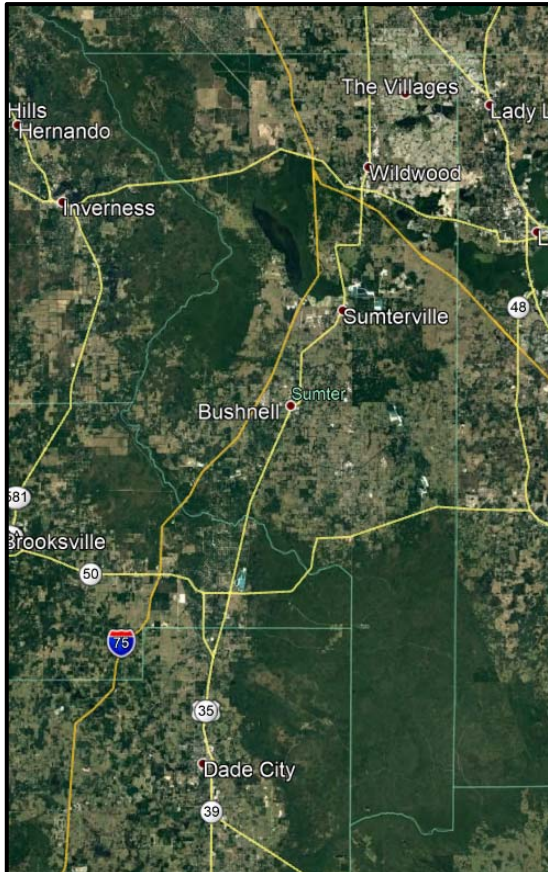


Sumter County

Roadway Impact Fee Study

FINAL Report
October 4, 2019



Prepared for:

Sumter County

7375 Powell Road
Wildwood, FL 34785
ph (352) 689-4400
fax (352) 689-4401

Prepared by:

Tindale Oliver

1000 N. Ashley Dr., #400
Tampa, Florida 33602
ph (813) 224-8862
fax (813) 226-2106
E-mail: nkamp@tindaleoliver.com
0381009-00.18

Sumter County Roadway Impact Fee Study

Table of Contents

INTRODUCTION	1
Methodology.....	1
Legal Standard Overview.....	2
DEMAND COMPONENT	6
Travel Demand	6
Land Use Changes	6
Interstate & Toll Facility Adjustment Factor.....	8
COST COMPONENT.....	10
County Roadway Cost	10
State Roadway Cost	12
Summary of Costs (Blended Cost Analysis)	14
Vehicle-Miles of Capacity Added per Lane Mile	15
Cost per Vehicle-Mile of Capacity	15
CREDIT COMPONENT.....	17
Capital Improvement Credit.....	17
Present Worth Variables	18
CALCULATED ROADWAY IMPACT FEE SCHEDULE	20
Roadway Impact Fee Calculation	22
Alternative Roadway Impact Fee Scenario.....	22
Roadway Impact Fee Comparison	24

Appendices:

- Appendix A:** Demand Component
- Appendix B:** Cost Component
- Appendix C:** Credit Component
- Appendix D:** Calculated Roadway Impact Fee Schedule

Introduction

Sumter County implemented a roadway impact fee to assist the County in providing adequate transportation facilities for expected growth, which was most recently updated in 2015. To reflect most recent and localized data, the County retained Tindale Oliver to update the technical study that will be the basis for the updated fee schedule. The figures calculated in this study represent the technically defensible level of impact fees that the County could charge; however, the Board of County Commissioners may choose to discount the fees as a policy decision.

Methodology

Consistent with the County's current adopted methodology, the methodology used for the road impact fee study continues to follow 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 document is the necessary support material used in the calculation of the road impact fee. The general equation used to compute the impact fee for a given land use is:

$$\mathbf{[Demand \times Cost] - Credit = Fee}$$

The "demand" for travel placed on a transportation system is expressed in units of Vehicle-Miles of Travel (daily vehicle-trip generation rate x the trip length x the percent new trips [of total trips]) for each land use contained in the impact fee schedule. Trip generation represents the average daily rates since new development consumes trips on a daily basis.

The "cost" of building new capacity typically is expressed in units of dollars per vehicle-mile of roadway capacity.

The "credit" is an estimate of future non-impact fee revenues generated by new development that are allocated to provide roadway capacity expansion. The impact fee is considered to be an "up front" payment for a portion of the cost of building a vehicle-mile of capacity that is directly related to the amount of capacity consumed by each unit of land use contained in the impact fee schedule, that is not paid for by future tax revenues generated by the new development activity. These credits are required under the supporting case law for the calculation of impact fees where

a new development activity must be reasonably assured that they are not being charged twice for the same level of service. More specifically, the input variables used in the fee equation are as follows:

Demand Variables:

- Trip generation rate
- Trip length
- Percent new trips

Cost Variables:

- Roadway cost per lane-mile
- Roadway capacity added per lane mile constructed

Credit Variables:

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

Legal Standard Overview

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

- Be supported by a study demonstrating that the fees are proportionate in amount to the need created by new development paying the fee; and
- Be spent in a manner that directs a proportionate benefit to new development, typically accomplished through establishment of benefit districts 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 163.31801(5)(f), Florida Statutes, including:
 1. Adoption of long-term strategies to facilitate development patterns that support multi-modal solutions, including urban design, and appropriate land use mixes, including intensity and density.
 2. Adoption of an area-wide level of service not dependent on any single road segment function.
 3. Exempting or discounting impacts of locally desired development, such as development in urban areas, redevelopment, job creation, and mixed use on the transportation system.
 4. Assigning secondary priority to vehicle mobility and primary priority to ensuring a safe, comfortable, and attractive pedestrian environment, with convenient

interconnection to transit.

5. Establishing multi-modal level of service standards that rely primarily on non-vehicular modes of transportation where existing or planned community design will provide adequate level of mobility.
6. Reducing impact fees or local access fees to promote development within urban areas, multi-modal transportation districts, and a balance of mixed-use development in certain areas or districts, or for affordable or workforce housing.

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

- **HB 207 in 2019:** Included the following changes to the Impact Fee Act along with additional clarifying language:
 1. Impact fees cannot be collected prior to building permit issuance; and
 2. Impact fee revenues cannot be used to pay debt service for previously approved projects unless the expenditure is reasonably connected to, or has a rational nexus with, the increased impact generated by the new residential and commercial construction.
- **HB 7103 in 2019:** Addressed multiple issues related to affordable housing/linkage fees, impact fees, and building services fees. In terms of impact fees, the bill required that when local governments increase their impact fees, the outstanding impact fee credits for developer contributions should also be increased. This requirement will operate prospectively. This bill also allowed local governments to waive/reduce impact fees for affordable housing projects without having to offset the associated revenue loss.

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

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

This technical report has been prepared to support legal compliance with existing case law and statutory requirements. Information supporting this analysis was obtained from the County and other sources, as indicated.

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 a measure of the vehicle-miles of new travel a unit of development places on the existing roadway 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 on the transportation system.

The trip characteristics variables were primarily obtained from two sources: (1) similar studies conducted throughout Florida (Florida Studies Database) and (2) the Institute of Transportation Engineers' (ITE) Trip Generation reference report (10th Edition). This database was used to determine trip length, percent new trips, and the trip generation rate for several land uses.

Land Use Changes

As part of this update study, the following land uses were revised/added/removed from the Sumter County fee schedule to reflect the most recent data on demand variables.

Multi-Family Housing

The current roadway impact fee schedule includes “multi-family (apartment) 1-2 stories” and “residential condominium/townhouse” land uses. ITE 10th Edition has realigned these uses, creating a combined “multi-family housing” category, with differentiation in trip generation rate based on the number of stories. This change is incorporated into the impact fee schedule, shown by Land Use Code (LUC) used by ITE:

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

- LUC 222 (multi-family, high-rise, >10 floors) – includes apartments, townhouses, and condominiums that have more than 10 levels (floors). They are likely to have one or more elevators.

Public Park

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

- LUC 411: Public Park (measured per acre)

Indoor Shooting Range (Range ONLY)

For the shooting range land use, the current roadway impact fee schedule uses LUC 435 (multi-purpose recreational facility) as a proxy for the trip generation rate. ITE 10th Edition does not include a daily trip generation rate for this land use, so the ITE 9th Edition data will continue to be used.

General Office

For the general office land use, the updated trip generation rate data in ITE 10th Edition indicate that there is little variation in TGR as the square footage of the facility increases. Therefore, the updated impact fee schedule includes a single office fee rate.

Retail

For the retail office land use, the updated trip generation rate data in ITE 10th Edition, along with the trip length and percent new trips regression curves indicate a relatively minor variation in VMT as the square footage of the facility increases. Therefore, the updated impact fee schedule includes a single retail fee rate.

Specialty Retail (Stand Alone)

The current roadway impact fee schedule includes LUC 826, specialty retail. ITE 10th Edition has removed this land use and therefore, this land use has been removed from the County's roadway impact fee schedule.

Gas Station w/Convenience Market

The current roadway impact fee schedule includes "gas/service station with or without car wash" and "gas/service station with convenience market" land uses. ITE 10th Edition has realigned these uses and added an additional "super" convenience land use, with differentiation in trip

generation rate based on the size of the convenience market. This update was incorporated into the impact fee schedule, shown by Land Use Code (LUC) used by ITE:

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

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

General Heavy Industrial

The current roadway impact fee schedule includes LUC 120, general heavy industrial, which is removed from ITE 10th Edition. Therefore, this land use has been removed from the County's roadway impact fee schedule.

High-Cube Transload & Short-Term Storage Warehouse

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

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

Interstate & Toll Facility Adjustment Factor

This variable is used to recognize that interstate highway and toll facility improvements are funded by the State (specifically, the Florida Department of Transportation) using earmarked State and Federal funds. Typically, impact fees are not used to pay for these improvements and the portion of travel occurring on the interstate/toll facility system is subtracted from the total travel for each use.

To calculate the interstate and toll (I/T) facility adjustment factor, the loaded highway network file was generated using the Central Florida Regional Planning Model (CFRPM 6.1). A select zone analysis was run for all traffic analysis zones located within the Sumter County in order to differentiate trips with an origin and/or destination within the county versus trips that simply passed through the county.

The analysis reviewed trips on all interstate and toll facilities within Sumter County, including, Interstate 75 and the Florida Turnpike. The limited access vehicle-miles of travel (Limited Access VMT) for county-generated trips with an origin and/or destination within county was calculated for the identified limited access facilities. Next, the total VMT was calculated for all county-generated trips with an origin and/or destination within Sumter County for all roads, including limited access facilities.

The I/T adjustment factor of 26.5 percent was determined by dividing the total limited access VMT by the total County VMT. Total County VMT reduced by this factor is representative of only the roadways that are eligible to be funded with road impact fee revenues. Appendix A, Table A-1 provides further detail on this calculation.

Cost Component

Cost information from Sumter County and other counties in Florida was reviewed to develop a unit cost for all phases involved in the construction of one lane-mile of roadway capacity. Appendix B provides the data and other support information utilized in these analyses.

County Roadway Cost

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

Design and CEI

Design costs for county roads were estimated at 11 percent of construction phase costs based on a review of recent roadway/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-2.

CEI costs for county roads were estimated at nine (9) percent of construction phase costs based on a review of recent roadway/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-6.

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. Due to limited recent local acquisition data, this factor was determined through a review of the ROW-to-construction cost ratios for county road unit costs in previously completed impact fee studies throughout Florida. For county roadways, the ROW factors ranged from 32 to 60 percent with an average of 42 percent. For purposes of this update study, the ROW cost for county roads was calculated at 42 percent of the construction cost per lane mile. Additional detail is provided in Appendix B, Table B-3.

Construction

The construction cost for county roads was based on recently completed projects and future estimates in Sumter County and in other communities in Florida. A review of construction cost data for improvement Sumter County since 2012 identified one capacity expansion project constructed in 2013, with a construction cost of approximately \$2.0 million per lane mile (curb & gutter):

- C-466A, Phase III from US 301 N to Powell Road

In addition to this local project, recent improvements from other counties throughout Florida were reviewed to increase the sample size. This review included over 173 lane miles of lane addition and new road construction improvements with a weighted average cost of approximately \$2.91 million per lane mile. Additional data is provided in Appendix B, Table B-4.

Based on a review of these data sets, a construction cost of **\$2.90 million** per lane mile was used in the impact fee calculation for urban design (curb & gutter) improvements.

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

To determine the weighted average cost for county roadways, the cost for curb & gutter and open drainage roadways were weighted based on the distribution of Sumter County roadways included in the Lake-Sumter MPO's 2040 Long Range Transportation Plan's Cost Feasible Plan and the upcoming improvements identified by County staff. As shown in Table 1, the weighted average county roadway construction cost was calculated at approximately \$2.86 million per lane mile, with a total weighted average cost of \$4.64 million per lane mile for county roadways.

¹ This data was not available for FDOT District 5

Table 1
Estimated Total Cost per Lane Mile for County Roads

Cost Phase	Cost per Lane Mile		
	Curb & Gutter	Open Drainage ⁽⁵⁾	Weighted Average ⁽⁶⁾
Design ⁽¹⁾	\$319,000	\$236,000	\$315,000
Right-of-Way ⁽²⁾	\$1,218,000	\$901,000	\$1,202,000
Construction ⁽³⁾	\$2,900,000	\$2,146,000	\$2,862,000
CEI ⁽⁴⁾	\$261,000	\$193,000	\$258,000
Total Cost	\$4,698,000	\$3,476,000	\$4,637,000
Lane Mile Distribution ⁽⁷⁾	95%	5%	100%

- 1) Design is estimated at 11% of construction costs
 - 2) Right-of-Way is estimated at 42% of construction costs
 - 3) Source: Appendix B, Table B-4 for curb & gutter
 - 4) CEI is estimated at 9% of construction costs
 - 5) Open drainage costs are estimated at 74% of the curb & gutter costs
 - 6) Lane mile distribution (Item 7) multiplied by the design, right-of-way, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile
 - 7) Source: Appendix B, Table B-7; County Roads Only, with rounding
- Note: All figures rounded to nearest \$000

State Roadway Cost

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

Design and CEI

Design costs for state roads were estimated at 11 percent of construction phase costs based on a review of recent roadway/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-2.

CEI costs for state roads were estimated at 11 percent of construction phase costs based on a review of recent roadway/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-6.

Right-of-Way

The ROW cost factor for state roads was estimated as a percentage of the construction cost per lane mile. Due to limited recent local acquisition data, this factor was determined through a review of the ROW-to-construction cost ratios for state road unit costs in previously completed impact fee studies throughout Florida. For state roadways, the ROW factors ranged from 32 to 60 percent with an average of 43 percent. For purposes of this update study, the ROW costs for state roads was calculated at 43 percent of the construction cost per lane mile. Additional detail is provided in Appendix B, Table B-3.

Construction

A review of construction cost data for state road projects built in Sumter County since 2012 did not identify any recent improvements. However, 19 improvements were identified from other communities in FDOT District 5, with a weighted average cost of \$4.27 million per lane mile. In addition to the District 5 projects, recent improvements from other counties throughout Florida were reviewed to increase the sample size. This review included over 328 lane miles of lane addition and new road construction improvements with a weighted average cost of approximately \$3.69 million per lane mile. When both samples were combined, the resulting data set included over 439 lane miles with a weighted average construction cost of \$3.84 million per lane mile. Additional detail is provided in Appendix B, Table B-5.

For the impact fee calculation, a construction cost of **\$3.80 million** per lane mile was estimated for state roadways.

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

To determine the weighted average cost for state roadways, the cost for curb & gutter and open drainage roadways were weighted based on the distribution of Sumter County roadways included in the Lake-Sumter MPO's 2040 Long Range Transportation Plan's Cost Feasible Plan and the upcoming improvements identified by County staff. As shown in Table 2, the weighted average county roadway construction cost was calculated at approximately \$3.37 million per lane

² This data was not available for FDOT District 5

mile, with a total weighted average cost of \$5.55 million per lane mile for state roadways.

Table 2
Estimated Total Cost per Lane Mile for State Roads

Cost Phase	Cost per Lane Mile		
	Curb & Gutter	Open Drainage ⁽⁵⁾	Weighted Average ⁽⁶⁾
Design ⁽¹⁾	\$418,000	\$309,000	\$370,000
Right-of-Way ⁽²⁾	\$1,634,000	\$1,209,000	\$1,447,000
Construction ⁽³⁾	\$3,800,000	\$2,812,000	\$3,365,000
CEI ⁽⁴⁾	\$418,000	\$309,000	\$370,000
Total Cost	\$6,270,000	\$4,639,000	\$5,552,000
Lane Mile Distribution ⁽⁷⁾	56%	44%	100%

1) Design is estimated at 11% of construction costs

2) Right-of-Way is estimated at 43% of construction costs

3) Source: Appendix B, Table B-5 for curb & gutter

4) CEI is estimated at 11% of construction costs

5) Open drainage costs are estimated at 74% of the curb & gutter costs

6) Lane mile distribution (Item 7) multiplied by the design, right-of-way, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile

7) Source: Appendix B, Table B-7; State Roads Only

Note: All figures rounded to nearest \$000

Summary of Costs (Blended Cost Analysis)

The weighted average cost per lane mile for county and state roads is presented in Table 3. The resulting weighted average cost of approximately \$5.09 million per lane mile was utilized as the roadway cost input in the calculation of the road impact fee rates. The weighted average cost per lane-mile includes county and state roads and is based on the projected 2040 VMT distribution between county and state roads from the CFRPM v6.1.

Table 3
Estimated Cost per Lane Mile for County and State Roadway Projects

Cost Phase	County Roads ⁽¹⁾	State Roads ⁽²⁾	County and State Roads ⁽³⁾
Design	\$315,000	\$370,000	\$342,000
Right-of-Way	\$1,202,000	\$1,447,000	\$1,322,000
Construction	\$2,862,000	\$3,365,000	\$3,108,000
CEI	\$258,000	\$370,000	\$313,000
Total Cost	\$4,637,000	\$5,552,000	\$5,085,000
Lane Mile Distribution ⁽⁴⁾	51%	49%	100%

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

Vehicle-Miles of Capacity Added per Lane Mile

An additional component of the roadway impact fee equation is the capacity added per lane-mile of roadway constructed. The VMC is an estimate of capacity added per lane mile, for county and state roadway improvements in the Lake-Sumter MPO’s 2040 LRTP (projects in Sumter only) and additional improvements indicated by County staff. As shown in Table 4, each lane mile will add approximately 11,600 vehicles. Additional detail is provided in Appendix B, Table B-7.

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

Road Type	Lane Miles Added ⁽¹⁾	Vehicle-Miles of Capacity Added ⁽²⁾	VMC Added per Lane Mile ⁽³⁾
County Roads	39.78	480,131	12,070
State Roads	35.20	388,960	11,050
Total	74.98	869,091	
Weighted Average VMC Added per Lane Mile⁽⁴⁾			11,600

- 1) Source: Appendix B, Table B-7
- 2) Source: Appendix B, Table B-7
- 3) Vehicle-miles of capacity added (Item 2) divided by lane miles added (Item 1)
- 4) Total VMC added (Item 2) divided by total lane miles added (Item 1)

Cost per Vehicle-Mile of Capacity

The roadway cost per unit of development is assessed based on the cost per vehicle-mile of

capacity. As shown in Tables 3 and 4, the cost and capacity for roadways in Sumter County have been calculated based on recent statewide improvements. As shown in Table 5, the cost per VMC for travel within the county is approximately **\$438**.

The cost per VMC figure is used in the road impact fee calculation to determine the total cost per unit of development based on vehicle-miles of travel consumed. For each vehicle-mile of travel that is added to the roadway system, approximately \$438 of roadway capacity is consumed.

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

Road Type	Cost per Lane Mile ⁽¹⁾	Average VMC Added per Lane Mile ⁽²⁾	Cost per VMC ⁽³⁾
County Roads	\$4,637,000	12,070	\$384.18
State Roads	<u>\$5,552,000</u>	<u>11,050</u>	\$502.44
Total	\$5,085,000	11,600	
Weighted Average VMC Added per Lane Mile⁽⁴⁾			\$438.36

1) Source: Table 3

2) Source: Table 4

3) Average VMC added per lane mile (Item 2) divided by cost per lane mile (Item 1)

Credit Component

Capital Improvement Credit

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

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

County Credit

A review of the County's recent historical expenditures and the FY 2020-2024 Capital Improvement Plan indicates that the majority of capacity expansion improvements are being funded through the secondary trust fund (primarily fuel tax revenue) and road impact fees. As shown in Table 6, a total gas tax equivalent revenue credit of 13.3 pennies was calculated for capacity expansion expenditures.

Compared to the 2015 technical study, the County's investment in roadway capacity expansion projects increased significantly due primarily to the Regionally Significant Road Construction Agreement with the Villages® Companies. Given that a portion of these projects are funded with fuel taxes and other non-impact fee revenues, the credit component increased accordingly. In addition, this report assumes this level of investment will continue over the next 25 years, resulting in a conservative impact fee. This assumption can be revised as part of future update studies based on actual investment levels.

State Credit

As shown in Table 6, State expenditures in Sumter County were reviewed and a credit for the capacity-expansion portion attributable to state projects was estimated (excluding expenditures on limited access facilities). The review, which included ten years of historical expenditures, as well as five years of planned expenditures, indicated that FDOT's roadway spending generates a

credit of 5.6 pennies of equivalent gas tax revenue, annually. Additional detail is provided in Appendix C, Table C-3.

In summary, Sumter County contributes 13.3 pennies while the State spends an average of 5.6 pennies, annually, for transportation capacity projects in the County. A total credit of 18.9 pennies is included in the roadway impact fee calculation to recognize the future capital revenues that are expected to be generated by new development from all non-impact fee revenues. These credit figures reflect the most recent available data for transportation expenditures from County and State sources.

Table 6
Equivalent Pennies of Gas Tax Revenue

Credit	Average Annual Expenditures	Value per Penny ⁽³⁾	Equivalent Pennies per Gallon ⁽⁴⁾
County Revenues ⁽¹⁾	\$12,298,330	\$923,312	\$0.133
State Revenues ⁽²⁾	<u>\$5,194,481</u>	\$923,312	<u>\$0.056</u>
Total	\$17,492,811		\$0.189

1) Source: Appendix C, Table C-2

2) Source: Appendix C, Table C-3

3) Source: Appendix C, Table C-1

4) Average annual expenditures divided by the value per penny (Item 4) divided by 100

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 3.5 percent was used in the impact fee calculation based on estimates provided by the County.

Fuel Efficiency

The fuel efficiency (i.e., the average miles traveled per gallon of fuel consumed) of the fleet of motor vehicles was estimated using the quantity of gasoline consumed by travel associated with a particular land use.

Appendix C, Table C-7 documents the calculation of fuel efficiency value based on the following equation, where “VMT” is vehicle miles of travel and “MPG” is fuel efficiency in terms of miles per gallon.

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

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

The combined total VMT for the vehicle types is then divided by the combined total gallons of fuel consumed to calculate, in effect, a “weighted” fuel efficiency value that reflects the existing fleet mix of traffic on non-interstate roadways. The VMT and average fuel efficiency data were obtained from the most recent Federal Highway Administration’s *Highway Statistics 2017*. Based on the calculation completed in Appendix C, Table C-7, the fuel efficiency rate to be used in the updated impact fee equation is 18.92 miles per gallon.

Effective Days per Year

An effective 365 days per year of operation was 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 non-impact fee contributions are adequately credited against the fee.

Calculated Roadway Impact Fee Schedule

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

- Demand component variables (trip rate, trip length, and percent of new trips);
- Total impact fee cost;
- Annual capital improvement credit;
- Present value of the capital improvement credit; and
- Net road impact fee.

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

For clarification purposes, it may be useful to walk through the calculation of an impact fee for one of the land use categories. In the following example, the net impact fee is calculated for the single-family residential detached land use category (ITE LUC 210) using information from the impact fee schedules included in Appendix D. For each land use category, the following equations are utilized to calculate the net impact fee:

$$\text{Net Impact Fee} = \text{Total Impact Cost} - \text{Capital Improvement Credit}$$

Where:

$$\text{Total Road Impact Cost} = ([\text{Trip Rate} \times \text{Assessable Trip Length} \times \% \text{ New Trips}] / 2) \times (1 - \text{Interstate/Toll Facility Adjustment Factor}) \times (\text{Cost per Vehicle-Mile of Capacity})$$

$$\text{Capital Improvement Credit} = \text{Present Value (Annual Capital Improvement Credit), given 3.5\% interest rate \& a 25-year facility life}$$

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

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

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.81)
- *Assessable Trip Length* = the average trip length on collector roads or above, for the category, in vehicle-miles (6.62) (excluding local neighborhood roads).
- *Total Trip Length* = the assessable trip length plus an adjustment factor of half a mile, which is added to the trip length to account for the fact that gas taxes are collected for travel on all roads including local roads ($6.62 + 0.50 = 7.12$)
- *% New Trips* = adjustment factor to account for trips that are already on the roadway (100%)
- *Divide by 2* = the total daily miles of travel generated by a particular category (i.e., rate*length*% new trips) is divided by two to prevent the double-counting of travel generated between two land use codes since every trip has an origin and a destination
- *Interstate/Toll Facility Adjustment Factor* = discount factor to account for travel demand occurring on interstate highways and/or toll facilities (26.5%)
- *Cost per Lane Mile* = unit cost to construct one lane mile of roadway, in \$/lane-mile (\$5,085,000)
- *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 (11,600)
- *Cost per Vehicle-Mile of Capacity* = unit of vehicle-miles of capacity consumed per unit of development (\$438.36)
- *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 3.50% interest and a 25-year facility life, the uniform series present worth factor is 16.4815
- *Effective Days per Year* = 365 days
- *\$/Gallon to Capital* = the amount of equivalent gas tax revenue per gallon of fuel that is used for capital improvements, in \$/gallon = \$0.189
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (18.92)

Roadway Impact Fee Calculation

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

Roadway Impact Fee:

$$\text{Total Impact Cost} = ([7.81 * 6.62 * 1.0] / 2) * (1 - 0.265) * (\$438.36) = \mathbf{\$8,329}$$

$$\text{Annual Cap. Improv. Credit} = ([7.81 * 7.12 * 1.0] / 2) * 365 * (\$0.189 / 18.92) = \$101$$

$$\text{Capital Improvement Credit} = \$107 * 16.4815 = \$1,665$$

$$\text{Net Impact Fee} = \$8,329 - \$1,665 = \mathbf{\$6,664}$$

Alternative Roadway Impact Fee Scenario

The figures calculated in this study represent the technically defensible level of impact fees that the County could charge; however, the Board of County Commissioners may choose to discount the fees across-the-board as a policy decision. Table 7 provides a potential reduction scenario where the calculated rates are reduced to 40 percent of their full value in an effort to maintain the current fee levels and stay competitive with surrounding communities.

Table 7
Roadway Impact Fee – Alternative Scenario

ITE LUC	Land Use	Unit	Calculated Roadway Impact Fee ⁽¹⁾	Policy Adoption Percentage ⁽²⁾	Reduced Roadway Impact Fee ⁽³⁾	Current Adopted Roadway Impact Fee ⁽⁴⁾
RESIDENTIAL:						
210	Single Family (Detached)	du	\$6,664	40%	\$2,666	\$2,600
220	Multi-Family Housing (Low-Rise, 1-2 floors)	du	\$4,778	40%	\$1,911	\$1,779
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	\$3,547	40%	\$1,419	\$1,779
222	Multi-Family Housing (High-Rise, >10 floors)	du	\$2,914	40%	\$1,166	\$1,779
240	Mobile Home Park	du	\$2,447	40%	\$979	\$1,017
251	Retirement Community (detached)	du	\$2,430	40%	\$972	\$901
252	Retirement Community (attached)	du	\$1,381	40%	\$552	\$544
LODGING:						
310	Hotel	room	\$2,952	40%	\$1,181	\$1,480
320	Motel	room	\$1,424	40%	\$570	\$993
RECREATION:						
411	Public Park	acre	\$467	40%	\$187	\$508
416	Campground/RV Park	site	\$954	40%	\$382	\$417
420	Marina	boat berth	\$1,852	40%	\$741	\$817
430	Golf Course	hole	\$23,308	40%	\$9,323	\$9,853
437	Bowling Alley	lane	\$7,713	40%	\$3,085	\$8,672
444	Movie Theater	screen	\$27,882	40%	\$11,153	\$9,814
492	Health/Fitness Club	1,000 sf	\$21,401	40%	\$8,560	\$8,947
n/a	Indoor Shooting Range (Range ONLY)	1,000 sf	\$1,189	40%	\$476	\$515
n/a	Place of Assembly/Union Hall	1,000 sf	\$17,119	40%	\$6,848	\$7,226
INSTITUTIONS:						
520	Elementary School (Private)	student	\$625	40%	\$250	\$213
522	Middle/Junior High School (Private)	student	\$711	40%	\$284	\$301
530	High School (Private)	student	\$760	40%	\$304	\$322
540/550	University/Junior College (7,500 or fewer students) (Private)	student	\$1,541	40%	\$616	\$552
	University/Junior College (more than 7,500 students) (Private)	student	\$1,143	40%	\$457	\$412
560	Church	1,000 sf	\$3,116	40%	\$1,246	\$1,541
565	Day Care Center	1,000 sf	\$9,096	40%	\$3,638	\$5,214
MEDICAL:						
610	Hospital	1,000 sf	\$7,121	40%	\$2,848	\$3,789
620	Nursing Home	bed	\$874	40%	\$350	\$275
630	Clinic	1,000 sf	\$22,756	40%	\$9,102	\$7,629
640	Veterinary Clinic	1,000 sf	\$3,965	40%	\$1,586	\$2,270
OFFICE:						
710	General Office	1,000 sf	\$5,918	40%	\$2,367	\$3,591
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	\$15,106	40%	\$6,042	\$6,609
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	\$21,630	40%	\$8,652	\$8,612
RETAIL:						
812	Building Materials and Lumber Store	1,000 sf	\$10,773	40%	\$4,309	\$10,175
813	Discount Superstore	1,000 sf	\$10,185	40%	\$4,074	\$3,987
815	Discount Store, Free-Standing	1,000 sf	\$9,381	40%	\$3,752	\$4,475
816	Hardware/Paint Store	1,000 sf	\$1,179	40%	\$472	\$2,960
817	Nursery (Garden Center)	1,000 sf	\$8,770	40%	\$3,508	\$2,886
820	Retail	1,000 sfgla	\$9,436	40%	\$3,774	\$3,637
823	Factory Outlet Center	1,000 sf	\$5,048	40%	\$2,019	\$2,128
840/ 841	New/Used Auto Sales	1,000 sf	\$11,407	40%	\$4,563	\$5,758
843	Automobile Parts Sales	1,000 sf	\$25,707	40%	\$10,283	\$10,866
848	Tire Store	1,000 sf	\$9,437	40%	\$3,775	\$3,113
849	Tire Superstore	1,000 sf	\$6,740	40%	\$2,696	\$2,545
850	Supermarket	1,000 sf	\$15,380	40%	\$6,152	\$5,649
851	Convenience Market (24 hour)	1,000 sf	\$55,833	40%	\$22,333	\$20,723
857	Discount Club	1,000 sf	\$8,389	40%	\$3,356	\$3,344
860	Wholesale Market	1,000 sf	\$3,537	40%	\$1,415	\$538
862	Home Improvement Superstore	1,000 sf	\$5,834	40%	\$2,334	\$2,029
863	Electronics Superstore	1,000 sf	\$5,293	40%	\$2,117	\$2,599
876	Apparel Store	1,000 sf	\$8,548	40%	\$3,419	\$3,835
880/881	Pharmacy with & without Drive-Thru	1,000 sf	\$8,603	40%	\$3,441	\$2,991
890	Furniture Store	1,000 sf	\$2,662	40%	\$1,065	\$807
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	\$8,404	40%	\$3,362	\$7,621
912	Bank/Savings Drive-In	1,000 sf	\$14,512	40%	\$5,805	\$8,528
925	Bar/Nightclub ^(k)	1,000 sf	\$14,633	40%	\$5,853	\$6,553
931	Low-Turnover Restaurant	1,000 sf	\$26,257	40%	\$10,503	\$10,537
932	High-Turnover Restaurant	1,000 sf	\$30,205	40%	\$12,082	\$13,617
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	\$70,984	40%	\$28,394	\$29,136
941	Quick Lube	service bay	\$13,235	40%	\$5,294	\$4,999
942	Automobile Care Center	1,000 sf	\$9,332	40%	\$3,733	\$4,576
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	\$9,258	40%	\$3,703	\$3,452
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	\$11,045	40%	\$4,418	\$3,338
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	\$12,405	40%	\$4,962	\$3,338
947	Self-Service Car Wash	service bay	\$8,087	40%	\$3,235	\$3,609
948	Automated Car Wash	1,000 sf	\$26,132	40%	\$10,453	\$11,588
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	\$3,011	40%	\$1,204	\$1,584
130	Industrial Park	1,000 sf	\$2,045	40%	\$818	\$1,581
140	Manufacturing	1,000 sf	\$2,390	40%	\$956	\$871
150	Warehousing	1,000 sf	\$1,064	40%	\$426	\$948
151	Mini-Warehouse	1,000 sf	\$610	40%	\$244	\$343
154	High-Cube Transload & Short-Term Storage Warehouse	1,000 sf	\$855	40%	\$342	\$449

1) Source: Appendix D, Table D-1

2) Adoption percentage of 40% as recommended by the County Administration

3) Net roadway impact fee (Item 1) multiplied by the policy reduction factor (Item 2)

4) Source: Sumter County Impact Fee Division

Roadway Impact Fee Comparison

As part of the work effort in developing Sumter County's roadway impact fee program, a comparison of calculated fees to roadway/transportation impact fee schedules adopted in other jurisdictions was completed, as shown in Table 8.

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

When comparing the full calculated rates in this study to those calculated in the 2015 Sumter County Transportation Impact Fee Update Study, the changes in cost and credit variables account for an approximately 15 percent to 20 percent increase. Additional increases or any decreases (or increase less than 15 percent to 20 percent) are due to the changes in the demand variables, as detailed in Appendix A, Tables A-1 and A-3 through A-6.

**Table 8
Roadway/Transportation Impact Fee Comparison**

Land Use	Unit ⁽²⁾	Sumter County Calculated FULL ⁽³⁾	Sumter County Calculated REDUCED ⁽⁴⁾	Sumter County Existing ⁽⁵⁾	Sumter County Full ⁽⁶⁾	Lake County CENTRAL ⁽⁷⁾	Pasco County RURAL ⁽⁸⁾	Citrus County ⁽⁹⁾	Hernando County ⁽¹⁰⁾	Marion County ⁽¹¹⁾	Polk County ⁽¹²⁾
Date of Last Update		2019	2019	2015	2015	2019	2018	2014	2013	2015	2015
Adoption Percentage⁽¹⁾		100%	40%	37-50%	100%	26%	100%	50%	22%	11-20%	100%
Residential:											
Single Family (2,000 sf)	du	\$6,664	\$2,666	\$2,600	\$5,812	\$1,000	\$9,800	\$1,697	\$1,269	\$1,397	\$2,155
Retirement Community (detached)	du	\$2,430	\$972	\$901	\$1,902	\$412	\$3,280	\$654	\$414	\$184	\$1,351
Non-Residential:											
Light Industrial	1,000 sf	\$3,011	\$1,204	\$1,584	\$3,705	\$638	\$0	\$584	\$806	\$428	\$666
Office (50,000 sq ft)	1,000 sf	\$5,918	\$2,367	\$3,591	\$8,236	\$935	\$0	\$1,687	\$1,516	\$676	\$2,237
Retail (125,000 sq ft)	1,000 sf	\$9,436	\$3,774	\$3,637	\$9,507	\$1,095	\$8,813	\$1,248	\$1,884	\$1,014	\$3,808
Bank w/Drive-Thru	1,000 sf	\$14,512	\$5,805	\$8,528	\$20,020	\$7,589	\$15,582	\$1,248	\$4,257	\$2,260	\$3,808
Fast Food w/Drive-Thru	1,000 sf	\$70,984	\$28,394	\$29,136	\$67,179	\$7,589	\$50,978	\$1,248	\$17,397	\$2,803	\$3,808

- 1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fees may have been lowered/raised through indexing or policy discounts. Does not account for moratoriums/suspensions
- 2) Du = dwelling unit
- 3) Source: Table 7 (Item 1)
- 4) Source: Table 7 (Item 3)
- 5) Source: Sumter County Impact Fee Division
- 6) Source: *Sumter County Transportation Impact Fee Update Study*, May 2015
- 7) Source: Lake County Office of Planning and Zoning. Rates for "Central Benefit District" are shown, which includes the City of Leesburg. Per the 2019 transportation impact fee study, the "convenience retail" rate is shown for bank w/drive-thru and fast food w/drive-thru.
- 8) Source: Pasco County Planning and Development Department. Mobility fee rates for the "Rural" district are shown
- 9) Source: Citrus County Department of Growth Management, Land Development Division. Retail/Commercial rate is applied to bank and fast food restaurant
- 10) Source: Hernando County Planning Department
- 11) Source: Marion County Growth Services Department. Quality Restaurant rate is shown for Fast Food w/Drive-Thru
- 12) Source: Polk County Land Development Department. Retail/Commercial rate is applied to bank and fast food restaurant

Appendix A
Demand Component

Appendix A: Demand Component

This appendix presents the detailed calculations for the demand component of the road impact fee study.

Interstate & Toll Facility Adjustment Factor

Table A-1 presents the interstate and toll facility adjustment factor used in the calculation of the road impact fee. This variable is based on data from the Central Florida Regional Planning Model v6.1), specifically the 2040 projected vehicle-miles of travel of all county-generated trips on all in-county roadways. It should be noted that the adjustment factor excludes all external-to-external trips, which represent traffic that goes through Sumter County, but does not necessarily stop in the county. This traffic is excluded from the analysis since it does not come from development within the county. The I/T adjustment factor is used to reduce the VMT that the impact fee charges for each land use.

Table A-1
Interstate/Toll Facility Adjustment Factor

Facility Type	Total	
	VMT	%
Interstate/Toll	791,869	26.5%
Other Roads	<u>2,201,557</u>	<u>73.5%</u>
Total	2,993,426	100.0%

Source: CFRPM v6.1, 2040

Sumter County VMT Distribution

Table A-2 presents 2040 projected vehicle-miles of travel by roadway jurisdiction for Sumter County. This distribution was used to apportion the state and non-state roadway costs to determine the weighted average unit cost per lane mile for use in the impact fee calculation. Based on data from the CFRPM v6.1, the city/county road portion is approximately 51 percent.

**Table A-2
Sumter County VMT Distribution**

Facility Type	2040	
	VMT	%
City/County	905,898	51%
State	855,540	49%
Total	1,761,438	100.0%

Source: CFRPM v6.1, 2040

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 25 years. Data from these studies include trip generation, trip length, and percent new trips for each land use. This information has been used in the development of impact fees and the creation of land use plan category trip characteristics for communities throughout Florida and the U.S.

Tindale Oliver estimates trip generation rates for all land uses in a roadway impact fee schedule using data from studies in the Florida Studies Database and the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (10th edition). In instances, when both ITE *Trip Generation* reference report (10th edition) and Florida Studies trip generation rate (TGR) data are available for a particular land use, the data is typically blended to increase the sample size and provide a more valid estimate of the average number of trips generated per unit of development. If no Florida Studies data is available, only TGR data from the ITE reference report is used in the fee calculation.

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

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

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

Land Use 151: Mini-Warehouse

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Orange Co, FL	89.6	2006	-	-	1.23	-	-	-	-	Orange County
Orange Co, FL	84.7	2006	-	-	1.39	-	-	-	-	Orange County
Orange Co, FL	93.0	2006	-	-	1.51	-	-	-	-	Orange County
Orange Co, FL	107.0	2007	-	-	1.45	-	-	-	-	Orange County
Orange Co, FL	77.0	2009	-	-	2.18	-	-	-	-	Tindale Oliver
Orange Co, FL	93.7	2012	-	-	1.15	-	-	-	-	Tindale Oliver
Total Size	545.0		5		Average Trip Length:		n/a			
ITE	780.0		15		Weighted Average Trip Length:		n/a			
Blended total	1,325.0				Weighted Percent New Trip Average:					
					Weighted Average Trip Generation Rate:			1.47		
					ITE Average Trip Generation Rate:			1.51		
					Blend of FL Studies and ITE Average Trip Generation Rate:			1.49		

Land Use 210: Single Family - Detached

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Gwinnett Co, GA	-	12/13-18/92	-	-	5.80	-	5.40	-	31.32	Street Smarts
Gwinnett Co, GA	-	12/13-18/92	-	-	5.40	-	6.10	-	32.94	Street Smarts
Sarasota Co, FL	76	Jun-93	70	70	10.03	-	6.00	-	60.18	Sarasota County
Sarasota Co, FL	79	Jun-93	86	86	9.77	-	4.40	-	42.99	Sarasota County
Sarasota Co, FL	135	Jun-93	75	75	8.05	-	5.90	-	47.50	Sarasota County
Sarasota Co, FL	152	Jun-93	63	63	8.55	-	7.30	-	62.42	Sarasota County
Sarasota Co, FL	193	Jun-93	123	123	6.85	-	4.60	-	31.51	Sarasota County
Sarasota Co, FL	97	Jun-93	33	33	13.20	-	3.00	-	39.60	Sarasota County
Sarasota Co, FL	282	Jun-93	146	146	6.61	-	8.40	-	55.52	Sarasota County
Sarasota Co, FL	393	Jun-93	207	207	7.76	-	5.40	-	41.90	Sarasota County
Hernando Co, FL	76	May-96	148	148	10.01	9a-6p	4.85	-	48.55	Tindale Oliver
Hernando Co, FL	128	May-96	205	205	8.17	9a-6p	6.03	-	49.27	Tindale Oliver
Hernando Co, FL	232	May-96	182	182	7.24	9a-6p	5.04	-	36.49	Tindale Oliver
Hernando Co, FL	301	May-96	264	264	8.93	9a-6p	3.28	-	29.29	Tindale Oliver
Charlotte Co, FL	135	Oct-97	230	-	5.30	9a-5p	7.90	-	41.87	Tindale Oliver
Charlotte Co, FL	142	Oct-97	245	-	5.20	9a-5p	4.10	-	21.32	Tindale Oliver
Charlotte Co, FL	150	Oct-97	160	-	5.00	9a-5p	10.80	-	54.00	Tindale Oliver
Charlotte Co, FL	215	Oct-97	158	-	7.60	9a-5p	4.60	-	34.96	Tindale Oliver
Charlotte Co, FL	257	Oct-97	225	-	7.60	9a-5p	7.40	-	56.24	Tindale Oliver
Charlotte Co, FL	345	Oct-97	161	-	7.00	9a-5p	6.60	-	46.20	Tindale Oliver
Charlotte Co, FL	368	Oct-97	152	-	6.60	9a-5p	5.70	-	37.62	Tindale Oliver
Charlotte Co, FL	383	Oct-97	516	-	8.40	9a-5p	5.00	-	42.00	Tindale Oliver
Charlotte Co, FL	441	Oct-97	195	-	8.20	9a-5p	4.70	-	38.54	Tindale Oliver
Charlotte Co, FL	1,169	Oct-97	348	-	6.10	9a-5p	8.00	-	48.80	Tindale Oliver
Collier Co, FL	90	Dec-99	91	-	12.80	8a-6p	11.40	-	145.92	Tindale Oliver
Collier Co, FL	400	Dec-99	389	-	7.80	8a-6p	6.40	-	49.92	Tindale Oliver
Lake Co, FL	49	Apr-02	170	-	6.70	7a-6p	10.20	-	68.34	Tindale Oliver
Lake Co, FL	52	Apr-02	212	-	10.00	7a-6p	7.60	-	76.00	Tindale Oliver
Lake Co, FL	126	Apr-02	217	-	8.50	7a-6p	8.30	-	70.55	Tindale Oliver
Pasco Co, FL	55	Apr-02	133	-	6.80	8a-6p	8.12	-	55.22	Tindale Oliver
Pasco Co, FL	60	Apr-02	106	-	7.73	8a-6p	8.75	-	67.64	Tindale Oliver
Pasco Co, FL	70	Apr-02	188	-	7.80	8a-6p	6.03	-	47.03	Tindale Oliver
Pasco Co, FL	74	Apr-02	188	-	8.18	8a-6p	5.95	-	48.67	Tindale Oliver
Pasco Co, FL	189	Apr-02	261	-	7.46	8a-6p	8.99	-	67.07	Tindale Oliver
Marion Co, FL	102	Apr-02	167	-	8.02	7a-6p	5.10	-	40.90	Kimley-Horn & Associates
Marion Co, FL	105	Apr-02	169	-	7.23	7a-6p	7.22	-	52.20	Kimley-Horn & Associates
Marion Co, FL	124	Apr-02	170	-	6.04	7a-6p	7.29	-	44.03	Kimley-Horn & Associates
Marion Co, FL	132	Apr-02	171	-	7.87	7a-6p	7.00	-	55.09	Kimley-Horn & Associates
Marion Co, FL	133	Apr-02	209	-	8.04	7a-6p	4.92	-	39.56	Kimley-Horn & Associates
Citrus Co, FL	111	Oct-03	273	-	8.66	7a-6p	7.70	-	66.68	Tindale Oliver
Citrus Co, FL	231	Oct-03	155	-	5.71	7a-6p	4.82	-	27.52	Tindale Oliver
Citrus Co, FL	306	Oct-03	146	-	8.40	7a-6p	3.94	-	33.10	Tindale Oliver
Citrus Co, FL	364	Oct-03	345	-	7.20	7a-6p	9.14	-	65.81	Tindale Oliver
Citrus Co, FL	374	Oct-03	248	-	12.30	7a-6p	6.88	-	84.62	Tindale Oliver
Lake Co, FL	42	Dec-06	122	-	11.26	-	5.56	-	62.61	Tindale Oliver
Lake Co, FL	51	Dec-06	346	-	18.22	-	9.46	-	172.36	Tindale Oliver
Lake Co, FL	59	Dec-06	144	-	12.07	-	10.79	-	130.24	Tindale Oliver
Lake Co, FL	90	Dec-06	194	-	9.12	-	5.78	-	52.71	Tindale Oliver
Lake Co, FL	239	Dec-06	385	-	7.58	-	8.93	-	67.69	Tindale Oliver
Hernando Co, FL	232	Apr-07	516	-	8.02	7a-6p	8.16	-	65.44	Tindale Oliver
Hernando Co, FL	95	Apr-07	256	-	8.08	7a-6p	5.88	-	47.51	Tindale Oliver
Hernando Co, FL	90	Apr-07	338	-	7.13	7a-6p	5.86	-	41.78	Tindale Oliver
Hernando Co, FL	58	Apr-07	153	-	6.16	7a-6p	8.39	-	51.68	Tindale Oliver
Collier Co, FL	74	Mar-08	503	-	12.81	7a-6p	3.05	-	39.07	Tindale Oliver
Collier Co, FL	97	Mar-08	512	-	8.78	7a-6p	11.29	-	99.13	Tindale Oliver
Collier Co, FL	315	Mar-08	1,347	-	6.97	7a-6p	6.55	-	45.65	Tindale Oliver
Collier Co, FL	42	Mar-08	314	-	9.55	7a-6p	10.98	-	104.86	Tindale Oliver
Total Size	10,380		55	13,130	Average Trip Length:		6.79			
					Weighted Average Trip Length:		6.62			

Note: Georgia studies are not included in summary statistics

Weighted Average Trip Generation Rate: 7.81

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

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sarasota Co, FL	212	Jun-93	42	42	5.78	-	5.20	-	30.06	Sarasota County
Sarasota Co, FL	243	Jun-93	36	36	5.84	-	-	-	-	Sarasota County
Marion Co, FL	214	Apr-02	175	175	6.84	-	4.61	-	31.53	Kimley-Horn & Associates
Marion Co, FL	240	Apr-02	174	174	6.96	-	3.43	-	23.87	Kimley-Horn & Associates
Marion Co, FL	288	Apr-02	175	175	5.66	-	5.55	-	31.41	Kimley-Horn & Associates
Marion Co, FL	480	Apr-02	175	175	5.73	-	6.88	-	39.42	Kimley-Horn & Associates
Marion Co, FL	500	Apr-02	170	170	5.46	-	5.94	-	32.43	Kimley-Horn & Associates
Lake Co, FL	250	Dec-06	135	135	6.71	-	5.33	-	35.76	Tindale Oliver
Lake Co, FL	157	Dec-06	265	265	13.97	-	2.62	-	36.60	Tindale Oliver
Lake Co, FL	169	Dec-06	212	-	8.09	-	6.00	-	48.54	Tindale Oliver
Lake Co, FL	226	Dec-06	301	-	6.74	-	2.17	-	14.63	Tindale Oliver
Hernando Co, FL	312	Apr-07	456	-	4.09	-	5.95	-	24.34	Tindale Oliver
Hernando Co, FL	176	Apr-07	332	-	5.38	-	5.24	-	28.19	Tindale Oliver
Orange Co, FL	364	Nov-13	-	-	9.08	-	-	-	-	Orange County
Orange Co, FL	108	Aug-14	-	-	5.51	-	-	-	-	Orange County
Hernando Co, FL	31	May-96	31	31	6.12	9a-6p	4.98	-	30.48	Tindale Oliver
Hernando Co, FL	128	May-96	128	128	6.47	9a-6p	5.18	-	33.51	Tindale Oliver
Pasco Co, FL	229	Apr-02	198	198	4.77	9a-6p	-	-	-	Tindale Oliver
Pasco Co, FL	248	Apr-02	353	353	4.24	9a-6p	3.53	-	14.97	Tindale Oliver
Total Size	4,575						Average Trip Length: 4.27			
Total Size (TL)	3,631						Weighted Average Trip Length: 5.10			

Land Use 240: Mobile Home Park

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

Weighted Average Trip Generation Rate: 4.17

Land Use 251: Retirement Community/Senior Adult Housing - Detached

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	-	8.54	Tindale Oliver
Marion Co, FL	778	Apr-02	175	-	2.96	24hr.	3.49	-	10.33	Kimley-Horn & Associates
Marion Co, FL	877	Apr-02	209	-	2.91	24hr.	5.90	-	17.17	Kimley-Horn & Associates
Marion Co, FL	1,054	Apr-02	173	-	3.65	24hr.	6.00	-	21.90	Kimley-Horn & Associates
Marion Co, FL	3,076	Apr-02	198	-	2.63	24hr.	5.16	-	13.57	Kimley-Horn & Associates
Marion Co, FL	3,625	Apr-02	164	-	2.50	24hr.	5.83	-	14.58	Kimley-Horn & Associates
Total Size	9,477		6	945			Average Trip Length: 4.80			
ITE	9,170		14				Weighted Average Trip Length: 5.42			
Blended total	18,647									

Weighted Average Trip Generation Rate: 2.75
ITE Average Trip Generation Rate: 4.27
Blend of FL Studies and ITE Average Trip Generation Rate: 3.50

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

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

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

Land Use 310: Hotel

Location	Size (Rooms)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	174	Aug-89	134	106	12.50	7-11a/3-7p	6.30	79.0	62.21	Tindale Oliver
Pinellas Co, FL	114	Oct-89	30	14	7.30	12-7p	6.20	47.0	21.27	Tindale Oliver
Orange Co, FL	123	1997	-	-	6.32	-	-	-	-	Orange County
Orange Co, FL	120	1997	-	-	5.27	-	-	-	-	Orange County
Orange Co, FL	146	1997	-	-	7.61	-	-	-	-	Orange County
Orange Co, FL	252	1997	-	-	5.63	-	-	-	-	Orange County
Orange Co, FL	172	1997	-	-	6.36	-	-	-	-	Orange County
Orange Co, FL	170	1997	-	-	6.06	-	-	-	-	Orange County
Orange Co, FL	128	1997	-	-	6.10	-	-	-	-	Orange County
Orange Co, FL	200	1997	-	-	4.56	-	-	-	-	Orange County
Orange Co, FL	112	1998	-	-	2.78	-	-	-	-	Orange County
Orange Co, FL	130	1998	-	-	9.12	-	-	-	-	Orange County
Orange Co, FL	106	1998	-	-	7.34	-	-	-	-	Orange County
Orange Co, FL	98	1998	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	120	1998	-	-	5.57	-	-	-	-	Orange County
Orange Co, FL	70	1999	-	-	1.85	-	-	-	-	Orange County
Orange Co, FL	123	1999	-	-	4.81	-	-	-	-	Orange County
Orange Co, FL	123	1999	-	-	3.70	-	-	-	-	Orange County
Orange Co, FL	211	2000	-	-	2.23	-	-	-	-	Orange County
Orange Co, FL	144	2000	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	105	2001	-	-	5.25	-	-	-	-	Orange County
Orange Co, FL	891	2005	-	-	5.69	-	-	-	-	Orange County
Orange Co, FL	1,584	2005	-	-	5.88	-	-	-	-	Orange County
Orange Co, FL	210	2006	-	-	4.88	-	-	-	-	Orange County
Orange Co, FL	1,499	2006	-	-	4.69	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	4.74	-	-	-	-	Orange County
Orange Co, FL	148	-	-	-	7.61	-	-	-	-	Orange County
Orange Co, FL	160	-	-	-	6.19	-	-	-	-	Orange County
Orange Co, FL	130	-	-	-	4.29	-	-	-	-	Orange County
Orange Co, FL	130	-	-	-	3.40	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	7.66	-	-	-	-	Orange County
Orange Co, FL	100	-	-	-	7.37	-	-	-	-	Orange County
Orange Co, FL	190	-	-	-	4.71	-	-	-	-	Orange County
Orange Co, FL	1,501	2011	-	-	3.50	-	-	-	-	Tindale Oliver
Orange Co, FL	174	2011	-	-	7.03	-	-	-	-	Tindale Oliver
Orange Co, FL	238	2014	-	-	4.05	-	-	-	-	Tindale Oliver
Total Size	10,184		21	164	Average Trip Length:		6.25			
ITE	876		6		Weighted Average Trip Length:		6.26			
Blended total	11,060				Weighted Percent New Trip Average:		66.3	Weighted Average Trip Generation Rate:		5.31
								ITE Average Trip Generation Rate:		8.36
								Blend of FL Studies and ITE Average Trip Generation Rate:		5.55

Land Use 320: Motel

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

Land Use 444: Movie Theater

Location	Size (Screens)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	8	Oct-89	151	116	113.10	2p-8p	2.70	77.0	235.13	Tindale Oliver
Pinellas Co, FL	12	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale Oliver
Total Size	20		2	273	Average Trip Length:		2.30			
ITE	6		1		Weighted Average Trip Length:		2.22			
Blended total	26				Weighted Percent New Trip Average:		87.8	Weighted Average Trip Generation Rate:		83.28
								ITE Average Trip Generation Rate:		220.00
								Blend of FL Studies and ITE Average Trip Generation Rate:		114.83

Land Use 492: Health/Fitness Club

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

Land Use 565: Day Care Center

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	5.6	Aug-89	94	66	66.99	7a-6p	1.90	70.0	89.10	Tindale Oliver
Pinellas Co, FL	10.0	Sep-89	179	134	66.99	7a-6p	2.10	75.0	105.51	Tindale Oliver
Tampa, FL	-	Mar-86	28	25	-	-	2.60	89.0	-	Kimley-Horn & Associates
Total Size	15.6		2	301	Average Trip Length:		2.20			
ITE	135.0		27		Weighted Average Trip Length:		2.03			
Blended total	150.6				Weighted Percent New Trip Average:		73.2	Weighted Average Trip Generation Rate:		66.99
								ITE Average Trip Generation Rate:		47.62
								Blend of FL Studies and ITE Average Trip Generation Rate:		49.63

Land Use 620: Nursing Home

Location	Size (Beds)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Lakeland, FL	120	Mar-90	74	66	2.86	11a-4p	2.59	89.0	6.59	Tindale Oliver
Total Size	120		1	74	Average Trip Length: 2.59					
ITE	480		3		Weighted Average Trip Length: 2.59					
Blended total	600				Weighted Percent New Trip Average: 89.0					
					Weighted Average Trip Generation Rate: 2.86					
					ITE Average Trip Generation Rate: 3.06					
					Blend of FL Studies and ITE Average Trip Generation Rate: 3.02					

Land Use 630: Clinic

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	103.9	Aug-89	614	572	37.03	7a-430p	5.10	93.0	175.63	Tindale Oliver
St. Petersburg, FL	-	Oct-89	280	252	-	9a-5p	4.10	90.0	-	Tindale Oliver
Total Size	103.9		1	894	Average Trip Length: 4.60					
ITE	63.0		3		Weighted Average Trip Length: 5.10					
Blended total	166.9				Weighted Percent New Trip Average: 93.0					
					Weighted Average Trip Generation Rate: 37.03					
					ITE Average Trip Generation Rate: 38.16					
					Blend of FL Studies and ITE Average Trip Generation Rate: 37.46					

Land Use 640: Animal Hospital/Veterinary Clinic

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
St. Petersburg, FL	4.0	-	-	-	21.50	-	-	-	-	Tindale Oliver
Clearwater, FL	3.0	Sep-89	-	-	44.00	-	1.90	70.0	-	Tindale Oliver
Clearwater, FL	2.0	Aug-89	-	-	-	-	1.90	70.0	-	Tindale Oliver
Total Size	7.0		3	0	Average Trip Length: 1.90					
ITE	18.0		6		Weighted Average Trip Length: 1.90					
Blended total	25.0				Weighted Percent New Trip Average: 70.0					
					Weighted Average Trip Generation Rate: 31.14					
					ITE Average Trip Generation Rate: 21.50					
					Blend of FL Studies and ITE Average Trip Generation Rate: 24.20					

Land Use 710: General Office Building

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sarasota Co, FL	14.3	Jun-93	14	14	46.85	-	11.30	-	529.41	Sarasota County
Gwinnett Co, GA	98.0	Dec-92	-	-	4.30	-	5.40	-	-	Street Smarts
Gwinnett Co, GA	180.0	Dec-92	-	-	3.60	-	5.90	-	-	Street Smarts
Pinellas Co, FL	187.0	Oct-89	431	388	18.49	7a-5p	6.30	90.0	104.84	Tindale Oliver
St. Petersburg, FL	262.8	Sep-89	291	274	-	7a-5p	3.40	94.0	-	Tindale Oliver
Total Size	742.1		5	736	Average Trip Length: 6.46					
ITE	11,286.0		66		Weighted Average Trip Length: 5.15					
					Weighted Percent New Trip Average: 92.3					

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

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

Land Use 720: Medical-Dental Office Building

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	26	-	-	6.00	79.0	-	Kimley-Horn & Associates
Palm Harbor, FL	14.6	Oct-89	104	76	33.98	9a-5p	6.30	73.0	156.27	Tindale Oliver
St. Petersburg, FL	-	Nov-89	34	30	57.20	9a-4p	1.20	88.0	-	Tindale Oliver
Hernando Co, FL	58.4	May-96	390	349	28.52	9a-6p	6.47	89.5	165.09	Tindale Oliver
Hernando Co, FL	28.0	May-96	202	189	49.75	9a-6p	6.06	93.8	282.64	Tindale Oliver
Charlotte Co, FL	11.0	Oct-87	-	186	49.50	9a-5p	4.60	92.1	209.67	Tindale Oliver
Charlotte Co, FL	28.0	Oct-87	-	186	31.00	9a-5p	3.60	81.6	91.04	Tindale Oliver
Charlotte Co, FL	30.4	Oct-87	-	324	39.80	9a-5p	3.30	83.5	109.68	Tindale Oliver
Citrus Co, FL	38.9	Oct-03	-	168	32.26	8-6p	6.80	97.1	213.03	Tindale Oliver
Citrus Co, FL	10.0	Nov-03	-	340	40.56	8-630p	6.20	92.4	232.33	Tindale Oliver
Citrus Co, FL	5.3	Dec-03	-	20	29.36	8-5p	5.25	95.2	146.78	Tindale Oliver
Orange Co, FL	50.6	2009	-	-	26.72	-	-	-	-	Orange County
Orange Co, FL	23.5	2010	-	-	16.58	-	-	-	-	Tindale Oliver
Total Size	298.6		11	763	Average Trip Length: 5.07					
ITE	672.0		28		Weighted Average Trip Length: 5.55					
Blended total	970.6				Weighted Percent New Trip Average: 88.9					
					Average Trip Generation Rate: 32.59					
					ITE Average Trip Generation Rate: 34.80					
					Blend of FL Studies and ITE Average Trip Generation Rate: 34.12					

Land Use 812: Building Materials and Lumber Store

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	86.9	Jun-93	40	-	-	7a-430p	6.58	73.0	-	Tindale Oliver
Tampa, FL	98.5	Jun-93	40	-	-	7a-430p	6.00	-	-	Tindale Oliver
Tampa, FL	-	Jun-93	40	-	-	7a-430p	5.87	75.7	-	Tindale Oliver
Total Size	185.4		2	120			Average Trip Length:			
ITE	204.0		12				Weighted Average Trip Length:			
								Weighted Percent New Trip Average:	74.4	

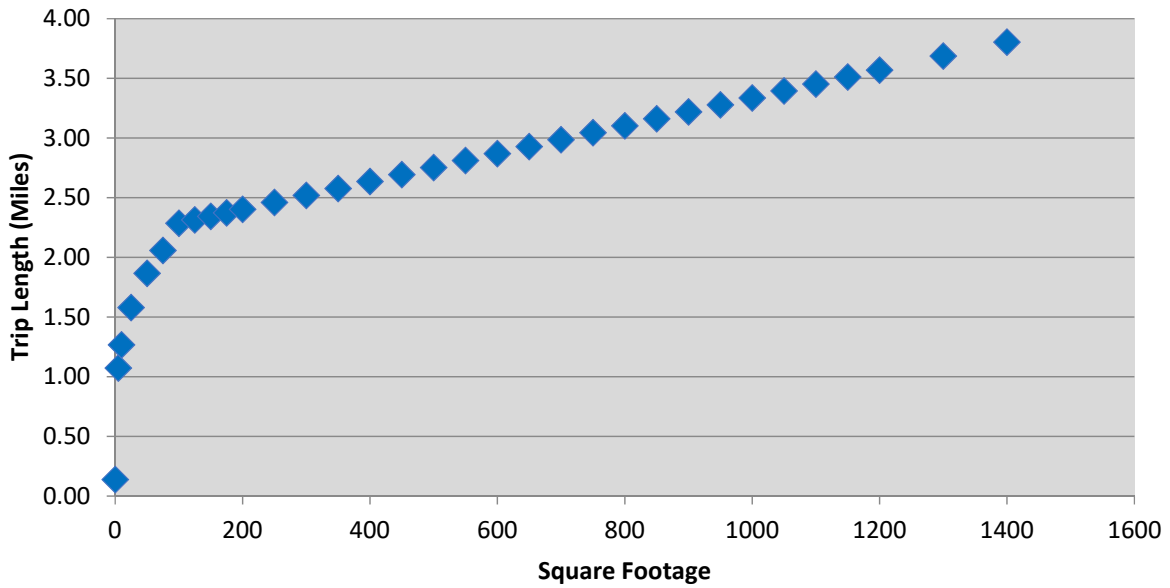
Land Use 813: Free-Standing Discount Superstore

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Citrus Co, FL	203.6	Nov-03	-	236	55.01	8a-6p	-	-	-	Tindale Oliver
Total Size	203.6		1				Average Trip Length:			
ITE	13,065.0		67				Weighted Average Trip Length:			
Blended total	13,268.6							Weighted Percent New Trip Average:	-	
								Average Trip Generation Rate:	55.01	
								ITE Average Trip Generation Rate:	50.70	
								Blend of FL Studies and ITE Average Trip Generation Rate:	50.77	

Land Use 820: Shopping Center

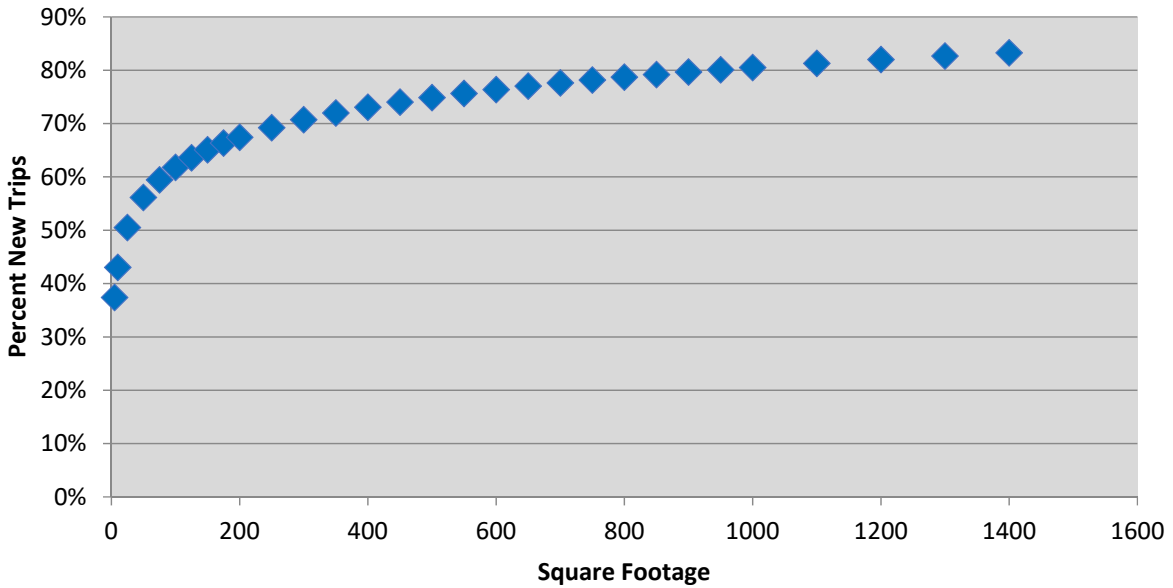
Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	527	348	-	-	-	66.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	170	-	-	-	1.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	354	269	-	-	-	76.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	144	-	-	-	2.50	-	-	Kimley-Horn & Associates
St. Petersburg, FL	1,192.0	Aug-89	384	298	-	11a-7p	3.60	78.0	-	Tindale Oliver
St. Petersburg, FL	132.3	Sep-89	400	368	77.00	10a-7p	1.80	92.0	127.51	Tindale Oliver
Largo, FL	425.0	Aug-89	160	120	26.73	10a-6p	2.30	75.0	46.11	Tindale Oliver
Dunedin, FL	80.5	Sep-89	276	210	81.48	9a-5p	1.40	76.0	86.69	Tindale Oliver
Pinellas Park, FL	696.0	Sep-89	485	388	-	9a-6p	3.20	80.0	-	Tindale Oliver
Seminole, FL	425.0	Oct-89	674	586	-	-	-	87.0	-	Tindale Oliver
Hillsborough Co, FL	134.0	Jul-91	-	-	-	-	1.30	74.0	-	Tindale Oliver
Hillsborough Co, FL	151.0	Jul-91	-	-	-	-	1.30	73.0	-	Tindale Oliver
Collier Co, FL	-	Aug-91	68	64	-	-	3.33	94.1	-	Tindale Oliver
Collier Co, FL	-	Aug-91	208	154	-	-	2.64	74.0	-	Tindale Oliver
Sarasota/Bradenton, FL	109.0	Sep-92	300	185	-	12a-6p	-	61.6	-	King Engineering Associates, Inc.
Ocala, FL	133.4	Sep-92	300	192	-	12a-6p	-	64.0	-	King Engineering Associates, Inc.
Gwinnett Co, GA	99.1	Dec-92	-	-	46.00	-	3.20	70.0	103.04	Street Smarts
Gwinnett Co, GA	314.7	Dec-92	-	-	27.00	-	8.50	84.0	192.78	Street Smarts
Sarasota Co, FL	110.0	Jun-93	58	58	122.14	-	3.20	-	-	Sarasota County
Sarasota Co, FL	146.1	Jun-93	65	65	51.53	-	2.80	-	-	Sarasota County
Sarasota Co, FL	157.5	Jun-93	57	57	79.79	-	3.40	-	-	Sarasota County
Sarasota Co, FL	191.0	Jun-93	62	62	66.79	-	5.90	-	-	Sarasota County
Hernando Co, FL	107.8	May-96	608	331	77.60	9a-6p	4.68	54.5	197.85	Tindale Oliver
Charlotte Co, FL	88.0	Oct-97	-	-	73.50	9a-5p	1.80	57.1	75.56	Tindale Oliver
Charlotte Co, FL	191.9	Oct-97	-	-	72.00	9a-5p	2.40	50.9	87.97	Tindale Oliver
Charlotte Co, FL	51.3	Oct-97	-	-	43.00	9a-5p	2.70	51.8	60.08	Tindale Oliver
Lake Co, FL	67.8	Apr-01	246	177	102.60	-	3.40	71.2	248.37	Tindale Oliver
Lake Co, FL	72.3	Apr-01	444	376	65.30	-	4.50	59.0	173.37	Tindale Oliver
Pasco Co, FL	65.6	Apr-02	222	-	145.64	9a-5p	1.46	46.9	99.62	Tindale Oliver
Pasco Co, FL	75.8	Apr-02	134	-	38.23	9a-5p	2.36	58.2	52.52	Tindale Oliver
Citrus Co, FL	185.0	Oct-03	-	784	55.84	8a-6p	2.40	88.1	118.05	Tindale Oliver
Citrus Co, FL	91.3	Nov-03	-	390	54.50	8a-6p	1.60	88.0	76.77	Tindale Oliver
Bozeman, MT	104.3	Dec-06	359	359	46.96	-	3.35	49.0	77.08	Tindale Oliver
Bozeman, MT	159.9	Dec-06	502	502	56.49	-	1.56	54.0	47.59	Tindale Oliver
Bozeman, MT	35.9	Dec-06	329	329	69.30	-	1.39	74.0	71.28	Tindale Oliver
Total Size	5,757.5		7,536				Average Trip Length:			

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



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

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



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

Land Use 840/841: New/Used Automobile Sales

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
St.Petersburg, FL	43.0	Oct-89	152	120	-	9a-5p	4.70	79.0	-	Tindale Oliver
Clearwater, FL	43.0	Oct-89	136	106	29.40	9a-5p	4.50	78.0	103.19	Tindale Oliver
Orange Co, FL	13.8	1997	-	-	35.75	-	-	-	-	Orange County
Orange Co, FL	34.4	1998	-	-	23.45	-	-	-	-	Orange County
Orange Co, FL	66.3	2001	-	-	28.50	-	-	-	-	Orange County
Orange Co, FL	39.1	2002	-	-	10.48	-	-	-	-	Orange County
Orange Co, FL	116.7	2003	-	-	22.18	-	-	-	-	Orange County
Orange Co, FL	51.7	2007	-	-	40.34	-	-	-	-	L-TEC
Orange Co, FL	36.6	-	-	-	15.17	-	-	-	-	Orange County
Orange Co, FL	216.4	2008	-	-	13.45	-	-	-	-	Orange County
Total Size	618.0		8	288			Average Trip Length: 4.60			
ITE (840)	648.0		18				Weighted Average Trip Length: 4.60			
ITE (841)	28.0		14							
Blended total	1,294.0							Weighted Percent New Trip Average: 78.5		
								Weighted Average Trip Generation Rate:		21.04
								ITE Average Trip Generation Rate (LUC 840):		27.84
								ITE Average Trip Generation Rate (LUC 841):		27.06
								Blend of FL Studies and ITE Average Trip Generation Rate:		24.58

Land Use 850: Supermarket

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Palm Harbor, FL	62.0	Aug-89	163	62	106.26	9a-4p	2.08	56.0	123.77	Tindale Oliver
Total Size	62.0		1	163			Average Trip Length: 2.08			
ITE	170.0		5				Weighted Average Trip Length: 2.08			
Blended total	232.0							Weighted Percent New Trip Average: 56.0		
								Weighted Average Trip Generation Rate:		106.26
								ITE Average Trip Generation Rate:		106.78
								Blend of FL Studies and ITE Average Trip Generation Rate:		106.64

Land Use 851: Convenience Market

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	80	-	-	-	1.10	-	-	Kimley-Horn & Associates
Largo, FL	2.5	8/15,25/89	171	116	634.80	-	1.20	68.0	518.00	Tindale Oliver
Clearwater, FL	2.5	Aug-89	237	64	690.80	-	1.60	27.0	298.43	Tindale Oliver
Clearwater, FL	2.1	Nov-89	143	50	635.24	24hr.	1.60	35.0	355.73	Tindale Oliver
Marion Co, FL	2.5	Jun-91	94	43	787.20	48hrs.	1.52	46.2	552.80	Tindale Oliver
Marion Co, FL	2.5	Jun-91	74	20	714.00	48hrs.	0.75	27.0	144.59	Tindale Oliver
Collier Co, FL	-	Aug-91	146	36	-	-	2.53	24.7	-	Tindale Oliver
Collier Co, FL	-	Aug-91	148	38	-	-	1.08	25.7	-	Tindale Oliver
Collier Co, FL	-	Aug-91	148	84	-	-	1.11	56.8	-	Tindale Oliver
Gwinnett Co, GA	2.9	12/13-18/92	-	-	-	-	2.30	48.0	-	Street Smarts
Gwinnett Co, GA	3.2	12/13-18/92	-	-	-	-	-	37.0	-	Street Smarts
Total Size	18.2		7	1,241			Average Trip Length: 1.48			
ITE	24.0		8				Weighted Average Trip Length: 1.52			
Blended total	42.2							Weighted Percent New Trip Average: 41.3		
	36.1							Weighted Average Trip Generation Rate:		694.30
								ITE Average Trip Generation Rate:		762.28
								Blend of FL Studies and ITE Average Trip Generation Rate:		739.50

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

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pasco Co, FL	11.1	Apr-02	138	38	88.97	-	2.05	27.5	50.23	Tindale Oliver
Pasco Co, FL	12.0	Apr-02	212	90	122.16	-	2.04	42.5	105.79	Tindale Oliver
Pasco Co, FL	15.1	Apr-02	1192	54	97.96	-	2.13	28.1	58.69	Tindale Oliver
Total Size	38.2		3	1,542			Average Trip Length: 2.07			
ITE (LUC 880)	66.0		6				Weighted Average Trip Length: 2.08			
ITE (LUC 881)	208.0		16					Weighted Percent New Trip Average: 32.4		
Blended total	312.2							Average Trip Generation Rate:		103.03
								ITE Average Trip Generation Rate (LUC 880):		90.08
								ITE Average Trip Generation Rate (LUC 881):		109.16
								Blend of FL Studies and ITE Average Trip Generation Rate:		104.37

Land Use 890: Furniture Store

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	15.0	7/28-30/92	64	34	-	-	4.63	52.5	-	Tindale Oliver
Tampa, FL	16.9	Jul-92	68	39	-	-	7.38	55.7	-	Tindale Oliver
Total Size	31.90		2	132			Average Trip Length: 6.01			
ITE	779.0		19				Weighted Average Trip Length: 6.09			
Blended total	810.90							Weighted Percent New Trip Average: 54.2		
								ITE Average Trip Generation Rate:		6.30

Land Use 912: Drive-In Bank

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	77	-	-	-	2.40	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	211	-	-	-	-	54.0	-	Kimley-Horn & Associates
Clearwater, FL	0.4	Aug-89	113	52	-	9a-6p	5.20	46.0	-	Tindale Oliver
Largo, FL	2.0	Sep-89	129	94	-	-	1.60	73.0	-	Tindale Oliver
Seminole, FL	4.5	Oct-89	-	-	-	-	-	-	-	Tindale Oliver
Marion Co, FL	2.3	Jun-91	69	29	-	24hr.	1.33	42.0	-	Tindale Oliver
Marion Co, FL	3.1	Jun-91	47	32	-	24hr.	1.75	68.1	-	Tindale Oliver
Marion Co, FL	2.5	Jul-91	57	26	-	48hrs.	2.70	45.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	162	96	-	24hr.	0.88	59.3	-	Tindale Oliver
Collier Co, FL	-	Aug-91	116	54	-	-	1.58	46.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	142	68	-	-	2.08	47.9	-	Tindale Oliver
Hernando Co, FL	5.4	May-96	164	41	-	9a-6p	2.77	24.7	-	Tindale Oliver
Marion Co, FL	2.4	Apr-02	70	-	-	24hr.	3.55	54.6	-	Kimley-Horn & Associates
Marion Co, FL	2.7	May-02	9	-	246.66	24hr.	2.66	40.5	265.44	Kimley-Horn & Associates
Total Size	25.2	9	1,407	Average Trip Length: 2.38						
ITE	147.0	21		Weighted Average Trip Length: 2.46						
Blended total	172.2			Weighted Percent New Trip Average: 46.2						
	149.7			Weighted Average Trip Generation Rate: 246.66						
				ITE Average Trip Generation Rate: 100.03						
				Blend of FL Studies and ITE Average Trip Generation Rate: 102.66						

Land Use 931: Low-Turnover (Quality) Restaurant

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

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

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

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

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	61	-	-	-	2.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	306	-	-	-	-	65.0	-	Kimley-Horn & Associates
Pinellas Co, FL	2.20	Aug-89	81	48	502.80	11a-2p	1.70	59.0	504.31	Tindale Oliver
Pinellas Co, FL	4.30	Oct-89	456	260	660.40	1 day	2.30	57.0	865.78	Tindale Oliver
Tarpon Springs, FL	-	Oct-89	233	114	-	7a-7p	3.60	49.0	-	Tindale Oliver
Marion Co, FL	1.60	Jun-91	60	32	962.50	48hrs.	0.91	53.3	466.84	Tindale Oliver
Marion Co, FL	4.00	Jun-91	75	46	625.00	48hrs.	1.54	61.3	590.01	Tindale Oliver
Collier Co, FL	-	Aug-91	66	44	-	-	1.91	66.7	-	Tindale Oliver
Collier Co, FL	-	Aug-91	118	40	-	-	1.17	33.9	-	Tindale Oliver
Hernando Co, FL	5.43	May-96	136	82	311.83	9a-6p	1.68	60.2	315.27	Tindale Oliver
Hernando Co, FL	3.13	May-96	168	82	547.34	9a-6p	1.59	48.8	425.04	Tindale Oliver
Orange Co, FL	8.93	1996	-	-	377.00	-	-	-	-	Orange County
Lake Co, FL	2.20	Apr-01	376	252	934.30	-	2.50	74.6	1742.47	Tindale Oliver
Lake Co, FL	3.20	Apr-01	171	182	654.90	-	-	47.8	-	Tindale Oliver
Lake Co, FL	3.80	Apr-01	188	137	353.70	-	3.30	70.8	826.38	Tindale Oliver
Pasco Co, FL	2.66	Apr-02	100	46	283.12	9a-6p	-	46.0	-	Tindale Oliver
Pasco Co, FL	2.96	Apr-02	486	164	515.32	9a-6p	2.72	33.7	472.92	Tindale Oliver
Pasco Co, FL	4.42	Apr-02	168	120	759.24	9a-6p	1.89	71.4	1024.99	Tindale Oliver
Total Size	48.8		13	4,463			Average Trip Length: 2.11			
ITE	201.0		67				Weighted Average Trip Length: 2.05			
Blended total	249.8						Weighted Percent New Trip Average:	57.9		
	34.0						Weighted Average Trip Generation Rate:		530.19	
							ITE Average Trip Generation Rate:		470.95	
							Blend of FL Studies and ITE Average Trip Generation Rate:		482.53	

Land Use 942: Automobile Care Center

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	5.5	Sep-89	34	30	37.64	9a-5p	2.40	88.0	79.50	Tindale Oliver
Jacksonville, FL	2.3	2/3-4/90	124	94	-	9a-5p	3.07	76.0	-	Tindale Oliver
Jacksonville, FL	2.3	2/3-4/90	110	74	-	9a-5p	2.96	67.0	-	Tindale Oliver
Jacksonville, FL	2.4	2/3-4/90	132	87	-	9a-5p	2.32	66.0	-	Tindale Oliver
Lakeland, FL	5.2	Mar-90	24	14	-	9a-4p	1.36	59.0	-	Tindale Oliver
Lakeland, FL	-	Mar-90	54	42	-	9a-4p	2.44	78.0	-	Tindale Oliver
Orange Co, FL	25.0	Nov-92	41	39	-	2-6p	4.60	-	-	LCE, Inc.
Orange Co, FL	36.6	-	-	-	15.17	-	-	-	-	Orange County
Orange Co, FL	7.0	-	-	-	46.43	-	-	-	-	Orange County
Total Size	86.2		6	519			Average Trip Length: 2.74			
ITE	102.0		6				Weighted Average Trip Length: 3.62			
Blended total	188.2						Weighted Percent New Trip Average:	72.2		
	151.1						Weighted Average Trip Generation Rate:		22.14	
							ITE Average Trip Generation Rate (adjusted):		31.10	
							Blend of FL Studies and ITE Average Trip Generation Rate:		28.19	

Land Use 944/945: Gasoline/Service Station

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

Land Use 947: Self-Service Car Wash

Location	Size (Bays)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	10	Nov-89	111	84	-	8am-5pm	2.00	76.0	-	Tindale Oliver
Clearwater, FL	-	Nov-89	177	108	-	10am-5pm	1.30	61.0	-	Tindale Oliver
Collier Co, FL	11	Dec-09	304	-	30.24	-	2.50	57.0	-	Tindale Oliver
Collier Co, FL	8	Jan-09	186	-	22.75	-	1.96	72.0	-	Tindale Oliver
Total Size	29		3	778			Average Trip Length: 1.94			
Total Size (TGR)	19		2				Weighted Average Trip Length: 2.18			
ITE	5		1				Weighted Percent New Trip Average:	67.7		
Blended total	24						Weighted Average Trip Generation Rate:		27.09	
							ITE Average Trip Generation Rate:		108.00	
							Blend of FL Studies and ITE Average Trip Generation Rate:		43.94	

Demand Variable Changes

Since the last demand component update in 2015, the trip generation rate (TGR), trip length (TL), and percent new trips (PNT) has changed for several land uses. Tables A-3 through A-6 present the change in each variable for each land use for the 2019 update.

Table A-3
Percent Change in Gross VMT of Impact Fee Land Uses

ITE LUC	Land Use	Unit	GVTM 2015	GVTM 2019	%	Explanation	Net VMT 2015 ⁽¹⁾	Net VMT 2019 ⁽²⁾	%
RESIDENTIAL:									
210	Single Family (Detached)	du	25.85	25.85	0.0%	No change	19.60	19.00	-3.1%
220	Multi-Family Housing (Low-Rise, 1-2 floors)	du	-	18.67	-	TGR update, see Table A-4	-	13.72	-
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	-	13.87	-	TGR update, see Table A-4	-	10.20	-
222	Multi-Family Housing (High-Rise, >10 floors)	du	-	11.35	-	TGR update, see Table A-4	-	8.34	-
240	Mobile Home Park	du	9.59	9.59	0.0%	No change	7.27	7.05	-3.0%
251	Retirement Community (detached)	du	8.46	9.49	12.2%	TGR update, see Table A-4	6.41	6.97	8.7%
252	Retirement Community (attached)	du	4.87	5.46	12.1%	TGR update, see Table A-4	3.69	4.01	8.7%
LODGING:									
310	Hotel	room	13.14	11.47	-12.7%	TGR update, see Table A-4	9.96	8.43	-15.4%
320	Motel	room	9.41	5.60	-40.5%	TGR update, see Table A-4	7.13	4.11	-42.4%
RECREATION:									
411	Public Park	acre	5.24	1.81	-65.5%	TGR & TL update, see Tables A-4 and A-5	3.97	1.33	-66.5%
416	Campground/RV Park	site	3.73	3.73	0.0%	No change	2.82	2.74	-2.8%
420	Marina	boat berth	8.82	7.18	-18.6%	TGR update, see Table A-4	6.68	5.28	-21.0%
430	Golf Course	hole	106.47	90.50	-15.0%	TGR update, see Table A-4	80.70	66.52	-17.6%
437	Bowling Alley	lane	77.24	30.13	-61.0%	TGR update, see Table A-4	58.55	22.14	-62.2%
444	Movie Theater	screen	104.16	112.17	7.7%	TGR update, see Table A-4	78.95	82.44	4.4%
492	Health/Fitness Club	1,000 sf	79.71	83.51	4.8%	TGR update, see Table A-4	60.42	61.38	1.6%
n/a	Indoor Shooting Range (Range ONLY)	1,000 sf	4.58	4.61	0.7%	TL update, see Table A-6	3.47	3.39	-2.3%
n/a	Place of Assembly/Union Hall	1,000 sf	64.38	66.79	3.7%	TGR & PNT update, see Tables A-4 and A-6	48.80	49.09	0.6%
INSTITUTIONS:									
520	Elementary School (Private)	student	2.22	2.50	12.6%	TGR & TL update, see Tables A-4 and A-5	1.68	1.84	9.5%
522	Middle/Junior High School (Private)	student	3.13	2.82	-9.9%	TGR, TL & PNT update, see Tables A-4, A-5, and A-6	2.38	2.07	-13.0%
530	High School (Private)	student	3.31	3.02	-8.8%	TGR & TL update, see Tables A-4 and A-5	2.51	2.22	-11.6%
540	University/Junior College (7,500 or fewer students) (Private)	student	5.96	5.96	0.0%	No change	4.52	4.38	-3.1%
550	University/Junior College (more than 7,500 students) (Private)	student	4.47	4.47	0.0%	Co change	3.39	3.28	-3.2%
560	Church	1,000 sf	15.99	12.23	-23.5%	TGR & TL update, see Tables A-4 and A-5	12.12	8.99	-25.8%
565	Day Care Center	1,000 sf	53.26	36.77	-31.0%	TGR update, see Table A-4	40.37	27.03	-33.0%
MEDICAL:									
610	Hospital	1,000 sf	33.69	27.68	-17.8%	TGR & PNT update, see Tables A-4 and A-6	25.54	20.34	-20.4%
620	Nursing Home	bed	3.18	3.48	9.4%	TGR update, see Table A-4	2.41	2.56	6.2%
630	Clinic	1,000 sf	78.78	88.84	12.8%	TGR update, see Table A-4	59.72	65.29	9.3%
640	Veterinary Clinic	1,000 sf	21.81	16.09	-26.2%	TGR update, see Table A-4	16.53	11.83	-28.4%
OFFICE:									
710	General Office	1,000 sf	-	23.07	-	TGR update, see Table A-4	-	16.96	-
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	58.85	58.85	0.0%	No change	44.61	43.26	-3.0%
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	85.75	84.27	-1.7%	TGR update, see Table A-4	65.00	61.94	-4.7%
RETAIL:									
812	Building Materials and Lumber Store	1,000 sf	104.77	41.87	-60.0%	TGR update, see Table A-4	79.41	30.78	-61.2%
813	Discount Superstore	1,000 sf	40.86	40.82	-0.1%	TGR update, see Table A-4	30.97	30.00	-3.1%
815	Discount Store, Free-Standing	1,000 sf	46.02	37.71	-18.1%	TGR, TL & PNT update, see Tables A-4, A-5, and A-6	34.88	27.72	-20.5%
816	Hardware/Paint Store	1,000 sf	26.86	4.79	-82.2%	TGR update, see Table A-4	20.36	3.52	-82.7%
817	Nursery (Garden Center)	1,000 sf	35.66	35.66	0.0%	No change	27.03	26.21	-3.0%
820	Retail	1,000 sfgla	-	37.57	-	TGR, TL & PNT update, see Tables A-4, A-5, and A-6	-	27.62	-

Table A-3 (continued)
Percent Change in Gross VMT of Impact Fee Land Uses

ITE LUC	Land Use	Unit	GVTM 2015	GVTM 2019	%	Explanation	Net VMT 2015 ⁽¹⁾	Net VMT 2019 ⁽²⁾	%
RETAIL:									
823	Factory Outlet Center	1,000 sf	21.38	20.22	-5.4%	TL & PNT update, see Tables A-5 and A-6	16.20	14.86	-8.3%
840/841	New/Used Auto Sales	1,000 sf	51.33	44.66	-13.0%	TGR update, see Table A-4	38.91	32.83	-15.6%
843	Automobile Parts Sales	1,000 sf	112.49	100.55	-10.6%	TGR update, see Table A-4	85.27	73.91	-13.3%
848	Tire Store	1,000 sf	32.41	37.17	14.7%	TGR update, see Table A-4	24.57	27.32	11.2%
849	Tire Superstore	1,000 sf	26.53	26.55	0.1%	TGR update, see Table A-4	20.11	19.51	-3.0%
850	Supermarket	1,000 sf	60.21	62.11	3.2%	TGR update, see Table A-4	45.64	45.65	0.0%
851	Convenience Market, 24 hrs	1,000 sf	224.10	230.43	2.8%	TGR update, see Table A-4	169.87	169.36	-0.3%
857	Discount Club	1,000 sf	33.61	33.61	0.0%	No change	25.47	24.70	-3.0%
860	Wholesale Market	1,000 sf	6.49	14.15	118.0%	TGR, TL & PNT update, see Tables A-4, A-5, and A-6	4.92	10.40	111.4%
862	Home Improvement Superstore	1,000 sf	24.71	23.38	-5.4%	TL & PNT update, see Tables A-5 and A-6	18.73	17.18	-8.3%
863	Electronics Superstore	1,000 sf	23.58	21.49	-8.9%	TGR update, see Table A-4	17.88	15.80	-11.6%
876	Apparel Store	1,000 sf	34.77	34.77	0.0%	No change	26.35	25.55	-3.0%
880/881	Pharmacy with & w/o Drive-Thru	1,000 sf	31.94	34.73	8.7%	TGR update, see Table A-4	24.21	25.53	5.5%
890	Furniture Store	1,000 sf	8.32	10.36	24.5%	TGR update, see Table A-4	6.31	7.61	20.6%
SERVICES:									
911	Bank/Savings Walk-In	1,000 sf	68.63	33.60	-51.0%	TGR update, see Table A-4	52.02	24.70	-52.5%
912	Bank/Savings Drive-In	1,000 sf	90.15	58.09	-35.6%	TGR update, see Table A-4	68.34	42.69	-37.5%
925	Bar/Nightclub	1,000 sf	59.38	59.48	0.2%	TGR update, see Table A-4	45.01	43.72	-2.9%
931	Low-Turnover Restaurant	1,000 sf	110.13	104.00	-5.6%	TGR update, see Table A-4	83.48	76.44	-8.4%
932	High-Turnover Restaurant	1,000 sf	131.22	119.58	-8.9%	TGR update, see Table A-4	99.46	87.89	-11.6%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	303.79	286.86	-5.6%	TGR update, see Table A-4	230.27	210.85	-8.4%
941	Quick Lube	service bay	52.13	52.13	0.0%	No change	39.51	38.31	-3.0%
942	Automobile Care Center	1,000 sf	40.96	36.74	-10.3%	TGR update, see Table A-4	31.05	27.00	-13.0%
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	34.38	37.58	9.3%	TGR update, see Table A-4	26.06	27.62	6.0%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	35.57	44.87	26.1%	TGR update, see Table A-4	26.96	32.98	22.3%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	-	50.37	-	TGR, TL & PNT update, see Tables A-4, A-5, and A-6	-	37.02	-
947	Self-Service Car Wash	service bay	32.57	32.57	0.0%	No change	24.69	23.94	-3.0%
948	Automated Car Wash	1,000 sf	104.66	105.25	0.6%	TGR update, see Table A-4	79.33	77.36	-2.5%
INDUSTRIAL:									
110	General Light Industrial	1,000 sf	16.51	11.75	-28.8%	TGR update, see Table A-4	12.52	8.64	-31.0%
130	Industrial Park	1,000 sf	16.18	7.98	-50.7%	TGR update, see Table A-4	12.26	5.87	-52.1%
140	Manufacturing	1,000 sf	9.05	9.31	2.9%	TGR update, see Table A-4	6.86	6.84	-0.3%
150	Warehousing	1,000 sf	8.43	4.12	-51.1%	TGR update, see Table A-4	6.39	3.03	-52.6%
151	Mini-Warehouse	1,000 sf	3.07	2.41	-21.5%	TGR & TL update, see Tables A-4 and A-5	2.32	1.77	-23.7%
154	High-Cube Transload & Short-Term Storage Warehouse	1,000 sf	3.98	3.32	-16.6%	TGR update, see Table A-4	3.02	2.44	-19.2%

1) The Net VMT includes the interstate/toll facility adjustment factor as part of the calculation. 2015 report = 24.2% reduction

2) The Net VMT includes the interstate/toll facility adjustment factor as part of the calculation. 2019 report = 26.5% reduction

- Gross VMT = TGR * TL * PNT / 2

- Individual variables are shown in Tables A-4 through A-6

Table A-4
Percent Change in Trip Generation Rate of Impact Fee Land Uses

ITE LUC	Land Use	Unit	TGR 2015	TGR 2019	%	Explanation
RESIDENTIAL:						
210	Single Family (Detached)	du	7.81	7.81	0.0%	No change
220	Multi-Family Housing (Low-Rise, 1-2 floors)	du	-	7.32	-	Re-alignment of multi-family land uses in ITE 10th Edition
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	-	5.44	-	Re-alignment of multi-family land uses in ITE 10th Edition
222	Multi-Family Housing (High-Rise, >10 floors)	du	-	4.45	-	Re-alignment of multi-family land uses in ITE 10th Edition
240	Mobile Home Park	du	4.17	4.17	0.0%	No change
251	Retirement Community (detached)	du	3.12	3.50	12.2%	Updated TGR in ITE 10th Edition
252	Retirement Community (attached)	du	2.97	3.33	12.1%	Updated TGR in ITE 10th Edition
LODGING:						
310	Hotel	room	6.36	5.55	-12.7%	Additional FL Studies added and updated TGR in ITE 10th Edition
320	Motel	room	5.63	3.35	-40.5%	Updated TGR in ITE 10th Edition
RECREATION:						
411	Public Park	acre	2.28	0.78	-65.8%	LUC 412 no longer in ITE, replaced with similar use
416	Campground/RV Park	site	1.62	1.62	0.0%	No change
420	Marina	boat berth	2.96	2.41	-18.6%	Updated TGR in ITE 10th Edition
430	Golf Course	hole	35.74	30.38	-15.0%	Updated TGR in ITE 10th Edition
437	Bowling Alley	lane	33.33	13.00	-61.0%	Updated TGR in ITE 10th Edition
444	Movie Theater	screen	106.63	114.83	7.7%	Updated TGR in ITE 10th Edition
492	Health/Fitness Club	1,000 sf	32.93	34.50	4.8%	Updated TGR in ITE 10th Edition (1 study to 8 studies, but daily value removed from ITE)
n/a	Indoor Shooting Range (Range ONLY)	1,000 sf	1.99	1.99	0.0%	No change (LUC 435, Multi-Use Recreational Facility, ITE 9th)
n/a	Place of Assembly/Union Hall	1,000 sf	25.00	28.82	15.3%	Updated TGR in ITE 10th Edition (LUC 495, Recreational Community Center)
INSTITUTIONS:						
520	Elementary School (Private)	student	1.29	1.89	46.5%	Updated TGR in ITE 10th Edition
522	Middle/Junior High School (Private)	student	1.62	2.13	31.5%	Updated TGR in ITE 10th Edition
530	High School (Private)	student	1.71	2.03	18.7%	Updated TGR in ITE 10th Edition
540	University/Junior College (7,500 or fewer students) (Private)	student	2.00	2.00	0.0%	No change
550	University/Junior College (more than 7,500 students) (Private)	student	1.50	1.50	0.0%	No change
560	Church	1,000 sf	9.11	6.95	-23.7%	Updated TGR in ITE 10th Edition
565	Day Care Center	1,000 sf	71.88	49.63	-31.0%	Updated TGR in ITE 10th Edition
MEDICAL:						
610	Hospital	1,000 sf	13.22	10.72	-18.9%	Updated TGR in ITE 10th Edition
620	Nursing Home	bed	2.76	3.02	9.4%	Updated TGR in ITE 10th Edition
630	Clinic	1,000 sf	33.22	37.46	12.8%	Updated TGR in ITE 10th Edition
640	Veterinary Clinic	1,000 sf	32.80	24.20	-26.2%	Additional FL Studies added and updated TGR in ITE 10th Edition
OFFICE:						
710	General Office	1,000 sf	-	9.74	-	Updated TGR in ITE 10th Edition, removal of sq ft tiers
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	23.83	23.83	0.0%	No change
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	34.72	34.12	-1.7%	Updated TGR in ITE 10th Edition (from 10 to 28 studies)
RETAIL:						
812	Building Materials and Lumber Store	1,000 sf	45.16	18.05	-60.0%	Updated TGR in ITE 10th Edition
813	Discount Superstore	1,000 sf	50.82	50.77	-0.1%	Updated TGR in ITE 10th Edition
815	Discount Store, Free-Standing	1,000 sf	57.24	53.12	-7.2%	Updated TGR in ITE 10th Edition
816	Hardware/Paint Store	1,000 sf	51.29	9.14	-82.2%	Updated TGR in ITE 10th Edition
817	Nursery (Garden Center)	1,000 sf	68.10	68.10	0.0%	No change

Table A-4 (continued)
Percent Change in Trip Generation Rate of Impact Fee Land Uses

ITE LUC	Land Use	Unit	TGR 2015	TGR 2019	%	Explanation
RETAIL:						
820	Retail	1,000 sfgla	-	37.75	-	Updated TGR in ITE 10th Edition, removal of sq ft tiers
823	Factory Outlet Center	1,000 sf	26.59	26.59	0.0%	No change
840/841	New/Used Auto Sales	1,000 sf	28.25	24.58	-13.0%	Update to ITE 10th Edition and merging of LUC 840 & 841
843	Automobile Parts Sales	1,000 sf	61.91	55.34	-10.6%	Updated TGR in ITE 10th Edition
848	Tire Store	1,000 sf	24.87	28.52	14.7%	Updated TGR in ITE 10th Edition
849	Tire Superstore	1,000 sf	20.36	20.37	0.0%	Updated TGR in ITE 10th Edition
850	Supermarket	1,000 sf	103.38	106.64	3.2%	Updated TGR in ITE 10th Edition
851	Convenience Market, 24 hrs	1,000 sf	719.18	739.50	2.8%	Updated TGR in ITE 10th Edition
857	Discount Club	1,000 sf	41.80	41.80	0.0%	No change
860	Wholesale Market	1,000 sf	6.73	17.60	161.5%	Updated TGR in ITE 10th Edition (PM Peak Adjusted)
862	Home Improvement Superstore	1,000 sf	30.74	30.74	0.0%	No change
863	Electronics Superstore	1,000 sf	45.04	41.05	-8.9%	Updated TGR in ITE 10th Edition
876	Apparel Store	1,000 sf	66.40	66.40	0.0%	No change
880/881	Pharmacy with & w/o Drive-Thru	1,000 sf	95.96	104.37	8.8%	Updated TGR in ITE 10th Edition for LUC 880 & 881
890	Furniture Store	1,000 sf	5.06	6.30	24.5%	Updated TGR in ITE 10th Edition
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	121.30	59.39	-51.0%	Updated TGR in ITE 10th Edition (peak hour-to-daily conversion calculation)
912	Bank/Savings Drive-In	1,000 sf	159.34	102.66	-35.6%	Updated TGR in ITE 10th Edition
925	Bar/Nightclub	1,000 sf	113.40	113.60	0.2%	Updated TGR in ITE 10th Edition (PM Peak Adjusted)
931	Low-Turnover Restaurant	1,000 sf	91.10	86.03	-5.6%	Updated TGR in ITE 10th Edition
932	High-Turnover Restaurant	1,000 sf	116.60	106.26	-8.9%	Additional FL Studies added and updated TGR in ITE 10th Edition
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	511.00	482.53	-5.6%	Additional FL Studies added and updated TGR in ITE 10th Edition
941	Quick Lube	service bay	40.00	40.00	0.0%	No change
942	Automobile Care Center	1,000 sf	31.43	28.19	-10.3%	Two additional FL Studies added since last update
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	157.33	172.01	9.3%	Re-alignment of gas station w/conv. land uses in ITE 10th Edition
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	162.78	205.36	26.2%	Re-alignment of gas station w/conv. land uses in ITE 10th Edition
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	-	230.52	-	Re-alignment of gas station w/conv. land uses in ITE 10th Edition
947	Self-Service Car Wash	service bay	43.94	43.94	0.0%	No change
948	Automated Car Wash	1,000 sf	141.20	142.00	0.6%	Updated TGR in ITE 10th Edition
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	6.97	4.96	-28.8%	Updated TGR in ITE 10th Edition
130	Industrial Park	1,000 sf	6.83	3.37	-50.7%	Updated TGR in ITE 10th Edition
140	Manufacturing	1,000 sf	3.82	3.93	2.9%	Updated TGR in ITE 10th Edition
150	Warehousing	1,000 sf	3.56	1.74	-51.1%	Updated TGR in ITE 10th Edition
151	Mini-Warehouse	1,000 sf	2.15	1.49	-30.7%	Additional FL Studies (1 study) added and updated TGR in ITE 10th Edition
154	High-Cube Transload & Short-Term Storage Warehouse	1,000 sf	1.68	1.40	-16.7%	LUC 152 no longer in ITE, replaced with similar use

- See Appendix D for additional information

**Table A-5
Percent Change in Trip Length of Impact Fee Land Uses**

ITE LUC	Land Use	Unit	TL 2015	TL 2019	%	Explanation
RESIDENTIAL:						
210	Single Family (Detached)	du	6.62	6.62	0.0%	No change
220	Multi-Family Housing (Low-Rise, 1-2 floors)	du	5.10	5.10	0.0%	No change
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	5.10	5.10	0.0%	No change
222	Multi-Family Housing (High-Rise, >10 floors)	du	5.10	5.10	0.0%	No change
240	Mobile Home Park	du	4.60	4.60	0.0%	No change
251	Retirement Community (detached)	du	5.42	5.42	0.0%	No change
252	Retirement Community (attached)	du	3.28	3.28	0.0%	No change
LODGING:						
310	Hotel	room	6.26	6.26	0.0%	No change
320	Motel	room	4.34	4.34	0.0%	No change
RECREATION:						
411	Public Park	acre	5.11	5.15	0.8%	Updated to be the same as LUC 710
416	Campground/RV Park	site	4.60	4.60	0.0%	No change
420	Marina	boat berth	6.62	6.62	0.0%	No change
430	Golf Course	hole	6.62	6.62	0.0%	No change
437	Bowling Alley	lane	5.15	5.15	0.0%	No change
444	Movie Theater	screen	2.22	2.22	0.0%	No change
492	Health/Fitness Club	1,000 sf	5.15	5.15	0.0%	No change
n/a	Indoor Shooting Range (Range ONLY)	1,000 sf	5.11	5.15	0.8%	Updated to be the same as LUC 710
n/a	Place of Assembly/Union Hall	1,000 sf	5.15	5.15	0.0%	No change
INSTITUTIONS:						
520	Elementary School (Private)	student	4.30	3.31	-23.0%	updated to use 50% of LUC 210 per review of travel demand models
522	Middle/Junior High School (Private)	student	4.30	3.31	-23.0%	updated to use 50% of LUC 210 per review of travel demand models
530	High School (Private)	student	4.30	3.31	-23.0%	updated to use 50% of LUC 210 per review of travel demand models
540	University/Junior College (7,500 or fewer students) (Private)	student	6.62	6.62	0.0%	No change
550	University/Junior College (more than 7,500 students) (Private)	student	6.62	6.62	0.0%	No change
560	Church	1,000 sf	3.90	3.91	0.3%	No change
565	Day Care Center	1,000 sf	2.03	2.03	0.0%	No change
MEDICAL:						
610	Hospital	1,000 sf	6.62	6.62	0.0%	No change
620	Nursing Home	bed	2.59	2.59	0.0%	No change
630	Clinic	1,000 sf	5.10	5.10	0.0%	No change
640	Veterinary Clinic	1,000 sf	1.90	1.90	0.0%	No change
OFFICE:						
710	General Office	1,000 sf	5.15	5.15	0.0%	No change
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	5.55	5.55	0.0%	No change
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	5.55	5.55	0.0%	No change
RETAIL:						
812	Building Materials and Lumber Store	1,000 sf	6.27	6.27	0.0%	No change
813	Discount Superstore	1,000 sf	2.40	2.40	0.0%	No change
815	Discount Store, Free-Standing	1,000 sf	2.40	2.29	-4.6%	Updated based on average size in ITE 10th (appr. 100k sf)
816	Hardware/Paint Store	1,000 sf	1.87	1.87	0.0%	No change
817	Nursery (Garden Center)	1,000 sf	1.87	1.87	0.0%	No change

Table A-5 (continued)
Percent Change in Trip Length of Impact Fee Land Uses

ITE LUC	Land Use	Unit	TL 2015	TL 2019	%	Explanation
RETAIL:						
820	Retail	1,000 sf	-	2.69	-	Removal of sq ft tiers. TL based on average size in ITE 10th (450k sf)
823	Factory Outlet Center	1,000 sf	2.40	2.34	-2.5%	Updated based on average size in ITE 10th (appr. 150k sf)
840/841	New/Used Auto Sales	1,000 sf	4.60	4.60	0.0%	No change
843	Automobile Parts Sales	1,000 sf	4.60	4.60	0.0%	No change
848	Tire Store	1,000 sf	3.62	3.62	0.0%	No change
849	Tire Superstore	1,000 sf	3.62	3.62	0.0%	No change
850	Supermarket	1,000 sf	2.08	2.08	0.0%	No change
851	Convenience Market, 24 hrs	1,000 sf	1.52	1.52	0.0%	No change
857	Discount Club	1,000 sf	2.40	2.40	0.0%	No change
860	Wholesale Market	1,000 sf	2.64	2.40	-9.1%	Updated based on average size in ITE 10th (appr. 200k sf)
862	Home Improvement Superstore	1,000 sf	2.40	2.34	-2.5%	Updated based on average size in ITE 10th (appr. 150k sf)
863	Electronics Superstore	1,000 sf	1.87	1.87	0.0%	No change
876	Apparel Store	1,000 sf	1.87	1.87	0.0%	No change
880/881	Pharmacy with & w/o Drive-Thru	1,000 sf	2.08	2.08	0.0%	No change
890	Furniture Store	1,000 sf	6.09	6.09	0.0%	No change
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	2.46	2.46	0.0%	No change
912	Bank/Savings Drive-In	1,000 sf	2.46	2.46	0.0%	No change
925	Bar/Nightclub	1,000 sf	1.87	1.87	0.0%	No change
931	Low-Turnover Restaurant	1,000 sf	3.14	3.14	0.0%	No change
932	High-Turnover Restaurant	1,000 sf	3.17	3.17	0.0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	2.05	2.05	0.0%	No change
941	Quick Lube	service bay	3.62	3.62	0.0%	No change
942	Automobile Care Center	1,000 sf	3.62	3.62	0.0%	No change
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	1.90	1.90	0.0%	No change
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	1.90	1.90	0.0%	No change
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	1.90	1.90	0.0%	No change
947	Self-Service Car Wash	service bay	2.18	2.18	0.0%	No change
948	Automated Car Wash	1,000 sf	2.18	2.18	0.0%	No change
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	5.15	5.15	0.0%	No change
130	Industrial Park	1,000 sf	5.15	5.15	0.0%	No change
140	Manufacturing	1,000 sf	5.15	5.15	0.0%	No change
150	Warehousing	1,000 sf	5.15	5.15	0.0%	No change
151	Mini-Warehouse	1,000 sf	3.10	3.51	13.2%	Updated to use the midpoint of office (5.15) and retail 50k sq ft (1.87)
154	High-Cube Transload & Short-Term Storage Warehouse	1,000 sf	5.15	5.15	0.0%	No change

- See Appendix D for additional information

Table A-6
Percent Change in Percent New Trips of Impact Fee Land Uses

ITE LUC	Land Use	Unit	PNT 2015	PNT 2019	%	Explanation
RESIDENTIAL:						
210	Single Family (Detached)	du	100%	100%	0.0%	No change
220	Multi-Family Housing (Low-Rise, 1-2 floors)	du	100%	100%	0.0%	No change
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	100%	100%	0.0%	No change
222	Multi-Family Housing (High-Rise, >10 floors)	du	100%	100%	0.0%	No change
240	Mobile Home Park	du	100%	100%	0.0%	No change
251	Retirement Community (detached)	du	100%	100%	0.0%	No change
252	Retirement Community (attached)	du	100%	100%	0.0%	No change
LODGING:						
310	Hotel	room	66%	66%	0.0%	No change
320	Motel	room	77%	77%	0.0%	No change
RECREATION:						
411	Public Park	acre	90%	90%	0.0%	No change
416	Campground/RV Park	site	100%	100%	0.0%	No change
420	Marina	boat berth	90%	90%	0.0%	No change
430	Golf Course	hole	90%	90%	0.0%	No change
437	Bowling Alley	lane	90%	90%	0.0%	No change
444	Movie Theater	screen	88%	88%	0.0%	No change
492	Health/Fitness Club	1,000 sf	94%	94%	0.0%	No change
n/a	Indoor Shooting Range (Range ONLY)	1,000 sf	90%	90%	0.0%	No change
n/a	Place of Assembly/Union Hall	1,000 sf	100%	90%	-10.0%	Updated to be based on LUC 710
INSTITUTIONS:						
520	Elementary School (Private)	student	80%	80%	0.0%	No change
522	Middle/Junior High School (Private)	student	90%	80%	-11.1%	Updated to be the same as LUC 520
530	High School (Private)	student	90%	90%	0.0%	No change
540	University/Junior College (7,500 or fewer students) (Private)	student	90%	90%	0.0%	No change
550	University/Junior College (more than 7,500 students) (Private)	student	90%	90%	0.0%	No change
560	Church	1,000 sf	90%	90%	0.0%	No change
565	Day Care Center	1,000 sf	73%	73%	0.0%	No change
MEDICAL:						
610	Hospital	1,000 sf	77%	78%	1.3%	Updated to midpoint of LUC 310 and LUC 720
620	Nursing Home	bed	89%	89%	0.0%	No change
630	Clinic	1,000 sf	93%	93%	0.0%	No change
640	Veterinary Clinic	1,000 sf	70%	70%	0.0%	No change
OFFICE:						
710	General Office	1,000 sf	92%	92%	0.0%	No change
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	89%	89%	0.0%	No change
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	89%	89%	0.0%	No change
RETAIL:						
812	Building Materials and Lumber Store	1,000 sf	74%	74%	0.0%	No change
813	Discount Superstore	1,000 sf	67%	67%	0.0%	No change
815	Discount Store, Free-Standing	1,000 sf	67%	62%	-7.5%	Updated based on average size in ITE 10th (appr. 100k sf)
816	Hardware/Paint Store	1,000 sf	56%	56%	0.0%	No change
817	Nursery (Garden Center)	1,000 sf	56%	56%	0.0%	No change

Table A-6 (continued)
Percent Change in Percent New Trips of Impact Fee Land Uses

ITE LUC	Land Use	Unit	PNT 2015	PNT 2019	%	Explanation
RETAIL:						
820	Retail	1,000 sfgla	-	74%	-	Removal of sq ft tiers. PNT based on average size in ITE 10th (450k sf)
823	Factory Outlet Center	1,000 sf	67%	65%	-3.0%	Updated based on average size in ITE 10th (appr. 150k sf)
840/841	New/Used Auto Sales	1,000 sf	79%	79%	0.0%	No change
843	Automobile Parts Sales	1,000 sf	79%	79%	0.0%	No change
848	Tire Store	1,000 sf	72%	72%	0.0%	No change
849	Tire Superstore	1,000 sf	72%	72%	0.0%	No change
850	Supermarket	1,000 sf	56%	56%	0.0%	No change
851	Convenience Market, 24 hrs	1,000 sf	41%	41%	0.0%	No change
857	Discount Club	1,000 sf	67%	67%	0.0%	No change
860	Wholesale Market	1,000 sf	73%	67%	-8.2%	Updated based on average size in ITE 10th (appr. 200k sf)
862	Home Improvement Superstore	1,000 sf	67%	65%	-3.0%	Updated based on average size in ITE 10th (appr. 150k sf)
863	Electronics Superstore	1,000 sf	56%	56%	0.0%	No change
876	Apparel Store	1,000 sf	56%	56%	0.0%	No change
880/881	Pharmacy with & w/o Drive-Thru	1,000 sf	32%	32%	0.0%	No change
890	Furniture Store	1,000 sf	54%	54%	0.0%	No change
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	46%	46%	0.0%	No change
912	Bank/Savings Drive-In	1,000 sf	46%	46%	0.0%	No change
925	Bar/Nightclub	1,000 sf	56%	56%	0.0%	No change
931	Low-Turnover Restaurant	1,000 sf	77%	77%	0.0%	No change
932	High-Turnover Restaurant	1,000 sf	71%	71%	0.0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	58%	58%	0.0%	No change
941	Quick Lube	service bay	72%	72%	0.0%	No change
942	Automobile Care Center	1,000 sf	72%	72%	0.0%	No change
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	23%	23%	0.0%	No change
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	23%	23%	0.0%	No change
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	23%	23%	0.0%	No change
947	Self-Service Car Wash	service bay	68%	68%	0.0%	No change
948	Automated Car Wash	1,000 sf	68%	68%	0.0%	No change
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	92%	92%	0.0%	No change
130	Industrial Park	1,000 sf	92%	92%	0.0%	No change
140	Manufacturing	1,000 sf	92%	92%	0.0%	No change
150	Warehousing	1,000 sf	92%	92%	0.0%	No change
151	Mini-Warehouse	1,000 sf	92%	92%	0.0%	No change
154	High-Cube Transload & Short-Term Storage Warehouse	1,000 sf	92%	92%	0.0%	No change

- See Appendix D for additional information

Appendix B
Cost Component

Appendix B: Cost Component

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

- Design
- Right-of-Way
- Construction
- CEI
- Roadway Capacity

Urban Design vs. Rural Design

To determine the weighted average cost per lane mile for rural (open drainage) designed roadways, an adjustment factor was applied to the urban (curb & gutter) cost estimate. This factor was based on the rural-to-urban design cost ratio from the most recent District 7 Long Range Estimates (LRE)³ provided by FDOT. Based on the LRE, the cost for rural-design roadway capacity expansion (new road construction or lane addition) is approximately 74 percent of the cost of urban-design roadway improvements.

Table B-1
Urban/Rural Design Cost Factor

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

Source: FDOT District 7 Long Range Estimates, 2019

³ This data was not available for FDOT District 5

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 based on a review of design-to-construction cost ratios from previously completed road/transportation impact fee studies throughout Florida. As shown in Table B-2, recent design factors ranged from 8 to 14 percent with a weighted average of 11 percent. For purposes of this study, the design cost for county roads was calculated at 11 percent of the construction cost per lane mile.

State Roadways

Similarly, the design cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of design-to-construction cost ratios from previously completed road/transportation impact fee studies throughout Florida. As shown in Table B-2, recent design factors ranged from 10 to 11 percent with a weighted average of 11 percent. For purposes of this study, the design cost for state roads was calculated at 11 percent of the construction cost per lane mile.

**Table B-2
Design Cost Factor for County and State Roads – Recent Impact Fee Studies**

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		Design	Construction	Design-to Construction Ratio	Design	Construction	Design-to Construction Ratio
2012	Osceola	\$371,196	\$2,651,400	14%	\$313,258	\$2,847,800	11%
2012	Orange	\$264,000	\$2,400,000	11%	-	-	n/a
2013	Hernando	\$198,000	\$1,980,000	10%	\$222,640	\$2,024,000	11%
2013	Charlotte	\$220,000	\$2,200,000	10%	\$240,000	\$2,400,000	10%
2014	Indian River	\$159,000	\$1,598,000	10%	\$196,000	\$1,776,000	11%
2015	Collier	\$270,000	\$2,700,000	10%	\$270,000	\$2,700,000	10%
2015	Brevard	\$242,000	\$2,023,000	12%	\$316,000	\$2,875,000	11%
2015	Sumter	\$210,000	\$2,100,000	10%	\$276,000	\$2,505,000	11%
2015	Marion	\$167,000	\$1,668,000	10%	\$227,000	\$2,060,000	11%
2015	Palm Beach	\$224,000	\$1,759,000	13%	\$333,000	\$3,029,000	11%
2016	Hillsborough	\$348,000	\$2,897,000	12%	\$319,000	\$2,897,000	11%
2017	St. Lucie	\$220,000	\$2,200,000	10%	\$341,000	\$3,100,000	11%
2017	Clay	\$239,000	\$2,385,000	10%	-	-	n/a
2018	Orange	\$203,000	\$2,542,000	8%	-	-	n/a
2018	Collier	\$385,000	\$3,500,000	11%	\$385,000	\$3,500,000	11%
	Average	\$248,013	\$2,306,893	11%	\$286,575	\$2,642,817	11%

Source: Recent impact fee studies conducted throughout Florida

Right-of-Way

The ROW cost reflects the total cost of the acquisitions along a corridor that are 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

Given the limited data for ROW costs on county roads in Sumter County, the ROW-to-construction ratio was based on several recently completed road/transportation impact fee studies throughout Florida. As shown in Table B-3, ratios for county roads ranged from 32 to 60 with an average of 42 percent. For purposes of this update study, the ROW cost was estimated at 42 percent of the construction cost per lane mile for county roadways.

State Roadways

Similar to county roads, the ROW-to-construction ratio for state roads was based on several recently completed road/transportation impact fee studies throughout Florida. As shown in Table B-3, ratios for state roads ranged from 32 to 60 percent with an average of 43 percent. For purposes of this update study, the ROW cost was estimated at 43 percent of the construction cost per lane mile for state roadways.

Table B-3
Right-of-Way Cost Factor for County and State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		ROW	Construction	ROW-to-Construction Ratio	ROW	Construction	ROW-to-Construction Ratio
2012	Osceola	\$1,087,074	\$2,651,400	41%	\$1,167,598	\$2,847,800	41%
2012	Orange	\$1,080,000	\$2,400,000	45%	-	-	n/a
2013	Hernando	\$811,800	\$1,980,000	41%	\$890,560	\$2,024,000	44%
2013	Charlotte	\$1,034,000	\$2,200,000	47%	\$1,128,000	\$2,400,000	47%
2014	Indian River	\$656,000	\$1,598,000	41%	\$781,000	\$1,776,000	44%
2015	Collier	\$863,000	\$2,700,000	32%	\$863,000	\$2,700,000	32%
2015	Brevard	\$708,000	\$2,023,000	35%	\$1,006,000	\$2,785,000	36%
2015	Sumter	\$945,000	\$2,100,000	45%	\$1,127,000	\$2,505,000	45%
2015	Marion	\$1,001,000	\$1,668,000	60%	\$1,236,000	\$2,060,000	60%
2015	Palm Beach	\$721,000	\$1,759,000	41%	\$1,333,000	\$3,029,000	44%
2016	Hillsborough	\$1,448,000	\$2,897,000	50%	\$1,448,000	\$2,897,000	50%
2017	St. Lucie	\$990,000	\$2,200,000	45%	\$1,395,000	\$3,100,000	45%
2017	Clay	\$954,000	\$2,385,000	40%	-	-	n/a
2018	Orange	\$1,017,000	\$2,542,000	40%	-	-	n/a
2018	Collier	\$1,208,000	\$3,500,000	35%	\$1,208,000	\$3,500,000	35%
	Average	\$968,258	\$2,306,893	42%	\$1,131,930	\$2,635,317	43%

Source: Recent impact fee studies conducted throughout Florida

Construction

County Roadways

The construction cost for county roads (curb & gutter, urban section design) was based on local projects and the cost of recent projects in other communities in Florida. A review of local construction cost data from recent years identified one 2013 improvement with a construction cost of approximately \$1.95 million per lane mile:

- C-466A, Phase III from US 301 N to Powell Rd

In addition to this local improvement, recent bids/completed projects from other communities throughout Florida were reviewed to increase the sample size of data. This review included approximately 173 lane miles of improvements across 12 different counties, averaging \$2.91 million per lane mile.

As shown in Table B-4 and Figure B-1, the average cost per lane mile has been steadily increasing in the past few years, far exceeding the average over the entire time period (\$2.9 million). Figure B-1 illustrates the range of construction costs per year as well as providing the annual average of the entire sample.

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

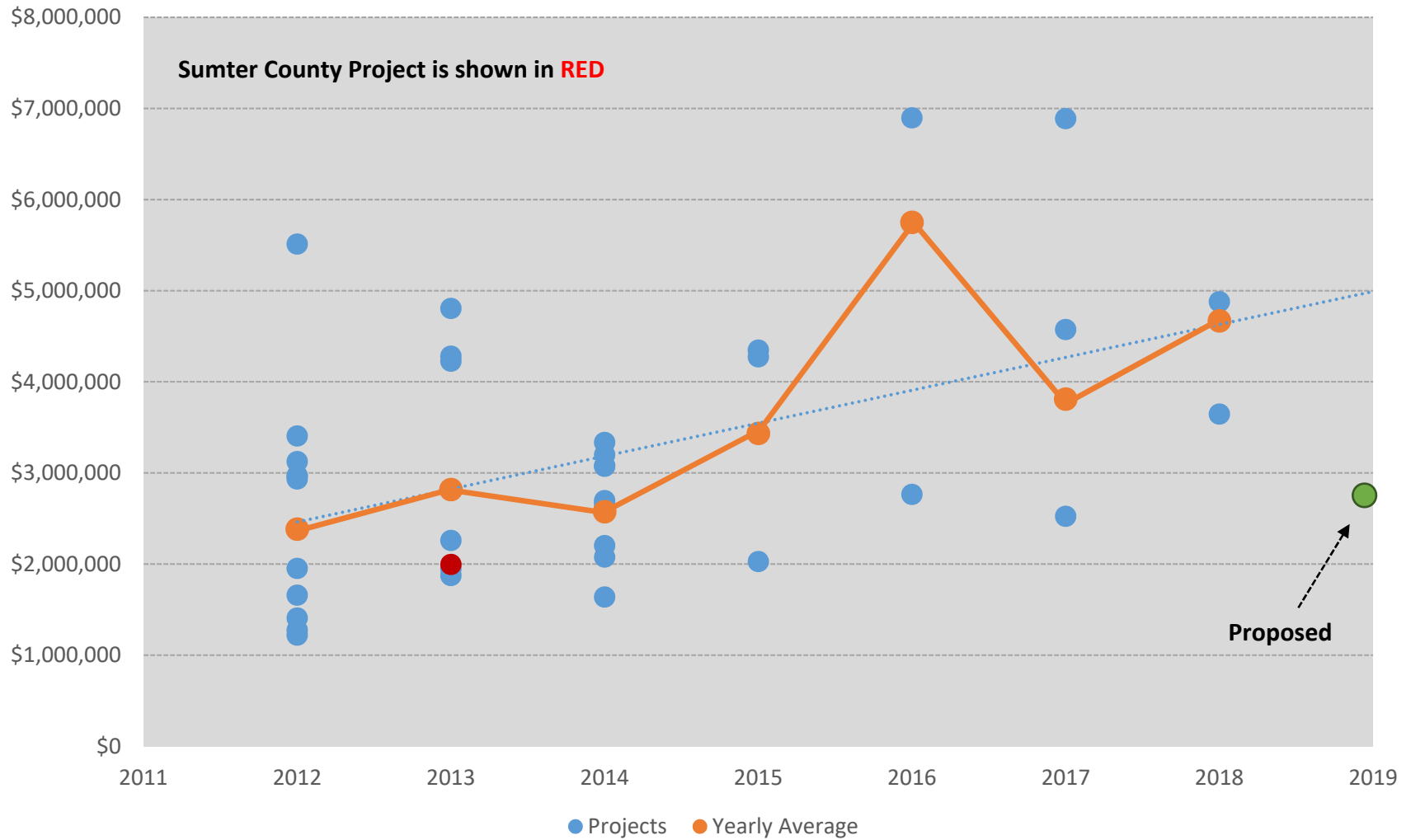
Based on a review of the local projects, statewide projects, and the various trends, a construction of **\$2.9 million per lane mile** for county roads (curb & gutter) was utilized for the road impact fee calculation.

Table B-4
Construction Cost – County Road Improvements from Other Jurisdictions throughout Florida

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile	
Indian River	4	Oslo Rd Ph. III	43rd Ave	58th Ave	2012	Bid	2 to 4	Urban	1.15	2	2.30	\$3,812,202	\$1,657,479	
Indian River	4	66th Ave	SR 60	49th St	2012	Bid	2 to 4	Urban	3.05	2	6.10	\$20,773,389	\$3,405,474	
Polk	1	Kathleen Rd (CR 35A) Ph. II	Galloway Rd	Duff Rd	2012	Bid	2 to 4	Urban	3.00	2	6.00	\$17,813,685	\$2,968,948	
Polk	1	Bartow Northern Connector Ph. I	US 98	US 17	2012	Bid	0 to 4	Urban	2.00	4	8.00	\$11,255,736	\$1,406,967	
Volusia	5	Tymber Creek Rd	S. of SR 40	N. of Peruvian Ln	2012	Bid	2 to 4	Urban	0.89	2	1.78	\$5,276,057	\$2,964,077	
Palm Beach	4	Jog Rd	N. of SR 710	N. of Florida's Turnpike	2012	Bid	0 to 4	Urban	0.70	4	2.80	\$3,413,874	\$1,219,241	
Palm Beach	4	West Atlantic Ave	W. of Lyons Rd	Starkey Rd	2012	Bid	2 to 4	Urban	0.80	2	1.60	\$8,818,727	\$5,511,704	
Palm Beach	4	60th St N & SR 7 Ext.	E. of Royal Palm Beach Blvd	SR 7	2012	Bid	0 to 2	Urban	1.50	2	3.00	\$3,821,404	\$1,273,801	
Orange	5	Clarcona-Ocoee Rd	Ocoee-Apopka Rd	Hiawassee Rd	2012	Bid	2 to 4	Urban	5.08	2	10.16	\$19,831,058	\$1,951,876	
Orange	5	John Young Pkwy	SR 528	FL Turnpike	2012	Bid	4 to 6	Urban	2.34	2	4.68	\$13,722,494	\$2,932,157	
Orange	5	Econlockhatchee Tr	SR 408		2012	Bid	2 to 4	Urban	1.38	2	2.76	\$8,621,445	\$3,123,712	
Brevard	5	Babcock St	S. of Foundation Park Blvd	Malabar Rd	2013	Bid	2 to 4	Urban	12.40	2	24.80	\$56,000,000	\$2,258,065	
Collier	1	Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2013	Bid	4 to 6	Urban	2.00	2	4.00	\$17,122,640	\$4,280,660	
Marion	5	SW 110th St	US 41	SW 200th Ave	2013	Bid	0 to 2	Urban	0.11	2	0.22	\$438,765	\$1,994,386	
Marion	5	NW 35th St	NW 35th Avenue Rd	NW 27th Ave	2013	Bid	0 to 4	Urban	0.50	4	4.60	\$8,616,236	\$1,873,095	
Marion	5	NW 35th St	NW 27th Ave	US 441	2013	Bid	2 to 4	Urban	1.30	2				
Sumter	5	C-466A, Ph. III	US 301 N	Powell Rd	2013	Bid	2 to 3/4	Urban	1.10	2*	2.20	\$4,283,842	\$1,947,201	
Orange	5	Rouse Rd	Lake Underhill	Corporate Blvd	2013	Bid	2 to 4	Urban	4.15	2	8.30	\$35,075,000	\$4,225,904	
Orange	5	Lake Underhill	Goldenrod Rd	Chickasaw Tr	2013	Bid	2 to 4	Urban	0.69	2	1.38	\$6,629,620	\$4,804,072	
Collier	1	Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	Bid	2 to 4	Urban	2.40	2	4.80	\$16,003,504	\$3,334,063	
Brevard	5	St. Johns Heritage Pkwy	SE of I-95 Intersection	US 192 (Space Coast Pkwy)	2014	Bid	0 to 2	Sub-Urb	3.11	2	6.22	\$16,763,567	\$2,695,107	
Hillsborough	7	Turkey Creek Rd	Dr. MLK Blvd	Sydney Rd	2014	Bid	2 to 4	Urban	1.40	2	2.80	\$6,166,000	\$2,202,143	
Sarasota	1	Bee Ridge Rd	Mauna Loa Blvd	Iona Rd	2014	Bid	2 to 4	Urban	2.68	2	5.36	\$14,066,523	\$2,624,351	
St. Lucie	4	W Midway Rd (CR 712)	Selvitz Rd	South 25th St	2014	Bid	2 to 4	Urban	1.00	2	2.00	\$6,144,000	\$3,072,000	
Orange	5	CR 535 Seg. F	Overstreet Rd	Fossick Rd	2014	Bid	2 to 4	Urban	0.60	2	1.20	\$3,836,448	\$3,197,040	
Orange	5	Wetherbee Rd	Balcombe Rd	Orange Ave	2014	Bid	2 to 4	Urban	1.50	2	3.00	\$9,234,873	\$3,078,291	
Lake	5	N Hancock Rd Ext.	Old 50	Gateway Dr	2014	Bid	0/2 to 4	Urban	1.50	2/4	5.00	\$8,185,574	\$1,637,115	
Polk	1	CR 655 & CR 559A	Pace Rd & N of CR 559A	N of CR 559A & SR 599	2014	Bid	2 to 4	Urban	2.60	2	5.20	\$10,793,552	\$2,075,683	
Volusia	5	Howland Blvd	Courtland Blvd	N of SR 415	2014	Bid	2 to 4	Urban	2.08	2	4.16	\$11,110,480	\$2,670,788	
Orange	5	International Dr	N Westwood Blvd	S Westwood Blvd	2015	Bid	4 to 6	Urban	2.20	2	4.40	\$18,802,148	\$4,273,215	
Hillsborough	7	Citrus Park Extension	Sheldon Dr	Countryway Blvd	2015	Bid	0 to 4	Urban	2.70	4	10.80	\$46,942,585	\$4,346,536	
Polk	1	Ernie Caldwell Blvd	Pine Tree Tr	US 17/92	2015	Bid	0 to 4	Urban	2.41	4	9.64	\$19,535,391	\$2,026,493	
Volusia	5	LPGA Blvd	Jimmy Ann Dr/Grand Reserve	Derbyshire Rd	2016	Bid	2 to 4	Urban	0.68	2	1.36	\$3,758,279	\$2,763,440	
St. Lucie	4	W Midway Rd (CR 712)	W. of South 25th St	E. of SR 5 (US 1)	2016	Bid	2 to 4	Urban	1.77	2	3.54	\$24,415,701	\$6,897,091	
Volusia	5	Howland Blvd	Providence Blvd	Elkcam Blvd	2017	Bid	2 to 4	Urban	2.15	2	4.30	\$10,850,000	\$2,523,256	
Volusia	5	Orange Camp Rd	MLK Blvd	I-4 in DeLand	2017	Bid	2 to 4	Urban	0.75	2	1.50	\$10,332,000	\$6,888,000	
Orange	5	Reams Rd	Delmar Ave	Taborfield Ave	2017	Bid	2 to 4	Urban	0.60	2	1.20	\$5,487,872	\$4,573,227	
Lake	5	CR 466A, Ph. IIIA	Poinsettia Ave	Century Ave	2018	Bid	2 to 4	Urban	0.42	2	0.84	\$3,062,456	\$3,645,781	
Hillsborough	7	Van Dyke Rd	Suncoast Pkwy	Whirley Ave	2018	Estimate	2 to 4	Urban	2.05	2	4.10	\$20,000,000	\$4,878,049	
Total										Count:	39	176.10	\$510,817,127	\$2,900,722
Sumter County ONLY										Count:	1	2.20	\$4,283,842	\$1,947,201
Total, excluding Sumter County										Count:	38	173.90	\$506,533,285	\$2,912,785
District 5 ONLY										Count:	22	94.06	\$259,918,214	\$2,763,324
District 5, excluding Sumter County										Count:	21	91.86	\$255,634,372	\$2,782,869

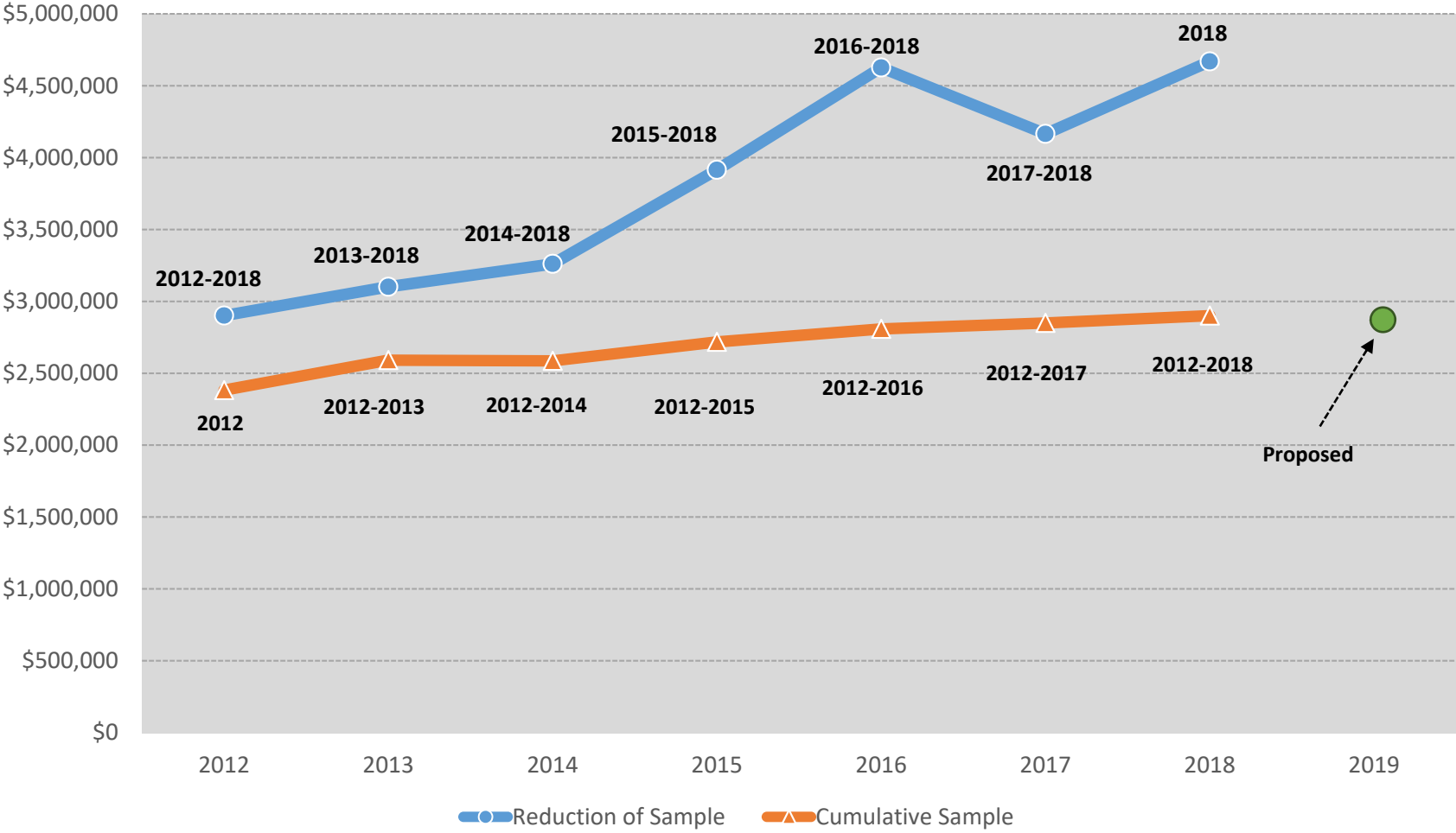
Source: Data obtained from each respective county (Building and Public Works Departments)

Figure B-1
Construction Costs – County Roads



Source: Table B-4

Figure B-2
Construction Cost Trend – County Roads



Source: Table B-4

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

State Roadways

With no local improvements in recent years, a review of improvements from other communities was conducted. This review included over 439 lane miles of improvements across 34 different counties, averaging \$3.8 million per lane mile.

As shown in Table B-5 and Figure B-3, the average cost per lane mile has seen a slight increase since 2012 and shows a wide range of costs, reaching over \$12 million per lane mile for an improvement in 2014. Figure B-3 illustrates the range of construction costs per year as well as providing the annual average of the entire sample.

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

Based on a review of the local projects, statewide projects, and the various trends, a construction of **\$3.8 million per lane mile** for state roads (curb & gutter) was utilized for the road impact fee calculation. This figure provides a reasonable, if not conservative, estimate when compared to project costs from the last few years and from District 5 only (\$4.3 million per lane mile).

**Table B-5
Construction Cost – State Road Improvements throughout Florida**

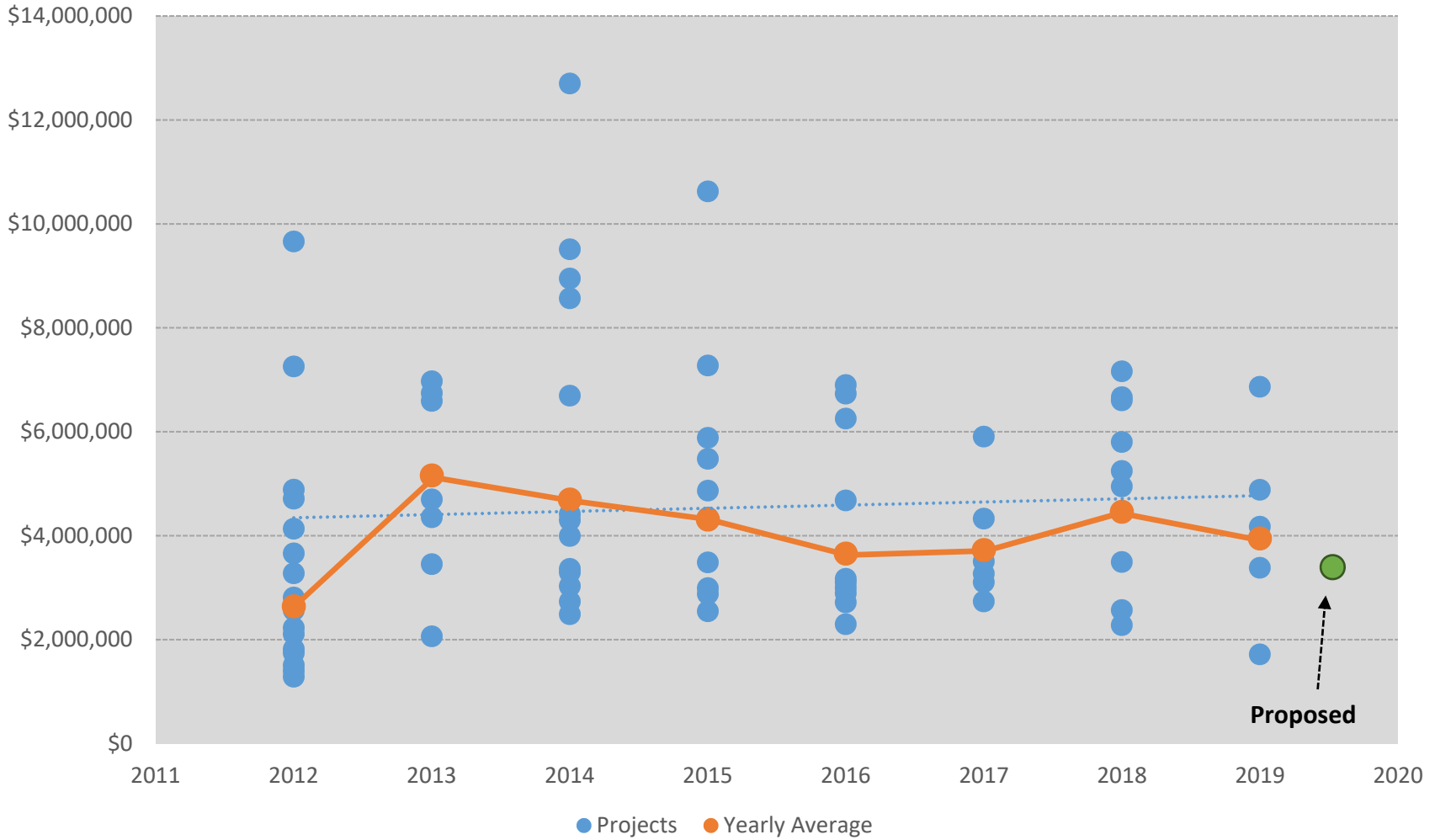
County	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Collier	1	SR 84 (Davis Blvd)	E. of Santa Barbara Blvd	W. of Radio Rd	2012	2 to 6	Urban	1.77	4	7.08	\$10,663,287	\$1,506,114
Volusia	5	SR 415	Seminole Co. Line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

Table B-5 (continued)
Construction Cost – State Road Improvements throughout Florida

County	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Seminole	5	SR 46	Mellonville Ave	E. of SR 415	2016	2 to 4	Urban	2.83	2	5.66	\$26,475,089	\$4,677,578
Miami-Dade	6	SR 977/Krome Ave/SW 177th Ave	S of SW 136th St	S. of SR 94 (SW 88th St/Kendall Dr)	2016	0 to 4	Urban	3.50	4	14.00	\$32,129,013	\$2,294,930
Broward	4	SW 30th Ave	Griffin Rd	SW 45th St	2016	2 to 4	Urban	0.24	2	0.48	\$1,303,999	\$2,716,665
St. Lucie	4	CR 712 (Midway Rd)	W. of S. 25th St	E. of SR 5 (US 1)	2016	2 to 4	Urban	1.77	2	3.54	\$24,415,701	\$6,897,091
Hillsborough	7	SR 43 (US 301)	SR 674	S. of CR 672 (Balm Rd)	2016	2 to 6	Urban	3.77	4	15.08	\$43,591,333	\$2,890,672
Citrus	7	SR 55 (US 19)	W. Green Acres St	W. Jump Ct	2016	4 to 6	Urban	2.07	2	4.14	\$27,868,889	\$6,731,616
Walton	3	SR 30 (US 98)	Emerald Bay Dr	Tang-o-mar Dr	2016	4 to 6	Urban	3.37	2	6.74	\$42,140,000	\$6,252,226
Duval	2	SR 201	S. of Baldwin	N. of Baldwin (Bypass)	2016	0 to 4	Urban	4.11	4	16.44	\$50,974,795	\$3,100,657
Hardee	1	SR 35 (US 17)	S. of W. 9th St	N. of W. 3rd St	2016	0 to 4	Urban	1.11	4	4.44	\$14,067,161	\$3,168,280
Miami-Dade	6	NW 87th Ave/SR 25 & SR 932	NW 74th St	NW 103rd St	2016	0 to 4	Urban	1.93	4	7.72	\$28,078,366	\$3,637,094
Alachua	2	SR 20 (SE Hawthorne Rd)	E. of US 301	E. of Putnam Co. Line	2017	2 to 4	Urban	1.70	2	3.40	\$11,112,564	\$3,268,401
Okaloosa	3	SR 30 (US 98)	CR 30F (Airport Rd)	E. of Walton Co. Line	2017	4 to 6	Urban	3.85	2	7.70	\$33,319,378	\$4,327,192
Bay	3	SR 390 (St. Andrews Blvd)	E. of CR 2312 (Baldwin Rd)	Jenks Ave	2017	2 to 6	Urban	1.33	4	5.32	\$14,541,719	\$2,733,406
Pasco	7	SR 54	E. of CR 577 (Curley Rd)	E. of CR 579 (Morris Bridge Rd)	2017	2 to 4/6	Urban	4.50	2/4	11.80	\$41,349,267	\$3,504,175
Lake	5	SR 46 (US 441)	W. of SR 500	E. of Round Lake Rd	2017	2 to 6	Urban	2.23	4	8.92	\$27,677,972	\$3,102,912
Orange	5	SR 423 (John Young Pkwy)	SR 50 (Colonial Dr)	Shader Rd	2017	4 to 6	Urban	2.35	2	4.70	\$27,752,000	\$5,904,681
Palm Beach	4	SR 80	W. of Lion County Safari Rd	Forest Hill Blvd	2018	4 to 6	Urban	7.20	2	14.40	\$32,799,566	\$2,277,748
Wakulla	3	SR 369 (US 19)	N. of SR 267	Leon Co. Line	2018	2 to 4	Urban	2.24	2	4.48	\$15,646,589	\$3,492,542
St. Lucie	4	SR 713 (Kings Hwy)	S. of SR 70	SR 9 (I-95) Overpass	2018	2 to 4	Urban	3.42	2	6.84	\$45,162,221	\$6,602,664
Citrus	7	SR 55 (US 19)	W. Jump Ct	CR 44 (W Fort Island Tr)	2018	4 to 6	Urban	4.81	2	9.62	\$50,444,444	\$5,243,705
Miami-Dade	6	SR 847 (NW 47th Ave)	SR 860 (NW 183rd St)	N. of NW 199th St	2018	2 to 4	Urban	1.31	2	2.62	\$18,768,744	\$7,163,643
Miami-Dade	6	SR 847 (NW 47th Ave)	N. of NW 199th St and S of NW 203 St	Premier Pkwy and N of S Snake CR Canal	2018	2 to 4	Urban	1.09	2	2.18	\$10,785,063	\$4,947,277
Hillsborough	7	CR 580 (Sam Allen Rd)	W. of SR 39 (Paul Buchman Hwy)	E. of Park Rd	2018	2 to 4	Urban	2.02	2	4.04	\$23,444,444	\$5,803,080
Orange	5	SR 414 (Maitland Blvd)	E. of I-4	E. of CR 427 (Maitland Ave)	2018	4 to 6	Urban	1.39	2	2.78	\$7,136,709	\$2,567,162
Sarasota	1	SR 45A (US 41) (Venice Bypass)	Center Rd	Gulf Coast Blvd	2018	4 to 6	Urban	1.19	2	2.38	\$15,860,000	\$6,663,866
Hernando	7	CR 578 (County Line Rd)	Suncoast Pkwy	US 41 @ Ayers Rd	2019	0 to 4	Urban	1.49	4	5.96	\$20,155,312	\$3,381,764
Seminole	5	SR 46	Orange Blvd	N. Oregon St (Wekiva Section 7B)	2019	4 to 6	Urban	1.30	2	2.60	\$17,848,966	\$6,864,987
Miami-Dade	6	SR 997 (Krome Ave)	SW 312 St	SW 232nd St	2019	2 to 4	Urban	3.64	2	7.28	\$30,374,141	\$4,172,272
Duval	2	Jax National Cemetery Access Rd	Lannie Rd	Arnold Rd	2019	0 to 2	Urban	3.26	2	6.52	\$11,188,337	\$1,716,003
Pasco	7	SR 52	W. of Suncoast Pkwy	E. of SR 45 (US 41)	2019	4 to 6	Urban	4.64	2	9.28	\$45,307,439	\$4,882,267
Total								Count:	77	439.79	\$1,688,830,941	\$3,840,085
District 5 ONLY								Count:	19	111.17	\$474,606,810	\$4,269,199
Total, Excluding District 5								Count:	58	328.62	\$1,214,224,131	\$3,694,919

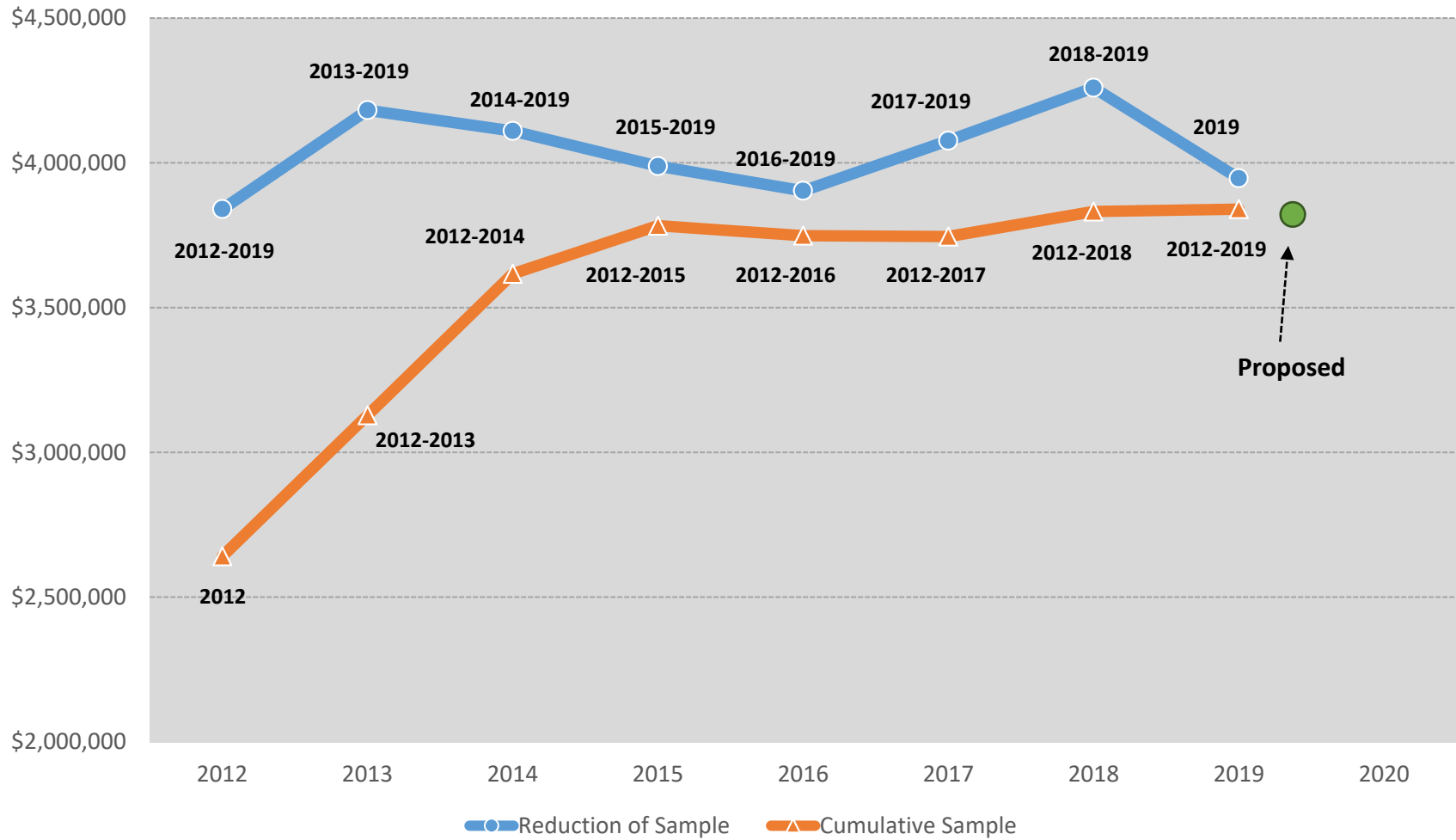
Source: Florida Department of Transportation Contracts Administration Department, Bid Tabulations

Figure B-3
Construction Costs – State Roads



Source: Table B-5

**Figure B-4
Construction Cost Trend – State Roads**



Source: Table B-5

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

Construction Engineering/Inspection

County Roadways

The CEI cost factor for county roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of CEI-to-construction cost ratios from previously completed road/transportation impact fee studies throughout Florida. As shown in Table B-6, recent CEI factors ranged from 3 percent to 17 percent with a weighted average of 9 percent. For purposes of this study, the CEI cost for county roads was calculated at 9 percent of the construction cost per lane mile.

State Roadways

The CEI cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of CEI-to-construction cost ratios from previously completed road/transportation impact fee studies throughout Florida. As shown in Table B-6, recent CEI factors ranged from 10 percent to 11 percent with a weighted average of 11 percent. For purposes of this study, the CEI cost for state roads was calculated at 11 percent of the construction cost per lane mile.

Table B-6
CEI Cost Factor for County and State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		CEI	Construction	CEI-to-Construction Ratio	CEI	Construction	CEI-to-Construction Ratio
2012	Osceola	\$265,140	\$2,651,400	10%	\$313,258	\$2,847,800	11%
2013	Hernando	\$178,200	\$1,980,000	9%	\$222,640	\$2,024,000	11%
2013	Charlotte	\$220,000	\$2,200,000	10%	\$240,000	\$2,400,000	10%
2014	Indian River	\$143,000	\$1,598,000	9%	\$196,000	\$1,776,000	11%
2015	Collier	\$270,000	\$2,700,000	10%	\$270,000	\$2,700,000	10%
2015	Brevard	\$344,000	\$2,023,000	17%	\$316,000	\$2,875,000	11%
2015	Sumter	\$147,000	\$2,100,000	7%	\$250,000	\$2,505,000	10%
2015	Marion	\$50,000	\$1,668,000	3%	\$227,000	\$2,060,000	11%
2015	Palm Beach	\$108,000	\$1,759,000	6%	\$333,000	\$3,029,000	11%
2016	Hillsborough	\$261,000	\$2,897,000	9%	\$319,000	\$2,897,000	11%
2017	St. Lucie	\$198,000	\$2,200,000	9%	\$341,000	\$3,100,000	11%
2017	Clay	\$191,000	\$2,385,000	8%	-	-	n/a
2018	Collier	\$315,000	\$3,500,000	9%	\$385,000	\$3,500,000	11%
Average		\$206,949	\$2,281,646	9%	\$3,412,898	\$31,713,800	11%

Source: Recent impact fee studies conducted throughout Florida

Roadway Capacity

As shown in Table B-7, the average capacity per lane miles was based on the projects in the Lake-Sumter MPO's 2040 Long Range Transportation Plan and upcoming improvements in the Sumter County Capital Improvement Plan. The listing of projects reflects the mix of improvements that will yield the vehicle-miles of capacity (VMC) that will be built in Sumter County. The resulting weighted average capacity per lane mile of approximately 11,600 was used in the road impact fee calculation.

Table B-7

Sumter County Planned Improvements – Long Range Transportation Plan and Capital Improvement Plan

On	From	To	Improvement	Lanes Added	Length	Lane Miles	Section Design*	Initial Capacity	Future Capacity	Capacity Added	VMC Added
State Roads											
US 301/SR 35	SR 44	C-470 W	Widen 2 to 4 Lanes	2	7.75	15.50	Open Drainage	17,700	39,800	22,100	171,275
C-470	Tpk West Ramps	CR 527	Widen 2 to 4 Lanes	2	9.85	19.70	Curb & Gutter	17,700	39,800	22,100	217,685
Non-State Roads											
C-468/Warm Springs Ave	US 301	CR 505	Widen 2 to 4 Lanes	2	3.10	6.20	Curb & Gutter	12,780	27,360	14,580	45,198
C-501	C-468	C-470	Widen 2 to 4 Lanes	2	3.18	6.36	Curb & Gutter	13,320	29,160	15,840	50,371
CR 525E	US 301	CR 525	Widen 2 to 4 Lanes	2	0.40	0.80	Open Drainage	15,930	35,820	19,890	7,956
Buena Vista Blvd	SR 44	Meggison Rd	Widen 2 to 4 Lanes	2	0.84	1.68	Curb & Gutter	15,930	35,820	19,890	16,708
Corbin Tr	Fenney Way	Corbin Tr Ph. 5	New 2 Lane Facility	2	1.32	2.64	Curb & Gutter	0	24,200	24,200	31,944
Fenney Way	Corbin Tr	Marsh Bend Tr	New 2 Lane Facility	2	0.58	1.16	Curb & Gutter	0	24,200	24,200	14,036
Marsh Bend Tr	Warm Springs Ave	Marsh Bend Tr Ph. 5	New 2 Lane Facility	2	3.43	6.86	Curb & Gutter	0	24,200	24,200	83,006
Meggison Rd	SR 44	Warm Springs Ave	New 4 Lane Facility	4	3.52	14.08	Curb & Gutter	0	65,600	65,600	230,912
Total (All Roads)						74.98					869,091
Urban Design (County ONLY):						38.98	98%				
Rural Design (County ONLY):						0.80	2%				
Urban Design (State ONLY):						19.70	56%				
Rural Design (State ONLY):						15.50	44%				
										VMC Added per Lane Mile:	11,600

Sources: Lake-Sumter MPO Long Range Transportation Plan and the Sumter County Capital Improvement Plan

Appendix C
Credit Component

Appendix C: Credit Component

This appendix presents the detailed calculations for the credit component. County fuel taxes that are collected in Sumter 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 applies to every net gallon of motor and diesel fuel sold within a county.
- Proceeds may be used to fund transportation expenditures.
- To accommodate statewide equalization, this tax is automatically levied on diesel fuel in every county, regardless of whether a County is levying the tax on motor fuel at all.
- Counties are not required to share the proceeds of this tax with their municipalities.

4. 1st Local Option Tax (up to 6¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county.

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

Each year, the Florida Legislature’s Office of Economic and Demographic Research (EDR) produces the *Local Government Financial Information Handbook*, which details the estimated local government revenues for the upcoming fiscal year. Included in this document are the estimated distributions of the various fuel tax revenues for each county in the state. The 2018-19 data represent projected fuel tax distributions to Sumter County for the current fiscal year. Table C-1 shows the distribution per penny for each of the fuel levies, and then the calculation of the weighted average for the value of a penny of fuel tax. The weighting procedure takes into account the differing amount of revenues generated for the various types of fuel taxes. It is estimated that approximately \$0.92 million of annual revenue will be generated for the County from one penny of fuel tax in Sumter County.

Table C-1
Estimated Fuel Tax Distribution Allocated to Capital Programs for
Sumter County & Municipalities, FY 2018-19⁽¹⁾

Tax	Amount of Levy per Gallon	Total Distribution ⁽¹⁾	Distribution per Penny
Constitutional Fuel Tax	\$0.02	\$1,833,296	\$916,648
County Fuel Tax	\$0.01	\$809,651	\$809,651
9th Cent Fuel Tax	\$0.01	\$980,811	\$980,811
1st Local Option (1-6 cents)	\$0.06	\$5,609,362	\$934,894
Total	\$0.10	\$9,233,120	
Weighted Average per Penny⁽²⁾			\$923,312

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

2) The weighted average distribution per penny is calculated by taking the sum of the total distribution and dividing that value by the sum of the total levies per gallon (multiplied by 100).

Capital Improvement Credit

For the calculated impact fee, the capital improvement credit includes capacity-expansion expenditures for roadway improvements in Sumter County.

County Capital Project Funding

A review of the County's FY 2014-2019 historical funding and the FY 2020-2024 Capital Improvement Plan indicates that fuel tax revenues and impact fee revenues are the primary funding sources for transportation capacity expansion improvements. The increase in average annual funding for roadway capacity expansion projects within the CIP timeframe is primarily a result of the 2018 Regionally Significant Road Construction Agreement between the County and The Villages® Companies. As shown in Table C-2, Sumter County allocates funding equivalent of approximately 13.3 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 C-2
County Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Sumter County Historical (FY 2014-2019) ⁽¹⁾	\$43,602,937	6	\$923,312	\$0.079
Sumter County CIP (FY 2020-2024) ⁽²⁾	<u>\$91,678,693</u>	<u>5</u>	\$923,312	\$0.199
Total	\$135,281,630	11	\$923,312	\$0.133

1) Source: Table C-4

2) Source: Table C-5

3) Source: Table C-1

4) Cost of projects divided by number of years divided by revenue from 1 penny (Item 3) divided by 100

State Capital Project Funding

In the calculation of the equivalent pennies of fuel tax from the State, expenditures on transportation capacity-expansion spanning a 15-year period (from FY 2009 to FY 2023) were reviewed. From these, a list of improvements was developed, including lane additions, new road construction, intersection improvements, interchanges, and traffic signal projects, etc. The use of a 15-year period, for purposes of developing a State credit for road capacity expansion projects, results in a stable credit, as it accounts for the volatility in FDOT spending in the county over short periods of time.

The total cost of the transportation capacity-expansion projects for the “historical” periods and the “future” period:

- FY 2009-2013 work plan equates to 6.5 pennies
- FY 2014-2018 work plan equates to 6.1 pennies
- FY 2019-2023 work plan equates to 4.2 pennies

The combined weighted average over the 15-year period of state expenditure for capacity-expansion roadway projects results in a total of 5.6 equivalent pennies. Table C-3 documents this calculation and the specific projects that were used in the equivalent penny calculations are summarized in Table C-6.

Table C-3
State Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Historical Work Program (FY 2009-2013) ⁽¹⁾	\$29,994,236	5	\$923,312	\$0.065
Historical Work Program (FY 2014-2018) ⁽²⁾	\$28,362,443	5	\$923,312	\$0.061
Projected Work Program (FY 2019-2023) ⁽³⁾	<u>\$19,560,535</u>	<u>5</u>	\$923,312	\$0.042
Total	\$77,917,214	15	\$923,312	\$0.056

1) Source: Table C-6

2) Source: Table C-6

3) Source: Table C-6

4) Source: Table C-1

5) Cost of projects divided by number of years divided by revenue from 1 penny (Item 3) divided by 100

Tables C-4 through C-8 provide additional detail for the summaries included previously in the report and in Appendix C, Tables C-1 through C-5.

Table C-4
Sumter County – Historical Transportation Expenditures

Account	Project	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019 Adj. Budget	Total
001-131-538-6304	SE 25th St Roadway Ext	\$0	\$0	\$0	\$0	\$0	\$325,000	\$325,000
106-340-541-6101	Purchase Right of Ways	\$0	\$0	\$46,932	\$3,310	\$26,098	\$100,000	\$176,339
106-340-541-6127	C468 from CR 505 to US 301	\$0	\$0	\$793,724	\$229,230	\$8,650	\$0	\$1,031,604
106-340-541-6313	CR 673 from US 301 to I-75	\$0	\$0	\$0	\$269,784	\$103,850	\$2,487,338	\$2,860,972
106-340-541-6314	Intersection Impr at C466 & Buena Vista	\$0	\$0	\$0	\$0	\$63,205	\$600,000	\$663,205
106-340-541-6318	CR 527S Improvements	\$0	\$0	\$0	\$0	\$23,750	\$268,580	\$292,330
106-340-541-6331	Traffic Management System	\$1,888	\$15,652	\$94,557	\$105,443	\$0	\$200,000	\$417,540
106-340-541-6333	Buena Vista Blvd Extension	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
106-340-541-6334	CR 747 Widening	\$0	\$0	\$338,656	\$0	\$0	\$0	\$338,656
106-340-541-6343	CR 501 Phase II Design	\$0	\$0	\$0	\$0	\$0	\$2,531,600	\$2,531,600
106-340-541-6347	Buena Vista Blvd Extension So of SR 44	\$0	\$0	\$0	\$0	\$58,628	\$560,514	\$619,142
106-340-541-6348	CR 245E, 245A & 246 Intersections	\$0	\$0	\$0	\$0	\$9,333	\$40,316	\$49,649
106-340-541-6518	C475 from C470 to CR 542	\$0	\$0	\$208,138	\$274,995	\$1,302,536	\$2,447,062	\$4,232,731
106-340-541-6523	C466 from US 301 to CR 209	\$0	\$0	\$505,671	\$3,977,705	\$0	\$0	\$4,483,376
106-340-541-6527	C468 from CR 505 to US 301	\$0	\$0	\$811,434	\$979,200	\$1,304,027	\$0	\$3,094,661
106-340-541-6536	C468 Tpke W to CR 505	\$0	\$2,937,368	\$1,062,632	\$0	\$0	\$0	\$4,000,000
106-340-541-6544	Wade Industrial Park Ph1 Road/Water	\$0	\$0	\$206,409	\$141,071	\$2,129,299	\$128,551	\$2,605,330
106-340-541-6549	CR 219 B/W SR 44 CR 238	\$0	\$0	\$44,523	\$1,024,531	\$0	\$0	\$1,069,054
106-340-541-6558	CR 470 from CR 424 to Wilderness Dr	\$0	\$0	\$51,623	\$46,736	\$49,074	\$526,823	\$674,255
153-344-541-6136	C468 Turnpike West to CR 505/ROW	\$2,584,758	\$1,397,879	\$0	\$0	\$0	\$0	\$3,982,637
153-344-541-6143	C-462 from US 301 to C-466A ROW	\$443,355	\$0	\$0	\$0	\$0	\$0	\$443,355
153-344-541-6153	ROW C466 from CR 209 to US 301	\$378,661	\$776,916	\$130,271	\$0	\$0	\$0	\$1,285,849
153-344-541-6154	C-466A Phase III from 301 to Powell	\$1,716,534	\$157	\$37,508	\$0	\$0	\$0	\$1,754,199
153-344-541-6554	466A Phase III	\$1,859,782	\$3,311,673	\$0	\$0	\$0	\$0	\$5,171,455
Total		\$6,984,978	\$8,439,645	\$4,332,077	\$7,052,005	\$5,078,448	\$11,715,784	\$43,602,938

Source: Sumter County Office of Management & Budget

Table C-5

Sumter County – FY 2020-2024 Capital Improvement Plan: Capacity Expansion Improvements

Project	Description	FY 2020-2024
Buena Vista Blvd from SR 44 to Meggison Rd	Widen to 4 Lanes	\$19,700,000
C-466 @ Preston Dr	Traffic Signal	\$575,000
Advanced Traffic Management System, Ph. 1	ATMS Master Plan	\$1,026,500
Corbin Tr Ph. 1 from Fenney Way to Marsh Bend Tr	2-Lane Facility	\$280,516
Corbin Tr Ph. 2 from Marsh Bend Tr to Corbin Tr Ph. 3	2-Lane Facility	\$811,812
Corbin Tr Ph. 3 from Corbin Tr Ph. 3 to Corbin Tr Ph. 5	2-Lane Facility	\$526,998
Fenney Way Ph. 6 from Warm Springs Ave to Corbin Tr	2-Lane Facility	\$548,951
Fenney Way Ph. 7 from Warm Springs Ave to Marsh Bend Tr	2-Lane Facility	\$202,213
Marsh Bend Tr Ph. 1 from Warm Springs Ave to Marsh Bend Tr Ph. 2	2-Lane Facility	\$1,088,627
Marsh Bend Tr Ph. 2 from Marsh Bend Tr Ph. 1 to Marsh Bend Tr Ph. 3	2-Lane Facility	\$2,815,337
Marsh Bend Tr Ph. 3 from Marsh Bend Tr Ph. 2 to Marsh Bend Tr Ph. 4	2-Lane Facility	\$1,209,069
Marsh Bend Tr Ph. 4 from Marsh Bend Tr Ph. 3 to Marsh Bend Tr Ph. 5	2-Lane Facility	\$1,654,454
Marsh Bend Tr (C-501) from Corbin Tr to C-470	Widen to 4 Lanes	\$26,932,000
Meggison Rd Ph. 2A from SR 44 to Meggison Rd Ph. 2B	4-Lane Facility	\$1,132,454
Meggison Rd Ph. 5 from Warm Springs Ave to 45+15 of Meggison Rd Ph. 4	4-Lane Facility	\$4,930,850
Meggison Rd Ph. 6A from Warm Springs Ave to Sta 44+375	4-Lane Facility	\$4,200,000
Meggison Rd Ph. 6B from Meggison Rd Ph. 6A to Morse Blvd	4-Lane Facility	\$4,200,000
Meggison Rd Ph. 7 from Morse Blvd to FL Turnpike	4-Lane Facility	\$3,800,000
Morse Blvd Roundabout @ Warm Springs Ave	4-Lane Facility	\$3,353,912
Morse Blvd Ph. 10 from Warm Springs Ave to Meggison Rd	4-Lane Facility	\$8,000,000
Warm Springs Ave Signalized Intersection w Meggison Rd	4-Lane Facility	\$2,000,000
CR 245E, CR 246 and CR 245A	Intersection Reconfig & Improv	\$170,000
CR 525E Ph. 2 from CR 525 to US 301	Widen to 4 Lanes	\$2,520,000
Total		\$91,678,693

Source: Sumter County Office of Management & Budget

Table C-6
Sumter County FDOT Work Program, FY 2009 to FY 2023

ItemSeg	Description	Wkxm Description	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	TOTAL
411257-4	SR 35 (US 301) FROM N OF CR 204 TO MARION CO LINE	ADD LANES & RECONSTRUCT	\$2,413,316	\$5,006,555	\$1,627,524	\$1,372,524	\$1,363,800	\$795	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,784,514
430132-1	SR 35 (US 301) FROM CR 470 TO SR 44	ADD LANES & RECONSTRUCT	\$0	\$0	\$0	\$0	\$560	\$255,597	\$1,667,146	\$47,268	\$1,008,476	\$103,240	\$23,621	\$0	\$0	\$7,126,021	\$0	\$10,231,929
435859-3	SR 50 FROM HERNANDO/SUMTER COUNTY LINE TO WEST OF CR 757	ADD LANES & RECONSTRUCT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,203,873	\$5,937	\$5,170,000	\$0	\$0	\$0	\$8,379,810
240418-2	SR 48 FROM E OF I-75 RAMPS TO CR 475 (MAIN ST)	ADD LANES & REHABILITATE PVMNT	\$105,852	\$47,824	\$386,088	\$5,780,027	\$3,454,418	\$1,703,654	\$431,964	\$9,046,979	\$283,836	\$163,486	\$93,208	\$0	\$0	\$0	\$0	\$21,497,336
411257-3	SR 35 (US 301) N OF CR 232 TO N OF NE 110 RD	ADD LANES & REHABILITATE PVMNT	\$995,899	\$6,293,028	\$21,465	\$364,162	\$153,068	\$1,843	\$144	\$0	\$0	\$0	\$16,927	\$0	\$0	\$0	\$0	\$7,846,536
428443-1	CR 466 W FROM CR 209 TO US 301	ADD LANES & REHABILITATE PVMNT	\$0	\$0	\$0	\$0	\$0	\$0	\$1,612,903	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,612,903
434805-1	C-468 FROM E OF SR 91/TURNPIKE TO CR 505	ADD LANES & REHABILITATE PVMNT	\$0	\$0	\$0	\$0	\$0	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,000,000
434912-1	CR 470 FROM CR 527 TO SR 91 (FL TURNPIKE)	ADD LANES & REHABILITATE PVMNT	\$0	\$0	\$0	\$0	\$0	\$0	\$1,257,807	\$30,910	\$44,341	\$40,852	\$32,259	\$0	\$5,144,021	\$0	\$0	\$6,550,190
433670-1	CR 673 FROM US 301 TO I-75	ROAD RECONSTRUCTION - 2 LANE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$225,000	\$1,369,003	\$0	\$0	\$0	\$0	\$0	\$1,594,003
430188-1	US 301 AT SR 44	ADD TURN LANE(S)	\$0	\$0	\$0	\$0	\$8,471	\$0	\$695	\$58,014	\$8,613	\$1,025	\$15,212	\$0	\$0	\$0	\$0	\$92,030
434456-1	SR 471 AT CR 528	ADD TURN LANE(S)	\$0	\$0	\$0	\$0	\$0	\$0	\$274,803	\$18,393	\$710,076	\$493	\$53,421	\$0	\$0	\$0	\$0	\$1,057,186
410250-1	SR 35 (US 301) FROM CLARK AVE TO WARM SPRINGS AVE	INTERCHANGE IMPROVEMENT	\$260	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$260
422228-1	SR 471 AT CR 478	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$128,173	\$13,032	\$2,476	\$0	\$0	\$0	\$0	\$143,681
436365-1	SUMTER COUNTY ITS ARCHITECTURE STUDY COUNTYWIDE	ITS COMMUNICATION SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000	\$0	\$0	\$0	\$100,000	\$300,000	\$0	\$0	\$0	\$600,000
411257-1	US 301 TURNPIKE MARION CO. LINE	PD&E/EMO STUDY	\$0	\$0	\$0	\$877	\$5,935	\$266	\$0	\$0	\$0	\$0	\$6,559	\$0	\$0	\$0	\$0	\$13,637
430133-1	SR 35 (US 301) FROM N MAIN ST CR 48 TO CR 470	PD&E/EMO STUDY	\$0	\$0	\$0	\$0	\$1,812	\$750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,562
240418-3	SR 48 FROM 300' W OF CR 475 TO CR 475	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$103,192	\$54,051	\$236,338	\$93	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$393,674
437329-1	SR 44 WEST OF US 301	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,748	\$121,780	\$1,122,988	\$0	\$0	\$0	\$1,279,516
439132-1	SR 35/US 301 (2 LOCATIONS)	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,868	\$129,699	\$0	\$0	\$0	\$0	\$169,567
413019-8	SUMTER TRAFFIC ENGINEERING CONTRACTS	TRAFFIC SIGNALS	\$35,670	\$36,740	\$39,914	\$41,124	\$43,742	\$47,560	\$50,528	\$82,232	\$106,968	\$86,996	\$96,406	\$0	\$0	\$0	\$0	\$667,880
Total			\$3,550,997	\$11,384,147	\$2,178,183	\$7,612,765	\$5,268,144	\$6,010,558	\$5,295,990	\$9,483,796	\$2,515,483	\$5,056,616	\$697,505	\$6,592,988	\$5,144,021	\$7,126,021	\$0	\$77,917,214

Source: Florida Department of Transportation

Table C-7

Average Motor Vehicle Fuel Efficiency – Excluding Interstate Travel

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

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

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

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

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

Table C-8
Annual Vehicle Distance Travelled in Miles and Related Data – 2017⁽¹⁾
By Highway Category and Vehicle Type

Published March 2019										TABLE VM-1
YEAR	ITEM	LIGHT DUTY VEHICLES SHORT WB ⁽²⁾	MOTOR-CYCLES	BUSES	LIGHT DUTY VEHICLES LONG WB ⁽²⁾	SINGLE-UNIT TRUCKS ⁽³⁾	COMBINATION TRUCKS	SUBTOTALS		ALL MOTOR VEHICLES
								ALL LIGHT VEHICLES ⁽²⁾	SINGLE-UNIT 2-AXLE 6-TIRE OR MORE AND COMBINATION TRUCKS	
2017	Motor-Vehicle Travel: (millions of vehicle-miles)									
2017	Interstate Rural	142,445	1,128	1,775	44,928	10,103	52,171	187,373	62,274	252,550
2017	Other Arterial Rural	228,664	2,661	2,109	92,175	16,814	29,970	320,839	46,784	372,393
2017	Other Rural	213,923	2,728	1,986	88,419	16,563	14,644	302,342	31,207	338,262
2017	All Rural	585,032	6,517	5,870	225,522	43,480	96,785	810,554	140,265	963,206
2017	Interstate Urban	400,339	2,596	2,628	99,803	18,617	43,228	500,142	61,844	567,210
2017	Other Urban	1,235,430	11,036	8,730	331,253	54,006	41,478	1,566,682	95,483	1,681,932
2017	All Urban	1,635,769	13,632	11,358	431,056	72,622	84,705	2,066,824	157,328	2,249,142
2017	Total Rural and Urban ⁽⁵⁾	2,220,801	20,149	17,227	656,578	116,102	181,490	2,877,378	297,593	3,212,347
2017	Number of motor vehicles registered ⁽²⁾	193,672,370	8,715,204	983,231	56,880,878	9,336,998	2,892,218	250,553,248	12,229,216	272,480,899
2017	Average miles traveled per vehicle	11,467	2,312	17,521	11,543	12,435	62,751	11,484	24,335	11,789
2017	Person-miles of travel ⁽⁴⁾ (millions)	3,709,919	23,382	365,220	1,106,303	116,102	181,490	4,816,223	297,593	5,502,417
2017	Fuel consumed (thousand gallons)	91,712,165	458,429	2,350,323	37,466,749	15,599,855	30,363,561	129,178,914	45,963,416	177,951,081
2017	Average fuel consumption per vehicle (gallons)	474	53	2,390	659	1,671	10,498	516	3,758	653
2017	Average miles traveled per gallon of fuel consumed	24.2	44.0	7.3	17.5	7.4	6.0	22.3	6.5	18.1
<p>(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.</p> <p>(2) Light Duty Vehicles Short WB - passenger cars, light trucks, vans and sport utility vehicles with a wheelbase (WB) equal to or less than 121 inches. Light Duty Vehicles Long WB - large passenger cars, vans, pickup trucks, and sport/utility vehicles with wheelbases (WB) larger than 121 inches. All Light Duty Vehicles - passenger cars, light trucks, vans and sport utility vehicles regardless of wheelbase.</p> <p>(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.</p> <p>(4) Starting with 2009 VM-1, vehicle occupancy is estimated by the FHWA from the 2009 National Household Travel Survey (NHTS) and the annual R.L. Polk Vehicle registration data; For single unit truck and heavy trucks, 1 motor vehicle mile travelled = 1 person-mile traveled.</p> <p>(5) VMT data are based on the latest HPMS data available; it may not match previous published results.</p>										

Appendix D
Calculated Roadway Impact Fee Schedule

Appendix D: Calculated Roadway Impact Fee Schedule

This appendix presents the detailed fee calculations for each land use in the Sumter County road impact fee schedule.

**Table D-1
Sumter County – Calculated Roadway Impact Fee Schedule**

		Gasoline Tax				Unit Cost per Lane Mile:				Interstate/Toll Facility Adjustment Factor:								
		\$ per gallon to capital:	\$0.189			Average VMC per Lane Mile:		\$5,085,000		26.5%		Cost per PMC:		\$438.36				
		Facility life (years):	25	County Revenues:		Fuel Efficiency:		18.92 mpg										
		Interest rate:	3.50%	State Revenues:		Effectivedays per year:		365										
ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Transportation Impact Fee	Current Road Impact Fee ⁽²⁾	% Change	2015 Calculated Road Impact Fee ⁽³⁾	% Change
RESIDENTIAL:																		
210	Single Family (Detached)	du	7.81	Appendix A: LUC 210	6.62	7.12	Appendix A: LUC 210	100%	n/a	19.00	\$8,329	\$101	\$1,665	\$6,664	\$2,600	156%	\$5,812	15%
220	Multi-Family Housing (Low-Rise, 1-2 floors)	du	7.32	ITE 10th Edition	5.10	5.60	Appendix A: LUC 220/221/222	100%	n/a	13.72	\$6,014	\$75	\$1,236	\$4,778	\$1,779	169%	\$3,785	26%
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	5.44	ITE 10th Edition	5.10	5.60	Appendix A: LUC 220/221/222	100%	n/a	10.20	\$4,470	\$56	\$923	\$3,547	\$1,779	99%	\$3,785	-6%
222	Multi-Family Housing (High-Rise, >10 floors)	du	4.45	ITE 10th Edition	5.10	5.60	Appendix A: LUC 220/221/222	100%	n/a	8.34	\$3,656	\$45	\$742	\$2,914	\$1,779	64%	\$3,785	-23%
240	Mobile Home Park	du	4.17	Appendix A: LUC 240	4.60	5.10	Appendix A: LUC 240	100%	n/a	7.05	\$3,090	\$39	\$643	\$2,447	\$1,017	141%	\$2,153	14%
251	Retirement Community (detached)	du	3.50	Appendix A: LUC 251	5.42	5.92	Appendix A: LUC 251	100%	n/a	6.97	\$3,056	\$38	\$626	\$2,430	\$901	170%	\$1,902	28%
252	Retirement Community (attached)	du	3.33	Appendix A: LUC 252	3.28	3.78	Appendix A: LUC 252	100%	n/a	4.01	\$1,760	\$23	\$379	\$1,381	\$544	154%	\$1,088	27%
LODGING:																		
310	Hotel	room	5.55	Appendix A: LUC 310	6.26	6.76	Appendix A: LUC 310	66%	Appendix A: LUC 310	8.43	\$3,694	\$45	\$742	\$2,952	\$1,480	99%	\$2,959	0%
320	Motel	room	3.35	ITE 10th Edition	4.34	4.84	Appendix A: LUC 320	77%	Appendix A: LUC 320	4.11	\$1,803	\$23	\$379	\$1,424	\$993	43%	\$2,108	-32%
RECREATION:																		
411	Public Park	acre	0.78	ITE 10th Edition	5.15	5.65	Same as LUC 710	90%	Based on LUC 710	1.33	\$582	\$7	\$115	\$467	\$508	-8%	\$1,181	-60%
416	Campground/RV Park ⁽⁴⁾	site	1.62	ITE 10th Edition (Adjusted)	4.60	5.10	Same as LUC 240	100%	Same as Residential Land Uses	2.74	\$1,201	\$15	\$247	\$954	\$417	129%	\$834	14%
420	Marina	boat berth	2.41	ITE 10th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	5.28	\$2,313	\$28	\$461	\$1,852	\$817	127%	\$1,976	-6%
430	Golf Course	hole	30.38	ITE 10th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	66.52	\$29,159	\$355	\$5,851	\$23,308	\$9,853	137%	\$23,949	-3%
437	Bowling Alley ⁽⁵⁾	lane	13.00	ITE 10th Edition (Adjusted)	5.15	5.65	Same as LUC 710	90%	Based on LUC 710	22.14	\$9,707	\$121	\$1,994	\$7,713	\$8,672	-11%	\$17,343	-56%
444	Movie Theater	screen	114.83	Appendix A: LUC 444	2.22	2.72	Appendix A: LUC 444	88%	Appendix A: LUC 444	82.44	\$36,139	\$501	\$8,257	\$27,882	\$9,814	184%	\$23,083	21%
492	Health/Fitness Club	1,000 sf	34.50	ITE 10th Edition	5.15	5.65	Same as LUC 710	94%	Appendix A: LUC 492	61.38	\$26,906	\$334	\$5,505	\$21,401	\$8,947	139%	\$17,894	20%
n/a	Indoor Shooting Range (Range ONLY)	1,000 sf	1.99	ITE 9th Edition: LUC 435 Multi-Purpose Rec.	5.15	5.65	Same as LUC 710	90%	Based on LUC 710	3.39	\$1,486	\$18	\$297	\$1,189	\$515	131%	\$1,030	15%
n/a	Place of Assembly/Union Hall	1,000 sf	28.82	ITE 10th Edition: LUC 495 Rec. Community Center	5.15	5.65	Same as LUC 710	90%	Based on LUC 710	49.09	\$21,520	\$267	\$4,401	\$17,119	\$7,226	137%	\$14,451	18%
INSTITUTIONS:																		
520	Elementary School (Private)	student	1.89	ITE 10th Edition	3.31	3.81	50% of LUC 210 based on Transp. Modeling	80%	Based on LUC 710 (adjusted) ⁽⁵⁾	1.84	\$806	\$11	\$181	\$625	\$213	193%	\$490	28%
522	Middle/Junior High School (Private)	student	2.13	ITE 10th Edition	3.31	3.81	50% of LUC 210 based on Transp. Modeling	80%	Based on LUC 710 (adjusted) ⁽⁵⁾	2.07	\$909	\$12	\$198	\$711	\$301	136%	\$703	1%
530	High School (Private)	student	2.03	ITE 10th Edition	3.31	3.81	50% of LUC 210 based on Transp. Modeling	90%	Based on LUC 710	2.22	\$974	\$13	\$214	\$760	\$322	136%	\$746	2%
540/550	University/Junior College (7,500 or fewer students) (Private)	student	2.00	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	4.38	\$1,920	\$23	\$379	\$1,541	\$552	179%	\$1,343	15%
550	University/Junior College (more than 7,500 students) (Private)	student	1.50	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	3.28	\$1,440	\$18	\$297	\$1,143	\$412	177%	\$1,004	14%
560	Church	1,000 sf	6.95	ITE 10th Edition	3.91	4.41	Midpoint of LUC 710 & LUC 820 (App. A)	90%	Based on LUC 710	8.99	\$3,940	\$50	\$824	\$3,116	\$1,541	102%	\$3,574	-13%
565	Day Care Center	1,000 sf	49.63	Appendix A: LUC 565	2.03	2.53	Appendix A: LUC 565	73%	Appendix A: LUC 565	27.03	\$11,848	\$167	\$2,752	\$9,096	\$5,214	74%	\$11,772	-23%
MEDICAL:																		
610	Hospital	1,000 sf	10.72	ITE 10th Edition	6.62	7.12	Same as LUC 210	78%	Midpoint of LUC 310 & LUC 720	20.34	\$8,917	\$109	\$1,796	\$7,121	\$3,789	88%	\$7,578	-6%

Table D-1 (continued)
Sumter County – Calculated Roadway Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Transportation Impact Fee	Current Road Impact Fee ⁽²⁾	% Change	2015 Calculated Road Impact Fee ⁽³⁾	% Change
MEDICAL:																		
620	Nursing Home	bed	3.02	Appendix A: LUC 620	2.59	3.09	Appendix A: LUC 620	89%	Appendix A: LUC 620	2.56	\$1,121	\$15	\$247	\$874	\$275	218%	\$714	22%
630	Clinic	1,000 sf	37.46	Appendix A: LUC 630	5.10	5.60	Appendix A: LUC 630	93%	Appendix A: LUC 630	65.29	\$28,623	\$356	\$5,867	\$22,756	\$7,629	198%	\$17,679	29%
640	Veterinary Clinic	1,000 sf	24.20	Appendix A: LUC 640	1.90	2.40	Appendix A: LUC 640	70%	Appendix A: LUC 640	11.83	\$5,185	\$74	\$1,220	\$3,965	\$2,270	75%	\$4,819	-18%
OFFICE:																		
710	General Office	1,000 sf	9.74	ITE 10th Edition	5.15	5.65	Appendix A: LUC 710	92%	Appendix A: LUC 710	16.96	\$7,434	\$92	\$1,516	\$5,918	\$3,591	65%	\$8,236	-28%
720	Medical Office/Clinic 10,000 sq ft or less	1,000 sf	23.83	Appendix A: LUC 720 Small Medical/Dental	5.55	6.05	Appendix A: LUC 720	89%	Appendix A: LUC 720	43.26	\$18,963	\$234	\$3,857	\$15,106	\$6,609	129%	\$13,217	14%
	Medical Office/Clinic greater than 10,000 sq ft	1,000 sf	34.12	Appendix A: LUC 720	5.55	6.05	Appendix A: LUC 720	89%	Appendix A: LUC 720	61.94	\$27,151	\$335	\$5,521	\$21,630	\$8,612	151%	\$19,258	12%
RETAIL:																		
812	Building Materials and Lumber Store	1,000 sf	18.05	ITE 10th Edition	6.27	6.77	Appendix A: LUC 812	74%	Appendix A: LUC 812	30.78	\$13,492	\$165	\$2,719	\$10,773	\$10,175	6%	\$23,556	-54%
813	Discount Superstore	1,000 sf	50.77	Appendix A: LUC 813	2.40	2.90	Appendix A: Fig. A-1 (200k sq ft)	67%	Appendix A: Fig. A-2 (200k sq ft)	30.00	\$13,152	\$180	\$2,967	\$10,185	\$3,987	155%	\$9,062	12%
815	Discount Store, Free-Standing	1,000 sf	53.12	ITE 10th Edition	2.29	2.79	Appendix A: Fig. A-1 (100k sq ft)	62%	Appendix A: Fig. A-2 (100k sq ft)	27.72	\$12,150	\$168	\$2,769	\$9,381	\$4,475	110%	\$10,222	-8%
816	Hardware/Paint Store	1,000 sf	9.14	ITE 10th Edition	1.87	2.37	Appendix A: Fig. A-1 (50k sq ft)	56%	Appendix A: Fig. A-2 (50k sq ft)	3.52	\$1,542	\$22	\$363	\$1,179	\$2,960	-60%	\$5,919	-80%
817	Nursery (Garden Center)	1,000 sf	68.10	ITE 10th Edition	1.87	2.37	Appendix A: Fig. A-1 (50k sq ft)	56%	Appendix A: Fig. A-2 (50k sq ft)	26.21	\$11,489	\$165	\$2,719	\$8,770	\$2,886	204%	\$7,859	12%
820	Retail	1,000 sfgla	37.75	ITE 10th Edition	2.69	3.19	Appendix A: Fig. A-1 (450k sq ft)	74%	Appendix A: Fig. A-2 (450k sq ft)	27.62	\$12,106	\$162	\$2,670	\$9,436	\$3,637	159%	\$9,507	-1%
823	Factory Outlet Center	1,000 sf	26.59	ITE 10th Edition	2.34	2.84	Appendix A: Fig. A-1 (150k sq ft)	65%	Appendix A: Fig. A-2 (150k sq ft)	14.86	\$6,515	\$89	\$1,467	\$5,048	\$2,128	137%	\$4,743	6%
840/ 841	New/Used Auto Sales	1,000 sf	24.58	Appendix A: LUC 840/841	4.60	5.10	Appendix A: LUC 840/841	79%	Appendix A: LUC 840/841	32.83	\$14,390	\$181	\$2,983	\$11,407	\$5,758	98%	\$11,516	-1%
843	Automobile Parts Sales	1,000 sf	55.34	ITE 10th Edition	4.60	5.10	Same as LUC 840/841	79%	Same as LUC 840/841	73.91	\$32,398	\$406	\$6,691	\$25,707	\$10,866	137%	\$25,228	2%
848	Tire Store	1,000 sf	28.52	ITE 10th Edition	3.62	4.12	Same as LUC 942	72%	Same as LUC 942	27.32	\$11,975	\$154	\$2,538	\$9,437	\$3,113	203%	\$7,241	30%
849	Tire Superstore	1,000 sf	20.37	ITE 10th Edition	3.62	4.12	Same as LUC 942	72%	Same as LUC 942	19.51	\$8,553	\$110	\$1,813	\$6,740	\$2,545	165%	\$5,934	14%
850	Supermarket	1,000 sf	106.64	Appendix A: LUC 850	2.08	2.58	Appendix A: LUC 850	56%	Appendix A: LUC 850	45.65	\$20,011	\$281	\$4,631	\$15,380	\$5,649	172%	\$13,314	16%
851	Convenience Market (24 hour)	1,000 sf	739.50	Appendix A: LUC 851	1.52	2.02	Appendix A: LUC 851	41%	Appendix A: LUC 851	169.36	\$74,243	\$1,117	\$18,410	\$55,833	\$20,723	169%	\$49,128	14%
857	Discount Club	1,000 sf	41.80	ITE 10th Edition	2.40	2.90	Appendix A: Fig. A-1 (200k sq ft)	67%	Appendix A: Fig. A-2 (200k sq ft)	24.70	\$10,828	\$148	\$2,439	\$8,389	\$3,344	151%	\$7,459	12%
860	Wholesale Market ⁽⁵⁾	1,000 sf	17.60	ITE 10th Edition (Adjusted)	2.40	2.90	Appendix A: Fig. A-1 (200k sq ft)	67%	Appendix A: Fig. A-2 (200k sq ft)	10.40	\$4,559	\$62	\$1,022	\$3,537	\$538	557%	\$1,443	145%
862	Home Improvement Superstore	1,000 sf	30.74	ITE 10th Edition	2.34	2.84	Appendix A: Fig. A-1 (150k sq ft)	65%	Appendix A: Fig. A-2 (150k sq ft)	17.18	\$7,532	\$103	\$1,698	\$5,834	\$2,029	188%	\$5,480	6%
863	Electronics Superstore	1,000 sf	41.05	ITE 10th Edition	1.87	2.37	Appendix A: Fig. A-1 (50k sq ft)	56%	Appendix A: Fig. A-2 (50k sq ft)	15.80	\$6,925	\$99	\$1,632	\$5,293	\$2,599	104%	\$5,198	2%
876	Apparel Store	1,000 sf	66.40	ITE 10th Edition	1.87	2.37	Appendix A: Fig. A-1 (50k sq ft)	56%	Appendix A: Fig. A-2 (50k sq ft)	25.55	\$11,202	\$161	\$2,654	\$8,548	\$3,835	123%	\$7,669	11%
880/ 881	Pharmacy with & without Drive-Thru	1,000 sf	104.37	Appendix A: LUC 880/881	2.08	2.58	Appendix A: LUC 880/881	32%	Appendix A: LUC 880/881	25.53	\$11,191	\$157	\$2,588	\$8,603	\$2,991	188%	\$7,059	22%
890	Furniture Store	1,000 sf	6.30	Appendix A: LUC 890	6.09	6.59	Appendix A: LUC 890	54%	Appendix A: LUC 890	7.61	\$3,338	\$41	\$676	\$2,662	\$807	230%	\$1,868	43%
SERVICES:																		
911	Bank/Savings Walk-In ⁽⁶⁾	1,000 sf	59.39	ITE 10th Edition (Adjusted)	2.46	2.96	Same as LUC 912	46%	Same as LUC 912	24.70	\$10,827	\$147	\$2,423	\$8,404	\$7,621	10%	\$15,241	-45%
912	Bank/Savings Drive-In	1,000 sf	102.66	Appendix A: LUC 912	2.46	2.96	Appendix A: LUC 912	46%	Appendix A: LUC 912	42.69	\$18,715	\$255	\$4,203	\$14,512	\$8,528	70%	\$20,020	-28%
925	Bar/Nightclub ⁽⁵⁾	1,000 sf	113.60	ITE 10th Edition (Adjusted)	1.87	2.37	Appendix A: Fig. A-1 (50k sq ft)	56%	Appendix A: Fig. A-2 (50k sq ft)	43.72	\$19,165	\$275	\$4,532	\$14,633	\$6,553	123%	\$13,106	12%

Table D-1 (continued)
Sumter County – Calculated Roadway Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Transportation Impact Fee	Current Road Impact Fee ⁽²⁾	% Change	2015 Calculated Road Impact Fee ⁽³⁾	% Change
SERVICES:																		
931	Low-Turnover Restaurant	1,000 sf	86.03	Appendix A: LUC 931	3.14	3.64	Appendix A: LUC 931	77%	Appendix A: LUC 931	76.44	\$33,509	\$440	\$7,252	\$26,257	\$10,537	149%	\$24,574	7%
932	High-Turnover Restaurant	1,000 sf	106.26	Appendix A: LUC 932	3.17	3.67	Appendix A: LUC 932	71%	Appendix A: LUC 932	87.89	\$38,528	\$505	\$8,323	\$30,205	\$13,617	122%	\$29,277	3%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	482.53	Appendix A: LUC 934	2.05	2.55	Appendix A: LUC 934	58%	Appendix A: LUC 934	210.85	\$92,426	\$1,301	\$21,442	\$70,984	\$29,136	144%	\$67,179	6%
941	Quick Lube	service bay	40.00	ITE 10th Edition	3.62	4.12	Same as LUC 942	72%	Same as LUC 942	38.31	\$16,795	\$216	\$3,560	\$13,235	\$4,999	165%	\$11,650	14%
942	Automobile Care Center	1,000 sf	28.19	Appendix A: LUC 942	3.62	4.12	Appendix A: LUC 942	72%	Appendix A: LUC 942	27.00	\$11,837	\$152	\$2,505	\$9,332	\$4,576	104%	\$9,151	2%
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	172.01	ITE 10th Edition	1.90	2.40	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	27.62	\$12,109	\$173	\$2,851	\$9,258	\$3,452	168%	\$7,587	22%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	205.36	ITE 10th Edition	1.90	2.40	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	32.98	\$14,457	\$207	\$3,412	\$11,045	\$3,338	231%	\$7,853	41%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	230.52	ITE 10th Edition	1.90	2.40	Same as LUC 945	23%	Same as LUC 945	37.02	\$16,229	\$232	\$3,824	\$12,405	\$3,338	272%	\$7,853	58%
947	Self-Service Car Wash	service bay	43.94	Appendix A: LUC 947	2.18	2.68	Appendix A: LUC 947	68%	Appendix A: LUC 947	23.94	\$10,493	\$146	\$2,406	\$8,087	\$3,609	124%	\$7,217	12%
948	Automated Car Wash ⁽⁵⁾	1,000 sf	142.00	ITE 10th Edition (Adjusted)	2.18	2.68	Same as LUC 947	68%	Same as LUC 947	77.36	\$33,911	\$472	\$7,779	\$26,132	\$11,588	126%	\$23,176	13%
INDUSTRIAL:																		
110	General Light Industrial	1,000 sf	4.96	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	8.64	\$3,786	\$47	\$775	\$3,011	\$1,584	90%	\$3,705	-19%
130	Industrial Park	1,000 sf	3.37	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	5.87	\$2,572	\$32	\$527	\$2,045	\$1,581	29%	\$3,638	-44%
140	Manufacturing	1,000 sf	3.93	ITE 10th Edition	5.15	5.65	Same as LUC 770	92%	Same as LUC 710	6.84	\$3,000	\$37	\$610	\$2,390	\$871	174%	\$2,034	18%
150	Warehousing	1,000 sf	1.74	ITE 10th Edition	5.15	5.65	Same as LUC 770	92%	Same as LUC 710	3.03	\$1,328	\$16	\$264	\$1,064	\$948	12%	\$1,896	-44%
151	Mini-Warehouse	1,000 sf	1.49	Appendix A: LUC 151	3.51	4.01	Midpoint of LUC 710 & LUC 820 (50k sq ft)	92%	Same as LUC 710	1.77	\$775	\$10	\$165	\$610	\$343	78%	\$685	-11%
154	High-Cube Transload & Short-Term Storage Warehouse	1,000 sf	1.40	ITE 10th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	2.44	\$1,069	\$13	\$214	\$855	\$449	90%	\$898	-5%

- 1) Net VMT calculated as ((Trip Generation Rate* Trip Length* % New Trips)*(1-Interstate/Toll Facility Adjustment Factor)/2). This reflects the unit of vehicle-miles of capacity consumed per unit of development and is multiplied by the cost per vehicle
- 2) Source: Sumter County Impact Fee Division. "Multi-Family Apartment" rate is shown for LUC 220, 221, and 222. "Office <50,000 sf" rate is shown for LUC 710. "Retail 50,001-200,000 sfgla" rate is shown for LUC 820
- 3) Source: *Sumter County Transportation Impact Fee Update Study*, May 2015
- 4) The ITE 10th Edition trip generation rate was adjusted to reflect the average occupancy rate of 60 percent based on data provided by the Florida Association of RV Parks and Campgrounds
- 5) The ITE 10th Edition trip generation rate for PM Peak Hour of Adjacent traffic was adjusted by a factor of 10 to approximate the Daily TGR
- 6) The ITE 10th Edition trip generation rate for PM Peak Hour of Adjacent traffic was adjusted by the ratio of Daily to PM Peak Hour for LUC 912 to approximate a daily TGR