.69
Okeechobee County	36,424	101	2.77
St. Lucie County	74,875	374	4.99

1) Source: Florida Department of Law Enforcement (FDLE) Criminal Justice Agency Profile Report, 2020
2) Source: Florida Department of Law Enforcement (FDLE) Criminal Justice Agency Profile Report, 2020
3) Number of officers (Item 2) divided by the service area population (Item 1) multiplied by 1,000

Cost Component

The cost component of the study evaluates the cost of all capital assets, including buildings, land and vehicles. Table III-6 provides a summary of all capital costs for correctional facilities and law enforcement services. Capital costs for correctional facilities amounts to approximately $75.4 million or $108,000 per bed. Capital costs for law enforcement amounts to approximately $49.5 million or $174,000 per sworn officer.

In addition, Table III-6 also provides the correctional facilities and law enforcement impact cost per functional resident. As shown, this calculation amounts to $422 per functional resident for correctional facilities and $366 per functional resident for law enforcement infrastructure.

Table III-6
Total Impact per Functional Resident

Variable	Correctional Facilities		Law Enforcement	
	Figure	Percent of Total	Figure	Percent of Total
Building Value[1]	$72,704,100	96%	$33,175,800	67%
Land Value[2]	$2,161,900	3%	$1,871,350	4%
Vehicle Value[3]	$498,421	1%	$14,474,838	29%
Total Asset Value[4]	**$75,364,421**	100%	**$49,521,988**	100%
Number of Beds/Officers[5]	696		284	
Total Asset Value per Bed/Officer[6]	$108,282		$174,373	
LOS (beds/officers per 1,000 residents)[7]	3.90		2.10	
Total Impact Cost per Functional Resident [8]	**$422.30**		**$366.18**	

1) Source: Table III-1
2) Source: Table III-1
3) Source: Table III-2
4) Sum of building value, land value, and vehicle value (Items 1, 2, and 3)
5) Source: Table III-3
6) Total asset value (Item 4) divided by the number of beds/officers (Item 5)
7) Source: Table III-3
8) Total asset value per bed/officer (Item 6) multiplied by the LOS (Item 7) divided by 1,000

Credit Component

To avoid overcharging new development, a review of the capital funding allocation for correctional facilities and law enforcement services is completed. The purpose of this review is to determine any potential revenue generated by future development that is likely to be used for capital facilities, land, vehicle, and equipment expansion of the law enforcement and correctional facilities program. Revenue credits are then applied against the total impact cost per functional

resident so that new development is not charged twice for capital revenue contributions used to expand the program.

Capital Expansion Credit

To calculate the capital expansion credit per functional resident, funding sources used for historical capacity projects and those programmed in the CIP are reviewed. Over the past five years, the County has allocated an average annual non-impact fee funding of $110,000 for correctional facilities and $122,000 toward law enforcement capital facilities. The annual capital expansion expenditures were divided by the average annual functional residents for the same period to calculate the average annual capital expansion credit per functional resident. As presented in Table III-7, the result is $0.65 per functional resident per year for correctional facilities and $0.95 per functional resident per year for law enforcement facilities.

Because these recent projects are funded with ad valorem tax revenues, a credit adjustment is needed. This adjustment accounts for the fact that new homes tend to pay higher property taxes per dwelling unit than older homes and was estimated based on a comparison of the average taxable value of newer homes to that of all homes. As presented, the adjusted revenue credit per population amounts to $0.91 per year for correctional facilities and $1.33 per year for law enforcement facilities.

Table III-7

Capital Expansion "Cash" Credit

Description[1]	Fiscal Year					Total
	2016	2017	2018	2019	2020	
Ad Valorem Funding						
Correctional Facilities						
Holt Medical - Buildings	-	$186,518	$363,482	-	-	$550,000
Subtotal - Correctional Facilities	**$0**	**$186,518**	**$363,482**	**$0**	**$0**	**$550,000**
Average Annual Capital Expenditures[2]						**$110,000**
Average Annual Functional Population[3]						**170,120**
Capital Expansion Credit per Functional Resident - Non-Residential Land Uses[4]						**$0.65**
Credit Adjustment Factor[5]						**1.40**
Adjusted Capital Expansion Credit per Functional Resident - Residential Land Uses[6]						**$0.91**
Law Enforcement						
Sheriff Evidence - Buildings	-	-	$508,983	$95,190	-	$604,173
Sheriff Evidence - Buildings (Professional Services)	-	-	$3,392	$1,320	-	$4,712
Subtotal - Law Enforcement	**$0**	**$0**	**$512,375**	**$96,510**	**$0**	**$608,885**
Average Annual Capital Expenditures[2]						**$121,777**
Average Annual Functional Population[3]						**128,817**
Capital Expansion Credit per Functional Resident - Non-Residential Land Uses[4]						**$0.95**
Credit Adjustment Factor[5]						**1.40**
Adjusted Capital Expansion Credit per Functional Resident - Residential Land Uses[6]						**$1.33**

1) Source: Martin County
2) Average annual capital expansion expenditures over the 5-year period
3) Source: Appendix A, Table 11; average functional population over the same five-year period
4) Average annual capital expansion expenditures (Item 2) divided by average annual functional population (Item 3)
5) Adjustment factor to reflect higher ad valorem taxes paid by new homes
6) Credit per resident (Item 4) multiplied by the credit adjustment factor (Item 5)

Debt Service Credit

Any outstanding bond issues related to the correctional facilities and law enforcement also will result in a credit to the impact fee. Martin County used bond proceeds for the construction of Holt Correctional Facility improvements and Public Safety Building as well as upcoming new K-9 facility and a law enforcement storage/purchasing building. The remaining debt service payments are divided by the population during the same period to determine the debt service credit per resident. Table III-8 presents these calculations.

Table III-8

Debt Service Credit

Description[1]	Funding Source[1]	Number of Remaining Payments[1]	Present Value of Remaining Payments[2]	Average Annual Functional Population[3]	Credit per Functional Resident[4]
Correctional Facilities					
Series 2019	Infrastructure Sales Surtax	18	$1,786,743	192,426	$9.29
Total Correctional Facility Related Debt Service Credit per Functional Resident					**$9.29**
Law Enforcement Facilities					
Series 2004	Non Ad-Valorem	3	$506,578	137,412	$3.69
Series 2005	Non Ad-Valorem	4	$909,134	138,578	$6.56
Series 2019	Infrastructure Sales Surtax	18	$596,935	145,793	$4.09
Total Law Enforcement Facility Related Debt Service Credit per Functional Resident					**$14.34**

1) Source: Martin County Division of Financial Services / Accounting / Payroll
2) Present value of remaining payments in 2020 dollars
3) Source: Appendix A, Table A-11. Average annual functional population over remaining number of payments.
4) Present value of remaining payments (Item 2) divided by the average annual functional population (Item 3)

Net Law Enforcement and Correctional Facilities Impact Cost

The net impact cost per resident is the difference between the cost component and the credit component. Table III-9 summarizes the calculation of the net correctional facilities impact cost that amounts to $396 per resident for residential land uses and $401 per president for non-residential land uses. Table III-9 also summarizes the calculation of the net law enforcement impact cost that amounts to approximately $327 per resident for residential land uses and $334 for non-residential land uses.

Table III-9

Net Impact Cost per Resident

Variable	Correctional Facilities		Law Enforcement	
	Impact Cost	Revenue Credits	Impact Cost	Revenue Credits
Impact Cost				
Total Impact Cost per Functional Resident[1]	$422.30	-	$366.18	-
Impact Credit				
Capital Improvement "Cash" Credit per Functional Resident[2]				
Annual Credit for Residential Land Uses		$0.91		$1.33
Annual Credit for Non-residential Land Uses		$0.65		$0.95
Capitalization Rate		2.5%		2.5%
Capitalization Period (in years)		25		25
Capital Improvement "Cash" Credit per Functional Resident[3]				
Residential Land Uses		$16.77		$24.50
Non-Residential Land Uses		$11.98		$17.50
Debt Service Credit per Functional Resident[4]		$9.29		$14.34
Total Impact Credit[5]				
Residential Land Uses		$26.06		$38.84
Non-Residential Land Uses		$21.27		$31.84
Net Impact Cost				
Net Impact Cost per Functional Resident - Residential Land Uses[6]	-	**$396.24**	-	**$327.34**
Net Impact Cost per Functional Resident - Non-Residential Land Uses[6]	-	**$401.03**	-	**$334.34**

1) Source: Table III-6
2) Source: Table III-7
3) Present value of annual credit per resident (Item 2) over a 25-year period with a capitalization rate of 2.5%
4) Source: Table III-8
5) Sum of capital improvement cash credit (Item 3) and debt service credit (Item 4)
6) Total impact cost per functional resident (Item 1) less total capital expansion credit per function resident (Item 5)

Calculated Law Enforcement and Correctional Facilities Impact Fee Schedule

Table III-10 presents the calculated law enforcement and correctional facilities impact fee schedule for Martin County for both residential and non-residential land uses, based on the net impact cost per functional resident previously presented in Table III-9. Changes to the cost and credit components since the 2012 study account for approximately 50 percent of the increase to the fee. The remaining changes reflect the fluctuations on the demand side.

Table III-10

Calculated Law Enforcement and Correctional Facilities Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Countywide Functional Residents per Unit[1]	Law Enforcement Service Area Functional Residents per Unit[2]	Calculated Correctional Facilities Impact Fee	Calculated Law Enforcement Impact Fee	Total Calculated Impact Fee[2]	Current Adopted Impact Fee[3]	Percent Change[4]
	RESIDENTIAL:								
	Single Family (Detached/Attached):								
	800 sq ft or less	du	0.85	0.82	$337	$268	**$605**	$264.00	129%
210	801 - 1,100 sq ft	du	1.10	1.07	$436	$350	**$786**	$363.00	117%
	1,101 - 2,300 sq ft	du	1.58	1.53	$626	$501	**$1,127**	$760.00	48%
	2,301 sq ft or more	du	2.17	2.10	$860	$687	**$1,547**	$991.00	56%
220/221	Multi-Family	du	0.98	0.91	$388	$298	**$686**	$264.00	160%
	TRANSIENT, ASSISTED, GROUP:								
254	Assisted Living Facility	1,000 sf	1.23	1.23	$493	$411	**$904**	$103.85/1,000 sf	N/A
310	Hotel	room	0.92	0.92	$369	$308	**$677**	$341.36	98%
320	Motel	room	0.76	0.76	$305	$254	**$559**	$341.36	64%
620	Nursing Home	1,000 sf	2.58	2.58	$1,035	$863	**$1,898**	$197.10	863%
	RECREATIONAL:								
411	Public Park	acre	0.05	0.05	$20	$17	**$37**	$58.21	-36%
416	RV Park	site	0.48	0.48	$192	$160	**$352**	$231.31	52%
420	Marina	boat berth	0.14	0.14	$56	$47	**$103**	$186.46	-45%
-	Boat Storage	slip	0.11	0.11	$44	$37	**$81**	$47.80	70%
430	Golf Course	hole	0.86	0.86	$345	$288	**$633**	$1,351.41	-53%
445	Movie Theater	1,000 sf	3.96	3.96	$1,588	$1,324	**$2,912**	$4,778.42	-39%
491	Racquet/Tennis Club	1,000 sf	1.07	1.07	$429	$358	**$787**	$444.68	77%
492	Health/Fitness Club	1,000 sf	2.56	2.56	$1,027	$856	**$1,883**	$1,709.00	10%
	INSTITUTIONAL:								
520-525	Elementary/Middle/High School (Private)	1,000 sf	0.60	0.60	$241	$201	**$442**	$440.31	0%
540	College (Private)	1,000 sf	0.96	0.96	$385	$321	**$706**	N/A	N/A
560	Place of Worship	1,000 sf	0.41	0.41	$164	$137	**$301**	$188.50	60%
565	Day Care Center	1,000 sf	0.81	0.81	$325	$271	**$596**	$343.20	74%
590	Library	1,000 sf	3.10	3.10	$1,243	$1,036	**$2,279**	$676.90	237%
732	Post Office	1,000 sf	1.54	1.54	$618	$515	**$1,133**	$356.40	218%
	MEDICAL:								
610	Hospital	1,000 sf	1.31	1.31	$525	$438	**$963**	$430.10	124%
	OFFICE:								
710	Office	1,000 sf	0.97	0.97	$389	$324	**$713**	$274.36	160%
720	Medical Office	1,000 sf	1.22	1.22	$489	$408	**$897**	$310.21	189%

Table III-10 (Continued)

Calculated Law Enforcement and Correctional Facilities Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Countywide Functional Residents per Unit[1]	Law Enforcement Service Area Functional Residents per Unit[2]	Calculated Correctional Facilities Impact Fee	Calculated Law Enforcement Impact Fee	Total Calculated Impact Fee[2]	Current Adopted Impact Fee[3]	Percent Change[4]
	RETAIL:								
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	2.09	2.09	$838	$699	**$1,537**	$534.25	188%
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	2.59	2.59	$1,039	$866	**$1,905**	$741.94	157%
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	1.42	1.42	$569	$475	**$1,044**	$678.36	54%
840/841	New/Used Auto Sales & Service	1,000 sf	1.58	1.58	$634	$528	**$1,162**	$749.36	55%
851	Convenience Store	1,000 sf	6.45	6.45	$2,587	$2,156	**$4,743**	$1,549.80	206%
853	Convenience Store w/Gas	1,000 sf	5.46	5.46	$2,190	$1,825	**$4,015**	$1,691.71	137%
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	1.85	1.85	$742	$619	**$1,361**	$283.80	380%
	SERVICES:								
911	Bank/Savings Walk-In	1,000 sf	1.17	1.17	$469	$391	**$860**	$601.61	43%
912	Bank/Savings Drive-In	1,000 sf	1.48	1.48	$594	$495	**$1,089**	$480.82	127%
931	Fine Dining Restaurant	1,000 sf	5.37	5.37	$2,154	$1,795	**$3,949**	$2,352.43	68%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	9.16	9.16	$3,673	$3,063	**$6,736**	$2,756.66	144%
948	Car Wash	1,000 sf	1.92	1.92	$770	$642	**$1,412**	$1,064.42	33%
	INDUSTRIAL:								
110	General Industrial	1,000 sf	0.50	0.50	$201	$167	**$368**	$157.74	133%
140	Manufacturing	1,000 sf	0.58	0.58	$233	$194	**$427**	$134.86	217%
150	Warehousing	1,000 sf	0.12	0.12	$48	$40	**$88**	$85.78	3%
151	Mini-Warehouse	1,000 sf	0.05	0.05	$20	$17	**$37**	$173.60	-79%

1) Source: Appendix A, Table A-12
2) Source: Appendix A, Table A-14
3) Source: Martin County
4) Percent change from current impact adopted fee (Item 3) to total calculated impact fee(Item 2)

N/A – indicates the land use was separated or the impact unit is different.

Law Enforcement and Correctional Facilities Impact Fee Schedule Comparison

As part of the work effort in updating Martin County's law enforcement and correctional facilities impact fee schedule, the County's calculated impact fees for select land uses were compared to the adopted fee schedules of several Florida counties. Table III-11 presents this comparison.

Table III-11

Law Enforcement and Correctional Facilities Impact Fee Schedule Comparison

Land Use	Unit[2]	Martin County		Brevard County - Corrections[5]	Charlotte County - Law & Corrections[6]	Collier County - Law & Corrections[7]	Indian River County - Law[8]	St. Lucie County - Law[9]
		Calculated[3]	Existing[4]					
Date of Last Update		2023	2012	2000	2021	2016	2019	2022
Assessed Portion of Calculated[1]		N/A	Varies	100%	100%	100%	40%	Varies
Residential:								
Single Family (2,000 sq ft)	du	$1,127	$760	$72	$573	$1,086	$196	$308
Non-Residential:								
Light Industrial	1,000 sf	$368	$158	N/A	$147	$406	$61	$68
Office (50,000 sq ft)	1,000 sf	$713	$274	$34	$427	$700	$108	$173
Retail (125,000 sfgla)	1,000 sfgla	$1,905	$742	$100	$892	$1,386	$184	$406
Bank/Savings Drive-In	1,000 sf	$1,089	$481	$81	$642	$1,341	$181	$326
Fast Food w/Drive-Thru	1,000 sf	$6,736	$2,757	$428	$2,197	$5,234	$1,181	$326

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
2) du = dwelling unit
3) Table III-10
4) Source: Martin County Growth Management Department
5) Source: Brevard County Planning & Development Department. Fees shown for unincorporated county.
6) Source: Charlotte County Community Development Department
7) Source: Collier County Capital Project Planning, Impact Fees, and Program Management
8) Source: Indian River County Planning Division. Fees shown for unincorporated county.
9) Source: St. Lucie County Planning & Development Services Department. Fees are adopted in compliance with the 50% fee increase limit per F.S. 163.31801. Fees shown for Bank/Savings Drive-in and Fast-Food w/ Drive Thru reflects retail under 100,000 sq ft. Fees shown effective January 1st, 2024.

IV. Public Buildings

This section discusses the analysis used in developing the public buildings impact fee. Several elements addressed in this section include:

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Public Buildings Impact Cost
- Calculated Public Buildings Impact Fee Schedule
- Impact Fee Schedule Comparison

These elements are summarized throughout this section.

Facility Inventory

Martin County owns and operates 270,000 square feet of public facilities on approximately 33 acres throughout the county.

As shown in Table IV-1, the total value of the public buildings is estimated at $68.2 million, of which $64.9 million is associated with buildings and the remaining $3.3 million with land. The building value is estimated at $240 per square foot based on insurance values, cost information from other Florida jurisdictions and discussions with the County representatives. Land values are based on the current value of land where existing facilities are located, estimates for future land purchases as well as vacant land sales and values of similar size parcels. Based on this analysis, land value for public buildings is estimated at $100,000 per acre. Appendix B provides additional information.

Table IV-1

Summary of Public Buildings Facilities Inventory

Description	Address	Building Square Feet[1]	Acreage[2]	Building Value[3]	Land Value[4]	Total Value[5]
Administrative Complex[6]	2401 SE Monterey Road, Stuart	65,314	9.82	$15,675,360	$982,000	$16,657,360
Agricultural Center[7]	2614 SE Dixie Hwy, Stuart	4,000	0.56	$960,000	$56,000	$1,016,000
Building Department	900 SE Ruhnke St, Stuart	9,636	10.1	$2,312,640	$1,010,000	$3,322,640
Data Recovery Center (Old EOC)		5,469	5.95	$1,312,560	$595,000	$1,907,560
Courthouse Complex:	435 SE Flagler Ave, Stuart					
- Courthouse		50,658	3.60	$12,157,920	$360,000	$12,517,920
- Court Holding		10,094		$2,422,560	$0	$2,422,560
- Constitutional Offices		60,418		$14,500,320	$0	$14,500,320
- Community Services/Veteran Affairs		6,068		$1,456,320	$0	$1,456,320
Indiantown Annex	16550 SW Warfield Blvd. Indiantown					
- Tax Collector		3,340	0.83	$801,600	$83,000	$884,600
- Clerk of Court		1,414		$339,360	$0	$339,360
- Property Appraiser		272		$65,280	$0	$65,280
Supervisor of Elections	135 SE MLK Jr. Blvd, Stuart	11,948	0.65	$2,867,520	$65,000	$2,932,520
Willoughby Bldg A & B (Tax Collector & MPO)	3485 SE Willoughby Blvd, Stuart	19,920	0.59	$4,780,800	$59,000	$4,839,800
Willoughby Bldg. D (Future Property Appraiser & Utilities)	3485 SE Willoughby Blvd, Stuart	21,893	0.60	$5,254,320	$60,000	$5,314,320
Total -- All Buildings		**270,444**	**32.70**	**$64,906,560**	**$3,270,000**	**$68,176,560**
Unit Cost[8]				$240	$100,000	

1) Source: Martin County
2) Source: Martin County and Martin County Property Appraiser
3) Building square footage (Item 1) multiplied by building cost of $240 per square foot (Item 8)
4) Acreage (Item 2) multiplied by land value of $100,000 per acre (Item 8)
5) Sum of building value (Item 3) and land value (Item 4)
6) Excludes acreage associated with Blake Library (4.78 acres)
7) Excludes Fair Association Building, which is leased and the associated acreage (0.24 acres)
8) Source: Appendix B

Service Area and Demand Component

Martin County provides public buildings throughout all of Martin County. As such, the proper service area is countywide. In this technical study, the current 2023 weighted and functional population estimates are used. Because simply using weighted (permanent, plus weighted seasonal) population estimates does not fully address daily workers and visitors who also benefit from general government services, the "functional" weekly 24-hour population approach is used to establish a common unit of demand across different land uses. Functional population accounts for residents, visitors, and workers traveling in and out of the service area throughout the day and calculates the presence of population at the different land uses during the day, which represents the demand component of the impact fee equation. Appendix A provides further detail on the population analysis conducted.

Level of Service

Table IV-2 provides the current achieved LOS and adopted LOS standards for public buildings in terms of square feet per resident. The LOS is provided both using weighted seasonal population and functional population. As discussed previously, while the achieved LOS represents the investment made into public buildings, the adopted LOS standard indicates the intended LOS going forward. For impact fee purposes, the lower of the two measures is used not to overcharge new development, which is the achieved LOS in the case of public buildings.

Table IV-2

Current Level-of-Service (2023)

Variable	Year 2023	
	Permanent Population	Functional Population
Population[(1)]	178,618	178,448
Public Buildings Square Footage[(2)]	270,444	270,444
Achieved LOS (Sq. Ft. per Resident)[(3)]	**1.51**	**1.52**
Adopted LOS Standard (Sq. Ft. per Residents)[(4)]	**2.47**	**2.47**

1) Source: Appendix A, Tables A-11 and A-16
2) Source: Table IV-1
3) Total square footage (Item 2) divided by population (Item 1)
4) Source: Martin County

Cost Component

The cost component of the study evaluates the cost of capital items, including buildings and land. Table IV-3 provides a summary of all capital costs, which amounts to approximately $68.2 million. Table IV-3 also presents the cost per resident for the impact fee analysis. This cost is calculated by multiplying the total building and land value per square foot by the current achieved LOS of 1.52 square feet per functional resident. As shown, these calculations result in $383 per resident for public buildings capital assets.

Table IV-3
Public Building Total Replacement Cost per Functional Resident

Variable	Figure	Percent of Total Value[8]
Total Building Value[1]	$64,906,560	95%
Total Land Value[2]	$3,270,000	5%
Total Building and Land Value[3]	$68,176,560	100%
Building Square Footage[4]	270,444	
Total Building and Land Value per Square Foot[5]	$252.09	
Achieved LOS - Bldg Sq Ft per Functional Resident[6]	1.52	
Total Impact Cost per Functional Resident[7]	**$383.18**	

1) Source: Table IV-1
2) Source: Table IV-1
3) Sum of building value (Item 1) and land value (Item 2)
4) Source: Table IV-1
5) Total building and land value (Item 3) divided by primary building square footage (Item 4)
6) Source: Table IV-2
7) Building and land value per square foot (Item 5) multiplied by building square footage per functional resident (Item 6)
8) Percentage distribution of building value and land value in relation to the combined building and land value

Credit Component

To avoid overcharging new development, a review of funding for public buildings capital expansion projects over the past five years was completed. The purpose of this review was to determine any potential revenues generated by new development, other than impact fees, that are being used to fund the expansion of capital facilities for the County's public buildings program. This review suggested that the only funding allocated for public buildings capacity projects related to the outstanding debt service associated with the Courthouse generators. As mentioned previously, the credit component does not include any capital renovation,

maintenance, or operations expenses, as these types of expenditures do not add capacity and should not be considered for impact fee credit.

Debt Service Credit

Given that Martin County is using bond financing for courthouse improvements, any outstanding bond issues related to these improvements will result in a credit to the impact fee. The debt service payments are divided by the population during the same period to determine the debt service credit per resident. Table IV-4 presents these calculations. Because ad valorem taxes were used to pay a portion of the debt service, an adjustment was made to reflect higher property taxes paid by residential land uses. The resulting debt service credit is $34 per resident for non-residential land uses and $37 per resident for residential land uses.

Table IV-4

Debt Service Credit per Functional Resident

Description[1]	Funding Source[1]	Number of Remaining Payments[1]	Present Value of Remaining Payments[2]	Average Annual Functional Population[3]	Credit per Functional Resident[4]
Series 2019	IST / Gas Tax / General Fund	18	$6,530,547	192,426	$33.94
Total Debt Service Credit per Functional Resident (Non-residential Land Uses)					**$33.94**
- Portion Funded with Ad Valorem Tax Revenues[5]					$6.97
- Portion Funded with Other Revenues[6]					$26.97
Credit Adjustment Factor for Residential Land Uses[7]					**1.40**
Adjusted Annual Capital Improvement Credit per Functional Resident for Residential Land Uses[8]					**$36.73**

1) Source: Martin County
2) Present value of remaining payments in 2021 dollars
3) Source: Appendix A, Table A-11. Average annual functional population over remaining number of payments.
4) Present value of remaining payments (Item 2) divided by the average annual functional population (Item 3)
5) Portion of Series 2019 debt obligation repaid with ad valorem taxes. Represents approximately 70% of the portion funded by General Fund.
6) Total debt service credit per functional resident less portion funded with ad valorem tax revenues (Item 5)
7) Adjustment factor to reflect higher ad valorem taxes paid by newer homes
8) Portion funded with other revenues (Item 6) plus the portion funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor for residential land uses (Item 7)

Net Public Buildings Impact Cost

The net public buildings impact cost per resident is the difference between the cost component and the credit component. Table IV-5 summarizes the calculation of the net public buildings impact cost per resident. As presented, the net impact cost per resident amounts to $346 for residential land uses and $349 for non-residential land uses.

Table IV-5

Net Public Building Impact Cost per Functional Resident

Variable	Functional Resident	
	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Functional Resident[1]	**$383.18**	
Impact Credit		
Debt Service Credit [2]		
- Residential Land Uses		$36.73
- Non-Residential Land Uses		$33.94
Net Impact Cost [3]		
- Residential Land Uses	**$346.45**	
- Non-Residential Land Uses	**$349.24**	

1) Source: Table IV-3
2) Source: Table IV-4
3) Total impact cost per resident (Item 1) less the present value of capital expansion credit per resident (Item 2)

Calculated Public Buildings Impact Fee Schedule

Table IV-6 presents the calculated public buildings impact fee schedule for Martin County based on the net impact cost per resident previously presented in Table IV-5. Changes to the cost and credit components account for approximately 40 percent of the increase. The remaining changes are due to the fluctuations on the demand side.

Table IV-6

Public Buildings Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Residents per Unit[1]	Calculated Impact Fee[2]	Current Adopted Impact Fee[3]	Percent Change[4]
	RESIDENTIAL:					
210	Single Family (Detached/Attached):					
	800 sq ft or less	du	0.85	**$294**	$410.11	-28%
	801 - 1,100 sq ft	du	1.10	**$381**	$469.31	-19%
	1,101- 2,300 sq ft	du	1.58	**$547**	$645.97	-15%
	Greater than 2,300 sq ft	du	2.17	**$752**	$809.84	-7%
220/221	Multi-Family	du	0.98	**$340**	$645.97	-47%
	TRANSIENT, ASSISTED, GROUP:					
254	Assisted Living Facility	1,000 sf	1.23	**$430**	$119.55	260%
310	Hotel	room	0.92	**$321**	$394.06	-19%
320	Motel	room	0.76	**$265**	$394.06	-33%
620	Nursing Home	1,000 sf	2.58	**$901**	$228.05	295%

Table IV-6 (Continued)

Public Buildings Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Residents per Unit[1]	Calculated Impact Fee[2]	Current Adopted Impact Fee[3]	Percent Change[4]
	RECREATIONAL:					
411	Public Park	acre	0.05	**$17**	$66.05	-74%
416	RV Park	site	0.48	**$168**	$273.16	-39%
420	Marina	boat berth	0.14	**$49**	$7.45	558%
-	Boat Storage	slip	0.11	**$38**	$7.45	410%
430	Golf Course	hole	0.86	**$300**	$431.85	-31%
445	Movie Theater	1,000 sf	3.96	**$1,383**	$49.64	2686%
491	Racquet/Tennis Club	1,000 sf	1.07	**$374**	$310.24	21%
492	Health/Fitness Club	1,000 sf	2.56	**$894**	$310.24	188%
	INSTITUTIONAL:					
522	Elementary/Middle/High School (Private)	1,000 sf	0.60	**$210**	$161.32	30%
540	College (Private)	1,000 sf	0.96	**$335**	N/A	N/A
560	Place of Worship	1,000 sf	0.41	**$143**	$124.10	15%
565	Day Care Center	1,000 sf	0.81	**$283**	$394.90	-28%
590	Library	1,000 sf	3.10	**$1,083**	$362.36	199%
732	Post Office	1,000 sf	1.54	**$538**	$411.40	31%
	MEDICAL:					
610	Hospital	1,000 sf	1.31	**$458**	$496.10	-8%
	OFFICE:					
710	Office	1,000 sf	0.97	**$339**	$286.30	18%
720	Medical Office	1,000 sf	1.22	**$426**	$238.26	79%
	RETAIL:					
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	2.09	**$730**	$424.60	33%
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	2.59	**$905**	$550.98	82%
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	1.42	**$496**	$496.38	-10%
840/841	New/Used Auto Sales & Service	1,000 sf	1.58	**$552**	$550.98	0%
851	Convenience Store	1,000 sf	6.45	**$2,253**	$496.38	354%
853	Convenience Store w/Gas	1,000 sf	5.46	**$1,907**	$744.57	156%
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	1.85	**$646**	$326.70	98%
	SERVICES:					
911	Bank/Savings Walk-In	1,000 sf	1.17	**$409**	$693.36	-41%
912	Bank/Savings Drive-In	1,000 sf	1.48	**$517**	$554.09	-7%
931	Fine Dining Restaurant	1,000 sf	5.37	**$1,875**	$550.98	240%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	9.16	**$3,199**	$2,481.90	29%
948	Car Wash	1,000 sf	1.92	**$671**	$992.76	-32%
	INDUSTRIAL:					
110	General Industrial	1,000 sf	0.50	**$175**	$182.10	-4%
140	Manufacturing	1,000 sf	0.58	**$203**	$154.97	31%
150	Warehousing	1,000 sf	0.12	**$42**	$98.36	-57%
151	Mini-Warehouse	1,000 sf	0.05	**$17**	$9.93	71%

1) Source: Appendix A, Tables A-12 and A-15
2) Net cost per resident from Table IV-5 multiplied by functional population per unit (Item 1)
3) Source: Martin County
4) Percent change from current adopted impact fee (Item 3) to calculated impact fee (Item 2)

N/A – indicates the land use was separated or the impact unit is different.

Public Buildings Impact Fee Schedule Comparison

As part of the work effort in updating Martin County's public buildings impact fee program, a comparison of the County's calculated public buildings impact fee schedule to fees adopted by other select Florida counties was completed. Table IV-7 presents this comparison.

Table IV-7

Public Buildings Impact Fee Schedule Comparison

Land Use	Unit[2]	Martin County		Charlotte County[5]	Hernando County[6]	Indian River County[7]	Palm Beach County[8]	St. Lucie County[9]
		Calculated[3]	Existing[4]					
Date of Last Update		2023	2012	2021	2022	2020	2022	2022
Assessed Portion of Calculated[1]		N/A	Varies	25%	N/A	50%/26%	Varies	Varies
Residential:								
Single Family (2,000 sq ft)	du	$547	$646	$268	$1,215	$415	$238	$456
Non-Residential:								
Light Industrial	1,000 sf	$175	$182	$69	$356	$68	$78	$93
Office (50,000 sq ft)	1,000 sf	$339	$316	$199	$726	$121	$140	$404
Retail (125,000 sq ft)	1,000 sf	$905	$551	$417	$1,911	$205	$350	$684
Bank w/Drive-Thru	1,000 sf	$517	$554	$300	$1,096	$202	$408	$595
Fast Food w/Drive-Thru	1,000 sf	$3,199	$2,482	$1,026	$7,328	$1,316	$646	$595

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fees may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
2) du = dwelling unit
3) Source: Table IV-6
4) Source: Martin County Growth Management Department
5) Source: Charlotte County Community Development Department All fees shown include a 2.55% administrative fee.
6) Source: Benesch Hernando County Impact Fee Update Study 2022. Fees shown are not yet adopted.
7) Source: Indian River County Planning Division. Residential fees were adopted at 50% and non-residential fees were adopted at 26% of the full calculated impact fee rates. Fees shown for unincorporated county.
8) Source: Palm Beach County Administration Division. Fees are adopted in compliance with the 50% limit per F.S. 163.31801.
9) Source: St. Lucie County Planning & Development Services Department. Fees are adopted in compliance with the 50% fee increase limit per F.S. 163.31801. Fees shown for Bank/Savings Drive-in and Fast-Food w/ Drive Thru reflects retail under 100,000 sq ft. Fees shown effective January 1st, 2024.

V. Library Facilities

This section discusses the analysis used in developing the library facilities impact fee. Several elements addressed in this section include:

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Library Facilities Impact Cost
- Calculated Library Facilities Impact Fee Schedule
- Impact Fee Schedule Comparison

These elements are summarized throughout this section.

Facility Inventory

Martin County owns and operates six library facilities throughout the county. According to the information provided by Martin County, the inventory associated with library facilities includes 106,000 square feet of buildings and approximately 27 acres of land.

As shown in Table V-1, the total value of library facilities is estimated at $33.2 million, of which $31.8 million is associated with buildings and the remaining $1.3 million with land. The building value is estimated at $300 per square foot based on insurance values of existing facilities, cost estimates obtained from other Florida jurisdictions and discussions with the representatives from Martin County. Land value is based on current value of land where existing facilities are located as well as vacant land sales and values of similarly sized and located parcels based on information obtained from the Martin County Property Appraiser. Land value for library facilities is estimated at $50,000 per acre.

Table V-1

Martin County Libraries Inventory [1]

Description	Address	Year Opened	Total Square Footage[2]	Total Acres[3]	Building Value[4]	Land Value[5]	Total Building and Land Value[6]
Blake Library	2351 SE Monterey Road, Stuart	1999	39,000	4.78	$11,700,000	$239,000	$11,939,000
Hobe Sound	10595 Highway One, Hobe Sound	1999	10,900	4.58	$3,270,000	$229,000	$3,499,000
Elisabeth Lahti Library	15200 Southwest Adams Avenue, Indiantown	1991	10,006	2.05	$3,001,800	$102,500	$3,104,300
Cummings Library	2551 SW Matheson Avenue, Palm City	1995	20,900	8.53	$6,270,000	$426,500	$6,696,500
Robert Morgade Library	5851 SE Community Drive, Stuart	2001	15,000	2.81	$4,500,000	$140,500	$4,640,500
Hoke Library	1150 Northwest Jack Williams Way, Jensen Beach	2002	10,320	4.23	$3,096,000	$211,500	$3,307,500
Total Building Value			**106,126**	**26.98**	**$31,837,800**	**$1,349,000**	**$33,186,800**
Building Cost per Square Foot[7]					**$300**		
Land Cost per Acre[8]					**$50,000**		

1) Source: Martin County
2) Source: Martin County
3) Source: Martin County and Martin County Property Appraiser
4) Square footage (Item 3) multiplied by building value per square foot (Item 7)
5) Acres (Item 2) multiplied by land value per acre (Item 8)
6) Sum of land value and building value (Items 4 and 5)
7) Source: Appendix B
8) Source: Appendix B

In addition to buildings and land, the Martin County Public Library System houses library collections/materials that are owned by the County and are available to the public. Table V-2 presents the inventory of library materials with an estimated value of $12.4 million.

Table V-2
Library Items / Equipment Value

Item	Count	Unit Value	Total Value
Library Materials:			
Print	238,488	$38.99	$9,298,647
Serials (WT Cox subscription)	186	$140.63	$26,157
Audio	36,282	$41.27	$1,497,358
Video	25,547	$24.99	$638,420
Download (ebook and eaudio)	14,888	$53.50	$796,508
Total - Materials	**315,391**	-	**$12,257,090**
Library Equipment:			
Laptops	43	$379.33	$16,311
Tablets	50	$398.98	$19,949
Televisions	22	$927.07	$20,396
Non-Standard Public PCs	21	$1,279.50	$26,870
Non-Standard Tech	176	$500.00	$88,000
Total - Library Equipment	**312**	-	**$171,527**
Total Materials/Equipment Value	**315,703**	-	**$12,428,617**

Source: Martin County Library System

Service Area and Demand Component

Martin County provides library facilities and services throughout all of Martin County. Given this, the proper service area is countywide. Appendix A, Table A-1, provides the estimated weighted population for 2023 and the projected population through 2040. Library facilities impact fees are charged only to residential land uses. Therefore, the weighted seasonal population per housing unit is used to measure demand from each residential land use, which is presented in Appendix A.

Level of Service

Table V-3 provides a summary of the current achieved LOS for library buildings and materials in Martin County. Also included in the following table is Martin County's adopted level of service. As discussed previously, while the achieved LOS represents the investment made into library facilities, the adopted LOS standard indicates the intended LOS going forward. For impact fee

purposes, the lower of the two measures is used not to overcharge new development, which is the adopted LOS standard in the case of buildings and achieved LOS in the case of library materials and equipment.

Table V-3

Martin County Library System's Current Level of Service

Variable	Year 2023			
	Square Footage/ Count[1]	Service Area Population[2]	Current Level of Service[3]	Adopted Level of Service[4]
Library Buildings	106,126	178,618	0.59	**0.55**
Library Materials/Equipment:	315,703		**1.77**	N/A
- Library Collection	315,391		1.77	2.00
- Other	312		0.0017	N/A

1) Source for buildings is Table V-1. Source for materials and equipment is Table V-2.
2) Source: Appendix A; Table A-1
3) Square footage/count (Item 1) divided by population (Item 2)
4) Source: Martin County. Adopted LOS standard of 0.60 per permanent resident is converted to weighted resident by multiplying the adopted LOS standard by the ratio of permanent to weighted population

Table V-4 provides a comparison of the current Martin County LOS, the adopted LOS standard, the LOS of the other Florida counties, and State standards. The comparison includes counties with a population of 100,001 to 750,000 and is based on the information obtained from the Library Directory with Statistics, published by the Department of State, Division of Library and Information Services. State standards are obtained from the Florida Library Association.

Table V-4

Comparison of LOS and LOS standards

Category	Martin County[1]		Other FL Counties[2]	FLA Public Library Standards[3]		
	Current LOS	Adopted LOS Standard		Essential	Enhanced	Exemplary
Library Buildings (All) -- Sq.Ft. per Capita	0.59	0.55	0.42	0.60	0.70	1.00
Library Collection per Capita	1.77	2.00	1.82	**2.00**	**3.00**	**4.00**
Computers -- Computers per 1,000 People	0.64	N/A	0.63	0.33	0.50	1.00

1) Source: Table V-3 for buildings and other library collections. Computers is calculated by dividing the total computer and tablet count by the total weighted population multiplied by 1,000 and is excluded from the "Other Library Collection" count to provide an "apples-to-apples" comparison with data collected by the Florida Department of State, Division of Library and Information Services 2017-2018 Public Library Statistics
2) Source: Florida Department of State (Department), Division of Library and Information Services 2017-2018 Public Library Statistics. Includes counties in the service population level of 100,001 to 750,000 as reported by the Department
3) Source: Florida Library Association Standards for Florida Public Libraries 2004, 2006 Revision - Standard 52 updated April, 2013 (Availability of public access Internet-connected computer workstations)

Cost Component

The cost component of the study evaluates the cost of capital items, including buildings, land, and materials. Table V-5 provides a summary of all capital costs, which amounts to approximately $45.6 million.

Table V-5 also presents the cost per resident for the impact fee analysis. This cost per resident is calculated separately for buildings and land, and materials/equipment to reflect appropriate LOS. More specifically, it is calculated by multiplying the total building and land value per square foot by the adopted LOS standard of 0.55 square feet per resident to derive total building and land value per resident. In the case of materials and equipment, the value per unit is multiplied by the achieved LOS of 1.77 materials per resident. As shown, these calculations result in $172 per resident for buildings and land, and $70 per resident for materials, totaling $242 per resident for all library assets considered in the impact fee calculations.

Table V-5

Total Capital Asset Value per Resident

Variable	Figure	Percent of Total[12]
Building Value[1]	$31,837,800	70%
Land Value[2]	$1,349,000	3%
Materials/Equipment Value[3]	$12,428,617	27%
Total Capital Asset Value	**$45,615,417**	**100%**
Total Building and Land Value per Resident		
Total Building and Land Value[4]	$33,186,800	
Total Square Footage[1]	106,126	
Total Building and Land Value per Square Foot[5]	$312.71	
Adopted Level-of-Service Standard (Square feet per Weighted Resident)[6]	0.55	
Total Building and Land Value per Resident[7]	**$171.99**	
Materials/Equipment Value per Weighted Resident		
Total Materials/Equipment Value	$12,428,617	
Total Count[8]	315,703	
Total Materials/Equipment Value per Unit[9]	$39.37	
Current Level-of-Service (Material/Equipment Count per Weighted Resident)[10]	1.77	
Total Materials/Equipment Value per Weighted Resident[11]	**$69.68**	

1) Source: Table V-1
2) Source: Table V-1
3) Source: Table V-2
4) Sum of building value, land value, and material value (Items 1 and 2)
5) Total building and land value (Item 4) divided by total gross square footage
6) Source: Table V-3
7) Total building and land value per square foot (Item 5) multiplied by the adopted level-of-service (Item 6)
8) Source: Table V-2
9) Total materials/equipment value divided by the total count of materials/equipment (Item 8)
10) Source: Table V-3
11) Total materials/equipment value per unit (Item 9) multiplied by the current level-of-service (Item 10)
12) Distribution of asset value (Items 1 through 3)

Credit Component

To avoid overcharging new development, a review of funding for library capital expansion projects from 2014 through 2018 was completed. The purpose of this review was to determine any potential revenues generated by new development, other than impact fees, that would be used to fund the expansion of capital facilities, land, and materials for the County's libraries program. As mentioned previously, the credit component does not include any capital renovation, maintenance, or operations expenses, as these types of expenditures do not add capacity and should not be considered for impact fee credit.

Capital Expansion "Cash" Credit

Capital expansion expenditure credits per resident were calculated based on non-impact fee revenue funding for capital expansion projects from 2014 through 2018. To calculate the capital expenditure per resident, the average annual capital expansion expenditures are divided by average annual population for the same period.

As shown in Table V-6, the average annual expenditure over this five-year period amounts to approximately $96,300 or approximately $0.58 per resident per year.

Once the revenue credit per population is calculated, a credit adjustment is needed for the portion of the revenue credit funded with ad valorem tax revenues, which is 96 percent of the cash funding. This adjustment accounts for the fact that new homes tend to pay higher property taxes per dwelling unit than older homes and was estimated based on a comparison of the average taxable value of newer homes to that of all homes. As presented, the adjusted revenue credit per population amounts $0.80 per year.

Table V-6
Capital Expenditures "Cash" Credit

Description[1]	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Total
Ad-Valorem						
Equipment	$61,180	$158,680	$83,639	$65,235	$6,469	$375,203
Improvements Other Than Buildings	$0	$0	$0	$0	$10,212	$10,212
Professional Services	$13,784	$22,103	$15,535	$8,429	$17,000	$76,851
Subtotal (Ad-Valorem Revenues)	**$74,964**	**$180,783**	**$99,174**	**$73,664**	**$33,681**	**$462,266**
General Fund						
Equipment	$0	$1,800	$0	$0	$0	$1,800
Subtotal (General Fund Revenues)	**$0**	**$1,800**	**$0**	**$0**	**$0**	**$1,800**
State Aid						
Professional Services	$0	$0	$17,676	$0	$0	$17,676
Subtotal (State Aid Revenues)	**$0**	**$0**	**$17,676**	**$0**	**$0**	**$17,676**
Grand Total	**$74,964**	**$182,583**	**$116,850**	**$73,664**	**$33,681**	**$481,742**

Average Annual Capital Expansion Expenditures[2]	**$96,348**
Average Annual Weighted Population (2014-2018)[3]	166,631
Annual Capital Expansion Expenditures per Person[4]	**$0.58**
Portion Funded with Ad Valorem Revenues[5]	$0.56
Credit Adjustment Factor[6]	1.40
Adjusted Annual Capital Expansion Expenditures per Person[7]	**$0.80**

1) Source: Martin County
2) Average annual capital expenditures over the 5-year period
3) Source: Appendix A, Table A-1. Average annual weighted population over the same 5-year time period.
4) Average annual capital expansion expenditures (Item 2) divided by average annual population (Item 3)
5) Portion funded with ad valorem revenues (96%)
6) Adjustment factor to reflect higher ad valorem taxes paid by new homes
7) Adjusted annual capital expansion expenditures per person

Net Library Facilities Impact Cost

The net library facilities impact cost per resident is the difference between the cost component and the credit component. Table V-7 summarizes the calculation of the net library facilities impact cost per resident. As presented, the net impact cost amounts to approximately $227 per resident.

Table V-7
Net Library Facilities Impact Cost

Variable	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Resident[(1)]	$241.67	
Impact Credit		
Average Annual Capital Improvement Credit[(2)]		$0.80
Capitalization Rate		2.5%
Capitalization Period (in years)		25
Capital Improvement Credit per Resident[(3)]		$14.74
Net Impact Cost		
Net Impact Cost per Resident[(4)]	**$226.93**	

1) Source: Table V-5, sum of building and land value per resident and materials/equipment value per resident
2) Source: Table V-6
3) The present value of the capital improvement credit per resident (Item 2) at a discount rate of 2.5 percent with a capitalization period of 25 years.
4) Total impact cost per resident (Item 1) less capital improvement credit per resident (Item 3)

Calculated Library Facilities Impact Fee Schedule

Table V-8 presents the calculated library facilities impact fee schedule for Martin County for residential land uses, based on the net impact cost per resident previously presented in Table V-7. Changes to the cost and credit components since the 2012 study results in an increase of approximately 25 percent per resident. The remaining changes in the fees for each category is due to the fluctuations in the demand component.

Table V-8

Calculated Library Facilities Impact Fee Schedule

Residential Land Use	Impact Unit	Residents per Unit[1]	Net Cost per Resident[2]	Calculated Impact Fee[3]	Current Adopted Impact Fee[4]	Percent Change[5]
Residential:						
Single Family (detached/attached)						
800 sq ft or less	du	1.23	$226.93	**$279**	$439	-36%
801 - 1,100 sq ft	du	1.59	$226.93	**$361**	$471	-23%
1,101 - 2,300 sq ft	du	2.29	$226.93	**$520**	$537	-3%
2,301 sq ft or more	du	3.13	$226.93	**$710**	$614	16%
Multi-Family	du	1.42	$226.93	**$322**	$537	-40%

1) Source: Appendix A, Table A-2
2) Source: Table V-7
3) Source: Residents per unit (Item 1) multiplied by the net cost per resident (Item 2)
4) Source: Martin County
5) Percent change from current adopted impact fee (Item 4) to calculated impact fee (Item 3)

Library Impact Fee Schedule Comparison

As part of the work effort in updating Martin County's library facilities impact fee program, a comparison of the County's calculated library facilities impact fee schedule to fees schedules of other select Florida counties was completed. Table V-9 presents this comparison.

Table V-9

Library Facilities Impact Fee Schedule Comparison

Land Use	Unit[2]	Martin County		Brevard County[5]	Hernando County[6]	Palm Beach County[7]	St. Lucie County[8]
		Calculated[3]	Existing[4]				
Date of Last Update		2023	2012	2000	2022	2022	2022
Assessed Portion of Calculated[1]		N/A	Varies	100%	N/A	Varies	Varies
Residential:							
Single Family (2,000 sq ft)	du	$520	$537	$64	$222	$247	$336
Multi-Family (1,300 sq ft)	du	$322	$537	$56	$162	$192	$240

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions
2) du = dwelling unit
3) Source: Table V-8
4) Source: Martin County
5) Source: Brevard County Planning & Development Department. Multi-family fee shown reflects Duplex, Townhouse, 1 to 2 stories.
6) Source: Benesch Hernando County Impact Fee Update Study 2022. Fees shown are not yet adopted.
7) Source: Palm Beach County Administration Division. Fees are adopted in compliance with the 50% fee increase limit per F.S. 163.31801
8) Source: St. Lucie County Planning & Development Services Department. Multi-family fee shown reflects multi-family (1-2 stories). Fees are adopted in compliance with the 50% fee increase limit per F.S. 163.31801 and are effective January 1st, 2024.

VI. Parks & Recreation Facilities

This section addresses the analysis used in developing the parks and recreation impact fee. Several elements addressed in the section include:

- Park Land and Recreation Facilities Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Parks and Recreation Facilities Impact Cost
- Calculated Impact Fee Schedule
- Impact Fee Schedule Comparison

These elements are summarized throughout this section.

Park Land and Recreation Facilities Inventory

According to information provided by Martin County, the County's land and recreation facilities inventory utilized for impact fee purposes includes 64 parks totaling nearly 1,278 total acres. Of this, 514 acres are active park land, which are included in the calculation of the parks and recreational facilities impact fee. The passive acreage is included in the conservation/open space impact fee inventory, which will be discussed in the next section of this report. The inventory excludes park land that is not owned by the County and parks that are operated by another entity and generate revenue. Table VI-1 presents a summary of the inventory included in the parks and recreation facilities impact fee.

Table VI-1

Martin County Parks and Recreation Inventory [1]

Name of the Park/Facility	Active Acreage	Passive (Conservation/ Open Space) Acreage	Total Acreage	Classification	Amphitheater	Boardwalk	Boat Ramp	Canoe/ Kayak Launch	Campsite/ RV Site	Caretakers Residence (sq. ft.)	Center - Community/Recreation (sq. ft.)	Court - Basketball	Court - Pickleball	Court - Racquetball	Court - Tennis	Court - Volleyball
Anderson Middle School[3]	N/A	N/A	N/A	Community								2				
Bathtub Reef Beach	4.84	1.76	6.60	Beach/Water Access												
Beachwalk Pasley	2.05	14.75	16.80	Beach/Water Access												
Bob Graham Beach	4.31	9.39	13.70	Beach/Water Access		1										
Bryan Mawr Beach	0.72	0.00	0.72	Beach/Water Access		1										
C-23 Canal Park (Murphy Road)[3]	N/A	N/A	N/A	Beach/Water Access												
Charlie Leighton Park	5.10	0.00	5.10	Community			2				4,136					
Chastain Beach	1.10	0.00	1.10	Beach/Water Access		1										
Citrus Grove Park	16.50	9.55	26.05	Community												
County Line Park	3.10	0.00	3.10	Community							1,600		1		2	
Cove Road Park	0.36	0.00	0.36	Beach/Water Access												
East Ridge Park	4.10	0.00	4.10	Neighborhood								1				
Fletcher Beach[3]	N/A	N/A	N/A	Beach/Water Access												
Glascock Beach[3]	N/A	N/A	N/A	Beach/Water Access												
Greenfield Park	0.62	0.00	0.62	Beach/Water Access												
Halpatiokee Park	57.00	512.00	569.00	Regional				1		2,198					10	
Hidden Oaks Middle School[3]	N/A	N/A	N/A	Community												
Hobe Sound Beach	2.10	0.00	2.10	Beach/Water Access												
Hobe Sound Civic Center	0.90	0.00	0.90	Community							2,610					
Hosford Park	5.25	1.91	7.16	Beach/Water Access			1									
Indian Riverside Park	33.18	28.82	62.00	Regional	1			1			3,800					
JV Reed Park[2]	10.75	0.00	10.75	Community								1		2	4	
J&S Boat Ramp[3]	N/A	N/A	N/A	Beach/Water Access			1									
Jensen Beach	22.30	33.00	55.30	Beach/Water Access												2
Jensen Beach Boat Ramp	3.00	0.00	3.00	Beach/Water Access			2									
Jensen Beach Causeway Park	20.00	0.00	20.00	Beach/Water Access			4									
Jensen Beach Community Center	0.90	0.00	0.90	Community							3,520					
Jensen Beach Elementary School[3]	N/A	N/A	N/A	Community								1				
Jimmy Graham Park	17.29	14.41	31.70	Beach/Water Access			1									
Jock Leighton Park	14.87	0.33	15.20	Community												
Joe's River Park	0.51	11.69	12.20	Beach/Water Access				1								
Lamar Howard Park	3.90	0.00	3.90	Community							3,456	1			1	1
Langford Park	22.67	0.00	22.67	Community							12,572	1			5	1
Justin Wilson Memorial Park	29.85	29.65	59.50	Community		1						1		4	4	1
Maggy's Hammock Park	2.25	19.45	21.70	Neighborhood												
Manatee Park	0.70	0.00	0.70	Neighborhood												
Mary Brogan Park	5.11	3.50	8.61	Neighborhood								2				
Murray Middle School[3]	N/A	N/A	N/A	Community								1				
New Monrovia Park[3]	N/A	N/A	N/A	Community							2,278	1				
Owen K Murphy Memorial Boat Ramp	0.72	0.00	0.72	Beach/Water Access			1									
Peck Lake Park[3]	N/A	N/A	N/A	Community												
Pendarvis Cove Park[3]	N/A	N/A	N/A	Beach/Water Access			1									
Phipps Park	25.00	29.00	54.00	Special Facilities			1	1	58	1,344						
Pineapple Park	19.62	11.98	31.60	Community												
Port Salerno Civic Center	1.30	0.00	1.30	Community							3,045					
Porter Park	0.45	0.00	0.45	Neighborhood												
Rio Civic Center	0.68	0.00	0.68	Community							2,756					

Table VI-1

Martin County Parks and Recreation Inventory (Continued) [1]

Name of the Park/Facility	Classification	Field - Baseball	Field - Football	Field - Lacrosse	Field - Soccer	Field - Softball	Fishing Pier/Dock/ Point	Gazebo	Hockey Rink	Horse Arena	Maintenance Facility (sq. ft.)	Meeting Rooms (sq. ft.)	Picnic/ Recreation Pavilion	Parking Spaces - Boat Trailer	Parking Spaces - Vehicle	Playground	Pool	Restrooms (sq. ft.)	Skatepark	Walking/ Bike Trails (paved) mile of trail	Walking/ Bike Trails (not-paved) mile of trail
Anderson Middle School[3]	Community	2			1										188			300			
Bathtub Reef Beach	Beach/Water Access						1						1		40			1,200			
Beachwalk Pasley	Beach/Water Access														24						
Bob Graham Beach	Beach/Water Access														75						0.33
Bryan Mawr Beach	Beach/Water Access														23						
C-23 Canal Park (Murphy Road)[3]	Beach/Water Access						1														
Charlie Leighton Park	Community				1		3							19	20			250			
Chastain Beach	Beach/Water Access														34			200			
Citrus Grove Park	Community	4									1,500										
County Line Park	Community														13			154			
Cove Road Park	Beach/Water Access												1		9						
East Ridge Park	Neighborhood					1							1		44	1		500			
Fletcher Beach[3]	Beach/Water Access														6						
Glascock Beach[3]	Beach/Water Access																				
Greenfield Park	Beach/Water Access						1						1		15						
Halpatiokee Park	Regional	5			5				1		2,400		12		308	1		1,300		1.00	2.50
Hidden Oaks Middle School[3]	Community	2													187						
Hobe Sound Beach	Beach/Water Access												1		92			1,026			
Hobe Sound Civic Center	Community							1							19			312			
Hosford Park	Beach/Water Access						1						2								
Indian Riverside Park	Regional						1	1					4		244			800		1.40	
JV Reed Park[2]	Community	3	1					1							126			300			
J&S Boat Ramp[3]	Beach/Water Access						2														
Jensen Beach	Beach/Water Access												3		539			818			
Jensen Beach Boat Ramp	Beach/Water Access						3							39	11			200			
Jensen Beach Causeway Park	Beach/Water Access						7						12	34	145	1		833			
Jensen Beach Community Center	Community																				
Jensen Beach Elementary School[3]	Community		1												145	1					
Jimmy Graham Park	Beach/Water Access						5							41	12			200			
Jock Leighton Park	Community		2	1									7		116				1		
Joe's River Park	Beach/Water Access						1						1		7						
Lamar Howard Park	Community				1								1		40	1		280	1		
Langford Park	Community	4											11		125	1					
Justin Wilson Memorial Park	Community	4			1								5		211	2		400			0.10
Maggy's Hammock Park	Neighborhood												1		5	1				0.20	0.90
Manatee Park	Neighborhood						10								25						
Mary Brogan Park	Neighborhood												3		27	1		350	1	0.27	
Murray Middle School[3]	Community	1			1										128						
New Monrovia Park[3]	Community												2		9	1		300			
Owen K Murphy Memorial Boat Ramp	Beach/Water Access													11	11						
Peck Lake Park[3]	Community												10		88			800			0.45
Pendarvis Cove Park[3]	Beach/Water Access						1						3	13	29			350			
Phipps Park	Special Facilities						2						3			1		1,602		0.30	1.00
Pineapple Park	Community	3			4										181			200			
Port Salerno Civic Center	Community						1								44						
Porter Park	Neighborhood												2		11						
Rio Civic Center	Community																				

Table VI-1

Martin County Parks and Recreation Inventory (Continued) [1]

Name of the Park/Facility	Active Acreage	Passive (Conservation/ Open Space) Acreage	Total Acreage	Classification	Amphitheater	Boardwalk	Boat Ramp	Canoe/ Kayak Launch	Campsite/ RV Site	Caretakers Residence (sq. ft.)	Center - Community/Recreation (sq. ft.)	Court - Basketball	Court - Pickleball	Court - Racquetball	Court - Tennis	Court - Volleyball
Rio Nature Park	0.39	1.81	2.20	Neighborhood												
Ross Witham Beach	5.80	0.00	5.80	Beach/Water Access												
Sailfish Splash Waterpark	12.63	7.07	19.70	Special Facilities												
Sandspirit Park	15.30	0.00	15.30	Community			2									
Santa Lucea Beach	3.90	5.30	9.20	Beach/Water Access		1										
SSG Justin Johnson Park at Banner Lake	3.07	1.30	4.37	Neighborhood								1				
Stokes Beach	0.41	0.00	0.41	Beach/Water Access												
Stuart Beach[2]	16.95	4.98	21.93	Beach/Water Access								2				1
Stuart Beach Causeway	12.60	0.00	12.60	Beach/Water Access			3									
Tiger Shores Beach	1.10	0.00	1.10	Beach/Water Access												
Timer Powers Park	36.08	2.12	38.20	Regional	1		1									
Tropical Farms Park[2]	3.10	0.00	3.10	Neighborhood										2		
Twin Rivers Park	16.35	9.55	25.90	Community												
Virgina Forest Beach	0.70	0.00	0.70	Beach/Water Access		1										
William G. Doc Myers Park	25.47	0.00	25.47	Community								2		2	4	
Wojcieszak Park	12.19	0.00	12.19	Community										6	2	
Zeus Park	5.00	0.00	5.00	Neighborhood												

Name of the Park/Facility	Classification	Field - Baseball	Field - Football	Field - Lacrosse	Field - Soccer	Field - Softball	Fishing Pier/Dock/ Point	Gazebo	Hockey Rink	Horse Arena	Maintenance Facility (sq. ft.)	Meeting Rooms (sq. ft.)	Picnic/ Recreation Pavilion	Parking Spaces - Boat Trailer	Parking Spaces - Vehicle	Playground	Pool	Restrooms (sq. ft.)	Skatepark	Walking/ Bike Trails (paved) mile of trail	Walking/ Bike Trails (not-paved) mile of trail
Rio Nature Park	Neighborhood												1								0.10
Ross Witham Beach	Beach/Water Access						1								22						
Sailfish Splash Waterpark	Special Facilities							5				2,590	1		160	1	4	2,489			
Sandspirit Park	Community						8						11	115	147	1		1,929		0.55	
Santa Lucea Beach	Beach/Water Access														50						
SSG Justin Johnson Park at Banner Lake	Neighborhood												3		33	1		700			
Stokes Beach	Beach/Water Access						1								18						
Stuart Beach[2]	Beach/Water Access												14		253	1		1,900			
Stuart Beach Causeway	Beach/Water Access						3						8	2	70			550			
Tiger Shores Beach	Beach/Water Access														34						
Timer Powers Park	Regional									1			4		54	1		620			
Tropical Farms Park[2]	Neighborhood	1											2		30	1					
Twin Rivers Park	Community						3								17			200			
Virgina Forest Beach	Beach/Water Access																				
William G. Doc Myers Park	Community	2			3										209			880			
Wojcieszak Park	Community	5									6,300		1		104	1		1,300			
Zeus Park	Neighborhood															1					

Table VI-1

Martin County Parks and Recreation Inventory (Continued) [1]

Summary	Active Acreage	Passive (Conservation/ Open Space) Acreage	Total Acreage	Count	Amphitheater	Boardwalk	Boat Ramp	Canoe/ Kayak Launch	Campsite/ RV Site	Caretakers Residence (sq. ft.)	Center - Community/Recreation (sq. ft.)	Court - Basketball	Court - Pickleball	Court - Racquetball	Court - Tennis	Court - Volleyball
Community	199.45	61.06	260.51	23	0	1	4	0	0	0	35,973	11	1	14	22	3
Neighborhood	24.17	26.06	50.23	9	0	0	0	0	0	0	0	4	0	2	0	0
Regional	126.26	542.94	669.20	3	2	0	1	2	0	2,198	3,800	0	0	0	10	0
Special Facilities	37.63	36.07	73.70	2	0	0	1	1	58	1,344	0	0	0	0	0	0
Total - Active Parks [4]	**387.51**	**666.13**	**1,053.64**	**37**	**2**	**1**	**6**	**3**	**58**	**3,542**	**39,773**	**15**	**1**	**16**	**32**	**3**
Total - Beach/Water Access	**126.63**	**97.19**	**223.82**	**27**	**0**	**5**	**14**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**3**

Summary	Field - Baseball	Field - Football	Field - Lacrosse	Field - Soccer	Field - Softball	Fishing Pier/Dock/ Point	Gazebo	Hockey Rink	Horse Arena	Maintenance Facility (sq. ft.)	Meeting Rooms (sq. ft.)	Picnic/ Recreation Pavilion	Parking Spaces - Boat Trailer	Parking Spaces - Vehicle	Playground	Pool	Restrooms (sq. ft.)	Skatepark	Walking/ Bike Trails (paved) mile of trail	Walking/ Bike Trails (not-paved) mile of trail
Community	30	4	1	12	0	15	2	0	0	7,800	0	48	134	2,117	8	0	7,605	2	0.55	0.55
Neighborhood	1	0	0	0	1	10	0	0	0	0	0	13	0	175	6	0	1,550	1	0.47	1.00
Regional	5	0	0	5	0	1	1	1	1	2,400	0	20	0	606	2	0	2,720	0	2.40	2.50
Special Facilities	0	0	0	0	0	2	5	0	0	0	2,590	4	0	160	2	4	4,091	0	0.30	1.00
Total - Active Parks [4]	**36**	**4**	**1**	**17**	**1**	**28**	**8**	**1**	**1**	**10,200**	**2,590**	**85**	**134**	**3,058**	**18**	**4**	**15,966**	**3**	**3.72**	**5.05**
Total - Beach/Water Access	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**0**	**0**	**47**	**140**	**1,519**	**2**	**0**	**7,277**	**0**	**0.00**	**0.33**

1) Source: Martin County Parks and Recreation Master Plan
2) Park acreage excludes portion included in the fire rescue impact fee
3) Land is not-owned by Martin County and excluded from impact fee calculations
4) Sum of assets at community, neighborhood, regional, and special facilities parks

Service Area and Demand Component

Martin County provides parks and recreational facility services on a countywide basis. Therefore, the countywide population is used in the impact fee calculations. Appendix A, Table A-16, provides the estimated countywide population for 2023 and the projected population through 2040. Parks and recreation impact fees are charged only to residential land uses. Consistent with the County's adopted LOS standards, the permanent population per housing unit is used to measure demand from each residential land use, which is presented in Appendix A.

Level of Service

The current LOS for all County-owned and maintained parks is presented in Table VI-2. To determine the current LOS, the total park acreage is divided by the countywide permanent population for 2023 and multiplied by 1,000. This achieved LOS is compared to the adopted LOS standard. While the achieved LOS represents the investment made into the park land, the adopted LOS standard indicates the intended LOS going forward. For impact fee purposes, the lower of the two measures is used not to overcharge new development. As shown, the achieved LOS of 2.38 acres per 1,000 permanent residents for active parks is utilized in the calculation of the active park impact fee. The achieved LOS of 0.78 acres per 1,000 permanent residents is utilized in the calculation of the beach park impact fee.

Table VI-2

Current Level of Service (2023)

Variable	Active Parks	Beach Parks
2023 Permanent Population[(1)]	162,528	
Active Park Acreage[(2)]	387.51	126.63
Adopted Total Parks LOS Standard (Acres per 1,000 Residents)[(3)]	**3.00**	N/A
Current Level of Service (Acres per 1,000 Residents)[(4)]	**2.38**	**0.78**

1) Source: Appendix A, Table A-16 (countywide)
2) Source: Table VI-1
3) Active park acreage (Item 2) divided by population (Item 1) multiplied by 1,000
4) Source: Martin County

Table VI-3 presents a comparison of the parks and recreation adopted LOS standards of other select Florida counties to Martin County's adopted LOS standard and current achieved LOS in terms of acreage per population. As shown, the County's LOS standard is on the lower end of the range.

Table VI-3

Comparison of Adopted LOS Standards

Jurisdiction	LOS Standard (Acres per 1,000 Residents)[1]
Brevard County[1]	3.00
Martin County[2] (Adopted)	**3.00**
Hernando County[3]	4.00
Charlotte County[4]	4.43
Palm Beach County[5]	4.82
Okeechobee County[6]	5.50
Indian River County[7]	6.61
St. Lucie County[8]	7.50
Highlands County[9]	10.00
Osceola County[10]	10.00
Average (excluding Martin)	**6.21**

1) Source: Brevard County Comprehensive Plan
2) Source: Martin County
3) Source: Hernando County Comprehensive Plan 2040 Plan
4) Source: Charlotte County Parks and Recreation Master Plan
5) Source: Palm Beach County Comprehensive Plan; Recreation and Open Space Element
6) Source: Okeechobee County Comprehensive Plan
7) Source: Indian River County 2030 Comprehensive Plan
8) Source: St. Lucie County Comprehensive Plan
9) Source: Highlands County 2030 Comprehensive Plan
10) Source: Osceola County Comprehensive Plan

Cost Component

The capital cost associated with parks and recreation facilities consists of two components: the cost of purchasing and developing land and cost of recreational facilities located at each park. The following paragraphs address park land and recreational facility value estimates.

Land Cost

Park land value per acre is estimated based on the value of current park land, vacant land sales of similar size parcels over the past three years, value of similar size vacant parcels based on information obtained from the Martin County Property Appraiser's database and discussions with Martin County representatives. This analysis resulted in an estimated average land value of

$50,000 per acre. This information is presented in Table VI-4. Appendix B provides further detail regarding the estimation of the land value.

The cost of land for parks and recreation facilities includes more than just the purchase cost of the land. Landscaping, site improvement, and parking costs are also considered. The estimated cost for landscaping, site preparation, and parking is estimated at $10,000 per acre.

This land value is converted to land value per resident using the current LOS and results in $143 per resident for active parks and $47 per resident for beach/water access parks.

Table VI-4

Land Cost per Resident

Variable	Cost per Acre	
	Active Parks	Beach/Water Access Parks
Land Purchase Cost[1]	$50,000	
Landscaping, Site Preparation, and Irrigation Costs[2]	$10,000	
Total Land Cost per Acre[3]	**$60,000**	
Achieved LOS Standard (acres per 1,000 Residents)[4]	2.38	0.78
Land Cost per Resident[5]	**$142.80**	**$46.80**

1) Source: Appendix B
2) Based on estimates provided by other Florida jurisdictions
3) Sum of land purchase cost (Item 1) and landscaping/site prep/irrigation cost (Item 2)
4) Source: Table VI-2
5) Total land cost per acre (Item 3) multiplied by the adopted LOS standard (Item 4), divided by 1,000

Recreational Facility Value

To estimate current recreational facility value, multiple sources were reviewed to determine the unit cost of each recreational facility type, including insured values of the facilities, recent cost information obtained for similar facilities from other jurisdictions and input from Martin County representatives.

In addition to the construction cost of recreational facilities, the architectural, engineering and inspection (AE&I) costs associated with developing this infrastructure are also included. The AE&I cost is estimated at 10 percent of the construction cost based on information obtained from Martin County, which is consistent with estimates obtained from other Florida jurisdictions.

As shown in Table VI-5, the total recreational facility value for active parks is $84.6 million which equates to $520 per resident. The total recreational facility value for beach/water access parks is $17.8 million which equates to $110 per resident.

Table VI-5
Recreational Facility Value

Facility[1]		Unit Value[2]	Unit Count by Park Classification[2]						Total Value by Park Type[3]					
Description	Unit		Community	Neighborhood	Regional	Special Facilities	Total - Active Parks	Total - Beach/Water Access	Community	Neighborhood	Regional	Special Facilities	Total - Active Parks	Total - Beach/Water Access
Amphitheater	amphitheater	$1,000,000	0	0	2	0	**2**	0	$0	$0	$2,000,000	$0	**$2,000,000**	**$0**
Boardwalk	boardwalk	$300,000	1	0	0	0	**1**	**5**	$300,000	$0	$0	$0	**$300,000**	**$1,500,000**
Boat Ramp	dock	$65,000	4	0	1	1	**6**	**14**	$260,000	$0	$65,000	$65,000	**$390,000**	**$910,000**
Canoe/Kayak Launch	launch	$60,000	0	0	2	1	**3**	**1**	$0	$0	$120,000	$60,000	**$180,000**	**$60,000**
Campsite/RV Site	site	$11,500	0	0	0	58	**58**	**0**	$0	$0	$0	$667,000	**$667,000**	**$0**
Caretakers Residence	sq. ft.	$250	0	0	2,198	1,344	**3,542**	**0**	$0	$0	$549,500	$336,000	**$885,500**	**$0**
Community/Recreation Center	sq. ft.	$350	35,973	0	3,800	0	**39,773**	**0**	$12,590,550	$0	$1,330,000	$0	**$13,920,550**	**$0**
Courts:														
Basketball	court	$50,000	11	4	0	0	**15**	**2**	$550,000	$200,000	$0	$0	**$750,000**	**$100,000**
Pickleball	court	$20,000	1	0	0	0	**1**	**0**	$20,000	$0	$0	$0	**$20,000**	**$0**
Racquetball	court	$60,000	14	2	0	0	**16**	**0**	$840,000	$120,000	$0	$0	**$960,000**	**$0**
Tennis	court	$65,000	22	0	10	0	**32**	**0**	$1,430,000	$0	$650,000	$0	**$2,080,000**	**$0**
Volleyball	court	$10,000	3	0	0	0	**3**	**3**	$30,000	$0	$0	$0	**$30,000**	**$30,000**
Fields:														
Baseball	field	$300,000	30	1	5	0	**36**	**0**	$9,000,000	$300,000	$1,500,000	$0	**$10,800,000**	**$0**
Football	field	$660,000	4	0	0	0	**4**	**0**	$2,640,000	$0	$0	$0	**$2,640,000**	**$0**
Lacrosse	field	$225,000	1	0	0	0	**1**	**0**	$225,000	$0	$0	$0	**$225,000**	**$0**
Soccer	field	$225,000	12	0	5	0	**17**	**0**	$2,700,000	$0	$1,125,000	$0	**$3,825,000**	**$0**
Softball	field	$265,000	0	1	0	0	**1**	**0**	$0	$265,000	$0	$0	**$265,000**	**$0**
Fishing Pier/Dock/Point	pier	$65,000	15	10	1	2	**28**	**28**	$975,000	$650,000	$65,000	$130,000	**$1,820,000**	**$1,820,000**
Gazebo	gazebo	$35,000	2	0	1	5	**8**	**0**	$70,000	$0	$35,000	$175,000	**$280,000**	**$0**
Hockey Rink	Rink	$1,250,000	0	0	1	0	**1**	**0**	$0	$0	$1,250,000	$0	**$1,250,000**	**$0**
Horse Arena	arena	$1,415,000	0	0	1	0	**1**	**0**	$0	$0	$1,415,000	$0	**$1,415,000**	**$0**
Maintenance Facility	sq. ft.	$130	7,800	0	2,400	0	**10,200**	**0**	$1,014,000	$0	$312,000	$0	**$1,326,000**	**$0**
Meeting Rooms	sq. ft.	$250	0	0	0	2,590	**2,590**	**0**	$0	$0	$0	$647,500	**$647,500**	**$0**
Picnic/Recreation Pavilion	pavilion	$40,000	48	13	20	4	**85**	**47**	$1,920,000	$520,000	$800,000	$160,000	**$3,400,000**	**$1,880,000**
Parking Spaces - Boat Trailer	space	$2,300	134	0	0	0	**134**	**140**	$308,200	$0	$0	$0	**$308,200**	**$322,000**
Parking Spaces - Vehicle	space	$4,500	2,117	175	606	160	**3,058**	**1,519**	$9,526,500	$787,500	$2,727,000	$720,000	**$13,761,000**	**$6,835,500**
Playground	playground	$100,000	8	6	2	2	**18**	**2**	$800,000	$600,000	$200,000	$200,000	**$1,800,000**	**$200,000**
Pool	pool	$735,000	0	0	0	4	**4**	**0**	$0	$0	$0	$2,940,000	**$2,940,000**	**$0**
Restrooms	sq. ft.	$350	7,605	1,550	2,720	4,091	**15,966**	**7,277**	$2,661,750	$542,500	$952,000	$1,431,850	**$5,588,100**	**$2,546,950**
Skatepark	skate park	$140,000	2	1	0	0	**3**	**0**	$280,000	$140,000	$0	$0	**$420,000**	**$0**
Walking/ Bike Trails (paved)	mile of trail	$450,000	0.55	0.47	2.40	0.30	**4**	**0.00**	$247,500	$211,500	$1,080,000	$135,000	**$1,674,000**	**$0**
Walking/ Bike Trails (not-paved)	mile of trail	$65,000	0.55	1.00	2.50	1.00	**5**	**0.33**	$35,750	$65,000	$162,500	$65,000	**$328,250**	**$21,450**

Table VI-5 (Continued)

Recreational Facility Values

Facility[1]		Unit Value[2]	Unit Count by Park Classification[2]						Total Value by Park Type[3]					
Description	Unit		Community	Neighborhood	Regional	Special Facilities	Total - Active Parks	Total - Beach/Water Access	Community	Neighborhood	Regional	Special Facilities	Total - Active Parks	Total - Beach/Water Access
Facilities and Equipment Value									**$48,424,250**	**$4,401,500**	**$16,338,000**	**$7,732,350**	**$76,896,100**	**$16,225,900**
Architecture, Engineering, and Inspection @ 10%[4]									$4,842,425	$440,150	$1,633,800	$773,235	$7,689,610	$1,622,590
Total Recreational Facility Value[5]									$53,266,675	$4,841,650	$17,971,800	$8,505,585	**$84,585,710**	**$17,848,490**
Total Number of Acres[6]									199.45	24.17	126.26	37.63	387.51	126.63
Total Recreational Facility Cost per Acre[7]									**$267,068**	**$200,317**	**$142,340**	**$226,032**	**$218,280**	**$140,950**
Total Permanent Population[8]									162,528	162,528	162,528	162,528	162,528	162,528
Total Recreational Facility Cost per Resident[9]									**$327.74**	**$29.79**	**$110.58**	**$52.33**	**$520.44**	**$109.82**

1) Estimates based on insured values of the facilities, discussions with Martin County representatives, and recent cost information obtained for similar facilities from other jurisdictions.
2) Source: Table VI-1
3) Unit count by park classification (Item 2) multiplied by the estimated unit cost (Item 1)
4) Recreational facility value multiplied by 10% based on information provided by Martin County
5) Sum of recreational facility value and the architecture, engineering, and inspection cost (Item 4)
6) Source: Table VI-1
7) Total recreational facility value (Item 5) divided by total number of acres (Item 6)
8) Source: Appendix A, Tables A-1
9) Total recreational facility value (Item 6) divided by service area permanent population (Item 8)

Total Impact Cost per Resident

Table VI-6 presents total parks and recreation facility value per resident. As presented, the total parks and recreation facilities impact cost is estimated at $663 per resident for active parks and $157 for beach/water access.

Table VI-6

Total Impact Cost per Resident

Variable	Active Parks		Beach/Water Access	
	Cost per Resident	% of Total[4]	Cost per Resident	% of Total[4]
Per Resident				
Total Land Cost[1]	$142.80	22%	$46.80	30%
Recreational Facility Cost[2]	$520.44	78%	$109.82	70%
Total Impact Cost[3]	**$663.24**	**100%**	**$156.62**	100%

1) Source: Table VI-4
2) Source: Table VI-5
3) Sum of land and facility and equipment cost per resident (Items 1 and 2)
4) Percentage of total parks and recreation facility cost per resident

Credit Component

To avoid overcharging new development for the capital cost of providing parks and recreation services, a review of the capital funding program for the parks and recreation program was completed. The purpose of this review is to estimate any future revenues generated by new development, other than impact fees, which will be used to fund the expansion of capital facilities and land related to the Martin County's parks and recreation program. As mentioned previously, the credit component does not include any capital renovation, maintenance, or operations expenses, as these types of expenditures do not add capacity and should not be considered for impact fee credit.

Capital Expansion Credit

Capital expansion expenditure credits per resident were calculated based on non-impact fee revenue funding for capital expansion projects built or programmed between FY 2014/15 through FY 2023/24. To calculate the capital expenditure per resident, the average annual capital expansion expenditures are divided by average population for the same period. As shown in Table VI-7, the average annual expenditure for active parks over this ten-year period amounts to approximately $45,000 and approximately $0.29 per resident per year. The average annual expenditure for beach parks over this ten-year period amounts to approximately $54,000 and approximately $0.34 per resident per year.

Table VI-7

Programmed Capital Costs

Description[1]	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	Total
Sales Tax:											
Citrus Grove Park	$44,783	$5,500	-	-	-	-	-	-	-	-	$50,283
Subtotal	***$44,783***	***$5,500***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$50,283***
Tourist Development Tax/Grants											
Bathtub Reef Beach Restroom Building	-	$37,434	$3,006	-	-	-	-	-	-	-	$40,440
Phipps Park Campground	-	-	-	-	-	$250,000	-	-	-	-	$250,000
Subtotal	***$0***	***$37,434***	***$3,006***	***$0***	***$0***	***$250,000***	***$0***	***$0***	***$0***	***$0***	***$290,440***
Ad Valorem Tax											
Pineapple Park New Shade System	-	-	-	-	-	$80,000	-	-	-	-	$80,000
Stuart Beach Park Improvements	-	-	-	-	-	$500,000	-	-	-	-	$500,000
Indian Riverside Park Improvements	-	-	-	-	-	$70,000	-	-	-	-	$70,000
Subtotal	***$0***	***$0***	***$0***	***$0***	***$0***	***$650,000***	***$0***	***$0***	***$0***	***$0***	***$650,000***
Total - Active Parks	**$44,783**	**$5,500**	**$0**	**$0**	**$0**	**$400,000**	**$0**	**$0**	**$0**	**$0**	**$450,283**
Total - Beach Parks	**$0**	**$37,434**	**$3,006**	**$0**	**$0**	**$500,000**	**$0**	**$0**	**$0**	**$0**	**$540,440**
Average Annual Expenditures - Active Parks[2]											**$45,028**
Average Annual Expenditures - Beach Parks[2]											**$54,044**
Average Annual Permanent Population - Countywide[3]											**157,076**
Average Annual Expenditures per Resident -- Active Parks[4]											**$0.29**
Average Annual Expenditures per Resident -- Beach/Water Access[4]											**$0.34**

1) Source: Martin County Parks and Recreational Department
2) Total expenditures divided by 10 years
3) Source: Appendix A, Table A-16; Countywide permanent population
4) Average annual expenditures (Item 2) divided by average annual population (Item 3)

Debt Service Credit

Any outstanding bond issues related to recreational facilities also will result in a credit to the impact fee. Martin County used bond/note proceeds for construction of a boat ramp. The remaining debt service payments are divided by the population during the same period to determine the debt service credit per resident. Table VI-8 presents these calculations.

Table VI-8

Debt Service Credit

Description[1]	Funding Source[1]	Number of Remaining Payments[1]	Present Value of Remaining Payments[2]	Average Annual Population[3]	Credit per Resident[4]
Series 2004 - Boat Ramp	Non Ad-Valorem	3	$304,622	162,530	$1.87
Total Debt Service Credit per Resident					**$1.87**

1) Source: Martin County Division of Financial Services / Accounting / Payroll
2) Present value of remaining payments in 2020 dollars
3) Source: Appendix A, Table A-16. Average annual population over remaining number of payments
4) Present value of remaining payments (Item 2) divided by the average annual population (Item 3)

Net Parks & Recreation Facilities Impact Cost

The net impact cost per resident is the difference between the cost and credit components. Table VI-9 summarizes the calculation of the net impact cost for the parks and recreational facilities impact fee. As presented, the net impact cost amounts to approximately $656 per resident for all active parks and $148 per resident for beach/water access.

Table VI-9

Net Impact Cost per Resident

Variable	Active Parks			Beach/Water Access	
	Impact Cost	Revenue Credits		Impact Cost	Revenue Credits
Impact Cost					
Total Impact Cost per Resident[1]	$663.24			$156.62	
Revenue Credit					
Avg Annual Capital Expansion Credit per Resident[2]		$0.29			$0.34
Capitalization Rate		2.5%			2.5%
Capitalization Period (in years)		25			25
Capital Improvement Credit per Resident[3]		$5.34			$6.26
Debt Service Credit per Resident[4]		$1.87			$1.87
Total Impact Credit per Resident[5]		**$7.21**			**$8.13**
Net Impact Cost					
Net Impact Cost per Resident[6]	**$656.03**			**$148.49**	

1) Source: Table VI-6
2) Source: Table VI-7
3) Present value of average annual credit per resident (Item 2) over a 25-year period with a capitalization rate of 2.5%
4) Source: Table VI-8
5) Sum of capital improvement credit per resident (Item 3) and debt service credit per resident (Item 4)
6) Total impact cost per resident (Item 1) less the total impact credit per resident (Item 5)

Calculated Parks & Recreation Facilities Impact Fee Schedule

Table VI-10 and Table VI-11 present the calculated parks and recreation facilities impact fee schedule for Martin County for residential land uses, based on the net impact cost per resident previously presented in Table VI-9. Also presented is a comparison to the County's current adopted fee and percent change from the current fee.

Table VI-10

Calculated Parks and Recreation Facilities Impact Fee Schedule – Active Parks

Land Use	Impact Unit	Residents per Unit[1]	Net Cost per Resident[2]	Calculated Impact Fee[3]	Current Adopted Impact Fee[4]	Percent Change[5]
Residential						
Single Family (detached/attached)						
800 sq ft or less	du	1.12	$656.03	**$735**	$1,052.96	-30%
801 - 1,100 sq ft	du	1.45	$656.03	**$951**	$1,211.84	-22%
1,101 - 2,300 sq ft	du	2.08	$656.03	**$1,365**	$1,735.28	-21%
2,301 sq ft or more	du	2.85	$656.03	**$1,870**	$2,375.47	-21%
Multi-Family	du	1.29	$656.03	**$846**	$1,735.28	-51%
Transient, Assisted, Group:						
Hotel/Motel	room	1.42	$656.03	**$932**	$931.44	0%

1) Source: Appendix A, Table A-2 and Table A-12
2) Source: Table VI-9
3) Residents per unit (Item 1) for each land use category multiplied by the net cost per resident (Item 2)
4) Source: Martin County
5) Percent change from the current adopted impact fee (Item 4) to the calculated impact fee (Item 3)

Table VI-11

Calculated Parks and Recreation Facilities Impact Fee Schedule - Beach/Water Access

Land Use	Impact Unit	Residents per Unit[1]	Net Cost per Resident[2]	Calculated Impact Fee[3]	Current Adopted Impact Fee[4]	Percent Change[5]
Residential						
Single Family (detached/attached)						
800 sq ft or less	du	1.12	$148.49	**$166**	$143.59	16%
801 - 1,100 sq ft	du	1.45	$148.49	**$215**	$165.25	30%
1,101 - 2,300 sq ft	du	2.08	$148.49	**$309**	$236.63	31%
2,301 sq ft or more	du	2.85	$148.49	**$423**	$323.93	31%
Multi-Family	du	1.29	$148.49	**$192**	$236.63	-19%
Transient, Assisted, Group:						
Hotel/Motel	room	1.42	$148.49	**$211**	$127.02	66%

1) Source: Appendix A, Table A-2 and A-12
2) Source: Table VI-9
3) Residents per unit (Item 1) for each land use category multiplied by the net cost per resident (Item 2)
4) Source: Martin County
5) Percent change from the current adopted impact fee (Item 4) to the calculated total impact fee(Item 3)

Parks & Recreation Facilities Impact Fee Schedule Comparison

As part of the work effort in updating Martin County's parks and recreation impact fee schedule, the County's calculated and adopted impact fee schedule was compared to the adopted fee schedules of select Florida counties. Table VI-12 presents this comparison.

Table VI-12

Parks & Recreation Facilities Impact Fee Comparison

Land Use	Unit[2]	Martin County		Charlotte County[5]	Hernando County[6]	Indian River County[7]	Osceola County[8]	Palm Beach County[9]	St. Lucie County[10]
		Calculated[3]	Existing[4]						
Date of Last Update		2023	2012	2021	2022	2020	2019	2022	2022
Assessed Portion of Calculated[1]		N/A	Varies	27%	N/A	40%	100%	Varies	Varies
Residential:									
Single Family (2,000 sq ft)	du	$1,674	$1,972	$312	$491	$819	$2,305	$951	$2,134
Multi-Family (1,300 sq ft)	du	$1,657	$1,972	$246	$358	$468	$1,118	$812	$1,904

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
2) du = dwelling unit
3) Source: Table VI-10
4) Source: Martin County Growth Management Department
5) Source Charlotte County Community Development Department. All fees include a 2.55% administrative fee. Community parks fee adopted at 100% and regional parks fee adopted at 0%. Multi-family fee shown reflects "Multi-Family (1-2 stories)."
6) Source: Benesch Hernando County Impact Fee Update Study 2021. Fees shown are not yet adopted.
7) Source: Indian River County Planning Division. Fees shown for unincorporated county.
8) Source: Osceola County Community Development Department
9) Source: Palm Beach County Administration Division. Fees are adopted in compliance with the 50% fee increase limit per F.S. 163.31801.
10) Source: St. Lucie County Planning & Development Services Department. Fees are adopted in compliance with the 50% fee increase limit per F.S. 163.31801 and are effective January 1st, 2024.

VII. Conservation/Open Space

This section addresses the analysis used in developing the conservation and open space impact fee. Several elements addressed in the section include:

- Land Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Conservation and Open Space Impact Cost
- Calculated Conservation and Open Space Impact Fee Schedule

These elements are summarized throughout this section.

Conservation and Open Space Inventory

According to information provided by Martin County, the County's conservation and open space inventory utilized for impact fee purposes includes 48 parks totaling nearly 74,720 acres. The inventory excludes conservation/open space land not owned by the County. Table VII-1 presents a summary of the inventory included in the conservation and open space impact fee.

Table VII-1

Martin County Conservation/Open Space

Description	Conservation/ Open Space Acres
Allapattah Ranch	21,709.00
Alex's Beach	18.00
Atlantic Ridge	5,748.00
Beachwalk Pasley	14.75
Bob Graham Beach/Addition	9.39
C-44	21,936.00
Stuart Beach (Clifton S. Perry Beach)	18.00
Culpepper Ranch	1,294.00
Curtis	6.00
Cypress Creek	2,948.00
Danforth	27.00
Delaplane Peninsula	52.00
Dubner	3.00
Dutcher	62.00
Gables	80.00
Gomez	34.00
Halpatiokee Regional Park	512.00
Hobe Sound Scrub Preserve	27.27
Haney Creek	51.00
Hawk's Hammock	432.00
Hobe Sound Ranch (Harmony)	289.00
Indian Riverside Park	28.82
Jensen Beach Impoundment	93.00
Jensen Beach West	33.00
Joe's River Park	11.69
Kiplinger Nature Reserve	164.00
Kitching Creek Preserve	51.00
Lake Point	464.00
Lake Okeechobee Ridge	202.00
Loxahatchee River Park	1.00
Mapp Creek Preserve	301.00
Muscara	21.00
Oxbow	8.00
Pal-Mar Preserve	16,796.00
Justin Wilson Memorial Park	29.65
Phipp's Park	29.00
Pratt Whitney Road	40.00
Rio Nature Walk	1.81
River Cove	4.00
Maggy's Hammock Park	19.45
Santa Lucea Beach	5.30
Scrub Oak	22.00
Sea Branch Preserve	920.00
Spices	73.00
Spoil Islands	83.00
Stuart Beach	0.00
Tilton	38.00
Twin Rivers	9.55
Total	**74,719.68**

Source: Martin County

Service Area and Demand Component

Based on a review of level of service (LOS) definitions included in the County's Capital Improvement Plan, it was determined that the service area of conservation/open space is countywide. Service area population is used in the impact fee calculations. Appendix A, Table A-1, provides historical and projected population figures. Conservation and open space impact fees are charged only to residential land uses. Consistent with the County's adopted LOS standards, the weighted seasonal population per housing unit is used to measure demand from each residential land use, which is presented in Appendix A.

Level of Service

The current LOS for all County-owned and maintained parks is presented in Table VII-2. To determine the current LOS, the total acreage is divided by the service area population for 2023. This achieved LOS is compared to the adopted LOS standard. While the achieved LOS represents the investment made into conservation/open space land, the adopted LOS standard indicates the intended LOS going forward. For impact fee purposes, the lower of the two measures is used not to overcharge new development. As shown, the adopted LOS standard of 0.02 per weighted seasonal residents is utilized in the calculation of the conservation/open space impact fee.

Table VII-2

Martin County Conservation/Open Space

Variable	Figure
2023 Countywide Weighted Seasonal Population[(1)]	178,618
Current Conservation Land Number of Acres[(2)]	74,719.68
Current Conservation Land LOS Component (Acres per Weighted Resident)[(3)]	**0.42**
Adopted Total Parks LOS Standard (Acres per 1,000 Residents)[(4)]	**0.02**

1) Source: Appendix A, Table A-1
2) Source: Table VII-1
3) Current acreage divided by the countywide weighted seasonal population (Item 1)
4) Source: Martin County

Cost Component

The capital cost associated with conservation and open space impact fee is limited to the cost of purchasing additional land. All recreational facilities are included in the parks and recreational facilities impact fee. The following paragraph addresses conservation/open space land value estimates.

Land Cost

The land value per acre for the County's conservation/open space land inventory is calculated based on the land purchase cost per acre. This analysis resulted in an estimated average land value of $5,000 per acre. This information is presented in Table VII-3.

These land costs are converted to land value per resident using the LOS calculated previously and result in average land value of $100 per resident.

Table VII-3

Land Cost per Resident

Variable	Figure
Land Purchase Cost per Acre[(1)]	$5,000
Adopted LOS Standard (Acres per Weighted Resident)[(2)]	0.02
Land Cost per Resident[(3)]	**$100.00**

1) Source: Appendix B
2) Source: Table VII-2
3) Land purchase cost per acre (Item 1) multiplied by adopted LOS standard (Item 2)

Credit Component

To avoid overcharging new development for the capital cost of providing conservation and open space services, a review of the capital funding program for the program was completed. The purpose of this review is to estimate any future revenues generated by new development, other than impact fees, which will be used to fund the expansion of capital facilities and land related to the Martin County's conservation and open space program. As mentioned previously, the credit component does not include any capital renovation, maintenance, or operations expenses, as these types of expenditures do not add capacity and should not be considered for impact fee credit.

Capital Expansion Credit

Capital expansion expenditure credits per resident were calculated based on non-impact fee revenue funding for capital expansion projects programmed from 2014 to 2024. To calculate the capital expenditure per resident, the average annual capital expansion expenditures are divided by average population for the same period. As shown in Table VII-4 the average annual expenditure over this ten-year period amounts to approximately $182,000 and $1.05 per resident per year.

Once the revenue credit per population is calculated, a credit adjustment is needed for the portion of the revenue credit funded with ad valorem tax revenues, which is 83 percent of the cash funding. This adjustment accounts for the fact that new homes tend to pay higher property taxes per dwelling unit than older homes and was estimated based on a comparison of the average taxable value of newer homes to that of all homes. As presented, the adjusted revenue credit per population amounts $1.40 per year.

Table VII-4

Programmed Capital Costs

Description[1]	FY 2014/15 - FY 2018/19	FY 2019/20 - 2023/24	Total
Ad Valorem Tax			
Environmentally Sensitive Lands	-	$1,250,000	$1,250,000
Kiplinger - FCT Site	-	$255,000	$255,000
Hobe Sound Scrub Preserve	-	$10,000	$10,000
Subtotal	**$0**	**$1,515,000**	**$1,515,000**
Grants			
Loxahatchee River Preservation - Ranch Colony Berm Phase 2	-	$270,000	$270,000
Hobe Sound Scrub Preserve	-	$30,000	$30,000
Subtotal	**$0**	**$300,000**	**$300,000**
Total	**$0**	**$1,815,000**	**$1,815,000**
Average Annual Expenditures[2]			**$181,500**
Average Annual Weighted Population - Countywide[3]			173,492
Average Annual Expenditures per Resident[4]			**$1.05**
Average Annual Expenditures per Resident Funded with Ad Valorem Tax Revenues[5]			$0.88
Credit Adjustment Factor[6]			1.40
Adjusted Average Annual Expenditures per Resident[7]			**$1.40**

1) Source: Martin County
2) Total expenditures divided by 10 years.
3) Appendix A, Table A-1
4) Average annual expenditures (Item 2) divided by average annual population (Item 3)
5) Portion of the credit funded with ad valorem taxes (83%)
6) Adjustment factor to reflect higher ad valorem taxes paid by new homes
7) Credit per resident funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor (Item 6) plus grant funded portion of the credit

Net Conservation/Open Space Impact Cost

The net impact cost per resident is the difference between the cost and credit components. Table VII-5 summarizes the calculation of the net impact cost for conservation/open space impact fee. As presented, the net impact cost amounts to approximately $74 per resident.

Table VII-5
Net Impact Cost per Resident

Variable	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Resident[1]	**$100.00**	
Revenue Credit		
Avg Annual Capital Expansion Credit per Resident[2]		$1.40
Capitalization Rate		2.5%
Capitalization Period (in years)		25
Capital Expansion Credit per Resident[3]		$25.79
Net Impact Cost		
Net Impact Cost per Resident[4]	**$74.21**	

1) Source: Table VII-3
2) Source: Table VII-4
3) Source: The present value of the capital improvement credit per resident (Item 2) at a discount rate of 2.5% with a capitalization period of 25 years
4) Total impact cost per resident (Item 1) less the total revenue credit per resident (Item 3)

Calculated Conservation/Open Space Impact Fee Schedule

Table VII-6 presents the calculated conservation/open space facilities impact fee schedule for Martin County for residential land uses, based on the net impact cost per resident previously presented in Table VII-5. Also presented is a comparison to the County's current adopted fee and percent change from the current fee.

Table VII-6

Calculated Conservation/Open Space Impact Fee Schedule

Land Use	Impact Unit	Residents per Unit[1]	Net Cost per Resident[2]	Calculated Impact Fee[3]	Current Adopted Impact Fee[4]	Percent Change[5]
Residential						
Single Family (detached/attached)						
800 sq ft or less	du	1.23	$74.21	**$91**	$540	-83%
801 - 1,100 sq ft	du	1.59	$74.21	**$118**	$579	-80%
1,101 - 2,300 sq ft	du	2.29	$74.21	**$170**	$661	-74%
2,301 sq ft or more	du	3.13	$74.21	**$232**	$755	-69%
Multi-Family	du	1.42	$74.21	**$105**	$661	-84%
Transient, Assisted, Group:						
Hotel/Motel	room	1.42	$74.21	**$105**	$654	-84%

1) Source: Appendix A, Table A-2
2) Source: Table VII-5
3) Residents per unit (Item 1) for each land use category multiplied by the net cost per resident (Item 2)
4) Source: Martin County
5) Percent change from the current adopted impact fee (Item 4) to the calculated impact fee (Item 3)

VIII. Transportation

This section summarizes the analysis used to update Martin County's multi-modal transportation impact fee schedule and includes the following subsections:

- Demand Component
- Cost Component
- Credit Component
- Calculated Multi-Modal Transportation Impact Fee
- Transportation Impact Fee Comparison

As mentioned previously, the methodology used for the impact fee study follows a consumption-based approach. In the case of multi-modal transportation impact fees, new development is charged based upon the proportion of person-miles of travel (PMT) that each unit of new development is expected to consume of the transportation network.

Under this methodology, the fees assess a proportionate share cost for the entire transportation network in the county, including classified City, County and State roadways, with the exception of local/neighborhood roads and interstate highways/toll facilities. Generally, neighborhood roads are the obligation of the developer and are part of the site/subdivision approvals. Interstate highways and toll facilities tend to be funded with earmarked State and Federal funds.

Included in this section is the necessary support material used in the calculation of the multi-modal fee. The general equation used to compute the multi-modal fee for a given land use is:

[Demand x Cost] – Credit = Fee

The "demand" for travel placed on a transportation system is expressed in units of Person-Miles of Travel (PMT) (daily vehicle-trip generation rate x the trip length (in miles) x the percent new trips [of total trips] x person-trip factor) for each land use contained in the impact fee schedule. Trip generation represents the average daily rates to provide a stable measure of new development's impact. The number of trips tends to vary significantly throughout the day by time of day depending on activity levels; however, overall daily trips tend to be stable.

The "cost" of building new capacity typically is expressed in units of dollars per person-mile of transportation capacity and is based on recent transportation costs for county and state facilities.

The "credit" is an estimate of future non-impact fee revenues generated by new development that are allocated to provide transportation capacity expansion. The impact fee is considered to be an "up front" payment for a portion of the cost of a lane-mile of capacity that is directly related to the amount of capacity consumed by each unit of land use contained in the impact fee schedule, that is not paid for by future tax revenues generated by the new development activity over the next 25 years. These credits are required under the supporting case law for the calculation of impact fees where a new development activity must be reasonably assured that they are not paying, or being charged, twice for the same level of service.

The input variables used in the fee equation are as follows:

Demand Component

Travel Demand

Travel demand is the amount of a transportation system consumed by a unit of new land development activity. Demand is calculated using the following variables and is measured in terms of the person-miles of new travel (PMT) a unit of development consumes on the existing transportation system.

- Number of daily trips generated (Trip Generation Rate = TGR)
- Average length of those trips (Trip Length = TL)
- Proportion of travel that is new travel, rather than travel that is already traveling on the road system and is captured by new development (Percent New Trips = PNT)
- Interstate/toll facility adjustment factor
- Vehicle-trip to person-trip factor

As part of this update, the trip characteristics variables were obtained primarily from two sources: (1) trip characteristics studies previously conducted throughout Florida (Florida Studies Database), and (2) the Institute of Transportation Engineers' (ITE) *Trip Generation Handbook* (11th edition). The Florida Studies Database (included in Appendix C) was used to determine trip length, percent new trips, and the trip generation rate for several land uses.

Interstate & Toll Facility Adjustment Factor

This variable was used to recognize that interstate highway and toll facility improvements are funded by the State (specifically, the Florida Department of Transportation) using earmarked State and Federal funds or through toll revenues. Typically, impact fees are not used to pay for

these improvements and the portion of travel occurring on the interstate/toll facility system is subtracted from the total travel for each use.

To calculate the interstate and toll (I/T) facility adjustment factor, the loaded highway network file was generated for the Treasure Coast Regional Planning Model (TCRPM v4). A select zone analysis was run for all traffic analysis zones located within Martin County in order to differentiate trips with an origin and/or destination within the county versus trips that simply passed through the county.

The analysis reviewed trips on all interstate and toll facilities within Martin County (I-95 and the Florida Turnpike). The limited access vehicle-miles of travel (Limited Access VMT) for county-generated trips with an origin and/or destination within the county was calculated for the identified limited access facilities. Next, the total VMT was calculated for all county-generated trips with an origin and/or destination within Martin County for all roads, including limited access facilities.

The I/T adjustment factor of 20.2 percent was determined by dividing the total limited access VMT by the total County VMT. Total County VMT reduced by this factor is representative of only the roadways that are eligible to be funded with transportation impact fee revenues. Appendix C, Table C-1 provides further detail on this calculation.

Conversion of Vehicle-Trips to Person-Trips

In the case of the multi-modal fee, it is necessary to estimate travel in units of person-miles. Vehicle-trips were converted to person-trips by applying a vehicle-trip to person-trip conversion factor of 1.30. This value was derived from a review of the TCRPM v4. Given that a large portion of travel occurs via automobile, this approach is found to be reasonable.

Cost Component

County Roadway Cost

This section examines the right-of-way (ROW), construction and other cost components associated with county roads with respect to transportation capacity expansion improvements in Martin County. For this purpose, recent bid data for recently completed/ongoing local projects and recent construction bid data from roadway projects throughout Florida were used to identify and provide supporting cost data for County roadway improvements. The cost for each roadway capacity project was separated into four phases: design, construction/engineering inspection (CEI), ROW, and construction.

Design and CEI

Design costs for county roads were estimated at **11 percent** of construction phase costs based on a review of recently completed and ongoing transportation impact fee studies throughout Florida. Additional detail is provided in Appendix D, Table D-1.

CEI costs for county roads were estimated at **9 percent** of construction phase costs based on a review of recently completed and ongoing transportation impact fee studies throughout Florida. Additional detail is provided in Appendix D, Table D-5.

Right-of-Way

The ROW cost reflects the total cost of the acquisitions along a corridor that were necessary to have sufficient cross-section width to widen an existing road or, in the case of new construction, to build a new road. With no recent local data available, ROW cost estimates were developed based on the ROW-to-construction ratios observed in recently completed and ongoing transportation impact fee studies throughout Florida. The ratios from these studies ranged from 26 percent to 60 percent, with an average of 41 percent. For purposes of the Martin County impact fee calculation, a factor of **40 percent** was estimated. Additional detail is provided in Appendix D, Table D-2.

Construction

The construction cost for county roads was based on a review of local and statewide projects. For local improvements, cost data from recently completed projects, the Capital Improvement Program (CIP), and the Martin Metropolitan Planning Organization's (MPO) Long Range Transportation Plan (LRTP) were all reviewed. Local costs included seven recent county road improvements, but no travel lane additions. Therefore, these improvements were not utilized for the roadway construction cost estimate.

In addition, the County's FY 2020 Capital Improvement Plan and 2040 Long Range Transportation Plan (Cost Feasible Plan) were reviewed. Although these documents included lane addition projects, figures did not appear to include all related cost and were not separated for various phases. Given this limited local information, recent improvements from other counties in Florida were reviewed. This review included approximately 139 lane miles of lane addition and new road construction improvements with a weighted average cost per added lane mile of approximately $2.80 million. Additional details are provided in Appendix D, Table D-3.

Based on this review, a county roadway cost of **$2.80 million** per lane mile was used in the multi-modal fee calculation for county roads.

As shown in Table VIII-1, the weighted average county roadway construction cost was calculated at approximately $2.80 million per lane mile, with a total weighted average cost of $4.48 million per lane mile for county roadways.

Table VIII-1

Estimated Total Cost per Lane Mile for County Roads

Cost Type	County Roads
Design[1]	$308,000
Right-of-Way[2]	$1,120,000
Construction[3]	$2,800,000
CEI[4]	$252,000
Total Cost	**$4,480,000**

1) Design cost is estimated at 11% of construction costs
2) Right-of-Way cost is estimated at 40% of construction costs
3) Source: Appendix D, Table D-3
4) CEI cost is estimated at 9% of construction costs

Note: All figures rounded to nearest $000

State Roadway Cost

This section examines the right-of-way, construction and other cost components associated with state roads with respect to transportation capacity expansion improvements in Martin County. For this purpose, recent data from state roadway projects bid in Martin County and throughout Florida and the FDOT's Long Range Estimates were used to identify and provide supporting cost data for state improvements. The cost for each roadway capacity-expansion project was separated into four phases: design, CEI, ROW, and construction.

Design and CEI

Design and CEI costs for state roads were each estimated at **11 percent** of construction phase costs based on a review of recent transportation impact fee studies throughout Florida. Additional detail is provided in Appendix D, Table D-1 (design) and Table D-5 (CEI).

Right-of-Way

Given the limited data on ROW costs for state roads in Martin County, ROW cost estimates were developed based on the ROW-to-construction ratios observed in recently completed and ongoing transportation impact fee studies throughout Florida. The ratios from these studies ranged from 32 percent to 60 percent, with an average of 43 percent. For purposes of the Martin County impact fee calculation, a factor of **40 percent** was estimated. Additional detail is provided in Appendix D, Table D-2.

Construction

The construction cost for state roads was based on a review of local and statewide projects. For local improvements, data provided by Martin County, the Capital Improvement Program (CIP), the MPO's Long Range Transportation Plan (LRTP), and recent FDOT bid tabs were all reviewed. Local costs included one recent improvement, but no travel lane additions. Therefore, this improvement was not utilized for the roadway construction cost estimate.

Similar to county roadway costs, the County's FY 2020 Capital Improvement Plan and 2040 Long Range Transportation Plan (Cost Feasible Plan) were reviewed. Although these documents included lane addition projects, figures did not appear to include all related cost and were not separated for various phases.

A review of FDOT bid tabs for recent state road capacity improvements in Martin County identified two improvements, as shown in Appendix D, Table D-4:

- CR 714/Indian St from Turnpike/Martin Downs Blvd to W. of Mapp Rd
- Kanner Hwy (SR 76) from S. of Pratt Whitney Rd (CR 711) to SW Jack James Dr

The construction cost for these improvements ranged from approximately $3.32 million per lane mile to $3.99 million per lane mile for construction, with a weighted average of approximately $3.65 million per lane mile. To increase the sample size, these costs were compared to costs for state road improvements for several other jurisdictions throughout the state. A review of 76 improvements with over 436 lane miles from other counties resulted in the weighted average cost per lane mile for state road construction of approximately $3.84 million per lane mile. Appendix D, Table D-4, provides a detailed description of the projects analyzed. Based on this review, a state roadway construction cost of **$3.70 million** per lane mile was used in the multi-modal fee calculation.

As shown in Table VIII-2, the state roadway construction cost was calculated at approximately $3.70 million per lane mile, with a total cost of $5.99 million per lane mile.

Table VIII-2

Estimated Total Cost per Lane Mile for State Roads

Cost Type	State Roads
Design[(1)]	$407,000
Right-of-Way[(2)]	$1,480,000
Construction[(3)]	$3,700,000
CEI[(4)]	$407,000
Total Cost	**$5,994,000**

1) Design cost is estimated at 11% of construction costs
2) Right-of-Way cost is estimated at 40% of construction costs
3) Source: Appendix D, Table D-4
4) CEI cost is estimated at 11% of construction costs

Note: All figures rounded to nearest $000

Summary of Costs (Blended Cost Analysis)

The weighted average cost per lane mile for county and state roads is presented in Table VIII-3. The resulting weighted average cost of approximately $5.54 million per lane mile was utilized as the unit cost input in the calculation of the multi-modal transportation impact fee schedule. The weighted average cost per lane mile includes county and state roads and is based on weighting the lane miles of roadway improvements in the Martin MPO's 2040 Long Range Transportation Plan.

It should be noted that the cost estimates developed for this impact fee study reflect a large sample size from several communities over the last several years. When compared to the smaller sample of improvements observed over the last two to three years along with significant cost increases since the pandemic, the data and estimates used in this study represent a conservative approach. Additionally, these estimates account for Martin County's suburban/rural nature, which tends to moderate roadway costs compared to some of the larger, more urbanized counties that are experiencing higher construction and land acquisition costs.

Table VIII-3

Estimated Cost per Lane Mile for County and State Roadway Projects

Cost Type	County Roads[1]	State Roads[2]	City/County & State Roads[3]
Design	$308,000	$407,000	$377,000
Right-of-Way	$1,120,000	$1,480,000	$1,372,000
Construction	$2,800,000	$3,700,000	$3,430,000
CEI	$252,000	$407,000	$361,000
Total Cost	**$4,480,000**	**$5,994,000**	**$5,540,000**
Lane Mile Distribution[4]	30%	70%	100%

1) Source: Table VIII-1
2) Source: Table VIII-2
3) County/State distribution (Item 4) multiplied by the individual component costs for county and state roads and added together to develop a weighted average cost per lane-mile
4) Source: Appendix D, Table D-6; Items (e) and (f)

Person-Miles of Capacity Added per Lane Mile

An additional component of the multi-modal fee equation is the capacity added per lane-mile constructed (also known as the maximum service volume added per lane mile) of roadway. To calculate the vehicle-miles of capacity (VMC) per lane mile of constructed future roadway, an analysis of the MPO's Long Range Transportation Plan's Cost Feasible Plan was conducted to summarize improvements that will be built in Martin County in the future. As shown in Table VIII-4, the VMC was then converted to person-miles of capacity (PMC) using the person-trip factor (1.30 persons per vehicle) previously discussed.

Table VIII-4

Weighted Average Capacity Added per Lane Mile

Source	Lane Mile Added[1]	Vehicle-Miles of Capacity Added[1]	VMC Added per Lane Mile[2]
County Roads	13.67	165,351	12,096
State Roads	31.68	496,672	15,678
Total	**45.35**	**662,023**	
Weighted Average VMC Added per Lane Mile[3]			**14,600**
Vehicle-Trip to Person-Trip Factor[4]			1.30
Weighted Average PMC Added per Lane Mile[5]			**18,980**

1) Source: Appendix D, Table D-6 (adjusted distribution)
2) Vehicle-miles of capacity added divided by lane miles added
3) Total vehicle-miles of capacity added for county and state roads (Item 2) divided by the total lane miles added (Item 1)
4) Source: Based on a review of the TCRPM v4 transportation model
5) VMC added per lane mile (Item 3) multiplied by the vehicle-trip to person-trip factor (Item 4)

Cost per Person-Mile of Capacity

The transportation cost per unit of development is assessed based on the cost per person-mile of capacity. As shown in Tables VIII-3 and VIII-4, the cost and capacity for roadways in Martin County have been calculated based on typical roadway improvements.

The cost per PMC figure is used in the multi-modal fee calculation to determine the total cost per unit of development based on person-miles of travel consumed. For each person-mile of travel that is added to the transportation system, approximately $292 of capacity is consumed.

Table VIII-5

Cost per Person-Mile of Capacity Added

Source	Cost per Lane Mile[1]	Average PMC Added per Lane Mile[2]	Cost per PMC[3]
County/State Rds	$5,540,000	18,980	**$291.89**

1) Source: Table VIII-3
2) Source: Table VIII-4
3) Cost per lane mile (Item 1) divided by the average VMC added per lane mile (Item 2)

Bicycle and Pedestrian Facility Costs

Bicycle and pedestrian facilities provide for relatively small quantities of the total vehicle-miles of travel due to the difference in the average distance traveled by a car trip versus pedestrian/bicycle trips. Because of their relatively small role in the urban travel scheme, they do not have a significant effect on evaluating the costs of providing for multimodal

transportation. However, bike and pedestrian facilities are important and provide a source of travel for those who cannot drive or cannot afford to drive, and they are a standard part of the urban street and sometimes included in rural roadways. Their costs are estimated at less than five percent of the total roadway cost and are included in the multi-modal fee. The multi-modal fee provides funding for only those bike and pedestrian facilities associated with roadways on the classified road system (excluding local/neighborhood roads) and allows for facilities to be added to existing classified roadways or included in the construction of a new classified roadway or lane addition improvement.

Transit Capital Cost per Person-Mile of Travel

A model for transit service and cost was developed to establish both the capital cost per person-mile of capacity and the system operating characteristics in terms of system coverage, hours of service, and headways. The model developed for Martin County was based on information from the Marty Transit Development Plan (TDP). Components of the transit capital cost include:

- Vehicle acquisition tied to new routes
- Bus stops, shelters, and benches
- Cost of road network used by transit vehicles

Transit capital costs are computed as the cost of capital features needed to expand the transit system, as follows:

Transit Capital Cost = Bus Infrastructure Cost + Road Capacity Cost

Taking into account the infrastructure costs and the decline in potential vehicle-capacity that comes with adding transit, it was determined that the difference between constructing a lane mile of roadway (for cars only) versus constructing a roadway with transit is not significant. The roadway with transit cost per PMC is approximately three percent higher per lane mile than the cost to simply construct a road without transit amenities. Therefore, for the multi-modal fee calculation, the cost per PMC of approximately $292 is representative of the cost to provide transportation capacity for all modes of travel. Additional information regarding the transit capital cost calculation is included in Appendix D, Table D-8.

Non-Road Allocation Discussion

Currently, the County sets aside three (3) percent of the transportation impact fee for bicycle and pedestrian improvements. As previously mentioned, bike/ped improvements are estimated at

less than five (5) percent of the cost of expanding a roadway and capital transit improvements only adds an additional three (3) percent to the cost. A 2014 national research study estimates mode share for work-purpose trips, with bicycle accounting for 0.9 percent, walking for 2.9 percent, and transit for 4.0 percent[1]. It is recommended that Martin County limit the non-roadway capital expenditures (for stand-alone bike/ped/transit improvements) to no more than 10 percent of the multi-modal impact fee collections.

Credit Component

Capital Improvement Credit

The present value of the portion of non-impact fee funding generated by new development over a 25-year period that is expected to be expended on capacity expansion projects was credited against the cost of the system consumed by travel associated with new development. In order to provide a connection to the demand component that is measured in terms of travel, non-impact fee dollars are converted to gas tax equivalency.

County

As show in Table VIII-6, Martin County spends $1.2 million annually, the equivalent of 1.4 pennies, on multi-modal capacity-expansion projects funded with non-impact fee revenues. This includes bus acquisition costs associated with the Marty transit service. In addition, the County allocates an equivalent cash credit of 1.7 pennies for debt service associated with transportation capacity improvements.

State

As shown in Table VIII-6, State expenditures on state roads were reviewed, and a credit for the multi-modal capacity-expansion portion attributable to state projects was estimated (excluding expenditures on limited access facilities). This review, which included 11 years of historical expenditures, as well as 5 years of planned expenditures, indicated that FDOT spending amounts to $12.5 million per year and generates an equivalent gas tax credit of 15.0 pennies annually. The use of a 16-year period for developing a State credit results in a reasonably stable cash credit for Martin County, since it accounts for the volatility in FDOT spending in the county over short time periods.

In summary, for multi-modal improvements, Martin County allocates approximately 3.1 pennies (including debt), and FDOT is spending gas tax revenues at an average of 15.0 equivalent pennies

[1] NCHRP Report 770: Estimating Bicycling and Walking for Planning Project Development, Table 2-2

for state transportation projects in Martin County. A total credit of 18.1 pennies was included in the multi-modal impact fee calculation to recognize future capital revenues that are expected to be generated by new development from all non-impact fee revenues.

Table VIII-6

Equivalent Pennies of Gas Tax Revenue

Credit	Average Annual Expenditures	Value per Penny[4]	Equivalent Pennies per Gallon[5]
County Revenue[1]	$1,206,352	$834,176	$0.014
County Debt[2]	$1,443,573	$834,176	$0.017
State Revenue[3]	$12,509,311	$834,176	$0.150
Total	**$15,159,236**		**$0.181**

1) Source: Appendix E, Table E-2
2) Source: Appendix E, Table E-3
3) Source: Appendix E, Table E-4
4) Source: Appendix E, Table E-1
5) Avg annual expenditures divided by the value per penny (Item 4) divided by 100

Present Worth Variables

Facility Life

The facility life used in the impact fee analysis is 25 years, which represents the reasonable life of a roadway.

Interest Rate

This is the discount rate at which gasoline tax revenues might be bonded. It is used to compute the present value of the gasoline taxes generated by new development. The discount rate of 2.5 percent was used in the multi-modal fee calculation based on information obtained from Martin County.

Fuel Efficiency

The fuel efficiency (i.e., the average miles traveled per gallon of fuel consumed) of the fleet of motor vehicles was estimated using the quantity of gasoline consumed by travel associated with a particular land use. This variable is used in the calculation of the credit component of the multi-modal transportation impact fee.

Appendix E, Table E-8 documents the calculation of fuel efficiency value based on the following equation, where "VMT" is vehicle miles of travel and "MPG" is fuel efficiency in terms of miles per gallon.

$$Fuel\ Efficiency = \sum VMT_{Roadway\ Type} \div \sum \left(\frac{VMT_{Vehicle\ Type}}{MPG_{Vehicle\ Type}} \right)_{Roadway\ Type}$$

The methodology uses non-interstate VMT and average fuel efficiency data for passenger vehicles (i.e., passenger cars and other 2-axle, 4-tire vehicles, such as vans, pickups, and SUVs) and large trucks (i.e., single-unit, 2-axle, 6-tire or more trucks and combination trucks) to calculate the total gallons of fuel used by each of these vehicle types.

The combined total VMT for the vehicle types is then divided by the combined total gallons of fuel consumed to calculate, in effect, a "weighted" fuel efficiency value that reflects the existing fleet mix of traffic on non-interstate roadways. The VMT and average fuel efficiency data were obtained from the most recent Federal Highway Administration's *Highway Statistics 2017*. Based on the calculation completed in Appendix E, Table E-8, the fuel efficiency rate to be used in the updated impact fee equation is 18.92 miles per gallon.

Effective Days per Year

An effective 365 days per year of operation was used for all land uses in the proposed fee. However, this will not be the case for all land uses since some uses operate only on weekdays (e.g., office buildings) and/or only seasonally (e.g., schools). The use of 365 days per year, therefore, provides a conservative estimate, ensuring that non-impact fee contributions are adequately credited against the fee.

Calculated Multi-Modal Transportation Impact Fee

Detailed multi-modal impact fee calculations for each land use are included in Appendix F, which includes the major land use categories and the impact fees for the individual land uses contained in each of the major categories. For each land use, Appendix F illustrates the following:

- Demand component variables (trip rate, trip length, percent new trips, interstate/toll facility adjustment factor, and person-trip factor)
- Total multi-modal impact fee cost
- Annual capital improvement credit

- Present value of the capital improvements credit
- Net multi-modal transportation impact fee rates
- Current Martin County impact fee rates
- Percent difference between the calculated impact fee and the current impact fee

It should be noted that the net multi-modal impact fee illustrated in Appendix F is not necessarily a recommended fee, but instead represents the technically calculated impact fee per unit of land use that could be charged in Martin County.

For clarification purposes, it may be useful to walk through the calculation of an impact fee for one of the land use categories. In the following example, the net multi-modal fee rate is calculated for the single family residential land use category (2,000 sq ft) using information from the impact fee schedule included in Appendix F. For each land use category, the following equations are utilized to calculate the net multi-modal impact fee:

Net Impact Fee = Total Impact Cost – All Capital Improvement Credits

Where:

Total Impact Cost = ([Trip Rate × Assessable Trip Length × % New Trips] /2) × (1 – Interstate/Toll Facility Adjustment Factor) × (Person-Trip Factor) × (Cost per Person-Mile of Capacity)

Capital Improvement Credit = Present Value (Annual Capital Improvement Credit), given 2.50% interest rate & a 25-year facility life

Annual Capital Improvement Credit = ([Trip Rate × Total Trip Length × % New Trips] / 2) × (Effective Days per Year × $/Gallon to Capital) / Fuel Efficiency

Each of the inputs has been discussed previously in this document; however, for purposes of this example, brief definitions for each input are provided in the following paragraphs, along with the actual inputs used in the calculation of the fee for the single-family detached residential (1,000-2,499 sf) land use category:

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.14)
- *Assessable Trip Length* = the average trip length on collector roads or above, for the category, in vehicle-miles (6.62)

- *Total Trip Length* = the assessable trip length plus an adjustment factor of half a mile, which is added to the trip length to account for the fact that gas taxes are collected for travel on all roads including local roads (6.62 + 0.50 = 7.12)
- *% New Trips* = adjustment factor to account for trips that are already on the roadway (100%)
- *Divide by 2* = the total daily miles of travel generated by a particular category (i.e., rate*length*% new trips) is divided by two to prevent the double-counting of travel generated between two land use codes since every trip has an origin and a destination
- *Interstate/Toll Facility Adjustment Factor* = adjustment factor to account for travel demand occurring on interstate highways and/or toll facilities (20.2%)
- *Cost per Lane Mile* = unit cost to construct one lane mile of roadway, in $/lane-mile ($5,540,000)
- *Average Person-Capacity Added per Lane Mile* = vehicle-capacity added per lane mile (14,600) multiplied by the person-trip factor (1.30) = 18,980 person-miles of capacity
- *Cost per Person-Mile of Capacity =* unit of person-miles of capacity consumed per unit of development. Cost per person-mile divided by average capacity added per lane mile
- *Effective Days per Year* = 365 days
- *$/Gallon to Capital* = the amount of equivalent gas tax revenue per gallon of fuel that is used for capital improvements, in $/gallon ($0.181)
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (18.92)
- *Present Value* = calculation of the present value of a uniform series of cash flows, gas tax payments in this case, given an interest rate, "i," and a number of periods, "n;" for 2.50% interest and a 25-year facility life, the uniform series present worth factor is 18.4244

<u>Multi-Modal Transportation Impact Fee Calculation</u>

Using these inputs and the formula below, a multi-modal fee can be calculated for the single-family residential (1,101-2,300 sf) land use category in the following manner:

Single Family: Countywide, V/C 1,00 (Table F-1)

Total Impact Cost = ([7.14 * 6.62 * 1.0] /2) * (1 – 0.202) * 1.30 * ($291.89) = $7,156

Annual Cap. Improv. Credit = ([7.14 * 7.12 * 1.0] /2) * 365 * ($0.181 /18.92) = $89
Capital Improvement Credit = $89 * 18.4244 = $1,640

Net Multi-modal Fee = $7,156 - $1,640 = **$5,516**

Multi-Modal Transportation Impact Fee Comparison

As part of the work effort in developing Martin County multi-modal fee program, a comparison of calculated fees to mobility/multimodal/roadway impact fee schedules adopted in other jurisdictions was completed, as shown in Table VIII-7.

It should be noted that the differences in fee levels for a given land use can be caused by several factors, including the year of the technical study, adoption percentage, study methodology including variations in costs, credits and travel demand, land use categories included in the fee schedule, etc.

Table VIII-7

Mobility/Multi-Modal/Roadway Impact Fee Comparison

Land Use	Unit[2]	Martin County		Palm Beach County[5]	St. Lucie County MAINLAND[6]	Brevard County[7]	Indian River County[8]	Highlands County[9]	Collier County[10]	Charlotte County[11]	Hernando County[12]	Osceola County[13]	
		Calculated[3]	Adopted[4]									Urban	Rural
Date of Last Update		**2023**	2012	2022	2022	2000	2020	2006	2019	2021	2022	2020	2020
Assessed Portion of Calculated[1]		**100%**	Varies	Varies	Varies	100%	75%/45%	30%	100%	100%	100%	100%	100%
Residential:													
Single Family (2,000 sf)	du	**$5,516**	$2,815	$5,039	$5,290	$4,353	$6,632	$1,978	$8,090	$6,289	$6,220	$9,999	$15,941
Non-Residential:													
General Industrial	1,000 sf	**$2,682**	$1,857	$1,627	$1,138	n/a	$1,795	$1,399	$4,584	$2,783	$2,746	$2,274	$2,274
Office (50,000 sq ft)	1,000 sf	**$5,970**	$2,198	$3,653	$3,834	$5,058	$3,530	$3,714	$8,605	$5,228	$6,129	$6,025	$6,025
Retail (125,000 sq ft)	1,000 sfgla	**$8,282**	$5,183	$7,379	$6,539	$5,270	$5,603	$2,784	$13,774	$7,509	$8,443	$25,943	$25,943
Bank w/Drive-Thru	1,000 sf	**$13,221**	$6,841	$12,505	$3,598	$23,331	$8,618	$13,478	$21,254	$12,825	$13,519	$10,718	$10,718
Fast Food w/Drive-Thru	1,000 sf	**$63,467**	$15,693	$32,813	$3,598	$35,791	$42,069	$30,242	$104,272	$63,451	$79,511	$14,802	$14,802

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions
2) Du = dwelling unit
3) Source: Appendix F, Table F-1
4) Source: Martin County Adopted Impact Fee Schedule, includes both the roadway and pedestrian facility amounts
5) Source: Palm Beach County Administrations Division. Fees were adopted in compliance with the 50% fee increase limit per F.S. 163.31801
6) Source: St. Lucie County Planning & Development Services Department. Fees were adopted in compliance with the 50% fee increase limit per F.S. 163.31801. Mainland district fee rates are shown. "Retail/Trade 0 to 8,000 sq ft" rate is shown for Bank and Fast Food land uses.
7) Source: Brevard County Planning & Development Department
8) Source: Indian River County Planning Division. Residential fees were adopted at 100% and non-residential fees were adopted at 45% of the full calculated impact fee rates.
9) Source: Highlands County Code of Ordinances, Section 13-28. Impact fee moratorium currently in effect through December 31, 2024.
10) Source: Collier County Capital Project Planning, Impact Fees, and Program Management Division
11) Source: Charlotte County Community Development Department
12) Source: Benesch Hernando County Impact Fee Update Study, 2022. Fees shown are not yet adopted.
13) Source: Osceola County Community Development Department. Non-Mixed Use fee rates are shown. Bank is measured "per lane". "Warehouse" rate is shown for Light Industrial land use.

IX. Impact Fee Discounts

As part of this study, Martin County requested an evaluation of the County's affordable housing impact fee deferral program and recommendations for discounts in the County's six Community Redevelopment Areas (CRAs). This section of the report addresses these issues.

Community Redevelopment Areas

The County is interested in potentially reducing fees in the Community Redevelopment Areas (CRAs). There are six CRAs in unincorporated Martin County. The fees can be reduced through the following mechanisms.

De-minimis Impact

If the development levels are limited and revenue generated in the CRAs amount to less than approximately five percent of impact fee revenues, the County has the flexibility of reducing the fees. Benesch reviewed the information available through the Property Appraiser database on "year built" since 2010. This analysis suggested that there is limited single-family and non-residential activity in the CRAs. Table IX-1 provides this information. In terms of residential development, the County has additional flexibility for qualified affordable/workforce housing, which will be discussed later in this section. In terms of commercial and industrial square footage, the County can target specific land uses and may be able to reduce fees given the relatively limited development levels as a policy decision without impacting service levels.

If the County uses this approach to provide discounts within the CRAs, it is important to identify priority industries/development to limit the discount to no more than five percent and track associated revenue loss to ensure the loss does not exceed this threshold.

Table IX-1
New Construction (2010-2020) – CRAs vs. Countywide

CRA	Single Family/ Mobile Home Units[1]	Multi-Family Units[1]	Commercial/ Industrial Square Footage[1]
Golden Gate	13	14	0
Hobe Sound	82	11	40,703
Jensen Beach	0	0	40,637
Old Palm City	80	6	50,191
Port Salerno	84	0	20,281
Rio	29	8	0
Total	**288**	**39**	**151,812**
CRA (Avg. Annual)[2]	26	4	13,801
Countywide (Avg. Annual)	391	18	250,846
CRA portion of Countywide[3]	**6.6%**	**22.2%**	**5.5%**

1) Source: Martin County Property Appraiser Database
2) Total units/square footage divided by 11
3) Average annual development levels in the CRA (Item 2) divided by countywide average

Targeted Industries

In addition to the de-minimis permitting approach, fees can be bought down for targeted/contributing industries and/or targeted areas through an evaluation of revenues dedicated to new capacity construction for each service area compared to the County's projected growth rate.

Benesch's economic growth approach takes into account the existing development's ability to absorb new growth and calculates the levels of possible policy discounts without reducing the level-of-service used in the calculated impact fees.

In addition to impact/mobility/multimodal fees, other revenue sources such as ad valorem tax, fuel tax, etc. are also being used to fund infrastructure in the county. In terms of the economic growth calculations, it is important to note the following:

- The economic growth strategy calculations are based on the future estimated non-impact fee funding toward capital capacity projects in Martin County, excluding any funding dedicated toward paying the debt service since this dollar amount cannot be available for absorbing the growth.

- Based on the projections obtained from the University of Florida, Bureau of Business and Economic Research (BEBR), an average annual growth rate of 0.8 percent is estimated for Martin County through 2040. This growth rate is considered a moderate growth level.
- Although impact fee calculations already account for the portion of non-impact/ multimodal fee revenue that is generated by new development, a larger portion of the revenue is generated by existing population and can be treated as a "buy-down" fund. In other words, as long as the County limits the buy-down amount to the level of non-impact fee investment into each infrastructure, the equity requirements of impact fee will be met. Once the County decides on fee levels, more precise discount levels can be developed to refine these initial figures.
- Given that any impact fee discount results in revenue loss, it is recommended that the discounts are applied to select land uses consistent with the County's Comprehensive Growth Management Plan and economic development goals and policies. Examples would be high wage creating jobs, industries/sectors important to well-being of the residents (such as housing, education, safety, etc.).

It is important that the County track the impact fee discount amounts and compare them to the non-impact fee capacity funding programmed in the five-year Capital Improvement Plan to ensure that the discounted amounts do not exceed funding provided by other sources. This process should be documented in an annual report.

Affordable Housing Discounts

Similar to many other Florida jurisdictions, Martin County is concerned about availability of affordable/workforce housing supply in the county. The County has an impact fee deferral program to mitigate adverse effects of fees on the supply of affordable/workforce housing.

Through this program, development that qualifies under very low and low-income housing can apply for a loan from the County to defer 100% of impact fee costs. Application for the loan must occur prior to the building permit with repayment due either upon sale of the property or after 15 years. The County may allow refinancing of the loan if the affected housing continues to meet the County's definition of low-income housing after 15 years.

Martin County also offers other incentives such as expedited permitting, flexible density programs, etc. to support affordable housing.

As part of the impact fee study update, technical and policy-based methods available to the County to mitigate the adverse effects of higher impact fees on affordable/workforce housing are reviewed along with practices used by select Florida jurisdictions. This section starts with methods available to the County and continues with case studies.

- **Technical basis:** This approach requires the technical documentation indicating that affordable/workforce housing has lesser impact on a given infrastructure. One approach is to tier the residential categories by size, which reflects fewer persons or trips associated with smaller homes. Martin County's residential fee schedule already includes several tiers, starting with housing up to 800 square feet. This impact fee study refined this schedule by separating single family vs. multi-family residential homes and tiering single family homes. Compared to a mid-size homes (2,000 sf), this tiering results in an overall decrease of 45 percent for single family homes.

- **Policy discounts:** Some jurisdictions discount fees for affordable/workforce housing through the following programs/approaches:
    - **Deferral Programs:** Fees for affordable/workforce housing are deferred until homes are occupied by households that do not qualify under affordable/workforce housing criteria. This requires an annual monitoring process to ensure the homes did not change owners and/or rental rates do not exceed certain limits. Once the homes are no longer occupied by qualifying households, impact fees are collected. Martin County already has this type of program in place.
    - **Buy-down Approach:** Some jurisdictions set aside a certain dollar amount from the General Fund, SHIP funds, or another fund to buy down the fees for affordable housing or other targeted uses. This ensures that the impact fee program remains whole and those who paid the fee receive the associated benefit in terms of related infrastructure. **However, HB 7103 that was signed by the Governor following the 2019 legislative session eliminated the need to backfill lost revenues when impact fees for affordable housing are waived or reduced. In other words, local governments can now waive/reduce fees for affordable housing projects without having to offset the revenues.**

      HB 7103 defines qualifying units as "housing that is affordable, as defined in section 420.9071, Florida Statutes." F.S. section 420.9071 provides the following definitions:

- Section 420.9071 (2) “Affordable” means that monthly rents or monthly mortgage payments including taxes and insurance do not exceed 30 percent of that amount which represents the percentage of the median annual gross income for the households as indicated in subsection (19), subsection (20), or subsection (28).
- Subsection (19) – “Low-income person” or “low-income household” means one or more natural persons or a family that has a total annual gross household income that does not exceed 80 percent of the median annual income adjusted for family size for households within the metropolitan statistical area, the county, or the nonmetropolitan median for the state, whichever amount is greatest. With respect to rental units, the low-income household’s annual income at the time of initial occupancy may not exceed 80 percent of the area’s median income adjusted for family size. While occupying the rental unit, a low-income household’s annual income may increase to an amount not to exceed 140 percent of 80 percent of the area’s median income adjusted for family size.
- Subsection (20) provides the definition for “moderate-income household,” where the household income is limited to 120 percent of the median annual income.
- Subsection (28) defines “very-low-income household” at 50 percent of the median annual income.

- **Geographic Discounts/Exemption Areas:** As discussed previously, some jurisdictions implement discounts in more disadvantaged areas, such as Community Redevelopment Areas (CRAs). In some cases, these areas are entirely exempt from impact fees. Given that affordable housing supply tends to be more easily available in these lower cost areas, this approach supports affordable housing as well as other development in exempt areas. Although local governments can provide discounts for affordable housing without backfilling, any discount to other land uses needs to be either bought down by another revenue source or revenue loss associated with these discounts need to be de-minimis.

- **Alternative Incentives/Requirements:** Research conducted by Benesch suggested that jurisdictions interviewed use a combination of programs to incentivize affordable/workforce housing as opposed to relying only on impact fee discounts. Some of the common incentive programs include density bonuses, expedited permitting, flexibility in design/parking requirements, and home purchase/construction assistance.

In some cases, local governments implemented an inclusionary zoning program with an in-lieu fee as well as a linkage fee, which tend to result in a larger supply of affordable housing compared to voluntary incentives.

Case Studies

Benesch conducted a statewide research to understand methods used by other Florida counties to mitigate effects of impact fees on affordable/workforce housing. In addition to impact fee incentives, this research also addressed other methods discussed by the jurisdictions in helping them increase the supply of affordable/workforce housing. A table summarizing these methods for counties for which the information was available is included at the end of this section.

After this initial review, more detailed case studies were prepared for the following jurisdictions:

- Broward County
- Collier County
- Miami-Dade County
- Palm Beach County

These jurisdictions are selected primarily because they started experiencing challenges in providing affordable/workforce housing prior to many other counties.

Throughout this summary, the following terminology is used:

- Very low income – 50% or less of the community's median household income, adjusted for family size;
- Low income – 51% to 80% of the community's median household income, adjusted for family size; and
- Moderate income – 81% to 120% of the community's median household income, adjusted for family size.

Broward County

With a population of almost 2 million residents, Broward County is the second most populated county in Florida. It is also one of the most developed counties with very limited vacant land availability. This high development levels, coupled with waterfront properties, make it difficult to maintain the necessary supply of affordable/workforce housing. The County provided the following statistics to explain their challenges:

- 87 percent of households cannot afford the median home price in the county ($350,000);

- 147,000 renters use more than 30 percent of their income for rent;
- 78,000 renters use more than half their income for housing cost; and
- The County estimates that almost 90,000 jobs will be created within the next eight years, which will be primarily service sector/low wage jobs, creating even a bigger need for affordable/workforce housing.

To address these issues, Broward County developed several initiatives.

Impact Fee Structure and Discount Levels

Broward County collects impact fees for roads, parks, and schools. As presented in Table IX-2, the total adopted residential fees for the selected residential development types range from $2,420 for a two-bedroom high rise unit to $9,246 for a three-bedroom single family home. Of these fees, roads and parks impact fees are bought down for very low and low income households by the County, while the School District buys down school impact fees for very low and low income-households.

Table IX-2 provides a summary of adopted fees and discount levels for affordable/workforce housing development and includes a select number of residential categories to provide examples.

Table IX-2

Broward County, Impact Fees for Affordable/Workforce Housing

Impact Fee Program Area	Unit	Adopted Fee[1]	Discounted Amount[2]		Total Impact Fee[3]	
			Very Low (50% AMI)	Low Income (80% AMI)	Very Low (50% AMI)	Low Income (80% AMI)
		Discount Level	*100%*	*100%*		
Single Family Home (3 bedrooms)						
Road	du	$1,680	$1,680	$1,680	$0	$0
Parks	du	$519	$519	$519	$0	$0
Education	du	$7,047	$7,047	$7,047	$0	$0
Total	-	**$9,246**	**$9,246**	**$9,246**	**$0**	**$0**
Townhouse, Duplex, and Villa (2 bedrooms)						
Road	du	$1,680	$1,680	$1,680	$0	$0
Parks	du	$405	$405	$405	$0	$0
Education	du	$4,066	$4,066	$4,066	$0	$0
Total	-	**$6,151**	**$6,151**	**$6,151**	**$0**	**$0**
Garden Apartment (2 bedrooms)						
Road	du	$1,680	$1,680	$1,680	$0	$0
Parks	du	$371	$371	$371	$0	$0
Education	du	$4,495	$4,495	$4,495	$0	$0
Total	-	**$6,546**	**$6,546**	**$6,546**	**$0**	**$0**
Mid-Rise (2 bedrooms)						
Road	du	$1,680	$1,680	$1,680	$0	$0
Parks	du	$371	$371	$371	$0	$0
Education	du	$1,180	$1,180	$1,180	$0	$0
Total	-	**$3,231**	**$3,231**	**$3,231**	**$0**	**$0**
High-Rise (2 bedrooms)						
Road	du	$1,680	$1,680	$1,680	$0	$0
Parks	du	$371	$371	$371	$0	$0
Education	du	$369	$369	$369	$0	$0
Total	-	**$2,420**	**$2,420**	**$2,420**	**$0**	**$0**
Mobile Home (2 bedrooms)						
Road	du	$1,680	$1,680	$1,680	$0	$0
Parks	du	$367	$367	$367	$0	$0
Education	du	$3,175	$3,175	$3,175	$0	$0
Total	-	**$5,222**	**$5,222**	**$5,222**	**$0**	**$0**

1) Source: Broward County Planning and Development Management Division, Zone 1 road impact fee is shown.
2) Source: Broward County Planning and Development Management Division and Broward County Public Schools
3) Adopted fee (Item 1) less discounted amount (Item 2)
Note: AMI = Area median income

Per Broward County Land Development Code, waivers of impact and/or application fees require that the applicant(s) will maintain affordable housing for twenty (20) years for rental housing and ten (10) years for owner-occupied housing. Other than this initial requirement, the County does not have a formal verification process to ensure these units are within compliance.

Funding of the Program

Broward County funds the discounts for roads, transit, and park impact fees through the interest accrued on these funds. The County does not have a limit on annual funding of these discounts.

The school impact fee discounts are also waived only for very low and low-income applicants. The program has an annual cap of $375,000 and there is a cap of $50,000 per project. Funding is offered on a first-come-first-qualified basis. Since the program started, the discounted amounts have not reached the maximum annual amount due both to per project cap and discounts being offered only to very low-income housing until recently. The School District representatives believe that the number of projects waived was relatively low because the program restricts the developer's ability to sell or rent to those that did not qualify under the very low-income category. In addition, the application process is found to be cumbersome, discouraging potential applicants. With the recent changes, the discounts are now being offered to low-income housing as well and the cap was increased from $25,000 per project to $50,000 per project. These recent changes should increase the use of the program.

Other Incentive Programs

In addition to the impact fee assistance program, Broward County also has other incentive programs in place to promote and preserve affordable/workforce housing. Some of the programs available are funded with federal, local, and state dollars such as State Housing Initiatives Partnership (SHIP), Community Development Block Grant (CDBG), Broward Redevelopment Program (BRP), and the Home Investment Partnerships (HOME). The following list provides some examples of the additional programs offered by Broward County.

- Expedited permitting;
- Density bonuses for development of market rate units;
- Transfer of development rights;
- Allowance of affordable accessory residential units of small size;
- Reduction of parking and setback requirements;
- Flexible lot configurations, including zero lot line;
- Purchase assistance;
- New construction assistance; and
- Rehabilitation assistance.

In 2017, Broward County adopted certain changes to its Land Use Plan, called the BrowardNEXT Plan. These changes require the County and municipalities of more than 15,000 residents to address affordable housing on land use amendments that propose 100 or more additional units

to existing densities. The Plan requires municipalities to provide evidence to the County of their current affordable housing programs, as well as, their current housing profile. The County reviews the profile and programs of the City to determine if they are in compliance with the Land Use Policy. If compliance cannot be met by the municipality, a 15 percent set-aside or a fee in-lieu of in the amount of $1 per residential gross square foot is required.

Given the continuing concerns regarding the affordable housing availability, in 2019, Broward County started discussing additional initiatives, including:

- Linkage fees;
- A more comprehensive inclusionary zoning program to replace the policy established by BrowardNEXT; and
- Revisions to the density bonus program, which would increase the number of market rate units per affordable housing unit and extend the required length of maintaining affordable housing status, among other changes.

Of these, implementation of linkage fees was denied by the Broward County Regional Planning Council. Some of the other proposed changes were adopted in December of 2020, which included the requirement for the municipalities to review the availability of affordable housing supply by income band (30%, 50%, 80%, 100% and 120% of the median income) as opposed in aggregate prior to approving land use amendments for 100 or more additional units.

In addition, the following revisions to the density bonus program were implemented in April:

- The affordability period needs to be a minimum of 30 years.
- The following allowances were implemented:
    - Six bonus units per every one moderate-income unit;
    - Nine bonus units per every one low-income unit; and
    - Nineteen bonus units per every one very low-income unit.
    - The total number of bonus affordable and bonus units may not exceed 50 percent of the maximum number of dwelling units indicated for the parcel by the local land use plan map.
    - In the case for “very low or low-income” units, the limit for total number of bonus affordable and bonus market rate units is increased to 100 percent of the maximum number of dwelling units indicated for the parcel by the local land use plan map.

Collier County

Located in southwest Florida, Collier County has a peak season population of approximately 450,000. Collier County has the highest average income per capita in the state ($91,000) while the median income is approximately $61,000, indicative of lower paying jobs along with wealthy population residing in the county. The County has the highest impact fee levels and 2nd lowest total millage rate among Florida counties. With a median housing price of $399,000, the County has been concerned about housing affordability for lower income families and workforce.

Impact Fee Structure and Discount Levels

Collier County collects impact fees for community parks, regional parks, libraries, roads, EMS, law enforcement, correctional facilities, government buildings and school facilities. The current adopted residential fees presented in the following table range from $11,911 for a condo, duplex, or single family attached unit to $22,786 for a single family home of 2,000 square feet. Collier County has an impact fee deferral program, available to first time homebuyers and renters with household income less than 120 percent of median income of the county. The program was initially adopted in 2005 and was in operation for a few years before it was shut down during the housing recession. In 2016, Collier County re-instituted the program.

Impact fees are deferred on owner-occupied units until the owner either sells, refinances, or moves out of the home. At that time, the fees are due (with interest) and this process is secured by a subordinate lien until the fees are collected by the County. Rental units' impact fees are deferred for a period of 10 years, after which the fees are paid. This requirement is secured with a first position lien or a subordinate lien with a Tri-party Agreement. The County has a limit of 225 rental units receiving deferrals each year.

In addition, the County implemented a pilot program in the Immokalee area, allowing payment of impact fees by an installment program through the property tax bill, as an alternative to paying the fees in a single, up-front payment. This is a 20-year installment program, secured with lien on the property. The purpose of the pilot program is to provide the Board of County Commissioners an opportunity to review if the option of paying impact fees through installments results in additional economic development in the area.

Finally, the County had a voluntary affordable housing contribution program, which involved agreements at zoning stage and/or through PUD commitments. Under this program, developers paid $1,000 per home and $0.50 per square foot of non-residential development. In return, they obtained future credits against affordable housing impact fee, which was anticipated to be

implemented at the time. There have been $6 million of commitments and $600,000 was collected. However, this revenue was never spent since the affordable housing impact fee was never adopted. Eventually, the Board of County Commission repealed the program, removed commitments, and refunded the collections.

Table IX-3

Collier County, Impact Fees for Affordable Housing

Impact Fee Program Area	Unit	Adopted Fee[1]	Discounted Amount[2]				Total Impact Fee[3]			
			Extremely Low (30% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (120% AMI)	Extremely Low (30% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (120% AMI)
		Discounted Level	*100%*	*100%*	*100%*	*100%*				
Single Family Home (2,000 sf)										
Community Parks	du	$934	$934	$934	$934	$934	$0	$0	$0	$0
Regional Parks	du	$2,694	$2,694	$2,694	$2,694	$2,694	$0	$0	$0	$0
Roads	du	$7,870	$7,870	$7,870	$7,870	$7,870	$0	$0	$0	$0
EMS	du	$142	$142	$142	$142	$142	$0	$0	$0	$0
Schools	du	$8,790	$8,790	$8,790	$8,790	$8,790	$0	$0	$0	$0
Government Buildings	du	$934	$934	$934	$934	$934	$0	$0	$0	$0
Libraries	du	$336	$336	$336	$336	$336	$0	$0	$0	$0
Law Enforcement	du	$587	$587	$587	$587	$587	$0	$0	$0	$0
Jail	du	$499	$499	$499	$499	$499	$0	$0	$0	$0
Total	-	**$22,786**	**$22,786**	**$22,786**	**$22,786**	**$22,786**	**$0**	**$0**	**$0**	**$0**
Condo, Duplex or Single Family Attached										
Community Parks	du	$455	$455	$455	$455	$455	$0	$0	$0	$0
Regional Parks	du	$1,230	$1,230	$1,230	$1,230	$1,230	$0	$0	$0	$0
Roads	du	$6,234	$6,234	$6,234	$6,234	$6,234	$0	$0	$0	$0
EMS	du	$68	$68	$68	$68	$68	$0	$0	$0	$0
Schools	du	$2,844	$2,844	$2,844	$2,844	$2,844	$0	$0	$0	$0
Government Buildings	du	$444	$444	$444	$444	$444	$0	$0	$0	$0
Libraries	du	$160	$160	$160	$160	$160	$0	$0	$0	$0
Law Enforcement	du	$297	$297	$297	$297	$297	$0	$0	$0	$0
Jail	du	$259	$259	$259	$259	$259	$0	$0	$0	$0
Total	-	**$11,991**	**$11,991**	**$11,991**	**$11,991**	**$11,991**	**$0**	**$0**	**$0**	**$0**
Multi-Family Housing (Mid-Rise, 3-10 floors)										
Community Parks	du	$455	$455	$455	$455	$455	$0	$0	$0	$0
Regional Parks	du	$1,230	$1,230	$1,230	$1,230	$1,230	$0	$0	$0	$0
Roads	du	$5,174	$5,174	$5,174	$5,174	$5,174	$0	$0	$0	$0
EMS	du	$68	$68	$68	$68	$68	$0	$0	$0	$0
Schools	du	$2,844	$2,844	$2,844	$2,844	$2,844	$0	$0	$0	$0
Government Buildings	du	$444	$444	$444	$444	$444	$0	$0	$0	$0
Libraries	du	$160	$160	$160	$160	$160	$0	$0	$0	$0
Law Enforcement	du	$297	$297	$297	$297	$297	$0	$0	$0	$0
Jail	du	$229	$229	$229	$229	$229	$0	$0	$0	$0
Total	-	**$10,901**	**$10,901**	**$10,901**	**$10,901**	**$10,901**	**$0**	**$0**	**$0**	**$0**

Table IX-3

Collier County, Impact Fees for Affordable Housing

Impact Fee Program Area	Unit	Adopted Fee[1]	Discounted Amount[2]				Total Impact Fee[3]			
			Extremely Low (30% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (120% AMI)	Extremely Low (30% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (120% AMI)
Mobile Home (Not in Mobile Home Park)										
Community Parks	du	$716	$716	$716	$716	$716	$0	$0	$0	$0
Regional Parks	du	$2,145	$2,145	$2,145	$2,145	$2,145	$0	$0	$0	$0
Roads	du	$7,870	$7,870	$7,870	$7,870	$7,870	$0	$0	$0	$0
EMS	du	$114	$114	$114	$114	$114	$0	$0	$0	$0
Schools	du	$7,238	$7,238	$7,238	$7,238	$7,238	$0	$0	$0	$0
Government Buildings	du	$749	$749	$749	$749	$749	$0	$0	$0	$0
Libraries	du	$270	$270	$270	$270	$270	$0	$0	$0	$0
Law Enforcement	du	$457	$457	$457	$457	$457	$0	$0	$0	$0
Jail	du	$397	$397	$397	$397	$397	$0	$0	$0	$0
Total	-	**$19,956**	**$19,956**	**$19,956**	**$19,956**	**$19,956**	**$0**	**$0**	**$0**	**$0**

1) Source: Collier County Growth Management Department
2) Source: Collier County Impact Fee Administration
3) Adopted fee (Item 1) less discounted amount (Item 2)

Note: AMI = Area median income

Funding of the Program and Results

Collier County sets asides a maximum of 3 percent of the prior year's impact fee collections to pay for the deferral program. The cap of 3 percent of collections ensures that the revenue loss is de-minimis. Historically, this level of impact fee deferrals has allowed the program to defer fees on approximately 100 homes per year, which has been typically less than the demand for the deferrals. While the supply of deferrals continues to surpass demand, demand is steadily increasing. Eleven units received impact fee deferrals in 2018, which increased to 46 units in 2019, and then to 59 units in 2020. As of June 2021, 36 units have requested impact fee deferral which indicates a continuance of the upwards trend.

The pilot program in the Immokalee area has not been used yet, except for one participant for a mobile home development.

Other Incentive Programs

In 2016, Collier County contracted with the Urban Land Institute (ULI) to address concerns over housing affordability for an evaluation and recommendations through an interdisciplinary Advisory Services Panel. Some of the suggestions of this effort included the following:

- Expanding the County's current impact fee deferral in the following manner:
    - Increase deferral period for rental development to 30 years.
    - Forgive owner-occupied deferrals after 15 years.
    - Increase the eligibility to household with up to 140 percent of median income.
    - Add additional funding by increasing the allocation from 3 percent of revenues to 4 percent or 5 percent of revenues.
- Mixed income ordinance with enhanced density bonus and multiple in-lieu options. Under this ordinance, the goal is to encourage development with diverse types of housing units for residents with a range of income levels, including households with income levels that are 50 percent to 140 percent of the median income. The development would receive 30 percent density bonus if it allocates 5 percent of units for each income level (low, moderate, gap). There would be multiple options to providing units, such as land donation, partnerships, and a fee-in-lieu of $127,000 per unit. This option was viewed as a means to create affordable housing without public subsidy.
- Linkage fee for commercial development.
- Increase density through the requirement of inclusion of residential development as part of Activity Centers and by allowing higher densities in these areas.
- Transportation-related initiatives:
    - Evaluate existing transit routes for accessibility to housing and major job centers.

- Explore multi-modal alternatives within gated communities.
- Consider land development regulations requiring an ungated central internal roadway with connection to major roadway.
- Require development to accommodate transit (route, bus stops, bus pull outs, etc.)
- Establish a transit system with peak and non-peak hour schedules with higher frequency during peak hours.

Collier County Board of County Commissioners have not yet adopted many of these suggestions but is considering some of them for implementation in the future.

Miami-Dade County

Miami-Dade County has a variety of programs in place as a result of a persistent shortage of housing for certain sectors of the community. The County currently has various incentives in place to encourage the development of affordable and workforce housing units. The Affordable Housing Development Programs and the Impact Fee Waiver program for affordable units have been two of the most popular incentive programs.

Impact Fee Waiver Program

Miami-Dade County collects impact fees for parks, police, fire, education and road facilities. The current adopted residential fees for these impact fee areas range from $8,522 to $9,613 for a 1,200-square foot high rise unit to $15,635 to $17,726 for a 2,000-square foot single-family home. Qualified affordable units are 100 percent exempted from payment of impact fees for road, park, police, and fire. The County defines affordable housing units as a unit occupied by very low-income and low-income person when monthly housing costs do not exceed 30 percent of the household income. Affordable housing income levels include 50 percent (for very-low income) and 80 percent (for low income) of the median adjusted gross annual income for the households within the primary metropolitan statistical area (PMSA) for Miami-Dade County as established by HUD on a monthly basis. The discounts offered by Miami-Dade County reduce the total impact fees by approximately 80 percent to 86 percent, depending on housing type.

Table IX-4 presents a summary of adopted fees and discount levels for affordable housing in Miami-Dade County for a select number of residential categories, provided as examples.

Table IX-4

Miami-Dade County, Impact Fees for Affordable Housing

Impact Fee Program Area	Unit	Adopted Fee[1]	Discounted Amount[2]		Total Impact Fee[3]	
			Very Low (50% AMI)	Low Income (80% AMI)	Very Low (50% AMI)	Low Income (80% AMI)
		Discount Level	*100%*	*100%*		
Single Family Home Detached (2,000 sf)						
Road	du	$9,544 - $10,094	$9,544 - $10,094	$9,544 - $10,094	$0	$0
Fire	du	$447	$447	$447	$0	$0
Police	du	$583	$583	$583	$0	$0
Parks	du	$2,613 - $4,154	$2,613 - $4,154	$2,613 - $4,154	$0	$0
Education	du	$2,448	$0	$0	$2,448	$2,448
Total	-	**$15,635 - $17,726**	**$13,187-15,278**	**$13,187-15,278**	**$2,448**	**$2,448**
Apartment (Rentals) (1,200 sf)						
Road	du	$6,701 - $7,088	$6,701 - $7,088	$6,701 - $7,088	$0	$0
Fire	du	$447	$447	$447	$0	$0
Police	du	$583	$583	$583	$0	$0
Parks	du	$1,619 - $2,439	$1,619 - $2,439	$1,619 - $2,439	$0	$0
Education	du	$1,714	$0	$0	$1,714	$1,714
Total	-	**$11,065 - $12,271**	**$9,351-10,557**	**$9,351-10,557**	**$1,714**	**$1,714**
High-Rise (Over 3 Floors) (1,200 sf)						
Road	du	$4,188 - $4,430	$4,188 - $4,430	$4,188 - $4,430	$0	$0
Fire	du	$447	$447	$447	$0	$0
Police	du	$583	$583	$583	$0	$0
Parks	du	$1,619 - $2,439	$1,619 - $2,439	$1,619 - $2,439	$0	$0
Education	du	$1,714	$0	$0	$1,714	$1,714
Total	-	**$8,552-$9,613**	**$6,838-$7,899**	**$6,838-$7,899**	**$1,714**	**$1,714**
Condo, Townhome, Duplex (1,200 sf)						
Road	du	$5,843 - $6,180	$5,843 - $6,180	$5,843 - $6,180	$0	$0
Fire	du	$447	$447	$447	$0	$0
Police	du	$583	$583	$583	$0	$0
Parks	du	$2,395 - $3,514	$2,395 - $3,514	$2,395 - $3,514	$0	$0
Education	du	$1,714	$0	$0	$1,714	$1,714
Total	-	**$10,982 - $12,438**	**$9,268 - $10,724**	**$9,268 - $10,724**	**$1,714**	**$1,714**
Mobile Home (1,200 sf)						
Road	du	$4,975 - $5,263	$4,975 - $5,263	$4,975 - $5,263	$0	$0
Fire	du	$447	$447	$447	$0	$0
Police	du	$583	$583	$583	$0	$0
Parks	du	$2,613 - $4,154	$2,613 - $4,154	$2,613 - $4,154	$0	$0
Education	du	$1,714	$0	$0	$1,714	$1,714
Total	-	**$10,333 - $12,162**	**$8,619 - $10,448**	**$8,619-$10,448**	**$1,714**	**$1,714**

1) Source: Miami-Dade County Department of Planning and Zoning. Road impact fees shown represent a range consisting of the UIA and Non UIA districts, parks impact fee shown represents range of districts 1 through 3. Fees shown exclude the administration fee.
2) Source: Miami-Dade County Department of Planning and Zoning. Road, police, fire, and park impact fees are exempted 100% for very low and low-income households.
3) Adopted fee (Item 1) less discounted amount (Item 2)

Note: AMI = Area median income

Qualified units that have accepted the impact fee exemption are required to declare a restrictive covenant on the property. Information from the Miami-Dade Impact Fee Section suggested that the source of funding for waived impact fees is government programs; however, Benesch was unable to confirm what type of government programs are used to compensate the waived fees.

Workforce Housing Development Program

Implemented in 2016 with Ordinance 16-138, the Workforce Housing Development Program is a voluntary program providing density bonuses and other incentives in exchange for the provision of workforce housing units. Criteria for the program includes families whose incomes are within 60 percent to 140 percent of the area median income (adjusted for family size). If a development has more than 20 dwelling units, it may receive a density bonus and qualify for the maximum intensity standards as outlined per type of residential land use in Section 33-193 of the Code of Ordinances. In order to participate in this program, the development is required to provide at least 5 percent of the total residential units as workforce housing units. Additional density bonuses are granted as the percentage of workforce housing units of the development increases. However, the development must still comply with the County's Comprehensive Development Master Plan (CDMP) and must not exceed the maximum number of units permitted. Table IX-5 provides details on the percentage of workforce housing units in relation to density bonuses.

Table IX-5
Miami-Dade County, Voluntary Workforce Housing Units

Designated Workforce Housing Units	Density Bonus	Type of Designation
5%	5%	Mandatory
6%	9%	Bonus
7%	13%	Bonus
8%	19%	Bonus
9%	21%	Bonus
10%	25%	Bonus

Source: Miami-Dade County Regulatory and Economic Resources

Alternative Mitigation Strategies

Miami-Dade County Code of Ordinances, Section 33-193.8 specifies alternative strategies from on-site construction of workforce housing units for developments. Alternative methods include off-site construction of workforce housing units within a 2-mile radius, monetary contributions in lieu of construction, rehabilitation of existing property for workforce housing units within certain geographic boundaries, land conveyance, or a combination of the listed mitigation strategies. The standard formula for calculating the in-lieu fee per unit is based on countywide median sales price within the Urban District Boundary (UBD) subtracted by the affordable purchase price for a family of 4 at 60 percent of median family income for the County. Fees range

from $51,500 to $121,300 for single family homes and from $45,000 to $114,800 for multi-family units. Fees may be adjusted if the development is in a Minor Statistical Area (MSA) where the median sales price within the UBD is lower than the Countywide median sales price under the standard formula. In lieu fee payments are deposited to the County's Affordable Housing Trust Fund.

If the development has fewer than 20 residential dwelling units, the development may utilize the density bonus and intensity standards if the development either: designates 100 percent of the proposed units as workforce housing or opt for an alternative method of mitigation listed above. The program also offers a 2-year deferral program for workforce housing units for road impact fees. The workforce housing units must remain affordable for twenty (20) years. A restrictive covenant is required on the development at the time of zoning approval, and a workforce housing agreement prior to plat or building permit encumbering individual units. Residents of qualified workforce housing units must provide annual documentation of income criteria as an on-going monitoring process.

Additionally, the County has a mandatory Inclusionary Workforce Housing program for all residential or mixed-use development that are either located within the Core or Center Sub-districts of an urban center district. Since this area already allows for higher densities, additional density bonuses are not provided. The program specifies residential developments that have more than four residential units are subject to designate 12.5 percent of the total units as Workforce Housing Units.

Other Incentive Programs

In addition to the impact fee assistance and workforce housing programs, Miami-Dade County also has other incentive programs in place to promote and preserve affordable/workforce housing. Some of the programs available are funded with federal and state dollars such as State Housing Initiatives Partnership (SHIP). The following list provides some examples of the additional programs offered by Miami-Dade County.

- Expedited permitting:
    - Expedited review process available for all affordable housing projects.
- On-going Review Process.
    - An ongoing process for review of local policies, ordinances, regulations and plan provisions that increase the cost of housing prior to their adoption.
- Inventory of county owned land suitable for affordable housing.
- Transfer of development rights program.

- Purchase assistance.
- Rehabilitation assistance.
- Rental development:
    - Gap financing available for-profit and non-profit builders/developers.
- Replacement housing assistance.
- Emergency repairs assistance.
- Foreclosure prevention and mitigation.
- Allowance of affordable accessory residential units of small size.
- Reduction of parking and setback requirements.
- Flexible lot configurations, including zero lot line.
- Water and Sewer Capacity:
    - Reservation of infrastructure capacity for housing for very low and low-income persons.

Palm Beach County

According to the Affordable Housing Needs Assessment 2021, Palm Beach County is one of the most cost-burdened places to live in the United States. In 2020, the median single-family home sale price was $418,000 which is unaffordable to approximately 80 percent of households The recent market surge and appreciation of the residential market has exacerbated the affordable housing shortage. In 2020, the average sale price of a single-family home had increased 53.8 percent year-over-year and the average sale price of townhomes and condominiums has increased 16.6 percent year-over-year. Considering the widening supply and demand gap of affordable housing units, Palm Beach County is employing existing strategies and conceiving new strategies to ameliorate the affordable housing shortage.

Impact Fee Structure and Discount Levels

Palm Beach County collects impact fees for parks, libraries, public buildings, schools, fire rescue, law enforcement, and road facilities. The current adopted residential fees range from $8,605 for a multi-family unit of 1,300 square feet to $13,055 for a single family detached home of 2,000 square feet. The County pays 100 percent of the road, public buildings, and parks impact fees for very low, low, and moderate-income households (up to 140 percent of the area median income, adjusted for family size). The discounts offered by Palm Beach County reduce the total impact fees by approximately 44 percent for single family homes, 45 percent for multi-family units, and 35 percent for mobile homes (for the sizes mentioned previously). In addition, there is no cap per project other than the total funding available. Table IX-6 presents a summary of

adopted fees and discount levels for affordable/workforce housing in Palm Beach County for a select number of residential categories, provided as examples.

Table IX-6
Palm Beach County, Impact Fees for Affordable/Workforce Housing

Impact Fee Program Area	Unit	Adopted Fee[1]	Discounted Amount[2]			Total Impact Fee[3]		
			Very Low (50% AMI)	Low Income (80% AMI)	Moderate (140% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (140% AMI)
		Discount Level	100% / 0%	100% / 0%	100% / 0%			
Single Family Home (Detached, 2,000 sf)								
Parks	du	$860	$860	$860	$860	$0	$0	$0
Libraries	du	$243	$0	$0	$0	$243	$243	$243
Public Buildings	du	$223	$223	$223	$223	$0	$0	$0
Schools	du	$6,608	$0	$0	$0	$6,608	$6,608	$6,608
Fire Rescue	du	$276	$0	$0	$0	$276	$276	$276
Law Enforcement	du	$128	$0	$0	$0	$128	$128	$128
Road	du	$4,717	$4,717	$4,717	$4,717	$0	$0	$0
Total	-	**$13,055**	**$5,800**	**$5,800**	**$5,800**	**$7,255**	**$7,255**	**$7,255**
Multi-Family (1,200 sf)								
Parks	du	$734	$734	$734	$734	$0	$0	$0
Libraries	du	$186	$0	$0	$0	$186	$186	$186
Public Buildings	du	$171	$171	$171	$171	$0	$0	$0
Schools	du	$4,330	$0	$0	$0	$4,330	$4,330	$4,330
Fire Rescue	du	$185	$0	$0	$0	$185	$185	$185
Law Enforcement	du	$70	$0	$0	$0	$70	$70	$70
Road	du	$2,929	$2,929	$2,929	$2,929	$0	$0	$0
Total	-	**$8,605**	**$3,834**	**$3,834**	**$3,834**	**$4,771**	**$4,771**	**$4,771**
Mobile Home (1,200 sf)								
Parks	du	$734	$734	$734	$734	$0	$0	$0
Libraries	du	$186	$0	$0	$0	$186	$186	$186
Public Buildings	du	$171	$171	$171	$171	$0	$0	$0
Schools	du	$4,330	$0	$0	$0	$4,330	$4,330	$4,330
Fire Rescue	du	$276	$0	$0	$0	$276	$276	$276
Law Enforcement	du	$70	$0	$0	$0	$70	$70	$70
Road	du	$1,741	$1,741	$1,741	$1,741	$0	$0	$0
Total	-	**$7,508**	**$2,646**	**$2,646**	**$2,646**	**$4,862**	**$4,862**	**$4,862**

1) Source: Palm Beach County Department of Planning, Zoning, and Building. Multi-Family (5 or more units) land use is shown for Fire Rescue and Law Enforcement.
2) Source: Palm Beach County Department of Housing and Economic Sustainability. County pays the impact fees of roads, parks, and public buildings (no limit per project) until total funding is exhausted.
3) Adopted fee (Item 1) less discounted amount (Item 2)

Note: AMI = Area median income

The County requires rental housing units to produce annual reports/certifications of income and rental affordability and must maintain affordability for a 20-year period. Owner-occupied homes require a 15-year affordability period from date of sale. Additionally, if there is a change of ownership within the 15-year period, and the unit is sold to another qualified owner, a new 15-year affordability period begins. In both instances, affordability is secured by Declaration of Restrictions recorded against title to the property.

Property owners are required to repay the County upon a property owner's voluntary withdrawal or default prior to the end of the Declaration of Restrictions placed against the property. For rental housing and for-sale housing units, developers shall submit to the County a repayment totaling the amount of assistance, plus 3 percent interest per year commencing with the recording of the Declaration, plus an administrative fee of $1,500. For owner-occupied housing, the entire amount of assistance provided shall be repaid to the County.

Funding of the Program

The County utilizes interest earnings from impact fees. Funds are segregated by impact fee type from which they originated: roads, parks, and public buildings, and payment of fees by the County cannot exceed the funds for a particular program area. In 2020, Palm Beach County had approximately $3.1 million of impact fee funding assistance available: $2.8 million for roads, $197,00 for parks, and $150,000 for public buildings. Funding is available on a first-come-first-qualified basis until the total available funding is depleted.

Program Results and Lessons Learned

The County provided historical results of the impact fee program for affordable/workforce housing between 2015 and 2019. During this time period, the County has paid approximately $2.54 million of impact fees for 1,177 units. The majority of units built have been multi-family homes which amounted to $1.97 million of the total impact fees paid for 1,058 units. Single family and townhomes made up the remaining impact fees paid, amounting to $275,000 for 57 units and $296,000 for 62 units respectively.

Table IX-7

Palm Beach County, Impact Fees Paid (2015 – 2019)

Year	Impact Fees Paid[1]				Total Units[2]				Impact Fee Paid per Unit[3]			
	Single Family	Townhouse	Multi-Family	Total	Single Family	Townhouse	Multi-Family	Total	Single Family	Townhouse	Multi-Family	Total
2015	$0	$0	$684,144	$684,144	0	0	274	274	N/A	N/A	$2,497	$2,497
2016	$121,669	$0	$0	$121,669	24	0	0	24	$5,070	N/A	N/A	$5,070
2017	$105,862	$13,891	$469,145	$588,898	27	8	297	332	$3,921	$1,736	$1,580	$1,774
2018	$0	$0	$495,864	$495,864	0	0	241	241	N/A	N/A	$2,058	$2,058
2019	$47,594	$281,660	$318,248	$647,502	6	54	246	306	$7,932	$5,216	$1,294	$2,116
Total	**$275,125**	**$295,551**	**$1,967,401**	**$2,538,077**	**57**	**62**	**1,058**	**1,177**	**$4,827**	**$4,767**	**$1,860**	**$2,156**
Average per Yr.[4]	$55,025	$59,110	$393,480	$507,615	11	12	212	235	$5,641	$3,476	$1,857	$2,703
% of Total[5]	10.8%	11.6%	77.6%	100.0%	4.8%	5.3%	89.9%	100.0%	N/A	N/A	N/A	N/A

1) Source: Palm Beach County Department of Housing and Economic Sustainability
2) Source: Palm Beach County Department of Housing and Economic Sustainability
3) Impact fees paid (Item 1) divided by total units (Item 2)
4) Average of 2015 through 2019
5) Portion of total impact fees paid and total units (Items 1 and 2)

The County representatives felt that the impact fee program has been popular amongst developers. However, the County indicated that the most successful program in developing affordable/workforce housing has been the County's inclusionary zoning program. More information on the County's inclusionary zoning requirement is provided below.

Other Incentive Programs

In addition to the impact fee assistance program, Palm Beach County also has other incentive programs in place to promote and preserve affordable/workforce housing (WHP) program details provided below). Some of the programs available are funded with federal and state dollars such as State Housing Initiatives Partnership (SHIP), Community Development Block Grant (CDBG), and the Home Investment Partnerships (HOME) program. The programs are made available to eligible households with income ranges between 60 percent and 140 percent of the area's median income, adjusted for family size.

The following list provides some examples of the additional programs offered by Palm Beach County.

- Expedited permitting.
- Density flexibility which allows greater density levels that would encourage the creation of affordable housing (additional information related to the County's Workforce Housing Program (WFH) is provided below).
- Transfer of development rights program.
- Purchase assistance.
- Rehabilitation assistance.
- Replacement housing assistance.
- Emergency repairs assistance.

In addition to the above, the County adopted changes to their WHP program in August of 2019. The County's WHP program includes the following incentives and policies to maintain and increase the workforce housing stock.

- Inclusionary zoning requirement: Developments of 10 or more units are required to set-aside a number of workforce housing units. The development has the option of providing the units on-site, off-site, restriction of existing housing units off-site, make a cash contribution in the form on an-lie fee, donate land of equal value to the in-lieu fee, or use the exchange (off-site) builder which allows for required units to be sold to another developer and be built elsewhere.

    - The County requires a 15-year recurring affordability period for owner-occupied units and 30-year period for rental units. In both cases a restrictive covenant is placed on the unit to ensure eligibility.
- The County's in-lieu fee was recently increased from $81,500 per owner-occupied unit and $50,000 per rental unit to $120,000 for a single-family unit, $100,000 for a townhouse, and $70,000 per multi-family unit. Discussions with the County representatives indicated that the fee was developed by negotiation of a group of stakeholders that included developers of both for and non-profit, housing advocates, and the County.
- Optional density bonus in exchange for additional workforce housing units. The County approved two options:
    - Limited (minimize obligation) which allows for up to 50 percent bonus or Full Incentive (maximize density) which allows for up to 100 percent bonus.
- Discussions with County representatives indicated the following outcomes of the WHP program since inception in 2006.
    - Overall, from 2006 to 2020, the workforce housing program has resulted in an obligation of more than 2,500 WHP units
    - Approximately 60 percent of WHP units provided are rentals: 893 rental units are completed or under development and 187 are in approved unbuilt projects.
    - About 25 percent of WHP units are for sale units, with 205 for-sale units in projects that are constructed or under development and 29 in approved unbuilt projects. As of November 2019, 43 units have been sold, and 31 are under contract.
    - About 14 percent of obligated WHP units have paid in-lieu fees for 99 units (approximately 7 percent of WHP units), totaling $7,669,500. The BCC has approved that these funds can be used to provide purchase assistance for the buyers of the WHP for-sale units.
    - Four approved unbuilt developments have not yet indicated how their workforce obligation will be met, accounting for 10 WHP units (1 percent of WHP units).
- Lastly, to comply with HB 7103 that was signed into law in 2019, the County hired an economic consultant to assess whether the incentives available under the WHP program fully offset the costs to developers, for the same prototype projects. The consultant determined that the County's incentives more than offset the cost of compliance with the WHP requirements.

Table IX-8 provides additional example from other communities in Florida.

Table IX-8

Affordable Housing Programs/Incentives Matrix

Item/Community	Alachua County[1]	Brevard County[2]	Broward County[3]	Charlotte County[4]	Collier County[5]	Duval County[6]	Escambia County[7]	Flagler County[8]	Hillsborough County[9]	Indian River County[10]	Lake County[11]	Lee County[12]	Leon County[13]	Manatee County[14]	Martin County[15]
Housing Strategies															
Demolition/reconstruction assistance		X		X	X			X	X		X			X	
Disaster mitigation assistance	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Foreclosure prevention assistance	X	X	X		X			X				X	X		
New construction and/or reconstruction assistance		X	X		X	X	X		X			X			
Purchase assistance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rapid Re-Housing Program												X			
Rental acquisition assistance	X			X	X	X	X				X			X	X
Replacement housing assistance													X		
Rehabilitation/ repair assistance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rental security and/ or utilities deposit assistance	X	X		X	X		X	X	X		X	X	X		X
Special needs assistance (improve accessibility to the elderly and disabled persons)			X	X					X			X			
Tenant Based Rental Assistance	X	X		X	X	X	X	X	X		X	X	X		X
Incentive Strategies															
Affordable housing stock lost to development requires a 1 to 1 unit replacement on site (or off-site in case of proven hardship) or a payment to the Housing Trust Fund		X													
Allowance of affordable accessory residential units of small size	X		X	X		X	X	X	X	X		X			
Density Flexibility (Bonus)		X	X	X	X	X	X	X	X	X		X		X	X
Development of Housing Trust Fund and Mitigation Bank (Allows funds to be collected and utilized for housing strategies)		X	X						X	X					
Expedited Permitting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Flexible lot configurations	X	X	X	X			X	X	X	X		X		X	
Flexible street requirement	X	X	X	X				X	X	X		X		X	X
Inclusionary zoning requirement			X												
In-lieu fee for density bonus			X									X			
Low income housing tax credit to assist non-profit organizations with matching funds needed to acquire credit funding										X					
Listing of inventory of publicly owned land suitable for affordable housing	X	X	X	X	X	X		X	X	X			X	X	X
Multi-Modal Transportation Districts Allow for Flexibility in Design of Streets, Parking, etc. for Affordable and Workforce Housing							X					X			
Ongoing Review Process - An ongoing process for review of local policies, ordinances, regulations and plan provisions that increase the cost of housing prior to their adoption	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Parking and setback flexibility	X	X	X	X			X	X	X	X		X	X	X	X
Reservation of infrastructure capacity	X		X	X			X	X	X	X		X		X	X
The Support of Development Near Transportation Hubs, Employment Centers and Mixed Use Developments	X	X	X	X		X	X	X	X	X		X		X	
Transfer of development rights	X	X	X	X	X					X		X			
Impact Fee Incentive Strategies															
Tiered Impact Fee			X		X				X	X	X			X	X
Impact Fee Payment Assistance						X		X	X	X		X			
Impact Fee Deferral/ Waiver/ Reduction		X	X		X	X			X		X	X		X	X

Table IX-8 (Continued)

Affordable Housing Programs/Incentives Matrix

Item/Community	Miami-Dade County[16]	Monroe County[17]	Nassau County[18]	Okaloosa County[19]	Osceola County[20]	Palm Beach County[21]	Pasco County[22]	Pinellas County[23]	Polk County[24]	Sarasota County[25]	Seminole County[26]	St. Johns County[27]	St. Lucie County[28]	Sumter County[29]
Housing Strategies														
Demolition/reconstruction assistance			X				X	X	X				X	X
Disaster mitigation assistance	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Foreclosure prevention assistance	X					X	X							
New construction and/or reconstruction assistance		X					X	X	X	X	X			
Purchase assistance	X	X	X	X	X	X	X	X	X		X	X	X	X
Rapid Re-Housing Program	X								X	X	X			
Rental acquisition assistance	X	X	X	X	X		X							
Replacement housing assistance	X					X								
Rehabilitation/ repair assistance	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rental security and/ or utilities deposit assistance	X				X	X	X				X		X	
Special needs assistance (improve accessibility to the elderly and disabled persons)					X	X	X	X		X				
Tenant Based Rental Assistance					X		X	X						
Incentive Strategies														
Affordable housing stock lost to development requires a 1 to 1 unit replacement on site (or off-site in case of proven hardship) or a payment to the Housing Trust Fund														
Allowance of affordable accessory residential units of small size	X	X												X
Density Flexibility (Bonus)		X	X			X		X			X			X
Development of Housing Trust Fund and Mitigation Bank (Allows funds to be collected and utilized for housing strategies)	X							X						
Expedited Permitting	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Flexible lot configurations	X	X	X					X			X			X
Flexible street requirement		X												
Inclusionary zoning requirement	X	X				X								
In-lieu fee for density bonus	X					X								
Low income housing tax credit to assist non-profit organizations with matching funds needed to acquire credit funding					X									
Listing of inventory of publicly owned land suitable for affordable housing	X	X	X						X					X
Multi-Modal Transportation Districts Allow for Flexibility in Design of Streets, Parking, etc. for Affordable and Workforce Housing								X						
Ongoing Review Process - An ongoing process for review of local policies, ordinances, regulations and plan provisions that increase the cost of housing prior to their adoption	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Parking and setback flexibility	X	X	X					X						
Reservation of infrastructure capacity	X	X												
The Support of Development Near Transportation Hubs, Employment Centers and Mixed Use Developments		X						x	X					X
Transfer of development rights	X	X			X	X	X	X	X	X		X	X	
Impact Fee Incentive Strategies														
Tiered Impact Fee						X	X	X		X		X		
Impact Fee Payment Assistance			X			X				X	X			
Impact Fee Deferral/ Waiver/ Reduction	X	X	X			X			X	X				

1) Source: Alachua County SHIP Local Housing Assistance Plan (LHAP) for the years 2017-2020 & Alachua County Growth Management Department.
2) Source: Brevard County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021 & Brevard County Planning & Development Department. Municide - Brevard County Sec. 62-6304. - Housing trust fund and unit mitigation bank.
3) Source: Broward County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Broward County Planning and Development Management Division.
4) Source: Charlotte County SHIP Local Housing Assistance Plan (LHAP) for the years 2017-2020 & Charlotte County Community Development Department.
5) Source: Collier County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Collier County Capital Project Planning, Impact Fees, and Program Management Division. IF Deferral - Article IV.
6) Source: Duval County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021.
7) Source: Escambia County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022.
8) Source: Flagler County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Flagler County Code, Chapter 17.
9) Source: Hillsborough County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Hillsborough County Permits and Records Department & Housing Trust Fund Project.
10) Source: Indian River County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021 & Indian River County Planning Division.
11) Source: Lake County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021 & Lake County Planning and Zoning Office.
12) Source: Lee County SHIP Local Housing Assistance Plan (LHAP) for the years 2017-2020 & Lee County Community Development Department.
13) Source: Leon County SHIP Local Housing Assistance Plan (LHAP) for the years 2017-2020.
14) Source: Manatee County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021 & Manatee County Administration Department.
15) Source: Martin County SHIP Local Housing Assistance Plan (LHAP) for the years 2017-2020 & Martin County Growth Management Department.
16) Source: Miami-Dade County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Miami-Dade Regulatory & Economic Resources Department & Housing Trust Fund Project.
17) Source: Monroe County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Monroe County Building and Permitting Department.
18) Source: Nassau County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021 & Nassau County Board of Commissioners' Planning and Economic Opportunity Department.
19) Source: Okaloosa County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022.
20) Source: Osceola County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Osceola County Community Development Department.
21) Source: Palm Beach County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Palm Beach County Administration Division.
22) Source: Pasco County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021 & Pasco County Central Permitting Department.
23) Source: Pinellas County SHIP Local Housing Assistance Plan (LHAP) for the years 2018-2021 & Pinellas County Code of Ordinances Sec 150-40 & Housing Trust Fund Project.
24) Source: Polk County SHIP Local Housing Assistance Plan (LHAP) for the years 2017-2020 & Polk County Building Department.
25) Source: Sarasota County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Sarasota County Planning and Development Services Department.
26) Source: Seminole County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Seminole County Development Services Department.
27) Source: St. Johns County SHIP Local Housing Assistance Plan (LHAP) for the years 2017-2020 & St. Johns County Growth Management Department Source: St. Lucie County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & St. Lucie County Planning Division.

28) Source: St. Lucie County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & St. Lucie County Planning Division.
29) Source: Sumter County SHIP Local Housing Assistance Plan (LHAP) for the years 2019-2022 & Sumter County Planning Division.

Appendix A
Demand Component -- Population:
Supplemental Information

Appendix A: Population

Except for the transportation impact fee, all impact fee programs included in this report require the use of population data in calculating current levels of service, performance standards, and demand and credit calculations. With this in mind, a consistent approach to developing population estimates and projections is an important component of the data compilation process. To accurately determine demand for services, not only the residents, or permanent population of the County, but also the seasonal residents and visitors were considered. Seasonal residents include visitors and part-time residents, which are defined as living in Martin County for less than six months each year. Therefore, for purposes of calculating future demand for capital facilities for each impact fee program area, the weighted seasonal population will be used in all population estimates and projections. References to population contained in this report pertain to the weighted seasonal population, unless otherwise noted.

Service areas of each infrastructure type is as follows:

- Fire rescue: Unincorporated County, Town of Ocean Breeze and Village of Indiantown. The County also provides 24/7 EMS and fire service to Jupiter Island through an interlocal agreement.
- Law enforcement: Unincorporated County, Town of Ocean Breeze and Village of Indiantown.
- Correctional facilities: Countywide
- Libraries: Countywide
- Parks and Recreation: Countywide
- Conservation-Open Space: Countywide
- Public Buildings: Countywide

Given the differences in services areas, population estimates are provided separately for each impact fee area.

Table A-1 presents the weighed seasonal population trends. The projections indicate that the current weighted seasonal population of the County is approximately 178,600 countywide and is estimated to increase to 202,200 (increase of 23,600) by 2040. The growth levels vary depending on the service area.

Table A-1

Weighted Seasonal Population Trends and Projections

Year	Countywide[1]	Fire Rescue Service Area[2]	Law Enforcement Service Area[3]
2000	139,277	116,993	116,334
2001	142,002	119,282	118,628
2002	144,823	121,651	120,992
2003	148,439	124,689	124,031
2004	151,820	127,529	126,872
2005	154,571	129,840	129,176
2006	156,387	131,365	130,704
2007	158,280	132,955	132,237
2008	159,257	133,776	133,051
2009	160,077	134,465	133,719
2010	160,803	135,075	134,218
2011	161,260	135,458	134,598
2012	161,832	135,939	135,084
2013	162,876	136,816	135,957
2014	163,733	137,536	136,680
2015	165,114	138,696	137,849
2016	166,323	139,711	138,857
2017	168,032	141,147	140,301
2018	169,953	142,761	141,901
2019	172,065	144,535	143,684
2020	174,116	146,257	145,375
2021	174,799	146,831	145,986
2022	177,659	149,234	148,388
2023	**178,618**	**150,039**	**149,178**
2024	188,244	158,125	157,229
2025	187,631	157,610	156,714
2026	188,685	158,495	157,590
2027	189,911	159,525	158,614
2028	190,979	160,422	159,513
2029	192,051	161,323	160,404
2030	193,288	162,362	161,437
2031	193,781	162,776	161,845
2032	194,789	163,623	162,686
2033	195,802	164,474	163,532
2034	196,820	165,329	164,383
2035	197,891	166,228	165,277
2036	198,742	166,943	165,989
2037	199,596	167,661	166,702
2038	200,455	168,382	167,419
2039	201,317	169,106	168,139
2040	202,208	169,855	168,883

1) Source: Table A-16
2) Source: Table A-17
3) Source: Table A-18

Apportionment of Demand by Residential Unit Type and Size

Tables A-2 through A-4 present the population per housing unit (PPH) for the residential categories by size for each service area. The tables present the PPH for combined residential based on weighted seasonal population. In some cases PPH based on permanent population is also shown to be used for parks impact fee calculations. This analysis includes all housing units, both occupied and vacant.

Table A-2
Population per Housing Unit by Housing Type (Countywide)

Housing Type	Population[1]	Housing Units[2]	Population / Housing Unit[3]	Weighted Population / Housing Unit[4]
Single Family (detached/attached):	114,294	50,343	2.27	2.49
800 sq ft or less			1.12	1.23
801 to 1,100 sq ft			1.45	1.59
1,101 - 2,300 sq ft			2.08	2.29
2,301 sq ft and greater			2.85	3.13
Multi-Family	29,949	23,190	1.29	1.42

1) Source: 2021 American Community Survey (ACS); 5-Yr. Estimates, Table B25033
2) Source: 2021 American Community Survey (ACS); 5-Yr. Estimates, Table DP04
3) Population (Item 1) divided by housing units (Item 2). Single-family residential tiers' PPH figures are estimated based on an analysis of PPH figures by bedroom size reported in the 2018 5-year Public Use Microdata Sample (PUMS) and average home size by number of bedrooms reported in the Martin County Property Appraiser's database.
4) Population per housing unit (Item 3) adjusted for seasonal population.

Table A-3
Population per Housing Unit by Housing Type (Fire Rescue Service Area)

Housing Type	Population[1]	Housing Units[2]	Population / Housing Unit[3]	Weighted Population / Housing Unit[4]
Single Family (Detached/Attached):	104,286	45,895	2.27	2.39
800 sq ft or less			1.12	1.18
801 - 1,100 sq ft			1.45	1.53
1,101 - 2,300 sq ft			2.08	2.19
2,301 sq ft or more			2.85	3.00
Multi-Family	21,215	17,010	1.25	1.32

1) Source: 2021 American Community Survey (ACS); 5-Yr. Estimates, Table B25033
2) Source: 2021 American Community Survey (ACS); 5-Yr. Estimates, Table DP04
3) Population (Item 1) divided by housing units (Item 2). Single-family residential tiers' PPH figures are estimated based on an analysis of PPH figures by bedroom size reported in the 2018 5-year Public Use Microdata Sample (PUMS) and average home size by number of bedrooms reported in the Martin County Property Appraiser's database.
4) Population per housing unit (Item 3) adjusted for seasonal population.

Table A-4

Population per Housing Unit by Housing Type (Law Enforcement Service Area)

Housing Type	Population[1]	Housing Units[2]	Population / Housing Unit[3]	Weighted Population / Housing Unit[4]
Single Family (Detached/Attached):	103,644	45,246	2.29	2.41
800 sq ft or less			1.13	1.19
801 - 1,100 sq ft			1.46	1.54
1,101 - 2,300 sq ft			2.10	2.21
2,301 sq ft or more			2.88	3.03
Multi-Family	21,191	16,986	1.25	1.32

1) Source: 2021 American Community Survey (ACS); 5-Yr. Estimates, Table B25033
2) Source: 2021 American Community Survey (ACS); 5-Yr. Estimates, Table DP04
3) Population (Item 1) divided by housing units (Item 2). Single-family residential tiers' PPH figures are estimated based on an analysis of PPH figures by bedroom size reported in the 2018 5-year Public Use Microdata Sample (PUMS) and average home size by number of bedrooms reported in the Martin County Property Appraiser's database.
4) Population per housing unit (Item 3) adjusted for seasonal population.

Functional Population

Functional population, as used in the impact fee analysis, is a generally accepted methodology for several impact fee areas and is based on the assumption that demand for certain facilities is generally proportional to the presence of people at a land use, including residents, employees, and visitors. It is not enough to simply add resident population to the number of employees, since the service demand characteristics can vary considerably by type of industry.

Functional population is the equivalent number of people occupying space within a community on a 24-hour-day, 7-days-a-week basis. A person living and working in the community will have the functional population coefficient of 1.0. A person living in the community but working elsewhere may spend only 16 hours per day in the community on weekdays and 24 hours per day on weekends for a functional population coefficient of 0.76 (128-hour presence divided by 168 hours in one week). A person commuting into the county to work five days per week would have a functional population coefficient of 0.30 (50-hour presence divided by 168 hours in one week). Similarly, a person traveling into the community to shop at stores, perhaps averaging 8 hours per week, would have a functional population coefficient of 0.05.

Functional population thus tries to capture the presence of all people within the community, whether residents, workers, or visitors, to arrive at a total estimate of effective population needed to be served.

This form of adjusting population to help measure real facility needs replaces the population approach of merely weighting residents two-thirds and workers one-third (Nelson and Nicholas 1992)[2]. By estimating the functional and weighted population per unit of land use across all major land uses in a community, an estimate of the demand for certain facilities and services in the present and future years can be calculated. The following paragraphs explain how functional population is calculated for residential and non-residential land uses.

Residential Functional Population

Developing the residential component of functional population is simpler than developing the non-residential component. It is generally estimated that people spend one-half to three-fourths of their time at home and the rest of each 24-hour day away from their place of residence. In developing the residential component of Martin County's functional population, an analysis of the County's population and employment characteristics was conducted. Tables A-5 and A-6 present this analysis for the County. Based on this analysis, Martin County residents, on average, spend 16.6 hours each day at their place of residence. This corresponds to approximately 69 percent of each 24-hour day at their place of residence and the other 31 percent away from home.

It is important to note that these calculations were reviewed on a countywide basis as well as for each service. There was no significant change between the estimated residential functional population coefficient. As such, the countywide figure is utilized for all service areas.

[2] Arthur C. Nelson and James C. Nicholas, "Estimating Functional Population for Facility Planning," *Journal of Urban Planning and Development* 118(2): 45-58 (1992)

Table A-5

Population & Employment Characteristics

Variable	Figure
Total workers living in Martin County[1]	60,948
Total Population (2016)[2]	153,592
Total workers as a percent of population[3]	**39.7%**
School age population (5-17 years) (2016)[4]	19,717
School age population as a percent of population[5]	**12.8%**
Population net of workers and school age population[6]	72,927
Other population as a percent of total population[7]	**47.5%**

1) Source: Census Transportation Planning Package (CTPP), 2016
2) Source: American Community Survey, 2016 5-Yr Estimates, Table B01003
3) Total workers (Item 1) divided by population (Item 2)
4) Source: American Community Survey, 2016 5-Yr Estimates, Table B01003
5) Total school age population (Item 4) divided by 2010 population (Item 2)
6) Total population (Item 2) less total workers (Item 1) and school age population (Item 4)
7) Population net of workers and school age population (Item 6) divided by 2010 population (Item 2)

Table A-6

Residential Coefficient for 24-Hour Functional Population

Population Group	Hours at Residence[1]	Percent of Population[2]	Effective Hours[3]
Workers	13	39.7%	5.2
Students	15	12.8%	1.9
Other	20	47.5%	9.5
Total Hours at Residence[4]			16.6
Residential Functional Population Coefficient[5]			**69.2%**

1) Estimated
2) Source: Table A-5
3) Hours at residence (Item 1) multiplied by the percent of population (Item 2)
4) Sum of effective hours (Item 3)
5) Sum of effective hours (Item 4) divided by 24

The resulting percentage from Table A-5 is used in the calculation of the residential coefficient for the 24-hour functional population. These actual calculations are presented in Table A-6.

Non-Residential Functional Population

Given the varying characteristics of non-residential land uses, developing the estimates of functional residents for non-residential land uses is more complicated than developing estimated

functional residents for residential land uses. Nelson and Nicholas originally introduced a method for estimating functional resident population, which is now widely used in the industry. This method uses trip generation data from the Institute of Transportation Engineers' (ITE) Trip Generation Manual (11th Edition) and Benesch's Trip Characteristics Database, information of passengers per vehicle, workers per vehicle, length of time spent at the land use, and other variables.

Specific calculations include:

- Total one-way trips per employee (ITE trips multiplied by 50 percent to avoid double counting entering and exiting trips as two trips).
- Visitors per impact unit based on occupants per vehicle (trips multiplied by occupants per vehicle less employees).
- Worker hours per week per impact unit (such as nine worker-hours per day multiplied by five days in a work week).
- Visitor hours per week per impact unit (visitors multiplied by number of hours per day times relevant days in a week, such as five for offices and seven for retail shopping).
- Functional population coefficients per employee developed by estimating time spent by employees and visitors at each land use.

Table A-7 shows the functional population coefficients for residential and non-residential uses in Martin County, which are used to estimate the 2023 functional population for each service area in Tables A-8 through A-10.

Table A-7

General Functional Population Coefficients

Population/ Employment Category	ITE LUC	Employee Hours In-Place[1]	Trips per Employee[2]	One-Way Trips per Employee[3]	Journey-to-Work Occupants per Trip[4]	Daily Occupants per Trip[5]	Visitors per Employee[6]	Visitor Hours per Trip[1]	Days per Week[7]	Functional Population Coefficient[8]
Population									7.00	**0.692**
Natural Resources	n/a	9.00	3.10	1.55	1.32	1.38	0.09	1.00	7.00	**0.379**
Construction	110	9.00	3.10	1.55	1.32	1.38	0.09	1.00	5.00	**0.271**
Manufacturing	140	9.00	2.51	1.26	1.32	1.38	0.08	1.00	5.00	**0.270**
Transportation, Communication, Utilities	110	9.00	3.10	1.55	1.32	1.38	0.09	1.00	5.00	**0.271**
Wholesale Trade	150	9.00	5.05	2.53	1.32	1.38	0.15	1.00	5.00	**0.272**
Retail Trade	820	9.00	50.50	25.25	1.24	1.73	12.37	1.50	7.00	**1.148**
Finance, Insurance, Real Estate	710	9.00	3.33	1.67	1.24	1.73	0.82	1.00	5.00	**0.292**
Services[9]	n/a	9.00	20.32	10.16	1.24	1.73	4.98	1.00	6.00	**0.499**
Government[10]	730	9.00	7.45	3.73	1.24	1.73	1.83	1.00	7.00	**0.451**

(1) Estimated

(2) Trips per employee represents all trips divided by the number of employees and is based on Trip Generation 11th Edition (Institute of Transportation Engineers 2021) as follows:

ITE Code 110 at 3.10 weekday trips per employee, Volume 2 - Industrial Land Uses, page 39

ITE Code 140 at 2.51 weekday trips per employee, Volume 2 - Industrial Land Uses, page 76

ITE Code 150 at 5.05 weekday trips per employee, Volume 2 - Industrial Land Uses, page 104

ITE Code 710 at 3.33 weekday trips per employee, Volume 2 Office Land Uses, page 716

ITE Code 730 at 7.45 weekday trips per employee, Volume 2 Office Land Uses, page 795

ITE Code 820 (page 186) based on blended average of trips by retail center size calculated below.

Trips per retail employee from the following table:

Retail Scale	*Trip Rate*	*Sq Ft per Employee[11]*	*Trips per Employee*	*Share*	*Weighted Trips*
Retail (Less than 40k sq. ft.)	54.45	802	44	50.0%	22.00
Retail (40k to 150k sq. ft.)	67.52	975	66	35.0%	23.10
Retail (greater than 150k sq. ft.	37.01	963	36	15.0%	5.40
Sum of Weighted Trips/1k sq.ft.					50.50

(3) Trip per employee (Item 2) multiplied by 0.5.

(4) Journey-to-Work Occupants per Trip from 2001 Nationwide Household Travel Survey (FHWA 2001) as follows:

1.32 occupants per Construction, Manufacturing, TCU, and Wholesale trip

1.24 occupants per Retail Trade, FIRE, and Services trip

(5) Daily Occupants per Trip from 2001 Nationwide Household Travel Survey (FHWA 2001) as follows:

1.38 occupants per Construction, Manufacturing, TCU, and Wholesale trip

1.73 occupants per Retail Trade, FIRE, and Services trip

(6) [Daily occupants per trip (Item 5) multiplied by one-way trips per employee (Item 3)] - [(Journey-to-Work occupants per trip (Item 4) multiplied by one-way trips per employee (Item 3)]

(7) Typical number of days per week that indicated industries provide services and relevant government services are available.

(8) Table A-6 for residential and the equation below to determine the Functional Population Coefficient per Employee for all land-use categories except residential includes the following:

$$\frac{(\text{Days per Week} \times \text{Employee Hours in Place}) + (\text{Visitors per Employee} \times \text{Visitor Hours per Trip} \times \text{Days per Week})}{(24 \text{ Hours per Day} \times 7 \text{ Days per Week})}$$

(9) Trips per employee for the services category is the average trips per employee for the following service related land use categories: quality restaurant, high-turnover restaurant, supermarket, hotel, motel, elementary school, middle school, high school, hospital, medical office, and church. Source for the trips per employee figure from ITE, 11th ed., when available.

(10) Includes Federal Civilian Government, Federal Military Government, and State and Local Government categories.

(11) Square feet per retail employee from the Energy Information Administration from Table B-1 of the Commercial Energy Building Survey, 2003

Table A-8

Countywide Functional Population (2023)

Population Category	Countywide Baseline Data[1]	Functional Resident Coefficient[2]	Functional Population[3]
2023 Weighted Population	178,618	0.692	123,604
Employment Category			
Natural Resources	2,243	0.379	850
Construction	7,864	0.271	2,131
Manufacturing	3,961	0.270	1,069
Transportation, Communication, and Utilities	3,938	0.271	1,067
Wholesale Trade	2,755	0.272	749
Retail Trade	11,423	1.148	13,114
Finance, Insurance, and Real Estate	15,144	0.292	4,422
Services	57,126	0.499	28,506
Government Services	6,509	0.451	2,936
Total Employment by Category Population[4]			54,844
2023 Total Functional Population[5]			**178,448**

1) Source: Table A-1 for population and Woods & Poole for 2023 employment estimates
2) Source: Table A-7
3) Functional population is calculated by multiplying the baseline data (Item 1) multiplied by the functional resident coefficient (Item 2)
4) The total employment population by category is the sum of the employment figures from the nine employment categories (e.g., natural resources, construction, etc.)
5) The total functional population is the sum of the residential functional population and the employment functional population

Table A-9

Fire Rescue Service Area Functional Population (2023)

Population Category	Fire Rescue Service Area Baseline Data[1]	Functional Resident Coefficient[2]	Functional Population[3]
2023 Weighted Population	150,039	0.692	103,827
Employment Category			
Natural Resources	1,884	0.379	714
Construction	5,269	0.271	1,428
Manufacturing	2,852	0.270	770
Transportation, Communication, and Utilities	2,560	0.271	694
Wholesale Trade	1,984	0.272	540
Retail Trade	7,196	1.148	8,261
Finance, Insurance, and Real Estate	6,966	0.292	2,034
Services	33,133	0.499	16,533
Government Services	2,213	0.451	998
Total Employment by Category Population[4]			31,972
2023 Total Functional Population[5]			**135,799**

1) Source: Table A-1 for population and Woods & Poole for 2023 employment estimates
2) Source: Table A-7
3) Functional population is calculated by multiplying the baseline data (Item 1) multiplied by the functional resident coefficient (Item 2)
4) The total employment population by category is the sum of the employment figures from the nine employment categories (e.g., natural resources, construction, etc.)
5) The total functional population is the sum of the residential functional population and the employment functional population

Table A-10

Law Enforcement Service Area Functional Population (2023)

Population Category	Law Enforcement Service Area Baseline Data[1]	Functional Resident Coefficient[2]	Functional Population[3]
2023 Weighted Population	149,178	0.692	103,231
Employment Category			
Natural Resources	1,884	0.379	714
Construction	5,269	0.271	1,428
Manufacturing	2,852	0.270	770
Transportation, Communication, and Utilities	2,560	0.271	694
Wholesale Trade	1,984	0.272	540
Retail Trade	7,196	1.148	8,261
Finance, Insurance, and Real Estate	6,966	0.292	2,034
Services	33,133	0.499	16,533
Government Services	2,213	0.451	998
Total Employment by Category Population[4]			31,972
2023 Total Functional Population[5]			**135,203**

1) Source: Table A-1 for population and Woods & Poole for 2023 employment estimates
2) Source: Table A-7
3) Functional population is calculated by multiplying the baseline data (Item 1) multiplied by the functional resident coefficient (Item 2)
4) The total employment population by category is the sum of the employment figures from the nine employment categories (e.g., natural resources, construction, etc.)
5) The total functional population is the sum of the residential functional population and the employment functional population

Table A-11 presents the County's annual functional population figures for each service area from 2000 through 2040, based on the 2023 functional population figure from Tables A-8 through A-10, and the annual population growth rates from the population figures previously presented in Table A-1.

Table A-11

Martin County, Functional Population Trends/Projections (2000 - 2040)

Year	Countywide [1]	Fire Rescue Service Area [2]	Law Enforcement Service Area [3]
2000	139,367	106,055	105,487
2001	142,154	108,176	107,597
2002	144,997	110,340	109,749
2003	148,622	113,099	112,493
2004	152,040	115,700	115,080
2005	154,777	117,783	117,151
2006	156,634	119,196	118,557
2007	158,514	120,626	119,980
2008	159,465	121,350	120,700
2009	160,262	121,957	121,303
2010	161,063	122,567	121,788
2011	161,546	122,935	122,153
2012	162,192	123,427	122,642
2013	163,165	124,168	123,378
2014	163,981	124,789	123,995
2015	165,293	125,787	125,111
2016	166,450	126,668	125,987
2017	168,115	127,935	127,247
2018	169,964	129,342	128,647
2019	172,004	130,894	130,319
2020	174,068	132,465	131,883
2021	174,764	132,995	132,411
2022	177,560	135,123	134,530
2023	**178,448**	**135,799**	**135,203**
2024	188,084	143,132	142,504
2025	187,520	142,703	142,076
2026	188,645	143,559	142,928
2027	189,777	144,420	143,786
2028	190,916	145,287	144,649
2029	192,061	146,159	145,517
2030	193,213	147,036	146,390
2031	193,793	147,477	146,829
2032	194,762	148,214	147,563
2033	195,736	148,955	148,301
2034	196,715	149,700	149,043
2035	197,699	150,449	149,788
2036	198,490	151,051	150,387
2037	199,284	151,655	150,989
2038	200,081	152,262	151,593
2039	200,881	152,871	152,199
2040	201,685	153,482	152,808

1) Source: Table A-8 for 2023. Other years are based on growth rates of the weighted seasonal population
2) Source: Table A-9 for 2023. Other years are based on growth rates of the weighted seasonal population
3) Source: Table A-10 for 2023. Other years are based on growth rates of the weighted seasonal population

Functional Residents by Specific Land Use Category

When a wide range of land uses impact services, an estimate of that impact is needed for each land use. This section presents functional population coefficient estimates by residential and non-residential land uses.

Residential and Transient Land Uses

As mentioned previously, functional population estimates by land use need to be developed for each impact fee service area to be analyzed. For residential and transient land uses, these coefficients are displayed in Tables A-12 through A-14. The average number of persons per housing unit was calculated for the residential categories by size of home. Besides the residential land uses, Tables A-12 through A-14 also include transient land uses, such as hotels, motels, assisted living facility, and nursing homes. Secondary sources, such as Martin County Office of Tourism & Marketing and the Florida Department of Elderly Affairs, are used to determine the occupancy rate for hotels, motels, assisted living facility, and nursing homes.

Non-Residential Land Uses

A similar approach is used to estimate functional residents for non-residential land uses. Table A-15 presents basic assumptions and calculations, such as trips per unit, trips per employee, employees per impact unit, one-way trips per impact unit, worker hours, occupants per vehicle trip, visitors (patrons, etc.) per impact unit, visitor hours per trip, and days per week for non-residential land uses. The final column shows the estimated functional residents by land use. These coefficients by land use create the demand component for the select impact fee programs and will be used in the calculation of the impact fee per unit for each land use category in the select impact fee schedules.

Table A-12

24-Hour Functional Residents for Residential Land Uses – Countywide

Residential Land Use	Impact Unit	ITE LUC[1]	Residents/ Visitors per Unit[2]	Occupancy Rate[3]	Adjusted Residents per Unit[4]	Visitor Hours at Place[5]	Workers per Unit[6]	Work Day Hours[7]	Days per Week[8]	Functional Residents per Unit[9]
Residential:										
Single Family (detached/attached):										
800 sq ft or less	du	210	1.23	-	-	-	-	-	-	0.85
801 to 1,100 sq ft	du	210	1.59	-	-	-	-	-	-	1.10
1,101 - 2,300 sq ft	du	210	2.29	-	-	-	-	-	-	1.58
2,301 sq ft and greater	du	210	3.13	-	-	-	-	-	-	2.17
Multi-Family	du	220/221	1.42	-	-	-	-	-	-	0.98
Transient, Assisted, Group:										
Assisted Living Facility	1,000 sf	254	1.30	79%	1.03	20	0.99	9	7	1.23
Hotel	room	310	2.00	71%	1.42	12	0.56	9	7	0.92
Motel	room	320	2.00	71%	1.42	12	0.13	9	7	0.76
Nursing Home	1,000 sf	620	2.76	79%	2.18	20	2.04	9	7	2.58

(1) Land use code from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition

(2) Estimates for the single family and multi-family land use from Table A-2; estimates for assisted living is based on senior housing data within Florida; estimates for the hotel/motel land use is based on data obtained from Martin County Office of Tourism & Marketing; and the estimate used for nursing home is based on 1 person per bed and an average square footage of 363 per bed in a nursing home, based on information provided in the ITE Trip Generation Handbook, 11th Edition.

(3) Source for hotel/motel occupancy: Martin County Office of Tourism & Marketing. Hotel/motel occupancy rate for 2022. Source for nursing home occupancy rate is the Florida Department of Elderly Affairs, Martin County Profile. Occupancy rate for 2022.

(4) Residents per unit times occupancy rate (Item 3)

(5), (7), (8) Estimated

(6) Adapted from ITE Trip Generation Handbook, 11th Edition

(9) For residential this is Residents Per Unit times 0.688. For Transient, Assisted, and Group it is:

$$\frac{[(\text{Adjusted Residents per Unit} \times \text{Hours at Place} \times \text{Days per Week}) + (\text{Workers Per Unit} \times \text{Work Hours Per Day} \times \text{Days per Week})]}{(24 \text{ Hours per Day} \times 7 \text{ Days per Week})}$$

Table A-13

24-Hour Functional Residents for Residential Land Uses – Fire Rescue Service Area

Residential Land Use	Impact Unit	ITE LUC[1]	Residents/ Visitors per Unit[2]	Occupancy Rate[3]	Adjusted Residents per Unit[4]	Visitor Hours at Place[5]	Workers per Unit[6]	Work Day Hours[7]	Days per Week[8]	Functional Residents per Unit[9]
Residential:										
Single Family (detached/attached):										
800 sq ft or less	du	210	1.18	-	-	-	-	-	-	0.82
801 to 1,100 sq ft	du	210	1.53	-	-	-	-	-	-	1.06
1,101 - 2,300 sq ft	du	210	2.19	-	-	-	-	-	-	1.52
2,301 sq ft and greater	du	210	3.00	-	-	-	-	-	-	2.08
Multi-Family	du	220/221	1.32	-	-	-	-	-	-	0.91
Transient, Assisted, Group:										
Assisted Living Facility	1,000 sf	254	1.30	79%	1.03	20	0.99	9	7	1.23
Hotel	room	310	2.00	71%	1.42	12	0.56	9	7	0.92
Motel	room	320	2.00	71%	1.42	12	0.13	9	7	0.76
Nursing Home	1,000 sf	620	2.76	79%	2.18	20	2.04	9	7	2.58

(1) Land use code from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition

(2) Estimates for the single family and multi-family land use from Table A-2; estimates for assisted living is based on senior housing data within Florida; estimates for the hotel/motel land use is based on data obtained from Martin County Office of Tourism & Marketing; and the estimate used for nursing home is based on 1 person per bed and an average square footage of 363 per bed in a nursing home, based on information provided in the ITE Trip Generation Handbook, 11th Edition.

(3) Source for hotel/motel occupancy: Martin County Office of Tourism & Marketing. Hotel/motel occupancy rate for 2022. Source for nursing home occupancy rate is the Florida Department of Elderly Affairs, Martin County Profile. Occupancy rate for 2022.

(4) Residents per unit times occupancy rate (Item 3)

(5), (7), (8) Estimated

(6) Adapted from ITE Trip Generation Handbook, 11th Edition

(9) For residential this is Residents Per Unit times 0.688. For Transient, Assisted, and Group it is:

$$\frac{[(\text{Adjusted Residents per Unit} \times \text{Hours at Place} \times \text{Days per Week}) + (\text{Workers Per Unit} \times \text{Work Hours Per Day} \times \text{Days per Week})]}{(24 \text{ Hours per Day} \times 7 \text{ Days per Week})}$$

Table A-14

24-Hour Functional Residents for Residential Land Uses – Law Enforcement Service Area

Residential Land Use	Impact Unit	ITE LUC[1]	Residents/ Visitors per Unit[2]	Occupancy Rate[3]	Adjusted Residents per Unit[4]	Visitor Hours at Place[5]	Workers per Unit[6]	Work Day Hours[7]	Days per Week[8]	Functional Residents Per Unit[9]
Residential:										
Single Family (detached/attached):										
800 sq ft or less	du	210	1.19	-	-	-	-	-	-	0.82
801 to 1,100 sq ft	du	210	1.54	-	-	-	-	-	-	1.07
1,101 - 2,300 sq ft	du	210	2.21	-	-	-	-	-	-	1.53
2,301 sq ft and greater	du	210	3.03	-	-	-	-	-	-	2.10
Multi-Family	du	220/220	1.32	-	-	-	-	-	-	0.91
Transient, Assisted, Group:										
Assisted Living Facility	1,000 sf	254	1.30	79%	1.03	20	0.99	9	7	1.23
Hotel	room	310	2.00	71%	1.42	12	0.56	9	7	0.92
Motel	room	320	2.00	71%	1.42	12	0.13	9	7	0.76
Nursing Home	1,000 sf	620	2.76	79%	2.18	20	2.04	9	7	2.58

(1) Land use code from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition

(2) Estimates for the single family and multi-family land use from Table A-2; estimates for assisted living is based on senior housing data within Florida; estimates for the hotel/motel land use is based on data obtained from Martin County Office of Tourism & Marketing; and the estimate used for nursing home is based on 1 person per bed and an average square footage of 363 per bed in a nursing home, based on information provided in the ITE Trip Generation Handbook, 11th Edition.

(3) Source for hotel/motel occupancy: Martin County Office of Tourism & Marketing. Hotel/motel occupancy rate for 2022. Source for nursing home occupancy rate is the Florida Department of Elderly Affairs, Martin County Profile. Occupancy rate for 2022.

(4) Residents per unit times occupancy rate (Item 3)

(5), (7), (8) Estimated

(6) Adapted from ITE Trip Generation Handbook, 11th Edition

(9) For residential this is Residents Per Unit times 0.688. For Transient, Assisted, and Group it is:

$$\frac{[(\text{Adjusted Residents per Unit} \times \text{Hours at Place} \times \text{Days per Week}) + (\text{Workers Per Unit} \times \text{Work Hours Per Day} \times \text{Days per Week})]}{(24 \text{ Hours per Day} \times 7 \text{ Days per Week})}$$

Table A-15

Functional Population for Non-Residential Land Uses

ITE LUC[1]	Land Use	Impact Unit	Trips per Unit[2]	Trips per Employee[3]	Employees per Unit[4]	One-Way Factor @ 50%[5]	Worker Hours[6]	Occupants per Trip[7]	Visitors[8]	Visitor Hours per Trip[9]	Days per Week[10]	Functional Resident per Unit[11]
	RECREATIONAL:											
411	Public Park	acre	0.78	59.53	0.01	0.39	9	2.01	0.77	1.50	7	0.05
416	RV Park[12]	site	1.62	N/A	1.20	0.81	9	2.01	0.43	1.50	7	0.48
420	Marina	boat berth	2.41	20.52	0.12	1.21	9	2.01	2.31	1.00	7	0.14
N/A	Boat Storage	slip	1.50	N/A	0.15	0.75	9	2.01	1.36	1.00	7	0.11
430	Golf Course	hole	30.38	20.52	1.48	15.19	9	2.01	29.05	0.25	7	0.86
445	Movie Theater	1,000 sf	82.30	53.12	1.55	41.15	9	2.01	81.16	1.00	7	3.96
491	Racquet/Tennis Club	1,000 sf	19.70	27.25	0.72	9.85	9	2.01	19.08	1.00	7	1.07
492	Health/Fitness Club	1,000 sf	34.50	27.25	1.27	17.25	9	2.01	33.40	1.50	7	2.56
	INSTITUTIONAL:											
520-525	Elementary/Middle/High School (Private)	1,000 sf	14.07	21.95	0.64	7.04	9	1.11	7.17	2.00	5	0.60
540	College (Private)	1,000 sf	20.25	14.61	1.39	10.13	9	1.11	9.85	2.00	5	0.96
560	Place of Worship	1,000 sf	7.60	20.64	0.37	3.80	9	1.80	6.47	1.00	7	0.41
565	Day Care Center	1,000 sf	49.63	21.38	2.32	24.82	9	1.80	42.36	0.15	5	0.81
590	Library	1,000 sf	72.05	55.64	1.29	36.03	9	1.78	62.84	1.00	7	3.10
732	Post Office	1,000 sf	103.94	25.40	4.09	51.97	9	1.23	59.83	0.25	5	1.54
	MEDICAL:											
610	Hospital	1,000 sf	10.77	3.77	2.86	5.39	9	1.60	5.76	1.00	7	1.31
	OFFICE:											
710	Office	1,000 sf	10.84	3.33	3.26	5.42	9	1.23	3.41	1.00	5	0.97
720	Medical Office	1,000 sf	23.83	8.71	2.74	11.92	9	1.60	16.33	1.00	5	1.22
	RETAIL:											
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	54.45	17.42	3.13	27.23	9	1.73	43.98	0.50	7	2.09
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	67.52	17.42	3.88	33.76	9	1.73	54.52	0.50	7	2.59
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	37.01	17.42	2.12	18.51	9	1.73	29.90	0.50	7	1.42
840/841	New/Used Auto Sales & Service	1,000 sf	24.58	11.84	2.08	12.29	9	1.73	19.18	1.00	7	1.58
851	Convenience Store	1,000 sf	739.50	243.38	3.04	369.75	9	1.73	636.63	0.20	7	6.45
853	Convenience Store w/Gas	1,000 sf	626.25	243.38	2.57	313.13	9	1.73	539.14	0.20	7	5.46
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	103.86	69.17	1.50	51.93	9	1.73	88.34	0.35	7	1.85
	SERVICES:											
911	Bank/Savings Walk-In	1,000 sf	57.94	32.73	1.77	28.97	9	1.73	48.35	0.35	6	1.17
912	Bank/Savings Drive-In	1,000 sf	103.73	32.73	3.17	51.87	9	1.73	86.57	0.15	6	1.48
931	Fine Dining Restaurant	1,000 sf	86.03	17.9	4.81	43.02	9	2.10	85.53	1.00	7	5.37
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	479.17	44.52	10.76	239.59	9	2.10	492.38	0.25	7	9.16
948	Car Wash	1,000 sf	142.00	N/A	1.75	71.00	9	1.73	121.08	0.25	7	1.92
	INDUSTRIAL:											
110	General Industrial	1,000 sf	4.87	3.1	1.57	2.44	9	1.78	2.77	1.00	5	0.50
140	Manufacturing	1,000 sf	4.75	2.51	1.89	2.38	9	1.78	2.35	1.00	5	0.58
150	Warehousing	1,000 sf	1.71	5.05	0.34	0.86	9	1.78	1.19	0.75	5	0.12
151	Mini-Warehouse	1,000 sf	1.46	61.9	0.02	0.73	9	1.78	1.28	0.75	7	0.05

Table A-15 (Continued)

Assumptions for Non-Residential Land Uses and Functional Population Coefficients for the Impact Fee Schedule

Sources:
(1) Land use code found in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition
(2) Land uses and trip generation rates consistent with those included in the Transportation Impact Fee Update Study
(3) Trips per employee from ITE Trip Generation Handbook, 11th Edition, when available
(4) Trips per impact unit divided by trips per person (usually employee). When trips per person are not available, the employees per unit is estimated.
(5) Trips per unit (Item 2) multiplied by 50 percent
(6), (9), (10) Estimated
(7) Nationwide Personal Transportation Survey
(8) [(One-way Trips/Unit X Occupants/Trip) - Employees].
(11) [(Workers X Hours/Day X Days/Week) + (Visitors X Hours/Visit X Days/Week)]/(24 Hours x 7 Days)
(12) The ITE 10th Edition trip generation rate for PM Peak Hour of Adjacent traffic was adjusted by a factor of 10 to approximate the Daily TGR

Table A-16
Weighted Seasonal Population Projections Countywide

Year	Permanent Population[1]	Weighted Population[2]
2000	126,731	139,277
2001	129,210	142,002
2002	131,777	144,823
2003	135,067	148,439
2004	138,144	151,820
2005	140,647	154,571
2006	142,299	156,387
2007	144,022	158,280
2008	144,911	159,257
2009	145,657	160,077
2010	146,318	160,803
2011	146,733	161,260
2012	147,254	161,832
2013	148,204	162,876
2014	148,984	163,733
2015	150,240	165,114
2016	151,340	166,323
2017	152,895	168,032
2018	154,643	169,953
2019	156,565	172,065
2020	158,431	174,116
2021	159,053	174,799
2022	161,655	177,659
2023	**162,528**	**178,618**
2024	163,406	188,244
2025	164,300	187,631
2026	165,368	188,685
2027	166,443	189,911
2028	167,525	190,979
2029	168,614	192,051
2030	169,700	193,288
2031	170,582	193,781
2032	171,469	194,789
2033	172,361	195,802
2034	173,257	196,820
2035	174,200	197,891
2036	174,949	198,742
2037	175,701	199,596
2038	176,457	200,455
2039	177,216	201,317
2040	178,000	202,208

1) Source: BEBR, Volume 55, Bulletin 192, February 2022 (Medium-Level)
2) Calculated based on the ratio of weighted to permanent population estimates provided by Martin County

Table A-17

Weighted Seasonal Population Projections Fire Rescue Service Area

Year	Weighted Population[1]
2000	116,993
2001	119,282
2002	121,651
2003	124,689
2004	127,529
2005	129,840
2006	131,365
2007	132,955
2008	133,776
2009	134,465
2010	135,075
2011	135,458
2012	135,939
2013	136,816
2014	137,536
2015	138,696
2016	139,711
2017	141,147
2018	142,761
2019	144,535
2020	146,257
2021	146,831
2022	149,234
2023	**150,039**
2024	158,125
2025	157,610
2026	158,495
2027	159,525
2028	160,422
2029	161,323
2030	162,362
2031	162,776
2032	163,623
2033	164,474
2034	165,329
2035	166,228
2036	166,943
2037	167,661
2038	168,382
2039	169,106
2040	169,855

1) Calculated based on the ratio of weighted population estimates for the fire rescue service area to countywide population provided by Martin County

Table A-18
Weighted Seasonal Population Projections Law Enforcement Area

Year	Weighted Population[(1)]
2000	116,334
2001	118,628
2002	120,992
2003	124,031
2004	126,872
2005	129,176
2006	130,704
2007	132,237
2008	133,051
2009	133,719
2010	134,218
2011	134,598
2012	135,084
2013	135,957
2014	136,680
2015	137,849
2016	138,857
2017	140,301
2018	141,901
2019	143,684
2020	145,375
2021	145,986
2022	148,388
2023	**149,178**
2024	157,229
2025	156,714
2026	157,590
2027	158,614
2028	159,513
2029	160,404
2030	161,437
2031	161,845
2032	162,686
2033	163,532
2034	164,383
2035	165,277
2036	165,989
2037	166,702
2038	167,419
2039	168,139
2040	168,883

1) The ratio of weighted to permanent population estimates for the fire rescue service area provided by Martin County was applied to the permanent population of the law enforcement service area.

Appendix B
Cost Component -- Building and Land Values
Supplemental Information

Appendix B: Building and Land Values

This Appendix provides a summary of building and land value estimates for fire rescue, law enforcement, public buildings, libraries, parks and recreation, and conservation/open space impact fees. Information related to cost estimates for transportation is included in Appendix D.

Building Values

To estimate building and recreational facility value, the following information was reviewed:

- Recent construction by Martin County, as applicable;
- Cost estimates/bids for future facilities;
- Insurance values of existing facilities;
- Data from other jurisdictions; and
- Discussions with the representatives from Martin County.

The following paragraphs provide a summary for each service area**.**

Fire Rescue Facilities

Fire rescue facilities include fire stations and other buildings, such as the Administration Building. Each type of building has varying costs depending on the design and amenities. As part of the cost estimates the following was considered:

- The County has not built any new fire stations or other related buildings over the past five years; however, the County is planning to build or rebuild five stations. For four of these stations, the County retained services of a contractor and the estimated cost ranges from $300 per square foot to $460 per square foot, with a weighted average cost of $380 per square foot. In addition, furniture/fixture/equipment (ff&e) cost is estimated at approximately eight percent of the construction cost.
- The insured values of the fire stations average approximately $210 per square foot. Insurance values are considered to be conservative estimates since certain parts of the structures are not insured, such as the foundation, etc. and these values do not include permitting fees and other similar expenses.
- Benesch supplemented local data with cost data obtained from other Florida jurisdictions. Cost estimates obtained from other Florida jurisdictions between 2016 and 2021 ranges from $250 per square foot to $465 per square foot for building cost only.

Given this information an average value of $350 per square foot is used for stations and $300 per square foot for Fire Administration Building, which is shared with law enforcement services. The basis for value of this building is explained in the following section.

Law Enforcement Facilities

For law enforcement building cost estimates, the following analysis was completed:

- Within the past five years, Martin County built Sheriff's Evidence Building at a cost of $356 per square foot. Evidence buildings require additional security features, which tend to increase the cost.
- There are plans to build several buildings that are included in the Capital Improvement Plan. The cost for these buildings averages $300 per square foot.
- The insurance values of existing buildings averaged $285 per square foot. Insurance values are considered to be conservative estimates since certain parts of the structures are not insured, such as the foundation, etc. and these values do not include permitting fees and other similar expenses.
- Benesch supplemented local data with cost data obtained from other Florida jurisdictions. Cost estimates obtained from other Florida jurisdictions between 2015 and 2020 ranges from $200 to $350 per square foot for building cost only.

Given this information, building cost is estimated to cost $300 per square foot for law enforcement facilities.

Public Buildings

For public buildings cost estimates, the following analysis was completed:

- Within the past five years, Martin County did not build any new public buildings and there are no plans to build a new facility over the next five years.
- The insurance values of existing general government buildings averaged $240 per square foot while the insured value of the courthouse was $820 per square foot. However, there are no plans to build another courthouse or expand the current one at this time. Given this, this high value is not incorporated into the cost estimates.
- Benesch supplemented local data with cost data obtained from other Florida jurisdictions. Cost estimates obtained from other Florida jurisdictions between 2015 and 2019 ranges from $155 to $300 per square foot for building cost only.

Given this information, building cost is estimated at $240 per square foot for public buildings.

Libraries

The following analysis was conducted for library cost estimates:

- Martin County has not built any new libraries over the past five years and there are no plans to build any new libraries.
- The insurance values of the existing libraries averaged $200 per square foot for buildings only and $420 per square foot when contents are included. Insurance values tend to be conservative estimates since certain parts of the structures are not insured, such as the foundation, etc. and these values do not include permitting fees and other similar expenses.
- Benesch supplemented local data with cost data obtained from other Florida jurisdictions. Cost estimates obtained from other Florida jurisdictions between 2014 and 2020 ranges from $230 to $370 per square foot for building cost only.

Given this information, library building cost is estimated at $300 per square foot for impact fee calculation purposes.

Recreational Facilities

Similar to other facilities, recreational facility values are based on the following:

- Insurance values of existing facilities;
- Facility values obtained from other jurisdictions; and
- Input from the County representatives.

The resulting estimates are presented in Table VI-5, earlier in this report.

Land Values

For each impact fee program area, land values were determined based on the following analysis, as data available:

- Recent land purchases or appraisals/estimates for future purchases for the related infrastructure (if any);
- Land value of current inventory as reported by the Martin County Property Appraiser (MCPA);
- Value of vacant land by size and by land use;
- Vacant land sales between 2017 and 2019 by size and by land use; and
- Discussions with the County representatives.

Fire Rescue Facilities

The following was considered in estimating the land value for fire rescue facilities:

- The County has not purchased a site for fire facilities over the past five years and there are no plans to purchase any land at this time.
- The value of parcels where current stations are located averages $115,000 per acre, with a median value of $165,000 and a range of $44,000 per acre to $486,000 per acre. Property Appraiser land value estimates for governmental entities tend to be on the low end since these properties are not subject to property tax and the values are not always updated to reflect the market conditions.
- Vacant land sales of similarly sized parcels within the fire rescue service area (up to 4 acres) between 2017 and 2019 averaged $196,000 per acre with a median value of $167,000 per acre for all vacant land use types. These prices were higher for commercial properties, with an average value of $324,000 per acre and a median value of $221,000 per acre.
- Similarly, the value of vacant land reported by the Property Appraiser averaged $147,000 per acre with a median value of $146,000 per acre for all vacant properties. For commercial properties, the average value is estimated at $202,000 per acre with a median value of $192,000 per acre.

Given this information, an average land value of **$165,000 per acre** is determined to be a reasonable estimate for fire rescue impact fee calculation purposes.

Law Enforcement

The land value estimate for law enforcement facilities is based on the following:

- The County has not purchased any land for law enforcement facilities over the past five years and there are no plans to purchase any in the near future.
- The value of parcels where current law enforcement buildings are located averages $68,000 per acre, with a median value of $148,000 per acre and a range of $12,000 per acre to $362,000 per acre. Property Appraiser land value estimates for governmental entities tend to be on the low end since these properties are not subject to property tax and the values are not always updated to reflect the market conditions.
- Vacant land sales of similarly sized parcels within the law enforcement service area (between one acre and 40 acres) between 2017 and 2019 averaged $125,000 per acre with a median value of $120,000 per acre for all vacant land use types. These prices were higher for commercial properties, with an average of $270,000 per acre and a median value of $304,000 per acre.

- Similarly, the value of vacant land reported by the Property Appraiser averaged $103,000 per acre with a median value of $130,000 per acre for all vacant properties with 0.5 acres to 5 acres. As the size of the parcels increased, the value decreased to $20,000 per acre to $49,000 per acres for parcels between 5 acres and 60 acres. For commercial properties, the average value is estimated at $202,000 per acre with a median value of $191,000 per acre for smaller parcels, which decreased to $98,000 per acre to $181,000 per acre for larger parcels.

Given this information and based on discussions with representatives from Martin County, an average land value of **$65,000 per acre** is determined to be a reasonable, if not conservative, estimate for law enforcement impact fee calculation purposes.

Public Buildings

The land value estimate for public buildings is based on the following:

- There were no recent purchases.
- The County is planning to purchase land for the new Field Operations Building at an estimated cost of $158,000 per acre.
- The value of parcels where current public buildings are located averages $162,000 per acre, with a median value of $209,000 and a range of $106,000 per acre to $418,000 per acre. Property Appraiser land value estimates for governmental entities tend to be on the low end since these properties are not subject to property tax and the values are not always updated to reflect the market conditions.
- Vacant land sales of similarly sized parcels countywide between 2017 and 2019 averaged $150,000 per acre with a median value of $144,000 per acre for all vacant land use types for parcels up to five acres. When larger parcels are considered (five to ten acres), the average cost decreases to $79,000 per acre with a median value of $40,000 per acre.
- Similarly, the value of vacant land reported by the Property Appraiser averaged $111,000 per acre with a median value of $126,000 per acre for all vacant properties up to five acres. For larger parcels (between five acres and 20 acres), these values decrease to $20,000 per acre to $30,000 per acre.

Given this information and based on discussions with representatives from Martin County, an average land value of **$100,000 per acre** is determined to be a reasonable estimate for public buildings impact fee calculation purposes.

Libraries

The land value estimate for libraries is based on the following:

- There were no recent land purchases for libraries.
- A recent appraisal for an upcoming purchase is $25,000 per acre without infrastructure.
- Value of land where existing libraries are located averages $293,000 per acre, with a median value of $175,000 and a range of $43,000 per acre to $653,000 per acre. As mentioned previously, Property Appraiser land value estimates for governmental entities tend to be on the low end since these properties are not subject to property tax and the values are not always updated to reflect the market conditions.
- Vacant land sales of similarly sized parcels (0.5 acres to 5 acres) between 2017 and 2019 averaged $110,000 per acre with a median value of $51,000 per acre for all vacant land use types.
- Similarly, the value of vacant land reported by the Property Appraiser averaged $67,000 per acre with a median value of $40,000 per acre for all vacant properties.

Given this information and based on discussions with representatives from Martin County, an average land value of **$50,000 per acre** is determined to be a reasonable estimate for library impact fee calculation purposes.

Parks

The park land value estimate is based on the following:

- There were no recent land purchases and there are no estimates for upcoming purchases.
- The value of parcels where current parks are located averaged $157,000 per acre with a median value of $175,000 per acre for active parks.
- Vacant land sales of similarly sized parcels countywide between 2017 and 2019 averaged $150,000 per acre with a median value of $144,000 per acre for all vacant land use types for parcels up to five acres. When larger parcels are considered (five to ten acres), the average cost decreases to $79,000 per acre with a median value of $40,000 per acre.
- Similarly, the value of vacant land reported by the Property Appraiser averaged $111,000 per acre with a median value of $126,000 per acre for all vacant properties up to five acres. For larger parcels (between five acres and 20 acres), these values decrease to $20,000 per acre to $30,000 per acre.
- When vacant residential parcels are considered, the sales prices and estimated values were lower. Average sale values ranged from $50,000 per acre to $128,000 per acre depending on parcel size. Similarly, estimated values ranged from $20,000 per acre to $130,000 per acre.

Given this information, an average land value of **$50,000 per acre** is determined to be a reasonable estimate for active park land.

Conservation/Open Space

The conservation/open space land value estimate is based on the following:

- The County recently purchased conservation land at $1,200 per acre.
- The value of current conservation/open space parcels averaged $40,000 per acre with a median value of $30,000 per acre and a range of $4,700 per acre to $54,000 per acre.

Based on this information, an average value of **$5,000 per acre** is considered to be a reasonable estimate for conservation/open space land.

Appendix C
Multi-Modal Transportation Impact Fee:
Demand Component

Appendix C: MMTIF - Demand Component

This appendix presents the detailed calculations for the demand component of the multi-modal impact fee update.

Interstate and Toll Facility Adjustment Factor

Table C-1 presents the interstate and toll facility adjustment factor used in the calculation of the multi-modal fee. This variable is based on data from the Treasure Coast Regional Planning Model, specifically the 2040 projected vehicle-miles of travel, accounting for roadway improvements included in the 2040 Long Range Transportation Plan. It should be noted that the adjustment factor excludes all external-to-external trips, which represent traffic that goes through Martin County, but does not necessarily stop in the county. This traffic is excluded from the analysis since it does not come from development within the county. The I/T adjustment factor is used to reduce the VMT that the impact fee charges for each land use.

Table C-1

Interstate/Toll Facility Adjustment Factor

Roadway	VMT (2040)	% VMT
Interstate/Toll Facilities	843,080	20.2%
Other Roads	3,322,073	79.8%
Total (All Roads)	**4,165,153**	**100.0%**
Total (Interstate/Toll Roads)	**843,080**	**20.2%**

Source: Treasure Coast Regional Planning Model (TCRPM) v4, base year 2010, future year Cost Feasible 2040
Excludes EE Travel

Single Family Residential Trip Generation Rate Tiering

As part of this study, the demand component for single family homes is tiered by size consistent with the County's current fee schedule. The tiering analysis uses the American Community Survey (ACS) Public Use Microdata Sample (PUMS) date files as the basis. PUMS files allow for the use of census sample data collected in Martin County to create custom tables that are otherwise unavailable. For this analysis, the 5-year (2014-2018) PUMS files were utilized. The PUMS 5-year estimates incorporate 60 months of data (as opposed to the 1-year, 12-month

dataset), representing a 5 percent sample of the population (1 percent for each year). The 5-year sample represents the largest and most reliable of the PUMS datasets.

To isolate the PUMS data specific to Martin County, all Public Use Microdata Areas (PUMAs) within the County were identified. PUMAs are non-overlapping areas that partition each state into areas containing approximately 100,000 residents. These are the most detailed geographic area available within the PUMS data set.

Using the PUMAs identified, the number of persons, number of buildings, and number of vehicles were extracted for single family (attached/detached) buildings only. Additionally, this data is grouped based on the number of bedrooms present in each building. The result of this analysis is a local sample of persons, single family buildings, and vehicles by bedroom count.

Table C-2

PUMS Result Summary: Single Family Detached/Attached

Bedrooms	Persons	Vehicles	Buildings (Units)	Persons per Housing Unit	Vehicles per Housing Unit
0 to 1	90	74	67	1.34	1.10
2	1,027	872	645	1.59	1.35
3	2,635	2,188	1,277	2.06	1.71
4+	1,709	1,369	651	2.63	2.10
Total	**5,461**	**4,503**	**2,640**	**2.07**	**1.71**

Source: PUMS 2014-2018 dataset; PUMA 8500

As shown in Table C-2, the persons per housing unit and vehicles per housing unit were calculated for each bedroom tier, representing the entirety of Martin County. Since the PUMS data only represents a sample of the county, a normalization factor was applied to adjust for the countywide. As shown in Table C-3, the countywide persons-per-housing-unit (PPHU) was calculated using the 5-year 2017-2021 ACS data for Martin County. A similar analysis is completed for vehicle per housing unit (VPHU) data, resulting in PPHU and VPHU data by bedroom, for Martin County.

Table C-3

PPHU and VPHU for Martin County, Single Family ONLY

Item	Martin County
Persons in Occupied Housing Units	114,294
Units in Structure	50,343
Persons per Housing Unit	**2.27**
Vehicles Available (Owner/Renter Occupied)	83,196
Units in Structure	50,343
Vehicles per Housing Unit	**1.65**

Source: 2017-2021 5-yr ACS Estimates for Tables B25033, B25044, and B25024. Vehicles available for single family homes was based on the ratio of single family units to countywide units

Table C-4 illustrates the ratio-based adjustments made to the countywide PUMS data based on the single family PPHU and VPHU calculated for the county.

Table C-4

PPHU and VPHU Tiers Adjusted for Unincorporated County

Bedrooms	Persons per Housing Unit[(1)]	Persons per Housing Unit (Adjusted)[(2)]	Vehicles per Housing Unit[(1)]	Vehicles per Housing Unit (Adjusted)[(2)]
0 to 1	1.34	1.47	1.10	1.06
2	1.59	1.74	1.35	1.30
3	2.06	2.26	1.71	1.65
4+	2.63	2.88	2.10	2.03
Total	**2.07**	**2.27**	**1.71**	**1.65**

1) Source: Table C-2
2) Each bedroom tier for the county was based on the ratio of the total PPHU (or total VPHU) for Martin County (Item 2) vs. the total PPHU (or total VPHU) for the PUMs sample (Item 1)

The PPHU and VPHU per bedroom data was then converted to weighted average trip ends per person and per vehicles, respectively, using the ITE 11th Edition National averages[3]. The resulting trip ends per persons and vehicles were then averaged, resulting in average trip ends, per bedroom tier, as shown in Table C-5.

[3] Average trip ends based on vehicles data was not available in ITE 11th Edition, so ITE 10th Edition was utilized

Table C-5

Calculated Trip Ends per Bedroom

Bedrooms	Persons per Housing Unit (Uninc.)[1]	AWVTE per HU Based on Persons[2]	Vehicles per Housing Unit[1]	AWVTE per HU Based on Vehicles[3]	Avg. Weighted Vehicle Trip Ends per Housing Unit[4]
0 to 1	1.47	3.90	1.06	6.74	**5.32**
2	1.74	4.61	1.30	8.27	**6.44**
3	2.26	5.99	1.65	10.49	**8.24**
4+	2.88	7.63	2.03	12.91	**10.27**
ITE 11th Avg Trip Ends[5]		**2.65**	**-**	**6.36**	**-**

AWVTE = Average Weighted Vehicle Trip Ends

1) Source: Table C-4
2) PPHU (Item 1; PPHU) multiplied by the ITE 11th average trip ends per person (Item 5; 2.65)
3) VPHU (Item 1; VPHU) multiplied by the ITE 10th average trip ends per vehicle (Item 5; 6.36)
4) Average of AWVTE based on persons and AWVTE based on vehicles
5) Source: ITE 11th and ITE 10th Edition Handbooks

Using the Martin County Property Appraisers Database, the average square footage per unit by bedroom tier was determined for single family units, as shown in Table C-6. With these averages determined, the average trip ends were graphed per square footage to determine a line of best fit, as shown in Figure C-1.

Table C-6

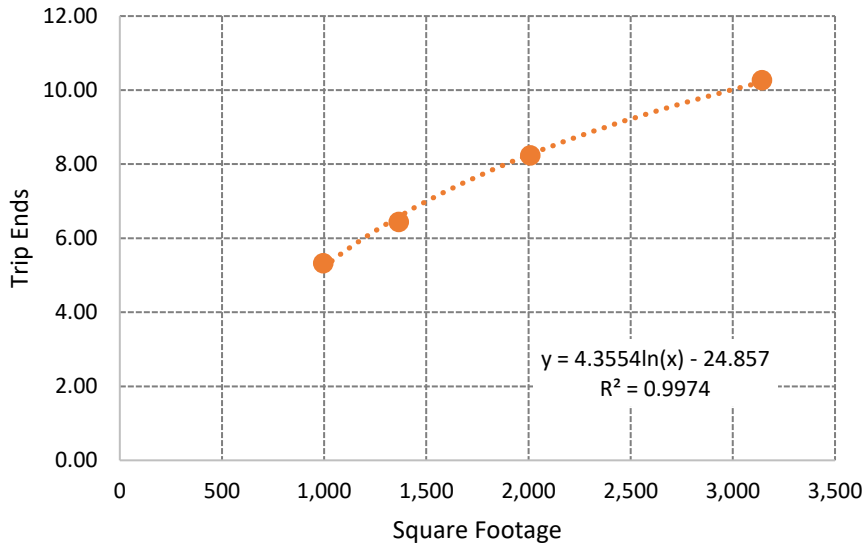
Trip Ends vs. Bedrooms vs. Square Footage

Bedrooms	Average Unit Size (Sq Ft)[1]	Avg. Weighted Vehicle Trip Ends per Housing Unit[2]
0 to 1	995	5.32
2	1,364	6.44
3	2,008	8.24
4+	3,142	10.27

1) Source: Martin County Property Appraiser's Parcel Database
2) Source: Table C-5

Figure C-1

Average Trip Ends per Square Footage



Using the resulting best-fit equation (as shown in Figure C-1), the trip generation rates for various square footage tiers were calculated. As a final adjustment, the resulting trip generation rates were adjusted to account for the differences between the national ITE 11th Edition average trip generation rate and the Florida Studies Trip Characteristics Database average trip generation rate for the single family land use. The resulting trip generation rates are shown in Table C-7.

Table C-7

Trip Generation Rates by Tier

Residential Tier	Sq Ft Input	TGR(1)	TGR Adj.(2)
Single Family 800 sq ft or less	600	3.00	**2.84**
Single Family 801 to 1,100 sq ft	950	5.01	**4.74**
Single Family 1,101 - 2,300 sq ft	1,700	7.54	**7.14**
Single Family 2,301 sq ft or more	2,900	9.87	**9.34**

1) Calculated using the sq ft inputs and the line of best fit from Figure 1
2) TGR (Item 1) adjusted from National data to Florida data. The ratio between the calculated TGR for 2,000 sq ft (8.25) and the FL studies average TGR (7.81; detail is presented later in this Appendix) was applied to all other sq ft tiers

Florida Studies Trip Characteristics Database

The Florida Studies Trip Characteristics Database includes approximately 340 studies on 42 different residential and non-residential land uses collected over the last 30 years. Data from these studies include trip generation, trip length, and percent new trips for each land use. This information has been used in the development of impact/multi-modal/mobility fees and the creation of land use plan category trip characteristics for communities throughout Florida and the U.S.

Benesch estimates trip generation rates for all land uses in an impact fee schedule using data from studies in the Florida Studies Database and the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (11th edition). In instances, when both ITE *Trip Generation* reference report (11th edition) and Florida Studies trip generation rate (TGR) data are available for a particular land use, the data is typically blended together to increase the sample size and provide a more valid estimate of the average number of trips generated per unit of development. If no Florida Studies data is available, only TGR data from the ITE reference report is used in the fee calculation.

The trip generation rate for each respective land use is calculated using machine counts that record daily traffic into and out of the site studied. The traffic count hoses or video cameras are set at entrances to residential subdivisions for the residential land uses and at all access points for non-residential land uses.

The trip length information is obtained through origin-destination surveys that ask respondents where they came from prior to arriving at the site and where they intended to go after leaving the site. The results of these surveys were used to estimate average trip length by land use.

The percent new trip variable is based on assigning each trip collected through the origin-destination survey process a trip type (primary, secondary, diverted, and captured). The percent new trip variable is then calculated as 1 minus the percentage of trips that are captured.

Land Use 151: Mini-Warehouse

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Orange Co, FL	89.6	2006	-	-	1.23	-	-	-	-	Orange County
Orange Co, FL	84.7	2006	-	-	1.39	-	-	-	-	Orange County
Orange Co, FL	93.0	2006	-	-	1.51	-	-	-	-	Orange County
Orange Co, FL	107.0	2007	-	-	1.45	-	-	-	-	Orange County
Orange Co, FL	77.0	2009	-	-	2.18	-	-	-	-	Tindale Oliver
Orange Co, FL	93.7	2012	-	-	1.15	-	-	-	-	Tindale Oliver
Total Size	545.0	6					Average Trip Length:	n/a		
ITE	880.0	16					Weighted Average Trip Length:	n/a		
Blended total	1,425.0									

Weighted Percent New Trip Average: -

Weighted Average Trip Generation Rate: 1.47

ITE Average Trip Generation Rate: 1.45

Blend of FL Studies and ITE Average Trip Generation Rate: 1.46

Land Use 210: Single Family

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sarasota Co, FL	76	Jun-93	70	70	10.03	-	6.00	-	60.18	Sarasota County
Sarasota Co, FL	79	Jun-93	86	86	9.77	-	4.40	-	42.99	Sarasota County
Sarasota Co, FL	135	Jun-93	75	75	8.05	-	5.90	-	47.50	Sarasota County
Sarasota Co, FL	152	Jun-93	63	63	8.55	-	7.30	-	62.42	Sarasota County
Sarasota Co, FL	193	Jun-93	123	123	6.85	-	4.60	-	31.51	Sarasota County
Sarasota Co, FL	97	Jun-93	33	33	13.20	-	3.00	-	39.60	Sarasota County
Sarasota Co, FL	282	Jun-93	146	146	6.61	-	8.40	-	55.52	Sarasota County
Sarasota Co, FL	393	Jun-93	207	207	7.76	-	5.40	-	41.90	Sarasota County
Hernando Co, FL	76	May-96	148	148	10.01	9a-6p	4.85	-	48.55	Tindale Oliver
Hernando Co, FL	128	May-96	205	205	8.17	9a-6p	6.03	-	49.27	Tindale Oliver
Hernando Co, FL	232	May-96	182	182	7.24	9a-6p	5.04	-	36.49	Tindale Oliver
Hernando Co, FL	301	May-96	264	264	8.93	9a-6p	3.28	-	29.29	Tindale Oliver
Charlotte Co, FL	135	Oct-97	230	-	5.30	9a-5p	7.90	-	41.87	Tindale Oliver
Charlotte Co, FL	142	Oct-97	245	-	5.20	9a-5p	4.10	-	21.32	Tindale Oliver
Charlotte Co, FL	150	Oct-97	160	-	5.00	9a-5p	10.80	-	54.00	Tindale Oliver
Charlotte Co, FL	215	Oct-97	158	-	7.60	9a-5p	4.60	-	34.96	Tindale Oliver
Charlotte Co, FL	257	Oct-97	225	-	7.60	9a-5p	7.40	-	56.24	Tindale Oliver
Charlotte Co, FL	345	Oct-97	161	-	7.00	9a-5p	6.60	-	46.20	Tindale Oliver
Charlotte Co, FL	368	Oct-97	152	-	6.60	9a-5p	5.70	-	37.62	Tindale Oliver
Charlotte Co, FL	383	Oct-97	516	-	8.40	9a-5p	5.00	-	42.00	Tindale Oliver
Charlotte Co, FL	441	Oct-97	195	-	8.20	9a-5p	4.70	-	38.54	Tindale Oliver
Charlotte Co, FL	1,169	Oct-97	348	-	6.10	9a-5p	8.00	-	48.80	Tindale Oliver
Collier Co, FL	90	Dec-99	91	-	12.80	8a-6p	11.40	-	145.92	Tindale Oliver
Collier Co, FL	400	Dec-99	389	-	7.80	8a-6p	6.40	-	49.92	Tindale Oliver
Lake Co, FL	49	Apr-02	170	-	6.70	7a-6p	10.20	-	68.34	Tindale Oliver
Lake Co, FL	52	Apr-02	212	-	10.00	7a-6p	7.60	-	76.00	Tindale Oliver
Lake Co, FL	126	Apr-02	217	-	8.50	7a-6p	8.30	-	70.55	Tindale Oliver
Pasco Co, FL	55	Apr-02	133	-	6.80	8a-6p	8.12	-	55.22	Tindale Oliver
Pasco Co, FL	60	Apr-02	106	-	7.73	8a-6p	8.75	-	67.64	Tindale Oliver
Pasco Co, FL	70	Apr-02	188	-	7.80	8a-6p	6.03	-	47.03	Tindale Oliver
Pasco Co, FL	74	Apr-02	188	-	8.18	8a-6p	5.95	-	48.67	Tindale Oliver
Pasco Co, FL	189	Apr-02	261	-	7.46	8a-6p	8.99	-	67.07	Tindale Oliver
Marion Co, FL	102	Apr-02	167	-	8.02	7a-6p	5.10	-	40.90	Kimley-Horn & Associates
Marion Co, FL	105	Apr-02	169	-	7.23	7a-6p	7.22	-	52.20	Kimley-Horn & Associates
Marion Co, FL	124	Apr-02	170	-	6.04	7a-6p	7.29	-	44.03	Kimley-Horn & Associates
Marion Co, FL	132	Apr-02	171	-	7.87	7a-6p	7.00	-	55.09	Kimley-Horn & Associates
Marion Co, FL	133	Apr-02	209	-	8.04	7a-6p	4.92	-	39.56	Kimley-Horn & Associates
Citrus Co, FL	111	Oct-03	273	-	8.66	7a-6p	7.70	-	66.68	Tindale Oliver
Citrus Co, FL	231	Oct-03	155	-	5.71	7a-6p	4.82	-	27.52	Tindale Oliver
Citrus Co, FL	306	Oct-03	146	-	8.40	7a-6p	3.94	-	33.10	Tindale Oliver
Citrus Co, FL	364	Oct-03	345	-	7.20	7a-6p	9.14	-	65.81	Tindale Oliver
Citrus Co, FL	374	Oct-03	248	-	12.30	7a-6p	6.88	-	84.62	Tindale Oliver
Lake Co, FL	42	Dec-06	122	-	11.26	-	5.56	-	62.61	Tindale Oliver
Lake Co, FL	51	Dec-06	346	-	18.22	-	9.46	-	172.36	Tindale Oliver
Lake Co, FL	59	Dec-06	144	-	12.07	-	10.79	-	130.24	Tindale Oliver
Lake Co, FL	90	Dec-06	194	-	9.12	-	5.78	-	52.71	Tindale Oliver
Lake Co, FL	239	Dec-06	385	-	7.58	-	8.93	-	67.69	Tindale Oliver
Hernando Co, FL	232	Apr-07	516	-	8.02	7a-6p	8.16	-	65.44	Tindale Oliver
Hernando Co, FL	95	Apr-07	256	-	8.08	7a-6p	5.88	-	47.51	Tindale Oliver
Hernando Co, FL	90	Apr-07	338	-	7.13	7a-6p	5.86	-	41.78	Tindale Oliver
Hernando Co, FL	58	Apr-07	153	-	6.16	7a-6p	8.39	-	51.68	Tindale Oliver
Collier Co, FL	74	Mar-08	503	-	12.81	7a-6p	3.05	-	39.07	Tindale Oliver
Collier Co, FL	97	Mar-08	512	-	8.78	7a-6p	11.29	-	99.13	Tindale Oliver
Collier Co, FL	315	Mar-08	1,347	-	6.97	7a-6p	6.55	-	45.65	Tindale Oliver
Collier Co, FL	42	Mar-08	314	-	9.55	7a-6p	10.98	-	104.86	Tindale Oliver
Total Size	10,380	55	13,130				**Average Trip Length:**	**6.83**		
							Weighted Average Trip Length:	**6.62**		

Weighted Average Trip Generation Rate: **7.81**

Land Use 220/221/222: Multi-Family (Low-, Mid-, High-Rise)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sarasota Co, FL	212	Jun-93	42	42	5.78	-	5.20	-	30.06	Sarasota County
Sarasota Co, FL	243	Jun-93	36	36	5.84	-	-	-	-	Sarasota County
Marion Co, FL	214	Apr-02	175	175	6.84	-	4.61	-	31.53	Kimley-Horn & Associates
Marion Co, FL	240	Apr-02	174	174	6.96	-	3.43	-	23.87	Kimley-Horn & Associates
Marion Co, FL	288	Apr-02	175	175	5.66	-	5.55	-	31.41	Kimley-Horn & Associates
Marion Co, FL	480	Apr-02	175	175	5.73	-	6.88	-	39.42	Kimley-Horn & Associates
Marion Co, FL	500	Apr-02	170	170	5.46	-	5.94	-	32.43	Kimley-Horn & Associates
Lake Co, FL	250	Dec-06	135	135	6.71	-	5.33	-	35.76	Tindale Oliver
Lake Co, FL	157	Dec-06	265	265	13.97	-	2.62	-	36.60	Tindale Oliver
Lake Co, FL	169	Dec-06	212	-	8.09	-	6.00	-	48.54	Tindale Oliver
Lake Co, FL	226	Dec-06	301	-	6.74	-	2.17	-	14.63	Tindale Oliver
Hernando Co, FL	312	Apr-07	456	-	4.09	-	5.95	-	24.34	Tindale Oliver
Hernando Co, FL	176	Apr-07	332	-	5.38	-	5.24	-	28.19	Tindale Oliver
Total Size	3,467	13	2,648				**Average Trip Length:**	**4.91**		
							Weighted Average Trip Length:	**5.21**		

Land Use 240: Mobile Home Park

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Marion Co, FL	67	Jul-91	22	22	5.40	48hrs.	2.29	-	12.37	Tindale Oliver
Marion Co, FL	82	Jul-91	58	58	10.80	24hr.	3.72	-	40.18	Tindale Oliver
Marion Co, FL	137	Jul-91	22	22	3.10	24hr.	4.88	-	15.13	Tindale Oliver
Sarasota Co, FL	996	Jun-93	181	181	4.19	-	4.40	-	18.44	Sarasota County
Sarasota Co, FL	235	Jun-93	100	100	3.51	-	5.10	-	17.90	Sarasota County
Marion Co, FL	188	Apr-02	147	-	3.51	24hr.	5.48	-	19.23	Kimley-Horn & Associates
Marion Co, FL	227	Apr-02	173	-	2.76	24hr.	8.80	-	24.29	Kimley-Horn & Associates
Marion Co, FL	297	Apr-02	175	-	4.78	24hr.	4.76	-	22.75	Kimley-Horn & Associates
Hernando Co, FL	1,892	May-96	425	425	4.13	9a-6p	4.13	-	17.06	Tindale Oliver
Total Size	4,121	9	1,303				**Average Trip Length:**	**4.84**		
							Weighted Average Trip Length:	**4.60**		

Weighted Average Trip Generation Rate: **4.17**

Land Use 253: Congregate Care Facility

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Park, FL	72	Aug-89	25	19	3.50	9am-5pm	2.20	79.0	7.70	Tindale Oliver
Palm Harbor, FL	200	Oct-89	58	40	-	9am-5pm	3.40	69.0	-	Tindale Oliver
Total Size	272	2	83				**Average Trip Length:**	**2.80**		
ITE	720	4					**Weighted Average Trip Length:**	**3.08**		
Blended total	992						Weighted Percent New Trip Average:	71.6		
	792							Weighted Average Trip Generation Rate:		3.50
								ITE Average Trip Generation Rate:		2.21
								Blend of FL Studies and ITE Average Trip Generation Rate:		**2.33**

Land Use 310: Hotel

Location	Size (Rooms)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	174	Aug-89	134	106	12.50	7-11a/3-7p	6.30	79.0	62.21	Tindale Oliver
Pinellas Co, FL	114	Oct-89	30	14	7.30	12-7p	6.20	47.0	21.27	Tindale Oliver
Orange Co, FL	123	1997	-	-	6.32	-	-	-	-	Orange County
Orange Co, FL	120	1997	-	-	5.27	-	-	-	-	Orange County
Orange Co, FL	146	1997	-	-	7.61	-	-	-	-	Orange County
Orange Co, FL	252	1997	-	-	5.63	-	-	-	-	Orange County
Orange Co, FL	172	1997	-	-	6.36	-	-	-	-	Orange County
Orange Co, FL	170	1997	-	-	6.06	-	-	-	-	Orange County
Orange Co, FL	128	1997	-	-	6.10	-	-	-	-	Orange County
Orange Co, FL	200	1997	-	-	4.56	-	-	-	-	Orange County
Orange Co, FL	112	1998	-	-	2.78	-	-	-	-	Orange County
Orange Co, FL	130	1998	-	-	9.12	-	-	-	-	Orange County
Orange Co, FL	106	1998	-	-	7.34	-	-	-	-	Orange County
Orange Co, FL	98	1998	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	120	1998	-	-	5.57	-	-	-	-	Orange County
Orange Co, FL	70	1999	-	-	1.85	-	-	-	-	Orange County
Orange Co, FL	123	1999	-	-	4.81	-	-	-	-	Orange County
Orange Co, FL	123	1999	-	-	3.70	-	-	-	-	Orange County
Orange Co, FL	211	2000	-	-	2.23	-	-	-	-	Orange County
Orange Co, FL	144	2000	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	105	2001	-	-	5.25	-	-	-	-	Orange County
Orange Co, FL	891	2005	-	-	5.69	-	-	-	-	Orange County
Orange Co, FL	1,584	2005	-	-	5.88	-	-	-	-	Orange County
Orange Co, FL	210	2006	-	-	4.88	-	-	-	-	Orange County
Orange Co, FL	1,499	2006	-	-	4.69	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	4.74	-	-	-	-	Orange County
Orange Co, FL	148	-	-	-	7.61	-	-	-	-	Orange County
Orange Co, FL	160	-	-	-	6.19	-	-	-	-	Orange County
Orange Co, FL	130	-	-	-	4.29	-	-	-	-	Orange County
Orange Co, FL	130	-	-	-	3.40	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	7.66	-	-	-	-	Orange County
Orange Co, FL	100	-	-	-	7.37	-	-	-	-	Orange County
Orange Co, FL	190	-	-	-	4.71	-	-	-	-	Orange County
Orange Co, FL	1,501	2011	-	-	3.50	-	-	-	-	Tindale Oliver
Orange Co, FL	174	2011	-	-	7.03	-	-	-	-	Tindale Oliver
Orange Co, FL	238	2014	-	-	4.05	-	-	-	-	Tindale Oliver
Total Size	10,184	36	164				**Average Trip Length:**	**6.25**		
ITE	1,036	7					**Weighted Average Trip Length:**	**6.26**		
Blended total	11,220						Weighted Percent New Trip Average:	66.3		
								Weighted Average Trip Generation Rate:		5.31
								ITE Average Trip Generation Rate:		7.99
								Blend of FL Studies and ITE Average Trip Generation Rate:		**5.56**

Land Use 320: Motel

Location	Size (Rooms)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	48	Oct-89	46	24	-	10a-2p	2.80	65.0	-	Tindale Oliver
Pinellas Co, FL	54	Oct-89	32	22	-	12p-7p	3.80	69.0	-	Tindale Oliver
Pinellas Co, FL	120	Oct-89	26	22	-	2p-7p	5.20	84.6	-	Tindale Oliver
Total Size	222	3	104				**Average Trip Length:**	**3.93**		
ITE	654	6					**Weighted Average Trip Length:**	**4.34**		
							Weighted Percent New Trip Average:	76.6		

Land Use 445: Movie Theater

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	24.7	Oct-89	151	116	113.10	2p-8p	2.70	77.0	235.13	Tindale Oliver
Pinellas Co, FL	34.0	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale Oliver
Total Size	58.7	2	273			**Average Trip Length:**	**2.30**			
ITE	28.0	1				**Weighted Average Trip Length:**	**2.24**			
Blended total	86.7									

Weighted Percent New Trip Average: 87.4

Weighted Average Trip Generation Rate: 84.31

ITE Average Trip Generation Rate: 78.09

Blend of FL Studies and ITE Average Trip Generation Rate: 82.30

Land Use 492: Health/Fitness Club

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	31	-	-	7.90	94.0	-	Kimley-Horn & Associates
Total Size		1	33			**Average Trip Length:**	**n/a**			
ITE	37	8								

Percent New Trip Average: 94.0

Land Use 565: Day Care Center

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	5.6	Aug-89	94	66	66.99	7a-6p	1.90	70.0	89.10	Tindale Oliver
Pinellas Co, FL	10.0	Sep-89	179	134	66.99	7a-6p	2.10	75.0	105.51	Tindale Oliver
Tampa, FL	-	Mar-86	28	25	-	-	2.60	89.0	-	Kimley-Horn & Associates
Total Size	15.6	3	301			**Average Trip Length:**	**2.20**			
ITE	135.0	27				**Weighted Average Trip Length:**	**2.03**			
Blended total	150.6									

Weighted Percent New Trip Average: 73.2

Weighted Average Trip Generation Rate: 66.99

ITE Average Trip Generation Rate: 47.62

Blend of FL Studies and ITE Average Trip Generation Rate: 49.63

Land Use 620: Nursing Home

Location	Size (Beds)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Lakeland, FL	120	Mar-90	74	66	2.86	11a-4p	2.59	89.0	6.59	Tindale Oliver
		1	74			**Average Trip Length:**	**2.59**			
						Weighted Average Trip Length:	**2.59**			

Weighted Percent New Trip Average: 89.0

Land Use 710: General Office Building

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sarasota Co, FL	14.3	Jun-93	14	14	46.85	-	11.30	-	529.41	Sarasota County
Gwinnett Co, GA	98.0	Dec-92	-	-	4.30	-	5.40	-	-	Street Smarts
Gwinnett Co, GA	180.0	Dec-92	-	-	3.60	-	5.90	-	-	Street Smarts
Pinellas Co, FL	187.0	Oct-89	431	388	18.49	7a-5p	6.30	90.0	104.84	Tindale Oliver
St. Petersburg, FL	262.8	Sep-89	291	274	-	7a-5p	3.40	94.0	-	Tindale Oliver
		5	736			**Average Trip Length:**	**6.46**			
						Weighted Average Trip Length:	**5.15**			

Weighted Percent New Trip Average: 92.3

LUC 720: Small Medical/Dental Office Building: 10,000 sf or Less

Site	Size (1,000 sf)	Tues., Jan 11		Wedn., Jan 12		Thur., Jan 13		TOTAL		AVERAGE		AVERAGE (per 1,000 sf)		
		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	TOTAL
Site 1	2.100	35	35	22	22	13	13	70	70	23.33	23.33	**11.11**	**11.11**	**22.22**
Site 2	3.000	40	40	52	52	53	53	145	145	48.33	48.33	**16.11**	**16.11**	**32.22**
Site 3	2.000	28	28	19	21	24	26	71	75	23.67	25.00	**11.84**	**12.50**	**24.34**
Site 4	1.000	30	30	52	52	57	57	139	139	46.33	46.33	**46.33**	**46.33**	**92.66**
Site 5	3.024	31	32	43	43	24	24	98	99	32.67	33.00	**10.80**	**10.91**	**21.71**
Site 6	1.860	22	24	19	17	11	11	52	52	17.33	17.33	**9.32**	**9.32**	**18.64**
Average												**17.59**	**17.71**	**35.30**
Average (excluding Site 4)												**11.84**	**11.99**	**23.83**

Land Use 720: Medical-Dental Office Building

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	26	-	-	6.00	79.0	-	Kimley-Horn & Associates
Palm Harbor, FL	14.6	Oct-89	104	76	33.98	9a-5p	6.30	73.0	156.27	Tindale Oliver
St. Petersburg, FL	-	Nov-89	34	30	57.20	9a-4p	1.20	88.0	-	Tindale Oliver
Hernando Co, FL	58.4	May-96	390	349	28.52	9a-6p	6.47	89.5	165.09	Tindale Oliver
Hernando Co, FL	28.0	May-96	202	189	49.75	9a-6p	6.06	93.8	282.64	Tindale Oliver
Charlotte Co, FL	11.0	Oct-97	-	186	49.50	9a-5p	4.60	92.1	209.67	Tindale Oliver
Charlotte Co, FL	28.0	Oct-97	-	186	31.00	9a-5p	3.60	81.6	91.04	Tindale Oliver
Charlotte Co, FL	30.4	Oct-97	-	324	39.80	9a-5p	3.30	83.5	109.68	Tindale Oliver
Citrus Co, FL	38.9	Oct-03	-	168	32.26	8-6p	6.80	97.1	213.03	Tindale Oliver
Citrus Co, FL	10.0	Nov-03	-	340	40.56	8-630p	6.20	92.4	232.33	Tindale Oliver
Citrus Co, FL	5.3	Dec-03	-	20	29.36	8-5p	5.25	95.2	146.78	Tindale Oliver
Orange Co, FL	50.6	2009	-	-	26.72	-	-	-	-	Orange County
Orange Co, FL	23.5	2010	-	-	16.58	-	-	-	-	Tindale Oliver
			13	763			**Average Trip Length:**	**5.07**		
							Weighted Average Trip Length:	**5.55**		

Weighted Percent New Trip Average: 88.9

Average Trip Generation Rate: 32.59

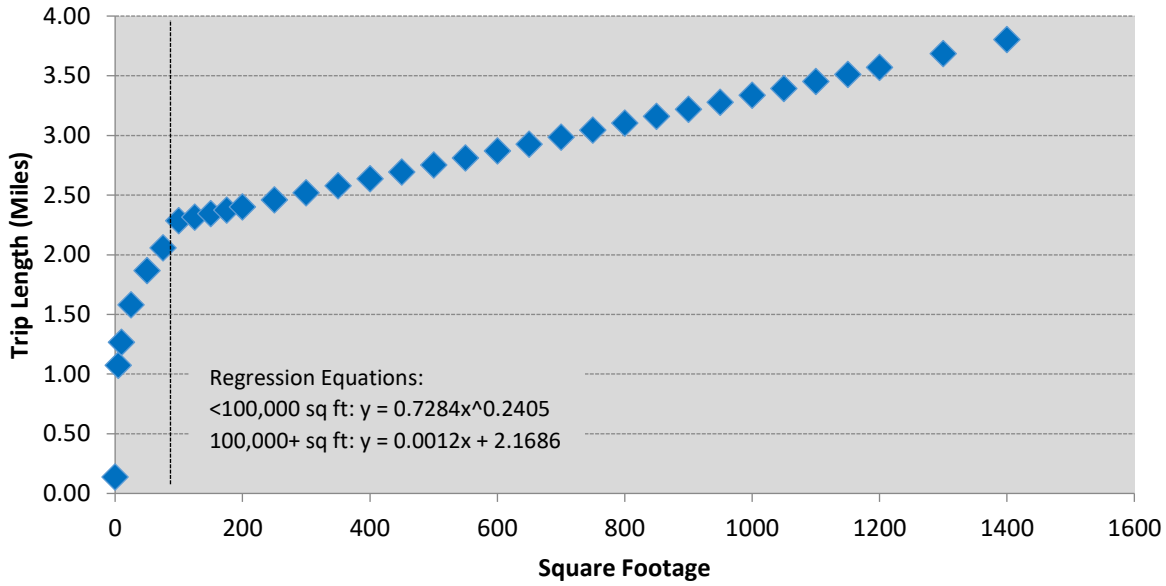
ITE Average Trip Generation Rate: 36.00

Blend of FL Studies and ITE Average Trip Generation Rate: 34.21

Land Use 820/821/822: Shopping Center/Plaza

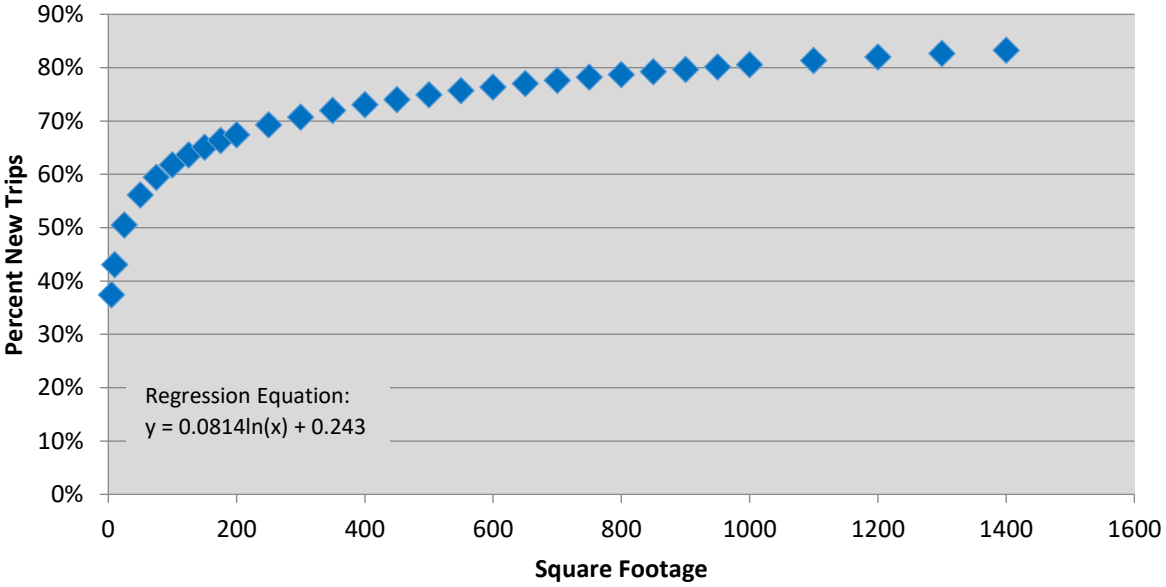
Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	527	348	-	-	-	66.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	170	-	-	-	1.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	354	269	-	-	-	76.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	144	-	-	-	2.50	-	-	Kimley-Horn & Associates
St. Petersburg, FL	1,192.0	Aug-89	384	298	-	11a-7p	3.60	78.0	-	Tindale Oliver
St. Petersburg, FL	132.3	Sep-89	400	368	77.00	10a-7p	1.80	92.0	127.51	Tindale Oliver
Largo, FL	425.0	Aug-89	160	120	26.73	10a-6p	2.30	75.0	46.11	Tindale Oliver
Dunedin, FL	80.5	Sep-89	276	210	81.48	9a-5p	1.40	76.0	86.69	Tindale Oliver
Pinellas Park, FL	696.0	Sep-89	485	388	-	9a-6p	3.20	80.0	-	Tindale Oliver
Seminole, FL	425.0	Oct-89	674	586	-	-	-	87.0	-	Tindale Oliver
Hillsborough Co, FL	134.0	Jul-91	-	-	-	-	1.30	74.0	-	Tindale Oliver
Hillsborough Co, FL	151.0	Jul-91	-	-	-	-	1.30	73.0	-	Tindale Oliver
Collier Co, FL	-	Aug-91	68	64	-	-	3.33	94.1	-	Tindale Oliver
Collier Co, FL	-	Aug-91	208	154	-	-	2.64	74.0	-	Tindale Oliver
Sarasota/Bradenton, FL	109.0	Sep-92	300	185	-	12a-6p	-	61.6	-	King Engineering Associates, Inc.
Ocala, FL	133.4	Sep-92	300	192	-	12a-6p	-	64.0	-	King Engineering Associates, Inc.
Sarasota Co, FL	110.0	Jun-93	58	58	122.14	-	3.20	-	-	Sarasota County
Sarasota Co, FL	146.1	Jun-93	65	65	51.53	-	2.80	-	-	Sarasota County
Sarasota Co, FL	157.5	Jun-93	57	57	79.79	-	3.40	-	-	Sarasota County
Sarasota Co, FL	191.0	Jun-93	62	62	66.79	-	5.90	-	-	Sarasota County
Hernando Co, FL	107.8	May-96	608	331	77.60	9a-6p	4.68	54.5	197.85	Tindale Oliver
Charlotte Co, FL	88.0	Oct-97	-	-	73.50	9a-5p	1.80	57.1	75.56	Tindale Oliver
Charlotte Co, FL	191.9	Oct-97	-	-	72.00	9a-5p	2.40	50.9	87.97	Tindale Oliver
Charlotte Co, FL	51.3	Oct-97	-	-	43.00	9a-5p	2.70	51.8	60.08	Tindale Oliver
Lake Co, FL	67.8	Apr-01	246	177	102.60	-	3.40	71.2	248.37	Tindale Oliver
Lake Co, FL	72.3	Apr-01	444	376	65.30	-	4.50	59.0	173.37	Tindale Oliver
Pasco Co, FL	65.6	Apr-02	222	-	145.64	9a-5p	1.46	46.9	99.62	Tindale Oliver
Pasco Co, FL	75.8	Apr-02	134	-	38.23	9a-5p	2.36	58.2	52.52	Tindale Oliver
Citrus Co, FL	185.0	Oct-03	-	784	55.84	8a-6p	2.40	88.1	118.05	Tindale Oliver
Citrus Co, FL	91.3	Nov-03	-	390	54.50	8a-6p	1.60	88.0	76.77	Tindale Oliver
			30	6,346			**Average Trip Length:**	**2.71**		

Figure C-2: Retail/Shopping Center (LUC 820-822)
Florida Curve Trip Length Regression



Source: Regression analysis based on FL Studies data for LUC 820-822. This curve, along with the average development size presented in the ITE 11th Edition Handbook, was used to estimate the trip length for retail land uses

Figure C-3: Retail/Shopping Center (LUC 820-822)
Florida Curve Percent New Trips Regression



Source: Regression analysis based on FL Studies data for LUC 820-822. This curve, along with the average development size presented in the ITE 11th Edition Handbook, was used to estimate the percent new trips for retail land uses

Land Use 840/841: New/Used Automobile Sales

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
St.Petersburg, FL	43.0	Oct-89	152	120	-	9a-5p	4.70	79.0	-	Tindale Oliver
Clearwater, FL	43.0	Oct-89	136	106	29.40	9a-5p	4.50	78.0	103.19	Tindale Oliver
Orange Co, FL	13.8	1997	-	-	35.75	-	-	-	-	Orange County
Orange Co, FL	34.4	1998	-	-	23.45	-	-	-	-	Orange County
Orange Co, FL	66.3	2001	-	-	28.50	-	-	-	-	Orange County
Orange Co, FL	39.1	2002	-	-	10.48	-	-	-	-	Orange County
Orange Co, FL	116.7	2003	-	-	22.18	-	-	-	-	Orange County
Orange Co, FL	51.7	2007	-	-	40.34	-	-	-	-	L-TEC
Orange Co, FL	36.6	-	-	-	15.17	-	-	-	-	Orange County
Orange Co, FL	216.4	2008	-	-	13.45	-	-	-	-	Orange County
Total Size	618.0	10	288				**Average Trip Length:**	**4.60**		
ITE (840)	648.0	18					**Weighted Average Trip Length:**	**4.60**		
ITE (841)	28.0	14					Weighted Percent New Trip Average:	78.5		
Blended total	1,294.0									

Weighted Average Trip Generation Rate:	21.04
ITE Average Trip Generation Rate (LUC 840):	27.84
ITE Average Trip Generation Rate (LUC 841):	27.06
Blend of FL Studies and ITE Average Trip Generation Rate:	**24.58**

Land Use 851: Convenience Store

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	80	-	-	-	1.10	-	-	Kimley-Horn & Associates
Largo, FL	2.5	8/15,25/89	171	116	634.80	-	1.20	68.0	518.00	Tindale Oliver
Clearwater, FL	2.5	Aug-89	237	64	690.80	-	1.60	27.0	298.43	Tindale Oliver
Clearwater, FL	2.1	Nov-89	143	50	635.24	24hr.	1.60	35.0	355.73	Tindale Oliver
Marion Co, FL	2.5	Jun-91	94	43	787.20	48hrs.	1.52	46.2	552.80	Tindale Oliver
Marion Co, FL	2.5	Jun-91	74	20	714.00	48hrs.	0.75	27.0	144.59	Tindale Oliver
Collier Co, FL	-	Aug-91	146	36	-	-	2.53	24.7	-	Tindale Oliver
Collier Co, FL	-	Aug-91	148	38	-	-	1.08	25.7	-	Tindale Oliver
Collier Co, FL	-	Aug-91	148	84	-	-	1.11	56.8	-	Tindale Oliver
Gwinnett Co, GA	2.9	12/13-18/92	-	-	-	-	2.30	48.0	-	Street Smarts
Gwinnett Co, GA	3.2	12/13-18/92	-	-	-	-	-	37.0	-	Street Smarts
Total Size	18.2	11	1,241				**Average Trip Length:**	**1.48**		
ITE	24.0	8					**Weighted Average Trip Length:**	**1.52**		
Blended total	42.2						Weighted Percent New Trip Average:	41.3		
	36.1									

Weighted Average Trip Generation Rate:	694.30
ITE Average Trip Generation Rate:	762.28
Blend of FL Studies and ITE Average Trip Generation Rate:	**739.50**

Land Use 853: Convenience Market with Gasoline Pumps

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	72	-	-	-	2.00	-	-	Kimley-Horn & Associates
Marion Co, FL	1.1	Jun-91	77	20	544.80	24hr.	0.89	26.0	126.07	Tindale Oliver
Marion Co, FL	2.1	Jun-91	66	24	997.60	24hr.	1.67	36.4	606.42	Tindale Oliver
Marion Co, FL	4.4	Jun-91	85	25	486.70	48hrs.	1.06	29.4	151.68	Tindale Oliver
Collier Co, FL	-	Aug-91	96	38	-	-	1.19	39.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	78	16	-	-	1.06	20.5	-	Tindale Oliver
Tampa, FL	2.3	10/13-15/92	239	74	-	24hr.	1.06	31.1	-	Tindale Oliver
Ellenton, FL	3.3	10/20-22/92	124	44	-	24hr.	0.96	35.3	-	Tindale Oliver
Tampa, FL	3.8	11/10-12/92	142	23	-	24hr.	3.13	16.4	-	Tindale Oliver
Marion Co, FL	2.5	Apr-02	87	-	719.79	24hr.	1.62	32.8	322.19	Kimley-Horn & Associates
Marion Co, FL	2.5	Apr-02	23	-	610.46	24hr.	1.77	11.7	126.61	Kimley-Horn & Associates
Marion Co, FL	3.0	Apr-02	59	-	606.02	24hr.	0.83	32.6	195.00	Kimley-Horn & Associates
Total Size	25.1	6	1,148				**Average Trip Length:**	**1.44**		
ITE	102.0	34					**Weighted Average Trip Length:**	**1.51**		
Blended Total	127.1						Weighted Percent New Trip Average:	27.7		
	117.6									

Average Trip Generation Rate:	639.68
ITE (10th ed.) Average Trip Generation Rate:	624.20
Blend of FL Studies and ITE Average Trip Generation Rate:	**626.25**

Land Use 880/881: Pharmacy with and without Drive-Through Window

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pasco Co, FL	11.1	Apr-02	138	38	88.97	-	2.05	27.5	50.23	Tindale Oliver
Pasco Co, FL	12.0	Apr-02	212	90	122.16	-	2.04	42.5	105.79	Tindale Oliver
Pasco Co, FL	15.1	Apr-02	1192	54	97.96	-	2.13	28.1	58.69	Tindale Oliver
Total Size	38.2	3	1,542				**Average Trip Length:**	**2.07**		
ITE (LUC 880)	66.0	6					**Weighted Average Trip Length:**	**2.08**		
ITE (LUC 881)	208.0	16					Weighted Percent New Trip Average:	32.4		
Blended total	312.2									

Average Trip Generation Rate:	103.03
ITE Average Trip Generation Rate (LUC 880):	90.08
ITE Average Trip Generation Rate (LUC 881):	108.40
Blend of FL Studies and ITE Average Trip Generation Rate:	**103.86**

Land Use 912: Drive-In Bank

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	77	-	-	-	2.40	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	211	-	-	-	-	54.0	-	Kimley-Horn & Associates
Clearwater, FL	0.4	Aug-89	113	52	-	9a-6p	5.20	46.0	-	Tindale Oliver
Largo, FL	2.0	Sep-89	129	94	-	-	1.60	73.0	-	Tindale Oliver
Seminole, FL	4.5	Oct-89	-	-	-	-	-	-	-	Tindale Oliver
Marion Co, FL	2.3	Jun-91	69	29	-	24hr.	1.33	42.0	-	Tindale Oliver
Marion Co, FL	3.1	Jun-91	47	32	-	24hr.	1.75	68.1	-	Tindale Oliver
Marion Co, FL	2.5	Jul-91	57	26	-	48hrs.	2.70	45.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	162	96	-	24hr.	0.88	59.3	-	Tindale Oliver
Collier Co, FL	-	Aug-91	116	54	-	-	1.58	46.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	142	68	-	-	2.08	47.9	-	Tindale Oliver
Hernando Co, FL	5.4	May-96	164	41	-	9a-6p	2.77	24.7	-	Tindale Oliver
Marion Co, FL	2.4	Apr-02	70	-	-	24hr.	3.55	54.6	-	Kimley-Horn & Associates
Marion Co, FL	2.7	May-02	50	-	246.66	24hr.	2.66	40.5	265.44	Kimley-Horn & Associates
Total Size	25.2	14	1,407			**Average Trip Length:**	**2.38**			
ITE	114.0	19				**Weighted Average Trip Length:**	**2.46**			
Blended total	139.2					Weighted Percent New Trip Average:		46.2		
	116.7							Weighted Average Trip Generation Rate:		246.66
								ITE Average Trip Generation Rate:		100.35
								Blend of FL Studies and ITE Average Trip Generation Rate:		**103.73**

Land Use 931: Fine Dining Restaurant

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	76	62	-	-	2.10	82.0	-	Kimley-Horn & Associates
St. Petersburg, FL	7.5	Oct-89	177	154	-	11a-2p/4-8p	3.50	87.0	-	Tindale Oliver
Clearwater, FL	8.0	Oct-89	60	40	110.63	10a-2p/5-9p	2.80	67.0	207.54	Tindale Oliver
Total Size	15.5	3	313			**Average Trip Length:**	**2.80**			
ITE	90.0	10				**Weighted Average Trip Length:**	**3.14**			
Blended total	105.5					Weighted Percent New Trip Average:		76.7		
	98.0							Weighted Average Trip Generation Rate:		110.63
								ITE Average Trip Generation Rate:		83.84
								Blend of FL Studies and ITE Average Trip Generation Rate:		**86.03**

Land Use 934: Fast Food Restaurant with Drive-Through Window

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	61	-	-	-	2.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	306	-	-	-	-	65.0	-	Kimley-Horn & Associates
Pinellas Co, FL	2.20	Aug-89	81	48	502.80	11a-2p	1.70	59.0	504.31	Tindale Oliver
Pinellas Co, FL	4.30	Oct-89	456	260	660.40	1 day	2.30	57.0	865.78	Tindale Oliver
Tarpon Springs, FL	-	Oct-89	233	114	-	7a-7p	3.60	49.0	-	Tindale Oliver
Marion Co, FL	1.60	Jun-91	60	32	962.50	48hrs.	0.91	53.3	466.84	Tindale Oliver
Marion Co, FL	4.00	Jun-91	75	46	625.00	48hrs.	1.54	61.3	590.01	Tindale Oliver
Collier Co, FL	-	Aug-91	66	44	-	-	1.91	66.7	-	Tindale Oliver
Collier Co, FL	-	Aug-91	118	40	-	-	1.17	33.9	-	Tindale Oliver
Hernando Co, FL	5.43	May-96	136	82	311.83	9a-6p	1.68	60.2	315.27	Tindale Oliver
Hernando Co, FL	3.13	May-96	168	82	547.34	9a-6p	1.59	48.8	425.04	Tindale Oliver
Orange Co, FL	8.93	1996	-	-	377.00	-	-	-	-	Orange County
Lake Co, FL	2.20	Apr-01	376	252	934.30	-	2.50	74.6	1742.47	Tindale Oliver
Lake Co, FL	3.20	Apr-01	171	182	654.90	-	-	47.8	-	Tindale Oliver
Lake Co, FL	3.80	Apr-01	188	137	353.70	-	3.30	70.8	826.38	Tindale Oliver
Pasco Co, FL	2.66	Apr-02	100	46	283.12	9a-6p	-	46.0	-	Tindale Oliver
Pasco Co, FL	2.96	Apr-02	486	164	515.32	9a-6p	2.72	33.7	472.92	Tindale Oliver
Pasco Co, FL	4.42	Apr-02	168	120	759.24	9a-6p	1.89	71.4	1024.99	Tindale Oliver
Total Size	48.8	18	4,463			**Average Trip Length:**	**2.11**			
ITE	213.0	71				**Weighted Average Trip Length:**	**2.05**			
Blended total	261.8					Weighted Percent New Trip Average:		57.9		
	34.0							Weighted Average Trip Generation Rate:		530.19
								ITE Average Trip Generation Rate:		467.48
								Blend of FL Studies and ITE Average Trip Generation Rate:		**479.17**

Land Use 947: Self-Service Car Wash

Location	Size (Bays)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	10	Nov-89	111	84	-	8am-5pm	2.00	76.0	-	Tindale Oliver
Clearwater, FL	-	Nov-89	177	108	-	10am-5pm	1.30	61.0	-	Tindale Oliver
Collier Co, FL	11	Dec-09	304	-	30.24	-	2.50	57.0	-	Tindale Oliver
Collier Co, FL	8	Jan-09	186	-	22.75	-	1.96	72.0	-	Tindale Oliver
Total Size	29	4	778			**Average Trip Length:**	**1.94**			
Total Size (TGR)	19	2				**Weighted Average Trip Length:**	**2.18**			
ITE	5	1				Weighted Percent New Trip Average:		67.7		
Blended total	24							Weighted Average Trip Generation Rate:		27.09
								ITE Average Trip Generation Rate:		108.00
								Blend of FL Studies and ITE Average Trip Generation Rate:		**43.94**

Appendix D
Multi-Modal Transportation Impact Fee:
Cost Component

Appendix D: MMTIF - Cost Component

This appendix presents the detailed calculations for the cost component of the multi-modal impact fee update. Backup data and assumptions are provided for all cost variables, including:

- Design
- Right-of-Way
- Construction
- Construction engineering/inspection
- Roadway capacity
- Transit capital costs

Design

County Roadways

The design cost factor for county roads was estimated as a percentage of the construction cost per lane mile. Due to limited local data, this factor was determined through a review of the design-to-construction cost ratios from other jurisdictions throughout Florida. For county roadways from throughout Florida, the design factors ranged from 10 percent to 14 percent with a weighted average of 11 percent. For purposes of this study, the design cost for county roads is estimated at 11 percent of the construction cost per lane mile. Table D-1 provides additional information.

State Roadways

The design cost factor for state roads was estimated as a percentage of the construction cost per lane mile. Due to limited local data, this factor was determined through a review of the design-to-construction cost ratios for state road unit costs from other jurisdictions throughout Florida. For state roadways, the design factors ranged from 10 percent to 11 percent, with a weighted average of 11 percent. For purposes of this study, the design cost for state roads is estimated at 11 percent of the construction cost per lane mile. Table D-1 provides further detail.

Table D-1

Design Cost Factor for County and State Roads – Other Florida Jurisdictions

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		Design	Constr.	Design Ratio	Design	Constr.	Design Ratio
2012	Osceola	$371,196	$2,651,400	14%	$313,258	$2,847,800	11%
2012	Orange	$264,000	$2,400,000	11%	-	-	n/a
2012	City of Orlando	$288,000	$2,400,000	12%	$319,000	$2,900,000	11%
2012	City of Sarasota	$240,000	$2,400,000	10%	$286,000	$2,600,000	11%
2013	Hernando	$198,000	$1,980,000	10%	$222,640	$2,024,000	11%
2013	Charlotte	$220,000	$2,200,000	10%	$240,000	$2,400,000	10%
2014	Indian River	$159,000	$1,598,000	10%	$196,000	$1,776,000	11%
2015	Collier	$270,000	$2,700,000	10%	$270,000	$2,700,000	10%
2015	Brevard	$242,000	$2,023,000	12%	$316,000	$2,875,000	11%
2015	Sumter	$210,000	$2,100,000	10%	$276,000	$2,505,000	11%
2015	Marion	$167,000	$1,668,000	10%	$227,000	$2,060,000	11%
2015	Palm Beach	$224,000	$1,759,000	13%	$333,000	$3,029,000	11%
2016	Hillsborough	$348,000	$2,897,000	12%	$319,000	$2,897,000	11%
2017	St. Lucie	$220,000	$2,200,000	10%	$341,000	$3,100,000	11%
2017	Clay	$239,000	$2,385,000	10%	-	-	n/a
2018	City of Tampa	$403,000	$3,100,000	13%	-	-	n/a
2018	City of Hallandale Beach	$171,000	$1,710,000	10%	$337,000	$3,060,000	11%
2018	City of Oviedo	$319,000	$2,900,000	11%	-	-	n/a
2018	Collier	$385,000	$3,500,000	11%	$385,000	$3,500,000	11%
Average		**$259,905**	**$2,345,863**	**11%**	**$286,575**	**$2,642,817**	**11%**

Source: Each respective jurisdiction

Right-of-Way

The ROW cost reflects the total cost of the acquisitions along a corridor that was necessary to have sufficient cross-section width to widen an existing road or, in the case of new road construction, build a new road.

County Roadways

For impact fee purposes, the ROW cost for county roads was estimated as a percentage of the construction cost per lane mile. Due to limited local data, this factor was determined through a review of the ROW-to-construction cost ratios from other jurisdictions throughout Florida. For county roadways throughout Florida, the ROW factors ranged from 26 percent to 60 percent with a weighted average of 41 percent. For purposes of this study, the ROW cost for county roads is estimated at 40 percent of the construction cost per lane mile. Table D-2 provides additional information.

State Roadways

Similar to county roads, the ROW cost of state roads was estimated as a percentage of the construction cost per lane mile. Due to limited local data, this factor was determined through a review of the ROW-to-construction cost ratios from other jurisdictions throughout Florida. For state roadways throughout Florida, the ROW factors ranged from 32 percent to 60 percent with a weighted average of 43 percent. For purposes of this study, the ROW cost for state roads is estimated at 40 percent of the construction cost per lane mile. Table D-2 provides further detail.

Table D-2

Right-of-Way Cost Factor for County and State Roads – Other Florida Jurisdictions

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		ROW	Constr.	ROW Ratio	ROW	Constr.	ROW Ratio
2012	Osceola	$1,087,074	$2,651,400	41%	$1,167,598	$2,847,800	41%
2012	Orange	$1,080,000	$2,400,000	45%	-	-	n/a
2012	City of Orlando	$1,080,000	$2,400,000	45%	$1,305,000	$2,900,000	45%
2012	City of Sarasota	$620,000	$2,400,000	26%	$1,144,000	$2,600,000	44%
2013	Hernando	$811,800	$1,980,000	41%	$890,560	$2,024,000	44%
2013	Charlotte	$1,034,000	$2,200,000	47%	$1,128,000	$2,400,000	47%
2014	Indian River	$656,000	$1,598,000	41%	$781,000	$1,776,000	44%
2015	Collier	$863,000	$2,700,000	32%	$863,000	$2,700,000	32%
2015	Brevard	$708,000	$2,023,000	35%	$1,006,000	$2,785,000	36%
2015	Sumter	$945,000	$2,100,000	45%	$1,127,000	$2,505,000	45%
2015	Marion	$1,001,000	$1,668,000	60%	$1,236,000	$2,060,000	60%
2015	Palm Beach	$721,000	$1,759,000	41%	$1,333,000	$3,029,000	44%
2016	Hillsborough	$1,448,000	$2,897,000	50%	$1,448,000	$2,897,000	50%
2017	St. Lucie	$990,000	$2,200,000	45%	$1,395,000	$3,100,000	45%
2017	Clay	$954,000	$2,385,000	40%	-	-	n/a
2018	Collier	$1,208,000	$3,500,000	35%	$1,208,000	$3,500,000	35%
Average		**$950,430**	**$2,303,838**	**41%**	**$1,131,930**	**$2,635,317**	**43%**

Source: Each respective jurisdiction

Construction

To determine the average construction cost per lane mile for roadway capacity-expansion in Martin County, recent project costs, the Capital Improvement Program, and the MPO's 2040 Long Range Transportation Plan were reviewed. Although these documents included lane addition projects, figures did not appear to include all related cost and were not separated for various phases. Therefore, no local data roadway construction cost data was available for the multi-modal fee calculation.

County Roadways

With limited local data, a review of recently bid projects (from 2012 to 2018) throughout the state of Florida was conducted. As shown in Table D-3, a total of 30 projects from 12 different counties were identified with a weighted average cost of approximately $2.80 million per lane mile. Of these improvements, seven (7) project were located in FDOT District 4, averaging approximately $3.34 million per lane mile. Based on this review, a county roadway cost of $2.80 million per lane mile was used in the multi-modal fee calculation.

Table D-3

Construction Cost – County Road Improvements from Other Jurisdictions throughout Florida

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Indian River	4	Oslo Rd Ph. III	43rd Ave	58th Ave	2012	Bid	2 to 4	Urban	1.15	2	2.30	$3,812,202	$1,657,479
Indian River	4	66th Ave	SR 60	49th St	2012	Bid	2 to 4	Urban	3.05	2	6.10	$20,773,389	$3,405,474
Polk	1	Kathleen Rd (CR 35A) Ph. II	Galloway Rd	Duff Rd	2012	Bid	2 to 4	Urban	3.00	2	6.00	$17,813,685	$2,968,948
Polk	1	Bartow Northern Connector Ph. I	US 98	US 17	2012	Bid	0 to 4	Urban	2.00	4	8.00	$11,255,736	$1,406,967
Volusia	5	Tymber Creek Rd	S. of SR 40	N. of Peruvian Ln	2012	Bid	2 to 4	Urban	0.89	2	1.78	$5,276,057	$2,964,077
Palm Beach	4	Jog Rd	N. of SR 710	N. of Florida's Turnpike	2012	Bid	0 to 4	Urban	0.70	4	2.80	$3,413,874	$1,219,241
Palm Beach	4	West Atlantic Ave	W. of Lyons Rd	Starkey Rd	2012	Bid	2 to 4	Urban	0.80	2	1.60	$8,818,727	$5,511,704
Palm Beach	4	60th St N & SR 7 Ext.	E. of Royal Palm Beach Blvd	SR 7	2012	Bid	0 to 2	Urban	1.50	2	3.00	$3,821,404	$1,273,801
Brevard	5	Babcock St	S. of Foundation Park Blvd	Malabar Rd	2013	Bid	2 to 4	Urban	12.40	2	24.80	$56,000,000	$2,258,065
Collier	1	Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2013	Bid	4 to 6	Urban	2.00	2	4.00	$17,122,640	$4,280,660
Marion	5	SW 110th St	US 41	SW 200th Ave	2013	Bid	0 to 2	Urban	0.11	2	0.22	$438,765	$1,994,386
Marion	5	NW 35th St	NW 35th Avenue Rd	NW 27th Ave	2013	Bid	0 to 4	Urban	0.50	4	4.60	$8,616,236	$1,873,095
Marion	5	NW 35th St	NW 27th Ave	US 441	2013	Bid	2 to 4	Urban	1.30	2			
Sumter	5	C-466A, Ph. III	US 301 N	Powell Rd	2013	Bid	2 to 3/4	Urban	1.10	2	2.20	$4,283,842	$1,947,201
Collier	1	Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	Bid	2 to 4	Urban	2.40	2	4.80	$16,003,504	$3,334,063
Brevard	5	St. Johns Heritage Pkwy	SE of I-95 Intersection	US 192 (Space Coast Pkwy)	2014	Bid	0 to 2	Sub-Urb	3.11	2	6.22	$16,763,567	$2,695,107
Hillsborough	7	Turkey Creek Rd	Dr. MLK Blvd	Sydney Rd	2014	Bid	2 to 4	Urban	1.40	2	2.80	$6,166,000	$2,202,143
Sarasota	1	Bee Ridge Rd	Mauna Loa Blvd	Iona Rd	2014	Bid	2 to 4	Urban	2.68	2	5.36	$14,066,523	$2,624,351
St. Lucie	4	W Midway Rd (CR 712)	Selvitz Rd	South 25th St	2014	Bid	2 to 4	Urban	1.00	2	2.00	$6,144,000	$3,072,000
Lake	5	N Hancock Rd Ext.	Old 50	Gatewood Dr	2014	Bid	0/2 to 4	Urban	1.50	2/4	5.00	$8,185,574	$1,637,115
Polk	1	CR 655 & CR 559A	Pace Rd & N of CR 559A	N of CR 559A & SR 599	2014	Bid	2 to 4	Urban	2.60	2	5.20	$10,793,552	$2,075,683
Volusia	5	Howland Blvd	Courtland Blvd	N of SR 415	2014	Bid	2 to 4	Urban	2.08	2	4.16	$11,110,480	$2,670,788
Hillsborough	7	Citrus Park Extension	Sheldon Dr	Countryway Blvd	2015	Bid	0 to 4	Urban	2.70	4	10.80	$46,942,585	$4,346,536
Polk	1	Ernie Caldwell Blvd	Pine Tree Tr	US 17/92	2015	Bid	0 to 4	Urban	2.41	4	9.64	$19,535,391	$2,026,493
Volusia	5	LPGA Blvd	Jimmy Ann Dr/Grand Reserve	Derbyshire Rd	2016	Bid	2 to 4	Urban	0.68	2	1.36	$3,758,279	$2,763,440
St. Lucie	4	W Midway Rd (CR 712)	W. of South 25th St	E. of SR 5 (US 1)	2016	Bid	2 to 4	Urban	1.77	2	3.54	$24,415,701	$6,897,091
Volusia	5	Howland Blvd	Providence Blvd	Elkcam Blvd	2017	Bid	2 to 4	Urban	2.15	2	4.30	$10,850,000	$2,523,256
Volusia	5	Orange Camp Rd	MLK Blvd	I-4 in DeLand	2017	Bid	2 to 4	Urban	0.75	2	1.50	$10,332,000	$6,888,000
Lake	5	CR 466A, Ph. IIIA	Poinsettia Ave	Century Ave	2018	Bid	2 to 4	Urban	0.42	2	0.84	$3,062,456	$3,645,781
Hillsborough	7	Van Dyke Rd	Suncoast Pkwy	Whirley Ave	2018	Estimate	2 to 4	Urban	2.05	2	4.10	$20,000,000	$4,878,049
Total									**Count:**	**30**	**139.02**	**$389,576,169**	**$2,802,303**
District 4 ONLY									**Count:**	**7**	**21.34**	**$71,199,297**	**$3,336,424**

Source: Data obtained from each respective county (Building and Public Works Departments)

State Roadways

A review of construction cost data for recent state roadway capacity expansion projects identified two (2) improvements in Martin County:

- CR 714/Indian St from Turnpike/Martin Downs Blvd to E. of Mapp Rd
- Kanner Hwy from S. of Pratt Whitney Rd (CR 711) to SW Jack James Dr

As shown in Table D-4, these improvements had a weighted average construction cost of approximately $3.65 million, ranging from $3.32 million to $3.99 million per lane mile.

In addition to local data, a review of recently bid projects located throughout the state of Florida was conducted. As shown in Table D-4, a total of 76 projects from 33 different counties were identified with a weighted average cost of approximately $3.84 million per lane mile (all improvements are urban-design). The FDOT District 7 Long Range Estimates[4] were also reviewed and provided an average construction cost of approximately $4.23 million per lane mile.

Based on this review, a state roadway cost of $3.70 million per lane mile was used in the multi-modal fee calculation for state roads.

[4] This data was not available for FDOT District 4

Table D-4

Construction Cost – State Road Improvements from Martin County and Other Jurisdictions throughout Florida

County	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Collier	1	SR 84 (Davis Blvd)	E. of Santa Barbara Blvd	W. of Radio Rd	2012	2 to 6	Urban	1.77	4	7.08	$10,663,287	$1,506,114
Volusia	5	SR 415	Seminole Co. Line	Reed Ellis Rd	2012	2 to 4	Urban	2.26	2	4.53	$18,718,637	$4,132,149
Volusia	5	SR 415	Reed Ellis Rd	0.3 miles N. of Acorn Lake	2012	2 to 4	Urban	5.07	2	10.13	$18,388,845	$1,815,286
Pinellas	7	US 19 (SR 55)	N. of CR 576/Sunset Pnt	S. of Countryside Blvd	2012	4 to 6	Urban	1.76	2	3.52	$17,196,050	$4,885,241
Miami-Dade	6	SR 823/NW 57th Ave	W. 23rd St	W. 46th St	2012	4 to 6	Urban	1.48	2	2.96	$13,942,533	$4,710,315
Hernando	7	SR 50 (Cortez Blvd)	US 19 (SR 55)	W. of CR 587/Mariner Blvd	2012	4 to 6	Urban	6.02	2	12.04	$39,444,222	$3,276,098
Orange	5	SR 50	E. of West Oaks Mall	W. of Good Homes Rd	2012	4 to 6	Urban	0.45	2	0.90	$8,694,472	$9,660,524
Clay	2	SR 23	Oakleaf Plantation Pkwy	Old Jennings	2012	0 to 2	Urban	3.14	2	6.28	$13,231,111	$2,106,865
Hendry	1	SR 80	Birchwood Pkwy	Dalton Lane	2012	2 to 4	Urban	5.00	2	10.00	$12,855,092	$1,285,509
Hendry	1	SR 80	CR 833	US 27	2012	2 to 4	Urban	2.90	2	5.80	$8,117,039	$1,399,489
Lee	1	SR 739	Winkler Ave	Hanson St	2012	0 to 6	Urban	1.34	6	8.04	$14,025,932	$1,744,519
Seminole	5	SR 434	I-4	Rangeline Rd	2012	4 to 6	Urban	1.80	2	3.60	$10,111,333	$2,808,704
Palm Beach	4	SR 710/Beeline Hwy	W. of Congress Ave	W. of Australian Ave	2012	2 to 4	Urban	0.84	2	1.68	$12,189,533	$7,255,674
Polk	1	US 27	N. of Ritchie Rd	S. of Barry Rd	2012	4 to 6	Urban	3.20	2	6.40	$14,242,918	$2,225,456
Polk	1	US 98 (SR 35/SR 700)	N. of CR 540A	SR 540	2012	4 to 6	Urban	3.45	2	6.90	$17,707,436	$2,566,295
Brevard	5	SR 5 (US 1)	N. of Pine St	N. of Cidco Rd	2012	4 to 6	Urban	3.84	2	7.68	$28,089,660	$3,657,508
Broward	4	Andrews Ave Ext.	NW 18th St	Copans Rd	2013	2 to 4	Urban	0.50	2	1.00	$6,592,014	$6,592,014
Lee	1	SR 78 (Pine Island)	Burnt Store Rd	W. of Chiquita Blvd	2013	2 to 4	Urban	1.94	2	3.88	$8,005,048	$2,063,157
Brevard	5	SR 507 (Babcock St)	Melbourne Ave	Fee Ave	2013	2 to 4	Urban	0.55	2	1.10	$5,167,891	$4,698,083
Hillsborough	7	SR 41 (US 301)	S. of Tampa Bypass Canal	N. of Fowler Ave	2013	2 to 4	Sub-Urb	1.81	2	3.62	$15,758,965	$4,353,305
Lee	1	US 41 Business	Littleton Rd	SR 739	2013	2 to 4	Urban	1.23	2	2.46	$8,488,393	$3,450,566
Brevard	5	Apollo Blvd	Sarno Rd	Eau Gallie Blvd	2013	2 to 4	Urban	0.74	2	1.48	$10,318,613	$6,972,036
Orange	5	SR 50 (Colonial Dr)	E. of CR 425 (Dean Rd)	E. of Old Cheney Hwy	2013	4 to 6	Urban	4.91	2	9.82	$66,201,688	$6,741,516
Okeechobee	1	SR 70	NE 34th Ave	NE 80th Ave	2014	2 to 4	Urban	3.60	2	7.20	$23,707,065	$3,292,648
Martin	4	CR 714/Indian St	Turnpike/Martin Downs Blvd	W. of Mapp Rd	2014	2 to 4	Urban	1.87	2	3.74	$14,935,957	$3,993,571
Pinellas	7	43rd St Extension	S. of 118th Ave	40th St	2014	0 to 4	Urban	0.49	4	1.96	$4,872,870	$2,486,158
Broward	4	SR 7 (US 441)	N. of Hallandale Beach	N. of Fillmore St	2014	4 to 6	Urban	1.79	2	3.58	$30,674,813	$8,568,384
Nassau	2	SR 200 (A1A)	W. of Still Quarters Rd	W. of Ruben Ln	2014	4 to 6	Urban	3.05	2	6.10	$18,473,682	$3,028,472
Broward	4	Andrews Ave Ext.	Pompano Park Place	S. of Atlantic Blvd	2014	2 to 4	Urban	0.36	2	0.72	$3,177,530	$4,413,236
Miami-Dade	6	SR 823/NW 57th Ave	W. 65th St	W. 84th St	2014	4 to 6	Urban	1.00	2	2.00	$17,896,531	$8,948,266
Miami-Dade	6	SR 823/NW 57th Ave	W. 53rd St	W. 65th St	2014	4 to 6	Urban	0.78	2	1.56	$14,837,466	$9,511,196
Charlotte	1	US 41 (SR 45)	Enterprise Dr	Sarasota County Line	2014	4 to 6	Urban	3.62	2	7.24	$31,131,016	$4,299,864
Duval	2	SR 243 (JIA N Access)	Airport Rd	Pelican Park (I-95)	2014	0 to 2	Urban	2.60	2	5.20	$14,205,429	$2,731,813
Desoto	1	US 17	CR 760A (Nocatee)	Heard St	2014	2 to 4	Urban	4.40	2	8.80	$29,584,798	$3,361,909
Pinellas	7	SR 688 (Ulmerton Rd)	E. of 49th St	W. of 38th St N	2014	4 to 6	Urban	0.76	2	1.52	$19,306,771	$12,701,823
Orange	5	SR 50	SR 429 (Western Beltway)	E. of West Oaks Mall	2014	4 to 6	Urban	2.56	2	5.12	$34,275,001	$6,694,336
Hendry	1	SR 82 (Immokalee Rd)	Lee County Line	Collier County Line	2015	2 to 4	Urban	1.27	2	2.54	$7,593,742	$2,989,662
Sarasota	1	SR 45A (US 41) (Venice Bypass)	Gulf Coast Blvd	Bird Bay Dr W	2015	4 to 6	Urban	1.14	2	2.28	$16,584,224	$7,273,782
Clay	2	SR 21	S. of Branan Field	Old Jennings Rd	2015	4 to 6	Urban	1.45	2	2.90	$15,887,487	$5,478,444
Putnam	2	SR 15 (US 17)	Horse Landing Rd	N. Boundary Rd	2015	2 to 4	Urban	1.99	2	3.98	$13,869,804	$3,484,875
Palm Beach	4	SR 710 (Beeline Hwy)	W. of Australian Ave	Old Dixie Hwy	2015	2 to 4	Urban	0.82	2	1.64	$17,423,228	$10,623,920
Osceola	5	SR 500 (US 192/441)	Eastern Ave	Nova Rd	2015	4 to 6	Urban	3.18	2	6.36	$16,187,452	$2,545,197
Orange	5	SR 15 (Hofner Rd)	Lee Vista Blvd	Conway Rd	2015	2 to 4	Urban	3.81	2	7.62	$37,089,690	$4,867,413
Osceola	5	SR 500 (US 192/441)	Aeronautical Blvd	Budinger Ave	2015	4 to 6	Urban	3.94	2	7.88	$34,256,621	$4,347,287
Lake	5	SR 25 (US 27)	N. of Boggy Marsh Rd	N. of Lake Louisa Rd	2015	4 to 6	Sub-Urb	6.52	2	13.03	$37,503,443	$2,878,238
Seminole	5	SR 15/600	Shepard Rd	Lake Mary Blvd	2015	4 to 6	Urban	3.63	2	7.26	$42,712,728	$5,883,296
St. Lucie	4	SR 614 (Indrio Rd)	W. of SR 9 (I-95)	E. of SR 607 (Emerson Ave)	2016	2 to 4	Urban	3.80	2	7.60	$22,773,660	$2,996,534

Table D-4 (continued)

Construction Cost – State Road Improvements from Martin County and Other Jurisdictions throughout Florida

County	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Seminole	5	SR 46	Mellonville Ave	E. of SR 415	2016	2 to 4	Urban	2.83	2	5.66	$26,475,089	$4,677,578
Miami-Dade	6	SR 977/Krome Ave/SW 177th Ave	S of SW 136th St	S. of SR 94 (SW 88th St/Kendall Dr)	2016	0 to 4	Urban	3.50	4	14.00	$32,129,013	$2,294,930
Broward	4	SW 30th Ave	Griffin Rd	SW 45th St	2016	2 to 4	Urban	0.24	2	0.48	$1,303,999	$2,716,665
St. Lucie	4	CR 712 (Midway Rd)	W. of S. 25th St	E. of SR 5 (US 1)	2016	2 to 4	Urban	1.77	2	3.54	$24,415,701	$6,897,091
Hillsborough	7	SR 43 (US 301)	SR 674	S. of CR 672 (Balm Rd)	2016	2 to 6	Urban	3.77	4	15.08	$43,591,333	$2,890,672
Citrus	7	SR 55 (US 19)	W. Green Acres St	W. Jump Ct	2016	4 to 6	Urban	2.07	2	4.14	$27,868,889	$6,731,616
Walton	3	SR 30 (US 98)	Emerald Bay Dr	Tang-o-mar Dr	2016	4 to 6	Urban	3.37	2	6.74	$42,140,000	$6,252,226
Duval	2	SR 201	S. of Baldwin	N. of Baldwin (Bypass)	2016	0 to 4	Urban	4.11	4	16.44	$50,974,795	$3,100,657
Hardee	1	SR 35 (US 17)	S. of W. 9th St	N. of W. 3rd St	2016	0 to 4	Urban	1.11	4	4.44	$14,067,161	$3,168,280
Miami-Dade	6	NW 87th Ave/SR 25 & SR 932	NW 74th St	NW 103rd St	2016	0 to 4	Urban	1.93	4	7.72	$28,078,366	$3,637,094
Alachua	2	SR 20 (SE Hawthorne Rd)	E. of US 301	E. of Putnam Co. Line	2017	2 to 4	Urban	1.70	2	3.40	$11,112,564	$3,268,401
Okaloosa	3	SR 30 (US 98)	CR 30F (Airport Rd)	E. of Walton Co. Line	2017	4 to 6	Urban	3.85	2	7.70	$33,319,378	$4,327,192
Bay	3	SR 390 (St. Andrews Blvd)	E. of CR 2312 (Baldwin Rd)	Jenks Ave	2017	2 to 6	Urban	1.33	4	5.32	$14,541,719	$2,733,406
Pasco	7	SR 54	E. of CR 577 (Curley Rd)	E. of CR 579 (Morris Bridge Rd)	2017	2 to 4/6	Urban	4.50	2/4	11.80	$41,349,267	$3,504,175
Lake	5	SR 46 (US 441)	W. of SR 500	E. of Round Lake Rd	2017	2 to 6	Urban	2.23	4	8.92	$27,677,972	$3,102,912
Orange	5	SR 423 (John Young Pkwy)	SR 50 (Colonial Dr)	Shader Rd	2017	4 to 6	Urban	2.35	2	4.70	$27,752,000	$5,904,681
Palm Beach	4	SR 80	W. of Lion County Safari Rd	Forest Hill Blvd	2018	4 to 6	Urban	7.20	2	14.40	$32,799,566	$2,277,748
Wakulla	3	SR 369 (US 19)	N. of SR 267	Leon Co. Line	2018	2 to 4	Urban	2.24	2	4.48	$15,646,589	$3,492,542
St. Lucie	4	SR 713 (Kings Hwy)	S. of SR 70	SR 9 (I-95) Overpass	2018	2 to 4	Urban	3.42	2	6.84	$45,162,221	$6,602,664
Citrus	7	SR 55 (US 19)	W. Jump Ct	CR 44 (W Fort Island Tr)	2018	4 to 6	Urban	4.81	2	9.62	$50,444,444	$5,243,705
Miami-Dade	6	SR 847 (NW 47th Ave)	SR 860 (NW 183rd St)	N. of NW 199th St	2018	2 to 4	Urban	1.31	2	2.62	$18,768,744	$7,163,643
Miami-Dade	6	SR 847 (NW 47th Ave)	N. of NW 199th St and S of NW 203 St	Premier Pkwy and N of S Snake CR Canal	2018	2 to 4	Urban	1.09	2	2.18	$10,785,063	$4,947,277
Hillsborough	7	CR 580 (Sam Allen Rd)	W. of SR 39 (Paul Buchman Hwy)	E. of Park Rd	2018	2 to 4	Urban	2.02	2	4.04	$23,444,444	$5,803,080
Orange	5	SR 414 (Maitland Blvd)	E. of I-4	E. of CR 427 (Maitland Ave)	2018	4 to 6	Urban	1.39	2	2.78	$7,136,709	$2,567,162
Sarasota	1	SR 45A (US 41) (Venice Bypass)	Center Rd	Gulf Coast Blvd	2018	4 to 6	Urban	1.19	2	2.38	$15,860,000	$6,663,866
Martin	4	Kanner Hwy	S. of Pratt Whitney Rd (CR 711)	SW Jack James Dr	2019	2 to 4	Urban	1.94	2	3.88	$12,892,089	$3,322,703
Hernando	7	CR 578 (County Line Rd)	Suncoast Pkwy	US 41 @ Ayers Rd	2019	0 to 4	Urban	1.49	4	5.96	$20,155,312	$3,381,764
Seminole	5	SR 46	Orange Blvd	N. Oregon St (Wekiva Section 7B)	2019	4 to 6	Urban	1.30	2	2.60	$17,848,966	$6,864,987
Miami-Dade	6	SR 997 (Krome Ave)	SW 312 St	SW 232nd St	2019	2 to 4	Urban	3.64	2	7.28	$30,374,141	$4,172,272
Duval	2	Jax National Cemetery Access Rd	Lannie Rd	Arnold Rd	2019	0 to 2	Urban	3.26	2	6.52	$11,188,337	$1,716,003
Pasco	7	SR 52	W. of Suncoast Pkwy	E. of SR 45 (US 41)	2019	4 to 6	Urban	4.64	2	9.28	$45,307,439	$4,882,267
Total								**Count:**	**78**	**443.67**	**$1,701,723,030**	**$3,835,560**
Martin County ONLY								**Count:**	**2**	**7.62**	**$27,828,046**	**$3,651,975**
Total, Excluding Martin County								**Count:**	**76**	**436.05**	**$1,673,894,984**	**$3,838,768**
District 4 ONLY								**Count:**	**12**	**49.10**	**$224,340,311**	**$4,569,049**
District 4 ONLY, Excluding Martin County								**Count:**	**10**	**41.48**	**$196,512,265**	**$4,737,518**

Source: Florida Department of Transportation Bid Tabs

Construction Engineering/Inspection

County Roadways

The CEI cost factor for county roads was estimated as a percentage of the construction cost per lane mile. Due to limited local data, this factor was determined through a review of the CEI-to-construction cost ratios from other jurisdictions throughout Florida. For county roadways from throughout Florida, the CEI factors ranged from three (3) percent to 17 percent with a weighted average of nine (9) percent. For purposes of this study, the CEI cost for county roads is estimated at nine (9) percent of the construction cost per lane mile. Table D-5 provides additional information.

State Roadways

The CEI cost factor for state roads was estimated as a percentage of the construction cost per lane mile. Due to limited local data, this factor was determined through a review of the CEI-to-construction cost ratios for state road unit costs from other jurisdictions throughout Florida. For state roadways, the CEI factors ranged from 10 percent to 11 percent, with a weighted average of 11 percent. For purposes of this study, the CEI cost for state roads is estimated at 11 percent of the construction cost per lane mile. Table D-5 provides additional information.

Table D-5

CEI Cost Factor for County and State Roads – Other Florida Jurisdictions

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		CEI	Constr.	CEI Ratio	CEI	Constr.	CEI Ratio
2012	Osceola	$265,140	$2,651,400	10%	$313,258	$2,847,800	11%
2012	City of Sarasota	$216,000	$2,400,000	9%	$286,000	$2,600,000	11%
2013	Hernando	$178,200	$1,980,000	9%	$222,640	$2,024,000	11%
2013	Charlotte	$220,000	$2,200,000	10%	$240,000	$2,400,000	10%
2014	Indian River	$143,000	$1,598,000	9%	$196,000	$1,776,000	11%
2015	Collier	$270,000	$2,700,000	10%	$270,000	$2,700,000	10%
2015	Brevard	$344,000	$2,023,000	17%	$316,000	$2,875,000	11%
2015	Sumter	$147,000	$2,100,000	7%	$250,000	$2,505,000	10%
2015	Marion	$50,000	$1,668,000	3%	$227,000	$2,060,000	11%
2015	Palm Beach	$108,000	$1,759,000	6%	$333,000	$3,029,000	11%
2016	Hillsborough	$261,000	$2,897,000	9%	$319,000	$2,897,000	11%
2017	St. Lucie	$198,000	$2,200,000	9%	$341,000	$3,100,000	11%
2017	Clay	$191,000	$2,385,000	8%	-	-	n/a
2018	Collier	$315,000	$3,500,000	9%	$385,000	$3,500,000	11%
Average		**$207,596**	**$2,290,100**	**9%**	**$3,698,898**	**$34,313,800**	**11%**

Source: Each respective jurisdiction

Roadway Capacity

As shown in Table D-6, the average capacity per lane mile was based on the projects in the Martin MPO's 2040 Long Range Transportation Needs Plan. This listing of projects reflects the mix of improvements that will yield the vehicle-miles of capacity (VMC) that will be built in Martin County. The 2040 LRTP list was published in 2014 with projected impact fee revenues averaging $3.1 million per year. Based on recent collection data provided by Martin County, the transportation impact fees are only generating approximately $1.1 million per year. As detailed in the LRTP, the impact fee revenues make up half of the future capital funding and the 2nd local option fuel taxes account for the other half. With impact fee revenues generating less than projected annual revenues, the cost feasible improvements will not have sufficient funding. Therefore, for multi-modal fee calculation purposes, the lane miles of projected county road improvements were reduced by 1/3 to account for this potential funding shortfall. The resulting weighted average capacity per lane mile of 14,600 was used in the impact fee calculation.

Table D-6

Martin MPO 2040 Long Range Transportation Plan: Moving Martin Forward – Cost Feasible Plan

Owner	Description	From	To	Improvement	Length	Lanes Added	Lane Miles Added	Section Design*	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added	VMC Added per Lane Mile
Cost Feasible Plan													
State	SR 714 (Martin Hwy)	CR 76A (Citrus Blvd)	Martin Downs Blvd	Widen from 2 to 4 Lanes	0.88	2	1.76	Urban	17,700	39,800	22,100	19,448	11,050
County	CR 713 (High Meadow Ave)	I-95	CR 714 (Martin Hwy)	Widen from 2 to 4 Lanes	2.64	2	5.28	Urban	24,200	65,600	41,400	109,296	20,700
County	Indian St	SR 76 (Kanner Hwy)	Willoughby Blvd	Widen from 4 to 6 Lanes	0.45	2	0.90	Urban	35,820	53,910	18,090	8,141	9,046
County	Willoughby Blvd	Monterey Rd	SR 5 (US 1)	New 2-Lane Road	0.84	2	1.68	Urban	0	15,930	15,930	13,381	7,965
County	Cove Rd	SR 76 (Kanner Hwy)	US 1	Widen from 2 to 4 Lanes	3.20	2	6.40	Urban	15,930	35,820	19,890	63,648	9,945
County	Cove Rd	US 1	CR A1A	Widen from 2 to 4 Lanes	1.12	2	2.24	Urban	13,320	29,160	15,840	17,741	7,920
County	Village Pkwy Ext.	Martin Hwy	St. Lucie County Line	New 4-Lane Road	1.00	4	4.00	Urban	0	35,820	35,820	35,820	8,955
SIS Needs Plan													
State	SR 710 (Warfield Blvd)	Martin Powerplant	CR 609 (Allapattah Rd)	Widen from 2 to 4 Lanes	8.82	2	17.64	Urban	8,400	40,300	31,900	281,358	15,950
State	SR 710 (Warfield Blvd)	Okeechobee/Martin Co. Line	Martin Powerplant	Widen from 2 to 4 Lanes	6.14	2	12.28	Urban	8,400	40,300	31,900	195,866	15,950
Total (All Roads):							**52.18**					**744,699**	**14,272**
County Roads:							20.50		**39%**	**(a)**		248,027	12,099
State Roads:							31.68		**61%**	**(b)**		496,672	15,678
New Road Construction:							5.68		**11%**	**(c)**		49,201	8,662
Lane Addition:							46.50		**89%**	**(d)**		695,498	14,957
Adjusted Distribution [(1)]													
County Roads:							13.67		**30%**	**(e)**		165,351	12,096
State Roads:							31.68		**70%**	**(f)**		496,672	15,678
												VMC Added per Lane Mile:	**14,600**

Source: Martin MPO 2040 Long Range Transportation Cost Feasible Plan

1) Given that transportation impact fee revenues collected have been one third of what was estimated in the 2040 LRTP, the associated County road lane miles (and vehicle-miles of capacity added) projected in 2040 LRTP were reduced by approximately 1/3.

Transit Capital Costs

In the case of multi-modal fees, the marginal cost of adding transit infrastructure needs to be considered. This section details the difference in cost per person-mile of capacity between expanding a roadway without transit amenities versus expanding a roadway with transit amenities. This calculation also accounts for the change in roadway PMC that occurs when a bus is on the road.

First, Table D-7 calculates the person-miles of capacity added for each new transit vehicle on the road. This calculation adjusts for the fact that buses have a significantly higher person-capacity than passenger vehicles. This table also identifies transit capital cost variables that will be used to calculate the added capital cost of constructing/expanding a roadway with transit facilities. An optimistic load factor of 30 percent was assumed for the transit model, resulting in a conservative approach.

Next, Table D-8 combines the roadway VMC and the transit PMC to calculate the marginal change in cost per PMC. First, the roadway characteristics, including cost and capacity, were used to calculate the roadway cost per VMC for a generic 19-mile roadway segment. Then, an adjustment factor was applied to recognize that incorporating transit along a segment of roadway decreases the vehicle-capacity as the bus makes intermittent stops and interrupts the free-flowing traffic. As shown in Table D-8, the bus blockage adjustment factor is much higher for a 2-lane roadway than for a 4-lane roadway. On a 2-lane road, all cars get caught behind the bus during a stop, while on a 4-lane roadway, there is an unobstructed travel lane that cars can use to pass-by or maneuver around the slower transit vehicle. This adjusted VMC was then converted to PMC using the vehicle-miles to person-miles adjustment factor previously discussed in this report. The additional person-capacity from the buses was added to the adjusted roadway PMC. The person-miles of capacity that a transit system would add to the stretch of roadway (Table D-8) mitigates the decrease in vehicle-miles of capacity due to the bus blockage adjustments.

Next, the capital cost of transit infrastructure was added to the capital cost of the roadway expansion for both new road construction (0 to 2 lanes) and lane addition (2 to 4 lanes). With the transit infrastructure included, the updated cost per PMC was calculated, which now reflects the total cost of building a new road with transit or expanding a roadway and adding transit amenities. When compared to the cost per PMC for simply building/expanding a roadway without transit, the added cost of transit is between two (2) percent and five (5) percent.

As a final step, the increased costs were then weighted by the lane mile distribution of new road construction and lane addition improvements in the Martin MPO's 2040 Long Range Transportation Cost Feasible Plan. As shown, the plan calls for a higher number of lane addition improvements through 2040. When the marginal cost of transit is included and weighted by this ratio, the resulting percent change is approximately 3.13 percent. Essentially, adding transit does not have a significant effect on the cost per person-mile of capacity for new road construction and lane addition improvements.

As it is currently structured, the transit model detailed in Tables D-7 and D-8 assumes that transit-miles and road-miles will be added to the system at the same rate. If the County builds more transit-miles, this would increase the bus traffic on existing roads, adding more stops, higher stop frequency, and create additional bus blockage. As a result, the capital cost per person-mile for a roadway with transit would increase in relation to the ratio of added transit-miles vs. roadway-miles. For example, if the transit-mile investment was double that of roadway construction/expansion, the 3.13 percent change calculated in Table D-8 would increase to approximately 6.26 percent. The annual construction figures for transit-miles and road-miles should be tracked by the County and adjusted for in subsequent multi-modal fee update studies.

Table D-7

Multi-modal Cost per Person-Mile of Capacity

Input	Local Transit
Transit Person-Miles of Capacity Calculation	
Vehicle Capacity[1]	42
Number of Vehicles (20% fleet margin)[2]	4
Service Span (hours)[3]	12
Cycles/Hour (aka Peak Vehicles)[4]	2.00
Cycles per Day[5]	24
Headway Time (minutes)[6]	30
Speed (mph)[7]	15
Round Trip Length (miles)[8]	19.0
Cycle Time (minutes)[9]	76
Total Person-Miles of Capacity[10]	19,152
Load Factor/System Capacity[11]	30%
Adjusted Person-Miles of Capacity[12]	**5,746**
Capital Cost Variables	
Stops per Mile (w/o Shelter)[13]	3
Shelters per Mile[14]	1
Vehicle Cost[15]	$480,512
Simple Bus Stop[16]	$10,300
Sheltered Bus Stop[17]	$36,000

Source:

1) Source: Local transit is assumed to have 30 seats with a 40 percent standing room capacity equivalent

2) Cycle time (Item 9) divided by headway time (Item 6) increased by 20 percent to accommodate the required fleet margin

3) Source: Assumption based on current Marty routes

4) Headway time (Item 6) divided by 60

5) Service span (Item 3) multiplied by the cycles/hour (Item 4)

6) Source: Assumption based on current Marty routes

7) Source: Integrated National Transit Database Analysis System (INTDAS). 6-yr average

8) Source: Average trip length of current Marty routes

9) Round trip length (Item 8) divided by speed (Item 7) multiplied by 60

10) Vehicle capacity (Item 1) multiplied by the cycles per day (Item 5) multiplied by the round trip length (Item 8)

11) Source: Optimistic assumption based on future goals

12) Total person-miles of capacity (Item 10) multiplied by the load factor (Item 11)

13) Source: Model assumes 3 bench stops per mile

14) Source: Model assumes 1 shelter stop per mile

15) Source: 2019 Marty Transit Development Plan (2020-2029)

16) Source: 2019 Marty Transit Development Plan (2020-2029)

17) Source: 2019 Marty Transit Development Plan (2020-2029)

Table D-8

Multi-modal Fee: Transit Component Model

Item	New Road Construction		Lane Additions		
	Roadway	Transit	Roadway	Transit	
Roadway Characteristics:					**Source:**
Roadway Cost per Mile[(1)]	$11,080,000		$11,080,000		1) Source: Table VIII-3, adjusted to cost "per mile"
Roadway Segment Length (miles)[(2)]	19.0		19.0		2) Source: Average length of Marty route
Roadway Segment Cost[(3)]	$210,520,000	**PMC**	$210,520,000	**PMC**	3) Roadway cost per mile (Item 1) multiplied by the roadway segment length (Item 2)
Average Capacity Added (per mile)[(4)]	29,200	37,960	29,200	37,960	4) Source: Table 4, adjusted to capacity "per mile"
VMC/PMC Added (entire segment)[(5)]	554,800	721,240	554,800	721,240	5) Roadway segment length (Item 2) multiplied by the average capacity added (Item 4) for both VMC and PMC
Roadway Cost per VMC/PMC[(6)]	$379.45	**$291.89**	$379.45	**$291.89**	6) Roadway segment cost (Item 3) divided by the VMC/PMC added (Item 5) individually
Transit Capacity:					
Adjustment for Bus Blockage[(7)]	3.2%	-	1.6%	-	7) Source: 2010 Highway Capacity Manual, Equation 18-9
VMC/PMC Added (transit deduction)[(8)]	17,754	23,080	8,877	11,540	8) VMC added (Item 5) multiplied by the adjustment for bus blockage (Item 7). For PMC, multiply the VMC by 1.30 persons per vehicle
VMC/PMC Added (less transit deduction)[(9)]	537,046	698,160	545,923	709,700	9) VMC/PMC added (entire segment) (Item 5) less the VMC/PMC added (transit deduction) (Item 8) for VMC and PMC individually
PMC Added (transit addition ONLY)[(10)]		5,746		5,746	10) Source: Table B-7, Adjusted Person-Miles of Capacity (Item 12)
Net PMC Added (transit effect included)[(11)]		703,906		715,446	11) PMC added (less transit deduction) (Item 9) plus the PMC added (transit addition ONLY) (Item 10)
Road/Transit Cost per PMC (Road Capital)[(12)]		$299.07		$294.25	12) Road segment cost (Item 3) divided by the net PMC added (transit effect included) (Item 11)
Transit Infrastructure:					
Buses Needed[(13)]	4	$1,922,048	4	$1,922,048	13) Number of vehicles (see Table D-7, Item 2) multiplied by the vehicle cost (see Table D-7, Item 15)
Stops per mile (both sides of street)[(14)]	3	$1,174,200	3	$1,174,200	14) Stops per mile (3) multiplied by the roadway segment length (Item 2) multiplied by the cost per stop (Table D-7, Item 16)
Shelters per mile (both sides of street)[(15)]	1	$1,368,000	1	$1,368,000	15) Shelters per mile (1) multiplied by the roadway segment length (Item 2) multiplied by the cost per shelter (Table D-7, Item 17)
Total infrastructure[(16)]		$4,464,248		$4,464,248	16) Sum of buses needed (Item 13), stops needed (Item 14), and shelters needed (Item 15)
Multi-Modal Cost per PMC:					
Road/Transit Cost per PMC[(17)]		**$305.42**		**$300.49**	17) Sum of the roadway segment cost (Item 3) and the total transit infrastructure cost (Item 16) divided by the net PMC added (Item 11)
Percent Change[(18)]		**4.64%**		**2.95%**	18) Percent difference between the road/transit cost per PMC (Item 17) and the Roadway cost per PMC (Item 6)
Weighted Multi-Modal Cost per PMC:					
Lane Mile Distribution[(19)]		11%		89%	19) Source: Appendix B, Table D-6, Items (c) and (d). Lane mile distribution of new road construction versus lane addition
Weighted Roadway Cost per PMC[(20)]		$32.11		$259.78	20) Roadway cost per PMC (Item 6) multiplied by the lane mile distribution (Item 19)
Weighted Road/Transit Cost per PMC[(21)]		$33.60		$267.44	21) Road/Transit cost per PMC (Item 17) multiplied by the lane mile distribution (Item 19)
Weighted Average Multi-Modal Cost per PMC:					
Weighted Average Roadway Cost per PMC (new road construction and lane additions)[(22)]				$291.89	22) Sum of the weighted roadway cost per PMC (Item 20) for new road construction and lane additions
Weighted Average Road/Transit Cost per PMC (new road construction and lane additions)[(23)]				$301.04	23) Sum of the weighted road/transit cost per PMC (Item 21) for new road construction and lane additions
Percent Change[(24)]				**3.13%**	24) Percent difference between the weighted average road/transit cost per PMC (Item 23) and the weighted average roadway cost per PMC (Item 22)

Appendix E
Multi-Modal Transportation Impact Fee:
Credit Component

Appendix E: MMTIF - Credit Component

This appendix presents the detailed calculations for the credit component. Currently, in addition to the capital support that ultimately results from State fuel tax revenue, Martin County also receives financial benefit from several other funding sources. Of these, the fuel taxes collected in Martin County are listed below, along with a few pertinent characteristics of each.

1. **Constitutional Fuel Tax (2¢/gallon)**
   - Tax applies to every net gallon of motor and diesel fuel sold within a county. Collected in accordance with Article XII, Section 9 (c) of the Florida Constitution.
   - The State allocated 80 percent of this tax to Counties after withholding amounts pledged for debt service on bonds issued pursuant to provisions of the State Constitution for road and bridge purposes.
   - The 20 percent surplus can be used to support the road construction program within the county.
   - Counties are not required to share the proceeds of this tax with their municipalities.

2. **County Fuel Tax (1¢/gallon)**
   - Tax applies to every net gallon of motor and diesel fuel sold within a county.
   - Primary purpose of these funds is to help reduce a County's reliance on ad valorem taxes.
   - Proceeds are to be used for transportation-related expenses, including the reduction of bond indebtedness incurred for transportation purposes. Authorized uses include acquisition of rights-of-way; the construction, reconstruction, operation, maintenance, and repair of transportation facilities, roads, bridges, bicycle paths, and pedestrian pathways; or the reduction of bond indebtedness incurred for transportation purposes.
   - Counties are not required to share the proceeds of this tax with their municipalities.

3. **Ninth-Cent Fuel Tax (1¢/gallon)**
   - Tax applies to every net gallon of motor and diesel fuel sold within a county.
   - Proceeds may be used to fund transportation expenditures.
   - To accommodate statewide equalization, this tax is automatically levied on diesel fuel in every county, regardless of whether a County is levying the tax on motor fuel at all.
   - Counties are not required to share the proceeds of this tax with their municipalities.

4. 1st Local Option Tax (6¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county.
- Proceeds may be used to fund transportation expenditures.
- To accommodate statewide equalization, all six cents are automatically levied on diesel fuel in every county, regardless of whether a County is levying the tax on motor fuel at all or at the maximum rate.
- Proceeds are distributed to a county and its municipalities according to a mutually agreed upon distribution ratio, or by using a formula contained in the Florida Statutes.

5. 2nd Local Option Tax (5¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county.
- Proceeds may be used to fund transportation expenditures needed to meet requirements of the capital improvements element of an adopted Local Government Comprehensive Plan.
- Proceeds are distributed to a county and its municipalities according to a mutually agreed upon distribution ratio, or by using a formula contained in the Florida Statutes.

Each year, the Florida Legislature's Office of Economic and Demographic Research produces the *Local Government Financial Information Handbook*, which details the estimated local government revenues for the upcoming fiscal year. Included in this document are the estimated distributions of the various fuel tax revenues for each county in the state. The 2019-20 data represent projected fuel tax distributions to Martin County for the current fiscal year. In the table, the fuel tax revenue data are used to calculate the value per penny (per gallon of fuel) that should be used to estimate the "equivalent pennies" of other revenue sources. Table E-1 shows the distribution per penny for each of the fuel levies, and then the calculation of the weighted average for the value of a penny of fuel tax. The weighting procedure takes into account the differing amount of revenues generated for the various types of gas tax revenues. The weighted average figure of approximately $834,000 estimates the annual revenue that one penny of gas tax generates in Martin County.

Table E-1
Estimated Fuel Tax Distributions Allocated to Capital Program of Martin County & Municipalities, FY 2019-20[1]

Tax	Amount of Levy per Gallon	Total Distribution	Distribution per Penny
Constitutional Fuel Tax	$0.02	$1,990,850	$995,425
County Fuel Tax	$0.01	$875,825	$875,825
9th Cent Fuel Tax	$0.01	$898,706	$898,706
1st Local Option (1-6 cents)	$0.06	$5,056,332	$842,722
2nd Local Option (1-5 cents)	$0.05	$3,690,926	$738,185
Total	**$0.15**	**$12,512,639**	
Weighted Average per Penny[2]			**$834,176**

1) Source: Florida Legislature's Office of Economic and Demographic Research; Local Government Financial Information Handbook
2) The weighted average distribution per penny is calculated by taking the sum of the total distribution and dividing that value by the sum of the total levies per gallon (multiplied by 100).

Capital Improvement Credit

A revenue credit for the annual expenditures on transportation capacity expansion projects in Martin County is presented below. The components of the credit are as follows:

- County "cash" funding
- County debt service
- State funding

The annual expenditures from each revenue source are converted to gas tax pennies to be able to create a connection between travel by each land use and tax revenue contributions.

County "Cash" Funding

As shown in Table E-2, when capacity funding for multi-modal projects is considered, Martin County uses 1.4 equivalent pennies from non-impact fee funding for projects such as new road construction, lane additions, transit lanes, sidewalks, bike lanes, and intersection improvements. Note that CIP projects using State funds are detailed in the "State Funding" section of this appendix.

Table E-2

County Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[2]	Equivalent Pennies[3]
Martin County CIP FY 2020-2024[1]	$6,031,759	5	$834,176	$0.014
Total				**$0.014**

1) Source: Table E-5
2) Source: Table E-1
3) Cost of projects divided by number of years divided by revenue from 1 penny (Item 3) multiplied by 0.01

In addition, the County allocates an equivalent credit of 1.7 pennies for debt service associated with the Gas Tax Refunding Revenue Note, Series 2014, as shown in Table E-3. This credit is given for only the non-impact fee portion used for transportation capacity-expansion improvements. For the multi-modal fee calculation, it was assumed that all debt funds are allocated to transportation capacity-expansion improvements.

Table E-3

County Debt Service Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[2]	Equivalent Pennies[3]
Gas Tax Refunding Revenue Note, Series 2014[1]	$10,179,114	7	$834,176	$0.017
Total				**$0.017**

1) Source: Table E-6
2) Source: Table E-1
3) Cost of projects divided by number of years divided by revenue from 1 penny (Item 4) multiplied by 0.01

State Funding

In the calculation of the equivalent pennies of gas tax from the State, expenditures on transportation capacity expansion spanning a 16-year period (from FY 2009 to FY 2024) were reviewed. This period represents past FDOT Work Program expenditures from FY 2009-2019 and also includes the projected FDOT Work Program expenditures from 2020 to 2024. From these, a list of improvements was developed, including lane additions, new road construction, intersection improvements, interchanges, traffic signal projects, sidewalks, bike lanes, transit, and other capacity-addition projects. The use of a 16-year period, for purposes of developing a State credit for multi-modal capacity expansion projects, results in a stable credit, as it accounts for the volatility in FDOT spending in the county over short periods of time.

The total cost of the capacity-adding projects for the "historical" periods and the "future" period:

- FY 2009-2014 work plan equates to 8.9 pennies
- FY 2015-2019 work plan equates to 26.3 pennies

- FY 2020-2024 work plan equates to 10.9 pennies

The combined weighted average over the 16-year period of state expenditure for capacity-adding multi-modal projects results in a total of 15.0 equivalent pennies. Table E-4 documents this calculation. The specific projects that were used in the equivalent penny calculations are summarized in Table E-7.

Table E-4

State Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[4]	Equivalent Pennies[5]
Projected Work Program (FY 2020-2024)[1]	$45,633,794	5	$834,176	$0.109
Historical Work Program (FY 2015-2019)[2]	$109,784,519	5	$834,176	$0.263
Historical Work Program (FY 2009-2014)[3]	$44,730,661	6	$834,176	$0.089
Total	**$200,148,974**	**16**	**$834,176**	**$0.150**

1) Source: Table E-7
2) Source: Table E-7
3) Source: Table E-7
4) Source: Table E-1
5) Cost of projects divided by number of years divided by revenue from 1 penny (Item 4) multiplied by 0.01

Table E-5

Martin County Capital Improvement Program, FY 2020

Project #	Project Name	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Public Transportation							
TBD	Bus Acquisition (Replacement & Expansion)	$450,000	$450,000	$450,000	$450,000	$450,000	**$2,250,000**
Roads							
101603	Salerno Rd - SE Cable Dr Turn Lane	$302,744	$0	$0	$0	$0	**$302,744**
101105	Ocean Blvd Sidewalk	$0	$0	$0	$500,000	$0	**$500,000**
101778	Urban Service District Dirt Road Paving	$0	$0	$0	$350,000	$350,000	**$700,000**
101104	NW Dixie Highway Sidewalk	$404,015	$0	$0	$0	$0	**$404,015**
1016	Intersection Improvements	$375,000	$375,000	$375,000	$375,000	$375,000	**$1,875,000**
Total - Mobility/Multimodal		**$1,531,759**	**$825,000**	**$825,000**	**$1,675,000**	**$1,175,000**	**$6,031,759**

Source: Martin County

Table E-6

Martin County Gas Tax Refunding Revenue Note, Series 2014

Year	Principal	Interest	Total Debt Service
FY 2020	$2,234,000	$184,745	$2,418,745
FY 2021	$2,284,000	$320,119	$2,604,119
FY 2022	$2,334,000	$269,642	$2,603,642
FY 2023	$2,386,000	$218,061	$2,604,061
FY 2024	$2,439,000	$165,330	$2,604,330
FY 2025	$2,493,000	$111,428	$2,604,428
FY 2026	$2,549,000	$56,333	$2,605,333
Total	**$16,719,000**	**$1,325,658**	**$18,044,658**
Non-Impact Fee Portion (56%)			**$10,105,008**
Payments Remaining			**7**
Annual Average Payment			**$1,443,573**

Source: Martin County

Table E-7

Martin County FDOT Work Program

Item	Item Description	Work Mix Description	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
230978-2	CR-714/INDIAN ST FROM TPK/MARTIN DOWNS BV TO W. OF MAPP ROAD	ADD LANES & RECONSTRUCT	$0	$0	$0	$1,115,597	$756,314	$17,898,762	$142,212	$858,860	$85,310	$567	$569	$0	$0	$0	$0	$0	**$20,858,191**
230978-3	CR-714/INDIAN ST FROM E. OF KANNER HIGHWAY TO E. OF WILLOUGHBY BLVD	ADD LANES & RECONSTRUCT	$0	$0	$0	$39,764	$318	$38	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$40,120**
404741-1	MARTIN CO JPA SIGNAL MAINTENANCE & OP ON SHS	TRAFFIC SIGNALS	$92,572	$96,622	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$189,194**
409700-2	MARTIN CO SIGNAL SYS ENHANCED OPERATIONS	TRAFFIC SIGNAL UPDATE	$134,000	$136,000	$143,000	$144,814	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$557,814**
413493-1	MARTIN COUNTY SECTION 5307 FORMULA FUNDS	CAPITAL FOR FIXED ROUTE	$0	$0	$0	$0	$0	$0	$947,902	$972,027	$897,195	$0	$4,676,700	$905,000	$905,000	$905,000	$905,000	$905,000	**$12,018,824**
413733-1	MARTIN MPO SECTION 5303 TRANSIT PLANNING	PTO STUDIES	$44,156	$0	$60,428	$122,748	$59,316	$36,071	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$322,719**
413733-2	MARTIN MPO SECTION "5305D" TRANSIT PLANNING	PTO STUDIES	$0	$0	$0	$0	$0	$0	$0	$161,821	$65,710	$66,663	$68,470	$65,390	$0	$0	$0	$0	**$428,054**
413733-3	MARTIN MPO SECTION "5305D" TRANSIT PLANNING	PTO STUDIES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$51,570	$53,117	$51,570	$51,570	**$207,827**
416140-1	FERNDALE AVENUE FROM GARDEN STREET TO IRIS STREET	SIDEWALK	$34,595	$2,607	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$37,202**
419252-2	SR-710/WARFIELD BL. FR MARTIN FPL PWR PLANT TO CR609/SW ALLAPATTAH RD	ADD LANES & RECONSTRUCT	$0	$0	$0	$1,505,414	$282,914	$75,766	$164,870	$96,770	$15,043	$941,939	$462,105	$30,903	$0	$0	$0	$0	**$3,575,724**
419344-1	SR-710/WARFIELD BLVD FROM MARTIN/OKEE CO/LINE TO CR-609/ALLAPATTAH RD	PD&E/EMO STUDY	$71,563	$60,387	$64,444	$31,801	$2,503	$2,481	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$233,179**
419348-2	SR-710/WARFIELD BLVD FROM EAST OF SR-76 TO PBC/MARTIN CO LINE	PD&E/EMO STUDY	$2,375	$1,059	$21,371	$541	$18,267	$14,225	$87	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$57,925**
419348-3	SR-710/WARFIELD BLVD FROM CR-609/ALLAPATTAH RD TO EAST OF SR-76	PD&E/EMO STUDY	$705,667	$53,414	$36,518	$29,168	$23,093	$22,395	$1,350	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$871,605**
419669-1	WILLOUGHBY BLVD FROM SR-714/MONTEREY RD TO SR-5/US-1 FEDERAL HWY	NEW ROAD CONSTRUCTION	$0	$0	$0	$0	$81,991	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$81,991**
419669-3	WILLOUGHBY BLVD FROM SR-714/MONTEREY RD TO SR-5/US-1/FEDERAL HWY	PD&E/EMO STUDY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$505,000	$4,565,000	$15,000	**$5,085,000**
422641-1	SR-76/KANNER HWY FROM WEST OF CR-711 TO EAST OF COVE ROAD	ADD LANES & RECONSTRUCT	$1,256,123	$40,292	$23,944	$18,162	$18,691	$5,466	$783	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,363,461**
422641-2	SR-76/KANNER HWY FROM S OF CR-711/PRATT WHITNEY RD TO SW JACK JAMES DR	ADD LANES & RECONSTRUCT	$0	$0	$0	$521	$121,319	$178,792	$108,404	$0	$79,952	$14,709,119	$836,285	$10,260	$10,530	$0	$0	$0	**$16,055,182**
422641-3	SR-76/KANNER HWY FROM LOST RIVER ROAD TO MONTEREY ROAD	ADD LANES & RECONSTRUCT	$0	$0	$8,874	$2,521,609	$261,100	$141,035	$23,534,425	$4,900,150	$2,640,970	$145,157	$436,525	$0	$0	$0	$0	$0	**$34,589,845**
423262-1	MARTIN COUNTY ATMS	ADV TRAVELER INFORMATION SYSTM	$500,000	$478,174	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$978,174**
423529-1	MARTIN CO WIDE BUS SHELTERS @ 4 LOCATIONS	PUBLIC TRANSPORTATION SHELTER	$0	$400,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$400,000**
423865-1	PALM TRAN PARK & RIDE LOT	PARK AND RIDE LOTS	$1,085,351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,085,351**
425263-2	SEABRANCH EAST COAST GREENWAY, FROM SE GRAFTON AVE TO SEABRANCH PRESER	BIKE LANE/SIDEWALK	$0	$208,157	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$208,157**
425263-3	SEABRANCH EAST COAST GREENWAY FROM SEABRANCH PRESERVE TO PECK LAKE PK	BIKE LANE/SIDEWALK	$0	$0	$0	$583,893	$1,021	$5,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$590,314**
425773-1	SR-5/US-1 FROM N. OF WESTMORELAND TO ST LUCIE CO/LINE	SIDEWALK	$0	$17,921	$765	$14,477	$67,402	$78	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$100,643**
426252-1	SR-707 FROM 320FT S OF NW WRIGHT BLVD TO 320 FT N OF NW WRIGHT BLVD	ADD RIGHT TURN LANE(S)	$0	$155,410	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$155,410**
426402-2	ARRA SECTION 5307 MARTIN CO PORT ST. LUCIE UZA	CAPITAL FOR FIXED ROUTE	$0	$1,199,564	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,199,564**
427394-1	INDIAN RIVER DRIVE FR INDIAN RIVERSIDE PK N TO DIXIE HWY INTERSECTION	SIDEWALK	$0	$156,597	$1,489	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$158,086**
427395-1	POINCIANA GARDENS FROM US-1/SE POINCIANA LN TO SE LONGVIEW	SIDEWALK	$0	$83,533	$599	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$84,132**
427396-1	RUHNKE STREET FROM WILLOUGHBY BLVD TO ASTER LANE	SIDEWALK	$0	$104,118	$788	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$104,906**
427397-1	SE COMMERCE AVENUE FROM INDIAN STREET TO MONROE STREET	SIDEWALK	$0	$149,517	$16,509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$166,026**
427664-1	PALM CITY CRA SIDEWALKS	SIDEWALK	$0	$0	$0	$2,375	$149,774	$2,943	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$155,092**
427803-1	MARTIN COUNTY JPA SIGNAL MAINTENANCE & OPS ON SHS	TRAFFIC SIGNALS	$0	$0	$106,957	$113,314	$116,513	$117,848	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$454,632**
427803-2	MARTIN COUNTY JPA SIGNAL MAINTENANCE & OPERATIONS ON STATE HWY SYSTEM	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$124,260	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$124,260**
427803-3	MARTIN COUNTY JPA SIGNAL MAINTENANCE & OPS ON STATE HWY SYSTEM	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$0	$228,456	$331,125	$341,873	$356,200	$364,822	$0	$0	$0	$0	**$1,622,476**
427803-5	MARTIN COUNTY JPA SIGNAL MAINTENANCE & OPS ON STATE HWY SYSTEM	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$374,705	$384,858	$395,249	$407,107	**$1,561,919**
431646-1	CR-707/DIXIE HWY FR. SOUTH OF FLORIDA ST. TO NORTH OF SE 5TH ST.	BIKE LANE/SIDEWALK	$0	$0	$0	$0	$909	$282,042	$1,922	$128	$0	$0	$0	$0	$0	$0	$0	$0	**$285,001**
431649-1	CR-A1A/SE DIXIE HWY. FROM US-1 TO SATURN STREET	BIKE LANE/SIDEWALK	$0	$0	$0	$0	$1,717	$355,534	$7,673	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$364,924**
431730-1	INDIANTOWN CONNECTOR SIDEWALKS	SIDEWALK	$0	$0	$0	$0	$0	$2,596	$689,818	$4,399	$3,420	$1,517	$0	$0	$0	$0	$0	$0	**$701,750**
432705-1	SR-710/SW WARFIELD BLVD. FROM E. OF SR-76 TO PALM BEACH/MARTIN CO LINE	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$1,111,636	$56,515	$1,261,198	$31,490,825	$983,950	$6,320,297	$0	$0	$0	$0	$0	**$41,224,421**
432707-1	SR-710/BEELINE HWY FROM MP 2.0 TO W. OF SW FOX BROWN RD	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$581,013	$7,795,676	$109,321	$159,827	$145,678	$25	$0	$0	$0	$0	$0	$0	**$8,791,540**
433170-1	BAKER RD IMPROVEMENTS FROM NW GREEN RIVER PARKWAY TO SE BRAILLE PLACE	SIDEWALK	$0	$0	$0	$0	$0	$1,328	$3,891	$358,337	$90,282	$0	$0	$0	$0	$0	$0	$0	**$453,838**
433349-1	SR-A1A AT SEWALL'S POINT ROAD	TRAFFIC SIGNAL UPDATE	$0	$0	$0	$0	$0	$0	$23,097	$31,268	$597,362	$60,241	$0	$0	$0	$0	$0	$0	**$711,968**
434377-1	NEW FREEDOM VOLUNTEE R DRIVER PROGRAM MARTIN COUNTY	PURCHASE VEHICLES/EQUIPMENT	$0	$0	$0	$0	$136,565	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$136,565**
434661-1	MARTIN COUNTY SECTION 5339 CAPITAL FOR BUS & BUS FACILITIES	CAPITAL FOR FIXED ROUTE	$0	$0	$0	$0	$0	$0	$97,545	$97,572	$97,900	$0	$234,128	$98,000	$98,000	$98,000	$98,000	$98,000	**$1,017,145**
435137-1	SR-714/MARTIN DOWNS AT CITRUS BLVD	INTERSECTION IMPROVEMENT	$0	$0	$0	$0	$0	$151	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$151**
435413-1	MAPP RD. FROM SW MARTIN HIGHWAY TO MARTIN DOWNS BLVD	BIKE LANE/SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$3,221	$276,898	$880	$3,953	$0	$0	$0	$0	$0	**$284,952**
435727-1	MARTIN COUNTY SECTION 5316 JARC GRANT	CAPITAL FOR FIXED ROUTE	$0	$0	$0	$0	$0	$0	$94,622	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$94,622**
436861-1	SE KINDRED STREET/SE JOHNSON AVE FROM SOUTH COLORADO TO SR-5/US-1	SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$1,019	$358,143	$26,007	$2,442	$0	$0	$0	$0	$0	**$387,611**
436869-1	SR-A1A FROM EAST OF LYONS BRIDGE TO SR-732/JENSEN BEACH BLVD	SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$0	$370,259	$124,322	$677,717	$0	$0	$0	$0	$0	**$1,172,298**
436870-1	SR-714/SW MARTIN HWY FROM CITRUS BLVD TO SW MARTIN DOWNS BLVD	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$428,872	$2,086,200	$623,579	$1,316,444	$1,032,397	$22,448,282	$0	$0	$0	**$27,935,774**
436967-1	SR-5/US-1 NORTH OF NW BRITT ROAD	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$0	$0	$190,995	$2,553	$25,106	$0	$489,406	$0	$0	$0	**$708,060**
438125-1	CR-708/SE BRIDGE ROAD FROM SE FLORA AVE TO SE PLANDOME DR	SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$0	$1,015	$308,777	$7,000	$0	$0	$0	$0	$0	**$316,792**
438345-2	SR-5/US-1 @ SW JOAN JEFFERSON WAY	TRAFFIC ENGINEERING STUDY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$407,724	$19,781	$3,000	$0	$0	$335,000	$0	**$765,505**
438346-1	SR-714/SE MONTEREY RD FROM KINGSWOOD TER TO EAST OCEAN BLVD	TRAFFIC ENGINEERING STUDY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$103,000	$0	$0	$350,000	$0	**$453,000**
438346-2	SE OCEAN BLVD FROM WEST OF SE HOSPITAL AVE TO SE PALM BEACH ROAD	BIKE LANE/SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000	$0	$532,697	$0	**$537,697**
438524-1	MARTIN COUNTY SERVICE DEVELOPMENT STUART- TRAM PURCHASE	CAPITAL FOR FIXED ROUTE	$0	$0	$0	$0	$0	$0	$0	$0	$34,000	$0	$0	$0	$0	$0	$0	$0	**$34,000**
439979-1	PORT SALERNO ELEMENTARY SIDEWALKS VARIOUS LOCATIONS	SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000	$433,024	$0	$0	$0	$0	**$438,024**
440020-1	NW DIXIE HWY FROM NORTH OF WRIGHT BLVD TO SOUTH OF GREEN RIVER PKWY	SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000	$337,799	$0	$0	$0	$0	**$342,799**
441567-1	SE FLORIDA ST. FROM SE JOHNSON AVE. TO CR-707/DIXIE HWY	SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000	$0	$318,240	$0	$0	$0	**$323,240**
441699-1	CR-713/HIGH MEADOW AVE FROM I-95 TO CR-714/MARTIN HWY	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$505,000	$2,000,000	$0	**$2,505,000**
441700-1	COVE ROAD FROM SR-76/KANNER HIGHWAY TO SR-5/US-1	PD&E/EMO STUDY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$505,000	$2,500,000	$0	**$3,005,000**
442367-1	MARTIN COUNTY NEW FIXED ROUTE - CAPITAL	CAPITAL FOR FIXED ROUTE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,000	$0	$0	$0	$0	$0	**$50,000**
444345-1	NW DIXIE HIGHWAY FR S OF SE GREEN RIVER PRKWAY TO SE GREEN RIVER PKWY	BIKE LANE/SIDEWALK	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000	$0	$389,298	$0	$0	**$394,298**
444415-1	SR-5/US-1 AT BAKER RD	INTERSECTION IMPROVEMENT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$420,000	$10,000	**$430,000**
444416-1	SR-5/US-1 AT NW NORTH RIVER SHORES BLVD	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$270,000	$10,000	**$280,000**
444417-1	SR-5/US-1 AT NW SUNSET BLVD	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$270,000	$10,000	**$280,000**
Total - Mobility/Multimodal			**$3,926,402**	**$3,343,372**	**$485,686**	**$6,244,198**	**$2,680,740**	**$28,050,263**	**$26,108,697**	**$9,563,925**	**$39,858,282**	**$18,744,893**	**$15,508,722**	**$3,388,595**	**$24,700,733**	**$3,345,273**	**$12,692,516**	**$1,506,677**	**$200,148,974**
Total - Timeframe Summary							**FY 2009-2014:**	**$44,730,661**				**FY 2015-2019:**	**$109,784,519**				**FY 2020-2024:**	**$45,633,794**	

Source: Florida Department of Transportation, District 4

Table E-8

Average Motor Vehicle Fuel Efficiency – Excluding Interstate Travel

Travel Vehicle Miles of Travel (VMT) @			
	22.3	**6.5**	
Other Arterial Rural	320,839,000,000	46,784,000,000	367,623,000,000
Other Rural	302,342,000,000	31,207,000,000	333,549,000,000
Other Urban	1,566,682,000,000	95,483,000,000	1,662,165,000,000
Total	***2,189,863,000,000***	***173,474,000,000***	***2,363,337,000,000***

Percent VMT

@ 22.3 mpg	@ 6.5 mpg
87%	13%
91%	9%
94%	6%
93%	**7%**

Fuel Consumed			
	Gallons @ 22.3 mpg	Gallons @ 6.5 mpg	
Other Arterial Rural	14,387,399,103	7,197,538,462	21,584,937,565
Other Rural	13,557,937,220	4,801,076,923	18,359,014,143
Other Urban	70,254,798,206	14,689,692,308	84,944,490,514
Total	***98,200,134,529***	***26,688,307,693***	***124,888,442,222***

Total Mileage and Fuel	
2,363,337	**miles (millions)**
124,888	**gallons (millions)**
18.92	**mpg**

Source: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2017*, Section V, Table VM-1
Annual Vehicle Distance Traveled in Miles and Related Data - 2017 by Highway Category and Vehicle Type
http://www.fhwa.dot.gov/policyinformation/statistics.cfm

Table E-9

Annual Vehicle Distance Travelled in Miles and Related Data – 2017[1]

By Highway Category and Vehicle Type

Published March 2019 — TABLE VM-1

YEAR	ITEM	LIGHT DUTY VEHICLES SHORT WB[2]	MOTOR-CYCLES	BUSES	LIGHT DUTY VEHICLES LONG WB[2]	SINGLE-UNIT TRUCKS[3]	COMBINATION TRUCKS	SUBTOTALS		ALL MOTOR VEHICLES
								ALL LIGHT VEHICLES[2]	SINGLE-UNIT 2-AXLE 6-TIRE OR MORE AND COMBINATION TRUCKS	
	Motor-Vehicle Travel: (millions of vehicle-miles)									
2017	Interstate Rural	142,445	1,128	1,775	44,928	10,103	52,171	**187,373**	**62,274**	252,550
2017	Other Arterial Rural	228,664	2,661	2,109	92,175	16,814	29,970	**320,839**	**46,784**	372,393
2017	Other Rural	213,923	2,728	1,986	88,419	16,563	14,644	**302,342**	**31,207**	338,262
2017	All Rural	585,032	6,517	5,870	225,522	43,480	96,785	810,554	140,265	963,206
2017	Interstate Urban	400,339	2,596	2,628	99,803	18,617	43,228	**500,142**	**61,844**	567,210
2017	Other Urban	1,235,430	11,036	8,730	331,253	54,006	41,478	**1,566,682**	**95,483**	1,681,932
2017	All Urban	1,635,769	13,632	11,358	431,056	72,622	84,705	2,066,824	157,328	2,249,142
2017	Total Rural and Urban[5]	2,220,801	20,149	17,227	656,578	116,102	181,490	2,877,378	297,593	3,212,347
2017	Number of motor vehicles registered[2]	193,672,370	8,715,204	983,231	56,880,878	9,336,998	2,892,218	250,553,248	12,229,216	272,480,899
2017	Average miles traveled per vehicle	11,467	2,312	17,521	11,543	12,435	62,751	11,484	24,335	11,789
2017	Person-miles of travel[4] (millions)	3,709,919	23,382	365,220	1,106,303	116,102	181,490	4,816,223	297,593	5,502,417
2017	Fuel consumed (thousand gallons)	91,712,165	458,429	2,350,323	37,466,749	15,599,855	30,363,561	129,178,914	45,963,416	177,951,081
2017	Average fuel consumption per vehicle (gallons)	474	53	2,390	659	1,671	10,498	516	3,758	653
2017	Average miles traveled per gallon of fuel consumed	24.2	44.0	7.3	17.5	7.4	6.0	**22.3**	**6.5**	18.1

(1) The FHWA estimates national trends by using State reported Highway Performance and Monitoring System (HPMS) data, fuel consumption data (MF-21 and MF-27), vehicle registration data (MV-1, MV-9, and MV-10), other data such as the R.L. Polk vehicle data, and a host of modeling techniques.

(2) Light Duty Vehicles Short WB - passenger cars, light trucks, vans and sport utility vehicles with a wheelbase (WM) equal to or less than 121 inches. Light Duty Vehicles Long WB - large passenger cars, vans, pickup trucks, and sport/utility vehicles with wheelbases (WB) larger than 121 inches. All Light Duty Vehicles - passenger cars, light trucks, vans and sport utility vehicles regardless of wheelbase.

(3) Single-Unit - single frame trucks that have 2-Axles and at least 6 tires or a gross vehicle weight rating exceeding 10,000 lbs.

(4) Starting with 2009 VM-1, vehicle occupancy is estimated by the FHWA from the 2009 National Household Travel Survey (NHTS) and the annual R.L. Polk Vehicle registration data; For single unit truck and heavy trucks, 1 motor vehicle mile travelled = 1 person-mile traveled.

(5) VMT data are based on the latest HPMS data available; it may not match previous published results.

Appendix F
Multi-Modal Transportation Impact Fee:
Calculated Impact Fee Schedule

Appendix F: MMTIF - Calculated Impact Fee Schedule

This Appendix presents the detailed impact fee calculations for each land use in the Martin County multi-modal transportation impact fee schedule.

Table F-1

Calculated Multi-Modal Transportation Impact Fee Schedule

Equivalent Gasoline Tax						Unit Cost per Lane Mile:	$5,540,000						Interstate/Toll Facility Adjustment Factor:	20.2%				
$$ per gallon to capital:	$0.181		County Revenues:	$0.031		Average PMC per Lane Mile:	18,980						Cost per PMC:	$291.89				
Facility life (years):	25		State Revenues:	$0.150		Fuel Efficiency:	18.92 mpg											
Interest rate:	2.50%					Effectivedays per year:	365											

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Person-Trip Factor	Net PMT	Total Multi-Modal Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Multimodal Fee	Current Impact Fee[2]	% Change
	RESIDENTIAL:																	
210	Single Family (Detached/Attached) - 800 sq ft or less	du	2.84	Appendix C, Table C-7	6.62	7.12	FL Studies	100%	n/a	7.50	1.30	9.75	$2,846	$35	$645	**$2,201**	$2,268	-3%
	Single Family (Detached/Attached) - 801 to 1,100 sq ft	du	4.74	Appendix C, Table C-7	6.62	7.12	FL Studies	100%	n/a	12.52	1.30	16.28	$4,751	$59	$1,087	**$3,664**	$2,293	60%
	Single Family (Detached/Attached) - 1,101 to 2,300 sq ft	du	7.14	Appendix C, Table C-7	6.62	7.12	FL Studies	100%	n/a	18.86	1.30	24.52	$7,156	$89	$1,640	**$5,516**	$2,815	96%
	Single Family (Detached/Attached) - 2,301 sq ft and greater	du	9.34	Appendix C, Table C-7	6.62	7.12	FL Studies	100%	n/a	24.67	1.30	32.07	$9,361	$116	$2,137	**$7,224**	$4,063	78%
220	Multi-Family	du	6.74	ITE 11th Edition	5.21	5.71	FL Studies (LUC 220/221/222)	100%	n/a	14.01	1.30	18.21	$5,317	$67	$1,234	**$4,083**	$2,293	78%
254	Assisted Living	1,000 sf	4.19	ITE 11th Edition	3.08	3.58	Same as LUC 253 (Appendix C)	72%	Same as LUC 253	3.71	1.30	4.82	$1,407	$19	$350	**$1,057**	$283	274%
	LODGING:																	
310	Hotel	room	5.56	Blend ITE 11th & FL Studies	6.26	6.76	FL Studies	66%	FL Studies	9.17	1.30	11.92	$3,478	$43	$792	**$2,686**	$2,159	24%
320	Motel	room	3.35	ITE 11th Edition	4.34	4.84	FL Studies	77%	FL Studies	4.47	1.30	5.81	$1,695	$22	$405	**$1,290**	$2,159	-40%
	RECREATION:																	
411	Public Park	acre	0.78	ITE 11th Edition	5.15	5.65	Same as LUC 710	90%	Based on LUC 710	1.44	1.30	1.87	$547	$7	$129	**$418**	$527	-21%
416	RV Park[3]	site	1.62	ITE 11th Edition (Adjusted)	4.60	5.10	Same as LUC 240	100%	Same as LUC 210	2.97	1.30	3.86	$1,128	$14	$258	**$870**	$1,110	-22%
420	Marina	boat berth	2.41	ITE 11th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	5.73	1.30	7.45	$2,174	$27	$497	**$1,677**	$715	135%
-	Boat Storage	slip	0.64	2007 IF Study	3.06	3.56	2007 IF Study	70%	2007 IF Study	0.55	1.30	0.72	$208	$3	$55	**$153**	$151	1%
430	Golf Course	hole	30.38	ITE 11th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	72.22	1.30	93.89	$27,404	$340	$6,264	**$21,140**	$8,219	157%
445	Movie Theater	1,000 sf	82.30	Blend ITE 11th & FL Studies	2.24	2.74	FL Studies	87%	FL Studies	63.99	1.30	83.19	$24,283	$343	$6,320	**$17,963**	$10,141	77%
491	Racquet/Tennis Club[4]	1,000 sf	19.70	ITE 11th Edition (adjusted)	5.15	5.65	Same as LUC 710	94%	Same as LUC 492	38.05	1.30	49.47	$14,439	$183	$3,372	**$11,067**	$3,152	251%
492	Health/Fitness Club[4]	1,000 sf	34.50	ITE 11th Edition (adjusted)	5.15	5.65	Same as LUC 710	94%	FL Studies	66.64	1.30	86.63	$25,286	$320	$5,896	**$19,390**	$4,610	321%
	INSTITUTIONS:																	
520-525	Elementary/Middle/High School (Private)[5]	1,000 sf	14.07	ITE 10th Edition (LUC 530)	3.31	3.81	50% of LUC 210: Tavel Demand Model	90%	Based on LUC 710	16.72	1.30	21.74	$6,346	$84	$1,548	**$4,798**	$1,695	183%
540	College (Private)[5]	1,000 sf	20.25	ITE 10th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	48.14	1.30	62.58	$18,266	$227	$4,182	**$14,084**	-	-
560	Place of Worship	1,000 sf	7.60	ITE 11th Edition	3.93	4.43	Midpoint of LUC 710 & LUC 820 (App. C)	90%	Based on LUC 710	10.73	1.30	13.95	$4,070	$53	$976	**$3,094**	$1,347	130%
565	Day Care Center	1,000 sf	49.63	Blend ITE 11th & FL Studies	2.03	2.53	FL Studies	73%	FL Studies	29.35	1.30	38.16	$11,135	$160	$2,948	**$8,187**	$2,686	205%
590	Library	1,000 sf	72.05	ITE 11th Edition	6.62	7.12	Same as LUC 210	49%	Estimate Based on Orange County Report	93.25	1.30	121.23	$35,385	$439	$8,088	**$27,297**	$4,675	484%

Table F-1 (continued)

Calculated Multi-Modal Transportation Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Person-Trip Factor	Net PMT	Total Multi-Modal Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Multimodal Fee	Current Impact Fee[2]	% Change
	INSTITUTIONS:																	
732	Post Office	1,000 sf	103.94	ITE 11th Edition	5.15	5.65	Same as LUC 710	49%	Estimate Based on Orange County Report	104.65	1.30	136.05	$39,711	$502	$9,249	**$30,462**	$4,404	592%
	MEDICAL:																	
610	Hospital	1,000 sf	10.77	ITE 11th Edition	6.62	7.12	Same as LUC 210	78%	Midpoint of LUC 310 & LUC 720	22.19	1.30	28.85	$8,420	$104	$1,916	**$6,504**	$2,133	205%
620	Nursing Home	1,000 sf	6.75	ITE 11th Edition	2.59	3.09	FL Studies	89%	FL Studies	6.21	1.30	8.07	$2,356	$32	$590	**$1,766**	$725	144%
	OFFICE:																	
710	Office	1,000 sf	10.84	ITE 11th Edition	5.15	5.65	FL Studies	92%	FL Studies	20.49	1.30	26.64	$7,776	$98	$1,806	**$5,970**	$2,171	175%
720	Medical Office	1,000 sf	23.83	FL Studies	5.55	6.05	FL Studies	89%	FL Studies	46.97	1.30	61.06	$17,821	$224	$4,127	**$13,694**	$5,281	159%
	RETAIL:																	
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	54.45	ITE 11th Edition	1.48	1.98	Appendix C: Fig. C-1 (19k sfgla)	48%	Appendix C: Fig. C-2 (19k sfgla)	15.43	1.30	20.06	$5,856	$90	$1,658	**$4,198**	$4,224	-1%
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	67.52	ITE 11th Edition	1.94	2.44	Appendix C: Fig. C-1 (59k sfgla)	57%	Appendix C: Fig. C-2 (59k sfgla)	29.79	1.30	38.73	$11,304	$164	$3,022	**$8,282**	$4,919	68%
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	37.01	ITE 11th Edition	2.80	3.30	Appendix C: Fig. C-1 (538k sfgla)	75%	Appendix C: Fig. C-2 (538k sfgla)	31.01	1.30	40.31	$11,767	$160	$2,948	**$8,819**	$5,183	70%
840/ 841	New/Used Auto Sales & Service	1,000 sf	24.58	Blend ITE 11th & FL Studies	4.60	5.10	FL Studies	79%	FL Studies	35.64	1.30	46.33	$13,524	$173	$3,187	**$10,337**	$7,071	46%
851	Convenience Store	1,000 sf	739.50	Blend ITE 11th & FL Studies	1.52	2.02	FL Studies	41%	FL Studies	183.88	1.30	239.04	$69,774	$1,069	$19,696	**$50,078**	$13,556	269%
853	Convenience Store w/Gas	1,000 sf	626.25	Blend ITE 10th & FL Studies	1.51	2.01	FL Studies	28%	FL Studies	105.65	1.30	137.35	$40,088	$615	$11,331	**$28,757**	$15,328	88%
880/ 881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	103.86	Blend ITE 11th & FL Studies	2.08	2.58	FL Studies	32%	FL Studies	27.58	1.30	35.85	$10,466	$150	$2,764	**$7,702**	$1,763	337%
	SERVICES:																	
911	Bank/Savings Walk-In[6]	1,000 sf	57.94	ITE 11th Edition (adjusted)	2.46	2.96	Same as LUC 912	46%	Same as LUC 912	26.16	1.30	34.01	$9,927	$138	$2,543	**$7,384**	$6,241	18%
912	Bank/Savings Drive-In	1,000 sf	103.73	Blend ITE 11th & FL Studies	2.46	2.96	FL Studies	46%	FL Studies	46.83	1.30	60.88	$17,772	$247	$4,551	**$13,221**	$6,841	93%
931	Fine Dining Restaurant	1,000 sf	86.03	Blend ITE 11th & FL Studies	3.14	3.64	FL Studies	77%	FL Studies	82.99	1.30	107.89	$31,492	$421	$7,757	**$23,735**	$10,571	125%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	479.17	Blend ITE 11th & FL Studies	2.05	2.55	FL Studies	58%	FL Studies	227.32	1.30	295.52	$86,258	$1,237	$22,791	**$63,467**	$15,693	304%
948	Car Wash[4]	1,000 sf	142.00	ITE 11th Edition (adjusted)	2.18	2.68	Same as LUC 947 (Appendix C)	68%	Same as LUC 947 (Appendix C)	83.99	1.30	109.19	$31,870	$452	$8,328	**$23,542**	$9,570	146%
	INDUSTRIAL:																	
110	General Industrial	1,000 sf	4.87	ITE 11th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	9.21	1.30	11.97	$3,493	$44	$811	**$2,682**	$1,857	44%
140	Manufacturing	1,000 sf	4.75	ITE 11th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	8.98	1.30	11.67	$3,407	$43	$792	**$2,615**	$1,045	150%
150	Warehousing	1,000 sf	1.71	ITE 11th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	3.23	1.30	4.20	$1,227	$16	$295	**$932**	$1,314	-29%
151	Mini-Warehouse	1,000 sf	1.46	Blend ITE 11th & FL Studies	3.51	4.01	Average of LUC 710 & LUC 820 (50k sq ft)	92%	Same as LUC 710	1.88	1.30	2.44	$714	$9	$166	**$548**	$827	-34%

1) Net VMT calculated as ((Trip Generation Rate * Trip Length * % New Trips) * (1-Interstate/Toll Facility Adjustment Factor)/2). This reflects the unit of vehicle-miles of capacity consumed per unit of development and is multiplied by the cost per vehicle
2) Source: Martin County Adopted Impact Fee Schedule. Residential 801-1,100 sf is shown for LUC 220. Office 1,000,000+ sf is shown for LUC 710. Retail <50,000 sf is shown for LUC 822. Retail 50,000-99,999 sf is shown for LUC 821. Retail 100,000-199,999 sf is shown for LUC 820
3) The ITE 11th Edition trip generation rate for PM Peak Hour of Adjacent traffic was adjusted by a factor of 10 to approximate the Daily TGR. Then, the daily TGR was adjusted to reflect the average occupancy rate of 60 percent based on data provided by the Florida Association of RV Parks and Campgrounds
4) The ITE 11th Edition trip generation rate for PM Peak Hour of Adjacent traffic was adjusted by a factor of 10 to approximate the Daily TGR
5) ITE 11th Edition did not include this "per 1,000 sf" measure for schools, so ITE 10th Edition was used
6) The ITE 11th Edition trip generation rate for PM Peak Hour of Adjacent traffic was adjusted by the ratio of Daily to PM Peak Hour for LUC 912 to approximate a daily TGR