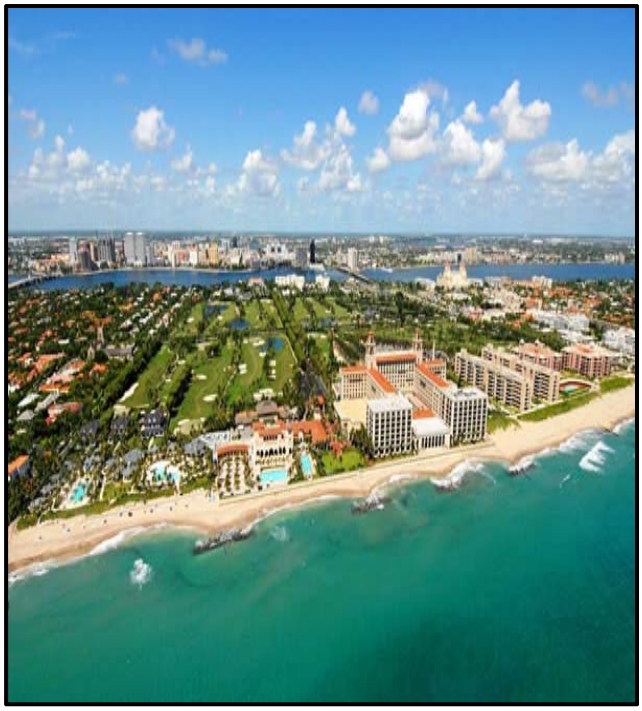
Palm Beach County
Impact Fee Update Study

FINAL REPORT

April 13, 2018

(Based on research and analysis conducted in 2014 and 2015)



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PALM BEACH COUNTY
IMPACT FEE UPDATE STUDY

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Executive Summary

Palm Beach County's impact fee program includes fees in the following seven service areas:

- Public Education Facilities
- Parks & Recreation
- Public Libraries
- Fire Protection & Rescue
- Law Enforcement
- Public Buildings
- Transportation

The most recent technical study for these fees was completed in 2012. It is the policy of the County to update impact fee technical studies frequently to ensure the fees are based on most current and localized data.

Palm Beach County has retained Tindale Oliver to prepare an update study to reflect changes to the cost, credit, and demand components since the last technical study. **It should be noted that figures included in this study reflect data collected and analysis completed by February 2015, unless otherwise noted in this report.** The calculated fees represent the technically defensible level of impact fees that the County could charge; however, the Board of County Commission (BOCC) may choose to discount the fees as a policy decision.

An impact fee is a one-time capital charge levied against new development to fund infrastructure capacity consumed by new growth. Impact fee revenues can only be used for capacity expansion projects and not for expenses related to replacement, maintenance or operations. In Florida, legal requirements related to impact fees have primarily been established through case law since the 1980's. Generally speaking, 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 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. In 2009, the Act was amended to clarify 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.**

This technical report has been prepared to support legal compliance with existing case law and statutory requirements.

Table ES-1 provides a summary of calculated fees for six representative land uses along with a comparison to the current adopted fees. The complete schedules include approximately 40 land uses and are included in the remaining sections of this report.

Table ES-1
Summary of Palm Beach County Impact Fees - All Program Areas

ITE LUC	Land Use	Unit	Public Education Facilities[1]			Parks & Recreation[2]			Public Libraries[3]			Fire Protection & Rescue[4]		
			Adopted Rate	Full Calculated Rate	Percent Change	Adopted Rate	Full Calculated Rate	Percent Change	Adopted Rate	Full Calculated Rate	Percent Change	Adopted Rate	Full Calculated Rate	Percent Change
	Residential:													
210	Single Family (detached) 2,000 sf	du	$1,866	$6,956	273%	$860	$979	14%	$243	$268	10%	$0	$291	N/A
	Non-Residential:													
110	General Light Industrial	1,000 sf	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0	$84	N/A
710	Office (50,000 sf)	1,000 sf	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0	$53	N/A
820	Retail (125,000 sf)	1,000 sfgla	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0	$127	N/A
912	Bank/Savings w/Drive-In	1,000 sf	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0	$53	N/A
934	Fast Food Rest. w/Drive-Thru	1,000 sf	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0	$127	N/A

ITE LUC	Land Use	Unit	Law Enforcement[5]			Public Buildings[6]			Transportation[7]			Total (All Fees)[8]		
			Adopted Rate	Full Calculated Rate	Percent Change	Adopted Rate	Full Calculated Rate	Percent Change	Adopted Rate	Full Calculated Rate	Percent Change	Adopted Rate	Full Calculated Rate	Percent Change
	Residential:													
210	Single Family (detached) 2,000 sf	du	$128	$192	50%	$223	$1,275	472%	$7,281	$4,965	-32%	$10,601	$14,926	41%
	Non-Residential:													
110	General Light Industrial	1,000 sf	$7	$73	943%	$74	$569	669%	$1,522	$3,154	107%	$1,603	$3,880	142%
710	Office (50,000 sf)	1,000 sf	$10	$150	1400%	$131	$1,162	787%	$3,418	$7,015	105%	$3,559	$8,380	136%
820	Retail (125,000 sf)	1,000 sfgla	$57	$245	330%	$324	$1,895	485%	$8,546	$8,059	-6%	$8,927	$10,326	16%
912	Bank/Savings w/Drive-In	1,000 sf	$10	$243	2330%	$382	$1,879	392%	$19,056	$16,964	-11%	$19,448	$19,139	-2%
934	Fast Food Rest. w/Drive-Thru	1,000 sf	$57	$948	1563%	$604	$7,335	1114%	$30,702	$56,801	85%	$31,363	$65,211	108%

(1) Source: Table II-10
(2) Source: Table III-8
(3) Source: Table IV-12
(4) Source: Table V-8
(5) Source: Table VI-4
(6) Source: Table VII-8
(7) Source: Appendix H, Table H-1
(8) Sum of each program area's adopted rate and full calculated rate

I. Introduction

Palm Beach County's impact fee program includes fees in the following seven service areas:

- Public Education Facilities
- Parks & Recreation
- Public Libraries
- Fire Protection & Rescue
- Law Enforcement
- Public Buildings
- Transportation

The most recent technical study for these fees was completed in 2012. It is the policy of Palm Beach County to update impact fee technical studies frequently to ensure the fees are based on most current and localized data.

Palm Beach County has retained Tindale Oliver to prepare an update study to reflect changes to the cost, credit, and demand components since the last update studies. **It should be noted that figures included in this study reflect data collected and analysis completed by February 2015, unless otherwise noted in this report.** The calculated fee represent technically defensible level of impact fees that the County could charge; however, the BOCC may choose to discount the fees as a policy decision.

Methodology

The methodology used to update the Palm Beach County's impact fee program is a consumption-based impact fee methodology, which is used throughout Florida. This methodology was also used in preparing the current adopted impact fees. 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 fire protection & rescue, transportation and schools. For fire protection and rescue, incident-based demand calculations are used. In the case of schools, student generation rate is used and in the case of transportation, vehicle-miles of travel is used. A consumption-based impact fee charges new growth the proportionate share of the cost of providing additional infrastructure available for use by new growth. In addition, per legal requirements, a credit is subtracted

from the total cost to account for the value of future tax contributions of the new development toward any capacity expansion projects through other revenue sources. Contributions used to calculate the credit component include estimates of future non-impact fee revenues generated by the new development that will be used toward 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. Generally speaking, 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 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. The payment must be reduced by the percentage share the project's traffic represents of the added capacity of the selected improvement (up to a maximum of 20% or to an amount specified by ordinance, whichever results in a higher credit). The courts have not yet taken up the issue of whether a local government may still charge an impact/mobility fee in lieu of proportionate share if the impact/mobility fee is higher than the calculated proportionate share contribution.
- **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 3180(5)(f), Florida Statutes, including:

    1. Adoption of long-term strategies to facilitate development patterns that support multimodal solutions, including urban design, and appropriate land use mixes, including intensity and density.
    2. Adoption of an area-wide level of service not dependent on any single road segment function.
    3. Exempting or discounting impacts of locally desired development, such as development in urban areas, redevelopment, job creation, and mixed use on the transportation system.
    4. Assigning secondary priority to vehicle mobility and primary priority to ensuring a safe, comfortable, and attractive pedestrian environment, with convenient interconnection to transit.
    5. Establishing multimodal level of service standards that rely primarily on non-vehicular modes of transportation where existing or planned community design will provide adequate level of mobility.
    6. Reducing impact fees or local access fees to promote development within urban areas, multimodal transportation districts, and a balance of mixed-use development in certain areas or districts, or for affordable or workforce housing.

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

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

Impact Fee Definition

- 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.

Impact Fee vs. Tax

- An impact fee is generally regarded as a regulatory function established as a condition for improving property and is not established for the primary purpose of generating revenue, 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.

This technical report has been prepared to support legal compliance with existing case law and statutory requirements. The technical report also documents the methodology components for each of the impact fee areas 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.

II. Public Education Facilities Impact Fee

As mentioned previously, the Palm Beach County's School Impact Fee was last updated in 2012. The study methodology is documented in the following nine sub-sections:

- Inventory
- Service Area, Benefit Districts, and Enrollment
- Facility Service Delivery
- Cost Component
- Credit Component
- Net Impact Cost per Student
- Student Generation Rates
- Calculated School Impact Fee Schedule
- School Impact Fee Schedule Comparison

Information supporting this analysis was obtained from the Palm Beach County School District and other sources, as indicated.

Inventory

The Palm Beach County School District provides public education facilities that are available to all school-age residents of Palm Beach 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 Palm Beach County.

The District currently operates 170 traditional public schools that serve the students of Palm Beach County and its municipalities, including 107 elementary schools, 33 middle schools, 25 high schools, and 5 multi-level schools. The District also operates a number of other programs, such as alternative learning programs and adult learning centers throughout the county. The District's current school inventory is provided in Appendix B, Table B-1.

Service Area, Benefit Districts, and Enrollment

Palm Beach County Public Schools provides public education facilities that are available to all Kindergarten thru 12th grade (K-12) students throughout the entire county. Currently, Palm Beach County has four school impact fee benefit districts, which require that impact fee revenues collected in one district be spent in the same benefit district. In addition, a fifth no-impact fee district is established in the Glades Area. Benefit districts are typically created to ensure the fee payer receives the benefit in cases when the capital projects built with impact fee revenues benefit a limited geographic area. In the case of public schools, attendance boundaries can be redrawn to balance school enrollment with available school capacity and therefore can serve different geographic areas over time. In addition, the State Department of Education (DOE) has been increasing its support of Choice programs where students can attend schools outside of their designated districts. As such, the appropriate impact fee benefit district for public schools is countywide. It is our understanding that the in the 5th district (Glades Area), there is not any significant level of development activity. As such, it is appropriate to continue to exempt this area from impact fee collection and spending.

Table II-1 presents the historical student enrollment since 2000, and projected enrollment through 2033. In order to be consistent with the inventory used in the impact fee analysis, the figures presented in this table only include those students attending (or projected to attend) the traditional schools listed in Appendix B, Table B-1. The annual percent change is presented, as well as a three-year average to account for any random fluctuations.

Table II-1
Palm Beach County Enrollment Trends

School Year	Enrollment[1]	Annual Percent Change[2]	Three-Year Average[3]
2000-01	147,234	-	-
2001-02	151,308	2.8%	-
2002-03	154,572	2.2%	-
2003-04	157,990	2.2%	2.4%
2004-05	162,136	2.6%	2.3%
2005-06	162,106	0.0%	1.6%
2006-07	159,226	-1.8%	0.3%
2007-08	159,300	0.0%	-0.6%
2008-09	159,304	0.0%	-0.6%
2009-10	160,485	0.7%	0.2%
2010-11	161,405	0.6%	0.4%
2011-12	162,461	0.7%	0.7%
2012-13	163,250	0.5%	0.6%
2013-14	162,314	-0.6%	0.2%
2014-15	162,598	0.2%	0.0%
2015-16	162,899	0.2%	-0.1%
2016-17	163,218	0.2%	0.2%
2017-18	163,553	0.2%	0.2%
2018-19	165,549	1.2%	0.5%
2019-20	167,575	1.2%	0.9%
2020-21	169,632	1.2%	1.2%
2021-22	171,720	1.2%	1.2%
2022-23	173,853	1.2%	1.2%
2023-24	175,323	0.8%	1.1%
2024-25	176,808	0.8%	0.9%
2025-26	178,307	0.8%	0.8%
2026-27	179,821	0.8%	0.8%
2027-28	181,350	0.9%	0.8%
2028-29	182,893	0.9%	0.9%
2029-30	184,451	0.9%	0.9%
2030-31	186,025	0.9%	0.9%
2031-32	187,615	0.9%	0.9%
2032-33	189,193	0.8%	0.9%

(1) Source: Palm Beach County School District, includes only the students attending traditional schools
(2) Percent between successive years
(3) Average change over three successive years

Facility Service Delivery

Based on information provided by the School District, current school characteristics in terms of the number of student stations and permanent square footage are representative of future schools and used in the impact fee calculations. Using the square footage and student stations for each school type, the facility service delivery has been identified (Florida Inventory of School Houses (FISH) net square feet per permanent student station) for the impact fee calculations.

Table II-2 illustrates the facility service delivery for Palm Beach County Public Schools, which is 138.5 FISH net square feet per permanent student station for elementary schools, 125.3 FISH net square feet per permanent student station for middle schools, and 144.1 FISH net square feet per permanent student station for high schools. The weighted average facility service delivery based on all three school types is 137.0 FISH net square feet per permanent student station.

Table II-2
Facility Service Delivery – Existing Schools

Description	School Type			Total / Weighted Avg
	Elementary	Middle	High	
Permanent Net Square Footage[(1)]	12,392,252	5,718,972	8,044,452	26,155,676
Permanent Student Stations[(2)]	89,477	45,628	55,825	190,930
Net Square Feet per Student Station[(3)]	138.5	125.3	144.1	137.0

(1) Source: Appendix B, Table B-1
(2) Source: Appendix B, Table B-1
(3) Permanent net square footage (Item 1) divided by permanent student stations (Item 2)

Cost Component

The capital costs of providing school facilities includes several components, such as the school facility cost, transportation cost, and ancillary facility costs. This section addresses these components.

Facility Cost per Student Station

Based on the direction from the County, cost estimates for projects included in the County's "FY 2017-2027 Capital Plan, Including Sales Tax," dated September 7, 2016 are used. Presented in Table II-3 are the projects which include two high schools and three elementary schools. The cost per student station ranged from a low of $26,600 to a high of $31,200 with a weighted average cost of $28,338 per student station. These cost figures do not include land value, transportation and ancillary facility costs, and are considered to be conservative estimates.

Appendix B provides additional information on cost trends for reference.

Table II-3

School Facility Cost per Student Station

Cost Component	Total Cost[1]	FISH Capacity (Student Stations)[2]	Total Cost per Station[3]
Palm Beach County FY 2017 - 2027 Capital Plan, Including Sales Tax			
Greater WPB/Lake Worth Area High School	$56,070,000	1,800	$31,150
Western Communities High School	$68,925,600	2,500	$27,570
Scripps / Gardens Area Elementary School	$26,423,771	970	$27,241
Southwest Area Elementary School	$25,792,592	970	$26,590
Western Communities Elementary School	$27,104,711	970	$27,943
Total/Weighted Average	**$204,316,674**	**7,210**	**$28,338**

(1) Source: Palm Beach County Capital Plan, 2017 - 2027 (Including Sales Tax); September 7, 2016
(2) Source: Palm Beach County School District
(3) Total cost (Item 1) divided by FISH Capacity (Item 2)

Total Facility Cost per Student by School Type

The total facility impact cost per student is based on the facility cost per student station figures derived in Table II-3, and is typically calculated by multiplying the cost per student station by the number of total permanent stations and dividing by current student enrollment. This adjustment of dividing 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. This calculation accounts for the current availability or shortage in permanent capacity and adjusts the costs accordingly. If there is available capacity (e.g., currently more permanent student stations than expected students), then the total facility cost per student increases because the cost of building available capacity is being recouped. Similarly, if there are currently more students enrolled than available capacity, the cost per student is adjusted downward.

As presented in Table II-4, in the case of Palm Beach County, there is approximately 13 percent available capacity. Although there is available capacity countywide, because the District is intending to change its adopted LOS standard to 100 percent, the cost per student station calculated in Table II-3 also represents the facility cost per student and results in a more conservative impact fee.

More specifically, the District's current adopted LOS standard for concurrency purposes has a tiered system where the school utilization could reach 110 percent to 120 percent of FISH capacity. However, the District intends to adopt an LOS standard of 100 percent to be able to provide students with satisfactory stations and accommodate State-mandated class size requirements. It is important to note that the school system in Florida is the only public service that has State-mandated level of service requirements. Article IX, Section 1 of the State of Florida Constitution states that beginning with the 2010 school year, a sufficient number of classrooms needs to be provided to accommodate the following:

- A maximum of 18 students per classroom for pre-kindergarten through grade 3;
- A maximum of 22 students per classroom for Grades 4 through 8; and
- A maximum of 25 students per classroom for Grades 9 through 12.

Palm Beach County School District fully complied with class size requirements since 2011-12 school year. Although the District uses available mitigation options such as the allocation of additional teachers in KG through 3rd grade and extra period supplements for select teachers at the middle and high school level, combining classes of multiple grade levels as well as gifted and high performing students, etc., adoption of an LOS standard of 100 percent will assist the District in complying with State requirements.

Table II-4
Total Impact Cost per Student

Calculation Step	Weighted Average / Total
Facility Impact Cost per Student	
Facility Cost per Student Station[(1)]	$28,338
Existing (2014) Permanent Capacity[(2)]	183,580
Existing (2014) Student Enrollment[(3)]	163,039
Ratio of Existing Permanent Capacity to Existing Enrollment[(4)]	113%
LOS Standard [(5)]	100%
Final Ratio of Permanent Capacity to Enrollment Used for Impact Fee Calculations[(6)]	100%
Total Facility Impact Cost per Student[(7)]	**$28,338**

(1) Source: Table II-3
(2) Source: Appendix B, Table B-1
(3) Source: Palm Beach County School District, includes traditional school students and alternative education students housed at the schools listed in Appendix B, Table B-1
(4) Existing capacity (Item 2) divided by existing student enrollment (Item 3)
(5) Source: Palm Beach County School District
(6) Used the LOS standard the District intends to adopt since it is lower than the achieved LOS in terms of available capacity (Item 4)
(7) Facility cost per student station (Item 1) multiplied by the final ratio used in the calculations (Item 6)

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 revenue credits will be calculated for cash expenditures as well as debt service funding.

Capital Improvement Credit

The Florida Statutes authorize several sources of revenue for school districts, such as Public Education Capital Outlay (PECO) and Capital Outlay & Debt Service (CO & DS) that can be used for the construction of capital facilities. With regard to State revenue, over the past five years, the District used these resources almost exclusively for non-capacity capital projects. The primary revenue sources for capacity projects were the School Capital Outlay Surtax (0.5% sales tax) and capital improvement tax. Because the sales tax has expired in 2010 and the associated fund balance is already depleted, a credit is not given for this revenue source. In addition, Palm Beach County voters approved a local infrastructure surtax in November of 2016. However, according to the School District, the future capacity projects listed in Table II-3 are more likely to be funded with COPs or other financing, rather than the sales tax revenues.

The capital improvement revenue credit per student is calculated by dividing the total amount of capital revenue by the average enrollment during this ten-year period. As presented in Table II-5**,** the resulting capital improvement revenue available for the capital expansion of public schools in Palm Beach County $12 per student per year.

Once the capital improvement credit per student is calculated, a credit adjustment is made for the portion of the capital expansion credit per student funded with ad valorem revenues. The credit is adjusted to account for the fact that new homes tend to pay higher taxes per dwelling unit. This adjustment factor was estimated based on a comparison of the average taxable value of homes built over the past five years to that of all homes. As shown in table II-5, this adjusted credit amounts to $21 per student per year.

Finally, the total credit over a 25-year period, which is considered to be the time frame when major repairs or replacement is needed for structures built, is estimated at $296 per student.

Table II-5
Revenue Credit per Student

Project Type	2010-2014	2015-2019	Total
Capital Improvement Tax/Local Funding [(1)] **:**			
Additions	$13,316,424	$1,706,210	$15,022,634
New Schools	$158,576	-	$158,576
Site Acquistions	$4,236,184		$4,236,184
Ancillary Facility Construction	$135,793	-	$135,793
Subtotal - Local Funding	**$17,846,977**	**$1,706,210**	**$19,553,187**
State Funding [(1)] **:**			
Additions	$2,861		$2,861
New Schools	-	-	$0
Site Acquistions	-	-	$0
Ancillary Facility Construction	-	-	$0
Subtotal - State Funding	**$2,861**	**$0**	**$2,861**
Total Expenditures	**$17,849,838**	**$1,706,210**	**$19,556,048**
Average Annual Expenditures[(2)]			$1,955,605
Average Enrollment[(3)]			162,773
Revenue Credit per Student[(4)]			**$12**
Credit Adjustment Factor[(5)]			1.75
Adjusted Revenue Credit per Student[(6)]			**$21**
Capitalization Rate[(7)]			5.0%
Capitalization Period, Years[(8)]			25
Present Value of Capital Improvement Revenue Credit per Student[(9)]			**$296**

(1) Source: Palm Beach County School District, expenditures shown represent cash payments during the indicated time period and excludes portions that were funded with bond issues or impact fee revenues, or outside of the time frame indicated.
(2) Total expenditures divided by 10 to calculate the average annual expenditures
(3) Source: Table II-1
(4) Average annual expenditures (Item 2) divided by the average enrollment (Item 3)
(5) Adjustment factor to reflect higher ad valorem taxes paid by new homes
(6) Revenue credit per student (Item 4) multiplied by the credit adjustment factor (Item 5)
(7) Interest rate the District is likely to pay for future bonds, estimated based on interest rate on recent COPs issues
(8) Time period after which major repairs are needed
(9) Present value of adjusted revenue credit per student (Item 6) at 5.0% interest rate (Item 7) over a 25-year capitalization period (Item 8)

Debt Service Credit per Student

The District has been using Certificates of Participation (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 COPs, a credit is calculated for future debt service payments related to capacity expansion projects. The District uses primarily local capital outlay millage to pay the debt service.

A revenue credit is calculated for the remaining portion of each outstanding COP/bond issue used to fund capacity expansion projects that will be paid back with non-impact fee revenue sources. The remaining payments were brought back to present value, based on the remaining number of years and average annual interest rate. A similar adjustment made to the capital expansion credit is needed for the debt obligations being repaid with ad valorem revenues. As presented in Table II-6, the debt service credit is $6,235 per student.

Table II-6
Debt Service Credit per Student

Description	Number of Years of Remaining Payments[1]	Remaining Payments Due for Expansion[2]	Present Value of Total Remaining Payments[3]	Average Annual Enrollment[4]	Debt Service Credit per Student[5]
Certificates of Participation					
COPS 2002E Issue	1	$2,366,203	$2,275,195	163,218	$14
COPS 2003B Issue	14	$41,308,033	$27,716,965	173,861	$159
COPS 2005A Issue	7	$86,598,489	$74,255,040	167,871	$442
COPS 2006A Issue	16	$39,509,593	$27,446,758	175,481	$156
COPS 2007A Issue	16	$45,266,722	$29,392,802	175,481	$167
COPS 2007C Issue	12	$162,780,792	$114,143,270	172,226	$663
COPS 2007E Issue	17	$92,541,941	$61,643,451	176,287	$350
COPS 2011A Issue	17	$66,963,016	$41,490,004	176,287	$235
COPS 2011C Issue	3	$5,632,377	$5,491,300	164,107	$33
COPS 2011D Issue	6	$23,523,382	$21,660,340	166,875	$130
COPS 2012A Issue	13	$17,246,326	$10,624,966	173,046	$61
COPS 2012B Issue	13	$88,854,952	$56,722,024	173,046	$328
COPS 2012C Issue	14	$15,662,465	$11,145,751	173,861	$64
COPS 2014A Issue	12	$57,091,325	$41,332,890	172,226	$240
COPS 2014B Issue	10	$107,742,605	$83,524,519	170,554	$490
QZAB 2002 Issue	1	$135,714	$135,714	163,218	$1
QZAB 2004 Issue	5	$882,711	$882,711	165,905	$5
QZAB 2005 Issue	6	$753,399	$753,399	166,875	$5
COBI 2011A Issue	8	$4,026,725	$3,415,215	168,803	$20
Total Debt Service Credit per Student					**$3,563**
Credit Adjustment Factor[6]					1.75
Adjusted Total Debt Service Credit per Student[7]					**$6,235**

(1), (2) Source: Palm Beach 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 II-1
(5) Present value of total remaining payments (Item 3) divided by the average annual enrollment over the life of the remaining payments (Item 4)
(6) Adjustment factor to reflect higher ad valorem taxes paid by new homes
(7) Total debt service credit per student multiplied by the credit adjustment factor (Item 6)

Net Impact Cost per Student

The net impact fee per student is the difference between the cost component and the credit component. Table II-7 summarizes the three-step process used to calculate the net impact cost per student for public schools in Palm Beach County.

First, the total impact cost per student is determined, which is the weighted average facility impact cost per student from Table II-4.

Second, the total revenue credit per student is determined. This is the sum of the capital improvement credit per student and the debt service credit per student presented in Tables II-5 and Table II-6.

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. As presented, this calculation amounts to $21,807 per student.

Table II-7
Net Impact Cost per Student

Total Impact Cost	Per Student
Total Impact Cost[1]	$28,338
Revenue Credit	**Per Student**
Capital Improvement Credit[2]	$296
Debt Service Credit[3]	$6,235
Total Revenue Credit[4]	**$6,531**
Net Impact Cost	**Per Student**
Net Impact Cost[5]	**$21,807**

(1) Source: Table II-4
(2) Source: Table II-5
(3) Source: Table II-6
(4) Sum of capital improvement per student and debt service credit per student (Items 2 and 3)
(5) Total impact cost per student (Item 1) less total revenue credit per student (Item 5)

Student Generation Rates

To be consistent with the County's current land use schedule for public educational facilities impact fees, the student generation rate analysis conducted is based on all residential land use categories combined and tiered by size, including:

- 800 square feet and under;
- 801 to 1,399 square feet;
- 1,400 square feet to 1,999 square feet;
- 2,000 to 3,599 square feet; and
- 3,600 square feet or more.

This impact fee study employs a methodology using Geographic Information Systems (GIS) to develop the student generation rate for Palm Beach County. Specifically, GIS was used to link student addresses to parcels in the Palm Beach County Property Appraiser's database in order to generate the number of students per unit by school type based on the 2013 tax roll. This process is described in more detail in the following sections.

Determination of Total Housing Units

For the purposes of this analysis, the number of building units for each land use obtained from the Palm Beach County Property Appraiser's database was supplemented by additional analysis and counts provided by the Property Appraiser's Office to ensure all relevant units were included. In addition, an effort was made to exclude age restricted units since these do not generate students and are not subject to the school impact fee.

Determination of Students by School Type and Land Use

The determination of the number of students by type of school (e.g., elementary, middle, and high school) for traditional schools was completed using the following process.

First, Palm Beach County School District provided a GIS shapefile containing geocoded student addresses. Then, the student addresses were linked to their respective parcels in the Property Appraiser database using address point data.

The student generation rates used as the demand component for the impact fee only includes those students for which the impact fee is based, or students attending traditional schools listed in Appendix B, Table B-1. Therefore, the school code associated with each student record was used to exclude students attending schools or other facilities not included in the

impact fee inventory, such as charter schools, private schools, etc. In addition, the grade level field for each student record was used to calculate the student generation rates by school type (e.g., elementary, middle, high).

As previously mentioned, once the GIS shapefile with the geocoded student addresses was provided, the second step in the analysis was to link each student address to data from the parcel database. This allows for determining building characteristics (such as size of unit) of a given parcel (or address) where a student lives. This was accomplished by spatially joining the student address to the respective parcel in the database using GIS. Based on this analysis, over 94 percent of the student addresses were able to be matched to the properties in the Palm Beach County Property Appraiser's database and 93 percent were linked to a residential land use. The Parcel ID's associated with the remaining student addresses were either not found or suggested a non-residential land use. The result of this analysis is presented in Table II-8.

Table II-8
Student Generation Rates

Traditional Schools			
Residential Land Use	**Total Housing Units[(1)]**	**Number of Students[(2)]**	**Students per Unit[(3)]**
Residential			
800 sf & Under	68,643	7,816	0.114
801 to 1,399 sf	249,453	52,244	0.209
1,400 to 1,999 sf	129,231	38,444	0.297
2,000 to 3,599 sf	135,728	43,266	0.319
3,600 sf or more	60,259	18,945	0.314
Total/Weighted Average	**643,314**	**160,715**	**0.250**

(1) Source: Palm Beach County Property Appraiser, excludes age-restricted units
(2) Source: Palm Beach County
(3) Number of Students (Item 2) divided by the number of units (Item 1)

Calculated Public Education Facilities Impact Fee Schedule

To determine the calculated school impact fee for each square footage tier, the net impact cost per student is multiplied by the student generation rates previously shown. The resulting calculated impact fees are presented in Table II-9. The change in impact fees is due primarily to policy decisions that were incorporated into the calculations during the previous update study.

Table II-9
Calculated Public Education Facilities Impact Fee Schedule

Residential Land Use	Unit	Students per Unit[1]	Net Impact Cost per Student[2]	Total Impact Fee[3]	Current Adopted Fee[4]	Percent Change[5]
Residential						
800 sf & Under	du	0.114	$21,807	**$2,486**	$793	213%
801 to 1,399 sf	du	0.209	$21,807	**$4,558**	$1,593	186%
1,400 to 1,999 sf	du	0.297	$21,807	**$6,477**	$1,710	279%
2,000 to 3,599 sf	du	0.319	$21,807	**$6,956**	$1,866	273%
3,600 sf or more	du	0.314	$21,807	**$6,847**	$1,776	286%

(1) Source: Table II-8
(2) Source: Table II-7
(3) Students per unit (Item 1) multiplied by the net impact cost per student (Item 2)
(4) Source: Palm Beach County Department of Planning, Zoning, and Building
(5) Percent change from the current adopted fee (Item 4) to the total impact fee (Item 3)

Public Education Facilities Impact Fee Schedule Comparison

As part of the work effort in updating Palm Beach County's school impact fee program, a comparison of school impact fees for Palm Beach County is made to impact fees adopted by other counties throughout Florida has been prepared**.** Table II-10 presents this comparison. For those where the information was available, the percentage that the impact fee was adopted at is also shown.

Table II-10
Public Education Facilties Impact Fee Schedule Comparison

County[1]	Date of Last Update[2]	Adoption Percent[2]	Size of Home: 2,000 sf		Size of Home: 1,100 sf		Size of Home: 900 sf	
			Single Family (per du)		Multi-Family Apt. (per du)		Mobile Home Park (per pad/space)	
			Adopted Fee[2]	Fee @ 100%[3]	Adopted Fee[2]	Fee @ 100%[3]	Adopted Fee[2]	Fee @ 100%[3]
Miami-Dade County	1995	100%	$2,448	$2,448	$2,448	$2,448	$2,448	$2,448
Citrus County	2014	50%	$1,261	$2,522	$1,295	$2,590	$1,307	$2,613
Nassau County	2011	100%	$3,268	$3,268	$3,268	$3,268	$3,268	$3,268
Hillsborough County	2004	92%	$4,000	$4,348	$2,793	$2,793	$2,357	$2,357
Volusia County	2013	67%	$3,000	$4,483	$3,000	$4,483	$3,000	$4,483
Palm Beach County (Current)	**2012**	**95%**	**$1,866**	**$1,964**	**$1,593**	**$1,677**	**$1,593**	**$1,677**
Lee County	2015	45%	$2,468	$5,484	$955	$2,123	$532	$1,182
St. Johns County[6]	2018	100%	$4,725	$4,725	$2,625	$2,625	$2,625	$2,625
Flagler County	2004	76%	$3,600	$4,756	$931	$1,231	$1,066	$1,409
St. Lucie County[4]	2009	100%	$6,426	$5,447	$3,286	$2,787	$1,854	$1,572
Martin County	2006	100%	$5,567	$5,567	$5,355	$5,355	$5,355	$5,355
Indian River County	2014	28%	$1,702	$6,077	$668	$2,387	$1,026	$3,665
Manatee County	2017	100%	$6,127	$6,127	$3,502	$3,502	$1,971	$1,971
Palm Beach County (Calculated)[8]	**-**	**N/A**	**$1,866**	**$6,956**	**$1,593**	**$4,558**	**$1,593**	**$4,558**
Hernando County	2013	30%	$2,133	$7,103	$1,680	$5,977	$955	$955
Marion County[4]*	2006	48%	$3,967	$7,375	$2,166	$4,025	$3,461	$6,433
Sarasota County	2015	26%	$2,032	$7,835	$561	$2,165	$188	$722
Orange County	2016	100%	$8,784	$8,784	$5,919	$5,919	$6,088	$6,088
Pasco County	2017	79%	$7,128	$9,028	$4,182	$5,295	$4,377	$5,544
Broward County[5]	2017	N/A	$6,756	$9,049	$1,131	$1,967	$3,044	$3,688
Clay County	2009	77%	$7,034	$9,096	$3,236	$4,184	$5,979	$7,732
Lake County	2015	100%	$9,324	$9,324	$8,045	$8,045	$5,856	$8,045
Brevard County	2015	50%	$5,097	$10,193	$1,941	$3,881	$1,257	$2,513
Polk County	2015	50%	$5,242	$10,484	$3,348	$6,697	$4,243	$8,487
Collier County[4]	2015	67%	$8,790	$11,164	$2,844	$3,612	$7,238	$9,194
Osceola County[7]	2017	100%	$11,823	$11,823	$11,362	$11,362	$7,672	$7,672
Seminole County	2017	73%	$9,000	$12,322	$8,700	$11,929	$4,700	$6,493

(1) County's tagged with an asterisk (*) have fees that are currently suspended
(2) Source: Published impact fee schedules and discussions with representatives from each County
(3) Represents the full calculated fee from each respective technical study
(4) Fees are indexed annually
(5) Rates shown under Single Family Impact Fee at 100% (Item 3) reflect most recent on-going technical study
(6) Impact fee shown was adopted on March 15, 2018 and will go into effect on July 2, 2018
(7) Rates shown were adopted on March 12, 2018 and will go into effect on June 12, 2018
(8) Source: Table II-10

III. Parks & Recreation Impact Fee

This section discusses the analysis used in the update of the parks and recreation impact fee. To update the parks and recreation impact fee schedule, there are several major elements that need to be addressed, including:

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

These elements are summarized throughout this section, with the result being the proposed parks and recreation impact fee schedule.

Inventory of Land and Recreation Facilities

Palm Beach County parks inventory used to calculate the impact fee includes regional, beach and district parks. Smaller parks such as community and neighborhood parks, are not included in the inventory because of their limited service areas. Total acreage associated with the parks in the inventory includes 5,493 developed acres and 7,917 total acres.

Service Area and Population

Palm Beach County provides regional, beach, and district parks; as well as, recreation facilities and services throughout the entire county. As a result, the parks and recreation impact fee analysis will utilize countywide population figures. Appendix A, Table A-1, provides the estimated countywide area population for 2014 and the projected population through 2040. Appropriate benefit districts for parks and recreation facilities are addressed at the end of this section. Additionally, parks 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.

Level of Service

As shown in Table III-1, the achieved LOS for all county-owned and maintained parks is higher than the adopted LOS standard for all park types. Currently, the achieved LOS ranges from 0.33 total acres per 1,000 residents for beach parks to 3.76 total acres per 1,000 residents for regional parks. Additionally, the achieved LOS for developed acres ranges from 0.21 acres per 1,000 residents for beach parks to 2.68 acres per 1,000 residents for regional parks. For all park types, the achieved LOS is 5.48 total acres per 1,000 residents and 3.81 developed acres per 1,000 residents. Because the adopted LOS standards are lower than achieved LOS, adopted standards are used for the remaining impact fee calculations. This is to ensure that new development is not overcharged since the County's adopted standards suggest some of the existing capacity is due to temporal fluctuations and the County does not intend to maintain the current achieved LOS.

For the purposes of impact fee calculations, LOS is generally measured in terms of the net capital asset value per resident. However, for planning and tracking purposes, it is typically attached to acreage in the case of parks impact fees.

Table III-1

Current Level of Service

Park Classification	Acres[1]	Achieved LOS[2]	Adopted LOS Standard[3]
	Total Acres		
Regional	5,434.82	3.76	3.31
Beach	471.77	0.33	0.29
District	2,010.35	1.39	1.22
Total	**7,916.94**	**5.48**	**4.82**
	Developed Acres		
Regional	3,867.93	2.68	2.43
Beach	296.14	0.21	0.18
District	1,329.19	0.92	0.82
Total	**5,493.26**	**3.81**	**3.43**
2014 Countywide Service Area Population[4]		1,443,996	

(1) Source: Palm Beach County
(2) Source: Acres for each park type (Item 1) divided by 2014 population (Item 4) multiplied by 1,000
(3) Source: Palm Beach County 2030 Comprehensive Plan, Recreation and Open Space Element
(4) Source: Appendix A, Table A-1

Table III-2 presents a comparison of the parks and recreation adopted LOS standards of other Florida counties to Palm Beach County's adopted and achieved LOS. Based on this comparison, Palm Beach County's both achieved LOS and adopted LOS standard are within the range of the standards adopted by other communities.

Table III-2
Level of Service Comparison (Adopted)

Jurisdiction	LOS Standard (Acres per 1,000 Residents)
Miami - Dade County[1]	2.75
Martin County[2]	3.00
Collier County[3]	3.90
Hendry County[4]	4.00
Palm Beach County (Adopted)[5]	**4.82**
Palm Beach County (Achieved)[6]	**5.48**
Okeechobee County[7]	5.50
Broward County[8]	6.00
Orange County[9]	7.50
Highlands County[10]	10.00
Hillsborough County[11]	25.20
St. Lucie County[12]	28.70
Average (excluding PBC)	**9.66**

(1) Source: Miami-Dade County Comprehensive Development Master Plan; 2.75 acres for Local parks
(2) Source: Martin County FY 2015 Capital Improvement Plan; 3.0 acres for developed active parkland
(3) Source: Collier County Annual Update and Inventory Report; 1.2 acres for community parks and 2.7 acres for regional parks
(4) Source: Hendry County Comprehensive Plan; 2.0 acres or greater for community parks and 2.0 acres or greater for neighborhood parks
(5) Source: Table III-1
(6) Source: Table III-1
(7) Source: Okeechobee County Parks & Recreation Master Plan; 5.5 acres for all parks
(8) Source: Broward County Comprehensive Plan; 3.0 acres for local parks and 3.0 acres for regional parks
(9) Source: Orange County Comprehensive Plan (2010 - 2030); 1.5 acres for activity based parkland and trails and 6.0 acres for publicly owned resource based parkland
(10) Highlands County 2030 Comprehensive Plan; 10 acres for developed parkland
(11) Comprehensive Plan for Unincorporated Hillsborough County Florida; 1.6 acre for neighborhood parks, 1.6 acres for district parks, 20 acres for regional parks, and 3.4 acres for local parks
(12) Source: St. Lucie County Comprehensive Plan; 5.0 acres for community parks, 2.5 acres for regional parks, and 21.2 acres for resource-based parks

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. Based on direction from the County, land cost is not included in the cost component of the impact fee calculations, resulting in a conservative fee.

Park Development and Recreational Facility Costs

Recreational facility costs include site development/preparation, design/architectural, construction, and other related costs. These costs can vary greatly, depending on the type of services offered at each park. In addition, recreational facility costs tend to vary depending on the facility characteristics, size and scope.

Park development and recreational facility costs were estimated based on historical data provided by the County's Parks and Recreation Department and were estimated at $200,000 per acre for district parks, $80,000 per acre for regional parks, and $640,000 per acre for beach parks. Appendix C provides further detail on these estimates.

As presented in Table III-3, the total park facility value is $309 million for regional parks, $190 million for beach parks, and $266 million for district parks, for a total of $765 million, including site development, facilities, equipment, and architecture and engineering (A&E) costs. This cost results in an overall value of approximately $96,600 per acre and $466 per resident.

Table III-3
Facility Cost per Resident

Variable/Calculation Step	Park Type			
	Regional	Beach	District	Total/ Weighted
Total Acres[1]	5,434.82	471.77	2,010.35	7,916.94
Park Development and Facility Value:				
Park Development and Facility Value per Developed Acre[2]	$80,000	$640,000	$200,000	$139,226
Developed Acres[3]	3,867.93	296.14	1,329.19	5,493.26
Total Facility Value[4]	**$309,434,400**	**$189,529,600**	**$265,838,000**	**$764,802,000**
Total Facility Value per Acre[5]	$56,936	$401,742	$132,235	$96,603
Adopted LOS Standard[6]	3.31	0.29	1.22	4.82
Total Land and Facility Value per Resident[7]	**$188.46**	**$116.51**	**$161.33**	**$466.30**

(1) Source: Table III-1
(2) Source: Appendix C
(3) Source; Table III-1
(4) Park development and facility value per developed acre (Item 4) multiplied by developed acres (Item 5)
(5) Total facility value (Item 4) divided by total acres (Item 1)
(6) Source: Table III-1
(7) Total facility value per acre (Item 5) multiplied by the adopted LOS standard (Item 6) divided by 1,000

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 related to Palm Beach County's parks and recreation program.

Capital Expansion Expenditures Credit

Between 2009 and 2014, Palm Beach County spent a total of approximately $11.0 million for capital expansion of parks. These expenditures were funded with grants, ad valorem tax revenues, and other general revenues. Since the review of these expenditures spanned 2009 through 2014, the average annual capital expansion cost is divided by the average population for this same period. As presented in Table III-4, the average annual capital expansion expenditure is $1.29 per resident.

In addition to ad valorem revenues and capital grants, the County will also use sales tax revenue to fund capacity projects. On November 8, 2016, voters approved a one-cent Local Government Infrastructure Surtax, which became effective on January 1, 2017 for 10 years

(to expire on December 31, 2026). Given that this new revenue source will fund certain parks and recreation facility capacity projects, an additional credit is calculated and is summarized in Table III-5. As shown, four capital expansion projects associated with parks and recreation facilities will require funding of $23 million. Dividing the total programmed expenditures by the average annual population over the same time period (2017 through 2026) amounts to an average annual capital expansion credit of $1.46 per resident.

Table III-4

Parks & Recreation Capacity Expansion Funding Sources (Non-Local Government Infrastructure Surtax Projects)

Project Description[1]	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Total
Grants/Florida Boating Improvement Program (FBIP)							
John Prince Park Improvements Phase IV	$136,000	-	$136,120	$63,880	-	-	$336,000
Lake Ida Park Spraypark & Playground	$136,000	-	-	-	-	-	$136,000
Riverbend/ Reese Grove Park Phase III	-	$281,000	-	-	-	-	$281,000
Okeeheelee South Park Development Phase III	-	-	-	-	$34,380	-	$34,380
Burt Reynolds Park West Side Expansion	-	-	-	-	$50,000	-	$50,000
Subtotal -- Expenditures Funded with Grants	**$272,000**	**$281,000**	**$136,120**	**$63,880**	**$84,380**	**$0**	**$837,380**
Other:							
Burt Aaronson South County Regional Phase II	$3,626,640	$3,882,060	-	-	-	-	$7,508,700
Burt Aaronson South County Regional Phase III	$753,000	-	-	-	-	-	$753,000
Burt Reynolds Park West Side Expansion	-	-	-	-	$78,000	-	$78,000
South Bay Boat Ramp Improvements	$400,000	-	-	-	-	-	$400,000
Okeeheelee South Park Development Phase III	-	-	-	-	$97,000	-	$97,000
Subtotal -- Expenditures Funded with General Other	**$4,779,640**	**$3,882,060**	**$0**	**$0**	**$175,000**	**$0**	**$8,836,700**
Ad Valorem/Park Improvement Fund:							
R.G. Kreusler Park Lifeguard/ Restroom Building	-	-	-	-	-	$350,000	$350,000
Riverbend/ Reese Grove Park Phase III	-	-	-	-	-	$24,130	$24,130
Burt Aaronson South County Regional Park Phase III	-	$53,984	$286,496	-	$264,992	-	$605,472
John Prince Park Improvements Phase IV	$57,789	$19,710	$121,180	$101,321	-	-	$300,000
Subtotal -- Expenditures Funded with Ad Valorem	**$57,789**	**$73,694**	**$407,676**	**$101,321**	**$264,992**	**$374,130**	**$1,279,602**
Total	**$5,109,429**	**$4,236,754**	**$543,796**	**$165,201**	**$524,372**	**$374,130**	**$10,953,682**
Average Annual Expenditures[2]							**$1,825,614**
Average Annual Population - Countywide Service Area[3]							**1,413,443**
Average Annual Expenditures per Resident[4]							**$1.29**

(1) Source: Palm Beach County, expenditures shown represent cash payments during the indicated time period and excludes portions that were funded with bond issues or impact fee revenues, or outside of the time frame indicated.
(2) Average annual capital expenditures over the 6-year period
(3) Source: Appendix A, Table A-1
(4) Average annual capital expenditure (Item 2) divided by average annual population (Item 3)

Table III-5
(Local Government Infrastructure Surtax Projects)
Parks & Recreation Capacity Expansion Funding Sources

Project Description[1]	2017-2026
Local Government Infrastructure Surtax:	
John Prince Park - Parks Division Administration Building Addition	$2,500,000
Canyon's District Park New District Park Construction	$12,000,000
Gardens District Park	$5,000,000
Okeeheelee Park South Regional Park Expansion	$3,500,000
Total Capital Expansion Expenditures	**$23,000,000**
Average Annual Expenditures[2]	**$2,300,000**
Average Annual Population - Countywide Service Area[3]	**1,572,570**
Average Annual Expenditures per Resident[4]	**$1.46**

(1) Source: Palm Beach County. Includes capital expansion projects that are to be funded with the new one-cent Local Government Infrastructure Surtax which will expire on December 31, 2026.
(2) Total capital expansion expenditures divided by 10 to calculate the average annual expenditures
(3) Source: Appendix A, Table A-1
(4) Average annual capital expenditure (Item 2) divided by average annual population (Item 4)

Debt Service Credit

Any outstanding bond issues related to the expansion of parks and recreation facilities also will result in a credit to the impact fee. Currently, Palm Beach County is paying for debt service on general obligation bonds used for parks capacity expansion projects.

To calculate the credit of the outstanding loan, the present value of the total remaining payments of the bond issue is calculated and then divided by the average annual population estimated over the remaining life of the bond issue. As presented in Table III-6, the resulting credit is $3.90 per resident.

Once the debt service credit per resident is calculated, because the County is using ad valorem tax revenues to pay the debt service, an adjusted credit figure is calculated. For residential land uses, the debt service credit per resident funded with ad valorem revenues is adjusted to account for the fact that new homes tend to pay higher taxes per dwelling unit. This adjustment factor was estimated based on a comparison of the average taxable value of homes built over the past five years to that of all homes. As presented in Table III-6, the adjusted debt service credit per resident is $6.83.

Table III-6
Debt Service Credit

Description	Total Number of Fiscal Years of Debt Issue[1]	Fiscal Years Remaining[2]	Total Remaining Parks & Rec. Debt Service (Capacity Expansion)[3]	Present Value of Payments Remaining (Capacity Expansion)[4]	Avg Annual Population During Remaining Bond Issue Period[5]	Credit per Resident[6]
General Obligation Bonds, Series 2010	15	11	$7,510,944	$6,027,138	1,546,898	$3.90
Credit Adjustment Factor[7]						1.75
Residential Land Uses -- Adjusted Debt Service Credit per Resident[8]						**$6.83**

(1), (2), (3), (4) Source: Palm Beach County
(5) Source: Appendix A, Table A-1
(6) Present value of payments remaining (Item 4) divided by average annual population (Item 5)
(7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
(8) Debt service credit per resident ($3.90) multiplied by the credit adjustment factor (Item 7)

Net Parks & Recreation Impact Cost per Resident

The net impact fee per resident is the difference between the Cost Component and the Credit Component. Table III-7 summarizes the calculation of the net impact cost per resident.

Table III-7
Net Parks & Recreation Impact Cost per Resident

Impact Cost / Credit Element	Non-Sales Tax Projects	Sales Tax Projects	Total
Impact Cost			
Total Impact Cost per Resident[(1)]			**$466.30**
Revenue Credit			
Avg. Annual Capital Expansion Credit per Resident[(2)]	$1.29	$1.46	-
Capitalization Rate	3.4%	3.4%	-
Capitalization Period (in years)	25	10	-
Capital Expansion Credit per Resident[(3)]	$21.49	$12.20	$33.69
Debt Service Credit per Resident[(4):]			
- Residential Units			$6.83
- Hotel/Motel			$3.90
Net Impact Cost			
Net Impact Cost per Resident[(5)]:			
- Residential Units			**$425.78**
- Hotel/Motel			**$428.71**

(1) Source: Table III-3
(2) Source: Table III-4 (Non-Sales Tax) and III-5 (Sales Tax)
(3) Source: The present value of the capital improvement credit per resident (Item 2) at a discount rate of 3.4% with a capitalization period of 25 years for non-sales tax projects and 10 years for sales tax projects since the infrastructure surtax will expire by the end of 2026.
(4) Source: Table III-6
(5) Total impact cost per resident (Item 1) less capital expansion credit per resident (Item 3) less debt service credit per resident (Item 4)

Calculated Parks & Recreation Impact Fee Schedule

Table III-8 presents the updated parks and recreation impact fee schedule for Palm Beach County, based on the net impact cost per resident figures presented in Table III-7.

Table III-8
Parks & Recreation Impact Fee Schedule

Land Use	Impact Unit	Residents per Unit[(1)]	Net Cost per Resident[(2)]	Total Impact Fee[(3)]	Current Adopted Fee[(4)]	Percent Change[(5)]
Residential:						
800 sf & Under	du	1.48	$425.78	**$630**	$366	72%
801 to 1,399 sf	du	1.92	$425.78	**$817**	$734	11%
1,400 to 1,999 sf	du	2.11	$425.78	**$898**	$788	14%
2,000 to 3,599 sf	du	2.30	$425.78	**$979**	$860	14%
3,600 sf or more	du	2.38	$425.78	**$1,013**	$818	24%
Hotel/Motel	room	1.39	$428.71	**$596**	$273	118%

(1) Source: Appendix A, Tables A-2. For Hotel/Motel, Appendix A, Table A-11.
(2) Source: Table III-7
(3) Residents per unit (Item 1) for each land use category multiplied by the net cost per resident (Item 2)
(4) Source: Palm Beach County Department of Planning, Zoning, and Building
(5) Percent change from the current adopted rates (Item 4) to the calculated total impact fee rate (Item 3)

Parks & Recreation Impact Fee Schedule Comparison

As part of the work effort in updating Palm Beach County's parks & recreation impact fee schedule, the County's calculated impact fee schedule was compared to the adopted fee schedule and those in similar or nearby jurisdictions. Table III-9 presents this comparison.

Table III-9
Parks & Recreation Impact Fee Schedule Comparison

Land Use	Unit[2]	Palm Beach County		Martin County[5]	Broward County[6]	Glades County[7]	Miami-Dade County[8]	St. Lucie County[9]	Collier County[10]	Highlands County[11]	Orange County[12]	Hillsborough County[13]
		Calculated[3]	Existing[4]									
Date of Last Update		-	2012	2012	n/a	2006	n/a	2009	2009	2006	2012	1985
Assessed Portion of Calculated[1]		N/A	95%	100%	n/a	100%	n/a	100%	100%	25%	100%	100%
Residential:												
Single Family (2,000 sq ft)	du	$979	$860	$1,972	$488	$366	$2,960	$1,558	$3,133	$189	$972	$354
Multi-Family (Apt)	du	$817	$734	$1,972	$488	$340	$2,536	$1,390	$1,685	$131	$702	$372
Mobile Home	du	$817	$734	$1,972	$496	$388	$2,960	$1,020	$2,393	$108	$728	$387

(1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
(2) du = dwelling unit
(3) Source: Table III-8. The 801 to 1,399 sf tier is used as a proxy for the multi-family and mobile home categories.
(4) Source: Palm Beach County Department of Planning, Zoning, and Building. The 801 to 1,399 sf tier is used as a proxy for the multi-family and mobile home categories
(5) .Source: Martin County Growth Management Department
(6) Source: Broward County Planning Department. Fees are calculated using a 3 bedroom tier plus administration fees
(7) Source: Glades County Planning Zoning Department. IF moratorium in effect until February 12, 2016
(8) Source: Miami-Dade County Impact Fee Division. Fees shown are an average of the three park districts
(9) Source: St. Lucie County planning & Development Services Department. Fees were adopted at 100% and have since been indexed annually using the CPI.
(10) Source: Collier County Impact Fee Administration Department. Community & Regional park fees are combined.
(11) Source: Municode; Highlands County Code of Ordinances, Section 13-28; IF moratorium in effect through June 30, 2017
(12) Source: Orange County Planning & Development Department
(13) Source: Hillsborough County Development Services Department. Fee shown are an average of four impact fee zones for three bedroom homes.

Parks & Recreation Impact Fee Benefit Districts

Currently, Palm Beach County has four impact fee benefit districts/zones, as illustrated in Article 13, Figure 13.H.3.6-7 of the County's impact fee ordinance. These districts include the western portion of the County, which is not charged parks impact fees.

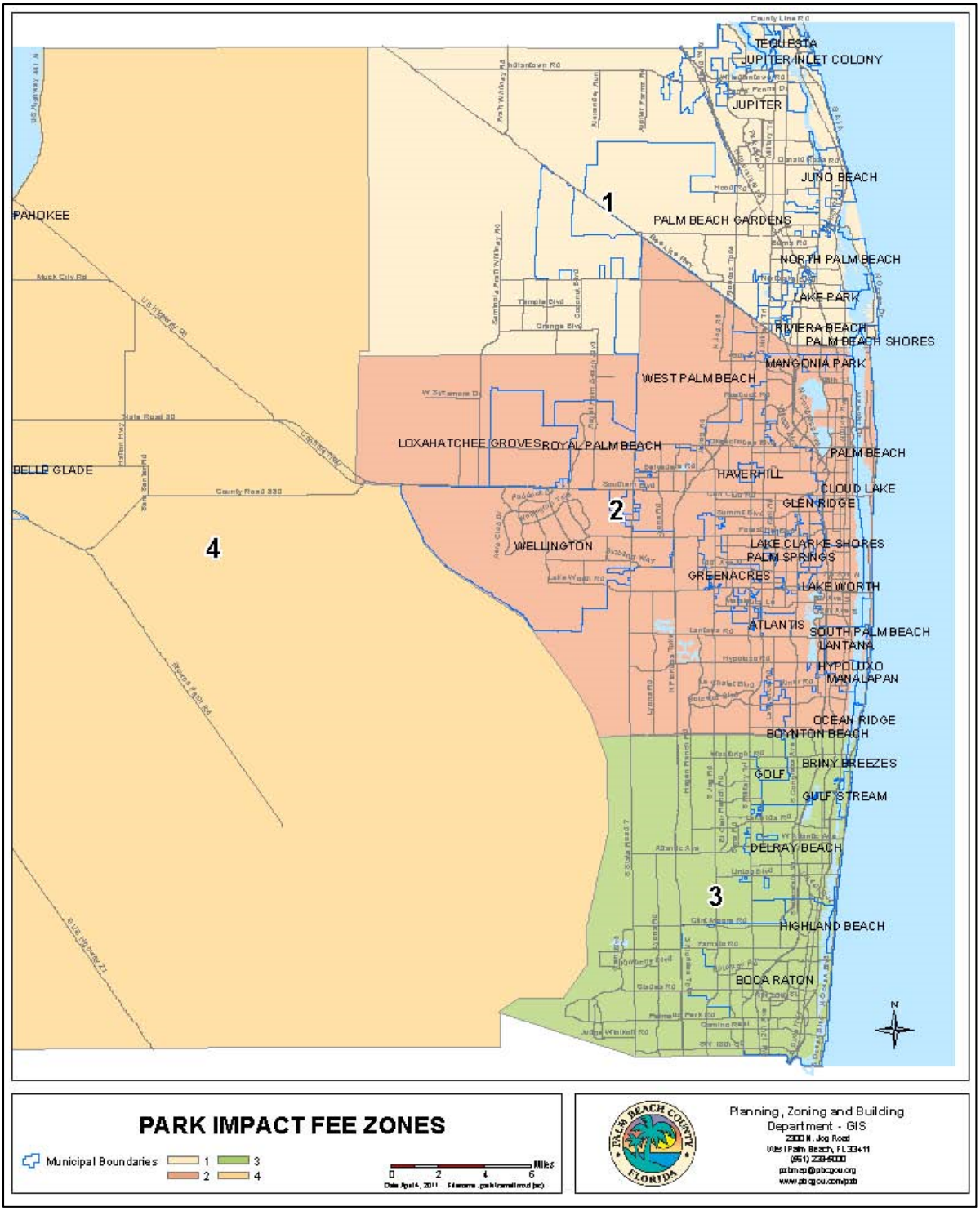
Benefit districts dictate where impact fee revenues can be spent to ensure that fee payers receive the associated benefit. Typically, these boundaries are based on land use patterns, growth rates, major roadway boundaries, and major geographical/environmental boundaries.

As part of this update study, Tindale Oliver reviewed the existing fee district boundaries. In addition to evaluating geographical boundaries, the impact fee revenue and expenditure monies were reviewed to determine the effectiveness of the existing boundaries and discussions were held with Palm Beach County staff to discuss any issues that have arisen due to the current district alignments.

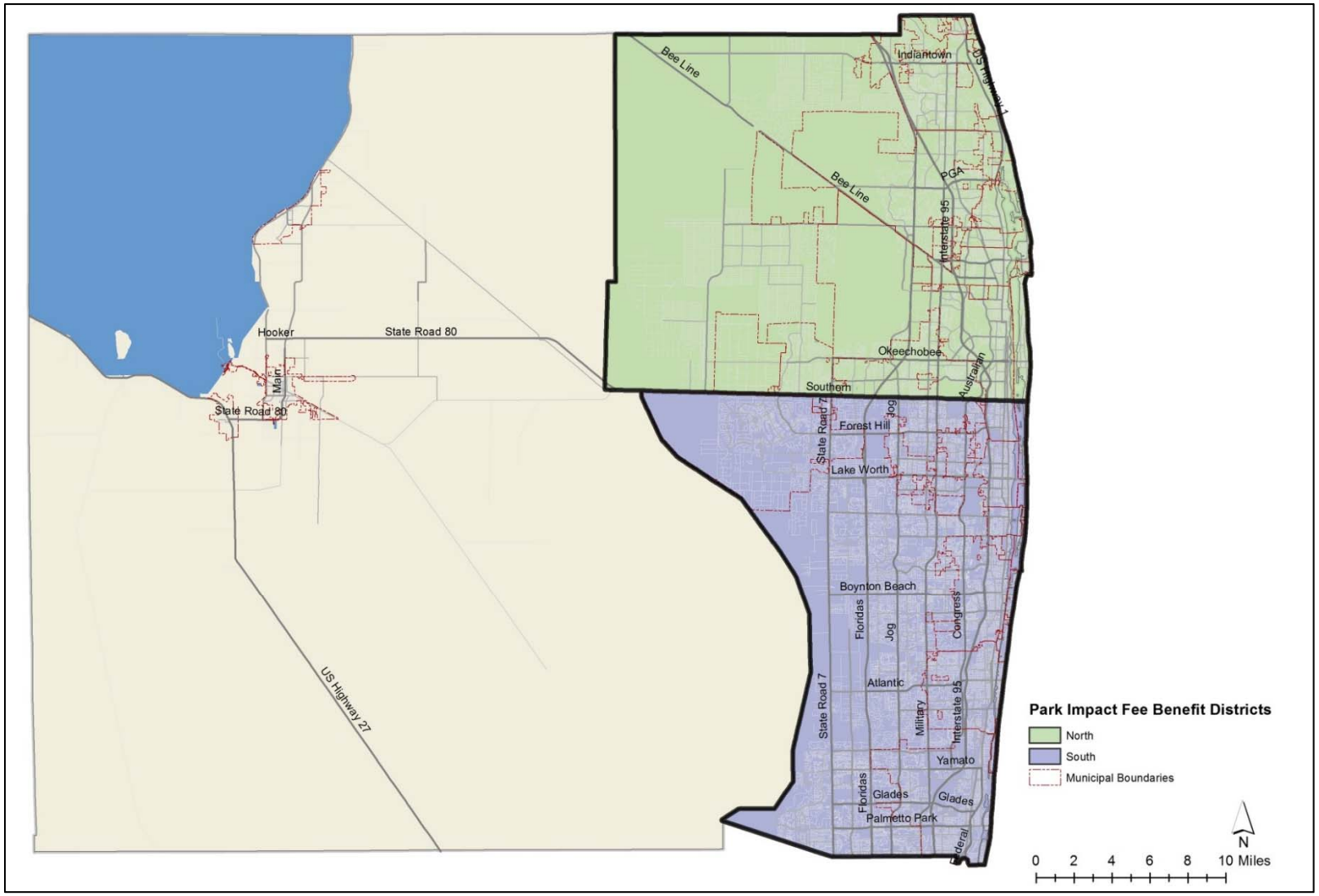
Based on this review and the discussions with staff, it is recommended that there should be a single countywide (excluding the Glades Area) district for regional and beach parks. The characteristics and amenities available at these parks results in a countywide draw. In the case of district parks, the current three districts can be reduced to two benefit districts separated by Southern Boulevard, which divides the county into equal south and north portions.

Map III-1 illustrates the existing benefit districts and Map III-2 presents the proposed change to the District Park benefit districts, as discussed above.

Map III-1
Existing Parks & Recreation Impact Fee Benefit Districts



Map III-2
Proposed District Park Impact Fee Benefit Districts



IV. Public Libraries Impact Fee

Library impact fees are used to fund the capital construction and expansion of library services related buildings, land, and materials/equipment required to support the additional library facilities demand created by new growth. This section provides the results of the library impact fee analysis. There are several major elements associated with the development of the library facilities impact fee:

- Facility Inventory
- Service Area, Benefit Districts, and Population
- Level of Service
- Cost Component
- Credit Component
- Net Public Libraries Impact Cost
- Calculated Public Libraries Impact Fee Schedule
- Public Libraries Impact Fee Schedule Comparison

These various elements are summarized in this section.

Facility Inventory

The Palm Beach County Library Service owns and operates 17 libraries and one support facility, totaling approximately 406,000 square feet.

The following table presents the inventory of library facilities that are owned by the County. The building value is estimated at $300 per square foot for library branches based on recent library construction in Palm Beach County and other Florida jurisdictions, and insurance values of existing libraries. The County recently completed the construction of the Library Annex, and this actual cost ($176 per square foot) is used to determine the value of this building. Land value for library buildings is estimated at $190,000 per acre based on value of current parcels and an analysis of vacant land values and recent vacant land sales in Palm Beach County. Appendix C provides additional information on building and land value estimates.

Table IV-1
Palm Beach County Library Building Inventory

Facility Description	Address	Year Built[1]	Acres[2]	Square Footage[3]	Land Value[4]	Building Value[5]	Total Building and Land Value[6]
Central Area:							
Palm Beach County Library Main Branch	3650 Summit Boulevard	1972	10.30	46,480	$1,957,000	$13,944,000	$15,901,000
Library Annex[7]	4289 Cherry Road	2015	2.03	29,164	$385,700	$5,130,401	$5,516,101
North Area:							
Gardens Branch Library	11303 Campus Drive	1996	6.60	40,000	$1,254,000	$12,000,000	$13,254,000
Wellington Branch Library	1951 Royal Fern Drive	1997	4.13	30,000	$784,700	$9,000,000	$9,784,700
Tequesta Branch Library	461 Old Dixie Highway North	1995	N/A[8]	4,000	N/A	$1,200,000	$1,200,000
Royal Palm Beach Branch Library	500 Civic Center Way	1994	3.53	20,000	$670,700	$6,000,000	$6,670,700
Okeechobee Boulevard Branch Library	5689 Okeechobee Boulevard	1992	2.73	17,000	$518,700	$5,100,000	$5,618,700
Jupiter Branch Library	705 North Military Trail	1992	3.72	22,000	$706,800	$6,600,000	$7,306,800
South Area:							
Glades Road Branch Library	20701 95th Avenue South	1991	4.01	24,000	$761,900	$7,200,000	$7,961,900
Greenacres Branch Library	3750 Jog Road	1992	1.70	17,000	$323,000	$5,100,000	$5,423,000
Boynton Beach Branch Library	9451 Jog Road	1994	2.29	17,538	$435,100	$5,261,400	$5,696,500
Hagen Ranch Road	14350 Hagen Ranch Road	2008	15.03	34,000	$2,855,700	$10,200,000	$13,055,700
Lantana Road Branch	4020 Lantana Road	2009	5.94	29,000	$1,128,600	$8,700,000	$9,828,600
West Boca Branch	18685 State Road 7	2009	20.62	20,000	$3,917,800	$6,000,000	$9,917,800
West Area:							
Clarence E. Anthony Library (South Bay)	375 South West 2nd Avenue	1992	0.59	4,000	$112,100	$1,200,000	$1,312,100
Loula V. York Library (Pahokee)	525 Bacom Point Road	1967	0.44	4,565	$83,600	$1,369,500	$1,453,100
Belle Glade Library	725 NW 4th Street	2013	N/A[9]	17,000	N/A	$5,100,000	$5,100,000
Acreage Library	15801 Orange Blvd.	2012	N/A[8]	30,000	N/A	$9,000,000	$9,000,000
Total			**83.66**	**405,747**	**$15,895,400**	**$118,105,301**	**$134,000,701**
Land Value per Acre[10]					$190,000		
Building Value per Square Foot[11]						$291	

(1) Source: Palm Beach County
(2) Source: Palm Beach County
(3) Source: Palm Beach County
(4) Acres (Item 2) multiplied by land value per acre (Item 10)
(5) Square footage (Item 3) multiplied by $300 per square foot for libraries and the current cost of construction for Library Annex ($176 per square foot)
(6) Sum of land value and building value (Items 4 and 5)
(7) Building value for the Library Annex reflects the current construction cost since the facility is recently built. This facility is not a library branch, but a warehouse facility where all library materials are ordered, received and processed before going out to the branches. The Library System's outreach services are also located in this building, which include youth services, talking books, and books by mail and the bookmobile.
(8) Land is leased
(9) Land is owned by the City of Belle Glade
(10) Based on a review of vacant land sales and values. See Appendix C for further detail.
(11) Based on recent construction, insurance values and other available information. See Appendix C for further detail.

In addition to buildings and land, the Palm Beach County Library System houses a wide variety of materials that are owned by the County and are available to the public. Table IV-2 presents the inventory of library materials.

Table IV-2
Palm Beach County Library Material Inventory

Description	Units[1]	Unit Cost[1]	Total Value[2]
Books:			
Library Books & Publications	1,549,999	$17.57	$27,233,482
Compact Discs/Books on CD	124,535	$19.66	$2,448,358
Digital Video Discs	172,089	$18.73	$3,223,227
Video Cassettes	2,141	$2.64	$5,652
Total - All Library Materials	**1,848,764**		**$32,910,719**
Total Value per Item[3]			**$18**

(1) Source: Palm Beach County
(2) Number of units multiplied by the unit cost
(3) Total value for all library materials divided by the total units for all library materials

The Palm Beach County Library System also owns a variety of equipment, both for public use and for its own operations. Table IV-3 presents the inventory of library equipment.

Table IV-3
Library Equipment Inventory

Equipment	Total Equipment Value[(1)]	Number of Items[(2)]	Unit Cost[(3)]
Alarm System	$3,860	3	$1,287
Aluminum cart	$3,060	1	$3,060
Assistive Listening Apparatus	$2,418	2	$1,209
Battery Charging Station	$1,339	1	$1,339
Belt Sorter System (Cost < $ 25,000)	$39,215	3	$13,072
Belt Sorter System	$2,921,407	14	$208,672
Book Cart	$45,323	20	$2,266
Book Return/ Chute	$48,992	18	$2,722
Burster Machine	$5,800	1	$5,800
Camcorder	$4,555	2	$2,278
Camera Lens (Long Throw)	$3,499	1	$3,499
Canopy	$18,961	2	$9,481
Cassettes	$2,174	1	$2,174
Computer	$738,717	647	$1,142
Computer Networking	$19,003	8	$2,375
Computer Networking (Cost > $ 40,000)	$44,835	1	$44,835
Detection System	$198,806	12	$16,567
Digital Data Manager (Software)	$3,443	1	$3,443
Digital Library Assistant	$110,032	16	$6,877
Digital Matrix Processor	$1,913	1	$1,913
Digital Reader	$9,568	1	$9,568
Disc Dispensing System	$41,194	2	$20,597
Disc Repair Machine	$1,481	1	$1,481
Display Board	$3,430	3	$1,143
Drawing Tablet	$3,678	2	$1,839
Flat Surface Cleaner	$1,091	1	$1,091
Fork Truck	$16,035	1	$16,035
Generator (Cost > $30,000)	$31,559	1	$31,559
Generator	$7,975	2	$3,987
Ladder	$2,957	1	$2,957
Laminator	$9,768	6	$1,628
LAN Station Racks	$1,164	1	$1,164
Large Print Reader	$5,620	3	$1,873
Laser Barcode Scanner	$3,012	2	$1,506
Lockers (Set of 3)	$4,440	2	$2,220
Mailbox/ Sorter	$8,100	5	$1,620
Marker Board	$1,508	1	$1,508
Microfiche Cabinet	$2,755	2	$1,378
Microfiche Table	$2,423	2	$1,211
Microfilm/ Film Cabinet	$20,545	12	$1,712
Microform Reader/Printer	$2,808	2	$1,404

Table IV-3 (Continued)
Library Equipment Inventory

Equipment	Total Equipment Value[1]	Number of Items[2]	Unit Cost[3]
Microfilm/ Fiche Scanning System	$5,101	1	$5,101
Mobile Radio	$3,846	2	$1,923
Monitor	$6,857	4	$1,714
Notebook Security Cabinet	$7,698	5	$1,540
Notebook Security Cart	$10,803	8	$1,350
OCR Decoder	$7,348	6	$1,225
Public Address System	$1,026	1	$1,026
Panaboard	$1,312	1	$1,312
PC Storage	$1,090	1	$1,090
Phone System (Cost < $ 10,000)	$13,667	2	$6,833
Phone System	$506,266	13	$38,944
Pitch Litter (Receptacle)	$14,685	12	$1,224
Portable Radio	$46,725	35	$1,335
Pressure Washer	$1,383	1	$1,383
Printer	$49,153	16	$3,072
Projection Screen	$19,256	11	$1,751
Projector	$67,405	22	$3,064
Refrigerator	$3,100	2	$1,550
RFID Security System Software	$1,500	1	$1,500
Safe	$1,154	1	$1,154
Security Gates	$30,170	2	$15,085
Self Check Station/ System	$147,975	25	$5,919
Server	$139,694	28	$4,989
Sun Server	$84,420	2	$42,210
Shredder	$5,869	4	$1,467
Sorter Machine	$111,135	1	$111,135
Terminal ROM IV	$1,043	1	$1,043
Thomas Bookmobile	$165,060	1	$165,060
TV	$13,637	8	$1,705
Uninterruptible Power Supply (Cost > $19,000)	$19,950	1	$19,950
Uninterruptible Power Supply	$2,225	2	$1,113
Utility Trailer	$2,599	1	$2,599
VCR/DVD Player	$1,394	1	$1,394
Vehicle	$104,276	7	$14,897
Wand#C-125 Recognition	$3,604	2	$1,802
Total - All Items	**$6,000,888**	**1,039**	
Total - All (excluding computers)	**$5,262,171**	**392**	

(1) Source: Palm Beach County
(2) Source: Palm Beach County
(3) Total equipment value (Item 1) divided by number of items (Item 2)

Service Area, Benefit Districts, and Population

Palm Beach County provides library services in the unincorporated area, as well as, in 23 cities located throughout the County. These cities are shown in Appendix A, Table A-17. As such, the appropriate service area as well as the benefit district for library impact fees is the unincorporated county plus these 23 cities, excluding the Glades Area that is exempt from paying impact fees.

Because library impact fees are charged only to residential development, countywide weighted seasonal population is used in the calculation. The County's current population estimates and future population projections are provided in Appendix A, Table A-1.

Level of Service

The following table provides a summary of the current LOS as well as the adopted LOS standards for library buildings, books, other library materials, and computers in Palm Beach County.

As presented in the table, the County's achieved LOS is below the adopted LOS standards for library buildings. As such, for impact fee calculations, the achieved LOS is used in order to ensure new development is not overcharged.

Table IV-4
Current Level of Service (2014)

Item	Sq. Footage/ Count[1]	2014 Population[2]	Achieved LOS (per 1,000 Residents)[3]	Adopted LOS Standard (per 1,000 Residents)[4]	
				2013	2020
Library Buildings (sf)	405,747	952,314	426	490	600
Library Materials (items)	1,848,764	952,314	1,941	2,000	2,500
Computers[5]	647	952,314	0.7	N/A	N/A
Other Library Equipment (items)[5]	392	952,314	0.4	N/A	N/A

(1) Source: Table IV-1 for buildings and Table IV-2 for materials
(2) Source: Appendix A, Table A-1
(3) Square footage/count (Item 1) divided by population (Item 2) multiplied by 1,000
(4) Source: Palm Beach County
(5) Source: Table IV-3, only computers and equipment available for public use are included

A comparison of the current Palm Beach County LOS, the adopted LOS standards, and the suggested State standards are presented in Tables IV-5.

Table IV-5
Comparison of Palm Beach County Current LOS to FL Standards
– Library Materials and Computers

Item	PBC Achieved LOS (per 1,000 Residents)[1]	PBC LOS Standard (per 1,000 Residents)[1]	FL Public Library Standards[2]		
			Essential	Enhanced	Exemplary
Library Buildings (sq. ft.)	426	600	600	650	850
Library Materials[3]	1,941	2,500	2,000	2,500	3,000
Computers	0.7	n/a	0.3	0.5	1.0

(1) Source: Table IV-4
(2) Source: *Standards for Florida Public Libraries, 2004; Updated April 2013*
(3) Library materials include books, online resources, subscriptions, and other library items

Palm Beach County's achieved LOS for buildings and library materials are below the Florida Library Association's (FLA) essential standard. However, the County's LOS for computers exceeds the enhanced standard.

It is important to note that Palm Beach County designed an ambitious expansion program for its library facilities/materials to improve the achieved LOS. The County completed first two phases of its expansion program in 2013, and at the same time, recognized that a Phase III of the Library Expansion Program (LEP III) will be necessary to address the remaining concerns regarding the library service levels.

The following table provides a comparison of the current Palm Beach County LOS to those of surrounding counties as well as other Florida counties with similar population levels. The comparison is based on the information obtained from the *Library Directory with Statistics*, published by the Department of State, Division of Library and Information Services. Palm Beach County's LOS is within the range of its peer group.

Table IV-6
Comparison of LOS (per 1,000 residents)
Palm Beach County and Other Florida Counties

Item	Per 1,000 Residents										
	Palm Beach (Existing)[3]	Martin County	Broward County	Heartland Library Cooperative	Miami-Dade County	St. Lucie County	Collier County	Orange County	Hendry County	Peer Group (Excludes PBC)[4]	FL Counties (Excludes PBC)[5]
Library Buildings (sq. ft.)	426	711	823	390	336	323	543	389	819	561	498
Library Materials[1]	1,941	2,284	1,929	2,245	1,759	985	2,059	1,497	2,657	1,965	1,933
Computers[2]	0.7	1.5	1.1	0.7	1.0	0.4	0.6	0.5	1.2	0.9	0.8

(1) Library materials for PBC include books, CDs, DVDs, videos, print and online resource subscriptions. Library materials for other counties include books, serial subscriptions, audio and video volumes.
(2) Source: Department of State - Division of Library & Information Services, 2012/13 Library Directory with Statistics; Includes public computers ONLY
(3) Source: Table IV-4
(4) Peers group includes jurisdiction's with 750,001+ service area population; PBC is not included
(5) Includes all jurisdictions in Florida; PBC is not included

Cost Component

Costs are calculated separately for facilities and items/equipment. Facility costs are based on the estimated cost to add the next library building, and the cost of library items and equipment is based on the estimated current value per unit.

Buildings and Land

Table IV-7 summarizes the calculation of library facility and land values. The total impact cost or total value per resident for library buildings and land in Palm Beach County is $141.

Table IV-7
Summary of Building and Land Cost per Resident

Element	Figure
Total Building Value [1]	$118,105,301
Total Land Value [2]	$15,895,400
Total Building and Land Value [3]	**$134,000,701**
Building Square Footage [4]	405,747
Total Building and Land Cost per Square Foot [5]	**$330.26**
Achieved LOS (sf per 1,000 residents) [6]	426
Total Building and Land Cost per Resident [7]	**$140.69**

(1) Source: Table IV-1
(2) Source: Table IV-1
(3) Sum of building value (Item 1) and land value (item 2)
(4) Source: Table IV-1
(5) Building and land value (Item 3) divided by building square footage (Item 4)
(6) Source: Table IV-4
(7) Total building and land cost per square foot (Item 5) multiplied by the LOS (Item 6) divided by 1,000

Library Materials and Equipment

The following table provides a summary of library materials and equipment costs per resident, which amounts to $41.

Table IV-8
Library Materials and Equipment Cost per Resident

Element	Figure
Library Materials Value per Item[(1)]	$18
Achieved LOS for Materials per Resident[(2)]	1.941
Library Materials Value per Resident[(3)]	**$34.94**
Computers - Unit Value[(4)]	$1,142
Achieved LOS for Computers per Resident[(5)]	0.0007
Computer Value per Resident[(6)]	**$0.80**
Other Library Equipment Value per Item[(7)]	$13,424
Achieved LOS for Other Library Equipment per Resident[(8)]	0.0004
Other Library Equipment Value per Resident[(9)]	**$5.37**
Total Materials and Equipment Cost per Resident[(10)]	**$41.11**

(1) Source: Table IV-2
(2) Source: Table IV-4
(3) Library materials value per item (Item 1) multiplied by the achieved LOS for materials per resident (Item 2)
(4) Source: Table IV-3
(5) Source: Table IV-4
(6) Unit value of computers (Item 4) multiplied by the achieved LOS for computers per resident
(7) Source: Table IV-3; Total value divided by the number of items available for public use
(8) Source: Table IV-4
(9) Other library equipment cost (Item 7) multiplied by the achieved LOS for other library equipment per resident (Item 8)
(10) Sum of library materials, computer, and other library equipment costs per resident (Items 3, 6, and 9)

Credit Component

To avoid overcharging new development, a review of funding for library capital expansion projects over the past five years and those programmed for the next five years was completed. The purpose of this review was to determine any potential revenues generated by new development, other than impact fees, that are being used or will be used to fund the expansion of capital facilities, land, and materials for the County's libraries program.

Capital Expansion Expenditure Credit

To calculate the capital expansion expenditure credit per resident, the historical capital expansion projects and those programmed in the CIP are reviewed. During the time period

from 2009 through 2018, the County allocated an average annual non-impact fee funding of $431,000 toward library capital facilities.

The annual capital expansion expenditures for library facilities was divided by the average annual population during the same time period in order to calculate the average capital expansion cost per resident. As presented in Table IV-9, the result is an average annual expansion cost of $0.45 per resident.

Once the capital expansion credit per resident is calculated, an adjustment is needed since library projects were funded with ad valorem revenues. This adjustment accounts for the fact that new homes tend to pay higher taxes per dwelling unit and is estimated based on a comparison of the average taxable value of homes built over the past five years to that of all homes. As presented in Table IV-9, the adjusted capital expansion credit per resident is $0.79.

Table IV-9
Library Capital Expansion Funding Sources

Description[1]	FY 2009-2013	FY 2014-2018	Total
Ad Valorem:			
Acreage Branch	$750,780	$0	$750,780
Main Library Expansion	$1,133,697	$0	$1,133,697
West Boca Branch	$230,825	$0	$230,825
West Lantana	$47,613	$0	$47,613
Royal Palm Expansion	$43,987	$0	$43,987
North County Regional Expansion	$200,025	$0	$200,025
Library Annex	$0	$1,906,245	$1,906,245
Total Capital Expansion Expenditures	**$2,406,927**	**$1,906,245**	**$4,313,172**
Average Annual Capacity Expansion Expenditures[2]			**$431,317**
Average Annual Population[3]			**951,657**
Annual Capital Expansion Expenditures per Resident[4]			**$0.45**
Credit Adjustment Factor[5]			1.75
Adjusted Annual Capital Expansion Expenditures per Resident[6]			**$0.79**

(1) Source: Palm Beach County, expenditures shown represent cash payments during the indicated time period and excludes portions that were funded with bond issues or impact fee revenues, or outside of the time frame indicated.
(2) Average annual capital expenditures over the 10-year period
(3) Source: Appendix A, Table A-1
(4) Average annual capacity expansion expenditures (Item 2) divided by average annual population (Item 3)
(5) Adjustment factor to reflect higher ad valorem taxes paid by new homes
(6) Annual capital expansion expenditures per resident ($0.45) multiplied by the credit adjustment factor (Item 5)

Debt Service Credit

Table IV-10 summarizes the outstanding debt service related to library capital expansion projects. The County is currently paying the library debt service obligations with ad-valorem tax revenues. To calculate the credit of the current debt obligations, the present value of the total remaining payments is calculated and then divided by the average annual population estimated over the remaining life of the bond issue. As shown in Table IV-10, the resulting credit for library facilities-related debt is $32.61 per resident.

Similar to the capital expansion credit per resident, because the library debt service is being retired using ad valorem tax revenues, an adjustment of the credit per resident is also necessary. As shown, the adjusted debt service credit per resident amounts to $57.07.

Table IV-10
Palm Beach County Library Debt Service Credit

Description	Total Number of Fiscal Years of Debt Issue[1]	Fiscal Years Remaining[2]	Total Remaining Library Debt Service (Capacity Expansion)[3]	Present Value of Payments Remaining (Capacity Expansion)[4]	Avg Annual Population During Remaining Bond Issue Period[5]	Credit per Resident[6]
Library Expansion General Obligation Bonds, Series 2006	20	11	$19,073,071	$15,607,319	1,022,753	$15.26
General Obligation Refunding Bond, Series 2010	13	9	$19,674,900	$17,553,224	1,011,569	$17.35
Total Debt Service Credit per Resident						**$32.61**
Credit Adjustment Factor[7]						1.75
Adjusted Debt Service Credit per Resident[8]						**$57.07**

(1), (2), (3), (4) Source: Palm Beach County
(5) Source: Appendix A, Table A-1
(6) Present value of payments remaining (Item 4) divided by average annual population (Item 5)
(7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
(8) Credit per resident ($32.61) multiplied by the credit adjustment factor (Item 7)

Net Public Libraries Impact Cost

The net impact fee per residence is the difference between the cost component and the credit component. Table IV-11 summarizes the calculation of the net library impact cost, which amounts to $112 per resident.

Table IV-11
Net Public Libraries Impact Cost

Calculation Step	Figure
Impact Cost	
Building and Land Cost per Resident[(1)]	$140.69
Library Materials Cost per Resident[(2)]	$34.94
Library Equipment Cost per Resident[(3)]	$6.17
Total Impact Cost per Resident	**$181.80**
Revenue Credit per Resident	
Avg Annual Capital Expansion Credit per Resident[(4)]	$0.79
Capitalization Rate	3.4%
Capitalization Period (in years)	25
Capital Expansion Credit per Resident[(5)]	$13.16
Debt Service Credit per Resident[(6)]	$57.07
Total Revenue Credit per Resident[(7)]	**$70.23**
Net Impact Cost per Resident [(8)]	
Net Impact Cost per Resident	**$111.57**

(1) Source: Table IV-7
(2) Source: Table IV-8
(3) Source: Table IV-8 (Sum of library materials value and computer value per resident)
(4) Source: Table IV-9
(5) Average annual capital expansion credit per resident (Item 4) over a capitalization rate of 3.4% for 25 years. Capitalization rate estimate is provided by Palm Beach County and 25 years reflects the time frame when structures start needing major repairs/renovation.
(6) Source: Table IV-10
(7) Sum of the capital expansion credit per resident (Item 5) and the debt service credit per resident (Item 6)
(8) Total impact cost per resident less total revenue credit per resident (Item 7)

Calculated Public Libraries Impact Fee Schedule

The calculated library impact fee for each residential land use is presented in Table IV-12. The net impact cost per resident calculated in the previous section is applied to the average persons per unit by land use.

Table IV-12
Calculated Public Libraries Impact Fee Schedule

Residential Land Use	Residents per Unit [1]	Net Cost per Resident [2]	Total Impact Fee [3]	Current Adopted Fee [4]	Percent Change [5]
Residential					
800 sf & Under	1.54	$111.57	**$172**	$125	38%
801 to 1,399 sf	2.00	$111.57	**$223**	$186	20%
1,400 to 1,999 sf	2.20	$111.57	**$245**	$212	16%
2,000 to 3,599 sf	2.40	$111.57	**$268**	$243	10%
3,600 sf or more	2.49	$111.57	**$278**	$267	4%

(1) Source: Appendix A, Table A-4
(2) Source: Table IV-11
(3) Residents per unit (Item 1) multiplied by net cost per resident (Item 2)
(4) Source: Palm Beach County Department of Planning, Zoning, and Building
(5) Percent change from the current adopted rates (Item 4) to the total impact fee (Item 3)

Public Libraries Impact Fee Schedule Comparison

As part of the work effort in updating Palm Beach County's library impact fee program, a comparison of library facilities impact fee schedules was completed for other Florida counties. Table IV-13 presents this comparison. As presented, Palm Beach County's calculated fee is within the range of fees assessed by other Counties.

Table IV-13
Public Libraries Impact Fee Schedule Comparison

Land Use	Unit[2]	Palm Beach County		Martin County[5]	St. Lucie County[6]	Collier County[7]	Highlands County[8]
		Calculated[3]	Existing[4]				
Date of Last Update		-	2012	2012	2009	2010	2006
Assessed Portion of Calculated[1]		N/A	75%	100%	100%	100%	25%
Residential:							
Single Family (2,000 sf)	du	$268	$243	$527	$220	$315	$61
Multi-Family	du	$223	$186	$527	$143	$160	$42
Mobile Home	du	$223	$186	$527	$173	$237	$34

(1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
(2) du = dwelling unit
(3) Source: Table IV-12. The 801 to 1,399 sf tier is used as a proxy for the multi-family and mobile home categories.
(4) Palm Beach County Department of Planning, Zoning, and Building. The 801 to 1,399 sf tier is used as a proxy for the multi-family and mobile home categories.
(5) Source: Martin County Growth Management Department
(6) Source: St. Lucie County Planning & Development Services Department. Fees were adopted at 100% and have since been indexed annually using the CPI.
(7) Source: Collier County Impact Fee Administration Department
(8) Source: Municode; Highlands County Code of Ordinances, Section 13-28; IF moratorium in effect through June 30, 2017

V. Fire Protection & Rescue Impact Fee

This section provides the results of the fire protection and rescue impact fee analysis. There are several major elements associated with the development of the fire protection and rescue impact fees, including:

- Facility Inventory
- Service Area and Benefit Districts
- Level of Service
- Cost Component
- Credit Calculation
- Net Fire Protection and Rescue Impact Cost
- Demand Component
- Calculated Fire Protection & Rescue Impact Fee Schedule
- Fire Protection & Rescue Impact Fee Schedule Comparison

These various elements are summarized in the remainder of this section. At this time, the County is not collecting this fee.

Facility Inventory

Palm Beach County fire rescue provides fire protection and rescue services from 40 stations that are owned by the County. In addition, Palm Beach County has one administrative/ancillary facility associated with fire rescue services.

Table V-1 presents the fire rescue building and land inventory owned by Palm Beach County. The values of the buildings are based primarily on recent construction in Palm Beach County and other Florida jurisdictions and insurance values of existing buildings. The land value estimates are based on land values of the existing facilities, recent land purchases, and vacant land sales and values of parcels with similar characteristics. A more detailed explanation of building and land value estimates is included in Appendix C.

Table V-1
Land & Buildings Inventory

Facility Description[1]	Location[1]	Year Acquired/ Built[1]	Number of Bays[1]	Square Feet[2]	Acres[3]	Total Square Feet on Site[4]	Allocated Acres[5]	Building Value[6]	Land Value[7]	Total Building and Land Value[8]
Fire Station 14	12015 Indiantown Rd., Jupiter 33478	2010	2	6,485	6.75	6,485	6.75	$1,686,100	$1,012,500	$2,698,600
Fire Station 15	12870 S. U.S. Hwy 1., Juno 33408	1988	5	6,739	0.85	6,739	0.85	$1,752,140	$127,500	$1,879,640
Fire Station 16	3550 Military Trail, Jupiter 33458	2001	2	5,355	1.43	5,355	1.43	$1,392,300	$214,500	$1,606,800
Fire Station 18	777 N. US Hwy 1., Jupiter 33477	2002	2	6,463	N/A[9]	6,463	N/A[9]	$1,680,380	N/A[9]	$1,680,380
Fire Station 19 HQ	322 N. Central Blvd., Jupiter 33458	1998	3	9,620	1.34	9,620	1.34	$2,501,200	$201,000	$2,702,200
Fire Station 20	1000 Greenview Shores Blvd., Jupiter 33458	2003	2	5,355	2.03	5,355	2.03	$1,392,300	$304,500	$1,696,800
Fire Station 21	14200 Okeechobee Blvd., W. Palm Beach 33470	1992	3	6,540	3.32	6,540	3.32	$1,700,400	$498,000	$2,198,400
Fire Station 25	1060 Wellington Trace, Wellington 33414	1979	3	6,892	1.80	6,892	1.80	$1,791,920	$270,000	$2,061,920
Fire Station 26	6085 Avocado Blvd., W. Palm Beach 33411	1997	2	5,268	2.65	5,268	2.65	$1,369,680	$397,500	$1,767,180
Fire Station 27	3411 Southshore Blvd., Wellington 33414	2000	2	5,355	1.00	5,355	1.00	$1,392,300	$150,000	$1,542,300
Fire Station 17	8130 N. Jog Rd., W. Palm Beach 33412	1990	0	1,440	6.00	24,266	0.36	$374,400	$54,000	$428,400
Fire Station 23 HQ	5471 Okeechobee Blvd., W. Palm Beach 33417	2006	3	9,684	3.75	9,684	3.75	$2,517,840	$562,500	$3,080,340
Fire Station 24	1734 Seminole Blvd., W. Palm Beach 33409	1960	3	5,588	0.33	5,588	0.33	$1,452,880	$49,500	$1,502,380
Fire Station 30	9610 Stribling Way., Wellington 33414	2006	2	6,146	2.76	6,146	2.76	$1,597,960	$414,000	$2,011,960
Fire Station 31	3439 Lake Worth Rd., Lake Worth 33461	2012	2	6,222	1.22	6,222	1.22	$1,617,720	$183,000	$1,800,720
Fire Station 32	4022 Charleston St., Lake Worth 33461	2010	2	5,811	0.98	5,811	0.98	$1,510,860	$147,000	$1,657,860
Fire Station 33	830 Kirk Rd., W. Palm Beach 33406	1988	3	7,921	1.99	7,921	1.99	$2,059,460	$298,500	$2,357,960
Fire Station 34 HQ	231 Benoist Farms Rd., W. Palm Beach 33411	1991	3	9,620	5.61	9,620	5.61	$2,501,200	$841,500	$3,342,700
Fire Station 35[13]	2501 W. Lantana Rd., Lantana 33462	1969	4	5,706	21.27	N/A	3.00	$1,483,560	$450,000	$1,933,560
Fire Station 36	5395 Purdy Lane, W. Palm Beach 33415	2007	2	5,631	1.60	5,631	1.60	$1,464,060	$240,000	$1,704,060
Fire Station 43	5970 Military Trail, Lake Worth 33460	1983	2	5,541	0.43	5,541	0.43	$1,440,660	$64,500	$1,505,160
Fire Station 68	1000 Park Ave., Lake Park, FL 33403	2000	2	11,852	0.91	11,852	0.91	$3,081,520	$136,500	$3,218,020
Fire Station 41	5105 Woolbright Rd., Boynton Beach 33435	2005	2	5,355	2.43	5,355	2.43	$1,392,300	$364,500	$1,756,800
Fire Station 42 HQ[10]	14276 Hagen Ranch Rd., Delray Beach 33446	1983	5	22,011	5.00	22,011	5.00	$5,722,860	$750,000	$6,472,860
Fire Station 44[13]	6670 Flavor Pict Rd., Boynton Beach	2008	2	5,691	47.44	N/A	3.00	$1,479,660	$450,000	$1,929,660
Fire Station 45	15450 Jog Rd., Delray Beach 33446	1999	2	5,355	2.00	5,355	2.00	$1,392,300	$300,000	$1,692,300
Fire Station 46	7550 Jog Rd., Lake Worth 33467	1997	2	5,190	1.72	5,190	1.72	$1,349,400	$258,000	$1,607,400
Fire Station 47	7950 Enterprise Ctr. Cir., Boynton Bch 33437	2001	2	5,355	1.74	5,355	1.74	$1,392,300	$261,000	$1,653,300
Fire Station 48[13]	8560 Hypoluxo Rd., Lake Worth 33467	2007	2	5,300	33.63	N/A	3.00	$1,378,000	$450,000	$1,828,000
Fire Station 52	4659 Pheasant Way, Boca Raton 33431	1998	2	4,694	0.76	4,694	0.76	$1,220,440	$114,000	$1,334,440

Table V-1 (Continued)
Land & Buildings Inventory

Facility Description[1]	Location[1]	Year Acquired/ Built[1]	Number of Bays[1]	Square Feet[2]	Acres[3]	Total Square Feet on Site[4]	Allocated Acres[5]	Building Value[6]	Land Value[7]	Total Building and Land Value[8]
Fire Station 51	10050 Judge Winikoff Rd., Boca Raton 33433	1976	3	5,088	1.39	5,088	1.39	$1,322,880	$208,500	$1,531,380
Fire Station 53	19950 Lyons Rd., Boca Raton 33434	2003	2	5,355	3.90	7,983	2.62	$1,392,300	$393,000	$1,785,300
Fire Station 54	18501 State Road 7, Boca Raton 33498	1983	3	5,369	1.31	5,369	1.31	$1,395,940	$196,500	$1,592,440
Fire Station 55	6787 Palmetto Circle No., Boca Raton 33433	1979	3	6,346	2.36	6,346	2.36	$1,649,960	$354,000	$2,003,960
Fire Station 56	6250 SW 18th St, Boca Raton, 33433	2009	2	5,511	1.86	5,511	1.86	$1,432,860	$279,000	$1,711,860
Fire Station 57 HQ	9030 Vista Del Lago, Boca Raton 33428	2001	3	9,649	2.50	9,649	2.50	$2,508,740	$375,000	$2,883,740
Fire Station 58	12245 Glades Rd., Boca Raton 33428	2002	2	5,355	3.00	5,355	3.00	$1,392,300	$450,000	$1,842,300
Fire Station 72	615 S Lake Ave, Pahokee 33476	2012	3	7,690	2.53	7,690	2.53	$1,999,400	$379,500	$2,378,900
Fire Station 73	525 SW 2nd St, Belle Glade 33430	1976/2009	5	10,157	1.75	10,157	1.75	$2,640,820	$262,500	$2,903,320
Fire Station 74	530 US Highway 27 N South Bay 33493	2013	3	7,690	3.00	7,690	3.00	$1,999,400	$450,000	$2,449,400
Support Services	2601 Vista Parkway, West Palm Beach 33411	2007	n/a	13,299	46.23	147,526	4.17	$2,127,840	$625,500	$2,753,340
Total				**285,694**			**90.25**	**$72,950,540**	**$13,537,500**	**$86,488,040**
Building Value per Square Foot[11]								**$255**		
Land Value per Acre[12]									**$150,000**	

(1) Source: Palm Beach County
(2) Source: Palm Beach County, 2014 Schedule of Values
(3) Source: Palm Beach County and Palm Beach County Property Appraiser
(4) Source: Palm Beach County, 2014 Schedule of Values and Palm Beach County Property Appraiser. Sum of all buildings on site.
(5) Square feet (Item 2) divided by total square feet on site (Item 4) multiplied by acres (Item 3)
(6) Square feet (Item 2) multiplied by the estimated building value per square foot of $260 for fire rescue stations, $160 for the support services facility, and $230 for the fire rescue training and administrative facility
(7) Allocated acres (Item 5) multiplied by land value per acre (Item 12)
(8) Sum of building value (Item 6) and land value (Item 7)
(9) Located at Burt Reynolds Park. Acreage included under the parks impact fee.
(10) Total square footage includes vehicle maintenance garage that is used by Fire Rescue. As such, the entire acreage is allocated to Fire Rescue.
(11) Total building value divided by total square feet
(12) Source: Appendix C
(13) Allocated acreage estimate provided by Palm Beach County

In addition to land and buildings, Palm Beach County fire rescue capital assets include the necessary vehicles and equipment required to perform its services. As presented in Table V-2, the current total value of vehicle and equipment is approximately $79 million for fire rescue services.

Table V-2
Vehicle and Equipment Value

Description[1]	Units[1]	Vehicle Unit Cost[1]	Equipment Unit Cost[1]	Total Unit Cost[1]	Total Value[1]
Firefighting Apparatus					
Aerial Ladder (Quint)	5	$738,146	$57,953	$796,099	$3,980,495
Brush Truck	27	$215,819	$51,528	$267,347	$7,218,369
Pumper/Engine	70	$448,062	$54,598	$502,660	$35,186,200
Haz Mat Vehicle	2	$595,000	$474,237	$1,069,237	$2,138,474
Tanker/Tender	4	$359,516	$51,528	$411,044	$1,644,176
Air and Light Truck	2	$277,282	$0	$277,282	$554,564
Trench Rescue Truck	1	$234,529	$0	$234,529	$234,529
Tactical Command Unit	1	$380,846	$0	$380,846	$380,846
Subtotal:	**112**				**$51,337,653**
Rescue Apparatus					
Rescue Pumper	1	$244,109	$113,091	$357,200	$357,200
ALS Rescue	69	$254,273	$60,001	$314,274	$21,684,906
EMS Capt Truck	10	$58,456	$30,390	$88,846	$888,460
Subtotal:	**80**				**$22,930,566**
Staff Vehicles					
Staff Vehicle Non-Emergency	34	$15,809	$0	$15,809	$537,506
Crown Vic or Similar Cars	20	$28,062	$1,220	$29,282	$585,640
Sports Utility Non-Emergency	17	$22,472	$0	$22,472	$382,024
Sports Utility	27	$38,163	$15,090	$53,253	$1,437,831
Pick up trucks	35	$27,372	$0	$27,372	$958,020
Utility Truck	11	$45,003	$0	$45,003	$495,033
Box Truck w/lift gate	1	$45,000	$0	$45,000	$45,000
Other Trucks	2	$24,909	$0	$24,909	$49,818
Cargo Van	7	$21,963	$0	$21,963	$153,741
Passenger Van	2	$19,769	$0	$19,769	$39,538
Mini Van	15	$17,592	$0	$17,592	$263,880
Step Vans	4	$35,000	$0	$35,000	$140,000
Special Event Cart	1	$18,180	$0	$18,180	$18,180
Training Buses	2	$10,000	$0	$10,000	$20,000
Subtotal:	**178**				**$5,126,211**
Grand Total:	**370**				**$79,394,430**

(1) Source: Palm Beach County

Service Area and Benefit Districts

Palm Beach County provides fire rescue services in the unincorporated county, as well as, 18 cities located throughout the County. These additional cities are shown in Appendix A, Table A-17. As such, the proper benefit district for fire rescue services is the unincorporated county plus the 18 cities.

Level of Service

For impact fee purposes, level of service (LOS) for fire rescue is expressed in terms of incidents per station. Based on incident data provided for FY 2015, the County experienced 129,138 calls related to fire rescue services. These total calls are divided by the total number of stations to determine the achieved level of service, which amounts to 3,228 incidents per station.

In addition to the number of incidents per station, the County's LOS in terms of weighted seasonal residents is also provided. As presented, there are 23,019 seasonal residents for every fire station or 0.043 stations per 1,000 seasonal residents.

Table V-3
Level of Service (2014)

Calculation Step	Item
2014 Weighted Seasonal Population[(1)]	920,758
Number of Stations[(2)]	40
Population per Station[(3)]	23,019
LOS (Stations per 1,000 Residents)[(4)]	**0.043**
Total Number of Incidents (FY 2015)[(5)]	129,138
LOS (Incidents per Station)[(6)]	**3,228**

(1) Based on previous analysis presented in the September 9, 2015 Draft Report
(2) Source: Table V-1
(3) Population (Item 1) divided by the number of stations (Item 2)
(4) Number of stations (Item 2) divided by the population (Item 1) divided by 1,000
(5) Source: Palm Beach County Fire Rescue. Figure represents the total number of fire rescue related calls in FY 2015.
(6) Total number of incidents (Item 5) divided by population (Item 1)

Table V-4 presents a LOS comparison between Palm Beach County and selected communities located throughout the State. The LOS is expressed in terms of permanent population for 2013. As presented, the County's LOS is on the lower end of the communities reviewed.

Table V-4
Level of Service Comparison

Jurisdiction	Service Area Population (2013)[1]	Number of Stations[2]	Residents per Station[3]	LOS (Stations) per 1,000 Residents)[4]
Miami-Dade County	1,780,937	65	27,399	0.036
Hillsborough County	869,181	42	20,695	0.048
Palm Beach County (Existing)	**817,458**	**40**	**20,436**	**0.049**
Orange County	772,657	41	18,845	0.053
St. Lucie County	281,151	17	16,538	0.060
Broward County	258,108	22	11,732	0.085
Collier County	297,103	27	11,004	0.091
Martin County	131,447	15	8,763	0.114
Hendry County	25,888	3	8,629	0.116
Okeechobee County	34,212	4	8,553	0.117
Highlands County	79,342	18	4,408	0.227
Glades County	12,658	5	2,532	0.395

(1) Source: BEBR: April 1, 2013 Final Population Estimates
(2) Source: County websites and the U.S. Fire Administration; National Fire Department Census
(3) Service area population (Item 1) divided by the number of stations (Item 2)
(4) Number of stations (Item 2) divided by the service area population (Item 1) divided by 1,000

Cost Component

Table V-5 summarizes the total asset value of land, buildings, and equipment for fire rescue services, including:

- $73.0 million for buildings, $13.5 million for land, and $79.4 million for vehicles and equipment, for a total asset value of $165.9 million.

Table V-5 also presents the total impact cost per incident for fire rescue facilities in Palm Beach County, which is calculated by dividing the total asset value by the number of fire rescue related incidents in FY 2015. As shown, this calculation amounts to $1,285 per incident.

Table V-5
Total Impact Cost per Resident

Description	Figure	Percent of Total Value[7]
Building Value[1]	$72,950,540	44%
Land Value[2]	$13,537,500	8%
Vehicle and Equipment Value[3]	$79,394,430	48%
Total Asset Value[4]	**$165,882,470**	**100%**
Total Number of Incidents (FY 2015)[5]	129,138	
Total Impact Cost per Incident[6]	**$1,284.54**	

(1) Source: Table V-1
(2) Source: Table V-1
(3) Source: Table V-2
(4) Sum of building value (Item 1), land value (Item 2), and vehicle and equipment value (Item 3)
(5) Source: Table V-3
(6) Total asset value (Item 4) divided by the number of incidents (Item 5)
(7) Distribution of building, land, vehicle, and equipment values

Credit Component

To avoid overcharging new development for the fire rescue impact fees, a review of the capital financing program 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 Expenditure Credit

To calculate the capital expansion expenditure credit per incident, the historical capital expansion projects and those programmed in the CIP are reviewed. During the time period from 2009 through 2019, the County allocated an average annual non-impact fee funding of $732,000 toward fire rescue capital facilities. The annual capital expansion expenditures for fire rescue was divided by the total number of fire rescue related incidents in 2015. As presented in Table V-6, the result is a capital expansion expenditure credit of $5.67 per incident.

Once the capital expansion credit per incident is calculated, because the fire rescue capacity projects were funded with ad valorem revenues, an adjustment was made to account for the

fact that new homes tend to pay higher taxes per dwelling unit. This adjustment factor was estimated based on a comparison of the average taxable value of homes built over the past five years to that of all homes. As presented in Table V-6, the adjusted capital expansion credit per incident is $9.92.

Table V-6
Fire Protection & Rescue Capital Expansion Funding Sources

Description[1]	FY 2009 - FY 2013	FY 2014 - FY 2019	Total
Ad Valorem Funded Projects			
Station 56	$287,384	$0	$287,384
Training Facility	$3,135,446	$0	$3,135,446
Sem Pratt/Bee Ln	$349	$0	$349
Station 44	$26,650	$0	$26,650
Agriculture Reserve South	$0	$2,500,000	$2,500,000
Fire Station #41 South	$0	$100,000	$100,000
Southern Blvd 20 Mile Bend Station	$0	$2,000,000	$2,000,000
Total Capital Expansion Expenditures	**$3,449,830**	**$4,600,000**	**$8,049,830**
Average Annual Capital Expansion Expenditures[2]			**$731,803**
Total Number of Incidents (FY 2015)[3]			**129,138**
Capital Expansion Expenditures per Incident[4]			**$5.67**
Credit Adjustment Factor[5]			**1.75**
Adjusted Capital Expansion Expenditures per Incident[6]			**$9.92**

(1) Source: Palm Beach County
(2) Average annual capital expansion expenditures over the 11-year period
(3) Source: Table V-3
(4) Average annual capital expansion expenditures (Item 2) divided by the total number of incidents (Item 3)
(5) Adjustment factor to reflect higher ad valorem taxes paid by new homes
(6) Capital expansion expenditures per incident (Item 4) multiplied by the credit adjustment factor (Item 5)

Net Fire Protection & Rescue Impact Cost

The net impact fee per incident is the difference between the cost component and the credit component. Table V-7 summarizes the calculation of the net fire rescue impact costs per incident.

The first section of this table identifies the total impact cost as $1,285 per incident for fire rescue services. The second section of the table identifies the revenue credits for the fire rescue services based on the adjusted capital expansion credit from Table V-6. The net impact cost per incident is the difference between the total impact cost and the total capital improvement credit per incident, and is calculated at $1,119 per incident for residential land uses and at $1,190 per incident for non-residential land uses.

Table V-7
Net Fire Protection & Rescue Impact Cost per Incident

Impact Cost / Credit Element	Figure
Impact Cost	
Total Impact Cost per Incident[(1)]	**$1,284.54**
Revenue Credit	
Capital Improvement Credit per Incident[(2)]:	
- Residential Land Uses	$9.92
- Non-residential Land Uses	$5.67
Capitalization Rate	3.4%
Capitalization Period (in years)	25
Total Capital Improvement Credit per Incident[(3)]:	
- Residential Land Uses	$165.29
- Non-residential Land Uses	$94.47
Net Impact Cost	
Net Impact Cost per Incident[(4):]	
- Residential Land Uses	**$1,119.25**
- Non-residential Land Uses	**$1,190.07**

(1) Source: Table V-5
(2) Source: Table V-6
(3) Average annual capital improvement credit per incident (Item 2) at a capitalization rate of 3.4% for 25 years. The capitalization rate estimate was provided by Palm Beach County.
(4) Total impact cost per incident (Item 1) less total revenue credit per incident (Item 3)

Demand Component

Consistent with the County's current methodology, the fire protection and rescue impact fee demand component was based on incident data. Similar to the methodology utilized in 2005 impact fee study (which is the basis for the current impact fees although they are set as $0), the updated impact fee demand for the fire protection and rescue impact fee is determined by a review of annual incidents and property unit data obtained from the Palm Beach County Property Appraiser. Specifically, the following steps were conducted.

(1) 2015 incident data provided by the Palm Beach County Fire Recue Department was reviewed to determine the number of calls by residential and non-residential land uses.
(2) A review of property units was conducted to determine the number of residential dwelling units, hotel/motel rooms (determined through the average size of a hotel/motel room), and non-residential square footage.
(3) Demand coefficients were calculated by dividing each land use category's total incidents by the total associated property units, which are presented in Table V-8.

Calculated Fire Protection & Rescue Impact Fee Schedule

Table V-8 presents the calculated fire rescue impact fee schedule developed for Palm Beach County for both residential and non-residential land uses, based on the net impact cost per incident for fire rescue services previously presented in Table V-7 and the fire rescue service demand discussed in the previous section. These fees will only apply to development in the fire rescue service area defined previously. Because the County is currently not collecting these fees, a fee comparison is developed using the last effective fee rates, which are dated October 1, 2010.

Fire Protection & Rescue Fee Schedule Comparison

As part of the work effort in updating Palm Beach County's fire rescue impact fee program, a comparison to impact fee schedules of other Florida counties was completed. Table V-9 presents this comparison. The fees shown for Palm Beach County are applicable to development in the fire rescue service area mentioned previously.

Table V-8
Calculated Fire Protection & Rescue Impact Fee Schedule

Land Use type (Unit)	Unit	Calls for Service Coefficient[1]	Total Impact Fee [2]	2010 Impact Fee[3]	% Change
Residential Units by Type:					
Single Family (attached/detached/mobile home)	du	0.2601	**$291**	$528	-45%
Multi-Family	du	0.1744	**$195**	$248	-21%
Non-Residential:					
Hotel/Motel[4]	room	0.2027	**$241**	$955	-75%
General Office:					
50,000 sf or less	1,000 sf	0.0446	**$53**	$151	-65%
50,001 to 99,999 sf	1,000 sf	0.0446	**$53**	$151	-65%
100,000 to 149,999 sf	1,000 sf	0.0446	**$53**	$151	-65%
150,000 to 199,999 sf	1,000 sf	0.0446	**$53**	$151	-65%
200,000 to 399,999 sf	1,000 sf	0.0446	**$53**	$151	-65%
400,000 sf or greater	1,000 sf	0.0446	**$53**	$151	-65%
Medical Buildings:					
Medical Office	1,000 sf	0.0446	**$53**	$151	-65%
Hospitals	1,000 sf	2.7389	**$3,259**	$151	2058%
Nursing Home	1,000 sf	2.7389	**$3,259**	$151	2058%
Industrial Buildings:					
Warehouse	1,000 sf	0.0239	**$28**	$54	-48%
General Industrial[5]	1,000 sf	0.0705	**$84**	$145	-42%
Church/Synagogue	1,000 sf	0.0451	**$54**	$151	-64%
Day Care Centers	1,000 sf	0.0794	**$94**	$151	-38%
Drive-In Bank	1,000 sf	0.0446	**$53**	$151	-65%
Funeral Home	1,000 sf	0.0451	**$54**	$160	-66%
Movie Theater	1,000 sf	0.0451	**$54**	$226	-76%
Racquet Club	1,000 sf	0.0451	**$54**	$226	-76%
Veterinary Clinic	1,000 sf	0.1070	**$127**	$160	-21%
Retail:					
50,000 sf or less	1,000 sf	0.1070	**$127**	$226	-44%
50,001 to 99,999 sf	1,000 sf	0.1070	**$127**	$226	-44%
100,000 to 199,999 sf	1,000 sf	0.1070	**$127**	$226	-44%
200,000 to 499,999 sf	1,000 sf	0.1070	**$127**	$226	-44%
500,000 to 999,999 sf	1,000 sf	0.1070	**$127**	$226	-44%
1,000,000 sf or greater	1,000 sf	0.1070	**$127**	$226	-44%
Service Station	1,000 sf	0.1070	**$127**	$226	-44%

(1) Calculated as the total number of fire related calls per unit by each land use type based on 2015 fire rescue incidents and the 2015 Palm Beach County Property Appraiser's Database.

(2) Net impact cost per incident (Table V-8) multiplied by the estimated calls for service coefficient (Item 1)

(3) Source: Palm Beach County, Unincorporated Impact Fee Table, effective 10/1/2010. Fees shown are for comparison purposes. Currently the County does not charge an impact fee for fire rescue related services.

(4) Hotel/Motel count of units are based on 400 square feet per room (for incident demand calculation)

(5) The general industrial land use utilized a weighted average calls for service coefficient by combining the number of calls and square footage of the industrial and manufacturing categories.

Table V-9
Fire Protection & Rescue Impact Fee Schedule Comparison

Land Use	Unit[1]	Palm Beach County		Martin County[4]	Glades County[5]	Miami-Dade County[6]	St. Lucie County[7]	Collier County[8]	Highlands County[9]	Orange County[10]	Hillsborough County[11]
		Calculated[2]	Existing[3]								
Date of Last Update		-	2012	2012	2008	N/A	2009	2010	2006	2011	1985
Adoption Percentage		N/A	0%	100%	100%	N/A	100%	100%	25%	N/A	100%
Residential:											
Single Family (2,000 sf)	du	$291	$0	$599	$118	$415	$573	$1,065	$190	$270	$49
Non-Residential:											
Light Industrial	1,000 sf	$84	$0	$12	$42	$1,343	$76	$676	$83	$50	$9
Office (50,000 sq ft)	1,000 sf	$53	$0	$80	$75	$329	$339	$725	$200	$117	$41
Retail (125,000 sq ft)	1,000 sfgla	$127	$0	$319	$115	$443	$531	$781	$280	$297	$22
Bank w/Drive-Thru	1,000 sf	$53	$0	$80	$163	$443	$531	$783	$284	$297	$23
Fast Food w/Drive-Thru	1,000 sf	$127	$0	$575	$468	$443	$531	$1,233	$1,079	$297	$23

(1) du = dwelling unit
(2) Source: Table V-8
(3) Source: Palm Beach County Department of Planning, Zoning, and Building. Fees are not currently charged.
(4) Source: Martin County Growth Management Department. Fire rescue fee shown.
(5) Source: Glades County Planning Zoning Department. No fee for Fire. EMS fee is currently under moratorium through February 12, 2016
(6) Source: Miami-Dade County Impact Fee Division. No fee for EMS
(7) Source: St. Lucie County planning & Development Department. Fire and EMS rates combined. Fees were adopted at 100% and have since been indexed annually using the CPI
(8) Source: Collier County Impact Fee Administration Department. Fees were adopted at 100%; Fees shown include the EMS fee and an average fire fee across all districts
(9) Source: Municode; Highlands County Code of Ordinances, Section 13-28; IF moratorium in effect through June 30, 2017. Fire and EMS rates combined
(10) Source: Orange County Planning & Development Department. No fee for EMS
(11) Source: Hillsborough County Development Services Department. No fee for EMS
(12) Source: Okeechobee County Planning & Development Department

VI. Law Enforcement Impact Fee

Law enforcement impact fees are typically used to fund the capital construction and expansion of police service related land, facilities and capital equipment required to support the additional law enforcement service demand created by new growth. In the case of Palm Beach County's law enforcement impact fee program, the inventory is limited to vehicles and equipment because buildings and land are included in the public buildings impact fee program. This section of the report presents the results of the law enforcement impact fee update study for Palm Beach County and will serve as the technical support document for the calculated law enforcement impact fee schedule.

There are several major elements associated with the development of the law enforcement impact fee. These include:

- Capital Asset Inventory
- Service Area, Benefit Districts, and Population
- Level of Service
- Cost Component
- Credit Component
- Net Law Enforcement Impact Cost
- Calculated Law Enforcement Impact Fee Schedule
- Law Enforcement Impact Fee Schedule Comparison

Capital Asset Inventory

As mentioned previously, all buildings and land associated with law enforcement have been captured as part of the public buildings impact fee section of this report (Section VII). Therefore, the law enforcement impact fee will be based only on the vehicle and equipment value. Because local data was not available, the vehicle and equipment cost is based on figures observed in other Florida jurisdictions and is estimated at $50,000 per officer.

Service Area, Benefit Districts, and Population

Palm Beach County provides law enforcement services in the unincorporated county, as well as, additional 13 cities located throughout the county. These additional cities are shown in Appendix A, Table A-17. Therefore, the appropriate benefit district for law enforcement is the combination of the unincorporated county plus the 13 additional cities, excluding the Glades area, which is exempt from paying impact fees. For impact fee calculations, the current 2014 weighted and functional population estimates are used for the law enforcement impact fee.

Level of Service

Based on the information provided by Palm Beach County, the 2014 achived LOS is 1.82 sworn officers per 1,000 weighted residents. Table VI-1 presents the calculation of the existing LOS.

While the 2014 LOS is 1.82 officers per 1,000 weighted residents, in order to calculate the law enforcement impact fee, the LOS needs to be calculated in terms of officers per 1,000 functional residents. Table VI-1 also illustrates the calculation of the current LOS using the total functional residents within the service area. The current LOS of law enforcement services is 2.13 officers per 1,000 functional residents.

Table VI-1
Level of Service (2014)

Component	Year 2014	
	Weighted Population	Functional Population
Population[(1)]	818,439	699,882
Number of Officers[(2)]	1,492	1,492
LOS (officers per 1,000 residents)[(3)]	**1.82**	**2.13**

(1) Source: Appendix A, Table A-1 for weighted population and Table A-10 for functional population; Unincorporated population and several cities served by the Palm Beach County Sheriff
(2) Source: Palm Beach County
(3) Number of officers (Item 2) divided by the population (Item 1) and multiplied by 1,000

Table VI-2 summarizes a LOS comparison between Palm Beach 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 2013. For consistency purposes, all data was retrieved from the FDLE Criminal Justice Agency Profile Report.

Table VI-2
Level of Service Comparison

Jurisdiction	Service Area Population (2013)[1]	Number of Officers[1]	LOS (Officers per 1,000 Residents)[2]
Collier County	297,512	270	0.91
Highlands County	77,026	99	1.29
Hillsborough County	869,181	1,123	1.29
Okeechobee County	34,212	47	1.37
Martin County	129,434	183	1.41
Palm Beach County (Existing)	**771,775**	**1,245**	**1.61**
Hendry County	30,557	52	1.70
Orange County	772,688	1,376	1.78
St. Lucie County	71,508	137	1.92
Glades County	12,658	25	1.98

(1) Source: Florida Department of Law Enforcement Criminal Justice Agency Profile Report, 2013
(2) Permanent population (Item 1) divided by the number of officers (Item 2) and multiplied by 1,000

Cost Component

The cost component of the study evaluates the cost of vehicles and equipment only. Table VI-3 also presents the cost per functional resident for the impact fee analysis. This cost was calculated as the estimated capital cost of $50,000 per officer multiplied by the LOS of 2.13 officers per 1,000 functional residents divided by 1,000. As shown in the following table, the total impact cost per resident is approximately $107 for law enforcement facilities.

Table VI-3
Unit Cost per Functional Resident

Component	Cost
Vehicle and Equipment Value per Officer[1]	$50,000
LOS (Officers/1,000 Functional Residents)[2]	2.13
Cost per Functional Resident[3]	**$106.50**

(1) Source: Based on the information from other Florida jurisdictions. See Appendix C for further detail
(2) Source: Table VI-1
(3) Vehicle and equipment value per officer (Item 1) multiplied by the LOS (Item 2) divided by 1,000

Credit Component

Discussion with the Palm Beach County Sheriff's Office suggested that there were no new officers added in the past five years and none is planned to be added in the near future. As such, the Sheriff's Office did not purchase any additional vehicles or equipment. Given this, a credit is not necessary.

Net Law Enforcement Impact Cost

Because there is no credit, net law enforcement impact cost per resident is $107.

Calculated Law Enforcement Impact Fee Schedule

Table VI-4 presents the calculated law enforcement impact fee schedule developed for Palm Beach County for both residential and non-residential land uses, based on the unit impact cost per functional resident previously presented in Table VI-3. The table also includes a comparison to the current/adopted fees.

Law Enforcement Impact Fee Schedule Comparison

As part of the work effort in updating Palm Beach County's law enforcement impact fee schedule, the County's calculated impact fee schedule was compared to the adopted fee schedule and those in similar or nearby jurisdictions. Table VI-5 presents this comparison. The calculated fees for Palm Beach County are lower than most other jurisdictions because in the case of Palm Beach County law enforcement impact fee, the inventory is limited to vehicles and equipment while in the case of most other counties, law enforcement buildings are included in the law enforcement impact fee calculations.

Table VI-4
Calculated Law Enforcement Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient[1]	Total Impact Fee [2]	Current Adopted Fee[3]	Percent Change[4]
	RESIDENTIAL:					
210	Single Family (detached)	du	1.80	**$192**	$128	50%
230	Single Family (attached) (2-4 units)	du	1.80	**$192**	$128	50%
220	Multi-Family (5 or more units)	du	1.06	**$113**	$70	61%
240	Mobile Home	du	1.79	**$191**	$70	173%
	TRANSIENT, ASSISTED, GROUP:					
310/320	Hotel/Motel	room	0.89	**$95**	$82	16%
254/620	Nursing Home/Congregate Living Facility	bed	0.87	**$93**	$10	Unit Change
	RECREATIONAL:					
412	General Recreation/County Park	acre	0.20	**$21**	N/A	N/A
420	Marina	berth	0.19	**$20**	N/A	N/A
430	Golf Course	hole	1.08	**$115**	N/A	N/A
444	Movie Theater w/Matinee	screen	5.98	**$637**	$57	Unit Change
491	Racquet/Tennis Club	court	3.16	**$337**	$57	491%
492	Health Club	1,000 sf	3.09	**$329**	N/A	N/A
	INSTITUTIONS:					
520	Elementary School (Private)	student	0.06	**$6**	N/A	N/A
522	Middle School (Private)	student	0.07	**$7**	N/A	N/A
530	High School (Private)	student	0.08	**$9**	N/A	N/A
540	University (7,500 or fewer students) (Private)	student	0.10	**$11**	N/A	N/A
550	University (more than 7,500 students) (Private)	student	0.07	**$7**	N/A	N/A
560	Church/Synagogue	1,000 sf	0.51	**$54**	$57	-5%
565	Day Care Center	1,000 sf	0.89	**$95**	$57	67%
566	Cemetery	acre	0.12	**$13**	N/A	N/A
610	Hospital	1,000 sf	1.37	**$146**	$10	1360%
640	Animal Hospital/Veterinary Clinic	1,000 sf	2.32	**$247**	$57	333%
n/a	Funeral Home	1,000 sf	0.55	**$59**	$57	4%
	OFFICE & FINANCIAL:					
710	Office (50,000 sf and less)	1,000 sf	1.41	**$150**	$10	1400%
	Office (50,001 - 100,000 sf)	1,000 sf	1.19	**$127**	$10	1170%
	Office (100,001 - 200,000 sf)	1,000 sf	1.01	**$108**	$10	980%
	Office (200,001 - 400,000 sf)	1,000 sf	0.85	**$91**	$10	810%
	Office (greater than 400,000 sf)	1,000 sf	0.77	**$82**	$10	720%
720	Medical Office (less than 10,000 sf)	1,000 sf	1.14	**$121**	$10	1110%
	Medical Office (10,000 sf and greater)	1,000 sf	1.66	**$177**	$10	1670%
	RETAIL:					
817	Nursery (Garden Center)	acre	5.55	**$591**	$57	937%
820	Retail (50,000 sf and less)	1,000 sfgla	2.45	**$261**	$57	358%
	Retail (50,001 - 200,000 sf)	1,000 sfgla	2.30	**$245**	$57	330%
	Retail (200,001 - 400,000 sf)	1,000 sfgla	2.34	**$249**	$57	337%
	Retail (400,001 - 600,000 sf)	1,000 sfgla	2.44	**$260**	$57	356%
	Retail (600,001 - 800,000 sf)	1,000 sfgla	2.55	**$272**	$57	377%
	Retail (greater than 800,000 sf)	1,000 sfgla	2.42	**$258**	$57	353%
841	New/Used Car Sales	1,000 sf	1.47	**$157**	$57	175%
848	Tire Store	1,000 sf	0.99	**$105**	$57	84%
853	Convenience Store w/Gas Pumps	1,000 sf	5.83	**$621**	$57	990%
880/881	Pharmacy with and w/o Drive-Thru	1,000 sf	1.96	**$209**	$57	267%
890	Furniture Store	1,000 sf	0.23	**$24**	$57	-58%
912	Bank/Savings w/Drive-In	1,000 sf	2.28	**$243**	$10	2330%
931	Quality Restaurant	1,000 sf	6.82	**$726**	$57	1174%
932	High-Turnover Restaurant	1,000 sf	6.78	**$722**	$57	1167%
934	Fast Food Rest. w/Drive-Thru	1,000 sf	8.90	**$948**	$57	1563%
941	Quick Lube	bay	1.16	**$124**	$57	Unit Change
942	Automobile Care Center	1,000 sf	1.50	**$160**	$57	181%
944/946	Gas Station with and w/o Car Wash	fuel pos.	1.91	**$203**	$57	256%
947	Car Wash	bay	0.87	**$93**	$57	Unit Change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	0.69	**$73**	$7	943%
150	Warehousing	1,000 sf	0.28	**$30**	$21	43%
151	Mini-Warehouse	1,000 sf	0.06	**$6**	$21	-71%

(1) Source: Appendix A, Table A-12 for residential land uses and A-13 for non-residential land uses
(2) Source: Net impact cost per resident from Table VI-3 multiplied by the functional resident coefficient (Item 1)
(3) Source: Palm Beach County Department of Planning, Zoning, and Building
(4) Percent change from the current adopted fee (Item 3) to the total impact fee (Item 2)
(5) N/A - Land use is not specifically identified in the County's current fee schedule.
"Unit change" refers to a change in the impact unit, and therefore, a change in the fee level is not provided.

Table VI-5
Law Enforcement Impact Fee Schedule Comparison

Land Use	Unit[2]	Palm Beach County		Martin County[5]	Miami-Dade County[6]	St. Lucie County[7]	Collier County[8]	Highlands County[9]	Orange County[10]
		Calculated[3]	Existing[4]						
Date of Last Update		-	2012	2012	N/A	2009	2010	2006	2012
Assessed Portion of Calculated[1]		N/A	95%	100%	N/A	100%	100%	25%	100%
Residential:									
Single Family (2,000 sf)	du	$192	$128	$760	$534	$209	$449	$58	$271
Non-Residential:									
Light Industrial	1,000 sf	$73	$7	$158	$371	$49	$149	N/A	$57
Office (50,000 sq ft)	1,000 sf	$150	$10	$274	$371	$322	$307	N/A	$109
Retail (125,000 sq ft)	1,000 sfgla	$245	$57	$742	$371	$357	$486	N/A	$494
Bank w/Drive-Thru	1,000 sf	$243	$10	$481	$371	$310	$492	N/A	$494
Fast Food w/Drive-Thru	1,000 sf	$948	$57	$2,757	$371	$310	$1,946	N/A	$494

(1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
(2) du = dwelling unit
(3) Source: Table VI-4
(4) Source: Palm Beach County Department of Planning, Zoning, and Building
(5) Source: Martin County Growth Management Department
(6) Source: Miami-Dade County Impact Fee Division
(7) Source: St. Lucie County Planning & Development Services. Fees were adopted at 100% and have since been indexed annually using the CPI.
(8) Source: Collier County Impact Fee Administration Department.
(9) Source: Municode; Highlands County Code of Ordinances, Section 13-28; IF moratorium in effect through June 30, 2017
(10) Source: Orange County Planning and Development Department

VII. Public Buildings Impact Fee

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

There are several major elements associated with the development of the public buildings impact fee. These include:

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

Facility Inventory

The public facilities inventory includes law enforcement and correctional facilities as well as other public facilities that are primarily for the provision of essential county services and do not include any of the buildings included in the calculation of other impact fees.

According to the information provided by Palm Beach County, the County has approximately 6.4 million square feet of general public facility space. This includes the square footage of both primary and industrial support buildings. Support facilities are defined as trailers, facilities without air-conditioning, lands used for staging, storage or other functions that are integral to a particular government facility or facilities that are unlikely to be occupied by personnel.

Table VII-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 4.7 million square feet of primary building space and 1.7 million square feet of support space. Primary building square footage is broken down into 2.0 million office and administrative square feet, 1.0 million

courthouse square feet, 1.3 million jail square feet, and 436,000 industrial square feet. For further details, refer to Appendix D, Table D-1.

The building value of the facilities included in the inventory were estimated based on insurance values, estimates for future buildings, and cost information obtained from other jurisdictions. This analysis resulted in an estimated cost ranging from $25 per square foot for industrial support buildings to $325 per square foot for primary courthouse square footage. It is important to note that the County estimates are higher than unit costs used for impact fee calculations, which are shown in Appendix C.

In addition to building value, land values were estimated for future land purchases. Land value was determined primarily through a review of the value of parcels where the current public buildings are located, as reported by the Palm Beach County Property Appraiser, an analysis of vacant land sales and values of parcels of 0.6 to 20 acres in Palm Beach County, and discussions with the County representatives. This analysis resulted in an average land value of $175,000 per acre. Additional information, including the County's estimates for future land cost, is included in Appendix C.

Table VII-1
Summary of Public Building Facilities Inventory

Building Type	Land	Total Square Feet[1]	Building Value per Square Foot[2]	Total Asset Value[3]
Primary Building - Office/Administrative		1,959,113	$250	$489,778,250
Primary Building - Court		953,711	$325	$309,956,075
Primary Building - Jail		1,307,947	$290	$379,304,630
Primary Building - Industrial		436,284	$200	$87,256,800
Industrial Support		1,730,219	$25	$43,255,475
Total - All Buildings		**6,387,274**	-	**$1,309,551,230**
Other Structures[4]			N/A	$16,162,274
Total Allocated Acreage[5]	601.79			
Land Value per Acre[6]	$175,000			
Total Land Value[7]				$105,313,250
Weighted Building Cost per Square Foot[8]			$205	
Total Building, Other Structures and Land Value[9]				**$1,431,026,754**

(1) Source: Appendix D, Table D-1
(2) Source: Appendix C
(3) Total square feet (Item 1) multiplied by building value per square foot (Item 2)
(4) Source: Palm Beach County, represents the construction cost of communication towers, fuel islands, and other similar structures
(5) Source: Appendix D, Table D-2
(6) Source: Appendix C
(7) Total allocated acreage (Item 5) multiplied by the land value per acre (Item 6)
(8) Total building value ($1.3 billion) divided by total building square footage (Item 1)
(9) Sum of total building value (Item 3), total building value of other structures (Item 4), and total land value (Item 7)

Service Area, Benefit Districts, and Population

Palm Beach County provides all residents, workers, and visitors the benefit of government services. As such, the service area was determined to be the entire county. The appropriate benefit district is also countywide, excluding the Glades Area.

To be consistent with the County's Comprehensive Plan, for purposes of this technical analysis, the weighted seasonal population is used in all population estimates and projections. In addition, public buildings is one of the program areas where functional population is used to capture the presence of all people within the community (including residents, workers, and visitors) to arrive at a total estimate of effective population that needs to be served. A more detailed explanation of weighted and functional population estimates is provided in Appendix A.

Level of Service

Based on the information provided by the County, Palm Beach County's 2014 achieved level of service (LOS) is 3.23 square feet of primary facilities per weighted resident. Table VII-2 presents the calculation of the existing LOS as well as the calculation of the existing LOS per functional resident. As shown, the 2014 LOS is 3.30 square feet per functional resident.

Table VII-2
Current Level of Service

Component	Year 2014	
	Weighted Population	Functional Population
Population[(1)]	1,443,996	1,410,200
Public Buildings Square Footage (Primary Buildings)[(2)]	4,657,055	4,657,055
Achieved LOS (Sq. Ft. per Resident)[(3)]	**3.23**	**3.30**

(1) Source: Appendix A, Tables A-1 and A-10
(2) Source: Table VII-1
(3) Total square footage (Item 2) divided by the countywide population (Item 1)

Cost Component

The cost component of the study evaluates the cost of capital items, including buildings and land. Table VII-3 provides a summary of all capital costs, which amounts to $307 per square foot of primary public buildings, and $1,014 per functional resident.

Table VII-3
Public Building Total Cost per Functional Resident

Cost Component	Figure	Percent of Total Value[8]
Total Building Value[1]	$1,325,713,504	92.64%
Total Land Value[2]	$105,313,250	7.36%
Total Building and Land Value[3]	$1,431,026,754	100.00%
Primary Building Square Footage[4]	4,657,055	
Total Building and Land Value per Square Foot[5]	$307.28	
Achieved LOS - Bldg Sq Ft per Functional Resident[6]	3.30	
Total Impact Cost per Functional Resident[7]	**$1,014.02**	

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

Credit Component

To avoid overcharging development for the public buildings impact fee, a review of the capital financing program for public buildings was conducted. The purpose of this review was to determine any potential revenue credits that should be considered for revenues generated by new development that could be used for capital facilities and land expansion for public buildings.

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 Expenditure Credit

To estimate an average annual non-impact fee expenditure, capital projects funded during the past six years and programmed for the next five years were reviewed. The County funds public buildings primarily with ad valorem and grant revenues. Based on this trend, an average credit of $0.80 per functional resident is calculated as shown in Table VII-4.

Once the capital expansion credit per functional resident is calculated, an adjustment is needed for the portion funded with ad valorem revenues to account for the fact that new homes tend to pay higher taxes per dwelling unit. This adjustment factor was estimated based on a comparison of the average taxable value of homes built over the past five years to that of all homes. As shown, the adjusted annual capital expansion credit per resident is $1.21 for residential land uses. For non-residential land uses, the credit is $0.80 per resident per year.

In addition to ad valorem revenues and capital grants, the County will also use sales tax revenue to fund capacity projects. On November 8, 2016, voters approved a one-cent Local Government Infrastructure Surtax, which became effective on January 1, 2017 for 10 years (to expire on December 31, 2026). Given that this new revenue source will fund certain public buildings capacity projects, an additional credit is calculated and is summarized in Table VII-5.

The funding allocation to six capital expansion projects associated with public building facilities total $90 million. Dividing the total programmed expenditures by the average annual functional population over the same time period (2017 through 2026) amounts to an average annual capital expansion credit of $5.85 per functional resident.

Table VII-4
Public Buildings Capital Expansion Funding (Non-Local Government Infrastructure Surtax Projects)

Expenditure[1]	FY 2009-2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
Ad Valorem:								
South County Courthouse	$195,647	-	-	-	-	-	-	$195,647
Jail Expansion	$3,678,967	-	-	-	-	-	-	$3,678,967
Vista Center Parcel 22	$577,941	-	-	-	-	-	-	$577,941
PBSO Aviation	$434,521	-	-	-	-	-	-	$434,521
West County Senior Center	-	-	-	$510,000	-	-	-	$510,000
High Ridge South County	-	-	-	-	-	-	$2,500,000	$2,500,000
High Ridge Athletic Facilities	-	-	-	$25,000		-	-	$25,000
FD&O Land Acquisition	$600,000	-	-	-	-	-	-	$600,000
Subtotal -- Expenditures Funded with Ad Valorem	**$5,487,076**	**$0**	**$0**	**$535,000**	**$0**	**$0**	**$2,500,000**	**$8,522,076**
Grants/Other:								
PBSO Aviation	$56,643	-	-	-	-	-	-	$56,643
PBSO West Atlantic Avenue	-	$1,800,000	-	-	-	-	-	$1,800,000
West County Senior Center	-	-	$250,000	$1,790,000	-	-	-	$2,040,000
Subtotal -- Expenditures Funded with Grants	**$56,643**	**$1,800,000**	**$250,000**	**$1,790,000**	**$0**	**$0**	**$0**	**$3,896,643**
Total Capital Expansion Expenditures	**$5,543,719**	**$1,800,000**	**$250,000**	**$2,325,000**	**$0**	**$0**	**$2,500,000**	**$12,418,719**
Average Annual Capital Expansion Expenditures[2]								**$1,128,974**
Average Annual Functional Population[3]								**1,416,514**
Capital Expansion Expenditures per Functional Resident[4]								**$0.80**
Portion of capital expansion projects Funded with Ad Valorem Tax Revenues[5]								**69%**
Portion Funded with Ad-Valorem Tax Revenues[6]								**$0.55**
Residential Land Uses Credit Adjustment Factor[7]								1.75
Residential Land Uses: Adjusted Capital Expansion Expenditures per Resident[8]								**$0.96**
Portion Funded with Other Revenue Sources[9]								**$0.25**
Residential Land Uses: Total Capital Expansion Credit per Resident[10]								**$1.21**

(1) Source: Palm Beach County, expenditures shown represent cash payments during the indicated time period and excludes portions that were funded with bond issues or impact fees, or outside of the time frame indicated.
(2) Total capital expansion expenditures divided by 11 to calculate the average annual expenditures
(3) Source: Appendix A, Table A-10, average annual functional population during the same time period
(4) Average annual capital expansion expenditures (Item 2) divided by the average functional population (Item 3)
(5) Portion of total capital expansion expenditures funded by ad valorem tax revenue
(6) Capital expansion expenditures per functional resident (Item 4) multiplied by the portion of capital expansion projects funded with ad valorem tax revenues (Item 5)
(7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
(8) Portion funded with ad-valorem tax revenues (Item 6) multiplied by the residential land uses credit adjustment factor (Item 7)
(9) Capital expansion expenditures per functional resident (Item 4) less portion funded with ad-valorem tax revenues (Item 6)
(10) Adjusted capital expansion expenditures per resident (Item 8) plus the portion funded with other revenue sources (Item 9)

Table VII-5
(Local Government Infrastructure Surtax Projects)
Public Buildings Capital Expansion Funding

Expenditure[1]	2017 - 2026
Local Government Infrastructure Surtax:	
Sheriff's Office - Evidence Building	$20,000,000
Main Courthouse Buildout/Renovations	$35,000,000
Judicial Partners Records Warehouse	$23,000,000
Sheriff's Office - Acreage Substation	$3,350,000
Sheriff's Office - North County Substation	$2,800,000
Central County Housing Resource Center	$5,700,000
Total Capital Expansion Expenditures	**$89,850,000**
Average Annual Capital Expansion Expenditures[2]	**$8,985,000**
Average Annual Functional Population[3]	**1,535,687**
Capital Expansion Expenditures per Functional Resident[4]	**$5.85**

(1) Source: Palm Beach County. Includes capital expansion projects that are to be funded with the new one-cent Local Government Infrastructure Surtax which will expire on December 31, 2026.
(2) Total capital expansion expenditures divided by 10 to calculate the average annual expenditures
(3) Source: Appendix A, Table A-10, average annual functional population during the same time period.
(4) Average annual capital expansion expenditures (Item 2) divided by the average functional population (Item 3)

Debt Service Credit

Table VII-6 summarizes the outstanding debt service related to public buildings capital expansion projects. To calculate the credit of the current debt obligations, the present value of the total remaining payments is calculated and then divided by the average annual functional population estimated over the remaining life of each bond issue. As shown in Table VII-6, the resulting credit for public buildings-related debt is $127.66 per functional resident.

Table VII-6
Palm Beach County Public Buildings Debt Service

Description	Total Number of Fiscal Years of Debt Issue[1]	Fiscal Years Remaining[2]	Total Remaining Public Bldgs Debt Service (Capacity Expansion)[3]	Present Value of Payments Remaining (Capacity Expansion)[4]	Avg Annual Functional Population During Remaining Bond Issue Period[5]	Credit per Resident[6]
$9.5M Judicial Parking Revenue Refunding Bonds, Series 2005	11	2	$2,295,400	$2,267,400	1,433,629	$1.58
$13.5M Revenue Refunding Bonds; North County Courthouse/Sheriff's Motor Pool, Series 2005	13	4	$6,589,425	$6,238,050	1,451,080	$4.30
$14.7M Judicial Parking Facilities Expansion, Series 2006	21	13	$14,570,500	$11,362,966	1,526,577	$7.44
$176.6M Public Improvement Revenue Bonds; Jail Expansion, Series 2008	30	24	$270,374,180	$165,100,650	1,605,195	$102.85
Initial Funding of Max Planck Proj and Refunding of SS Loans, Series 2015	4	4	$17,956,713	$16,666,626	1,451,080	$11.49
Total Debt Service Credit per Functional Resident						**$127.66**

(1), (2), (3), (4) Source: Palm Beach County
(5) Source: Appendix A, Table A-10
(6) Present value of payments remaining (Item 4) divided by average annual functional population (Item 5)

Net Public Buildings Impact Cost

The net impact fee per functional resident is the difference between the Cost Component and the Credit Component. Table VII-7 presents the calculation of the net public buildings facilities impact cost per functional resident.

The first section of Table VII-7 identifies the total impact cost as $1,014 per functional resident. The second section of the table identifies the revenue credits for both the capital expansion improvement credit and the debt service credit for the public buildings facilities impact fee. The capital expansion improvement credit amounts to $69 per functional resident for residential lands uses and $62 per functional resident for non-residental land uses. In addition, the debt service credit is $128 per resident.

The net impact cost per functional resident (third section of the table) is calculated as the total impact cost per functional resident of $1,014 less the total capital improvement credit and the debt service credit. These calculations result in a net impact cost per functional resident of $817 for residential land uses and $824 for non-residential land uses.

Table VII-7
Net Public Buildings Impact Cost per Functional Resident

Impact Cost/Credit Element	Non-Sales Tax	Sales Tax	Total
Impact Cost			
Total Impact Cost per Functional Resident[(1)]			**$1,014.02**
Revenue Credit			
Capital Improvement Credit per Functional Resident[(2):]			
- Residential Land Uses	$1.21	$5.85	-
- Non-residential Land Uses	$0.80	$5.85	-
Capitalization Rate	3.4%	3.4%	-
Capitalization Period (in years)	25	10	-
Total Capital Improvement Credit per Functional Resident[(3)]			
- Residential Land Uses	$20.16	$48.90	$69.06
- Non-residential Land Uses	$13.33	$48.90	$62.23
Debt Service Credit per Functional Resident[(4)]			$127.66
Net Impact Cost			
Net Impact Cost per Functional Resident[(5)]:			
- Residential Land Uses			**$817.30**
- Non-residential Land Uses			**$824.13**

(1) Source: Table VII-3
(2) Source: Table VII-4 (Non-Sales Tax) and Table VII-5 (Sales Tax)
(3) Average annual capital improvement credit per functional resident (Item 2) over a capitalization rate of 3.4% for 25 years. Capitalization rate estimate is provided by Palm Beach County and 25 years reflects the time frame when structures start needing major repairs/renovation.
(4) Source: Table VII-6
(5) Total impact cost per functional resident (Item 1) less the total capital improvement credit per functional resident (Item 3) less the debt service credit per functional resident (Item 4)

Calculated Public Buildings Impact Fee Schedule

Table VII-8 presents the calculated public buildings impact fee schedule developed for Palm Beach County for both residential and non-residential land uses, based on the net impact cost per functional resident for public buildings previously presented in Table VII-7.

Table VII-8
Calculated Public Buildings Impact Fee Schedule

ITE LUC	Land Use	Impact Unit	Functional Resident Coefficient[1]	Total Impact Fee [2]	Current Adopted Fee[3]	Percent Change[4]
	RESIDENTIAL:					
n/a	800 sf & Under	du	1.00	**$817**	$141	479%
n/a	801 to 1,399 sf	du	1.30	**$1,062**	$171	521%
n/a	1,400 to 1,999 sf	du	1.43	**$1,169**	$195	500%
n/a	2,000 to 3,599 sf	du	1.56	**$1,275**	$223	472%
n/a	3,600 sf or more	du	1.62	**$1,324**	$245	440%
	TRANSIENT, ASSISTED, GROUP:					
310/320	Hotel/Motel	room	0.89	**$727**	$57	1175%
254/620	Nursing Home/Congregate Living Facility	bed	0.87	**$717**	$30	Unit Change
	RECREATIONAL:					
412	General Recreation/County Park	acre	0.20	**$165**	$1,012	Unit Change
420	Marina	berth	0.19	**$157**	N/A	N/A
430	Golf Course	hole	1.08	**$890**	N/A	N/A
444	Movie Theater w/Matinee	screen	5.98	**$4,928**	$11	Unit Change
491	Racquet/Tennis Club	court	3.16	**$2,604**	$254	925%
492	Health Club	1,000 sf	3.09	**$2,547**	N/A	N/A
	INSTITUTIONS:					
520	Elementary School (Private)	student	0.06	**$49**	N/A	N/A
522	Middle School (Private)	student	0.07	**$58**	N/A	N/A
530	High School (Private)	student	0.08	**$66**	N/A	N/A
540	University (7,500 or fewer students) (Private)	student	0.10	**$82**	N/A	N/A
550	University (more than 7,500 students) (Private)	student	0.07	**$58**	N/A	N/A
560	Church/Synagogue	1,000 sf	0.51	**$420**	$61	589%
565	Day Care Center	1,000 sf	0.89	**$733**	$299	145%
566	Cemetery	acre	0.12	**$99**	$69	44%
610	Hospital	1,000 sf	1.37	**$1,129**	$239	372%
640	Animal Hospital/Veterinary Clinic	1,000 sf	2.32	**$1,912**	$761	151%
n/a	Funeral Home	1,000 sf	0.55	**$453**	$980	-54%
	OFFICE & FINANCIAL:					
710	Office (50,000 sf and less)	1,000 sf	1.41	**$1,162**	$131	787%
	Office (50,001 - 100,000 sf)	1,000 sf	1.19	**$981**	$143	586%
	Office (100,001 - 200,000 sf)	1,000 sf	1.01	**$832**	$174	378%
	Office (200,001 - 400,000 sf)	1,000 sf	0.85	**$701**	$172	308%
	Office (greater than 400,000 sf)	1,000 sf	0.77	**$635**	$172	269%
720	Medical Office (less than 10,000 sf)	1,000 sf	1.14	**$940**	$278	238%
	Medical Office (10,000 sf and greater)	1,000 sf	1.66	**$1,368**	$278	392%
	RETAIL:					
817	Nursery (Garden Center)	acre	5.55	**$4,574**	N/A	N/A
820	Retail (50,000 sf and less)	1,000 sfgla	2.45	**$2,019**	$336	501%
	Retail (50,001 - 200,000 sf)	1,000 sfgla	2.30	**$1,895**	$324	485%
	Retail (200,001 - 400,000 sf)	1,000 sfgla	2.34	**$1,928**	$356	442%
	Retail (400,001 - 600,000 sf)	1,000 sfgla	2.44	**$2,011**	$362	456%
	Retail (600,001 - 800,000 sf)	1,000 sfgla	2.55	**$2,102**	$362	481%
	Retail (greater than 800,000 sf)	1,000 sfgla	2.42	**$1,994**	$362	451%
841	New/Used Car Sales	1,000 sf	1.47	**$1,211**	$165	634%
848	Tire Store	1,000 sf	0.99	**$816**	N/A	N/A
853	Convenience Store w/Gas Pumps	1,000 sf	5.83	**$4,805**	$769	525%
880/881	Pharmacy with and w/o Drive-Thru	1,000 sf	1.96	**$1,615**	$330	389%
890	Furniture Store	1,000 sf	0.23	**$190**	$258	-26%
912	Bank/Savings w/Drive-In	1,000 sf	2.28	**$1,879**	$382	392%
931	Quality Restaurant	1,000 sf	6.82	**$5,621**	$364	1444%
932	High-Turnover Restaurant	1,000 sf	6.78	**$5,588**	$397	1308%
934	Fast Food Rest. w/Drive-Thru	1,000 sf	8.90	**$7,335**	$604	1114%
941	Quick Lube	bay	1.16	**$956**	$508	88%
942	Automobile Care Center	1,000 sf	1.50	**$1,236**	N/A	N/A
944/946	Gas Station with and w/o Car Wash	fuel pos.	1.91	**$1,574**	$84	1774%
947	Car Wash	bay	0.87	**$717**	$580	24%
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	0.69	**$569**	$74	669%
150	Warehousing	1,000 sf	0.28	**$231**	$36	542%
151	Mini-Warehouse	1,000 sf	0.06	**$49**	$16	206%

(1) Source: Appendix A, Table A-11 for residential land uses and A-13 for non-residential land uses
(2) Source: Net impact cost per resident from Table VII-7 multiplied by the functional resident coefficient (Item 1)
(3) Source: Palm Beach County Department of Planning, Zoning, and Building
(4) Percent change from the current adopted fee (Item 3) to the total impact fee (Item 2)
(5) N/A - Land use is not specifically identified in the County's current fee schedule.
"Unit change" refers to a change in the impact unit, and therefore, a change in the fee level is not provided.

Public Buildings Impact Fee Schedule Comparison

As part of the work effort in updating Palm Beach County's public buildings impact fee schedule, the County's calculated impact fee schedule was compared to the adopted fee schedule and those in similar or nearby jurisdictions. Because Palm Beach County public buildings impact fee includes correctional facilities and law enforcement buildings, which are typically separate fees in the case of many jurisdictions, to provide a better comparison, Table VII-8 presents Palm Beach County's calculated public buildings impact fee schedule compared to the adopted schedule of similar counties for combined fees of public buildings, law enforcement, and correctional facilities, if implemented.

Table VII-9
Public Buildings Impact Fee Schedule Comparison
(Implemented Public Buildings, Law Enforcement, and/or Correctional Fees Combined)

Land Use	Unit[2]	Palm Beach County		Martin County[5]	St. Lucie County[6]	Collier County[7]
		Calculated[3]	Existing[4]			
Date of Last Update		-	2012	2012	2009	2009/2010
Assessed Portion of Calculated[1]		N/A	27%	100%	100%	100%
Residential:						
Single Family (2,000 sf)	du	$1,275	$223	$1,406	$550	$1,704
Non-Residential:						
Light Industrial	1,000 sf	$569	$74	$340	$118	$596
Office (50,000 sq ft)	1,000 sf	$1,162	$131	$590	$624	$1,227
Retail (125,000 sq ft)	1,000 sfgla	$1,895	$324	$1,293	$869	$1,966
Bank w/Drive-Thru	1,000 sf	$1,879	$382	$1,035	$755	$1,992
Fast Food w/Drive-Thru	1,000 sf	$7,335	$604	$5,239	$755	$7,781

(1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
(2) du = dwelling unit
(3) Source: Table VII-8
(4) Source: Palm Beach County Department of Planning, Zoning, and Building
(5) Source: Martin County Growth Management Division. Public buildings and law enforcement fees combined
(6) Source: St. Lucie County Planning & Development Services. Fees were adopted at 100% and have since been indexed annually using the CPI. Public buildings and law enforcement fees combined
(7) Source: Collier County Impact Fee Administration Department. Public buildings, law enforcement, and correctional fees combined

VIII. Transportation

This section of the impact fee report provides the results of the transportation impact fee analysis and consists of the following sections:

- Demand Component
- Cost Component
- Credit Component
- Calculated Transportation Impact Fee Schedule
- Transportation Impact Fee Schedule Comparison
- Transportation Impact Fee Benefit Districts Analysis

As in the case of other impact fee program areas, the methodology used for the transportation impact fee study follows a consumption-based impact fee 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 roadway network.

Included in this section 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 the transportation system is expressed in units of VMT (daily vehicle-trip generation rate times the trip length times the percent new trips [of total trips]) for each residential and non-residential land use contained in the impact fee schedule. The trip generation is expressed in average daily rates since new development consumes trips on a daily basis. The demand component is based on trip characteristics studies conducted at different land uses, measuring the impact of each land use on roadway capacity.

The cost of building new capacity typically is expressed in units of dollars per vehicle mile or lane mile of roadway capacity. The credit is an estimate of the current value of future non-impact fee revenues generated by new development that are allocated to transportation capacity expansion construction projects. Thus, the impact fee is an “up front” payment for a portion of the cost of building a lane mile of capacity 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 tax revenues generated by new development.

It should be noted that the information used to develop the impact fee schedule was based on the most recent, reliable, and localized data available. The following input variables were used in the fee equation:

Demand Variables:

- Trip generation rate
- Trip length
- Percent new trips
- Interstate & toll facility discount factor (2012 study did not include this factor)

Cost Variables:

- Cost per lane mile
- Capacity added per lane mile

Credit Variables:

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

A review of impact fee variables and calculated rates are presented in the following sub-sections.

Demand Component

Travel Demand

The amount of transportation system consumed by a unit of new land development is calculated using the following variables and is measured in terms of the vehicle miles of new travel a unit of development consumes on the existing road system.

- Number of daily trips generated;
- Average length of those trips; and
- Proportion of travel that is new travel, rather than travel that is already traveling on the road system and is captured by new development.

As part of this update, the trip characteristics variables were obtained primarily from two sources: (1) trip characteristics studies previously conducted throughout Florida by Tindale Oliver (Florida Studies Database), and (2) the Institute of Transportation Engineers' (ITE) *Trip Generation* report (9th edition).

The Florida Studies Database is included in Appendix E. This database was used to determine VMT, which is developed from trip length, percent new trips, and trip rate for most land uses in the fee schedule. The data in the trip characteristics database is based on actual land use studies and was collected throughout Florida using machine traffic counts and site specific land use origin-destination surveys. In addition, trip generation data from the *ITE 9th Edition Trip Generation* report was used. In instances where trip generation was available from the *ITE Trip Generation* report and the Florida Studies Database, a blended average calculation was used to increase the sample size.

Interstate and Toll Facility Discount Factor

This variable is used to recognize that improvements to Interstate highways are funded by the State using earmarked and Federal funds, while toll facility improvements are funded with toll revenues. Typically, impact fees are not used to pay for these improvements, and the portion of new development's travel occurring on the interstate/toll facility system usually is eliminated from the total travel for each land use.

To calculate the interstate and toll (I/T) facility discount factor, the loaded highway network file was generated for the Southeast Regional Planning Model v7 (SERPM). A select link analysis was run for all traffic analysis zones located within Palm Beach 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. This analysis was completed by FDOT District 4 office in consultation with Tindale Oliver.

Currently, the only interstate/toll facilities in Palm Beach County are I-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 Palm Beach County was calculated for the identified limited access facilities. The total Palm Beach County VMT was calculated for all trips with an origin and/or destination within Palm Beach County for all roads, including limited access roads, located within Palm Beach County.

The I/T discount factor of 29.2 percent was determined by dividing the total Limited Access VMT by the total Palm Beach County VMT, excluding external-to-external trips. By applying this factor to the total Palm Beach County VMT for each land use in the fee schedule, the reduced VMT is then representative of only the roadways which are funded by impact fees. Appendix E, Table E-1 provides further detail on this calculation.

Cost Component

Construction costs increased significantly in Florida between 2005 and 2007 due to additional construction demand caused by hurricanes, the housing market growth, and other factors. Appreciation in land values also resulted in higher right-of-way (ROW) costs during the same period. In early 2008, costs started to stabilize and between 2008 and 2011 most communities experienced a decrease in construction costs, returning to levels seen before 2005. In 2013/2014, roadway costs started to increase again in Florida. Cost information from Palm Beach County, other Florida Counties, and the Florida Department of Transportation (FDOT) was reviewed to develop a unit cost for all phases involved in the construction of one lane-mile of roadway capacity. The findings were also discussed with the County staff to obtain additional input. The following subsections summarize the methodology and findings of the total unit cost analysis for county and state roads. Appendix F provides the data and other support information utilized in these analyses.

<u>County Roadway Costs</u>

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

Design and CEI

Design costs for county roads were estimated at 13 percent of construction phase costs based on a review of recent local improvements and input from County staff. Additional detail is provided in Appendix F, Tables F-2 and F-10.

CEI costs for county roads were estimated at six percent of construction phase costs based on a review of recent local improvements and input from County staff. Additional detail is provided in Appendix F, Tables F-8 and F-16.

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. A review of recent ROW cost data for Palm Beach County

identified 28 recent improvements with acquisition data. Using the construction costs for these improvements, a ROW-to-construction factor was calculated for each improvement, ranging from 1 to 188 percent, with a weighted average of approximately 34 percent. This calculated local factor was slightly lower than county road ROW factors observed in recent impact fee studies throughout Florida. County staff indicated that the weighted average of the all of recent improvements was not indicative of expected costs. When looking at some of the more recent acquisitions along Seminole Pratt Whitney Rd, West Atlantic Ave, and 60th St, the average ROW-Construction ratio is over 60 percent. To be conservative, a ROW-to-construction factor of 40 percent was used in the impact fee calculation, based on the average used in recent impact fee studies throughout Florida. As seen in Table VIII-1, this amount is equal to approximately $0.74 million per lane mile for county roads. Additional detail is provided in Appendix F, Tables F-4, F-12, and F-13.

Construction

The construction cost for county roads was based on a review of local and statewide projects. A review of recent construction cost data for Palm Beach County identified 18 recent capacity expansion improvements averaging $1.81 million per lane mile, as shown in Appendix F, Table F-14.

In addition to local improvements, recent bids from multiple communities throughout the state were also reviewed. This review included more than 360 lane miles of urban design roadway improvements from 16 counties and calculated an average cost of $2.17 million per lane mile. Appendix F, Table F-14 provides a detailed description of the projects reviewed.

Based on this review and a discussion with staff, a county roadway cost of **$1.80** million per lane mile was used in the transportation impact fee calculation for county roads with urban design characteristics. This estimate relies heavily on the recently bid local projects which indicate that roadway construction in Palm County has been consistently less expensive than other jurisdictions in Florida.

To determine the cost per lane mile for county roads with rural design characteristics, the relationship between urban and rural roadway costs from the FDOT District 7 Long Range Estimates (LRE)[1] was reviewed. District 7 was used due to this type of information not being readily available for FDOT District 4. Based on these cost estimates, the costs for roadways with rural design characteristics were estimated at approximately 81 percent of the costs for

[1] This data was not available for FDOT District 4; http://www.dot.state.fl.us/planning/policy/costs/

roadways with urban design characteristics. Additional detail is provided in Appendix F, Table F-1.

To determine the weighted average cost for county roadways, the costs for urban design and rural design roadways were weighted based on the distribution of urban design and rural design roadways included in the County's 2040 Long Range Transportation Plan's Cost Feasible Plan (Appendix F, Table F-18). As show in Table VIII-1, the weighted average county roadway construction cost was calculated at approximately $1.76 million per lane mile and the total cost at $2.80 million per lane mile for county roadways.

Table VIII-1
Estimated Total Cost per Lane Mile for County Roads

Cost Phase	Cost per Lane Mile		
	Urban Design	Rural Design	Weighted Average[6]
Design[1]	$234,000	$190,000	$229,000
Right-of-Way[2]	$720,000	$583,000	$704,000
Construction[3]	$1,800,000	$1,458,000	$1,759,000
CEI[4]	$108,000	$87,000	$105,000
Total Cost	**$2,862,000**	**$2,318,000**	**$2,797,000**
Lane Mile Distribution[5]	88%	12%	100%

(1) Source: Appendix F, Table F-2
(2) Source: Appendix F, Table F-4
(3) Source: Appendix F, Table F-6
(4) Source: Appendix F, Table F-8
(5) Source: Appendix F, Table F-18, Items (c) and (d)
(6) Lane mile distribution (Item 5) multiplied by the design, ROW, construction, and CEI phase costs by section design to develop a weighted average cost per lane mile
All figures rounded to nearest $1,000

State Roadway Costs

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

Design and CEI

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

CEI costs for state roads were also estimated at 11 percent of construction phase costs based on a review of cost data collected for recent transportation impact fee studies throughout Florida. Additional detail is provided in Appendix F, Tables F-9 and F-11.

Right-of-Way

Given the limited data on ROW costs for state roads in Palm Beach County and based on experience in other jurisdictions, the ROW cost ratio was based on a review of cost data collected for recent transportation impact fee studies throughout Florida. Using this ROW-to-construction ratio of 44 percent (Appendix F, Table F-13), the ROW cost for state roads with urban design characteristics is approximately $1.36 million per lane mile.

Construction

A review of recent state road capacity improvements in Palm Beach County identified one (1) recent capacity expansion improvement (along SR 710/Beeline Highway from W. of Congress Avenue to W. of Australian Avenue) at **$7.26** million per lane mile, as shown in Appendix F, Table F-15.

In addition to local improvements, recent bids from multiple communities throughout the state were also reviewed. This review included more than 330 lane miles of urban design roadway improvements from 30 counties and calculated an average cost of $2.78 million per lane mile. Appendix F, Table F-15 provides a detailed description of the projects reviewed. From this set of data, the improvements in FDOT District 4 were reviewed separately. Based on a review of these nine improvements and the Palm Beach County project on SR 710, a weighted average cost of $3.10 million per lane mile was calculated for state roads.

Based on this review and a discussion with staff, a state roadway cost of $3.10 million was used in the transportation impact fee calculation for state roads with urban design characteristics. This estimate relies heavily on the recently bid projects in Palm Beach County and District 4 which indicate that state roadway construction in this portion of the Florida has been consistently more expensive than other jurisdictions in Florida.

To determine the cost per lane mile for state roads with rural design characteristics, 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 81 percent of the costs for roadways with urban design characteristics. Additional detail is provided in Appendix F, Table F-1.

To determine the weighted average cost for state roadways, the costs for urban design and rural design roadways were weighted based on the distribution of urban design and rural design roadways included in the County's 2040 Long Range Transportation Plan's Cost Feasible Plan (Appendix F, Table F-18). As shown in Table VIII-2, the weighted average state roadway construction cost was calculated at approximately $3.03 million per lane mile resulting in a total cost of $5.03 million per lane mile for state roadways.

Table VIII-2
Estimated Total Cost per Lane Mile for State Roads

Cost Phase	Cost per Lane Mile		
	Urban Design	Rural Design	Weighted Average[6]
Design[1]	$341,000	$276,000	$333,000
Right-of-Way[2]	$1,364,000	$1,105,000	$1,333,000
Construction[3]	$3,100,000	$2,511,000	$3,029,000
CEI[4]	$341,000	$276,000	$333,000
Total Cost	**$5,146,000**	**$4,168,000**	**$5,028,000**
Lane Mile Distribution[5]	88%	12%	100%

(1) Source: Appendix F, Table F-3
(2) Source: Appendix F, Table F-5
(3) Source: Appendix F, Table F-7
(4) Source: Appendix F, Table F-9
(5) Source: Appendix F, Table F-18, Items (c) and (d)
(6) Lane mile distribution (Item 5) multiplied by the design, ROW, construction, and CEI phase costs by section design to develop a weighted average cost per lane mile
All figures rounded to nearest $1,000

Summary of Costs (Blended Cost Analysis)

The weighted average cost per lane mile for county and state roads is presented in Table VIII-3. The resulting weighted average cost of approximately $3.62 million per lane mile was utilized as the roadway cost input in the calculation of the transportation impact fee schedule.

[2] This data was not available for FDOT District 4; http://www.dot.state.fl.us/planning/policy/costs/

The weighted average cost per lane mile includes county and state roads and is based on weighting the lane miles of roadway improvements in the Long Range Transportation Plan's (LRTP) Cost Feasible Plan.

Table VIII-3
Estimated Cost per Lane Mile
for County and State Roadway Projects in Palm Beach County

Cost Type	County Roads[1]	State Roads[2]	County and State Roads[3]
Design	$229,000	$333,000	$267,000
Right-of-Way	$704,000	$1,333,000	$937,000
Construction	$1,759,000	$3,029,000	$2,229,000
CEI	$105,000	$333,000	$189,000
Total	**$2,797,000**	**$5,028,000**	**$3,622,000**
Lane Mile Distribution[4]	**63%**	**37%**	100%

(1) Source: Table VIII-1
(2) Source: Table VIII-2
(3) Lane mile distribution (Item 4) multiplied by the design, ROW, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile
(4) Source: Appendix F, Table F-18, Items (a) and (b)
All figures rounded to nearest $1,000

Capacity Added per Lane Mile

An additional component of the transportation impact fee equation is the capacity added per lane mile (also known as the maximum service volume added per mile) of roadway constructed. To calculate the vehicle miles of capacity (VMC) per lane mile of constructed future roadway, an analysis of the 2040 LRTP cost feasible projects (see Appendix F, Table F-18) was conducted to reflect the mix of county and state road improvement that will be built in the future. As shown in Table VIII-4, the resulting average capacity per lane mile calculated based on these projects is 11,533.

Table VIII-4
Weighted Average Vehicle-Miles of Capacity per Lane Mile

Source	Lane Mile Added[1]	Vehicle Miles of Capacity Added[2]	VMC Added per Lane Mile[3]
County Roads	138.49	1,314,859	9,494
State Roads	81.12	1,217,922	15,014
Total	**219.61**	**2,532,781**	
Weighted Average VMC Added per Lane Mile[4]			**11,533**

(1) Source: Appendix F, Table F-18
(2) Source: Appendix F, Table F-18
(3) Vehicle miles of capacity added (Item 2) divided by lane miles added (Item 1)
(4) Total vehicle miles of capacity added for county and state roads (Item 2) divided by the total lane miles added (Item 1)

Cost per Vehicle-Mile of Capacity Added

The impact fee cost per unit of development is assessed based on the cost per vehicle-mile of capacity. As shown in Tables VIII-3 and VIII-4, the cost and capacity for county and state roads have been calculated based on typical roadway improvements. As shown in Table VIII-5, the cost per VMC for travel within Palm Beach County is approximately $314. This average cost per VMC figure is used in the impact fee calculation to determine the total impact cost per unit of development based on the vehicle-miles of travel consumed. For each vehicle-mile of travel that is added to the road system, approximately $314 of roadway capacity is consumed.

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

Source	Cost per Lane Mile[1]	Average VMC Added per Lane Mile[2]	Cost per VMC[3]
County Roads	$2,797,000	9,494	$294.61
State Roads	$5,028,000	15,014	$334.89
Weighted Average	**$3,622,000**	**11,533**	**$314.06**

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

It is important to note that capacity projects eligible for impact fee funding include not only new construction and lane additions, but also associated intersection improvements, traffic signalization, and other amenities and technology improvements that allow for additional vehicle capacity.

Credit Component

Gasoline Tax Equivalent Credit

The present value of the portion of future non-impact fee revenues (converted to equivalent gasoline taxes) generated by a new development over a 25-year period that is projected to be expended on capacity expansion projects is credited against the cost of the system consumed by travel associated with new development.

County

A review of the County's historical roadway financing program and the FY 2015-2019 Capital Improvement Program (CIP) shows that roadway projects are primarily funded by a combination of transportation impact fees and fuel taxes. As shown in Table VIII-6, a total gas tax equivalent revenue credit of 2.0 pennies was calculated for gas tax equivalent expenditures on roadway capacity expansion projects.

State

State expenditures on state roads were reviewed, and a credit for the capacity expansion portion attributable to state projects was estimated. The equivalent number of pennies allocated to fund state projects was determined from projects spanning a 16-year period (FY 2004 to FY 2019). This period represents past expenditures (from FY 2004 to FY 2014) and projected expenditures (from FY 2015 to 2019) from the FDOT Work Program and the County's Transportation Improvement Program (TIP). A list of capacity-adding roadway projects was developed, including lane additions, new road construction, intersection improvements, interchanges, traffic signal projects, and other capacity-addition projects. This review (summarized in Appendix G, Table G-3) indicates that FDOT spending generates an equivalent gas tax credit of 6.6 pennies of gas tax revenue annually.

In summary, Palm Beach County contributes approximately 2.0 pennies toward roadway capacity expansion projects, while the State spends an average of 6.6 pennies for state roadway projects in Palm Beach County. Therefore, a total of 8.6 pennies of revenue credit are included in the impact fee calculation to recognize the future capital revenue that is expected to be generated by new development from all non-impact fee revenues, as shown in Table VIII-6.

Table VIII-6
Equivalent Pennies of Gas Tax Revenue

Credit	Equivalent Pennies per Gallon
County Revenues[(1)]	$0.020
State Revenues[(2)]	$0.066
Total	**$0.086**

(1) Source: Appendix G, Table G-2
(2) Source: Appendix G, Table G-3

Present Worth Variables

Facility Life

The roadway 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 3.40 percent was used in the transportation impact fee calculation based on information provided by Palm Beach County.

The 25-year facility life and 3.40 percent interest rate result in a uniform series present worth factor is 16.6618.

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.

Appendix G, Table G-6 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.

$$FuelEfficiency = \sum VMT_{RoadwayType} \div \sum \left(\frac{VMT_{VehicleType}}{MPG_{VehicleType}} \right)_{RoadwayType}$$

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 2013*. Based on the calculation completed in Appendix G, Table G-6, the fuel efficiency rate to be used in the updated impact fee equation is 18.40 miles per gallon.

Effective Days per Year

An effective 365 days per year of operation was assumed 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 gasoline taxes are adequately credited against the fee.

Calculated Transportation Impact Fee Schedule

The impact fee calculations for each land use are included in Appendix H, 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 H illustrates the following:

- Demand component variables (trip rate, trip length, and percent of new trips)
- Total impact fee cost
- Annual gas tax credit
- Present value of the gas tax credit
- Net transportation impact fee
- Current Palm Beach County impact fee
- 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 H is not necessarily a recommended fee, but instead represents the technically calculated impact fee per unit of land use that could be charged in Palm Beach County.

For clarification purposes, the calculation of an impact fee for one land use category is presented. 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 schedule included in Appendix H, Table H-1. For each land use category, the following equations are utilized to calculate the net impact fee:

Net Impact Fee = Total Impact Cost – Gas Tax Credit

Where:

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

Gas Tax Credit = Present Value (Annual Gas Tax), given 3.40% interest rate & 25-year facility life

Annual Gas/Sales Tax = ([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:

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.81)
- *Assessable Trip Length* = the actual average trip length 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 Discount Factor* = discount factor to account for the travel demand occurring on interstate highways and/or toll facilities (29.2%)
- *Cost per Lane Mile* = unit cost to construct one lane mile of roadway, in $/lane-mile ($3,622,000)
- *Average 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 (11,533)
- *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 ($3,622,000 / 11,533 = $314.06)
- *Present Value* = calculation of the present value of a uniform series of cash flows, gas tax payments in this case, given an interest rate, "i," and a number of periods, "n;" for 3.40% interest and a 25-year facility life, the uniform series present worth factor is 16.6618
- *Effective Days per Year* = 365 days
- *$/Gallon to Capital* = the amount of gas tax revenue per gallon of fuel that is used for capital improvements, in $/gallon ($0.086)
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (18.40)

Transportation Impact Fee Calculation

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

Total Impact Cost = ([7.81 * 6.62 * 1.0] /2) * (1 - 0.292) * ($3,622,000/11,533) = $5,748
Annual Credit for Gas Tax and Other Sources = ([7.81 * 7.12 * 1.0] /2) * 365 * ($0.086 /18.40) = $47
Gas Tax Credit = $47 * 16.6618 = $783
Net Impact Fee = $5,748 – $783 = $4,965

Transportation Impact Fee Comparison

A comparison of calculated fee schedule to the current adopted fee by land use is presented in Table VIII-7. The detailed fee schedule that includes the calculations shown above for all land uses is presented in Appendix H, Table H-1.

Table VIII-7
Transportation Impact Fee Schedule Comparison

Land Use	Unit[2]	Palm Beach County		Martin County[5]	Broward County[6]	Glades County[7]	Miami-Dade County[8]	St. Lucie County[9]	Collier County[10]	Highlands County[11]	Orange County[12]	Hillsborough County[13]
		Calculated[3]	Existing[4]									
Date of Last Update		-	2012	2012	n/a	2008	n/a	2009	2010	2006	2012	1985
Assessed Portion of Calculated[1]		**100%**	n/a	100%	n/a	100%	n/a	100%	100%	25%	42%	100%
Residential:												
Single Family (2,000 sf)	du	**$4,965**	$7,281	$2,815	$386	$5,550	$6,309	$4,303	$5,753	$1,649	$2,873	$1,475
Non-Residential:												
Light Industrial	1,000 sf	**$3,154**	$1,522	$1,857	$431	$3,538	$4,641	$396	$4,333	$1,166	$1,594	$994
Office (50,000 sq ft)	1,000 sf	**$7,015**	$3,418	$2,198	$397	$4,690	$10,281	$1,307	$9,291	$3,095	$4,105	$2,326
Retail (100,000 sq ft)	1,000 sfgla	**$8,059**	$9,831	$5,183	$366	$8,384	$12,428	$2,543	$10,247	$2,455	$4,022	$3,352
Bank w/Drive-Thru	1,000 sf	**$16,964**	$19,056	$6,841	$366	$10,124	$16,677	$2,511	$21,954	$11,232	$8,466	$13,043
Fast Food w/Drive-Thru	1,000 sf	**$56,801**	$30,702	$15,693	$366	$11,531	$33,565	$2,511	$74,793	$25,202	$28,227	$7,726

(1) Represents the portion of the maximum calculated for each fee that is actually charged. Fees may have been lowered through indexing of policy discounts. Does not account for moratoriums/suspensions
(2) Du = dwelling unit
(3) Source: Appendix H, Table H-1
(4) Source: Palm Beach County Department of Planning, Zoning, and Building. Fees show for Unincorporated Palm Beach County
(5) Source: Martin County Growth Management Department
(6) Source: Broward County Planning & Redevelopment Division, Development Management. Fees shown are an average of all 46 Impact Fee Zones
(7) Source: Glades County Planning Zoning Department. Fees shown are currently suspended (through 2016)
(8) Source: Miami-Dade County Impact Fee Division. Fees shown are an average of the Urban Infill Area and Non-Urban Infill Are rates
(9) Source: St. Lucie County Planning & Development Services Department. Since adoption in 2009, the fees have been indexed annually to the rates above. Fees shown are an average of the 4 transportation districts
(10) Source: Collier County Impact Fee Administration Department. Since adoption, the fees have been indexed annually to the rates above
(11) Source: Highlands County Planning and Zoning Department. Fees shown are currently suspended (through June 30, 2017)
(12) Source: Orange County Planning & Development Department. Fees shown are an average of the AMA and Non-AMA districts
(13) Source: Hillsborough County Development Services Department. Fees shown are an average of the 10 impact fee districts

Transportation Impact Fee Benefit Districts

Palm Beach County currently has five impact fee benefit districts/zones, as illustrated in Article 13, Figure 13.H.3.6-7 of the County's impact fee ordinance. These districts do not include the western portion of the County, which is not charged transportation impact fees.

Benefit districts dictate where impact fee revenues can be spent to ensure that fee payers receive the associated benefit. Typically, these boundaries are based on land use patterns, growth rates, major roadway boundaries, and major geographical/environmental boundaries.

As part of this update study, Tindale Oliver conducted a review of the existing fee district boundaries. In addition to evaluating geographical boundaries and City limits, the impact fee revenue and expenditure monies were reviewed to determine the effectiveness of the existing boundaries and discussions were held with Palm Beach County staff to discuss any issues that have arisen due to the current district alignments.

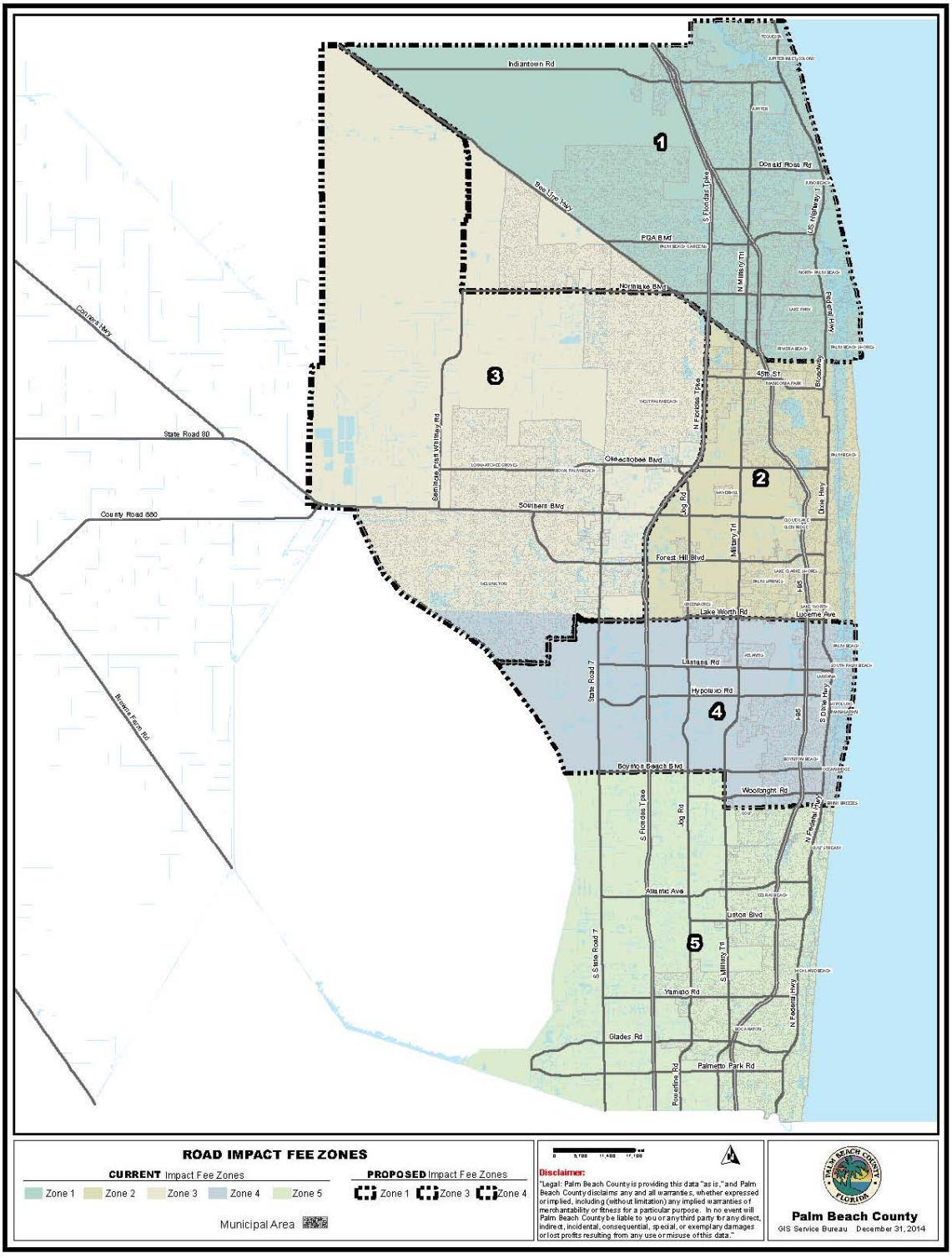
Based on this review and the discussions with staff, two benefit district adjustments are recommended:

- Extend Benefit District 1 to the southwest to the intersection of Northlake and Seminole-Pratt Whitney. This realignment will provide greater flexibility in managing Zones 1, 2, and 3, will ensure that revenues collected in West Palm Beach and Palm Beach Gardens continue to benefit the eastern areas of Palm Beach County in or near West Palm (Zone 2) and Palm Beach Gardens (Zone 1), and ensures that large tracts of westward development remain in their current Zones.

- Shift the border between Zones 3 and 4 slightly to follow the City of Wellington municipal boundary. This re-alignment is designed to keep the entire city in one zone and also follows a canal which is providing a travel boundary between southeast Wellington and the rest of Zone 4.

Map VIII-1 illustrates the existing benefit districts and the proposed changes discussed above.

Map VIII-1
Proposed Transportation Impact Fee Benefit Districts



APPENDIX A
Population – Supplemental Information

Population

With the exception of the school, fire protection and rescue, and transportation 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 credit calculations. With this in mind, a consistent approach to developing population estimates and projections is an important component of the data compilation process. To accurately determine demand for services, not only the residents, or permanent population of the County, but also the seasonal residents and visitors were considered. Seasonal residents include visitors to hotel and motel facilities, visitors to RV parks, visitors that stay with relatives and friends, and part-time residents, which are defined as living in Palm Beach 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 average seasonal population will be used in all population estimates and projections. References to population contained in this report pertain to the weighted average seasonal population, unless otherwise noted.

Palm Beach County provides all of the services included in the impact fee program countywide, with the exception of the law enforcement, libraries, and the fire rescue program (incident based demand) areas. Given the differences in services areas, population estimates are provided separately for the countywide, law enforcement, and libraries service areas.

Table A-1 presents the population trend for Palm Beach County. The projections indicate that the population of Palm Beach County is estimated to increase by 26 percent between 2014 and 2040 countywide.

Table A-1
Weighted Population Trends and Projections

Year	Weighted Seasonal Population Figure		
	Palm Beach Countywide[1]	Service Area for Library[2]	Service Area for Law Enf.[3]
2000	1,193,038	768,123	682,850
2001	1,219,744	786,510	698,831
2002	1,249,273	812,124	718,604
2003	1,281,690	834,715	735,376
2004	1,316,682	852,229	746,707
2005	1,346,377	868,720	756,893
2006	1,363,362	877,255	761,221
2007	1,373,668	886,912	769,682
2008	1,377,516	890,524	771,155
2009	1,380,304	892,552	771,762
2010	1,400,677	927,753	796,420
2011	1,407,505	932,116	799,594
2012	1,418,030	938,137	804,186
2013	1,430,147	943,997	809,864
2014	**1,443,996**	**952,314**	**818,439**
2015	1,459,205	964,774	827,791
2016	1,476,861	976,447	837,807
2017	1,494,730	988,262	847,944
2018	1,512,817	1,000,220	858,205
2019	1,531,122	1,012,323	868,589
2020	1,549,668	1,024,585	879,110
2021	1,565,630	1,035,138	888,164
2022	1,581,757	1,045,800	897,312
2023	1,598,048	1,056,572	906,555
2024	1,614,508	1,067,455	915,893
2025	1,631,531	1,078,710	925,550
2026	1,645,888	1,088,203	933,694
2027	1,660,372	1,097,778	941,911
2028	1,674,983	1,107,438	950,199
2029	1,689,722	1,117,184	958,560
2030	1,704,900	1,127,219	967,171
2031	1,716,494	1,134,884	973,748
2032	1,728,166	1,142,602	980,370
2033	1,739,918	1,150,371	987,036
2034	1,751,749	1,158,194	993,748
2035	1,763,298	1,165,830	1,000,299
2036	1,774,760	1,173,408	1,006,802
2037	1,786,296	1,181,035	1,013,346
2038	1,797,907	1,188,712	1,019,932
2039	1,809,593	1,196,438	1,026,562
2040	1,821,272	1,204,160	1,033,187

(1) Source: Appendix A, Table A-14
(2) Source: Appendix A, Table A-15
(3) Source: Appendix A, Table A-16

Apportionment of Demand by Residential Unit Type and Size

To be consistent with the County's current residential fee structure, the parks and recreation, library, and public buildings impact fees are consolidated into one residential grouping and are tiered by square footage size of the dwelling. The law enforcement impact fee is structured based on residential dwelling type (single family detached, attached, and multi-family, etc.). Fire rescue impact fees are developed based on incident demand which was addressed within the fire rescue section.

Tables A-2 (for Countywide), A-3 (for the law enforcement area), and A-4 (for the library service area) present the number of persons per housing type for the residential categories identified above in Palm Beach County. This analysis includes all housing units, both occupied and vacant.

To address fairness and equity issues between land uses and to be consistent with the County's current fee schedules, the consolidated residential land use category is tiered based on the five categories of square footage currently utilized:

- 800 square feet and under;
- 801 to 1,399 square feet;
- 1,400 to 1,999 square feet;
- 2,000 to 3,599 square feet; and
- 3,600 square feet or more.

To accommodate the tiering of impact fee assessments, an analysis was completed based on housing unit size and persons per housing unit. This analysis utilized national data from the 2011 American Housing Survey (AHS) and data from the 2000 and 2010 U.S. Census Reports to examine this relationship.

Table A-2
Persons per Housing Unit (Countywide)

Housing Type	Population[1]	Housing Units[2]	Ratio[3]	Residents / Housing Units[4]
Residential				
800 sf & Under			70%	1.48
801 to 1,399 sf			91%	1.92
1,400 to 1,999 sf			100%	2.11
2,000 to 3,599 sf			109%	2.30
3,600 sf or more			113%	2.38
Weighted Average	**1,401,201**	**665,413**		**2.11**

(1) Source: 2013 American Community Survey (ACS), Table B25033 (adjusted for peak seasonal population)
(2) Source: 2013 American Community Survey (ACS), Table DP04
(3) Ratio of people per housing unit for each tier to the mid-size home, developed based on national PPH data derived from the 2011 American Housing Survey
(4) Population (Item 1) divided by housing units (Item 2)

Table A-3
Persons per Housing Unit (Law Enforcement Service Area)

Housing Type	Population[1]	Housing Units[2]	Residents / Housing Units[3]
Single Family (detached)	478,172	180,664	2.65
Single Family (attached)	95,799	36,195	2.65
Multi-Family	185,887	118,979	1.56
Mobile Home	36,231	13,775	2.63
Weighted Average	**796,089**	**349,613**	**2.28**

(1) Source: 2013 American Community Survey (ACS), Table B25033 (adjusted for peak seasonal population)
(2) Source: 2013 American Community Survey (ACS), Table DP04
(3) Population (Item 1) divided by housing units (Item 2)

Table A-4
Persons per Housing Unit (Library Service Area)

Housing Type	Population[1]	Housing Units[2]	Ratio[3]	Residents / Housing Units[4]
Residential				
800 sf & Under			70%	1.54
801 to 1,399 sf			91%	2.00
1,400 to 1,999 sf			100%	2.20
2,000 to 3,599 sf			109%	2.40
3,600 sf or more			113%	2.49
Weighted Average	**929,048**	**421,353**		**2.20**

(1) Source: 2013 American Community Survey (ACS), Table B25033 (adjusted for peak seasonal population)
(2) Source: 2013 American Community Survey (ACS), Table DP04
(3) Ratio of people per housing unit for each tier to the mid-size home, developed based on national PPH data derived from the 2011 American Housing Survey
(4) Population (Item 1) divided by housing units (Item 2)

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 need 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)[3]. 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 the Palm Beach County functional population, an analysis of the County's population and employment characteristics was conducted. Tables A-5 and A-6 presents this analysis for Palm Beach County. Based on this analysis, people in the county, on average, spend 16.3 hours each day at their place of residence. This corresponds to approximately 68 percent of each 24-hour day at their place of residence and the other 32 percent away from home.

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

Table A-5
Population & Employment Characteristics

Item/Calculation Step	Figure
Total workers living in Palm Beach County[1]	568,710
Palm Beach County Census Population (2010)[2]	1,320,134
Total workers as a percent of population[3]	43.1%
School age population (5-17 years) (2010)[4]	198,032
School age population as a percent of population[5]	15.0%
Population net of workers and school age population[6]	553,392
Other population as a percent of total population[7]	41.9%

(1) Source: Census Transportation Planning Package (CTPP) 2010
(2) Source: 2010 U.S. Census
(3) Total workers (Item 1) divided by the census population (Item 2)
(4) Source: 2010 U.S. Census
(5) School age population (Item 4) divided by the census population (Item 2)
(6) Census 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 the census population (Item 2)

Table A-6
Residential Coefficient for Functional Population

Pop. Group	Hours at Residence[1]	Percent of Population[2]	Effective Hours[3]
Workers	13	43.1%	5.6
Students	15	15.0%	2.3
Other	20	41.9%	8.4
Total Hours at Residence[4]			16.3
Residential Functional Population Coefficient[5]			**67.9%**

(1) Assumed
(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 Tables A-8 and A-9.

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, now used internationally. 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 also shows the functional population coefficients for non-residential uses in Palm Beach County. The functional population coefficients in Table A-7 were used to estimate the County's functional population in Tables A-8 and A-9.

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	0.679
Natural Resources	n/a	9.00	3.02	1.51	1.32	1.38	0.09	1.00	7.00	0.379
Construction	110	9.00	3.02	1.51	1.32	1.38	0.09	1.00	5.00	0.271
Manufacturing	140	9.00	2.13	1.07	1.32	1.38	0.06	1.00	5.00	0.270
Transportation, Communication, Utilities	110	9.00	3.02	1.51	1.32	1.38	0.09	1.00	5.00	0.271
Wholesale Trade	150	9.00	3.89	1.95	1.32	1.38	0.12	1.00	5.00	0.271
Retail Trade	820	9.00	52.10	26.05	1.24	1.73	12.76	1.50	7.00	1.173
Finance, Insurance, Real Estate	710	9.00	3.32	1.66	1.24	1.73	0.81	1.00	5.00	0.292
Services[9]	n/a	9.00	28.17	14.09	1.24	1.73	6.90	1.00	6.00	0.568
Government[10]	730	9.00	11.95	5.98	1.24	1.73	2.93	1.00	7.00	0.497

(1) Assumed

(2) Trips per employee represents all trips divided by the number of employees and is based on Trip Generation 9th Edition (Institute of Transportation Engineers 2012) as follows:

ITE Code 110 at 3.02 weekday trips per employee, page 93.

ITE Code 140 at 2.13 weekday trips per employee, page 164.

ITE Code 150 at 3.89 weekday trips per employee, page 193.

ITE Code 710 at 3.32 weekday trips per employee, page 1252.

ITE Code 730 at 11.95 weekday trips per employee, page 1304.

ITE Code 820 based on blended average of trips by retail center size calculated below, adapted from page 1561.

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	86.56	802	69	40.0%	27.60
Community 50k-250k sq.ft.	250	49.28	975	48	30.0%	14.40
Regional 250k-500k sq.ft.	500	38.66	1,043	40	20.0%	8.00
Super Reg. 500k-1000k sq.ft.	1,000	30.33	676	21	10.0%	2.10
Sum of Weighted Trips/1k sq.ft.						52.10

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

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

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

1.24 occupants per Retail Trade, FIRE, and Services trip

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

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

1.73 occupants per Retail Trade, FIRE, and Services trip

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

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

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

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

(9) Trips per employee for the services category is the average trips per employee for the following service related land use categories: quality restaurant, high-turnover restaurant, supermarket, hotel, motel, elementary school, middle school, high school, hospital, medical office, and church. Source for the trips per employee figure from ITE, 9th 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 – Year 2014

Population Category	Palm Beach County Baseline Data[1]	Functional Resident Coefficient[2]	Functional Population[3]
2014 Weighted Population	1,443,996	0.679	980,473
Employment Category			
Natural Resources	12,296	0.379	4,660
Construction	34,425	0.271	9,329
Manufacturing	16,772	0.270	4,528
Transportation, Communication, and Utilities	27,132	0.271	7,353
Wholesale Trade	25,258	0.271	6,845
Retail Trade	85,309	1.173	100,067
Finance, Insurance, and Real Estate	116,378	0.292	33,982
Services	404,081	0.568	229,518
Government Services	67,294	0.497	33,445
Total Employment by Category Population[4]			429,727
2014 Total Functional Population[5]			**1,410,200**

(1) Source: Table A-1 for population and 2014 Woods & Poole for employment data (2014 data was interpolated)

(2) Source: Table A-7

(3) The functional population is Palm Beach County baseline data (Item 1) multiplied by the functional resident coefficient (Item 2)

(4) The total employment population by category is the sum of the employment figures from the nine employment categories (e.g., natural resources, construction, etc.)

(5) The total functional population is the sum of the residential functional population and the employment functional population

Table A-9
Law Enforcement Service Area Functional Population – Year 2014

Population Category	Palm Beach County Baseline Data[1]	Functional Resident Coefficient[2]	Functional Population[3]
2014 Weighted Population	818,439	0.679	555,720
Employment Category			
Natural Resources	8,681	0.379	3,290
Construction	13,357	0.271	3,620
Manufacturing	5,619	0.270	1,517
Transportation, Communication, and Utilities	10,799	0.271	2,927
Wholesale Trade	8,234	0.271	2,231
Retail Trade	30,370	1.173	35,624
Finance, Insurance, and Real Estate	29,211	0.292	8,530
Services	129,306	0.568	73,446
Government Services	26,110	0.497	12,977
Total Employment by Category Population[4]			144,162
2014 Total Functional Population[5]			**699,882**

(1) Source: Table A-1 for population and 2014 Woods & Poole for employment data (2014 data was interpolated)
(2) Source: Table A-7
(3) The functional population is Palm Beach County baseline data (Item 1) multiplied by the functional resident coefficient (Item 2)
(4) The total employment population by category is the sum of the employment figures from the nine employment categories (e.g., natural resources, construction, etc.)
(5) The total functional population is the sum of the residential functional population and the employment functional population

Table A-10 presents the County's annual functional population figures from 2000 through 2040, based on the 2014 functional population figures from Tables A-8 and A-9 and the annual population growth rates from the population figures previously presented in Table A-1.

Table A-10
Palm Beach County Functional Population (2000-2040)

Year	Functional Population	
	Palm Beach Countywide[1]	Service Area for Law Enf.[1]
2000	1,165,044	583,964
2001	1,191,141	597,629
2002	1,219,967	614,542
2003	1,251,564	628,861
2004	1,285,732	638,545
2005	1,314,790	647,229
2006	1,331,356	650,918
2007	1,341,474	658,143
2008	1,345,230	659,393
2009	1,347,920	659,921
2010	1,367,869	681,038
2011	1,374,572	683,762
2012	1,384,881	687,659
2013	1,396,652	692,541
2014	**1,410,200**	**699,882**
2015	1,425,007	707,861
2016	1,442,250	716,426
2017	1,459,701	725,095
2018	1,477,363	733,869
2019	1,495,239	742,749
2020	1,513,331	751,736
2021	1,528,918	759,479
2022	1,544,666	767,302
2023	1,560,576	775,205
2024	1,576,650	783,190
2025	1,593,205	791,413
2026	1,607,225	798,377
2027	1,621,369	805,403
2028	1,635,637	812,491
2029	1,650,031	819,641
2030	1,664,881	827,018
2031	1,676,202	832,642
2032	1,687,600	838,304
2033	1,699,076	844,004
2034	1,710,630	849,743
2035	1,721,920	855,351
2036	1,733,112	860,911
2037	1,744,377	866,507
2038	1,755,715	872,139
2039	1,767,127	877,808
2040	1,778,613	883,514

(1) Source: Tables A-8 (Countywide) and A-9 (Law Enforcement) for 2014. Other years are based on growth rates for Palm Beach County weighted seasonal population; Table A-1 (Item 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 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-11 (for the countywide service area) and A-12 (for the law enforcement service area). The average number of persons per housing unit in Palm Beach County was calculated for the consolidated residential land use grouping and by size of home based on information obtained from the 2013 American Community Survey and the 2011 American Housing Survey for the Countywide service area. As mentioned previously, the law enforcement service area is calculated for the single family detached, single family attached, multi-family, and mobile home land uses. Besides the residential land uses, Tables A-11 and A-12 also include transient land uses, such as hotels, and nursing homes/congregate living facilities. Secondary sources, such as the Palm Beach County Tourist Development Council and the Convention and Visitors Bureau and the Florida Department of Elderly Affairs, are used to determine the occupancy rate for hotels, motels, nursing homes, and CLF land uses.

Non-Residential Land Uses

A similar approach is used to estimate functional residents for non-residential land uses. Table A-13 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 tables shows the estimated functional resident coefficients by land use. These coefficients by land use create the demand component for the certain 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-11
Functional Residents for Residential and Transient Land Uses - Countywide Service Area

Residential Land Use	Impact Unit	ITE LUC[1]	Residents/ Visitors Per Unit[2]	Occupancy Rate[3]	Adjusted Residents Per Unit[4]	Peak Visitor Hours at Place[5]	Workers Per Unit[6]	Work Day Hours[7]	Days Per Week[8]	Work Week Residents Per Unit[9]
Residential										
800 sf & Under	du	n/a	1.48	-	-	-	-	-	-	1.00
801 to 1,399 sf	du	n/a	1.92	-	-	-	-	-	-	1.30
1,400 to 1,999 sf	du	n/a	2.11	-	-	-	-	-	-	1.43
2,000 to 3,599 sf	du	n/a	2.30	-	-	-	-	-	-	1.56
3,600 sf or more	du	n/a	2.38	-	-	-	-	-	-	1.62
Transient, Assisted, Group										
Hotel/Motel	room	310/320	2.08	67%	1.39	12	0.51	9	7	0.89
Nursing Home/Congregate Living Facility	bed	254/620	1.00	83%	0.83	16	0.84	9	7	0.87

(1) Land use code from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 9th Edition

(2) Estimates for the residential land use from Table A-2; estimates for the hotel/motel land use is based on data obtained from Palm Beach County Tourist Development Council and the Convention and Visitors Bureau. One person per bed is assumed for nursing homes/congregate living facilities.

(3) Source for hotel/motel occupancy: Palm Beach County Tourist Development Council and the Convention and Visitors Bureau. Average hotel/motel occupancy rate for 2005 through 2013. Source for nursing home/CLF occupancy rate is the Florida Department of Elderly Affairs, Palm Beach County Profile. Average occupancy rate for 2012 and 2013.

(4) Residents per unit times occupancy rate

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

(6) Adapted from ITE Trip Generation Handbook, 9th Edition. Hotel/Motel is the average of hotel and motel land uses.

(9) For residential this is Residents Per Unit times 0.679. For Transient, Assisted, and Group it is:

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

Table A-12
Functional Residents for Residential and Transient Land Uses – Law Enforcement Service Area

Residential Land Use	Impact Unit	ITE LUC[1]	Residents/ Visitors Per Unit[2]	Occupancy Rate[3]	Adjusted Residents Per Unit[4]	Peak Visitor Hours at Place[5]	Workers Per Unit[6]	Work Day Hours[7]	Days Per Week[8]	Work Week Residents Per Unit[9]
Residential										
Single Family (detached)	du	210	2.65	-	-	-	-	-	-	1.80
Single Family (attached) (2-4 units)	du	230	2.65	-	-	-	-	-	-	1.80
Multi-Family (5 or more units)	du	220	1.56	-	-	-	-	-	-	1.06
Mobile Home	du	240	2.63	-	-	-	-	-	-	1.79
Transient, Assisted, Group										
Hotel/Motel	room	310/320	2.08	67%	1.39	12	0.51	9	7	0.89
Nursing Home/Congregate Living Facility	bed	254/620	1.00	83%	0.83	16	0.84	9	7	0.87

(1) Land use code from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 9th Edition

(2) Estimates for the single family, multi-family, and mobile home land use from Table A-3; estimates for the hotel/motel land use is based on data obtained from Palm Beach County Tourist Development Council and the Convention and Visitors Bureau. One person per bed is assumed for nursing homes/congregate living facilities.

(3) Source for hotel/motel occupancy: Palm Beach County Tourist Development Council and the Convention and Visitors Bureau. Average hotel/motel occupancy rate for 2005 through 2013. Source for nursing home/CLF occupancy rate is the Florida Department of Elderly Affairs, Palm Beach County Profile. Average occupancy rate for 2012 and 2013.

(4) Residents per unit times occupancy rate

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

(6) Adapted from ITE Trip Generation Handbook, 9th Edition. Hotel/Motel is the average of hotel and motel land uses.

(9) For residential this is Residents Per Unit times 0.679. For Transient, Assisted, and Group it is:

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

Table A-13
Functional Residents for Non-Residential Land Uses

ITE LUC[1]	Land Use	Impact Unit	Trips Per Unit[2]	Trips Per Employee[3]	Employees Per Unit[4]	One-Way Factor @ 50%[5]	Worker Hours[6]	Occupants Per Trip[7]	Visitors[8]	Visitor Hours Per Trip[9]	Days Per Week[10]	Functional Resident Coefficient[11]
	RECREATIONAL:											
412	General Recreation/County Park	acre	2.28	n/a	0.10	1.14	9	2.39	2.62	1.50	7	0.20
420	Marina	berth	2.96	20.52	0.14	1.48	9	2.39	3.40	1.00	7	0.19
430	Golf Course	hole	35.74	20.52	1.74	17.87	9	2.39	40.97	0.25	7	1.08
444	Movie Theater w/Matinee	screen	106.63	53.12	2.01	53.32	9	2.39	125.42	1.00	7	5.98
491	Raquet/Tennis Club	court	38.70	45.71	0.85	19.35	9	2.39	45.40	1.50	7	3.16
492	Health Club	1,000 sf	32.93	n/a	2.00	16.47	9	2.39	37.36	1.50	7	3.09
	INSTITUTIONS:											
520	Elementary School (Private)	student	1.29	15.71	0.08	0.65	9	1.11	0.64	2.00	5	0.06
522	Middle School (Private)	student	1.62	16.39	0.10	0.81	9	1.11	0.80	2.00	5	0.07
530	High School (Private)	student	1.71	19.74	0.09	0.86	9	1.11	0.86	2.00	5	0.08
540	University (7,500 or fewer students) (Private)	student	2.00	12.26	0.16	1.00	9	1.11	0.95	2.00	5	0.10
550	University (more than 7,500 students) (Private)	student	1.50	12.26	0.12	0.75	9	1.11	0.71	2.00	5	0.07
560	Church/Synagogue	1,000 sf	9.11	20.64	0.44	4.56	9	1.90	8.22	1.00	7	0.51
565	Day Care Center	1,000 sf	71.88	26.73	2.69	35.94	9	1.11	37.20	0.15	5	0.89
566	Cemetery	acre	4.73	58.09	0.08	2.37	9	1.90	4.42	0.50	7	0.12
610	Hospital	1,000 sf	13.22	4.50	2.94	6.61	9	1.42	6.45	1.00	7	1.37
640	Animal Hospital/Veterinary Clinic	1,000 sf	32.80	n/a	4.05	16.40	9	1.42	19.24	1.00	7	2.32
n/a	Funeral Home	1,000 sf	12.60	n/a	0.44	6.30	9	1.90	11.53	1.00	6	0.55
	OFFICE & FINANCIAL:											
710	Office (50,000 sf and less)	1,000 sf	15.50	3.32	4.67	7.75	9	1.28	5.25	1.00	5	1.41
	Office (50,001 - 100,000 sf)	1,000 sf	13.13	3.32	3.95	6.57	9	1.28	4.46	1.00	5	1.19
	Office (100,001 - 200,000 sf)	1,000 sf	11.12	3.32	3.35	5.56	9	1.28	3.77	1.00	5	1.01
	Office (200,001 - 400,000 sf)	1,000 sf	9.41	3.32	2.83	4.71	9	1.28	3.20	1.00	5	0.85
	Office (greater than 400,000 sf)	1,000 sf	8.54	3.32	2.57	4.27	9	1.28	2.90	1.00	5	0.77
720	Medical Office (less than 10,000 sf)	1,000 sf	23.83	8.91	2.67	11.92	9	1.42	14.26	1.00	5	1.14
720	Medical Office (10,000 sf and greater)	1,000 sf	34.72	8.91	3.90	17.36	9	1.42	20.75	1.00	5	1.66

Table A-13 (continued)
Functional Residents for Non-Residential Land Uses

ITE LUC[1]	Land Use	Impact Unit	Trips Per Unit[2]	Trips Per Employee[3]	Employees Per Unit[4]	One-Way Factor @ 50%[5]	Worker Hours[6]	Occupants Per Trip[7]	Visitors[8]	Visitor Hours Per Trip[9]	Days Per Week[10]	Functional Resident Coefficient[11]
	RETAIL:											
817	Nursery (Garden Center)	acre	108.10	21.83	4.95	54.05	9	1.73	88.56	1.00	7	5.55
820	Retail 50,000 sf and less	1,000 sf	86.56	n/a	2.50	43.28	9	1.73	72.37	0.50	7	2.45
	Retail 50,001 - 200,000 sf	1,000 sf	53.28	n/a	2.50	26.64	9	1.73	43.59	0.75	7	2.30
	Retail 200,001 - 400,000 sf	1,000 sf	41.80	n/a	2.50	20.90	9	1.73	33.66	1.00	7	2.34
	Retail 400,001 - 600,000 sf	1,000 sf	36.27	n/a	2.50	18.14	9	1.73	28.88	1.25	7	2.44
	Retail 600,001 - 800,000 sf	1,000 sf	32.80	n/a	2.50	16.40	9	1.73	25.87	1.50	7	2.55
	Retail greater than 800,000 sf	1,000 sf	30.33	n/a	2.50	15.17	9	1.73	23.74	1.50	7	2.42
841	New/Used Car Sales	1,000 sf	28.25	21.14	1.34	14.13	9	1.73	23.10	1.00	7	1.47
848	Tire Store	1,000 sf	24.87	41.35	0.60	12.44	9	1.52	18.31	1.00	7	0.99
853	Convenience Store w/Gas Pumps	1,000 sf	775.14	n/a	2.50	387.57	9	1.52	586.61	0.20	7	5.83
880/881	Pharmacy with and w/o Drive-Thru	1,000 sf	95.96	n/a	2.50	47.98	9	1.52	70.43	0.35	7	1.96
890	Furniture Store	1,000 sf	5.06	12.19	0.42	2.53	9	1.52	3.43	0.50	7	0.23
912	Bank/Savings w/Drive-In	1,000 sf	159.34	30.94	5.15	79.67	9	1.52	115.95	0.15	6	2.28
931	Quality Restaurant	1,000 sf	91.10	n/a	9.92	45.55	9	1.85	74.35	1.00	7	6.82
932	High-Turnover Restaurant	1,000 sf	116.60	n/a	9.92	58.30	9	1.85	97.94	0.75	7	6.78
934	Fast Food Rest. w/Drive-Thru	1,000 sf	511.00	n/a	10.90	255.50	9	1.85	461.78	0.25	7	8.90
941	Quick Lube	bay	40.00	n/a	1.50	20.00	9	1.52	28.90	0.50	7	1.16
942	Automobile Care Center	1,000 sf	31.43	n/a	1.50	15.72	9	1.52	22.39	1.00	7	1.50
944/946	Gas Station with and w/o Car Wash	fuel pos.	157.33	n/a	2.50	78.67	9	1.52	117.08	0.20	7	1.91
947	Car Wash	bay	43.94	n/a	0.50	21.97	9	1.52	32.89	0.50	7	0.87
	INDUSTRIAL:											
110	General Industrial	1,000 sf	6.97	3.02	2.31	3.49	9	1.38	2.51	1.00	5	0.69
150	Warehousing	1,000 sf	3.56	3.89	0.92	1.78	9	1.38	1.54	0.75	5	0.28
151	Mini-Warehouse	1,000 sf	2.15	61.90	0.03	1.08	9	1.38	1.46	0.75	7	0.06

Sources:
(1) Land use code found in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 9th 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, 9th 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)

Table A-14
Weighted Seasonal Population Projections (Countywide Service Area)

Year	Permanent Population[(1)]	Seasonal Population[(2)]	Total Weighted Season Pop.[(3)]
2000	1,131,191	61,847	1,193,038
2001	1,156,550	63,194	1,219,744
2002	1,184,549	64,724	1,249,273
2003	1,215,286	66,404	1,281,690
2004	1,248,466	68,216	1,316,682
2005	1,273,752	72,625	1,346,377
2006	1,291,426	71,936	1,363,362
2007	1,302,451	71,217	1,373,668
2008	1,307,784	69,732	1,377,516
2009	1,312,016	68,288	1,380,304
2010	1,320,134	80,543	1,400,677
2011	1,325,758	81,747	1,407,505
2012	1,335,415	82,615	1,418,030
2013	1,345,652	84,495	1,430,147
2014	1,359,976	84,020	1,443,996
2015	1,374,300	84,905	1,459,205
2016	1,390,929	85,932	1,476,861
2017	1,407,759	86,971	1,494,730
2018	1,424,793	88,024	1,512,817
2019	1,442,033	89,089	1,531,122
2020	1,459,500	90,168	1,549,668
2021	1,474,533	91,097	1,565,630
2022	1,489,721	92,036	1,581,757
2023	1,505,065	92,983	1,598,048
2024	1,520,567	93,941	1,614,508
2025	1,536,600	94,931	1,631,531
2026	1,550,122	95,766	1,645,888
2027	1,563,763	96,609	1,660,372
2028	1,577,524	97,459	1,674,983
2029	1,591,406	98,316	1,689,722
2030	1,605,700	99,200	1,704,900
2031	1,616,619	99,875	1,716,494
2032	1,627,612	100,554	1,728,166
2033	1,638,680	101,238	1,739,918
2034	1,649,823	101,926	1,751,749
2035	1,660,700	102,598	1,763,298
2036	1,671,495	103,265	1,774,760
2037	1,682,360	103,936	1,786,296
2038	1,693,295	104,612	1,797,907
2039	1,704,301	105,292	1,809,593
2040	1,715,300	105,972	1,821,272

(1) BEBR-Medium projection for 2040. Interim years were interpolated to smooth out annual population growth rates
(2) Source: Census 2000, Palm Beach County, Palm Beach County Tourist Development Council
(3) Sum of permanent population (Item 1) and seasonal population (Item 2)

Table A-15
Weighted Seasonal Population Projections (Library Service Area)

Year	Permanent Population	Seasonal Population	Total Weighted Season Pop.
2000	731,460	36,663	768,123
2001	749,043	37,467	786,510
2002	773,437	38,687	812,124
2003	794,952	39,763	834,715
2004	811,631	40,598	852,229
2005	825,469	43,251	868,720
2006	834,620	42,635	877,255
2007	844,631	42,281	886,912
2008	849,169	41,355	890,524
2009	852,136	40,416	892,552
2010	876,834	50,919	927,753
2011	880,417	51,699	932,116
2012	885,934	52,203	938,137
2013	890,688	53,309	943,997
2014	899,394	52,920	952,314
2015	911,161	53,613	964,774
2016	922,186	54,261	976,447
2017	933,344	54,918	988,262
2018	944,638	55,582	1,000,220
2019	956,068	56,255	1,012,323
2020	967,649	56,936	1,024,585
2021	977,615	57,523	1,035,138
2022	987,685	58,115	1,045,800
2023	997,858	58,714	1,056,572
2024	1,008,136	59,319	1,067,455
2025	1,018,766	59,944	1,078,710
2026	1,027,731	60,472	1,088,203
2027	1,036,775	61,003	1,097,778
2028	1,045,898	61,540	1,107,438
2029	1,055,102	62,082	1,117,184
2030	1,064,579	62,640	1,127,219
2031	1,071,818	63,066	1,134,884
2032	1,079,107	63,495	1,142,602
2033	1,086,445	63,926	1,150,371
2034	1,093,833	64,361	1,158,194
2035	1,101,044	64,786	1,165,830
2036	1,108,201	65,207	1,173,408
2037	1,115,405	65,630	1,181,035
2038	1,122,655	66,057	1,188,712
2039	1,129,952	66,486	1,196,438
2040	1,137,244	66,916	1,204,160

(1) BEBR-Medium projection for 2040. Interim years were interpolated to smooth out annual population growth rate
(2) Source: Census 2000, Palm Beach County, Palm Beach County Tourist Development Council
(3) Sum of permanent population (Item 1) and seasonal population

Table A-16
Weighted Seasonal Population Projections (Law Enforcement Service Area)

Year	Permanent Population[(1)]	Seasonal Population[(2)]	Total Weighted Season Pop.[(3)]
2000	653,200	29,650	682,850
2001	668,482	30,349	698,831
2002	687,396	31,208	718,604
2003	703,440	31,936	735,376
2004	714,279	32,428	746,707
2005	722,380	34,513	756,893
2006	727,423	33,798	761,221
2007	736,229	33,453	769,682
2008	738,597	32,558	771,155
2009	740,080	31,682	771,762
2010	757,096	39,324	796,420
2011	759,766	39,828	799,594
2012	763,981	40,205	804,186
2013	768,700	41,164	809,864
2014	777,585	40,854	818,439
2015	786,469	41,322	827,791
2016	795,986	41,821	837,807
2017	805,617	42,327	847,944
2018	815,365	42,840	858,205
2019	825,231	43,358	868,589
2020	835,227	43,883	879,110
2021	843,830	44,334	888,164
2022	852,521	44,791	897,312
2023	861,302	45,253	906,555
2024	870,174	45,719	915,893
2025	879,349	46,201	925,550
2026	887,087	46,607	933,694
2027	894,893	47,018	941,911
2028	902,768	47,431	950,199
2029	910,712	47,848	958,560
2030	918,893	48,278	967,171
2031	925,141	48,607	973,748
2032	931,432	48,938	980,370
2033	937,766	49,270	987,036
2034	944,143	49,605	993,748
2035	950,367	49,932	1,000,299
2036	956,545	50,257	1,006,802
2037	962,763	50,583	1,013,346
2038	969,020	50,912	1,019,932
2039	975,319	51,243	1,026,562
2040	981,613	51,574	1,033,187

(1) BEBR-Medium projection for 2040. Interim years were interpolated to smooth out annual population growth rates
(2) Source: Census 2000, Palm Beach County, Palm Beach County Tourist Development Council
(3) Sum of permanent population (Item 1) and seasonal population

Palm Beach County Impact Fee Program Service Areas

Table A-17 displays the service areas of Palm Beach County's impact fee programs.

Table A-17
Palm Beach County Impact Fee Program Service Areas

Palm Beach County/ Cities	Countywide Service Area				Library Service Area	Law Enf. Service Area	Fire Rescue Service Area
	Roads	Parks	Public Bldgs	Schools			
City of Atlantis	Y	Y	Y	Y	Y	N	N
City of Belle Glade	Y	Y	Y	Y	Y	Y	Y
City of Boca Raton	Y	Y	Y	Y	N	N	N
City of Boynton Beach	Y	Y	Y	Y	N	N	N
City of Briny Breezes	Y	Y	Y	Y	Y	N	N
Town of Cloud Lake	Y	Y	Y	Y	Y	Y	Y
City of Delray Beach	Y	Y	Y	Y	N	N	N
Town of Glen Ridge	Y	Y	Y	Y	Y	Y	Y
City of Greenacres	Y	Y	Y	Y	Y	N	N
Town of Gulfstream	Y	Y	Y	Y	N	N	N
Town of Haverhill	Y	Y	Y	Y	Y	Y	Y
Town of Highland Beach	Y	Y	Y	Y	N	N	N
Town of Hypoluxo	Y	Y	Y	Y	Y	N	N
Town of Juno Beach	Y	Y	Y	Y	Y	N	Y
Town of Jupiter Inlet Colony	Y	Y	Y	Y	Y	N	N
Town of Jupiter	Y	Y	Y	Y	Y	N	Y
Town of Lake Clarke Shores	Y	Y	Y	Y	Y	N	Y
Town of Lake Park	Y	Y	Y	Y	N	Y	Y
City of Lake Worth	Y	Y	Y	Y	N	Y	Y
Town of Lantana	Y	Y	Y	Y	N	N	Y
Town of Loxahatchee Groves	Y	Y	Y	Y	Y	Y	Y
Town of Manalapan	Y	Y	Y	Y	N	N	Y
Town of Mangonia Park	Y	Y	Y	Y	Y	Y	N
Village of North Palm Beach	Y	Y	Y	Y	N	N	N
Town of Ocean Ridge	Y	Y	Y	Y	Y	N	N
City of Pahokee	Y	Y	Y	Y	Y	Y	Y
Town of Palm Beach	Y	Y	Y	Y	N	N	N
City of Palm Beach Gardens	Y	Y	Y	Y	Y	N	N
Town of Palm Beach Shores	Y	Y	Y	Y	Y	N	N
Village of Palm Springs	Y	Y	Y	Y	N	N	Y
City of Riviera Beach	Y	Y	Y	Y	N	N	N
Village of Royal Palm Beach	Y	Y	Y	Y	Y	Y	Y
City of South Palm Beach	Y	Y	Y	Y	Y	N	Y
City of South Bay	Y	Y	Y	Y	Y	Y	Y
Village of Tequesta	Y	Y	Y	Y	Y	N	N
Village of Golf	Y	Y	Y	Y	N	Y	N
Village of Wellington	Y	Y	Y	Y	Y	Y	Y
City of West Palm Beach	Y	Y	Y	Y	N	N	N
PBC Unincorporated	Y	Y	Y	Y	Y	Y	Y

Note: "Y" indicates service is provided in the area
Note: "N" indicates service is not directly provided in the area

APPENDIX B
Public Education Facilities Impact Fee – Supplemental Information

Public Education Facilities Supplemental Information

This appendix presents the inventory of traditional schools in Palm Beach County.

School District Inventory

The current inventory of traditional and alternative schools in Palm Beach County that are owned by the Palm Beach County School District is presented in Table B-1.

Table B-1
Palm Beach County School District Existing School Inventory

Number	Schools	Year Acquired	Grade	FISH Permanent Net Square Footage	Permanent Student Stations	Permanent Capacity
Elementary Schools						
1	Acreage Pines Elementary	1987	KG-5	85,958	553	553
2	Addison Mizner Elementary	1966	PK-5	68,003	528	528
3	Allamanda Elementary	1963	KG-5	130,872	720	720
4	Banyan Creek Elementary	1986	PK-5	141,298	1,136	1136
5	Barton Elementary	1956	KG-5	154,476	1,400	1400
6	Beacon Cove Intermediate Bessie Dubois Campus	2000	KG-5	111,271	857	857
7	Belle Glade Elementary	1968	PK-5	119,752	978	978
8	Belvedere Elementary	1941	KG-5	90,837	586	586
9	Benoist Farms Elementary	2001	KG-5	117,508	856	856
10	Berkshire Elementary	1958	KG-5	138,137	1,229	1229
11	Binks Forest Elementary	1999	PK-5	101,924	774	774
12	Boca Raton Elementary	1937	PK-5	67,630	401	401
13	Calusa Elementary	1986	PK-5	91,416	584	584
14	Cholee Lake Elementary	2000	PK-5	109,967	766	766
15	Citrus Cove Elementary	1987	KG-5	131,689	1,227	1227
16	Clifford O Taylor/Kirklane Elementary	1969	KG-5	171,432	1,439	1439
17	Coral Reef Elementary	1999	KG-5	132,405	1,162	1162
18	Coral Sunset Elementary	1984	KG-5	129,391	990	990
19	Crosspointe Elementary	2000	KG-5	103,952	738	738
20	Crystal Lakes Elementary	1986	KG-5	103,946	890	890
21	Cypress Trails Elementary	1987	KG-5	80,457	659	659
22	Del Prado Elementary	1987	PK-5	78,438	605	605
23	Diamond View Elementary	2002	KG-5	127,491	750	750
24	Discovery Key Elementary	1983	PK-5	109,097	738	738
25	Dr Mary Mcleod Bethune Elementary	1998	KG-5	117,962	806	806
26	Dwight D Eisenhower Elementary	1969	KG-5	207,034	1,522	1522
27	Egret Lake Elementary	1991	KG-5	93,785	583	583
28	Elbridge Gale Elementary	2004	PK-5	125,858	1,038	1038
29	Equestrian Trails Elementary	2002	PK-5	119,703	766	766
30	Everglades Elementary School (03-W)	2007	PK-5	119,246	942	942
31	Forest Hill Elementary	1961	PK-5	101,926	754	754
32	Forest Park Elementary	1955	KG-5	122,127	780	780
33	Freedom Shores Elementary	1966	KG-5	112,589	806	806
34	Frontier Elementary	2000	KG-5	108,101	738	738
35	Galaxy Elementary	1957	KG-5	143,992	761	761
36	Glade View Elementary	1964	PK-5	72,447	580	580
37	Gold Coast Community School	1957	KG-12	77,878	585	585
38	Golden Grove Elementary	1996	KG-5	106,750	749	749
39	Gove Elementary	2011	CA CA	116,174	924	924
40	Grassy Waters Elementary	2001	KG-5	113,990	785	785
41	Greenacres Elementary	1926	KG-5	84,903	498	498
42	Grove Park Elementary	1965	KG-5	80,844	702	702
43	H L Johnson Elementary	1982	KG-5	138,266	1,000	1000
44	Hagen Road Elementary	2006	KG-5	123,115	849	849
45	Hammock Pointe Elementary	1989	PK-5	141,603	980	980
46	Heritage Elementary	1999	KG-5	115,928	738	738
47	Hidden Oaks Elementary	2003	KG-5	129,081	978	978
48	Highland Elementary	1949	KG-5	138,103	1,072	1072
49	Hope Centennial Elementary (06-D)	2006	KG-5	123,111	952	952
50	Indian Pines Elementary	1987	KG-5	136,265	1,158	1158
51	Indian Ridge School	1994	KG-12	76,691	269	269
52	J C Mitchell Elementary	1957	KG-5	137,995	1,032	1032
53	Jerry Thomas Elementary	1979	KG-5	130,805	1,100	1100
54	Jupiter Elementary	1925	KG-5	119,071	820	820
55	Jupiter Farms Elementary	1988	KG-5	87,508	587	587
56	K E Cunningham/Canal Point Elementary	1984	PK-5	80,168	707	707
57	Lake Park Elementary	1923	KG-5	74,620	411	411
58	Lantana Elementary	1930	KG-5	95,745	599	599
59	Liberty Park Elementary	1987	PK-5	135,187	981	981
60	Lighthouse Elementary	1987	KG-5	77,895	679	679
61	Limestone Creek Elementary	1987	KG-5	128,426	1,022	1022
62	Lincoln Elementary	1954	KG-5	163,261	968	968
63	Loxahatchee Groves Elementary	1986	KG-5	94,688	564	564
64	Manatee Elementary	1989	PK-5	160,500	1,441	1441
65	Marsh Pointe Elementary (03-X)	2002	KG-5	115,984	1,022	1022
66	Meadow Park Elementary	1954	KG-5	113,725	672	672
67	Melaleuca Elementary	1966	KG-5	69,491	658	658
68	Morikami Park Elementary	1986	PK-5	104,397	772	772
69	New Horizons Elementary	1988	KG-5	81,822	623	623
70	North Grade Elementary	1927	KG-5	102,866	586	586
71	North Palm Beach Elementary	1958	KG-5	32,248	239	239
72	Northboro Elementary	1889	KG-5	125,775	970	970
73	Northmore Elementary	1949	KG-5	95,673	637	637
74	Orchard View Elementary	1994	PK-5	111,201	764	764
75	Pahokee Elementary	1957	KG-5	81,140	671	671
76	Palm Beach Gardens Elementary	1962	KG-5	111,459	739	739
77	Palm Beach Public School	1921	KG-5	68,595	393	393
78	Palm Springs Elementary	1958	KG-5	121,160	760	760

Table B-1 (Continued)
Palm Beach County School District Existing School Inventory

Number	Schools	Year Acquired	Grade	FISH Permanent Net Square Footage	Permanent Student Stations	Permanent Capacity
Elementary Schools						
79	Palmetto Elementary	1926	KG-5	124,584	882	882
80	Panther Run Elementary	1988	KG-5	130,092	978	978
81	Pierce Hammock Elementary	2003	KG-5	120,813	790	790
82	Pine Grove Elementary	1957	PK-5	83,331	654	654
83	Pine Jog Elementary (03-Y)	2006	PK-5	125,990	974	974
84	Pioneer Park Elementary	1990	KG-5	102,411	800	800
85	Pleasant City Elementary	2000	KG-5	69,462	386	386
86	Plumosa Elementary School Of The Arts	1949	KG-5	169,344	711	711
87	Poinciana Elementary	1925	KG-5	96,907	685	685
88	Rolling Green Elementary	1957	KG-5	146,744	1,109	1109
89	Roosevelt Elementary	1954	KG-5	117,695	801	801
90	Royal Palm Beach Elementary	2001	KG-5	104,677	774	774
91	Royal Palm School	1977	PK-12	147,481	623	623
92	S D Spady Elementary	1994	KG-5	91,371	697	697
93	Sandpiper Shores Elementary	1986	KG-5	86,974	592	592
94	Seminole Trails Elementary	1979	KG-5	137,032	1,066	1066
95	South Grade Elementary	1924	KG-5	93,653	607	607
96	South Olive Elementary	1954	KG-5	95,382	601	601
97	Starlight Cove Elementary	1994	KG-5	128,790	1,086	1086
98	Sunrise Park Elementary	1998	KG-5	109,029	738	738
99	Sunset Palms Elementary (03-Z)	2004	KG-5	127,106	978	978
100	Timber Trace Elementary	1990	KG-5	85,671	569	569
101	Turning Points Academy	1994	KG-12	71,047	820	820
102	U B Kinsey/Palmview Elementary	1929	KG-5	102,657	664	664
103	Verde Elementary	1975	PK-5	90,181	571	571
104	Village Academy	1957	KG-12	176,884	1,203	1203
105	Washington Elementary	1963	KG-5	70,005	484	484
106	Waters Edge Elementary	1994	KG-5	106,191	746	746
107	Wellington Elementary	1980	KG-5	118,684	1,022	1022
108	West Gate Elementary	1925	KG-5	108,199	734	734
109	West Riviera Elementary	1964	KG-5	82,391	729	729
110	Westward Elementary	1960	KG-5	119,796	890	890
111	Whispering Pines Elementary	1983	PK-5	112,711	642	642
112	Wynnebrook Elementary	1965	KG-5	72,743	573	573
	Subtotal - Elementary Schools			**12,392,252**	***89,477***	***89,477***
Middle Schools						
1	Bak Middle School Of The Arts	1965	6-8	223,324	1,483	1,335
2	Bear Lakes Middle	1986	6-8	180,507	1,591	1,432
3	Boca Raton Community Middle	1966	6-8	195,394	1,574	1,417
4	Carver Community Middle	1986	6-8	168,564	1,704	1,534
5	Christa Mcauliffe Middle	1984	6-8	143,553	1,149	1,034
6	Congress Middle	1975	6-8	192,959	1,591	1,432
7	Conniston Community Middle	1927	6-8	172,808	1,307	1,176
8	Crestwood Middle	1980	6-8	133,423	1,045	941
9	Don Estridge High Tech Middle	2002	6-8	182,994	1,327	1,194
10	Eagles Landing Middle	1997	6-8	142,044	1,231	1,108
11	Emerald Cove Middle (02-Jj)	2004	6-8	201,305	1,565	1,409
12	Howell L Watkins Middle	1961	6-8	188,224	1,281	1,153
13	Independence Middle	2000	6-8	171,018	1,362	1,226
14	Jeaga Middle	2001	6-8	172,396	1,207	1,086
15	John F Kennedy Middle	1962	6-8	188,925	1,671	1,504
16	Jupiter Middle	1960	6-8	155,685	1,228	1,105
17	L.C. Swain Middle	2003	6-8	192,805	1,621	1,459
18	Lake Shore Middle	1944	6-8	201,618	1,466	1,319
19	Lake Worth Middle	1988	6-8	172,515	1,580	1,422
20	Lantana Community Middle	1963	6-8	149,001	901	811
21	Loggers Run Middle	1981	6-8	120,203	1,073	966
22	Odyssey Middle	1999	6-8	175,341	1,369	1,232
23	Okeeheelee Middle	1995	6-8	178,042	1,793	1,614
24	Omni Middle	1987	6-8	150,645	1,199	1,079
25	Osceola Creek Middle	2002	6-8	170,721	1,194	1,075
26	Palm Springs Community Middle	1960	6-8	212,472	1,893	1,704
27	Polo Park Middle	1966	6-8	176,031	1,326	1,193
28	Roosevelt Community Middle	1994	6-8	209,934	1,653	1,488
29	Tradewinds Middle	2002	6-8	192,066	1,383	1,245
30	Watson B Duncan Middle	1989	6-8	143,833	1,223	1,101
31	Wellington Landings Middle	1980	6-8	140,286	1,119	1,007
32	Western Pines Middle	1996	6-8	143,361	1,171	1,054
33	Woodlands Middle	1985	6-8	176,975	1,348	1,213
	Subtotal - Middle Schools			**5,718,972**	***45,628***	***41,068***
High Schools						
1	Alexander W Dreyfoos Jr School Of The Arts	1907	9-12	248,348	1,353	1,285
2	Atlantic Community High	2002	9-12	404,920	2,423	2,302
3	Boca Raton Community High	1961	9-12	353,579	3,082	2,928
4	Boynton Beach Community High	1994	9-12	348,393	2,313	2,197
5	Forest Hill Community High	1957	9-12	312,415	1,934	1,837
6	Glades Central Community High	1992	9-12	245,163	1,655	1,572
7	John I Leonard Senior High	1964	9-12	381,773	3,056	2,903

Table B-1 (Continued)
Palm Beach County School District Existing School Inventory

Number	Schools	Year Acquired	Grade	FISH Permanent Net Square Footage	Permanent Student Stations	Permanent Capacity
High Schools						
8	Jupiter Community High	1960	9-12	331,452	2,410	2,290
9	Lake Worth Community High	1920	9-12	318,942	2,661	2,528
10	Olympic Heights Community High	1988	9-12	366,496	2,390	2,271
11	Pahokee Middle / Senior High	1983	9-12	306,730	2,167	2,059
12	Palm Beach Central High	2001	9-12	371,937	2,474	2,350
13	Palm Beach Gardens Community High	1965	9-12	379,095	3,002	2,852
14	Palm Beach Lakes Community High	1983	9-12	405,655	2,895	2,750
15	Park Vista Community High	1994	9-12	391,647	2,616	2,485
16	Riviera Beach Preparatory & Achievement Academy	1966	9-12	113,291	484	460
17	Royal Palm Beach Community High	1994	9-12	323,912	2,309	2,194
18	Sabal Palm/Highridge	1958	9-12	9,191	47	45
19	Santaluces Community High	1976	9-12	350,060	2,369	2,251
20	Seminole Ridge Community High	2002	9-12	378,172	2,543	2,416
21	Spanish River Community High	1980	9-12	335,096	2,378	2,259
22	Suncoast Community High School	2005	9-12	294,344	1,824	1,733
23	Wellington Community High	1983	9-12	342,878	2,418	2,297
24	West Boca Raton Community High	2002	9-12	373,319	2,437	2,315
25	William T Dwyer High	1988	9-12	357,644	2,585	2,456
	Subtotal - High Schools			**8,044,452**	***55,825***	***53,035***
	Grand Total - All Schools			**26,155,676**	**190,930**	**183,580**

Source: Palm Beach County School District

APPENDIX C
Building and Land Values Supplemental Information

This Appendix provides a summary of building and land value estimates for all impact fee program areas with the exception of transportation and educational facilities. Information related to cost estimates for educational facilities is included in Section II, and transportation cost estimates are included in Appendix E.

Building Values

For all of the program areas, the following information was reviewed to estimate building values:

- Recent construction completed by Palm Beach County (if any);
- Estimates for any planned facilities;
- Insurance values of existing facilities;
- Data from other jurisdictions for recently completed facilities; and
- Discussions with and estimates provided by the County.

The following paragraphs provide a summary for each program area.

Recreational Facilities

To estimate recreation facility values in Palm Beach County, historical construction data was obtained from the Palm Beach County Parks and Recreation Department. As presented in Table C-1, the costs for each park type between 1996 and 2012 were evaluated and an average figure that relied more heavily on the past 10 years was used. These estimates were applied to the developed acreage of each park type.

Table C-1
Recreation Facility Development Cost

Year	District			Regional			Beach		
	Total Cost	Total Acres	TC/Acre	Total Cost	Total Acres	TC/Acre	Total Cost	Total Acres	TC/Acre
1996	-	-	-	-	-	-	$1,748,000	9.04	$193,363
1997	$2,156,000	23.80	$90,588	$10,464,000	226.48	$46,203	-	-	-
1998	$6,133,448	60.00	$102,224	$5,867,307	130.00	$45,133	-	-	-
1999	$851,000	6.00	$141,833	-	-	-	$2,943,000	1.85	$1,590,811
2000	-	-	-	$26,724,000	238.76	$111,928	-	-	-
2001	-	-	-	-	-	-	$3,358,942	11.44	$293,614
2002	$8,780,643	47.12	$186,346	-	-	-	-	-	-
2003	$5,587,711	27.00	$206,952	-	-	-	$1,574,517	2.15	$732,333
2004	-	-	-	$3,442,337	15.90	$216,499	-	-	-
2005	$603,026	6.50	$92,773	-	-	-	-	-	-
2006	$21,798,084	67.65	$322,219	$11,615,688	65.70	$176,799	-	-	-
2007	$21,143,551	214.71	$98,475	$13,642,979	65.29	$208,960	$799,241	0.28	$2,854,432
2008	$11,656,971	27.80	$419,316	$6,368,960	47.73	$133,437	$214,224	0.34	$630,071
2009	$6,542,836	14.71	$444,788	-	-	-	$1,523,481	4.50	$338,551
2010	$1,491,277	2.65	$562,746	$1,565,000	6.95	$225,180	-	-	-
2011	$5,426,773	44.83	$121,052	$50,760,165	787.56	$64,452	$6,118,884	7.90	$774,542
2012	-	-	-	-	-	-	$132,016	0.36	$366,711
All Years	$92,171,320	542.77	$169,817	$130,450,436	1,584.37	$82,336	$18,412,305	37.86	$486,326
1996 - 2001	$9,140,448	89.80	$101,787	$43,055,307	595.24	$72,333	$8,049,942	22.33	$360,499
2002 - 2012	$83,030,872	452.97	$183,303	$87,395,129	989.13	$88,356	$10,362,363	15.53	$667,248
2008 - 2012	$25,117,857	89.99	$279,118	$58,694,125	842.24	$69,688	$7,988,605	13.10	$609,817
Used in the Study			**$200,000**			**$80,000**			**$640,000**

Source: Palm Beach County Parks and Recreation Department

Public Libraries

Most recent library construction in Palm Beach County, completed between 2010 and 2013, resulted in building cost ranging from $285 per square foot to $431 per square foot. Of these, Acreage Library is a LEED-certified building, which tends to increase the construction cost. This is the only LEED-certified County library and the County does not have a policy to build LEED-certified buildings. The high cost of Belle Glades library could be partially due to the location and site characteristics of this building. The current average insurance value of existing libraries is $309 per square foot with contents, and $204 without contents. Insurance values tend to represent a conservative estimate. Library building costs observed in other jurisdictions over the past five years averaged $240 per square foot. Given this information, building cost of $300 per square foot is found to be a reasonable estimate for the library impact fee calculation purposes.

Table C-2
Public Libraries Construction Cost

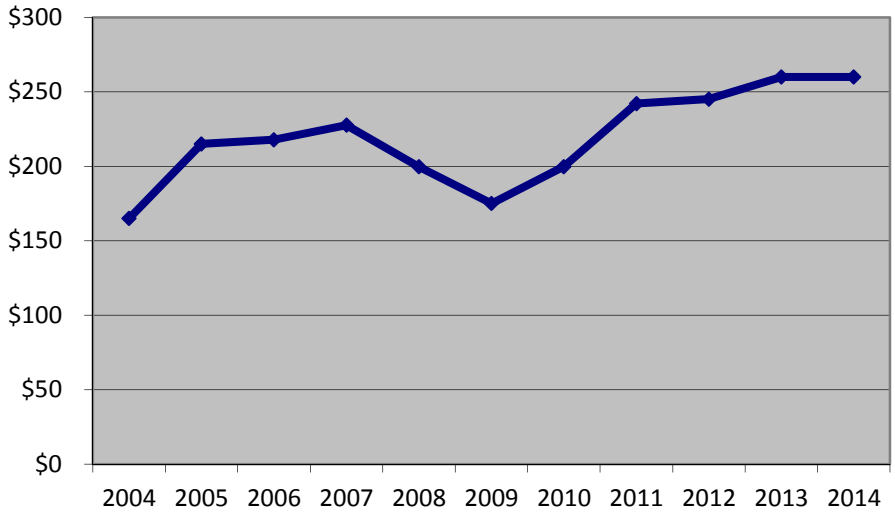
Source	Year	Building Cost per Square Foot
Construction/Renovation of Gardens Library Branch[(1)]	2009/10	$285
Construction of Acreage Library Branch[(1)]	2011/12	$431
Construction of Belle Glade Library Branch[(1)]	2012/13	$403
Insurance Values of Existing Libraries[(2)]	2014	$309
Library Construction in Other Florida Counties[(3)]	2010-2014	$240
Used in the Study	**2014**	**$300**

(1) Source: Palm Beach County
(2) Source: Palm Beach County, includes contents
(3) Previous impact fee studies over the past five years

Fire Protection & Rescue

As part of this analysis, Tindale Oliver contacted several Florida jurisdictions to obtain more recent fire station construction cost information. The bids and estimates for facilities built in 2010 or 2012 range from $190 to $300 per square foot (excluding furniture/fixture/equipment, site preparation cost, permits, fees and other similar expenses). The following chart presents the station construction cost trends based on bids, estimates, and other information obtained during the previous impact fee studies completed by Tindale Oliver. As presented, the variation in station costs is relatively minor over the past few years.

Figure C-1
Fire/EMS Station Construction Cost per Square Foot



Source: Fire station construction cost data collected from Florida jurisdictions

In determining the appropriate unit cost for station construction in Palm Beach County, in addition to these trends, the following data was evaluated:

- The most recent fire station expansion and renovation project cost was approximately $262 per square foot (replacement of Station 31 in 2012). The high cost associated with the replacement of Station 74 ($436 per square foot) is partially due to its location in the Glades area, which requires higher site preparation costs.
- The insurance value of existing fire/EMS stations is $190 per square foot, which is considered to be a conservative value.
- Based on this information, an average value of $260 per square foot for fire station construction cost is estimated for impact fee calculation purposes, which is also consistent with statewide trends.

Table C-3
Fire Protection & Rescue Cost

Source	Year	Building Cost per Square Foot
Replacement of Station 31[(1)]	2012	$262
Replacement of Station 74[(2)]	2011	$436
Insurance Values of Existing Fire Stations[(3)]	2014	$192
Recent Fire Station Construction in Other Florida Counties[(4)]	2010-2014	$190 - $300
Estimates from Florida Architects[(5)]	2013	$230 - $280
Used in the Study	**2014**	**$260**

(1) Source: Palm Beach County, includes FF&E
(2) Source: Palm Beach County, includes FF&E and located in the Glades Area, which may increase the cost
(3) Source: Palm Beach County, includes contents
(4) Source: Local jurisdictions
(5) Based on discussions with architects for a range of a typical fire station in Florida based on their experience (includes adjustment for FF&E, site preparation, permits, etc.)

Public Buildings

Public buildings include a variety of building types, such as office and industrial buildings and courthouses. In addition, in the case of Palm Beach County's public buildings impact fee, correctional facilities and law enforcement buildings are also grouped with other public buildings. The following paragraphs provide estimates for each type of building.

Correctional Facilities

As shown in Table C-4, Palm Beach County Facilities Development & Operations Department (FD&O) provided an estimate of $106,432 per bed for jail facilities. This estimate resulted in a cost of $290 per square foot, which was then compared to construction cost estimates obtained from other Florida jurisdictions, information obtained from architects and contracts, and the County's insurance values. This analysis confirmed that the County's estimate is within the range of other jurisdictions and is appropriate to be used for impact fee calculation purposes.

Table C-4
Correctional Facilities Construction Cost

Source	Year	Beds[1]	Square Foot[2]	County Estimate Per Bed[3]	Total Cost[4]	Cost per Square Foot[5]
Correctional Facilities:						
County Estimates:						
Main Jail	2014	2,156	800,305	$106,432	$229,467,392	$287
Stockade	2014	265	153,633		$28,204,480	$184
West County Jail (Belle Glade)	2014	999	314,199		$106,325,568	$338
Eagle Academy (Belle Glade)	2014	144	39,810		$15,326,208	$385
Total/Weighted Average			***1,307,947***		***$379,323,648***	***$290***
Insurance Values[6]	2014					**$243**
Recent Jail Construction in Other Florida Counties[7]						**$240 - $300**
Estimates from National Construction Companies[8]	2014					**$270 - $300**
Estimates from Florida Architects[9]	2013					**$285 - $445**
Used in the Study	**2014**					**$290**

(1) Source: Palm Beach County
(2) Source: Palm Beach County
(3) Source: Palm Beach County Facilities Development & Operations Department
(4) Number of beds (Item 1) multiplied by County estimate per bed (Item 2)
(5) Total cost (Item 4) divided by square footage (Item 2)
(6) Source: Palm Beach County
(7) Source: AJAX Engineering and Florida Department of Correctional Facilities as well as other Florida Counties, figures rounded
(8) Source: Reed Construction Company
(9) Based on discussions with architects for a range of typical jail in Florida based on their experience

Other Public Buildings

In addition to correctional facilities, Palm Beach County public buildings impact fee includes office, industrial, court, and support facilities. As presented in Table C-5, there are a few recent projects, with a construction cost ranging from $93 per square foot to $559 per square foot. Insurance values suggest a range of $50 per square foot for support space to $252 per square foot for courthouses while the estimates provided by FD&O ranges from $25 per square foot to $438 per square foot. Given this range and information from other jurisdictions, a range of $25 per square foot to $325 per square foot used. When applied to the associated square footage, these estimates result in an overall value of $205 per square foot, which is within the range of figures observed in other Florida jurisdictions.

Table C-5
Public Buildings Construction Cost

Source	Year	Building Cost per Square Foot
Recent Construction: [1]		
PBSO - Central Visitation Center	2010	$559
Purchasing/Warehouse	2010	$93
County Estimates: [2]		
- Office/Admin Spaces	2014	$350
- Courthouse	2014	$438
- Industrial Space	2014	$263
- Industrial Support Space	2014	$25
Insurance Values of Existing Buildings: [3]		
- Office/Admin Spaces	2014	$182
- Courthouse	2014	$252
- Industrial Space	2014	$144
- Industrial Support Space	2014	$52
Recent Public Building Construction in Other Florida Counties[4]	2010-2014	$135 - $210
Used in the Study:		
- Office/Admin Spaces	2014	**$250**
- Courthouse	2014	**$325**
- Industrial Space	2014	**$200**
- Industrial Support Space	2014	**$25**

(1) Source: Palm Beach County
(2) Source: Palm Beach County Facilities Development & Operations Department
(3) Source: Palm Beach County
(4) Previous impact fee studies over the past five years

Land Values

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

- Recent land purchases for the related infrastructure (if any);
- Value of current parcels as reported by the Palm Beach County Property Appraiser;
- Value of vacant land by size and by land use;
- Vacant land sales over the past three years by size and by land use; and
- Discussions with County representatives.

It should be noted that the land value and sales analysis suggested that there is a large variation in land values throughout the county, and the sales data indicated higher values possibly due to the location of parcels sold as well as a lag in the update of the values in the Property Appraiser database. The analysis and estimates used for impact fee calculation purposes need to balance the cost of future purchases, which in many cases are likely to be in more expensive areas due to the development activity and the value of land included in impact fee calculations as part of the current inventory.

Libraries

The current value of parcels where libraries are located is estimated to average $191,000 per acre. Given that there were no recent land purchases for library land or any estimates for any future parcels, a value of $190,000 per acre is used for impact fee calculation purposes.

Fire/EMS

Typically, fire stations need to be located at or near major intersections and not in residential areas, for better access and minimum disturbance. As such, land value of these facilities tends to be higher. As presented in Table C-6, both the recent land sales and the value of all vacant parcels for commercial properties versus all properties suggest the value of commercial properties is higher. This analysis is conducted using the Palm Beach County Property Appraiser for parcels with similar size to those included in the current fire/EMS facilities inventory.

The large variation in land values discussed previously is observed in the value of parcels where the current fire/EMS stations are located. The average value of these parcels is $101,000 per acre with a range of $10,000 per acre to $523,000 per acre.

Given this information, an average value of $150,000 per acre is found to be a reasonable estimate for impact fee calculation purposes. This estimate takes into account both the high value of recent sales and the average value of the parcels that are in the inventory.

Table C-6
Fire/EMS Station Land Value

Variable[(1)]	Year	Average Land Value per Acre
Value of Current Parcels	2014	$101,000
Value of Vacant Land:		
0.5 to 5 Acres:		
- All	2014	$81,700
- Commercial	2014	$285,900
5.01 to 10 Acres:		
- All	2014	$64,600
- Commercial	2014	$162,900
Vacant Land Sales:		
0.5 to 5 Acres:		
- All	2011-2013	$211,400
- Commercial	2011-2013	$634,500
5.01 to 10 Acres:		
- All	2011-2013	$128,900
- Commercial	2011-2013	$330,000
Used in the Study	**2014**	**$150,000**

(1) Source: Palm Beach County Property Appraiser Database

Public Buildings

The County has not purchased any land for public buildings recently; however, recent appraisals resulted in estimates ranging from $103,000 per acre to $2.7 million per acre. The value of current parcels, as reported by the Property Appraiser, averages $112,500 per acre. To supplement this figure, Tindale Oliver conducted an analysis of vacant land sales and values based on the data included in the Palm Beach County Property Appraiser database.

Vacant land sales and values were evaluated by land use (residential vs. all land uses) and by size. As mentioned previously, sales data indicates higher values than estimates included in the Property Appraiser's database.

Because public buildings have some level of flexibility in terms of location, it is thought to be appropriate to evaluate values of residential properties, which tend to be lower than those for commercial properties.

Based upon this methodology and Tindale Oliver's observation, an average value of $175,000 per acre is found to be a reasonable estimate for impact fee calculation purposes.

Table C-7
Public Buildings Land Value

Variable[1]	Year	Average Land Value per Acre
Value of Current Parcels	2014	$112,500
Recent Appraisals:[2]		
- 1.14-acre Tract K, Lantana	2013	$341,172
- 3.5-acre site in the Agricultural Reserve	2014	$200,048
- 5-acre site adjacent to Lake Ida Park[3]	2014	$103,093
- 2.48-acre in West Palm Beach TOD	2014	$2,681,452
- 9.92-acre, west of SR 7 and north of Forest Hill Blvd[3]	2015	$115,927
Value of Vacant Land:		
0.6 to 10 Acres:		
- All	2014	$80,400
- Residential	2014	$61,500
10.01 to 20 Acres:		
- All	2014	$83,900
- Residential	2014	$55,400
Vacant Land Sales:		
0.6 to 10 Acres:		
- All	2011-2013	$254,400
- Residential	2011-2013	$178,100
10.01 to 20 Acres:		
- All	2011-2013	$167,100
- Residential	2011-2013	$59,700
Used in the Study	**2014**	**$175,000**

(1) Source: Palm Beach County Property Appraiser Database
(2) Source: Palm Beach County Facilities Development & Operations Department
(3) No roadway frontage/legal vehicular access

APPENDIX D
Public Buildings Impact Fee – Inventory

Table D-1
Palm Beach County Public Buildings Inventory

Dept[1]	Building[1]	Address[1]	Office SF[1]	Industrial SF[1]	Industrial Support SF[1]	Court SF[1]	Jail SF[1]	Jail Beds[1]	Parking Spaces[1]	Total SF[1]
Agriculture	Mounts	531 N. Military Trail, West Palm Beach	6,800							6,800
Agriculture	Hutcheson	559 N. Military Trail, West Palm Beach	19,121							19,121
Agriculture	Ag Ext Office	2916 State Road 15, Belle Glade	2,028							2,028
Courthouse	Main	205 N. Dixie Hwy, West Palm Beach				698,561				698,561
Courthouse	SA/PD	401 N. Dixie Hwy, West Palm Beach	165,000							165,000
Courthouse	Judicial Center Parking	505 Banyan Blvd, West Palm Beach			524,782				1,811	524,782
Courthouse	North	3188 PGA Blvd, Palm Beach Gardens				68,524				68,524
Courthouse	South	200 W. Atlantic Ave, Delray Beach				150,000				150,000
Courthouse	West County	2950 State Road 15, Belle Glade				36,626				36,626
Clerk	Park Place	429 Park Place, West Palm Beach	796	10,680						11,476
Clerk	Courthouse - 7th Flr	205 N. Dixie Hwy, West Palm Beach		8,000						8,000
Community Services	Jupiter Health	6401 W. Indiantown Road, Jupiter	3,300							3,300
Community Services	West Jupiter Comm	6401 W. Indiantown Road, Jupiter	4,600							4,600
Community Services	North County Senior Ctr	5217 Northlake Blvd, Palm Beach Gardens	14,500							14,500
Community Services	Mid-County Senior Ctr	3680 Lake Worth Road, Lake Worth	26,000							26,000
Community Services	Mayme Fredrick	1440 Dr. Martin Luther King Jr Blvd, Riviera Beach	19,000							19,000
Community Services	810 Datura	810 Datura Street, West Palm Beach	29,650							29,650
Community Services	Westgate Community	3691 Oswego Ave, West Palm Beach	5,405							5,405
Community Services	CAC - 1699 Wingfield	1699 Wingfield Street, Lake Worth	4,654							4,654
Community Services	West County Senior	2916 State Road 15, Belle Glade	6,700							6,700
Community Services	Central HRC/Lewis Ctr[2]	1000 45th Street, West Palm Beach	34,631							34,631
Engineering	Vista - 2300 Building	2300 N. Jog Road, West Palm Beach	56,400							56,400
Engineering	Vista - OSC	2633 Vista Parkway, West Palm Beach		106,800	121,800					228,600
Engineering	R&B - Cross State	550 N. Benoist Farm Road, West Palm Beach			300					300
Engineering	R&B - West County	580 N. State Market Road, Pahokee		7,900						7,900
ERM	Vista - 2300 Building	2300 N. Jog Road, West Palm Beach	34,700							34,700
ERM	Vista - OSC	2633 Vista Parkway, West Palm Beach		1,100						1,100
ERM	Mosquito Control	9011 W. Lantana Road, Lake Worth	30,149							30,149
FDO	Vista - OSC	2633 Vista Parkway, West Palm Beach	46,200	12,800						59,000
FDO	Vista - OSC Fleet	2633 Vista Parkway, West Palm Beach		93,400	391,400					484,800
FDO	Gov't Center Parking	215 N. Olive Avenue, West Palm Beach	14,490	11,435						25,925
FDO	Fleet - West & Fuel	580 N. State Market Road, Pahokee		4,174						4,174
FDO	North County Fuel	8130 N Jog Road, West Palm Beach								N/A
FDO	Jupiter Fuel	14185 Military Trail, Jupiter								N/A
FDO	FMD Storage	3611 State Road 715, Pahokee		4,274						4,274
FDO	FMD South	345 S. Congress Ave, Delray Beach	3,762	3,000						6,762
FDO	FMD West	2916 State Road 15, Belle Glade		2,500						2,500
FDO	FMD North	8130 Jog Road, West Palm Beach		5,000						5,000

Table D-1 (Continued)
Palm Beach County Public Buildings Inventory

Dept[1]	Building[1]	Address[1]	Office SF[1]	Industrial SF[1]	Industrial Support SF[1]	Court SF[1]	Jail SF[1]	Jail Beds[1]	Parking Spaces[1]	Total SF[1]
Medical Examiner	CJC	3228 Gun Club Road, West Palm Beach	13,301							13,301
PBSO	Marine Unit	6970 N. Ocean Blvd, Ocean Ridge		2,000						2,000
PBSO	Maine Unit @ Phil Foster	900 E. Blue Heron Blvd, Riviera Beach	2,100							2,100
PBSO	Driving Training	9067 Southern Boulevard, West Palm Beach	1,675							1,675
PBSO	Training Center[2]	4215 Cherry Road, West Palm Beach	32,363							32,363
PBSO	Weapons Training[2]	21500 Southern Boulevard, West Palm Beach	5,056		5,271					10,327
PBSO	K-9 Training[2]	8100 Forest Hill Blvd, West Palm Beach	5,105							5,105
PBSO	District 3 HQ	8130 Jog Road, West Palm Beach	12,000							12,000
PBSO	District 3 - Fleet	8130 Jog Road, West Palm Beach		1,500						1,500
PBSO	CJC - Impound Lot	3228 Gun Club Road, West Palm Beach								N/A
PBSO	CJC - Impound Lot B	3228 Gun Club Road, West Palm Beach								N/A
PBSO	CJC - A	3228 Gun Club Road, West Palm Beach	210,000							210,000
PBSO	CJC - Fuel	3228 Gun Club Road, West Palm Beach								N/A
PBSO	CJC -Motor Pool	3228 Gun Club Road, West Palm Beach		60,000						60,000
PBSO	Main Jail	3228 Gun Club Road, West Palm Beach					800,305	2,156		800,305
PBSO	Stockade[2]	9620 Process Drive, West Palm Beach					153,633	265		153,633
PBSO	West County Jail[2]	38811 James Wheeler Way, Belle Glade					314,199	999		314,199
PBSO	EAGLE Academy	38811 James Wheeler Way, Belle Glade					39,810	144		39,810
PBSO	District 4 Fleet	345 S. Congress Avenue, Delray Beach		2,635						2,635
PBSO	District 4 HQ	14925 Cumberland Drive, Delray Beach	11,000							11,000
PBSO	District 6 Substation	7894 S. Jog Road, Boynton Beach	16,300							16,300
PBSO	District 7 HQ	17901 State Road 7, Boca Raton	11,200							11,200
PBSO	District 7 Fuel	17901 State Road 7, Boca Raton								N/A
PBSO	District 5 HQ	38840 State Road 80, Belle Glade	9,164		1,400					10,564
PBSO	Central Video Visitation[2]	9620 Process Drive, West Palm Beach	9,316							9,316
Property Appraiser	South County	14925 Cumberland Drive, Delray Beach	5,000							5,000
Public Health	Lantana Clinic	1199 W. Lantana Road, Lantana	33,874							33,874
Public Health	Delray Clinic	345 S. Congress Avenue, Delray Beach	33,874							33,874
Public Health	NE Health Center	825 Avenue P, Riviera Beach	14,210							14,210
Public Health	Jupiter Health Center	6401 W. Indiantown Road, Jupiter	4,434							4,434
Public Health	West County Clinic	38754 State Road 80, Belle Galde	37,452							37,452
Public Affairs	Parking Garage	215 N. Olive Avenue, West Palm Beach	2,130							2,130
Public Affairs	Graphics - Repump	1701 S. Jog Road, Greenacres		4,000						4,000
Public Safety	High Ridge Family	1200 45th Street, West Palm Beach	31,800							31,800
Public Safety	Youth Services Bureau	1200 45th Street, West Palm Beach	9,756							9,756
Public Safety	4 Points - Consumer Aff.	50 S. Military Trail, West Palm Beach	7,369							7,369
Public Safety	EOC[2]	20 S. Military Trail, West Palm Beach	38,686							38,686

Table D-1 (Continued)
Palm Beach County Public Buildings Inventory

Dept[1]	Building[1]	Address[1]	Office SF[1]	Industrial SF[1]	Industrial Support SF[1]	Court SF[1]	Jail SF[1]	Jail Beds[1]	Parking Spaces[1]	Total SF[1]
Public Safety	South County Youth	345 S. Congress Avenue, Delray Beach	6,290							6,290
Public Safety	West Animal Care&Control	3615 State Road 715, Pahokee	3,000							3,000
Public Safety	Animal Care & Control[2]	7100 Belvedere Road, West Palm Beach	25,869		18,815					44,684
PZB	Vista - 2300 Building	2300 N. Jog Road, West Palm Beach	106,000							106,000
PZB	South County	451 S. Congress Avenue, Delray Beach	2,600							2,600
Purchasing	4 Points	50 S. Military Trail, West Palm Beach	12,128							12,128
Purchasing	Warehouse	2633 Vista Parkway, West Palm Beach		91,000						91,000
Small Business Asst.	4 Points	50 S. Military Trail, West Palm Beach	2,987							2,987
Supervisor of Elections	20 S Military[2]	240 S. Military Trail, West Palm Beach	39,003							39,003
Tax Collector	Lake Worth	3551 S. Military Trail, Lake Worth	6,220							6,220
Tax Collector	South County	501 S. Congress Ave, Delray Beach	12,343							12,343
Multiple Use	Building 509	3323 Belvedere Road, West Palm Beach	7,500							7,500
Multiple Use	Bill Bailey Community Ctr.	1101 Dr. Martin Luther King Jr. Blvd W, Belle Glade	23,613							23,613
Multiple Use	Cabana Colony	12180 Alt A1A, Palm Beach Gardens	2,000							2,000
Multiple Use	4 Points Common	50 S. Military Trail, West Palm Beach	1,144							1,144
Multiple Use	Government Center	301 N. Olive Ave, West Palm Beach	301,851							301,851
Multiple Use	Gov't Ctr Parking Garage[2]	215 N. Olive Avenue, West Palm Beach			236,104				651	236,104
Multiple Use	Hepburn St	600 N. Hepburn Ave., Jupiter		4,086						4,086
Multiple Use	Midwestern	200 Civic Center Way, Royal Palm Beach	19,968							19,968
Multiple Use	North County Gov't Ctr	3188 PGA Blvd, Palm Beach Gardens	35,113							35,113
Multiple Use	South County Gov't Ctr	345 S. Congress Avenue, Delray Beach	50,000							50,000
Multiple Use	South Cty Parking Garage[2]	11 SW 2nd Ave, Delray Beach			140,819				369	140,819
Multiple Use	Vista - 2300 Common	2300 N. Jog Road, West Palm Beach	38,400							38,400
Multiple Use	Vista - 2300 Garage	2300 N. Jog Road, West Palm Beach			289,528				756	289,528
Multiple Use	West County Gov't Ctr	2916 State Road 15, Belle Glade	23,100							23,100
Multiple Use	1916 Courthouse[2]	301 N. Olive Ave, West Palm Beach	30,933							30,933
Multiple Use	Airport Center - Bldg. 1	100 Australian Ave, West Palm Beach	62,000							62,000
Multiple Use	Airport Center - Bldg. 2	100 Australian Ave, West Palm Beach	62,000							62,000
Multiple Use	20 Mile Bend Tower	20 County Road 880, West Palm Beach								N/A
Multiple Use	Belle Glade Tower	1052 Duda Road, Belle Glade								N/A
Multiple Use	Pahokee Tower	640 N State Market Road, Pahokee								N/A
Multiple Use	Jupiter Tower	8021 W Indiantown Road, Jupiter								N/A
Multiple Use	Connemara Tower	5420 N Ocean Drive, Riviera Beach								N/A
Multiple Use	North EMS Tower	1130 45th Street, Riviera Beach								N/A
Multiple Use	EOC Tower	20 S Military Trail, West Palm Beach								N/A
Multiple Use	Forest Hill Tower	7950 Forest Hill Blvd, West Palm Beach								N/A
Multiple Use	Boynton Beach Tower	515 NW 14th Court, Boynton Beach								N/A

Table D-1 (Continued)
Palm Beach County Public Buildings Inventory

Dept[1]	Building[1]	Address[1]	Office SF[1]	Industrial SF[1]	Industrial Support SF[1]	Court SF[1]	Jail SF[1]	Jail Beds[1]	Parking Spaces[1]	Total SF[1]
Multiple Use	South EMS Tower	345 S Congress Ave, Delray Beach								N/A
Multiple Use	Boca Raton Tower	7941 Glades Road, Boca Raton								N/A
Building Totals			**1,959,113**	**436,284**	**1,730,219**	**953,711**	**1,307,947**	**3,564**	**3,587**	**6,387,274**

(1) Source: Palm Beach County
(2) Source: Palm Beach County, 2014 Statement of Values Report (insurance values)

Table D-2
Palm Beach County Public Buildings - Land Inventory

Deptartment[1]	Building[1]	Address[1]	Total SF[1]	Total SF on Site[1]	Acreage[1]	Allocated Acreage[4]
Public Safety	West Animal Care&Control	3615 State Road 715, Pahokee	3,000	3,000	2.00	2.00
FDO	FMD Storage	3611 State Road 715, Pahokee	4,274	4,274	2.57	2.57
PBSO	West County Jail[2]	38811 James Wheeler Way, Belle Glade	314,199	472,979	115.62	76.81
PBSO	EAGLE Academy		39,810			9.73
PBSO	District 5 HQ	38840 State Road 80, Belle Glade	10,564			2.58
Agriculture	Ag Ext Office	2916 State Road 15, Belle Glade	2,028			0.50
Community Services	West County Senior		6,700			1.64
FDO	FMD West		2,500			0.61
Multiple Use	West County Gov't Ctr		23,100			5.65
Public Health	West County Clinic	38754 State Road 80, Belle Glade	37,452			9.16
Courthouse	West County	2950 State Road 15, Belle Glade	36,626			8.95
Multiple Use	Belle Glade Tower	1052 Duda Road, Belle Glade	N/A	N/A	638.58	-
PBSO	Weapons Training[2]	21500 Southern Boulevard, West Palm Beach	10,327	10,327	63.53	63.53
Multiple Use	20 Mile Bend Tower	20 County Road 880, West Palm Beach	N/A	N/A	1.26	-
PBSO	District 7 HQ	17901 State Road 7, Boca Raton	11,200	11,200	6.86	6.86
PBSO	District 7 Fuel		N/A			-
Community Services	North County Senior Ctr	5217 Northlake Blvd, Palm Beach Gardens	14,500	14,500	5.00	5.00
Engineering	Vista - OSC	2633 Vista Parkway, West Palm Beach	228,600	864,500	46.24	12.23
ERM	Vista - OSC		1,100			0.06
FDO	Vista - OSC		59,000			3.16
FDO	Vista - OSC Fleet		484,800			25.93
Purchasing	Warehouse		91,000			4.87
Engineering	Vista - 2300 Building	2300 N. Jog Road, West Palm Beach	56,400	525,028	12.15	1.30
ERM	Vista - 2300 Building		34,700			0.80
PZB	Vista - 2300 Building		106,000			2.45
Multiple Use	Vista - 2300 Common		38,400			0.89
Multiple Use	Vista - 2300 Garage		289,528			6.70
PBSO	Training Center[2]	4215 Cherry Road, West Palm Beach	32,363	N/A	19.63	8.82
Public Safety	Animal Care & Control[2]	7100 Belvedere Road, West Palm Beach	44,684	44,684	14.05	14.05
Engineering	R&B - Cross State	550 N. Benoist Farm Road, West Palm Beach	300	300	5.25	5.25
PBSO	Driving Training[3]	9067 Southern Boulevard, West Palm Beach	1,675	291,170	98.60	0.57
ERM	Mosquito Control	9011 W. Lantana Road, Lake Worth	30,149	30,149	6.43	6.43
PBSO	Stockade[2]	9620 Process Drive, West Palm Beach	123,633	N/A	38.72	23.00
PBSO	Stockade Kitchen[2]		30,000			1.21
PBSO	Central Video Visitation[2]		9,316			5.49
Agriculture	Hutcheson	559 N. Military Trail, West Palm Beach	19,121	19,121	10.28	10.28
Agriculture	Mounts	531 N. Military Trail, West Palm Beach	6,800	6,800	5.35	5.35
Public Safety	4 Points - Consumer Aff.[3]	50 S. Military Trail, West Palm Beach	7,369	54,554	6.54	0.88
Purchasing	4 Points[3]		12,128			1.45
Small Business Asst.	4 Points[3]		2,987			0.36
Multiple Use	4 Points Common[3]		1,144			0.14
Supervisor of Elections	20 S Military[2]	240 S. Military Trail, West Palm Beach	39,003	39,003	4.83	4.83
Public Safety	EOC[2]	20 S. Military Trail, West Palm Beach	38,686	38,686	4.51	4.51
Multiple Use	EOC Tower		N/A			-
Tax Collector	Lake Worth	3551 S. Military Trail, Lake Worth	6,220	6,220	0.65	0.65
PBSO	District 6 Substation	7894 S. Jog Road, Boynton Beach	16,300	16,300	3.62	3.62
PBSO	District 4 HQ	14925 Cumberland Drive, Delray Beach	11,000	16,000	3.01	2.07
Property Appraiser	South County		5,000			0.94
Multiple Use	Cabana Colony[3]	12180 Alt A1A, Palm Beach Gardens	2,000	4,874	0.47	0.19
Multiple Use	Building 509[3]	3323 Belvedere Road, West Palm Beach	7,500	176,421	12.21	0.52
Community Services	Westgate Community[3]	3691 Oswego Ave, West Palm Beach	5,405	21,272	9.38	2.38
Multiple Use	Airport Center - Bldg. 1	100 Australian Ave, West Palm Beach	62,000	N/A	35.81	8.30
Multiple Use	Airport Center - Bldg. 2		62,000			8.30
Medical Examiner	CJC	3228 Gun Club Road, West Palm Beach	13,301	1,083,606	81.27	0.82
PBSO	CJC - Impound Lot		N/A			4.50
PBSO	CJC - Impound Lot B		N/A			0.06
PBSO	CJC - A		210,000			12.93
PBSO	CJC - Fuel		N/A			-
PBSO	CJC -Motor Pool		60,000			3.69
PBSO	CJC-Motor Pool Land		N/A			10.00
PBSO	Main Jail		800,305			49.27
Community Services	Mid-County Senior Ctr	3680 Lake Worth Road, Lake Worth	26,000	N/A	12.15	7.22
Courthouse	South	200 W. Atlantic Ave, Delray Beach	150,000	150,000	6.46	6.46
Multiple Use	South Cty Parking Garage[2]	11 SW 2nd Ave, Delray Beach	140,819	140,819	2.90	2.90
FDO	FMD South	345 S. Congress Ave, Delray Beach	6,762	99,561	13.41	0.91
PBSO	District 4 Fleet		2,635			0.36
Public Health	Delray Clinic		33,874			4.56
Public Safety	South County Youth		6,290			0.85
Multiple Use	South County Gov't Ctr		50,000			6.74
PZB	South County[3]	451 S. Congress Avenue, Delray Beach	2,600	6,602	1.48	0.58
Tax Collector	South County	501 S. Congress Ave, Delray Beach	12,343	12,343	4.60	4.60
Public Affairs	Graphics - Repump	1701 S. Jog Road, Greenacres	4,000	4,000	1.65	1.65
Multiple Use	Hepburn St	600 N. Hepburn Ave., Jupiter	4,086	4,086	0.30	0.30
Community Services	Jupiter Health[3]	6401 W. Indiantown Road, Jupiter	3,300	24,274	8.62	1.17
Public Health	Jupiter Health Center[3]		4,434			1.57
Community Services	West Jupiter Comm[3]		4,600			1.63
Community Services	CAC - 1699 Wingfield[3]	1699 Wingfield Street, Lake Worth	4,654	N/A	67.56	6.48
PBSO	Marine Unit[3]	6970 N. Ocean Blvd, Ocean Ridge	2,000	3,305	5.69	3.44
Engineering	R&B - West County	580 N. State Market Road, Pahokee	7,900	12,074	2.60	1.70
FDO	Fleet - West & Fuel		4,174			0.90
Courthouse	North	3188 PGA Blvd, Palm Beach Gardens	68,524	103,637	9.77	6.46
Multiple Use	North County Gov't Ctr		35,113			3.31

Table D-2 (Continued)
Palm Beach County Public Buildings Inventory

Deptartment[1]	Building[1]	Address[1]	Total SF[1]	Total SF on Site[1]	Acreage[1]	Allocated Acreage[4]
PBSO	Maine Unit @ Phil Foster[3]	900 E. Blue Heron Blvd, Riviera Beach	2,100	8,144	7.07	1.82
Public Health	NE Health Center[3]	825 Avenue P, Riviera Beach	14,210	18,498	3.89	2.99
Community Services	Mayme Fredrick	1440 Dr. Martin Luther King Jr Blvd, Riviera Beach	19,000	19,000	4.34	4.34
Multiple Use	Bill Bailey Community Ctr.[3]	1101 Dr. Martin Luther King Jr. Blvd W, Belle Glade	23,613	23,613	0.20	0.20
Multiple Use	Midwestern	200 Civic Center Way, Royal Palm Beach	19,968	19,968	3.50	3.50
FDO	North County Fuel	8130 N Jog Road, West Palm Beach	N/A	18,500	6.00	-
FDO	FMD North		5,000			1.62
PBSO	District 3 HQ		12,000			3.89
PBSO	District 3 - Fleet		1,500			0.49
Community Services	Central HRC/Lewis Ctr[2]	1000 45th Street, West Palm Beach	34,631	34,631	3.97	3.97
Public Safety	High Ridge Family	1200 45th Street, West Palm Beach	31,800	41,556	32.71	25.03
Public Safety	Youth Services Bureau		9,756			7.68
Community Services	810 Datura	810 Datura Street, West Palm Beach	29,650	29,650	0.87	0.87
Courthouse	Judicial Center Parking Garage	505 Banyan Blvd, West Palm Beach	524,782	524,782	6.08	6.08
Courthouse	Main	205 N. Dixie Hwy, West Palm Beach	698,561	706,561	4.96	4.91
Clerk	Courthouse - 7th Flr		8,000			0.06
FDO	Gov't Center Parking	215 N. Olive Avenue, West Palm Beach	25,925	264,159	1.74	0.17
Public Affairs	Parking Garage		2,130			0.01
Multiple Use	Gov't Ctr Parking Garage[2]		236,104			1.55
Courthouse	SA/PD	401 N. Dixie Hwy, West Palm Beach	165,000	165,000	2.68	2.68
Multiple Use	Government Center	301 N. Olive Ave, West Palm Beach	301,851	332,784	3.22	2.92
Multiple Use	1916 Courthouse[2]		30,933			0.30
Clerk	Park Place	429 Park Place, West Palm Beach	11,476	11,476	0.83	0.83
Public Health	Lantana Clinic[3]	1199 W. Lantana Road, Lantana	33,874	N/A	144.11	7.25
PBSO	K-9 Training[5]	8100 Forest Hill Blvd, West Palm Beach	5,105	5,105	N/A	N/A
Building Totals			**6,387,274**		**1,679.14**	**601.79**

(1) Source: Palm Beach County
(2) Source: Palm Beach County, 2014 Statement of Values
(3) Source: Palm Beach County Property Appraiser for total square feet on site
(4) Provided by Palm Beach County or calculated as the ratio of total square feet to total square feet on site multiplied by acreage
(5) Acreage is excluded as facility is located at Okeeheelee Park South

APPENDIX E
Transportation Impact Fee – Demand Component Calculations

Transportation Impact Fee: Demand Component

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

Interstate & Toll Facility Discount Factor

Table E-1 presents the interstate and toll facility discount factor used in the calculation of the transportation impact fee. This variable is based on data from the Southeast Regional Planning Model, specifically the 2040 projected vehicle miles of travel, accounting for roadway improvements included in the 2035 Long Range Transportation Plan. It should be noted that discount factor excludes all external-to-external trips, which represent traffic that goes through Palm Beach County, but does not necessarily stop in the county. This traffic is excluded from the analysis since it does not come from development within the county. The I/T discount factor is used to reduce the VMT that the impact fee charges for each land use.

Table E-1
Interstate/Toll Facility Discount Factor

Roadway	VMT (2040)	% VMT
I-95 & FL Turnpike (SR 19)	9,930,000	29.2%
Other Roads	24,110,000	70.8%
Total (All Roads)	**34,040,000**	**100.0%**
Total (Interstate/Toll Roads)	**9,930,000**	**29.2%**

Source: Southeast Regional Planning Model v7

Trip Length Adjustment Factor Analysis

This variable is used to adjust the average trip length obtained from the Florida Studies Database when the trip lengths in a jurisdiction appear significantly different than the average trip length observed in other jurisdiction.

Using the Central Florida Regional Planning Model, the average trip lengths for Palm Beach County were compared to other jurisdictions throughout Florida and it was determined that Palm Beach County trip lengths for residential and non-residential land uses are in-line with the statewide averages. Additionally, fuel tax consumption per person for Palm Beach County was compared to other Florida counties of similar population. Again, Palm Beach County is

in-line with the average for the counties in Florida with large populations, indicating an average level of fuel consumption per capita, which suggests an average level of travel.

Based on this analysis, no trip length adjustment factors were applied to the land uses in the Palm Beach County transportation impact fee schedule.

Florida Studies Trip Characteristics Database

The Florida Studies Trip Characteristics Database includes over 200 studies on 40 different residential and non-residential land uses collected over the last 20 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 a transportation impact fee schedule using data from studies in the Florida Studies Database and the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (9th edition). In instances, when both ITE *Trip Generation* reference report (9th edition) and Florida Studies trip generation rate (TGR) data are available for a particular land use, the data is typically blended together to increase the sample size and provide a more valid estimate of the average number of trips generated per unit of development. If no Florida Studies data is available, 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. Tindale Oliver has published an article entitled, *Measuring Travel Characteristics*

for Transportation Impact Fees, ITE Journal, April 1991 on the data collecting methodology for trip characteristics studies.

Mini-Warehouse (ITE LUC 151)

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	107.0	-	-	-	1.45	-	-	-	-	Orange County
Orange Co, FL	89.6	-	-	-	1.23	-	-	-	-	Orange County
Orange Co, FL	84.7	-	-	-	1.39	-	-	-	-	Orange County
Orange Co, FL	93.0	-	-	-	1.51	-	-	-	-	Orange County
Orange Co, FL	77.0	-	-	-	2.18	-	-	-	-	Orange County
Total Size	451.3	5					**Average Trip Length:**	**n/a**		
ITE	784.0	14					**Weighted Average Trip Length:**	**n/a**		
Blended total	1,235.3						Weighted Percent New Trip Average:	-		

Weighted Average Trip Generation Rate:	1.53
ITE Average Trip Generation Rate:	2.50
Blend of FL Studies and ITE Average Trip Generation Rate:	**2.15**

Single-Family Detached Housing (ITE LUC 210)

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

Weighted Average Trip Generation Rate: 7.81

Multi-Family/Apartment and Residential Condo/Townhouse (ITE LUC 220/230)

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	N/A	30.06	Sarasota County
Sarasota Co, FL	243	Jun-93	36	36	5.84	-	-	N/A	-	Sarasota County
Marion Co, FL	214	Apr-02	175	175	6.84	-	4.61	N/A	31.53	Kimley-Horn & Associates
Marion Co, FL	240	Apr-02	174	174	6.96	-	3.43	N/A	23.87	Kimley-Horn & Associates
Marion Co, FL	288	Apr-02	175	175	5.66	-	5.55	N/A	31.41	Kimley-Horn & Associates
Marion Co, FL	480	Apr-02	175	175	5.73	-	6.88	N/A	39.42	Kimley-Horn & Associates
Marion Co, FL	500	Apr-02	170	170	5.46	-	5.94	N/A	32.43	Kimley-Horn & Associates
Lake Co, FL	250	Dec-06	135	135	6.71	-	5.33	N/A	35.76	Tindale-Oliver & Associates
Lake Co, FL	157	Dec-06	265	265	13.97	-	2.62	N/A	36.60	Tindale-Oliver & Associates
Lake Co, FL	169	Dec-06	212	-	8.09	-	6.00	N/A	48.54	Tindale-Oliver & Associates
Lake Co, FL	226	Dec-06	301	-	6.74	-	2.17	N/A	14.63	Tindale-Oliver & Associates
Hernando Co, FL	312	Apr-07	456	-	4.09	-	5.95	N/A	24.34	Tindale-Oliver & Associates
Hernando Co, FL	176	Apr-07	332	-	5.38	-	5.24	N/A	28.19	Tindale-Oliver & Associates
Hernando Co, FL	31	May-96	31	31	6.12	9a-6p	4.98	N/A	30.48	Tindale-Oliver & Associates
Hernando Co, FL	128	May-96	128	128	6.47	9a-6p	5.18	N/A	33.51	Tindale-Oliver & Associates
Pasco Co, FL	229	Apr-02	198	198	4.77	9a-6p	-	N/A	-	Tindale-Oliver & Associates
Pasco Co, FL	248	Apr-02	353	353	4.24	9a-6p	3.53	N/A	14.97	Tindale-Oliver & Associates
Total Size	4,103						**Average Trip Length:**	**4.84**		
Total Size (TL)	3,631						**Weighted Average Trip Length:**	**5.10**		

LUC 220: Multi-Family

Total Size	3,467	13	Weighted Average Trip Generation Rate:	6.31
ITE	18,480	88	ITE Average Trip Generation Rate:	6.65
Blended total	21,947		**Blend of FL Studies and ITE Average Trip Generation Rate:**	**6.60**

LUC 230 Studies are highlighted

LUC 230: Condo/Townhouse

Total Size	636	4	Weighted Average Trip Generation Rate:	4.97
ITE	10,024	56	ITE Average Trip Generation Rate:	5.81
Blended total	10,660		**Blend of FL Studies and ITE Average Trip Generation Rate:**	**5.76**
Blended total (220/230)	32,607		**Blend of FL Studies and ITE Average Trip Generation Rate (220/230):**	**6.32**

Mobile Home Park (ITE LUC 240)

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	N/A	12.37	Tindale-Oliver & Associates
Marion Co, FL	82	Jul-91	58	58	10.80	24hr.	3.72	N/A	40.18	Tindale-Oliver & Associates
Marion Co, FL	137	Jul-91	22	22	3.10	24hr.	4.88	N/A	15.13	Tindale-Oliver & Associates
Marion Co, FL	188	Apr-02	147	-	3.51	24hr.	5.48	N/A	19.23	Kimley-Horn & Associates
Marion Co, FL	227	Apr-02	173	-	2.76	24hr.	8.80	N/A	24.29	Kimley-Horn & Associates
Sarasota Co, FL	235	Jun-93	100	100	3.51	-	5.10	N/A	17.90	Sarasota County
Marion Co, FL	297	Apr-02	175	-	4.78	24hr.	4.76	N/A	22.75	Kimley-Horn & Associates
Sarasota Co, FL	996	Jun-93	181	181	4.19	-	4.40	N/A	18.44	Sarasota County
Hernando Co, FL	1,892	May-96	425	425	4.13	9a-6p	4.13	N/A	17.06	Tindale-Oliver & Associates
Total Size	4,121	9	1,303				**Average Trip Length:**	**4.84**		
							Weighted Average Trip Length:	**4.60**		

Weighted Average Trip Generation Rate: **4.17**

Senior Adult Housing - Detached (ITE LUC 251)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Lakeland, FL	67	3/28-4/2/90	26	24	3.50	9am-4pm	2.44	N/A	8.54	Tindale-Oliver & Associates
Marion Co, FL	778	Apr-02	175	-	2.96	24hr.	3.49	N/A	10.33	Kimley-Horn & Associates
Marion Co, FL	877	Apr-02	209	-	2.91	24hr.	5.90	N/A	17.17	Kimley-Horn & Associates
Marion Co, FL	1,054	Apr-02	173	-	3.65	24hr.	6.00	N/A	21.90	Kimley-Horn & Associates
Marion Co, FL	3,076	Apr-02	198	-	2.63	24hr.	5.16	N/A	13.57	Kimley-Horn & Associates
Marion Co, FL	3,625	Apr-02	164	-	2.50	24hr.	5.83	N/A	14.58	Kimley-Horn & Associates
Total Size	9,477	6	945				**Average Trip Length:**	**4.80**		
ITE	6,240	8					**Weighted Average Trip Length:**	**5.42**		
Blended total	15,717						Weighted Average Trip Generation Rate:			2.75
							ITE Average Trip Generation Rate:			3.68
							Blend of FL Studies and ITE Average Trip Generation Rate:			**3.12**

Senior Adult Housing - Attached (ITE LUC 252)

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 & Associates
Total Size	208	1					**Average Trip Length:**	**3.28**		
ITE	230	5					**Weighted Average Trip Length:**	**3.28**		
Blended total	438						Weighted Average Trip Generation Rate:			2.46
							ITE Average Trip Generation Rate:			3.44
							Blend of FL Studies and ITE Average Trip Generation Rate:			**2.97**

ITE LUC 251, 252 & 253 (Use for Accessory Apt/Grooms Quarters)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Lakeland, FL	67	3/28-4/2/90	26	24	3.50	9am-4pm	2.44	N/A	8.54	Tindale-Oliver & Associates
Marion Co, FL	778	Apr-02	175	-	2.96	24hr.	3.49	N/A	10.33	Kimley-Horn & Associates
Marion Co, FL	877	Apr-02	209	-	2.91	24hr.	5.90	N/A	17.17	Kimley-Horn & Associates
Marion Co, FL	1,054	Apr-02	173	-	3.65	24hr.	6.00	N/A	21.90	Kimley-Horn & Associates
Marion Co, FL	3,076	Apr-02	198	-	2.63	24hr.	5.16	N/A	13.57	Kimley-Horn & Associates
Marion Co, FL	3,625	Apr-02	164	-	2.50	24hr.	5.83	N/A	14.58	Kimley-Horn & Associates
Sun City Center, FL	208	Oct-91	726	726	2.46	24hr.	3.28	-	8.07	Tindale-Oliver & Associates
Pinellas Park, FL	72	Aug-89	25	19	3.50	9am-5pm	2.20	79.0	7.70	Tindale-Oliver & Associates
Palm Harbor, FL	200	Oct-89	58	40	-	9am-5pm	3.40	69.0	-	Tindale-Oliver & Associates

Total Size	9,957	6	1,754	**Average Trip Length:**	**n/a**
ITE (LUC 251)	6,240	8		**Weighted Average Trip Length:**	**n/a**
ITE (LUC 252)	230	5			
ITE (LUC 253)	388	2			
Blended total	16,815				
	16,615				

Weighted Average Trip Generation Rate:	2.75
ITE Average Trip Generation Rate (LUC 251):	3.68
ITE Average Trip Generation Rate (LUC 252):	3.44
ITE Average Trip Generation Rate (LUC 253):	2.02
Blend of FL Studies and ITE Average Trip Generation Rate:	**3.09**

Congregate Care Facility (ITE LUC 253)

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 & Associates
Palm Harbor, FL	200	Oct-89	58	40	-	9am-5pm	3.40	69.0	-	Tindale-Oliver & Associates

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
ITE Average Trip Generation Rate:	2.02
Blend of FL Studies and ITE Average Trip Generation Rate:	**2.25**

Hotel (ITE LUC 310)

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 & Associates
Pinellas Co, FL	114	Oct-89	30	14	7.30	12-7p	6.20	47.0	21.27	Tindale-Oliver & Associates
Orange Co, FL	70	-	-	-	1.85	-	-	-	-	Orange County
Orange Co, FL	211	-	-	-	2.23	-	-	-	-	Orange County
Orange Co, FL	112	-	-	-	2.78	-	-	-	-	Orange County
Orange Co, FL	1,495	-	-	-	3.50	-	-	-	-	Orange County
Orange Co, FL	123	-	-	-	3.70	-	-	-	-	Orange County
Orange Co, FL	130	-	-	-	4.29	-	-	-	-	Orange County
Orange Co, FL	1,499	-	-	-	4.69	-	-	-	-	Orange County
Orange Co, FL	190	-	-	-	4.71	-	-	-	-	Orange County
Orange Co, FL	123	-	-	-	4.81	-	-	-	-	Orange County
Orange Co, FL	105	-	-	-	5.25	-	-	-	-	Orange County
Orange Co, FL	120	-	-	-	5.27	-	-	-	-	Orange County
Orange Co, FL	1,584	-	-	-	5.88	-	-	-	-	Orange County
Orange Co, FL	128	-	-	-	6.10	-	-	-	-	Orange County
Orange Co, FL	174	-	-	-	7.03	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	98	-	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	106	-	-	-	7.34	-	-	-	-	Orange County
Orange Co, FL	100	-	-	-	7.37	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	7.66	-	-	-	-	Orange County

Total Size	6,944	21	164	**Average Trip Length:**	**6.25**
ITE	4,760	10		**Weighted Average Trip Length:**	**6.26**
Blended total	11,704			Weighted Percent New Trip Average:	66.3

Weighted Average Trip Generation Rate:	5.12
ITE Average Trip Generation Rate:	8.17
Blend of FL Studies and ITE Average Trip Generation Rate:	**6.36**

Motel (ITE LUC 320)

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 & Associates
Pinellas Co, FL	54	Oct-89	32	22	-	12p-7p	3.80	69.0	-	Tindale-Oliver & Associates
Pinellas Co, FL	120	Oct-89	26	22	-	2p-7p	5.20	84.6	-	Tindale-Oliver & Associates

Total Size	222	3	104	**Average Trip Length:**	**3.93**
ITE	2,160	10		**Weighted Average Trip Length:**	**4.34**
				Weighted Percent New Trip Average:	76.6

ITE Average Trip Generation Rate:	**5.63**

Movie Theater with Matinee (ITE LUC 444)

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 & Associates
Pinellas Co, FL	12	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale-Oliver & Associates

Total Size	20		273	**Average Trip Length:**	**2.30**
ITE	10 estimated			**Weighted Average Trip Length:**	**2.22**
	30			Weighted Percent New Trip Average:	87.8

Weighted Average Trip Generation Rate:	83.28
ITE Average Trip Generation Rate (6th):	153.33
Blend of FL Studies and ITE Average Trip Generation Rate:	**106.63**

Health Club (ITE LUC 492)

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	15	1				Percent New Trip Average:		94.0		
							ITE Average Trip Generation Rate:			**32.93**

Day Care Center (ITE LUC 565)

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 & Associates
Pinellas Co, FL	10.0	Sep-89	179	134	66.99	7a-6p	2.10	75.0	105.51	Tindale-Oliver & Associates
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	35.0	7				**Weighted Average Trip Length:**	**2.03**			
Blended total	50.6					Weighted Percent New Trip Average:		73.2		
							Weighted Average Trip Generation Rate:			66.99
							ITE Average Trip Generation Rate:			74.06
							Blend of FL Studies and ITE Average Trip Generation Rate:			**71.88**

Nursing Home (ITE LUC 620)

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 & Associates
Total Size	120	1	74			**Average Trip Length:**	**2.59**			
ITE	714	6				**Weighted Average Trip Length:**	**2.59**			
Blended total	834					Weighted Percent New Trip Average:		89.0		
							Weighted Average Trip Generation Rate:			2.86
							ITE Average Trip Generation Rate:			2.74
							Blend of FL Studies and ITE Average Trip Generation Rate:			**2.76**

General Office Building (ITE LUC 710)

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 & Associates
St. Petersburg, FL	262.8	Sep-89	291	274	-	7a-5p	3.40	94.0	-	Tindale-Oliver & Associates
Total Size	742.1	5	736			**Average Trip Length:**	**6.46**			
ITE	15,522.0	78				**Weighted Average Trip Length:**	**5.15**			
						Weighted Percent New Trip Average:		92.3		

Medical-Dental Office Building (ITE LUC 720): 10,000 sf or Less

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

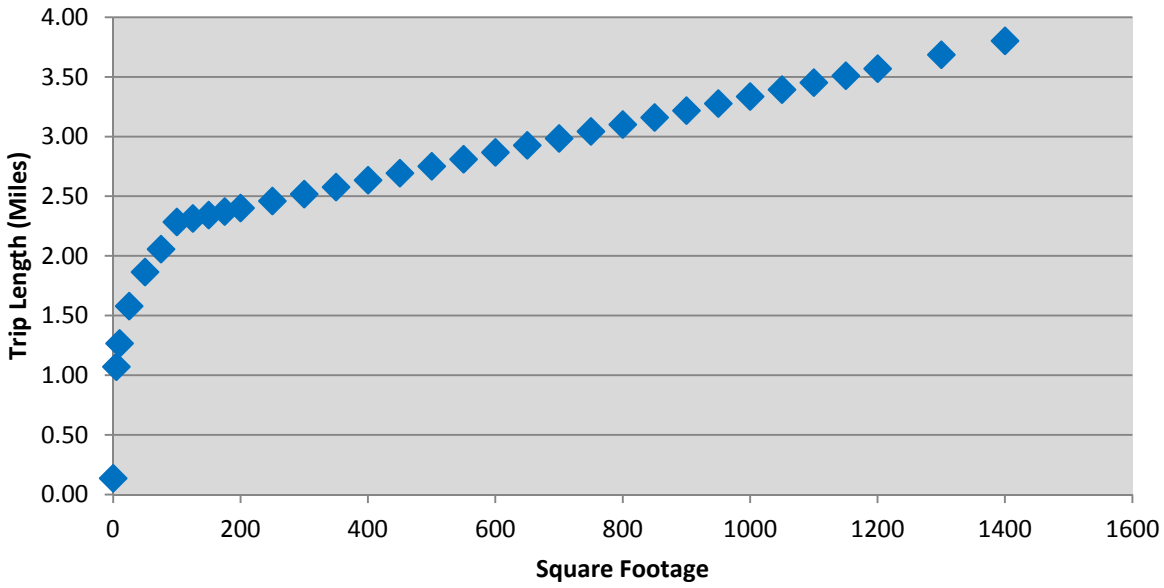
Medical-Dental Office Building (ITE LUC 720)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	26	-	-	6.00	79.0	-	Kimley-Horn & Associates
Palm Harbor, FL	14.6	Oct-89	104	76	33.98	9a-5p	6.30	73.0	156.27	Tindale-Oliver & Associates
St. Petersburg, FL	-	Nov-89	34	30	57.20	9a-4p	1.20	88.0	-	Tindale-Oliver & Associates
Hernando Co, FL	58.4	May-96	390	349	28.52	9a-6p	6.47	89.5	165.09	Tindale-Oliver & Associates
Hernando Co, FL	28.0	May-96	202	189	49.75	9a-6p	6.06	93.8	282.64	Tindale-Oliver & Associates
Charlotte Co, FL	11.0	Oct-97	-	186	49.50	9a-5p	4.60	92.1	209.67	Tindale-Oliver & Associates
Charlotte Co, FL	28.0	Oct-97	-	186	31.00	9a-5p	3.60	81.6	91.04	Tindale-Oliver & Associates
Charlotte Co, FL	30.4	Oct-97	-	324	39.80	9a-5p	3.30	83.5	109.68	Tindale-Oliver & Associates
Citrus Co, FL	38.9	Oct-03	-	168	32.26	8-6p	6.80	97.1	213.03	Tindale-Oliver & Associates
Citrus Co, FL	10.0	Nov-03	-	340	40.56	8-630p	6.20	92.4	232.33	Tindale-Oliver & Associates
Citrus Co, FL	5.3	Dec-03	-	20	29.36	8-5p	5.25	95.2	146.78	Tindale-Oliver & Associates
Orange Co, FL	50.6	-	-	-	26.72	-	-	-	-	Orange County
Orange Co, FL	23.5	-	-	-	16.58	-	-	-	-	Orange County
Total Size	298.6	11	763			**Average Trip Length:**	**5.07**			
ITE	450.0	10				**Weighted Average Trip Length:**	**5.55**			
Blended total	748.6					Weighted Percent New Trip Average:		88.9		
							Average Trip Generation Rate:			32.59
							ITE Average Trip Generation Rate:			36.13
							Blend of FL Studies and ITE Average Trip Generation Rate:			**34.72**

Shopping Center (ITE LUC 820)

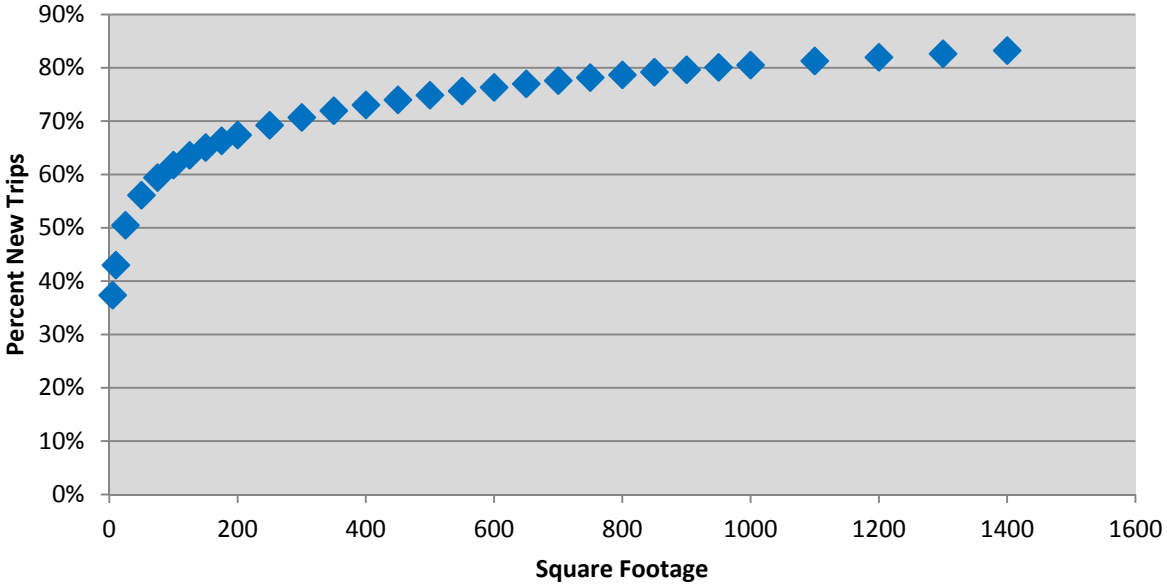
Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	527	348	-	-	-	66.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	170	-	-	-	1.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	354	269	-	-	-	76.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	144	-	-	-	2.50	-	-	Kimley-Horn & Associates
St. Petersburg, FL	1,192.0	Aug-89	384	298	-	11a-7p	3.60	78.0	-	Tindale-Oliver & Associates
St. Petersburg, FL	132.3	Sep-89	400	368	77.00	10a-7p	1.80	92.0	127.51	Tindale-Oliver & Associates
Largo, FL	425.0	Aug-89	160	120	26.73	10a-6p	2.30	75.0	46.11	Tindale-Oliver & Associates
Dunedin, FL	80.5	Sep-89	276	210	81.48	9a-5p	1.40	76.0	86.69	Tindale-Oliver & Associates
Pinellas Park, FL	696.0	Sep-89	485	388	-	9a-6p	3.20	80.0	-	Tindale-Oliver & Associates
Seminole, FL	425.0	Oct-89	674	586	-	-	-	87.0	-	Tindale-Oliver & Associates
Hillsborough Co, FL	134.0	Jul-91	-	-	-	-	1.30	74.0	-	Tindale-Oliver & Associates
Hillsborough Co, FL	151.0	Jul-91	-	-	-	-	1.30	73.0	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	68	64	-	-	3.33	94.1	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	208	154	-	-	2.64	74.0	-	Tindale-Oliver & Associates
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 & Associates
Charlotte Co, FL	88.0	Oct-97	-	-	73.50	9a-5p	1.80	57.1	75.56	Tindale-Oliver & Associates
Charlotte Co, FL	191.9	Oct-97	-	-	72.00	9a-5p	2.40	50.9	87.97	Tindale-Oliver & Associates
Charlotte Co, FL	51.3	Oct-97	-	-	43.00	9a-5p	2.70	51.8	60.08	Tindale-Oliver & Associates
Lake Co, FL	67.8	Apr-01	246	177	102.60	-	3.40	71.2	248.37	Tindale-Oliver & Associates
Lake Co, FL	72.3	Apr-01	444	376	65.30	-	4.50	59.0	173.37	Tindale-Oliver & Associates
Pasco Co, FL	65.6	Apr-02	222	-	145.64	9a-5p	1.46	46.9	99.62	Tindale-Oliver & Associates
Pasco Co, FL	75.8	Apr-02	134	-	38.23	9a-5p	2.36	58.2	52.52	Tindale-Oliver & Associates
Citrus Co, FL	185.0	Oct-03	-	784	55.84	8a-6p	2.40	88.1	118.05	Tindale-Oliver & Associates
Citrus Co, FL	91.3	Nov-03	-	390	54.50	8a-6p	1.60	88.0	76.77	Tindale-Oliver & Associates
Bozeman, MT	104.3	Dec-06	359	359	46.96	-	3.35	49.0	77.08	Tindale-Oliver & Associates
Bozeman, MT	159.9	Dec-06	502	502	56.49	-	1.56	54.0	47.59	Tindale-Oliver & Associates
Bozeman, MT	35.9	Dec-06	329	329	69.30	-	1.39	74.0	71.28	Tindale-Oliver & Associates
Total Size	5,757.5		7,536			Average Trip Length:	n/a			
						Weighted Average Trip Length:	n/a			

Figure A-1
Shopping Center (LUC 820) – Florida Curve Trip Length Regression



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

Figure A-2
Shopping Center (LUC 820) – Florida Curve Percent New Trips Regression



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

New Car Sales (ITE LUC 841)

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 & Associates
Clearwater, FL	43.0	Oct-89	136	106	29.40	9a-5p	4.50	78.0	103.19	Tindale-Oliver & Associates
Orange Co, FL	116.7	-	-	-	22.18	-	-	-	-	Orange County
Orange Co, FL	99.8	-	-	-	13.45	-	-	-	-	Orange County
Orange Co, FL	39.1	-	-	-	10.48	-	-	-	-	Orange County
Orange Co, FL	66.3	-	-	-	28.50	-	-	-	-	Orange County
Orange Co, FL	46.7	-	-	-	40.34	-	-	-	-	Orange County
Orange Co, FL	34.4	-	-	-	23.45	-	-	-	-	Orange County
Orange Co, FL	13.8	-	-	-	35.75	-	-	-	-	Orange County
Total Size	459.7	8	288				**Average Trip Length:**	**4.60**		
ITE	570.0	15					**Weighted Average Trip Length:**	**4.60**		
Blended total	1,029.7						Weighted Percent New Trip Average:	78.5		
								Weighted Average Trip Generation Rate:		23.22
								ITE Average Trip Generation Rate:		32.30
								Blend of FL Studies and ITE Average Trip Generation Rate:		**28.25**

Service Station w/Convenience Market (ITE LUC 853)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	72	-	-	-	2.00	-	-	Kimley-Horn & Associates
Marion Co, FL	1.1	Jun-91	77	20	544.80	24hr.	0.89	26.0	126.07	Tindale-Oliver & Associates
Marion Co, FL	2.1	Jun-91	66	24	997.60	24hr.	1.67	36.4	606.42	Tindale-Oliver & Associates
Marion Co, FL	4.4	Jun-91	85	25	486.70	48hrs.	1.06	29.4	151.68	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	96	38	-	-	1.19	39.6	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	78	16	-	-	1.06	20.5	-	Tindale-Oliver & Associates
Tampa, FL	2.3	10/13-15/92	239	74	-	24hr.	1.06	31.1	-	Tindale-Oliver & Associates
Ellenton, FL	3.3	10/20-22/92	124	44	-	24hr.	0.96	35.3	-	Tindale-Oliver & Associates
Tampa, FL	3.8	11/10-12/92	142	23	-	24hr.	3.13	16.4	-	Tindale-Oliver & Associates
Marion Co, FL	2.5	Apr-02	87	-	719.79	24hr.	1.62	32.8	322.19	Kimley-Horn & Associates
Marion Co, FL	2.5	Apr-02	23	-	610.46	24hr.	1.77	11.7	126.61	Kimley-Horn & Associates
Marion Co, FL	3.0	Apr-02	59	-	606.02	24hr.	0.83	32.6	195.00	Kimley-Horn & Associates
Total Size	25.1	9	1,148				**Average Trip Length:**	**1.44**		
ITE	30.0	10					**Weighted Average Trip Length:**	**1.51**		
Blended Total	55.1						Weighted Percent New Trip Average:	27.7		
	45.6	15.6						Average Trip Generation Rate:		639.68
								ITE Average Trip Generation Rate:		845.60
								Blend of FL Studies and ITE Average Trip Generation Rate:		**775.14**

Pharmacy/Drugstore w/Drive-Thru (ITE LUC 880 & 881)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pasco Co, FL	11.1	Apr-02	138	38	88.97	-	2.05	27.5	50.23	Tindale-Oliver & Associates
Pasco Co, FL	12.0	Apr-02	212	90	122.16	-	2.04	42.5	105.79	Tindale-Oliver & Associates
Pasco Co, FL	15.1	Apr-02	1192	54	97.96	-	2.13	28.1	58.69	Tindale-Oliver & Associates
Total Size	38.2	3	1,542			**Average Trip Length:**	**2.07**			
ITE	196.0	16				**Weighted Average Trip Length:**	**2.08**			
Blended total	234.2							Weighted Percent New Trip Average:	32.5	
									Average Trip Generation Rate:	103.03
									ITE Average Trip Generation Rate (LUC 880 / 881):	90.06 / 96.91
									Blend of FL Studies and ITE Average Trip Generation Rate:	**95.96**

Furniture Store (ITE LUC 890)

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 & Associates
Tampa, FL	16.9	Jul-92	68	39	-	-	7.38	55.7	-	Tindale-Oliver & Associates
Total Size	31.9	2	132			**Average Trip Length:**	**6.01**			
ITE	897.0	13				**Weighted Average Trip Length:**	**6.09**			
								Weighted Percent New Trip Average:	54.2	
									ITE Average Trip Generation Rate:	**5.06**

Drive-In Bank (ITE LUC 912)

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 & Associates
Largo, FL	2.0	Sep-89	129	94	-	-	1.60	73.0	-	Tindale-Oliver & Associates
Seminole, FL	4.5	Oct-89	-	-	-	-	-	-	-	Tindale-Oliver & Associates
Marion Co, FL	2.3	Jun-91	69	29	-	24hr.	1.33	42.0	-	Tindale-Oliver & Associates
Marion Co, FL	3.1	Jun-91	47	32	-	24hr.	1.75	68.1	-	Tindale-Oliver & Associates
Marion Co, FL	2.5	Jul-91	57	26	-	48hrs.	2.70	45.6	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	162	96	-	24hr.	0.88	59.3	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	116	54	-	-	1.58	46.6	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	142	68	-	-	2.08	47.9	-	Tindale-Oliver & Associates
Hernando Co, FL	5.4	May-96	164	41	-	9a-6p	2.77	24.7	-	Tindale-Oliver & Associates
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	21.0	7				**Weighted Average Trip Length:**	**2.46**			
Blended total	46.2							Weighted Percent New Trip Average:	46.2	
	23.7								Weighted Average Trip Generation Rate:	246.66
									ITE Average Trip Generation Rate:	148.15
									Blend of FL Studies and ITE Average Trip Generation Rate:	**159.34**

Quality Restaurant (ITE LUC 931)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	76	62	-	-	2.10	82.0	-	Kimley-Horn & Associates
St. Petersburg, FL	7.5	Oct-89	177	154	-	11a-2p/4-8p	3.50	87.0	-	Tindale-Oliver & Associates
Clearwater, FL	8.0	Oct-89	60	40	110.63	10a-2p/5-9p	2.80	67.0	207.54	Tindale-Oliver & Associates
Total Size	15.5	2	313			**Average Trip Length:**	**2.80**			
ITE	135.0	15				**Weighted Average Trip Length:**	**3.14**			
Blended total	150.5							Weighted Percent New Trip Average:	76.7	
	143.0								Weighted Average Trip Generation Rate:	110.63
									ITE Average Trip Generation Rate:	89.95
									Blend of FL Studies and ITE Average Trip Generation Rate:	**91.10**

High-Turnover Restaurant (ITE LUC 932)

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	May-96	242	175	187.51	9a-6p	2.76	72.5	375.00	Tindale-Oliver & Associates
Hernando Co, FL	8.2	May-96	154	93	102.71	9a-6p	4.15	60.2	256.43	Tindale-Oliver & Associates
St. Petersburg, FL	5.0	Oct-89	74	68	132.60	1130-7p	2.00	92.0	243.98	Tindale-Oliver & Associates
Kenneth City, FL	5.2	Oct-89	236	176	127.88	4p-730p	2.30	75.0	220.59	Tindale-Oliver & Associates
Pasco Co, FL	5.2	Apr-02	114	88	82.47	9a-6p	3.72	77.2	236.81	Tindale-Oliver & Associates
Pasco Co, FL	5.8	Apr-02	182	102	116.97	9a-6p	3.49	56.0	228.77	Tindale-Oliver & Associates
Orange Co, FL	8.9	-	-	-	52.69	-	-	-	-	Orange County
Orange Co, FL	11.3	-	-	-	62.12	-	-	-	-	Orange County
Orange Co, FL	6.7	-	-	-	82.58	-	-	-	-	Orange County
Orange Co, FL	11.4	-	-	-	91.67	-	-	-	-	Orange County
Orange Co, FL	11.3	-	-	-	95.33	-	-	-	-	Orange County
Orange Co, FL	7.2	-	-	-	98.06	-	-	-	-	Orange County
Orange Co, FL	5.5	-	-	-	100.18	-	-	-	-	Orange County
Orange Co, FL	9.7	-	-	-	105.84	-	-	-	-	Orange County
Orange Co, FL	4.6	-	-	-	129.23	-	-	-	-	Orange County
Orange Co, FL	7.0	-	-	-	126.40	-	-	-	-	Orange County
Orange Co, FL	9.7	-	-	-	132.32	-	-	-	-	Orange County
Orange Co, FL	5.0	-	-	-	135.68	-	-	-	-	Orange County
Orange Co, FL	5.6	-	-	-	145.59	-	-	-	-	Orange County
Orange Co, FL	7.4	-	-	-	147.44	-	-	-	-	Orange County
Orange Co, FL	5.9	-	-	-	147.74	-	-	-	-	Orange County
Total Size	152.8	21	1,102				**Average Trip Length:**	**3.07**		
ITE	98.0	14					**Weighted Average Trip Length:**	**3.17**		
Blended total	250.8						Weighted Percent New Trip Average:	70.8		

Weighted Average Trip Generation Rate: 109.84
ITE Average Trip Generation Rate: 127.15
Blend of FL Studies and ITE Average Trip Generation Rate: 116.60

Fast Food Restaurant w/Drive Thru (ITE LUC 934)

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 & Associates
Pinellas Co, FL	4.30	Oct-89	456	260	660.40	1 day	2.30	57.0	865.78	Tindale-Oliver & Associates
Tarpon Springs, FL	-	Oct-89	233	114	-	7a-7p	3.60	49.0	-	Tindale-Oliver & Associates
Marion Co, FL	1.60	Jun-91	60	32	962.50	48hrs.	0.91	53.3	466.84	Tindale-Oliver & Associates
Marion Co, FL	4.00	Jun-91	75	46	625.00	48hrs.	1.54	61.3	590.01	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	66	44	-	-	1.91	66.7	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	118	40	-	-	1.17	33.9	-	Tindale-Oliver & Associates
Hernando Co, FL	5.43	May-96	136	82	311.83	9a-6p	1.68	60.2	315.27	Tindale-Oliver & Associates
Hernando Co, FL	3.13	May-96	168	82	547.34	9a-6p	1.59	48.8	425.04	Tindale-Oliver & Associates
Lake Co, FL	2.20	Apr-01	376	252	934.30	-	2.50	74.6	1742.47	Tindale-Oliver & Associates
Lake Co, FL	3.20	Apr-01	171	182	654.90	-	4.10	47.8	-	Tindale-Oliver & Associates
Lake Co, FL	3.80	Apr-01	188	137	353.70	-	3.30	70.8	826.38	Tindale-Oliver & Associates
Pasco Co, FL	2.66	Apr-02	100	46	283.12	9a-6p	5.10	46.0	-	Tindale-Oliver & Associates
Pasco Co, FL	2.96	Apr-02	486	164	515.32	9a-6p	2.72	33.7	472.92	Tindale-Oliver & Associates
Pasco Co, FL	4.42	Apr-02	168	120	759.24	9a-6p	1.89	71.4	1024.99	Tindale-Oliver & Associates
Orange Co, FL	8.93	-	-	-	377.00	-	-	-	-	Orange County
Total Size	48.8	13	4,463				**Average Trip Length:**	**2.42**		
ITE	63.0	21					**Weighted Average Trip Length:**	**2.05**		
Blended total	111.8						Weighted Percent New Trip Average:	57.9		
	34.0									

Weighted Average Trip Generation Rate: 530.19
ITE Average Trip Generation Rate: 496.12
Blend of FL Studies and ITE Average Trip Generation Rate: 511.00

Automobile Care Center (ITE LUC 942)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Jacksonville, FL	2.3	2/3-4/90	124	94	-	9a-5p	3.07	76.0	-	Tindale-Oliver & Associates
Jacksonville, FL	2.3	2/3-4/90	110	74	-	9a-5p	2.96	67.0	-	Tindale-Oliver & Associates
Jacksonville, FL	2.4	2/3-4/90	132	87	-	9a-5p	2.32	66.0	-	Tindale-Oliver & Associates
Lakeland, FL	5.2	Mar-90	24	14	-	9a-4p	1.36	59.0	-	Tindale-Oliver & Associates
Largo, FL	5.5	Sep-89	34	30	37.64	9a-5p	2.40	88.0	79.50	Tindale-Oliver & Associates
Orange Co, FL	25.0	Nov-92	41	39	-	2-6p	4.60	-	-	LCE, Inc.
Lakeland, FL	-	Mar-90	54	42	-	9a-4p	2.44	78.0	-	Tindale-Oliver & Associates
Total Size	42.6	6	519				**Average Trip Length:**	**2.74**		
ITE	102.0	6					**Weighted Average Trip Length:**	**3.62**		
Blended total	144.6						Weighted Percent New Trip Average:	72.2		
	107.5									

Weighted Average Trip Generation Rate: 37.64
ITE Average Trip Generation Rate: 31.10
Blend of FL Studies and ITE Average Trip Generation Rate: 31.43

Service Station with and w/o Car Wash (ITE LUC 944 & 946)

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 & Associates
Collier County, FL	-	Aug-91	168	40	-	-	1.01	23.8	-	Tindale-Oliver & Associates
Total Size	0.6	1	238			**Average Trip Length:**	**1.46**			
ITE LUC 944 (vfp)	48.0	6				**Weighted Average Trip Length:**	**1.90**			
ITE LUC 946 (vfp)	120.0	10				Weighted Percent New Trip Average:		23.0		

ITE Average Trip Generation Rate - per fuel position (LUC 944):	168.56
ITE Average Trip Generation Rate - per fuel position (LUC 946):	152.84
Blended ITE Average Trip Generation Rate - per fuel position:	**157.33**

Self-Service Car Wash (ITE LUC 947)

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 & Associates
Clearwater, FL	-	Nov-89	177	108	-	10am-5pm	1.30	61.0	-	Tindale-Oliver & Associates
Collier, FL	11	Dec-09	304	-	30.24	-	2.50	57.0	-	Tindale-Oliver & Associates
Collier, FL	8	Jan-09	186	-	22.75	-	1.96	72.0	-	Tindale-Oliver & Associates
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**

APPENDIX F
Transportation Impact Fee – Cost Component Calculations

Transportation Impact Fee: Cost Component

This appendix presents the detailed calculations for the cost component of the transportation impact fee update. Backup data and assumptions are provided for all cost variables (for county and state roads), including:

- Design
- Right-of-Way
- Construction
- Construction Engineering/Inspection
- Roadway Capacity

Urban Design vs. Rural Design

Due to a lack of roadway construction data for rural-design roadways, the cost per lane mile for these types of roads was calculated using an adjustment factor. This factor was based on the rural-to-urban design cost ratio from the most recent District 7 Long Range Estimates (LRE) provided by FDOT because this information was not readily available for FDOT District 4. Based on the LRE, the cost for rural-design roadway capacity expansion (new road construction or lane addition) is approximately 81 percent of the cost of urban-design roadway improvements. For all subsequent tables (for county and state roadways), costs are presented for urban-design roadways, with the rural-design roadway costs being calculated using the cost ratio from Table F-1.

Table F-1
Urban / Rural Design Cost Factor

Improvement	Cost per Lane Mile		
	Rural Design	Urban Design	Ratio
0-2 Lanes	$2,534,872	$3,660,722	69%
0-4 Lanes	$2,060,744	$2,583,635	80%
0-6 Lanes	$1,750,755	$2,105,746	83%
2-4 Lanes	$2,946,063	$3,386,132	87%
4-6 Lanes	$3,300,893	$3,782,969	87%
Average	**$2,518,665**	**$3,103,841**	**81%**

Source: FDOT District 7 Long Range Estimates, 2014; this data was not readily available for FDOT District 4

Design

County Roadways

The design cost factor for county roads was estimated as a percentage of the construction cost per lane mile. This factor was determined through a review of the design-to-construction cost ratios from recently completed and bid improvements in Palm Beach County and from previously completed impact fee studies throughout Florida. For local improvements, the design-to-construction ratios ranged from 4 percent to 33 percent with a weighted average of 13 percent. For county roadways from throughout Florida, the design factors ranged from 6 percent to 14 percent, with a weighted average of 10 percent. For purposes of this update study, the design cost for county roads was calculated at 13 percent of the construction cost per lane mile based on the local and statewide data (see Tables F-10 and F-11 for additional information).

Table F-2
Design Cost Adjustment – County Roads

Road Type	Design Cost per Lane Mile[(1)]	Section Design Distribution[(2)]	Weighted Design Cost per Lane Mile[(3)]
Urban Design	$234,000	88%	$206,000
Rural Design	$190,000	12%	$23,000
Weighted Average Design Cost per Lane Mile			**$229,000**

(1) Design cost is estimated at 13% of construction cost based on recent local projects (Table F-10) and recent TIF studies (Table F-11, Item a); construction cost is shown in Table F-6
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) Design cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together
All figures rounded to nearest $1,000

State Roadways

The design cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined through a review of the design-to-construction cost ratios for state road unit costs in previously completed impact fee studies throughout Florida. For state roadways, the design factors ranged from 10 percent to 14 percent, with a weighted average of 11 percent. For purposes of this update study, the design cost for state roads was calculated at 11 percent of the construction cost per lane mile. See Table F-11 for additional information.

Table F-3
Design Cost Adjustment – State Roads

Road Type	Design Cost per Lane Mile[1]	Section Design Distribution[2]	Weighted Design Cost per Lane Mile[3]
Urban Design	$341,000	88%	$300,000
Rural Design	$276,000	12%	$33,000
Weighted Average Design Cost per Lane Mile			**$333,000**

(1) Design cost is estimated at 11% of construction cost based on recent TIF studies in Table F-11 (Item b); construction cost is shown in Table F-7
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) Design cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together
All figures rounded to nearest $1,000

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 construction, build a new road.

County Roadways

To determine a ROW acquisition cost per lane mile for county roads, Tindale Oliver conducted a review of recently completed ROW acquisitions and current ROW estimates along capacity expansion projects in Palm Beach County and also reviewed ROW estimates from recent transportation impact fee studies from other counties in Florida. For impact fee purposes, the ROW cost for county roads was estimated as a percentage of the construction cost per lane mile. This factor was determined through a review of the ROW-to-construction cost ratios for county road unit costs from recent local projects and in previously completed impact fee studies throughout Florida. For county roadways in Palm Beach County, the ROW factors ranged from 1 percent to 188 percent, with a weighted average of 34 percent, as shown in Table F-12. For purposes of this update study, the ROW cost for county roads was calculated at 40 percent of the construction cost per lane mile, which is slightly higher than the local data average and slightly lower than the average ROW-to-construction cost ratio of 41 percent observed in other Florida jurisdictions (see Table F-13). The use of a slightly above average ROW reflects the fact that the more recent local acquisition costs have been higher than costs from older local improvements.

Table F-4
Right-of-Way Cost Adjustment – County Roads

Road Type	ROW Cost per Lane Mile[1]	Section Design Distribution[2]	Weighted ROW Cost per Lane Mile[3]
Urban Design	$720,000	88%	$634,000
Rural Design	$583,000	12%	$70,000
Weighted Average ROW Cost per Lane Mile			**$704,000**

(1) ROW cost is estimated at 40% of construction cost based on recent Palm Beach County improvements in Table F-12 and recent TIF studies in Table F-13 (Item a); construction cost is shown in Table F-6
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) ROW cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together
All figures rounded to nearest $1,000

State Roadways

Similar to county roads, the ROW cost 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 Palm Beach County and based on experience in other jurisdictions, the ROW cost ratio calculated for county roads was also applied to state roads. Using this ROW-to-construction ratio of 44 percent, the weighted average ROW cost for state roadways is approximately $1.33 million per lane mile.

Table F-5
Right-of-Way Cost Adjustment – State Roads

Road Type	ROW Cost per Lane Mile[1]	Section Design Distribution[2]	Weighted ROW Cost per Lane Mile[3]
Urban Design	$1,364,000	88%	$1,200,000
Rural Design	$1,105,000	12%	$133,000
Weighted Average ROW Cost per Lane Mile			**$1,333,000**

(1) ROW cost is estimated at 44% of construction cost based on recent TIF studies in Table F-13 (Item b); construction cost is shown in Table F-7
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) ROW cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
All figures rounded to nearest $1,000

Construction

County Roadways

A review of construction cost data for recent local county roadway capacity expansion projects identified 18 recent improvements in Palm Beach County. These improvements had a weighted average construction cost of approximately **$1.81 million** per lane mile, as shown in Table F-14:

- Hypoluxo Rd from W. of Lyons Rd to W. of Hagen Ranch Rd
- Okeechobee Blvd from Royal Palm Beach High School to E. of FL Turnpike
- Haverhill Rd from 45th St to N. of EPB-10 Canal
- Jog Rd from Yamato Rd to Clint Moore Rd
- Jog Rd/Donald Ross Rd from Hood Rd to 64th Drive N
- Alt. A1A from S. of Frederick Small Rd to Center St
- Lyons Rd from Glades Rd to Yamato Rd
- Hypoluxo Rd from Jog Rd to Military Trail
- Lawrence Rd from S. of C. Stanley Weaver Canal to N. of C. Stanley Weaver Canal
- 45th St from Jog Rd to E. of Haverhill Rd
- Jog Rd from S. of 45th St to N. of 45th St
- Congress Ave from Lantana Rd to Melaluca Ln
- Seminole Pratt Whitney Rd from SR 80 to Sycamore Dr
- Seminole Pratt Whitney Rd from S. of M Canal to S. of Orange Blvd
- Lyons Rd from N. of West Atlantic Ave to S. of Boynton Beach Blvd
- Jog Rd from N. of SR 710 to N. of FL Turnpike
- West Atlantic Ave from W. of Lyons Rd to Starkey Rd
- 60th St N & SR 7 Ext. from E. of Royal Palm Beach Blvd to SR 7

In addition to local data, a review of recently bid projects throughout the state of Florida was conducted. As shown in Table F-14, a total of 66 additional projects from 16 different counties provided a weighted average cost per lane mile of $2.17 million per lane mile. When compared to the statewide bids, the local improvements returned a lower average cost per lane mile. When the subset of District 4 improvements (including Palm Beach County) was reviewed separately, the weighted average cost per lane was $1.82 million. Based on this review and discussions with staff, a county roadway construction cost of $1.80 million per lane mile was used in the transportation impact fee calculation for county roads with urban design characteristics. Table F-6 presents the urban and rural design cost estimates, as well

as the weighted average construction cost per lane mile for county roads in Palm Beach County.

Table F-6
Construction Cost Adjustment – County Roads

Road Type	Construction Cost per Lane Mile[1]	Section Design Distribution[2]	Weighted Constr. Cost per Lane Mile[3]
Urban Design	$1,800,000	88%	$1,584,000
Rural Design	$1,458,000	12%	$175,000
Weighted Average Construction Cost per Lane Mile			**$1,759,000**

(1) Source: Table F-14. Rural design is estimated at 81% of urban design costs (see Table F-1)
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) Construction cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
All figures rounded to nearest $1,000

State Roadways

A review of construction cost data for recent local state roadway capacity expansion projects identified one (1) recent improvement in Palm Beach County. This improvement had a weighted average construction cost of approximately **$7.26 million** per lane mile, as shown in Table F-15:

- SR 710/Beeline Highway from W. of Congress Avenue to W. of Australian Ave

In addition to local data, a review of recently bid projects throughout the state of Florida was conducted. As shown in Table F-15, a total of 59 projects from 30 different counties estimated a weighted average cost per lane mile of $2.78 million per lane mile (all improvements are urban section design). Unlike the county road cost data, the local data for state roads indicated a higher per lane mile cost for Palm Beach County when compared to the statewide data. The subset of District 4 improvements (including Palm Beach County) was also reviewed and resulted in an average cost of $3.10 million per lane mile.

Based on this review and discussions with staff, a state roadway construction cost of $3.10 million per lane mile was used in the transportation impact fee calculation for state roads with urban design characteristics. This reflects the higher local cost and the typical costs from District 4, but also accounts for the large sample size of improvements throughout the state to provide a conservative estimate for impact fee planning purposes. Table F-7 presents the

urban and rural design cost estimates, as well as the weighted average construction cost per lane mile for state roads in Palm Beach County.

Table F-7
Construction Cost Adjustment – State Roads

Road Type	Construction Cost per Lane Mile[1]	Section Design Distribution[2]	Weighted Constr. Cost per Lane Mile[3]
Urban Design	$3,100,000	88%	$2,728,000
Rural Design	$2,511,000	12%	$301,000
Weighted Average Construction Cost per Lane Mile			**$3,029,000**

(1) Source: Table F-15. Rural design is estimated at 81% of urban design costs
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) Construction cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
All figures rounded to nearest $1,000

Construction Engineering/Inspection

County Roadways

The CEI cost factor for county roads was estimated as a percentage of the construction cost per lane mile. Based on a review of recent improvements (as shown in Table F-16) and a discussion with County Staff, a CEI-to-construction cost factor of 6 percent was used for purposes of this impact fee update study. This figure is lower than factors observed in other Florida jurisdictions, but is representative of local cost factors based on input from County staff. As shown in Table F-8, this resulted is a weighted average CEI cost of approximately $105,000 per lane mile for county roadways.

Table F-8
CEI Cost Adjustment – County Roads

Road Type	CEI Cost per Lane Mile[1]	Section Design Distribution[2]	Weighted CEI Cost per Lane Mile[3]
Urban Design	$108,000	88%	$95,000
Rural Design	$87,000	12%	$10,000
Weighted Average CEI Cost per Lane Mile			**$105,000**

(1) Source: Table F-16. CEI cost is estimated at 6% of construction cost based on local data and discussions with County Staff; construction cost is shown in Table F-6
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) CEI cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
All figures rounded to nearest $1,000

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 through a review of the CEI-to-construction cost ratios for state road unit costs in previously completed impact fee studies throughout Florida. For state roadways, the CEI factors ranged from 8 percent to 17 percent, with a weighted average of 11 percent. For purposes of this update study, the CEI cost for state roads was calculated at 11 percent of the construction cost per lane mile (see Table F-17 for additional information).

Table F-9
CEI Cost Adjustment – State Roads

Road Type	CEI Cost per Lane Mile[(1)]	Section Design Distribution[(2)]	Weighted CEI Cost per Lane Mile[(3)]
Urban Design	$341,000	88%	$300,000
Rural Design	$276,000	12%	$33,000
Weighted Average CEI Cost per Lane Mile			**$333,000**

(1) CEI cost is estimated at 11% of construction cost based on recent TIF studies in Table F-17 (Item b); construction cost is shown in Table F-7
(2) Source: Appendix F, Table F-18 (Items c and d)
(3) CEI cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
All figures rounded to nearest $1,000

Table F-10
Design Cost Factor – Palm Beach County Improvements

County	Description	From	To	Bid Year	Status	Feature	Design Cost	Construction Costs	Design / Construction
Palm Beach	Hypoluxo Rd	W. of Lyons Rd	W. of Hagen Ranch Rd	2008	Completed	2 to 4	$1,177,581	$15,294,751	7.7%
Palm Beach	Okeechobee Blvd	Royal Palm Beach High School Entr.	E. of Florida's Turnpike	2008	Completed	6 to 8	$2,057,733	$30,529,591	6.7%
Palm Beach	Haverhill Rd	45th St	N. of NPBWCD EPB-10 Canal	2008	Completed	2 to 5	$377,908	$2,050,830	18.4%
Palm Beach	Jog Rd	Yamato Rd	Clint Moore Rd	2008	Completed	4 to 6	$295,150	$2,396,040	12.3%
Palm Beach	Jog Rd/Donald Ross Rd	Hood Rd	64th Dr. N.	2008	Completed	2 to 4	$993,400	$4,630,327	21.5%
Palm Beach	Alt. A-1-A	S. of Frederick Small Rd	Center St	2009	Completed	4 to 6	$736,729	$6,364,139	11.6%
Palm Beach	Lyons Rd	Glades Rd	Yamato Rd	2009	Completed	4 to 6	$475,634	$5,967,464	8.0%
Palm Beach	Hypoluxo Rd	Jog Rd	Military Tr	2009	Completed	4 to 6	$502,010	$4,054,386	12.4%
Palm Beach	Lawrence Rd	S. of C. Stanley Weaver Canal	N. of C. Stanley Weaver Canal	2009	Completed	2 to 4	$263,452	$1,051,680	25.1%
Palm Beach	45th St	Jog Rd	E. of Haverhill Rd	2010	Completed	2 to 4	$1,354,363	$12,423,103	10.9%
Palm Beach	Congress Ave	Lantana Rd	Melaleuca Ln	2010	Completed	4 to 6	$1,725,182	$6,130,698	28.1%
Palm Beach	Australian Ave	N. of I-95	S. of Okeechobee Blvd	2010	Completed	4 to 6	$95,458	$552,180	17.3%
Palm Beach	Seminole Pratt Whitney Rd	SR 80	Sycamore Dr	2010	Bid	2 to 4	$1,737,926	$9,930,460	17.5%
Palm Beach	Lyons Rd	N. of West Atlantic Ave	S. of Boynton Beach Blvd	2011	Completed	0 to 2	$1,370,166	$5,329,359	25.7%
Palm Beach	Okeechobee Blvd	Australian Ave	Tamarind/Parker Ave	2011	Completed	6 to 8	$179,676	$4,252,764	4.2%
Palm Beach	Jog Rd	N. of SR 710	N. of Florida's Turnpike Entr.	2012	Bid	0 to 4	$1,129,589	$3,413,874	33.1%
Total							**$14,471,956**	**$114,371,645**	**13%**

Source: Palm Beach County Financial Management & Budget Department

Table F-11
Design Cost Factor for County & 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
2006	Collier	$323,639	$2,558,546	13%	$349,643	$3,385,978	10%
2006	Citrus	$361,774	$2,584,099	14%	$400,432	$2,860,227	14%
2006	Highlands	$235,030	$1,678,785	14%	$347,326	$2,480,900	14%
2006	Marion	$185,333	$1,941,244	10%	$154,643	$1,430,919	11%
2007	Pasco	$246,324	$3,079,051	8%	$427,112	$3,050,799	14%
2007	Lake	$232,882	$2,911,021	8%	$318,412	$3,184,125	10%
2007	Flagler	$174,000	$1,740,000	10%	-	-	n/a
2007	Volusia	$291,696	$2,651,778	11%	$309,526	$3,095,258	10%
2008	Leon	$212,800	$2,660,000	8%	$372,130	$3,383,000	11%
2008	Sumter	$178,960	$2,237,000	8%	$238,000	$2,380,000	10%
2009	Collier	$217,000	$3,100,000	7%	$320,000	$3,200,000	10%
2009	Polk	$95,400	$1,590,000	6%	$217,000	$2,170,000	10%
2009	Hillsborough/Tampa	$308,000	$2,800,000	11%	$420,000	$3,500,000	12%
2010	Collier	$119,560	$1,708,000	7%	$241,800	$2,418,000	10%
2011	Sarasota/North Port	$240,000	$2,400,000	10%	$200,000	$2,000,000	10%
2012	Osceola	$371,196	$2,651,400	14%	$313,258	$2,847,800	11%
2012	Orange	$264,000	$2,400,000	11%	-	-	n/a
2012	City of Orlando	$288,000	$2,400,000	12%	$319,000	$2,900,000	11%
2012	City of Sarasota	$240,000	$2,400,000	10%	$286,000	$2,600,000	11%
2013	Hernando	$198,000	$1,980,000	10%	$222,640	$2,024,000	11%
2013	Charlotte	$220,000	$2,200,000	10%	$240,000	$2,400,000	10%
2014	Indian River	$159,000	$1,598,000	10%	$196,000	$1,776,000	11%
Average		**$234,663**	**$2,330,406**	**10%**	**$309,268**	**$2,767,938**	**11%**
				(a)			(b)

Source: Recent impact fee studies constructed throughout Florida
Note: Letter references (i.e., "a") are used to assist with footnotes and sourcing

Table F-12
Right-of-Way Factor – Recent County Road Improvements in Palm Beach County

Unit	Description	From	To	Right-of-Way Cost	Construction Costs	Right-of-Way / Construction
568	Northlake Reliever	Military Tr	Garden Rd	$3,921,633	$3,221,312	121.7%
667	Lyons Rd	Glades Rd	Yamato Rd	$6,126,447	$5,967,464	102.7%
699/725	Seminole Pratt Whitney Rd	SR 80	Sycamore Dr	$10,269,283	$9,930,460	103.4%
727	Seminole Pratt Whitney Rd	S. of M Canal	S. of Orange Blvd	$3,421,007	$2,820,892	121.3%
727	Seminole Pratt Whitney Rd	Sycamore Dr	N. of Sycamore Dr			
951	Congress Ave	Lantana Rd	Melaleuca Ln	$561,910	$6,130,698	9.2%
762	Congress Ave	Hypoluxo Rd	Lantana Rd	$195,628	$1,291,352	15.1%
763	Congress Ave	Melaluca Ln	Lake Worth Rd	$369,462	$3,178,523	11.6%
730	Okeechobee Blvd	Royal Palm Beach High School Entr.	E. of Florida's Turnpike	$396,043	$30,529,591	1.3%
450	Haverhill Rd	45th St	N. of NPBWCD EPB-10 Canal	$51,800	$2,050,830	2.5%
1153	Lyons Rd	N. of West Atlantic Ave	S. of Boynton Beach Blvd	$1,272,795	$5,329,359	23.9%
967	45th St	Jog Rd	E. of Haverhill Rd	$4,654,351	$12,423,103	37.5%
929	Woolbright Rd	Hagen Ranch Rd	Jog Rd	$1,007,825	$2,513,156	40.1%
963	Lyons Rd	N. of Forest Hill Blvd	S. of SR 80	$1,582,122	$1,641,592	96.4%
1117	Acreage Access Road	Persimmon Blvd	60th St	$717,564	$5,733,646	12.5%
590	Lantana Rd	SR 7	Grand Lacuna	$4,775	$265,052	1.8%
610	Linton Blvd	Military Tr	Congress Ave	$68,320	$2,525,692	2.7%
639	Persimmon Blvd	East End Connect	Okeechobee Blvd	$302,435	$3,639,649	8.3%
642	Hagen Ranch Rd	West Atlantic Ave	Boynton Beach Blvd	$76,989	$1,396,309	5.5%
962	Melaleuca Ln	Jog Rd	Haverhill Rd	$475,418	$5,361,240	8.9%
1111	Forest Hill Blvd	Wellington Trace	SR 80	$82,494	$2,114,906	3.9%
1113	Belvedere Rd	E. of Jog Rd	Military Tr	$17,600	$284,469	6.2%
1145	Yamato Rd	W. of Cain Blvd	W. of SR 7	$15,000	$1,151,285	1.3%
620	Seminole Pratt Whitney Rd	Northlake Blvd	SR 710/Beeline Hwy	$2,196,124	$1,168,119	188.0%
-	Lawrence Rd	S. of C. Stanley Weaver Canal	N. of C. Stanley Weaver Canal	$151,318	$1,051,680	14.4%
-	West Atlantic Ave	W. of Lyons Rd	Starkey Rd	$3,699,828	$8,818,727	42.0%
-	60th St. N.	E. of Royal Palm Beach Blvd	SR 7	$480,740	$3,821,404	12.6%
-	SR 7 Extension	Persimmon Blvd	SR 7			
Total				**$42,118,911**	**$124,360,510**	**34%**

Source: Palm Beach County Financial Management & Budget Department, FY 2004-2014 expense summary

Table F-13
Right-of-Way Factor for County & State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		ROW	Constr.	Design Ratio	ROW	Constr.	Design Ratio
2006	Collier	$1,751,790	$2,558,546	68%	$1,751,790	$3,385,978	52%
2006	Citrus	$784,599	$2,584,099	30%	$949,979	$2,860,227	33%
2006	Highlands	$468,853	$1,678,785	28%	$507,500	$2,480,900	20%
2006	Marion	$1,005,123	$1,941,244	52%	$868,908	$1,430,919	61%
2007	Pasco	$814,517	$3,079,051	26%	$1,560,714	$3,050,799	51%
2007	Lake	$599,185	$2,911,021	21%	$1,462,133	$3,184,125	46%
2007	Flagler	$460,000	$1,740,000	26%	-	-	n/a
2007	Volusia	$858,109	$2,651,778	32%	$954,543	$3,095,258	31%
2008	Leon	$1,120,000	$2,660,000	42%	$1,363,000	$3,383,000	40%
2008	Sumter	$802,000	$2,237,000	36%	$1,400,000	$2,380,000	59%
2009	Collier	$1,300,000	$3,100,000	42%	$1,300,000	$3,200,000	41%
2009	Polk	$1,491,000	$1,590,000	94%	$550,000	$2,170,000	25%
2009	Hillsborough/Tampa	$1,500,000	$2,800,000	54%	$2,500,000	$3,500,000	71%
2010	Collier	$901,000	$1,708,000	53%	$901,000	$2,418,000	37%
2011	Sarasota/North Port	$620,000	$2,400,000	26%	$800,000	$2,000,000	40%
2012	Osceola	$1,087,074	$2,651,400	41%	$1,167,598	$2,847,800	41%
2012	Orange	$1,080,000	$2,400,000	45%	-	-	n/a
2012	City of Orlando	$1,080,000	$2,400,000	45%	$1,305,000	$2,900,000	45%
2012	City of Sarasota	$620,000	$2,400,000	26%	$1,144,000	$2,600,000	44%
2013	Hernando	$811,800	$1,980,000	41%	$890,560	$2,024,000	44%
2013	Charlotte	$1,034,000	$2,200,000	47%	$1,128,000	$2,400,000	47%
2014	Indian River	$656,000	$1,598,000	41%	$781,000	$1,776,000	44%
Average		**$947,502**	**$2,330,406**	**41%**	**$1,164,286**	**$2,654,350**	**44%**
				(a)			(b)

Source: Recent impact fee studies constructed throughout Florida
Note: Letter references (i.e., “a”) are used to assist with footnotes and sourcing

Table F-14
Construction Cost – County Road Improvements from Palm Beach County 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
Collier	1	Santa Barbara Blvd Extension	Rattlesnake Hammock Rd	Davis Blvd	2008	Bid	0 to 6	Urban	2.00	6	12.00	$12,035,894	$1,002,991
Polk	1	Silver Connector Rd	E.F. Griffin Rd	US 98	2008	Bid	0 to 2	Urban	0.33	2	0.66	$1,560,483	$2,364,368
Polk	1	County Line Rd Ph. I and II	SR 60	W. Pipkin Rd	2008	Bid	2 to 4	Urban	3.02	2	6.04	$10,827,839	$1,792,689
Polk	1	Berkley Rd Ph. II and III	Old Dixie Hwy	Pace Rd	2008	Bid	2 to 4	Urban	4.80	2	9.60	$13,951,130	$1,453,243
Polk	1	Ernie Caldwell Blvd Ph. I and IIA	FDC Grove Rd	Pine Tree Trail	2008	Bid	0 to 4	Urban	3.66	4	14.64	$25,910,148	$1,769,819
Volusia	5	Debary Ave	Deltona Blvd	Providence Blvd	2008	Bid	2 to 4	Urban	1.84	2	3.68	$7,405,914	$2,012,477
Volusia	5	S. Williamson Blvd Ph. II	S. of Sabal Creek Blvd	N. of Moody Bridge	2008	Bid	2 to 4	Urban	1.91	2	3.82	$11,109,225	$2,908,174
Lake	5	CR 466 (Segment A)	US 301	CR 319	2008	Bid	2 to 4	Urban	1.00	2	2.00	$4,062,660	$2,031,330
Hillsborough	7	40th St	River Pines Apts	Humphrey St	2008	Bid	2 to 4	Urban	0.95	2	1.90	$5,154,862	$2,713,085
Hillsborough	7	Race Track Rd Ph. I	Douglas Rd	Linebaugh Ave	2008	Bid	2 to 6	Urban	1.01	4	4.04	$10,099,911	$2,499,978
Osceola	5	John Young Pkwy	Carroll	Orange Co. Line	2008	Bid	4 to 6	Urban	0.85	2	1.70	$3,230,000	$1,900,000
Orange	5	CR 535 (Segments C and E)	Ficquette Rd	Butler Ridge Dr	2008	Bid	2 to 4	Urban	1.10	2	2.20	$3,693,616	$1,678,916
Orange	5	Clarcona-Ocoee Rd	Ocoee Apopka Rd	SR 417	2008	Bid	2 to 4	Urban	0.40	2	0.80	$2,803,484	$3,504,355
Orange	5	Destination Pkwy	International Dr	Tradeshow Blvd	2008	Bid	2 to 4	Urban	0.71	2	1.42	$3,017,443	$2,124,960
Lee	1	Gladiolus Dr Ph. I	A&W Bulb Rd	Winkler Rd	2008	Bid	2 to 4/6	Urban	1.94	2/4	5.44	$13,971,509	$2,568,292
Lee	1	Gladiolus Dr Ph. II	Pine Ridge Rd	A&W Bulb Rd	2008	Bid	2 to 4	Urban	1.02	2	2.04	$6,748,642	$3,308,158
Charlotte	1	Toledo-Blade Corridor	North Port	US 41	2008	Bid	2 to 4	Sub-Urb	1.20	2	2.40	$3,174,852	$1,322,855
Indian River	4	17th Lane SW	27th Ave	20th Ave	2008	Bid	2 to 3	Urban	0.52	1	0.52	$525,000	$1,009,615
Indian River	4	20th Ave SW	25th St SW	17th Lane SW	2008	Bid	0/1 to 2	Urban	0.52	2	1.04	$1,886,715	$1,814,149
Palm Beach	4	Hypoluxo Rd	W. of Lyons Rd	W. of Hagen Ranch Rd	2008	Bid	2 to 4	Urban	3.00	2	6.00	$15,294,751	$2,549,125
Palm Beach	4	Okeechobee Blvd	Royal Palm Beach High School Entr.	E. of Florida's Turnpike	2008	Bid	6 to 8	Urban	4.70	2	9.40	$30,529,591	$3,247,829
Palm Beach	4	Haverhill Rd	45th St	N. of NPBWCD EPB-10 Canal	2008	Bid	2 to 5	Urban	0.50	3	1.50	$2,050,830	$1,367,220
Palm Beach	4	Jog Rd	Yamato Rd	Clint Moore Rd	2008	Bid	4 to 6	Urban	1.00	2	2.00	$2,396,040	$1,198,020
Palm Beach	4	Jog Rd/Donald Ross Rd	Hood Rd	64th Dr N	2008	Bid	2 to 4	Urban	1.80	2	3.60	$4,630,327	$1,286,202
Orange	5	Clarcona-Ocoee Rd	Hiawassee Rd	Clark	2009	Bid	2 to 4	Urban	2.50	2	5.00	$10,182,738	$2,036,548
Orange	5	Woodbury Rd	S. of SR 50	Challenger Pkwy	2009	Bid	2 to 4	Urban	0.65	2	1.30	$4,088,942	$3,145,340
Orange	5	Sand Lake Rd	President's Dr	FL Mall	2009	Bid	2 to 4	Urban	1.00	2	2.00	$6,020,755	$3,010,378
Orange	5	Taft-Vineland Road Extension	Central Florida Pkwy	John Young Pkwy	2009	Bid	2 to 4	Urban	0.70	2	1.40	$4,462,535	$3,187,525
Osceola	5	Narcoossee Rd	US 192	Orange Co. Line	2009	Bid	2 to 4	Urban	7.40	2	14.80	$47,360,000	$3,200,000
Osceola	5	Osceola Pkwy (Ph. I)	FL Turnpike	Buenaventura Blvd	2009	Bid	4 to 6	Urban	1.57	2	3.14	$5,966,000	$1,900,000
Osceola	5	Poinciana Blvd (Ph. II)	Crescent Lakes	US 17/92	2009	Bid	2 to 4	Urban	2.50	2	5.00	$16,000,000	$3,200,000
Osceola	5	Old Lake Wilson Rd (Ph. I)	Livingston Rd	Sinclair Rd	2009	Bid	2 to 4	Urban	2.30	2	4.60	$14,720,000	$3,200,000
Hillsborough	7	Bruce B. Downs	Palm Springs Blvd	Pebble Beach Blvd	2009	Bid	4 to 8	Urban	7.20	4	28.80	$40,575,305	$1,408,865
Hillsborough	7	Race Track Rd (Ph. IV)	Douglas Rd	Hillsborough Ave	2009	Bid	2 to 6	Urban	0.56	4	2.24	$4,397,412	$1,963,130
Sarasota	1	Fruitville Rd (Ph. I)	Tatum Rd	Debrecen Rd	2009	Bid	2 to 4	Urban	0.72	2	1.44	$4,355,796	$3,024,858
Sarasota	1	Fruitville Rd (Ph. II)	Coburn Rd	Tatum Rd	2009	Bid	2 to 4	Urban	1.26	2	2.52	$8,557,904	$3,395,994
Lee	1	Colonial Blvd (CR 884)	I-75	SR 82	2009	Bid	4 to 6	Urban	2.70	2	5.40	$14,576,393	$2,699,332
Indian River	4	College Lane Rd	Extension IRSC	66th Ave	2009	Bid	0 to 2	Urban	0.50	2	1.00	$1,700,000	$1,700,000
Indian River	4	16th St	66th Ave	74th Ave	2009	Bid	0 to 2	Urban	1.27	2	2.54	$3,109,321	$1,224,142
Polk	1	Pine Tree Trail	Ernie Caldwell Blvd	CR 54/Reagan Pkwy	2009	Bid	0 to 2	Urban	1.40	2	2.80	$3,442,332	$1,229,404
Polk	1	Lakeland Highlands Rd	Polk Pkwy	CR 540A	2009	Bid	2 to 4	Urban	3.01	2	6.02	$13,603,672	$2,259,746
Palm Beach	4	Alt. A1A	S. of Frederick Small Rd	Center St	2009	Bid	4 to 6	Urban	4.40	2	8.80	$6,364,139	$723,198
Palm Beach	4	Lyons Rd	Glades Rd	Yamato Rd	2009	Bid	4 to 6	Urban	1.80	2	3.60	$5,967,464	$1,657,629
Palm Beach	4	Hypoluxo Rd	Jog Rd	Military Tr	2009	Bid	4 to 6	Urban	2.00	2	4.00	$4,054,386	$1,013,597
Palm Beach	4	Lawrence Rd	S. of C. Stanley Weaver Canal	N. of C. Stanley Weaver Canal	2009	Bid	2 to 4	Urban	0.20	2	0.40	$1,051,680	$2,629,200
Orange	5	Alafaya Tr	Avalon Park Blvd	Mark Twain Blvd	2010	Bid	2 to 4	Urban	3.83	2	7.66	$18,918,599	$2,469,791
Hillsborough	7	Boyette Rd (Ph. III)	McMullen Rd	Bell Shoals Rd	2010	Bid	2 to 4	Urban	2.60	2	5.20	$23,184,354	$4,458,530

Table F-14 (continued)
Construction Cost – County Road Improvements from Palm Beach County 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
Broward	4	Bailey Rd	NW 64th Ave / SW 81st Ave	SR 7 (US 441)	2010	Bid	2 to 4	Urban	2.00	2	4.00	$6,330,297	$1,582,574
Collier	1	Oil Well Rd (Segment 2)	Immokalee Rd	E. of Everglades Blvd	2010	Bid	2 to 4/6	Urban	5.05	2/4	10.92	$15,091,068	$1,381,966
Collier	1	Oil Well Rd (Segment 4A)	W. of Oil Well Grade Rd	W. of Camp Keais Rd	2010	Bid	2 to 6	Urban	4.72	4	18.88	$15,875,782	$840,878
Lee	1	Six Mile Cypress Pkwy	Daniels Pkwy	S. of Winkler Rd Ext.	2010	Bid	2 to 4	Urban	3.09	2	6.18	$6,711,242	$1,085,961
Charlotte	1	Piper Rd	Henry St	Jones Loop Rd	2010	Bid	2 to 4	Sub-Urb	2.10	2	4.20	$8,627,803	$2,054,239
Indian River	4	53rd St	Kings Hwy	Lateral H Canal	2010	Bid	0 to 4	Urban	2.04	4	8.16	$7,000,000	$857,843
Indian River	4	53rd St	Lateral H Canal	Indian River Blvd	2010	Bid	0 to 4	Urban	0.50	4	2.00	$7,605,993	$3,802,997
Palm Beach	4	45th St	Jog Rd	E. of Haverhill Rd	2010	Bid	2 to 4	Urban	1.50	2	3.00	$12,423,103	$4,141,034
Palm Beach	4	Jog Rd	S. of 45th St	N. of 45th St	2010	Bid	0 to 4	Urban	0.50	4	2.00	$4,960,399	$2,480,200
Palm Beach	4	Congress Ave	Lantana Rd	Melaluca Ln	2010	Bid	4 to 6	Urban	1.30	2	2.60	$6,130,698	$2,357,961
Palm Beach	4	Seminole Pratt Whitney Rd	SR 80	Sycamore Dr	2010	Bid	2 to 4	Urban	4.20	2	8.40	$9,930,460	$1,182,198
Palm Beach	4	Seminole Pratt Whitney Rd	S. of M Canal	S. of Orange Blvd	2010	Bid	2 to 4	Urban	1.40	2	2.80	$2,820,892	$1,007,461
Citrus	7	CR 486	SR 44	Forest Ridge Blvd	2010	Bid	2 to 4	Urban	6.30	2	12.60	$26,614,211	$2,112,239
Brevard	5	Pineda Cswy Extension	I-95	W. of Wickham Rd	2010	Bid	0 to 4	Urban	2.10	4	8.40	$17,238,865	$2,052,246
Sarasota	1	North Cattlemen Rd	Richardson Rd	Desoto Rd	2011	Bid	2 to 4	Urban	2.55	2	5.10	$12,153,584	$2,383,056
Lee	1	Daniels Pkwy	Chamberlin Pkwy	Gateway Blvd	2011	Bid	4 to 6	Urban	2.05	2	4.10	$2,906,553	$708,915
Orange	5	Rouse Rd	SR 50	Corporate Blvd	2011	Bid	2 to 4	Urban	2.60	2	5.20	$29,380,249	$5,650,048
Orange	5	CR 535 Seg. A	Magnolia Park Ct	SR 429	2011	Bid	2 to 4	Urban	1.37	2	2.74	$8,390,570	$3,062,252
Osceola	5	Goodman Rd	Tri-County	Sand Mine Rd	2011	Bid	0 to 2	Urban	3.53	2	7.06	$7,060,000	$1,000,000
Pinellas	1	Bryan Dairy Rd	Starkey Rd (CR 1)	72nd St	2011	Bid	4 to 6	Urban	1.47	2	2.94	$10,327,383	$3,512,715
Hernando	7	Elgin Blvd	Mariner Blvd	East 3900'	2011	Bid	2 to 4	Urban	0.74	2	1.48	$2,684,566	$1,813,896
Hernando	7	Sunshine Grove Rd	SR 50	Ken Austin Pkwy	2011	Bid	2 to 4	Urban	2.10	2	4.20	$4,646,801	$1,106,381
Palm Beach	4	Lyons Rd	N. of West Atlantic Ave	S. of Boynton Beach Blvd	2011	Bid	0 to 2	Urban	3.20	2	6.40	$5,329,359	$832,712
Charlotte	1	Burnt Store Rd (Ph. I)	US 41	Notre Dame Blvd	2011	Bid	2 to 4	Urban	2.40	2	4.80	$13,512,394	$2,815,082
Indian River	4	Oslo Rd Ph. II	43rd Ave	27th Ave	2011	Bid	2 to 4D	Urban	1.20	3	3.60	$4,531,822	$1,258,839
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 (CR35A) 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	SR 40	Peruvian Ln	2012	Bid	2 to 4	Urban	0.75	2	1.50	$5,276,057	$3,517,371
Palm Beach	4	Jog Rd	N. of SR 710	N. of Florida's Turnpike	2012	Bid	0 to 4	Urban	0.70	4	2.80	$3,413,874	$1,219,241
Palm Beach	4	West Atlantic Ave	W. of Lyons Rd	Starkey Rd	2012	Bid	2 to 4	Urban	0.80	2	1.60	$8,818,727	$5,511,704
Palm Beach	4	60th St N & SR 7 Ext.	E. of Royal Palm Beach Blvd	SR 7	2012	Bid	0 to 2	Urban	1.50	2	3.00	$3,821,404	$1,273,801
Brevard	5	Babcock St	S. of Foundation Park Blvd	Malabar Rd	2013	Bid	2 to 4	Urban	12.40	2	24.80	$56,000,000	$2,258,065
Collier	1	Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2014	Bid	4 to 6	Urban	2.74	2	5.48	$21,157,124	$3,860,789
Collier	1	Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	Bid	2 to 4	Urban	5.71	2	11.42	$51,402,161	$4,501,065
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
Total											**439.08**	**$927,322,613**	**$2,111,967**
District 4 Improvements ONLY											**103.16**	**$187,262,863**	**$1,815,266**
Palm Beach County Improvements ONLY											**71.90**	**$129,988,124**	**$1,807,902**
Excluding Palm Beach County Improvements											**367.18**	**$797,334,489**	**$2,171,508**

Source: Roadway bids from recent impact fee studies throughout Florida as well as recent bids from the Tindale Oliver Cost Database, with information having been provided by each respective County

Table F-15
Construction Cost – State Road Improvements from Palm Beach County and 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
Walton	3	SR 83 (US 331)	SR 30 (US 98)	S. end of Choctaw Bridge	2008	Bid	2 to 4	Urban	2.08	2	4.16	$11,649,363	$2,800,328
Hillsborough	7	US 301 (SR 43)	S. of Balm Rd	N. of Gibsonton Rd	2008	Bid	2 to 6	Urban	6.03	4	24.12	$55,702,777	$2,309,402
Indian River	4	SR 5 (US 1)	S. of Oslo Rd	S. of Indian River Bend	2008	Bid	4 to 6	Urban	1.70	2	3.40	$14,953,562	$4,398,106
Indian River	4	SR 60/Osceola Blvd	W. of 82 Ave	66th Ave/CR 505	2008	Bid	4 to 6	Urban	2.15	2	4.30	$18,496,793	$4,301,580
Orange	5	SR 50	Good Homes Rd	Pine Hills Rd	2008	Bid	4 to 6	Urban	3.63	2	7.26	$35,929,914	$4,949,024
Leon	3	SR 10 (Mahan Drive)	Dempsey Mayo Rd	Walden Rd	2009	Bid	2 to 4	Urban	3.10	2	6.20	$18,083,510	$2,916,695
Indian River	4	SR 60 (Osceola Blvd)	W. of I-95	W. of 82nd Ave/CR 609	2009	Bid	4 to 6	Urban	3.07	2	6.14	$7,366,557	$1,199,765
Sarasota	1	US 301	Wood St	Myrtle Ave	2009	Bid	4 to 6	Urban	2.60	2	5.20	$18,372,050	$3,533,087
Sarasota	1	US 301	Myrtle Ave	Desoto Rd	2009	Bid	4 to 6	Urban	1.00	2	2.00	$8,293,271	$4,146,636
Pasco	7	US 41 (SR 45)	Tower Rd	Ridge Rd	2009	Bid	2 to 4	Urban	2.84	2	5.68	$12,685,027	$2,233,279
Lee	1	SR 739	US 41 (S. of Alico)	Six Mile Cypress Pkwy	2009	Bid	0 to 6	Urban	2.77	6	16.62	$20,663,929	$1,243,317
Manatee	1	US 301	Erie Rd	CR 675	2009	Bid	4 to 6	Urban	4.10	2	8.20	$21,040,000	$2,565,854
Marion	5	SR 35 (US 301)	Sumter County Line	529' S. of CR 42	2009	Bid	2 to 4	Urban	1.40	2	2.80	$3,596,000	$1,284,286
Miami-Dade	6	Perimeter Rd	NW 72 Avenue	NW 57 Avenue	2009	Bid	2 to 4	Urban	1.50	2	3.00	$6,383,286	$2,127,762
Polk	1	US 27	N. of CR 546	S. of SR 544	2009	Bid	2 to 4	Urban	1.56	2	3.12	$4,100,069	$1,314,125
Santa Rosa	3	SR 281 (Avalon Blvd)	N. of CSX R/R Bridge	S. of Commerce Rd	2009	Bid	2 to 4	Urban	0.98	2	1.96	$5,621,006	$2,867,860
Santa Rosa	3	SR 281 (Avalon Blvd)	Gulf Rd	SR 10 (US 90)	2009	Bid	2 to 4	Urban	1.78	2	3.56	$9,150,583	$2,570,388
St. Lucie	4	SR 70	MP 5.860	MP 10.216	2009	Bid	2 to 4	Urban	4.36	2	8.72	$12,426,020	$1,425,002
Washington	3	SR 79	N. Environmental Rd	Strickland Rd	2009	Bid	2 to 4	Urban	1.72	2	3.44	$8,877,323	$2,580,617
Lake	5	SR 50	E. of Grand Hwy	W. of Hancock Rd	2010	Bid	4 to 6	Urban	1.30	2	2.60	$4,689,633	$1,803,705
Polk	1	SR 559 Extension	SR 655 (Recker Hwy)	Derby Ave	2010	Bid	0 to 2	Urban	0.69	2	1.38	$2,751,592	$1,993,907
Santa Rosa	3	SR 281 (Avalon Blvd)	SR 8 (I-10)	S. of Moor's Lodge	2010	Bid	2 to 4	Urban	0.85	2	1.70	$5,378,226	$3,163,662
Santa Rosa	3	SR 281 (Avalon Blvd)	S. of Moor's Lodge	N. of CSX R/R Bridge	2010	Bid	2 to 4	Urban	1.48	2	2.96	$7,145,212	$2,413,923
Lee	1	US 41	Corkscrew Rd	San Carlos Blvd	2010	Bid	4 to 6	Urban	4.48	2	8.96	$12,822,677	$1,431,102
Polk	1	US 98	S. of Manor Dr	N. of CR 540A	2010	Bid	4 to 6	Urban	3.32	2	6.64	$11,092,909	$1,670,619
St. Lucie	4	SR 70	Okeechobee County Line	MP 5.871	2010	Bid	2 to 4	Urban	5.87	2	11.74	$18,782,630	$1,599,883
Polk	1	US 98 (Bartow Hwy)	Brooks St	Edgewood Dr	2011	Bid	4 to 6	Urban	0.72	2	1.44	$4,341,917	$3,015,220
Hillsborough	7	CR 39/Alexander St	N. of I-4	N. of Knights Griffin	2011	Bid	0 to 4	Urban	3.19	4	12.76	$14,782,862	$1,158,532
Pinellas	7	SR 688 (Ulmerton Rd)	E. of 119th St	W. of Seminole Bypass	2011	Bid	4 to 6	Urban	1.50	2	3.00	$16,908,929	$5,636,310
Polk	1	SR 60 (Van Fleet)	W. of US 98/Broadway	W. of US 17 (SR 555)	2011	Bid	2 to 4	Urban	0.86	2	1.72	$9,540,473	$5,546,787
Lake	5	SR 500 (US 441)	Martin Luther King Jr. Blvd	Lake Ella Rd	2011	Bid	4 to 6	Urban	3.25	2	6.50	$16,278,889	$2,504,444
Hillsborough	7	SR 574 (MLK Blvd)	W. of Highview Rd	E. of Parsons Ave	2011	Bid	3 to 5	Urban	0.91	2	1.82	$7,147,510	$3,927,203
Collier	1	SR 84 (Davis Blvd)	E. of Santa Barbara Blvd	W. of Radio Rd	2012	Bid	2 to 6	Urban	1.77	4	7.08	$10,956,198	$1,547,486
Volusia	5	SR 415	Seminole Co. Line	Reed Ellis Rd	2012	Bid	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	Bid	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	Bid	6 to 10	Urban	1.76	4	7.04	$17,196,050	$2,442,621
Miami-Dade	6	SR 823/NW 57th Ave	W. 23rd St	W. 46th St	2012	Bid	4 to 6	Urban	1.48	2	2.96	$14,081,161	$4,757,149
Hernando	7	SR 50 (Cortez Blvd)	US 19 (SR 55)	W. of CR 587/Mariner Blvd	2012	Bid	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	Bid	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	Bid	0 to 2	Urban	3.14	2	6.28	$13,231,111	$2,106,865
Hendry	1	SR 80	Birchwood Pkwy	Dalton Lane	2012	Bid	2 to 4	Urban	5.00	2	10.00	$12,855,092	$1,285,509
Hendry	1	SR 80	CR 833	US 27	2012	Bid	2 to 4	Urban	2.90	2	5.80	$8,117,039	$1,399,489
Lee	1	SR 739	Winkler Ave	Hanson St	2012	Bid	0 to 6	Urban	1.34	6	8.04	$14,025,932	$1,744,519
Seminole	5	SR 434	I-4	Rangeline Rd	2012	Bid	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	Bid	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	Bid	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	Bid	4 to 6	Urban	3.45	2	6.90	$18,004,051	$2,609,283

Table F-15 (continued)

Construction Cost – State Road Improvements from Palm Beach County and 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
Brevard	5	SR 5 (US 1)	N. of Pine St	N. of Cidco Rd	2012	Bid	4 to 6	Urban	3.84	2	7.68	$29,360,536	$3,822,986
Broward	4	Andrews Ave Ext.	NW 18th St	Copans Rd	2013	Bid	2 to 4	Urban	0.50	2	1.00	$6,592,014	$6,592,014
Brevard	5	SR 507 (Babcock St)	Melbourne Ave	Fee Ave	2013	Bid	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	Bid	2 to 4	Sub-Urb	1.81	2	3.61	$15,758,965	$4,365,364
Lee	1	US 41 Business	Littleton Rd	SR 739	2013	Bid	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	Bid	2 to 4	Urban	0.87	2	1.74	$10,318,613	$5,930,237
Orange	5	SR 50 (Colonial Dr)	E. of CR 425 (Dean Rd)	E. of Old Cheney Hwy	2013	Bid	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	Bid	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	Bid	2 to 4	Urban	1.87	2	3.74	$14,935,957	$3,993,571
Broward	4	SR 7	N. of Hallendale Bch	N. of Fillmore St.	2014	Bid	4 to 6	Urban	1.79	2	3.57	$30,674,813	$8,592,385
Broward	4	Andrews Ave Ext.	Pompano Park Place	S. of Atlantic Blvd	2014	Bid	2 to 4	Urban	0.36	2	0.72	$3,177,530	$4,413,236
Charlotte	1	US 41 (SR 45)	Enterprise Dr	Sarasota County Line	2014	Bid	4 to 6	Urban	3.62	2	7.24	$31,131,016	$4,299,864
Desoto	1	US 17	CR 760A (Nocatee)	Heard St	2014	Bid	2 to 4	Urban	4.40	2	8.80	$29,584,798	$3,361,909
Total											**335.16**	**$930,410,371**	**$2,776,019**
District 4 Improvements ONLY											**45.01**	**$139,595,409**	**$3,101,431**
Palm Beach County Improvements ONLY											**1.68**	**$12,189,533**	**$7,255,674**
Excluding Palm Beach County Improvements											**333.48**	**$918,220,838**	**$2,753,451**

Source: FDOT recently-bid projects by transportation district, available at www.dot.state.fl.us/

Table F-16

CEI Cost Factor – Palm Beach County Improvements

County	Description	From	To	Bid Year	Status	Feature	CEI Cost	Construction Cost	CEI / Construction
Palm Beach	Okeechobee Blvd	Australian Ave	Tamarind/Parker Ave	2011	Completed	6 to 8	$247,753	$4,252,764	5.8%
Palm Beach	West Atlantic Ave	W. of Lyons Rd	Starkey Rd	2012	Bid	2 to 4	$545,397	$8,818,727	6.2%
Total							**$793,150**	**$13,071,491**	**6%**

Source: Palm Beach County Financial Management & Budget Department

Table F-17
Construction Engineering/Inspection Factor – County & State Roads

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		CEI	Constr.	CEI Ratio	CEI	Constr.	CEI Ratio
2006	Collier	$294,054	$2,558,546	11%	$354,442	$3,385,978	10%
2006	Citrus	$180,887	$2,584,099	7%	$474,464	$2,860,227	17%
2007	Pasco	$215,534	$3,079,051	7%	$442,849	$3,050,799	15%
2007	Lake	$116,441	$2,911,021	4%	$318,412	$3,184,125	10%
2007	Flagler	$174,000	$1,740,000	10%	-	-	n/a
2007	Volusia	$238,660	$2,651,778	9%	$309,526	$3,095,258	10%
2008	Leon	$372,400	$2,660,000	14%	$270,640	$3,383,000	8%
2008	Sumter	$223,700	$2,237,000	10%	$238,000	$2,380,000	10%
2009	Collier	$186,000	$3,100,000	6%	$320,000	$3,200,000	10%
2009	Polk	$111,300	$1,590,000	7%	$217,000	$2,170,000	10%
2009	Hillsborough/Tampa	$308,000	$2,800,000	11%	$315,000	$3,500,000	9%
2010	Collier	$119,560	$1,708,000	7%	$241,800	$2,418,000	10%
2011	Sarasota/North Port	$216,000	$2,400,000	9%	$180,000	$2,000,000	9%
2012	Osceola	$265,140	$2,651,400	10%	$313,258	$2,847,800	11%
2012	City of Orlando	-	$2,400,000	n/a	-	$2,900,000	n/a
2012	City of Sarasota	$240,000	$2,400,000	10%	$286,000	$2,600,000	11%
2013	Hernando	$198,000	$1,980,000	10%	$222,640	$2,024,000	11%
2013	Charlotte	$220,000	$2,200,000	10%	$240,000	$2,400,000	10%
2014	Indian River	$159,000	$1,598,000	10%	$196,000	$1,776,000	11%
Average		**$213,260**	**$2,380,494**	**9%**	**$4,940,031**	**$46,275,187**	**11%**
				(a)			(b)

Source: Recent impact fee studies constructed throughout Florida
Note: Letter references (i.e., “a”) are used to assist with footnotes and sourcing

Roadway Capacity

As shown in Table F-18, the average capacity per lane mile was based on the planned improvements 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 Palm Beach County.

Table F-18
Palm Beach County 2040 Long Range Transportation Plan

Jurisdiction	Description	From	To	Improvement	Length	Lanes Added	Lane Miles Added	Section Design	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added
State Roads												
State	Southern Blvd/SR 80	W. of Lion County Safari Rd	Crestwood/Forest Hill Blvd	4-6 Lanes	5.68	2	11.36	Urban	39,800	59,900	20,100	114,168
State	SR 710	Martin/Palm Beach Co. Line	W. of Indiantown Rd	2-4 Lanes	1.75	2	3.50	Rural	24,400	62,900	38,500	67,375
State	SR 710	W. of Indiantown Rd	W. of Pratt-Whitney Rd	2-4 Lanes	4.67	2	9.34	Rural	24,400	62,900	38,500	179,795
State	SR 710	PGA Blvd	Northlake Blvd	4-6 Lanes	3.53	2	7.06	Rural	62,900	94,300	31,400	110,842
State	SR 710	Northlake Blvd	Blue Heron Blvd	4-6 Lanes	3.10	2	6.20	Urban	39,800	59,900	20,100	62,310
State	SR 710	W. of Congress Ave	W. of Australian Ave	2-4 Lanes	1.00	2	2.00	Urban	14,800	32,400	17,600	17,600
State	SR 710	Australian Ave	Old Dixie Hwy	2-4 Lanes	0.61	2	1.22	Urban	14,800	32,400	17,600	10,736
State	SR 7	Belvedere Rd	Okeechobee Blvd	6-8 Lanes	1.22	2	2.44	Urban	50,000	67,300	17,300	21,106
State	SR 7	Okeechobee Blvd	N 60th St	2-4 Lanes	4.46	2	8.92	Urban	24,200	65,600	41,400	184,644
State	SR 7	N 60th St	Northlake Blvd	0-4 Lanes	4.00	4	16.00	Urban	0	65,600	65,600	262,400
State	Atlantic Ave/SR 806	SR 7	W. of Lyons Rd	2-4 Lanes	1.10	2	2.20	Urban	16,200	35,500	19,300	21,230
State	Atlantic Ave/SR 806	Lyons Rd	Jog Rd	4-6 Lanes	2.50	2	5.00	Urban	32,400	50,000	17,600	44,000
State	PGA Blvd/SR 786	SR 710/Beeline Hwy	Ryder Cup Blvd	2-4 Lanes	2.94	2	5.88	Urban	24,200	65,600	41,400	121,716
City/County Roads												
Boca Raton	Potomac Rd	E-3 Canal	Military Tr	2-4 Lanes	0.50	2	1.00	Urban	15,930	35,820	19,890	9,945
Jupiter	Island Way Southern Ext.	Indiantown Rd	Central Blvd	0-2 Lanes	1.10	2	2.20	Urban	0	15,930	15,930	17,523
County	Okeechobee Blvd Ext.	SR 80/CR 880 Intersection	Seminole Pratt-Whitney Rd	0-2 Lanes	5.77	2	11.54	Urban	0	15,930	15,930	91,916
County	Church St	Limestone Creek Rd	W. of Central Blvd	2-3 Lanes	0.50	1	0.50	Urban	15,930	25,875	9,945	4,973
County	Congress Ave Ext.	Northlake Blvd	Alt. A1A	0-2 Lanes	0.61	2	1.22	Urban	0	15,930	15,930	9,717
County	Flavor Pict Rd	SR 7	Lyons Rd	0-2 Lanes	1.00	2	2.00	Urban	0	15,930	15,930	15,930
County	Haverhill Rd	N. of 45th St	Beeline Hwy	2-4/5 Lanes	1.71	2	3.42	Urban	15,930	37,810	21,880	37,415
County	Haverhill Rd	Lantana Rd	Lake Worth Rd	2-4 Lanes	2.10	2	4.20	Urban	14,625	32,490	17,865	37,517
County	Hood Rd	E. of Florida's Turnpike	W. of Central Blvd	2-4 Lanes	1.21	2	2.42	Urban	13,320	29,160	15,840	19,166
County	Jog Rd Ext.	Roebuck Rd	45th St	0-4 Lanes	1.58	4	6.32	Urban	0	35,820	35,820	56,596
County	Lyons Rd	Broward/PBC Co. Line	SW 18th St	4-6 Lanes	0.25	2	0.50	Urban	32,490	49,455	16,965	4,241
County	Lyons Rd	Clint Moore Rd	Atlantic Ave	2-4 Lanes	3.11	2	6.22	Urban	15,930	35,820	19,890	61,858
County	Northlake Blvd	Seminole Pratt-Whitney Rd	Coconut Blvd	2-4 Lanes	3.47	2	6.94	Urban	15,930	35,820	19,890	69,018
County	Old Dixie Hwy	Yamato Rd	Linton Blvd	2-3 Lanes	3.14	1	3.14	Urban	15,930	25,875	9,945	31,227
County	Old Dixie Hwy	Park Ave	Northlake Blvd	2-3 Lanes	0.75	1	0.75	Urban	15,930	25,875	9,945	7,459
County	Roebuck Rd	SR 7	Jog Rd	0-4 Lanes	3.19	4	12.76	Urban	0	35,820	35,820	114,266
County	Roebuck Rd	Jog Rd	Haverhill Rd	2-4 Lanes	1.11	2	2.22	Urban	15,930	35,820	19,890	22,078
County	Royal Palm Beach Blvd	60th St	Orange Blvd	2-4 Lanes	0.97	2	1.94	Urban	15,930	35,820	19,890	19,293
County	Seminole Pratt-Whitney Rd	Orange Blvd	Northlake Blvd	2-4 Lanes	2.21	2	4.42	Urban	15,930	35,820	19,890	43,957
County	Silver Beach Rd	E. of Congress Ave	Old Dixie Hwy	2-3 Lanes	0.70	1	0.70	Urban	15,930	25,875	9,945	6,962
County	Lyons Rd	Lantana Rd	Lake Worth Rd	2-4 Lanes	1.82	2	3.64	Urban	15,930	35,820	19,890	36,200
County	Lyons Rd	Lake Worth Rd	Stribling Way	0-2 Lanes	1.00	2	2.00	Urban	0	15,930	15,930	15,930
County	Avenue E Ext.	US 27 Connector	SR 715	0-2 Lanes	2.40	2	4.80	Urban	0	13,320	13,320	31,968
County	Indiantown Rd	Jupiter Farms Rd	W. of Florida's Turnpike	4-6 Lanes	1.88	2	3.76	Urban	35,820	53,910	18,090	34,009
County	45th St	Haverhill Rd	W. of Military Tr	4-6 Lanes	0.51	2	1.02	Urban	35,820	53,910	18,090	9,226
County	Park Ave Ext.	Old Dixie Hwy	Congress Ave	0-2 Lanes	0.74	2	1.48	Urban	0	15,930	15,930	11,788
County	Okeechobee Blvd	Crestwood Blvd	W. of Royal Palm Beach Blvd	4-6 Lanes	0.65	2	1.30	Urban	35,820	53,910	18,090	11,759
County	Okeechobee Blvd	Seminole Pratt-Whitney Rd	W. of Crestwood Blvd	2-4 Lanes	4.00	2	8.00	Urban	15,930	35,820	19,890	79,560
County	Polo Rd	Lake Worth Rd	Lyons Rd	0-2 Lanes	1.00	2	2.00	Urban	0	15,930	15,930	15,930
County	Boca Rio Rd	Palmetto Park Rd	Glades Rd	2-4 Lanes	1.22	2	2.44	Urban	13,320	29,160	15,840	19,325

Table F-18 (continued)
Palm Beach County 2040 Long Range Transportation Plan

Jurisdiction	Description	From	To	Improvement	Length	Lanes Added	Lane Miles Added	Section Design	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added
City/County Roads												
County	60th St	Seminole Pratt-Whitney Rd	140th Ave N	0-2 Lanes	2.75	2	5.50	Urban	0	15,930	15,930	43,808
County	Flavor Pict Rd	Lyons Rd	Hagen Ranch Rd	0-2 Lanes	1.52	2	3.04	Urban	0	15,930	15,930	24,214
County	Seminole Pratt-Whitney Rd	Persimmon Blvd	60th St	2-4 Lanes	0.85	2	1.70	Urban	15,930	35,820	19,890	16,907
County	Silver Beach Rd	Old Dixie Hwy	US 1	2-3 Lanes	1.00	1	1.00	Urban	15,930	25,875	9,945	9,945
County	Seminole Pratt-Whitney Rd	N. of Northlake Blvd	SR 710	0-2 Lanes	6.21	2	12.42	Urban	0	21,960	21,960	136,372
County	45th St	I-95	Congress Ave	6-8 Lanes	0.24	2	0.48	Urban	45,000	60,570	15,570	3,737
County	Lantana Rd	Lyons Rd	Hagen Ranch Rd	4-6 Lanes	1.90	2	3.80	Urban	35,820	53,910	18,090	34,371
County	Indiantown Rd	Pratt-Whitney Rd	131st Trail N	2-4 Lanes	2.85	2	5.70	Rural	21,960	56,610	34,650	98,753
Total (All Roads):							**219.61**					**2,532,781**
City/County Roads:							138.49	**63%**				1,314,859
State Roads:							81.12	**37%**				1,217,922
Urban Section Design:							194.01	**88%**				2,076,016
Rural Section Design:							25.60	**12%**				456,765

Source: Palm Beach County 2040 Long Range Transportation Plan; Plan includes adjustments based on discussions with County Staff
Note: Letter references (i.e., "a") are used to assist with footnotes and sourcing

APPENDIX G
Transportation Impact Fee –Credit Component Calculations

Transportation Impact Fee: Credit Component

This appendix presents the detailed calculations for the credit component. Currently, in addition to the capital support that ultimately results from State fuel tax revenues, Palm Beach County also receives financial benefit from several other funding sources. Of these, County fuel taxes that are collected in Palm Beach 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. Ninth-Cent Fuel Tax (1¢/gallon)

- Tax on every net gallon of motor fuel sold within a county
- Proceeds may be used to fund transportation expenditures
- To accommodate statewide equalization, this tax is automatically levied on diesel fuel in every county, regardless of whether a county is levying the tax on motor fuel at all
- Counties are not required to share the proceeds of this tax with their municipalities

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

4. 2nd Local Option Tax (up to 5¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county
- Proceeds may be used to fund transportation expenditures needed to meet requirements of the capital improvements element of an adopted Local Government Comprehensive Plan
- Proceeds are distributed to a county and its municipalities according to a mutually agreed upon distribution scheme, 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 various fuel tax revenues for each county in the state. The 2014-15 data represent projected fuel tax distributions to Palm Beach County for the current fiscal year. In the table, the fuel tax revenue data are used to calculate the value per penny (per gallon of fuel) that should be used to estimate the "equivalent pennies" of other revenue sources. Table G-1 shows the distribution per penny for each of the fuel levies, and then the calculation of the weighted average for the value of a penny of fuel tax. The weighting procedure takes into account the differing amount of revenues generated for the various types of gas tax revenues. The weighted average figure of approximately $5.32 million estimates the annual revenue that one penny of gas tax generates in Palm Beach County.

Table G-1
Estimated Fuel Tax Distribution Allocated to Capital Programs for Palm Beach County & Municipalities, FY 2014-15[1]

Tax	Amount of Levy per Gallon	Total Distribution	Distribution Per Penny
Constitutional Fuel Tax	$0.02	$11,386,553	$5,693,277
County Fuel Tax	$0.01	$5,018,743	$5,018,743
9th Cent Fuel Tax	$0.01	$5,866,198	$5,866,198
1st Local Option (1-6 cents)	$0.06	$33,007,582	$5,501,264
2nd Local Option (1-5 cents)	$0.05	$24,586,127	$4,917,225
Total	**$0.15**	**$79,865,203**	
Weighted Average per Penny[2]			**$5,324,347**

(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).

Gas Tax Credit

A revenue credit for the annual gas tax equivalent expenditures on roadway capacity expansion projects in Palm Beach County is presented below. The two components of the credit are as follows:

- County gas tax equivalent pennies
- State gas tax expenditures

County Gas Tax Equivalent Pennies

A review of the County's historical roadway financing program and the Capital Improvement Program (CIP) for FY 2015-2019 indicates that a combination of transportation impact fees, fuel tax bonds, and fuel tax revenues are used to fund roadway capacity expansion projects. As shown in Table G-2, Palm Beach County receives a credit of 2.0 pennies for the portion of non-impact fee revenues dedicated to capacity expansion projects such as new road construction, lane additions, and intersection improvements.

Table G-2
County Gas Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[3]	Equivalent Pennies[4]
Projected CIP Expenditures (FY 2015-2019)[1]	$93,349,000	5	$5,324,347	$0.035
Historical County Expenditures (FY 2008-2014)[2]	$36,774,000	7	$5,324,347	$0.010
Total	**$130,123,000**	**12**	**$5,324,347**	**$0.020**

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

State Gas Tax Expenditures

In the calculation of the equivalent pennies of gas tax from the State funded capacity expansion, projects for the 16-year period (from FY 2004 to FY 2019) were reviewed. For calculation purposes, the 16-year period was broken into three increments; two historical (FY 2004-2009 and FY 2010-2014) and one future (FY 2015-2019). Information on historical projects' funding and the future year estimates was obtained from the FDOT Work Programs and the County's Transportation Improvement Program (TIP). 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 capacity expansion projects for the 11-year "historical" period and projected in the five-year "future" time period are as follows:

- FY 2004-2009 work plan equates to 6.5 pennies
- FY 2010-2014 work plan equates to 5.9 pennies
- FY 2015-2019 work plan equates to 7.4 pennies

The combined weighted average over the 16-year period of state expenditure for capacity-adding roadway projects results in a total of 6.6. Table G-3 documents this calculation. The specific projects that were used in the equivalent penny calculations are summarized in Table G-5.

Table G-3
Equivalent Penny Calculation for State Portion

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[4]	Equivalent Pennies[5]
Projected TIP Expenditures (FY 2015-2019)[1]	$197,548,861	5	$5,324,347	$0.074
Historical Work Program (FY 2010-2014)[2]	$157,579,524	5	$5,324,347	$0.059
Historical Work Program (FY 2004-2009)[3]	$207,053,806	6	$5,324,347	$0.065
Total	**$562,182,191**	**16**	**$5,324,347**	**$0.066**

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

Table G-4
Historical and Future Capital Improvement Expenditures for Palm Beach County, FY 2008 to FY 2019

Unit #	Description	Project Title	FY 2008-14	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
-	Expansion Improvements	Countywide	$36,774,000	$0	$0	$0	$0	$0	**$36,774,000**
1369	New Road Construction (0 to 2 Lanes)	Congress Ave from N. of Northlake Blvd to Alternate A1A	-	$0	$1,360,000	$0	$2,500,000	$0	**$3,860,000**
-	Intersection Improvements	Countywide	-	$870,000	$723,000	$1,223,000	$1,223,000	$0	**$4,039,000**
0670	Lane Addition	Jog Rd from Roebuck Rd to S. of 45th St	-	$0	$0	$0	$30,000,000	$0	**$30,000,000**
1348	Intersection Improvements	Northlake Blvd and Military Trail	-	$0	$0	$350,000	$0	$0	**$350,000**
0924	Recording Fees - Countywide	Funding for the expenses incurred in ROW acquistions	-	$20,000	$20,000	$20,000	$20,000	$20,000	**$100,000**
-	Reserve for Plans and Alignment	Funding for design, study, and mitigation costs for projects in the program	-	$200,000	$200,000	$200,000	$200,000	$200,000	**$1,000,000**
-	Reserves for Right-of-Way	Funding for ROW acquisition costs for projects included in the program	-	$200,000	$200,000	$200,000	$200,000	$200,000	**$1,000,000**
1157	Lane Addition	Roebuck Rd from SR 7 to Jog Rd	-	$0	$0	$0	$50,000,000	$0	**$50,000,000**
-	Traffic Signals	Countywide	-	$600,000	$600,000	$600,000	$600,000	$600,000	**$3,000,000**
Total			**$36,774,000**	**$1,890,000**	**$3,103,000**	**$2,593,000**	**$84,743,000**	**$1,020,000**	**$130,123,000**

Source: Palm Beach County Financial Management & Budget Department and the Palm Beach County FY 2015-2019 Capital Improvement Program

Table G-5
Historical and Future FDOT Capital Improvement Expenditures for Palm Beach County, FY 2004 to FY 2019

Item #	Project Description	Improvement	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
228987-1	SR-80/Southern Blvd from W. of Congress Ave to W. of SR-9/I-95	Add Lanes & Reconstruct	$2,426,342	$1,039,847	$106,906	$307,792	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,880,887**
229092-1	SR-7/US-441 from N. of SR-808/Glades to W. Atlantic/SR-806	Add Lanes & Reconstruct	$214,283	$657	$45,002	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$259,942**
229183-1	SR-7/US-441 from SR-806/W Atlantic Ave to N. of SR-804/Boynton	Add Lanes & Reconstruct	$4,330	$0	$0	$0	$0	$12,125	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$16,455**
229184-1	SR-7/US-441 from N. of SR-804/Boynton to SR-802/Lake Worth Rd	Add Lanes & Reconstruct	$30,167	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$30,167**
229253-1	Palm Beach County Computer Signal Operations	Traffic Control Devices/System	$300,001	$300,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$600,001**
229253-2	Palm Beach County Computer Signal Operations	Traffic Control Devices/System	$0	$0	$399,999	$400,000	$400,000	$345,014	$282,490	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,827,503**
229253-3	Palm Beach County Computer Signal Operations	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$500,000	$500,000	$500,000	$500,000	$500,000	$0	$0	$0	$0	**$2,500,000**
229497-1	SR-80/Southern Blvd from E. of Forest Hill Blvd to W. of SR-7	Add Lanes & Reconstruct	$853,444	$3,497,741	$1,007,993	$39,099	$229,080	$1,484	$192	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,629,033**
229498-1	SR-80/Southern Blvd from W. of SR-7 to W. of Turnpike	Add Lanes & Reconstruct	$35,896,447	$2,970,354	$2,053,508	$4,345,942	$3,179,622	$1,664,097	$1,184,739	$2,081	$0	$0	$0	$0	$0	$0	$0	$0	**$51,296,790**
229499-1	SR-80/Southern Blvd from W. of Turnpike to W. of Haverhill	Add Lanes & Reconstruct	$901,221	$1,588,036	$2,430,019	$991,728	$71,753	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,982,757**
229567-2	SR-806/Atlantic Ave from W. of Turnpike to E. of Jog Rd	Add Lanes & Reconstruct	$0	$0	$0	$0	$1,309	$2,112	$183	$322,594	$2,498	$0	$0	$0	$0	$0	$0	$0	**$328,696**
229587-1	SR-809/Military Tr from S. of 45th St to S. of 708/Blue Heron	Add Lanes & Reconstruct	$1,395,580	$1,097,479	$71,321	$1,032	$10,106	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,575,518**
229587-2	SR-809/Military Tr from SR-704/Okeechobee Blvd to S. of 45th St	Add Lanes & Reconstruct	$2,978,982	$151,567	$1,071,424	$326,977	$1,030,821	$114,264	$300,760	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,974,795**
229587-9	SR-809/Military Tr Sound Wall Replacement	Add Lanes & Reconstruct	$0	$0	$0	$0	$0	$65,282	$42,510	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$107,792**
229648-1	SR-708/Blue Heron from W of Military Trail to W. of I-95	Add Lanes & Reconstruct	$7,094,621	$372,354	$145,802	$51,589	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$7,664,366**
229658-1	SR-806/Atlantic Ave from SR-7 to E. of Turnpike	PD&E/Emo Study	$39,320	$9,991	$5,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$54,909**
229658-2	SR-806/Atlantic Ave from E. of Starkey Rd to Turnpike Entrance	Add Lanes & Reconstruct	$0	$6,749	$2,004,560	$1,484,916	$1,615,696	$90,873	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,202,794**
229658-3	SR-806/Atlantic Ave from W. of Lyons Rd to Starkey Rd	Traffic Control Devices/System	$0	$0	$9,831	$2,515	$3,707,257	$3,010	$2,448	$5,030	$30,756	$20,397	$148,335	$70,571	$0	$0	$0	$0	**$4,000,150**
229664-2	SR-7 from SR-704/Okeechobee Blvd to Northlake Blvd	New Road Construction	$0	$1,817,046	$49,339	$48,949	$48,364	$43,562	$1,738,842	$2,870,746	$354,226	$125,008	$255,830	$0	$0	$0	$0	$0	**$7,351,912**
229664-3	SR-7 from 60th St to Northlake Blvd	New Road Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$399,433	$502,668	$52,578,050	$183,199	$0	$0	**$53,663,350**
229664-4	SR-7 from SR-704/Okeechobee Blvd to 60th St	New Road Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$332,998	$0	$0	$26,432,327	$0	$0	**$26,765,325**
229713-1	SR-80/Southern Blvd Interchange/Stage 2 @ SR-807/Congress Ave	Interchange (Major)	$2,862,016	$1,264,404	$147	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,126,567**
229731-1	Palm Beach County Signal Sys/Group 4 Signal Pkg	Traffic Control Devices/System	$19,121	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$19,121**
229755-1	SR-704/Okeechobee Blvd from W. of Clearlake Bridge to Australian Ave/Tamarind	Add Turn Lane(s)	$2,045	$933,359	$0	$91,780	$1,183,255	$1,539,405	$2,078,867	$0	$1,949	$119,385	$2,867	$0	$0	$0	$0	$0	**$5,952,912**
229765-1	Palm Beach County/JPA Install Traffic Devices w/Palm Beach County	Traffic Control Devices/System	$307,651	$88,388	$10,467	$10,969	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$418,375**
229765-2	Palm Beach County/JPA Install Traffic Devices	Traffic Control Devices/System	$0	$0	$0	$0	$510,571	$376,270	$77,972	$9,510	$13,294	$6,661	$3,000	$0	$0	$0	$0	$0	**$997,278**
229769-1	SR-808/Glades Rd @ Dixie Hwy	Intersection (Minor)	$554,970	$11,413	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$566,383**
229771-1	SR-786/PGA Blvd @ SR-811 /FEC RR W. of I-95 to Fairchild	Interchange (New)	$866,477	$816,593	$402,939	$800,881	$737,711	$141,749	$192,380	$2,056	$524	$77,272	$2,264,936	$0	$0	$0	$0	$0	**$6,303,518**
229797-1	SR-80/Southern Blvd from W. of Haverhill to W. of Congress Ave	Add Lanes & Reconstruct	$1,553,694	$2,112,744	$1,101,614	$2,295,928	$784,237	$900,994	$10,202	$405,393	$0	$0	$0	$0	$0	$0	$0	$0	**$9,164,806**
229826-1	Palm Beach Countywide Minor Projects Design/Traffic Ops	Preliminary Engineering	$64,136	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$64,136**
229827-1	Palm Beach Countywide Minor Projects Design/Traffic Ops	Preliminary Engineering	$229,433	$72,748	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$302,181**
229841-1	Western Brow/PBC X from Broward/Palm Beach Co Line to Glades Rd	PD&E/Emo Study	$5,513	$6,734	$3,780	$97,560	$503	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$114,090**
229842-1	Boca Signal System Enhance Traffic System & Operations	Traffic Control Devices/System	$159,000	$77,000	$81,000	$85,000	$88,950	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$490,950**
229842-2	Boca Signal System Enhance Traffic System & Operations	Traffic Control Devices/System	$0	$0	$0	$0	$0	$94,000	$98,000	$103,000	$0	$0	$0	$0	$0	$0	$0	$0	**$295,000**
229842-3	Boca Signal System Traffic Signal Equipment Upgrades	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$150,076	$150,015	$0	$0	$0	$0	$0	$0	**$300,091**
229892-1	SR-807/Congress Ave from Lantana Rd to 6 Ave S	Add Lanes & Reconstruct	$25,558	$33,173	$18,545	$6,344	$1,524	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$85,144**
229892-2	CR-807/Congress Ave from Lantana Rd to S. of Malaleuca Lane	Add Lanes & Reconstruct	$0	$0	$0	$0	$0	$208	$5,465,709	$2,222	$689	$0	$0	$0	$0	$0	$0	$0	**$5,468,828**
229895-1	SR-710/Beeline Hwy from Dixie Hwy to SR-5/US-1/Riviera Beach	New Road Construction	$87,155	$645	$0	$0	$0	$0	$0	$0	$81	$0	$0	$0	$0	$0	$0	$0	**$87,881**
229895-2	SR-710 (Port of PBC) Connection to SR-5/US-1	PD&E/Emo Study	$0	$0	$0	$0	$819,974	$26,888	$26,396	$32,907	$42,703	$0	$0	$0	$0	$0	$0	$0	**$948,868**
229896-1	SR-710/Beeline Hwy from W. of Australian Ave to Old Dixie Hwy	Add Lanes & Reconstruct	$37,537	$6,706,433	$7,212,663	$1,728,532	$2,872,037	$1,917,058	$543,781	$440,288	$3,956,882	$8,410,608	$7,265,014	$2,600,000	$25,255,785	$982,441	$0	$0	**$69,929,059**
229897-1	SR-710/Beeline Hwy from Military Trail to W. of Congress Ave	Add Lanes & Reconstruct	$27,565	$711,439	$138,348	$24,165,428	$374,439	$465,932	$167,091	$0	$0	$0	$15,400	$0	$0	$0	$0	$0	**$26,065,642**
229897-2	SR-710/Beeline Hwy from W. of Cnogress Ave to W. of Australian Ave	Add Lanes & Reconstruct	$0	$697,035	$57,240	$4,363,635	$4,324,005	$988,901	$2,055,494	$7,631,169	$15,860,555	$869,688	$780,225	$0	$0	$0	$0	$0	**$37,627,947**
230337-2	R/W Revenue from Leases Palm Beach	Right-of-Way Activities	$0	$0	$0	$0	$0	$4	$0	$0	$0	$0	$202	$0	$0	$0	$0	$0	**$206**
231276-1	SR-811/Dixie Hwy from Brow/PBC Co Line to SW 18 St/Boca	Add Lanes & Reconstruct	$17,154	$6,656	$12,845	$71,758	$808,576	$9,136	$2,529,407	$86,330	$14,532	$22,107	$0	$0	$0	$0	$0	$0	**$3,578,501**
233166-2	SR-808/Glades Rd from SR-7 to SR-5	PD&E/Emo Study	$0	$0	$0	$0	$0	$0	$0	$2,704,529	$37,418	$19,747	$13,114	$4,255,000	$0	$0	$2,088,526	$0	**$9,118,334**

Table G-5 (continued)
Historical and Future FDOT Capital Improvement Expenditures for Palm Beach County, FY 2004 to FY 2019

Item #	Project Description	Improvement	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
403605-2	SR-804/Boynton Beach @ Old Boynton Rd	Traffic Signals	$0	$0	$0	$0	$179,741	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$179,741**
404739-1	Palm Beach JPA Signal Maintenance & Operations on SHS	Traffic Signals	$498,745	$673,947	$695,746	$734,718	$770,392	$780,937	$806,246	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,960,731**
404838-1	Palm Beach County Regional ATIS Project (Dade/Broward/Palm Beach)	Traffic Control Devices/System	$0	$0	$175,000	$175,000	$175,000	$47,563	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$572,563**
405786-1	SR-5/West Palm Beach Core Area Traffic Calming Downtown	Preliminary Engineering	$0	$66,753	$1,500,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,566,753**
408198-1	Boca Raton ATMS Master Plan	Traffic Control Devices/System	$250,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$250,000**
408198-1	Boca Raton ATMS Master Plan	Traffic Control Devices/System	$0	$250,000	$250,000	$1,127,756	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,627,756**
408198-3	Boca Raton ATMS Electronic Counter	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$312,084	$0	$0	$0	$0	$0	$0	$0	**$312,084**
409820-1	US-1 Corridor from Lake Worth Rd to PGA Blvd	Urban Corridor Improvements	$0	$0	$0	$0	$910,190	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$910,190**
410540-1	Airport Rd @ SR-808/Glades Rd	Intersection (Minor)	$503,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$503,800**
410655-1	SR-5/US-1/Lantana from S. of Lantana C/L to SR-805	Traffic Signals	$132,738	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$132,738**
411073-1	SR-80/Mobility 2000 from E. of Forest Hill Blvd to W. of Congress Ave	Prelim Eng for Future Capacity	$300,000	$253,763	$206,912	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$760,675**
412489-4	ITS Equipment for Traffic Mangement System Opticom System	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$0	$79,288	$336	$0	$0	$0	$0	$0	**$79,624**
412489-5	ITS Equipment for Traffic Mangement System Opticom System	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,000	$0	$0	$0	$0	$0	**$12,000**
413265-1	SR-5/US-1 from S. Glades Rd to N. of Yamato Rd (Boca)	PD&E/Emo Study	$0	$0	$50	$2,550	$91	$6,890	$1,102,336	$20,780	$48,911	$3,779	$1,978	$0	$0	$0	$0	$0	**$1,187,365**
413841-1	SR-806/Atlantic Ave from Via Flora to E. of Congress Ave	Add Turn Lane(s)	$821	$1,088,811	$12,314	$81,284	$732,888	$84,135	$115,212	$139,959	$88	$0	$0	$0	$0	$0	$0	$0	**$2,255,512**
415493-1	SR-786/PGA Blvd from Kew Gardens Dr to SR-5/US-1	Traffic Signals	$1,850	$205,306	$3,217	$44,703	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$255,076**
416525-1	Palm Beach County ATMS/DG #3 Cameras & 11 DMS Signs	Traffic Control Devices/System	$0	$0	$638,083	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$638,083**
416525-2	Palm Beach County ATMS Design Group 3	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$2,953,650	$49,329	$6,107	$10,533	$0	$0	$0	$0	$0	**$3,019,619**
416589-1	SR-5/US-1 @ Tropic Blvd in Delray	Traffic Signals	$0	$300,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$300,000**
417062-1	SR-708/Blue Heron Blvd @ Congress Ave	Add Turn Lane(s)	$0	$350,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$350,000**
417062-2	SR-708/Blue Heron Blvd @ Congress Ave Ph. II	Add Turn Lane(s)	$0	$0	$0	$0	$495,888	$307,909	$2,653,669	$129,620	$219,684	$614,638	$93,708	$0	$0	$0	$0	$0	**$4,515,116**
417737-1	Palm Beach ITS Facility Operations	Traffic Management Center	$0	$0	$0	$0	$0	$29,415	$67,296	$57,183	$39,250	$55,014	$50,000	$0	$0	$0	$0	$0	**$298,158**
417737-1	Palm Beach TMC Staffing	ITS Communication System	$0	$0	$0	$0	$0	$0	$0	$557,277	$1,053,262	$1,053,262	$0	$0	$0	$0	$0	$0	**$2,663,801**
419251-1	SR-710/Beeline Hwy from Northlake Blvd to Blue Heron Blvd	Add Lanes & Reconstruct	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,800,000	$0	$0	$0	$0	**$4,800,000**
419345-1	SR-80 from CR-880 to Forest Hill Blvd	PD&E/Emo Study	$0	$0	$0	$0	$0	$33,495	$1,259,164	$63,076	$33,165	$53	$4,947	$0	$0	$0	$0	$0	**$1,393,900**
419345-2	SR-80 from W. of Lion Co Safari Rd to Forest Hill/Crestwood Blvd	Add Lanes & Rehabilitate Pvmnt	$0	$0	$0	$0	$0	$0	$0	$0	$2,359,559	$32,337	$906,209	$1,370,999	$1,474,468	$1,076,303	$39,362,058	$0	**$46,581,933**
419348-1	SR-710 from PBC/Martin Co Line to Congress Ave	PD&E/Emo Study	$0	$0	$7,716,973	$32,985	$41,969	$37,342	$22,624	$81,479	$925	$15,566	$7,526	$0	$154,994	$0	$0	$0	**$8,112,383**
420356-1	Congress Ave @ Intermodal Center Delray	Intersection (New)	$0	$0	$0	$0	$45,188	$3,862	$476,183	$167	$0	$0	$0	$0	$0	$0	$0	$0	**$525,400**
421785-1	SR-807/Congress Ave @ SR 882 Forest Hill Blvd Intersection Improvement	Add Turn Lane(s)	$0	$0	$0	$37,158	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$37,158**
421786-1	Lyons Rd from SR-804/Boynton Beach Blvd to SR-806/Atlantic Ave	New Road Construction	$0	$0	$0	$2,850,000	$0	$0	$3,780,002	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,630,002**
422769-2	Jog Rd @ 45th St	New Road Construction	$0	$0	$0	$0	$2,220,015	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,220,015**
422837-1	SR-15/FEC Corridor Demolition of a Structure in Canal Point	Right-of-Way Activities	$0	$0	$0	$0	$7,188	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$7,188**
423983-1	Hypoluxo Rd from Jog Rd to Military Trail	Add Lanes & Reconstruct	$0	$0	$0	$0	$1,875,370	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,875,370**
424764-2	SR-9/I-95 from Broward/Palm Beach Co Line to SR-706	PD&E/Emo Study	$0	$0	$0	$0	$0	$705	$873,558	$12,809	$590	$0	$0	$0	$0	$0	$0	$0	**$887,662**
425960-1	Palm Beach County Push Button-Contract for Signalization	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$122,412	$42,660	$11,391	$0	$0	$0	$0	$0	$0	**$176,463**
425960-2	Palm Beach County Push Button-Contract for Signalization	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$10,000	$618,021	$60,982	$0	$0	$0	$0	$0	**$689,003**
425960-3	Palm Beach County Push Button-Contract for Signalization	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,051,319	$0	$0	$0	$0	**$1,051,319**
425960-4	Palm Beach County Push Button-Contract for Signalization	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,113,500	$0	$0	**$1,113,500**
425960-5	Palm Beach County Push Button-Contract for Signalization	Traffic Control Devices/System	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,065,443	**$1,065,443**
427802-1	Palm Beach County JPA Signal Maintenance & Ops on SHS	Traffic Signals	$0	$0	$0	$0	$0	$0	$0	$766,173	$793,417	$822,085	$849,955	$894,534	$0	$0	$0	$0	**$4,126,164**
427802-2	Palm Beach County JPA Signal Maintenance & Ops on SHS	Traffic Signals	$0	$0	$0	$0	$0	$0	$0	$76,247	$78,545	$80,901	$81,882	$89,441	$0	$0	$0	$0	**$407,016**
427802-3	Palm Beach County Signal Maintenance & Ops on SHS	Traffic Signals	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$901,800	$928,900	$956,800	$985,504	**$3,773,004**
427802-4	City of Boca Raton Signal Maintenance & Ops on SHS	Traffic Signals	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$88,500	$92,000	$95,000	$97,850	**$373,350**
427938-1	SR-7/US-441 from Broward/Palm Beach Co Line to SR-808/Glades Rd	PD&E/Emo Study	$0	$0	$0	$0	$0	$0	$0	$2,077,371	$28,869	$21,173	$12,174	$1,400,000	$0	$0	$0	$9,368,876	**$12,908,463**
428451-1	SR-25/US-27 from Brow/PBC Co Line to N. of South Bay	ITS Communication System	$0	$0	$0	$0	$0	$0	$146,660	$4,551	$3,154,144	$956	$18,481	$0	$0	$0	$0	$0	**$3,324,792**
428468-2	Palm Beach County Master Dewatering Permit w/SFWMD	Preliminary Engineering	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,000**
429738-1	SR-805/Dixie Hwy @ 12th Ave S Safety Project	Intersection Improvement	$0	$0	$0	$0	$0	$0	$0	$0	$153,538	$48,228	$7,133	$787,146	$0	$0	$0	$0	**$996,045**
431645-1	SR-809/Military Trail at Northlake Blvd	Add Turn Lane(s)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$100,000	$0	$0	$0	$0	$0	$0	**$100,000**
431645-2	SR-809/Military Trail at Northlake Blvd	Add Turn Lane(s)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$63,738	$86,360	$0	$0	$0	$0	**$150,098**
431803-1	Palm Beach County Install Pivotal Hangers on Traffic Signals	Traffic Signals	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,502,023	$27,390	$0	$0	$0	$0	$0	**$1,529,413**
432704-1	SR-710/Beeline Hwy from W. of Indiantown Rd to W. of Pratt Whitney	Add Lanes & Reconstruct	$0	$0	$0	$0	$0	$0	$0	$0	$0	$71,085	$34,693,456	$0	$0	$0	$0	$0	**$34,764,541**
432706-1	SR-710/Beeline Hwy from PBC/Martin Co Line to W. of Indiantown Rd	Add Lanes & Reconstruct	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$11,507,069	$0	$0	$0	$0	$0	**$11,507,069**
432883-1	Palm Beach County Adaptive Traffic Control System - Northlake	ATMS - Arterial Traffic Mgmt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$94,113	$735,038	$0	$0	$0	$0	$0	**$829,151**
432883-2	Palm Beach County Adaptive Traffic Control System - SR-786/PGA Blvd	ATMS - Arterial Traffic Mgmt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$175,000	$0	$1,656,098	$0	**$1,831,098**
433064-1	Congress Ave Ext from Northlake Blvd to Alternate A1A	New Road Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$250,000	$0	$1,365,909	$0	$2,500,000	$0	**$4,115,909**
433947-1	SR-704/Okeechobee Blvd from Tamarind Ave to Flagler Dr	ATMS - Arterial Traffic Mgmt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,631	$645,355	$0	$0	$0	$0	$0	**$676,986**
435122-1	SR-882/Forest Hill Blvd at Kirk Rd	Add Turn Lane(s)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$167,321	$1,502,755	$0	$0	$0	**$1,670,076**
435144-1	SR-708/Blue Heron from 200ft W. of Avenue S to 200ft E. of Avenue S	Intersection Improvement	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$225,000	$226,491	$0	$533,557	$0	$0	**$985,048**
435158-1	SR-80/Southern Blvd as Sansbury Way/Lyons Rd	Intersection Improvement	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$725,000	$0	$0	$3,488,690	$0	**$4,213,690**
435386-1	US-27/SR-25 Intersection with SR-80	Add Lanes & Reconstruct	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$121,516	$62,714	$1,454,964	$0	$0	$0	**$1,639,194**
Total			**$60,641,717**	**$29,579,165**	**$29,639,185**	**$46,804,508**	**$30,254,610**	**$10,134,621**	**$28,104,413**	**$22,180,609**	**$29,344,203**	**$15,582,539**	**$62,367,760**	**$19,589,564**	**$84,952,225**	**$31,342,227**	**$50,147,172**	**$11,517,673**	**$562,182,191**

Source: FDOT Work Program Reports for Palm Beach County and the Palm Beach County FY 2015-2019 Transportation Improvement Program

Table G-6
Average Motor Vehicle Fuel Efficiency – Excluding Interstate Travel

Travel Vehicle Miles of Travel (VMT) @			
	21.6	6.4	
Other Arterial Rural	307,851,000,000	46,140,000,000	353,991,000,000
Other Rural	313,445,000,000	30,367,000,000	343,812,000,000
Other Urban	1,436,559,000,000	86,263,000,000	1,522,822,000,000
Total	***2,057,855,000,000***	***162,770,000,000***	***2,220,625,000,000***

Percent VMT	
@ 21.6 mpg	@ 6.4 mpg
87%	13%
91%	9%
94%	6%
93%	**7%**

Fuel Consumed			
	Gallons @ 21.6 mpg	Gallons @ 6.4 mpg	
Other Arterial Rural	14,252,361,111	7,209,375,000	21,461,736,111
Other Rural	14,511,342,593	4,744,843,750	19,256,186,343
Other Urban	66,507,361,111	13,478,593,750	79,985,954,861
Total	***95,271,064,815***	***25,432,812,500***	***120,703,877,315***

Total Mileage and Fuel	
2,220,625	**miles (millions)**
120,704	**gallons (millions)**
18.40	**mpg**

Source: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2013* , Section V, Table VM-1
Annual Vehicle Distance Traveled in Miles and Related Data - 2013 by Highway Category and Vehicle Type
http://www.fhwa.dot.gov/policyinformation/statistics.cfm

Source: See Table G-7

Table G-7
Annual Vehicle Distance Traveled in Miles and Related Data (2013) - By Highway Category and Vehicle Type [1]

Published January 2015 — 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)									
2013	Interstate Rural	132,342	1,240	1,513	41,931	9,255	48,022	**174,273**	**57,277**	234,303
2013	Other Arterial Rural	222,632	2,692	2,079	85,220	16,673	29,467	**307,851**	**46,140**	358,762
2013	Other Rural	222,564	2,960	2,075	90,881	17,217	13,150	**313,445**	**30,367**	348,846
2013	All Rural	577,538	6,891	5,667	218,032	43,144	90,640	795,569	133,784	941,912
2013	Interstate Urban	359,386	2,550	2,144	86,257	15,510	39,462	**445,643**	**54,971**	505,309
2013	Other Urban	1,137,534	10,925	7,356	299,024	47,929	38,334	**1,436,559**	**86,263**	1,541,102
2013	All Urban	1,496,920	13,475	9,500	385,282	63,438	77,796	1,882,202	141,234	2,046,411
2013	Total Rural and Urban[5]	2,074,458	20,366	15,167	603,313	106,582	168,436	2,677,771	275,018	2,988,323
2013	Number of motor vehicles registered[2]	184,497,490	8,404,687	864,549	51,512,740	8,126,007	2,471,349	236,010,230	10,597,356	255,876,822
2013	Average miles traveled per vehicle	11,244	2,423	17,543	11,712	13,116	68,155	11,346	25,952	11,679
2013	Person-miles of travel[4] (millions)	2,882,221	21,937	321,544	805,997	106,582	168,436	3,688,218	275,018	4,306,717
2013	Fuel consumed (thousand gallons)	88,611,046	467,716	2,116,657	35,158,673	14,501,958	28,794,905	123,769,719	43,296,864	169,650,956
2013	Average fuel consumption per vehicle (gallons)	480	56	2,448	683	1,785	11,651	524	4,086	663
2013	Average miles traveled per gallon of fuel consumed	23.4	43.5	7.2	17.2	7.3	5.8	**21.6**	**6.4**	17.6

(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. Starting with the 2009 VM-1, an enhanced methodology was used to provide timely indicators on both travel and travel behavior changes.

(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

(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) Vehicle occupancy is estimated by the FHWA from the 2009 National Household Travel Survey (NHTS); 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 H
Calculated Transportation Impact Fee Schedule

Transportation Impact Fee Schedule

This appendix presents the detailed impact fee calculations for each land use in Palm Beach County's transportation impact fee schedule.

Table H-1
Calculated Transportation Impact Fee Schedule

	Gasoline Tax						Unit Construction Cost:	$3,622,000				Interstate/Toll Facility Adjustment Factor:	29.2%		
	$$ per gallon to capital:	$0.086					Capacity per lane mile:	11,533				Cost per VMC:	$314.06		
	Facility life (years):	25		County Revenues:	$0.020		Fuel Efficiency:	18.40 mpg							
	Interest rate:	3.40%		State Revenues:	$0.066		Effective days per year:	365							

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	% New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee	% Change
	RESIDENTIAL:															
210	Single Family (detached)	du	7.81	FL Studies	6.62	7.12	FL Studies	100%	N/A	18.30	$5,748	$47	$783	**$4,965**	$7,281	-32%
220/230	Multi-Family (Apartment/Condo/Townhouse)	du	6.32	Blend ITE 9th & FL Studies (LUC 220/230)	5.10	5.60	FL Studies (LUC 220/230)	100%	N/A	11.41	$3,583	$30	$500	**$3,083**	$4,842	-36%
n/a	Accessory Apartment (Mother-in-Law/Grooms Quarters)	du	3.09	Blend ITE 9th & FL Studies (LUC 251/252/253)	5.10	5.60	FL Studies (LUC 220/230)	100%	N/A	5.58	$1,752	$15	$250	**$1,502**	$2,912	-48%
251	Senior Adult Housing (Detached)	du	3.12	Blend ITE 9th & FL Studies	5.42	5.92	FL Studies	100%	N/A	5.99	$1,880	$16	$267	**$1,613**	$5,824	-72%
252	Senior Adult Housing (Attached)	du	2.97	Blend ITE 9th & FL Studies	3.28	3.78	FL Studies	100%	N/A	3.45	$1,083	$10	$167	**$916**	$4,368	-79%
240	Mobile Home	du	4.17	FL Studies	4.60	5.10	FL Studies	100%	N/A	6.79	$2,133	$18	$300	**$1,833**	$3,640	-50%
254	Congregate Living Facility	bed	2.66	ITE 9th Edition	3.08	3.58	FL Studies (LUC 253)	72%	FL Studies (LUC 253)	2.09	$656	$6	$100	**$556**	$1,471	-62%
	TRANSIENT, ASSISTED, GROUP:															
310	Hotel	room	6.36	Blend ITE 9th & FL Studies	6.26	6.76	FL Studies	66%	FL Studies	9.30	$2,921	$24	$400	**$2,521**	$1,948	29%
320	Motel	room	5.63	ITE 9th Edition	4.34	4.84	FL Studies	77%	FL Studies	6.66	$2,092	$18	$300	**$1,792**	$2,211	-19%
	RECREATIONAL:															
412	General Recreation/County Park[2]	acre	2.28	ITE 9th Edition	5.11	5.61	FL Schedules	90%	FL Schedules	3.71	$1,166	$10	$167	**$999**	$2,080	unit change
420	Marina	berth	2.96	ITE 9th Edition	6.62	7.12	Same as LUC 210	90%	FL Schedules	6.24	$1,961	$16	$267	**$1,694**	n/a	n/a
430	Golf Course	hole	35.74	ITE 9th Edition	6.62	7.12	Same as LUC 210	90%	FL Schedules	75.38	$23,674	$195	$3,249	**$20,425**	$8,674	136%
444	Movie Theater w/Matinee[3]	screen	106.63	Blend ITE 6th & FL Studies	2.22	2.72	FL Studies	88%	FL Studies	73.74	$23,159	$218	$3,632	**$19,527**	$415	unit change
491	Racquet/Tennis Club	court	38.70	ITE 9th Edition	5.15	5.65	Same as LUC 710	94%	Same as LUC 492	66.32	$20,828	$175	$2,916	**$17,912**	$9,337	92%
492	Health Club	1,000 sf	32.93	ITE 9th Edition	5.15	5.65	Same as LUC 710	94%	FL Studies	56.43	$17,723	$149	$2,483	**$15,240**	n/a	n/a
	INSTITUTIONS:															
520	Elementary School (Private)	student	1.29	ITE 9th Edition	4.30	4.80	FL Schedules	80%	FL Schedules	1.57	$493	$4	$67	**$426**	$602	-29%
522	Middle School (Private)	student	1.62	ITE 9th Edition	4.30	4.80	FL Schedules	90%	FL Schedules	2.22	$697	$6	$100	**$597**	$602	-1%
530	High School (Private)	student	1.71	ITE 9th Edition	4.30	4.80	FL Schedules	90%	FL Schedules	2.34	$736	$6	$100	**$636**	$602	6%
540	University (7,500 or fewer students) (Private)	student	2.00	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	FL Schedules	4.22	$1,325	$11	$183	**$1,142**	$602	90%
550	University (more than 7,500 students) (Private)	student	1.50	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	FL Schedules	3.16	$994	$8	$133	**$861**	$602	43%
560	Church/Synagogue	1,000 sf	9.11	ITE 9th Edition	3.90	4.40	FL Schedules	90%	FL Schedules	11.32	$3,555	$31	$517	**$3,038**	$2,100	45%

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

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	% New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee	% Change
	INSTITUTIONS:															
565	Day Care Center	1,000 sf	71.88	Blend ITE 9th & FL Studies	2.03	2.53	FL Studies	73%	FL Studies	37.71	$11,842	$113	$1,883	**$9,959**	$9,618	4%
566	Cemetery	acre	4.73	ITE 9th Edition	6.62	7.12	Same as LUC 210	95%	Estimated	10.53	$3,307	$27	$450	**$2,857**	$575	397%
610	Hospital	1,000 sf	13.22	ITE 9th Edition	6.62	7.12	Same as LUC 210	77%	FL Schedules	23.86	$7,492	$62	$1,033	**$6,459**	$3,604	79%
620	Nursing Home	bed	2.76	Blend ITE 9th & FL Studies	2.59	3.09	FL Studies	89%	FL Studies	2.25	$707	$6	$100	**$607**	$518	17%
640	Animal Hospital/Veterinary Clinic	1,000 sf	32.80	FL Studies (Pinellas County)	1.90	2.40	FL Studies (Pinellas County)	70%	FL Studies (Pinellas County)	15.44	$4,850	$47	$783	**$4,067**	$3,980	2%
n/a	Funeral Home	1,000 sf	12.60	Previous Palm Beach Fee Study	2.00	2.50	Previous Palm Beach Fee Study	50%	Previous Palm Beach Fee Study	4.46	$1,401	$13	$217	**$1,184**	$2,233	-47%
	OFFICE & FINANCIAL:															
710	Office (50,000 sf and less)[4]	1,000 sf	15.50	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	26.00	$8,165	$69	$1,150	**$7,015**	$3,418	105%
	Office (50,001 - 100,000 sf)[4]	1,000 sf	13.13	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	22.02	$6,916	$58	$966	**$5,950**	$2,914	104%
	Office (100,001 - 200,000 sf)[4]	1,000 sf	11.12	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	18.65	$5,857	$49	$816	**$5,041**	$2,483	103%
	Office (200,001 - 400,000 sf)[4]	1,000 sf	9.41	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	15.78	$4,957	$42	$700	**$4,257**	$2,119	101%
	Office (greater than 400,000 sf)[4]	1,000 sf	8.54	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	14.32	$4,498	$38	$633	**$3,865**	$1,929	100%
720	Medical Office (less than 10,000 sf)	1,000 sf	23.83	FL Studies	5.55	6.05	FL Studies	89%	FL Studies	41.67	$13,086	$109	$1,816	**$11,270**	$7,891	43%
	Medical Office (10,000 sf and greater)	1,000 sf	34.72	Blend ITE 9th & FL Studies	5.55	6.05	FL Studies	89%	FL Studies	60.71	$19,067	$159	$2,649	**$16,418**	$7,891	108%
	RETAIL:															
817	Nursery (Garden Center)	acre	108.10	ITE 9th Edition	1.87	2.37	Same as LUC 820 (50k and less tier)	56%	Same as LUC 820 (50k and less tier)	40.07	$12,585	$122	$2,033	**$10,552**	$1,699	521%
820	Retail (50,000 sf and less)[4]	1,000 sfgla	86.56	ITE 9th equation	1.87	2.37	FL Curve	56%	FL Curve	32.09	$10,078	$98	$1,633	**$8,445**	$11,176	-24%
	Retail (50,001 - 200,000 sf)[4]	1,000 sfgla	53.28	ITE 9th equation	2.40	2.90	FL Curve	67%	FL Curve	30.33	$9,525	$88	$1,466	**$8,059**	$8,546	-6%
	Retail (200,001 - 400,000 sf)[4]	1,000 sfgla	41.80	ITE 9th equation	2.64	3.14	FL Curve	73%	FL Curve	28.52	$8,956	$82	$1,366	**$7,590**	$7,359	3%
	Retail (400,001 - 600,000 sf)[4]	1,000 sfgla	36.27	ITE 9th equation	2.87	3.37	FL Curve	76%	FL Curve	28.01	$8,795	$79	$1,316	**$7,479**	$6,718	11%
	Retail (600,001 - 800,000 sf)[4]	1,000 sfgla	32.80	ITE 9th equation	3.10	3.60	FL Curve	79%	FL Curve	28.44	$8,930	$80	$1,333	**$7,597**	$6,287	21%
	Retail (greater than 800,000 sf)[4]	1,000 sfgla	30.33	ITE 9th equation	3.34	3.84	FL Curve	81%	FL Curve	29.05	$9,122	$80	$1,333	**$7,789**	$6,287	24%
841	New/Used Car Sales	1,000 sf	28.25	Blend ITE 9th & FL Studies	4.60	5.10	FL Studies	79%	FL Studies	36.34	$11,413	$97	$1,616	**$9,797**	$6,877	43%
848	Tire Store	1,000 sf	24.87	ITE 9th Edition	3.62	4.12	Same as LUC 942	72%	Same as LUC 942	22.95	$7,207	$63	$1,050	**$6,157**	$14,561	-58%
853	Convenience Store w/Gas Pumps	1,000 sf	775.14	Blend ITE 9th & FL Studies	1.51	2.01	FL Studies	28%	FL Studies	116.02	$36,435	$372	$6,198	**$30,237**	$34,924	-13%
880/881	Pharmacy with and w/o Drive-Thru	1,000 sf	95.96	Blend ITE 9th & FL Studies	2.08	2.58	FL Studies	32%	FL Studies	22.61	$7,101	$68	$1,133	**$5,968**	$5,349	12%

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

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	% New Trips	% New Trips Source	Net VMT[(1)]	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee	% Change
	RETAIL:															
890	Furniture Store	1,000 sf	5.06	ITE 9th Edition	6.09	6.59	FL Studies	54%	FL Studies	5.89	$1,850	$15	$250	**$1,600**	$963	66%
912	Bank/Savings w/Drive-In	1,000 sf	159.34	Blend ITE 9th & FL Studies	2.46	2.96	FL Studies	46%	FL Studies	63.83	$20,046	$185	$3,082	**$16,964**	$19,056	-11%
931	Quality Restaurant	1,000 sf	91.10	Blend ITE 9th & FL Studies	3.14	3.64	FL Studies	77%	FL Studies	77.97	$24,488	$218	$3,632	**$20,856**	$12,225	71%
932	High-Turnover Restaurant	1,000 sf	116.60	Blend ITE 9th & FL Studies	3.17	3.67	FL Studies	71%	FL Studies	92.90	$29,176	$259	$4,315	**$24,861**	$17,589	41%
934	Fast Food Rest. w/Drive-Thru	1,000 sf	511.00	Blend ITE 9th & FL Studies	2.05	2.55	FL Studies	58%	FL Studies	215.08	$67,548	$645	$10,747	**$56,801**	$30,702	85%
941	Quick Lube	bay	40.00	ITE 9th Edition	3.62	4.12	Same as LUC 942	72%	Same as LUC 942	36.91	$11,591	$101	$1,683	**$9,908**	$4,854	104%
942	Automobile Care Center	1,000 sf	31.43	Blend ITE 9th & FL Studies	3.62	4.12	FL Studies	72%	FL Studies	29.00	$9,107	$80	$1,333	**$7,774**	n/a	n/a
944/946	Gas Station with and w/o Car Wash	fuel pos.	157.33	Blend ITE 9th & FL Studies	1.90	2.40	FL Studies	23%	FL Studies	24.34	$7,644	$74	$1,233	**$6,411**	$10,227	-37%
947	Car Wash	bay	43.94	Blend ITE 9th & FL Studies	2.18	2.68	FL Studies	68%	FL Studies	23.06	$7,242	$68	$1,133	**$6,109**	$20,143	-70%
	INDUSTRIAL:															
110	General Light Industrial	1,000 sf	6.97	ITE 9th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	11.69	$3,671	$31	$517	**$3,154**	$1,522	107%
150	Warehousing	1,000 sf	3.56	ITE 9th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	5.97	$1,875	$16	$267	**$1,608**	$778	107%
151	Mini-Warehouse	1,000 sf	2.15	Blend ITE 9th & FL Studies	3.10	3.60	FL Schedules	92%	Same as LUC 710	2.17	$682	$6	$100	**$582**	$546	7%

(1) Source: 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) The current adopted rate for General Recreation/County Park is charged "per 1,000 sf"
(3) The current adopted rate for Movie Theater is charged "per seat"
(4) The trip generation rate recommended for the office and shopping center uses the end-point regression value