Indian River County
Impact Fee Update Study

DRAFT Report
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Attachment 1

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I. Introduction

Indian River County initially implemented a Transportation Impact Fee in 1986 in response to high growth levels. In 2005, the Board of County Commissioners (BCC) approved impact fees for eight additional program areas. The most recent technical study that is the basis of the current impact fee schedules was completed in 2014. Following this study, the County suspended the correction facilities, solid waste, and libraries impact fees. At this time, to comply with the Impact Fee Ordinance requirements and to reflect most recent data, the County is interested in updating impact fee technical studies for the following service areas:

- Public Buildings
- Emergency Services
- Law Enforcement
- Parks & Recreation Facilities
- Transportation
- Educational Facilities

Indian River County has retained Tindale Oliver (TO) to prepare an update study to reflect changes to the cost, credit, and demand components since the 2014 study. In addition, this study includes an update of the "affordable growth" calculations that take into account the existing development's ability to absorb new growth and calculates the level of possible policy discounts without reducing the level of service. This report serves as the technical study to support the calculation of updated impact fees.

Methodology

In developing the County's impact fee program, a consumption-based impact fee methodology is utilized, which is also the County's adopted methodology and is commonly used throughout Florida. 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 with the exception of transportation and educational facilities. In the case of transportation, vehicle-miles of travel is used, and in the case of educational facilities, student generation rates are 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. As such, 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 Standard 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 Economic Opportunity) 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 163.31801 (5)(f), Florida Statutes.
- **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 will operate prospectively. This bill also allowed local governments to waive/reduce impact fees for affordable housing projects without having to offset the associated revenue loss.

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

<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 principle 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.

<u>Impact Fee vs. Tax</u>

- 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, 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.

Authority to Impose Impact Fees in Indian River County

- Indian River County is a non-charter county.
    - A non-charter county derives its authority from the state constitution and statutory sources;
    - A non-charter county may adopt ordinances that are not inconsistent with general law; and
    - A non-charter county may adopt countywide ordinances that do not conflict with municipal ordinances.
- The fiscal burden of providing countywide services must be borne by property owners in both the unincorporated and incorporated areas of the county.

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

As part of this update study, the following land uses were revised/added/removed from the Indian River County's impact fee schedules to reflect the most recent data on demand variables.

Multi-Family Housing

The current transportation impact fee schedule includes "multi-family (apartment) 1-2 stories", "multi-family (apartment) 3+ stories", "residential condominium/townhouse" and "high-rise condominiums" land uses. ITE 10th Edition has realigned these uses, creating a combined "multi-family housing" category, with differentiation in trip generation rate based on the number of

stories. This change is incorporated into the impact fee schedule, shown by Land Use Code (LUC) used by ITE:

- LUC 220 (multi-family, low-rise, 1-2 floors) – includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels (floors).
- LUC 221 (multi-family, mid-rise, 3-10 floors) – includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (floors).

Public Park

The current impact fee schedules include LUC 412, general recreation, which was removed from ITE 10th Edition. In its place, the schedule includes the following:

- LUC 411: Public Park (measured per acre)

Gas Station w/Convenience Market

The current transportation impact fee schedule includes "gas/service station with or without car wash" and "gas/service station with convenience market" land uses. ITE 10th Edition has realigned these uses and added an additional "super" convenience land use, with differentiation in trip generation rate based on the size of the convenience market. This update was incorporated into the impact fee schedule, shown by Land Use Code (LUC) used by ITE:

- LUC 944: Gas Station w/Convenience Market <2,000 sq ft
- LUC 945: Gas Station w/Convenience Market 2,000 to 2,999 sq ft
- LUC 960: Gas Station w/Convenience Market 3,000+ sq ft

This re-alignment eliminates the need for LUC 853 (convenience market w/gasoline) and therefore, this use was removed to simplify the County's impact fee schedule and reduce any potential confusion in terms of classifying new development.

High-Cube Transload & Short-Term Storage Warehouse

The current transportation impact fee schedule includes LUC 152, high-cube warehouse/distribution center, which is removed from ITE 10th Edition. In its place, the schedule will include the following:

- LUC 154: High-Cube Transload & Short-Term Storage Warehouse (measured per 1,000 sq ft)

II. Public Buildings

Public buildings impact fees are used to fund the land purchases and capital construction and expansion of facilities required to support the additional government service demand created by new growth.

There are several major elements associated with the development of the public buildings impact fee. These 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
- Affordable Growth Strategy
- Public Buildings Impact Fee Schedule Comparison

Facility Inventory

The public facilities inventory includes facilities that are primarily for the provision of essential county services such as health, emergency management, court-related and other administrative services, and do not include any of the buildings included in the calculation of other impact fees.

According to information provided by Indian River County, the County has approximately 587,700 square feet of general public facility space. This includes the square footage of both primary and support buildings. Support facilities are defined as trailers, facilities without air-conditioning, or facilities that are unlikely to be occupied by personnel.

Table II-1 shows a summary of the public buildings inventory and the current value of buildings and land. As presented, the inventory includes a total of 434,500 square feet of primary building space and 153,200 square feet of support space.

Building value of the facilities included in the inventory is estimated based on insurance values, building cost trends over the past five years, and cost information obtained from other jurisdictions. This analysis resulted in an estimate cost of $240 per square foot for primary buildings, $100 per square foot for the fleet management facility and transportation bus hub, and $50 per square foot for the parking garage.

In addition to building value, land values were estimated for future land purchases. Land value is determined primarily through a review of the value of parcels where the current public buildings are located, as reported by the Indian River County Property Appraiser, land value trends over the past five years based on Indian River County Property Appraiser estimates, and an analysis of vacant land sales and values in Indian River County. This analysis resulted in an average land value of $100,000 per acre.

Additional information on land and building value estimates is included in Appendix B.

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Table II-1
Public Buildings Inventory

Description	Year Built[1]	Building Square Feet[1]	Acreage[1]	Building Value[2]	Land Value[3]	Total Building and Land Value[4]
Primary Buildings						
New County Admin. Building Complex	2007	177,092	5.71	$42,502,080	$571,000	$43,073,080
Health Department Building	1990	39,130	1.90	$9,391,200	$190,000	$9,581,200
Courthouse - Judicial Complex[5]	1994	116,007	2.17	$27,841,680	$217,000	$28,058,680
Administration Annex	1962	8,400	0.81	$2,016,000	$81,000	$2,097,000
Road & Bridge/Traffic Facilities	Varies	18,350	11.16	$4,404,000	$1,116,000	$5,520,000
Transit Admin. Building	2012	8,171	2.86	$1,961,040	$286,000	$2,247,040
Supervisor of Elections Sub-Annex (43rd Ave)	2006	31,238	5.82	$7,497,120	$582,000	$8,079,120
Emergency Operations Center	2007	16,000	13.38	$3,840,000	$1,338,000	$5,178,000
Old Humane Society Building	1986	n/a	4.77	n/a	$477,000	$477,000
North County Office - Sebastian Corners Retail Center	2002	18,000	2.35	$4,320,000	$235,000	$4,555,000
1612 20th St - Commercial Building	1949	2,100	0.14	$504,000	$14,000	$518,000
Subtotal -- Primary Buildings		***434,488***	***51.07***	***$104,277,120***	***$5,107,000***	***$109,384,120***
Support Buildings						
Go Line Transportation Bus Hub	2017	1,700	1.58	$170,000	$158,000	$328,000
Courthouse - Judicial Complex Parking Garage	1994	135,780	1.49	$6,789,000	$149,000	$6,938,000
Fleet Management Facility	2004	15,673	3.62	$1,567,300	$362,000	$1,929,300
Subtotal -- Support Buildings		***153,153***	***6.69***	***$8,526,300***	***$669,000***	***$9,195,300***
Total - All Buildings		**587,641**	**57.76**	**$112,803,420**	**$5,776,000**	**$118,579,420**
Unit Cost[6]				$192	$100,000	

1) Source: Indian River County
2) For public buildings, a unit cost of $240 per square foot for primary buildings is used, $100 per square foot for the transportation bus hub and fleet management facility, and $50 per square foot for the parking garage. Appendix B provides further detail.
3) Acreage multiplied by land value of $100,000 per acre. Appendix B provides further detail.
4) Sum of building value (Item 2) and land value (Item 3)
5) Excludes square footage associated with Law Library
6) Total building and land value divided by total building square footage and acreage, respectively. See Appendix B for further detail.

Service Area and Population

Indian River County provides general government services throughout the county. As such, the proper benefit district is the entire county. In this technical study, the current 2019 weighted and functional population estimates are used. Because simply using weighted (permanent, plus weighted seasonal) population estimates does not fully address all of the benefactors of 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 county throughout the day and calculates the presence of population at the different land uses during the day. Appendix A provides further detail on the population analysis conducted.

Level of Service

Based on the information provided by the County, Indian River County's 2019 current level of service (LOS) is 2.67 square feet of primary public buildings facilities per weighted seasonal resident. Table II-2 presents the calculation of the achieved LOS and the adopted LOS standard per weighted and functional resident. As shown, the achieved LOS is 2.77 square feet per functional resident, which measures the investment the community has made into public buildings infrastructure. The adopted LOS standard indicates the service level intended in the future. Given that the adopted LOS standard is lower than the achieved LOS, the adopted standard is used for the impact fee calculations.

Table II-2

Current Level of Service (2019)

Variable	Year 2019	
	Weighted Population	Functional Population
Population[(1)]	162,787	156,931
Public Buildings Square Footage (Primary Buildings)[(2)]	434,488	434,488
Achieved LOS (Square footage per Resident)[(3)]	**2.67**	**2.77**
Adopted LOS Standard (Square Footage per Residents)[(4)]	**1.99**	**2.06**

1) Source: Appendix A, Table A-1 for weighted seasonal population and Appendix A, Table A-11 for functional population
2) Source: Table II-1
3) Public buildings square footage (Item 2) divided by the countywide weighted/functional population (Item 1)
4) Source: Capital Improvement Element of the 2030 Indian River County Comprehensive Plan adopted December 4, 2018 for adopted LOS standard per weighted population (1.99). This standard is converted to the LOS standard per functional population by using the ratio of achieved LOS per weighted vs. functional population (Item 3).

Although the LOS is measured in terms of building square feet per population for planning purposes, for impact fee calculation purposes, the LOS is shown as the level of investment or dollar value of capital assets per resident, which reflects the investment made by the community to date. For impact fee calculation purposes, the County's adopted LOS standard is $480 per resident for public buildings. As presented later in this report, the achieved LOS increased to $521 per resident due to the changes in impact fee variables since 2014, which should be reflected in the impact fee ordinance.

Cost Component

The cost component of the study evaluates the cost of capital items, including buildings and land. Table II-3 provides a summary of all capital costs, which amounts to $273 per square foot of primary buildings, and $562 per functional resident.

Table II-3
Total Impact Cost per Functional Resident

Variable	Figure	Percent of Total[8]
Total Building Value[1]	$112,803,420	95%
Total Land Value[2]	$5,776,000	5%
Total Building and Land Value[3]	$118,579,420	100%
Primary Building Square Footage[4]	434,488	
Total Building and Land Value per Square Foot[5]	$272.92	
Adopted LOS Standard - Bldg Sq Ft per Functional Resident[6]	2.06	
Total Impact Cost per Functional Resident[7]	**$562.22**	

1) Source: Table II-1
2) Source: Table II-1
3) Sum of building value (Item 1) and land value (Item 2)
4) Source: Table II-1
5) Total building and land value (Item 3) divided by primary building square footage (Item 4)
6) Source: Table II-2
7) Building and land value per square foot (Item 5) multiplied by building square footage per functional resident (Item 6)
8) Distribution of total cost

Credit Component

To avoid overcharging new development, a review of the funding sources used for public buildings capacity expansion projects is completed. The purpose of this review is to determine

any potential revenue credits generated by new development that are being used for expansion of capital facilities and land. It should be noted that 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

To calculate the capital expansion credit per functional resident, funding sources for capacity projects completed over the past five years and those programmed over the next five years are reviewed. Based on this analysis, a credit for non-impact fee funding is provided in Table II-4, which results in an average annual credit of $2.19 per functional resident.

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Table II-4

Capital Expansion Credit

Description[1]	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Optional Sales Tax:											
Fiberoptics	$187,785	-	-	-	-	$250,000	$150,000	$150,000	$150,000	$150,000	$1,037,785
New Courtroom Facilities	-	-	$31,490	$5,957	-		-	-	-	-	$37,447
North County Offices At Sebastian Corners	-	-	-	$2,109,978	$212,075	-	-	-	-	-	$2,322,053
Total - Public Buildings	**$187,785**	**$0**	**$31,490**	**$2,115,935**	**$212,075**	**$250,000**	**$150,000**	**$150,000**	**$150,000**	**$150,000**	**$3,397,285**
Total Public Buildings Capital Expansion Expenditures per Year[2]											**$339,729**
Average Annual Functional Population[3]											**155,342**
Annual Public Buildings Capital Expansion Credit per Resident[4]											**$2.19**

1) Source: Indian River County
2) Average annual capital expansion expenditures over the ten-year period
3) Source: Appendix A, Table A-11
4) Average annual capital expansion expenditures (Item 2) divided by average annual functional population (Item 3)

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Net Impact Cost

The net impact fee per functional resident is the difference between the cost component and the credit component. Table II-5 presents the calculation of the net public buildings facilities impact cost per functional resident.

The first section of Table II-5 identifies the total impact cost as $562 per functional resident. The second section of the table identifies the capital improvement credits for the public buildings facilities impact fee resulting in approximately $40 per functional resident.

The net impact cost per functional resident is the difference between the total impact cost per functional resident of $562 and the total credit of $40 per functional resident. The result is a net impact cost of $522 per functional resident, which also represents the LOS measure for impact fee calculation purposes.

Table II-5

Net Impact Cost per Functional Resident

Variable	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Functional Resident[(1)]	**$562.22**	
Capital Expansion Credit		
Capital Expenditure per Functional Resident[(2)]		$2.19
Capitalization Rate		2.5%
Capitalization Period (in years)		25
Capital Expansion Credit per Resident[(3)]		**$40.35**
Net Impact Cost		
Net Impact Cost per Functional Resident[(4)]	**$521.87**	

1) Source: Table II-3
2) Source: Table II-4
3) Average annual capital expenditure per functional resident (Item 2) over a capitalization rate of 2.5% for 25 years
4) Total impact cost per functional resident (Item 1) less total capital expansion credit per functional resident (Item 3)

Calculated Public Buildings Impact Fee

Table II-6 presents the calculated public buildings impact fee schedule developed for Indian River County for both residential and non-residential land uses, based on the net impact cost per functional resident previously shown in Table II-5. Changes to the cost and credit components increased the fee by almost 10 percent compared to the 2014 full calculated rates. The remaining changes are due to the fluctuation in the demand component.

Table II-6

Calculated Public Buildings Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient[1]	Calculated Fee[2]	Adopted Fee at 50%/26%[3]	% Change from Adopted to Calculated Fee[4]	2014 Calculated Fee (Full)[5]	% Change from 2014 to 2019 Calculated Fees (Full)[6]
	RESIDENTIAL:							
210	Single Family (detached)							
	- Less than 1,500 sf	du	1.32	**$689**	$344	100.3%	$687	0.3%
	- 1,500 to 2,499 sf	du	1.59	**$830**	$370	124.3%	$739	12.3%
	- 2,500 sf or greater	du	1.78	**$929**	$413	124.9%	$826	12.5%
220	Multi-Family/Accessory Unit	du	0.86	**$449**	$209	114.8%	$418	7.4%
240	Mobile Home/RV (Tied Down)	du	1.03	**$538**	$235	128.9%	$470	14.5%
	TRANSIENT, ASSISTED, GROUP :							
310	Hotel	room	1.01	**$527**	$81	550.6%	$312	68.9%
320	Motel	room	0.84	**$438**	$75	484.0%	$288	52.1%
252/620	Nursing Home/Assisted Care Living Facility (ACLF)	bed	0.99	**$517**	$115	349.6%	$442	17.0%
	OFFICE & FINANCIAL :							
720	Medical Office/Clinic 10,000 sf or less	1,000 sf	1.20	**$626**	$142	340.8%	$547	14.4%
	Medical Office/Clinic greater than 10,000 sf	1,000 sf	1.72	**$898**	$207	333.8%	$797	12.7%
911	Bank/Savings Walk-In	1,000 sf	1.03	**$538**	$279	92.8%	$1,071	-49.8%
912	Bank/Savings Drive-In	1,000 sf	1.49	**$778**	$285	173.0%	$1,095	-28.9%
710	General Office Building	1,000 sf	0.89	**$464**	$125	271.2%	$480	-3.3%
760	Research & Development Center	1,000 sf	1.03	**$538**	$106	407.5%	$408	31.9%
	INDUSTRIAL :							
140	Manufacturing	1,000 sf	0.46	**$240**	$63	281.0%	$240	0.0%
150	Warehousing	1,000 sf	0.11	**$57**	$35	62.9%	$134	-57.5%
151	Mini-Warehouse	1,000 sf	0.04	**$21**	$8	162.5%	$29	-27.6%
152	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	0.09	**$47**	$18	161.1%	$67	-29.9%
110	General Light Industrial	1,000 sf	0.50	**$261**	$86	203.5%	$331	-21.1%
n/a	Concrete Plant	acre	1.56	**$814**	$194	319.6%	$744	9.4%
n/a	Sand Mining	acre	0.20	**$104**	$25	316.0%	$96	8.3%
	RETAIL :							
820	Shopping Center/Retail	1,000 sfgla	1.51	**$788**	$296	166.2%	$1,138	-30.8%
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	1.46	**$762**	$239	218.8%	$917	-16.9%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	1.78	**$929**	$239	288.7%	$917	1.3%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	2.02	**$1,054**	$239	341.0%	$917	14.9%
840/841	New/Used Auto Sales	1,000 sf	1.57	**$819**	$184	345.1%	$706	16.0%
932	Restaurant	1,000 sf	5.57	**$2,907**	$847	243.2%	$3,255	-10.7%
934	Fast Food Rest w/Drive-Thru	1,000 sf	9.70	**$5,062**	$1,111	355.6%	$4,273	18.5%
850	Supermarket	1,000 sf	2.41	**$1,258**	$256	391.4%	$984	27.8%
942	Automobile Care Center	1,000 sf	1.67	**$872**	$187	366.3%	$720	21.1%
947	Self-Service Car Wash	service bay	0.96	**$501**	$109	359.6%	$418	19.9%
890	Furniture Store	1,000 sf	0.32	**$167**	$29	475.9%	$110	51.8%
	RECREATIONAL :							
430	Golf Course	hole	0.84	**$438**	$135	224.4%	$518	-15.4%
492	Racquet Ball/Health Club/Dance Studio	1,000 sf	2.41	**$1,258**	$386	225.9%	$1,483	-15.2%
412	Public Park	acre	0.05	**$26**	$25	4.0%	$96	-72.9%
491	Tennis Court	court	1.40	**$731**	$395	85.1%	$1,517	-51.8%
420	Marina	berth	0.13	**$68**	$24	183.3%	$91	-25.3%

Table II-6 (continued)

Calculated Public Buildings Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient[1]	Calculated Fee[2]	Adopted Fee at 50%/26%[3]	% Change from Adopted to Calculated Fee[4]	2014 Calculated Fee (Full)[5]	% Change from 2014 to 2019 Calculated Fees (Full)[6]
	GOVERNMENTAL :							
732	Post Office	1,000 sf	1.56	**$814**	$203	301.0%	$778	4.6%
590	Library	1,000 sf	2.62	**$1,367**	$220	521.4%	$845	61.8%
571	Jail	bed	0.17	**$89**	$174	-48.9%	$667	-86.7%
	MISCELLANEOUS :							
565	Day Care Center	1,000 sf	0.81	**$423**	$111	281.1%	$427	-0.9%
610	Hospital	1,000 sf	1.29	**$673**	$171	293.6%	$658	2.3%
640	Veterinary Clinic	1,000 sf	1.41	**$736**	$317	132.2%	$1,219	-39.6%
560	Church	1,000 sf	0.37	**$193**	$64	201.6%	$245	-21.2%
444	Movie Theater w/Matinee	screen	5.19	**$2,709**	$747	262.7%	$2,871	-5.6%
520	Elementary School (Private, K-5)	student	0.08	**$42**	$8	425.0%	$29	44.8%
522	Middle School (Private, 6-8)	student	0.09	**$47**	$9	422.2%	$34	38.2%
530	High School (Private, 9-12)	student	0.09	**$47**	$10	370.0%	$38	23.7%
540/550	University/Junior College with 7,500 or fewer students	student	0.10	**$52**	$13	300.0%	$48	8.3%
575	Fire & Rescue Station	1,000 sf	0.42	**$219**	$79	177.2%	$302	-27.5%

1) Source: Appendix A, Table A-12 for residential and transient land uses and Appendix A, Table A-15 for non-residential land uses
2) Calculated impact fee determined by multiplying the net impact cost per functional resident (Table II-5) by the functional resident coefficient (Item 1) for each land use
3) Source: Indian River County Planning Division. Residential fees were adopted at 50% and non-residential fees were adopted at 26% of the full calculated rate. Fees shown do not include administrative fee.
4) Percent change from the adopted impact fee rate (Item 3) to the calculated fee (Item 2)
5) Source: *Indian River County Impact Fee Update, Final Report, September 26, 2014*. Rates shown do not include administrative fee.
6) Percent change from the 2014 full impact fee rate (Item 5) to the calculated impact fee (Item 2)

Affordable Growth Strategy

Based on the data shown in Table II-4, the County is using an average of $340,000 per year of sales tax revenues. During the next 25 years, Indian River County is expected to grow at an average annual rate of 1.3 percent countywide. Although the County may charge the maximum amount of public buildings impact fee calculated, if the historical and programmed levels of non-impact fee funding were to be continued, the County could adopt the impact fee at approximately 80 percent for all land uses and continue to maintain the adopted LOS standard used in the calculations. If the County decides to charge the residential land uses at 92 percent, the fees for non-residential land uses could be eliminated while maintaining the adopted LOS standard. These calculations assume that the sales tax will continue to be available over the next 25 years. If available revenue sources for public buildings capital projects change significantly, these calculations need to be revised. Finally, the level of discount is a policy decision and could be at any level between the levels calculated in this section and 100 percent and still maintain the adopted LOS standard.

Public Buildings Impact Fee Schedule Comparison

As part of the work effort in developing Indian River County's public buildings impact fee schedule, the County's calculated and adopted impact fee schedules were compared to the adopted fee schedules of nearby jurisdictions or those with similar population levels. Table II-7 presents this comparison.

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Table II-7

Public Buildings Impact Fee Schedule Comparison

Land Use	Unit[2]	Indian River County			Charlotte County[6]	Citrus County[7]	Collier County[8]	Hernando County[9]	Martin County[10]	St. Johns County[11]	St. Lucie County[12]
		Calculated Fee[3]	Adopted Fee[4]	2014 Calculated Fee (Full)[5]							
Date of Last Update		2019	2014	2014	2014	2014	2016	2005	2012	2018	2017
Assessed Portion of Calculated[1]		N/A	50%/26%	100%	49%	100%	100%	100%	100%	100%	100%
Residential:											
Single Family (2,000 sf)	du	$830	$370	$739	$360	$250	$934	$466	$646	$687	$351
Non-Residential:											
Light Industrial	1,000 sf	$261	$86	$331	$175	$54	$359	$168	$182	$194	$71
Office (50,000 sq ft)	1,000 sf	$464	$125	$480	$301	$142	$620	$335	$316	$588	$311
Retail (125,000 sq ft)	1,000 sfgla	$788	$296	$1,138	$537	$302	$1,275	$651	$551	$1,130	$527
Bank w/Drive-Thru	1,000 sf	$778	$285	$1,095	$578	$302	$1,187	$651	$554	$419	$458
Fast Food w/Drive-Thru	1,000 sf	$5,062	$1,111	$4,273	$2,254	$302	$4,633	$1,012	$2,482	$980	$458

1) Represents the portion of the maximum calculated fee for each respective County that was adopted. Fees may have been lowered/increased through annual indexing or policy discounts.
2) du= dwelling unit
3) Source: Table II-6
4) 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
5) Source: *Indian River County Impact Fee Update, Final Report, September 26, 2014*
6) Source: Charlotte County Community Development Department
7) Source: Citrus County Growth Management Department
8) Source: Collier County Growth Management Department
9) Source: Hernando County Zoning Division
10) Source: Martin County Growth Management Department
11) Source: St. Johns County Growth Management Department. Fees are indexed annually
12) Source: St. Lucie County planning and development services department. Fees are indexed annually using CPI

III. Emergency Services

This section provides the results of the Emergency Services impact fee analysis. Several elements addressed in this section include:

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Emergency Services Impact Cost
- Calculated Emergency Services Impact Fee Schedule
- Affordable Growth Strategy
- Emergency Services Impact Fee Schedule Comparison

These elements are summarized in the remainder of this section.

Facility Inventory

Table III-1 presents the buildings and land inventory associated with the Emergency Services for Indian River County. The County currently has a total of 15 fire/EMS stations. The value of buildings and land are based on recent construction and estimates for future stations, insurance values of the existing facilities, land value of parcels where existing stations/buildings are located, vacant land sales and values of parcels with similar characteristics, and information obtained from other jurisdictions.

As shown, the total building value amounts to approximately $29.5 million. The building values are estimated at $300 per square foot for fire stations and $150 per square foot for Training Tower and temporary stations. The land value is estimated at $100,000 per acre, which results in a total land value of $3.8 million. Using these cost estimates results in a total building and land value of $33.2 million. A more detailed explanation of building and land value estimates is included in Appendix B.

Table III-1

Emergency Services Buildings and Land Inventory

Fire Station 1[5]	1500 Old Dixie Hwy, Vero Beach, FL 32960	1986	n/a	10,418	$3,125,400	n/a	$3,125,400
Fire Station 2	3301 Bridge Plaza Dr, Vero Beach, FL 32963	2007	0.92	8,436	$2,530,800	$92,000	$2,622,800
Fire Station 3	2900 43rd Ave, Vero Beach, FL 32960	2007	2.72	9,275	$2,782,500	$272,000	$3,054,500
Fire Station 4	1500 9th St SW, Vero Beach, FL 32962	2007	2.18	7,440	$2,232,000	$218,000	$2,450,000
Fire Station 5	6580 Old Dixie Hwy, Vero Beach, FL 32967	2007	2.44	7,533	$2,259,900	$244,000	$2,503,900
Fire Station 6	101 South A1A, Vero Beach, FL 32963	1986	2.20	3,080	$924,000	$220,000	$1,144,000
Fire Station 7 (Temp)[5]	1891 90th Ave, Vero Beach, Fl 32966	2015	n/a	1,440	$216,000	n/a	$216,000
Fire Station 8	1115 Barber St, Sebastian, FL 32958	1999	1.00	6,243	$1,872,900	$100,000	$1,972,900
Fire Station 9	1640 US 1, Sebastian, FL 32958	2009	7.05	7,386	$2,215,800	$705,000	$2,920,800
Fire Station 10	62 North Broadway, Fellsmere, FL 32948	1996	0.48	5,520	$1,656,000	$48,000	$1,704,000
Fire Station 11	2555 93rd St, Vero Beach, FL 32963	2001	1.51	6,976	$2,092,800	$151,000	$2,243,800
Fire Station 12	3620 49th St, Vero Beach, FL 32967	2009	4.00	7,386	$2,215,800	$400,000	$2,615,800
Fire Station 13	4330 4th St, Vero Beach, FL 32968	2015	3.21	7,416	$2,224,800	$321,000	$2,545,800
Fire Station 14	6780 26th St, Vero Beach, Fl 32966	2017	9.40	8,436	$2,530,800	$940,000	$3,470,800
Fire Station 15 (Temp)	9470 County Road 512, Sebastion, Fl 32958	2015	0.50	1,440	$216,000	$50,000	$266,000
Training Tower[6]	4225 43rd Avenue, Vero Beach, FL 32967	2008	n/a	2,604	$390,600	n/a	$390,600
Total			**37.61**	**101,029**	**$29,486,100**	**$3,761,000**	**$33,247,100**
Building Value per Square Foot[7]					**$292**		
Land Value per Acre[8]						**$100,000**	

1) Source: Indian River County
2) Building square feet multiplied by $300 for fire station and $150 per square foot for Training Tower and temporary stations. Appendix B provides further detail.
3) Number of acres multiplied by land value per acre (Item 8)
4) Sum of building value (Item 2) and land value (Items 3)
5) The county does not own but leases land. As such, it is not included in the inventory.
6) Land associated with the building is included in the inventory of public buildings, as part of the Emergency Operations Center.
7) Total building value (Item 2) divided by total square footage.
8) Land value is estimated at $100,000 per acre. Appendix B provides further detail.

Vehicle and Equipment Inventory

In addition to land and buildings, the Indian River County emergency services inventory includes the necessary vehicles and equipment required to perform its services. As presented in Table III-2, the total vehicle cost is approximately $25.3 million. Table III-3 presents the equipment inventory and related costs for Indian River County, which amounts to approximately $5.1 million.

Table III-2
Vehicle Inventory Values

Description	Units[1]	Unit Cost[1]	Total Value[2]
Ladder Truck	2	$1,300,000	$2,600,000
Quint	2	$850,000	$1,700,000
Brush Truck	8	$225,000	$1,800,000
Dive Rescue Unit	1	$175,000	$175,000
3,000 Gallon Tanker Truck	1	$350,000	$350,000
Hazardous Materials Vehicle	1	$300,000	$300,000
Marine Fire Boat	1	$150,000	$150,000
Rigid Hull Inflatable Boat	1	$40,000	$40,000
Fire Engine	18	$600,000	$10,800,000
Ambulance	19	$350,000	$6,650,000
Staff Vehicles	24	$30,000	$720,000
Total			**$25,285,000**

1) Source: Indian River County
2) Units multiplied by unit cost

Table III-3

Equipment Inventory Values

Description	Total Units[1]	Unit Cost[1]	Total Value[2]
Turnout Gear	290	$3,500	$1,015,000
Lifepack	34	$32,000	$1,088,000
Radio (portable)	130	$4,000	$520,000
Radio (vehicle)	80	$5,500	$440,000
Stretcher	15	$18,500	$277,500
Thermal Imager	15	$10,205	$153,075
MSA	135	$6,250	$843,750
Airbag	15	$3,835	$57,525
Spreader, Cutter	22	$31,200	$686,400
K12	20	$1,433	$28,660
Suction Unit	15	$1,000	$15,000
Total			**$5,124,910**

1) Source: Indian River County
2) Unit cost multiplied by total units

Service Area and Population

Emergency services are provided by the County in the unincorporated areas and most municipalities. The Town of Indian River Shores, however, maintains its own fire department. Therefore, the proper benefit district for emergency services is the entire county excluding the Town of Indian River Shores. For impact fee calculations, the current 2019 countywide functional population estimate, excluding Indian River Shores, is used, which is provided in Appendix A, Table A-11. Because simply using weighted (permanent plus weighted seasonal) population estimates does not fully address all the benefactors of emergency 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 county throughout the day and calculates the presence of population at different land uses during the day. Appendix A provides further explanation of the population analysis conducted.

Level of Service

Typically, level of service for emergency services is expressed in terms of stations per 1,000 residents. Using this method, Indian River County's current level of service (LOS) is 1 station per 10,548 residents or 0.095 stations per 1,000 residents. The County's adopted LOS standard is

0.089 stations per 1,000 residents. Since the adopted LOS standard is lower than the achieved LOS, the adopted LOS standard is used in the impact fee calculations. As mentioned previously, LOS needs to be measured using functional population to capture all residents, workers, and visitors that benefit from emergency services. In terms of functional population, current achieved LOS is calculated at 0.098 stations per 1,000 functional residents and the adopted LOS standard at 0.092 stations per 1,000 functional population.

Table III-4
Current Level of Service (2019)

Variable	Year 2019	
	Weighted Population	Functional Population
Population[1]	158,218	153,430
Number of Stations[2]	15	15
Population per Station[3]	10,548	10,229
LOS (Stations per 1,000 Residents)[4]	**0.095**	**0.098**
Adopted LOSS (Stations per 1,000 Residents)[5]	**0.089**	**0.092**

1) Source: Appendix A, Table A-1 for weighted seasonal population and Appendix A, Table A-11 for functional population
2) Source: Table III-1
3) Population (Item 1) divided by the number of fire stations (Item 2)
4) Number of stations (Item 2) divided by the population (Item 1) multiplied by 1,000
5) Source: Adopted LOS standard of 0.089 per weighted population is from Capital Improvement Element of the 2030 Indian River County Comprehensive Plan adopted on December 4, 2018. This standard is converted to the LOS standard per functional population by using the ratio of achieved LOS per weighted vs. functional population (Item 4).

Although the LOS is measured in terms of stations per population for planning purposes, for impact fee calculation purposes, the LOS is shown as the level of investment or dollar value of capital assets per resident, which reflects the investment made by the community to date. For impact fee calculation purposes, the County's adopted LOS standard is $201 per resident for emergency services facilities and equipment. As presented later in this report, this LOS decreased to $173 per resident for residential land uses and $190 per resident for non-residential land uses due to the changes in impact fee variables since 2014, which should be reflected in the impact fee ordinance.

Table III-5 compares the levels of service for other Florida counties as well as the state of Florida. The LOS is displayed in terms of permanent population for 2018 for the service area of all entities.

Table III-5
Level of Service Comparison (2018)

Jurisdiction	Service Area Population (2018)[1]	Number of Stations[2]	Residents per Station[3]	LOS (Stations) per 1,000 Residents)[4]
St.Lucie County	302,432	17	17,790	0.056
Osceola County	233,608	17	13,742	0.073
Citrus County	135,008	11	12,273	0.081
St. Johns County	218,006	18	12,111	0.083
Okeechobee County	35,559	3	11,853	0.084
Martin County	129,357	11	11,760	0.085
Hernando County	185,604	16	11,600	0.086
Charlotte County	177,987	16	11,124	0.090
Collier County	329,501	30	10,983	0.091
Indian River County	**147,617**	**15**	**9,841**	**0.102**
Brevard County	217,902	33	6,603	0.151
Highlands County	102,525	21	4,882	0.205

1) Source: BEBR April 1, 2018 Final Population Estimates
2) Source: County websites and the US Fire Administration; National Fire Department Census
3) Service area population (Item 1) divided by the number of station (Item 2)
4) Number of stations (Item 2) divided by the service area population (Item 1) multiplied by 1,000

Cost Component

Table III-6 summarizes the total current value of land, buildings, and equipment for emergency services, including:

- Fifteen stations with a total asset value of $33.2 million for buildings and land, and $30.4 million for vehicles and equipment, for a total asset value of $63.7 million; and
- An average value of $4.2 million per station.

In addition, Table III-6 presents the total impact cost per functional resident for emergency services in Indian River County, which is calculated by multiplying the net asset value per station by the LOS (stations per 1,000 functional residents) and dividing that figure by 1,000. The total impact cost for emergency services provided by the County is $390 per functional resident.

Table III-6

Total Impact Cost per Functional Resident

Variable	Figure	Percent of Total[9]
Building Value[1]	$29,486,100	46%
Land Value[2]	$3,761,000	6%
Vehicle Value[3]	$25,285,000	40%
Equipment Value[4]	$5,124,910	8%
Total Asset Value	**$63,657,010**	**100%**
Number of Stations[5]	15	
Cost per Station[6]	**$4,243,801**	
Adopted LOS Standard[7]	0.092	
Total Impact Cost per Functional Resident[8]	**$390.43**	

1) Source: Table III-1
2) Source: Table III-1
3) Source: Table III-2
4) Source: Table III-3
5) Source: Table III-1
6) Total asset value divided by the number of stations (Item 5)
7) Source: Table III-4
8) Cost per station (Item 6) multiplied by the LOS (Item 7) divided by 1,000
9) Distribution of cost

Credit Component

To avoid overcharging new development for the emergency services impact fee, a review of the capital funding program for emergency services was completed. The purpose of this review was to determine any potential revenue credits generated by new development that are being used for expansion of capital facilities, land, vehicles, and equipment included in the inventory. It should be noted that the credit component does not include any capital renovation, maintenance, or operations expenses, as these types of expenditures cannot be funded with impact fee revenue.

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. During the time period from 2014 through 2023, the County has allocated an average annual non-impact fee funding of $1.7 million toward fire/emergency services capital facilities through the Emergency Services District Fund and Optional Sales Tax Revenues. The annual capital expansion

expenditures were divided by the average functional residents for the same time period in order to calculate the average capital expansion credit per functional resident. As presented in Table III-7, the result is an average annual expansion credit of $11 per functional resident.

According to the County's CIP, 81 percent of the Emergency Services District Fund's source revenue is from ad valorem taxes. Therefore, an adjustment factor was applied to account for the fact that new homes tend to pay higher property taxes per dwelling unit. The adjustment factor is estimated based on the average taxable value of new homes built over the past five years to that of all homes. As presented, in the case of residential land uses, the total adjusted revenue credit per functional resident resulted in $12.

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Table III-7

Capital Expansion Credit

Description[1]	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Emergency Services District Fund											
Automotive: Med Unit - Additional	-	-	-	-	$281,803	-	-	-	-	-	**$281,803**
Automotive: Fire Engine - Additional	-	-	-	$507,227	$509,727	-	-	-	-	-	**$1,016,954**
Emergency Services Station 15	-	-	$840	$90,733	-	-	$2,225,000	-	-	-	**$2,316,573**
Emergency Svcs Station 7 Property	-	-	-	-	-	$1,000,000	-	-	-	-	**$1,000,000**
Fire Station #13	-$284,386	$1,525,954	$23,417	-	-	-	-	-	-	-	**$1,264,984**
HazMat Truck	-	-	-	-	-	$150,000	-	-	-	-	**$150,000**
Subtotal	-$284,386	$1,525,954	$24,257	$597,960	$791,530	$1,150,000	$2,225,000	$0	$0	$0	**$6,030,314**
Optional Sales Tax Revenues											
Ambulance Med Unit	-	-	-	-	-	$350,000	-	-	-	-	**$350,000**
Fire Pumper		-	-	-	-	-	-	-	-	$550,000	**$550,000**
Tanker		-	-	-	-	-	-	$350,000	-	-	**$350,000**
800 MHz Upgrade	-	-	-	$2,059,794	$1,689,683	$1,500,000	$1,500,000	-	-	$250,000	**$6,999,477**
Fire Station #14		-	-	$880,383	$740,398	-	-	-	-	-	**$1,620,781**
Station 15 Property	-	-	-	-	-	$618,635	-	-	-	-	**$618,635**
Subtotal	$0	$0	$0	$2,940,178		$2,468,635	$1,500,000	$350,000	$0	$800,000	**$10,488,894**
Total Capital Expansion Expenditures	**-$284,386**	**$1,525,954**	**$24,257**	**$3,538,138**	**$791,530**	**$3,618,635**	**$3,725,000**	**$350,000**	**$0**	**$800,000**	**$16,519,208**
Total Emergency Services Expansion Expenditures per Year[2]											$1,651,921
Average Annual Functional Population[3]											151,920
Capital Expansion Credit per Functional Resident[4]											$10.87
Portion Funded with Ad Valorem Tax Revenues[5]											$3.17
Portion Funded with Non-Ad Valorem Revenues[6]											$7.70
Credit Adjustment Factor[7]											1.30
Adjusted Capital Expansion Credit per Resident (Ad Valorem Portion Only)[8]											$4.12
Total Adjusted Capital Expansion Credit per Resident[9]											**$11.82**

1) Source: Indian River County
2) Average annual capital expansion expenditures over the 10-year period
3) Source: Appendix A, Table A-11
4) Average annual capital expansion expenditures (Item 2) divided by the average annual functional population (Item 3)
5) Portion of total capital expansion expenditures funded by ad valorem tax revenues (80% of Emergency Services District Fund)
6) Total capital expansion credit per functional resident (Item 4) less portion funded with ad valorem tax revenue (Item 5)
7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
8) Capital expansion expenditures per resident funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor (Item 7)
9) Sum of the adjusted capital expansion credit per functional resident (Item 8) and the portion funded with other sources (Item 6)

Net Impact Cost

Table III-8 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 $173 per resident for residential land uses and $190 per resident for non-residential land uses, which also represent the relevant LOS measure for impact fee calculation purposes.

Table III-8
Net Impact Cost

Variable	Impact Cost	Revenue Credits
Impact Cost [1]		
Total Impact Cost per Functional Resident	**$390.43**	
Capital Expansion Credit		
Capital Expenditure per Resident[2]		
-Residential Land Uses		$11.82
-Non-Residential Land Uses		$10.87
Capitalization Rate		2.5%
Capitalization Period (in years)		25
Total Capital Expansion Credit per Resident:[3]		
Capital Expansion Credit - Residential Land Use		**$217.78**
Capital Expansion Credit - Non-Residential Land Use		**$200.27**
Net Impact Cost [4]		
-Residential Land Uses	**$172.65**	
-Non-Residential Land Uses	**$190.16**	

1) Source: Table III-6
2) Source: Table III-7
3) Average annual capital expenditure credit (Item 2) for a capitalization rate of 2.5% over 25 years
4) Total impact cost (Item 1) less total capital expansion credit (Item 3)

Calculated Emergency Services Impact Fee Schedule

Table III-9 presents the calculated emergency services impact fee schedule developed for Indian River County for both residential and non-residential land uses, based on the net impact cost per functional resident previously presented in Table III-8. Changes to the cost and credit components resulted in a decrease of approximately 15 percent for residential land uses and 5 percent decrease for non-residential land uses. All other fluctuations are due to the changes in the demand component.

Table III-9

Calculated Emergency Services Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient[1]	Calculated Fee[2]	Adopted Fee[3]	Percent Change[4]
	RESIDENTIAL:					
210	Single Family (detached)					
	- Less than 1,500 sf	du	1.34	**$231**	$290	-20.3%
	- 1,500 to 2,499 sf	du	1.61	**$278**	$314	-11.5%
	- 2,500 sf or greater	du	1.81	**$312**	$348	-10.3%
220	Multi-Family/Accessory Unit	du	0.88	**$152**	$181	-16.0%
240	Mobile Home/RV (Tied Down)	du	1.03	**$178**	$197	-9.6%
	TRANSIENT, ASSISTED, GROUP:					
310	Hotel	room	1.01	**$192**	$131	46.6%
320	Motel	room	0.84	**$160**	$121	32.2%
252/260	Nursing Home/Assisted Care Living Facility (ACLF)	bed	0.99	**$188**	$185	1.6%
	OFFICE & FINANCIAL:					
720	Medical Office/Clinic 10,000 sf or less	1,000 sf	1.20	**$228**	$229	-0.4%
	Medical Office/Clinic greater than 10,000 sf	1,000 sf	1.72	**$327**	$334	-2.1%
911	Bank/Savings Walk-In	1,000 sf	1.03	**$196**	$449	-56.3%
912	Bank/Savings Drive-In	1,000 sf	1.49	**$283**	$459	-38.3%
710	General Office Building	1,000 sf	0.89	**$169**	$201	-15.9%
760	Research & Development Center	1,000 sf	1.03	**$196**	$171	14.6%
	INDUSTRIAL:					
140	Manufacturing	1,000 sf	0.46	**$87**	$101	-13.9%
150	Warehousing	1,000 sf	0.11	**$21**	$56	-62.5%
151	Mini-Warehouse	1,000 sf	0.04	**$8**	$12	-33.3%
154	High-Cube Transload and Short-Term Storage	1,000 sf	0.09	**$17**	$28	-39.3%
110	General Light Industrial	1,000 sf	0.50	**$95**	$139	-31.7%
n/a	Concrete Plant	acre	1.56	**$297**	$312	-4.8%
n/a	Sand Mining	acre	0.20	**$38**	$40	-5.0%
	RETAIL:					
820	Shopping Center/Retail	1,000 sfgla	1.51	**$287**	$477	-39.8%
944	Gas Station w/Convenience Market <2,000 sf	fuel pos.	1.46	**$278**	$385	-27.8%
945	Gas Station w/Convenience Market 2,000-2,999 sf	fuel pos.	1.78	**$338**	$385	-12.2%
960	Gas Station w/Convenience Market 3,000+ sf	fuel pos.	2.02	**$384**	$385	-0.3%
840/841	New/Used Auto Sales	1,000 sf	1.57	**$299**	$296	1.0%
932	Restaurant	1,000 sf	5.57	**$1,059**	$1,365	-22.4%
934	Fast Food Rest w/Drive-Thru	1,000 sf	9.70	**$1,845**	$1,792	3.0%
850	Supermarket	1,000 sf	2.41	**$458**	$413	10.9%
942	Automobile Care Center	1,000 sf	1.67	**$318**	$302	5.3%
947	Self-Service Car Wash	service bay	0.96	**$183**	$175	4.6%
890	Furniture Store	1,000 sf	0.32	**$61**	$46	32.6%
	RECREATIONAL:					
430	Golf Course	hole	0.84	**$160**	$217	-26.3%
492	Racquet Ball/Health Club/Dance Studio	1,000 sf	2.41	**$458**	$622	-26.4%
412	Public Park	acre	0.05	**$10**	$40	-75.0%
491	Tennis Court	court	1.40	**$266**	$636	-58.2%
420	Marina	berth	0.13	**$25**	$38	-34.2%
	GOVERNMENTAL:					
732	Post Office	1,000 sf	1.56	**$297**	$326	-8.9%
590	Library	1,000 sf	2.62	**$498**	$354	40.7%
733	Government Office Complex	1,000 sf	1.25	**$238**	$280	-15.0%
571	Jail	bed	0.17	**$32**	$175	-81.7%

Table III-9 (continued)

Calculated Emergency Services Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient[1]	Calculated Fee[2]	Adopted Fee[3]	Percent Change[4]
	MISCELLANEOUS:					
565	Day Care Center	1,000 sf	0.81	**$154**	$179	-14.0%
610	Hospital	1,000 sf	1.29	**$245**	$276	-11.2%
640	Veterinary Clinic	1,000 sf	1.41	**$268**	$511	-47.6%
560	Church	1,000 sf	0.37	**$70**	$103	-32.0%
444	Movie Theater w/Matinee	screen	5.19	**$987**	$1,204	-18.0%
520	Elementary School (Private, K-5)	student	0.08	**$15**	$12	25.0%
522	Middle School (Private, 6-8)	student	0.09	**$17**	$14	21.4%
530	High School (Private, 9-12)	student	0.09	**$17**	$16	6.3%
540/550	University/Junior College with 7,500 or fewer stude	student	0.10	**$19**	$20	-5.0%

1) Source: Appendix A, Table A-14 for residential land uses and Appendix A, Table A-15 for non-residential land uses
2) Calculated impact fee determined by multiplying the net impact cost per functional resident (Table III-8) by the functional resident coefficient (Item 1) for each land use
3) Source: Indian River County Planning Division. Rates shown do not include administrative fee
4) Percent change from the adopted impact fee rate (Item 3) to the calculated fee (Item 2)

Affordable Growth Strategy

Based on the data shown in Table III-7, the County is using an average of $1.65 million per year of Emergency Services District Fund and sales tax revenues. During the next 25 years, Indian River County is expected to grow at an average annual rate of 1.3 percent countywide, excluding Indian River Shores. Although the County may charge the maximum amount of emergency services impact fee calculated, if the historical and programmed levels of non-impact fee funding were to be continued, the County could stop collecting this fee completely and continue to maintain the LOS used in the calculations. These calculations assume that the sales tax will continue to be available over the next 25 years. If available revenue sources for emergency services capital projects change significantly, these calculations need to be revised. Finally, the level of discount is a policy decision and could be at any level between the minimum levels calculated in this section and 100 percent and still maintain the adopted LOS standard.

Emergency Services Impact Fee Schedule Comparison

As part of the work effort in developing the Indian River County's emergency services impact fee schedule, the County's calculated and adopted impact fee schedules were compared to the adopted fee schedules of nearby jurisdictions or those with similar population levels. Table III-10 presents this comparison.

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Table III-10

Emergency Services Impact Fee Schedule Comparison

Land Use	Unit[2]	Indian River County		Charlotte County[5]	Citrus County[6]	Collier County[7]	Hernando County[8]	Highlands County[9]	Martin County[10]	Osceola County[11]	St. Johns County[12]	St. Lucie County[13]	Brevard County[14]
		Calculated Fee[3]	Adopted Fee[4]										
Date of Last Update		2019	2014	2014	2014	2010/2016	2005	2006	2012	2017	2018	2016	2000
Adoption percentage[1]		N/A	100%	49%	100%	100%	100%	25%	100%	100%	100%	100%	100%
Residential:													
Single Family (2,000 sf)	du	$278	$314	$275	$391	$1,252	$235	$190	$599	$391	$598	$642	$93
Non-Residential:													
Light Industrial	1,000 sf	$95	$139	$126	$84	$433	$84	$83	$12	$43	$14	$73	N/A
Office (50,000 sq ft)	1,000 sf	$169	$201	$218	$222	$519	$171	$200	$80	$267	$176	$643	$44
Retail (125,000 sq ft)	1,000 sfgla	$287	$477	$388	$471	$716	$334	$280	$319	$543	$101	$516	$129
Bank w/Drive-Thru	1,000 sf	$283	$459	$417	$471	$706	$328	$284	$309	$543	$38	$516	$105
Fast Food w/Drive-Thru	1,000 sf	$1,845	$1,792	$1,627	$471	$1,841	$510	$1,079	$575	$2,623	$88	$516	$552

1) Represents the portion of the maximum calculated fee for each respective county that was adopted. Fees may have been lowered/increased through annual indexing or policy discounts. Does not account for moratoriums/suspensions.
2) du = dwelling unit
3) Source: Table III-9
4) Source: Indian River County Planning Division.
5) Source: Charlotte County Community Development Department.
6) Source: Citrus County Growth Management Department.
7) Source: Collier County Impact Fee Administration Department. Fees shown include the EMS fee and an average fire fee across all districts
8) Source: Hernando County Planning & Development Department.
9) Source: Highlands County Code of Ordinances, Section 13-28; IF moratorium in effect.
10) Source: Martin County Growth Management Department. No EMS fee
11) Source: Osceola County Community Development Department. No EMS fee
12) Source: St. Johns County Growth Management Department. Fees are indexed annually. No EMS fee
13) Source: St. Lucie County Planning & Development Services Department. Fees are indexed annually using the CPI.
14) Source: Brevard County Planning & Development Department

IV. Law Enforcement

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

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Law Enforcement Impact Cost
- Calculated Law Enforcement Impact Fee Schedule
- Affordable Growth Strategy
- Law Enforcement Impact Fee Schedule Comparison

These elements are summarized throughout this section.

Facility Inventory

The facility inventory for the County's law enforcement services includes land, buildings, equipment, and vehicles. According to information provided by the Indian River County Sheriff's Office (IRCSO) and Indian River County, law enforcement related capital assets include approximately 82,500 square feet of building space and approximately 13 acres of land. Table IV-1 presents this information.

Building value is estimated based on recent construction and estimates for future buildings, insurance values of existing buildings, and information from other Florida jurisdictions. Land value is based on the land value trends in Indian River County since the last study, value of parcels where existing buildings are located and an analysis of vacant land sales and values. Additional information is provided in Appendix B.

Table IV-1
Law Enforcement Building and Land Inventory

Primary Buildings								
Sheriff's Administration Building	1988	9.81	33,332	47,552	6.88	$7,999,680	$378,400	$8,378,080
General Services Building	N/A		2,100		0.43	$504,000	$23,650	$527,650
Sheriffs Crime Scene Evidence Addition	2003		1,000		0.21	$240,000	$11,550	$251,550
Courthouse Security	N/A	N/A[7]	587	122,501	N/A	$140,880	N/A	$140,880
Courthouse Civil Process	N/A		1,914		N/A	$459,360	N/A	$459,360
SunSky Office Space	2011	2.75	4,920	32,464	0.42	$1,180,800	$23,100	$1,203,900
Aviation Facility	2017		14,318		1.21	$3,436,320	$66,550	$3,502,870
Support Buildings								
Base	N/A	9.81	264	47,552	0.05	$31,680	$2,750	$34,430
Sheriff's Fleet Compound	1988		9,856		2.03	$1,182,720	$111,650	$1,294,370
Storage Bldg/Maintenance Shed	N/A		1,000		0.21	$120,000	$11,550	$131,550
Crime Scene Building	2013	2.75	13,226	32,464	1.12	$1,587,120	$61,600	$1,648,720
Total			**82,517**		**12.56**	**$16,882,560**	**$690,800**	**$17,573,360**
Building Value per Square Foot[8]						**$205**		
Land Value per Acre[9]							**$55,000**	

1) Source: Indian River County
2) Represents the square footage of all buildings on the associated acreage
3) Number of acres divided by total square footage on-site (Item 2) multiplied by square footage
4) Calculated based on $240 per square foot for primary buildings and $120 per square foot for support buildings. Appendix B provides further detail.
5) Allocated acreage (Item 3) multiplied by land value per acre (Item 9)
6) Sum of building and land values (Items 4 and 5)
7) Acreage included in the public buildings impact fee calculations
8) Total building value (Item 4) divided by total square footage
9) Source: Appendix B

In addition to the land and buildings inventory, the Indian River County Sheriff's Office also has the vehicles and equipment to perform its law enforcement duties. Table IV-2 summarizes the equipment and vehicle inventory.

Table IV-2
Equipment and Vehicle Inventory

Description	Units[1]	Unit Value[2]	Total Value[3]
Vehicles	278	$23,255	$6,464,865
Vehicle/Radio Equipment	2,757	$1,741	$4,799,238
Weapons	650	$393	$255,305
Office Equipment	1	$100,084	$100,084
Specialty Vehicles/Equipment	14	$24,830	$347,623
Electronic Equipment	1	$326,862	$326,862
Computer Equipment	1	$5,324,482	$5,324,482
Misc. Equipment	1	$2,277,308	$2,277,308
911 Center Equipment	79	$3,060	$241,724
Total Equipment Value			**$20,137,491**

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

Service Area and Population

Indian River County provides law enforcement services to the unincorporated areas of the county. Municipalities within the county have their own police departments. As such, the proper benefit district for law enforcement is the unincorporated county. In this technical study, the current 2019 weighted and functional population estimates are used. Because simply using weighted (permanent plus weighted seasonal) population estimates does not fully address all of the benefactors of law enforcement 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 county throughout the day and calculates the presence of population at different land uses during the day. Appendix A provides further explanation of the population analysis conducted.

Level of Service

Based on sworn officer counts provided by Indian River County, as well as, population estimates produced in Appendix A, the 2019 level of service (LOS) is 1.73 sworn officers per 1,000 weighted seasonal residents, while the adopted LOS standard is 2.09 officers per 1,000 residents. Table IV-3 presents the calculation of the existing LOS as well as the adopted LOS standard.

While the 2019 LOS is 1.73 sworn officers per 1,000 weighted seasonal residents, in order to calculate the law enforcement impact fee, the LOS needs to be calculated in terms of sworn officers per 1,000 functional residents. As shown in Table IV-3, the current achieved LOS of law enforcement services is 1.92 sworn officers per 1,000 functional residents, while the adopted LOS standard is 2.32 officers per 1,000 functional residents. Given that the achieved LOS is lower than the adopted LOS standard and new development cannot be charged for a higher LOS than what is being provided, the achieved LOS is used in the impact fee calculations.

Although the LOS is measured in terms of officers per population for planning purposes, for impact fee calculation purposes, the LOS is shown as the level of investment or dollar value of capital assets per resident, which reflects the investment made by the community to date. For impact fee calculation purposes, the County's adopted LOS standard is $274 per resident for law enforcement facilities. As presented later in this report, the LOS increased to $304 per resident due to the changes in impact fee variables since 2014, which should be reflected in the impact fee ordinance.

Table IV-3

Level of Service (2019)

Variable	Year 2019	
	Weighted Population	Functional Population
Population[1]	107,439	96,637
Number of Officers[2]	186	186
LOS (officers per 1,000 residents)[3]	**1.73**	**1.92**
Adopted LOS Standard (officers per 1,000 residents)[4]	**2.09**	**2.32**

1) Source: Appendix A, Table A-1 for unincorporated weighted population, and Table A-11 for unincorporated functional population
2) Source: Indian River County Sheriff's Office
3) Number of officers (Item 2) divided by the unincorporated population (Item 1) multiplied by 1,000
4) Source: Adopted LOS standard of 2.09 per weighted population is from Capital Improvement Element of the 2030 Indian River County Comprehensive Plan adopted on December 4, 2018. This standard is converted to the LOS standard per functional population by using the ratio of achieved LOS per weighted vs. functional population (Item 3).

Table IV-4 summarizes a LOS comparison between Indian River County and other Florida counties. The LOS is displayed in terms of permanent population for all jurisdictions because a functional population analysis has not been completed for these entities. The LOS comparison is based on the permanent population for 2018, as this is the most recent population data available for all jurisdictions. As presented in this table, the Indian River County's LOS is on the high end of other communities.

Table IV-4
Adopted Level of Service Comparison (2018)

Jurisdiction	Service Area Population (2018)[1]	Number of Officers[2]	LOS (Officers per 1,000 Residents)[3]
Collier County	329,909	313	0.95
Citrus County	145,721	195	1.34
Charlotte County	158,500	215	1.36
Hernando County	177,194	246	1.39
St. Johns County	218,008	323	1.48
Martin County	136,227	208	1.53
Highlands County	77,619	135	1.74
Osceola County	233,608	416	1.78
Indian River County	**100,719**	**186**	**1.85**
Okeechobee County	35,559	77	2.17
Brevard County	236,396	566	2.39
St. Lucie County	73,263	206	2.81

1) Source: FDLE Criminal Justice Agency Profile Report, 2018 (Sheriff's Office)
2) Source: FDLE Criminal Justice Agency Profile Report, 2018 (Sheriff's Office)
3) Source: Permanent population (Item 1) divided by the number of officers (Item 2) divided by 1,000

Cost Component

The cost component of the study evaluates the cost of capital items, including buildings, land, vehicles, and equipment. Table IV-5 provides a summary of all capital costs, which amounts to approximately $202,700 per sworn law enforcement officer.

Table IV-5 also presents the cost per functional resident for the impact fee analysis. This cost was calculated as the total capital cost of approximately $202,700 per officer multiplied by the LOS of 1.92 officers per 1,000 functional residents divided by 1,000. As shown in the following table, the total impact cost per resident is approximately $389 for law enforcement facilities.

Table IV-5

Total Impact per Functional Resident

Variable	Figure	Percent of Total [9]
Building Value[1]	$16,882,560	45%
Land Value[2]	$690,800	2%
Vehicle and Equipment Value[3]	$20,137,491	53%
Total Asset Value[4]	**$37,710,851**	**100%**
Number of Officers[5]	186	
Total Asset Value per Officer[6]	**$202,747**	
Level-of-Service (Officers/1,000 Functional Residents)[7]	1.92	
Total Impact Cost per Functional Resident[8]	**$389.27**	

1) Source: Table IV-1
2) Source: Table IV-1
3) Source: Table IV-2
4) Sum of building value (Item 1), land value (Item 2), and vehicle/equipment value (Item 3)
5) Source: Table IV-3
6) Total asset value (Item 4) divided by number of officers (Item 5)
7) Source: Table IV-3
8) Total asset value per officer (Item 6) multiplied by LOS (Item 7) divided by 1,000
9) Distribution of cost

Credit Component

To avoid overcharging new development, a review of the capital funding allocation for 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 program. Revenue credits are then applied against the total cost per functional resident so that new development is not charged twice for capital revenue contributions used to expand the law enforcement program.

To calculate the capital expansion expenditure credit per functional resident, capital expansion projects completed over the past five years and future planned projects of the next five years are reviewed.

Next, the total capital expansion expenditure per functional resident is calculated by dividing the average annual expenditures of $441,300 by the average annual functional population from 2014 through 2023. This calculation results in $4.61 per functional resident and is presented in Table IV-6.

Table IV-6

Capital Expansion Credit

Description[1]	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Optional Sales Tax											
Crime Scene Building - Expansion	$485,520	-	-	-	-	-	-	-	-	-	$485,520
Sheriff Facility Expansion Needs - Design/Construction	-	-	-	-	-	-	-	$2,550,000	-	-	$2,550,000
Sheriff - Public Safety Complex Plans	-	-	$59,282	-	-	-	-	-	-	-	$59,282
Sheriff Aviation Project	-	-	$200,000	$1,118,560	-	-	-	-	-	-	$1,318,560
Total Capital Expansion Expenditures	**$485,520**	**$0**	**$259,282**	**$1,118,560**	**$0**	**$0**	**$0**	**$2,550,000**	**$0**	**$0**	**$4,413,362**
Average Annual Capital Expansion Expenditures[2]											**$441,336**
Average Annual Functional Population[3]											**95,814**
Capital Expansion Credit per Functional Resident[4]											**$4.61**

1) Source: Indian River County
2) Source: Average annual capital expansion expenditures over the 10-year period
3) Source: Appendix A, Table A-11; average functional population for unincorporated Indian River County over the ten-year period
4) Average annual capital expansion expenditures (Item 2) divided by average annual functional population (Item 3)

Net Impact Cost

The net impact cost per resident is the difference between the Cost Component and the Credit Component. Table IV-7 summarizes the calculation of the net impact cost which amounts to approximately $304 per resident and represents the relevant LOS measure for impact fee purposes.

Table IV-7
Net Impact Cost per Resident

Variable	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Functional Resident[1]	**$389.27**	
Capital Expansion Credit		
Capital Expenditure per Functional Resident[2]		$4.61
Capitalization Rate		2.5%
Capitalization Period (in years)		25
Capital Expansion Credit per Functional Resident[3]		**$84.94**
Net Impact Cost		
Net Impact Cost per Functional Resident[4]	**$304.33**	

1) Source: Table IV-5
2) Source: Table IV-6
3) Present Value of annual credit per resident (Item 2) over a 25-year period with a capitalization rate of 2.5%
4) Total impact cost per functional resident (Item 1) less total capital expenditure credit (Item 3)

Calculated Law Enforcement Impact Fee Schedule

A law enforcement impact fee schedule was developed for residential and non-residential land uses and is illustrated in Table IV-8. The changes in cost and credit components increase the fee by approximately 10 percent. Remaining fluctuations are due to the changes to the demand component since 2014.

Table IV-8

Calculated Law Enforcement Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient [1]	Calculated Fee [2]	Adopted Fee [3]	Percent Change [4]
	RESIDENTIAL:					
210	Single Family (detached)					
	- Less than 1,500 sf	du	1.33	**$405**	$400	1.3%
	- 1,500 to 2,499 sf	du	1.61	**$490**	$436	12.4%
	- 2,500 sf or greater	du	1.80	**$548**	$485	13.0%
220	Multi-Family/Accessory Unit	du	0.92	**$280**	$249	12.4%
240	Mobile Home / RV (Tied Down)	du	0.92	**$280**	$244	14.8%
	TRANSIENT, ASSISTED, GROUP:					
310	Hotel	room	1.01	**$307**	$178	72.5%
320	Motel	room	0.84	**$256**	$164	56.1%
252/620	Nursing Home/Assisted Care Living Facility (ACLF)	bed	0.99	**$301**	$252	19.4%
	OFFICE & FINANCIAL:					
720	Medical Office/Clinic 10,000 sf or less	1,000 sf	1.20	**$365**	$312	17.0%
	Medical Office/Clinic greater than 10,000 sf	1,000 sf	1.72	**$523**	$455	14.9%
911	Bank/Savings Walk-In	1,000 sf	1.03	**$313**	$611	-48.8%
912	Bank/Savings Drive-In	1,000 sf	1.49	**$453**	$625	-27.5%
710	General Office Building	1,000 sf	0.89	**$271**	$274	-1.1%
760	Research & Development Center	1,000 sf	1.03	**$313**	$233	34.3%
	INDUSTRIAL:					
140	Manufacturing	1,000 sf	0.46	**$140**	$137	2.2%
150	Warehousing	1,000 sf	0.11	**$33**	$77	-57.1%
151	Mini-Warehouse/Storage	1,000 sf	0.04	**$12**	$16	-25.0%
154	High-Cube Transload and Short-Term Storage	1,000 sf	0.09	**$27**	$38	-28.9%
110	General Light Industrial	1,000 sf	0.50	**$152**	$189	-19.6%
n/a	Concrete Plant	acre	1.56	**$475**	$425	11.8%
n/a	Sand Mining	acre	0.20	**$61**	$55	10.9%
	RETAIL:					
820	Shopping Center/Retail	1,000 gsf	1.51	**$460**	$650	-29.2%
944	Gas Station w/Convenience Market <2,000 sf	fuel pos.	1.46	**$444**	$523	-15.1%
945	Gas Station w/Convenience Market 2,000-2,999 sf	fuel pos.	1.78	**$542**	$523	3.6%
960	Gas Station w/Convenience Market 3,000+ sf	fuel pos.	2.02	**$615**	$523	17.6%
840/841	New/Used Auto Sales	1,000 sf	1.57	**$478**	$403	18.6%
932	Restaurant	1,000 sf	5.57	**$1,695**	$1,858	-8.8%
934	Fast Food Rest w/ Drive-Thru	1,000 sf	9.70	**$2,952**	$2,439	21.0%
850	Supermarket	1,000 sf	2.41	**$733**	$562	30.4%
942	Automobile Repair/Body Shop	1,000 sf	1.67	**$508**	$411	23.6%
947	Self-Service Car Wash	service bay	0.96	**$292**	$238	22.7%
890	Furniture Store	1,000 sf	0.32	**$97**	$63	54.0%
	RECREATIONAL:					
430	Golf Course	hole	0.84	**$256**	$296	-13.5%
492	Racquet Ball/Health Club/Dance Studio	1,000 sf	2.41	**$733**	$847	-13.5%
412	Public Park	acre	0.05	**$15**	$55	-72.7%
491	Tennis Court	court	1.40	**$426**	$866	-50.8%
420	Marina	berth	0.13	**$40**	$52	-23.1%
	GOVERNMENTAL:					
732	Post Office	1,000 sf	1.56	**$475**	$444	7.0%
590	Library	1,000 sf	2.62	**$797**	$482	65.4%
733	Government Office Complex	1,000 sf	1.25	**$380**	$381	-0.3%
571	Jail	bed	0.17	**$52**	$238	-78.2%

Table IV-8 (continued)

Calculated Law Enforcement Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient [1]	Calculated Fee[2]	Adopted Fee[3]	Percent Change[4]
	MISCELLANEOUS:					
565	Day Care Center	1,000 sf	0.81	**$247**	$244	1.2%
610	Hospital	1,000 sf	1.29	**$393**	$375	4.8%
640	Veterinary Clinic	1,000 sf	1.41	**$429**	$696	-38.4%
560	Church	1,000 sf	0.37	**$113**	$140	-19.3%
444	Movie Theater w/Matinee	screen	5.19	**$1,579**	$1,639	-3.7%
520	Elementary School (Private, K-5)	student	0.08	**$24**	$16	50.0%
522	Middle School (Private, 6-8)	student	0.09	**$27**	$19	42.1%
530	High School (Private, 9-12)	student	0.09	**$27**	$22	22.7%
540/550	University/Junior College with 7,500 or fewer	student	0.10	**$30**	$27	11.1%
575	Fire & Rescue Station	1,000 sf	0.42	**$128**	$173	-26.0%

1) Source: Appendix A, Table A-13 for residential land uses and Appendix A, Table A-15 for non-residential land uses
2) Calculated impact fee determined by multiplying the net impact cost per functional resident (Table IV-7) by the functional resident coefficient (Item 1) for each land use
3) Source: Indian River County Planning Division. Rates shown do not include administrative fee.
4) Percent change from the calculated impact fee rate (Item 2) to the adopted fee (Item 3)

Affordable Growth Strategy

Based on the data shown in Table IV-6, the County is using an average of approximately $440,000 per year of sales tax revenues. During the next 25 years, unincorporated Indian River County is expected to grow at an average annual rate of 1.5 percent. Although the County may charge the maximum amount of law enforcement impact fee calculated, if the historical and programmed levels of non-impact fee funding were to be continued, the County could adopt the impact fee at approximately 40 percent for all land uses and continue to maintain the adopted LOS standard used in the calculations. If the County decides to charge the residential land uses at 45 percent, the fees for non-residential land uses could be eliminated while continuing to maintain the adopted LOS standard. These calculations assume that the sales tax will continue to be available over the next 25 years. If available revenue sources for law enforcement capital projects change significantly, these calculations need to be revised. Finally, the level of discount is a policy decision and could be at any level between the minimum levels calculated in this section and 100 percent and still maintain the adopted LOS standard.

Law Enforcement Impact Fee Schedule Comparison

As part of the work effort in updating Indian River County's law enforcement impact fee schedule, the County's calculated impact fee schedule was compared to the adopted fee schedules of nearby or similar jurisdictions. Table IV-9 presents this comparison.

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Law Enforcement Impact Fee Schedule Comparison

Date of Last Update		2019	2014	2014	2014	2016	2005	2006	2012	2018	2017
Assessed Portion of Calculated[1]		N/A	100%	49%	100%	100%	100%	25%	100%	100%	100%
Residential:											
Single Family (2,000 sf)	du	$490	$436	$240	$267	$587	$86	$58	$760	$321	$236
Non-Residential:											
Light Industrial	1,000 sf	$152	$189	$117	$58	$215	$31	N/A	$158	$90	$52
Office (50,000 sq ft)	1,000 sf	$271	$274	$201	$152	$372	$62	N/A	$274	$274	$180
Retail (125,000 sq ft)	1,000 sfgla	$460	$650	$358	$322	$765	$121	N/A	$742	$528	$313
Bank w/Drive-Thru	1,000 sf	$453	$625	$385	$322	$712	$121	N/A	$481	$195	$252
Fast Food w/Drive-Thru	1,000 sf	$2,952	$2,439	$1,503	$322	$2,779	$187	N/A	$2,757	$457	$252

1) Represents the portion of the maximum calculated fee for each respective County that is actually charged. Fees may have been lowered/increased through policy discounts or annual indexing. Does not account for moratoriums/suspensions.
2) du = dwelling unit
3) Source: Table IV-8
4) Source: Indian River County Planning Division
5) Source: Charlotte County Community Development Department. Law Enforcement and Correctional Facilities are combined.
6) Source: Citrus County Growth Management Department
7) Source: Collier County Impact Fee Administration Department
8) Source: Hernando County Planning and Development Division
9) Source: Highlands County Code of Ordinances, Section 13-28; IF moratorium in effect.
10) Source: Martin County Growth Management Department
11) Source: St. Johns County Growth Management Department. Fees are indexed annually.
12) Source: St. Lucie County planning and Development Services Department. Fees are indexed annually using the CPI.

V. Parks & Recreation Facilities

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

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

These elements are summarized throughout this section.

Land and Recreation Facilities Inventory

According to information provided by Indian River County, the County owns 29 parks located in the unincorporated county. In addition, there are five parks where the facilities are county-owned, but the land is not owned by the county. As such, only the facilities in these parks are included in the inventory. Parks that are owned by the County but located in cities are excluded since the impact fee is collected only in the unincorporated county. Finally, recreation facilities that generate revenue (such as golf courses and the shooting range) are also excluded from the inventory. Indian River County parks and recreational facilities can be classified into three different types, depending on the population and areas they serve, and types of amenities offered. The Recreation and Open Space Element of the County's 2030 Comprehensive Plan includes definitions of each park type. Table V-1 provides the parks and recreation inventory used as the basis for the impact fee.

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Table V-1
Parks and Recreation Inventory [1]

Description	Total Acreage	Ownership	Class	Basketball Court	Boat Ramp	Canoe Launch	Community Center	Dune Walkover	Fishing Pier (Linear Feet)	Jogging Trails (miles)	Lifeguard Tower	Maintenance Facility	Multi Purpose Building (sf)	Olympic Aquatic Center	Picnic Pavilion	Play ground	Restrooms (sf)	Soccer Field	Softball Field	Swimming Pool	Tennis Courts	Volleyball Court
45th Street Dock	1.00	County	R						50													
Ambersand Beach Park	0.30	County	R					1														
Blue Cypress Lake Park	10.00	County	R		2				10						1		800					
Boat Island[4]	5.00	FIND[2]	R						140						1							
C-54 Stick Marsh Recreation Area[4]	4.56	SJRWMD[3]	R		4				20						1		200					
CR-512 Recreation Area[4]	6.00	SJRWMD[3]	R		2				20						2		100					
Dale Wimbrow Park	27.25	County	R		1					0.50					3	1	600					
Donald MacDonald Park	27.25	County	R		1				20	0.50			2,500		1		800					
Gifford Park	38.96	County	R	2			6,006			1.00			1,400		5	1	700	1	2	1	2	
Golden Sands Park	14.30	County	R					1			1				4	1	600					
Grovenor Estates Park	4.65	County	N																			
Helen Hanson Park	2.00	County	N													1	100		1			
Hosie-Schumann Park	2.00	County	N	1												1						
IRC Fairgrounds	137.92	County	R							0.25			70,000				2,300	1				
IRC Parks Maintenance Facility	N/A	County	R									8,850										
IRC Shooting Range[4]	80.00	State	R										1,500				500					
Joe S. Earman Park	1.00	County	R						30						2							
Kiwanis-Hobart Park	71.43	County	R	1						1.00					7		1,100		2			2
MLK Park	5.84	County	N														400					
North County Regional Park[4]	155.00	State	R							0.50			400	1		1	400	4	4			
Oslo Road Boat Ramp	0.30	County	R		1																	
Pine Hill (Lone Pine)	0.50	County	N	1												1						
Roseland Community Center	2.00	County	N				1,401		30						1		50					
Round Island Beach Park	9.36	County	R					1		0.25	1				6	1	600					
Round Island Park West	17.00	County	R		2	1			15	0.25					1	1	600					
Sebastian Canoe Launch Park	1.03	County	C			1									1							
South County Regional Park	72.70	County	R	2						1.00			37,000		8	1	1,200	4	4		2	1
Tracking Station Beach	5.50	County	R					1			1											
Treasure Shores Park (North Beach Complex)	17.00	County	R					1		0.25	1					1	600					
Wabasso Beach Park	1.00	County	R					2			1				2		600					
Wabasso Causeway Park	5.00	County	R		3	2									7		600					
Wabasso Island River Park	54.00	County	R		2	1									3							
Wabasso School Park	7.36	County	N	1												1						
West Wabasso Park	10.00	County	N	2						1.00					3	1			1		1	1
Total (County Owned)				**10**	**18**	**5**	**7,407**	**7**	**335**	**6.50**	**5**	**8,850**	**112,800**	**1**	**59**	**13**	**12,850**	**10**	**14**	**1**	**5**	**4**

Summary of Parks & Recreation Facilities	Total Acreage		Basketball Court	Boat Ramp	Canoe Launch	Community Center	Dune Walkover	Fishing Pier (Linear Feet)	Jogging Trails (miles)	Lifeguard Tower	Maintenance Facility	Multi-Purpose Building (sf)	Olympic Aquatic Center	Picnic Pavilion	Play-ground	Restrooms (sf)	Soccer Field	Softball Field	Swimming Pool	Tennis Courts	Volleyball Court
Neighborhood Parks	34.35		5	0	0	1,401	0	30	1.0	0	0	0	0	4	5	550	0	2	0	1	1
Community Parks	1.03		0	0	1	0	0	0	0.0	0	0	0	0	1	0	0	0	0	0	0	0
Regional Parks	511.27		5	18	4	6,006	7	305	5.5	5	8,850	112,800	1	54	8	12,300	10	12	1	4	3
TOTAL	**546.65**		**10**	**18**	**5**	**7,407**	**7**	**335**	**6.50**	**5**	**8,850**	**112,800**	**1**	**59**	**13**	**12,850**	**10**	**14**	**1**	**5**	**4**

1) Source: Indian River County
2) Florida Inland Navigation District
3) St. John's River Water Management District
4) Acreage was not included in the total acreage summary since parks are not owned by the County

Service Area and Population

Indian River County provides parks and recreation facilities and services in the unincorporated areas of the county. The municipalities located within Indian River County provide these facilities and services within their respective jurisdictions. As such, the proper benefit district is the unincorporated area of Indian River County. Appendix A, Table A-1, provides the estimated unincorporated area population for 2019 and the projected unincorporated area population through 2045. Parks and recreation impact fees are charged only to residential land uses. As such, the weighted seasonal population per housing unit is used to measure demand from each residential land use, which is presented in Appendix A, Table A-3.

Level of Service

The current LOS for all county-owned and maintained neighborhood, community and regional parks in unincorporated county is 5.09 acres per 1,000 residents. Table V-2 presents the calculation of the current LOS for each park type included in the inventory, as well as Indian River County's adopted LOS standard of 6.61 acres per 1,000 residents.

The impact fee cannot charge new growth at a rate to correct existing deficiencies. In addition, there needs to be a commitment to continue providing the LOS used in the impact fee calculation, which is typically achieved through the adopted LOS standard. For impact fee calculation purposes, this study used the lower of the two figures to provide a conservative approach. With this approach, the current achieved LOS is used in the calculation of the parks and recreation impact fee.

Although the LOS is measured in terms of acres per population for planning purposes, for impact fee calculation purposes, the LOS is shown as the level of investment or dollar value of capital assets per resident, which reflects the investment made by the community to date. For impact fee calculation purposes, the County's adopted LOS standard is $836 per resident for parks and recreation facilities. As presented later in this report, this LOS increased to $879 per resident due to the changes in impact fee variables since 2014, which should be reflected in the impact fee ordinance.

Table V-2

Current Level of Service (2019)

Variable	Figure
2019 Unincorporated Population[1]	107,439
Current Number of Acres -- Regional Parks[2]	511.27
Current Regional Parks LOS Component (Acres per 1,000 Residents)[3]	**4.76**
Current Number of Acres -- Neighborhood and Community Parks[4]	35.38
Current Neighborhood & Community Parks LOS Component (Acres per 1,000 Residents)[5]	**0.33**
Current Total Parks LOS (Acres per 1,000 Residents)[6]	**5.09**
Adopted Total Parks LOS Standard (Acres per 1,000 Residents)[7]	**6.61**

1) Source: Appendix A, Table A-1 for unincorporated weighted seasonal population
2) Table V-1
3) Current regional parks number of acres (Item 2) divided by the unincorporated population (Item 1), divided by 1,000 residents
4) Sum of current neighborhood parks acreage and current community parks acreage
5) Current neighborhood/community parks number of acres (Item 4) divided by the unincorporated population (Item 1), divided by 1,000 residents
6) Sum of current regional parks LOS (Item 3) and current neighborhood/community parks LOS (Item 5)
7) Source: Indian River County 2030 Comprehensive Plan, Capital Improvement Element, adopted December 4, 2018

Table V-3 presents a comparison of the parks and recreation adopted LOS standards of other Florida counties to Indian River County's achieved LOS and adopted LOS standard. Based on this comparison, Indian River County's LOS and adopted LOS standard are in the mid-range of the required acreage per 1,000 residents in other communities.

Table V-3

Level of Service Comparison

Jurisdiction	LOS Standard (Acres per 1,000 Residents)[1]
Brevard County[2]	3.00
Martin County[3]	3.00
Collier County[4]	3.90
Hernando County[5]	4.00
Charlotte County[6]	4.43
Indian River County (Existing)[7]	**5.09**
Okeechobee County[8]	5.50
Indian River County (Adopted)[9]	**6.61**
St. Lucie County[10]	7.50
Highlands County[11]	10.00
Osceola County[12]	10.00
Citrus County[13]	13.00
St. Johns County[14]	28.00
Average (excluding IRC)	**8.36**

1) Adopted LOS standards that typically include community and regional parks
2) Source: Brevard County Comprehensive Plan
3) Source: Martin County FY 2019 Capital Improvement Plan
4) Source: Collier County Growth Management Plan
5) Source: Hernando County 2040 Comprehensive Plan
6) Source: Charlotte County Parks and Recreation Master Plan
7) Source: Table V-2
8) Source: Okeechobee County Comprehensive Plan
9) Source: Indian River County 2030 Comprehensive Plan
10) Source: St. Lucie County Comprehensive Plan
11) Source: Highlands County 2030 Comprehensive Plan
12) Source: Osceola County Comprehensive Plan
13) Source: Citrus County Comprehensive Plan
14) Source: St. Johns County 2025 Comprehensive Plan

Cost Component

The total cost per resident for parks and recreation facilities consists of two components: the cost of purchasing and developing land for each park and the cost of facilities and equipment located at each park.

Land Cost

The land value analysis takes into consideration land value trends in Indian River County over the past five years, recent purchases, current land value of the existing parks as reported by the Indian River County Property Appraiser as well as an analysis of recent sales of vacant land similar in size and location to Indian River County's parks. Based on this analysis, an average land value of $55,000 per acre is used in the impact fee calculations. Appendix B provides the data used for this analysis.

The cost of land for parks and recreation facilities includes more than just the purchase cost of the land. Landscaping/site improvement and utilities/paving costs are also considered. These costs can vary greatly, depending on the type of services offered at each park. Based on information provided by the County, as well as information from similarly sized jurisdictions and park types, basic landscaping, site preparation, and irrigation costs were estimated and are presented in Table V-4.

Table V-4
Land Cost per Resident

Variable	Figure
Land Purchase Cost per Acre[1]	$55,000
Landscaping, Site Preparation, and Irrigation Costs (per acre)[2]	$5,000
Utilities and Paving (per acre)[3]	$20,000
Total Land Cost per Acre[4]	**$80,000**
Regional Parks LOS (acres per 1,000 Residents)[5]	4.76
Land Cost per Resident - Regional Park Component[6]	**$380.80**
Neighborhood/Community Parks LOS (acres per 1,000 Residents)[5]	0.33
Land Cost per Resident - Neighborhood/Community Park Component[7]	**$26.40**
Land Cost per Resident - All Parks[8]	**$407.20**

1) Source: Appendix B
2) Source: Indian River County
3) Source: Indian River County
4) Sum of land cost (Items 1), landscaping, site preparation, and irrigation costs (Item 2), and utilities and paving costs (Item 3)
5) Source: Table V-2
6) Total land cost per acre (Item 4) multiplied by regional parks LOS, divided by 1,000
7) Total land cost per acre (Item 4) multiplied by neighborhood/community parks LOS, divided by 1,000
8) Sum of land cost per resident for regional parks (Item 6) and neighborhood/community parks (Item 7)

Recreational Facility Value

The second step in calculating the total cost for parks and recreation services in Indian River County involves estimating the current value of recreational facilities. When available, the value for the parks facilities and equipment is estimated based on recent construction by the County. When recent cost information was not available, unit costs from the previous study, County's insurance reports and recent costs for similar facilities from other jurisdictions were used.

As presented in Table V-5, the total recreational facility value is $3.3 million for neighborhood and community parks and $74.4 million for regional parks, for a combined total of $77.8 million, including facilities, equipment, and architecture and engineering (A&E) costs.

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Table V-5
Recreational Facility Value

Facility[1]		Unit Value[2]	Neighborhood/ Community Parks		Regional Parks		Total Cost[7]
Description	Unit		Count[3]	Total Value[4]	Count[5]	Total Value[6]	
Basketball Court	court	$55,000	5	$275,000	5	$275,000	$550,000
Boat Ramp	ramp lane	$100,000	0	$0	18	$1,800,000	$1,800,000
Canoe Launch	launch	$188,000	1	$188,000	4	$752,000	$940,000
Community Center	sq ft	$250	1,401	$350,250	6,006	$1,501,500	$1,851,750
Dune Walkover	walkover	$43,000	0	$0	7	$301,000	$301,000
Fishing Pier	linear foot	$550	30	$16,500	305	$167,750	$184,250
Jogging Trails	mile	$150,000	1.0	$150,000	5.5	$825,000	$975,000
Lifeguard Tower	tower	$25,000	0	$0	5	$125,000	$125,000
Maintenance Facility	sq ft	$200	0	$0	8,850	$1,770,000	$1,770,000
Multi-Purpose Bldg	sq ft	$250	0	$0	112,800	$28,200,000	$28,200,000
Olympic Aquatic Center	center	$7,500,000	0	$0	1	$7,500,000	$7,500,000
Picnic Pavilion	pavilion	$40,000	5	$200,000	54	$2,160,000	$2,360,000
Playground[8]	playground	$90,000/$150,000	5	$450,000	8	$1,200,000	$1,650,000
Restroom	sq ft	$250	550	$137,500	12,300	$3,075,000	$3,212,500
Soccer Field	field	$325,000	0	$0	10	$3,250,000	$3,250,000
Softball Field	field	$500,000	2	$1,000,000	12	$6,000,000	$7,000,000
Swimming Pool (Recreational)	pool	$4,500,000	0	$0	1	$4,500,000	$4,500,000
Tennis Courts	court	$50,000	1	$50,000	4	$200,000	$250,000
Volleyball Court	court	$8,500	1	$8,500	3	$25,500	$34,000
Facilities and Equipment Value				**$2,825,750**		**$63,627,750**	**$66,453,500**
Architecture, Engineering, and Inspection @ 17%[9]				**$480,378**		**$10,816,718**	**$11,297,096**
Total Facilities and Equipment Value[10]				**$3,306,128**		**$74,444,468**	**$77,750,596**
Total Number of Acres[11]				**35.38**		**511.27**	**546.65**
Facilities and Equipment Value per Acre[12]				**$93,446**		**$145,607**	**$142,231**
Level-of-Service[13]				**0.33**		**4.76**	**5.09**
Facilities and Equipment Value per Resident[14]				**$30.84**		**$693.09**	**$723.93**

1) Source: Indian River County
2) Source: Based on recent construction, information from previous studies for Indian River County as well as information from other Florida jurisdictions
3) Source: Table V-1
4) Unit value (Item 2) multiplied by the number of units per facility (Item 3)
5) Source: Table V-1
6) Unit value (Item 2) multiplied by the number of units per facility (Item 5)
7) Sum of total value for community parks (Item 4) and the total value of regional parks (Item 6)
8) Unit values for playgrounds vary by type. Discussions with representative at Indian River County indicated neighborhood playgrounds are valued at $90,000 while regional playgrounds are valued at $150,000
9) Facility and equipment value multiplied by 17% based on information provided by Indian River County
10) Sum of the facilities and equipment value and the architecture, engineering, and inspection cost (Item 9) for each park type
11) Source: Table V-1
12) Total facilities and equipment value (Item 10) divided by the total number of acres (Item 11) for each park type
13) Source: Table V-2
14) Facilities and equipment value per acre (Item 12) multiplied by the level of service (Item 13) divided by 1,000

Total Impact Cost per Resident

Table V-6 presents the total impact cost per resident for parks and recreation facilities in Indian River County. Using the current achieved LOS, as previously presented in Table V-2, the cost for neighborhood/community parks in Indian River County is $57 per resident and the cost for regional parks is $1,074 per resident, for a total cost of $1,131 per resident.

Table V-6

Total Impact Cost per Resident

Variable	Park Type		Total
	Neighborhood/ Community	Regional	
Total Land Value per Resident[1]	$26.40	$380.80	$407.20
Total Facility Value per Resident[2]	$30.84	$693.09	$723.93
Total Impact Cost per Resident[3]	**$57.24**	**$1,073.89**	**$1,131.13**

1) Source: Table V-4
2) Source: Table V-5
3) Sum of land value per resident (Item 1) and the facility value per resident (Item 2)

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 was 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 Indian River 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 over the past five years and programmed for next five years. 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 V-7, the average annual expenditure over this ten-year period amounts to approximately $1.5 million. To calculate the revenue credit per resident, the average annual expenditure is divided by the average population for the same time period. As shown, this figure amounts to approximately $14 per resident per year.

Table V-7
Capital Expansion Credit

Description[1]	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Optional Sales Tax											
Dodgertown	-	-	-	-	-	$2,450,000	-	-	-	-	$2,450,000
Gifford Park Bleachers/Storage Containers	-	$38,995	-	-	-	-	-	-	-	-	$38,995
Intergenerational Facility	$247,163	$851,259	$6,966,878	$38,630	-	-	-	-	-	-	$8,103,930
South County Regional Park - Multi-Purpose Field	$224,983	-	-	-	-	-	-	-	-	-	$224,983
CIP Sporting Clay Course	-	-	$828,518	$245,250	$16,225	-	-	-	-	-	$1,089,994
Gifford Park Ball Field Improvements	$411,623	$13,404	-	-	-	-	-	-	-	-	$425,027
MLK Walking Trail	-	-	$140,553	-	-	-	-	-	-	-	$140,553
Hunter Education Classroom	-	-	$30,469	$558,229	$2,093	-	-	-	-	-	$590,792
South County Park General Use Field	-	-	$2,931	$321,003	-	-	-	-	-	-	$323,933
Conservation Areas Improvements	-	-	-	$22,001	$21,945	-	-	-	-	-	$43,946
Lost Tree Island Dock - Irma	-	-	-	-	$205	-	-	-	-	-	$205
Victor Hart Parking/Drain Imp	-	-	-	-	$34,635	-	-	-	-	-	$34,635
Wabasso Scrub Area Improvements	-	-	-	-	$4,379	-	-	-	-	-	$4,379
Dale Wimbrow Park & Donald Macdonald Improvement/Campground Enhancement	-	-	-	-	-	-	$700,000	-	-	-	$700,000
Subtotal - Optional Sales Tax	**$883,769**	**$903,658**	**$7,969,349**	**$1,185,113**	**$79,482**	**$2,450,000**	**$700,000**	**$0**	**$0**	**$0**	**$14,171,371**
Fairgrounds Improvement Fund											
Fairgrounds Midway Restroom	-	-	-	-		-	-	$150,000	-	-	$150,000
Fairgrounds RV Camping Expansion	-	-	-	-	-	-	-	-	$250,000	-	$250,000
Subtotal - Fairgrounds Improvement Fund	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$150,000**	**$250,000**	**$0**	**$400,000**
Total	**$883,769**	**$903,658**	**$7,969,349**	**$1,185,113**	**$79,482**	**$2,450,000**	**$700,000**	**$150,000**	**$250,000**	**$0**	**$14,571,371**
Total Parks and Recreation Capital Expansion Expenditures per Year[2]											**$1,457,137**
Average Annual Population - Unincorporated County[3]											**106,497**
Average Annual Capital Expansion Credit per Resident[4]											**$13.68**

1) Source: Indian River County
2) Average annual capital expansion expenditures over the 10-year period
3) Source: Appendix A, Table A-1
4) Average annual capital expansion expenditures (Item 2) divided by average annual population (Item 3)

Net Impact Cost

The net parks and recreation impact fee per resident is the difference between the cost component and the credit component. Table V-8 summarizes the calculation of the net parks and recreation cost per resident for both neighborhood/community and regional parks.

The first section of Table V-8 identifies the total impact cost as $1,131 per resident for all parks. The second section of the table identifies the revenue credits for the parks and recreation impact fee, totaling approximately $252 for all parks.

The net impact cost per resident is the different between the total impact cost and the total revenue credit per resident. This results in a net impact cost of $879 per resident for all parks, which also reflects the relevant measure of LOS for impact fee calculation purposes.

Table V-8

Net Impact Cost per Resident

Variable	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Resident[1]	**$1,131.13**	
Capital Expansion Credit		
Capital Expansion Credit per Resident[2]		$13.68
Capitalization Rate		2.5%
Capitalization Period (in years)		25
Capital Expansion Credit per Resident[3]		**$252.09**
Net Impact Cost		
Net Impact Cost per Resident[4]	**$879.04**	

1) Source: Table V-6
2) Source: Table V-7
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 expansion credit per resident (Item 3)

Calculated Parks & Recreation Facilities Impact Fee Schedule

Table V-9 presents the calculated parks and recreation impact fee schedule developed for residential land uses. Changes to the cost and credit component result in an increase of 5 percent compared to the full fee calculated in 2014. The remaining changes are due to the fluctuations in the demand component. As previously mentioned, only residential development within unincorporated Indian River County is assessed a parks and recreation impact fee.

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Table V-9
Calculated Parks and Recreation Impact Fee Schedule

Residential								
Single Family (less than 1,500 sf)	du	1.93	$879.08	**$1,697**	$1,234	37.5%	$1,788	-5.1%
Single Family (1,500 to 2,499 sf)	du	2.33	$879.08	**$2,048**	$1,343	52.5%	$1,947	5.2%
Single Family (2,500 sf or greater)	du	2.61	$879.08	**$2,294**	$1,493	53.7%	$2,164	6.0%
Multi-Family	du	1.33	$879.08	**$1,169**	$767	52.4%	$1,111	5.2%
Mobile Home/RV Park (tied down)	du	1.34	$879.08	**$1,178**	$749	57.3%	$1,086	8.5%

1) Source: Appendix A, Table A-3
2) Source: Table V-8
3) Residents per unit (Item 1) for each land use category multiplied by the net cost per resident (Item 2)
4) Source: Indian River County Planning Division
5) Percent change from adopted fee (Item 4) to the calculated fee (Item 3)
6) Source: *Indian River County Impact Fee Update, Final Report, September 26, 2014*. Rates shown do not include administrative fee.
7) Percent change from 2014 fully calculated fee (Item 6) to calculated fee (Item 3)

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Affordable Growth Strategy

Based on the data shown in Table V-7, the County is using an average of $1.46 million per year of Fairground Improvement Fund and sales tax revenues. During the next 25 years, unincorporated Indian River County is expected to grow at an average annual rate of 1.5 percent. Although the County may charge the maximum amount of parks and recreation facilities impact fee calculated, if the historical and programmed levels of non-impact fee funding were to be continued, the County could adopt the impact fee at approximately 40 percent for all residential land uses and continue to maintain the adopted LOS standard used in the calculations. These calculations assume that the sales tax will continue to be available over the next 25 years. If available revenue sources for parks and recreation capital projects change significantly, these calculations need to be revised. Finally, the level of discount is a policy decision and could be at any level between the minimum levels calculated in this section and 100 percent and still maintain the adopted LOS standard.

Parks & Recreation Facilities Impact Fee Schedule Comparison

As part of the work effort in updating Indian River County's parks and recreation impact fee program, a comparison of the impact fee rates adopted by for surrounding counties and other jurisdictions throughout Florida. Table V-10 presents this comparison.

Table V-10

Calculated Parks and Recreation Facilities Impact Fee Schedule

Date of Last Update		2019	2014	2014	2014	2014	2015	2005	2006	2012	2019	2018	2017
Assessed Portion of Calculated[1]		N/A	69%	100%	49%	100%	100%	100%	25%	100%	100%	100%	100%
Residential:													
Single Family (2,000 sq ft)	du	$2,114	$1,343	$1,947	$587	$675	$3,628	$411	$189	$1,972	$924	$1,383	$1,643
Multi-Family (1,300 sq ft)	du	$1,207	$767	$1,111	$311	$479	$1,685	$311	$131	$1,972	$679	$1,111	$1,466
Mobile Home	du	$1,216	$749	$1,086	$317	$675	$2,862	$411	$108	$1,972	$677	$1,111	$1,076

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through policy discounts or annual indexing. Does not account for moratorium/suspensions.
2) du = dwelling unit
3) Source: Table V-9
4) Source: Indian River County Planning Division. Parks and Recreation Impact Fees were adopted at 69%.
5) Source: *Indian River County Impact Fee Update, Final Report, September 26, 2014*
6) Source: Charlotte County Community Development Department. Community & regional park fees are combined.
7) Source: Citrus County Growth Management Department
8) Source: Collier County Impact Fee Administration Department. Community & regional park fees are combined.
9) Source: Hernando County Planning & Development Department
10) Source: Highlands County Code of Ordinances, Section 13-28; impact fee moratorium in effect.
11) Source: Martin County Growth Management Department
12) Source: Osceola County Community Development Department. Multi-Family rates shown as average of rural and condo
13) Source: St. Johns County Growth Management Department. Fees are indexed annually.
14) Source: St. Lucie County Planning & Development Services Department. Fees are indexed annually.

VI. Transportation

This section summarizes the analysis used to update Indian River County's transportation impact fee schedule and includes the following subsections:

- Demand Component
- Cost Component
- Credit Component
- Calculated Transportation Impact Fee
- Transportation Impact Fee Comparison
- Benefit District Review
- Affordable Growth Strategy

As in the case of the other impact fee program areas, the methodology used for the transportation impact fee study follows a consumption-driven approach in which new development is charged based upon the proportion of vehicle-miles of travel (VMT) that each unit of new development is expected to consume of a lane-mile of the roadway network.

Included in this document is the necessary support material used in the calculation of the transportation impact fee. The general equation used to compute the impact 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 Vehicle-Miles of Travel (VMT) (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 since new development consumes trips on a daily basis.

The "cost" of building new capacity typically is expressed in units of dollars per vehicle-mile of roadway capacity. Consistent with the current adopted methodology, the cost is based on recent roadway 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 roadway 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 Variables:

- Trip generation rate
- Trip length
- Percent new trips
- Interstate & Toll Facility Adjustment Factor

Cost Variables:

- Cost per vehicle-mile
- Capacity added per lane mile

Credit Variables:

- Equivalent gas tax credit (pennies)
- Present worth
- Fuel efficiency
- Effective days per year

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 vehicle-miles of new travel (VMT) a unit of development consumes on the existing road 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)

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* (10th 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. In addition, Tables C-8 through C-11 provide a comparison of the changes to the demand variables used in the 2014 study and this update study.

Interstate & Toll Facility Adjustment Factor

This variable is 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. Typically, transportation impact fees are not used to pay for these improvements and the portion of travel occurring on the interstate/toll facility system is usually eliminated from the total travel for each use.

To calculate the interstate and toll (I/T) facility discount factor, the loaded highway network[1] file was generated for the Treasure Coast Regional Planning Model v4 (TCRPMv4). A select link analysis was conducted for all traffic analysis zones located within Indian River County in order to differentiate trips with an origin and/or destination within the county versus trips with no origin or destination within the county.

Currently, interstate and toll facilities within the study area include Interstate 95 and the Florida Turnpike (SR 19). The limited access vehicle-miles of travel (Limited Access VMT) for trips with an origin and/or destination within the County was calculated for the identified limited access facilities. The total VMT was calculated for all trips with an origin and/or destination within the study area for all roads, including limited access facilities.

The I/T adjustment factor of 10.9 percent was determined by dividing the total limited access VMT by the total study area VMT for the 2040 Cost Feasible network. By applying this factor to the VMT for each land use, the reduced VMT is then representative of only the roadways which are funded by impact fees.

[1] The "loaded highway network" refers to the final model roadway network with traffic volumes assigned (or loaded) to each model roadway link.

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 Indian River County. In addition to local data, bid data for recently completed/ongoing projects and recent construction bid data from roadway projects throughout Florida were used to supplement the cost data for county roadway improvements. The cost for each roadway capacity project was separated into four components: design, right-of-way (ROW), construction, and construction engineering/inspection (CEI).

Design and CEI

Design costs for county roads were estimated at 11 percent of construction phase costs based on a review of recent local cost data and cost data from recent roadway/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix D, Tables D-2 and D-3.

CEI costs for county roads were estimated at 9 percent of construction phase costs based on a review of recent local cost data and cost data from recent roadway/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix D, Tables D-2 and D-9.

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. This factor was determined through a review of the ROW-to-construction cost ratios for upcoming county improvements in Indian River County. For county roadways, the ROW factors ranged from 14 to 32 percent with an average of 22 percent. For purposes of this update study, the ROW cost for county roads was calculated at 20 percent of the construction cost per lane mile. This represents a conservative estimate when compared to ROW-to-construction ratios observed in other communities throughout Florida, which average approximately 42 percent. Additional detail is provided in Appendix D, Tables D-4 and D-5.

Construction

The construction cost for county roads was based on recently completed projects and future estimates in Indian River County and in other communities in Florida. A review of construction cost data for Indian River County since 2012 identified two completed/ongoing capacity expansion projects and four future improvements that will start construction within the next five years:

- Oslo Rd Ph. III from 43rd Ave to 58th Ave
- 66th Ave from SR 60 to 49th St
- CR 510 from CR 512 to W. 82nd Ave
- 37th St from Indian River Blvd to US 1
- 66th Ave from 49th St to 69th St
- 66th Ave from 69th St to 85th St

The construction costs for these local improvements ranged from $1.44 million to $5.91 million per lane mile with a weighted average cost of $2.54 million per lane mile. In addition to the local projects, recent improvements from other counties throughout Florida were reviewed to increase the sample size. This review included over 164 lane miles of lane addition and new road construction improvements with a weighted average cost of approximately $2.91 million per lane mile. Additional data is provided in Appendix D, Table D-7.

Based on a review of these data sets, a construction cost of **$2.80 million** per lane mile was used in the impact fee calculation for urban design (curb & gutter) improvements. This cost reflects the weighted average of the local improvements and the improvements from other Florida communities.

To determine the cost per lane mile for county roads with rural-design characteristics (open drainage), the relationship between urban and rural roadway costs from the FDOT District 7 Long Range Estimates (LRE)[2] was reviewed. Based on these cost estimates, the costs for roadways with rural-design characteristics were estimated at approximately 74 percent of the costs for roadways with urban-design characteristics. Additional detail is provided in Appendix D, Table D-1.

To determine the weighted average cost for county roadways, the cost for curb & gutter and open drainage roadways were weighted based on the distribution of cost feasible improvements included in the Indian River 2040 Long Range Transportation Plan. As shown in Table VI-1, the weighted average county roadway construction cost was calculated at approximately $2.65 million per lane mile, with a total weighted average cost (design, ROW, construction, CEI) of $3.71 million per lane mile for county roadways.

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

Table VI-1

Estimated Total Cost per Lane Mile for County Roads

Cost Phase	Cost per Lane Mile		
	Urban Design	Rural Design[5]	Weighted Average[6]
Design[1]	$308,000	$228,000	$291,000
Right-of-Way[2]	$560,000	$414,000	$529,000
Construction[3]	$2,800,000	$2,072,000	$2,647,000
CEI[4]	$252,000	$186,000	$238,000
Total Cost	**$3,920,000**	**$2,900,000**	**$3,705,000**
Lane Mile Distribution[7]	79%	21%	100%

1) Design is estimated at 11% of construction costs
2) Right-of-Way is estimated at 20% of construction costs
3) Source: Estimate for urban design (curb & gutter) based on a review of data in Appendix D, Tables D-6 and D-7
4) CEI is estimated at 9% of construction costs
5) Open drainage costs are estimated at 74% of the curb & gutter costs
6) Lane mile distribution (Item 7) multiplied by the design, right-of-way, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile
7) Source: Appendix D, Table D-11 Items c and d

Note: All figures rounded to nearest $000

State Roadway Cost

This section examines the right-of-way (ROW), construction, and other cost components associated with state roads with respect to transportation capacity expansion improvements in Indian River County. In addition to local data, bid data for recently completed/ongoing projects and recent construction bid data from roadway projects throughout Florida were used to supplement the cost data for state roadway improvements. The cost for each roadway capacity project was separated into four components: design, right-of-way (ROW), construction, and construction engineering/inspection (CEI).

Design and CEI

Design costs for state roads were estimated at 11 percent of construction phase costs based on a review of cost data from recent road/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix D, Table D-3.

CEI costs for state roads were estimated at 11 percent of construction phase costs based on a review of recent cost data from road/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix D, Table D-9.

Right-of-Way

The ROW cost factor for state roads was estimated as a percentage of the construction cost per lane mile. Given the limited data on ROW costs for state roads in Indian River County and based on experience in other jurisdictions, the ROW cost ratio calculation for county roads was also applied to state roads. Using this ROW-to-construction ratio of 20 percent, the ROW cost for state roads with urban design characteristics is approximately $760,000 per lane mile.

Construction

A review of construction cost data for state road projects built in Indian River County since 2012 did not identify any recent improvements. However, 10 improvements were identified from other communities in FDOT District 4, with a weighted average cost of $4.45 million per lane mile. In addition to the District 4 projects, recent improvements from other counties throughout Florida were reviewed to increase the sample size. This review included over 393 lane miles of lane addition and new road construction improvements with a weighted average cost of approximately $3.71 million per lane mile. When both samples were combined, the resulting data set included over 436 lane miles with a weighted average construction cost of $3.79 million per lane mile. Additional detail is provided in Appendix D, Table D-8.

For the impact fee calculation, a construction cost of **$3.80 million** per lane mile was estimated for urban design (curb & gutter) state roadways.

To determine the cost per lane mile for state roads with rural-design characteristics (open drainage), the relationship between urban and rural roadway costs from the FDOT District 7 Long Range Estimates (LRE)[3] was reviewed. Based on these cost estimates, the costs for roadways with rural-design characteristics were estimated at approximately 74 percent of the costs for roadways with urban-design characteristics. Additional detail is provided in Appendix D, Table D-1.

To determine the weighted average cost for state roadways, the cost for curb & gutter and open drainage roadways were weighted based on the distribution of Indian River County roadways included in the 2040 LRTP's Cost Feasible Plan. As shown in Table VI-2, the weighted average roadway construction cost was calculated at approximately $3.59 million per lane mile, with a total weighted average cost (design, ROW, construction, CEI) of $5.10 million per lane mile for state roadways.

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

Table VI-2

Estimated Total Cost per Lane Mile for State Roads

Cost Phase	Cost per Lane Mile		
	Urban Design	Rural Design[5]	Weighted Average[6]
Design[1]	$418,000	$309,000	$395,000
Right-of-Way[2]	$760,000	$562,000	$718,000
Construction[3]	$3,800,000	$2,812,000	$3,593,000
CEI[4]	$418,000	$309,000	$395,000
Total Cost	**$5,396,000**	**$3,992,000**	**$5,101,000**
Lane Mile Distribution[7]	79%	21%	100%

1) Design is estimated at 11% of construction costs
2) Right-of-Way is estimated at 20% of construction costs
3) Source: Appendix D, Table D-8 for urban design (curb & gutter)
4) CEI is estimated at 11% of construction costs
5) Open drainage costs are estimated at 74% of the curb & gutter costs
6) Lane mile distribution (Item 7) multiplied by the design, right-of-way, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile
7) Source: Appendix D, Table D-11 Items c and d

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 VI-3. The resulting weighted average cost of approximately $4.31 million per lane mile was utilized as the roadway cost input in the calculation of the transportation impact fee rates. The weighted average cost per lane-mile includes county and state roads and is based on the projected 2040 VMT distribution between county and state roads from the TCRPM v4.

Table VI-3

Estimated Cost per Lane Mile for County and State Roadway Projects

Cost Type	County Roads[1]	State Roads[2]	County and State Roads[3]
Design	$291,000	$395,000	$336,000
Right-of-Way	$529,000	$718,000	$610,000
Construction	$2,647,000	$3,593,000	$3,054,000
CEI	$238,000	$395,000	$306,000
Total	**$3,705,000**	**$5,101,000**	**$4,306,000**
Lane Mile Distribution[4]	57%	43%	100%

1) Source: Table VI-1
2) Source: Table VI-2
3) Lane mile distribution (Item 4) multiplied by the individual component costs for county and state roads and then added together to develop a weighted average cost per lane-mile
4) Source: Appendix D, Table D-10

Vehicle-Miles of Capacity Added per Lane Mile

An additional component of the transportation impact fee equation is the capacity added per lane-mile of roadway constructed. The vehicle-miles of capacity (VMC) is an estimate of capacity added per lane mile, for county and state roadway improvements in the 2040 LRTP. As shown in Table VI-4, each lane mile will add approximately 8,600 vehicles. Additional detail is provided in Appendix D, Table D-11.

Table VI-4

Weighted Average Vehicle-Miles of Capacity per Lane Mile

Source	Lane Mile Added[1]	Vehicle-Miles of Capacity Added[1]	VMC Added per Lane Mile[2]
County Roads	86.26	733,916	8,508
State Roads	8.64	86,832	10,050
Total	**94.90**	**820,748**	
Weighted Average VMC Added per Lane Mile[3]			**8,600**

1) Source: Appendix D, Table D-11
2) Vehicle-miles of capacity added divided by lane miles added
3) Total VMC added (Item 2) divided by total lane miles added (Item 1)

Cost per Vehicle-Mile of Capacity

The roadway cost per unit of development is assessed based on the cost per vehicle-mile of capacity. As shown in Tables VI-3 and VI-4, the cost and capacity for roadways in Indian River

County have been calculated based on recent local and statewide improvements. As shown in Table VI-5, the cost per VMC for travel within the county is approximately **$501**.

The cost per VMC figure is used in the transportation impact fee calculation to determine the total cost per unit of development based on vehicle-miles of travel consumed. For each vehicle-mile of travel that is added to the roadway system, approximately $501 of roadway capacity is consumed.

Table VI-5
Weighted Average Cost per Vehicle-Mile of Capacity Added

Source	Cost per Lane Mile[1]	Average PMC Added per Lane Mile[2]	Cost per PMC[3]
County Roads	$3,705,000	8,508	$435.47
State Roads	$5,101,000	10,050	$507.56
Weighted Average	**$4,306,000**	**8,600**	**$500.70**

1) Source: Table VI-3
2) Source: Table VI-4
3) Average VMC added per lane mile (Item 2) divided by cost per lane mile (Item 1)

Credit Component

Capital Improvement Credit

The credit component of the impact fee accounts for the County and State funding sources that are being expended on roadway capacity expansion (excluding impact fee funds). This section summarizes the calculations utilized to develop the credit component of the impact fee. Additional details are provided in Appendix E.

The present value of the portion of non-impact fee revenues generated by new development over a 25-year period (estimated life of a structure as well as when roadways are likely to need significant maintenance/rehabilitation) that is expected to fund capacity expansion projects was credited against the cost and the system consumed by travel associated with new development. In order to provide a connection to the demand component, which is measured in terms of travel, the non-impact fee dollars were converted to a fuel tax equivalency.

County Credit

As shown in Table VI-6, Indian River County spends the equivalent of 12.1 pennies on transportation capacity-expansion projects funded with non-impact fee revenues, including sales tax and fuel tax revenues. Additional detail is provided in Appendix E, Table E-2.

State Credit

As shown in Table VI-6, state expenditures for transportation capacity projects in Indian River County were reviewed and a credit for the capacity-expansion portion attributable to state projects was estimated (excluding expenditures on limited access facilities). The review, which included 10 years of historical expenditures, as well as six (6) years of planned expenditures, indicated that FDOT's transportation spending generates a credit of 15.1 pennies of equivalent gas tax revenue, annually. The use of a 16-year period for developing a state credit accounts for the volatility in FDOT spending in the county over short time periods. Additional detail is provided in Appendix E, Table E-3.

In summary, for transportation, Indian River County allocates 12.1 pennies, while the State spends an average of 15.1 pennies, annually. A total credit of 27.2 pennies or $24 million per year was included in the transportation impact fee calculation to recognize the future capital revenues (25 years) that are expected to be generated by new development from all non-impact fee revenue sources. This credit reflects the most recent available data for transportation expenditures from County and State sources.

Table VI-6

Equivalent Pennies of Gas Tax Revenue

Credit	Average Annual Expenditures	Value per Penny[3]	Equivalent Pennies per Gallon[4]
County Revenues[1]	$10,874,786	$896,847	$0.121
State Revenues[2]	$13,497,702	$896,847	$0.151
Total	**$24,372,488**		**$0.272**

1) Source: Appendix E, Table E-2
2) Source: Appendix E, Table E-3
3) Source: Appendix E, Table E-1
4) 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 transportation impact fee calculation based on information provided by the 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 transportation impact fee.

Appendix E, Table E-7 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-7, 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 Transportation Impact Fee

Detailed 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, and percent new trips);
- Total impact fee cost;
- Annual capital improvement credit;
- Present value of the capital improvements credit;
- Net transportation impact fee rates;
- Current adopted Indian River County impact fee rates; and
- Percent difference between the calculated impact fee and the current adopted impact fee.

It should be noted that the net 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 Indian River 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 impact fee is calculated for the single-family residential detached land use category (ITE LUC 210) using information from the impact fee schedules included in Appendix F. For each land use category, the following equations are utilized to calculate the net impact fee:

Net Impact Fee = Total Impact Cost – Capital Improvement Credit

Where:

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

Capital Improvement Credit = Present Value (Annual Capital Improvement Credit), given 2.5% 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 land use category (2,000 sq ft):

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.81)
- *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 (10.9%)
- *Cost per Lane Mile* = unit cost to construct one lane mile of roadway, in $/lane-mile ($4,306,000)
- *Average Vehicle-Capacity Added per Lane Mile* = represents the average daily traffic on one travel lane at capacity for one lane mile of roadway, in vehicles/lane-mile/day (8,600)
- *Cost per Vehicle-Mile of Capacity* = unit of vehicle-miles of capacity consumed per unit of development. Cost per lane mile divided by average capacity added per lane mile

- *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
- *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 ($0.272)
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (18.92)

Transportation Impact Fee Calculation

Using these inputs, a net impact fee can be calculated for the single-family residential detached (2,000 sf) land use category as follows:

Single Family Transportation Impact Fee Rate (Table F-1):

Total Impact Cost = ([7.81 * 6.62 * 1.0] /2) * (1 - 0.109) * ($4,306,000 /8,600) = **$11,533**

Annual Cap. Improv. Credit = ([7.81 * 7.12 * 1.0] /2) * 365 * ($0.272 /18.92) = $146

Capital Improvement Credit = $146 * 18.4244 = $2,690

Net Transportation Impact Fee = $11,533 – $2,690 = **$8,843**

Affordable Growth Strategy

As presented in Table VI-6 and Appendix E, in addition to impact fees, the County uses a combination of fuel tax and sales tax revenues to fund the transportation system. In terms of affordable growth calculations, it is important to note the following.

Consistent with the methodology used by many Florida jurisdictions, impact fee calculations are based on the adopted LOS standard, which is lower than the current achieved LOS. In other words, under the current methodology, even with the full impact fee, unless the County uses other revenue sources, the current achieved LOS for the system will deteriorate and more congestion will be experienced. It is Indian River County's policy to conduct a link-by-link capacity analysis and ensure that no link drops below LOS standard D. When the fee is calculated using the current achieved LOS, it amounts to $20,400 for a mid-size single family home, compared to $8,843 per home calculated using the adopted LOS standard. As such, the standard methodology used for transportation impact fees results in fee levels that slow down the degradation of the

system but do not generate sufficient revenues to maintain the existing conditions when they are better than the adopted LOS standard.

The credit calculations suggest an annual investment of $10.9 million by the county for transportation capacity. Even with this funding, the above describe fee differential exists. Unless the available funding for transportation capacity increases significantly in the future, the County will allow the LOS to degrade faster with a lower fee compared to the travel conditions that could be better maintained with the full fee.

On the other hand, if the County makes the policy decision of accepting a higher level of congestion where the adopted LOS standard approaches to the achieved average LOS (i.e., half the roads operate better than LOS D while the other half operate worse), the County could use the annual investment amount to reduce the fees. During the 2014 study, the County adopted an average LOS standard of D for all roads for impact fee purposes, and this study continues to use this standard.

Transportation Impact Fee Schedule Comparison

A comparison of calculated fee schedule to the current adopted fee by land use is presented in Table VI-7 for select land uses.

A summary of calculated impact fee rates for all land uses is presented in Appendix F, Table F-1.

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Table VI-7
Transportation Impact Fee Comparison

Land Use	Unit[2]	Indian River County County			Brevard County[6]	St. Lucie County[7] MAINLAND	Charlotte County[8]	Citrus County[9]	Collier County[10]	Hernando County[11]	Highlands County[12]	Martin County[13]	St. Johns County[14]
		Calculated[3]	Adopted[4]	Full[5]									
Date of Last Update		**2019**	2014	2014	2000	2009	2014	2014	2015	2013	2006	2012	2018
Assessed Portion of Calculated[1]		**100%**	100%/45%	100%	100%	100%	49%	50%	100%	22%	25%	100%	100%/60%
Residential:													
Single Family Detached (2,000 sq ft)	du	**$8,843**	$4,248	$4,248	$4,353	$5,068	$2,907	$1,697	$7,444	$1,269	$1,649	$2,815	$8,640
Multi-Family (3 Stories)	du	**$4,715**	$2,742	$2,742	$2,381	$1,938	$1,879	$1,038	$5,542	$822	$1,170	$2,293	$6,725
Non-Residential:													
Light Industrial	1,000 sf	**$3,989**	$1,206	$2,681	n/a	$863	$1,847	$584	$5,700	$806	$1,166	$1,857	$1,415
Office (50,000 sq ft)	1,000 sf	**$7,844**	$1,916	$4,257	$5,058	$2,907	$3,475	$1,687	$10,249	$1,516	$3,095	$2,198	$2,671
Retail (125,000 sq ft)	1,000 sf	**$12,451**	$2,862	$6,360	$5,270	$5,614	$4,616	$1,248	$14,354	$1,884	$2,455	$5,183	$4,320
Bank w/Drive-In	1,000 sf	**$19,151**	$6,219	$13,820	$23,331	$5,425	$9,737	$1,248	$28,961	$4,257	$11,232	$6,841	$8,252
Fast Food w/Drive-Thru	1,000 sf	**$93,486**	$20,459	$45,464	$35,791	$5,425	$32,359	$1,248	$96,567	$17,397	$25,202	$15,693	$11,159

1) Represents that portion of the maximum calculated fee for each respective county that is actually charged. Fees may have been lowered through indexing or policy discounts. Does not account for moratoriums/suspensions
2) du = dwelling unit
3) Source: Appendix F, Table F-1
4) Source: Indian River County Planning Division
5) Source: Indian River County Impact Fee Update Study, September 2014
6) Source: Brevard County Planning & Development Department
7) Source: St. Lucie County Planning & Development Services Department. Retail <100,000 sq ft rate is shown for Bank and Fast Food land uses
8) Source: Charlotte County Community Development Department
9) Source: Citrus County Department of Growth Management, Land Development Division
10) Source: Collier County Capital Project Planning, Impact Fees, and Program Management Division
11) Source: Hernando County Planning Department
12) Source: Highlands County Code of Ordinances, Section 13-28. Fees are currently suspended indefinitely
13) Source: Martin County Growth Management Department
14) Source: St. Johns County Growth Management Department. Residential 801-1,250 sq ft rate is shown for Multi-Family land use

Benefit Districts Review

As part of the transportation impact fee update study, the existing benefit district boundaries were reviewed. As shown in Map VI-1, there are currently 3 districts. Based on a review of geographic barriers/features, travel distances, historical impact fee collections and expenditures, municipal boundaries, and the location of planned capacity improvements, a reduction to two districts is proposed, as illustrated in Map VI-2. This new boundary would align with the southern boundary of Township 32S and the northern boundary of Township 33S, generally following 53rd Street, going due east and west from the existing portion of 53rd Street.

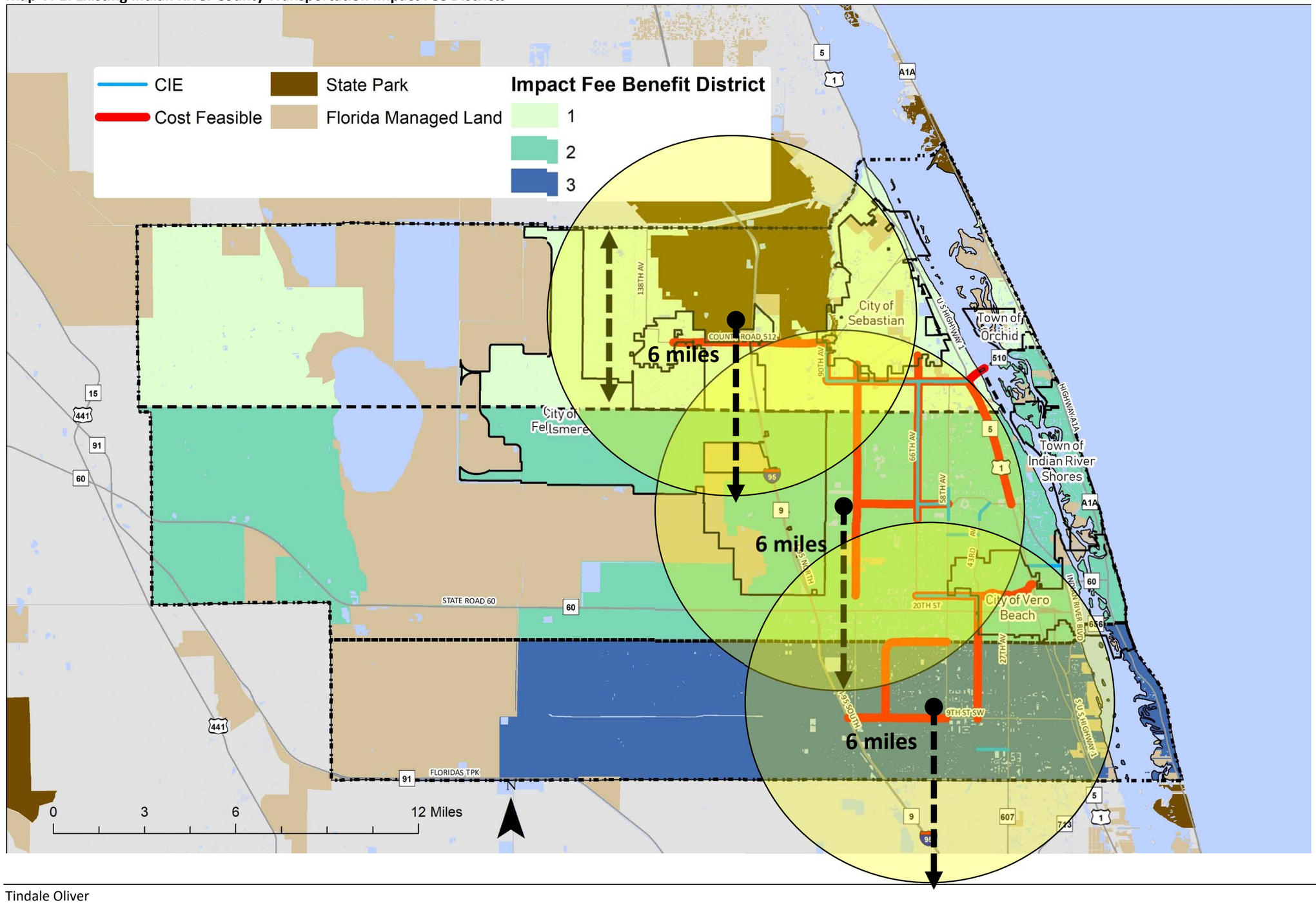
To ensure the new boundaries continue to comply with the legal requirement to convey a proportional benefit to the fee payer, the travel distance from the center of each existing and proposed district alignment was measured. For the existing alignment, the northern district had a distance of 3.00 miles, the central district had a distance of 3.75 miles, and the southern district had a distance of 2.25 miles. With the new alignments, the northern district's distance would increase to 4.00 miles and the southern district's distance would increase to 4.50 miles. In both cases, the distance to the district boundary is less than the average trip length of single family homes (6.62 miles), which suggests that the fee payers are likely to use the roads improved with impact fee revenues even with the larger benefit districts.

As illustrated in Maps VI-1 and VI-2, the majority of the CIE and LRTP Cost Feasible Plan improvements are located east of I-95, with all improvements located east of the City of Fellsmere. Therefore, the discussion of district boundary re-alignment was focused on east county, where the proof of benefit would come into play. The recommended two-district alignment creates a more even distribution of planned improvements between the districts.

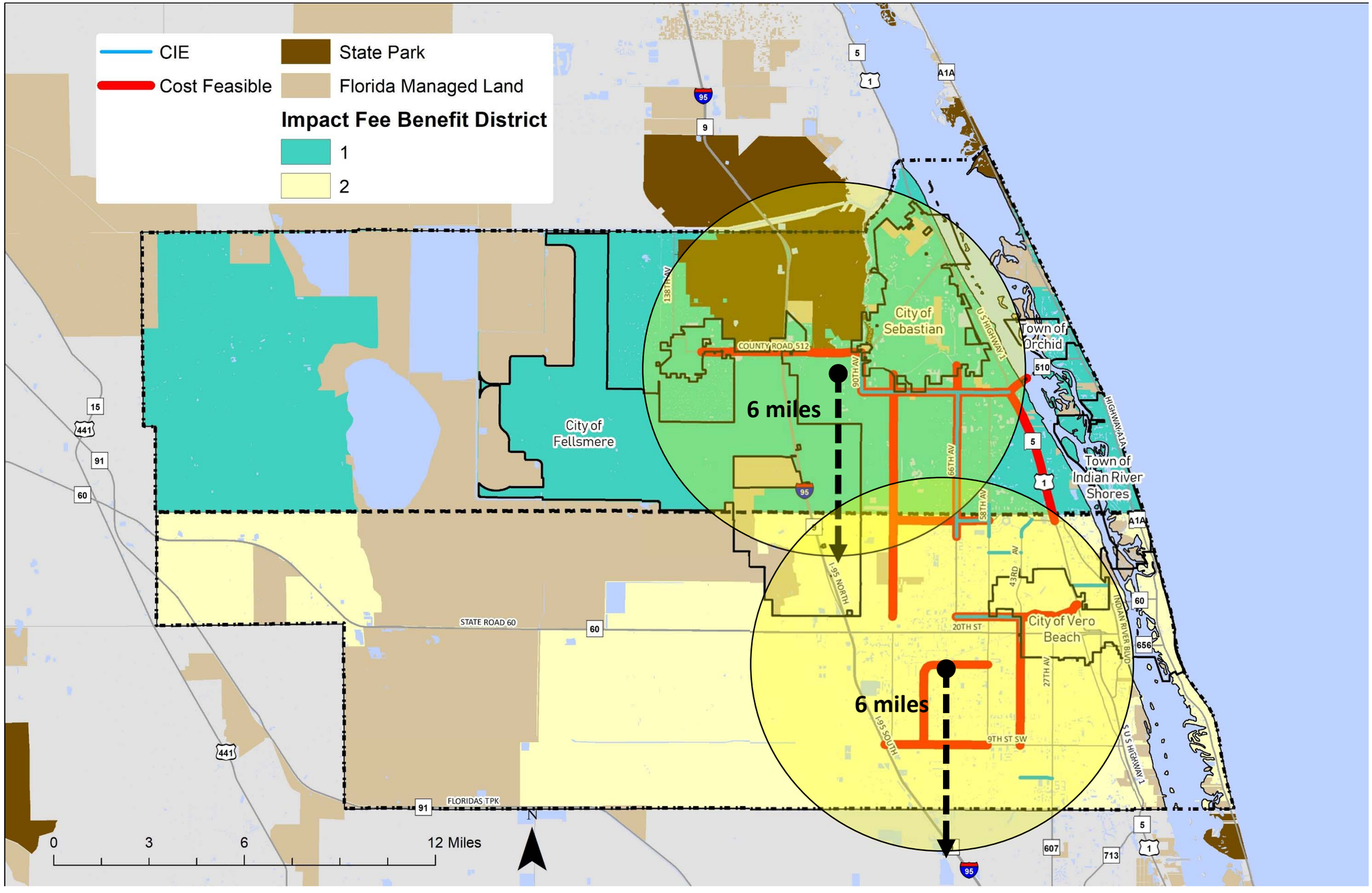
In addition, the current alignment divides Fellsmere unevenly between two districts, whereas the re-alignment would place over 90 percent of the city's parcels into a single district.

As a result, this reduction from three to two districts continues to ensure that the fee payers are receiving the associated benefit, while increasing the average funds of each district when compared to the division of funds across three districts. These larger pools of impact fee revenues better match the level of improvements contained with each benefit district.

Map VI-1: Existing Indian River County Transportation Impact Fee Districts



Map VI-2: Proposed Indian River County Transportation Impact Fee Districts



VII. Educational Facilities

Educational facilities impact fees are used to fund the acquisition of land, capital construction and expansion of facilities and capital equipment required to support the additional school facility demand created by new growth. This section presents the results of the educational facilities impact fee update study for Indian River County and will serve as the technical support document for the calculated school impact fee rates.

Several elements addressed in this section include:

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Impact Cost per Student
- Student Generation Rate
- Calculated Educational Facilities Impact Fee Schedule
- Affordable Growth Strategy
- Educational Facilities Impact Fee Schedule Comparison

Facility Inventory

The Indian River County School District provides public education facilities that are available to all school-age residents of Indian River County. As such, this analysis will consider all public elementary, middle, and high school level facilities and the students attending these facilities located throughout and living within Indian River County.

The District currently operates 19 traditional public schools that serve the students of Indian River County and its municipalities, including 13 elementary schools, 4 middle schools, and 2 high schools. The District's current traditional school inventory (excluding charter, alternative or adult education) is provided in Appendix G, Table G-1.

Service Area and Enrollment

The Indian River County School District provides public education facilities that are available to all Pre-Kindergarten thru 12th grade (PK-12) students throughout the entire county. Attendance boundaries can be redrawn to balance school enrollment with available school capacity and therefore can serve different geographic areas over time. As such, the appropriate impact fee district for public schools is countywide.

Table VII-1 presents the historical student enrollment since 2007/08 school year. The annual percent change for the enrollment is presented, as well as a three-year average to account for any random fluctuations. Table VII-1 illustrates an overall slight decline in student enrollment with the exception of the current enrollment year.

Table VII-1

Indian River County Enrollment

School Year	Enrollment(1)	Annual % Change(2)	Three-Year Average(3)
2007-08	16,238	-	-
2008-09	15,664	-3.5%	-
2009-10	15,582	-0.5%	-
2010-11	15,436	-0.9%	-
2011-12	15,488	0.3%	-1.7%
2012-13	15,446	-0.3%	-0.4%
2013-14	15,377	-0.4%	-0.3%
2014-15	15,337	-0.3%	-0.1%
2015-16	15,201	-0.9%	-0.3%
2016-17	15,032	-1.1%	-0.5%
2017-18	14,958	-0.5%	-0.8%
2018-19	**15,157**	**1.3%**	**-0.8%**

1) Source: Indian River County School District
2) Percent change from one year to the next
3) Average change over the past three years

Facility Service Delivery

The Indian River County School District inventory was reviewed to understand the District's design characteristics. Consistent with the input received from the District during the most recent technical study, this inventory is considered to represent typical design characteristics of future schools.

Table VII-2 illustrates the facility service delivery in Indian River County, which is 146.6 net square feet per permanent student station for elementary schools, 140.1 net square feet per permanent student station for middle schools, and 162.1 net square feet per permanent student station for high schools. The weighted average facility service delivery based on all three school types is 149.6 net square feet per permanent student station. Reference to net square feet pertains to the most recent figures published per the Florida Inventory of School Houses (FISH) Report for the District.

Table VII-2

Facility Service Delivery

Description	School Type			Weighted Average
	Elementary	Middle	High	
Permanent Net Square Footage[(1)]	1,180,777	602,411	839,343	2,622,531
Permanent Student Capacity[(2)]	8,053	4,299	5,179	17,531
Net Square Feet per Student Station Capacity[(3)]	146.6	140.1	162.1	149.6

1) Source: Indian River County School District (IRCSD)
2) Source: Indian River County School District; Indicates permanent capacity after FISH adjustment
3) Permanent net square footage (Item 1) divided by permanent student station capacity (Item 2)

The service delivery is based on the permanent student stations because it is the School District's policy to use portable stations only as a temporary solution. This approach is also consistent with the methodology used in the 2014 technical study, which is the basis of the current adopted impact fee schedule. Portable stations will always be used at some level since they provide valuable flexibility to address temporary and locational increases in enrollment. The School District's policy is to provide the necessary permanent student stations in the long term.

Cost Component

The capital costs of providing educational facilities includes three components, including the school facility cost, transportation cost, and ancillary facility costs. This section addresses each of these components.

Facility Cost per Student Station

The first step in determining the cost of providing public schools to Indian River County residents is to calculate the facility cost per student station. Several cost components must be considered when calculating the total cost of constructing a school, including architectural/civil design/site improvement costs; construction costs; furniture, fixtures, and equipment (FF&E) costs; and the cost to purchase the land. Each component of the school facility cost is described in more detail in the following subsections.

Construction and Non-Construction Facility Costs

To determine the administration, architect/site improvement, construction, and FF&E costs associated with building a new school in Indian River County, the following information was evaluated:

- Construction cost trends observed since 2014;
- Insurance values of existing schools, which provide a conservative estimate since more permanent parts of the structures, such as the foundation, etc. are typically not insured; and
- Information obtained from other jurisdictions regarding recently built schools.

Detailed information on cost estimates is included in Appendix G.

Table VII-3 presents the cost per square foot figures for each cost component by school level. For illustration purposes, Table VII-3 also presents the weighted average figure for each cost component based on the mix of existing stations for each school type.

Land Cost

For each school type, the land cost per square foot is estimated at $55,000 per acre. This cost per acre is based primarily on a review of the land value of existing school sites, vacant land sales and values of similarly sized and zoned parcels as well as land value trends observed in Indian River County. Further detail on the land value analysis is documented in Appendix G.

The land cost per square foot of building by school type was developed based on the acres per 1,000 permanent net building square feet for existing stations. The resulting land value figures used for each type of school are presented in Table VII-3.

Overall, the total school facility cost estimates range from $29,481 per permanent station for elementary schools to $40,403 per permanent station for high schools.

In 2016, the Florida Legislature passed House Bill 7029, requiring that beginning July 1, 2017, school districts may not use funds from any other sources for new construction of educational plant space that exceeds the statutory maximum cost per student station. The legislation also required the Office of Economic and Demographic Research (EDR) to conduct a study of the cost per student station. EDR report was completed in January 2017. Two primary recommendations of the report included:

- Use of cost per square foot as the unit cost as opposed to cost per student station in setting limits for school construction, as this approach aligns with the conventional method of estimating costs in the construction industry and allows for design differentials; and
- Recognition of cost variations by geographic region.

The Florida Department of Education (FDOE) continues to use the indexed 2006 construction cost figures until January 1, 2020. By January 2020, the FDOE will develop a revised statewide average construction cost per station, which will be indexed going forward. FDOE will collaborate with EDR to select an industrywide accepted construction cost index. In the absence of any adjustments, existing Student Station Cost Factors published by FDOE are used to develop alternative cost estimates. These cost figures include construction, architectural/design, and FF&E costs but exclude land costs. The FDOE cost factors were last updated in 2006 and have been indexed since using Consumer Price Index. Table VII-3 presents a comparison of the local student station cost estimates (excluding land) against the maximum cost per student station published by the FDOE, which ranged from $24,932 for elementary schools to $34,081 for high schools. In other words, the estimated local cost per student station weighted average is approximately 15 percent greater than the FDOE average weighted cost per station. Given these requirements, impact fee calculations in this report use the student station cost figures published by FDOE, which result in more conservative impact fee levels.

Table VII-3

Facility Cost per Student Station

Variable	Elementary School	Middle School	High School	Weighted Average
Net Square Feet per Student Station Capacity[1]	146.6	140.1	162.1	149.6
Existing Permanent Capacity[2]	8,053	4,299	5,179	17,531
School Facility Cost Components:				
Architectural/Civil Design/Site Improvement Cost per Net Sq Ft[3]	$27.00	$28.80	$34.20	$29.72
Construction Cost per Net Sq Ft[4]	$150.00	$160.00	$190.00	$165.10
FF&E Cost per Net Sq Ft[5]	$12.00	$12.80	$15.20	$13.21
Land Cost per Net Sq Ft[6]	$12.10	$9.85	$9.85	$11.33
Total Facility Cost per Net Sq Ft[7]	$201.10	$211.45	$249.25	$219.36
Total Facility Cost per Student Station[8]	**$29,481**	**$29,624**	**$40,403**	**$32,816**
Total Facility Cost Excluding Land Cost per Student Station[9]	$27,707	$28,244	$38,807	$31,121
DOE Cost per Student Station[10]	$23,158	$25,008	$32,484	$26,367
DOE Cost per Student Station with Land Value[11]	**$24,932**	**$26,388**	**$34,081**	**$27,992**

1) Source: Table VII-2
2) Source: Table VII-2
3) Estimated at 18% of construction cost. See Appendix G for further detail.
4) Construction cost is estimated to range from $150 per net square foot to $190 per net square foot. Detailed information on cost estimates is included in Appendix G.
5) Estimated at 8% of the construction cost. See Appendix G for further detail.
6) The land cost per square foot for each school type is based on the acreage per 1,000 permanent square feet for future schools at a cost of $55,000 per acre. Further information is included in Appendix G.
7) Sum of the school facility cost per net square foot (Items 3 thru 6)
8) The net square feet per permanent student station (Item 1) multiplied by the total school facility cost per net square foot (Item 7) for each respective school type. Weighted average is based on the distribution of existing stations for each school type (Item 2).
9) Sum of School Facility Cost Components (Items 3 through 5) multiplied by Net Square Feet per Student Station (Item 1)
10) Student Station Cost Factors published by the Florida Department of Education (FDOE) on July 31, 2019.
11) FDOE Student Station Cost (Item 10) plus the land cost per NSF (Item 6) multiplied by Net Square Foot per Student Station (Item 1)

Total Facility Cost per Student

The total facility impact cost per student for each school type is based on the facility cost per student station figures derived in Table VII-3 and is typically calculated by dividing the cost per student station by the ratio of current student enrollment to available capacity. The adjustment of multiplying the cost per student station by the ratio of current student enrollment to available capacity converts the cost per student station to a cost per student. In addition, this calculation accounts for the current available permanent capacity and adjusts the costs accordingly. If there is available capacity (e.g., currently more permanent student stations than students), then the total facility cost per student increases because the cost of building this additional capacity is being recouped. Similarly, if there are currently more students enrolled than available capacity, the cost per student is adjusted downward.

In the case of Indian River County, although there is available capacity countywide, because the District's adopted LOS standard is 100 percent, the cost per student station calculated in Table VII-4 also represents the facility cost per student.

Table VII-4

Total Impact Cost per Student – FISH Net Square Feet

Variable	Elementary School	Middle School	High School	Weighted Average
Facility Impact Cost per Student				
Facility Cost per Student Station[1]	$24,932	$26,388	$34,081	$27,992
Adopted LOS Standard [2]	100%	100%	100%	100%
Final Ratio of Permanent Capacity to Enrollment Used for Impact Fee Calculations[3]	100%	100%	100%	100%
Total Facility Impact Cost per Student[4]	**$24,932**	**$26,388**	**$34,081**	**$27,992**

1) Source: Table VII-3
2) Source: Indian River County School District
3) Based on the adopted LOS standards (Item 2)
4) Facility Cost per Student Station (Item 1) multiplied by Final Ratio of Permanent Capacity (Item 3)

Although the School District's adopted LOS standard is measured in terms of stations to enrollment ratio for planning purposes, for impact fee purposes, the level of service is shown as the level of investment (or dollar value of capital assets) per student, which reflects the capacity investment made by the School District for schools and other related capital assets. The adopted LOS standard for impact fee purposes is $24,114 per student. As shown later in this section, this net cost per student decreased to $20,709 per student due to the changes in impact fee variables since 2014, which should be reflected in the impact fee ordinance.

Total Cost per Student

In addition to the facility cost per student calculated in Table VII-4, the total facility cost per student includes two additional cost components: the capital costs associated with providing transportation services and ancillary facilities. Both cost components are calculated on a per-student basis and are not dependent on school type. Each of these additional cost components is discussed in the following paragraphs.

Transportation Costs

The first additional capital cost component is the cost of providing transportation services to students. The District currently owns 114 buses used for student transportation and has approximately 131 support vehicles. The average cost is estimated at $102,000 per bus while the average cost per vehicle is estimated at $22,000. These figures result in a total transportation capital value of $14 million. The total value of the transportation fleet is divided by the District's enrollment for schools included in Appendix G, Table G-1, as well as the District's alternative

school students, as this is the total existing student population benefiting from services provided by the District's transportation fleet. The resulting cost is $944 per student for transportation services, as presented in Table VII-5.

Ancillary Facilities Costs

The other additional capital cost component is for the ancillary facilities that are necessary for the District to provide support services for students, schools, transportation services, and administrative personnel. The District currently has approximately 118,000 net square feet of permanent ancillary facilities for transportation, maintenance, warehouse, and administrative functions. Leased facilities are not included in this square footage.

The ancillary facility cost per student is based on the existing inventory, which is valued at $22.6 million, including $21.9 million for buildings and $726,000 for land. Based on the current enrollment, the ancillary facility value is $1,477 per student, as presented in Table VII-5. As with the transportation cost, the ancillary facility value is divided by the enrollment to the traditional and alternative schools to account for any administrative support provided to alternative school students at these facilities.

Table VII-5

Transportation and Ancillary Facility Cost per Student

Description	Figure
Transportation Services Cost per Student	
Total Current Value of Transportation Services[(1)]	$14,438,885
Current Enrollment[(2)]	15,299
Total Transportation Services Cost per Student[(3)]	**$944**
Ancillary Facility Cost per Student	
Building Value for Ancillary Facilities[(4)]	$21,868,665
Land Value for Ancillary Facilities[(5)]	$726,000
Total Current Value for Ancillary Facilities[(6)]	$22,594,665
Total Ancillary Facility Cost per Student[(7)]	**$1,477**

1) Source: Indian River County School District
2) Source: District enrollment from Table VII-1 plus alternative school students. The total value of the District's transportation fleet is divided by this larger enrollment figure to account for the total student population that benefits from services provided by the District's transportation fleet.
3) Total value of transportation services (Item 1) divided by the current enrollment (Item 2)
4) Source: Indian River County School District
5) Acreage of ancillary buildings multiplied by $55,000 per acre. Detailed information on cost estimates is included in Appendix G.
6) Sum of the building value (Item 4) and land value (Item 5) of the District's current inventory of ancillary facilities
7) Total value for ancillary facilities (Item 6) divided by the current enrollment (Item 2)

Credit Component

To ensure that new development is not being overcharged for construction of future student stations, any non-impact fee revenue that will be generated by new development and that will be used towards the capital expansion of school facilities must be included as a credit to reduce the total cost per student. It is important to note that a credit for school impact fees is not given for revenue generated by new development that is used for capital renovation of existing educational facilities or for maintenance or operational costs.

Based on a review of the District's capacity addition expenditures over the past five years and planned expenditures over the next five years, it has been determined that, in addition to impact fee revenues, Indian River County School District uses local capital ad valorem tax revenues to fund the capital expansion of school facilities. Because the District has previously utilized COPs for capacity expanding projects, a credit for the remaining debt service payments is also given.

Capital Expansion Credit

The capital expansion expenditure credit per student is calculated by dividing the total amount of revenue used for capital expansion projects by the average enrollment during this ten-year period. As presented in Table VII-6, the average annual expenditures for the 10-year period amounted to approximately $2.5 million with a revenue credit of $163 per student. Since majority of the historical and future expenditures are funded with ad valorem tax revenues, an adjustment factor was applied to account for the fact that new homes tend to pay higher property taxes per dwelling unit compared to existing homes. The adjustment factor was estimated based on the average taxable value of new homes built over the past five years to that of all homes. As presented in Table VII-6, the total adjusted revenue credit per student resulted in $210 annually per student or $3,372 per student over the next 25 years.

Table VII-6

Capital Expansion "Cash" Credit

Description[1]	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
1.5-Mil Local Capital Tax [1] ***:***											
Osceola Magnet School - Addition of Cafeteria	$631,234	-	-	-	-	-	-	-	-	-	$631,234
Treasure Coast ES - Classroom Building Addition	-	$437,609	-	-	-	-	-	-	-	-	$437,609
Citrus ES - Addition of Cafeteria		-	$3,590,455	-	-	-	-	-	-	-	$3,590,455
JA Thompson Admin Center - New Admin Office	-	-	$6,538,319	-	-	-	-	-	-	-	$6,538,319
Citrus ES - Addition of Classroom	-	-	-	$223,996	-	-	-	-	-	-	$223,996
Glendale - Cafeteria Expansion/Renovation	-	-	-	-	-	-	-	$205,221	$2,817,205	-	$3,022,426
Sebastian River Middle - Cafeteria	-	-	-	-	-	-	-	-	-	$5,000,000	$5,000,000
Site Improvements - Districtwide	-	-	-	-	-		$80,000	$500,000	-	-	$580,000
Security Enhancements - Districtwide	-	-	-	-	-	$3,272,000	$275,000	-	-	-	$3,547,000
Subtotal -1.5-Mil Local Capital Millage	**$631,234**	**$437,609**	**$10,128,774**	**$223,996**	**$0**	**$3,272,000**	**$355,000**	**$705,221**	**$2,817,205**	**$5,000,000**	**$23,571,039**
Other Sources [1] ***:***	-										
JA Thompson Admin Center - New Admin Office	-	-	$1,005,774	-	-	-	-	-	-	-	$1,005,774
Subtotal - Other Sources	**$0**	**$0**	**$1,005,774**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,005,774**
Total Expansion Expenditures	**$631,234**	**$437,609**	**$11,134,548**	**$223,996**	**$0**	**$3,272,000**	**$355,000**	**$705,221**	**$2,817,205**	**$5,000,000**	**$24,576,813**
Average Annual Capital Expansion Expenditures[2]											$2,457,681
Average Enrollment[3]											15,058
Capital Expansion Credit per Student[4]											$163.21
- Portion Funded with Ad Valorem Tax Revenues[5]											$156.53
- Portion Funded with Other Revenues[6]											$6.68
Ad Valorem Credit Adjustment Factor[7]											1.30
Adjusted Capital Expansion Credit per Student (Ad Valorem Portion Only)[8]											$203.49
Total Adjusted Capital Expansion Credit per Student[9]											$210.17
Capitalization Rate[10]											3.75%
Capitalization Period, Years[11]											25
Present Value of Capital Expansion Credit per Student[12]											**$3,372**

1) Source: Indian River County School District
2) Average annual capital expansion expenditures over the 10-year period
3) Source: Table VII-1

4) Average annual capital expansion expenditures (Item 2) divided by the average enrollment (Item 3)
5) Portion of the capital expansion credit per student funded with ad valorem tax revenues only
6) Capital expansion credit per student (Item 4) less the portion funded with ad valorem tax revenues (Item 5)
7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
8) Capital expansion credit per student funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor (Item 7)
9) Sum of the capital expansion credit per student funded with other revenues (Item 6) and the adjusted capital expansion credit per student (Item 8)
10) Interest rate the District is likely to pay for future bonds, estimated by Indian River County School District
11) Time period after which major repairs are needed
12) Present value of the total adjusted capital expansion credit per student (Item 9) at 3.75% interest rate (Item 10) over a 25-year capitalization period (Item 11)

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Debt Service Credit per Student

The District has been using COPs and other types of bonds to pay for a portion of the capacity expansion projects. Given that there is still an outstanding debt service on these, a credit is calculated for future debt service payments related to capacity expansion projects.

A revenue credit is calculated for the remaining portion of each outstanding COP/bond issue used to fund capacity expansion projects. The remaining payments were brought back to present value, based on the remaining number of years and annual interest rate of each respective issue. The credit for debt service resulted in $4,871 per student. The District uses local capital outlay millage to pay the debt service; therefore, an adjustment factor was applied to account for the fact that new homes tend to pay higher property taxes per dwelling unit.

As presented in Table VII-7, the debt service credit is $6,332 per student. It is important to note that in order to comply with recent legislative changes, if the School District decides to use impact fee revenues to retire debt, the District should document carefully the capacity projects that were built with the funds.

Table VII-7

Debt Service Credit

Certificates of Participation					
2014A COPS Issue	7	$34,854,250	$29,485,000	14,843	$1,986
2016A COPS Issue	8	$32,944,000	$28,800,195	14,817	$1,944
2016B COPS Issue	6	$9,137,250	$7,730,000	14,843	$521
2010A QSCB Issue	10	$10,560,126	$6,229,193	14,834	$420
Total Debt Service Credit per Student					**$4,871**
Ad Valorem Credit Adjustment Factor[6]					**1.30**
Adjusted Debt Service Credit per Student[7]					**$6,332**

1) Source: Indian River County School District
2) Source: Indian River County School District
3) Present value of the total remaining payments due, based on the interest rate of each payment and the number of years of remaining payments
4) Source: Table VII-1. For purposes of calculating the debt service credit, enrollment for 2020 through 2035 is based on annual growth rates published by the Florida Department of Education for Indian River County.
5) Present value of total remaining payments (Item 3) divided by the average annual enrollment over the life of the remaining payments (Item 4)

Net Impact Cost per Student

The net impact fee per student is the difference between the cost component and the credit component. Table VII-8 summarizes the three-step process used to calculate the net impact cost per student for public schools in Indian River County.

First, the total impact cost per student is determined. This is the sum of the weighted average facility impact cost per student from Table VII-4 and the transportation and ancillary facility cost components per student from Table VII-5.

Second, the total revenue credit is determined. This is the sum of the capital expansion expenditure "cash" credit per student from Table VII-6 and the debt service revenue credit per student from Table VII-7.

Third, the net impact cost per student is determined, which is the difference between the total impact cost per student and total revenue credit per student. The resulting figure of $20,709 per student is also the relevant measure of LOS for impact fee calculation purposes.

Table VII-8
Net Impact Cost per Student

Total Impact Cost	Per Student
Facility Impact Cost(1)	$27,992
Transportation Impact Cost(2)	$944
Ancillary Facility Cost(3)	$1,477
Total Impact Cost per Student(4)	**$30,413**
Capital Expansion Credit	**Per Student**
Capital Expansion "Cash" Credit(5)	$3,372
Debt Service Credit(6)	$6,332
Total Revenue Credit per Student(7)	**$9,704**
Net Impact Cost	**Per Student**
Net Impact Cost per Student(8)	**$20,709**

1) Source: Table VII-4
2) Source: Table VII-5
3) Source: Table VII-5
4) Sum of total facility impact cost per student (Item 1), transportation service cost per student (Item 2), and ancillary facility cost per student (Item 3)
5) Source: Table VII-6
6) Source: Table VII-7
7) Sum of the capital expansion "cash" credit per student (Item 5) and the debt service credit per student (Item 6)
8) The net impact cost per student is the total impact cost per student (Item 4) less the total revenue credit per student (Item 7)

Student Generation Rate

The number of students living in a household typically varies depending on the type of residential housing. Therefore, school impact fees are typically assessed based on the specific student generation rates for different types of residential land uses.

To determine SGR by residential category, a Geographic Information System (GIS) software was used to link each student address to its respective parcel in the Indian River County Property Appraiser's database in order to generate the number of students per unit for the current school year. This analysis included the following information:

- Indian River County and Indian River County School District provided geocoded student addresses for students attending those schools listed in Appendix G, Table G-1 as of October 2018.
- Indian River County Property Appraiser 2019 tax year parcel database was used to determine residential categories.

The development of the SGR analysis is a two-step process. First, using the 2019 Tax Year parcel file provided by the Indian River County Property Appraiser's Office, parcels were selected for the single family, multi-family, and mobile home categories. This provided the total number of units in each category. Age restricted units were excluded from this total. Second, geocoded student address data were grouped by residential category and summed. Finally, the number of students were divided by the total number of units in each residential category.

Table VII-9 presents the total number of students and total number of units by each residential category that were used to determine the SGR. The resulting SGR by residential category represents the number of students anticipated to occupy a dwelling unit over the life cycle of the home.

Additionally, Table VII-10 includes an alternative grouping of residential categories to recognize that smaller apartments and all condos house fewer students.

Table VII-9

Student Generation Rates

Land Use	Total Housing Units[1]	Number of Students[2]	Students per Unit[3]
Traditional Schools			
Single Family	53,459	12,080	0.226
Multi-Family	20,455	1,896	0.093
Mobile Home	6,849	680	0.099
Total/Weighted Average	**80,763**	**14,656**	**0.181**

1) Source: Indian River County Property Appraiser
2) Source: Indian River County School District
3) Number of students (Item 2) divided by the number of units (Item 1) for each residential type

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Table VII-10

Student Generation Rates - Alternative

Land Use	Total Housing Units[1]	Number of Students[2]	Students per Unit[3]
Traditional Schools			
Single Family	53,459	12,080	0.226
Apartments	5,588	1,601	0.287
-Less than 499 sf	*207*	*12*	*0.058*
-500 to 749 sf	*910*	*163*	*0.179*
-750 to 999 sf	*2,289*	*523*	*0.228*
-1,000 sf or greater	*2,182*	*903*	*0.414*
Condominium	14,867	295	0.020
Mobile Homes	6,849	680	0.099
Total/Weighted Average	**80,763**	**14,656**	**0.181**

1) Source: Indian River County Property Appraiser
2) Source: Indian River County Property Appraiser
3) Number of students (Item 2) divided by the number of units (Item 1) for each residential type

Calculated Educational Facilities Impact Fee Schedule

To determine the calculated school impact fee for every residential land use under each fee schedule scenario, the net impact cost per student is multiplied by the student generation rate. The resulting impact fee levels are presented in Table VII-11. Table VII-12 shows the impact fee levels for alternative residential grouping.

Table VII-11

Calculated Educational Facilities Impact Fee Schedule

Residential:								
Single Family	du	0.226	$20,709	**$4,680**	$1,702	175%	$6,077	-23%
Multi-Family	du	0.093	$20,709	**$1,926**	$668	188%	$2,387	-19%
Mobile Home	du	0.099	$20,709	**$2,050**	$1,026	100%	$3,665	-44%

1) Source: Table VII-9
2) Source: Table VII-8
3) Students per unit (Item 1) multiplied by the net impact cost per student (Item 2)
4) Source: Indian River County Planning Division
5) Percent change from the adopted fee (Item 4) to the calculated fee rate (Item 3)
6) Source: *Indian River County Impact Fee Update, Final Report, September 26, 2014*
7) Percent change from the 2014 full impact fee rate (Item 6) to the calculated fee (Item 3)

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Table VII-12

Calculated Educational Facilities Impact Fee Schedule - Alternative

Land Use	Unit	Students per Unit[1]	Net Impact Cost per Student[2]	Total Impact Fee[3]
Residential:				
Single Family	du	0.226	$20,709	**$4,680**
Apartments	du	0.287	$20,709	**$5,943**
-Less than 499 sf	du	0.058	$20,709	**$1,201**
-500 to 749 sf	du	0.179	$20,709	**$3,707**
-750 to 999 sf	du	0.228	$20,709	**$4,722**
-1,000 sf or greater	du	0.414	$20,709	**$8,574**
Condominium	du	0.020	$20,709	**$414**
Mobile Homes	du	0.099	$20,709	**$2,050**

1) Source: Table VII-9
2) Source: Table VII-8
3) Students per unit (Item 1) multiplied by the net impact cost per student (Item 2)

Affordable Growth Strategy

Based on the data shown in Table VII-6, the School District is using an average of $2.5 million per year of capital millage revenues. During the next 25 years, Indian River County is expected to grow at an average annual rate of 1.3 percent, although the enrollment growth is likely to be lower. Given this, a growth rate of 0.7 percent is used for affordable growth calculations. Although the County may charge the maximum amount of educational facilities impact fee calculated, if the historical and programmed levels of non-impact fee funding were to be continued, the County could adopt the impact fee at approximately 45 percent for residential land uses and continue to maintain the adopted LOS standard used in the calculations. If available revenue sources for educational facilities capital projects change significantly, these calculations need to be revised. Finally, the level of discount is a policy decision and could be at any level between the minimum levels calculated in this section and 100 percent and still maintain the adopted LOS standard.

Educational Facilities Impact Fee Schedule Comparison

As part of the work effort in updating Indian River County's school impact fee program, a comparison of the calculated single family school impact fee for Indian River County to the

single family school impact fees adopted by other counties throughout Florida has been prepared. Table VII-13 presents this comparison.

Table VII-13

Educational Facilities Impact Fee Schedule Comparison

County[1]	Date of Last Update[2]	Adoption Percentage[2]	Adopted Single Family Impact Fee[2]	Fee @ 100%[3]
Miami-Dade County	1995	100%	$2,448	$2,448
Citrus County	2014	50%	$1,261	$2,522
Hernando County	2005	50%	$2,133	$4,266
Hillsborough County	2004	92%	$4,000	$4,348
Volusia County	2013	67%	$3,000	$4,483
St. Johns County	2018	100%	$4,725	$4,725
Flagler County	2004	76%	$3,600	$4,756
Indian River County (Calculated)[4]	**2019**	**N/A**	**N/A**	**$4,680**
Nassau County	2017	100%	$5,431	$5,431
St. Lucie County[5]	2009	100%	$6,529	$5,447
Lee County[5]	2015	45%	$2,605	$5,484
Martin County	2006	100%	$5,567	$5,567
Indian River County (Current)[4]	**2014**	**28%**	**$1,702**	**$6,077**
Manatee County	2017	100%	$6,127	$6,127
Palm Beach County	2019	N/A	$4,237	$6,956
Marion County[5]*	2006	48%	$3,967	$7,375
Sarasota County	2015	26%	$2,032	$7,835
Orange County	2016	100%	$8,784	$8,784
Pasco County	2017	79%	$7,128	$9,028
Broward County[6]	2017	N/A	$6,888	$9,049
Clay County	2009	77%	$7,034	$9,096
Lake County	2015	100%	$9,324	$9,324
Brevard County	2015	50%	$5,097	$10,193
Polk County	2015	50%	$5,242	$10,484
Collier County[5]	2015	67%	$8,790	$11,164
Osceola County	2017	100%	$11,823	$11,823
Seminole County	2017	73%	$9,000	$12,322

1) Fees in counties tagged with an asterisk (*) are currently suspended
2) Source: Published impact fee schedules and discussions with County representatives and Table VII-11 for Indian River County
3) Represents the full calculated fee from each respective technical study
4) Source: Table VII-11
5) Fees are indexed annually
6) Rates shown under Single Family Impact Fee at 100% (Item 3) reflect most recent on-going technical study

Appendix A
Population: Supplemental Information

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Appendix A: Population

With the exception of the transportation and educational facilities impact fees, 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, as well as to be consistent with Indian River County's Comprehensive Plan, 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 Indian River 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.

Indian River County provides all of the services areas included in the impact fee program countywide, with the exception of the following three program areas:

- Law enforcement, which is only provided in unincorporated county;
- Parks and recreation services, also provided only in unincorporated county; and
- Emergency services, which are provided countywide with the exception of the Town of Indian River Shores.

Given the differences in services areas, population estimates are provided separately for these three areas.

Table A-1 presents the population trend for Indian River County. The projections indicate that the current weighted seasonal population of the County is approximately 162,800 and is estimated to increase to 211,400 by 2045. Based on these estimates, the County's projected population growth rate averages 1.0 percent per year between 2019 and 2045.

Table A-1
Weighted Seasonal Population Trends and Projections

Year	Indian River County[1]	Unincorporated Indian River County[2]	IRC, Excluding Indian River Shores[3]
2000	119,351	75,723	115,707
2001	121,732	77,277	118,028
2002	124,110	78,824	120,426
2003	126,869	80,523	123,128
2004	131,175	84,000	127,403
2005	134,573	86,741	130,792
2006	139,121	89,255	135,292
2007	143,177	92,824	139,413
2008	145,212	93,905	141,287
2009	145,356	94,014	141,452
2010	145,854	96,546	141,732
2011	146,325	96,955	142,202
2012	147,118	97,447	142,967
2013	147,266	97,465	143,109
2014	148,710	98,280	144,530
2015	151,212	100,037	146,997
2016	154,281	102,207	150,018
2017	156,970	103,947	152,610
2018	159,987	106,134	155,553
2020	165,651	109,330	161,001
2021	167,985	110,871	163,270
2022	170,488	112,522	165,702
2023	173,029	114,199	168,172
2024	175,607	115,900	170,679
2025	178,259	117,651	173,256
2026	180,273	118,980	175,213
2027	182,383	120,372	177,263
2028	184,516	121,780	179,337
2029	186,674	123,205	181,435
2030	188,819	124,620	183,518
2031	190,537	125,755	185,189
2032	192,271	126,899	186,873
2033	194,020	128,053	188,574
2034	195,786	129,219	190,291
2035	197,554	130,386	192,009
2036	198,996	131,337	193,410
2037	200,449	132,296	194,822
2038	201,912	133,261	196,244
2039	203,385	134,234	197,676
2040	204,922	135,248	199,170
2041	206,213	136,101	200,424
2042	207,512	136,958	201,687
2043	208,819	137,821	202,958
2044	210,135	138,689	204,237
2045	211,447	139,555	205,512

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

Apportionment of Demand by Residential Unit Type and Size

The residential land uses to be used for the impact fee calculations are the following:

- Single Family;
- Multi-Family;
- Mobile Home.

Tables A-2 through A-4 presents the number of persons per housing type for the residential categories identified above in Indian River County for each associated impact fee area. The tables present the persons per housing unit by each housing type based on weighted seasonal population. This analysis includes all housing units, both occupied and vacant.

Table A-2

Persons per Housing Unit by Housing Type (Countywide, 2017)

Housing Type	Population[1]	Housing Units[2]	Ratio[3]	Population / Housing Units[4]
Single Family	120,416	52,438		2.30
- Less than 1,500 sf			83%	1.91
- 1,500 to 2,499 sf			100%	2.30
- 2,500 sf or greater			112%	2.58
Multi-Family	24,485	19,736		1.24
Mobile Home	9,270	6,205		1.49
Weighted Average	**154,171**	**78,379**		**1.97**

1) Source: 2017 American Community Survey (ACS), 5-Year Estimates, Table B25033 (adjusted for seasonal population)
2) Source: 2017 ACS, 5-Year Estimates, Table DP04
3) Ratios developed based on national PPH data derived from the 2017 American Housing Survey
4) Population (Item 1) divided by housing units (Item 2). Single family residential tiers are adjusted by the ratios developed using the 2017 AHS data (Item 3).

Table A-3

Persons per Housing Unit by Housing Type (Unincorporated Indian River County, 2017)

Housing Type	Population[1]	Housing Units[2]	Ratio[3]	Population / Housing Units[4]
Single Family	78,526	33,740		2.33
- Less than 1,500 sf			83%	1.93
- 1,500 to 2,499 sf			100%	2.33
- 2,500 sf or greater			112%	2.61
Multi-Family	16,582	12,444		1.33
Mobile Home	6,390	4,757		1.34
Weighted Average	**101,498**	**50,941**		**1.99**

1) Source: 2017 American Community Survey (ACS), 5-Year Estimates, Table B25033 (adjusted for seasonal population)
2) Source: 2017 ACS, 5-Year Estimates, Table DP04
3) Ratios developed based on national PPH data derived from the 2017 American Housing Survey
4) Population (Item 1) divided by housing units (Item 2). Single family residential tiers are adjusted by the ratios developed using the 2017 AHS data (Item 3).

Table A-4

Persons per Housing Unit by Housing Type

(Indian River County Excluding Indian River Shores, 2017)

Housing Type	Population[1]	Housing Units[2]	Ratio[3]	Population / Housing Units[4]
Single Family	117,046	49,939		2.34
- Less than 1,500 sf			83%	1.94
- 1,500 to 2,499 sf			100%	2.34
- 2,500 sf or greater			112%	2.62
Multi-Family	23,522	18,392		1.28
Mobile Home	9,270	6,205		1.49
Weighted Average	**149,838**	**74,536**		**2.01**

1) Source: 2017 American Community Survey (ACS), 5-Year Estimates, Table B25033 (adjusted for seasonal population)
2) Source: 2017 ACS, 5-Year Estimates, Table DP04
3) Ratios developed based on national PPH data derived from the 2017 American Housing Survey
4) Population (Item 1) divided by housing units (Item 2). Single family residential tiers are adjusted by the ratios developed using the 2017 AHS data (Item 3).

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)[4]. 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 Indian River 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, people in the County, on average, spend 16.5 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.

Table A-5
Population & Employment Characteristics

Variable	Figure
Total workers living in Indian River County(1)	53,515
Total Census Population (2010)(2)	138,028
Total workers as a percent of population(3)	**38.8%**
School age population (5-17 years) (2010)(4)	19,444
School age population as a percent of population(5)	**14.1%**
Population net of workers and school age population(6)	65,069
Other population as a percent of total population(7)	**47.1%**

1) Source: Census Transportation Planning Package (CTPP), 2010
2) Source: 2010 U.S Census, Table P-1
3) Total workers (Item 1) divided by population (Item 2)
4) Source: 2010 U.S Census, Table QT-P1
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 population (Item 2)

[4] 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-6
Residential Coefficient for 24-Hour Functional Population

Population Group	Hours at Residence[1]	Percent of Population[2]	Effective Hours[3]
Workers	13	38.8%	5.0
Students	15	14.1%	2.1
Other	20	47.1%	9.4
Total Hours at Residence[4]			16.5
Residential Functional Population Coefficient[5]			**69.0%**

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-6 is used in the calculation of the residential coefficient for the 24-hour functional population. These actual calculations are presented in Table A-7.

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 and Tindale Oliver'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 Indian River County, which are used to estimate the 2019 functional population for all service areas in Tables A-8, A-9, and A-10.

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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	**0.690**
Natural Resources	N/A	9.00	3.05	1.53	1.32	1.38	0.09	1.00	7.00	**0.379**
Construction	110	9.00	3.05	1.53	1.32	1.38	0.09	1.00	5.00	**0.271**
Manufacturing	140	9.00	2.47	1.24	1.32	1.38	0.07	1.00	5.00	**0.270**
Transportation, Communication, Utilities	110	9.00	3.05	1.53	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	48.90	24.45	1.24	1.73	11.98	1.50	7.00	**1.124**
Finance, Insurance, Real Estate	710	9.00	3.28	1.64	1.24	1.73	0.80	1.00	5.00	**0.292**
Services[9]	N/A	9.00	28.38	14.19	1.24	1.73	6.95	1.00	6.00	**0.570**
Government[10]	730	9.00	7.45	3.73	1.24	1.73	1.83	1.00	7.00	**0.451**

(1) Assumed

(2) Trips per employee represents all trips divided by the number of employees and is based on Trip Generation 10th Edition (Institute of Transportation Engineers 2017) as follows:
ITE Code 110 at 3.05 weekday trips per employee, Volume 2 - Industrial Land Uses, page 11
ITE Code 140 at 2.47 weekday trips per employee, Volume 2 - Industrial Land Uses, page 58
ITE Code 150 at 5.05 weekday trips per employee, Volume 2 - Industrial Land Uses, page 77
ITE Code 710 at 3.28 weekday trips per employee, Volume 2 Office Land Uses, page 12
ITE Code 730 at 7.45 weekday trips per employee, Volume 2 Office Land Uses, page 180
ITE Code 820 based on blended average of trips by retail center size calculated below, adapted from Volume 2 - Retail Land Uses, page 138.
Trips per retail employee from the following table:

Retail Scale	*Assumed Center Size*	*Trip Rate*	*Sq Ft per Employee*[11]	*Trips per Employee*	*Share*	*Weighted Trips*
Neighborhood <50k sq.ft.	50	75.05	802	60	45.0%	27.00
Community 50k-250k sq.ft.	250	44.84	975	44	35.0%	15.40
Regional 250k-500k sq.ft.	500	35.92	1,043	37	15.0%	5.55
Super Reg. 500k-1000k sq.ft.	1,000	28.78	676	19	5.0%	0.95
Sum of Weighted Trips/1k sq.ft.						48.90

(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-7 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, 10th ed., when available, or else derived from the square feet per employee for the appropriate land use category from the Energy Information Administration from Table B-1 of the Commercial Energy Building Survey, 2003.

(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 (2019)

Population Category	Indian River County Baseline Data[1]	Functional Resident Coefficient[2]	Functional Population[3]
2019 Weighted Population	162,787	0.690	112,323
Employment Category			
Natural Resources	3,467	0.379	1,314
Construction	5,725	0.271	1,551
Manufacturing	2,310	0.270	624
Transportation, Communication, and Utilities	2,377	0.271	644
Wholesale Trade	1,126	0.272	306
Retail Trade	10,368	1.124	11,654
Finance, Insurance, and Real Estate	11,227	0.292	3,278
Services	39,978	0.570	22,787
Government Services	5,432	0.451	2,450
Total Employment by Category Population[4]			44,608
2019 Total Functional Population[5]			**156,931**

1) Source: Table A-1 for population and 2019 Woods & Poole for employment data
2) Source: Table A-7
3) Functional population is calculated by multiplying the Indian River County baseline data (Item 1) 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

Unincorporated Indian River County Functional Population (2019)

2019 Weighted Population	107,439	0.690	74,133
Employment Category			
Natural Resources	2,150	0.379	815
Construction	2,691	0.271	729
Manufacturing	809	0.270	218
Transportation, Communication, and Utilities	1,093	0.271	296
Wholesale Trade	721	0.272	196
Retail Trade	5,495	1.124	6,176
Finance, Insurance, and Real Estate	4,154	0.292	1,213
Services	21,188	0.570	12,077
Government Services	1,738	0.451	784
Total Employment by Category Population[4]			22,504
2019 Total Functional Population[5]			

1) Source: Table A-1 for population and 2019 Woods & Poole for employment data
2) Source: Table A-7
3) Functional population is calculated by multiplying the Indian River County Unincorporated baseline data (Item 1) 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

Indian River County, Excluding Indian River Shores Functional Population (2019)

Population Category	Indian River County Excluding IRS [1]	Functional Resident Coefficient[2]	Functional Population[3]
2019 Weighted Population	158,218	0.690	109,170
Employment Category			
Natural Resources	3,467	0.379	1,314
Construction	5,611	0.271	1,521
Manufacturing	2,310	0.270	624
Transportation, Communication, and Utilities	2,377	0.271	644
Wholesale Trade	1,126	0.272	306
Retail Trade	10,368	1.124	11,654
Finance, Insurance, and Real Estate	11,002	0.292	3,213
Services	39,578	0.570	22,559
Government Services	5,378	0.451	2,425
Total Employment by Category Population[4]			44,260
2019 Total Functional Population[5]			**153,430**

1) Source: Table A-1 for population and 2019 Woods & Poole for employment data
2) Source: Table A-7
3) Functional population is calculated by multiplying the Indian River County, excluding Indian River Shores baseline data (Item 1) 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 from 2000 through 2045, based on the 2019 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

Indian River County Functional Population (2000 - 2045)

Year	Functional Population		
	Indian River County[1]	Unincorporated Indian River County[2]	IRC Excluding Indian River Shores[3]
2000	115,157	68,070	112,484
2001	117,460	69,499	114,734
2002	119,809	70,889	117,029
2003	122,445	72,449	119,604
2004	126,608	75,564	123,790
2005	129,900	78,058	127,132
2006	134,317	80,322	131,454
2007	138,212	83,535	135,398
2008	140,147	84,537	137,158
2009	140,287	84,622	137,295
2010	140,708	86,907	137,570
2011	141,130	87,255	137,983
2012	141,836	87,691	138,673
2013	141,978	87,691	138,812
2014	143,398	88,393	140,200
2015	145,836	89,984	142,583
2016	148,753	91,964	145,577
2017	151,282	93,527	148,052
2018	154,156	95,491	150,865
2019	**156,931**	**96,637**	**153,430**
2020	159,756	98,376	156,192
2021	161,993	99,753	158,379
2022	164,423	101,249	160,755
2023	166,889	102,768	163,166
2024	169,392	104,310	165,613
2025	171,933	105,875	168,097
2026	173,824	107,040	169,946
2027	175,910	108,324	171,985
2028	178,021	109,624	174,049
2029	180,157	110,939	176,138
2030	182,139	112,159	178,076
2031	183,778	113,168	179,679
2032	185,432	114,187	181,296
2033	187,101	115,215	182,928
2034	188,785	116,252	184,574
2035	190,484	117,298	186,235
2036	191,817	118,119	187,539
2037	193,160	118,946	188,852
2038	194,512	119,779	190,174
2039	195,874	120,617	191,505
2040	197,441	121,582	193,037
2041	198,626	122,311	194,195
2042	199,818	123,045	195,360
2043	201,017	123,783	196,532
2044	202,223	124,526	197,711
2045	203,436	125,273	198,897

1) Table A-8 for 2019. Remaining years are based on growth rates of the weighted seasonal population; Table A-1.
2) Table A-9 for 2019. Remaining years are based on growth rates of the weighted seasonal population; Table A-1.
3) Table A-10 for 2019. Remaining years are based on growth rates of the weighted seasonal population; Table A-1.

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, different functional population coefficients 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, A-13, and A-14. The average number of persons per housing unit in Indian River County was calculated for the single family, multi-family, and mobile home land uses, based on information obtained from the 2017 ACS. Besides the residential land uses, Tables A-12, A-13, and A-14 also include transient land uses, such as hotels, motels, assisted living facilities (ALF), and nursing homes. As mentioned previously, different functional population coefficients must be developed for each of the impact fee service areas to be analyzed. Secondary sources, such as Indian River County Chamber of Commerce and the Florida Department of Elderly Affairs, are used to determine the occupancy rate for hotels, motels, ALF, and nursing home land uses.

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 in the table shows the estimated functional resident coefficients 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 cost per unit for each land use category in the select impact fee schedules.

Table A-12

Functional Residents for Residential and Transient Land Uses - Countywide

Residential:										
Single Family (detached)										
Less than 1,500 sf	du	210	1.91	-	-	-	-	-	-	1.32
1,500 to 2,499 sf	du	210	2.30	-	-	-	-	-	-	1.59
2,500 sf or greater	du	210	2.58	-	-	-	-	-	-	1.78
Multi-Family	du	220/221/222	1.24	-	-	-	-	-	-	0.86
Mobile Home	du	240	1.49	-	-	-	-	-	-	1.03
Transient, Assisted, Group:										
Hotel	room	310	2.19	72%	1.58	12	0.58	9	7	1.01
Motel	room	320	2.19	72%	1.58	12	0.13	9	7	0.84
Nursing Home/Assisted Care Living Facility (ACLF)	bed	252/620	1.00	89%	0.89	16	1.05	9	7	0.99

(3) Source for hotel/motel occupancy: Indian River County Chamber of Commerce . Source for nursing home occupancy rate is the Florida Department of Elderly Affairs, Indian River County Profile.

Table A-13

Functional Residents for Residential and Transient Land Uses – Unincorporated County

Residential:											
Single Family (detached)											
Less than 1,500 sf	du	210	1.93	-	-	-	-	-	-	-	1.33
1,500 to 2,499 sf	du	210	2.33	-	-	-	-	-	-	-	1.61
2,500 sf or greater	du	210	2.61	-	-	-	-	-	-	-	1.80
Multi-Family	du	220/221/222	1.33	-	-	-	-	-	-	-	0.92
Mobile Home	du	240	1.34	-	-	-	-	-	-	-	0.92
Transient, Assisted, Group:											
Hotel	room	310	2.19	72%	1.58	12	0.58	9	7	1.01	
Motel	room	320	2.19	72%	1.58	12	0.13	9	7	0.84	
Nursing Home/Assisted Care Living Facility (ACLF)	bed	252/620	1.00	89%	0.89	16	1.05	9	7	0.99	

(3) Source for hotel/motel occupancy: Indian River County Chamber of Commerce . Source for nursing home occupancy rate is the Florida Department of Elderly Affairs, Indian River County Profile.

Table A-14

Functional Residents for Residential and Transient Land Uses – Indian River County, Excluding Indian River Shores

Residential:											
Single Family (detached)											
Less than 1,500 sf	du	210	1.94	-	-	-	-	-	-	1.34
1,500 to 2,499 sf	du	210	2.34	-	-	-	-	-	-	1.61
2,500 sf or greater	du	210	2.62	-	-	-	-	-	-	1.81
Multi-Family	du	220/221/222	1.28	-	-	-	-	-	-	0.88
Mobile Home	du	240	1.49	-	-	-	-	-	-	1.03
Transient, Assisted, Group:											
Hotel	room	310	2.19	72%	1.58	12	0.58	9	7	1.01
Motel	room	320	2.19	72%	1.58	12	0.13	9	7	0.84
Nursing Home/Assisted Care Living Facility (ACLF)	bed	252/620	1.00	89%	0.89	16	1.05	9	7	0.99

(3) Source for hotel/motel occupancy: Indian River County Chamber of Commerce . Source for nursing home occupancy rate is the Florida Department of Elderly Affairs, Indian River County Profile.

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Table A-15

Functional Resident Coefficients for Non-Residential Land Uses

ITE LUC[1]	Land Use	Impact Unit	Trips Per Unit[2]	Trip Rate Source	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 Coefficient[11]
	OFFICE & FINANCIAL:												
720	Medical Office 10,000 sq ft or less	1,000 sf	23.83	FL Studies	8.70	2.74	11.92	9	1.54	15.62	1.00	5	1.20
	Medical Office greater than 10,000 sq ft	1,000 sf	34.12	Blend FL/ITE 10th	8.70	3.92	17.06	9	1.54	22.35	1.00	5	1.72
710	General Office Building	1,000 sf	9.74	ITE 10th Edition	3.28	2.97	4.87	9	1.27	3.21	1.00	5	0.89
760	Research & Development Center	1,000 sf	11.26	ITE 10th Edition	3.29	3.42	5.63	9	1.27	3.73	1.00	5	1.03
911	Bank/Savings Walk-In	1,000 sf	59.39	ITE 10th Edition (Adjusted)	47.11	1.26	29.70	9	1.72	49.82	0.35	6	1.03
912	Bank/Savings Drive-In	1,000 sf	102.66	Blend FL/ITE 10th	31.79	3.23	51.33	9	1.72	85.06	0.15	6	1.49
	INDUSTRIAL:												
140	Manufacturing	1,000 sf	3.93	ITE 10th Edition	2.47	1.59	1.97	9	1.46	1.29	1.00	5	0.46
150	Warehousing	1,000 sf	1.74	ITE 10th Edition	5.05	0.34	0.87	9	1.46	0.93	0.75	5	0.11
151	Mini-Warehouse	1,000 sf	1.49	Blend FL/ITE 10th	61.90	0.02	0.75	9	1.46	1.08	0.75	7	0.04
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	1.40	ITE 10th Edition	5.05	0.28	0.70	9	1.46	0.74	0.75	5	0.09
110	General Light Industrial	1,000 sf	4.96	ITE 10th Edition	3.05	1.63	2.48	9	1.46	1.99	1.00	5	0.50
n/a	Concrete Plant	acre	15.60	2004 IRC Study	3.05	5.11	7.80	9	1.46	6.28	1.00	5	1.56
n/a	Sand Mining	acre	2.00	2004 IRC Study	3.05	0.66	1.00	9	1.46	0.80	1.00	5	0.20
	RETAIL:												
820	Retail/Shopping Center	1,000 sfgla	37.75	ITE 10th Edition	16.11	2.34	18.88	9	1.72	30.13	0.50	7	1.51
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	172.01	ITE 10th Edition	275.78	0.62	86.01	9	1.72	147.32	0.20	7	1.46
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	205.36	ITE 10th Edition	243.86	0.84	102.68	9	1.72	175.77	0.20	7	1.78
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	230.52	ITE 10th Edition	230.91	1.00	115.26	9	1.72	197.25	0.20	7	2.02
840/841	New/Used Auto Sales	1,000 sf	24.58	Blend FL/ITE 10th	11.84	2.08	12.29	9	1.72	19.06	1.00	7	1.57
932	Restaurant	1,000 sf	106.26	Blend FL/ITE 10th	21.26	5.00	53.13	9	2.32	118.26	0.75	7	5.57
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	482.53	Blend FL/ITE 10th	45.49	10.61	241.27	9	2.32	549.14	0.25	7	9.70
850	Supermarket	1,000 sf	106.64	Blend FL/ITE 10th	75.01	1.42	53.32	9	1.72	90.29	0.50	7	2.41
942	Automobile Care Center	1,000 sf	28.19	Blend FL/ITE 10th	14.30	1.97	14.10	9	1.72	22.28	1.00	7	1.67
947	Self-Service Car Wash	service bay	43.94	Blend FL/ITE 10th	n/a	0.50	21.97	9	1.72	37.29	0.50	7	0.96
890	Furniture Store	1,000 sf	6.30	ITE 10th Edition	10.93	0.58	3.15	9	1.72	4.84	0.50	7	0.32
	RECREATIONAL:												
430	Golf Course	hole	30.38	ITE 10th Edition	20.52	1.48	15.19	9	1.87	26.93	0.25	7	0.84
492	Racquet Ball/Health Club/Dance Studio	1,000 sf	34.50	ITE 10th Edition (Adjusted)	27.25	1.27	17.25	9	1.87	30.99	1.50	7	2.41
411	Public Park	acre	0.78	ITE 10th Edition	59.53	0.01	0.39	9	1.87	0.72	1.50	7	0.05
490	Tennis Court	court	30.32	ITE 10th Edition	45.71	0.66	15.16	9	1.87	27.69	1.00	7	1.40
420	Marina	boat berth	2.41	ITE 10th Edition	20.52	0.12	1.21	9	1.87	2.14	1.00	7	0.13
	GOVERNMENTAL:												
732	Post Office	1,000 sf	103.94	ITE 10th Edition	25.37	4.10	51.97	9	1.27	61.90	0.25	5	1.56
590	Library	1,000 sf	72.05	ITE 10th Edition	55.64	1.29	36.03	9	1.46	51.31	1.00	7	2.62
733	Government Office Complex	1,000 sf	33.98	ITE 10th Edition	13.29	2.56	16.99	9	1.27	19.02	1.00	5	1.25
571	Jail	bed	1.00	ITE 10th Edition (Adjusted)	2.30	0.43	0.50	9	1.27	0.21	1.00	7	0.17
	MISCELLANEOUS:												
565	Day Care Center	1,000 sf	49.63	Blend FL/ITE 10th	21.38	2.32	24.82	9	1.79	42.11	0.15	5	0.81
610	Hospital	1,000 sf	10.72	ITE 10th Edition	3.79	2.83	5.36	9	1.54	5.42	1.00	7	1.29
640	Veterinary Clinic	1,000 sf	24.20	Blend FL/ITE 10th	12.69	1.91	12.10	9	1.54	16.72	1.00	7	1.41
560	Church	1,000 sf	6.95	ITE 10th Edition	20.64	0.34	3.48	9	1.79	5.89	1.00	7	0.37
444	Movie Theater w/Matinee	screen	114.83	Blend FL/ITE 10th	53.12	2.16	57.42	9	1.87	105.22	1.00	7	5.19
520	Elementary School (Private, K-5)	student	1.89	ITE 10th Edition	21.00	0.09	0.95	9	1.11	0.96	2.00	5	0.08
522	Middle School (Private, 6-8)	student	2.13	ITE 10th Edition	25.15	0.08	1.07	9	1.11	1.11	2.00	5	0.09
530	High School (Private, 9-12)	student	2.03	ITE 10th Edition	22.25	0.09	1.02	9	1.11	1.04	2.00	5	0.09
540/550	University/Junior College with 7,500 or fewer students	student	2.00	Regression analysis	11.75	0.17	1.00	9	1.11	0.94	2.00	5	0.10
575	Fire & Rescue Station	1,000 sf	4.80	ITE 10th Edition (Adjusted)	4.40	1.09	2.40	9	1.27	1.96	0.15	7	0.42

Sources:
(1) Land use code found in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 10th 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, 10th 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 was adjusted to reflect the average occupancy rate of 60 percent based on data provided by the Florida Association of RV Parks and Campgrounds

Table A-16
Weighted Seasonal Population Projections
Countywide

Year	Permanent Population[1]	Seasonal, Occasional, Recreational[2]	Total Weighted Season Population[3]
2000	112,947	6,404	119,351
2001	115,200	6,532	121,732
2002	117,450	6,660	124,110
2003	120,062	6,807	126,869
2004	124,137	7,038	131,175
2005	127,352	7,221	134,573
2006	131,656	7,465	139,121
2007	135,494	7,683	143,177
2008	137,420	7,792	145,212
2009	137,557	7,799	145,356
2010	138,028	7,826	145,854
2011	138,694	7,631	146,325
2012	139,446	7,672	147,118
2013	139,586	7,680	147,266
2014	140,955	7,755	148,710
2015	143,326	7,886	151,212
2016	146,410	7,871	154,281
2017	148,962	8,008	156,970
2018	151,825	8,162	159,987
2019	**154,482**	**8,305**	**162,787**
2020	157,200	8,451	165,651
2021	159,542	8,443	167,985
2022	161,919	8,569	170,488
2023	164,332	8,697	173,029
2024	166,781	8,826	175,607
2025	169,300	8,959	178,259
2026	171,281	8,992	180,273
2027	173,285	9,098	182,383
2028	175,312	9,204	184,516
2029	177,363	9,311	186,674
2030	179,400	9,419	188,819
2031	181,033	9,504	190,537
2032	182,680	9,591	192,271
2033	184,342	9,678	194,020
2034	186,020	9,766	195,786
2035	187,700	9,854	197,554
2036	189,070	9,926	198,996
2037	190,450	9,999	200,449
2038	191,840	10,072	201,912
2039	193,240	10,145	203,385
2040	194,700	10,222	204,922
2041	195,927	10,286	206,213
2042	197,161	10,351	207,512
2043	198,403	10,416	208,819
2044	199,653	10,482	210,135
2045	200,900	10,547	211,447

1) Source: 2000 through 2019 is the U.S. Census and the Bureau of Economic and Business Research (BEBR). For 2020 through 2045 BEBR, Volume 52, Bulletin 183, April 2019 (Medium-Level Projections). Interim years were interpolated.
2) Source: Seasonal Population based on the Indian River 2030 Comprehensive. The figures are weighed by 0.42 to account for seasonal residents only residing in the County for a portion of the year (assume 5 months; 5 months divided by 12 months = 0.42)
3) Sum of permanent population (Item 1) and seasonal population (Item 2)

Table A-17
Weighted Seasonal Population Projections
Indian River County Unincorporated

Year	Permanent Population[1]	Seasonal, Occasional, Recreational[2]	Total Weighted Season Population[3]
2000	71,660	4,063	75,723
2001	73,130	4,147	77,277
2002	74,595	4,229	78,824
2003	76,202	4,321	80,523
2004	79,493	4,507	84,000
2005	82,087	4,654	86,741
2006	84,466	4,789	89,255
2007	87,843	4,981	92,824
2008	88,866	5,039	93,905
2009	88,969	5,045	94,014
2010	91,366	5,180	96,546
2011	91,899	5,056	96,955
2012	92,365	5,082	97,447
2013	92,382	5,083	97,465
2014	93,155	5,125	98,280
2015	94,820	5,217	100,037
2016	96,993	5,214	102,207
2017	98,644	5,303	103,947
2018	100,719	5,415	106,134
2019	**101,958**	**5,481**	**107,439**
2020	103,752	5,578	109,330
2021	105,298	5,573	110,871
2022	106,867	5,655	112,522
2023	108,459	5,740	114,199
2024	110,075	5,825	115,900
2025	111,738	5,913	117,651
2026	113,045	5,935	118,980
2027	114,368	6,004	120,372
2028	115,706	6,074	121,780
2029	117,060	6,145	123,205
2030	118,404	6,216	124,620
2031	119,482	6,273	125,755
2032	120,569	6,330	126,899
2033	121,666	6,387	128,053
2034	122,773	6,446	129,219
2035	123,882	6,504	130,386
2036	124,786	6,551	131,337
2037	125,697	6,599	132,296
2038	126,614	6,647	133,261
2039	127,538	6,696	134,234
2040	128,502	6,746	135,248
2041	129,312	6,789	136,101
2042	130,126	6,832	136,958
2043	130,946	6,875	137,821
2044	131,771	6,918	138,689
2045	132,594	6,961	139,555

1) Source: 2000 through 2019 is the U.S. Census and the Bureau of Economic and Business Research (BEBR). For 2020 through 2045 BEBR, Volume 52, Bulletin 183, April 2019 (Medium-Level Projections). Interim years were interpolated.
2) Source: Seasonal Population based on the Indian River 2030 Comprehensive. The figures are weighed by 0.42 to account for seasonal residents only residing in the County for a portion of the year (assume 5 months; 5 months divided by 12 months = 0.42)
3) Sum of permanent population (Item 1) and seasonal population (Item 2)

Table A-18
Weighted Seasonal Population Projections
Indian River County, Excluding Indian River Shores

Year	Permanent Population[1]	Seasonal, Occasional, Recreational[2]	Total Weighted Season Population[3]
2000	109,499	6,208	115,707
2001	111,695	6,333	118,028
2002	113,964	6,462	120,426
2003	116,521	6,607	123,128
2004	120,567	6,836	127,403
2005	123,774	7,018	130,792
2006	128,033	7,259	135,292
2007	131,932	7,481	139,413
2008	133,706	7,581	141,287
2009	133,862	7,590	141,452
2010	134,127	7,605	141,732
2011	134,786	7,416	142,202
2012	135,511	7,456	142,967
2013	135,646	7,463	143,109
2014	136,993	7,537	144,530
2015	139,331	7,666	146,997
2016	142,364	7,654	150,018
2017	144,824	7,786	152,610
2018	147,617	7,936	155,553
2019	**150,146**	**8,072**	**158,218**
2020	152,787	8,214	161,001
2021	155,064	8,206	163,270
2022	157,374	8,328	165,702
2023	159,719	8,453	168,172
2024	162,100	8,579	170,679
2025	164,548	8,708	173,256
2026	166,473	8,740	175,213
2027	168,421	8,842	177,263
2028	170,391	8,946	179,337
2029	172,385	9,050	181,435
2030	174,364	9,154	183,518
2031	175,952	9,237	185,189
2032	177,552	9,321	186,873
2033	179,168	9,406	188,574
2034	180,799	9,492	190,291
2035	182,431	9,578	192,009
2036	183,763	9,647	193,410
2037	185,104	9,718	194,822
2038	186,455	9,789	196,244
2039	187,816	9,860	197,676
2040	189,235	9,935	199,170
2041	190,427	9,997	200,424
2042	191,627	10,060	201,687
2043	192,834	10,124	202,958
2044	194,049	10,188	204,237
2045	195,261	10,251	205,512

1) Source: 2000 through 2019 is the U.S. Census and the Bureau of Economic and Business Research (BEBR). For 2020 through 2045 BEBR, Volume 52, Bulletin 183, April 2019 (Medium-Level Projections). Interim years were interpolated.
2) Source: Seasonal Population based on the Indian River 2030 Comprehensive. The figures are weighed by 0.42 to account for seasonal residents only residing in the County for a portion of the year (assume 5 months; 5 months divided by 12 months = 0.42)
3) Sum of permanent population (Item 1) and seasonal population (Item 2)

Appendix B
Building and Land Values: Supplemental Information

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Appendix B: Building and Land Values

This Appendix provides a summary of building and land value estimates for emergency services, law enforcement, public buildings, and parks and recreation impact fees. Information related to cost estimates for transportation is included in Appendix D and for educational facilities in Appendix G.

Building Values

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

- Recent construction by Indian River County, as applicable;
- Cost estimates for future facilities;
- Insurance values of existing facilities;
- Cost increases observed since the 2014 technical study; and
- Data from other jurisdictions for recently completed facilities.

The following paragraphs provide a summary for each service area.

Public Buildings

Public buildings costs can vary significantly depending on the design and amenities. For example, as shown in Table B-1, the County's Emergency Operations Center (EOC) is a significantly more expensive building than general administrative buildings. This analysis estimates the current marginal cost of types of facilities the County is likely to building in the future. More specifically, the following analysis is used in estimating public buildings cost.

- The 2014 technical study estimated the cost of primary buildings at $210 per square foot and the cost of support buildings at $50 per square foot. A review of construction costs trends published by the Engineering News Record (ENR) suggested that construction costs increased by 15 percent since then. Applying this increase to the 2014 study estimates results in approximately $240 per square foot for primary buildings and $60 per square foot for support buildings.
- The current insurance values of primary buildings average $230 per square foot with contents, approximately $85 per square foot for support buildings (excluding the parking garage), and $40 per square foot for the garage. It should be noted that insurance values

tend to be conservative estimates because insurance companies exclude the value of the foundation and other more permanent parts of the structure since they would not have to be rebuilt if the structure was damaged or lost.

- Tindale Oliver supplemented the local data with cost estimates utilized in recently completed public buildings impact fee studies. This analysis reviewed data from studies conducted between 2016 and 2019, which ranged from $150 per square foot to $250 per square foot for primary buildings, and $85 per square foot to $100 per square foot for support facilities.

Given this information, this study uses $240 per square foot for primary buildings, $100 per square foot for support buildings (excluding garage), and $50 per square foot for the parking garages. Table B-1 provides a summary of this information. In the case of EOC, because the County is unlikely to build another similar facility, this building is valued at the estimated cost for primary buildings.

Table B-1
Public Buildings -- Building Cost

Source/Variable	2014 Study Estimate[1]	2014 Estimate Indexed[2]	-
Primary Buildings (Cost per Sq Ft)	$210	$242	
Support Facilities (Cost per Sq Ft)	$50	$58	
ENR Building Cost Index (2013-19) [3]	*15%*	-	

2019 Insurance Values: [4]	Building Value per Sq Ft	Content Value per Sq Ft	Total Value per Sq Ft
Office/General Buildings	$193	$36	$229
EOC	$475	$104	$579
Parking Garage	$42	$0	$42
Support Buildings	$68	$19	$87

Recent Impact Fee Studies (2016-2019):	Cost per Sq Ft
Primary Buildings	$150 - $250
Support Buildings	$85-$100

Used in the Study - Public Buildings	Cost per Sq Ft
- Primary Buildings	$240
- Support Buildings (Excl Garage)	$100
- Support Buildings (Garage)	$50

1) Source: Indian River County Impact Fee Update Study, Final Report, September 26, 2014
2) 2014 estimate (Item 1) indexed using ENR index (Item 3)
3) Source: Engineers News-Record
4) Source: Indian River County

Emergency Services

For emergency services building cost estimates, the following analysis was used.

- The 2014 technical study estimated the cost of fire stations at $260 per square foot. A review of construction costs trends published by ENR suggested that construction costs increased by 15 percent since then. Applying this increase to the 2014 study estimates results in almost $300 per square foot.
- Since the last technical study, the County built two new stations: Station 13 in 2015 and Station 14 in 2017. The cost of these stations ranged from $310 per square foot to $330 per square foot.
- Indian River County is planning to build a new station (Station 15) over the next five years. The estimated cost of this station is $300 per square foot.
- The current insurance values of fire stations average $220 per square foot with contents, and approximately $115 per square foot for support buildings. It should be noted that insurance values tend to be conservative estimates because insurance companies exclude the value of the foundation and other more permanent parts of the structure since they would not have to be rebuilt if the structure was damaged or lost.
- Tindale Oliver supplemented the local data with cost estimates utilized in recently completed fire/EMS impact fee studies. This analysis reviewed data from studies conducted between 2017 and 2019, which ranged from $250 per square foot to $350 per square foot for fire station construction, and $130 per square foot to $250 per square foot for support facilities.

Given this information, building cost estimates of $300 per square foot for stations and $150 per square foot for support facilities are used for impact fee calculation purposes. Table B-2 provides a summary of information considered in determining these figures.

Table B-2
Emergency Services Building Cost

Source/Variable	2014 Study Estimate[1]	2014 Estimate Indexed[2]		
Fire Station Cost per Square Foot	$260	$299		
ENR Building Cost Index (2013-19) [3]	*15%*			
Recent Construction: [4]	**Year Built**	**Cost**	**Square Footage**	**Cost per Sq Ft**
- Station 13	2015	$2,314,110	7,416	$312
- Station 14	2017	$2,791,430	8,436	$331
Upcoming Construction: [5]				
- Station 15	2020	$2,400,000	8,000	$300
2019 Insurance Values: [6]	**Building Value per Sq Ft**	**Content Value per Sq Ft**	**Total Value per Sq Ft**	
Fire Stations	$197	$25	$222	
Support Buildings	$87	$29	$116	
Recent Impact Fee Studies (2017-2019):		**Cost per Sq Ft**		
Fire Stations		$250 - $350		
Support Buildings		$130 - $250		
Used in the Study - Emergency Services		**Cost per Sq Ft**		
- Fire Stations		**$300**		
- Support Buildings		**$150**		

1) Source: Indian River County Impact Fee Update Study, Final Report, September 26, 2014
2) 2014 estimate (Item 1) indexed using ENR index (Item 3)
3) Source: Engineers News-Record
4) Source: Indian River County
5) Source: Indian River County
6) Source: Indian River County

Law Enforcement Facilities

The following analysis was conducted for law enforcement building cost estimates.

- The 2014 technical study estimated the cost of primary law enforcement buildings at $200 per square foot and $50 per square foot for support facilities. A review of construction costs trends published by ENR suggested that construction costs increased by 15 percent

since then. Applying this increase to the 2014 study estimates results in approximately $230 per square foot for primary facilities and $60 per square foot for support facilities.

- Since the last technical study, the County built the Aviation Building at a cost of $160 per square foot.
- The estimates provided for the Sheriff's Master Plan ranges from $225 per square foot to $300 per square foot depending on building type for hard construction cost only.
- The current insurance values of primary buildings average $165 per square foot with contents, and approximately $85 per square foot for support buildings. As mentioned previously, insurance values tend to be conservative estimates because insurance companies exclude the value of the foundation and other more permanent parts of the structure since they would not have to be rebuilt if the structure was damaged or lost.
- Tindale Oliver supplemented the local data with cost estimates utilized in recently completed law enforcement impact fee studies. This analysis reviewed data from studies conducted between 2017 and 2019, which ranged from $200 per square foot to $300 per square foot for fire station construction, and $100 per square foot for support facilities.

Given this information, building cost estimates of $240 per square foot for primary buildings and $120 per square foot for support facilities are used for impact fee calculation purposes. Table B-3 provides a summary of information considered in determining these figures.

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Table B-3
Law Enforcement Building Cost

Source/Variable		2014 Study Estimate[1]	2014 Estimate Indexed[2]	
Primary Buildings (Admin/Offices) (Cost per Sq Ft)		$200	$230	
Support Facilities (Cost per Sq Ft)		$50	$58	
ENR Building Cost Index (2013-19) [3]	*15%*			
Recent Construction: [4]	**Year Built**	**Cost**	**Square Footage**	**Cost per Sq Ft**
- Aviation Building	2014-2018	$2,279,742	14,318	$159
Upcoming Construction: [5]				
- New HQ Building (Hard Cost)		$28,529,400	95,098	$300
- New Support Facility (Hard Cost)		$5,719,500	25,420	$225
- New Firearms Training Facility (Hard Cost)		$6,705,600	27,940	$240
- Total/Weighted Average		$40,954,500	148,458	$276
Project Soft Costs:				
- Professional Fees	10%	of hard cost		
- FF&E Allowance	$25	per square foot		
- Technology Allowance	$20	per square foot		
- Site Development Allowance	$150,000	per acre		
- Permit and Impact Fees (if req)	TBD			
2019 Insurance Values: [6]	**Building Value per Sq Ft**	**Content Value per Sq Ft**	**Total Value per Sq Ft**	
Primary Buildings (Admin/Offices)	$134	$33	$166	
Support Buildings	$68	$15	$83	
Recent Impact Fee Studies (2017 2019):		**Cost per Sq Ft**		
Primary Buildings		$200 - $300		
Support Buildings		$100		
Used in the Study Law Enforcement		**Cost per Sq Ft**		
- Primary Buildings (Admin/Offices)		**$240**		
- Support Buildings		**$120**		

1) Source: Indian River County Impact Fee Update Study, Final Report, September 26, 2014
2) 2014 estimate (Item 1) indexed using ENR index (Item 3)
3) Source: Engineers News-Record
4) Source: Indian River County
5) Source: Indian River County Sheriff's Master Plan
6) Source: Indian River County

Recreational Facilities

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

- Construction cost of recently built facilities;
- Insurance values of existing facilities;
- Facility values obtained from other jurisdictions; and
- Discussions with the County staff.

The resulting estimates are presented in Table V-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 for the related infrastructure (if any);
- Land value of current inventory as reported by the Indian River County Property Appraiser (IRCPA);
- Vacant land value trends since 2013 in Indian River County;
- Value of vacant land by size and by land use; and
- Vacant land sales between 2015 and 2019 by size and by land use.

Public Buildings

The following was considered in estimating the land value for public buildings:

- Since 2014, the County purchased 0.28 acres of land for courthouse expansion. Due to the location of these parcels, the cost was extremely high, at $1.6 million per acre. As such, this purchase is not considered to be representative of future land purchases for public buildings.
- The 2014 study used a land value estimate of $90,000 per acre. Based on the estimates provided by Indian River County Property Appraiser's (IRCPA) Office, vacant land values increased by 10 percent since then. Applying this increase results in a cost of almost $100,000 per acre.
- The value of parcels where current public buildings are located averages $71,000 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 (up to 6 acres) between 2015 and 2019 ranged from $20,000 per acre to $180,000 per acre for all vacant land use types. As shown in Table B-4, these prices were higher for commercial properties.
- Similarly, the value of vacant land reported by the Property Appraiser ranged from $17,000 per acre to $110,000 per acre for all vacant properties, shown in Table B-5.

Given this information, an average land value of **$100,000 per acre** is determined to be a reasonable estimate for public buildings impact fee calculation purposes.

Emergency Services

The land value estimate for emergency services facilities is based on the following:

- The County has not purchased any new parcels for emergency services since the last technical study. However, there are plans to purchase a parcel at an estimated cost of $400,000 per acre.
- The 2014 study used a land value estimate of $60,000 per acre. Based on the estimates provided by Indian River County Property Appraiser's (IRCPA) Office, vacant land values increased by 10 percent since then. Applying this increase results in a cost of approximately $65,000 per acre.
- The value of parcels where current fire stations are located averages $49,000 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 (up to 6 acres) between 2015 and 2019 ranged from $20,000 per acre to $180,000 per acre for all vacant land use types. As shown in Table B-4, these prices ranged from $70,000 per acre to $260,000 per acre for commercial properties.
- Similarly, the value of vacant land reported by the Property Appraiser ranged from $17,000 per acre to $110,000 per acre for all vacant properties, and $75,000 per acre to $123,000 per acre for commercial properties, as shown in Table B-5.

Given this information, an average land value of **$100,000 per acre** is determined to be a reasonable estimate for emergency services 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 new parcels for law enforcement facilities since the last technical study and future facilities are expected to be constructed on land already owned by the County.
- The 2014 study used a land value estimate of $50,000 per acre. Based on the estimates provided by Indian River County Property Appraiser's (IRCPA) Office, vacant land values increased by 10 percent since then. Applying this increase results in a cost of approximately $55,000 per acre.
- The value of parcels where current law enforcement buildings are located averages $50,000 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 (up to 6 acres) between 2015 and 2019 ranged from $20,000 per acre to $180,000 per acre for all vacant land use types. As shown in Table B-4, these prices ranged from $70,000 per acre to $260,000 per acre for commercial properties.
- Similarly, the value of vacant land reported by the Property Appraiser ranged from $17,000 per acre to $110,000 per acre for all vacant properties, and $75,000 per acre to $123,000 per acre for commercial properties, as shown in Table B-5.

Given this information, an average land value of **$55,000 per acre** is determined to be a reasonable estimate for law enforcement impact fee calculation purposes.

Parks

The park land value estimate is based on the following:

- The County purchased 35 acres of park land in 2019 for $69,500 per acre.
- The 2014 study used a land value estimate of $50,000 per acre. Based on the estimates provided by Indian River County Property Appraiser's (IRCPA) Office, vacant land values increased by 10 percent since then. Applying this increase results in a cost of approximately $55,000 per acre.
- The value of parcels where current parks are located averages $33,000 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 (up to 25 acres) between 2015 and 2019 ranged from $20,000 per acre to $150,000 per acre in unincorporated county for all vacant land use types. As shown in Table B-4, these prices ranged from $20,000 per acre to $140,000 per acre for residential properties in unincorporated county.
- Similarly, the value of vacant land reported by the Property Appraiser ranged from $17,000 per acre to $95,000 per acre for all as well as residential vacant properties in unincorporated county, as shown in Table B-5.

Given this information, an average land value of **$55,000 per acre** is determined to be a reasonable estimate for parks and recreational facilities impact fee calculation purposes.

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Table B-4
Vacant Land Sales (2015-2019)

Vacant Land Sales (2015-2019)			
Size	Cost per Acre		Count
	Average	Median	
Countywide -- All Land Uses:			
- 0.05 to 4 acres	$177,070	$92,593	1,415
- 4.01 to 6 acres	$39,460	$20,305	90
- 6.01 to 15 acres	$29,222	$22,962	32
- 15.01 to 25 acres	$31,278	$19,402	6
Unincorporated County -- All Land Uses:			
- 0.05 to 4 acres	$147,610	$58,957	812
- 4.01 to 6 acres	$29,997	$20,305	88
- 6.01 to 15 acres	$29,222	$22,962	32
- 15.01 to 25 acres	$35,250	$22,785	5
Countywide -- Commercial:			
- 0.05 to 4 acres	$242,934	$160,287	51
- 4.01 to 6 acres	$93,434	$72,742	6
Unincorporated County -- Commercial:			
- 0.05 to 4 acres	$257,180	$185,714	29
- 4.01 to 6 acres	$93,434	$72,742	6
Countywide -- Residential:			
- 0.05 to 4 acres	$173,027	$91,667	1,355
- 4.01 to 6 acres	$34,843	$19,902	82
- 6.01 to 15 acres	$21,562	$19,876	26
- 15.01 to 25 acres	$33,078	$16,019	5
Unincorporated County -- Residential:			
- 0.05 to 4 acres	$138,569	$56,897	777
- 4.01 to 6 acres	$24,270	$19,902	80
- 6.01 to 15 acres	$21,562	$19,876	26
- 15.01 to 25 acres	$38,541	$38,409	4

Source: Indian River County Property Appraiser

Table B-5
Vacant Land Values (2019)

Vacant Land Values (2019)			
Size	Value per Acre		Count
	Average	Median	
Countywide -- All Land Uses:			
- 0.05 to 4 acres	$109,050	$68,807	12,976
- 4.01 to 6 acres	$26,120	$17,000	388
- 6.01 to 15 acres	$33,512	$15,686	216
- 15.01 to 25 acres	$30,232	$16,575	41
Unincorporated County -- All Land Uses:			
- 0.05 to 4 acres	$94,925	$56,805	8,908
- 4.01 to 6 acres	$25,726	$17,000	374
- 6.01 to 15 acres	$32,266	$25,000	202
- 15.01 to 25 acres	$29,245	$17,062	37
Countywide -- Commercial:			
- 0.05 to 4 acres	$123,220	$94,417	943
- 4.01 to 6 acres	$81,591	$74,052	33
Unincorporated County -- Commercial:			
- 0.05 to 4 acres	$104,540	$74,054	558
- 4.01 to 6 acres	$88,113	$74,052	29
Countywide -- Residential:			
- 0.05 to 4 acres	$108,608	$66,328	11,888
- 4.01 to 6 acres	$20,572	$15,300	344
- 6.01 to 15 acres	$25,270	$11,050	158
- 15.01 to 25 acres	$27,327	$14,025	34
Unincorporated County -- Residential:			
- 0.05 to 4 acres	$94,759	$55,540	8,267
- 4.01 to 6 acres	$20,035	$17,000	335
- 6.01 to 15 acres	$24,242	$21,250	150
- 15.01 to 25 acres	$25,709	$17,000	31

Source: Indian River County Property Appraiser

Appendix C
Transportation Impact Fee:
Demand Component

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Appendix C: TIF - Demand Component

This appendix presents the detailed calculations for the demand component of the transportation impact fee update.

Interstate & Toll Facility Adjustment Factor

Table C-1 presents the interstate and toll facility adjustment factor used in the calculation of the transportation impact fee. This variable is based on data from the Treasure Coast Regional Planning Model (TCRPM) v4 model, specifically the 2040 vehicle-miles of travel. It should be noted that this adjustment factor excludes all external-to-external trips, which represent traffic that goes through the study area, but does not necessarily stop in the study area. 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 transportation impact fee charges for each land use.

Table C-1

Interstate/Toll Facility Adjustment Factor

Roadway	VMT (2040)	% VMT
Interstate/Toll Facilities	395,274	10.9%
Other Roads	3,218,018	89.1%
Total (All Roads)	**3,613,292**	**100.0%**
Total (Interstate/Toll Roads)	**395,274**	**10.9%**

Source: TCRPM v4, 2040 Cost Feasible Plan

Single Family Residential Trip Generation Rate Tiering

As part of this study, the single family residential trip generation rate tiering was included to reflect a three-tier analysis to ensure equity by the size of a home. To facilitate this, an analysis was completed on the comparative relationship between housing size and household travel behavior. In addition, an analysis was completed on the travel behavior of low-income households. This analysis utilized data from the 2017 National Household Travel Survey (NHTS) and the 2017 American Housing Survey (AHS) to examine overall trip-making characteristics of households in the United States.

Table C-2 presents the trip characteristics being utilized in the proposed transportation impact fee schedule for the single family (detached) land use. The 2017 NHTS database was used to assess average annual household vehicle miles of travel (VMT) for various annual household income levels. In addition, the 2017 AHS database was used to compare median annual

family/household incomes with housing unit size. It is important to recognize that the use of the income variable in each of these databases is completed simply to provide a convenient linking mechanism between household VMT from the NHTS and housing unit size from the AHS.

Table C-2

Calculated Single Family Trip Characteristics

Calculated Values Excluding Tiering	Trip Rate	Assessable Trip Length	Daily VMT
Single Family (Detached)	7.81	6.62	51.70

Source: Florida Studies for LUC 210 included in this Appendix

The results of the NHTS and AHS analyses are included in Tables C-3 through C-5. First, the data shown in Table C-3 presents the average income in the U.S. for families/households living in the three housing tiers. As shown, the average income for housing units between 1,500 square feet and 2,499 square feet in size ($70,622) is higher than the overall average income for the U.S. ($59,840). Table C-4 presents the median household income levels for low and very low-income levels in Indian River County. Next, as shown in Table C-5, annual average household VMT was calculated from the NHTS database for a number of different income levels and ranges related to the resulting AHS income data from Table C-3 and the Indian River County SHIP definitions for low income (<$31,950).

Table C-3

Annual Income by Housing Size

2017 AHS Average Income Data by Housing Size	Annual Income[(1)]
Less than 1,500 sf	$47,441
1,500 to 2,499 sf	$70,622
2,500 sf or more	$87,984
Average of All Houses	$59,840

Source: American Housing Survey for the United States in 2017

1) Weighted average annual income for each tier

Table C-4

Indian River County SHIP Definitions

Indian River County SHIP Definitions	
Median Income	$65,000
Low/Very Low Income[(1)]	$52,000

Source: Florida Housing Finance Corporation, 2019 Income Limits; SHIP (4-person household)
1) Defined as 80% of the median income

To calculate a corresponding trip rate for the new tiers it is necessary to rely on comparative ratios. As an example, consider the $47,441 annual income category. First, it is determined that the average annual household VMT for this income level is 17,678 miles. This figure is compared to the overall average annual VMT per household in the U.S. and normalized to the average of the $59,840 (18,493 miles) category to derive a ratio of 0.956 as shown in Table C-5. This figure is then normalized to the $70,622 (19,713 miles) category, as this tier corresponds to the average trip generation rate of 7.81 presented in Table C-2, resulting in a ratio of 0.897.

Next, the normalized ratio is applied to the daily VMT for the average single family housing unit size (less than 1,500 square feet) to generate a daily VMT of 46.37 for the new tier, as shown in Table C-6. This daily VMT figure is then divided by the proposed assessable trip length of 6.62 miles to obtain a typical trip rate of 7.00 trips per day.

Table C-5

NHTS Annual VMT by Income Category

2017 NHTS Travel Data by Annual HH Income	Annual VMT/HH	Days	Daily VMT	Ratio to Mean	Normalized to 1.066
Average of $26,000	13,252	365	36.31	0.717	0.673
Total (All Homes)	18,493	365	50.67	1.000	
Average of $47,441	17,678	365	48.43	0.956	0.897
Average of $70,622	19,713	365	54.01	1.066	1.000
Average of $87,984	22,430	365	61.45	1.213	1.138

Source: 2017 National Household Travel Survey Database, Federal Highway Administration

Table C-6

Trip Generation Rate by Single Family Land Use Tier

Estimation of Trip Rate by Tier	Trip Rate[1]	Assessable Trip Length[2]	Daily VMT[3]	Ratio to Mean[4]
Single Family (Detached)				
Low/Very Low Income	**5.26**	6.62	34.79	0.673
Less than 1.500 sf	**7.00**	6.62	46.37	0.897
1,500 to 2,499 sf	**7.81**	6.62	51.70	1.000
2,500 sf or larger	**8.89**	6.62	58.83	1.138

1) Daily VMT (Item 3) divided by assessable trip length (Item 2) for each tiered single family land use category
2) Source: Table C-2
3) Ratio to the mean (Item 4) multiplied by total daily VMT for the 1,500 to 2,499 sq ft tier for each tiered single-family land use category
4) Source: Table C-5

Table C-7 illustrates the impact that the incorporation of the trip generation rate tiers for the single family (detached) land use have on the County's calculated transportation impact fee schedule.

Table C-7

Net Transportation Impact Fee by Single Family Land Use Tier

Impact of Tiering on Fee Schedule	Trip Rate	Assessable Trip Length	Daily VMT	Net Fee[2]
Single Family (Detached)				
Low/Very Low Income	**5.26**	6.62	34.79	**$5,961**
Less than 1,500 sf	**7.00**	6.62	46.37	**$7,923**
1,500 to 2,499 sf	**7.81**	6.62	51.70	**$8,843**
2,500 sf or larger	**8.89**	6.62	58.83	**$10,070**

1) Source: Table C-6 (Item 1)
2) Source: Appendix F, Table F-1

Florida Studies Trip Characteristics Database

The Florida Studies Trip Characteristics Database developed by Tindale Oliver includes over 200 studies on 40 different residential and non-residential land uses collected over the last 25 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 fees and the creation of land use plan category trip characteristics for communities throughout Florida and the U.S.

Tindale Oliver 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 (10th edition). In instances, when both ITE *Trip Generation* reference report (10th edition) and Florida Studies trip generation rate (TGR) data are available for a particular land use, the data is typically blended 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 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	5								
ITE	780.0	15								
Blended total	1,325.0									

Average Trip Length:	**n/a**
Weighted Average Trip Length:	**n/a**

Weighted Percent New Trip Average: -

Weighted Average Trip Generation Rate:	1.47
ITE Average Trip Generation Rate:	1.51
Blend of FL Studies and ITE Average Trip Generation Rate:	**1.49**

Land Use 210: Single Family - Detached

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Gwinnett Co, GA	-	12/13-18/92	-	-	5.80	-	5.40	-	31.32	Street Smarts
Gwinnett Co, GA	-	12/13-18/92	-	-	5.40	-	6.10	-	32.94	Street Smarts
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:	6.79		
							Weighted Average Trip Length:	6.62		

Note: Georgia studies are not included in summary statistics

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
Orange Co, FL	364	Nov-13	-	-	9.08	-	-	-	-	Orange County
Orange Co, FL	108	Aug-14	-	-	5.51	-	-	-	-	Orange County
Hernando Co, FL	31	May-96	31	31	6.12	9a-6p	4.98	-	30.48	Tindale Oliver
Hernando Co, FL	128	May-96	128	128	6.47	9a-6p	5.18	-	33.51	Tindale Oliver
Pasco Co, FL	229	Apr-02	198	198	4.77	9a-6p	-	-	-	Tindale Oliver
Pasco Co, FL	248	Apr-02	353	353	4.24	9a-6p	3.53	-	14.97	Tindale Oliver
Total Size	4,575						Average Trip Length:	4.27		
Total Size (TL)	3,631						Weighted Average Trip Length:	5.10		

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							

Weighted Average Trip Generation Rate: **4.17**

Land Use 252: Retirement Community/Senior Adult Housing - Attached

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sun City Center, FL	208	Oct-91	726	726	2.46	24hr.	3.28	-	8.07	Tindale Oliver
Total Size	208	1				**Average Trip Length:**	**3.28**			
ITE	486	6				**Weighted Average Trip Length:**	**3.28**			
Blended total	694									

Weighted Average Trip Generation Rate: 2.46
ITE Average Trip Generation Rate: 3.70
Blend of FL Studies and ITE Average Trip Generation Rate: **3.33**

Land Use 253: Congregate Care Facility/Assisted Living 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	388	2				**Weighted Average Trip Length:**	**3.08**			
Blended total	660									

Weighted Percent New Trip Average: 71.6
460
Weighted Average Trip Generation Rate: 3.50

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	21	164			**Average Trip Length:**	**6.25**			
ITE	876	6				**Weighted Average Trip Length:**	**6.26**			
Blended total	11,060									

Weighted Percent New Trip Average: 66.3
Weighted Average Trip Generation Rate: 5.31
ITE Average Trip Generation Rate: 8.36
Blend of FL Studies and ITE Average Trip Generation Rate: **5.55**

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							
ITE	654	6								

w Trip Average: 76.6

Land Use 444: Movie Theater

Location	Size (Screens)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	8	Oct-89	151	116	113.10	2p-8p	2.70	77.0	235.13	Tindale Oliver
Pinellas Co, FL	12	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale Oliver
Total Size	20	2	273							
	–					Weighted Average Trip Length:	2.22			
Blended total	26									

Weighted Percent New Trip Average: 87.8

Weighted Average Trip Generation Rate: 83.28

ITE Average Trip Generation Rate: 220.00

Blend of FL Studies and ITE Average Trip Generation Rate: 114.83

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			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	2	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
Total Size	120	1	74				2.59			
ITE	480	3					2.59			
Blended total	600									

Weighted Percent New Trip Average: 89.0

Weighted Average Trip Generation Rate: 2.86

ITE Average Trip Generation Rate: 3.06

Blend of FL Studies and ITE Average Trip Generation Rate: 3.02

Land Use 640: Animal Hospital/Veterinary Clinic

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	4.0	-	-	-	21.50	-	-	-	-	Tindale Oliver
Clearwater, FL	3.0	Sep-89	-	-	44.00	-	1.90	70.0	-	Tindale Oliver
Clearwater, FL	2.0	Aug-89	-	-	-	-	1.90	70.0	-	Tindale Oliver
Total Size	7.0	3	0			Average Trip Length:	1.90			
ITE	18.0	6				Weighted Average Trip Length:	1.90			
	25.0									

Weighted Percent New Trip Average: 70.0

Weighted Average Trip Generation Rate: 31.14

ITE Average Trip Generation Rate: 21.50

Blend of FL Studies and ITE Average Trip Generation Rate: 24.20

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
Total Size	742.1	5	736			Average Trip Length:	6.46			
ITE	11,286.0	66				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

Average (excluding Site 4)													**11.84**	**11.99**	

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
Total Size	298.6	11	763				**Average Trip Length:**	**5.07**		
ITE	672.0	28					**Weighted Average Trip Length:**	**5.55**		
Blended total	970.6						Weighted Percent New Trip Average:	88.9		

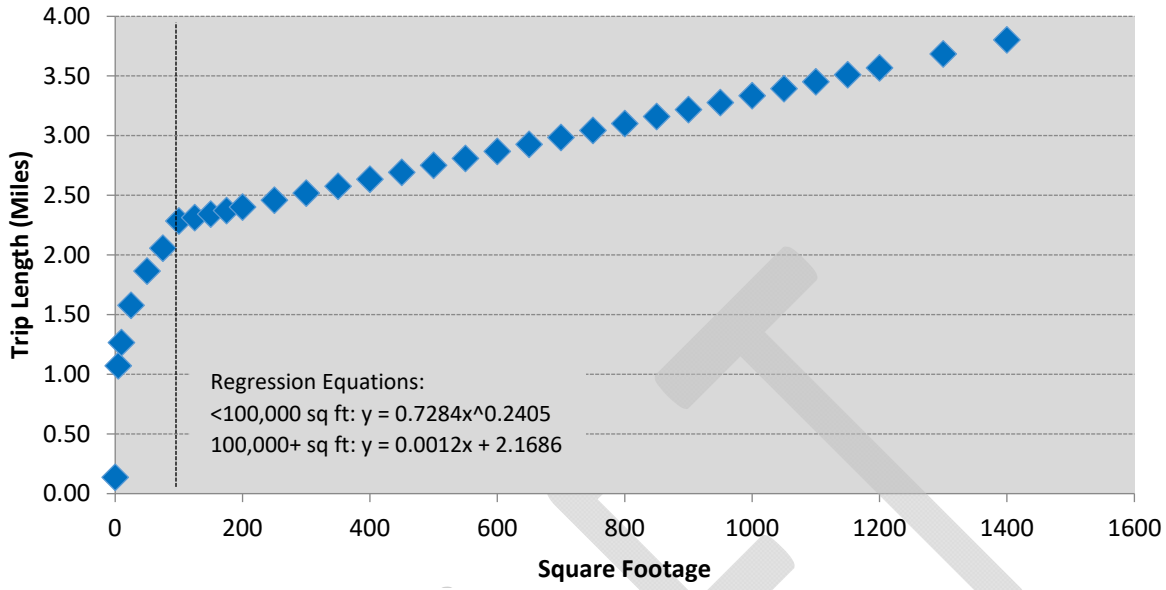
Collier Co, FL	14.1	May-99	-	55	33.48	8a-6p	3.60	72.7	87.62	Tindale Oliver
Collier Co, FL	66.0	May-99	-	43	11.53	8a-6p	5.70	79.0	51.92	Tindale Oliver
Collier Co, FL	211.1	May-99	-	284	17.91	8a-6p	5.40	93.0	89.94	Tindale Oliver
Total Size	291.2	3					**Average Trip Length:**	**4.90**		
ITE	6,288.0	16					**Weighted Average Trip Length:**	**5.38**		
Blended total	6,579.2						Weighted Percent New Trip Average:	88.8		

Blend of FL Studies and ITE Average Trip Generation Rate: **12.65**

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.
Gwinnett Co, GA	99.1	Dec-92	-	-	46.00	-	3.20	70.0	103.04	Street Smarts
Gwinnett Co, GA	314.7	Dec-92	-	-	27.00	-	8.50	84.0	192.78	Street Smarts
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
Bozeman, MT	104.3	Dec-06	359	359	46.96	-	3.35	49.0	77.08	Tindale Oliver
Bozeman, MT	159.9	Dec-06	502	502	56.49	-	1.56	54.0	47.59	Tindale Oliver
Bozeman, MT	35.9	Dec-06	329	329	69.30	-	1.39	74.0	71.28	Tindale Oliver
Total Size	5,757.5		7,536				**Average Trip Length:**	**2.66**		

Figure C-1

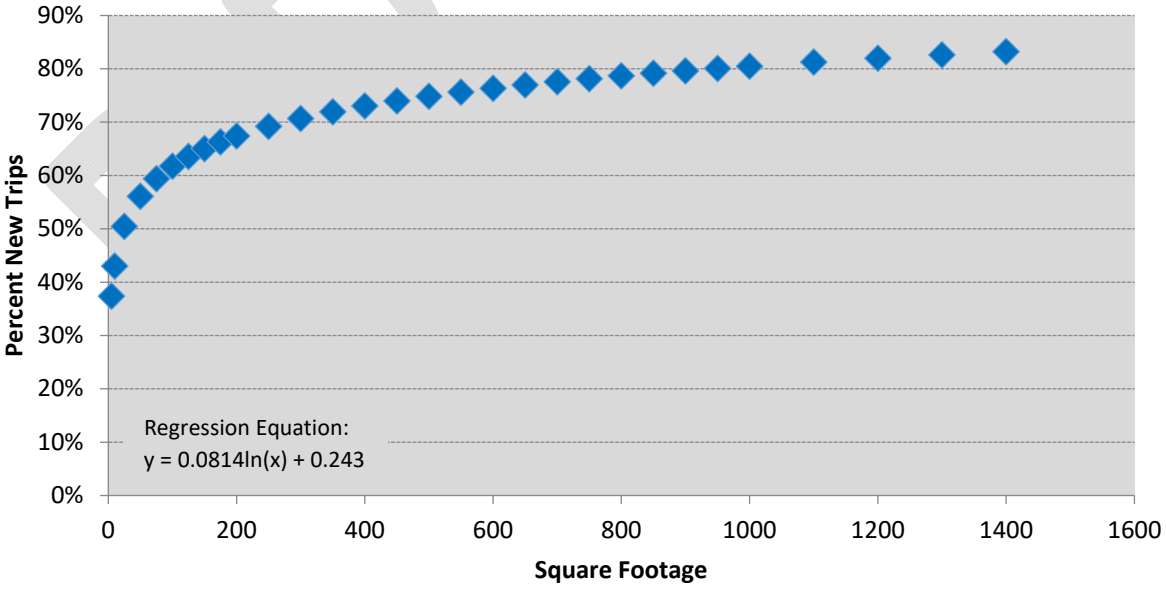
LUC 820: Retail/Shopping Center – Florida Curve Trip Length Regression



Source: Regression analysis based on FL Studies data for LUC 820

Figure C-2

LUC 820: Retail/Shopping Center – Florida Curve Percent New Trips Regression



Source: Regression analysis based on FL Studies data for LUC 820

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	8	288							
ITE (840)	648.0	18								
ITE (841)	28.0	14								
Blended total	1,294.0									

Weighted Percent New Trip Average: 78.5

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 850: Supermarket

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Palm Harbor, FL	62.0	Aug-89	163	62	106.26	9a-4p	2.08	56.0	123.77	Tindale Oliver
Total Size	62.0	1	163				**Average Trip Length:**	**2.08**		
ITE	170.0	5					**Weighted Average Trip Length:**	**2.08**		
Blended total	232.0									

Weighted Percent New Trip Average: 56.0

Weighted Average Trip Generation Rate: 106.26

ITE Average Trip Generation Rate: 106.78

Blend of FL Studies and ITE Average Trip Generation Rate: 106.64

Land Use 890: Furniture Store

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	15.0	7/28-30/92	64	34	-	-	4.63	52.5	-	Tindale Oliver
Tampa, FL	16.9	Jul-92	68	39	-	-	7.38	55.7	-	Tindale Oliver
Total Size	31.90	2	132				**Average Trip Length:**	**6.01**		
ITE	779.0	19					**Weighted Average Trip Length:**	**6.09**		
Blended total	810.90									

Weighted Percent New Trip Average: 54.2

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	9	1,407				**Average Trip Length:**	**2.38**		
ITE	147.0	21					**Weighted Average Trip Length:**	**2.46**		
Blended total	172.2									
	149.7									

Weighted Percent New Trip Average: 46.2

Weighted Average Trip Generation Rate: 246.66

100.03

102.66

Land Use 932: High-Turnover (Sit-Down) Restaurant

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Hernando Co, FL	6.2	1996	242	175	187.51	9a-6p	2.76	72.5	375.00	Tindale Oliver
Hernando Co, FL	8.2	1996	154	93	102.71	9a-6p	4.15	60.2	256.43	Tindale Oliver
St. Petersburg, FL	5.0	1989	74	68	132.60	1130-7p	2.00	92.0	243.98	Tindale Oliver
Kenneth City, FL	5.2	1989	236	176	127.88	4p-730p	2.30	75.0	220.59	Tindale Oliver
Pasco Co, FL	5.2	2002	114	88	82.47	9a-6p	3.72	77.2	236.81	Tindale Oliver
Pasco Co, FL	5.8	2002	182	102	116.97	9a-6p	3.49	56.0	228.77	Tindale Oliver
Orange Co, FL	5.0	1996	-	-	135.68	-	-	-	-	Orange County
Orange Co, FL	9.7	1996	-	-	132.32	-	-	-	-	Orange County
Orange Co, FL	11.2	1998	-	-	18.76	-	-	-	-	Orange County
Orange Co, FL	7.0	1998	-	-	126.40	-	-	-	-	Orange County
Orange Co, FL	4.6	1998	-	-	129.23	-	-	-	-	Orange County
Orange Co, FL	7.4	1998	-	-	147.44	-	-	-	-	Orange County
Orange Co, FL	6.7	1998	-	-	82.58	-	-	-	-	Orange County
Orange Co, FL	11.3	2000	-	-	95.33	-	-	-	-	Orange County
Orange Co, FL	7.2	2000	-	-	98.06	-	-	-	-	Orange County
Orange Co, FL	11.4	2001	-	-	91.67	-	-	-	-	Orange County
Orange Co, FL	5.6	2001	-	-	145.59	-	-	-	-	Orange County
Orange Co, FL	5.5	-	-	-	100.18	-	-	-	-	Orange County
Orange Co, FL	11.3	-	-	-	62.12	-	-	-	-	Orange County
Orange Co, FL	10.4	-	-	-	31.77	-	-	-	-	Orange County
Orange Co, FL	5.9	-	-	-	147.74	-	-	-	-	Orange County
Orange Co, FL	8.9	2008	-	-	52.69	-	-	-	-	Orange County
Orange Co, FL	9.7	2010	-	-	105.84	-	-	-	-	Orange County
Orange Co, FL	9.5	2013	-	-	40.46	-	-	-	-	Orange County
Orange Co, FL	11.0	2015	-	-	138.39	-	-	-	-	Orange County
Total Size	194.9	21	1,102				**Average Trip Length:**	**3.07**		
ITE	250.0	50					**Weighted Average Trip Length:**	**3.17**		
Blended total	444.9						Weighted Percent New Trip Average:	70.8		
								Weighted Average Trip Generation Rate:		98.67
										112.18
										106.26

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	13	4,463				**Average Trip Length:**	**2.11**		
ITE	201.0	67					**Weighted Average Trip Length:**	**2.05**		
Blended total	249.8						Weighted Percent New Trip Average:	57.9		
	34.0							Weighted Average Trip Generation Rate:		530.19
								ITE Average Trip Generation Rate:		470.95
								Blend of FL Studies and ITE Average Trip Generation Rate:		**482.53**

Land Use 942: Automobile 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
Largo, FL	5.5	Sep-89	34	30	37.64	9a-5p	2.40	88.0	79.50	Tindale Oliver
Jacksonville, FL	2.3	2/3-4/90	124	94	-	9a-5p	3.07	76.0	-	Tindale Oliver
Jacksonville, FL	2.3	2/3-4/90	110	74	-	9a-5p	2.96	67.0	-	Tindale Oliver
Jacksonville, FL	2.4	2/3-4/90	132	87	-	9a-5p	2.32	66.0	-	Tindale Oliver
Lakeland, FL	5.2	Mar-90	24	14	-	9a-4p	1.36	59.0	-	Tindale Oliver
Lakeland, FL	-	Mar-90	54	42	-	9a-4p	2.44	78.0	-	Tindale Oliver
Orange Co, FL	25.0	Nov-92	41	39	-	2-6p	4.60	-	-	LCE, Inc.
Orange Co, FL	36.6	-	-	-	15.17	-	-	-	-	Orange County
Orange Co, FL	7.0	-	-	-	46.43	-	-	-	-	Orange County
Total Size	86.2	6	519				**Average Trip Length:**	**2.74**		
ITE	102.0	6					**Weighted Average Trip Length:**	**3.62**		
Blended total	188.2						Weighted Percent New Trip Average:	72.2		
	151.1							Weighted Average Trip Generation Rate:		22.14
								ITE Average Trip Generation Rate (adjusted):		31.10
								Blend of FL Studies and ITE Average Trip Generation Rate:		**28.19**

Land Use 944: Gasoline/Service Station

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	0.6	Nov-89	70	14	-	8am-5pm	1.90	23.0	-	Tindale Oliver
Collier Co, FL	-	Aug-91	168	40	-	-	1.01	23.8	-	Tindale Oliver
Total Size	0.6	1	238				**Average Trip Length:**	**1.46**		
ITE LUC 944 (vfp)	144.0	18					**Weighted Average Trip Length:**	**1.90**		
ITE LUC 945 (vfp)	90.0	5					Weighted Percent New Trip Average:	23.0		

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	3	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**

Demand Variable Changes

Since the County's last demand component update in 2014, the trip generation rate (TGR), trip length (TL), and percent new trips (PNT) has changed for several land uses. These variables were updated based on additional data included in the Florida Studies Database and the use of the ITE 10th Edition Trip Generation Reference Report. Table C-8 presents the VMT change while Tables C-9 through C-11 provide detail on each individual input variable.

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Table C-8

Percent Change in Gross VMT and Net VMT of Impact Fee Land Uses

LUC	Land Use	Unit	GVMT 2014	GVMT 2019	% Change	Explanation	Net VMT 2014[(1)]	NET VMT 2019[(2)]	% Change
	RESIDENTIAL:								
210	Single Family (Detached) - Low/Very Low Income	du	20.69	17.41	-15.9%	TGR update, see Table C-9	17.11	15.51	-9.4%
	Single Family (Detached) - Less than 1,500 sf	du	20.69	23.17	12.0%	TGR update, see Table C-9	17.11	20.64	20.6%
	Single Family (Detached) - 1,501 to 2,499 sf	du	25.85	25.85	0.0%	No change	21.38	23.03	7.7%
	Single Family (Detached) - 2,500 sf and greater	du	30.45	29.43	-3.3%	TGR update, see Table C-9	25.18	26.22	4.1%
220	Multi-Family/Accessory Unit	du	-	-	-	n/a	-	-	-
220	Multi-Family (Low-Rise, 1-2 levels)	du	16.83	18.67	10.9%	TGR update, see Table C-9	13.92	16.63	19.5%
221	Multi-Family (Mid-Rise, 3-10 levels)	du	16.83	13.87	-17.6%	TGR update, see Table C-9	13.92	12.36	-11.2%
240	Mobile Home Park/RV (tied down)	du	9.59	9.59	0.0%	No change	7.93	8.55	7.8%
252	Assisted Care Living Facility (ACLF)	bed	3.51	3.93	12.0%	TGR update, see Table C-9	2.90	3.50	20.7%
	LODGING:								
310	Hotel	room	13.14	11.47	-12.7%	TGR update, see Table C-9	10.87	10.22	-6.0%
320	Motel	room	9.41	5.60	-40.5%	TGR update, see Table C-9	7.78	4.99	-35.9%
	RECREATION:								
411	Public Park	acre	5.24	1.81	-65.5%	TGR & TL update, see Tables C-9 and C-10	4.34	1.61	-62.9%
420	Marina	boat berth	8.82	7.18	-18.6%	TGR update, see Table C-9	7.29	6.40	-12.2%
430	Golf Course	hole	106.47	90.50	-15.0%	TGR update, see Table C-9	88.05	80.64	-8.4%
444	Movie Theater w/Matinee	screen	104.16	112.17	7.7%	TGR update, see Table C-9	86.14	99.94	16.0%
490	Tennis Court	court	93.67	73.39	-21.7%	TGR update, see Table C-9	77.47	65.39	-15.6%
492	Racquet Club/Health Club/Dance Studio	1,000 sf	79.71	83.51	4.8%	TGR update, see Table C-9	65.92	74.40	12.9%
	INSTITUTIONS:								
520	Elementary School (Private, K-5)	student	2.22	2.50	12.6%	TGR & TL update, see Tables C-9 and C-10	1.83	2.23	21.9%
522	Middle School (Private, 6-8)	student	3.13	2.82	-9.9%	TGR, TL & PNT update, see Tables C-9, C-10, and C-11	2.59	2.51	-3.1%
530	High School (Private, 9-12)	student	3.31	3.02	-8.8%	TGR & TL update, see Tables C-9 and C-10	2.74	2.69	-1.8%
540/550	University/Jr College (Private)	student	5.96	5.96	0.0%	No change	4.93	5.31	7.7%
560	Church	1,000 sf	15.99	12.23	-23.5%	TGR & TL update, see Tables C-9 and C-10	13.22	10.90	-17.5%
565	Day Care Center	1,000 sf	53.26	36.77	-31.0%	TGR update, see Table C-9	44.05	32.77	-25.6%
571	Jail	bed	13.03	2.37	-81.8%	TGR update, see Table C-9	10.78	2.11	-80.4%
575	Fire & Rescue Station	1,000 sf	4.85	11.12	129.3%	TGR, TL & PNT update, see Tables C-9, C-10, and C-11	4.01	9.91	147.1%
590	Library	1,000 sf	158.23	202.71	28.1%	TGR update, see Table C-9	130.86	180.62	38.0%
	MEDICAL:								
610	Hospital	1,000 sf	33.69	27.68	-17.8%	TGR & PNT update, see Tables C-9 and C-11	27.86	24.66	-11.5%
620	Nursing Home	bed	3.18	3.48	9.4%	TGR update, see Table C-9	2.63	3.10	17.9%
640	Veterinary Clinic	1,000 sf	95.14	43.20	-54.6%	TGR & PNT update, see Tables C-9 and C-11	78.68	38.49	-51.1%
	OFFICE:								
710	General Office	1,000 sf	26.13	23.07	-11.7%	TGR update, see Table C-9	21.61	20.56	-4.9%
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	58.85	58.85	0.0%	No change	48.67	52.44	7.7%
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	85.75	84.27	-1.7%	TGR update, see Table C-9	70.92	75.08	5.9%
732	Post Office	1,000 sf	97.51	93.68	-3.9%	TGR update, see Table C-9	80.64	83.47	3.5%
733	Government Office Complex	1,000 sf	66.14	80.50	21.7%	TGR update, see Table C-9	54.70	71.72	31.1%
760	Research & Development Center	1,000 sf	19.42	26.96	38.8%	TGR update, see Table C-9	16.06	24.02	49.6%
	RETAIL:								
820	Retail/Shopping Center	1,000 sfgla	41.15	37.57	-8.7%	TGR, TL & PNT update, see Tables C-9, C-10, and C-11	34.03	33.48	-1.6%
840/841	New/Used Auto Sales	1,000 sf	51.33	44.66	-13.0%	TGR update, see Table C-9	42.45	39.79	-6.3%
850	Supermarket	1,000 sf	60.21	62.11	3.2%	TGR update, see Table C-9	49.79	55.34	11.1%
890	Furniture Store	1,000 sf	8.32	10.36	24.5%	TGR update, see Table C-9	6.88	9.23	34.2%
	SERVICE:								
911	Bank/Savings Walk-In	1,000 sf	68.63	33.60	-51.0%	TGR update, see Table C-9	56.76	29.94	-47.3%
912	Bank/Savings Drive-In	1,000 sf	90.15	58.09	-35.6%	TGR update, see Table C-9	74.56	51.75	-30.6%
932	Restaurant	1,000 sf	131.22	119.58	-8.9%	TGR update, see Table C-9	108.52	106.55	-1.8%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	303.79	286.86	-5.6%	TGR update, see Table C-9	251.23	255.60	1.7%
942	Automobile Care Center	1,000 sf	44.87	36.74	-18.1%	TGR update, see Table C-9	37.11	32.73	-11.8%
944/946	Gas/Service Station with & without Car Wash	fuel pos.	-	-	-	n/a	-	-	-
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	34.38	37.58	9.3%	TGR update, see Table C-9	28.43	33.49	17.8%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	34.38	44.87	30.5%	TGR update, see Table C-9	28.43	39.98	40.6%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	34.38	50.37	46.5%	TGR update, see Table C-9	28.43	44.88	57.9%
947	Self-Service Car Wash	service bay	32.57	32.57	0.0%	No change	26.93	29.02	7.8%
	INDUSTRIAL:								
110	General Light Industrial	1,000 sf	16.51	11.75	-28.8%	TGR update, see Table C-9	13.66	10.47	-23.4%
140	Manufacturing	1,000 sf	9.05	9.31	2.9%	TGR update, see Table C-9	7.48	8.30	11.0%
150	Warehousing	1,000 sf	8.43	4.12	-51.1%	TGR update, see Table C-9	6.97	3.67	-47.3%
151	Mini-Warehouse	1,000 sf	3.07	2.41	-21.5%	TGR & TL update, see Tables C-9 and C-10	2.54	2.14	-15.7%
154	High-Cube Transload/Storage	1,000 sf	3.98	3.32	-16.6%	TGR update, see Table C-9	3.29	2.96	-10.0%
n/a	Concrete Plant	acre	36.96	36.96	0.0%	No change	30.56	32.93	7.8%
n/a	Sand Mining	acre	4.74	4.74	0.0%	No change	3.92	4.22	7.7%

1) The Net VMT includes the interstate/toll facility adjustment factor as part of the calculation. 2014 report = 17.3% reduction
2) The Net VMT includes the interstate/toll facility adjustment factor as part of the calculation. 2019 report = 10.9% reduction

- Gross VMT = TGR * TL * PNT / 2
- Individual variables are shown in Tables C-10 through C-12

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Table C-9

Percent Change in Trip Generation Rate of Impact Fee Land Uses

LUC	Land Use	Unit	Trip Rate 2014	Trip Rate 2019	% Change	Explanation
	RESIDENTIAL:					
210	Single Family (Detached) - Low/Very Low Income	du	6.25	5.26	-15.8%	New tier
	Single Family (Detached) - Less than 1,500 sf	du	6.25	7.00	12.0%	NHTS/AHS udpate
	Single Family (Detached) - 1,501 to 2,499 sf	du	7.81	7.81	0.0%	No change
	Single Family (Detached) - 2,500 sf and greater	du	9.20	8.89	-3.4%	NHTS/AHS update
220	Multi-Family/Accessory Unit	du	Land use re-alignment, see below			
220	Multi-Family (Low-Rise, 1-2 levels)	du	6.60	7.32	10.9%	Updated TGR in ITE 10th Edition, land use re-alignment
221	Multi-Family (Mid-Rise, 3-10 levels)	du	6.60	5.44	-17.6%	Updated TGR in ITE 10th Edition, land use re-alignment
240	Mobile Home Park/RV (tied down)	du	4.17	4.17	0.0%	No change
252	Assisted Care Living Facility (ACLF)	bed	2.97	3.33	12.1%	Updated TGR in ITE 10th Edition
	LODGING:					
310	Hotel	room	6.36	5.55	-12.7%	Updated TGR in ITE 10th Edition & new FL Studies
320	Motel	room	5.63	3.35	-40.5%	Updated TGR in ITE 10th Edition
	RECREATION:					
411	Public Park	acre	2.28	0.78	-65.8%	Land use re-alignment (previously LUC 412)
420	Marina	boat berth	2.96	2.41	-18.6%	Updated TGR in ITE 10th Edition
430	Golf Course	hole	35.74	30.38	-15.0%	Updated TGR in ITE 10th Edition
444	Movie Theater w/Matinee	screen	106.63	114.83	7.7%	Updated TGR in ITE 10th Edition
490	Tennis Court	court	38.70	30.32	-21.7%	Updated TGR in ITE 10th Edition (previously used LUC 491)
492	Racquet Club/Health Club/Dance Studio	1,000 sf	32.93	34.50	4.8%	Updated TGR in ITE 10th Edition (adjusted)
	INSTITUTIONS:					
520	Elementary School (Private, K-5)	student	1.29	1.89	46.5%	Updated TGR in ITE 10th Edition
522	Middle School (Private, 6-8)	student	1.62	2.13	31.5%	Updated TGR in ITE 10th Edition
530	High School (Private, 9-12)	student	1.71	2.03	18.7%	Updated TGR in ITE 10th Edition
540/550	University/Jr College (Private)	student	2.00	2.00	0.0%	No change
560	Church	1,000 sf	9.11	6.95	-23.7%	Updated TGR in ITE 10th Edition
565	Day Care Center	1,000 sf	71.88	49.63	-31.0%	Updated TGR in ITE 10th Edition
571	Jail	bed	5.50	1.00	-81.8%	Updated TGR in ITE 10th Edition (adjusted)
575	Fire & Rescue Station	1,000 sf	5.40	4.80	-11.1%	Updated TGR in ITE 10th Edition (adjusted)
590	Library	1,000 sf	56.24	72.05	28.1%	Updated TGR in ITE 10th Edition
	MEDICAL:					
610	Hospital	1,000 sf	13.22	10.72	-18.9%	Updated TGR in ITE 10th Edition
620	Nursing Home	bed	2.76	3.02	9.4%	Updated TGR in ITE 10th Edition
640	Veterinary Clinic	1,000 sf	40.12	24.20	-39.7%	Updated TGR in ITE 10th Edition & new FL Studies
	OFFICE:					
710	General Office	1,000 sf	11.03	9.74	-11.7%	Updated TGR in ITE 10th Edition
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	23.83	23.83	0.0%	No change
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	34.72	34.12	-1.7%	Updated TGR in ITE 10th Edition
732	Post Office	1,000 sf	108.19	103.94	-3.9%	Updated TGR in ITE 10th Edition
733	Government Office Complex	1,000 sf	27.92	33.98	21.7%	Updated TGR in ITE 10th Edition
760	Research & Development Center	1,000 sf	8.11	11.26	38.8%	Updated TGR in ITE 10th Edition
	RETAIL:					
820	Retail/Shopping Center	1,000 sfgla	42.70	37.75	-11.6%	Updated TGR in ITE 10th Edition
840/841	New/Used Auto Sales	1,000 sf	28.25	24.58	-13.0%	Updated TGR in ITE 10th Edition, blend 840/841 & new FL Studies
850	Supermarket	1,000 sf	103.38	106.64	3.2%	Updated TGR in ITE 10th Edition
890	Furniture Store	1,000 sf	5.06	6.30	24.5%	Updated TGR in ITE 10th Edition
	SERVICE:					
911	Bank/Savings Walk-In	1,000 sf	121.30	59.39	-51.0%	Updated TGR in ITE 10th Edition (adjusted)
912	Bank/Savings Drive-In	1,000 sf	159.34	102.66	-35.6%	Updated TGR in ITE 10th Edition
932	Restaurant	1,000 sf	116.60	106.26	-8.9%	Updated TGR in ITE 10th Edition & new FL Studies
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	511.00	482.53	-5.6%	Updated TGR in ITE 10th Edition
942	Automobile Care Center	1,000 sf	34.43	28.19	-18.1%	Additional FL Studies added
944/946	Gas/Service Station with & without Car Wash	fuel pos.	Land use re-alignment, see below			
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	157.33	172.01	9.3%	Updated TGR in ITE 10th Edition, land use re-alignment
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	157.33	205.36	30.5%	Updated TGR in ITE 10th Edition, land use re-alignment
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	157.33	230.52	46.5%	Updated TGR in ITE 10th Edition, land use re-alignment
947	Self-Service Car Wash	service bay	43.94	43.94	0.0%	No change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	6.97	4.96	-28.8%	Updated TGR in ITE 10th Edition
140	Manufacturing	1,000 sf	3.82	3.93	2.9%	Updated TGR in ITE 10th Edition
150	Warehousing	1,000 sf	3.56	1.74	-51.1%	Updated TGR in ITE 10th Edition
151	Mini-Warehouse	1,000 sf	2.15	1.49	-30.7%	Updated TGR in ITE 10th Edition & new FL Studies
154	High-Cube Transload/Storage	1,000 sf	1.68	1.40	-16.7%	Land use re-alignment (previously LUC 152)
n/a	Concrete Plant	acre	15.60	15.60	0.0%	No change
n/a	Sand Mining	acre	2.00	2.00	0.0%	No change

- See Appendix F for additional information

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Table C-10

Percent Change in Trip Length of Impact Fee Land Uses

LUC	Land Use	Unit	Trip Length 2014	Trip Length 2019	% Change	Explanation
	RESIDENTIAL:					
210	Single Family (Detached) - Low/Very Low Income	du	6.62	6.62	0.0%	No change
	Single Family (Detached) - Less than 1,500 sf	du	6.62	6.62	0.0%	No change
	Single Family (Detached) - 1,501 to 2,499 sf	du	6.62	6.62	0.0%	No change
	Single Family (Detached) - 2,500 sf and greater	du	6.62	6.62	0.0%	No change
220	Multi-Family/Accessory Unit	du	Land use re-alignment, see below			
220	Multi-Family (Low-Rise, 1-2 levels)	du	5.10	5.10	0.0%	No change
221	Multi-Family (Mid-Rise, 3-10 levels)	du	5.10	5.10	0.0%	No change
240	Mobile Home Park/RV (tied down)	du	4.60	4.60	0.0%	No change
252	Assisted Care Living Facility (ACLF)	bed	3.28	3.28	0.0%	No change
	LODGING:					
310	Hotel	room	6.26	6.26	0.0%	No change
320	Motel	room	4.34	4.34	0.0%	No change
	RECREATION:					
411	Public Park	acre	5.11	5.15	0.8%	Updated to be same as LUC 710
420	Marina	boat berth	6.62	6.62	0.0%	No change
430	Golf Course	hole	6.62	6.62	0.0%	No change
444	Movie Theater w/Matinee	screen	2.22	2.22	0.0%	No change
490	Tennis Court	court	5.15	5.15	0.0%	No change
492	Racquet Club/Health Club/Dance Studio	1,000 sf	5.15	5.15	0.0%	No change
	INSTITUTIONS:					
520	Elementary School (Private, K-5)	student	4.30	3.31	-23.0%	Updated to reflect more current data
522	Middle School (Private, 6-8)	student	4.30	3.31	-23.0%	Updated to reflect more current data
530	High School (Private, 9-12)	student	4.30	3.31	-23.0%	Updated to reflect more current data
540/550	University/Jr College (Private)	student	6.62	6.62	0.0%	No change
560	Church	1,000 sf	3.90	3.91	0.3%	Updated to reflect more current data
565	Day Care Center	1,000 sf	2.03	2.03	0.0%	No change
571	Jail	bed	5.15	5.15	0.0%	No change
575	Fire & Rescue Station	1,000 sf	2.02	5.15	155.0%	Updated to be same as LUC 710
590	Library	1,000 sf	6.62	6.62	0.0%	No change
	MEDICAL:					
610	Hospital	1,000 sf	6.62	6.62	0.0%	No change
620	Nursing Home	bed	2.59	2.59	0.0%	No change
640	Veterinary Clinic	1,000 sf	5.10	5.10	0.0%	No change
	OFFICE:					
710	General Office	1,000 sf	5.15	5.15	0.0%	No change
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	5.55	5.55	0.0%	No change
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	5.55	5.55	0.0%	No change
732	Post Office	1,000 sf	5.15	5.15	0.0%	No change
733	Government Office Complex	1,000 sf	5.15	5.15	0.0%	No change
760	Research & Development Center	1,000 sf	5.38	5.38	0.0%	No change
	RETAIL:					
820	Retail/Shopping Center	1,000 sfgla	2.64	2.69	1.9%	TL based on average size in ITE 10th (450k sf)
840/841	New/Used Auto Sales	1,000 sf	4.60	4.60	0.0%	No change
850	Supermarket	1,000 sf	2.08	2.08	0.0%	No change
890	Furniture Store	1,000 sf	6.09	6.09	0.0%	No change
	SERVICE:					
911	Bank/Savings Walk-In	1,000 sf	2.46	2.46	0.0%	No change
912	Bank/Savings Drive-In	1,000 sf	2.46	2.46	0.0%	No change
932	Restaurant	1,000 sf	3.17	3.17	0.0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	2.05	2.05	0.0%	No change
942	Automobile Care Center	1,000 sf	3.62	3.62	0.0%	No change
944/946	Gas/Service Station with & without Car Wash	fuel pos.	Land use re-alignment, see below			
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	1.90	1.90	0.0%	No change
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	1.90	1.90	0.0%	No change
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	1.90	1.90	0.0%	No change
947	Self-Service Car Wash	service bay	2.18	2.18	0.0%	No change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	5.15	5.15	0.0%	No change
140	Manufacturing	1,000 sf	5.15	5.15	0.0%	No change
150	Warehousing	1,000 sf	5.15	5.15	0.0%	No change
151	Mini-Warehouse	1,000 sf	3.10	3.51	13.2%	Updated to reflect more current data
154	High-Cube Transload/Storage	1,000 sf	5.15	5.15	0.0%	No change
n/a	Concrete Plant	acre	5.15	5.15	0.0%	No change
n/a	Sand Mining	acre	5.15	5.15	0.0%	No change

- See Appendix F for additional information

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Table C-11

Percent Change in Percent New Trips of Impact Fee Land Uses

LUC	Land Use	Unit	% New Trips 2014	% New Trips 2019	% Change	Explanation
	RESIDENTIAL:					
210	Single Family (Detached) - Low/Very Low Income	du	100%	100%	0.0%	No change
	Single Family (Detached) - Less than 1,500 sf	du	100%	100%	0.0%	No change
	Single Family (Detached) - 1,501 to 2,499 sf	du	100%	100%	0.0%	No change
	Single Family (Detached) - 2,500 sf and greater	du	100%	100%	0.0%	No change
220	Multi-Family/Accessory Unit	du			Land use re-alignment, see below	
220	Multi-Family (Low-Rise, 1-2 levels)	du	100%	100%	0.0%	No change
221	Multi-Family (Mid-Rise, 3-10 levels)	du	100%	100%	0.0%	No change
240	Mobile Home Park/RV (tied down)	du	100%	100%	0.0%	No change
252	Assisted Care Living Facility (ACLF)	bed	72%	72%	0.0%	No change
	LODGING:					
310	Hotel	room	66%	66%	0.0%	No change
320	Motel	room	77%	77%	0.0%	No change
	RECREATION:					
411	Public Park	acre	90%	90%	0.0%	No change
420	Marina	boat berth	90%	90%	0.0%	No change
430	Golf Course	hole	90%	90%	0.0%	No change
444	Movie Theater w/Matinee	screen	88%	88%	0.0%	No change
490	Tennis Court	court	94%	94%	0.0%	No change
492	Racquet Club/Health Club/Dance Studio	1,000 sf	94%	94%	0.0%	No change
	INSTITUTIONS:					
520	Elementary School (Private, K-5)	student	80%	80%	0.0%	No change
522	Middle School (Private, 6-8)	student	90%	80%	-11.1%	Updated to reflect more current data
530	High School (Private, 9-12)	student	90%	90%	0.0%	No change
540/550	University/Jr College (Private)	student	90%	90%	0.0%	No change
560	Church	1,000 sf	90%	90%	0.0%	No change
565	Day Care Center	1,000 sf	73%	73%	0.0%	No change
571	Jail	bed	92%	92%	0.0%	No change
575	Fire & Rescue Station	1,000 sf	89%	90%	1.1%	Updated to be based on LUC 710
590	Library	1,000 sf	85%	85%	0.0%	No change
	MEDICAL:					
610	Hospital	1,000 sf	77%	78%	1.3%	Updated to reflect more current data
620	Nursing Home	bed	89%	89%	0.0%	No change
640	Veterinary Clinic	1,000 sf	93%	70%	-24.7%	Additional FL Studies added
	OFFICE:					
710	General Office	1,000 sf	92%	92%	0.0%	No change
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	89%	89%	0.0%	No change
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	89%	89%	0.0%	No change
732	Post Office	1,000 sf	35%	35%	0.0%	No change
733	Government Office Complex	1,000 sf	92%	92%	0.0%	No change
760	Research & Development Center	1,000 sf	89%	89%	0.0%	No change
	RETAIL:					
820	Retail/Shopping Center	1,000 sfgla	73%	74%	1.4%	PNT based on average size in ITE 10th (450k sf)
840/841	New/Used Auto Sales	1,000 sf	79%	79%	0.0%	No change
850	Supermarket	1,000 sf	56%	56%	0.0%	No change
890	Furniture Store	1,000 sf	54%	54%	0.0%	No change
	SERVICE:					
911	Bank/Savings Walk-In	1,000 sf	46%	46%	0.0%	No change
912	Bank/Savings Drive-In	1,000 sf	46%	46%	0.0%	No change
932	Restaurant	1,000 sf	71%	71%	0.0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	58%	58%	0.0%	No change
942	Automobile Care Center	1,000 sf	72%	72%	0.0%	No change
944/946	Gas/Service Station with & without Car Wash	fuel pos.			Land use re-alignment, see below	
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	23%	23%	0.0%	No change
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	23%	23%	0.0%	No change
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	23%	23%	0.0%	No change
947	Self-Service Car Wash	service bay	68%	68%	0.0%	No change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	92%	92%	0.0%	No change
140	Manufacturing	1,000 sf	92%	92%	0.0%	No change
150	Warehousing	1,000 sf	92%	92%	0.0%	No change
151	Mini-Warehouse	1,000 sf	92%	92%	0.0%	No change
154	High-Cube Transload/Storage	1,000 sf	92%	92%	0.0%	No change
n/a	Concrete Plant	acre	92%	92%	0.0%	No change
n/a	Sand Mining	acre	92%	92%	0.0%	No change

- See Appendix F for additional information

Appendix D
Transportation Impact Fee:
Cost Component

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Appendix D: TIF - Cost Component

This appendix presents the detailed calculations for the cost component of the transportation impact fee update. Supporting data and estimates are provided for all cost variables, including:

- Design
- Right-of-Way
- Construction
- Construction Engineering & Inspection
- VMT Distribution
- Roadway Capacity

Curb & Gutter vs. Open Drainage

Due to a lack of available roadway construction data for rural-design (open drainage) roadways, the cost per lane mile for these types of roads is calculated using an adjustment factor. This factor is based on the rural-to-urban design cost ratio from the most recent District 7 Long Range Estimates[5] provided by FDOT. Based on the LRE, the costs for open drainage roadway capacity expansion (new road construction or lane addition) is approximately 74 percent of the construction costs for curb and gutter (urban) roadway improvements.

Table D-1

Curb & Gutter (Urban)/Open Drainage (Rural) Cost Factor

Improvement	Cost per Lane Mile		
	Rural Design	Urban Design	Ratio
0-2 Lanes	$3,190,321	$5,001,730	64%
0-4 Lanes	$2,571,116	$3,517,494	73%
0-6 Lanes	$2,182,686	$2,843,061	77%
2-4 Lanes	$3,707,679	$4,601,110	81%
4-6 Lanes	$4,072,695	$5,179,613	79%
Average	**$3,144,899**	**$4,228,602**	**74%**

Source: FDOT District 7 Long Range Estimates, 2019

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

Design

County Roadways

The design cost factor for county roads is estimated as a percentage of the construction cost per lane mile. This factor is determined based on a review of design-to-construction cost ratios from future projects in Indian River County and from previously completed transportation impact fee studies throughout Florida. For local estimates, design and CEI are grouped, ranging from 16 percent to 26 percent, with a weighted average of 19 percent. For county roadways from throughout Florida, the design factors ranged from 8 percent to 14 percent with a weighted average of 11 percent. For purposes of this study, the design cost for county roads is calculated at 11 percent of the construction cost per lane mile. The use of 11 percent reflects that the local data has grouped design and CEI into a single cost item. CEI costs are reviewed later in this appendix.

State Roadways

The design cost factor for state roads is estimated as a percentage of the construction cost per lane mile. This factor is determined based on a review of design-to-construction cost ratios from previously completed transportation impact fee studies throughout Florida. As shown in Table D-3, recent design factors ranged from 10 to 11 percent with a weighted average of 11 percent. For purposes of this study, the design cost for state roads is calculated at 11 percent of the construction cost per lane mile.

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Table D-2

Design/CEI Cost Factor – Indian River County Local Roadway Improvements

IRC#	Roadway	From	To	Date	Status	Feature	Length	Lanes Added	Lane Miles Added	Design/CEI	Construction Cost	Design/CEI to Construction Ratio
1505	66th Ave	49th St	69th St	2021/22	Future Estimate	Add 4 Lanes	4.55	4	18.20	$6,000,000	$36,700,962	16%
1505B	66th Ave	69th St	85th St	2022/23	Future Estimate	Add 3 Lanes	2.40	3	7.20	$4,000,000	$15,415,922	26%
Total									**25.40**	**$10,000,000**	**$52,116,884**	**19%**

Source: Indian River County Public Works Department

Table D-3

Design Cost Factor for County and State Roads – Recent Impact Fee Studies

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
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	Orange	$203,000	$2,542,000	8%	-	-	n/a
2018	Collier	$385,000	$3,500,000	11%	$385,000	$3,500,000	11%
Average		**$248,013**	**$2,306,893**	**11%**	**$286,575**	**$2,642,817**	**11%**

Source: Recent impact fee studies conducted throughout Florida

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 is estimated as a percentage of the construction cost per lane mile. To determine the ROW cost factor, Tindale Oliver conducted a review of local projected ROW acquisitions along capacity expansion projects in Indian River County and reviewed ROW-to-construction cost ratios from recent transportation impact fee studies from other counties in Florida. As shown in Table D-4, ROW cost estimates from four Indian River County improvements indicated a weighted average construction cost ratio of approximately 22 percent.

As shown in Table D-5, the ROW-to-construction factor for recent studies throughout Florida ranged from 32 percent to 60 percent with an average of 42 percent. Based on a review of these two data sets and discussions with county staff, ROW costs are calculated at approximately 20 percent of the construction costs.

State Roadways

Similar to county roads, the ROW cost of state roads is estimated as a percentage of the construction cost per lane mile. Given the limited data on ROW costs for state roads in Indian River County, the ROW-to-construction ratios from several recently completed transportation impact fee studies throughout Florida are reviewed. As shown in Table D-5, the ratios for state roads ranged from 32 percent to 60 percent with an average of 43 percent. However, for purposes of this update study, the ROW cost is estimated at 20 percent of the construction cost per lane mile for state roadways based on the local county road data shown in Table D-4.

Table D-4

Right-of-Way Cost Factor – Indian River County Local Roadway Improvements

IRC#	Roadway	From	To	Date	Status	Feature	Length	Lanes Added	Lane Miles Added	ROW Cost	Construction Cost	ROW to Construction Ratio
-	CR 510	CR 512	W. 82nd Ave	2022/23	Future Estimate	Add 2 Lanes	2.25	2	4.50	$3,607,904	$26,598,086	14%
	CR 510	W. 82nd Ave	58th Ave	2022/23	Future Estimate	Add 2 Lanes	3.00	2	6.00	$11,239,672	$50,225,410	22%
1230	37th St	Indian River Blvd	US 1	2022/23	Future Estimate	Add 3 Lanes	1.86	3	5.57	$2,000,000	$8,000,000	25%
1505B	66th Ave	69th St	85th St	2022/23	Future Estimate	Add 3 Lanes	2.40	3	7.20	$5,000,000	$15,415,922	32%
Total									**23.27**	**$21,847,576**	**$100,239,417**	**22%**

Source: Indian River County Public Works Department

Table D-5

Right-of-Way Cost Factor for County and State Roads – Recent Impact Fee Studies

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
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	Orange	$1,017,000	$2,542,000	40%	-	-	n/a
2018	Collier	$1,208,000	$3,500,000	35%	$1,208,000	$3,500,000	35%
Average		**$968,258**	**$2,306,893**	**42%**	**$1,131,930**	**$2,635,317**	**43%**

Source: Recent impact fee studies conducted throughout Florida

Construction

County Roadways

The construction cost for county roads (curb & gutter, urban section design) is based on Indian River County projects and the cost of recent projects in other communities in Florida. As shown in Table D-6, the review of construction data (completed/ongoing and future estimates) resulted in a weighted average cost of $2.54 million per lane mile.

In addition to Indian River County improvements, recent bid/completed projects from other communities throughout Florida were reviewed to increase the sample size of data. This review, as shown in Table D-7, included approximately 164 lane miles of improvements across 12 different counties, averaging $2.90 million per lane mile.

As show in Table D-6 and Figure D-1, the average cost per lane mile has been steadily increasing in the past few years, far exceeding the average over the entire time period ($2.90 million). Figure D-1 illustrates the range of construction costs per year as well as providing the annual average of the entire sample.

Figure D-2 goes a step further, providing two different trend lines based on the set of statewide data. The "reduction of sample" trend shows how costs have been increasing in more recent years by starting with the average of all projects (from 2012 to 2018) and then gradually removing an earlier year of sample data. Conversely, the "cumulative sample" shows how each additional year of cost data has impacted the weighted average as the sample size has increased. As shown, costs are continuing to increase over time, and use to multiple years results in a larger sample with a relatively conservative cost estimate.

To increase the sample size of data, the weighted average cost from the local Indian River County projects and the projects from throughout Florida is calculated. The resulting weighted average cost of approximately **$2.80 million** per lane mile is used in the impact fee calculation for county roadways.

Calculation details:

Table D-6 = 43.87 lane miles and a total cost of $111,300,561

Table D-7 (excluding Indian River County) = 164.22 lane miles and a total cost of $477,112,458

Combined data sets = $588,413,019 / 208.09 lane miles ≈ $2,828,000 per lane mile

Table D-6

Construction Cost – Indian River County Local Roadway Improvements

IRC#	Roadway	From	To	Date	Status	Feature	Length	Lanes Added	Lane Miles Added	Section Design	Construction Cost	Construction Cost per Lane Mile
-	Oslo Rd Ph. III	43rd Ave	58th Ave	2012	Ongoing/Complete	2 to 4 Lanes	1.15	2	2.30	C&G	$3,812,202	$1,657,479
-	66th Ave	SR 60	49th St	2012	Ongoing/Complete	2 to 4 Lanes	3.05	2	6.10	C&G	$20,773,389	$3,405,474
-	CR 510	CR 512	W. 82nd Ave	2022/23	Future Estimate	Add 2 Lanes	2.25	2	4.50	C&G	$26,598,086	$5,910,686
1230	37th St	Indian River Blvd	US 1	2022/23	Future Estimate	Add 3 Lanes	1.86	3	5.57	C&G	$8,000,000	$1,436,266
1505	66th Ave	49th St	69th St	2021/22	Future Estimate	Add 4 Lanes	4.55	4	18.20	C&G	$36,700,962	$2,016,536
1505B	66th Ave	69th St	85th St	2022/23	Future Estimate	Add 3 Lanes	2.40	3	7.20	C&G	$15,415,922	$2,141,100
Total									**43.87**		**$111,300,561**	**$2,537,054**

Source: Indian River County Public Works Department

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Table D-7

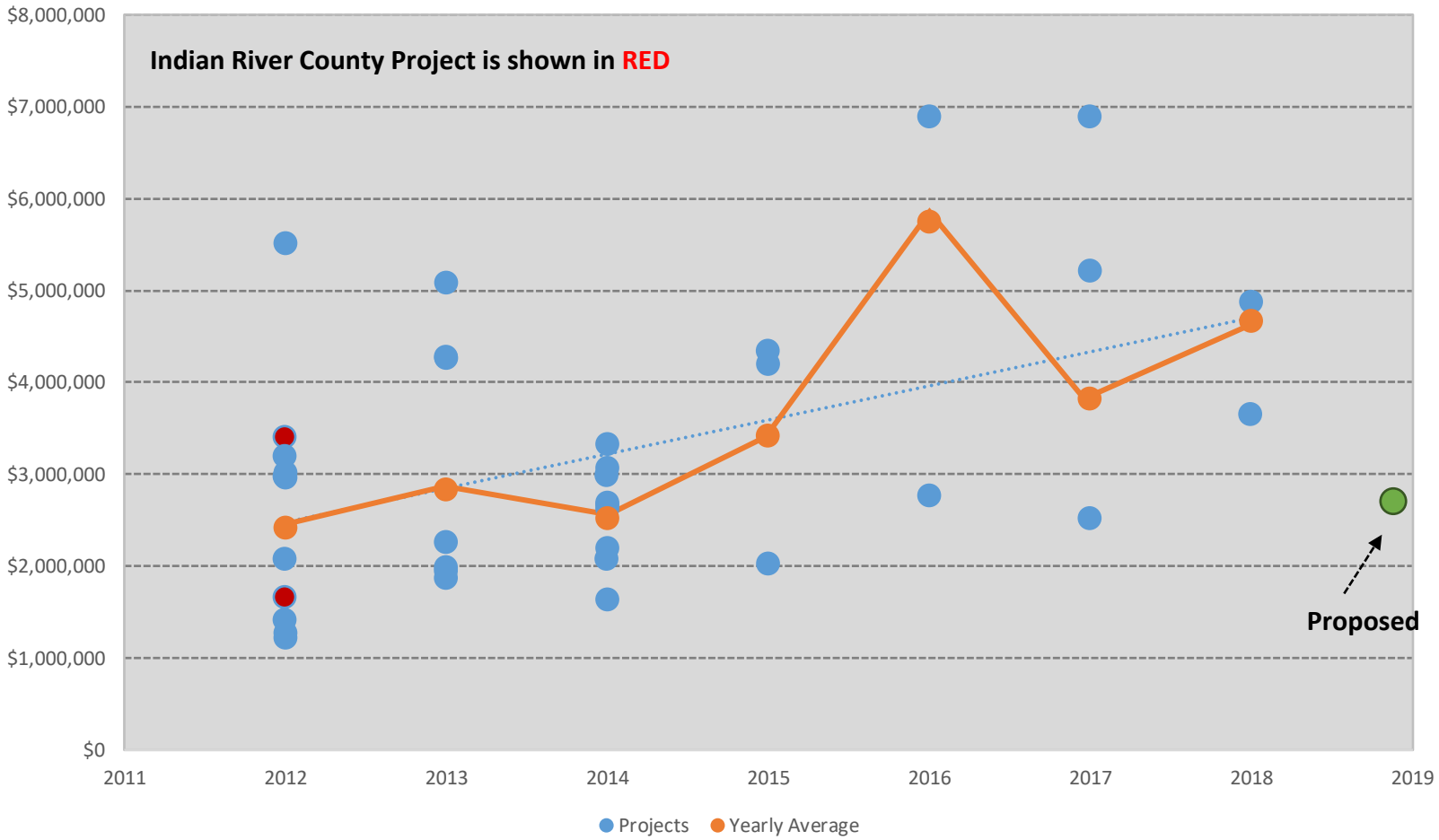
Construction Cost for County Roads – Improvements from Other Jurisdictions throughout Florida

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
Orange	5	Clarcona-Ocoee Rd	Ocoee-Apopka Rd	Hiawassee Rd	2012	Bid	2 to 4	Urban	5.08	2	10.16	$21,082,616	$2,075,061
Orange	5	John Young Pkwy	SR 528	FL Turnpike	2012	Bid	4 to 6	Urban	2.34	2	4.68	$14,108,710	$3,014,682
Orange	5	Econlockhatchee Tr	SR 408	SR 50	2012	Bid	2 to 4	Urban	1.38	2	2.76	$8,805,928	$3,190,554
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
Orange	5	Rouse Rd	Lake Underhill	Corporate Blvd	2013	Bid	2 to 4	Urban	4.15	2	8.30	$35,354,230	$4,259,546
Orange	5	Lake Underhill	Goldenrod Rd	Chickasaw Tr	2013	Bid	2 to 4	Urban	0.69	2	1.38	$7,002,038	$5,073,941
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
Orange	5	CR 535 Seg. F	Overstreet Rd	Fossick Rd	2014	Bid	2 to 4	Urban	0.60	2	1.20	$3,586,534	$2,988,778
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
Orange	5	International Dr	N Westwood Blvd	S Westwood Blvd	2015	Bid	4 to 6	Urban	2.20	2	4.40	$18,435,028	$4,189,779
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
Orange	5	Reams Rd	Delmar Ave	Taborfield Ave	2017	Bid	2 to 4	Urban	0.36	2	0.72	$3,746,796	$5,203,883
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:**	**38**	**172.62**	**$501,698,049**	**$2,906,373**
Indian River County ONLY									**Count:**	**2**	**8.40**	**$24,585,591**	**$2,926,856**
Total, excluding Indian River County									**Count:**	**36**	**164.22**	**$477,112,458**	**$2,905,325**
District 4 ONLY									**Count:**	**7**	**21.34**	**$71,199,297**	**$3,336,424**
District 4, excluding Indian River County									**Count:**	**5**	**12.94**	**$46,613,706**	**$3,602,296**

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

Figure D-1

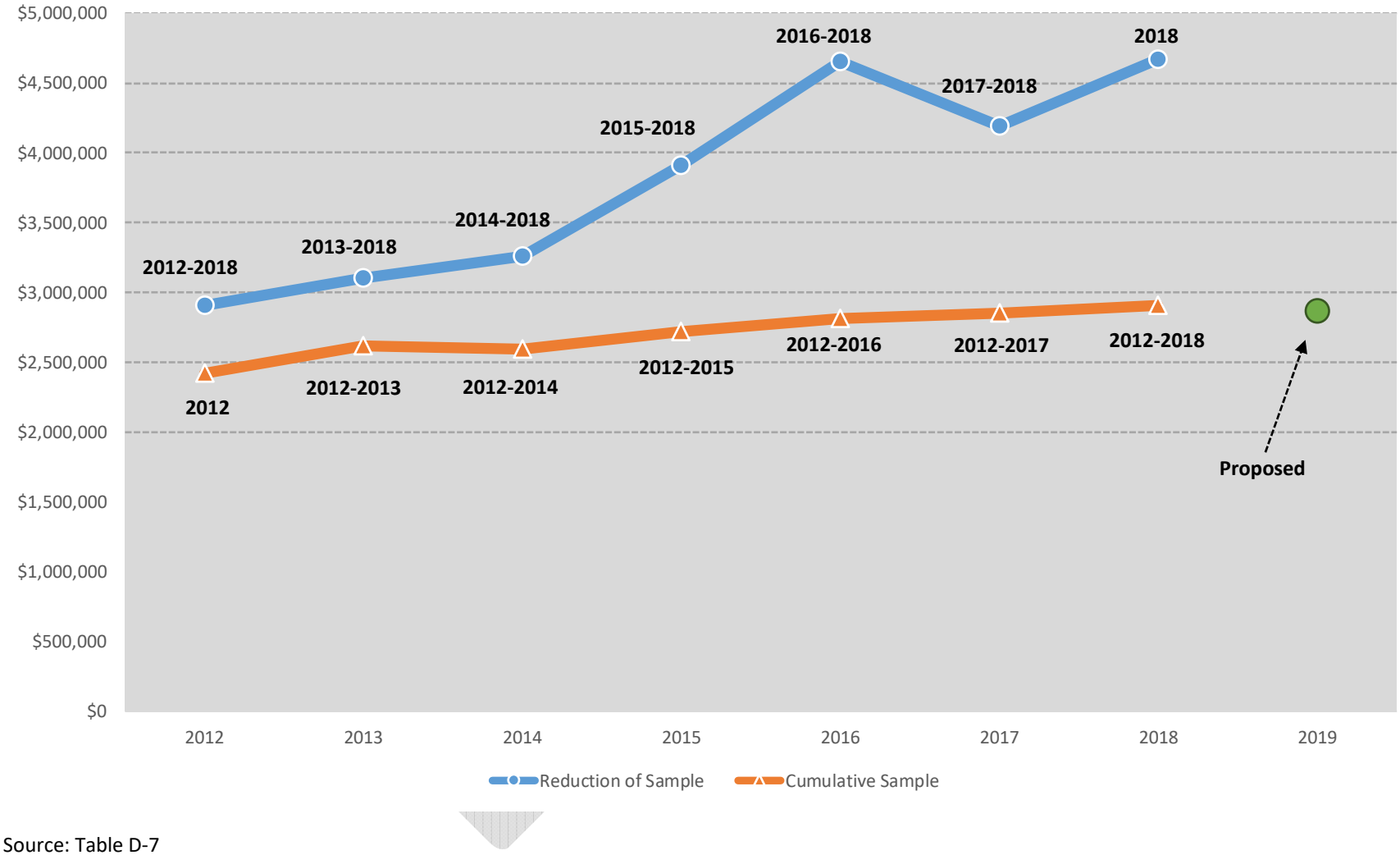
Construction Costs – County Roads



Source: Table D-7

Figure D-2

Construction Cost Trend – County Roads



Source: Table D-7

- Reduction of Sample = as trend line progresses an additional year of historical data is removed
- Cumulative Sample = as trend line progresses as additional year of data is added to the sample

State Roadways

A review of construction cost data for recent state roadway capacity expansion improvements did not identify and local improvements. Therefore, improvements from FDOT District 4 and from other communities throughout Florida were reviewed. As shown in Table D-8, a total of 77 projects from 34 different counties were identified, totaling over 439 lane miles of improvements with a weighted average cost of $3.84 million per lane mile. Of these improvements, 11 projects were located in District 4, accounting for approximately 45 lane miles with a weighted average cost of $4.68 million per lane mile.

As shown in Table D-8 and Figure D-3, the average cost per lane mile has seen a slight increase since 2012 and shows a wide range of costs, reaching over $12 million per lane mile for an improvement in 2014. Figure D-3 illustrates the range of construction costs per year as well as providing the annual average of the entire sample.

Figure D-4 provides two different trend lines based on the set of statewide data. The "reduction of sample" trend shows how costs have been increasing in more recent years by starting with the average of all projects (from 2012 to 2019) and then gradually removing an earlier year of the sample data. Conversely, the "cumulative sample" shows how each additional year of cost data has impacted the weighted average as the sample size has increased. As shown, there was a significant cost increase from 2012 to 2014 and since then costs have remained relatively stable.

Based on a review of these improvements throughout Florida, a state roadway construction cost of **$3.80 million** per lane mile was estimated and used in the transportation impact fee calculation.

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Table D-8

Construction Cost for State Roads – Improvements from 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
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
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
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

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Table D-8 (continued)

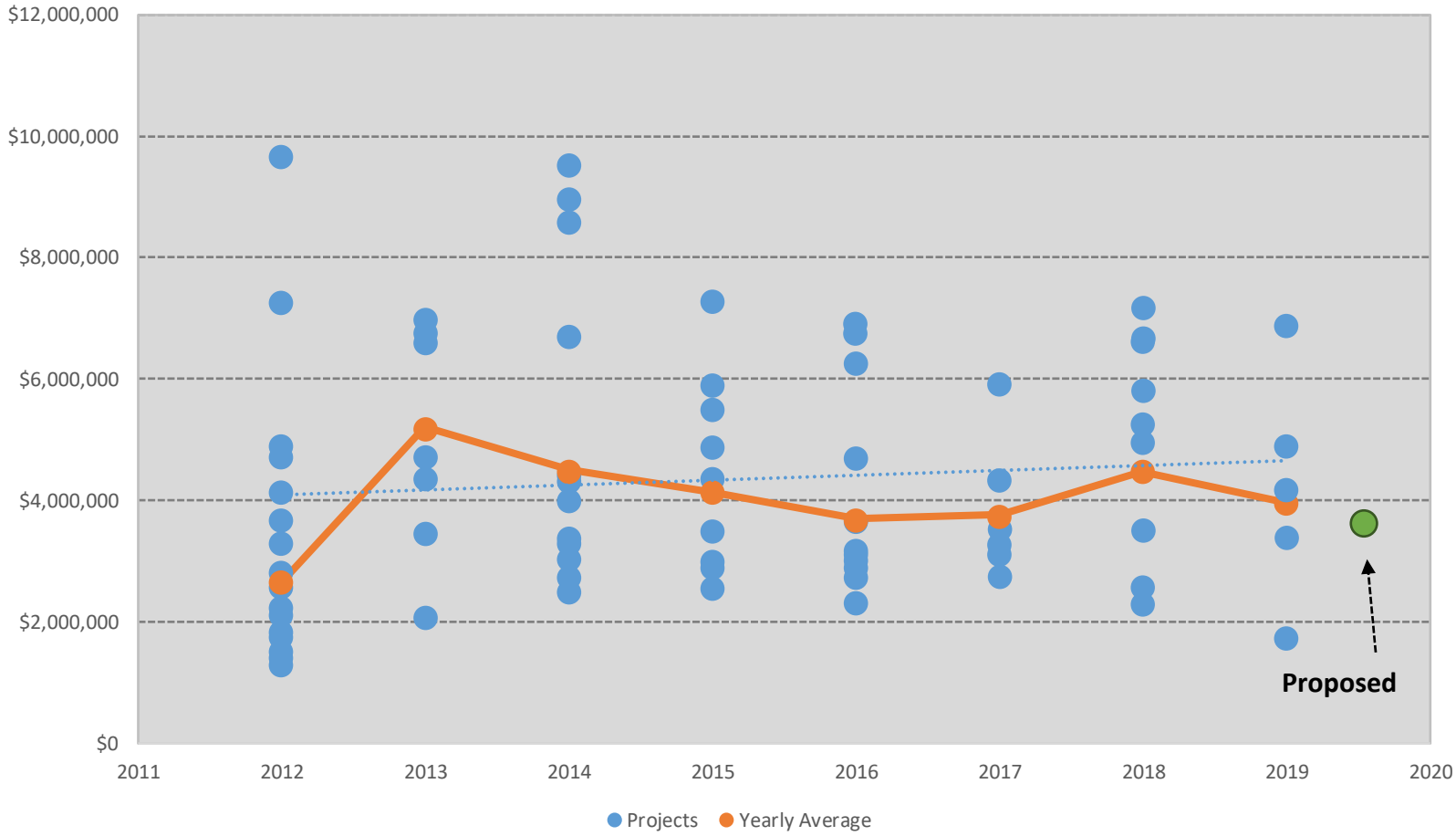
Construction Cost for State Roads – Improvements from Other Jurisdictions throughout Florida

County	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
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
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:**	**75**	**436.63**	**$1,652,100,942**	**$3,783,755**
District 4 ONLY								**Count:**	**10**	**43.58**	**$194,024,994**	**$4,452,157**

Source: Florida Department of Transportation, Contracts Administration Department, Bid Tabulations

Figure D-3

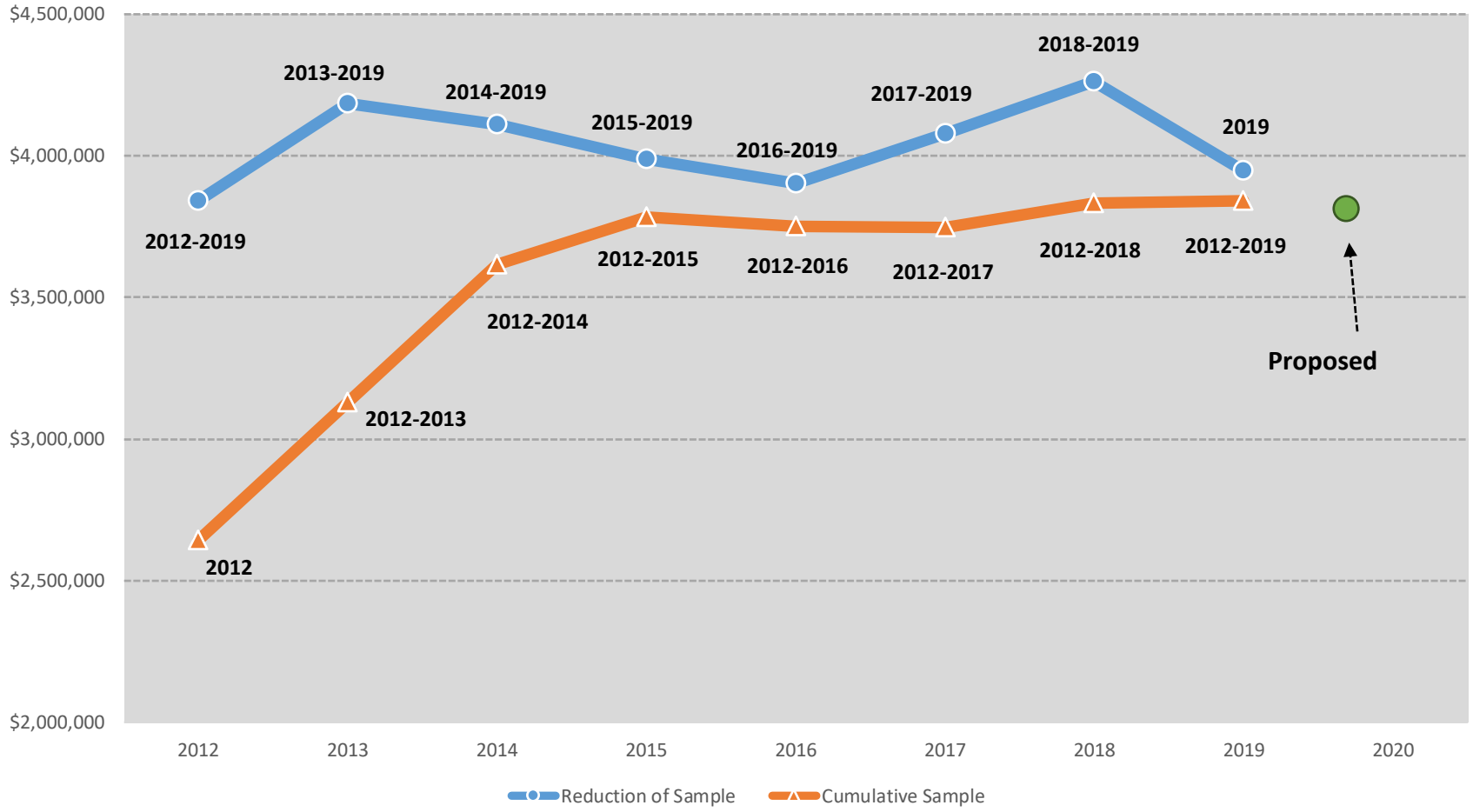
Construction Costs – State Roads



Source: Table D-8

Figure D-4

Construction Cost Trend – State Roads



Source: Table D-8

- Reduction of Sample = as trend line progresses an additional year of historical data is removed
- Cumulative Sample = as trend line progresses as additional year of data is added to the sample

Construction Engineering/Inspection

County Roadways

The CEI cost factor for county roads is estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of CEI-to-construction cost ratios from local projects and from previously completed transportation impact fee studies throughout Florida. As previously discussed for local estimates, design and CEI were grouped, ranging from 16 to 26 percent, with a weighted average of 19 percent. As shown in Table D-9, recent CEI factors ranged from 3 percent to 17 percent with a weighted average of 9 percent. For purposes of this study, the CEI cost for county roads is calculated at 9 percent of the construction cost per lane mile.

State Roadways

The CEI cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of CEI-to-construction cost ratios from previously completed transportation impact fee studies throughout Florida. As shown in Table D-9, recent 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 was calculated at 11 percent of the construction cost per lane mile.

Table D-9

CEI Cost Factor for County and State Roads – Recent Impact Fee Studies

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%
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		**$206,949**	**$2,281,646**	**9%**	**$3,412,898**	**$31,713,800**	**11%**

Source: Recent impact fee studies conducted throughout Florida

VMT Distribution by Roadway

Table D-10 presents the VMT breakout by roadway jurisdiction, based on data from the TCRPMv4 model. The distribution between state and non-state roads is used to calculate the weighted average cost per lane mile used in the transportation impact fee calculation.

Table D-10

VMT Distribution

Roadway	VMT (2040)	% VMT
State	1,362,114	42.9%
County	1,702,302	53.7%
Local (City)	108,717	3.4%
Total (All Roads)	**3,173,133**	**100.0%**
State		**43%**
City/County		**57%**

Source: TCRPMv4

Roadway Capacity

As shown in Table D-11, the average capacity per lane mile is based on the projects in the 2040 Long Range Transportation Plan's Cost Feasible Plan. This listing of projects reflects the mix of improvements that will yield the vehicle-miles of capacity (VMC) that will be built in Indian River County. The resulting weighted average capacity per lane mile of approximately 8,600 was used in the transportation impact fee calculation.

Table D-11

Indian River County 2040 Long Range Transportation Plan – Cost Feasible Plan

Jurisdiction	Description	From	To	Improvement	Length	Lanes Added	Lane Miles Added	Curb & Gutter or Open Drainage	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added
Cost Feasible Plan												
County	CR 510	CR 512	Intracoastal Waterway	Widen from 2 to 4 Lanes	6.58	2	13.16	Curb & Gutter	15,390	33,725	18,335	120,644
County	43rd Ave	Oslo Rd	26th St	Widen from 2 to 4 Lanes	4.00	2	8.00	Curb & Gutter	15,930	35,820	19,890	79,560
County	Oslo Rd	I-95	58th Ave	Widen from 2 to 4 Lanes	3.23	2	6.46	Curb & Gutter	14,580	31,950	17,370	56,105
State	US 1	CR 510	53rd St	Widen from 4 to 6 Lanes	4.32	2	8.64	Curb & Gutter	39,800	59,900	20,100	86,832
County	CR 512	Willow St	CR 510	Widen from 2 to 4 Lanes	5.00	2	10.00	Curb & Gutter	14,580	31,950	17,370	86,850
County	66th Ave	49th St	Barber St	Widen from 2 to 4 Lanes	5.39	2	10.78	Curb & Gutter	14,580	31,950	17,370	93,624
County	12th St	58th Ave	74th Ave	New Roadway 0 to 2 Lanes	1.96	2	3.92	Curb & Gutter	0	14,580	14,580	28,577
County	26th St/Aviation Blvd	66th Ave	US 1	Widen from 2 to 4 Lanes	3.98	2	7.96	Curb & Gutter	15,930	35,820	19,890	79,162
County	53rd St	58th Ave	66th Ave	New Roadway 0 to 2 Lanes	1.00	2	2.00	Curb & Gutter	0	14,580	14,580	14,580
County	53rd St	66th Ave	82nd Ave	New Roadway 0 to 2 Lanes	1.99	2	3.98	Curb & Gutter	0	14,580	14,580	29,014
County	74th Ave	12th St	Oslo Rd	New Roadway 0 to 2 Lanes	2.43	2	4.86	Open Drainage	0	14,580	14,580	35,429
County	82nd Ave	26th St	69th St	New Roadway 0 to 2 Lanes	5.00	2	10.00	Open Drainage	0	14,580	14,580	72,900
County	82nd Ave	69th St	Laconia St	New Roadway 0 to 2 Lanes	2.57	2	5.14	Open Drainage	0	14,580	14,580	37,471
Total (All Roads):							**94.90**					820,748
County Roads:							86.26		**91%**	**(a)**		733,916
State Roads:							8.64		**9%**	**(b)**		86,832
Urban (Curb & Gutter) Section Design:							74.90		**79%**	**(c)**		674,948
Rural (Open Drainage) Section Design:							20.00		**21%**	**(d)**		145,800
New Road Construction:							29.90		**32%**	**(e)**		217,971
Lane Addition:							65.00		**68%**	**(f)**		602,777
											VMC Added per Lane Mile:	**8,600**

Source: Indian River County 2040 LRTP Cost Feasible Plan and Indian River County Public Works Department

Appendix E
Transportation Impact Fee:
Credit Component

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Appendix E: TIF - Credit Component

This appendix presents the detailed calculations for the credit component. Local fuel taxes that are collected in Indian River 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 first 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. 1st Local Option Tax (up to 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.

Each year, the Florida Legislature's Office of Economic and Demographic Research (EDR) 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 2018-19 data represent projected fuel tax distributions to Indian River County for the current fiscal year. 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 fuel taxes. It is estimated that approximately $897,000 of annual revenue will be generated for the County from one penny of fuel tax in Indian River County. For use in the impact fee calculation, the fuel tax revenue data is used to calculate the value per penny (per gallon of fuel) that is used to estimate the "equivalent pennies" of other revenue sources used to fund transportation.

Table E-1
Estimated Fuel Tax Distribution Allocated to Capital Programs for
Indian River County & Municipalities, FY 2018-19[1]

Tax	Amount of Levy per Gallon	Total Distribution	Distribution per Penny
Constitutional Fuel Tax	$0.02	$1,849,843	$924,922
County Fuel Tax	$0.01	$816,959	$816,959
1st Local Option (1-6 cents)	$0.06	$5,404,820	$900,803
Total	**$0.09**	**$8,071,622**	
Weighted Average per Penny[2]			**$896,847**

1) Source: Florida Legislature's Office of Economic and Demographic Research, http://edr.state.fl.us/content/local-government/reports/ --
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 Expansion Credit

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

- County capital project funding
- State capital project funding

The annual expenditures from each revenue source are converted to equivalent fuel tax pennies to be able to create a connection between travel by each land use and non-impact fee revenue contributions.

County Capital Project Funding

A review of Indian River County's recent historical expenditures and 5-year planned expenditures shows that transportation projects are primarily being funded by fuel tax and the local government infrastructure sales tax revenues. As shown in Table E-2, a total fuel tax equivalent revenue credit of 12.1 pennies was given for transportation capacity-expansion projects funded with non-impact fee revenues.

Table E-2
County Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[3]	Equivalent Pennies[4]
Projected CIE Expenditures (FY 2019-2023)[1]	$85,070,039	5	$896,847	$0.190
Historical Expenditures (FY 2014-2018)[2]	$23,677,816	5	$896,847	$0.053
Total	**$108,747,855**	**10**	**$896,847**	**$0.121**

1) Source: Table E-5
2) Source: Table E-4
3) Source: Table E-1
4) Cost of projects divided by number of years divided by revenue from 1 penny (Item 2) divided by 100

State Capital Project Funding

In the calculation of the equivalent pennies of fuel tax from the State, funding on transportation capacity-expansion projects spanning a 16-year period (from FY 2009 to FY 2024) were reviewed. This included capacity expansion projects such as lane additions, new road construction, intersection improvements, interchanges, traffic signal projects, etc. The use of a 16-year period, for purposes of developing a state credit for roadway 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 transportation capacity-expansion projects for the "historical" periods and the "future" period:

- FY 2009-2013 work plan equates to 19.6 pennies
- FY 2014-2018 work plan equates to 8.3 pennies
- FY 2019-2024 work plan equates to 17.0 pennies

The combined weighted average over the 16-year period of state expenditure for capacity-expansion roadway projects results in a total of 15.1 equivalent pennies. Table E-3 documents this calculation. The specific projects that were used in the equivalent penny calculations are summarized in Table E-6.

Table E-3
State Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[4]	Equivalent Pennies[5]
Projected Work Program (FY 2019-2024)[1]	$91,263,112	6	$896,847	$0.170
Historical Work Program (FY 2014-2018)[2]	$37,015,551	5	$896,847	$0.083
Historical Work Program (FY 2009-2013)[3]	$87,684,576	5	$896,847	$0.196
Total	**$215,963,239**	**16**	**$896,847**	**$0.151**

1) Source: Table E-6
2) Source: Table E-6
3) Source: Table E-6
4) Source: Table E-1
5) Cost of projects divided by number of years divided by revenue from 1 penny (Item 2) divided by 100

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Table E-4

Indian River County – Historical Roadway Capacity Expansion Expenditures, FY 2014 to FY 2018

Project	Description	2014	2015	2016	2017	2018	Total
02031	Right of Way - 66th/12th - 4th	$1,062,484	$0	$0	$0	$0	**$1,062,484**
02033	12th St/27th Ave Intersection	$1,410,317	$0	$0	$0	$0	**$1,410,317**
03024	13th St SW @ 58th Ave Bridge	$26,441	$1,197,298	$0	$0	$0	**$1,223,739**
05004	Oslo Rd from 43rd Ave to 58th Ave	$1,205,012	$325	$0	$0	$0	**$1,205,337**
05012	1st St SW/27th Ave Intersection	$0	$0	$7,360	$694	$0	**$8,054**
05014	1st St SW/43rd Ave Intersection	$2,310	$4,605	$232,936	$719,457	$1,084	**$960,392**
05017	Traffic Controllers	$0	$0	$49,900	$92,900	$0	**$142,800**
05018	Traffic Fiber Optics	$44,123	$15,796	$0	$35,815	$0	**$95,734**
05031	26th St/Aviation from US 1 to 43rd Ave	$0	$3,058	$0	$0	$3,058	**$6,116**
05032	16th St/20th Ave Intersection	$12,599	$1,734	$1,102,721	$0	$0	**$1,117,054**
05063	Misc Intersection Improvements	$0	$0	$15,888	$104,888	$0	**$120,776**
06004	66th Ave/CR 510 Intersection Improvements	$21,750	-$21,750	$59,686	$144,568	$0	**$204,254**
06008	CR 512/Seb Riv Mid School I-95	$0	$0	$0	$0	$87,037	**$87,037**
06011	Right of Way - 26th St from 43rd to 58th Ave	$0	$0	$0	$0	$1,150	**$1,150**
06021	ROW 66th Ave from 12th St to SR 60	$0	$716,787	$0	$0	$0	**$716,787**
06040	ROW 66th Ave from SR 60 to 49th St	$7,793,118	$54,206	$3,140	$160,134	$47,362	**$8,057,960**
06041	ROW 43 Ave from 18th to 26th St	$244,929	$120,926	$26,542	$58,536	$2,913,918	**$3,364,851**
07806	ROW 66th Ave from 49th to 65th St	$283,802	$74	$22,582	$98,408	$0	**$404,866**
13004	Traffic Signal - 45th/58th Ave	$0	$12,800	$0	$57,353	$0	**$70,153**
13005	Oslo Rd/66th Ave Intersection	$0	$8,254	$0	$10,646	$0	**$18,900**
13013	ROW - 45th St/Left Turn Ln @ US 1	$0	$32,063	$57,948	$153,814	$0	**$243,825**
14001	41st St/US 1 - Left Turn Lane	$0	$47,070	$149,337	$10,072	$0	**$206,479**
15006	58th Ave/37th St Left Turn Ln	$0	$0	$0	$0	$17,835	**$17,835**
15010	ROW - 49th St & US 1 Intersection	$0	$64,550	$36,349	$4,110	$14,843	**$119,852**
15018	Aviation/20 Ave Intersection	$0	$253,775	$308,566	$0	$0	**$562,341**
15022	69th St Left Turn Lane at US 1	$0	$20,115	$0	$0	$3,337	**$23,452**
16006	ROW - 26th St from 58th to 66th	$0	$0	$0	$0	$200,035	**$200,035**
16009	ROW - 66th Ave from 65th to 83rd	$0	$0	$0	$464,289	$303,554	**$767,843**
16012	1st St SW/66th Ave Intersection	$0	$0	$0	$0	$171,527	**$171,527**
16015	Round Island Riverside Improvements	$0	$0	$10,085	$218,111	$0	**$228,196**
16034	ROW 43rd Ave from 12th to 18th	$0	$0	$254,212	$0	$0	**$254,212**
17002	21st St SW & 27th Ave Intersection	$0	$0	$0	$33,325	$77,400	**$110,725**
17015	CR 510/CR 512 to 58th Ave	$0	$0	$0	$0	$49,257	**$49,257**
19011	37th St & IR Blvd Intersection	$0	$0	$0	$0	$443,476	**$443,476**
TOTAL		**$12,106,885**	**$2,531,686**	**$2,337,252**	**$2,367,120**	**$4,334,873**	**$23,677,816**

Source: Indian River County Public Works Department

Table E-5

Indian River County – Capital Improvements Element, FY 2019 to FY 2023

Project Title	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	Total
26th St/43rd Ave Intersection	$250,000	$0	$0	$0	$0	**$250,000**
26th St/43rd Ave to 58th Ave, four/five lanes (1 mile)	$0	$250,000	$700,000	$1,000,000	$1,000,000	**$2,950,000**
26th St/58th Ave to 66th Ave, four/five lanes (1 mile)	$0	$0	$0	$500,000	$1,000,000	**$1,500,000**
17th St SW, 27th Ave to 43rd Ave (Includes Bridge)	$0	$0	$0	$750,000	$0	**$750,000**
37th St 5 lane Roadway - US 1 to IR Blvd	$750,000	$750,000	$500,000	$2,216,000	$3,011,000	**$7,227,000**
43rd Ave/SR 60 - 18th St to 26th St - 4 lanes	$4,500,000	$6,000,000	$0	$0	$0	**$10,500,000**
43rd Ave/49th St to 53rd St, three lanes (0.5 miles)	$1,000,000	$1,000,000	$0	$0	$0	**$2,000,000**
45th St Improvements (43rd Ave to 58th Ave)	$300,000	$604,830	$1,367,555	$375,000	$0	**$2,647,385**
45th St/Left Turn Lane at US 1 (GNP Action 7.3)	$2,114,290	$0	$0	$0	$0	**$2,114,290**
49th St & US 1 intersection Improvements	$0	$750,000	$750,000	$1,000,000	$0	**$2,500,000**
53rd St widening from 58th Ave to 66th Ave 900 foot 4-lane Segment	$0	$1,000,000	$0	$0	$0	**$1,000,000**
53rd St widening west of 58th Ave to 66th Ave 1,545 foot 2-Lane Segment plus upgrade to 4 lanes	$400,000	$400,000	$1,550,000	$0	$0	**$2,350,000**
53rd St widening west of 58th Ave to 66th Ave 2,745 foot 4-Lane Segment	$500,000	$0	$0	$0	$0	**$500,000**
Signalized 58th Ave at 49th St (GNP Action 10.2)	$550,000	$1,700,000	$0	$0	$0	**$2,250,000**
58th Ave/SR 60 Intersection	$0	$0	$0	$500,000	$500,000	**$1,000,000**
58th Ave - North of 26th St Misc. Right of Way Acquisition	$250,000	$250,000	$250,000	$0	$0	**$750,000**
58th Ave - 33rd St and 37th St left turn lanes	$100,000	$450,000	$850,000	$0	$0	**$1,400,000**
58th Ave 49th - 53rd St - 4 lanes	$0	$2,000,000	$0	$0	$0	**$2,000,000**
58th Ave 53rd - 57th St - 4 lanes	$300,000	$4,500,000	$0	$0	$0	**$4,800,000**
58th Ave Resurfacing, 57th St to CR 510 (includes left turn lanes at 69th St)	$1,464,115	$1,389,267	$0	$0	$0	**$2,853,382**
66th Ave, 49th St to 69th St, four lanes (2.5 miles) Includes side streets & side street bridges	$650,000	$1,068,991	$8,383,991	$4,500,000	$4,500,000	**$19,102,982**
66th Ave, 69th St to 85th St, four lanes (2.0 miles) Includes side streets & side street bridges	$0	$0	$0	$3,525,000	$2,050,000	**$5,575,000**
Indian River Blvd @ Grand Harbor - Signalization	$800,000	$0	$0	$0	$0	**$800,000**
Misc. Intersection Improvements	$600,000	$600,000	$600,000	$600,000	$600,000	**$3,000,000**
Misc. Right of Way Acquisition	$1,000,000	$1,000,000	$1,000,000	$250,000	$250,000	**$3,500,000**
Traffic Controllers	$200,000	$200,000	$200,000	$250,000	$250,000	**$1,100,000**
Traffic Fiber Optic	$150,000	$150,000	$150,000	$100,000	$100,000	**$650,000**
TOTAL	**$15,878,405**	**$24,063,088**	**$16,301,546**	**$15,566,000**	**$13,261,000**	**$85,070,039**

Source: Indian River County Public Works Department

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Table E-6

Florida Department of Transportation, District 4 – Indian River County Work Program FY 2009 to FY 2024

Item	Item Description	Work Mix Description	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	Total
228583-2	SR-5/US-1 FROM ST. LUCIE CO. LINE TO S OF HIGHLAND DRIVE	ADD LANES & RECONSTRUCT	$34,962	$1,166	$164,892	$13,878,127	$170,545	$76,966	$110,021	$191,363	$632	$0	$0	$0	$0	$0	$0	$0	**$14,628,674**
228583-4	SR-5/US-1 FROM S OF HIGHLAND DR TO S OF OSLO ROAD	ADD LANES & RECONSTRUCT	$1,983	$32,957	$247,277	$11,889,973	$30,050	$1,001,070	$68,342	$22,655	$0	$0	$0	$0	$0	$0	$0	$0	**$13,294,307**
228583-5	SR-5/US-1 FROM S OF OSLO ROAD TO S OF INDIAN RIVER BLVD	ADD LANES & RECONSTRUCT	$75,921	$391,440	$165,179	$71	$1,571	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$634,182**
228595-1	SR-60/OSCEOLA BLVD FROM MP 19.00 TO W I-95/MP 22.5	ADD LANES & RECONSTRUCT	$413,391	$6,543,318	$500,038	$274	$17,295	$212,168	$452	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$7,686,936**
228596-1	SR-60/OSCEOLA BLVD FROM MP 14.634 TO MP 19.00	ADD LANES & RECONSTRUCT	$1,491,407	$0	$0	$256,221	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,747,628**
228597-1	SR-60/OSCEOLA BLVD FROM MP 11.628 TO MP 14.634	ADD LANES & RECONSTRUCT	$119,265	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$119,265**
228598-1	SR-60/OSCEOLA BLVD FROM MP 7.74 TO MP 11.80	ADD LANES & RECONSTRUCT	$26,872	$763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$27,635**
228599-1	SR-60 FROM MP 3.38 TO MP 7.444	ADD LANES & RECONSTRUCT	$2,639	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,639**
228601-1	SR-60 FROM MP 0.75 TO MP 3.38	ADD LANES & RECONSTRUCT	$466	$0	$0	$0	$0	$25,203	$7,605	$8,108	$25,659	$1,308,264	$0	$0	$0	$0	$0	$0	**$1,375,305**
228613-2	INDIAN RIVER COUNTY ENHANCE TRAFFIC SIGNAL SYSTEM	TRAFFIC SIGNALS	$200,000	$35,750	$111,181	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$346,931**
228613-3	INDIAN RIVER COUNTY COUNTYWIDE TRAFFIC SIGNAL EQUIPMENT UPGRADES	TRAFFIC SIGNALS	$0	$0	$0	$564,875	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$564,875**
228613-4	INDIAN RIVER COUNTY COUNTYWIDE TRAFFIC SIGNAL EQUIPMENT UPGRADES	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$304,256	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$304,256**
228627-1	SR-60/OSCEOLA BLVD FROM W. OF 82ND AVE/CR-609 TO 66TH AVE/CR-615	ADD LANES & RECONSTRUCT	$1,143,942	$15,786,537	$1,635,888	$174,490	$0	$0	$270	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$18,741,127**
228628-1	SR-60/OSCEOLA BLVD FROM W. OF I-95 TO W OF 82ND AVE/CR-609	ADD LANES & RECONSTRUCT	$791,639	$4,050	$385,000	$5,012,855	$5,000,000	$4,429,754	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$15,623,298**
230872-1	16/17TH STREET FROM 500' W OF 14TH AVE TO W OF SR-5/US-1	ADD LANES & RECONSTRUCT	$4,056,727	$168,830	$93,756	$248	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,319,561**
230879-1	82 AVE FROM 26TH STREET TO CR-510	NEW ROAD CONSTRUCTION	$142,339	$132,786	$31,547	$37,836	$25,397	$54,105	$369,082	$222,040	$218,427	$137,487	$6,604	$0	$0	$0	$0	$0	**$1,377,650**
230879-2	82ND AVENUE FROM 69TH STREET TO CR-510	NEW ROAD CONSTRUCTION	$0	$0	$0	$0	$0	$0	$0	$13,068	$7,596	$76,324	$390,131	$878,799	$199,112	$1,037,520	$0	$0	**$2,602,550**
230879-3	82ND AVE FROM 26TH STREET TO 69TH STREET	NEW ROAD CONSTRUCTION	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,294,032	$6,091	$20,000	$0	$0	$0	$0	**$1,320,123**
404740-1	INDIAN RIVER CO JPA SIGNAL MAINTENANCE & OP ON SHS	TRAFFIC SIGNALS	$103,457	$102,679	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$206,136**
405606-2	CR-510/85TH STREET FROM CR-512 TO 58TH AVE	PD&E/EMO STUDY	$0	$0	$0	$0	$0	$0	$0	$2,316,659	$133,528	$187,195	$44,284	$350,000	$0	$0	$0	$0	**$3,031,666**
405606-3	CR-510/85TH ST FROM W OF 82ND AVE TO 58TH AVE	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,330,704	$89,156	$65,000	$2,634,521	$816,306	$8,080,344	$0	**$16,016,031**
405606-4	CR-510/85TH ST FROM CR-512 TO W OF 82ND AVE	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,949,760	$25,000	$726,371	$2,189,829	$391,560	$0	**$7,282,520**
416352-1	INDIAN RIVER UPWP FY 2008/2009 & 2009/10	TRANSPORTATION PLANNING	$555,145	$322,602	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$877,747**
416352-2	INDIAN RIVER UPWP FY 2010/2011 & FY 2011/2012	TRANSPORTATION PLANNING	$0	$0	$472,952	$272,379	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$745,331**
416418-1	INDIAN RIVER COUNTY SIGNAL SYSTEM GROUP 3	TRAFFIC CONTROL DEVICES/SYSTEM	$3,068,994	$79,252	$742	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,148,988**
416418-2	INDIAN RIVER COUNTY SIGNAL SYSTEM GROUP 4	TRAFFIC CONTROL DEVICES/SYSTEM	$108,779	$2,993,070	$6,569	$50	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,108,468**
422914-1	17TH STREET S. OF INDIAN RIVER BLVD IN VERO BEACH	ADD TURN LANE(S)	$0	$0	$95,921	$1,149	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$97,070**
423605-1	INDIAN RIVER UPWP FY 2012/2013 & 2013/2014	TRANSPORTATION PLANNING	$0	$0	$0	$0	$535,962	$195,089	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$731,051**
423605-2	INDIAN RIVER UPWP FY 2014/2015 & 2015/2016	TRANSPORTATION PLANNING	$0	$0	$0	$0	$0	$0	$510,000	$413,039	$0	$0	$0	$0	$0	$0	$0	$0	**$923,039**
425883-1	66TH AVE FROM SR-60 TO 41ST STREET	ADD LANES & RECONSTRUCT	$0	$0	$0	$5,709,602	$560,262	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,269,864**
427804-1	INDIAN RIVER CTY JPA SIGNAL MAINTENANCE & OPS ON SHS	TRAFFIC SIGNALS	$0	$0	$104,802	$107,576	$110,743	$114,210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$437,331**
427804-2	INDIAN RIVER COUNTY JPA SIGNAL MAINT & OPERATIONS ON STATE HWY SYSTEM	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$118,471	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$118,471**
427804-3	INDIAN RIVER CTY JPA SIGNAL MAINTENANCE & OPS ON STATE HWY SYSTEM	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$0	$216,904	$309,703	$318,811	$338,775	$345,096	$0	$0	$0	$0	**$1,529,289**
427804-4	INDIAN RIVER CTY JPA SIGNAL MAINTENANCE & OPS ON STATE HWY SYSTEM	TRAFFIC SIGNALS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$354,493	$364,148	$377,061	$392,456	**$1,488,158**
431521-1	OSLO ROAD FROM SW 82ND AVE TO 58TH AVENUE	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$1,040,217	$37,614	$2,341,546	$70,289	$527,168	$946,702	$6,495,684	$0	$0	$0	$0	**$11,459,220**
431724-1	SR-5/US-1 FROM 53RD STREET TO CR-510	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$14,153	$1,544,750	$66,154	$16,859	$3,498,683	$32,802	$126,970	$440,000	$0	$0	$0	$0	**$5,740,371**
431724-3	SR-5/US-1 FROM 69TH STREET TO CR-510	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$13,335,302	$17,361,888	**$30,697,190**
431759-1	SR-60 @ 43RD AVENUE	INTERSECTION IMPROVEMENT	$0	$0	$0	$0	$0	$0	$827,322	$247,704	$119,561	$2,486,161	$4,003,924	$103,998	$232,012	$0	$0	$0	**$8,020,682**
431759-2	SR-60 @ 43RD AVENUE	INTERSECTION IMPROVEMENT	$0	$0	$0	$0	$0	$0	$0	$0	$845,948	$2,799,625	$2,940,318	$0	$0	$0	$0	$0	**$6,585,891**
432783-2	SR-5/US-1 IN INDIAN RIVER COUNTY, RETRO FIT CONCEPT PLANNING	TRANSPORTATION PLANNING	$0	$0	$0	$0	$0	$0	$0	$0	$0	$148,706	$0	$0	$0	$0	$0	$0	**$148,706**
433239-1	CR-512	NEW ROAD CONSTRUCTION	$0	$0	$0	$0	$364,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$364,000**
436379-1	66TH AVENUE FROM 49TH STREET TO 69TH STREET	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,246,464	$1,500,554	$0	$0	$0	$0	**$4,747,018**
436379-2	66TH AVE FROM 69TH ST TO CR-510/85TH ST	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,153,385	$2,000,000	$0	$0	**$3,153,385**
437004-1	AVIATION BOULEVARD @ 20TH AVENUE	INTERSECTION IMPROVEMENT	$0	$0	$0	$0	$0	$0	$292,545	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$292,545**
439327-1	INDIAN RIVER FY 2016/2017-2017/2018 UPWP	TRANSPORTATION PLANNING	$0	$0	$0	$0	$0	$0	$0	$0	$433,184	$248,262	$0	$0	$0	$0	$0	$0	**$681,446**
439327-2	INDIAN RIVER FY 2018/2019-2019/2020 UPWP	TRANSPORTATION PLANNING	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$682,142	$560,000	$0	$0	$0	$0	**$1,242,142**
439327-3	INDIAN RIVER FY 2020/2021-2021/2022 UPWP	TRANSPORTATION PLANNING	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$442,983	$442,983	$0	$0	**$885,966**
439327-4	INDIAN RIVER FY 2022/2023-2023/2024 UPWP	TRANSPORTATION PLANNING	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$442,983	$0	**$442,983**
440822-1	SR-A1A TURN LANES	MISCELLANEOUS CONSTRUCTION	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$520,000	$0	$1,557,403	$0	$0	**$2,077,403**
441233-1	SR-60 SIGNAL REPAIR FROM HURRICANE MATTHEW	TRAFFIC SIGNAL UPDATE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$41,189	$0	$0	$0	$0	$0	$0	**$41,189**
441692-1	CR-510 FROM 58TH AVENUE TO SR-5/US-1	PD&E/EMO STUDY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$505,000	$1,500,000	$1,910,000	**$3,915,000**
441693-1	SR-5/US-1 AT AVIATION BOULEVARD	PD&E/EMO STUDY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$505,000	$1,000,000	$1,000,000	$2,010,000	**$4,515,000**
441697-1	TRAFFIC MONITORING SYSTEM TECHNOLOGY UPDATE	TRAFFIC SIGNAL UPDATE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$225,000	$0	**$225,000**
Total			**$12,337,928**	**$26,595,200**	**$4,015,744**	**$37,905,726**	**$6,829,978**	**$8,693,532**	**$2,712,134**	**$6,009,945**	**$5,663,210**	**$13,936,730**	**$16,771,321**	**$11,304,131**	**$6,247,877**	**$9,913,189**	**$25,352,250**	**$21,674,344**	**$215,963,239**
Sub-Total						2009-2013:	**$87,684,576**				2014-2018:	**$37,015,551**					2019-2024:	**$91,263,112**	

Source: FDOT, District 4

Table E-7

Average Motor 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-8

Annual Vehicle Distance Traveled in Miles and Related Data (2017) – By Highway Category and Vehicle Type[1/]

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
Transportation Impact Fee:
Calculated Impact Fee Schedule

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Appendix F: TIF - Calculated Impact Fee Schedule

This Appendix presents the detailed impact fee calculations for each land use in Indian River County's transportation impact fee schedule.

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Table F-1
Calculated Transportation Impact Fee Schedule

	Equivalent Gasoline Tax						Unit Cost per Lane Mile:	$4,306,000		Interstate/Toll Facility Adjustment Factor:	10.9%							
	$ per gallon to capital:	$0.272					Average VMC per Lane Mile:	8,600		Cost per VMC:	$500.70							
	Facility life (years):	25		County Revenues:	$0.121		Fuel Efficiency:	18.92 mpg										
	Interest rate:	2.50%		State Revenues:	$0.151		Effectivedays per year:	365										

ITE LUC	Land Use	Unit	Trip Generation Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Transportation Impact Fee	2014 Full Transportation Impact Fee[2]	% Change	Current Transportation Impact Fee[3]	% Change
	RESIDENTIAL:																	
210	Single Family (Detached) - Low/Very Low Income	du	5.26	FL Studies (NHTS, AHS, Census)	6.62	7.12	FL Studies	100%	n/a	15.51	$7,767	$98	$1,806	**$5,961**	$3,406	75%	$3,406	75%
	Single Family (Detached) - Less than 1,500 sf	du	7.00	FL Studies (NHTS, AHS, Census)	6.62	7.12	FL Studies	100%	n/a	20.64	$10,337	$131	$2,414	**$7,923**	$3,406	133%	$3,406	133%
	Single Family (Detached) - 1,501 to 2,499 sf	du	7.81	FL Studies (NHTS, AHS, Census)	6.62	7.12	FL Studies	100%	n/a	23.03	$11,533	$146	$2,690	**$8,843**	$4,248	108%	$4,248	108%
	Single Family (Detached) - 2,500 sf and greater	du	8.89	FL Studies (NHTS, AHS, Census)	6.62	7.12	FL Studies	100%	n/a	26.22	$13,128	$166	$3,058	**$10,070**	$5,004	101%	$5,004	101%
220	Multi-Family (Low-Rise, 1-2 levels)	du	7.32	ITE 10th Edition	5.10	5.60	FL Studies (LUC 220/221/222)	100%	n/a	16.63	$8,327	$108	$1,990	**$6,337**	$2,742	131%	$2,742	131%
221	Multi-Family (Mid-Rise, 3-10 levels)	du	5.44	ITE 10th Edition	5.10	5.60	FL Studies (LUC 220/221/222)	100%	n/a	12.36	$6,189	$80	$1,474	**$4,715**	$2,742	72%	$2,742	72%
240	Mobile Home Park/RV (tied down)	du	4.17	FL Studies	4.60	5.10	FL Studies	100%	n/a	8.55	$4,279	$56	$1,032	**$3,247**	$1,550	110%	$1,550	110%
252	Assisted Care Living Facility	du	3.33	Blend ITE 10th & FL Studies	3.28	3.78	FL Studies	72%	Same as LUC 253 (Appendix C)	3.50	$1,754	$24	$442	**$1,312**	$555	136%	$250	425%
	LODGING:																	
310	Hotel	room	5.55	Blend ITE 10th & FL Studies	6.26	6.76	FL Studies	66%	FL Studies	10.22	$5,115	$65	$1,198	**$3,917**	$2,156	82%	$970	304%
320	Motel	room	3.35	ITE 10th Edition	4.34	4.84	FL Studies	77%	FL Studies	4.99	$2,497	$33	$608	**$1,889**	$1,524	24%	$686	175%
	RECREATION:																	
411	Public Park	acre	0.78	ITE 10th Edition	5.15	5.65	Same as LUC 710	90%	Based on LUC 710	1.61	$806	$10	$184	**$622**	$859	-28%	$387	61%
420	Marina	boat berth	2.41	ITE 10th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	6.40	$3,203	$41	$755	**$2,448**	$1,454	68%	$654	274%
430	Golf Course	hole	30.38	ITE 10th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	80.64	$40,375	$511	$9,415	**$30,960**	$17,515	77%	$7,882	293%
444	Movie Theater w/Matinee	screen	114.83	Blend ITE 10th & FL Studies	2.22	2.72	FL Studies	88%	FL Studies	99.94	$50,040	$721	$13,284	**$36,756**	$15,768	133%	$7,096	418%
491	Tennis Court	court	30.32	ITE 10th Edition	5.15	5.65	Same as LUC 710	94%	Same as LUC 492	65.39	$32,741	$422	$7,775	**$24,966**	$15,236	64%	$6,856	264%
492	Racquet Club/Health Club/Dance Studio[4]	1,000 sf	34.50	ITE 10th Edition (Adjusted)	5.15	5.65	Same as LUC 710	94%	FL Studies	74.40	$37,254	$481	$8,862	**$28,392**	$12,967	119%	$5,835	387%
	INSTITUTIONS:																	
520	Elementary School (Private, K-5)	student	1.89	ITE 10th Edition	3.31	3.81	50% of LUC 210: Tavel Demand Model	80%	Based on LUC 710 (adjusted)[6]	2.23	$1,116	$15	$276	**$840**	$364	131%	$164	412%
522	Middle School (Private, 6-8)	student	2.13	ITE 10th Edition	3.31	3.81	50% of LUC 210: Tavel Demand Model	80%	Based on LUC 710 (adjusted)[6]	2.51	$1,258	$17	$313	**$945**	$501	89%	$225	320%
530	High School (Private, 9-12)	student	2.03	ITE 10th Edition	3.31	3.81	50% of LUC 210: Tavel Demand Model	90%	Based on LUC 710	2.69	$1,349	$18	$332	**$1,017**	$527	93%	$237	329%
540/ 550	University/Junior College (Private)	student	2.00	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	5.31	$2,658	$34	$626	**$2,032**	$985	106%	$443	359%
560	Church	1,000 sf	6.95	ITE 10th Edition	3.91	4.41	Midpoint of LUC 710 & LUC 820 (App. C)	90%	Based on LUC 710	10.90	$5,455	$72	$1,327	**$4,128**	$2,564	61%	$1,154	258%
565	Day Care Center	1,000 sf	49.63	Blend ITE 10th & FL Studies	2.03	2.53	FL Studies	73%	FL Studies	32.77	$16,405	$240	$4,422	**$11,983**	$7,960	51%	$3,582	235%
571	Jail[4]	bed	1.00	ITE 10th Edition (Adjusted)	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	2.11	$1,057	$14	$258	**$799**	$2,109	-62%	$949	-16%
575	Fire & Rescue Station[4]	1,000 sf	4.80	ITE 10th Edition (Adjusted)	5.15	5.65	Same as LUC 710	90%	Based on LUC 710	9.91	$4,963	$64	$1,179	**$3,784**	$721	425%	$324	1068%

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Table F-1 (continued)
Calculated Transportation Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Generation Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Transportation Impact Fee	2014 Full Transportation Impact Fee[2]	% Change	Current Transportation Impact Fee[3]	% Change
	INSTITUTIONS:																	
590	Library	1,000 sf	72.05	ITE 10th Edition	6.62	7.12	Same as LUC 210	85%	Previous IRC Study	180.62	$90,435	$1,144	$21,077	**$69,358**	$26,027	167%	$11,712	492%
	MEDICAL:																	
610	Hospital	1,000 sf	10.72	ITE 10th Edition	6.62	7.12	Same as LUC 210	78%	Midpoint of LUC 310 & LUC 720	24.66	$12,347	$156	$2,874	**$9,473**	$5,551	71%	$2,498	279%
620	Nursing Home	bed	3.02	Blend ITE 10th & FL Studies	2.59	3.09	FL Studies	89%	FL Studies	3.10	$1,553	$22	$405	**$1,148**	$494	132%	$222	417%
640	Veterinary Clinic	1,000 sf	24.20	Blend ITE 10th & FL Studies	5.10	5.60	Same as LUC 630 (Appendix C)	70%	FL Studies	38.49	$19,271	$249	$4,588	**$14,683**	$15,471	-5%	$6,962	111%
	OFFICE:																	
710	General Office	1,000 sf	9.74	ITE 10th Edition	5.15	5.65	FL Studies	92%	FL Studies	20.56	$10,294	$133	$2,450	**$7,844**	$4,257	84%	$1,916	309%
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	23.83	FL Studies	5.55	6.05	FL Studies	89%	FL Studies	52.44	$26,256	$337	$6,209	**$20,047**	$9,602	109%	$4,321	364%
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	34.12	Blend ITE 10th & FL Studies	5.55	6.05	FL Studies	89%	FL Studies	75.08	$37,594	$482	$8,881	**$28,713**	$13,996	105%	$6,298	356%
732	Post Office	1,000 sf	103.94	ITE 10th Edition	5.15	5.65	Same as LUC 710	35%	Previous IRC Study	83.47	$41,791	$539	$9,931	**$31,860**	$15,858	101%	$7,136	347%
733	Government Office Complex	1,000 sf	33.98	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	71.72	$35,912	$463	$8,530	**$27,382**	$10,760	155%	$4,842	466%
760	Research & Development Center	1,000 sf	11.26	ITE 10th Edition	5.38	5.88	Same as LUC 770 (Appendix C)	89%	Same as LUC 770 (Appendix C)	24.02	$12,026	$155	$2,856	**$9,170**	$3,164	190%	$1,424	544%
	RETAIL:																	
820	Retail/Shopping Center	1,000 sfgla	37.75	ITE 10th Edition	2.69	3.19	Appendix C: Fig. C-1 (450k sfgla)	74%	Appendix C: Fig. C-2 (450k sfgla)	33.48	$16,762	$234	$4,311	**$12,451**	$6,360	96%	$2,862	335%
840/ 841	New/Used Auto Sales	1,000 sf	24.58	Blend ITE 10th & FL Studies	4.60	5.10	FL Studies	79%	FL Studies	39.79	$19,925	$260	$4,790	**$15,135**	$8,294	83%	$3,732	306%
850	Supermarket	1,000 sf	106.64	Blend ITE 10th & FL Studies	2.08	2.58	FL Studies	56%	FL Studies	55.34	$27,707	$404	$7,443	**$20,264**	$9,035	124%	$4,066	398%
890	Furniture Store	1,000 sf	6.30	ITE 10th Edition	6.09	6.59	FL Studies	54%	FL Studies	9.23	$4,621	$59	$1,087	**$3,534**	$1,367	159%	$615	475%
	SERVICE:																	
911	Bank/Savings Walk-In[5]	1,000 sf	59.39	ITE 10th Edition (Adjusted)	2.46	2.96	Same as LUC 912	46%	Same as LUC 912	29.94	$14,991	$212	$3,906	**$11,085**	$10,511	6%	$4,730	134%
912	Bank/Savings Drive-In	1,000 sf	102.66	Blend ITE 10th & FL Studies	2.46	2.96	FL Studies	46%	FL Studies	51.75	$25,913	$367	$6,762	**$19,151**	$13,820	39%	$6,219	208%
932	Restaurant	1,000 sf	106.26	Blend ITE 10th & FL Studies	3.17	3.67	FL Studies	71%	FL Studies	106.55	$53,347	$726	$13,376	**$39,971**	$20,643	94%	$9,289	330%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	482.53	Blend ITE 10th & FL Studies	2.05	2.55	FL Studies	58%	FL Studies	255.60	$127,976	$1,872	$34,490	**$93,486**	$45,464	106%	$20,459	357%
942	Automobile Care Center	1,000 sf	28.19	Blend ITE 10th & FL Studies	3.62	4.12	FL Studies	72%	FL Studies	32.73	$16,389	$219	$4,035	**$12,354**	$7,137	73%	$2,934	321%
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	172.01	ITE 10th Edition	1.90	2.40	FL Studies	23%	FL Studies	33.49	$16,767	$249	$4,588	**$12,179**	$5,082	140%	$2,287	433%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	205.36	ITE 10th Edition	1.90	2.40	Same as LUC 944	23%	Same as LUC 944	39.98	$20,018	$297	$5,472	**$14,546**	$5,082	186%	$2,287	536%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	230.52	ITE 10th Edition	1.90	2.40	Same as LUC 944	23%	Same as LUC 944	44.88	$22,471	$334	$6,154	**$16,317**	$5,082	221%	$2,287	614%
947	Self-Service Car Wash	service bay	43.94	Blend ITE 10th & FL Studies	2.18	2.68	FL Studies	68%	FL Studies	29.02	$14,529	$210	$3,869	**$10,660**	$4,909	117%	$2,209	383%
	INDUSTRIAL:																	
110	General Light Industrial	1,000 sf	4.96	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	10.47	$5,242	$68	$1,253	**$3,989**	$2,681	49%	$1,206	231%
140	Manufacturing	1,000 sf	3.93	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	8.30	$4,153	$54	$995	**$3,158**	$1,473	114%	$663	376%

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Table F-1 (continued)
Calculated Transportation Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Generation Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Transportation Impact Fee	2014 Full Transportation Impact Fee[2]	% Change	Current Transportation Impact Fee[3]	% Change
	INDUSTRIAL:																	
150	Warehousing	1,000 sf	1.74	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	3.67	$1,839	$24	$442	**$1,397**	$1,372	2%	$617	126%
151	Mini-Warehouse	1,000 sf	1.49	Blend ITE 10th & FL Studies	3.51	4.01	Average of LUC 710 & LUC 820 (50k sq ft)	92%	Same as LUC 710	2.14	$1,073	$14	$258	**$815**	$483	69%	$217	276%
154	High-Cube Transload/Storage	1,000 sf	1.40	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	2.96	$1,480	$19	$350	**$1,130**	$655	73%	$295	283%
n/a	Concrete Plant	acre	15.60	Previous IRC Study	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	32.93	$16,487	$213	$3,924	**$12,563**	$6,006	109%	$2,703	365%
n/a	Sand Mining	acre	2.00	Previous IRC Study	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	4.22	$2,114	$27	$497	**$1,617**	$769	110%	$346	367%

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: *Indian River County Impact Fee Update Study, September 2014*
3) Source: Indian River County Planning Division
4) 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
5) The ITE 10th 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
6) The percent new trips for schools as estimated at 90% based on LUC 710, but was then adjusted to 80% to provide a conservative fee rate. This adjustment reflects the nature of the elementary and middle school uses where attendees are typically dropped off by parents on their way to another destination

Appendix G
Educational Facilities Impact Fee:
Supplemental Information

DRAFT

Appendix G: Educational Facilities Impact Fee

This appendix presents the inventory of traditional public schools in Indian River County as well as an explanation of building and land value estimates used in the impact fee calculations.

School District Inventory

The current inventory of traditional public schools in Indian River County is presented in Table G-1.

Table G-1
Indian River County School District Existing School Inventory

Schools	Grade	Permanent Student Stations	Permanent Capacity (after FISH capacity	FISH Permanent Net Square Footage
Elementary Schools				
Beachland Elementary	PK-5	536	536	104,943
Citrus Elementary	PK-5	786	786	97,163
Dodgertown Elementary	PK-5	584	584	117,305
Fellsmere Elementary	PK-5	769	769	106,101
Glendale Elementary	PK-5	612	612	71,638
Indian River Academy	PK-5	442	442	57,077
Liberty Magnet	PK-5	666	666	105,793
Osceola Magnet	PK-5	517	517	80,232
Pelican Island Elementary	PK-5	556	556	65,124
Rosewood Elementary	PK-5	515	515	82,314
Sebastian Elementary	PK-5	637	637	85,825
Treasure Coast Elementary	PK-5	637	637	100,802
Vero Beach Elementary	PK-5	796	796	106,460
Subtotal - Elementary Schools		***8,053***	***8,053***	**1,180,777**
Middle Schools				
Gifford Middle School	6-8	1,136	1,022	135,033
Oslo Middle School	6-8	1,140	1,026	152,045
Sebastian River Middle School	6-8	1,119	1,007	147,539
Storm Grove Middle School	6-8	1,382	1,244	167,794
Subtotal - Middle Schools		***4,777***	***4,299***	**602,411**
High Schools				
Sebastian River High School	9-12	2,440	2,318	350,927
Vero Beach High School (Main Campus)	9-12	2,200	2,090	355,792
Vero Beach High School (Freshman Learning Center)	9-12	812	771	132,624
Subtotal - High Schools		***5,452***	***5,179***	**839,343**
Grand Total - All Schools		**18,282**	**17,531**	**2,622,531**

Source: Indian River School District

Building Construction Costs

To determine the construction and non-construction (administration, architect/site improvement, furniture, fixtures, and equipment (FF&E), etc.) costs associated with building a new school in Indian River County, the following information was evaluated:

- Construction cost trends since the 2014 study;
- Insurance values of the existing schools; and
- School cost information from other Florida counties.

The following paragraphs provide further detail on this research and analysis.

Construction Cost

There has not been any new school construction in Indian River County since the last technical study. Industrywide cost trends suggest an increase approximately 13 percent since then. Applying this cost index to the estimates used in the 2014 study results in a construction cost of $164 per net square foot to $210 per net square foot.

The insurance values of existing school buildings range from approximately $150 per net square foot for elementary schools to $194 per net square foot for high schools.

Table G-3 summarizes data obtained from the Florida Department of Education for schools built in 2011 through 2017. As shown, the average construction cost ranges from $152 per net square foot for elementary schools to $188 per net square foot for high schools.

Given this data and information, construction cost of new schools is estimated at approximately $150 per net square foot for elementary schools, $160 per net square foot for middle schools, and $190 per net square foot for high schools.

In addition to construction cost, the architectural, design, site preparation (including on-site improvement and traffic control costs), and FF&E costs (including technology) are calculated based on the ratio of these costs to the construction costs observed in Indian River County and other jurisdictions. As shown in Table G-2, these costs are estimated at 26 percent of the construction cost.

Table G-2

School Building Cost Analysis – Indian River County

Estimated School Construction Cost[1]:			
- Elementary Schools	2013	$145	$164
- Middle Schools	2013	$175	$198
- High Schools	2013	$185	$210
- ENR Building Cost Index[2]	2013-2019	13%	
Insured Values of Buildings:[4]			
- Elementary Schools	2019		$150
- Middle Schools	2019		$176
- High Schools	2019		$194
Construction Cost: Other Florida Jurisdictions[5]			
- Elementary Schools	2011 - 2017		$152
- Middle Schools	2011 - 2017		$158
- High Schools	2011 - 2017		$188
Used in the Study:			
- Elementary Schools	2019		**$150**
- Middle Schools	2019		**$160**
- High Schools	2019		**$190**

Other Building Cost Components:	Percent of Construction Cost	
	2013 IRC Study[1]	Other FL Jurisdictions[6]
- Architectural/Civil Design	10%	7%
- FF&E	7%	9%
- Site Preparation	10%	9%
Total	27%	25%
Used in the Study:		
- Architectural/Civil Design	2019	**9%**
- FF&E	2019	**8%**
- Site Preparation	2019	**9%**
Total	2019	**26%**

1) Source: *Indian River County Impact Fee Update Study, Final Report, September 26, 2014*
2) Source: Engineering News Record
3) Estimated school construction cost in 2013 (Item 1) increased by ENR Index (Item 2)
4) Source: Indian River County School District
5) Source: Table G-3
6) Source: Tables G-4 and G-5

Table G-3

Construction Cost Analysis – Indian River County and Other Florida Jurisdictions

Year Opened	District	Type	Facility Name	Construction Cost	Net SF	Student Stations	Construction Cost per NSF
Elementary Schools:							
2011	Charlotte	Elem	Meadow Park Elementary	$12,696,116	89,652	843	$142
2011	Duval	Elem	Waterleaf Elementary	$14,882,021	82,062	873	$181
2011	Escambia	Elem	Global Learning Academy	$17,019,155	120,015	856	$142
2011	Orange	Elem	Wetherbee Elementary	$11,795,072	99,704	817	$118
2011	Pasco	Elem	Connerton Elementary "R"	$11,598,590	84,972	762	$136
2012	Alachua	Elem	Meadowbrook Elementary	$12,388,973	97,000	760	$128
2012	**Indian River**	**Elem**	**Vero Beach Elementary**	**$17,243,103**	**110,495**	**796**	**$156**
2012	Lee	Elem	Tortuga Preserve	$16,021,554	129,936	1,050	$123
2012	Orange	Elem	SunRidge Elementary	$10,031,097	66,645	842	$151
2012	St. Johns	Elem	Palencia Elementary	$12,677,682	102,314	738	$124
2012	Volusia	Elem	Citrus Grove Elementary	$13,854,183	98,842	764	$140
2013	Orange	Elem	Sun Blaze Elementary	$10,269,207	64,410	832	$159
2013	Orange	Elem	Hackney Prairie Road Area Elementary	$11,261,094	75,189	856	$150
2013	Palm Beach	Elem	Gove Elementary	$28,528,459	129,500	924	$220
2013	Palm Beach	Elem	Galaxy Elementary	$22,515,045	108,674	605	$207
2014	Orange	Elem	Shingle Creek ES (Replacement)	$8,633,484	79,038	832	$109
2014	Orange	Elem	John Young ES (Replacement)	$8,810,724	79,038	832	$111
2014	Orange	Elem	Pineloch ES	$9,343,280	82,167	830	$114
2014	Orange	Elem	Dr. Phillips ES	$8,150,993	69,297	660	$118
2014	Orange	Elem	Spring Lake ES	$9,768,510	70,056	627	$139
2014	Orange	Elem	Washington Shores ES (Replacement)	$10,068,768	77,692	684	$130
2014	Orange	Elem	Little River ES	$8,202,194	61,570	500	$133
2014	Orange	Elem	Wheatley ES (Replacement)	$9,153,883	77,207	560	$119
2014	Palm Beach	Elem	The Conservatory School of North Palm Bea	$21,499,851	117,529	753	$183
2014	Pasco	Elem	Schrader Elementary	$10,620,622	75,826	498	$140
2015	Hillsborough	Elem	Thompson Elementary	$13,630,632	94,121	950	$145
2015	Orange	Elem	Eagle Creek Elementary	$9,248,244	79,374	832	$117
2015	Orange	Elem	Independence Elementary	$9,394,386	81,664	832	$115
2015	Orange	Elem	Ocoee ES (Replacement)	$9,286,970	82,167	830	$113
2015	Orange	Elem	Clay Springs Elementary	$11,675,199	83,149	950	$140
2015	Orange	Elem	Lake Weston Elementary	$10,026,192	85,716	762	$117
2015	Orange	Elem	Lovell Elementary	$10,246,051	81,129	828	$126
2015	Palm Beach	Elem	Glade View Elementary	$14,554,646	64,153	403	$227
2015	Palm Beach	Elem	Rosenwald Elementary	$11,841,132	51,261	328	$231
2015	Pasco	Elem	Sanders Memorial Elementary	$17,016,823	84,005	1,084	$203
2016	Hillsborough	Elem	Lamb Elementary	$13,673,880	92,876	950	$147
2016	Orange	Elem	Millennia Gardens Elementary	$10,659,959	87,011	837	$123
2016	Orange	Elem	Tangelo Park ES	$10,966,573	76,035	664	$144
2016	Pasco	Elem	Wiregrass Elementary School (Elem "W")	$14,362,434	69,308	882	$207
2016	Washington	Elem	Kate Smith Elementary School	$20,670,897	107,316	993	$193
2017	Orange	Elem	Bay Lake Elementary	$12,290,816	90,383	837	$136
2017	Hillsborough	Elem	Hope Dawson Elementary	$14,863,889	72,193	920	$206
2017	Volusia	Elem	Pierson ES	$16,659,475	92,030	694	$181
2017	Orange	Elem	Engelwood Elementary	$12,340,163	87,296	837	$141
2017	Orange	Elem	Ivy Lane Elementary	$12,088,430	81,488	660	$148
2017	Orange	Elem	Laureate Park Elementary	$12,791,307	93,174	837	$137
2017	Orange	Elem	Meadow Woods Elementary	$13,397,484	94,502	837	$142
2017	Orange	Elem	Mollie Ray ES	$11,683,841	78,726	663	$148
2017	Orange	Elem	Oak Hill ES	$12,427,300	79,888	664	$156
2017	Orange	Elem	Rock Lake ES	$13,247,608	79,968	653	$166
2017	Orange	Elem	Ventura ES	$13,342,673	94,753	837	$141
2017	Orange	Elem	Westpointe ES	$9,667,395	41,456	232	$233
2017	St Johns	Elem	Picolata Crossing Elementary	$19,392,791	82,066	871	$236
2017	Pasco	Elem	Bexley Elementary	$16,714,559	76,260	966	$219
2017	Nassau	Elem	Wildlight Elementary School	$16,099,092	77,837	661	$207
2017	Broward	Elem	Riverglades Elementary	$4,671,335	27,889	458	$167
2017	Hamilton	Elem	Hamilton County Elementary School	$17,500,400	139,413	991	$126
Total/Weighted Average -- Elementary Schools				**$743,466,236**	**4,857,437**	**43,837**	**$153**
Total/Weighted Average -- Elementary Schools: Excluding Indian River County				**$711,074,522**	**4,670,518**	**41,957**	**$152**

Table G-3

Construction Cost Analysis – Indian River County and Other Florida Jurisdictions (Continued)

Year Opened	District	Type	Facility Name	Construction Cost	Net SF	Student Stations	Construction Cost per NSF
Middle Schools:							
2011	Hernando	Middle	Winding Waters K-8	$21,182,866	183,190	1,605	$116
2011	Polk	Middle	Boone Middle	$17,900,963	69,921	305	$256
2011	Walton	Middle	Emerald Coast Middle	$15,918,884	126,770	820	$126
2012	Collier	Middle	Bethune Education Center	$5,538,155	34,581	182	$160
2012	Dade	Middle	North Dade Middle	$18,921,534	94,660	993	$200
2012	Lee	Middle	Hams Marsh Middle	$23,750,925	164,662	1,345	$144
2012	Orange	Middle	Lake Nona Middle	$16,923,455	149,897	1,328	$113
2012	Orange	Middle	SunRidge Middle	$23,617,116	152,436	1,352	$155
2013	Monroe	Middle	Horace O'Bryant	$30,596,297	196,598	1,217	$156
2015	St Johns	Middle	Patriot Oaks Academy	$21,224,724	144,356	1,210	$147
2015	St Johns	Middle	Valley Ridge Academy	$21,116,642	144,356	1,210	$146
2016	Orange	Middle	Wedgefield K-8 School	$20,111,884	126,697	1,171	$159
2016	Polk	Middle	Citrus Ridge: A Civics Academy	$33,560,797	139,764	1,652	$240
2017	Seminole	Middle	Millennium Middle	$41,138,637	207,471	1,573	$198
2017	Orange	Middle	OCPS Academic Center for Excellence	$30,678,582	247,297	1,335	$124
2017	Orange	Middle	Innovation	$22,320,667	174,939	1,355	$128
2017	Orange	Middle	Timber Springs Middle	$24,333,075	173,016	1,363	$141
2017	Orange	Middle	Carver Middle	$22,812,870	184,815	1,363	$123
2017	Calhoun	Middle	Atha Public School	$19,084,925	92,830	751	$206
2017	Hillsborough	Middle	Sulphur Springs K-8	$5,312,830	12,538	272	$424
2017	Holmes	Middle	Bonifay PK-8	$32,270,798	148,030	1,350	$218
Total/Weighted Average -- Middle Schools				**$468,316,626**	**2,968,824**	**23,752**	**$158**
High Schools:							
2011	Broward	High	Lanier James Education Center	$8,889,147	42,608	262	$209
2011	Calhoun	High	Blountstown High	$19,407,910	100,366	825	$193
2011	Charlotte	High	Charlotte High	$61,755,842	258,700	1,828	$239
2011	Lake	High	Lake Minneola High	$46,988,193	294,664	1,932	$159
2011	Okeechobee	High	Okeechobee Achievement Academy	$5,499,975	43,024	347	$128
2011	Orange	High	Evans High Replacement	$55,507,691	289,061	2,599	$192
2011	Polk	High	Winter Haven Senior	$26,374,234	140,940	2,039	$187
2011	Polk	High	Auburndale Senior	$19,522,053	101,466	1,236	$192
2011	Polk	High	Davenport School of the Arts	$29,136,512	157,446	1,510	$185
2011	Polk	High	Kathleen Senior	$24,323,662	112,017	800	$217
2012	Dade	High	International Studies SHS	$7,192,325	35,137	603	$205
2012	Dade	High	Medical Academy or Science and Technolog	$9,303,705	78,845	800	$118
2012	St. Lucie	High	Lincoln Park Academy	$10,928,736	93,703	978	$117
2013	Martin	High	Martin County High	$7,623,316	63,601	703	$120
2016	Charlotte	High	Lemon Bay High School	$51,569,511	220,839	1,475	$234
2017	Dade	High	Miami Carol City Senior High	$62,462,106	343,261	2,860	$182
2017	Levy	High	Williston Middle High School	$33,542,921	166,282	1,145	$202
2017	Pasco	High	Cypress Creek High	$41,025,203	195,271	2,208	$210
2017	Dade	High	Maritime & Science Technology Academy	$13,994,875	51,815	1,124	$270
2017	Osceola	High	Poinciana High	$4,553,211	19,212	475	$237
2017	Pinellas	High	Palm Harbor University High	$9,983,642	46,650	525	$214
2017	St Johns	High	Nease High	$10,658,296	48,081	510	$222
2017	Orange	High	Windermere HS	$54,879,598	375,515	2,898	$146
Total/Weighted Average -- High Schools				**$615,122,664**	**3,278,504**	**29,682**	**$188**
Total/Weighted Average (All Schools)				**$1,826,905,526**	**11,104,765**	**97,271**	**$165**

Source: Florida Department of Education and previous Tindale Oliver school impact fee studies, when available.

Table G-4
Architectural/Civil Design and FF&E Cost Analysis
Indian River County and Other Florida Jurisdictions

Year Opened	District	Type	Facility Name	Architect & Eng. Fees	Ratio of Architect & Eng. Fees to Construction Cost	Furniture & Equip.	Ratio of FF&E to Construction Cost
2011	Broward	High	Lanier James Education Center	$1,075,459	12%	$1,304,137	15%
2011	Calhoun	High	Blountstown High	$1,968,893	10%	$994,719	5%
2011	Charlotte	Elem	Meadow Park Elementary	$944,273	7%	$674,842	5%
2011	Charlotte	High	Charlotte High	$6,502,129	11%	$2,676,408	4%
2011	Duval	Elem	Waterleaf Elementary	$1,621,628	11%	$1,899,236	13%
2011	Escambia	Elem	Global Learning Academy	$1,682,415	10%	$2,861,931	17%
2011	Hernando	Middle	Winding Waters K-8	$880,709	4%	$4,279,500	20%
2011	Lake	High	Lake Minneola High	$3,030,934	6%	$6,483,383	14%
2011	Okeechobee	High	Okeechobee Achievement Academy	$453,761	8%	$427,114	8%
2011	Orange	High	Evans High Replacement	$3,568,884	6%	$3,743,130	7%
2011	Orange	Elem	Wetherbee Elementary	$812,505	7%	$1,081,762	9%
2011	Pasco	Elem	Connerton Elementary "R"	$858,671	7%	$1,298,389	11%
2011	Polk	High	Winter Haven Senior	$853,483	3%	$2,360,389	9%
2011	Polk	High	Auburndale Senior	$1,462,146	7%	$3,124,050	16%
2011	Polk	High	Davenport School of the Arts	$1,042,674	4%	$2,330,971	8%
2011	Polk	High	Kathleen Senior	$875,094	4%	$2,267,250	9%
2011	Polk	Middle	Boone Middle	$1,080,157	6%	$1,331,348	7%
2011	Walton	Middle	Emerald Coast Middle	$1,709,689	11%	$700,000	4%
2012	Alachua	Elem	Meadowbrook Elementary	$1,010,997	8%	$1,974,896	16%
2012	Collier	Middle	Bethune Education Center	$561,233	10%	$734,057	13%
2012	Dade	High	International Studies SHS	$684,965	10%	$757,496	11%
2012	Dade	Middle	North Dade Middle	$867,900	5%	$1,122,762	6%
2012	Dade	High	Medical Academy or Science and Technology	$762,932	8%	$919,966	10%
2012	**Indian River**	**Elem**	**Vero Beach Elementary**	**$1,476,006**	**9%**	**$1,342,512**	**8%**
2012	Lee	Middle	Hams Marsh Middle	$721,076	3%	$1,814,273	8%
2012	Lee	Elem	Tortuga Preserve	$214,042	1%	$1,487,461	9%
2012	Orange	Elem	SunRidge Elementary	$580,395	6%	$951,358	9%
2012	Orange	Middle	Lake Nona Middle	$1,277,253	8%	$1,795,567	11%
2012	Orange	Middle	SunRidge Middle	$1,137,698	5%	$1,591,755	7%
2012	St. Johns	Elem	Palencia Elementary	$956,170	8%	$1,500,000	12%
2012	St. Lucie	High	Lincoln Park Academy	$1,623,543	15%	$3,246,193	30%
2012	Volusia	Elem	Citrus Grove Elementary	$1,098,766	8%	$1,555,729	11%
2013	Marion	Elem	Legacy Elementary	$675,267	7%	$1,680,825	17%
2013	Martin	High	Martin County High	$1,274,200	17%	$419,893	6%
2013	Monroe	Middle	Horace O'Bryant	$3,221,414	11%	$1,320,362	4%
2013	Orange	Elem	Sun Blaze Elementary	$587,445	6%	$1,035,369	10%
2013	Orange	Elem	Hackney Prairie Road Area Elementary	$890,931	8%	$1,057,127	9%
2013	Palm Beach	Elem	Gove Elementary	$1,871,815	7%	$917,852	3%
2013	Palm Beach	Elem	Galaxy Elementary	$1,595,664	7%	$790,823	4%
2014	Orange	Elem	Shingle Creek ES (Replacement)	$636,833	7%	$1,235,140	14%
2014	Orange	Elem	John Young ES (Replacement)	$644,485	7%	$1,037,820	12%
2014	Orange	Elem	Pineloch ES	$632,269	7%	$1,048,977	11%
2014	Orange	Elem	Dr. Phillips ES	$837,933	10%	$835,624	10%
2014	Orange	Elem	Spring Lake ES	$646,909	7%	$874,049	9%
2014	Orange	Elem	Washington Shores ES (Replacement)	$591,793	6%	$964,395	10%
2014	Orange	Elem	Little River ES	$1,212,762	15%	$705,810	9%
2014	Orange	Elem	Wheatley ES (Replacement)	$740,790	8%	$803,731	9%
2014	Palm Beach	Elem	The Conservatory School of North Palm Beach	$1,746,723	8%	$781,394	4%
2014	Pasco	Elem	Schrader Elementary	$741,224	7%	$781,652	7%
2015	Hillsborough	Elem	Thompson Elementary	$1,117,623	8%	$1,614,056	12%
2015	Orange	Elem	Eagle Creek Elementary	$503,008	5%	$1,168,200	13%
2015	Orange	Elem	Independence Elementary	$454,954	5%	$1,168,200	12%

Table G-4
Architectural/Civil Design and FF&E Cost Analysis
Indian River County and Other Florida Jurisdictions (Continued)

Year Opened	District	Type	Facility Name	Architect & Eng. Fees	Ratio of Architect & Eng. Fees to Construction Cost	Furniture & Equip.	Ratio of FF&E to Construction Cost
2015	Orange	Elem	Ocoee ES (Replacement)	$669,660	7%	$1,039,087	11%
2015	Orange	Middle	Clay Springs Elementary	$619,675	5%	$1,265,087	11%
2015	Orange	High	Lake Weston Elementary	$557,676	6%	$1,395,286	14%
2015	Orange	Elem	Lovell Elementary	$532,470	5%	$1,258,788	12%
2015	Palm Beach	Middle	Glade View Elementary	$1,142,611	8%	$661,409	5%
2015	Palm Beach	High	Rosenwald Elementary	$942,748	8%	$593,229	5%
2015	Pasco	Elem	Sanders Memorial Elementary	$1,442,401	8%	$2,095,402	12%
2015	St Johns	Middle	Patriot Oaks Academy	$1,492,491	7%	$2,200,000	10%
2015	St Johns	Middle	Valley Ridge Academy	$856,884	4%	$2,200,000	10%
2016	Charlotte	High	Lemon Bay High School	$6,486,215	13%	$3,010,405	6%
2016	Hillsborough	Elem	Lamb Elementary	$1,159,221	8%	$1,494,022	11%
2016	Orange	Elem	Bay Lake Elementary	$715,680	6%	$1,414,425	12%
2016	Orange	Elem	Tangelo Park Elementary	$766,295	7%	$1,115,037	10%
2016	Pasco	Elem	Wiregrass Elementary School (Elem "W")	$993,089	7%	$1,594,261	11%
2016	Polk	Middle	Citrus Ridge: A Civics Academy	$1,235,864	4%	$3,060,826	9%
2016	Washington	Elem	Kate Smith Elementary School	$1,799,321	9%	$1,567,022	8%
2017	Hillsborough	Elem	Hope Dawson Elementary	$781,268	5%	$0	0%
2017	Seminole	Middle	Millennium Middle - Bid	$2,513,897	6%	$3,300,000	8%
2017	Orange	Elem	Millenia Gardens Elementary	$660,780	6%	$1,129,925	11%
2017	Orange	K8	Wedgefield	$2,153,131	11%	$1,787,827	9%
2017	Orange	Elem	Laureate Park Elementary	$636,009	5%	$1,365,945	11%
2017	Orange	Elem	Engelwood ES	$659,183	5%	$1,284,730	10%
2017	Orange	Elem	Ivey Lane ES	$599,596	5%	$1,204,983	10%
2017	Orange	Elem	Meadow Woods ES	$782,369	6%	$1,110,974	8%
2017	Orange	Elem	Mollie Ray ES	$693,404	6%	$1,226,272	10%
2017	Orange	Elem	Oak Hill ES	$581,863	5%	$972,235	8%
2017	Orange	Elem	Rock Lake ES	$672,601	5%	$1,235,894	9%
2017	Orange	Elem	Ventura ES	$780,745	6%	$1,262,836	9%
2017	Orange	K8	OCPS Academic Center for Excellence	$2,342,381	8%	$2,174,838	7%
2017	Orange	Middle	Innovation Middle	$1,954,764	9%	$1,789,440	8%
2017	Orange	Middle	Timber Springs Middle	$2,460,335	10%	$1,776,313	7%
2017	Orange	Middle	Carver Middle	$1,519,638	7%	$1,743,238	8%
2017	Orange	High	Windermere HS	$4,993,625	9%	$3,600,435	7%
2017	St Johns	Elem	Picolata Crossing Elementary	$711,881	4%	$1,613,190	8%
2017	Pasco	Elem	Bexley Elementary	$1,176,816	7%	$1,795,991	11%
2017	Nassau	Elem	Wildlight Elementary School	$1,649,044	10%	$2,457,873	15%
2017	Broward	Elem	Riverglades Elementary	$303,332	6%	$412,293	9%
2017	Hamilton	Elem	Hamilton County Elementary School	$1,677,527	10%	$1,825,273	10%
2017	Calhoun	Middle	Atha Public School	$1,436,603	8%	$1,205,972	6%
2017	Hillsborough	Middle	Sulphur Springs K-8	$417,315	8%	$304,755	6%
2017	Holmes	Middle	Bonifay PK-8	$2,870,562	9%	$2,616,795	8%
2017	Dade	High	Miami Carol City Senior High	$5,273,339	8%	$4,534,318	7%
2017	Levy	High	Williston Middle High School	$1,849,055	6%	$672,515	2%
2017	Pasco	High	Cypress Creek High	$2,712,972	7%	$4,004,683	10%
2017	Dade	High	Maritime & Science Technology Academy	$1,052,669	8%	$815,189	6%
2017	Osceola	High	Poinciana High	$267,393	6%	$507,388	11%
2017	Pinellas	High	Palm Harbor University High	$1,034,481	10%	$825,000	8%
2017	St Johns	High	Nease High	$828,000	8%	$898,000	8%
2018	Orange	Elem	Westpointe Elementary	$860,457	9%	$1,549,090	16%
Total/Weighted Average				**$134,339,858**	**7%**	**$159,842,379**	**9%**
Total/Weighted Average (Indian River County Schools ONLY)				**$1,476,006**	**9%**	**$1,342,512**	**8%**
Total/Weighted Average (Excluding Indian River County Schools)				**$132,863,852**	**7%**	**$158,499,867**	**9%**

Source: Florida Department of Education and previous Tindale Oliver school impact fee studies, when available

Table G-5
Site Development Cost Analysis
Indian River County and Other Florida Jurisdictions

Year Opened	District	Type	Facility Name	Construction Cost	Site Development	Ratio of Site Development to Construction Cost
2011	Broward	High	Lanier James Education Center	$8,889,147	$918,943	10%
2011	Calhoun	High	Blountstown High	$19,407,910	$1,362,604	7%
2011	Charlotte	Elem	Meadow Park Elementary	$12,696,116	$1,802,689	14%
2011	Charlotte	High	Charlotte High	$61,755,842	$7,904,370	13%
2011	Duval	Elem	Waterleaf Elementary	$14,882,021	$1,361,500	9%
2011	Escambia	Elem	Global Learning Academy	$17,019,155	$200,000	1%
2011	Hernando	Middle	Winding Waters K-8	$21,182,866	$0	0%
2011	Lake	High	Lake Minneola High	$46,988,193	$454,710	1%
2011	Okeechobee	High	Okeechobee Achievement Academy	$5,499,975	$1,300	0%
2011	Orange	High	Evans High Replacement	$55,507,691	$2,151,931	4%
2011	Orange	Elem	Wetherbee Elementary	$11,795,072	$0	0%
2011	Pasco	Elem	Connerton Elementary "R"	$11,598,590	$2,313,586	20%
2011	Polk	High	Winter Haven Senior	$26,374,234	$0	0%
2011	Polk	High	Auburndale Senior	$19,522,053	$0	0%
2011	Polk	High	Davenport School of the Arts	$29,136,512	$0	0%
2011	Polk	High	Kathleen Senior	$24,323,662	$0	0%
2011	Polk	Middle	Boone Middle	$17,900,963	$0	0%
2011	Walton	Middle	Emerald Coast Middle	$15,918,884	$1,717,116	11%
2012	Alachua	Elem	Meadowbrook Elementary	$12,388,973	$86,278	1%
2012	**Indian River**	**Elem**	**Vero Beach Elementary**	**$17,243,103**	**$1,196,000**	**7%**
2012	Collier	Middle	Bethune Education Center	$5,538,155	$479,652	9%
2012	Dade	High	International Studies SHS	$7,192,325	$0	0%
2012	Dade	Middle	North Dade Middle	$18,921,534	$0	0%
2012	Dade	High	Medical Academy or Science and Technolo	$9,303,705	$0	0%
2012	Lee	Middle	Hams Marsh Middle	$23,750,925	$2,100,258	9%
2012	Lee	Elem	Tortuga Preserve	$16,021,554	$1,367,613	9%
2012	Orange	Elem	SunRidge Elementary	$10,031,097	$1,296,632	13%
2012	Orange	Middle	Lake Nona Middle	$16,923,455	$0	0%
2012	Orange	Middle	SunRidge Middle	$23,617,116	$1,051,252	4%
2012	St. Johns	Elem	Palencia Elementary	$12,677,682	$0	0%
2012	St. Lucie	High	Lincoln Park Academy	$10,928,736	$7,901,452	72%
2012	Volusia	Elem	Citrus Grove Elementary	$13,854,183	$415,026	3%
2013	Martin	High	Martin County High	$7,623,316	$536,994	7%
2013	Monroe	Middle	Horace O'Bryant	$30,596,297	$2,740,572	9%
2013	Orange	Elem	Sun Blaze Elementary	$10,269,207	$658,487	6%
2013	Orange	Elem	Hackney Prairie Road Area Elementary	$11,261,094	$657,635	6%
2014	Orange	Elem	Shingle Creek ES (Replacement)	$8,633,484	$1,188,410	14%
2014	Orange	Elem	John Young ES (Replacement)	$8,810,724	$1,438,471	16%
2014	Orange	Elem	Washington Shores ES (Replacement)	$10,068,768	$1,395,463	14%
2014	Orange	Elem	Wheatley ES (Replacement)	$9,153,883	$1,083,517	12%
2014	Orange	Elem	Pineloch ES	$9,343,280	$1,409,183	15%
2014	Orange	Elem	Dr. Phillips ES	$8,150,993	$1,850,611	23%
2014	Orange	Elem	Spring Lake ES	$9,768,510	$1,276,130	13%
2014	Orange	Elem	Little River ES	$8,202,194	$1,142,327	14%
2014	Pasco	Elem	Schrader Elementary	$10,620,622	$1,217,102	11%
2015	Hillsborough	Elem	Thompson Elementary	$13,630,632	$1,766,622	13%
2015	Orange	Middle	Clay Springs Elementary	$11,675,199	$2,096,813	18%
2015	Orange	High	Lake Weston Elementary	$10,026,192	$1,719,879	17%

Table G-5
Site Development Cost Analysis
Indian River County and Other Florida Jurisdictions (Continued)

Year Opened	District	Type	Facility Name	Construction Cost	Site Development	Ratio of Site Development to Construction Cost
2015	Orange	Elem	Lovell Elementary	$10,246,051	$851,121	8%
2015	Orange	Elem	Eagle Creek Elementary	$9,248,244	$1,934,060	21%
2015	Orange	Elem	Independence Elementary	$9,394,386	$1,649,461	18%
2015	Orange	Elem	Ocoee ES (Replacement)	$9,286,970	$1,470,388	16%
2015	Palm Beach	Middle	Glade View Elementary	$14,554,646	$1,652,065	11%
2015	Palm Beach	High	Rosenwald Elementary	$11,841,132	$1,853,846	16%
2015	Pasco	Elem	Sanders Memorial Elementary	$17,016,823	$1,478,220	9%
2015	St Johns	Middle	Patriot Oaks Academy	$21,224,724	$0	0%
2015	St Johns	Middle	Valley Ridge Academy	$21,116,642	$0	0%
2016	Charlotte	High	Lemon Bay High School	$51,569,511	$7,169,846	14%
2016	Hillsborough	Elem	Lamb Elementary	$13,673,880	$3,025,879	22%
2016	Orange	Elem	Bay Lake Elementary	$12,290,816	$2,371,208	19%
2016	Orange	Elem	Tangelo Park Elementary	$10,966,573	$1,682,616	15%
2016	Pasco	Elem	Wiregrass Elementary School (Elem "W")	$14,362,434	$1,213,282	8%
2016	Polk	Middle	Citrus Ridge: A Civics Academy	$33,560,797	$0	0%
2016	Washington	High	Kate Smith Elementary School	$20,670,897	$2,568,867	12%
2017	Hillsborough	Elem	Hope Dawson Elementary	$14,863,889	$1,425,699	10%
2017	Seminole	Middle	Millennium Middle - Bid	$41,138,637	$2,468,318	6%
2017	Orange	Elem	Millenia Gardens Elementary	$10,659,959	$1,802,063	17%
2017	Orange	K8	Wedgefield School K-8	$20,111,884	$3,151,392	16%
2017	Orange	Elem	Laureate Park Elementary	$12,791,307	$1,229,287	10%
2017	Orange	Elem	Engelwood ES	$12,340,163	$1,389,126	11%
2017	Orange	Elem	Ivey Lane ES	$12,088,430	$1,526,111	13%
2017	Orange	Elem	Meadow Woods ES	$13,397,484	$1,358,748	10%
2017	Orange	Elem	Mollie Ray ES	$11,683,841	$1,525,138	13%
2017	Orange	Elem	Oak Hill ES	$12,427,300	$1,629,450	13%
2017	Orange	Elem	Rock Lake ES	$13,247,608	$2,685,941	20%
2017	Orange	Elem	Ventura ES	$13,342,673	$2,458,354	18%
2017	Orange	K8	OCPS Academic Center for Excellence	$30,678,582	$1,503,611	5%
2017	Orange	Middle	Innovation Middle	$22,320,667	$1,856,965	8%
2017	Orange	Middle	Timber Springs Middle	$24,333,075	$3,047,594	13%
2017	Orange	Middle	Carver Middle	$22,812,870	$3,648,736	16%
2017	Orange	High	Windermere HS	$54,879,598	$8,003,699	15%
2017	Pasco	Elem	Bexley Elementary	$16,714,559	$1,481,772	9%
2017	Nassau	Elem	Wildlight Elementary School	$16,099,092	$4,423,526	27%
2017	Broward	Elem	Riverglades Elementary	$4,671,335	$671,049	14%
2017	Hamilton	Elem	Hamilton County Elementary School	$17,500,400	$1,241,320	7%
2017	Calhoun	Middle	Atha Public School	$19,084,925	$1,389,719	7%
2017	Hillsborough	Middle	Sulphur Springs K-8	$5,312,830	$0	0%
2017	Holmes	Middle	Bonifay PK-8	$32,270,798	$1,489	0%
2017	Dade	High	Miami Carol City Senior High	$62,462,106	$7,753,194	12%
2017	Levy	High	Williston Middle High School	$33,542,921	$1,773,603	5%
2017	Pasco	High	Cypress Creek High	$41,025,203	$8,217,342	20%
2017	Dade	High	Maritime & Science Technology Academy	$13,994,875	$335,946	2%
2017	Osceola	High	Poinciana High	$4,553,211	$414,907	9%
2017	Pinellas	High	Palm Harbor University High	$9,983,642	$2,306,147	23%
2017	St Johns	High	Nease High	$10,658,296	$0	0%
2018	Orange	Elem	Westpointe Elementary	$9,667,395	$1,422,408	15%
Total/Weighted Average				**$1,718,309,905**	**$159,324,641**	**9%**
Total/Weighted Average (Indian River County Schools ONLY)				**$17,243,103**	**$1,196,000**	**7%**
Total/Weighted Average (Excluding Indian River County Schools)				**$1,701,066,802**	**$158,128,641**	**9%**

Source: Florida Department of Education and previous Tindale Oliver school impact fee studies, when available

Land Value Analysis

To estimate the current land value the following analysis is conducted:

- Land value trends in Indian River County;
- A review of current market value of land from the Property Appraiser database where the existing schools are located; and
- Vacant land sales of similarly sized and zoned properties; and
- Vacant land values of similarly sized and zoned properties.

School land value was estimated at $50,000 per acre in 2014. Vacant land value increase estimates obtained from the Indian River County Property Appraiser suggested an increase of 11 percent since then. Applying this increase to the 2014 cost estimate results in a value of approximately $55,000 per acre.

The value of sites where existing schools are located average approximately $23,000 per acre; however, typically land value estimates for non-tax paying parcels tend to lag in terms of the value adjustment.

In terms of vacant land value and sales information for similarly sized parcels, there was limited information for larger parcels.

Given these figures, an average value of $55,000 per acre is used for impact fee calculation purposes. Table G-6 summarizes this information.

Table G-6
Land Value Estimate

Variable	Year	Average Land Value per Acre
Estimated Land Value[1]	2013	$50,000
- Vacant land value increase[2]	2014-2019	11%
Indexed Land Value[3]	2019	$55,717
Value of Current Parcels: [4]		
- Elementary	2019	$33,101
- Middle	2019	$12,658
- High	2019	$19,943
- All Traditional Schools	2019	$23,007
Value of Vacant Land: [4]		
Countywide - Residential		
- 10 to 15 acres	2019	$24,255
- 15.01 to 40 acres	2019	$27,327
Vacant Land Sales: [4]		
Countywide - Residential		
- 15.01 to 25 acres	2015-2019	$33,078
Used in the Study	**2019**	**$55,000**

1) Source: *Indian River County Impact Fee Update Study, Final Report, September 26, 2014*
2) Source: Indian River County Property Appraiser
3) Estimated value in 2013 (Item 1) increased by vacant land value increase (Item 2)
4) Source: Indian River County Property Appraiser

Appendix H
Administrative Fee

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Appendix H: Administrative Fee

The Florida Impact Fee Act, Florida Statute (F.S.) 163.31801, requires that administrative charges for the collection of impact fees be limited to actual costs. Examples of typical administrative costs include:

- Personnel expenses associated with the administration of the program (e.g., salary and fringe of the impact fee coordinator and other staff responsible with the administration of the program, etc.);
- Cost of the technical studies and other consulting fees;
- Attorney costs related to impact fee matters; and
- Other central cost allocation (a portion of the time spent by the County Manager, various County Departments, etc.).

The administrative cost can be taken out of the revenues or can be added to the adopted fee levels. At this time, Indian River County collects 2.5 percent of the impact fee in addition to the impact fee amount. This amount increases to 3 percent within the cities, with the County retaining 1 percent and each City retaining the remaining 2 percent.

The County tracks the administrative costs, which are presented in the following table for the past five years. Between 2013 and 2018, the average annual expense associated with the administration of the impact fee program was approximately $204,800. During the same time period, the County collected an average of $7.6 million of impact fees per year. This suggests that the administrative cost is approximately 2.7 percent of the collections. As such, the 2.5-percent fee that the County is collecting represents a reasonable approach.

Table H-1

Administrative Expense

Expense[1]	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Total
Total Administrative Expenditures	$319,075	$144,148	$198,391	$183,344	$179,246	$1,024,204
Law Enforcement	$146,641	$270,988	$376,358	$350,519	$487,775	$1,632,281
Fire/EMS	$219,185	$297,960	$350,858	$334,176	$431,998	$1,634,176
Parks/Recreation	$604,644	$1,114,439	$1,142,029	$1,105,223	$1,282,068	$5,248,403
Libraries	$291,002	$111,184	$8,546	$6,248	$10,207	$427,188
Public Buildings	$24,429	$238,723	$397,546	$364,649	$469,438	$1,494,786
Education Facilities	$1,024,577	$1,188,200	$1,579,060	$1,327,558	$1,647,594	$6,766,989
Traffic	$3,022,243	$4,964,155	$4,353,437	$3,746,845	$4,518,025	$20,604,705
Annual Impact Fee Collections[2]	$5,332,720	$8,185,649	$8,207,835	$7,235,218	$8,847,105	$37,808,527
% Administrative Expense[3]	6.0%	1.8%	2.4%	2.5%	2.0%	2.7%
Average Annual Administrative Expense[4]						$204,841
Average Annual Impact Fee Collections[5]						$7,561,705
% Administrative Expense[6]						**2.7%**

1) Source: Indian River County
2) Sum of all impact fee area collections
3) Total administrative expenditures divided by annual impact fee collections (Item 2)
4) Average annual administrative expenses during the five-year period
5) Average annual impact fee collections during the five-year period
6) Average annual impact fee collections (Item 5) divided by average annual administrative expense (Item 4)

Tindale Oliver conducted research to understand how other jurisdictions address this issue. The following is a summary of the information obtained:

- Palm Beach County's Ordinance 2008-015 entitles the County to retain 3.4 percent of the funds collected as an administrative fee as long as not to exceed the costs associated with the collection of the impact fees.

- According to the Volusia County's Impact Fee Ordinance, the county collects a 3-percent administrative fee in addition to the adopted impact fee to "offset the costs of administering this article." The County retains 3 percent of the first $5,000 and 1 percent of the remainder above $5,000.

- Sarasota County has a total of eight impact fees and one mobility fee. Of the listed impact fees, no fee is collected on fire and EMS impact fees; a 1 percent administrative fee is

collected on educational facilities impact fees and 2.25 percent service charge is collected on the remaining fees.

Given these findings and the State requirements, Indian River County's administrative fee of 2.5 percent is found to be a reasonable amount and is consistent with practices of other communities in Florida. The County should continue to monitor administrative expenses to ensure fee collected does not exceed actual costs.

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Appendix I
Master Fee Schedules:
Full Calculated Fee Rates

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Table I-1

Master Fee Schedule – Full Calculated Fee; Unincorporated County

LUC	Land Use	Unit	Public Buildings			Fire/Emergency Services			Law Enforcement			Parks & Recreation		
			Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change
	RESIDENTIAL:													
210	Single Family (Detached) - Less than 1,000 sf	du	$344	$689	100.3%	$290	$231	-20.3%	$400	$405	1.3%	$1,234	$1,697	37.5%
	Single Family (Detached) - 1,000 to 1,500 sf (Low/Very Low Income)	du	$344	$689	100.3%	$290	$231	-20.3%	$400	$405	1.3%	$1,234	$1,697	37.5%
	Single Family (Detached) - 1,000 to 1,500 sf	du	$344	$689	100.3%	$290	$231	-20.3%	$400	$405	1.3%	$1,234	$1,697	37.5%
	Single Family (Detached) - 1,501 to 2,499 sf	du	$370	$830	124.3%	$314	$278	-11.5%	$436	$490	12.4%	$1,343	$2,048	52.5%
	Single Family (Detached) - 2,500 sf and greater	du	$413	$929	124.9%	$348	$312	-10.3%	$485	$548	13.0%	$1,493	$2,294	53.7%
220	Multi-Family (Low-Rise, 1-2 levels)	du	$209	$449	114.8%	$181	$152	-16.0%	$249	$280	12.4%	$767	$1,169	52.4%
221	Multi-Family (Mid-Rise, 3-10 levels)	du	$209	$449	114.8%	$181	$152	-16.0%	$249	$280	12.4%	$767	$1,169	52.4%
240	Mobile Home Park/RV (tied down)	du	$235	$538	128.9%	$197	$178	-9.6%	$244	$280	14.8%	$749	$1,178	57.3%
252	Assisted Care Living Facility (ACLF)	bed	$115	$517	349.6%	$185	$188	1.6%	$252	$301	19.4%	n/a	n/a	n/a
	LODGING:													
310	Hotel	room	$81	$527	550.6%	$131	$192	46.6%	$178	$307	72.5%	n/a	n/a	n/a
320	Motel	room	$75	$438	484.0%	$121	$160	32.2%	$164	$256	56.1%	n/a	n/a	n/a
	RECREATION:													
411	Public Park	acre	$25	$26	4.0%	$40	$10	-75.0%	$55	$15	-72.7%	n/a	n/a	n/a
420	Marina	boat berth	$24	$68	183.3%	$38	$25	-34.2%	$52	$40	-23.1%	n/a	n/a	n/a
430	Golf Course	hole	$135	$438	224.4%	$217	$160	-26.3%	$296	$256	-13.5%	n/a	n/a	n/a
444	Movie Theater w/Matinee	screen	$747	$2,709	262.7%	$1,204	$987	-18.0%	$1,639	$1,579	-3.7%	n/a	n/a	n/a
490	Tennis Court	court	$395	$731	85.1%	$636	$266	-58.2%	$866	$426	-50.8%	n/a	n/a	n/a
492	Racquet Club/Health Club/Dance Studio	1,000 sf	$386	$1,258	225.9%	$622	$458	-26.4%	$847	$733	-13.5%	n/a	n/a	n/a
	INSTITUTIONS:													
520	Elementary School (Private, K-5)	student	$8	$42	425.0%	$12	$15	25.0%	$16	$24	50.0%	n/a	n/a	n/a
522	Middle School (Private, 6-8)	student	$9	$47	422.2%	$14	$17	21.4%	$19	$27	42.1%	n/a	n/a	n/a
530	High School (Private, 9-12)	student	$10	$47	370.0%	$16	$17	6.3%	$22	$27	22.7%	n/a	n/a	n/a
540/550	University/Jr College (Private)	student	$13	$52	300.0%	$20	$19	-5.0%	$27	$30	11.1%	n/a	n/a	n/a
560	Church	1,000 sf	$64	$193	201.6%	$103	$70	-32.0%	$140	$113	-19.3%	n/a	n/a	n/a
565	Day Care Center	1,000 sf	$111	$423	281.1%	$179	$154	-14.0%	$244	$247	1.2%	n/a	n/a	n/a
571	Jail	bed	$174	$89	-48.9%	$175	$32	-81.7%	$238	$52	-78.2%	n/a	n/a	n/a
575	Fire & Rescue Station	1,000 sf	$79	$219	177.2%	n/a	n/a	n/a	$173	$128	-26.0%	n/a	n/a	n/a
590	Library	1,000 sf	$220	$1,367	521.4%	$354	$498	40.7%	$482	$797	65.4%	n/a	n/a	n/a
	MEDICAL:													
610	Hospital	1,000 sf	$171	$673	293.6%	$276	$245	-11.2%	$375	$393	4.8%	n/a	n/a	n/a
620	Nursing Home	bed	$115	$517	349.6%	$185	$188	1.6%	$252	$301	19.4%	n/a	n/a	n/a
640	Veterinary Clinic	1,000 sf	$317	$736	132.2%	$511	$268	-47.6%	$696	$429	-38.4%	n/a	n/a	n/a
	OFFICE:													
710	General Office	1,000 sf	$125	$464	271.2%	$201	$169	-15.9%	$274	$271	-1.1%	n/a	n/a	n/a
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	$142	$626	340.8%	$229	$228	-0.4%	$312	$365	17.0%	n/a	n/a	n/a
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	$207	$898	333.8%	$334	$327	-2.1%	$455	$523	14.9%	n/a	n/a	n/a
732	Post Office	1,000 sf	$203	$814	301.0%	$326	$297	-8.9%	$444	$475	7.0%	n/a	n/a	n/a
733	Government Office Complex	1,000 sf	n/a	n/a	n/a	$280	$238	-15.0%	$381	$380	-0.3%	n/a	n/a	n/a
760	Research & Development Center	1,000 sf	$106	$538	407.5%	$171	$196	14.6%	$233	$313	34.3%	n/a	n/a	n/a
	RETAIL:													
820	Retail/Shopping Center	1,000 sfgla	$296	$788	166.2%	$477	$287	-39.8%	$650	$460	-29.2%	n/a	n/a	n/a
840/841	New/Used Auto Sales	1,000 sf	$184	$819	345.1%	$296	$299	1.0%	$403	$478	18.6%	n/a	n/a	n/a
850	Supermarket	1,000 sf	$256	$1,258	391.4%	$413	$458	10.9%	$562	$733	30.4%	n/a	n/a	n/a
890	Furniture Store	1,000 sf	$29	$167	475.9%	$46	$61	32.6%	$63	$97	54.0%	n/a	n/a	n/a
	SERVICE:													
911	Bank/Savings Walk-In	1,000 sf	$279	$538	92.8%	$449	$196	-56.3%	$611	$313	-48.8%	n/a	n/a	n/a
912	Bank/Savings Drive-In	1,000 sf	$285	$778	173.0%	$459	$283	-38.3%	$625	$453	-27.5%	n/a	n/a	n/a
932	Restaurant	1,000 sf	$847	$2,907	243.2%	$1,365	$1,059	-22.4%	$1,858	$1,695	-8.8%	n/a	n/a	n/a
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	$1,111	$5,062	355.6%	$1,792	$1,845	3.0%	$2,439	$2,952	21.0%	n/a	n/a	n/a
942	Automobile Care Center	1,000 sf	$187	$872	366.3%	$302	$318	5.3%	$411	$508	23.6%	n/a	n/a	n/a
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	$239	$762	218.8%	$385	$278	-27.8%	$523	$444	-15.1%	n/a	n/a	n/a
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	$239	$929	288.7%	$385	$338	-12.2%	$523	$542	3.6%	n/a	n/a	n/a
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	$239	$1,054	341.0%	$385	$384	-0.3%	$523	$615	17.6%	n/a	n/a	n/a
947	Self-Service Car Wash	service bay	$109	$501	359.6%	$175	$183	4.6%	$238	$292	22.7%	n/a	n/a	n/a
	INDUSTRIAL:													
110	General Light Industrial	1,000 sf	$86	$261	203.5%	$139	$95	-31.7%	$189	$152	-19.6%	n/a	n/a	n/a
140	Manufacturing	1,000 sf	$63	$240	281.0%	$101	$87	-13.9%	$137	$140	2.2%	n/a	n/a	n/a
150	Warehousing	1,000 sf	$35	$57	62.9%	$56	$21	-62.5%	$77	$33	-57.1%	n/a	n/a	n/a
151	Mini-Warehouse	1,000 sf	$8	$21	162.5%	$12	$8	-33.3%	$16	$12	-25.0%	n/a	n/a	n/a
154	High-Cube Transload/Storage	1,000 sf	$18	$47	161.1%	$28	$17	-39.3%	$38	$27	-28.9%	n/a	n/a	n/a
n/a	Concrete Plant	acre	$194	$814	319.6%	$312	$297	-4.8%	$425	$475	11.8%	n/a	n/a	n/a
n/a	Sand Mining	acre	$25	$104	316.0%	$40	$38	-5.0%	$55	$61	10.9%	n/a	n/a	n/a

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Table I-1 (continued)

Master Fee Schedule – Full Calculated Fee; Unincorporated County

LUC	Land Use	Unit	Transportation			Educational Facilities			Administrative Fee (2.0%)			Total (All Fees) + Admin Fee		
			Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change
	RESIDENTIAL:													
210	Single Family (Detached) - Less than 1,000 sf	du	$3,406	$7,923	132.6%	$1,702	$4,680	175.0%	$184	$313	70.1%	$7,560	**$15,938**	110.8%
	Single Family (Detached) - 1,000 to 1,500 sf (Low/Very Low Income)	du	$3,406	$5,961	75.0%	$1,702	$4,680	175.0%	$184	$273	48.4%	$7,560	**$13,936**	84.3%
	Single Family (Detached) - 1,000 to 1,500 sf	du	$3,406	$7,923	132.6%	$1,702	$4,680	175.0%	$184	$313	70.1%	$7,560	**$15,938**	110.8%
	Single Family (Detached) - 1,501 to 2,499 sf	du	$4,248	$8,843	108.2%	$1,702	$4,680	175.0%	$210	$343	63.3%	$8,623	**$17,512**	103.1%
	Single Family (Detached) - 2,500 sf and greater	du	$5,004	$10,070	101.2%	$1,702	$4,680	175.0%	$236	$377	59.7%	$9,681	**$19,210**	98.4%
220	Multi-Family (Low-Rise, 1-2 levels)	du	$2,742	$6,337	131.1%	$668	$1,926	188.3%	$120	$206	71.7%	$4,936	**$10,519**	113.1%
221	Multi-Family (Mid-Rise, 3-10 levels)	du	$2,742	$4,715	72.0%	$668	$1,926	188.3%	$120	$174	45.0%	$4,936	**$8,865**	79.6%
240	Mobile Home Park/RV (tied down)	du	$1,550	$3,247	109.5%	$1,026	$2,050	99.8%	$100	$149	49.0%	$4,101	**$7,620**	85.8%
252	Assisted Care Living Facility (ACLF)	bed	$250	$1,312	424.8%	n/a	n/a	n/a	$20	$46	130.0%	$822	**$2,364**	187.6%
	LODGING:													
310	Hotel	room	$970	$3,917	303.8%	n/a	n/a	n/a	$34	$99	191.2%	$1,394	**$5,042**	261.7%
320	Motel	room	$686	$1,889	175.4%	n/a	n/a	n/a	$26	$55	111.5%	$1,072	**$2,798**	161.0%
	RECREATION:													
411	Public Park	acre	$387	$622	60.7%	n/a	n/a	n/a	$13	$13	0.0%	$520	**$686**	31.9%
420	Marina	boat berth	$654	$2,448	274.3%	n/a	n/a	n/a	$19	$52	173.7%	$787	**$2,633**	234.6%
430	Golf Course	hole	$7,882	$30,960	292.8%	n/a	n/a	n/a	$213	$636	198.6%	$8,743	**$32,450**	271.2%
444	Movie Theater w/Matinee	screen	$7,096	$36,756	418.0%	n/a	n/a	n/a	$267	$841	215.0%	$10,953	**$42,872**	291.4%
490	Tennis Court	court	$6,856	$24,966	264.1%	n/a	n/a	n/a	$219	$528	141.1%	$8,972	**$26,917**	200.0%
492	Racquet Club/Health Club/Dance Studio	1,000 sf	$5,835	$28,392	386.6%	n/a	n/a	n/a	$192	$617	221.4%	$7,882	**$31,458**	299.1%
	INSTITUTIONS:													
520	Elementary School (Private, K-5)	student	$164	$840	412.2%	n/a	n/a	n/a	$5	$18	260.0%	$205	**$939**	358.0%
522	Middle School (Private, 6-8)	student	$225	$945	320.0%	n/a	n/a	n/a	$7	$21	200.0%	$274	**$1,057**	285.8%
530	High School (Private, 9-12)	student	$237	$1,017	329.1%	n/a	n/a	n/a	$7	$22	214.3%	$292	**$1,130**	287.0%
540/550	University/Jr College (Private)	student	$443	$2,032	358.7%	n/a	n/a	n/a	$13	$43	230.8%	$516	**$2,176**	321.7%
560	Church	1,000 sf	$1,154	$4,128	257.7%	n/a	n/a	n/a	$37	$90	143.2%	$1,498	**$4,594**	206.7%
565	Day Care Center	1,000 sf	$3,582	$11,983	234.5%	n/a	n/a	n/a	$103	$256	148.5%	$4,219	**$13,063**	209.6%
571	Jail	bed	$949	$799	-15.8%	n/a	n/a	n/a	$38	$19	-50.0%	$1,574	**$991**	-37.0%
575	Fire & Rescue Station	1,000 sf	$324	$3,784	1067.9%	n/a	n/a	n/a	$14	$83	492.9%	$590	**$4,214**	614.2%
590	Library	1,000 sf	$11,712	$69,358	492.2%	n/a	n/a	n/a	$319	$1,440	351.4%	$13,087	**$73,460**	461.3%
	MEDICAL:													
610	Hospital	1,000 sf	$2,498	$9,473	279.2%	n/a	n/a	n/a	$83	$216	160.2%	$3,403	**$11,000**	223.2%
620	Nursing Home	bed	$222	$1,148	417.1%	n/a	n/a	n/a	$19	$43	126.3%	$793	**$2,197**	177.0%
640	Veterinary Clinic	1,000 sf	$6,962	$5,208	-25.2%	n/a	n/a	n/a	$212	$133	-37.3%	$8,698	**$6,774**	-22.1%
	OFFICE:													
710	General Office	1,000 sf	$1,916	$7,844	309.4%	n/a	n/a	n/a	$63	$175	177.8%	$2,579	**$8,923**	246.0%
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	$4,321	$20,047	363.9%	n/a	n/a	n/a	$125	$425	240.0%	$5,129	**$21,691**	322.9%
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	$6,298	$28,713	355.9%	n/a	n/a	n/a	$182	$609	234.6%	$7,476	**$31,070**	315.6%
732	Post Office	1,000 sf	$7,136	$31,860	346.5%	n/a	n/a	n/a	$203	$669	229.6%	$8,312	**$34,115**	310.4%
733	Government Office Complex	1,000 sf	$4,842	$27,382	465.5%	n/a	n/a	n/a	$138	$560	305.8%	$5,641	**$28,560**	406.3%
760	Research & Development Center	1,000 sf	$1,424	$9,170	544.0%	n/a	n/a	n/a	$48	$204	325.0%	$1,982	**$10,421**	425.8%
	RETAIL:													
820	Retail/Shopping Center	1,000 sfgla	$2,862	$12,451	335.0%	n/a	n/a	n/a	$107	$280	161.7%	$4,392	**$14,266**	224.8%
840/841	New/Used Auto Sales	1,000 sf	$3,732	$15,135	305.5%	n/a	n/a	n/a	$115	$335	191.3%	$4,730	**$17,066**	260.8%
850	Supermarket	1,000 sf	$4,066	$20,264	398.4%	n/a	n/a	n/a	$132	$454	243.9%	$5,429	**$23,167**	326.7%
890	Furniture Store	1,000 sf	$615	$3,534	474.6%	n/a	n/a	n/a	$19	$77	305.3%	$772	**$3,936**	409.8%
	SERVICE:													
911	Bank/Savings Walk-In	1,000 sf	$4,730	$11,085	134.4%	n/a	n/a	n/a	$152	$243	59.9%	$6,221	**$12,375**	98.9%
912	Bank/Savings Drive-In	1,000 sf	$6,219	$19,151	207.9%	n/a	n/a	n/a	$190	$413	117.4%	$7,778	**$21,078**	171.0%
932	Restaurant	1,000 sf	$9,289	$39,971	330.3%	n/a	n/a	n/a	$334	$913	173.4%	$13,693	**$46,545**	239.9%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	$20,459	$93,486	356.9%	n/a	n/a	n/a	$645	$2,067	220.5%	$26,446	**$105,412**	298.6%
942	Automobile Care Center	1,000 sf	$2,934	$12,354	321.1%	n/a	n/a	n/a	$96	$281	192.7%	$3,930	**$14,333**	264.7%
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	$2,287	$12,179	432.5%	n/a	n/a	n/a	$86	$273	217.4%	$3,520	**$13,936**	295.9%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	$2,287	$14,546	536.0%	n/a	n/a	n/a	$86	$327	280.2%	$3,520	**$16,682**	373.9%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	$2,287	$16,317	613.5%	n/a	n/a	n/a	$86	$367	326.7%	$3,520	**$18,737**	432.3%
947	Self-Service Car Wash	service bay	$2,209	$10,660	382.6%	n/a	n/a	n/a	$68	$233	242.6%	$2,799	**$11,869**	324.0%
	INDUSTRIAL:													
110	General Light Industrial	1,000 sf	$1,206	$3,989	230.8%	n/a	n/a	n/a	$41	$90	119.5%	$1,661	**$4,587**	176.2%
140	Manufacturing	1,000 sf	$663	$3,158	376.3%	n/a	n/a	n/a	$24	$73	204.2%	$988	**$3,698**	274.3%
150	Warehousing	1,000 sf	$617	$1,397	126.4%	n/a	n/a	n/a	$20	$30	50.0%	$805	**$1,538**	91.1%
151	Mini-Warehouse	1,000 sf	$217	$815	275.6%	n/a	n/a	n/a	$6	$17	183.3%	$259	**$873**	237.1%
154	High-Cube Transload/Storage	1,000 sf	$295	$1,130	283.1%	n/a	n/a	n/a	$9	$24	166.7%	$388	**$1,245**	220.9%
n/a	Concrete Plant	acre	$2,703	$12,563	364.8%	n/a	n/a	n/a	$91	$283	211.0%	$3,725	**$14,432**	287.4%
n/a	Sand Mining	acre	$346	$1,617	367.3%	n/a	n/a	n/a	$12	$36	200.0%	$478	**$1,856**	288.3%

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Table I-2

Master Fee Schedule – Full Calculated Fee; City of Fellsmere, Town of Orchid, City of Sebastian, City of Vero Beach

LUC	Land Use	Unit	Public Buildings			Fire/Emergency Services			Transportation			Educational Facilities			City Administrative Fee (2.0%)			County Administrative Fee (1.0%)			Total (All Fees) + Admin Fee		
			Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change
	RESIDENTIAL:																						
210	Single Family (Detached) - Less than 1,000 sf	du	$344	$689	100.3%	$290	$231	-20.3%	$3,406	$7,923	132.6%	$1,702	$4,680	175.0%	$115	$270	134.8%	$57	$135	136.8%	$5,914	**$13,928**	135.5%
	Single Family (Detached) - 1,000 to 1,500 sf (Low/Very Low Income)	du	$344	$689	100.3%	$290	$231	-20.3%	$3,406	$5,961	75.0%	$1,702	$4,680	175.0%	$115	$231	100.9%	$57	$116	103.5%	$5,914	**$11,908**	101.4%
	Single Family (Detached) - 1,000 to 1,500 sf	du	$344	$689	100.3%	$290	$231	-20.3%	$3,406	$7,923	132.6%	$1,702	$4,680	175.0%	$115	$270	134.8%	$57	$135	136.8%	$5,914	**$13,928**	135.5%
	Single Family (Detached) - 1,501 to 2,499 sf	du	$370	$830	124.3%	$314	$278	-11.5%	$4,248	$8,843	108.2%	$1,702	$4,680	175.0%	$133	$293	120.3%	$66	$146	121.2%	$6,833	**$15,070**	120.5%
	Single Family (Detached) - 2,500 sf and greater	du	$413	$929	124.9%	$348	$312	-10.3%	$5,004	$10,070	101.2%	$1,702	$4,680	175.0%	$149	$320	114.8%	$75	$160	113.3%	$7,691	**$16,471**	114.2%
220	Multi-Family (Low-Rise, 1-2 levels)	du	$209	$449	114.8%	$181	$152	-16.0%	$2,742	$6,337	131.1%	$668	$1,926	188.3%	$76	$177	132.9%	$38	$89	134.2%	$3,914	**$9,130**	133.3%
221	Multi-Family (Mid-Rise, 3-10 levels)	du	$209	$449	114.8%	$181	$152	-16.0%	$2,742	$4,715	72.0%	$668	$1,926	188.3%	$76	$145	90.8%	$38	$72	89.5%	$3,914	**$7,459**	90.6%
240	Mobile Home Park/RV (tied down)	du	$235	$538	128.9%	$197	$178	-9.6%	$1,550	$3,247	109.5%	$1,026	$2,050	99.8%	$60	$120	100.0%	$30	$60	100.0%	$3,098	**$6,193**	99.9%
252	Assisted Care Living Facility (ACLF)	bed	$115	$517	349.6%	$185	$188	1.6%	$250	$1,312	424.8%	n/a	n/a	n/a	$11	$40	263.6%	$6	$20	233.3%	$567	**$2,077**	266.3%
	LODGING:																						
310	Hotel	room	$81	$527	550.6%	$131	$192	46.6%	$970	$3,917	303.8%	n/a	n/a	n/a	$24	$93	287.5%	$12	$46	283.3%	$1,218	**$4,775**	292.0%
320	Motel	room	$75	$438	484.0%	$121	$160	32.2%	$686	$1,889	175.4%	n/a	n/a	n/a	$18	$50	177.8%	$9	$25	177.8%	$909	**$2,562**	181.8%
	RECREATION:																						
411	Public Park	acre	$25	$26	4.0%	$40	$10	-75.0%	$387	$622	60.7%	n/a	n/a	n/a	$9	$13	44.4%	$5	$7	40.0%	$466	**$678**	45.5%
420	Marina	boat berth	$24	$68	183.3%	$38	$25	-34.2%	$654	$2,448	274.3%	n/a	n/a	n/a	$14	$51	264.3%	$7	$25	257.1%	$737	**$2,617**	255.1%
430	Golf Course	hole	$135	$438	224.4%	$217	$160	-26.3%	$7,882	$30,960	292.8%	n/a	n/a	n/a	$165	$631	282.4%	$82	$316	285.4%	$8,481	**$32,505**	283.3%
444	Movie Theater w/Matinee	screen	$747	$2,709	262.7%	$1,204	$987	-18.0%	$7,096	$36,756	418.0%	n/a	n/a	n/a	$181	$809	347.0%	$90	$405	350.0%	$9,318	**$41,666**	347.2%
490	Tennis Court	court	$395	$731	85.1%	$636	$266	-58.2%	$6,856	$24,966	264.1%	n/a	n/a	n/a	$158	$519	228.5%	$79	$260	229.1%	$8,124	**$26,742**	229.2%
492	Racquet Club/Health Club/Dance Studio	1,000 sf	$386	$1,258	225.9%	$622	$458	-26.4%	$5,835	$28,392	386.6%	n/a	n/a	n/a	$137	$602	339.4%	$68	$301	342.6%	$7,048	**$31,011**	340.0%
	INSTITUTIONS:																						
520	Elementary School (Private, K-5)	student	$8	$42	425.0%	$12	$15	25.0%	$164	$840	412.2%	n/a	n/a	n/a	$4	$18	350.0%	$2	$9	350.0%	$190	**$924**	386.3%
522	Middle School (Private, 6-8)	student	$9	$47	422.2%	$14	$17	21.4%	$225	$945	320.0%	n/a	n/a	n/a	$5	$20	300.0%	$2	$10	400.0%	$255	**$1,039**	307.5%
530	High School (Private, 9-12)	student	$10	$47	370.0%	$16	$17	6.3%	$237	$1,017	329.1%	n/a	n/a	n/a	$5	$22	340.0%	$3	$11	266.7%	$271	**$1,114**	311.1%
540/550	University/Jr College (Private)	student	$13	$52	300.0%	$20	$19	-5.0%	$443	$2,032	358.7%	n/a	n/a	n/a	$10	$42	320.0%	$5	$21	320.0%	$491	**$2,166**	341.1%
560	Church	1,000 sf	$64	$193	201.6%	$103	$70	-32.0%	$1,154	$4,128	257.7%	n/a	n/a	n/a	$26	$88	238.5%	$13	$44	238.5%	$1,360	**$4,523**	232.6%
565	Day Care Center	1,000 sf	$111	$423	281.1%	$179	$154	-14.0%	$3,582	$11,983	234.5%	n/a	n/a	n/a	$77	$251	226.0%	$39	$126	223.1%	$3,988	**$12,937**	224.4%
571	Jail	bed	$174	$89	-48.9%	$175	$32	-81.7%	$949	$799	-15.8%	n/a	n/a	n/a	$26	$18	-30.8%	$13	$9	-30.8%	$1,337	**$947**	-29.2%
575	Fire & Rescue Station	1,000 sf	$79	$219	177.2%	n/a	n/a	n/a	$324	$3,784	1067.9%	n/a	n/a	n/a	$8	$80	900.0%	$4	$40	900.0%	$415	**$4,123**	893.5%
590	Library	1,000 sf	$220	$1,367	521.4%	$354	$498	40.7%	$11,712	$69,358	492.2%	n/a	n/a	n/a	$246	$1,424	478.9%	$123	$712	478.9%	$12,655	**$73,359**	479.7%
	MEDICAL:																						
610	Hospital	1,000 sf	$171	$673	293.6%	$276	$245	-11.2%	$2,498	$9,473	279.2%	n/a	n/a	n/a	$59	$208	252.5%	$29	$104	258.6%	$3,033	**$10,703**	252.9%
620	Nursing Home	bed	$115	$517	349.6%	$185	$188	1.6%	$222	$1,148	417.1%	n/a	n/a	n/a	$10	$37	270.0%	$5	$19	280.0%	$537	**$1,909**	255.5%
640	Veterinary Clinic	1,000 sf	$317	$736	132.2%	$511	$268	-47.6%	$6,962	$5,208	-25.2%	n/a	n/a	n/a	$156	$124	-20.5%	$78	$62	-20.5%	$8,024	**$6,398**	-20.3%
	OFFICE:																						
710	General Office	1,000 sf	$125	$464	271.2%	$201	$169	-15.9%	$1,916	$7,844	309.4%	n/a	n/a	n/a	$45	$170	277.8%	$22	$85	286.4%	$2,309	**$8,732**	278.2%
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	$142	$626	340.8%	$229	$228	-0.4%	$4,321	$20,047	363.9%	n/a	n/a	n/a	$94	$418	344.7%	$47	$209	344.7%	$4,833	**$21,528**	345.4%
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	$207	$898	333.8%	$334	$327	-2.1%	$6,298	$28,713	355.9%	n/a	n/a	n/a	$137	$599	337.2%	$68	$299	339.7%	$7,044	**$30,836**	337.8%
732	Post Office	1,000 sf	$203	$814	301.0%	$326	$297	-8.9%	$7,136	$31,860	346.5%	n/a	n/a	n/a	$153	$659	330.7%	$77	$330	328.6%	$7,895	**$33,960**	330.1%
733	Government Office Complex	1,000 sf	n/a	n/a	n/a	$280	$238	-15.0%	$4,842	$27,382	465.5%	n/a	n/a	n/a	$102	$552	441.2%	$51	$276	441.2%	$5,275	**$28,448**	439.3%
760	Research & Development Center	1,000 sf	$106	$538	407.5%	$171	$196	14.6%	$1,424	$9,170	544.0%	n/a	n/a	n/a	$34	$198	482.4%	$17	$99	482.4%	$1,752	**$10,201**	482.2%
	RETAIL:																						
820	Retail/Shopping Center	1,000 sfgla	$296	$788	166.2%	$477	$287	-39.8%	$2,862	$12,451	335.0%	n/a	n/a	n/a	$73	$271	271.2%	$36	$135	275.0%	$3,744	**$13,932**	272.1%
840/841	New/Used Auto Sales	1,000 sf	$184	$819	345.1%	$296	$299	1.0%	$3,732	$15,135	305.5%	n/a	n/a	n/a	$84	$325	286.9%	$42	$163	288.1%	$4,338	**$16,741**	285.9%
850	Supermarket	1,000 sf	$256	$1,258	391.4%	$413	$458	10.9%	$4,066	$20,264	398.4%	n/a	n/a	n/a	$95	$440	363.2%	$47	$220	368.1%	$4,877	**$22,640**	364.2%
890	Furniture Store	1,000 sf	$29	$167	475.9%	$46	$61	32.6%	$615	$3,534	474.6%	n/a	n/a	n/a	$14	$75	435.7%	$7	$38	442.9%	$711	**$3,875**	445.0%
	SERVICE:																						
911	Bank/Savings Walk-In	1,000 sf	$279	$538	92.8%	$449	$196	-56.3%	$4,730	$11,085	134.4%	n/a	n/a	n/a	$109	$236	116.5%	$55	$118	114.5%	$5,622	**$12,173**	116.5%
912	Bank/Savings Drive-In	1,000 sf	$285	$778	173.0%	$459	$283	-38.3%	$6,219	$19,151	207.9%	n/a	n/a	n/a	$139	$404	190.6%	$70	$202	188.6%	$7,172	**$20,818**	190.3%
932	Restaurant	1,000 sf	$847	$2,907	243.2%	$1,365	$1,059	-22.4%	$9,289	$39,971	330.3%	n/a	n/a	n/a	$230	$879	282.2%	$115	$439	281.7%	$11,846	**$45,255**	282.0%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	$1,111	$5,062	355.6%	$1,792	$1,845	3.0%	$20,459	$93,486	356.9%	n/a	n/a	n/a	$467	$2,008	330.0%	$234	$1,004	329.1%	$24,063	**$103,405**	329.7%
942	Automobile Care Center	1,000 sf	$187	$872	366.3%	$302	$318	5.3%	$2,934	$12,354	321.1%	n/a	n/a	n/a	$68	$271	298.5%	$34	$135	297.1%	$3,525	**$13,950**	295.7%
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	$239	$762	218.8%	$385	$278	-27.8%	$2,287	$12,179	432.5%	n/a	n/a	n/a	$58	$264	355.2%	$29	$132	355.2%	$2,998	**$13,615**	354.1%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	$239	$929	288.7%	$385	$338	-12.2%	$2,287	$14,546	536.0%	n/a	n/a	n/a	$58	$316	444.8%	$29	$158	444.8%	$2,998	**$16,287**	443.3%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	$239	$1,054	341.0%	$385	$384	-0.3%	$2,287	$16,317	613.5%	n/a	n/a	n/a	$58	$355	512.1%	$29	$178	513.8%	$2,998	**$18,288**	510.0%
947	Self-Service Car Wash	service bay	$109	$501	359.6%	$175	$183	4.6%	$2,209	$10,660	382.6%	n/a	n/a	n/a	$50	$227	354.0%	$25	$113	352.0%	$2,568	**$11,684**	355.0%
	INDUSTRIAL:																						
110	General Light Industrial	1,000 sf	$86	$261	203.5%	$139	$95	-31.7%	$1,206	$3,989	230.8%	n/a	n/a	n/a	$29	$87	200.0%	$14	$43	207.1%	$1,474	**$4,475**	203.6%
140	Manufacturing	1,000 sf	$63	$240	281.0%	$101	$87	-13.9%	$663	$3,158	376.3%	n/a	n/a	n/a	$17	$70	311.8%	$8	$35	337.5%	$852	**$3,590**	321.4%
150	Warehousing	1,000 sf	$35	$57	62.9%	$56	$21	-62.5%	$617	$1,397	126.4%	n/a	n/a	n/a	$14	$30	114.3%	$7	$15	114.3%	$729	**$1,520**	108.5%
151	Mini-Warehouse	1,000 sf	$8	$21	162.5%	$12	$8	-33.3%	$217	$815	275.6%	n/a	n/a	n/a	$5	$17	240.0%	$2	$8	300.0%	$244	**$869**	256.1%
154	High-Cube Transload/Storage	1,000 sf	$18	$47	161.1%	$28	$17	-39.3%	$295	$1,130	283.1%	n/a	n/a	n/a	$7	$24	242.9%	$3	$12	300.0%	$351		250.4%
n/a	Concrete Plant	acre	$194	$814	319.6%	$312	$297	-4.8%	$2,703	$12,563	364.8%	n/a	n/a	n/a	$64	$273	326.6%	$32	$137	328.1%	$3,305		326.1%
n/a	Sand Mining	acre	$25	$104	316.0%	$40	$38	-5.0%	$346	$1,617	367.3%	n/a	n/a	n/a	$8	$35	337.5%	$4	$18	350.0%	$423		328.4%

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Table I-3

Master Fee Schedule – Full Calculated Fee; Town of Indian River Shores

LUC	Land Use	Unit	Public Buildings			Transportation			Educational Facilities			City Administrative Fee (2.0%)			County Administrative Fee (1.0%)			Total (All Fees) + Admin Fee		
			Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change	Adopted Rate	2019 Calculated	Percent Change
	RESIDENTIAL:																			
210	Single Family (Detached) - Less than 1,000 sf	du	$344	$689	100.3%	$3,406	$7,923	132.6%	$1,702	$4,680	175.0%	$109	$266	144.0%	$55	$133	141.8%	$5,616	**$13,691**	143.8%
	Single Family (Detached) - 1,000 to 1,500 sf (Low/Very Low Income)	du	$344	$689	100.3%	$3,406	$5,961	75.0%	$1,702	$4,680	175.0%	$109	$227	108.3%	$55	$113	105.5%	$5,616	**$11,670**	107.8%
	Single Family (Detached) - 1,000 to 1,500 sf	du	$344	$689	100.3%	$3,406	$7,923	132.6%	$1,702	$4,680	175.0%	$109	$266	144.0%	$55	$133	141.8%	$5,616	**$13,691**	143.8%
	Single Family (Detached) - 1,501 to 2,499 sf	du	$370	$830	124.3%	$4,248	$8,843	108.2%	$1,702	$4,680	175.0%	$126	$287	127.8%	$63	$144	128.6%	$6,509	**$14,784**	127.1%
	Single Family (Detached) - 2,500 sf and greater	du	$413	$929	124.9%	$5,004	$10,070	101.2%	$1,702	$4,680	175.0%	$142	$314	121.1%	$71	$157	121.1%	$7,332	**$16,150**	120.3%
220	Multi-Family (Low-Rise, 1-2 levels)	du	$209	$449	114.8%	$2,742	$6,337	131.1%	$668	$1,926	188.3%	$72	$174	141.7%	$36	$87	141.7%	$3,727	**$8,973**	140.8%
221	Multi-Family (Mid-Rise, 3-10 levels)	du	$209	$449	114.8%	$2,742	$4,715	72.0%	$668	$1,926	188.3%	$72	$142	97.2%	$36	$71	97.2%	$3,727	**$7,303**	95.9%
240	Mobile Home Park/RV (tied down)	du	$235	$538	128.9%	$1,550	$3,247	109.5%	$1,026	$2,050	99.8%	$56	$117	108.9%	$28	$58	107.1%	$2,895	**$6,010**	107.6%
252	Assisted Care Living Facility (ACLF)	bed	$115	$517	349.6%	$250	$1,312	424.8%	n/a	n/a	n/a	$7	$37	428.6%	$4	$18	350.0%	$376	**$1,884**	401.1%
	LODGING:																			
310	Hotel	room	$81	$527	550.6%	$970	$3,917	303.8%	n/a	n/a	n/a	$21	$89	323.8%	$11	$44	300.0%	$1,083	**$4,577**	322.6%
320	Motel	room	$75	$438	484.0%	$686	$1,889	175.4%	n/a	n/a	n/a	$15	$47	213.3%	$8	$23	187.5%	$784	**$2,397**	205.7%
	RECREATION:																			
411	Public Park	acre	$25	$26	4.0%	$387	$622	60.7%	n/a	n/a	n/a	$8	$13	62.5%	$4	$6	50.0%	$424	**$667**	57.3%
420	Marina	boat berth	$24	$68	183.3%	$654	$2,448	274.3%	n/a	n/a	n/a	$14	$50	257.1%	$7	$25	257.1%	$699	**$2,591**	270.7%
430	Golf Course	hole	$135	$438	224.4%	$7,882	$30,960	292.8%	n/a	n/a	n/a	$160	$628	292.5%	$80	$314	292.5%	$8,257	**$32,340**	291.7%
444	Movie Theater w/Matinee	screen	$747	$2,709	262.7%	$7,096	$36,756	418.0%	n/a	n/a	n/a	$157	$789	402.5%	$78	$395	406.4%	$8,078	**$40,649**	403.2%
490	Tennis Court	court	$395	$731	85.1%	$6,856	$24,966	264.1%	n/a	n/a	n/a	$145	$514	254.5%	$73	$257	252.1%	$7,469	**$26,468**	254.4%
492	Racquet Club/Health Club/Dance Studio	1,000 sf	$386	$1,258	225.9%	$5,835	$28,392	386.6%	n/a	n/a	n/a	$124	$593	378.2%	$62	$297	379.0%	$6,407	**$30,540**	376.7%
	INSTITUTIONS:																			
520	Elementary School (Private, K-5)	student	$8	$42	425.0%	$164	$840	412.2%	n/a	n/a	n/a	$3	$18	500.0%	$2	$9	350.0%	$177	**$909**	413.6%
522	Middle School (Private, 6-8)	student	$9	$47	422.2%	$225	$945	320.0%	n/a	n/a	n/a	$5	$20	300.0%	$2	$10	400.0%	$241	**$1,022**	324.1%
530	High School (Private, 9-12)	student	$10	$47	370.0%	$237	$1,017	329.1%	n/a	n/a	n/a	$5	$21	320.0%	$2	$11	450.0%	$254	**$1,096**	331.5%
540/550	University/Jr College (Private)	student	$13	$52	300.0%	$443	$2,032	358.7%	n/a	n/a	n/a	$9	$42	366.7%	$5	$21	320.0%	$470	**$2,147**	356.8%
560	Church	1,000 sf	$64	$193	201.6%	$1,154	$4,128	257.7%	n/a	n/a	n/a	$24	$86	258.3%	$12	$43	258.3%	$1,254	**$4,450**	254.9%
565	Day Care Center	1,000 sf	$111	$423	281.1%	$3,582	$11,983	234.5%	n/a	n/a	n/a	$74	$248	235.1%	$37	$124	235.1%	$3,804	**$12,778**	235.9%
571	Jail	bed	$174	$89	-48.9%	$949	$799	-15.8%	n/a	n/a	n/a	$22	$18	-18.2%	$11	$9	-18.2%	$1,156	**$915**	-20.8%
575	Fire & Rescue Station	1,000 sf	$79	$219	177.2%	$324	$3,784	1067.9%	n/a	n/a	n/a	$8	$80	900.0%	$4	$40	900.0%	$415	**$4,123**	893.5%
590	Library	1,000 sf	$220	$1,367	521.4%	$11,712	$69,358	492.2%	n/a	n/a	n/a	$239	$1,415	492.1%	$119	$707	494.1%	$12,290	**$72,847**	492.7%
	MEDICAL:																			
610	Hospital	1,000 sf	$171	$673	293.6%	$2,498	$9,473	279.2%	n/a	n/a	n/a	$53	$203	283.0%	$27	$101	274.1%	$2,749	**$10,450**	280.1%
620	Nursing Home	bed	$115	$517	349.6%	$222	$1,148	417.1%	n/a	n/a	n/a	$7	$33	371.4%	$3	$17	466.7%	$347	**$1,715**	394.2%
640	Veterinary Clinic	1,000 sf	$317	$736	132.2%	$6,962	$5,208	-25.2%	n/a	n/a	n/a	$146	$119	-18.5%	$73	$59	-19.2%	$7,498	**$6,122**	-18.4%
	OFFICE:																			
710	General Office	1,000 sf	$125	$464	271.2%	$1,916	$7,844	309.4%	n/a	n/a	n/a	$41	$166	304.9%	$20	$83	315.0%	$2,102	**$8,557**	307.1%
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	$142	$626	340.8%	$4,321	$20,047	363.9%	n/a	n/a	n/a	$89	$413	364.0%	$45	$207	360.0%	$4,597	**$21,293**	363.2%
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	$207	$898	333.8%	$6,298	$28,713	355.9%	n/a	n/a	n/a	$130	$592	355.4%	$65	$296	355.4%	$6,700	**$30,499**	355.2%
732	Post Office	1,000 sf	$203	$814	301.0%	$7,136	$31,860	346.5%	n/a	n/a	n/a	$147	$653	344.2%	$73	$327	347.9%	$7,559	**$33,654**	345.2%
733	Government Office Complex	1,000 sf	n/a	n/a	n/a	$4,842	$27,382	465.5%	n/a	n/a	n/a	$97	$548	464.9%	$48	$274	470.8%	$4,987	**$28,204**	465.6%
760	Research & Development Center	1,000 sf	$106	$538	407.5%	$1,424	$9,170	544.0%	n/a	n/a	n/a	$31	$194	525.8%	$15	$97	546.7%	$1,576	**$9,999**	534.5%
	RETAIL:																			
820	Retail/Shopping Center	1,000 sfgla	$296	$788	166.2%	$2,862	$12,451	335.0%	n/a	n/a	n/a	$63	$265	320.6%	$32	$132	312.5%	$3,253	**$13,636**	319.2%
840/841	New/Used Auto Sales	1,000 sf	$184	$819	345.1%	$3,732	$15,135	305.5%	n/a	n/a	n/a	$78	$319	309.0%	$39	$160	310.3%	$4,033	**$16,433**	307.5%
850	Supermarket	1,000 sf	$256	$1,258	391.4%	$4,066	$20,264	398.4%	n/a	n/a	n/a	$86	$430	400.0%	$43	$215	400.0%	$4,451	**$22,167**	398.0%
890	Furniture Store	1,000 sf	$29	$167	475.9%	$615	$3,534	474.6%	n/a	n/a	n/a	$13	$74	469.2%	$6	$37	516.7%	$663	**$3,812**	475.0%
	SERVICE:																			
911	Bank/Savings Walk-In	1,000 sf	$279	$538	92.8%	$4,730	$11,085	134.4%	n/a	n/a	n/a	$100	$232	132.0%	$50	$116	132.0%	$5,159	**$11,971**	132.0%
912	Bank/Savings Drive-In	1,000 sf	$285	$778	173.0%	$6,219	$19,151	207.9%	n/a	n/a	n/a	$130	$399	206.9%	$65	$199	206.2%	$6,699	**$20,527**	206.4%
932	Restaurant	1,000 sf	$847	$2,907	243.2%	$9,289	$39,971	330.3%	n/a	n/a	n/a	$203	$858	322.7%	$101	$429	324.8%	$10,440	**$44,165**	323.0%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	$1,111	$5,062	355.6%	$20,459	$93,486	356.9%	n/a	n/a	n/a	$431	$1,971	357.3%	$216	$985	356.0%	$22,217	**$101,504**	356.9%
942	Automobile Care Center	1,000 sf	$187	$872	366.3%	$2,934	$12,354	321.1%	n/a	n/a	n/a	$62	$265	327.4%	$31	$132	325.8%	$3,214	**$13,623**	323.9%
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	$239	$762	218.8%	$2,287	$12,179	432.5%	n/a	n/a	n/a	$51	$259	407.8%	$25	$129	416.0%	$2,602	**$13,329**	412.3%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	$239	$929	288.7%	$2,287	$14,546	536.0%	n/a	n/a	n/a	$51	$310	507.8%	$25	$155	520.0%	$2,602	**$15,940**	512.6%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	$239	$1,054	341.0%	$2,287	$16,317	613.5%	n/a	n/a	n/a	$51	$347	580.4%	$25	$174	596.0%	$2,602	**$17,892**	587.6%
947	Self-Service Car Wash	service bay	$109	$501	359.6%	$2,209	$10,660	382.6%	n/a	n/a	n/a	$46	$223	384.8%	$23	$112	387.0%	$2,387	**$11,496**	381.6%
	INDUSTRIAL:																			
110	General Light Industrial	1,000 sf	$86	$261	203.5%	$1,206	$3,989	230.8%	n/a	n/a	n/a	$26	$85	226.9%	$13	$43	230.8%	$1,331	**$4,378**	228.9%
140	Manufacturing	1,000 sf	$63	$240	281.0%	$663	$3,158	376.3%	n/a	n/a	n/a	$15	$68	353.3%	$7	$34	385.7%	$748	**$3,500**	367.9%
150	Warehousing	1,000 sf	$35	$57	62.9%	$617	$1,397	126.4%	n/a	n/a	n/a	$13	$29	123.1%	$7	$15	114.3%	$672	**$1,498**	122.9%
151	Mini-Warehouse	1,000 sf	$8	$21	162.5%	$217	$815	275.6%	n/a	n/a	n/a	$5	$17	240.0%	$2	$8	300.0%	$232	**$861**	271.1%
154	High-Cube Transload/Storage	1,000 sf	$18	$47	161.1%	$295	$1,130	283.1%	n/a	n/a	n/a	$6	$24	300.0%	$3	$12	300.0%	$322	**$1,213**	276.7%
n/a	Concrete Plant	acre	$194	$814	319.6%	$2,703	$12,563	364.8%	n/a	n/a	n/a	$58	$268	362.1%	$29	$134	362.1%	$2,984	**$13,779**	361.8%
n/a	Sand Mining	acre	$25	$104	316.0%	$346	$1,617	367.3%	n/a	n/a	n/a	$7	$34	385.7%	$4	$17	325.0%	$382	**$1,772**	363.9%

Attachment 1

Appendix J
Master Fee Schedules:
Staff Recommended Fee Rates

DRAFT

Attachment 1

Tables J1, J2, and J3 (pages 209-213) are available in the Planning Division Office.

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