

ORDINANCE NO. 2020 - __

AN ORDINANCE AMENDING THE ORANGE COUNTY TRANSPORTATION IMPACT FEE ORDINANCE; PROVIDING FOR UPDATES AND AMENDMENTS TO THE ORANGE COUNTY CODE, CHAPTER 23, IMPACT FEES, ARTICLE IV, TRANSPORTATION IMPACT FEES; PROVIDING FOR UPDATED TRANSPORTATION IMPACT FEES, INCLUDING NEW AND INCREASED FEES IN CERTAIN LAND USE CATEGORIES; AND PROVIDING AN EFFECTIVE DATE.

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RCUD

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF ORANGE COUNTY:

Section 1. Amendments; In general. Orange County Code, Chapter 23, Impact Fees, is hereby amended in part by amending Article IV, Transportation Impact Fees, with such amendments being an update to the Orange County Transportation Impact Fee Ordinance and with amendments being indicated below in Section 2 with the new text being underlined and the deleted text being ~~struck through~~.

Section 2. Amendments to Chapter 23, Impact Fees. Orange County Code Chapter 23, Impact Fees, Article IV, Transportation Impact Fees, is hereby amended to read as follows:

**ARTICLE IV
TRANSPORTATION IMPACT FEE**

Sec. 23-86. Short title, authority, and applicability.

(a) This article shall be known and may be cited as the "Orange County Transportation Impact Fee Ordinance."

(b) The Orange County board of county commissioners ("BCC") has authority to adopt this article through general home rule powers pursuant to Article VIII, § 1(g) of the Florida Constitution and Chapters 125 and 163, Florida Statutes.

(c) Providing for arterial and other roads in coordination with a plan for the control of traffic is a responsibility of the county under Section 125.01(1)(m), Florida Statutes, and is in the best interest of the health, safety and welfare of the citizens of the county.

(d) Planning for new roads and multimodal transportation improvements to serve new growth and development that generate additional ~~traffic~~ travel, and the implementation of such planning through the comprehensive

planning process is a responsibility of the county under Chapter 163, pt. II (the Community Planning Act”) and is in the best interest of the health, safety, and welfare of the citizens of the county.

(e) This article shall apply to all unincorporated areas of the county.

Sec. 23-87. Intent and purpose.

(a) The BCC has determined and recognized through adoption of the Orange County Comprehensive Plan 2010 - 2030 Destination 2030 ("Comprehensive Plan") and subsequent updates that new growth and development in the county will necessitate extensive improvements to the transportation network system. To finance the necessary new capital improvements, several methods of financing will be employed, one of which is the imposition of a regulatory impact fee on new growth and development which does not exceed a pro rata share of the reasonably anticipated costs of growth-necessitated major road network system expansion and improvements.

(b) Implementing a regulatory scheme that requires new development to pay a transportation impact fee that does not exceed a pro rata share of the reasonably anticipated expansion costs of new transportation improvements needed to serve new growth and development is necessary to implement the Transportation Element of the Comprehensive Plan, as adopted and amended under Chapter 163, pt. II, Florida Statutes, and is in the best interest of the health, safety, and welfare of the citizens of the county.

(c) The purpose of this article is to enable the county to allow growth and development to proceed in the county in compliance with the adopted Comprehensive Plan, and to regulate growth and development so as to require growth and development to share in the burdens of growth by paying its pro rata share for the reasonably anticipated costs of major transportation network system improvements.

(d) It is not the purpose of this article to collect fees from growth and development in excess of the cost of the reasonably anticipated improvements to the major transportation network system needed to serve the new growth and development. The BCC hereby finds that this article has approached the problem of determining the transportation impact fee in a conservative and reasonable manner. This article will only partially recoup the governmental expenditures associated with growth. Under this article, existing residents also share in paying the cost of needed improvements to the transportation system.

(e) Absent an alternative impact agreement pursuant to Section 23-93, and subject to any credit available pursuant to section 23-95 and applicable Florida law, it shall be the policy of the county to collect the impact fees assessed by this article in lieu of any off-site transportation improvements.

Sec. 23-88. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning. For technical terms not defined herein, refer to the Institute of Transportation Engineers Trip Generation Report, 8¹⁰th Edition.

Access improvements shall mean improvements designed to insure safe and adequate ingress and egress.

Accessory dwelling unit shall have the meaning contained in Section 38-1 of this Code.

Accessory structure or use shall have the meaning contained in Section Chapter 38-1 of this Code.;

Affordable shall mean as set forth in Orange County Administrative Regulation No. 4.08 as it may be amended or replaced from time to time.

Agricultural structures shall mean structures, not used as residential dwellings, designed to protect farm equipment or livestock or otherwise serve an agricultural purpose which shall be defined as horticulture, floriculture, viticulture, silviculture, forestry, dairy, livestock, poultry, beekeeping, and all forms of farm products and farm production, excluding sales.

~~*Alternative Mobility Area (AMA)* shall mean the Orange County established Alternative Mobility Area (AMA) as shown in Map 16 of the Future Land Use Map Series to promote urban infill development and redevelopment and maximize the use of existing public infrastructure in established areas of the County~~

Applicant shall mean the person who applies for a building permit.

Appraised land value shall mean the appraised value of the area contributed or to be acquired calculated based upon the unit value of the parent parcel.

Assessable trip length shall mean the average length in miles of external trips, excluding the portion on local streets, as determined in the most recent transportation impact fee study adopted by the BCC.

Building permit shall mean an official document or certificate issued by the authority having jurisdiction authorizing the commencement of construction of any building or parts thereof. The term also includes a tie-down permit for a new mobile home unit, but not for a new recreational vehicle. The term also includes construction plan approval for new recreational vehicle spaces.

Capacity shall mean the maximum number of vehicles for a given time period that a typical new roadway lane can safely and efficiently carry, usually expressed in terms of vehicles per day.

County engineer shall mean the director of public works or the person designated as the County Engineer by the County Administrator.

County facilities constructed for nonproprietary governmental purposes shall mean facilities constructed by or for the county to be used for governmental purposes, but shall exclude Orange County Utilities Department and Orange County Convention Center Facilities.

Development permit shall include any building permit, zoning approval, subdivision approval, rezoning, development order, special exception, variance, or any other official action of the local authority with jurisdiction, which has the effect of allowing the development of land.

Diverted traffic shall mean traffic that is transferred from another transportation route, corridor, or mode.

Encumbered shall mean (with reference to funds for capital improvements) funds committed in the capital improvements program for a specified improvement within a defined period of time.

External trip shall mean any trip that has either its origin or destination at the development site and that impacts the applicable road network system.

Gross floor area (GFA) shall mean that area within the outside faces of principal exterior walls, not including architectural setbacks or projections. Included are all areas that have floor surfaces with clear standing head room, regardless of their use, that are under roof and enclosed. Unroofed and roofed, unenclosed spaces outside the principal exterior walls should be excluded from the area calculations.

Gross leasable area (GLA) shall mean the total gross floor area designed for tenant occupancy and exclusive use. GLA is the area for which tenants pay rent. For specialty retail centers, strip centers, discount stores, and free-standing retail facilities, GLA usually equals GFA.

Impact fee benefit zones shall mean geographic subareas within the unincorporated Orange County for which separate accounting funds are established to earmark transportation impact fees collected in each zone that will be used for acquisitions, construction, or improvements to transportation facilities made or to be made to benefit those paying impact fees pursuant to this Ordinance and are shown on a map labeled Exhibit "A" attached to this Ordinance and made a part hereof.

Impact fee districts shall mean geographic subareas within unincorporated Orange County, as shown on a map labeled Exhibit "B" attached to this Ordinance and made a part hereof, for which separate fee schedules have been generally calculated in the Transportation Impact Fee Study.

Impact fee eligible improvement shall mean a transportation improvement, as determined by the county engineer, pursuant to Administrative Regulation

Number 4.03, for which planning, design, right-of-way acquisition, construction, and improvement costs are eligible for transportation impact fee funding.

Internal trip shall mean a trip that has both its origin and destination within the applicable development site.

Land use shall mean a land use type as listed or referred to in Section 23-92 of this Code.

Local streets shall mean streets; for which impact fees are not used, serving primarily to provide direct access to abutting land; they accommodate traffic originating in or traveling to properties within a neighborhood or commercial or industrial development.

Mixed use structure shall mean a single building or structure which includes two or more primary land uses; the impact fee is determined by apportioning the total space within the building or structure to the amount of space devoted to each primary use. Shopping centers are not mixed use structures.

Off-site improvements shall mean transportation improvements located outside of the boundaries of the parcel proposed as a development site, which transportation improvements are required by the county in order to serve the development's external trips. Off-site improvements do not include access improvements as defined herein.

Parent parcel shall mean the total square footage of the project or phase thereof, irrespective of the area or number of individual lots affected by the contribution of land or acquisition of land.

~~*Student housing* shall meet the definition contained in Section 38-1 of this Code and shall have (i) its property boundary located within ½ mile of any principal entrance of a college, university, or community college, (ii) ample on-site bicycle and pedestrian paths, and (iii) regularly available shuttle service.~~

Total trip length shall mean the assessable trip length plus an adjustment factor of one-half mile.

~~*Tourist hotels* shall mean hotel developments focused on tourist commercial activities and located within that geographical area established by Resolution No. 95 M-103, as it may be amended from time to time, which sets forth the International Drive Master Transit and Improvement District Municipal Service Taxing Unit (MSTU). Resolution No. 95 M-103, as it may be amended from time to time, is incorporated into this section by this reference. The MSTU/tourist commercial activities area is demarcated by the bold lines depicted on the map attached to this ordinance as Exhibit "A," the original of which is available for inspection in the office of the Planning Division. Hence, a tourist hotel is one that primarily serves tourist and/or convention clientele and is geographically located within a predominantly tourist oriented activity area. Normally, these developments accommodate trips made by multiple modes of transportation such as busses, shuttles, rail and pedestrians. In general, such hotels experience lower~~

vehicle trip generation rates and shorter trip lengths due to their surroundings and type of clientele.

~~*Tourist retail* shall mean retail developments focused on tourist commercial activities and located within that geographical area established by Resolution No. 95 M-103, as it may be amended from time to time, which sets forth the International Drive Master Transit and Improvement District Municipal Service Taxing Unit (MSTU). Resolution No. 95 M-103, as it may be amended from time to time, is incorporated into this section by this reference. The MSTU/tourist commercial activities area is demarcated by the bold lines depicted on the map attached to this ordinance as Exhibit "A," the original of which is available for inspection in the office of the Planning Division. Tourist retail developments cater to a tourist clientele and are surrounded by similar types of land uses. Typically, tourist retail developments provide products that are of interest mainly to the tourist community. Furthermore, these retail uses accommodate high levels of pedestrians and transit due to the general character of their locations.~~

Traffic-generating development shall mean land development designed or intended (i) to permit a use of the land which will contain more dwelling units or floor space than the then existing use of land, or (ii) to otherwise change the use of the land in a manner that increases the generation of vehicular or multimodal travel traffic.

Transportation Facility shall mean:

~~(within AMA Urban Fee District):~~ The components of a Transportation Network, including roadways, intersections, turn lanes, sidewalks, bicycle facilities, and public transportation vehicles and facilities (such as bus stops, shelters, benches, and transfer stations, excluding rail) ~~within the AMA of Orange County.~~

~~(outside AMA within the Suburban and Rural Fee Districts):~~ The components of a ~~Transportation~~ Network, including roadways, intersections, turn lanes, sidewalks, and bicycle facilities.

~~*Transportation Impact Fee Study* shall mean the study entitled Orange County Transportation Impact Fee Update prepared by Tindale-Oliver and Associates and dated ~~September 5~~ September 11, 2012, as amended December 27, 2012. The study reflects changes to the cost, credit, and demand components of the Orange County Transportation Impact Fee Ordinance, develops three fee districts (urban, suburban, and rural) and develops a ~~separate~~ multi-modal fee for the designated urban fee district.~~

Transportation Network shall mean:

~~(within AMA urban fee district):~~ The transportation system made up of Transportation Facilities, including that includes the major road network roadways, sidewalks, and bicycle facilities within the public right of way, and public transportation vehicles and facilities (~~excluding rail~~) ~~within the AMAs of Orange County.~~

~~(outside of AMA within the Suburban and Rural Fee Districts):~~ The transportation system made up of Transportation Facilities, including roadways, sidewalks, and bicycle facilities ~~that includes the major roadway network within the unincorporated Orange County.~~

Trip shall mean a one-way movement of vehicular travel from an origin (one (1) trip end) to a destination (the other trip end). For the purposes of this article, trip shall have the meaning that it has in commonly accepted traffic engineering practice and that is substantially the same as the definition in the previous sentence.

Trip generation shall mean the attraction and/or production of trips caused by a given type of land development.

Sec. 23-89. Rules of construction.

For the purposes of administration and enforcement of this article, unless otherwise stated in this article, the following rules of construction shall apply:

(1) In case of any difference of meaning or implication between the text of this article and any caption, illustration, summary table or illustrative table, the text shall control.

(2) The word "shall" is always mandatory and not discretionary; the word "may" is permissive.

(3) Words used in the present tense shall include the future and words used in the singular number shall include the plural and the plural the singular, unless the context clearly indicates the contrary.

(4) The word "person" includes an individual, a corporation, a partnership, an incorporated association, or any other similar entity.

(5) Unless the context clearly indicates the contrary, where a regulation involves two (2) or more items, conditions, provisions, or events connected by the conjunction "and," "or" or "either...or," the conjunction shall be interpreted as follows:

a. "And" indicates that all the connected terms, conditions, provisions or events shall apply.

b. "Or" indicates that the connected items, conditions, provisions or events may apply singly or in any combination.

c. "Either...or" indicates that the connected items, conditions, provisions or events shall apply singly but not in combination.

(6) The word "includes" shall not limit a term to the specific example but is intended to extend its meaning to all other instances or circumstances of like kind or character.

(7) Where a road right-of-way is used to define benefit area boundaries, that portion of the road right-of-way demarcating the boundary may be considered as part of either benefit area it bounds.

Sec. 23-90. Adoption of background studies.

The BCC hereby adopts by reference the study entitled Orange County Transportation Impact Fee Update Study, dated ~~September 5, 2012, as amended December 27, 2012~~ September 11, 2020, particularly as it relates to the allocation of a fair share of the costs of new ~~road-transportation infrastructure~~ road-transportation facility improvements to be borne by new users of such ~~road-transportation facility~~ road-transportation facility improvements.

Sec. 23-91. Limitation of issuance of building permits.

(a) Except as permitted by subsection (b), no person shall carry out any ~~traffic~~ travel-generating development unless the applicable impact fee pursuant to section 23-92 or alternative impact fee pursuant to section 23-93 was paid or properly deferred at the time of issuance of the building permits, to be clearly identified as “paid or deferred under written protest” in the case of an anticipated appeal or disagreement with the assessment.

(b) Deferral of impact fees.

(1) For the following types of projects, the transportation impact fee may be paid prior to the issuance of a certificate of occupancy (temporary or otherwise), but no certificate of occupancy shall be authorized or issued until the impact fee has been paid:

a. A certified affordable housing project, provided an agreement setting forth the terms and conditions of the discount and deferral of the impact fee has been executed;

b. A new commercial project (including a multi-family project without single-family homes or duplexes) with a building permit valuation of at least one million dollars (\$1,000,000.00), provided an impact fee deferral form has been executed and the service charge required under subsection (b)(3) has been paid; or

c. A single family home or duplex, provided an impact fee deferral form has been executed.

(2) For any such eligible project that defers payment of the applicable transportation impact fee, the impact fee for the entire project must be paid when the first certificate of occupancy, temporary or permanent, is issued; provided, however, that for multi-building projects the impact fee may be paid on a building-by-building basis prior to issuance of the first certificate of occupancy, temporary or permanent, for each building in the project subject to such impact fee.

(3) Lien and service charge.

a. If the transportation impact fee is deferred at the time of issuance of the building permit, as authorized by subsection (b) 1 for an eligible commercial project, a service charge shall be assessed and a notice of nonpayment setting forth the legal description of the property and the amount of the impact fee liability shall be executed by the county. The county shall serve this notice upon the owner by certified mail and record it in the official records of the county. This notice shall thereupon operate as a lien against such property for the amount of the impact fee and all interest, penalties, costs, and fees for collection, coequal with lien(s) of any and all state, county, district, and municipal taxes.

b. Upon payment of the impact fee, the county shall promptly serve a notice of payment upon the owner by certified mail and record the notice of payment in the official records of the county.

(4) In the event the impact fee is not paid prior to the issuance of a certificate of occupancy (temporary or otherwise), the county shall make demand for payment of the fee. If the fee is not paid within fourteen (14) days after the county makes demand:

a. The county may collect the transportation impact fee, interest from the date payment was due at the rate fixed by state statute for judgments, a penalty of five (5) percent per month or any portion of a month (not to exceed twenty-five (25) percent), the costs of such collection, and reasonable attorneys' fees; and

b. For an eligible project, the building and/or license holder who pulled the building permit may be prohibited from pulling any other building permits until the transportation impact fee has been paid.

(c) The foregoing in this section 23-91 notwithstanding, for the period beginning August 3, 2020, and ending July 30, 2021, payment of the transportation impact fee may be made not later than when pre-power is authorized for the first building, or prior to issuance of the first certificate of occupancy, temporary or permanent, whichever occurs earlier.

Sec. 23-92. Transportation impact fee schedule.

(a) *Generally.* The transportation impact fees authorized by this article are generally calculated using Gross Floor Area, except as noted, and shall be as follows, with indexing at a rate of 3.4% annually, effective October 1 of each year, beginning October 1, 2021:

1. For the period beginning October 2, 2020~~February 16, 2013~~, and ending January 2, 2021~~**August 15, 2014~~:

<u>ITE LUC</u>	<u>Land Use</u>	<u>Unit</u>	<u>Calculated Rates*</u>		
			<u>Urban</u>	<u>Non- Urban/ Suburban</u>	<u>Rural</u>
-	<u>RESIDENTIAL:</u>	-	-	-	-
<u>210</u>	Single Family (Detached) - 1,200 sf or less	du	\$3,761	\$3,898	\$3,898
<u>210</u>	Single Family (Detached) - 1,201 to 2,000 sf	du	\$3,761	\$3,898	\$3,898
<u>210</u>	Single Family (Detached) - 2,001 to 3,500 sf	du	\$3,761	\$3,898	\$3,898
<u>210</u>	Single Family (Detached) - greater than 3,500 sf	du	\$3,761	\$3,898	\$3,898
<u>220</u>	Multi-Family Housing/Townhouse (Low-Rise, 1-2 Floors)	du	\$2,435	\$2,524	\$2,524
<u>221</u>	Multi-Family Housing (Mid-Rise, 3-10 Floors)	du	\$2,435	\$2,524	\$2,524
<u>222</u>	Multi-Family Housing (High-Rise, >10 Floors)	du	\$1,543	\$1,598	\$1,598
<u>225</u>	Student Housing (Adjacent to Campus)	bedroom	\$1,246	\$1,555	\$1,780
<u>225</u>	Student Housing (Over 1/2 Mile from Campus)	bedroom	\$2,410	\$2,973	\$3,399
<u>231</u>	Mid-Rise Residential w/1st Floor Commercial	du	\$2,744	\$3,417	\$3,909
<u>232</u>	High-Rise Residential w/1st Floor Commercial	du	\$1,571	\$1,986	\$2,274
<u>240</u>	Mobile Home Park	du	\$1,389	\$1,436	\$1,436
<u>251</u>	Sr. Adult Housing - Detached (Retirement Community/Age-Restricted SF)	du	\$1,234	\$1,274	\$1,274
<u>252</u>	Sr. Adult Housing - Attached (Retirement Community/Age-Restricted SF)	du	\$1,234	\$1,274	\$1,274
<u>265</u>	Time Share	du	\$1,999	\$2,076	\$2,076
-	<u>LODGING:</u>	-	-	-	-
<u>310</u>	Hotel/Tourist Hotel	room	\$1,910	\$1,978	\$1,978
<u>320</u>	Motel	room	\$1,355	\$1,411	\$1,411
-	<u>RECREATIONAL:</u>	-	-	-	-
<u>430</u>	Golf Course	acre	\$2,185	\$2,267	\$2,267
<u>437</u>	Bowling Alley	1,000 sf	\$7,992	\$9,284	\$9,881
<u>443</u>	Movie Theater	1,000 sf	\$10,698	\$11,151	\$11,151
<u>491</u>	Racquet Club	1,000 sf	\$4,918	\$5,106	\$5,106
<u>492</u>	Health/Fitness Club	1,000 sf	\$11,547	\$11,974	\$11,974
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	\$8,010	\$9,357	\$9,961
-	<u>INSTITUTIONAL:</u>	-	-	-	-
<u>522</u>	School	1,000 sf	\$6,734	\$6,974	\$6,974
<u>560</u>	Public Assembly	1,000 sf	\$3,284	\$3,767	\$4,010
<u>565</u>	Day Care	1,000 sf	\$6,741	\$7,043	\$7,043
<u>590</u>	Library	1,000 sf	\$11,589	\$12,015	\$12,015
-	<u>MEDICAL:</u>	-	-	-	-
<u>610</u>	Hospital	bed	\$3,823	\$3,968	\$3,968
<u>620</u>	Nursing Home	1,000 sf	\$355	\$369	\$369
<u>640</u>	Animal Hospital/Veterinary Clinic	1,000 sf	\$4,047	\$4,841	\$5,160
-	<u>OFFICE:</u>	-	-	-	-
<u>710</u>	General Office 50,000 sf or less	1,000 sf	\$5,374	\$5,574	\$5,574
<u>710</u>	General Office 50,001-100,000 sf	1,000 sf	\$4,575	\$4,748	\$4,748
<u>710</u>	General Office 100,001-200,000 sf	1,000 sf	\$3,905	\$4,050	\$4,050
<u>710</u>	General Office greater than 200,000 sf	1,000 sf	\$3,330	\$3,455	\$3,455

720	Small Medical/Dental Office (10,000 sf or less)	1,000 sf	\$12,446	\$12,900	\$12,900
720	Medical/Dental Office	1,000 sf	\$12,446	\$12,900	\$12,900
732	Post Office	1,000 sf	\$19,778	\$20,508	\$20,508
-	<u>RETAIL:</u>	-	-	-	-
815	Free-Standing Discount Store	1,000 sf	\$5,639	\$5,884	\$5,884
816	Hardware/Paint Store	1,000 sf	\$1,079	\$1,404	\$1,499
820	Retail/Tourist Retail: 50,000 sf or less*	1,000 sf	\$5,455	\$5,700	\$5,700
820	Retail/Tourist Retail: 50,001-100,000 sf*	1,000 sf	\$5,876	\$6,135	\$6,135
820	Retail/Tourist Retail: 100,001-200,000 sf*	1,000 sf	\$5,246	\$5,477	\$5,477
820	Retail/Tourist Retail: 200,001-300,000 sf*	1,000 sf	\$5,090	\$5,307	\$5,307
820	Retail/Tourist Retail: 300,001-400,000 sf*	1,000 sf	\$4,960	\$5,169	\$5,169
820	Retail/Tourist Retail: 400,001-500,000 sf*	1,000 sf	\$4,926	\$5,135	\$5,135
820	Retail/Tourist Retail: 500,001-1,000,000 sf*	1,000 sf	\$5,118	\$5,319	\$5,319
820	Retail/Tourist Retail: 1,000,001-1,200,000 sf*	1,000 sf	\$5,204	\$5,412	\$5,412
820	Retail/Tourist Retail: greater than 1,200,000 sf*	1,000 sf	\$5,319	\$5,534	\$5,534
840/841	New/Used Auto Sales	1,000 sf	\$6,040	\$6,276	\$6,276
850	Supermarket	1,000 sf	\$7,299	\$7,621	\$7,621
853	Convenience Market w/Gas Pumps	1,000 sf	\$19,451	\$20,411	\$20,411
862	Home Improvement Superstore	1,000 sf	\$2,933	\$3,059	\$3,059
863	Electronics Superstore	1,000 sf	\$1,424	\$1,502	\$1,502
880/881	Drug Store	1,000 sf	\$8,915	\$10,476	\$11,160
-	<u>SERVICES:</u>	-	-	-	-
911	Bank/Savings Walk-In	1,000 sf	\$8,404	\$10,094	\$10,758
912	Bank/Savings Drive-In	1,000 sf	\$11,050	\$11,525	\$11,525
925	Drinking Place	1,000 sf	\$3,590	\$3,774	\$3,774
931	Quality Restaurant	1,000 sf	\$13,690	\$14,253	\$14,253
932	High-Turnover Restaurant	1,000 sf	\$16,314	\$16,974	\$16,974
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	\$36,809	\$38,463	\$38,463
942	Auto Service	1,000 sf	\$6,651	\$6,891	\$6,891
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	\$4,456	\$4,660	\$4,660
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	\$4,456	\$4,660	\$4,660
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	\$4,456	\$4,660	\$4,660
947	Self-Service Car Wash	wash station	\$9,756	\$10,190	\$10,190
-	<u>INDUSTRIAL:</u>	-	-	-	-
110	General Light Industrial	1,000 sf	\$2,088	\$2,163	\$2,163
140	Manufacturing	1,000 sf	\$1,144	\$1,185	\$1,185
150	Warehouse	1,000 sf	\$1,050	\$1,107	\$1,107
151	Mini-Warehouse	1,000 sf	\$382	\$396	\$396

*Note: Gross leasable area

**For the period beginning October 2, 2020 and ending January 2, 2021, no new development will be charged a rate higher than the previous adopted rate, recognizing changes in land use categories and fee districts.

2. On or after ~~January 3, 2021~~ August 16, 2014:

<u>ITE LUC</u>	<u>Land Use</u>	<u>Unit</u>	<u>Calculated Rates</u>		
			<u>Urban</u>	<u>Non- Urban/ Suburban</u>	<u>Rural</u>
-	<u>RESIDENTIAL:</u>	-	-	-	-
<u>210</u>	<u>Single Family (Detached) - 1,200 sf or less</u>	<u>du</u>	<u>\$6,425</u>	<u>\$7,973</u>	<u>\$9,113</u>
<u>210</u>	<u>Single Family (Detached) - 1,201 to 2,000 sf</u>	<u>du</u>	<u>\$8,218</u>	<u>\$10,138</u>	<u>\$11,586</u>
<u>210</u>	<u>Single Family (Detached) - 2,001 to 3,500 sf</u>	<u>du</u>	<u>\$10,163</u>	<u>\$12,509</u>	<u>\$14,294</u>
<u>210</u>	<u>Single Family (Detached) - greater than 3,500 sf</u>	<u>du</u>	<u>\$10,640</u>	<u>\$13,082</u>	<u>\$14,949</u>
<u>220</u>	<u>Multi-Family Housing/Townhouse (Low-Rise, 1-2 Floors)</u>	<u>du</u>	<u>\$5,937</u>	<u>\$7,303</u>	<u>\$8,349</u>
<u>221</u>	<u>Multi-Family Housing (Mid-Rise, 3-10 Floors)</u>	<u>du</u>	<u>\$4,395</u>	<u>\$5,421</u>	<u>\$6,198</u>
<u>222</u>	<u>Multi-Family Housing (High-Rise, >10 Floors)</u>	<u>du</u>	<u>\$3,580</u>	<u>\$4,430</u>	<u>\$5,066</u>
<u>225</u>	<u>Student Housing (Adjacent to Campus)</u>	<u>bedroom</u>	<u>\$1,246</u>	<u>\$1,555</u>	<u>\$1,780</u>
<u>225</u>	<u>Student Housing (Over 1/2 Mile from Campus)</u>	<u>bedroom</u>	<u>\$2,410</u>	<u>\$2,973</u>	<u>\$3,399</u>
<u>231</u>	<u>Mid-Rise Residential w/1st Floor Commercial</u>	<u>du</u>	<u>\$2,744</u>	<u>\$3,417</u>	<u>\$3,909</u>
<u>232</u>	<u>High-Rise Residential w/1st Floor Commercial</u>	<u>du</u>	<u>\$1,571</u>	<u>\$1,986</u>	<u>\$2,274</u>
<u>240</u>	<u>Mobile Home Park</u>	<u>du</u>	<u>\$3,054</u>	<u>\$3,755</u>	<u>\$4,292</u>
<u>251</u>	<u>Sr. Adult Housing - Detached (Retirement Community/Age-Restricted SF)</u>	<u>du</u>	<u>\$2,975</u>	<u>\$3,704</u>	<u>\$4,236</u>
<u>252</u>	<u>Sr. Adult Housing - Attached (Retirement Community/Age-Restricted SF)</u>	<u>du</u>	<u>\$2,220</u>	<u>\$2,803</u>	<u>\$3,208</u>
<u>265</u>	<u>Time Share</u>	<u>du</u>	<u>\$5,343</u>	<u>\$6,660</u>	<u>\$7,619</u>
-	<u>LODGING:</u>	-	-	-	-
<u>310</u>	<u>Hotel/Tourist Hotel</u>	<u>room</u>	<u>\$3,033</u>	<u>\$3,519</u>	<u>\$3,746</u>
<u>320</u>	<u>Motel</u>	<u>room</u>	<u>\$1,440</u>	<u>\$1,713</u>	<u>\$1,823</u>
-	<u>RECREATIONAL:</u>	-	-	-	-
<u>430</u>	<u>Golf Course</u>	<u>acre</u>	<u>\$2,841</u>	<u>\$3,388</u>	<u>\$3,608</u>
<u>437</u>	<u>Bowling Alley</u>	<u>1,000 sf</u>	<u>\$7,992</u>	<u>\$9,284</u>	<u>\$9,881</u>
<u>443</u>	<u>Movie Theater</u>	<u>1,000 sf</u>	<u>\$20,895</u>	<u>\$24,343</u>	<u>\$25,929</u>
<u>491</u>	<u>Racquet Club</u>	<u>1,000 sf</u>	<u>\$12,734</u>	<u>\$14,714</u>	<u>\$15,658</u>
<u>492</u>	<u>Health/Fitness Club</u>	<u>1,000 sf</u>	<u>\$22,427</u>	<u>\$25,811</u>	<u>\$27,464</u>
<u>n/a</u>	<u>Dance Studio (Martial Arts/Music Lessons)</u>	<u>1,000 sf</u>	<u>\$8,010</u>	<u>\$9,357</u>	<u>\$9,961</u>
-	<u>INSTITUTIONAL:</u>	-	-	-	-
<u>522</u>	<u>School</u>	<u>1,000 sf</u>	<u>\$6,998</u>	<u>\$8,166</u>	<u>\$8,696</u>
<u>560</u>	<u>Public Assembly</u>	<u>1,000 sf</u>	<u>\$3,284</u>	<u>\$3,767</u>	<u>\$4,010</u>
<u>565</u>	<u>Day Care</u>	<u>1,000 sf</u>	<u>\$9,446</u>	<u>\$11,107</u>	<u>\$11,834</u>
<u>590</u>	<u>Library</u>	<u>1,000 sf</u>	<u>\$31,734</u>	<u>\$36,269</u>	<u>\$38,581</u>
-	<u>MEDICAL:</u>	-	-	-	-
<u>610</u>	<u>Hospital</u>	<u>bed</u>	<u>\$15,641</u>	<u>\$17,887</u>	<u>\$19,028</u>
<u>620</u>	<u>Nursing Home</u>	<u>1,000 sf</u>	<u>\$1,899</u>	<u>\$2,288</u>	<u>\$2,439</u>
<u>640</u>	<u>Animal Hospital/Veterinary Clinic</u>	<u>1,000 sf</u>	<u>\$4,047</u>	<u>\$4,841</u>	<u>\$5,160</u>
-	<u>OFFICE:</u>	-	-	-	-
<u>710</u>	<u>General Office 50,000 sf or less</u>	<u>1,000 sf</u>	<u>\$8,132</u>	<u>\$10,037</u>	<u>\$11,473</u>
<u>710</u>	<u>General Office 50,001-100,000 sf</u>	<u>1,000 sf</u>	<u>\$7,953</u>	<u>\$9,834</u>	<u>\$11,241</u>
<u>710</u>	<u>General Office 100,001-200,000 sf</u>	<u>1,000 sf</u>	<u>\$7,790</u>	<u>\$9,633</u>	<u>\$11,011</u>

<u>710</u>	<u>General Office greater than 200,000 sf</u>	<u>1,000 sf</u>	<u>\$7,621</u>	<u>\$9,425</u>	<u>\$10,775</u>
<u>720</u>	<u>Small Medical/Dental Office (10,000 sf or less)</u>	<u>1,000 sf</u>	<u>\$18,872</u>	<u>\$23,107</u>	<u>\$26,402</u>
<u>720</u>	<u>Medical/Dental Office</u>	<u>1,000 sf</u>	<u>\$27,101</u>	<u>\$33,099</u>	<u>\$37,817</u>
<u>732</u>	<u>Post Office</u>	<u>1,000 sf</u>	<u>\$42,201</u>	<u>\$51,502</u>	<u>\$58,845</u>
-	<u>RETAIL:</u>	-	-	-	-
<u>815</u>	<u>Free-Standing Discount Store</u>	<u>1,000 sf</u>	<u>\$11,105</u>	<u>\$12,981</u>	<u>\$13,826</u>
<u>816</u>	<u>Hardware/Paint Store</u>	<u>1,000 sf</u>	<u>\$1,079</u>	<u>\$1,404</u>	<u>\$1,499</u>
<u>820</u>	<u>Retail/Tourist Retail: 50,000 sf or less*</u>	<u>1,000 sf</u>	<u>\$10,051</u>	<u>\$11,818</u>	<u>\$12,594</u>
<u>820</u>	<u>Retail/Tourist Retail: 50,001-100,000 sf*</u>	<u>1,000 sf</u>	<u>\$11,052</u>	<u>\$12,926</u>	<u>\$13,769</u>
<u>820</u>	<u>Retail/Tourist Retail: 100,001-200,000 sf*</u>	<u>1,000 sf</u>	<u>\$10,052</u>	<u>\$11,763</u>	<u>\$12,529</u>
<u>820</u>	<u>Retail/Tourist Retail: 200,001-300,000 sf*</u>	<u>1,000 sf</u>	<u>\$9,852</u>	<u>\$11,532</u>	<u>\$12,282</u>
<u>820</u>	<u>Retail/Tourist Retail: 300,001-400,000 sf*</u>	<u>1,000 sf</u>	<u>\$9,676</u>	<u>\$11,312</u>	<u>\$12,047</u>
<u>820</u>	<u>Retail/Tourist Retail: 400,001-500,000 sf*</u>	<u>1,000 sf</u>	<u>\$9,667</u>	<u>\$11,301</u>	<u>\$12,035</u>
<u>820</u>	<u>Retail/Tourist Retail: 500,001-1,000,000 sf*</u>	<u>1,000 sf</u>	<u>\$10,244</u>	<u>\$11,928</u>	<u>\$12,699</u>
<u>820</u>	<u>Retail/Tourist Retail: 1,000,001-1,200,000 sf*</u>	<u>1,000 sf</u>	<u>\$10,475</u>	<u>\$12,188</u>	<u>\$12,975</u>
<u>820</u>	<u>Retail/Tourist Retail: greater than 1,200,000 sf*</u>	<u>1,000 sf</u>	<u>\$10,770</u>	<u>\$12,517</u>	<u>\$13,323</u>
<u>840/841</u>	<u>New/Used Auto Sales</u>	<u>1,000 sf</u>	<u>\$11,875</u>	<u>\$13,755</u>	<u>\$14,639</u>
<u>850</u>	<u>Supermarket</u>	<u>1,000 sf</u>	<u>\$16,070</u>	<u>\$18,789</u>	<u>\$20,016</u>
<u>853</u>	<u>Convenience Market w/Gas Pumps</u>	<u>1,000 sf</u>	<u>\$33,899</u>	<u>\$39,800</u>	<u>\$42,428</u>
<u>862</u>	<u>Home Improvement Superstore</u>	<u>1,000 sf</u>	<u>\$6,359</u>	<u>\$7,492</u>	<u>\$7,981</u>
<u>863</u>	<u>Electronics Superstore</u>	<u>1,000 sf</u>	<u>\$5,427</u>	<u>\$6,440</u>	<u>\$6,865</u>
<u>880/881</u>	<u>Drug Store</u>	<u>1,000 sf</u>	<u>\$8,915</u>	<u>\$10,476</u>	<u>\$11,162</u>
-	<u>SERVICES:</u>	-	-	-	-
<u>911</u>	<u>Bank/Savings Walk-In</u>	<u>1,000 sf</u>	<u>\$8,404</u>	<u>\$10,094</u>	<u>\$10,758</u>
<u>912</u>	<u>Bank/Savings Drive-In</u>	<u>1,000 sf</u>	<u>\$14,868</u>	<u>\$17,571</u>	<u>\$18,719</u>
<u>925</u>	<u>Drinking Place</u>	<u>1,000 sf</u>	<u>\$15,293</u>	<u>\$17,918</u>	<u>\$19,094</u>
<u>931</u>	<u>Quality Restaurant</u>	<u>1,000 sf</u>	<u>\$27,456</u>	<u>\$31,864</u>	<u>\$33,925</u>
<u>932</u>	<u>High-Turnover Restaurant</u>	<u>1,000 sf</u>	<u>\$31,604</u>	<u>\$36,650</u>	<u>\$39,017</u>
<u>934</u>	<u>Fast Food Restaurant w/Drive-Thru</u>	<u>1,000 sf</u>	<u>\$74,592</u>	<u>\$86,876</u>	<u>\$92,547</u>
<u>942</u>	<u>Auto Service</u>	<u>1,000 sf</u>	<u>\$9,708</u>	<u>\$11,271</u>	<u>\$11,998</u>
<u>944</u>	<u>Gas Station with or w/o Convenience Market <2,000 sq ft</u>	<u>fuel pos.</u>	<u>\$9,798</u>	<u>\$11,409</u>	<u>\$12,154</u>
<u>945</u>	<u>Gas Station w/Convenience Market 2,000-2,999 sq ft</u>	<u>fuel pos.</u>	<u>\$11,709</u>	<u>\$13,620</u>	<u>\$14,511</u>
<u>960</u>	<u>Gas Station w/Convenience Market 3,000+ sq ft</u>	<u>fuel pos.</u>	<u>\$13,136</u>	<u>\$15,287</u>	<u>\$16,286</u>
<u>947</u>	<u>Self-Service Car Wash</u>	<u>wash station</u>	<u>\$20,980</u>	<u>\$24,344</u>	<u>\$25,929</u>
-	<u>INDUSTRIAL:</u>	-	-	-	-
<u>110</u>	<u>General Light Industrial</u>	<u>1,000 sf</u>	<u>\$3,117</u>	<u>\$3,857</u>	<u>\$4,410</u>
<u>140</u>	<u>Manufacturing</u>	<u>1,000 sf</u>	<u>\$2,447</u>	<u>\$3,049</u>	<u>\$3,487</u>
<u>150</u>	<u>Warehouse</u>	<u>1,000 sf</u>	<u>\$1,050</u>	<u>\$1,347</u>	<u>\$1,541</u>
<u>151</u>	<u>Mini-Warehouse</u>	<u>1,000 sf</u>	<u>\$578</u>	<u>\$780</u>	<u>\$893</u>

* Note: gross leasable area

<u>Impact Fees</u>			
<u>Land Use Type</u>	<u>Unit</u>	<u>Non-AMA Rate</u>	<u>AMA Rate</u>
<u>Residential</u>			
<u>Single Family Detached</u>	<u>Dwelling</u>	<u>\$2,924</u>	<u>\$2,821</u>
<u>Multi-Family (Apartments)</u>	<u>Dwelling</u>	<u>\$1,938</u>	<u>\$1,865</u>
<u>Condominium/Townhouse</u>	<u>Dwelling</u>	<u>\$2,284</u>	<u>\$2,208</u>
<u>High-Rise Condo/Townhouse</u>	<u>Dwelling</u>	<u>\$1,564</u>	<u>\$1,513</u>
<u>Mobile Home Park</u>	<u>Dwelling</u>	<u>\$1,077</u>	<u>\$1,042</u>
<u>Retirement Housing/Age Restricted</u>	<u>Dwelling</u>	<u>\$956</u>	<u>\$925</u>
<u>Student Housing</u>	<u>Dwelling</u>	<u>\$825</u>	<u>\$800</u>
<u>Lodging</u>			
<u>Hotel</u>	<u>Room</u>	<u>\$1,483</u>	<u>\$1,432</u>
<u>Motel</u>	<u>Room</u>	<u>\$1,058</u>	<u>\$1,016</u>
<u>Tourist Hotel</u>	<u>Room</u>	<u>\$1,347</u>	---
<u>Time Share</u>	<u>Dwelling</u>	<u>\$1,557</u>	<u>\$1,499</u>
<u>Recreation</u>			
<u>Golf Course</u>	<u>Acre</u>	<u>\$1,701</u>	<u>\$1,638</u>
<u>Bowling Alley</u>	<u>1,000 sq. ft.</u>	<u>\$8,703</u>	<u>\$8,393</u>
<u>Movie Theater without Matinee</u>	<u>1,000 sq. ft.</u>	<u>\$8,363</u>	<u>\$8,023</u>
<u>Racquet Club</u>	<u>1,000 sq. ft.</u>	<u>\$3,829</u>	<u>\$3,689</u>
<u>Health/Fitness Club</u>	<u>1,000 sq. ft.</u>	<u>\$8,980</u>	<u>\$8,660</u>
<u>Institutions</u>			
<u>Day Care Center</u>	<u>1,000 sq. ft.</u>	<u>\$5,282</u>	<u>\$5,056</u>
<u>Library</u>	<u>1,000 sq. ft.</u>	<u>\$9,012</u>	<u>\$8,691</u>
<u>Hospital</u>	<u>1,000 sq. ft.</u>	<u>\$2,976</u>	<u>\$2,867</u>
<u>Nursing Home</u>	<u>1,000 sq. ft.</u>	<u>\$277</u>	<u>\$266</u>
<u>Animal Hospital/Vet Clinic</u>	<u>1,000 sq. ft.</u>	<u>\$6,691</u>	<u>\$6,447</u>
<u>School</u>	<u>1,000 sq. ft.</u>	<u>\$5,230</u>	<u>\$5,051</u>
<u>Public Assembly</u>	<u>1,000 sq. ft.</u>	<u>\$3,460</u>	<u>\$3,336</u>
<u>Office</u>			
<u>Office, 50,000 sf or less</u>	<u>1,000 sq. ft.</u>	<u>\$4,180</u>	<u>\$4,030</u>
<u>Office, 50,001-100,000 sf</u>	<u>1,000 sq. ft.</u>	<u>\$3,561</u>	<u>\$3,431</u>
<u>Office, 100,001-200,000 sf</u>	<u>1,000 sq. ft.</u>	<u>\$3,037</u>	<u>\$2,929</u>
<u>Office, more than 200,000 sf</u>	<u>1,000 sq. ft.</u>	<u>\$2,591</u>	<u>\$2,498</u>
<u>Office, Medical/Dental</u>	<u>1,000 sq. ft.</u>	<u>\$9,675</u>	<u>\$9,335</u>
<u>Post Office</u>	<u>1,000 sq. ft.</u>	<u>\$15,381</u>	<u>\$14,834</u>
<u>Retail</u>			
<u>Free Standing Discount Store</u>	<u>1,000 sq. ft.</u>	<u>\$4,413</u>	<u>\$4,229</u>
<u>Hardware/Paint Store</u>	<u>1,000 sq. ft.</u>	<u>\$2,534</u>	<u>\$2,423</u>
<u>Retail, 50,000 sf or Less</u>	<u>1,000 sq. ft.*</u>	<u>\$4,275</u>	<u>\$4,091</u>
<u>Retail, 50,001-100,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$4,602</u>	<u>\$4,407</u>
<u>Retail, 100,001-200,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$4,108</u>	<u>\$3,935</u>

<u>Retail, 200,001-300,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$3,776</u>	<u>\$3,619</u>
<u>Retail, 300,001-400,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$3,684</u>	<u>\$3,532</u>
<u>Retail, 400,001-500,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$3,654</u>	<u>\$3,508</u>
<u>Retail, 500,001-1,000,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$3,790</u>	<u>\$3,645</u>
<u>Retail, 1,000,001-1,200,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$3,859</u>	<u>\$3,707</u>
<u>Retail, more than 1,200,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$3,942</u>	<u>\$3,791</u>
<u>New/Used Auto Sales</u>	<u>1,000 sq. ft.</u>	<u>\$4,707</u>	<u>\$4,530</u>
<u>Supermarket</u>	<u>1,000 sq. ft.</u>	<u>\$5,716</u>	<u>\$5,474</u>
<u>Convenience Market w/Gas Pumps</u>	<u>1,000 sq. ft.</u>	<u>\$15,308</u>	<u>\$14,588</u>
<u>Home Improvement Superstore</u>	<u>1,000 sq. ft.</u>	<u>\$2,294</u>	<u>\$2,200</u>
<u>Electronics Superstore</u>	<u>1,000 sq. ft.</u>	<u>\$1,126</u>	<u>\$1,068</u>
<u>Bank/Drive In</u>	<u>1,000 sq. ft.</u>	<u>\$8,644</u>	<u>\$8,288</u>
<u>Drinking Place</u>	<u>1,000 sq. ft.</u>	<u>\$2,830</u>	<u>\$2,693</u>
<u>Restaurant, Quality</u>	<u>1,000 sq. ft.</u>	<u>\$10,690</u>	<u>\$10,268</u>
<u>Restaurant, High Turnover</u>	<u>1,000 sq. ft.</u>	<u>\$12,730</u>	<u>\$12,235</u>
<u>Restaurant, Fast Food w/Drive-Thru</u>	<u>1,000 sq. ft.</u>	<u>\$28,847</u>	<u>\$27,607</u>
<u>Service Station</u>	<u>Fuel Position</u>	<u>\$3,495</u>	<u>\$3,342</u>
<u>Self-Service Car Wash</u>	<u>Wash Station</u>	<u>\$7,643</u>	<u>\$7,317</u>
<u>Tourist Retail</u>	<u>1,000 sq. ft.</u>	<u>\$4,856</u>	<u>—</u>
<u>Auto Service</u>	<u>1,000 sq. ft.</u>	<u>\$5,169</u>	<u>\$4,988</u>
<u>Drug Store</u>	<u>1,000 sq. ft.</u>	<u>\$8,370</u>	<u>\$8,053</u>
<u>Industrial</u>			
<u>General Light Industrial</u>	<u>1,000 sq. ft.</u>	<u>\$1,622</u>	<u>\$1,566</u>
<u>Manufacturing</u>	<u>1,000 sq. ft.</u>	<u>\$889</u>	<u>\$858</u>
<u>Warehousing</u>	<u>1,000 sq. ft.</u>	<u>\$830</u>	<u>\$799</u>
<u>Mini Warehouse</u>	<u>1,000 sq. ft.</u>	<u>\$297</u>	<u>\$286</u>

<u>Impact Fees</u>			
<u>Land Use Type</u>	<u>Unit</u>	<u>Non-AMA Rate</u>	<u>AMA Rate</u>
<u>Residential</u>			
<u>Single Family Detached</u>	<u>Dwelling</u>	<u>\$3,898</u>	<u>\$3,761</u>
<u>Multi Family (Apartments)</u>	<u>Dwelling</u>	<u>\$2,584</u>	<u>\$2,487</u>
<u>Condominium/Townhouse</u>	<u>Dwelling</u>	<u>\$3,046</u>	<u>\$2,943</u>
<u>High Rise</u>	<u>Dwelling</u>	<u>\$2,085</u>	<u>\$2,017</u>
<u>Condo/Townhouse</u>	<u>Dwelling</u>	<u>\$2,085</u>	<u>\$2,017</u>
<u>Mobile Home Park</u>	<u>Dwelling</u>	<u>\$1,436</u>	<u>\$1,389</u>
<u>Retirement Housing/Age Restricted</u>	<u>Dwelling</u>	<u>\$1,274</u>	<u>\$1,234</u>
<u>Student Housing</u>	<u>Dwelling</u>	<u>\$1,100</u>	<u>\$1,066</u>

<u>Lodging</u>			
<u>Hotel</u>	<u>Room</u>	<u>\$1,978</u>	<u>\$1,910</u>
<u>Motel</u>	<u>Room</u>	<u>\$1,411</u>	<u>\$1,355</u>
<u>Tourist Hotel</u>	<u>Room</u>	<u>\$1,796</u>	<u>---</u>
<u>Time Share</u>	<u>Dwelling</u>	<u>\$2,076</u>	<u>\$1,999</u>
<u>Recreation</u>			
<u>Golf Course</u>	<u>Acre</u>	<u>\$2,267</u>	<u>\$2,185</u>
<u>Bowling Alley</u>	<u>1,000 sq. ft.</u>	<u>\$11,604</u>	<u>\$11,191</u>
<u>Movie Theater without Matinee</u>	<u>1,000 sq. ft.</u>	<u>\$11,151</u>	<u>\$10,698</u>
<u>Racquet Club</u>	<u>1,000 sq. ft.</u>	<u>\$5,106</u>	<u>\$4,918</u>
<u>Health/Fitness Club</u>	<u>1,000 sq. ft.</u>	<u>\$11,974</u>	<u>\$11,547</u>
<u>Institutions</u>			
<u>Day Care Center</u>	<u>1,000 sq. ft.</u>	<u>\$7,043</u>	<u>\$6,741</u>
<u>Library</u>	<u>1,000 sq. ft.</u>	<u>\$12,015</u>	<u>\$11,589</u>
<u>Hospital</u>	<u>1,000 sq. ft.</u>	<u>\$3,968</u>	<u>\$3,823</u>
<u>Nursing Home</u>	<u>1,000 sq. ft.</u>	<u>\$369</u>	<u>\$355</u>
<u>Animal Hospital/Vet Clinic</u>	<u>1,000 sq. ft.</u>	<u>\$8,921</u>	<u>\$8,597</u>
<u>School</u>	<u>1,000 sq. ft.</u>	<u>\$6,974</u>	<u>\$6,734</u>
<u>Public Assembly</u>	<u>1,000 sq. ft.</u>	<u>\$4,614</u>	<u>\$4,448</u>
<u>Office</u>			
<u>Office, 50,000 sf or less</u>	<u>1,000 sq. ft.</u>	<u>\$5,574</u>	<u>\$5,374</u>
<u>Office, 50,001-100,000 sf</u>	<u>1,000 sq. ft.</u>	<u>\$4,748</u>	<u>\$4,575</u>
<u>Office, 100,001-200,000 sf</u>	<u>1,000 sq. ft.</u>	<u>\$4,050</u>	<u>\$3,905</u>
<u>Office, more than 200,000 sf</u>	<u>1,000 sq. ft.</u>	<u>\$3,455</u>	<u>\$3,330</u>
<u>Office, Medical/Dental</u>	<u>1,000 sq. ft.</u>	<u>\$12,900</u>	<u>\$12,446</u>
<u>Post Office</u>	<u>1,000 sq. ft.</u>	<u>\$20,508</u>	<u>\$19,778</u>
<u>Retail</u>			
<u>Specialty Retail Center</u>	<u>1,000 sq. ft.</u>	<u>\$9,285</u>	<u>\$8,924</u>
<u>Free-Standing Discount Store</u>	<u>1,000 sq. ft.</u>	<u>\$5,884</u>	<u>\$5,639</u>
<u>Hardware/Paint Store</u>	<u>1,000 sq. ft.</u>	<u>\$3,378</u>	<u>\$3,231</u>
<u>Retail, 50,000 sf or Less</u>	<u>1,000 sq. ft.*</u>	<u>\$5,700</u>	<u>\$5,455</u>
<u>Retail, 50,001-100,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$6,135</u>	<u>\$5,876</u>
<u>Land Use Type</u>			
	<u>Unit</u>	<u>Non-AMA rate</u>	<u>AMA rate</u>
<u>Retail, 100,001-200,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$5,477</u>	<u>\$5,246</u>
<u>Retail, 200,001-300,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$5,035</u>	<u>\$4,825</u>
<u>Retail, 300,001-400,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$4,912</u>	<u>\$4,710</u>

<u>Retail, 400,001-500,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$4,871</u>	<u>\$4,677</u>
<u>Retail, 500,001-1,000,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$5,053</u>	<u>\$4,860</u>
<u>Retail, 1,000,001-1,200,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$5,145</u>	<u>\$4,943</u>
<u>Retail, more than 1,200,000 sf</u>	<u>1,000 sq. ft.*</u>	<u>\$5,256</u>	<u>\$5,055</u>
<u>New/Used Auto Sales</u>	<u>1,000 sq. ft.</u>	<u>\$6,276</u>	<u>\$6,040</u>
<u>Supermarket</u>	<u>1,000 sq. ft.</u>	<u>\$7,621</u>	<u>\$7,299</u>
<u>Convenience Market w/Gas Pumps</u>	<u>1,000 sq. ft.</u>	<u>\$20,411</u>	<u>\$19,451</u>
<u>Home Improvement Superstore</u>	<u>1,000 sq. ft.</u>	<u>\$3,059</u>	<u>\$2,933</u>
<u>Electronics Superstore</u>	<u>1,000 sq. ft.</u>	<u>\$1,502</u>	<u>\$1,424</u>
<u>Bank/Drive In</u>	<u>1,000 sq. ft.</u>	<u>\$11,525</u>	<u>\$11,050</u>
<u>Drinking Place</u>	<u>1,000 sq. ft.</u>	<u>\$3,774</u>	<u>\$3,590</u>
<u>Restaurant, Quality</u>	<u>1,000 sq. ft.</u>	<u>\$14,253</u>	<u>\$13,690</u>
<u>Restaurant, High Turnover</u>	<u>1,000 sq. ft.</u>	<u>\$16,974</u>	<u>\$16,314</u>
<u>Restaurant, Fast Food w/Drive Thru</u>	<u>1,000 sq. ft.</u>	<u>\$38,463</u>	<u>\$36,809</u>
<u>Service Station</u>	<u>Fuel Position Wash Station</u>	<u>\$4,660</u>	<u>\$4,456</u>
<u>Self Service Car Wash</u>	<u>Station</u>	<u>\$10,190</u>	<u>\$9,756</u>
<u>Tourist Retail</u>	<u>1,000 sq. ft.</u>	<u>\$6,475</u>	<u>—</u>
<u>Auto Service</u>	<u>1,000 sq. ft.</u>	<u>\$6,891</u>	<u>\$6,651</u>
<u>Drug Store</u>	<u>1,000 sq. ft.</u>	<u>\$11,160</u>	<u>\$10,737</u>
<u>Industrial</u>			
<u>General Light Industrial</u>	<u>1,000 sq. ft.</u>	<u>\$2,163</u>	<u>\$2,088</u>
<u>Manufacturing</u>	<u>1,000 sq. ft.</u>	<u>\$1,185</u>	<u>\$1,144</u>
<u>Warehousing</u>	<u>1,000 sq. ft.</u>	<u>\$1,107</u>	<u>\$1,066</u>
<u>Mini Warehouse</u>	<u>1,000 sq. ft.</u>	<u>\$396</u>	<u>\$382</u>

3. Additionally, for purposes of the foregoing, the following land uses shall be assessed as follows:

Impact fee land use type:

Land use:

Hardware/Paint Store	Dance School
High Turnover Restaurant	Bakery (with tables & chairs)
Hospital	Home for Abused Children
	Jail
Light Industrial	Equestrian Center

	Laboratory Testing Facilities Secure Transportation Cash Handling & Security (Pistol Range, Truck Maintenance Garage, Locker & Locker Storage Bathrooms) Sewage Treatment Facility Unmanned Structures
Medical Office	Laboratory Testing Facilities
Mini Warehouse	Kennels Mausoleums Residence in Mini Warehouse
Multifamily	Dormitory (by dwelling unit if do not qualify as student housing) Fraternity (by dwelling unit if do not qualify as student housing)
Office	Catering when Food/Drink is not served (only preparation) Guard House Secure Transportation, Cash Handling & Security (offices, loading/receiving, money room, vault rooms, coin wrapping/sorting & coin storage) Towing Company Utilities & Customer Account Offices
Post Office	Federal Express
Public Assembly	Camp, Church, Concession Stands in Parks, Funeral Home, Restrooms in Parks
Racquet Club	Skateboard & Skating Rinks
Retail	Bakery (w/o tables & chairs), Beauty Salon, Car Rental, Catering when Food is served (banquet hall, ballroom, conference & Assembly room), Flower Shop, Full Service Car Wash, Heavy Machinery Sales and Rental, Palm Reader, Tailor Shop, Theme Park
Warehouse	USPS Distribution Center

(b) *Determination of land use.* In the event that the land use for which the building permit is proposed is not listed within the above categories, the Director of the ~~Community Planning~~, Environmental, and Development Services Department or his or her designee shall make a determination as to the appropriate land use designation. Pursuant to Administrative Regulation 4.01, any sSuch determination may be appealed to the Impact Fee Committee, ~~pursuant to Administrative Regulation No. 4.0~~ upon payment of a nonrefundable processing fee, for the Committee's determination of an appropriate land use and corresponding transportation impact fee assessment.

(c) *Aggregation.* An applicant for a building permit shall not be entitled to aggregate the square footage of a multi-building project for the purpose of calculating that project's impact fee.

(d) *Internal Capture Reduction.* If an applicant believes an impact fee reduction is appropriate to account for internal capture, in accordance with accepted traffic and transportation industry standards, then the applicant may submit a request for an internal capture reduction, with supporting calculations, according to (f) (1) below. ~~In any case, however, the transportation impact fee reduction shall not exceed one hundred thousand dollars (\$100,000.00).~~

(e) *Accessory Uses.* Except as otherwise noted in Section 23-98 of this Code, an accessory use shall be assessed based on the fee for the lesser of the accessory or primary land use for the first twenty-five percent (25%) of its square footage in relation to the primary use, individually or cumulatively, with any excess square footage assessed at the Ordinance rate for the accessory use.

(f) *Appeal process.*

(1) ~~In the event a~~ A person who believes that he or she is eligible for an internal capture reduction under section 23-92, an alternative impact fee calculation under section 23-93, a deferral of payment under section 23-94, credits under section 23-95, an exemption or discount under section 23-98, or any other bona fide determination, ~~s/he~~ may submit a written request to the ~~Community~~Planning, Environmental, and Development Services Department, Fiscal and Operational Support Division, along with all necessary documentation. The appropriate county staff shall review the request within a reasonable period of time, not to exceed thirty (30) days. After the appropriate county staff has reviewed the written request, the appropriate county division shall promptly notify the person of the results of such review.

(2) ~~If the~~ A person who disagrees with the determination rendered by county staff, ~~he~~ may appeal the determination to the county's Impact Fee Committee, pursuant to Administrative Regulations 4.01 ~~and 4.02~~, upon payment of a nonrefundable processing fee. ~~If he decides to appeal the determination, he shall file a written notice of appeal with the Committee coordinator~~ not later than fifteen (15) days after the date that the staff written determination was rendered. If the notice of appeal is not filed within the fifteen-day period, ~~such~~ the person waives the his right to appeal the determination. Within fifteen (15) days after timely receipt of ~~a the~~ written notice of appeal, a hearing date and time shall be assigned and notice given to the appellant.

(3) ~~In the event the~~ A person who disagrees with the decision of the Impact Fee Committee, ~~he~~ may appeal the decision to the Development Review Committee by filing of a written notice of appeal and payment of a non-refundable processing fee, no later than ~~within~~ fifteen (15) days after the decision.

(4) ~~In the event the~~ A person who disagrees with the decision of the Development Review Committee, ~~he~~ may appeal the decision to the Orange County BCC by filing of a written notice of appeal and payment of a non-refundable processing fee, ~~within~~ not later than fifteen (15) days after the decision.

(5) ~~In the event a~~ A person who disagrees with the appellate decision of the BCC, ~~he~~ may challenge such decision in the circuit court by filing a petition for writ of certiorari no later than thirty (30) days ~~from~~ after the date of issuance of the decision of the BCC.

(6) In the event a person pays the impact fees pursuant to this article clearly marked as “paid under written protest” with the intent of filing an appeal, and in the event such ~~his~~ appeal is subsequently approved by the staff, or ~~his~~ such appeal is subsequently rejected by the staff but the staff’s determination is thereafter disapproved by an -appellate decision of the BCC, the county shall not pay interest on the funds paid under protest and subsequently refunded, unless the county has earned interest on such funds.

Sec. 23-93. Alternative impact fee calculation.

(a) In the event an applicant believes that the cost of off-site ~~roadway~~ transportation improvements needed to serve his or her proposed development is less than the fee established in section 23-92, the applicant may, at no ~~at his own~~ expense to the county, submit an alternative fee calculation to the county administrator, or ~~his~~ his designee, pursuant to the provisions of this section. At the time of issuance of a building permit, an applicant must pay or defer the assessed impact fee, clearly marked as “under protest,” if he or she intends to submit an alternative fee calculation to the county. In such case, the applicant must, no later than ninety (90) days after payment or deferral under protest, notify the county, in writing, of his or her intent to submit the alternative impact fee calculation; failure to provide such written notification shall waive the applicant’s right to submit an alternative fee calculation. Such an alternative fee calculation shall be timely submitted to the Impact Fee Committee for review and approval prior to issuance of any building permit and must be approved by the BCC, including executing and entering into an Alternative Impact Fee Agreement, prior to issuance of any certificate of occupancy, temporary or permanent.

If the data, information, and assumptions used by the applicant to calculate the alternative impact fee satisfy the requirements of this section, the alternative impact fee shall be deemed the impact fee due and owing for the proposed development. The proposed development shall be presumed to generate the maximum number of average daily trips to be generated by the most intensive use permitted under the applicable land development regulations such as the comprehensive plan or zoning regulations or under applicable deed or plat restrictions.

(b) The alternative impact fee shall be calculated by use of the following formula for each land use:

Within the AMA Urban Fee District:

$$\text{NET IMPACT FEE} = \text{TOTAL IMPACT COST} - \text{GAS TAX EQUIVALENT CREDIT} - \text{AD VALOREM CREDIT}$$

$$\text{TOTAL IMPACT COST} = \text{VMT}_{\text{cost}} * (1 - \text{LADF}) * \text{COST}_{\text{per VMC}}$$

$$\text{GAS TAX EQUIVALENT CREDIT} = \text{VMT}_{\text{credit}} * \text{CREDIT}_{\text{per VMT}}$$

Where:

$$\text{VMT}_{\text{cost}} = (\text{ADT} * \text{ATL} * \% \text{ NT}) / 2$$

$$\text{VMT}_{\text{credit}} = (\text{ADT} * \text{TTL} * \% \text{ NT}) / 2$$

ADT = the average daily trip generation rate in vehicle-trips per day

% NT = Percent of new or primary trips, as opposed to pass-by or diverted-linked trips

ATL = Assessable trip length

TTL = Total trip length, calculated as ATL plus 0.5

LADF = percent of ATL occurring on interstate highways or toll facilities, excluding through traffic that does not have an origin or destination in the county

$$\text{COST}_{\text{per VMC}} = \frac{\text{COST}_{\text{per PERSONVEHICLELANE-MILE}}}{\text{CAPACITY}}$$

(\$304.23504.44)

$$\text{COST}_{\text{per LANE}} = \frac{\text{Average cost to add a new lane-mile to the major roadway system}}{\text{LANE-MILE roadway system } (\$3,744,540,000)}$$

MILE

CAPACITY = Average daily capacity of a lane at desired LOS (9,506,000)

PTF = Person Trip Factor (1.3)

$$\text{CREDIT}_{\text{per VMT}} = \frac{\$/\text{GAL} * 365 * \text{NPV} / \text{MPG}}{\text{VMT}}$$

(\$61.0959.37)

\$/GAL = Capacity-expanding funding for roads per gallon of gasoline consumed
(\$0.246197)

MPG = Miles per gallon, average for U.S. motor vehicle fleet (18.492 mpg)

365 = Days per year (used to convert daily VMT to annual VMT)

NPV = Net present value factor (~~14.0939~~15.6221: gas tax payments based on 54.0% interest rate and a 25-year facility life)

Outside Within the AMA Suburban Fee District:

NET IMPACT FEE = TOTAL IMPACT COST – GAS TAX EQUIVALENT CREDIT – AD VALOREM CREDIT

TOTAL IMPACT COST = $VMT_{cost} * (1-LADF) * COST_{per} VMC_e$

GAS TAX EQUIVALENT CREDIT = $VMT_{credit} * CREDIT_{per} VMT$

Where:

$VMT_{cost} = (ADT * ATL * \% NT) / 2$

$VMT_{credit} = (ADT * TTL * \% NT) / 2$

ADT = the average daily trip generation rate in vehicle-trips per /day

% NT = Percent of new or primary trips, as opposed to pass-by or diverted-linked trips

ATL = Assessable trip length

TTL = Total trip length, calculated as ATL plus 0.5

LADF = percent of ATL occurring on interstate highways or toll facilities, excluding through traffic that does not have an origin or destination in the _____ county

$COST_{per} VMC_e = COST_{per} LANE-MILE / CAPACITY$ (\$560.49 for residential/office/industrial land uses; \$530.99 for other non-residential land uses)~~(\$393.86)~~

$COST_{per} LANE-MILE = Average\ cost\ to\ add\ a\ new\ lane-mile\ to\ the\ major\ roadway\ system$ (\$4,540,000)~~COST/~~ = $Average\ cost\ to\ add\ a\ new\ lane-mile\ to\ the\ major\ roadway\ system$ LANE-~~_____~~ (\$3,7444,540,000)
MILE

CAPACITY = Average daily capacity of a lane at desired LOS (9,5068,100 for residential/office/industrial land uses; 8,550 for other non-residential land uses)

$CREDIT_{per} VMT = \$/GAL * 365 * NPV / MPG$ (\$52.6040.69)
~~per~~ * $VMT_{credit} VMT$

$\frac{\$/\text{GAL}}{\text{MPG}}$ = Capacity-expanding funding for roads per gallon of gasoline consumed
(\$0.186135)

MPG = Miles per gallon, average for U.S. motor vehicle fleet (18.9249 mpg)

365 = Days per year (used to convert daily VMT to annual VMT)

NPV = Net present value factor (14.093915.6221: gas tax payments based on 45.0% interest rate and a 25-year facility life)

Within the Rural Fee District:

NET IMPACT FEE = TOTAL IMPACT COST – GAS TAX EQUIVALENT CREDIT – ADVANCEMENT CREDIT

TOTAL IMPACT COST = VMT_{cost} * (1-LADF) * COST_{per VMC}

GAS TAX EQUIVALENT CREDIT = VMT_{credit} * CREDIT per VMT

Where:

VMT_{cost} = (ADT * ATL * % NT) / 2

VMT_{credit} = (ADT * TTL * % NT) / 2

ADT = the average daily trip generation rate in vehicle-trips per day

% NT = Percent of new or primary trips, as opposed to pass-by or diverted-linked trips

ATL = Assessable trip length

TTL = Total trip length, calculated as ATL plus 0.5

LADF = percent of ATL occurring on interstate highways or toll facilities, excluding through traffic that does not have an origin or destination in the county

COST_{per VMCe} = COST per LANE-MILE / CAPACITY (\$630.56 for residential/office/industrial land uses; \$560.49 for other non-residential land uses)

COST per LANE-MILE = Average cost to add a new lane-mile to the major roadway system (\$4,540,000) / CAPACITY = Average cost to add a new lane-mile to the major roadway system / LANE-MILE (\$4,540,000)

CAPACITY = Average daily capacity of a lane at desired LOS (7,200 for residential/office/industrial land uses; 8,100 for other non-residential land uses) / CAPACITY = Average daily capacity of a lane at desired LOS (7,200)

$$\text{CREDIT} = \frac{\$/\text{GAL} * 365 * \text{NPV} / \text{MPG} (\$40.69) * \text{VMT}_{\text{credit}}}{\text{VMT}}$$

$$\frac{\$/\text{GAL}}{(\$0.135)} = \frac{\text{Capacity-expanding funding for roads per gallon of gasoline consumed}}{\text{(\$0.135)}}$$

$$\text{MPG} = \text{Miles per gallon, average for U.S. motor vehicle fleet (18.9249 mpg)}$$

$$365 = \text{Days per year (used to convert daily VMT to annual VMT)}$$

$$\text{NPV} = \text{Net present value factor (15.6221: gas tax payments based on 4.0\% interest rate and a 25-year facility life)}$$

(c) The alternative impact fee calculations shall be based on data, information, or assumptions contained in this article or independent sources, provided that:

(1) The independent source is a county-accepted source of transportation engineering or planning data or information; or

(2) The independent source is a local study carried out pursuant to an accepted methodology, and which studies the four (4) variables of ADT, %NT, ATL, and LADF.

(d) An applicant may request transfer of a previously approved traffic impact study substantially consistent with the criteria required by this section, and which studies the four variables identified above. If that study is determined to still be valid, and if the county accepts transfer of the alternative impact fee calculation in the study, the traffic impacts of the applicant's development shall be presumed to be as described in such prior study. There shall be a rebuttable presumption that a traffic impact study conducted more than five (5) years earlier, or performed using a different methodology from that found in the ordinance in place at the time the alternative impact fee is requested, is invalid. This subsection shall not apply where an existing development order provides that the fee schedule in section 23-92 shall supersede any such traffic impact study.

(e) The percentage of new or primary trips used in the alternative impact fee calculations shall be based on actual surveys conducted in the county. For the purposes of the alternative impact fee calculation, the percentage of new or primary trips shall be the percentage of average daily trips that a proposed use will generate that constitutes new or additional trips added to the county's major transportation network system. Those trips that do not represent additional trip ends shall not be counted as new or additional trips.

(f) The provisions of this section 23-93 shall be implemented and administered in accordance with the procedures set forth in Orange County Administrative Regulations Nos. 4.01 and 4.02, as may be amended from time to time.

(g) Any agreement proposed by an applicant pursuant to this subsection must be presented to and approved by the BCC prior to the issuance of any certificate of occupancy, temporary or permanent. Any such agreement may provide for execution by mortgagees, lien holders, or contract purchasers in addition to the landowner, and may permit any party to record such agreement in the official records of the county. The BCC shall approve such an agreement only if it finds that the agreement will apportion the burden of expenditure for new facilities in a just and equitable manner, consistent with the principles set forth in *Contractors & Builders Association v. City of Dunedin*, 329 So. 2d 314 (Fla. 1976), *Hollywood Inc. v. Broward County*, 432 So. 2d 606 (Fla. 4th DCA 1983), cert. denied, 440 So. 2d 352 (Fla. 1983); and *Home Builders and Contractors Association of Palm Beach County, Inc. v. Board of County Commissioners of Palm Beach County*, 446 So. 2d 140 (Fla. 4th DCA 1984), cert. denied, 451 So. 2d 848 (Fla. 1984).

(h) The county shall conduct a follow-up review to confirm the approved assumptions in the alternative impact fee calculation study within five (5) years of BCC approval, unless the anticipated development is not constructed within three (3) years of BCC approval, in which case the county may conduct its review within 5 years of completion of such construction. Impact fees attributable to any factors shown to exist but not previously accounted for in the study shall be paid within thirty (30) days of a demand letter issued by the county to the property owner.

(i) In the event the alternative calculation results in a total —impact cost which is less than the gas tax credit, then the proposed development shall be exempt from transportation impact fees for only the size and use of development —approved for such alternative calculation.

(j) In the event the Board adopts impact fee rates at less than 100% of the rates presented in the Transportation Impact Fee Study (“Policy Discount Factor”), that Policy Discount Factor shall apply to any alternative impact fee rate determined pursuant to Section 23-93.

Sec. 23-94. Reserved.

Sec. 23-95. Credits.

(a) An applicant shall be entitled to a credit against any transportation impact fee assessed pursuant to this article in an amount equal to (i) the actual, reasonable incurred cost of off-site improvements for impact fee eligible transportation improvements or (ii) contributions of land, money, or services for such off-site improvements contributed or previously contributed, paid for, or committed to by the applicant or a predecessor in interest as a condition of any development permit issued by the county. A credit shall not be awarded for any contribution of land, money, or services not made directly by the applicant, including a contribution or grant made by another entity, unless specifically provided for in a developer's agreement approved by the BCC. The cost of such improvements shall be based on the following criteria in subsections (a)(1) and (a)(2), subject to subsections (a)(3) and (a)(4):

(1) The actual reasonable incurred cost of improvements certified by an engineer and approved by the county in accordance with the procedures set forth in Orange County Administrative Regulation No. 4.03, as it may be amended from time to time; and

(2) A pro rata share of the appraised land value of the parent tract (which land value is based on the "date of valuation" as defined in section 23-95(b) below) as determined by an appraiser with an M.A.I. designation, who is acceptable to the county and who was selected and paid for by the applicant. The appraisal must meet the Uniform Standards of Professional Appraisal Practice. If the appraisal does not conform to the requirements of this article and the applicable administrative regulations, the appraisal shall be corrected and resubmitted. In the event the county accepts the methodology of the appraisal but disagrees with the appraised value, it may engage another appraiser. The value used for purposes of impact fee credit calculation shall be an amount equal to the average of the two (2) appraisals. In the alternative, the appraised land value of the parent tract may be as negotiated and stated as a specific dollar value on a per-acre basis in a developer's agreement between the applicant and the county.

(3) Except for property located in Horizon West, with respect to an on-site or off-site road required by the county as a condition of development, the credit for the right-of-way and the roadway therein (including design and construction costs) shall be limited to the extent of excess capacity created by the applicant's contribution as measured against the impacts attributable to the applicant's project on the roads deemed eligible. However, with respect to dedication for future right-of-way not required by the county as a development approval condition for the subject development, the credit shall be for one hundred (100) percent of such future right-of-way. The foregoing notwithstanding, the board may approve a different impact fee credit calculation or a different impact fee credit methodology for right-of-way, design, and/or construction for significant transportation facilities or systems (including transit or multimodal facilities or systems) necessary to provide mobility for development or redevelopment.

(4) For property ~~which is~~ located in Horizon West, for an on-site or off-site improvement to be eligible for a credit the improvement must be an impact fee eligible improvement. For improvements deemed eligible, the credit for the right-of-way shall be limited to twenty-two thousand five hundred dollars (\$22,500.00) per acre and the credit for the roadway therein (including design and construction costs) shall be limited to the extent of excess capacity created by the applicant's contribution as measured against the impacts attributable to the applicant's project on the improvements deemed eligible. The foregoing notwithstanding, the board may approve a different impact fee credit calculation or a different impact fee credit methodology for right-of-way, design, and/or construction for significant transportation facilities or systems (including transit or multimodal facilities or systems) necessary to provide mobility for development or redevelopment.

(b) As used in this section, "date of valuation" shall mean:

(1) For projects that enter into a developer's agreement with the county pertaining to a condition of development requiring the contribution of land, the date of valuation shall include a determination of the land use to be used in the evaluation and shall be calculated as either an agreed upon date or the day before the date on which the developer's agreement becomes effective. The developer's agreement shall specifically state the date of valuation and the determined land use to be used in the evaluation, or in the alternative, the developer's agreement may state as a specific dollar value the negotiated appraised land value of the parent parcel on a per-acre basis.

(2) For projects where the valuation is not stated in a developer's agreement that are zoned or are being rezoned to planned development (PD) and:

a. The PD has no land use approval, provided the land use approval imposes a condition of development requiring the contribution of land, the date of valuation shall be the day before the date of the land use approval.

b. The PD has land use approval and is seeking either a preliminary subdivision plan or development plan approval then:

i. Provided the existing land use plan imposed a condition of development requiring the contribution of land, the date of valuation shall be the day before the date of the land use approval.

ii. If the existing land use plan did not impose a condition of development requiring the contribution of land, but the preliminary subdivision plan and/or the development plan imposes a condition of development requiring the contribution of land, the date of valuation shall be the day before the date of the development plan approval.

c. The PD has land use approval and preliminary subdivision plan/development plan approval, but neither of those approvals imposed a condition of development which required the contribution of land, the date of valuation shall be the day before the date on which the development's first building permit that prompted the credit request was approved by the Division of Building Safety.

(3) For projects in conventional zoning districts and subject to the subdivision regulations, Orange County Code, chapter 34, then:

a. Provided the preliminary subdivision plan imposed a condition of development requiring the contribution of land, the date of valuation shall be the day before the date of the rezoning of the property to its current zoning.

b. Provided the project is platted and the contribution of land was not required as a condition of development, the date of valuation shall be the day before the date on which the development's first building permit that prompted the credit request was approved by the Division of Building Safety.

(4) For projects in conventional zoning districts which are subject to the Orange County Site Development Ordinance (sometimes referred to as the commercial site plan process), Orange County Code, chapter 30, article VIII, and:

a. The project has an existing plan or a proposed plan for which approval by the county requires the contribution of land, the date of valuation shall be the day before the date of the rezoning of the property to its current zoning.

b. The project has an existing plan or proposed plan that does not require the contribution of land, the date of valuation shall be the day before the date on which the development's first building permit that prompted the credit request was approved by the Division of Building Safety.

(5) In applying subsections (b)(2), (b)(3) and (b)(4) above, on the date of valuation no consideration shall be given to the proposed land use and/or zoning pending under the requested application; in other words, only the actual land use/zoning existing on the date of valuation shall be used for calculating value.

(6) In all cases where the date of valuation is the day before the date of rezoning to the current zoning for a property, no date of rezoning shall be calculated to be further into the past than January 1, 1986.

(c) An applicant must apply for credit for an improvement or contribution prior to the issuance of the project's first certificate of occupancy (whether temporary or permanent).

(d) An applicant is not entitled to use any portion of a credit account granted pursuant to this section to obtain a refund for impact fees previously paid for building permits issued prior to the date of the county's receipt of the credit application, unless the applicant has entered into an agreement with the county that provides otherwise.

(e) A portion or all of a credit account may be assigned and reassigned under the terms and conditions acceptable to the county for use only within the transportation impact fee zone in which the project site is located or within an adjoining transportation impact fee zone for a project or parcel that receives a direct benefit from the conveyance or action that generated the credits in the credit account.

(f) Any credit issued shall take into account as an offset to the credit an amount equal to the impact fee imposed by section 23-92.

(g) Previous development permits wherein voluntary transportation impact fees were specified and paid shall be binding as to any building permit already issued on land subject to the development permit. Road improvements required by previous development permits shall not be given a credit, unless they meet the requirements of this section.

(h) Except in the case of a good faith mistake, if an applicant pays the impact fee when a credit could have been used, the applicant is not entitled to a refund for the impact fees paid. ~~In all cases, the applicant will be allowed to use credits within the impact fee zone in which such credits were established.~~

(i) If an applicant disagrees with a written opinion issued by the county staff pursuant to this section, the applicant may submit a written appeal to the Impact Fee Committee pursuant to Administrative Regulation Nos. 4.01 ~~and 4.02~~, as may be amended from time to time.

(j) The provisions of this section 23-95 shall be implemented and administered in accordance with the procedures set forth in Orange County Administrative Regulation No. 4.03, as it may be amended from time to time.

Sec. 23-96. Reserved.

Sec. 23-97. Use of funds collected.

(a) *Creation of trust funds.* The impact fees collected by the county pursuant to this section and the capacity reservation fees collected by the county pursuant to the concurrency management ordinance shall be kept separate from other revenue of the county. The impact fees and capacity reservation fees shall be separately earmarked. There shall be one (1) fund established for each of the four (4) impact fee benefit zones ~~and four (4) impact fee benefit sub-zones~~, as shown on a map labeled Exhibit "AB" attached to this Ordinance and made a part hereof. The capacity reservation fees shall be handled and refunded in a manner consistent with the concurrency management ordinance.

(b) *Limitation on expenditure of funds collected.*

(1) No impact fees shall be expended on a particular capital improvement pursuant to this article unless or until the BCC programs and identifies a source of funds for right-of-way acquisition and construction of improvements needed to overcome existing service deficiencies or future service deficiencies for a particular capital improvement which deficiency is not attributable to new growth and development.

(2) The funds collected by reason of the establishment of the transportation impact fee in accordance with this article shall be used, at the sole discretion of the county, in all transportation impact fee benefit zones solely for the purpose of acquisition, expansion, and development (including RCA and any studies) of the transportation facilities determined to be necessary to serve new development including, but not limited to:

- (i) throughout the county:
 - a. Design and construction plan preparation;
 - b. Right-of-way acquisition;

- c. Construction of new through lanes;
- d. Construction of new turn lanes;
- e. Construction of new bridges;
- f. Construction of new drainage facilities in conjunction with new roadway construction;
- g. Purchase and installation of traffic control devices;
- h. Construction of new curbs, medians, and shoulders;
- i. Conservation area mitigation; and
- j. Compensating storage;

(ii) within the ~~AMA~~ Urban Fee District only, in addition to a. through j. above:

- k. Sidewalks (not built as part of construction of a road improvement);
- l. Transit shelters;
- m. Park and ride lots;
- n. Lighting;
- o. Landscaping;
- p. Pedestrian bridges.
- q. Intelligent Transportation Systems (ITS), and
- r. Other mobility improvements.

(3) All funds collected by reason of the establishment of the transportation impact fee in accordance with this article shall be used exclusively within the impact fee benefit zones ~~and sub-zones~~ from which they were collected and in a manner consistent with the principles set forth in *Contractors & Builders Association v. City of Dunedin*, 329 So. 2d 314 (Fla. 1976), *Hollywood, Inc. v. Broward County*, 431 So. 2d 606 (Fla. 4th DCA 1983) cert. denied, 440 So. 2d 352 (Fla. 1983), and *Home Builders and Contractors Association of Palm Beach County, Inc. v. Board of County Commissioners of Palm Beach County*, 446 So. 2d 140 (Fla. 4th DCA 984), cert. denied, 451 So. 2d 848 (Fla. 1984), and otherwise

consistent with all requirements of the Constitution of the United States and the state and all applicable laws. The funds shall not be used to maintain or repair any roads.

(c) *Disbursal of funds.* Funds withdrawn from these transportation impact fee accounts must be used solely in accordance with the provisions of this section. The disbursal of such funds shall require the approval of the BCC, upon recommendation of the county administrator.

(d) *Interest on funds.* Any funds on deposit not immediately necessary for expenditure shall be invested in interest-bearing accounts. All income derived shall be deposited in the applicable trust account.

(e) *Return of funds.* The impact fees collected pursuant to this article shall be returned to the then present owner of the development if the development for which the fees were paid was never begun or in accordance with the following procedure if the fees have not been encumbered or spent by the end of the calendar quarter immediately following nine (9) years from the date the fees were received in accordance with the following procedure:

(1) The then present owner must petition the BCC for the refund within one (1) year following the end of the calendar quarter immediately following nine (9) years from the date on which the fee was received.

(2) The petition must be submitted to the county administrator and must contain:

a. A notarized sworn statement that the petitioner is the current owner of the property;

b. A copy of the dated receipt issued for payment of the fee;

c. A certified copy of the latest recorded deed; and

d. A copy of the most recent ad valorem tax bill.

(3) Within sixty (60) days from the date of receipt of petition for refund, the county administrator or his designee shall advise the petitioner and the BCC of the status of the fee requested for refund. For the purpose of determining whether fees have been spent or encumbered, the first money placed in a trust fund account shall be deemed to be the first money taken out of that account when withdrawals have been made in accordance with subsection (c).

(4) When the money requested is still in the trust fund account and has not been spent or encumbered by the end of the calendar quarter immediately following nine (9) years from the date the fees were paid, the money shall be returned without interest, unless the County earned interest on the funds.

Sec. 23-98. Exemptions and discounts.

(a) *Exemptions.* To the extent no additional ~~travel~~ traffic is anticipated to be generated, the following shall be exempted from payment of transportation impact fees:

(1) Alterations of an existing structure where the use and total footprint / size are not changed.

(2) The construction of (i) up to twenty-five percent (25%) of the square footage relative to a primary use, individually or cumulatively, of an accessory use that is subordinate and intrinsic to the primary use, not measured in the same units for transportation impact fee assessments as the primary use, and typically included in the transportation impact fee rate for the primary land use (e.g., a hotel's lobby space, laundry facilities, etc.) and (ii) an expansion of a use that will not generate any additional occupancy and/or travel.

(3) The replacement of a building or structure with an equivalent new building or structure, provided the previous building or structure was located on the same parcel in 1983 or thereafter. If the land use of the replacement building or structure is different from that of the previous structure, the exemption shall be limited to the current equivalent fee for the original structure. Documentation of the existence of the building or structure shall be submitted to the Community Planning, Environmental, and Development Services Department, Fiscal and Operational Support Division. This section is not intended to preclude architectural enhancements or facade improvements to an existing structure as long as no additional net usable square footage is added. When determining the amount of exemption, the highest and best use previously assessed and paid shall be used.

(4) The construction of agricultural structures as defined in section 23-88.

(5) Golf courses constructed in conjunction with and as part of a resort hotel or time share.

(6) Toll facility service plazas.

(7) Covered parking or parking garages.

(8) County facilities constructed for nonproprietary governmental purposes.

(9) Structures or buildings that, due to and as a part of condemnation proceedings by the county and subject to a formal written agreement between the owner and the county, are moved to another parcel within the same impact fee zone.

(10) Structures or buildings constructed entirely by or for Orange County Public Schools or by or for a Florida College System Institution or State University, as those terms are defined in Section 1000.21, Florida Statutes.

(11) Notwithstanding that there may be an increase in traffic generation associated with the use, any project that is participating in the County's Local Housing Assistance Plan or Local Housing Trust Fund Plan ("Affordable Housing").

(12) Accessory dwelling units.

(13) The foregoing notwithstanding, for the period from November 13, 2009 through March 31, 2013, and regardless of the impact on traffic generation rates, change in use permits and alterations of a structure existing as of September 17, 2008, where the use is changed, provided such new use is located within the urban service area boundary, is consistent with the existing zoning of such property and consistent with the county's current Comprehensive Plan, and provided further that the size of the existing structure is not increased, and the footprint of the existing structure is not modified, shall be exempted from payment of the transportation impact fee in an amount up to, but not exceeding, One Hundred Thousand Dollars (\$100,000.00).

(14) The foregoing subsection 23-98(a)(3) notwithstanding, for the period beginning August 3, 2020, and ending July 30, 2021, and regardless of the impact on traffic generation rates, change in use permits and alterations of a residential structure existing as of July 28, 2020, where the use is changed, provided such new use is located within the urban service area boundary, is consistent with both the existing zoning of such property and the county's current Comprehensive Plan, and provided further that the size of the existing structure is not increased and the footprint of the existing structure is not modified, shall be exempted from payment of the applicable transportation impact fee in an amount up to, but not exceeding, \$100,000.00.

~~(b) — Discounts.~~

~~(1) — Notwithstanding that there may be an increase in traffic generation associated with the use, any affordable single family residential unit, affordable multifamily unit, or affordable mobile home unit to be constructed within a project which has received a certificate of affordability from the county's Housing and Community Development Division shall be eligible for a discount on the applicable transportation impact fee according to the procedures set forth in Orange County Administrative Regulations Nos. 4.08 and 4.08.01, as may be amended or replaced from time to time.~~ (2) The county shall not increase the amount of the transportation impact fee payable under section 23-92 to replace any revenue not collected due to discounts granted under this subsection.

(3) The BCC may adopt administrative regulations and guidelines to implement subsection 23-98(b) and to ensure that a housing unit which is granted a discount remains affordable.

Sec. 23-99. Review of article.

This article shall be reviewed by the BCC at least every five (5) years. The review shall consider ADT, % NT, ATL, PTF, and LADF, as all are defined in Section 23-93 of this Code, and actual construction and right-of-way acquisition costs of work contracted for by the county and the state department of transportation within the county. The purpose of this review is (i) to analyze the effects of inflation on the actual costs of transportation facility improvements; (ii) to review and revise, if necessary, the improvements listed in the projected transportation network; and (iii) to ensure that the fee charged new land development that generates traffic will not exceed the new development's pro rata share for the reasonably anticipated expansion costs of transportation facility improvements necessitated by the new development.

Sec. 23-100. Economic impact determination.

The BCC does hereby determine and find, pursuant to section 30-2(b)(2) that sufficient information has been provided for the BCC to assess the economic impact of this article on the development of real property in the county. The BCC does hereby determine and find that no further economic impact statement or economic impact information is required in this matter. If the ongoing planning studies and periodic review reveal a detrimental economic impact, this article shall be reviewed and revised accordingly.

Sec. 23-101. Penalty.

Violations of this article shall be ~~punishable~~ as provided in section 1-9. Additionally the county may obtain an injunction or other legal or equitable relief in the circuit court against any person or entity violating this article.

Secs. 23-102—23-120. Reserved.

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Section 3. *Effective Date, Notice of increased impact fees.*

(a) This ordinance shall become effective on October 2, 2020.

(b) Pursuant to Section 163.31801(3)(d), Florida Statutes, the Clerk of the Board of County Commissioners shall publish a legal notice in *The Orlando Sentinel* on or before October 2, 2020, stating that the Board has adopted this ordinance imposing new and increased impact fees; effective January 2, 2021.

ENACTED THIS ____ DAY OF _____, 2020.

**ORANGE COUNTY, FLORIDA
By: Board of County Commissioners**

By: _____
Jerry L. Demings
Orange County Mayor

ATTEST: Phil Diamond, CPA, County Comptroller
As Clerk of the Board of County Commissioners

By: _____
Deputy Clerk

Exhibit "A"

Map of Transportation Impact Fee
Benefit Zones

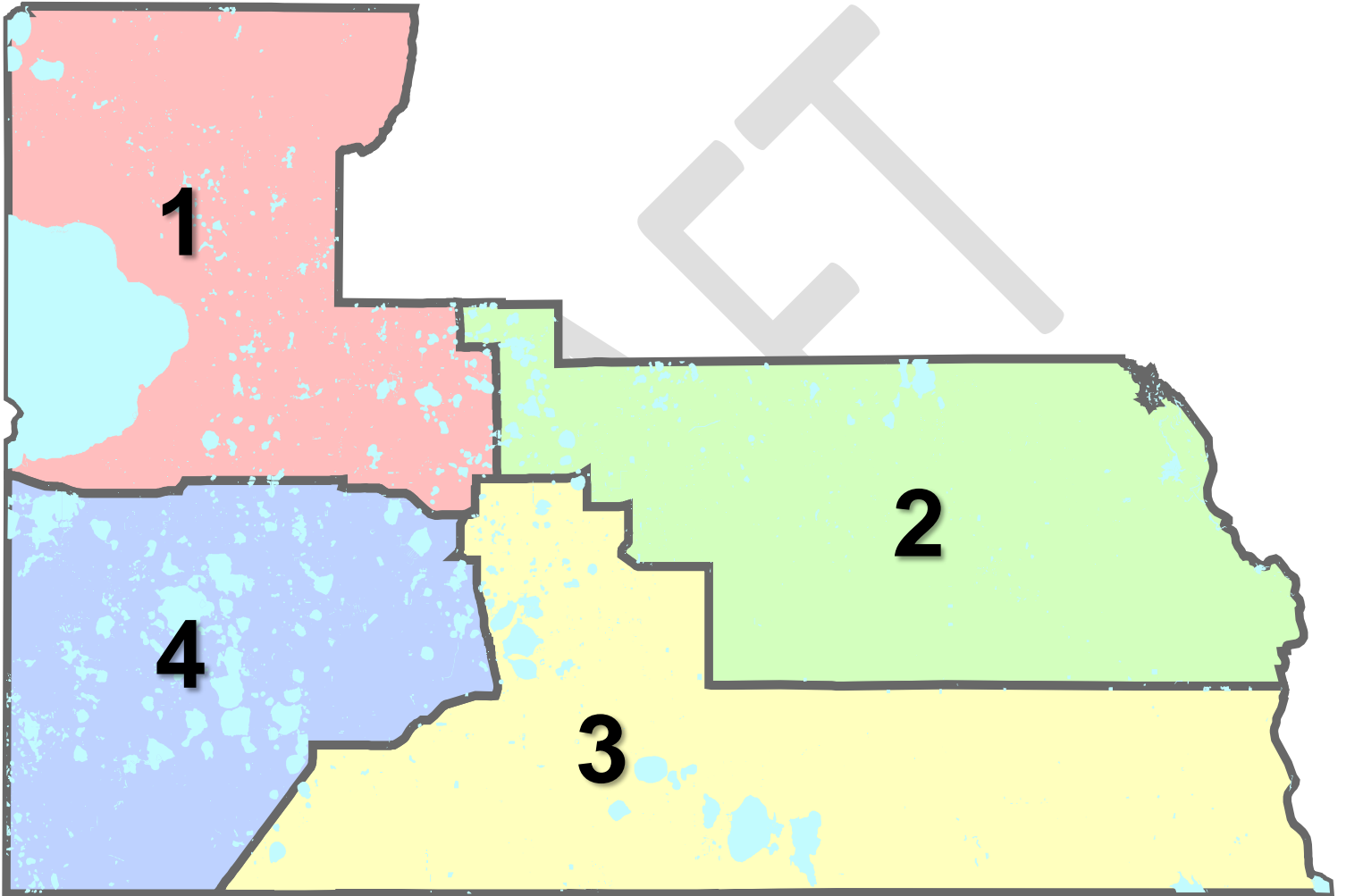
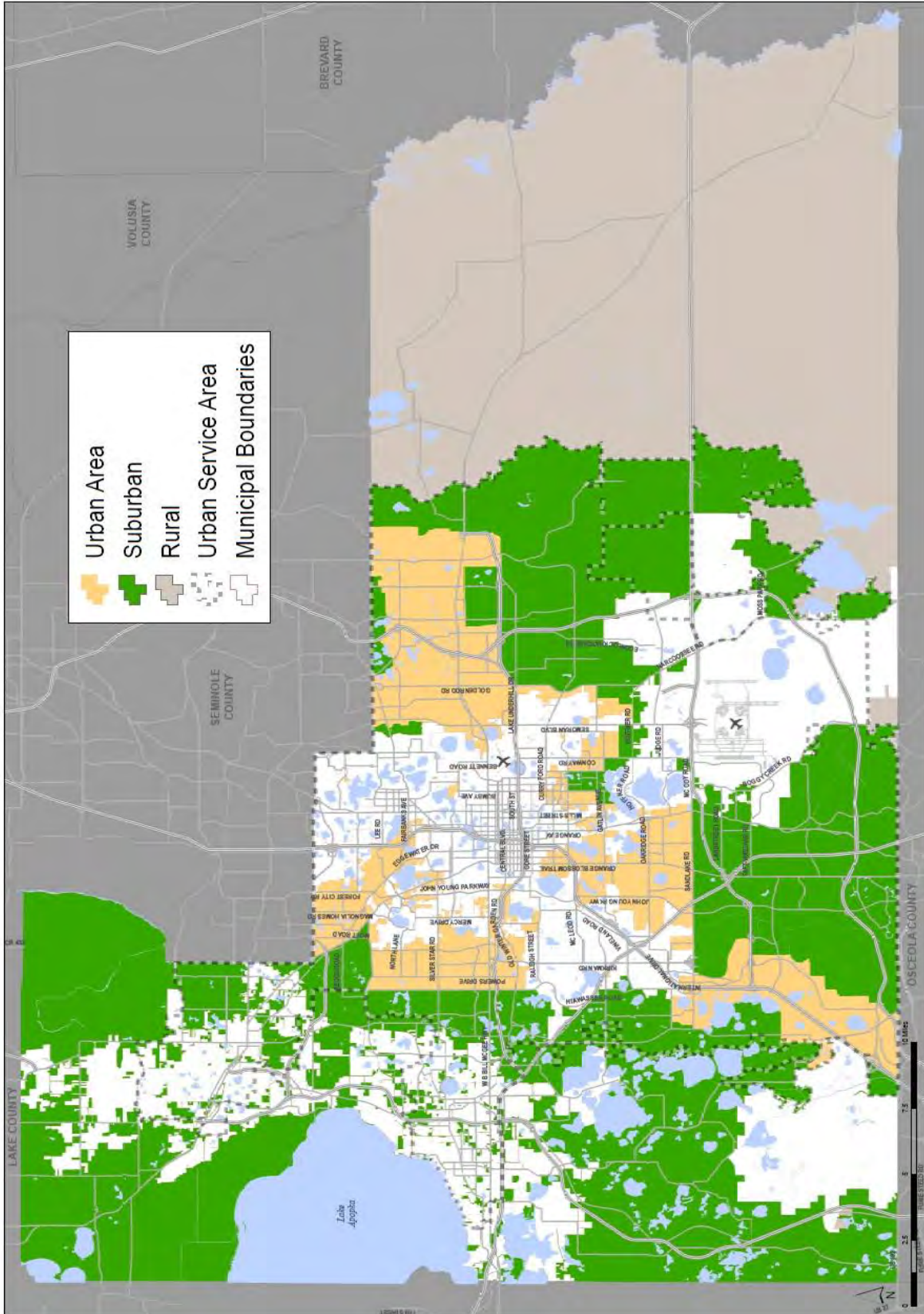


Exhibit "B"

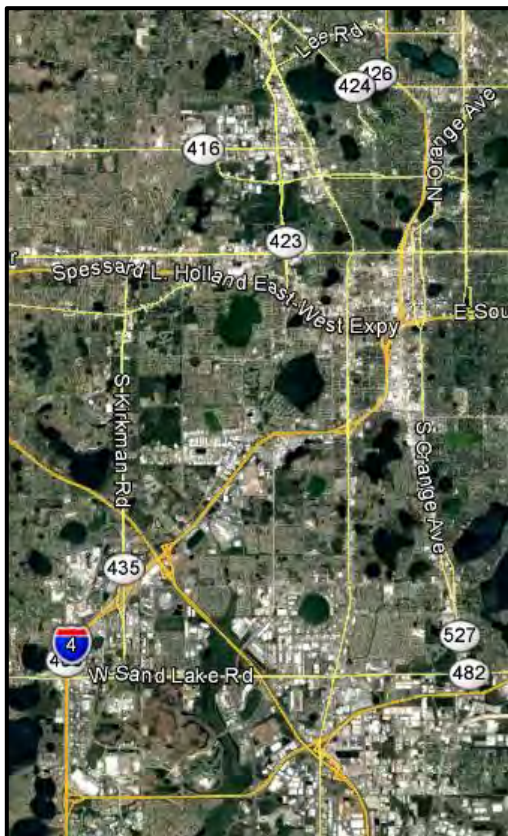
Impact Fee Districts



Orange County Transportation Impact Fee Update Study

FINAL REPORT

September 11, 2020



Prepared for:

**Orange County Transportation
Planning Division
Community, Environment &
Development Services (CEDS) Dept.**

4200 S. John Young Parkway
Orlando, FL 32839
ph (407) 836-7090

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
363038-00.17

**ORANGE COUNTY
TRANSPORTATION IMPACT FEE UPDATE STUDY**

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APPENDICES

Appendix A: Demand Component Calculations

Appendix B: Cost Component Calculations

Appendix C: Credit Component Calculations

Appendix D: Ad Valorem Credit

Appendix E: Calculated Impact Fee Schedule

Appendix F: Traffic Impact Studies: PM Peak Hour Pass-By Rates

I. Introduction

Orange County's Transportation Impact Fee was originally adopted in 1985 and went into effect in 1986 to assist the County in providing adequate transportation facilities for expected growth. The technical study supporting the fee levels was last updated in 2012. As part of the 2012 update, in addition to updating roadway-based transportation impact fee, a separate multi-modal fee rate was calculated for the more urbanized parts of the county, based on the boundary of the Alternative Mobility Area (AMA). The Board of County Commissioners adopted the 2012 study at a discounted rate. At this time, the County is considering eliminating the AMA designation; however, this study continues to provide fee variations based on travel and land use characteristics of various subareas within the county.

This report updates both the roadway and multi-modal impact fee variables to reflect changes to the cost, credit, and demand components since 2012. In addition, this study addresses the following:

- Fee variation by geographic area and boundary of fee districts;
- Fee levels under needs-based and asset-based approaches;
- Fee reductions for mixed-use developments based on internal capture;
- Fee reductions for affordable/workforce housing; and
- A tool for potential fee reductions for targeted land uses.

The information used to develop the Orange County Transportation Impact Fee schedules is based mostly on data received through November 2019.

Legal Overview

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

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

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

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

- **HB 227 in 2009:** The Florida legislation statutorily clarified that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard.
- **SB 360 in 2009:** Allowed fees to be decreased without the 90-day notice period required to increase the fees and purported to change the standard of legal review associated with impact fees. SB 360 also required the Florida Department of Community Affairs (now the Department of Economic Opportunity) and Florida Department of Transportation (FDOT) to conduct studies on “mobility fees,” which were completed in 2010.
- **HB 7207 in 2011:** Required a dollar-for-dollar credit, for purposes of concurrency compliance, for impact fees paid and other concurrency mitigation required.
- **HB 319 in 2013:** Applied mostly to concurrency management authorities, but also encouraged local governments to adopt alternative mobility systems using a series of tools identified in section 163.31801 (5)(f), Florida Statutes, 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:
 - Impact fees cannot be collected prior to building permit issuance; and
 - 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.
- **SB 1066 in 2020:** Added language allowing impact fee credits to be assignable and transferable at any time after establishment from one development or parcel to another that is within the same impact fee zone or impact fee district or that is within an adjoining impact fee zone or district within the same local government jurisdiction. In addition, added language indicating any new/increased impact fee not being applicable to current or pending permit applications submitted prior to the effective date of an ordinance or resolution imposing new/increased fees.
- **HB 1339 in 2020:** Required reporting of certain impact fee data within the annual financial audit report submitted to the Department of Financial Services.

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

Impact Fee Definition

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

Impact Fee vs. Tax

- An impact fee is generally regarded as a regulatory function established 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.

Methodology

The methodology used for the transportation 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. Unlike a “needs-based” approach, the consumption-based approach ensures that the impact fee is set at a rate that does not generate sufficient revenues to correct existing deficiencies. As such, the County does not need to go through the process of estimating the portion of each capacity expansion project that may be related to existing deficiencies. The study incorporates the entire network of transportation

within the county, including city, county and state roads, but excludes limited access facilities and rail facilities, which require large scale investments and are not typically funded with impact fees.

Included in this document is the necessary support material used in the calculation of the transportation impact fee. The general equation used to compute the impact fee for a given land use is:

$$\text{[Demand x Cost]} - \text{Credit} = \text{Fee}$$

The “demand” for travel placed on a transportation system is expressed in units of Vehicle-Miles of Travel (VMT) (daily vehicle-trip generation rate x the trip length 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 or lane-mile of transportation capacity. Consistent with the current adopted methodology, the cost is based on county roadway costs.

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

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

Demand Variables:

- Trip generation rate
- Trip length
- Percent new trips

Cost Variables:

- Roadway cost per added lane mile

- Roadway capacity per lane mile

Credit Variables:

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

II. Demand Component

Travel Demand

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

- Number of daily trips generated
- Average length of those trips
- Proportion of travel that is new travel, rather than travel that is already on the road system
- Interstate/Toll Facility discount factor

As part of this update, the trip characteristics variables were obtained primarily from two sources: (1) trip characteristics studies previously conducted throughout Florida (Florida Studies Database), which includes studies conducted in Orange County as well as in other Florida jurisdictions, and (2) the Institute of Transportation Engineers' (ITE) *Trip Generation Handbook* (10th edition). The Florida Trip Characteristics Studies Database is included in Appendix A. This database was used to determine trip length, percent new trips, and the trip generation rate for several land uses.

Trip Length Adjustment Factor

Trip lengths for all land uses were adjusted to account for differences between the average trip lengths included in the Florida Studies Database, the Orlando Urban Area Transportation Study (OUATS 2040), and other Florida Standard Urban Transportation Model Structure (FSUTMS) model results. As it was the case in the 2012 update study, the OUATS 2040 model data suggested that trip lengths are typically longer in Orange County compared to other Florida counties. Therefore, residential and office trip lengths were increased by 25 percent, while lodging, recreational, institutional, retail, and industrial trip lengths were increased by five (5) percent.

Interstate & Toll Facility Discount Factor

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

To calculate the interstate and toll (I/T) facility discount factor, the loaded highway network file was generated for the OUATS 2040 model. A select link analysis was run for all traffic analysis zones located within Orange County in order to differentiate trips with an origin and/or destination within the county versus trips with no origin or destination within the county.

Currently, interstate and toll facilities in Orange County include I-4, the Florida Turnpike (SR 91), SR 408, SR 414, SR 417, SR 429, SR 451, SR 453, and SR 528. The limited access vehicle-miles of travel (Limited Access VMT) for trips with an origin and/or destination within County was calculated for the identified limited access facilities. The total Orange County VMT was calculated for all trips with an origin and/or destination within the county for all roads, including limited access facilities, located within Orange County. The I/T discount factor of 36.1 percent was determined by dividing the total limited access VMT by the total county VMT using the base year of the model.

By applying this factor to the total county VMT, the reduced VMT is then representative of only the roadways that are funded by impact fees. Appendix A, Table A-1 provides further detail on this calculation.

Land Use Changes

New Land Uses

Based on input from the County and a review of the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (10th edition, released September 2017), several new land uses were added to the transportation impact fee schedule.

- Single Family Tiering: The current impact fee schedule includes a single rate for all single family development. This update study includes a tiered approach that varies the fee according to square footage tiers. This approach assists the County in its goal of encouraging attainable housing by moderating impact fee levels for smaller homes. Appendix A, Tables A-2 through A-10 includes additional detail.

- Multi-Family Realignment: The current impact fee schedule includes multi-family apartment, condo/townhouse, and high-rise condo/townhouse as separate 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 update was incorporated into the impact fee schedule, shown by Land Use Code (LUC) used by ITE:
 - o LUC 220 (multi-family/townhouse, 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).
 - o 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).
 - o 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.
- Student Housing: ITE 10th includes this new land use (LUC 225) for consideration with two different trip generation rates depending on the proximity to campus (adjacent to campus and over ½ mile from campus), measured “per bedroom”. These options replace the current Student Housing use (measured “per unit”) which was based on independent trip characteristics studies conducted in Minnesota.
- Residential w/1st Floor Commercial: ITE 10th includes this new land use for consideration with two tiers:
 - o LUC 231 (mid-rise residential with 1st floor commercial): mixed-use multi-family housing buildings that have between three and 10 floors and include retail space on the first level. Typically found in dense multi-use urban and center city core settings.
 - o LUC 232 (high-rise residential with 1st floor commercial): mixed-use multi-family housing buildings that have more than 10 floors and include retail space that is open to the public on the first level. Typically found in dense multi-use urban and center city core settings.
- Senior Adult Housing – Attached: Attached independent living developments, including retirement communities, age-restricted, and active adult communities. These developments may include limited social or recreational services, however, they generally lack centralized dining and onsite medical facilities. Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired.
- Dance Studio (Martial Arts/Music Lessons): Privately-owned recreation-based facility offering dance, gymnastics, ballet, or similar activity classes such as martial arts training and music lessons. Facilities typically range between 5,000 square feet and 25,000 square feet.

- LUC 720 (medical/dental office): a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility.
 - o Small Medical/Dental Office (<10,000 square feet): Similar to the Medical/Dental Office land use in the current schedule but reflects a lower trip generation rate which is representative of smaller medical businesses that typically do not have extensive testing equipment or laboratories.
- Walk-in Bank: This land use represents generally a free-standing building with its own parking lot. These banks do not have drive-in lanes but usually contain non-drive-thru teller machines (ATMs).
- Tourist Hotel/Retail: The current schedule includes separate rates for hotel and retail development within the County's "tourist" district. However, updates to ITE since the last study and additional local studies resulted in trip generation rates for general retail and hotel land uses that are lower than those reflected for tourist hotel/retail categories. Given that generation rates for tourist hotel/retail categories are based on a smaller sample, hotel and retail development within the tourist district should be charged the same rate as development outside of the district to benefit from lower impact fee rates that are based on a larger set of data.
- High-Cube Transload and Short-Term Storage Warehouse: A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. Transload facilities have a primary function of consolidation and distribution of pallet loads for manufacturers, wholesalers, or retailers. They typically have little storage duration, high throughput, and are high-efficiency facilities. Short-term HCWs are high-efficiency distribution facilities often with custom/special features built into the structure for movement of large volumes of freight with only short-term storage of products.

Significant Demand Reductions

Several land uses received a significant reduction in the estimated gross vehicle miles of travel (GVMT) that they generate per unit. Appendix A includes additional detail related to the changes in the demand component for all land use categories.

- Bowling Alley (LUC 437): The trip generation rate for this land use was reduced by 61 percent due to an update from ITE 9th Edition to ITE 10th Edition. While the 9th Edition included a "daily" TGR, the 10th Edition does not and, therefore, the recommended TGR is based on the peak hour trip rate adjusted for daily. This adjustment is based on the relationship of peak

hour-to-daily trip rates for other recreational uses in ITE 10th Edition (peak hour \approx 1/10 of daily).

- Public Assembly (LUC 560): The trip generation rate for this land use was reduced by 24 percent due to an update from ITE 9th Edition to ITE 10th Edition. Additionally, the trip length has been reduced by 49 percent and the percent new trips has been reduced by 10 percent. In the current fee schedule, the TL and PNT data were based on data from the County's 2004 update study that used the County's transportation model and a 1991 document¹ to determine these values. This update study recommends the use of the Florida Studies Trip Characteristics Database (Appendix A) and similar land uses to estimate trip length and percent new trips using more recent data relationships.
- Animal Hospital/Veterinary Clinic (LUC 640): The trip generation rate for this land use was reduced by 16 percent due to an update from ITE 9th Edition to ITE 10th Edition. Additionally, the trip length has been reduced by 63 percent and the percent new trips has been reduced by 25 percent. Similar to the Public Assembly use, in the current fee schedule the TL and PNT data is based on data from the County's 2004 update study. This update study recommends the use of the Florida Studies Trip Characteristics Database (Appendix A) to estimate trip length and percent new trips.
- Hardware/Paint Store (LUC 816): The trip generation rate for this land use was reduced by 82 percent due to an update from ITE 9th Edition to ITE 10th Edition.
- Drug Store (LUC 880/881): The trip generation rate for this land use was increased by 18 percent due to an update from ITE 9th Edition to ITE 10th Edition (includes data from both LUC 880 and 881). Additionally, the trip length has been reduced by 46 percent and the percent new trips has been reduced by 36 percent. Similar to the Public Assembly and Animal Hospital uses, in the current fee schedule the TL and PNT data is based on data from the County's 2004 update study. This update study recommends the use of the Florida Studies Trip Characteristics Database (Appendix A) to estimate trip length and percent new trips.

¹ Nicholas, James, et. al., *A Practitioner's Guide to Development Impact Fees*, 1991

III. Cost Component

Cost information from Orange 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. Additionally, cost information for bicycle/pedestrian and transit facilities was reviewed and included in the cost component calculations for the urban district multi-modal impact fee rates. 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 transportation capacity expansion improvements in Orange County. For this purpose, bid data for recently completed/ongoing local projects and recent construction bid data from roadway projects throughout Florida were used to identify and provide supporting cost data for County roadway improvements. The cost for each roadway capacity project was separated into three phases: design, ROW, and construction/CEI.

Design

Design costs for county roads were estimated at approximately \$340,000 per lane mile based on a review of recent improvements in Orange County. When compared to the average construction cost per lane mile (\$2,750,000; Appendix B, Table B-5), the design-to-construction ratio is approximately 12 percent. This ratio is within the range of design-to-construction ratios observed in other recent impact fee studies in Florida. Additional detail is provided in Appendix B, Tables B-1 and B-2.

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. ROW costs for county roads were estimated at \$1.20 million per lane mile based on a review of recent improvements in Orange County. When compared to the average construction cost per lane mile (\$2,750,000; Appendix B, Table B-5), the ROW-to-construction ratio is approximately 44 percent. This ratio is within the range of ROW-to-construction ratios observed in other recent impact fee studies in Florida. Additional detail is provided in Appendix B, Tables B-3 and B-4.

Construction/CEI

The construction cost for county roads was based on recently bid/ongoing projects in the Orange County. This review included 15 recent projects in Orange County with construction occurring since 2012:

- Rouse Rd from Lake Underhill Rd to SR 50
- Clarcona-Ocoee Rd from SR 429 to Clark Rd
- Holden Ave from John Young Pkwy to Orange Blossom Tr
- Palm Pkwy/AVR Connector from Palm Pkwy to Apopka-Vineland Rd
- John Young Pkwy from SR 528 to FL Turnpike
- Econlockhatchee Tr from SR 408 to SR 50
- CR 535 Seg. F from Overstreet Rd to Fossick Rd
- Reams Rd from Delmar Ave to Taborfield Ave
- Destination Pkwy 1B/2A from Tradeshow Blvd to Lake Cay
- Lake Underhill Rd from Goldenrod Rd to Chickasaw Tr
- International Dr from Westwood Blvd to Westwood Blvd
- Porter Rd from Avalon Rd to Hamlin Groves Tr
- Innovation Way Seg. 3B from Magnolia Woods Blvd to Yellow Jasmine Dr
- Boggy Creek Rd North from South Access Rd to Wetherbee Rd
- Hamlin Groves Ph. I from New Independence Pkwy north approx. 2,800 feet

The weighted average construction cost for these improvements is approximately \$3.00 million per lane mile, including CEI costs. Based on a review of data from other jurisdictions, CEI is approximately nine percent of construction. Therefore, the construction portion of these improvements averages approximately \$2.75 million per lane mile. Additional detail is provided in Appendix B, Table B-5.

In addition to local projects, recent improvements from other counties in Florida were reviewed to increase the sample size. This review included approximately 147 lane miles of lane addition and new road construction improvements with a weighted average cost per added lane mile of approximately \$2.87 million, which does not include CEI costs. Additional detail is provided in Appendix B, Table B-6.

Based on a review of these data sets, a construction cost of \$3.00 million per lane mile (for construction and CEI) was used in the impact fee calculation for Orange County improvements. This figure reflects the local data and is supported by statewide data.

As shown in Table 1, the total county roadway cost was calculated at approximately \$4.54 million per lane mile.

Table 1
Estimated Total Cost per Added Lane Mile
for County Roads

Cost Type	Total Cost per Lane Mile
Design ⁽¹⁾	\$340,000
Right-of-Way ⁽²⁾	\$1,200,000
Construction/CEI ⁽³⁾	\$3,000,000
Total	\$4,540,000

1) Source: Appendix B, Table B-1

2) Source: Appendix B, Table B-3

3) Source: Appendix B, Table B-5

Vehicle-Miles of Capacity per Lane Mile

The transportation impact fee equation includes a vehicle-mile of capacity (VMC) component. The VMC is an estimate of capacity added, per lane mile, for county roadway improvements in the 2040 Metroplan Needs Plan for Orange County. As shown in Table 2, each lane mile will add approximately 9,000 vehicles. Additional detail is provided in Appendix B, Table B-7.

Table 2
Weighted Average Capacity per Lane Mile

Source	Lane Mile Added ⁽¹⁾	Vehicle-Miles of Capacity Added ⁽¹⁾	VMC Added per Lane Mile ⁽²⁾
County Roads	270.44	2,437,462	9,013
Average VMC Added per Lane Mile (Rounded)			9,000

1) Source: Appendix B, Table B-7

2) Vehicle-miles of capacity added divided by lane miles added

Cost per Vehicle-Mile of Capacity

The transportation cost per unit of development is assessed based on the cost per vehicle-mile of capacity. As shown in Tables 1 and 2, the cost and capacity for transportation in Orange County have been calculated based on recent improvements. As shown in Table 3, the cost per VMC for travel within the County is approximately \$504.

The cost per VMC figure is used in the transportation impact fee calculations 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 road system, approximately \$504 of capacity is consumed.

Table 3
Weighted Average Cost per Capacity Added

Source	Cost per Lane Mile ⁽¹⁾	Average VMC Added per Lane Mile ⁽²⁾	Cost per VMC/PMC ⁽³⁾
County Roads (VMC)	\$4,540,000	9,000	\$504.44

1) Source: Table 1

2) Source: Table 2

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

Bicycle and Pedestrian Facility Costs

Bicycle and pedestrian facilities provide for relatively small quantities of the total vehicle-miles of travel due to the difference in the average distance traveled by a car trip versus pedestrian/bicycle trips. Because of their relatively small role in the urban travel scheme, they do not have a significant effect on evaluating the costs of providing for transportation. However, bike and pedestrian facilities are important and provide a source of travel for those who cannot drive, cannot afford to drive or choose not to drive, and they are a standard part of the urban street and sometimes included in rural roadways. Their costs are included in the standard roadway cross-sections for which costs are estimated for safety and mobility reasons. Thus, the costs of these facilities on major roads are included in the multi-modal fee. The multi-modal fee provides funding for only those bike and pedestrian facilities associated with roadways on the classified road system (excluding local/neighborhood roads), and allows for facilities to be added to existing classified roadways or included in the construction of a new classified roadway or lane addition improvement.

Transit Capital Cost per Person-Mile of Travel

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

- Vehicle acquisition tied to new routes
- Bus stops, shelters, and benches
- Cost of road network (per person-mile of capacity) used by transit vehicles

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

$$\text{Transit Capital Cost} = \text{Bus Infrastructure Cost} + \text{Road Capacity Cost}$$

Taking into account the infrastructure costs and the decline in potential vehicle-capacity that comes with adding transit, it was determined that the difference between constructing a lane mile of roadway (for cars only) versus constructing a roadway with transit is not significant. The roadway with transit cost per PMC is approximately three (3) percent higher per lane mile than the cost to simply construct a road without transit amenities. Therefore, for the multi-modal fee calculation, the cost per VMC of approximately \$504 is representative of the cost to provide transportation capacity for all modes of travel. Additional information regarding the transit capital cost calculation is included in Appendix B, Tables B-8 and B-9.

Finally, given the dominance of auto travel in terms of mode split, the demand for both roadway and multi-modal fees are measured in terms of vehicle miles of travel. In the case of multi-modal impact fee, an additional credit was subtracted to reflect future development's contributions to stand-alone transit capital, sidewalk and bicycle lane additions, which will be discussed in more detail in the next section.

IV. Credit Component

Capital Improvement Credit

The credit component of the impact fee accounts for the existing County funding sources that are being expended on transportation capacity expansion (excluding impact fee funds). This section summarizes the calculations utilized in the credit for non-impact fee 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 for all funding sources, except for ad valorem tax. The credit for ad valorem tax revenue contributions is calculated based on average property values of each land use.

City

As shown in Table 4, the City of Orlando spends, on average, \$516,000 per year, which equates to 0.1 pennies, on roadway capacity-expansion projects funded with non-impact fee revenues. For the multi-modal fee, additional multi-modal capacity improvements were included in the credit, increasing the average annual funding to \$2.5 million or an equivalent credit of 0.3 pennies.

County

As shown in Table 4, Orange County allocates \$35.2 million per year or the equivalent of 4.9 pennies on roadway capacity-expansion projects funded with non-impact fee revenues. This amount includes the INVEST funds that the County received for transportation, which are unlikely to reoccur beyond the CIP period. Though they are not a recurring revenue source, like a fuel tax, the INVEST funds are being credited in a similar manner for impact fee purposes.

For the multi-modal fee, additional multi-modal capacity improvements were included in the credit calculations, increasing the average spending to \$39.0 million per year and the equivalent credit to 5.4 pennies. This includes the portion of the County's contribution to LYNX that is dedicated to capacity expansion.

Ad Valorem Credit

The Orange County Capital Improvement Plan (FY 2019 to FY 2023) includes ad valorem tax funding for roadway capacity expansion improvements and multi-modal improvements, including lane addition projects, transit land improvements, and pedestrian enhancements. The total value of the multi-modal improvements equates to approximately \$31 million, or \$6 million annually of the five-year time period. For the roadway improvements only, the total value is \$10 million, or approximately \$2 million annually. The value per 1-mil, based on the FY 2019 Orange County budget is approximately \$120 million. Therefore, approximately five (5) percent of the millage is used for multi-modal capacity expansion, and only two (2) percent is used for roadway capacity expansion.

Since ad valorem revenues are going to be used to fund a portion of the CIP, a revenue credit is given. Credit due to ad valorem tax revenues for residential and non-residential land uses is calculated based on a review of the taxable value of each land use in Orange County. Additional detail is included in Appendix D.

State

As shown in Table 4, State expenditures on state roads were reviewed and a credit for the capacity-expansion portion attributable to state projects was estimated (excluding expenditures on limited access facilities). The review, which included 10 years of historical expenditures, indicated that FDOT's roadway spending generates a credit of 8.5 pennies of equivalent gas tax revenue annually. For the multi-modal fee, a credit of 14.0 pennies was calculated to account for additional FDOT funds going towards multi-modal improvements (standalone sidewalk construction, transit, etc.), primarily for the estimated state transit funding for new capacity. The use of a 10-year period for developing a State credit results in a reasonably stable credit for Orange County, accounting for the volatility in FDOT spending in the county over short time periods.

In summary, for roadways, the City of Orlando contributes approximately 0.1 pennies and Orange County contributes 4.9 pennies, while the State spends an average of 8.5 pennies, annually, in the County. A total credit of 13.5 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 funding sources. In addition, \$2 million of ad valorem tax revenues per year are estimated to be allocated to roadway transportation capacity.

For multi-modal improvements (including roadways), the City of Orlando contributes approximately 0.5 pennies and Orange County contributes 5.4 pennies, with the State spending

an average of 14.0 pennies, annually, in Orange County. A total credit of 19.9 pennies is included in the multi-modal fee calculation to recognize the future capital revenues that are expected to be generated by new development from non-impact fee revenues. In addition, \$6 million of ad valorem tax revenues per year are estimated to be allocated to multi-modal transportation capacity.

**Table 4
Equivalent Pennies of Fuel Tax Revenue**

Credit	Funding Source	Roadway		Multi-Modal	
		Annual Contribution ⁽⁴⁾	Equiv. Pennies per Gallon ⁽⁵⁾	Annual Contribution ⁽⁴⁾	Equiv. Pennies per Gallon ⁽⁵⁾
City Revenue ⁽¹⁾	Fuel Tax	\$516,000	-	\$2,512,000	
	City Total	\$516,000	\$0.001	\$2,512,000	\$0.003
County Revenue ⁽²⁾	Fuel Tax	\$8,567,000	-	\$10,567,000	-
	Ad Valorem	\$1,913,000	n/a	\$6,160,000	n/a
	INVEST	\$26,591,000	-	\$26,591,000	-
	Prop. Fair Share	\$45,000	-	\$45,000	-
	General Fund (LYNX)	-	-	\$1,793,000	-
	County Total (No Ad Val)	\$35,203,000	\$0.049	\$38,996,000	\$0.054
State Revenue ⁽³⁾	Various	\$61,500,000	-	\$100,889,000	-
	State Total	\$61,500,000	\$0.085	\$100,889,000	\$0.140
Total			\$0.135		\$0.197

- 1) Source: Appendix C, Table C-2 (roadway) and C-5 (multi-modal)
- 2) Source: Appendix C, Table C-3 (roadway) and C-6 (multi-modal)
- 3) Source: Appendix C, Table C-4 (roadway) and C-7 (multi-modal)
- 4) Average annual revenue contribution for capacity expansion improvements from each funding source
- 5) All non-ad valorem revenues are converted to equivalent pennies of fuel tax for use in the capital improvement credit calculation for the transportation impact fee. Additional detail is provided in Appendix C. For the ad valorem credit, detailed calculations are provided in Appendix D

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 4.0 percent was used in the transportation impact fee calculation based on information provided by Orange 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-12 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.

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

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

The combined total VMT for the vehicle types is then divided by the combined total gallons of fuel consumed to calculate, in effect, a “weighted” fuel efficiency value that reflects the existing fleet mix of traffic on non-interstate roadways. The VMT and average fuel efficiency data were obtained from the most recent Federal Highway Administration’s *Highway Statistics 2017*. Based on the calculation completed in Appendix C, Table C-12, 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.

V. Fee Variation by Geographic Area

Currently, Orange County has two impact fee areas: the urban area with a multi-modal fee, and the remainder of the unincorporated County, with a roadway-based transportation impact fee. The urban fee district includes areas with higher densities and transit accessibility and surrounds the City of Orlando core.

This update study presents two fee variation options for consideration:

- Option 1: Continue with the current adopted fee districts (Urban and Non-Urban); and
- Option 2: Expand the urban area and create suburban and rural fee districts.

Option 1

Map 1 presents the current adopted transportation impact fee districts.

Fee District Variation

A consumption-based impact fee rate is based on the adopted level of service (LOS) standards, which are exception standards, requiring no road to be in worse travel condition than the adopted standard. Consistent with the methodology used by many Florida jurisdictions, transportation impact fee calculations use adopted LOS standard as a countywide average, which suggests half the roads will be worse than the adopted standard and the other half will be better. However, in many cases, the actual countywide or subarea average LOS is better than the adopted standard. In other words, under the current methodology, even with the full impact fee, unless local governments use other revenue sources, the current achieved LOS for the system will deteriorate and more congestion will be experienced. As such, the standard methodology used for transportation impact fees results in revenue levels that slow down the degradation of the system but do not generate sufficient revenues to maintain the existing conditions when they are better than the adopted LOS standard.

When the current system performance conditions are better than the adopted standards, local governments have the option to base the fees on achieved LOS or at least to a LOS level that is in between. This approach was also supported by HB 319, when the bill allowed for adoption of an area-wide LOS not dependent on any single road segment function. The LOS for each road segment correlates to the volume-to-capacity (V/C) ratio. The V/C ratio measures the number of vehicles on the road versus the number of vehicles that the road can handle based on its

functional classification (arterial, collector, freeway, etc.) and design characteristics (number of lanes, signal spacing, etc.). A low V/C ratio suggests less congestion and delay and better average speed/performance.

The current achieved V/C ratios in Orange County are as follows:

- Countywide ≈ 0.77
- Urban area ≈ 0.80
- Non-urban area ≈ 0.75

The impact fee rate for the urban area is calculated based on the adopted LOS standards and allows degradation of the system to a V/C ratio of 1.00. However, as long as current achieved V/C supports it, the County may adopt a policy to base the fees on a better V/C ratio than the adopted standard to limit or slow the degradation for geographical subareas of the County, creating a fee differential. This approach is used in the case of fees calculated for the non-urban area of the county.

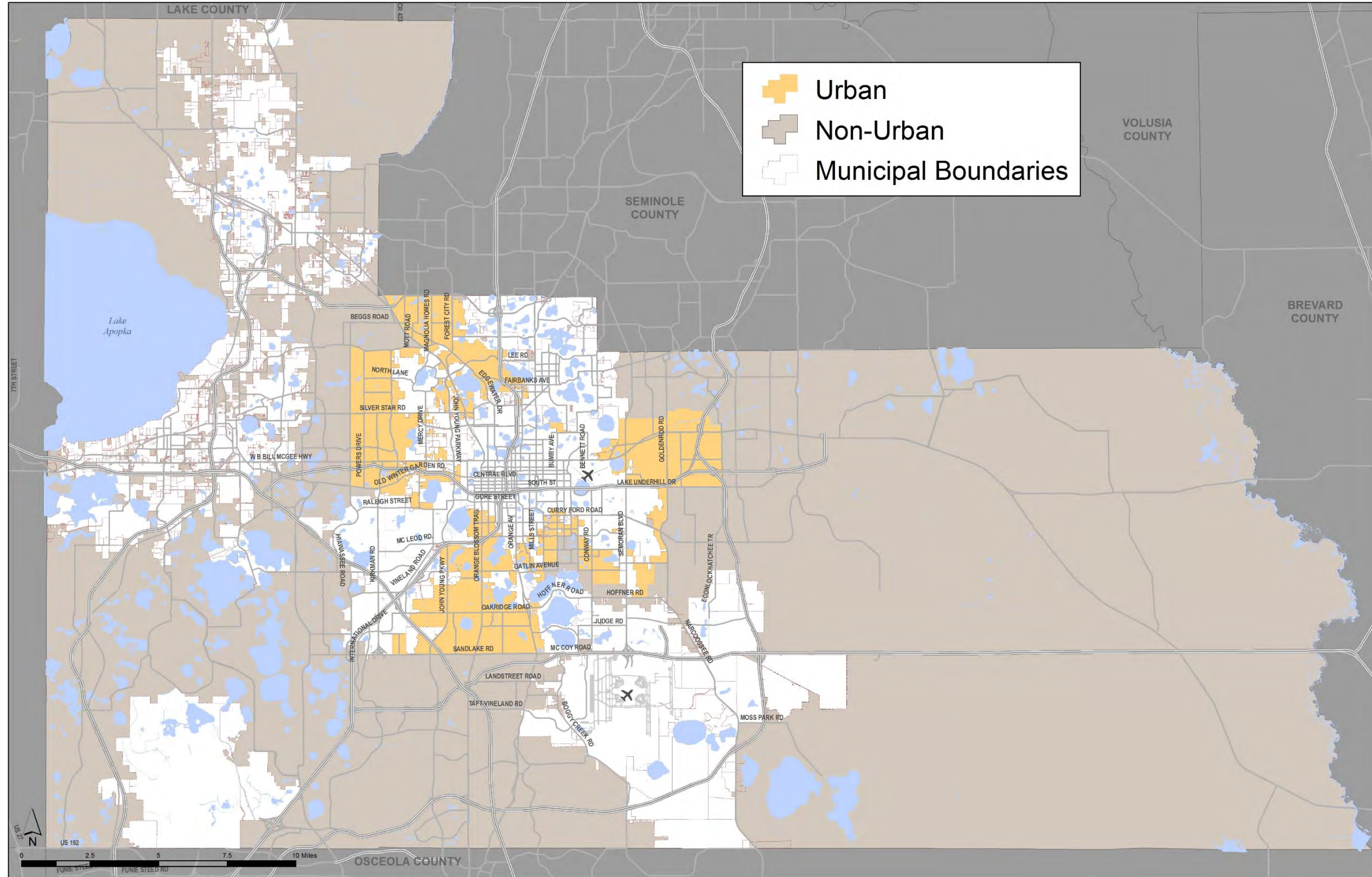
As illustrated on Map 1, Orange County currently has two separate fee districts. As mentioned previously, the multi-modal fees in the urban area are based on the adopted level-of-service standard (**V/C of 1.00**), reflecting the higher level of congestion in this area.

The roadways in the non-urban area are performing better than the urban area, and in an effort to maintain the higher levels of performance, a differential capacity option was developed. This option uses a **V/C of 0.90** for non-urban area. Recognizing the higher quality of service currently provided in the non-urban area, the County can elect to charge a higher fee in this area (compared to the urban area) to help preserve this higher achieved LOS. These adjustments are applied to the average VMC per lane mile added for each fee area.

- Urban = $9,000 * 1.00 = \mathbf{9,000}$
- Non-Urban = $9,000 * 0.90 = \mathbf{8,100}$

In the non-urban area, the full 10 percent reduction would only be applied to residential, office, and industrial land uses. These land uses generally demand longer trip lengths and receive significant benefit from the high service levels, whereas retail land uses attract more local travel with shorter trip lengths and the benefit they receive is more limited. Therefore, the retail uses are estimated to receive a capacity decrease of five (5) percent.

Map 1 – Current Transportation Impact Fee Districts



Option 2

As part of this update, the existing urban fee district boundary was reviewed for a potential expansion. Additionally, the remaining unincorporated county was reviewed, recognizing that there are sub-urban/transitioning areas and rural areas with different demographic and travel characteristics. More specifically, as part of this analysis, Tindale Oliver reviewed the following:

- The County's Concurrency Alternatives Evaluation Report, Multi-Modal Corridor Plan, which addresses potential boundary changes for the urban district;
- Current and projected travel conditions, measured in terms of V/C ratios; and
- Type and level of development (single use/mixed use, already developed/vacant, etc.).

Based on this analysis, as well input from Orange County staff, the following changes to the existing fee districts were considered.

Urban Fee District

As mentioned previously, during the 2012 study, a multi-modal transportation impact fee was developed for the urban area to allow for flexibility in spending impact fee revenues on multiple modes in an area of the County where pedestrian/bicycle and transit improvements were needed to accommodate the dense development patterns around the City of Orlando. It is proposed that, consistent with the 2017 Concurrency Alternatives Evaluation Report², the urban fee district be extended to the northeast to capture the University of Central Florida, Full Sail University, and Valencia College communities (see Map 2), along with additional adjustments based on input from the County representatives. Though much of this area consists of single use residential classification, the area is mostly built-out, with only a limited number of the vacant residential parcels available for new development, as illustrated in Map 3. Therefore, this area is likely to be dominated by redevelopment projects in the future, which will increase the densities and urban character of the area. The urban expansion should also extend to the southwest to include the International Drive corridor which houses many tourist accommodations and multi-modal amenities, as shown in Map 4.

Additionally, as shown on Map 6, Orange County staff has recommended additional adjustments to the urban area, based on the similarities of types and level of existing development, road facilities, and future land use designations. These changes are as follows:

- Existing southern boundary at Sand Lake Rd was moved further south to SR 528

² Concurrency Alternatives Evaluation Report, Multi-Modal Corridor Plan – Phase III, VHB 2017

- Added the area east of Orlando with SR 408 to the north and the FL Turnpike to the west and south
- Added the Winter Park Estates near the Orange County northern boundary
- Added the area southwest of the SR 408 and SR 417 interchange, within the border of SR 417 Greeneway, SR 408 East-West Expwy, and the SR 528 Beachline Expwy
- Removed the area west of Orlando surrounding the intersection of Pine Hills Rd and SR 438. This area will be included as “suburban” for impact fee purposes.

Suburban/Transitioning Fee District

The proposed transitioning area/suburban boundary is based on the existing Urban Service Area (USA) boundary and the western portion of the county. The Orange County USA includes the central part of the county surrounding the City of Orlando and extending to the county’s northern and southern boundaries. The area to the west is primarily smaller cities and includes the future Horizon West development area, while the area to the east includes largely rural, preservation, and parks/recreation land. As shown on Map 5, this proposed transitioning area is much more congested than eastern rural area and exhibits different travel conditions.

As previously mentioned, a portion of the existing urban area (west of Orlando near the intersection of Pine Hills Rd and SR 438) will now be considered “suburban” for impact fee purposes as shown on Map 6.

Rural Fee District

As previously mentioned, the area to the east of the Orange County USA is primarily rural farmland with pockets of preservation area and a large portion of park/recreation land that are not developable. As shown in Map 5, this area is labeled as “rural east” and comprised of the unincorporated land east of Orlando that is outside of the USA. The roadways in this area of the County experience a very favorable level-of-service with little to no congestion, as shown on Map 5.

Map 6 illustrates the proposed fee district boundaries.

Fee District Variation

As previously discussed for Option 1, the proposed fee district rate variation is based on the LOS levels observed for each sub-area, which are measured in terms of V/C ratios.

The current achieved V/C ratios are as follows:

- Urban (expanded area) ≈ 0.81
- Suburban ≈ 0.76
- Rural ≈ 0.58

The multi-modal fees in the urban area are based on the adopted level-of-service standard (**V/C of 1.00**), reflecting the higher level of congestion in this area. The roadways in suburban/transitioning area are performing slightly better and roadways in the rural area are performing much better, and in an effort to maintain the higher levels of performance, a differential capacity option was developed. This option uses a **V/C of 0.90** for suburban/transitioning area and a **V/C of 0.80** for rural area impact fee calculations. Recognizing the better travel conditions/higher LOS currently provided in the transitioning and rural areas, the County can elect to charge a higher fee in these areas (as compared to the urban area) in an effort to help preserve this higher achieved LOS. These adjustments are applied to the average VMC per lane mile added for each fee district:

- Urban = $9,000 * 1.00 = \mathbf{9,000}$
- Suburban = $9,000 * 0.90 = \mathbf{8,100}$
- Rural = $9,000 * 0.80 = \mathbf{7,200}$

As discussed previously, the full reduction would only be applied to residential, office, and industrial land uses. These land uses generally demand longer trip lengths and receive significant benefit from the high service levels, whereas retail land uses attract more local travel with shorter trip lengths and the benefit they receive is more limited. Therefore, the retail uses are estimated to receive a more limited capacity decrease of five (5) percent (for Suburban Fee District) and 10 percent (for Rural Fee District).

Projected Future V/C Ratios

Using the 2040 SEData projections from the OUATS.40 model, future traffic volumes for each classified roadway in Orange County were projected. The SEData population projections are comparable to low/medium average figures from the latest BEBR population projections³. Using

³ Bureau of Economic and Business Research; Volume 52, Bulletin 183, April 2019

these projected volumes and future improvements identified in the County's LRTP Cost Feasible Plan, future V/C ratios for each fee district were estimated.

Urban Fee District:

- Average annual population growth \approx 4,007 persons
- Average annual population growth rate \approx 1.15 percent
- Projected 2040 V/C \approx 1.09

Suburban Fee District:

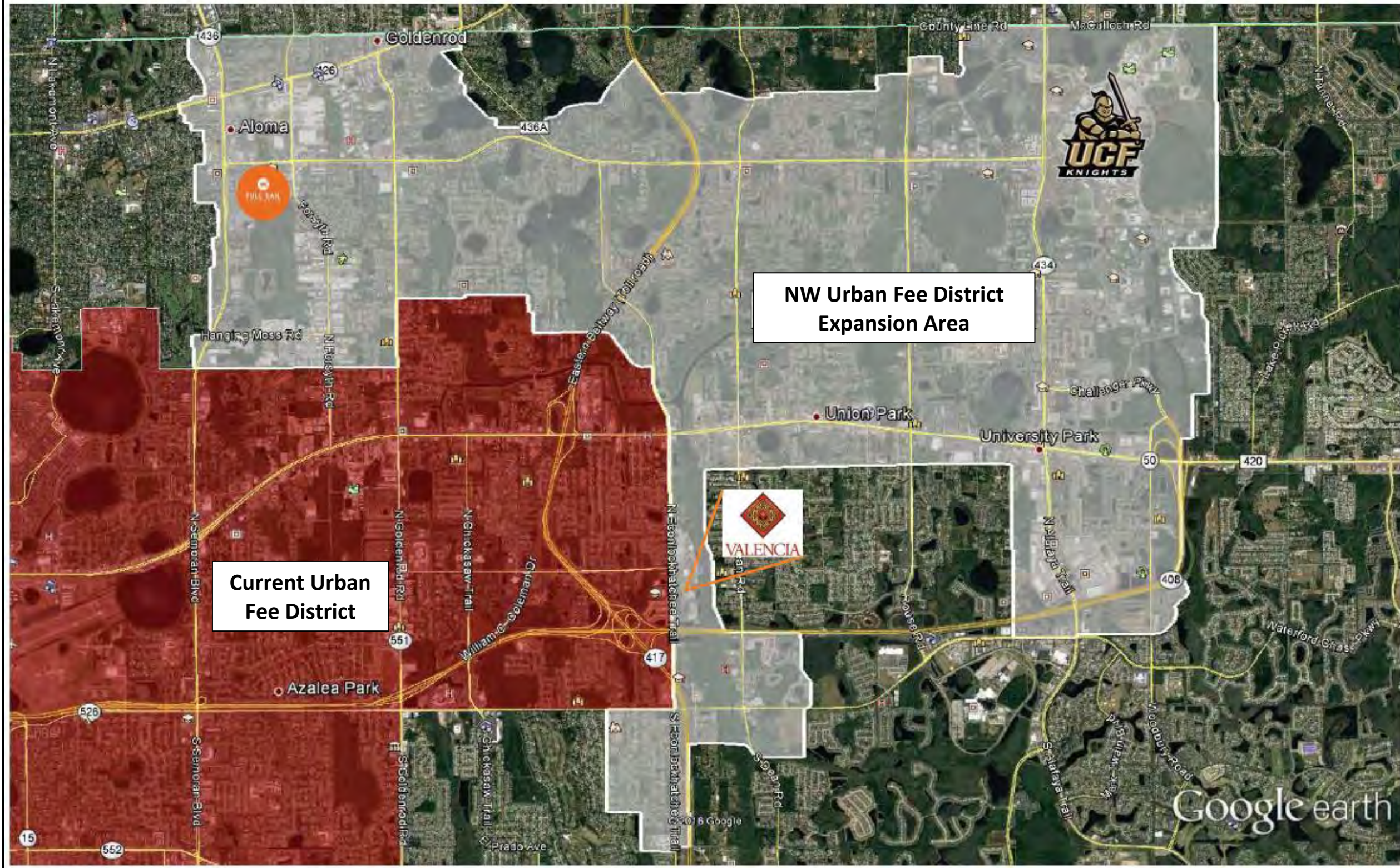
- Average annual population growth \approx 6,164 persons
- Average annual population growth rate \approx 1.27 percent
- Projected 2040 V/C \approx 0.96

Rural Fee District:

- Average annual population growth \approx 159 persons
- Average annual population growth rate \approx 0.56 percent
- Projected 2040 V/C \approx 0.65

Given these higher congestion levels estimated for 2040, the current and projected V/C ratios should be re-evaluated with each subsequent transportation impact fee update to ensure that new development is not being charged for a higher level-of-service than is being achieved. Additionally, changes to capacity-expansion revenues (such as an increase in transportation impact fee rates) can greatly alter the number of future projects that can be funded, affecting the estimated future V/C ratios.

Figure 1 - Alternative 2A: Map 1 (Northeast Map)



Map 3 – Vacant Parcels in Northeast Urban Fee District Expansion Area

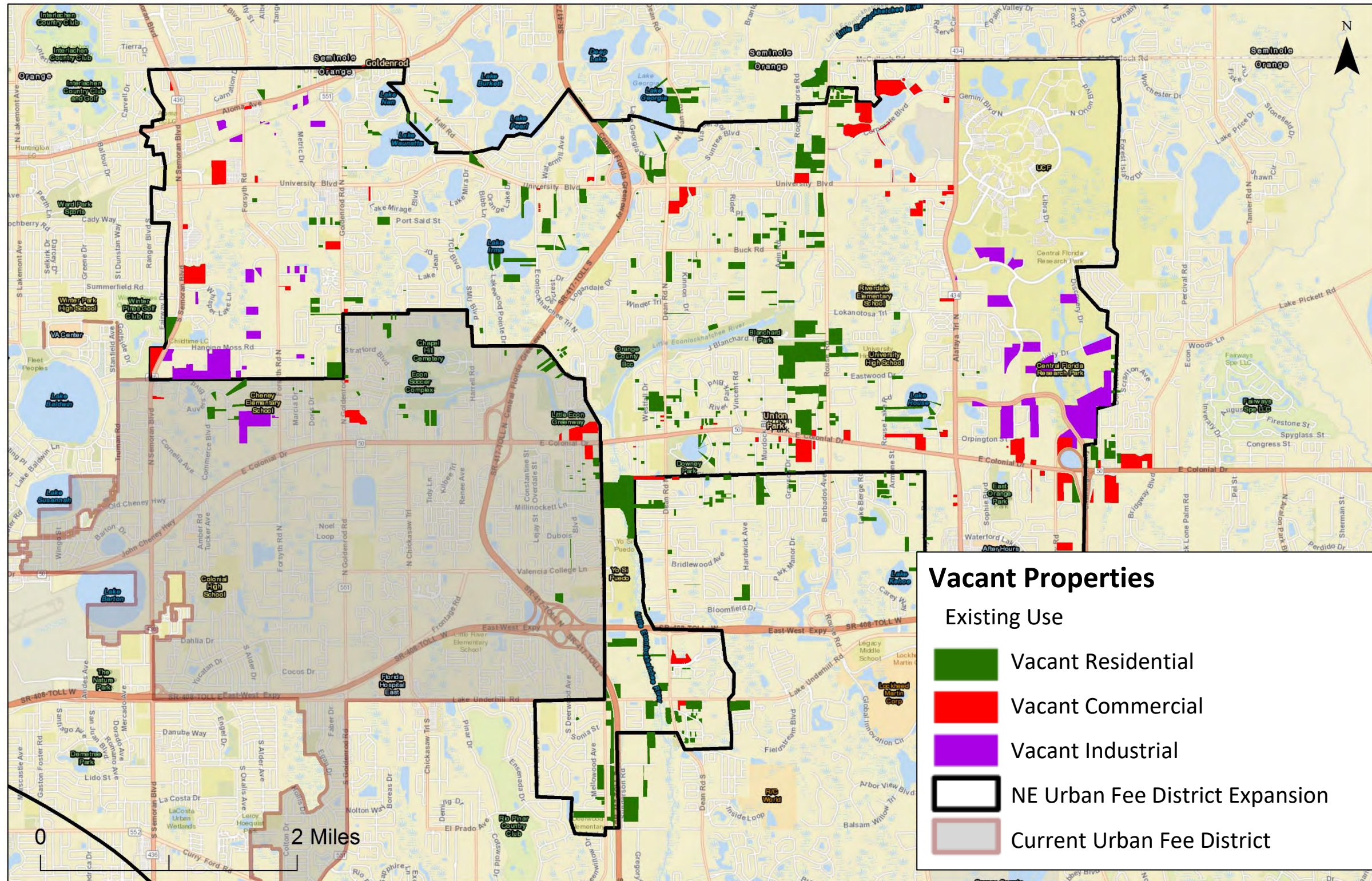
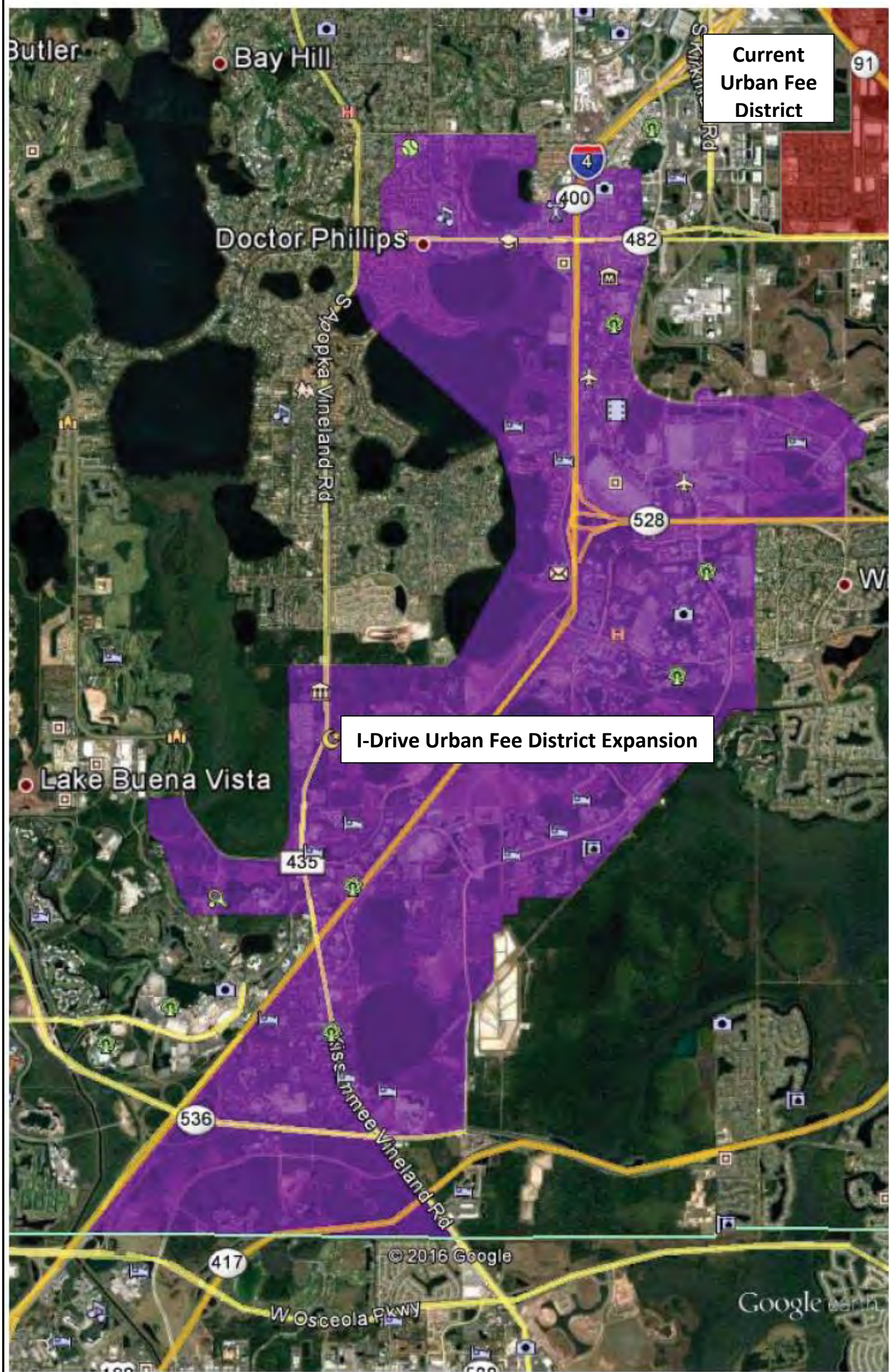
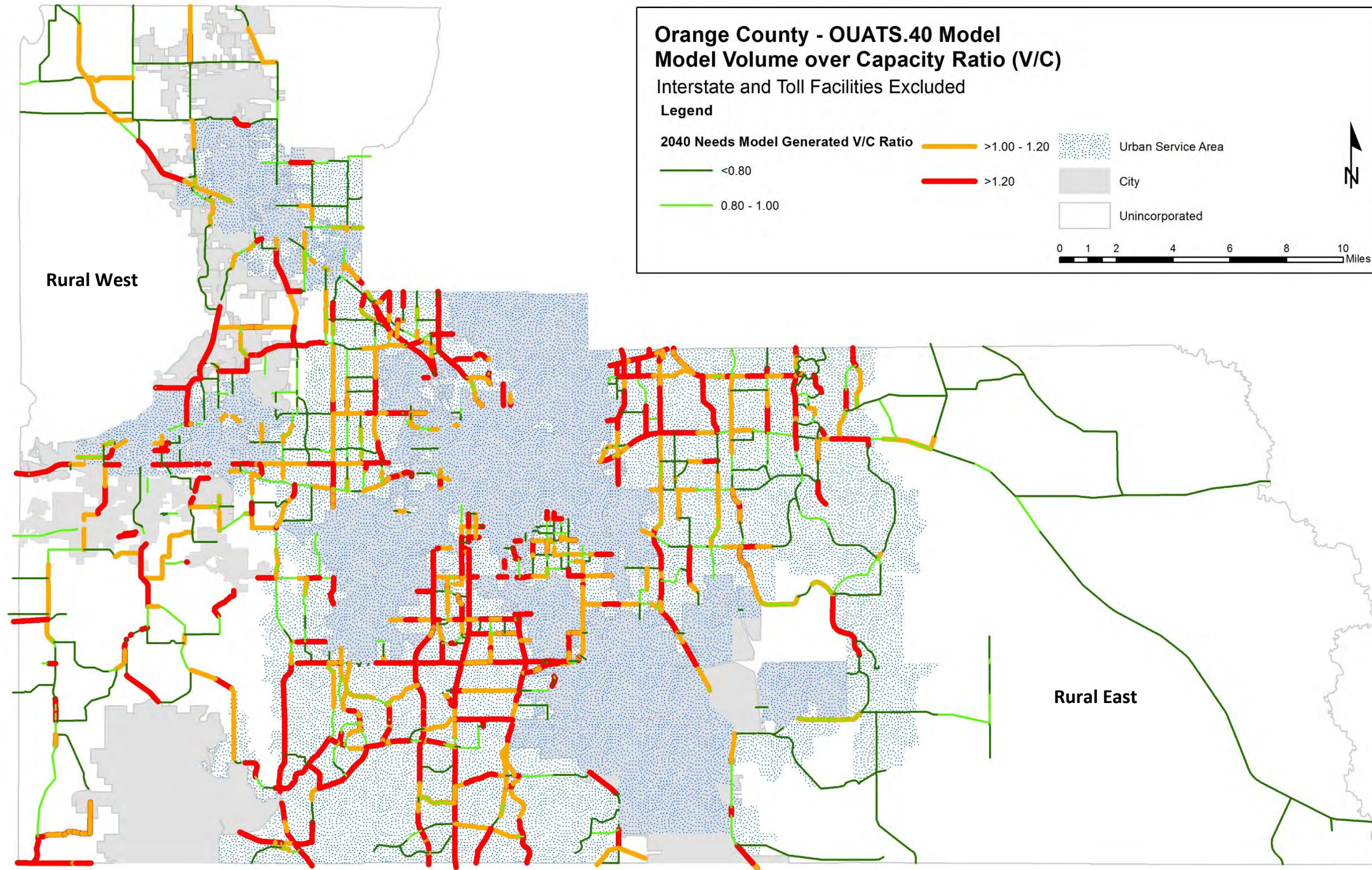


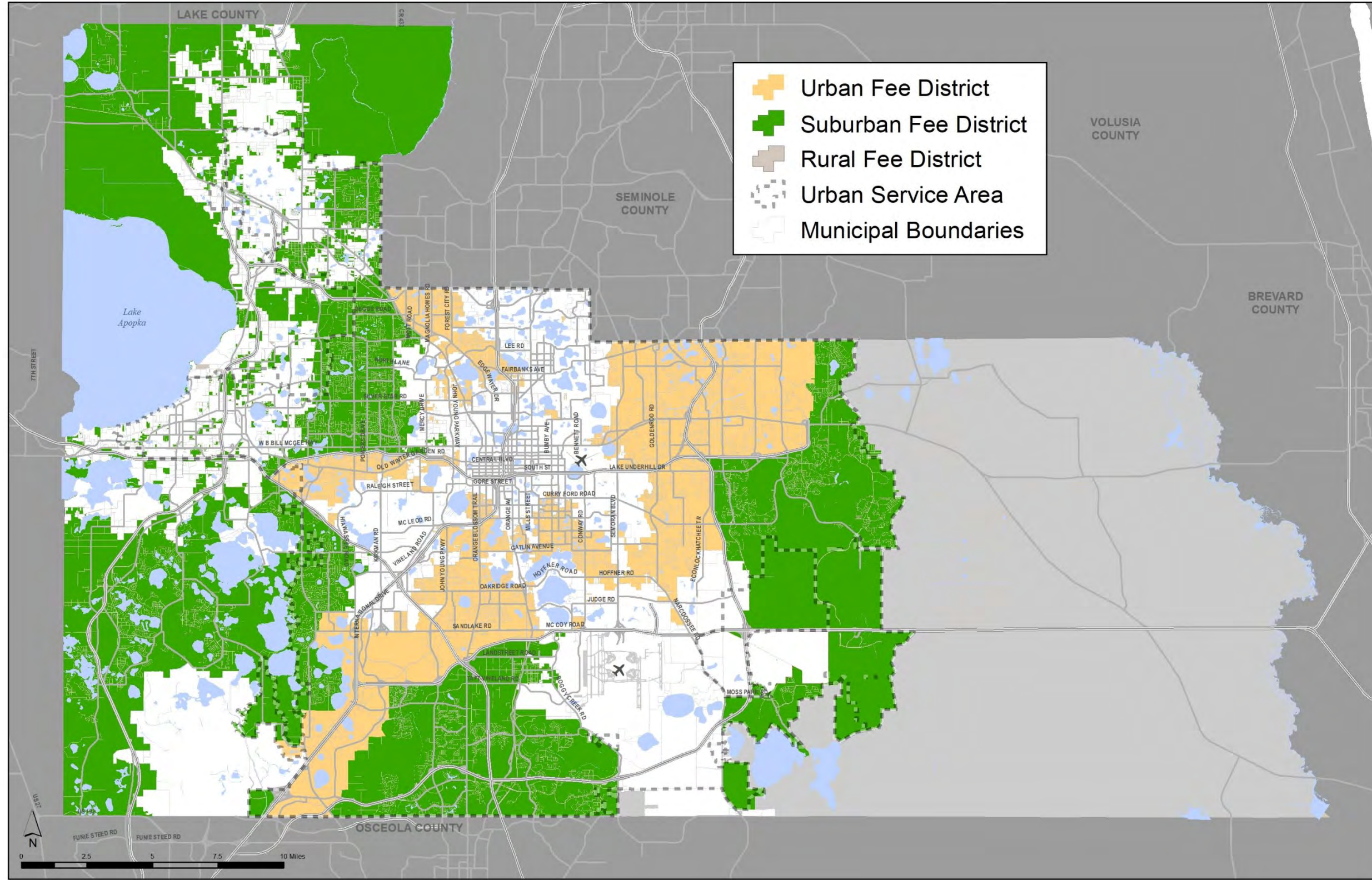
Figure 2 - Alternative 2A: Map 2 (Southeast Map)



Map 5 – Future Congestion by Segment – OUATS 2040 Needs Plan



Map 6 – Proposed Orange County Transportation Impact Fee Districts



The alignment for the SW urban expansion includes adjustments not shown on Map 4 to include the entirety of the International Drive MSTU overlay

VI. Calculated Impact Fee Schedule

Detailed impact fee calculations for each land use are included in Appendix E, 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 E 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;
- Net transportation/multi-modal impact fee;
- Current adopted Orange County impact fee; and
- Percent difference between the calculated impact fee and the current adopted impact fee.

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

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

Capital Improvement Credit = Present Value (Annual Capital Improvement Credit), given 4.0% interest rate & a 25-year facility life

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

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 (8.28) (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 (8.28 + 0.50 = 8.78)
- *% New Trips* = adjustment factor to account for trips that are already on the roadway (100%)
- *Divide by 2* = the total daily miles of travel generated by a particular category (i.e., rate*length*% new trips) is divided by two to prevent the double-counting of travel generated between two land use codes since every trip has an origin and a destination
- *Interstate/Toll Facility Discount Factor* = discount factor to account for travel demand occurring on interstate highways and/or toll facilities (36.1%)
- *Cost per Added Lane Mile* = unit cost to construct one lane mile of roadway, in \$/lane-mile (\$4,540,000)
- *Average Vehicle-Capacity Added per Lane Mile* = represents the average daily traffic on one travel lane at capacity for one lane mile of roadway, in vehicles/lane-mile/day (9,000)
 - Suburban Adjustment = 9,000 x 0.90 V/C ratio = 8,100
 - Rural Adjustment = 9,000 x 0.80 V/C ratio = 7,200
- *Cost per Vehicle-Mile of Capacity* = unit of vehicle-miles of capacity consumed per unit of development. Cost per added lane mile divided by average capacity added per lane mile
 - Urban = \$4,540,000 / 9,000 = \$504.44 per VMC
 - Suburban = \$4,540,000 / 8,100 = \$560.49 per VMC
 - Rural = \$4,540,000 / 7,200 = \$630.56 per VMC
- *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 4.00% interest and a 25-year facility life, the uniform series present worth factor is 15.6221
- *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 (\$0.135 for roadways, \$0.197 for multi-modal (including roadways))
- *Ad Valorem Credit* = the amount of ad valorem taxes used toward transportation capacity, calculated based on the average property value of each land use
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (18.92)

Consumption-Based Transportation Impact Fee Calculation

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

Urban Fee District (Multi-Modal Fee) (Table E-2):

$$\text{Total Impact Cost} = ([7.81 * 8.28 * 1.0] / 2) * (1 - 0.361) * (\$4,540,000 / 9,000) = \mathbf{\$10,422}$$

$$\text{Annual Cap. Improv. Credit} = ([7.81 * 8.78 * 1.0] / 2) * 365 * (\$0.197 / 18.92) = \$130$$

$$\text{Total Capital Improvement Credit} = \$130 * 15.6221 = \$2,031$$

$$\text{Ad Valorem Credit} = \$173$$

$$\text{Net Multi-Modal Fee} = \$10,422 - \$2,031 - \$173 = \mathbf{\$8,218}$$

Non-Urban/Suburban Fee District (Roadway Fee) (Table E-3):

$$\text{Total Impact Cost} = ([7.81 * 8.28 * 1.0] / 2) * (1 - 0.361) * (\$4,540,000 / 8,100) = \mathbf{\$11,580}$$

$$\text{Annual Cap. Improv. Credit} = ([7.81 * 8.78 * 1.0] / 2) * 365 * (\$0.135 / 18.92) = \$89$$

$$\text{Total Capital Improvement Credit} = \$89 * 15.6221 = \$1,390$$

$$\text{Ad Valorem Credit} = \$52$$

$$\text{Net Impact Fee} = \$11,580 - \$1,390 - \$52 = \mathbf{\$10,138}$$

Rural Fee District (Roadway Fee) (Table E-4):

$$\text{Total Impact Cost} = ([7.81 * 8.28 * 1.0] / 2) * (1 - 0.361) * (\$4,540,000 / 7,200) = \mathbf{\$13,028}$$

$$\text{Annual Cap. Improv. Credit} = ([7.81 * 8.78 * 1.0] / 2) * 365 * (\$0.135 / 18.92) = \$89$$

$$\text{Total Capital Improvement Credit} = \$91 * 15.6221 = \$1,390$$

$$\text{Ad Valorem Credit} = \$52$$

$$\text{Net Impact Fee} = \$13,028 - \$1,390 - \$52 = \mathbf{\$11,586}$$

VII. Needs-Based Fee Analysis

As previously mentioned, the Orange County impact fee rates are calculated using a consumption-based methodology. For comparison purposes, this section presents an example of an impact fee calculation using a needs-based methodology.

A needs-based impact fee is calculated based on a list of improvements over a certain time period and associated growth over the same time period. As the list of improvements changes, the fee tends to vary. In the case of Orange County, the needs-based scenario is based on the Needs Plan improvements from the Metroplan 2040 LRTP.

Needs-Based Fee Calculation

Demand Component

Under the needs-based approach, the demand component for each land use is also measured in terms of VMT (the product of trip generation, trip length, and percent new trips, less the interstate/toll facility discount).

Cost of Needs

The cost component for the needs-based analysis is based on the cost of building a set of improvements. The set of projects and total cost were based on the list of County road improvements included in the Metroplan 2040 Long Range Transportation Plan. The cost estimates include adjustments for year-of-expenditure and use a 2040 cost equivalent for all unfunded needs plan improvements. The total estimated cost of improvements is approximately \$2.15 billion.

Non-Impact Fee Revenue

The needs-based impact fee is based on the total cost of improvements less the non-impact fee revenue contributions. Therefore, fuel tax contributions are removed from the calculation. As shown in the Metroplan 2040 LRTP, fuel tax revenues are estimated at approximately \$201.1 million. The remaining cost of improvements used in the impact fee equation is now approximately \$1.95 billion.

VMT Added

The net cost per VMT is calculated based on the 2040 volumes for county roads in Orange County. Using the OUATS 2040 Transportation Model, approximately 5.69 million VMT will be added between the model base year (2009) and 2040. The VMT added represents the volume added to all county roads, not just those that were improved and excludes interstate/toll facilities. For the impact fee calculation, the VMT was adjusted to 3.85 million VMT to account for the difference in timeframes between the model timeframe (2009-2040) and the needs plan (2020-2040). The total cost of improvements net of available funding was then divided by the total VMT added for all county roads to determine a net cost per VMT of approximately \$506 for the needs-plan approach.

Needs-Based Transportation Impact Fee Calculation

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

Needs Plan:

$$\text{Net Impact Fee} = ([\text{TGR} * \text{TL} * \text{PNT}] / 2) * (1 - \text{I/T Discount}) * \text{Net Cost per VMT}$$

$$\text{Net Impact Fee} = ([7.81 * 8.28 * 1.0] / 2) * (1 - 0.361) * \$506 = \mathbf{\$10,454}$$

The resulting needs-based fee is approximately 15 percent more than its consumption-based counterpart, calculated below:

Consumption-Based (roadway ONLY, V/C 1.00):

$$\text{Total Impact Cost} = ([7.81 * 8.28 * 1.0] / 2) * (1 - 0.361) * (\$4,540,000 / 9,000) = \$10,422$$

$$\text{Annual Cap. Improv. Credit} = ([7.81 * 8.78 * 1.0] / 2) * 365 * (\$0.135 / 18.92) = \$89$$

$$\text{Total Capital Improvement Credit} = \$89 * 15.6221 = \$1,390$$

$$\text{Ad Valorem Credit} = \$52$$

$$\text{Net Impact Fee} = \$10,422 - \$1,390 - \$52 = \mathbf{\$8,980}$$

Asset-Based Fee Calculation

An additional analysis was completed to measure the level of investment made by the existing development in Orange County's transportation system. This exercise provides a general sense of a fee per dwelling unit that would have been required to construct the existing transportation network. The total asset value of the county road system was estimated using the total lane

miles in the roadway inventory ($\approx 3,173$) and the cost per added lane mile from Table 1 (\$4,540,000). This results in an estimated asset value of approximately \$14.4 billion in roadway infrastructure.

The asset value was divided by the current population (1,386,080) and then multiplied by the persons-per-household (2.48) to determine an asset per household of approximately \$26,000. However, this does not account for the portion of non-residential development that would pay impact fees. Based on historical impact fee collections, residential development has generated approximately 60 percent of the county revenues. Therefore, the asset per household was reduced to 60 percent resulting in an estimated fee of \$15,600 per household.

As discussed previously, consumption-based transportation impact fees are calculated based on adopted LOS standards, and do not reflect historical investment levels in a community. Rather, they are conservative fees that slow down the degradation of the transportation system.

VIII. Transportation Impact Fee Rate Comparison

A comparison of calculated fee schedule to the current adopted fee by land use is presented in Table 5 for select land uses.

A summary of the calculated impact fee rates for all land uses is presented in Appendix E, Tables E-1 through E-3.

**Table 5
Transportation Impact/Multi-Modal Fee Comparison**

Land Use	Unit ⁽²⁾	Orange County			Orange County ⁽⁶⁾		Orange County ⁽⁷⁾		Brevard County ⁽⁸⁾	Hillsborough County ⁽⁹⁾	Lake County ⁽¹⁰⁾	Osceola County ⁽¹¹⁾	Pasco County ⁽¹²⁾
		Urban ⁽³⁾	Non-Urban/ Suburban ⁽⁴⁾	Rural ⁽⁵⁾	Non-AMA	AMA	Non-AMA	AMA					
Date of Last Update		2020	2020	2020	2012	2012	2012	2012	2000	2016/2020	2013	2017	2018
Adoption Percentage⁽¹⁾		100%	100%	100%	56%	56%	100%	100%	100%	80%	70%	100%	N/A
Residential:													
Single Family (2,000 sf)	du	\$8,218	\$10,138	\$11,586	\$3,898	\$3,761	\$6,961	\$6,716	\$4,353	\$5,094 to \$7,377	\$1,000 to \$2,706	\$9,055	\$5,835 to \$9,800
Non-Residential:													
Light Industrial	1,000 sf	\$3,117	\$3,857	\$4,410	\$2,163	\$2,088	\$3,863	\$3,728	n/a	\$2,727 to \$4,129	\$638 to \$1,728	\$3,997	\$0
Office (50,000 sq ft)	1,000 sf	\$8,132	\$10,037	\$11,473	\$5,574	\$5,374	\$9,953	\$9,596	\$5,058	\$5,374 to \$8,127	\$935 to \$2,531	\$5,700	\$0
Retail (125,000 sq ft)	1,000 sf	\$10,052	\$11,763	\$12,529	\$5,477	\$5,246	\$9,780	\$9,368	\$5,270	\$8,090 to \$9,712	\$1,095 to \$2,964	\$23,295	\$5,641 to \$8,813
Bank w/Drive-Thru	1,000 sf	\$14,868	\$17,571	\$18,719	\$11,525	\$11,050	\$20,581	\$19,733	\$23,331	\$12,924 to \$15,893	\$818 to \$2,213	\$10,785	\$12,730 to \$15,582
Fast Food w/Drive-Thru	1,000 sf	\$74,592	\$86,876	\$92,547	\$38,463	\$36,809	\$68,684	\$65,731	\$35,791	\$56,660 to \$68,158	\$818 to \$2,213	\$14,005	\$40,950 to \$50,978

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fees may have been lowered/increased through annual indexing or policy discounts. Does not account for moratoriums/suspensions

2) du = dwelling unit

3) Source: Appendix E, Table E-2

4) Source: Appendix E, Table E-3

5) Source: Appendix E, Table E-4

6) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees were adopted at 42 percent in 2012 and increased to 56 percent in 2014

7) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees shown at the maximum calculated rates

8) Source: Brevard County Planning and Development Department

9) Source: Hillsborough County Public Works Department

10) Source: Lake County Economic Growth Department. Small retail rate is shown for bank and fast food land uses

11) Source: Osceola County Community Development Department. Non-mixed use fees are shown. Single family fee shown is the non-rural rate and the bank with drive-thru land use is measured per lane

12) Source: Pasco County Central Planning Department

Table 5 (continued)
Transportation Impact/Multi-Modal Fee Comparison

Land Use	Unit ⁽²⁾	Orange County			Orange County ⁽⁶⁾		Orange County ⁽⁷⁾		Polk County ⁽⁸⁾	Seminole County ⁽⁹⁾	Volusia County ⁽¹⁰⁾	City of Ocoee ⁽¹¹⁾	City of Orlando ⁽¹²⁾	City of Winter Garden ⁽¹³⁾
		Urban ⁽³⁾	Non-Urban/ Suburban ⁽⁴⁾	Rural ⁽⁵⁾	Non-AMA	AMA	Non-AMA	AMA						
Date of Last Update		2020	2020	2020	2012	2012	2012	2012	2019	1992	2018	2015	2012	2004
Adoption Percentage⁽¹⁾		100%	100%	100%	56%	56%	100%	100%	100%	N/A	100%	100%	50%	100%
Residential:														
Single Family (2,000 sf)	du	\$8,218	\$10,138	\$11,586	\$3,898	\$3,761	\$6,961	\$6,716	\$2,380	\$705 to \$1,185	\$5,274	\$3,944	\$3,574 to \$4,123	\$3,517
Non-Residential:														
Light Industrial	1,000 sf	\$3,117	\$3,857	\$4,410	\$2,163	\$2,088	\$3,863	\$3,728	\$855	\$519 to \$873	\$1,980	\$2,497	\$2,270 to \$2,391	\$1,404
Office (50,000 sq ft)	1,000 sf	\$8,132	\$10,037	\$11,473	\$5,574	\$5,374	\$9,953	\$9,596	\$2,356	\$1,545 to \$2,598	\$3,900	\$4,753	\$4,352 to \$4,576	\$5,748
Retail (125,000 sq ft)	1,000 sf	\$10,052	\$11,763	\$12,529	\$5,477	\$5,246	\$9,780	\$9,368	\$3,536	\$1,821 to \$3,062	\$6,260	\$4,847	\$5,742 to \$6,038	\$7,645
Bank w/Drive-Thru	1,000 sf	\$14,868	\$17,571	\$18,719	\$11,525	\$11,050	\$20,581	\$19,733	\$3,536	\$5,756 to \$9,680	\$9,560	\$9,608	\$12,069 to \$12,716	\$30,730
Fast Food w/Drive-Thru	1,000 sf	\$74,592	\$86,876	\$92,547	\$38,463	\$36,809	\$68,684	\$65,731	\$3,536	\$9,426 to \$15,852	\$46,450	\$23,156	\$41,265 to \$43,397	\$58,351

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fees may have been lowered/increased through annual indexing or policy discounts. Does not account for moratoriums/suspensions

2) du = dwelling unit

3) Source: Appendix E, Table E-2

4) Source: Appendix E, Table E-3

5) Source: Appendix E, Table E-4

6) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees were adopted at 42 percent in 2012 and increased to 56 percent in 2014

7) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees shown at the maximum calculated rates

8) Source: Polk County Building Department

9) Source: Seminole County Development services Department

10) Source: Volusia County Growth and Resource Management Department

11) Source: City of Ocoee Planning and Zoning Division

12) Source: City of Orlando Transportation Planning Division

13) Source: City of Winter Garden Community Development Department

IX. Economic Growth Model

In addition to calculating the transportation impact fee levels, this study also includes an economic growth approach to impact fee calculations, which takes into account the existing development's ability to absorb new growth and calculates the levels of possible policy discounts without reducing the level-of-service used in the full roadway/multi-modal impact fee calculations.

As presented in Appendix C, in addition to impact fees, other revenue sources such as fuel tax and INVEST funds are also being used to fund the countywide transportation system. In terms of the economic growth calculations, it is important to note the following:

- As discussed previously, consumption-based impact fees that are based on either the adopted LOS standard or a service level that is lower than achieved LOS do not generate sufficient revenues to maintain the existing conditions.
- The economic growth strategy calculations are based on the future estimated fuel tax and other funding toward countywide transportation capital capacity projects. The calculations exclude any funding dedicated toward paying the debt service since the dollar amount cannot be available for absorbing the growth. If other revenue sources become available, these calculations will need to be revised.
- Based on the socio-economic data and projections obtained from the OUATS 2040, an average annual growth rate of 1.2 percent was calculated for unincorporated Orange County between 2017 and 2040. This growth projection is used in the calculations associated with the economic growth strategy.
- As shown in Appendix C, the County allocates \$35 million of non-impact fee dollars per year toward capacity expansion of county roads. In addition, the State invests approximately \$62 million per year on transportation capacity in Orange County. Although impact fee calculations already account for the portion of this revenue that is generated by new development, a larger portion of the revenue is generated by existing population and can be treated as a "buy-down" fund. In other words, as long as the County limits the buy-down amount to the level of non-impact fee investment, the equity requirements of impact fee will be met.

- Given that any impact fee discount results in revenue loss, it is recommended that the discounts are applied to select land uses consistent with the County's Comprehensive Plan and economic development goals and policies. Examples would be high wage creating jobs, industries/sectors important to well-being of the residents (such as housing, education, safety, etc.).
- Similarly, the County could reduce impact fees on residential land uses more than non-residential land uses.

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

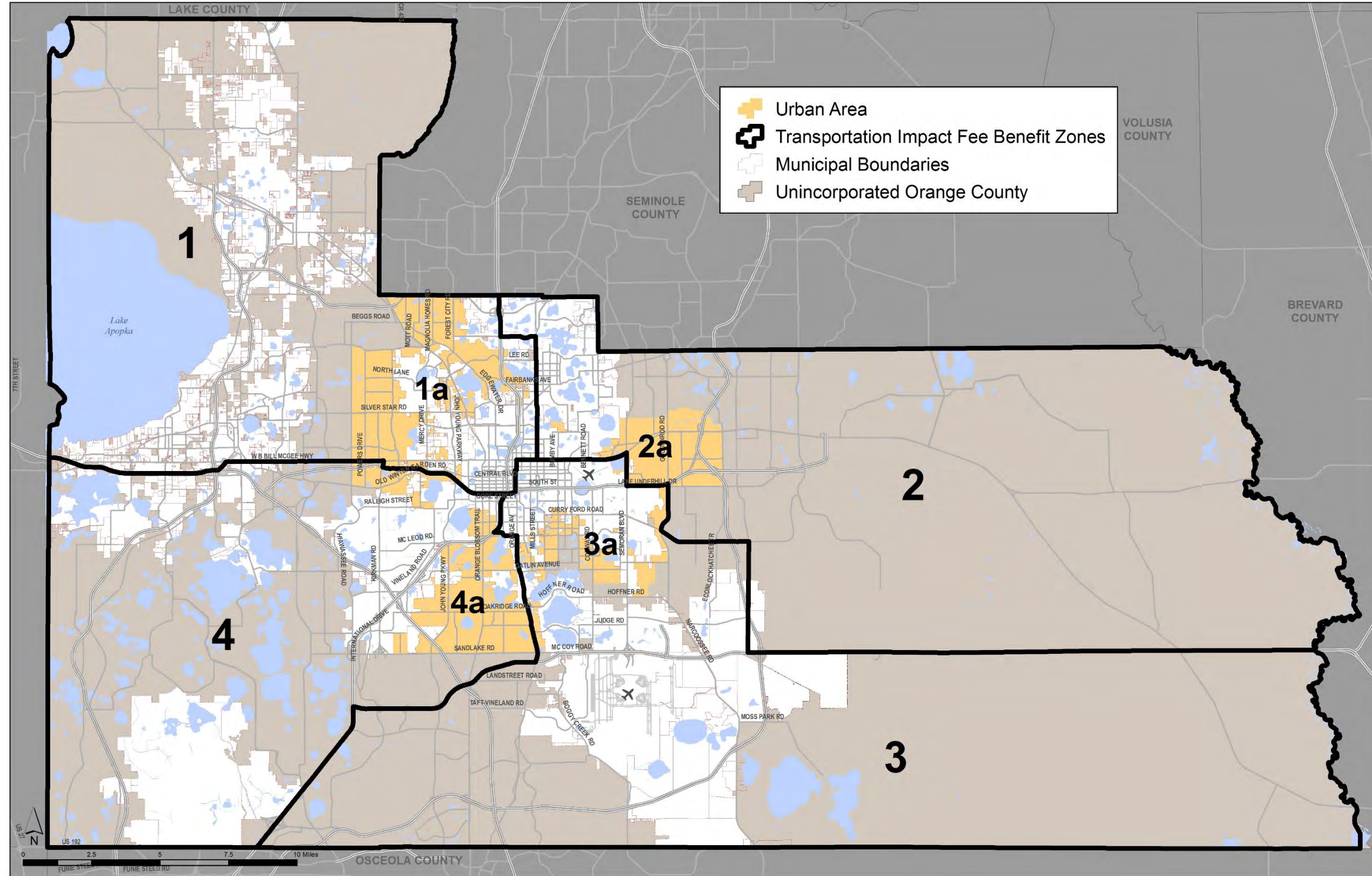
As mentioned previously, the level of discount is more of a policy decision and could be at any level between no discounts and the maximum level of non-impact fee investment per year (or any amount the County dedicates from non-impact fee revenue sources). Any additional discounts would either need to be applied to all land uses or to be bought down with the General Fund or another revenue source.

X. Impact Fee Benefit Zones

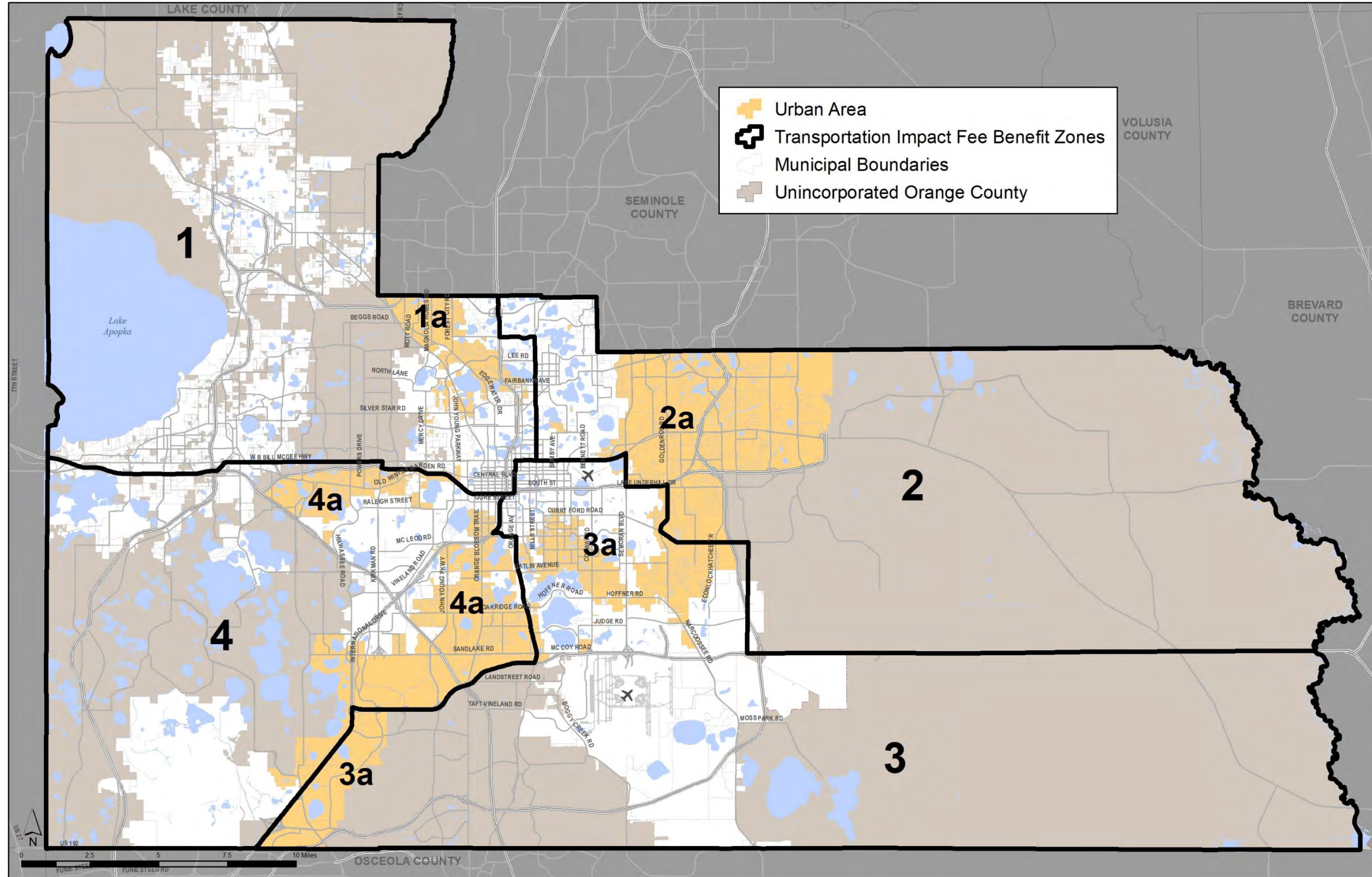
As part of the update to the impact fee program, the existing impact fee benefit zones illustrated in Map 7 were reviewed. Currently, Orange County has four road impact fee benefit zones, and four sub-zones for the alternative mobility area. Benefit districts dictate where impact fee revenues can be spent to ensure that fee payers receive the associated benefit. Typically, boundaries for benefit districts are based on land uses, growth rates, major roadway boundaries, and major geographical/environmental boundaries. Impact fee revenues collected within each district are deposited into separate trust accounts upon receipt. These revenues can only be used for capacity expansion improvements.

As previously discussed, the County may potentially expand the urban area to the southwest and the northeast. As shown in Map 8, these expansions will become part of the urban sub-areas within each larger transportation impact fee benefit district. The boundaries of the four main districts will not be altered.

Map 7 – Orange County Transportation Impact Fee Existing Benefit Zones



Map 8 – Orange County Transportation Impact Fee Benefit Zones with Expanded Urban Area



XI. Indexing

In many cases, impact fees are reviewed periodically (every three to five years) as opposed to an annual review. If no annual adjustment is applied to the impact fee rates a situation can arise where major adjustments to the fee schedule become necessary due to the time interval between update studies. The need for significant adjustment also creates major concern in the development community. To address this issue, the calculated fees in Appendix E, Tables E-1 through E-3, could potentially be indexed annually for construction and land cost increases, as appropriate. The method for developing this index is detailed in this section.

Land Cost

As shown in Table 6, between 2014 and 2019 the total just property value for all vacant residential land in unincorporated Orange County increased by an annual average of 7.1 percent. This index was applied to the ROW component of the transportation impact fee.

Table 6
Just Value Trend – Unincorporated Orange County

Year	Just Value (Vacant Land ONLY)			
	Countywide	Unincorporated	% Change CW	% Change Uninc.
2014	\$2,794,876,391	\$1,701,638,886	-	-
2015	\$2,999,055,112	\$1,835,656,636	7.3%	7.9%
2016	\$3,356,603,868	\$2,014,490,714	11.9%	9.7%
2017	\$3,624,185,916	\$2,156,930,154	8.0%	7.1%
2018	\$4,014,053,192	\$2,304,108,899	10.8%	6.8%
2019	\$4,170,277,690	\$2,399,591,893	3.9%	4.1%
Average			8.4%	7.1%

Source: Florida Department of Revenue

Roadway Construction Cost

The Florida Department of Transportation provides historical inflation factors for transportation project costs, which are presented in Table 7. It is recommended that these factors be used for the design and construction components of the transportation impact fee indexing. As shown in Table 7, the average index is approximately 2.0 percent based on the past 5 years.

Table 7
FDOT Project Cost Inflation Index

Fiscal Year	Inflation Rate
2014	3.0%
2015	0.0%
2016	0.0%
2017	3.0%
2018	4.0%
Annual Avg.	2.0%

Source: FDOT Office of Policy Planning

Transit Capital Cost

As previously noted, the transit capital cost for the multi-modal fee in the urban fee district is not included in the unit construction cost used to calculate the impact fee due to the insignificant impact on the cost per person-mile. Therefore, there is no indexing adjustment for capital costs related to transit investment. However, an index should be applied to the transit capital cost once the investment reaches a significant level, as determined in a future update study. For this component, the Engineering News-Record (ENR) Building Cost Index is recommended.

Index Calculation

Table 8 presents the indexing application for the transportation impact fee rates.

Table 8
Transportation Indexing Application

Phase	Cost per Lane Mile ⁽¹⁾	Percent of Total Cost ⁽²⁾	Annual Increase ⁽³⁾	Index ⁽⁴⁾
Design	\$340,000	7.5%	2.0%	0.2%
Right-of-Way	\$1,200,000	26.4%	7.1%	1.9%
Construction	\$3,000,000	66.1%	2.0%	1.3%
Total Cost	\$4,540,000		-	-
Total Applicable Index⁽⁵⁾				3.4%

1) Source: Table 1

2) Cost phase (design, ROW, construction) divided by the total cost

3) Source: Table 6 for ROW; Table 7 for design and construction

4) Percent of total cost (Item 2) for each phase multiplied by the annual increase (Item 3)

5) Sum of the index components (Item 4) for all phases

Index Application

This section provides an indexing application example using the total application index of 3.4 percent:

- Single Family (detached):
 - o Urban Area = $\$8,218 \times (1 + 3.4\%) = \mathbf{\$8,497}$
 - o Non-Urban/Suburban Area = $\$10,138 \times (1 + 3.4\%) = \mathbf{\$10,483}$
 - o Rural Area = $\$11,586 \times (1 + 3.4\%) = \mathbf{\$11,980}$

This index would be applied to the fees for each land use at the end of the first year after adoption and implementation of the updated impact fee schedule. Given the recent fluctuations in land and construction values, it is recommended that the indices be re-evaluated at the end of the first year of implementation. At the end of each subsequent year, the index would be re-calculated and applied to the current adopted fee schedule. This approach provides the opportunity to base the index on the most current data available.

XII. Incentives for Affordable/Workforce Housing

Similar to many other Florida jurisdictions, Orange County is concerned about availability of affordable/workforce housing supply in the county. As part of the transportation impact fee study update, technical and policy-based methods available to the County to mitigate the adverse effects of higher impact fees are reviewed along with practices used by select Florida jurisdictions. This section starts with methods available to the County and continues with case studies.

- **Technical basis:** This approach requires the technical documentation indicating that affordable/workforce housing has lesser impact on a given infrastructure. One approach is to tier the single family category by size, which reflects fewer trips generated by smaller homes. A tiered approach is included in the fee schedules shown in Appendix E for the County's consideration.

In the case of transportation impact fees, data also supports that smaller single family homes (less than 1,500 square feet) with lower income levels generate even fewer trips, and therefore, could be charged less. These categories reduce the impact fee by approximately 30 percent to 40 percent compared to an average home with higher income. This approach would require a monitoring process to track income levels of occupants/owners.

- **Policy discounts:** Some jurisdictions discount fees for affordable/workforce housing through the following programs/approaches:
 - **Deferral Programs:** Fees for affordable/workforce housing are deferred until homes are occupied by households that do not qualify under affordable/workforce housing criteria. This requires an annual monitoring process to ensure the homes did not change owners and/or rental rates do not exceed certain limits. Once the homes are no longer occupied by qualifying households, impact fees are collected.
 - **Buy-down Approach:** Some jurisdictions, including Orange County, set aside a certain dollar amount from the General Fund, SHIP funds, or another fund to buy down the fees for affordable housing or other targeted uses. This ensures that the impact fee program remains whole and those who paid the fee receive the associated benefit in terms of related infrastructure. **However, HB 7103 that was signed by the Governor following the 2019 legislative session eliminated the**

need to backfill lost revenues when impact fees for affordable housing are waived or reduced. In other words, local governments can now waive/reduce fees for affordable housing projects without having to offset the revenues.

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

- Section 420.9071 (2) “Affordable” means that monthly rents or monthly mortgage payments including taxes and insurance do not exceed 30 percent of that amount which represents the percentage of the median annual gross income for the households as indicated in subsection (19), subsection (20), or subsection (28).
 - Subsection (19) – “Low-income person” or “low-income household” means one or more natural persons or a family that has a total annual gross household income that does not exceed 80 percent of the median annual income adjusted for family size for households within the metropolitan statistical area, the county, or the nonmetropolitan median for the state, whichever amount is greatest. With respect to rental units, the low-income household’s annual income at the time of initial occupancy may not exceed 80 percent of the area’s median income adjusted for family size. While occupying the rental unit, a low-income household’s annual income may increase to an amount not to exceed 140 percent of 80 percent of the area’s median income adjusted for family size.
 - Subsection (20) provides the definition for “moderate-income household,” where the household income is limited to 120 percent of the median annual income.
 - Subsection (28) defines “very-low-income household” at 50 percent of the median annual income.
- **Geographic Discounts/Exemption Areas:** Some jurisdictions implement discounts in more disadvantaged areas, such as Community Redevelopment Areas (CRAs). In some cases, these areas are entirely exempt from impact fees. Given that affordable housing supply tends to be more easily available in these lower cost areas, this approach supports affordable housing as well as other development in exempt areas.
 - **Alternative Incentives/Requirements:** Research conducted by Tindale Oliver suggested that jurisdictions interviewed use a combination of programs to incentivize affordable/workforce housing as opposed to relying only on impact fee discounts. Some

of the common incentive programs include density bonuses, expedited permitting, flexibility in design/parking requirements, and home purchase/construction assistance.

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

Case Studies

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

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

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

These jurisdictions are selected primarily because they started experiencing challenges in providing affordable/workforce housing prior to many other counties and three of them have large populations similar to Orange County.

Broward County

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

- 87 percent of households cannot afford the median home price in the county (\$350,000).
- 147,000 renters use more than 30 percent of their income for rent.
- 78,000 renters use more than half their income for housing cost.

- The County estimates that almost 90,000 jobs will be created within the next eight years, which will be primarily service sector/low wage jobs, creating even a bigger need for affordable/workforce housing.

To address these issues, Broward County developed several initiatives.

Impact Fee Structure and Discount Levels

Broward County collects impact fees for roads, parks, and schools. As presented in Table 1, the total adopted residential fees for the selected residential development types range from \$2,368 for a two-bedroom high rise unit to \$9,037 for a three-bedroom single family home. Of these fees, roads and parks impact fees are bought down for very low and low income households by the County, while the School District buys down school impact fees for very low and low income households.

Table 9 provides a summary of adopted fees and discount levels for affordable/workforce housing development and includes a select number of residential categories to provide examples.

Table 9
Broward County, Impact Fees for Affordable/Workforce Housing

Impact Fee Program Area	Unit	Adopted Fee ⁽¹⁾	Discounted Amount ⁽²⁾		Total Impact Fee ⁽³⁾	
			Very Low (50% AMI)	Low Income (80% AMI)	Very Low (50% AMI)	Low Income (80% AMI)
<i>Discount Level</i>			<i>100%</i>	<i>100%</i>		
Single Family Home (3 bedrooms)						
Road	du	\$1,653	\$1,653	\$1,653	\$0	\$0
Parks	du	\$496	\$496	\$496	\$0	\$0
Education	du	<u>\$6,888</u>	<u>\$6,888</u>	<u>\$6,888</u>	<u>\$0</u>	<u>\$0</u>
Total	-	\$9,037	\$9,037	\$9,037	\$0	\$0
Townhouse, Duplex, and Villa (2 bedrooms)						
Road	du	\$1,653	\$1,653	\$1,653	\$0	\$0
Parks	du	\$387	\$387	\$387	\$0	\$0
Education	du	<u>\$3,974</u>	<u>\$3,974</u>	<u>\$3,974</u>	<u>\$0</u>	<u>\$0</u>
Total	-	\$6,014	\$6,014	\$6,014	\$0	\$0
Garden Apartment (2 bedrooms)						
Road	du	\$1,653	\$1,653	\$1,653	\$0	\$0
Parks	du	\$354	\$354	\$354	\$0	\$0
Education	du	<u>\$4,393</u>	<u>\$4,393</u>	<u>\$4,393</u>	<u>\$0</u>	<u>\$0</u>
Total	-	\$6,400	\$6,400	\$6,400	\$0	\$0
Mid-Rise (2 bedrooms)						
Road	du	\$1,653	\$1,653	\$1,653	\$0	\$0
Parks	du	\$354	\$354	\$354	\$0	\$0
Education	du	<u>\$1,153</u>	<u>\$1,153</u>	<u>\$1,153</u>	<u>\$0</u>	<u>\$0</u>
Total	-	\$3,160	\$3,160	\$3,160	\$0	\$0
High-Rise (2 bedrooms)						
Road	du	\$1,653	\$1,653	\$1,653	\$0	\$0
Parks	du	\$354	\$354	\$354	\$0	\$0
Education	du	<u>\$361</u>	<u>\$361</u>	<u>\$361</u>	<u>\$0</u>	<u>\$0</u>
Total	-	\$2,368	\$2,368	\$2,368	\$0	\$0
Mobile Home (2 bedrooms)						
Road	du	\$1,653	\$1,653	\$1,653	\$0	\$0
Parks	du	\$350	\$350	\$350	\$0	\$0
Education	du	<u>\$3,103</u>	<u>\$3,103</u>	<u>\$3,103</u>	<u>\$0</u>	<u>\$0</u>
Total	-	\$5,106	\$5,106	\$5,106	\$0	\$0

1) Source: Broward County Planning and Development Management Division, Zone 1 road impact fee is shown.

2) Source: Broward County Planning and Development Management Division and Broward County Public Schools.

3) Adopted fee (Item 1) less discounted amount (Item 2)

Note: AMI = Area median income

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

Funding of the Program

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

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

Other Incentive Programs

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

- Expedited permitting.
- Density bonuses for development of market rate units (e.g. four market rate units per every one low or very low unit).
- Transfer of development rights.
- Allowance of affordable accessory residential units of small size.
- Reduction of parking and setback requirements.
- Flexible lot configurations, including zero lot line.
- Purchase assistance.
- New construction assistance.
- Rehabilitation assistance.

In 2017, Broward County adopted certain changes to its Land Use Plan, called the BrowardNEXT Plan. These changes require the County and municipalities of more than 15,000 residents to

address affordable housing on land use amendments that propose 100 or more additional units to existing densities. The Plan requires municipalities to provide evidence to the County of their current affordable housing programs, as well as, their current housing profile. The County reviews the profile and programs of the City to determine if they are in compliance with the Land Use Policy. If compliance cannot be met by the municipality, a 15 percent set-aside or a fee in-lieu of in the amount of \$1 per residential gross square foot is required.

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

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

Of these, implementation of linkage fees was denied by the Broward County Regional Planning Council. Some of the other proposed changes are still being considered.

Collier County

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

Impact Fee Structure and Discount Levels

Collier County collects impact fees for community parks, regional parks, libraries, roads, EMS, law enforcement, correctional facilities, government buildings and school facilities. The current adopted residential fees presented in the following table range from \$10,602 for a condo, duplex, or single family attached unit to \$22,360 for a single family home of 2,000 square feet. Collier County has an impact fee deferral program, available to first time homebuyers and renters with household income less than 120 percent of median income of the county. The program was initially adopted in 2005 and was in operation for a few years before it was shut down during the housing recession. In 2016, Collier County re-instituted the program.

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

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

Finally, the County had a voluntary affordable housing contribution program, which involved agreements at zoning stage and/or through PUD commitments. Under this program, developers paid \$1,000 per home and \$0.50 per square foot of non-residential development. In return, they obtained future credits against affordable housing impact fee, which was anticipated to be implemented at the time. There have been \$6 million of commitments and \$600,000 was collected. However, this revenue was never spent since the affordable housing impact fee was never adopted. Eventually, the Board of County Commission repealed the program, removed commitments and refunded the collections.

Table 11
Collier County, Impact Fees for Affordable Housing

Impact Fee Program Area	Unit	Adopted Fee ⁽¹⁾	Discounted Amount ⁽²⁾				Total Impact Fee ⁽³⁾				
			Extremely Low (30% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (120% AMI)	Extremely Low (30% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (120% AMI)	
			<i>Discounted Level</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>				
Single Family Home (2,000 sf)											
Community Parks	du	\$934	\$934	\$934	\$934	\$934	\$0	\$0	\$0	\$0	
Regional Parks	du	\$2,694	\$2,694	\$2,694	\$2,694	\$2,694	\$0	\$0	\$0	\$0	
Roads	du	\$7,444	\$7,444	\$7,444	\$7,444	\$7,444	\$0	\$0	\$0	\$0	
EMS	du	\$142	\$142	\$142	\$142	\$142	\$0	\$0	\$0	\$0	
Schools	du	\$8,790	\$8,790	\$8,790	\$8,790	\$8,790	\$0	\$0	\$0	\$0	
Government Buildings	du	\$934	\$934	\$934	\$934	\$934	\$0	\$0	\$0	\$0	
Libraries	du	\$336	\$336	\$336	\$336	\$336	\$0	\$0	\$0	\$0	
Law Enforcement	du	\$587	\$587	\$587	\$587	\$587	\$0	\$0	\$0	\$0	
Jail	du	\$499	\$499	\$499	\$499	\$499	\$0	\$0	\$0	\$0	
Total	-	\$22,360	\$22,360	\$22,360	\$22,360	\$22,360	\$0	\$0	\$0	\$0	
Condo, Duplex or Single Family Attached											
Community Parks	du	\$455	\$455	\$455	\$455	\$455	\$0	\$0	\$0	\$0	
Regional Parks	du	\$1,230	\$1,230	\$1,230	\$1,230	\$1,230	\$0	\$0	\$0	\$0	
Roads	du	\$4,845	\$4,845	\$4,845	\$4,845	\$4,845	\$0	\$0	\$0	\$0	
EMS	du	\$68	\$68	\$68	\$68	\$68	\$0	\$0	\$0	\$0	
Schools	du	\$2,844	\$2,844	\$2,844	\$2,844	\$2,844	\$0	\$0	\$0	\$0	
Government Buildings	du	\$444	\$444	\$444	\$444	\$444	\$0	\$0	\$0	\$0	
Libraries	du	\$160	\$160	\$160	\$160	\$160	\$0	\$0	\$0	\$0	
Law Enforcement	du	\$297	\$297	\$297	\$297	\$297	\$0	\$0	\$0	\$0	
Jail	du	\$259	\$259	\$259	\$259	\$259	\$0	\$0	\$0	\$0	
Total	-	\$10,602	\$10,602	\$10,602	\$10,602	\$10,602	\$0	\$0	\$0	\$0	
Multi-Family (Apts.) 10 Stories											
Community Parks	du	\$455	\$455	\$455	\$455	\$455	\$0	\$0	\$0	\$0	
Regional Parks	du	\$1,230	\$1,230	\$1,230	\$1,230	\$1,230	\$0	\$0	\$0	\$0	
Roads	du	\$5,542	\$5,542	\$5,542	\$5,542	\$5,542	\$0	\$0	\$0	\$0	
EMS	du	\$68	\$68	\$68	\$68	\$68	\$0	\$0	\$0	\$0	
Schools	du	\$2,844	\$2,844	\$2,844	\$2,844	\$2,844	\$0	\$0	\$0	\$0	
Government Buildings	du	\$444	\$444	\$444	\$444	\$444	\$0	\$0	\$0	\$0	
Libraries	du	\$160	\$160	\$160	\$160	\$160	\$0	\$0	\$0	\$0	
Law Enforcement	du	\$297	\$297	\$297	\$297	\$297	\$0	\$0	\$0	\$0	
Jail	du	\$229	\$229	\$229	\$229	\$229	\$0	\$0	\$0	\$0	
Total	-	\$11,269	\$11,269	\$11,269	\$11,269	\$11,269	\$0	\$0	\$0	\$0	
Mobile Home (Not in Mobile Home Park)											
Community Parks	du	\$716	\$716	\$716	\$716	\$716	\$0	\$0	\$0	\$0	
Regional Parks	du	\$2,145	\$2,145	\$2,145	\$2,145	\$2,145	\$0	\$0	\$0	\$0	
Roads	du	\$7,444	\$7,444	\$7,444	\$7,444	\$7,444	\$0	\$0	\$0	\$0	
EMS	du	\$114	\$114	\$114	\$114	\$114	\$0	\$0	\$0	\$0	
Schools	du	\$7,238	\$7,238	\$7,238	\$7,238	\$7,238	\$0	\$0	\$0	\$0	
Government Buildings	du	\$749	\$749	\$749	\$749	\$749	\$0	\$0	\$0	\$0	
Libraries	du	\$270	\$270	\$270	\$270	\$270	\$0	\$0	\$0	\$0	
Law Enforcement	du	\$457	\$457	\$457	\$457	\$457	\$0	\$0	\$0	\$0	
Jail	du	\$397	\$397	\$397	\$397	\$397	\$0	\$0	\$0	\$0	
Total	-	\$19,530	\$19,530	\$19,530	\$19,530	\$19,530	\$0	\$0	\$0	\$0	

1) Source: Collier County Growth Management Department

2) Source: Collier County Impact Fee Administration

3) Adopted fee (Item 1) less discounted amount (Item 2)

Note: AMI = Area median income

Funding of the Program and Results

Collier County sets aside 3 percent of prior year's impact fee collections to pay for the deferral program. The cap of 3 percent of collections ensures that the revenue loss is de-minimis. Historically, this level of impact fee deferrals has allowed the program to defer fees on approximately 100 homes per year, which has been typically less than the demand for the deferrals. The deferrals are primarily used by Habitat for Humanity and other builders of owner occupied and rental housing.

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

Other Incentive Programs

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

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

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

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

Miami-Dade County

Introduction

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

Impact Fee Waiver Program

Miami-Dade County collects impact fees for parks, police, fire, education and road facilities. The current adopted residential fees for these impact fee areas range from \$10,810 - \$11,992 for a 1,200 sf multi-family unit to \$15,275 - \$17,326 for a 2,000-square foot single-family home. Qualified affordable units are 100 percent exempted from payment of impact fees for road, park, police, and fire. The County defines affordable housing units as a unit occupied by very low-income and low-income person when monthly housing costs do not exceed 30 percent of the household income. Affordable housing income levels include 50 percent (for very-low income) and 80 percent (for low income) of the median adjusted gross annual income for the households within the primary metropolitan statistical area (PMSA) for Miami-Dade County as established by HUD on a monthly basis. The discounts offered by Miami-Dade County reduce the total impact fees by approximately 92 percent to 96 percent, depending on housing type.

Table 12 presents a summary of adopted fees and discount levels for affordable housing in Miami-Dade County for a select number of residential categories, provided as examples.

Table 12
Miami-Dade County, Impact Fees for Affordable Housing

Impact Fee Program Area	Unit	Adopted Fee ⁽¹⁾	Discounted Amount ⁽²⁾		Total Impact Fee ⁽³⁾	
			Very Low (50% AMI)	Low Income (80% AMI)	Very Low (50% AMI)	Low Income (80% AMI)
<i>Discount Level</i>			<i>100%</i>	<i>100%</i>		
Single Family Home Detached (2,000 sf)						
Road	du	\$9,237 - \$9,770	\$9,237 - \$9,770	\$9,237 - \$9,770	\$0	\$0
Fire	du	\$440	\$440	\$440	\$0	\$0
Police	du	\$575	\$575	\$575	\$0	\$0
Parks	du	\$2,575 - \$4,093	\$2,575 - \$4,093	\$2,575 - \$4,093	\$0	\$0
Education	du	<u>\$2,448</u>	<u>\$0</u>	<u>\$0</u>	<u>\$2,448</u>	<u>\$2,448</u>
Total	-	\$15,275 - \$17,326	\$12,827 - \$14,878	\$12,827 - \$14,878	\$2,448	\$2,448
Apartment (Rentals) (1,200 sf)						
Road	du	\$6,486 - \$6,860	\$6,486 - \$6,860	\$6,486 - \$6,860	\$0	\$0
Fire	du	\$440	\$440	\$440	\$0	\$0
Police	du	\$575	\$575	\$575	\$0	\$0
Parks	du	\$1,595 - \$2,403	\$1,595 - \$2,403	\$1,595 - \$2,403	\$0	\$0
Education	du	<u>\$1,714</u>	<u>\$0</u>	<u>\$0</u>	<u>\$1,714</u>	<u>\$1,714</u>
Total	-	\$10,810 - \$11,992	\$9,096 - \$10,278	\$9,096 - \$10,278	\$1,714	\$1,714
High-Rise (Over 3 Floors) (1,200 sf)						
Road	du	\$4,054 - \$4,288	\$4,054 - \$4,288	\$4,054 - \$4,288	\$0	\$0
Fire	du	\$440	\$440	\$440	\$0	\$0
Police	du	\$575	\$575	\$575	\$0	\$0
Parks	du	\$1,595 - \$2,403	\$1,595 - \$2,403	\$1,595 - \$2,403	\$0	\$0
Education	du	<u>\$1,714</u>	<u>\$0</u>	<u>\$0</u>	<u>\$1,714</u>	<u>\$1,714</u>
Total	-	\$8,378 - \$9,420	\$6,664 - \$7,706	\$6,664 - \$7,706	\$1,714	\$1,714
Condo, Townhome, Duplex (1,200 sf)						
Road	du	\$5,656 - \$5,981	\$5,656 - \$5,981	\$5,656 - \$5,981	\$0	\$0
Fire	du	\$440	\$440	\$440	\$0	\$0
Police	du	\$575	\$575	\$575	\$0	\$0
Parks	du	\$2,366 - \$3,462	\$2,366 - \$3,462	\$2,366 - \$3,462	\$0	\$0
Education	du	<u>\$1,714</u>	<u>\$0</u>	<u>\$0</u>	<u>\$1,714</u>	<u>\$1,714</u>
Total	-	\$10,744 - \$12,172	\$9,030 - \$10,458	\$9,030 - \$10,458	\$1,714	\$1,714
Mobile Home (1,200 sf)						
Road	du	\$4,816 - \$5,094	\$4,816 - \$5,094	\$4,816 - \$5,094	\$0	\$0
Fire	du	\$440	\$440	\$440	\$0	\$0
Police	du	\$575	\$575	\$575	\$0	\$0
Parks	du	\$2,575 - \$4,093	\$2,575 - \$4,093	\$2,575 - \$4,093	\$0	\$0
Education	du	<u>\$1,714</u>	<u>\$0</u>	<u>\$0</u>	<u>\$1,714</u>	<u>\$1,714</u>
Total	-	\$10,120 - \$11,916	\$8,406 - \$10,202	\$8,406 - \$10,202	\$1,714	\$1,714

1) Source: Miami-Dade County Department of Planning and Zoning. Road impact fees shown represent a range consisting of the UIA and Non UIA districts, parks impact fee shown represents range of districts 1 through 3. Fees shown exclude the administration fee.

2) Source: Miami-Dade County Department of Planning and Zoning. Road, police, fire, and park impact fees are exempted 100% for very low and low income households.

3) Adopted fee (Item 1) less discounted amount (Item 2)

Note: AMI = Area median income

Qualified units that have accepted the impact fee exemption are required to declare a restrictive covenant on the property. Information from the Miami-Dade Impact Fee Section suggested that

the source of funding for waived impact fees is government programs; however, Tindale Oliver was unable to confirm what type of government programs are used to compensate the waived fees.

Workforce Housing Development Program

Implemented in 2016 with Ordinance 16-138, the Workforce Housing Development Program is a voluntary program providing density bonuses and other incentives in exchange for the provision of workforce housing units. Criteria for the program includes families whose incomes are within 60 percent to 140 percent of the area median income (adjusted for family size). If a development has more than 20 dwelling units, it may receive a density bonus and qualify for the maximum intensity standards as outlined per type of residential land use in Section 33-193 of the Code of Ordinances. In order to participate in this program, the development is required to provide at least 5 percent of the total residential units as workforce housing units. Additional density bonuses are granted as the percentage of workforce housing units of the development increases. However, the development must still comply with the County’s Comprehensive Development Master Plan (CDMP) and must not exceed the maximum number of units permitted. Table 13 provides details on the percentage of workforce housing units in relation to density bonuses.

Table 13
Voluntary Workforce Housing Units

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

Source: Miami-Dade County Regulatory and Economic Resources

Alternative Mitigation Strategies

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

purchase price for a family of 4 at 60 percent of median family income for the County. Fees range from \$51,500 to \$121,300 for single family homes and from \$45,000 to \$114,800 for multi-family units. Fees may be adjusted if the development is in a Minor Statistical Area (MSA) where the median sales price within the UBD is lower than the Countywide median sales price under the standard formula. In lieu fee payments are deposited to the County's Affordable Housing Trust Fund.

If the development has fewer than 20 residential dwelling units, the development may utilize the density bonus and intensity standards if the development either: designates 100 percent of the proposed units as workforce housing or opt for an alternative method of mitigation listed above.

The program also offers a 2-year deferral program for workforce housing units for road impact fees. The workforce housing units must remain affordable for twenty (20) years. A restrictive covenant is required on the development at the time of zoning approval, and a workforce housing agreement prior to plat or building permit encumbering individual units. Residents of qualified workforce housing units must provide annual documentation of income criteria as an on-going monitoring process.

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

Other Incentive Programs

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

- Expedited permitting:
 - Expedited review process available for all affordable housing projects.
- On-going Review Process.

- An ongoing process for review of local policies, ordinances, regulations and plan provisions that increase the cost of housing prior to their adoption.
- Inventory of county owned land suitable for affordable housing.
- Transfer of development rights program.
- Purchase assistance.
- Rehabilitation assistance.
- Rental development:
 - Gap financing available for-profit and non-profit builders/developers.
- Replacement housing assistance.
- Emergency repairs assistance.
- Foreclosure prevention and mitigation.
- Allowance of affordable accessory residential units of small size.
- Reduction of parking and setback requirements.
- Flexible lot configurations, including zero lot line.
- Water and Sewer Capacity:
 - Reservation of infrastructure capacity for housing for very low and low-income persons.

Palm Beach County

Impact Fee Structure and Discount Levels

Palm Beach County collects impact fees for parks, libraries, public buildings, schools, fire rescue, law enforcement, and road facilities. The current adopted residential fees range from \$6,140 for a mobile home of 1,200 square feet, \$7,237 for a multi-family unit of 1,200 square feet, and \$10,684 for a single family home of 2,000 square feet. The County pays 100 percent of the road, public buildings, and parks impact fees for very low, low, and moderate income households (up to 140 percent of the area median income, adjusted for family size). The discounts offered by Palm Beach County reduce the total impact fees by approximately 54 percent for single family homes, 53 percent for multi-family units, and 43 percent for mobile homes (for the sizes mentioned previously). In addition, there is no cap per project other than the total funding available. Table 14 presents a summary of adopted fees and discount levels for affordable/workforce housing in Palm Beach County for a select number of residential categories, provided as examples.

Table 14
Palm Beach County, Impact Fees for Affordable/Workforce Housing

Impact Fee Program Area	Unit	Adopted Fee ⁽¹⁾	Discounted Amount ⁽²⁾			Total Impact Fee ⁽³⁾		
			Very Low (50% AMI)	Low Income (80% AMI)	Moderate (140% AMI)	Very Low (50% AMI)	Low Income (80% AMI)	Moderate (140% AMI)
<i>Discount Level</i>			100% / 0%	100% / 0%	100% / 0%			
Single Family Home (Detached, 2,000 sf)								
Parks	du	\$860	\$860	\$860	\$860	\$0	\$0	\$0
Libraries	du	\$243	\$0	\$0	\$0	\$243	\$243	\$243
Public Buildings	du	\$223	\$223	\$223	\$223	\$0	\$0	\$0
Schools	du	\$4,237	\$0	\$0	\$0	\$4,237	\$4,237	\$4,237
Fire Rescue	du	\$276	\$0	\$0	\$0	\$276	\$276	\$276
Law Enforcement	du	\$128	\$0	\$0	\$0	\$128	\$128	\$128
Road	du	\$4,717	\$4,717	\$4,717	\$4,717	\$0	\$0	\$0
Total	-	\$10,684	\$5,800	\$5,800	\$5,800	\$4,884	\$4,884	\$4,884
Multi-Family (1,200 sf)								
Parks	du	\$734	\$734	\$734	\$734	\$0	\$0	\$0
Libraries	du	\$186	\$0	\$0	\$0	\$186	\$186	\$186
Public Buildings	du	\$171	\$171	\$171	\$171	\$0	\$0	\$0
Schools	du	\$2,962	\$0	\$0	\$0	\$2,962	\$2,962	\$2,962
Fire Rescue	du	\$185	\$0	\$0	\$0	\$185	\$185	\$185
Law Enforcement	du	\$70	\$0	\$0	\$0	\$70	\$70	\$70
Road	du	\$2,929	\$2,929	\$2,929	\$2,929	\$0	\$0	\$0
Total	-	\$7,237	\$3,834	\$3,834	\$3,834	\$3,403	\$3,403	\$3,403
Mobile Home (1,200 sf)								
Parks	du	\$734	\$734	\$734	\$734	\$0	\$0	\$0
Libraries	du	\$186	\$0	\$0	\$0	\$186	\$186	\$186
Public Buildings	du	\$171	\$171	\$171	\$171	\$0	\$0	\$0
Schools	du	\$2,962	\$0	\$0	\$0	\$2,962	\$2,962	\$2,962
Fire Rescue	du	\$276	\$0	\$0	\$0	\$276	\$276	\$276
Law Enforcement	du	\$70	\$0	\$0	\$0	\$70	\$70	\$70
Road	du	\$1,741	\$1,741	\$1,741	\$1,741	\$0	\$0	\$0
Total	-	\$6,140	\$2,646	\$2,646	\$2,646	\$3,494	\$3,494	\$3,494

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

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

Property owners are required to repay the County upon a property owner's voluntary withdrawal or default prior to the end of the Declaration of Restrictions placed against the property. For rental housing and for-sale housing units, developers shall submit to the County a repayment

totaling the amount of assistance, plus 3 percent interest per year commencing with the recording of the Declaration, plus an administrative fee of \$1,500. For owner-occupied housing, the entire amount of assistance provided shall be repaid to the County.

Funding of the Program

The County utilizes interest earnings from impact fees. Funds are segregated by impact fee type from which they originated: roads, parks, and public buildings, and payment of fees by the County cannot exceed the funds for a particular program area. As of 2019, Palm Beach County has approximately \$1.8 million of impact fee funding assistance available, including: \$1.7 million for roads, \$92,000 for parks, and \$69,000 for public buildings. Funding is available on a first-come-first-qualified basis until the total available funding is depleted.

Program Results and Lessons Learned

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

Table 15
Palm Beach County, Impact Fees Paid (2015 – 2019)

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

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

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

Other Incentive Programs

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

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

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

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

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

- The County requires a 15-year recurring affordability period for owner-occupied units and 30-year period for rental units. In both cases a restrictive covenant is placed on the unit to ensure eligibility.
- The County's in-lieu fee was recently increased from \$81,500 per owner-occupied unit and \$50,000 per rental unit to \$120,000 for a single-family unit, \$100,000 for a townhouse, and \$70,000 per multi-family unit. Discussions with County staff indicated that the fee was developed by negotiation of a group of stakeholders that included developers of both for and non-profit, housing advocates, and staff.
- Optional density bonus in exchange for additional workforce housing units. The County approved two options:
 - Limited (minimize obligation) which allows for up to 50 percent bonus or Full Incentive (maximize density) which allows for up to 100 percent bonus.
- Discussions with County representatives indicated the following outcomes of the WHP program since inception in 2006. Figures are as of November 2019.
 - Sixty-one projects have been subject to WHP, resulting in 1,423 WHP units, about 11.5 percent of total units approved in these projects.
 - Nearly 76 percent of WHP units provided are rentals: 893 rental units are completed or under development and 187 are in approved unbuilt projects.
 - About 16 percent of WHP units are for sale units, with 205 for-sale units in projects that are constructed or under development and 29 in approved unbuilt projects. As of November 2019, 43 units have been sold, and 31 are under contract.
 - To date, 20 developments have paid in-lieu fees for 99 units (approximately 7 percent of WHP units), totaling \$7,669,500. The BCC has approved that these funds can be used to provide purchase assistance for the buyers of the WHP for-sale units.
 - Four approved unbuilt developments have not yet indicated how their workforce obligation will be met, accounting for 10 WHP units (1 percent of WHP units).
- Lastly, to comply with HB 7103, the County hired an economic consultant to assess whether the incentives available under the WHP program fully offset the costs to developers, for the same prototype projects. The consultant determined that the County's incentives more than offset the cost of compliance with the WHP requirements.

Table 16 provides additional example from other communities in Florida.

**Table 16
Affordable Housing Programs/Incentives Matrix**

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

Table 16 (Continued)
Affordable Housing Programs/Incentives Matrix

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

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

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

APPENDIX A
Demand Component Calculations

Appendix A: Demand Component

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

Interstate & Toll Facility Discount Factor

Table A-1 presents the interstate and toll facility discount factor used in the calculation of the roadway/multi-modal impact fee. This variable is based on data from the Orlando Urban Area Transportation System 2040 Model (OUATS), specifically the base year 2009 vehicle-miles of travel. It should be noted that discount factor excludes all external-to-external trips, which represent traffic that goes through Orange County, but does not necessarily stop in the county. This traffic is excluded from the analysis since it does not come from development within the county. The I/T discount factor is used to reduce the VMT/PMT that the roadway/multi-modal fee charges for each land use.

Table A-1
Interstate/Toll Facility Discount Factor

Facility Type	Total	
	VMT	%
Interstate/Toll	10,339,058	36.1%
Other Roads	18,331,972	63.9%
Total	28,671,030	100.0%
Interstate/Toll	10,339,058	36.1%

Source: OUATS 2040 (base year)

Single Family Trip Generation Rate Tiering

As part of this study, the demand component for single family homes is tiered by size to assist the County in its efforts to support attainable housing. The tiering analysis uses the American Community Survey (ACS) Public Use Microdata Sample (PUMS) data files as the basis. PUMS files allow for the use of census sample data collected in Orange County to create custom tables that are otherwise unavailable. For this analysis, the 5-year (2014-2018) PUMS files were utilized. The PUMS 5-year estimates incorporate 60 months of data (as opposed to the 1-year, 12-month dataset), representing a 5 percent sample of the population (1 percent for each year). The 5-year sample represents the largest and most reliable of the PUMS datasets.

To isolate the PUMS data specific to Orange County, all Public Use Microdata Areas (PUMAs) within the County were identified. PUMAs are non-overlapping areas that partition each state

into areas containing approximately 100,000 residents. These are the most detailed geographic area available within the PUMS data set.

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

Table A-2
PUMS Result Summary: Single Family Detached/Attached

Bedrooms	Persons	Vehicles	Buildings (Units)	Persons per Housing Unit	Vehicles per Housing Unit
0 to 1	360	247	218	1.65	1.13
2	3,428	2,593	1,902	1.80	1.36
3	18,436	13,661	7,772	2.37	1.76
4+	<u>15,824</u>	<u>11,442</u>	<u>5,335</u>	2.97	2.14
Total	38,048	27,943	15,227	2.50	1.84

Source: PUMS 2014-2018 dataset; PUMAs 9501-9510

As shown in Table A-2, the persons per housing unit and vehicles per housing unit were calculated for each bedroom tier, representing the entirety of Orange County. Since the transportation impact fee is not collected in the municipalities, a normalization factor was applied to adjust for the unincorporated county. As shown in Table A-3, the unincorporated persons-per-housing-unit (PPHU) was calculated using the 5-year 2014-2018 ACS data for Orange County and all municipalities. A similar analysis is completed for vehicle per housing unit (VPHU) data, resulting in PPHU and VPHU data by bedroom, for unincorporated Orange County.

Table A-3
PPHU and VPHU for Unincorporated Orange County

Item	Uninc. Orange County
Persons in Occupied Housing Units (Single Unit detached/attached)	535,047
Units in Structure (Single Unit detached/attached)	187,605
Persons per Housing Unit	2.85
Vehicles Available (Owner/Renter Occupied)	434,506
Units in Structure	278,932
Persons per Housing Unit	1.56

Source: 2014-2018 5-yr ACS Estimates for Tables B25033, B25044, and B25024. Census tracts designated as “incorporated” or “unincorporated” based on a GIS review

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

**Table A-4
PPHU and VPHU Tiers Adjusted for Unincorporated County**

Bedrooms	Persons per Housing Unit ⁽¹⁾	Persons per Housing Unit (Uninc.) ⁽²⁾	Vehicles per Housing Unit ⁽¹⁾	Vehicles per Housing Unit (Uninc.) ⁽²⁾
0 to 1	1.65	1.88	1.13	0.96
2	1.80	2.05	1.36	1.15
3	2.37	2.70	1.76	1.49
4+	2.97	3.39	2.14	1.81
Total	2.50	2.85	1.84	1.56

- 1) Source: Table A-2
- 2) Each bedroom tier for unincorporated county was based on the ratio of the total PPHU (or total VPHU) for the unincorporated county (Item 2) vs. the total PPHU (or total VPHU) for all of Orange County (Item 1)

The PPHU and VPHU per bedroom data was then converted to weighted average trip ends per person and per vehicles, respectively, using the ITE 10th Edition National averages. The resulting trip ends per persons and vehicles were then averaged, resulting in average trip ends, per bedroom tier, as shown in Table A-5.

**Table A-5
Calculated Trip Ends per Bedroom**

Bedrooms	Persons per Housing Unit (Uninc.) ⁽¹⁾	AWVTE per HU Based on Persons ⁽²⁾	Vehicles per Housing Unit ⁽¹⁾	AWVTE per HU Based on Vehicles ⁽³⁾	Avg. Weighted Vehicle Trip Ends per Housing Unit ⁽⁴⁾
0 to 1	1.88	4.98	0.96	6.11	5.55
2	2.05	5.43	1.15	7.31	6.37
3	2.70	7.16	1.49	9.48	8.32
4+	3.39	8.98	1.81	11.51	10.25
ITE 10th Avg Trip Ends⁽⁵⁾		2.65	-	6.36	-

AWVTE = Average Weighted Vehicle Trip Ends

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

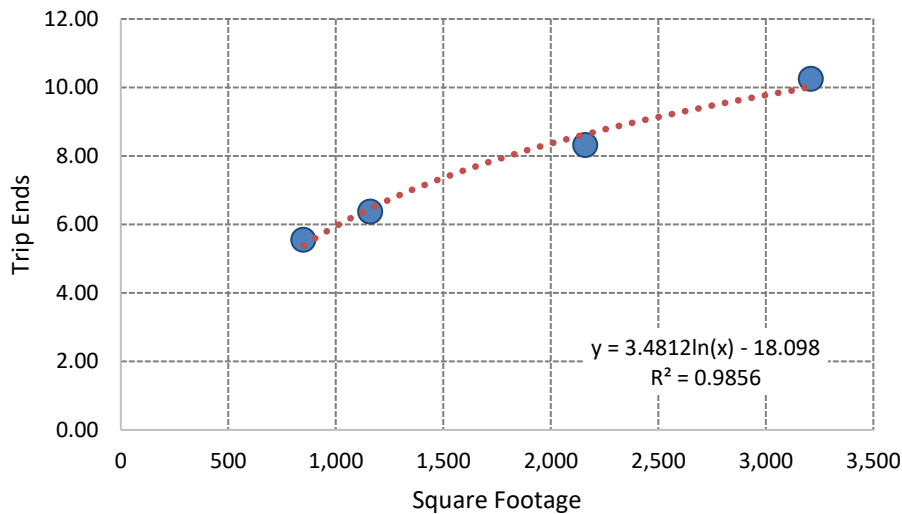
Using the Orange County Property Appraisers Database, the average square footage per unit by bedroom tier was determined for unincorporated Orange County, as shown in Table A-6. With these averages determined, the average trip ends were graphed per square footage to determine a line of best fit, as shown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

Table A-6
Trip Ends vs. Bedrooms vs. Square Footage

Bedrooms	Average Unit Size (Sq Ft) ⁽¹⁾	Avg. Weighted Vehicle Trip Ends per Housing Unit ⁽²⁾
0 to 1	850	5.55
2	1,160	6.37
3	2,160	8.32
4+	3,210	10.25

- 1) Source: Orange County Property Appraiser’s Parcel Database
- 2) Source: Table A-5

Figure A-1
Average Trip Ends per Square Footage



Using the resulting best-fit equation (as shown in Figure A-1), the trip generation rates for various square footage tiers were calculated. As a final adjustment, the resulting trip generation rates were adjusted to account for the differences between the national ITE 10th Edition average trip generation rate and the Florida Studies Trip Characteristics Database average trip generation rate for the single family land use. The resulting trip generation rates are shown in Table A-7.

**Table A-7
Trip Generation Rates by Tier**

Tier	Sq Ft Input	TGR ⁽¹⁾	TGR Adj. ⁽²⁾
Single Family (Detached) - 1,200 sf or less	1,000	6.58	6.15
Single Family (Detached) - 1,201 to 2,000 sf	2,000	8.36	7.81
Single Family (Detached) - 2,001 to 3,500 sf	3,500	10.31	9.63
Single Family (Detached) - greater than 3,500 sf	4,000	10.78	10.07

1) Calculated using the sq ft inputs and the line of best fit from Figure 1

2) TGR (Item 1) adjusted from National data to Florida data. The ratio between the calculated TGR for the 1,501-2,000 sq ft tier (8.36) and the FL studies average TGR (7.81; detail is presented later in this Appendix) was applied to all other sq ft tiers.

Tables A-8 through A-10 present the tiered single family rates for each fee district.

**Table A-8
Calculated Single Family Tiered Fee Rates (URBAN)**

ITE LUC	Land Use	Unit	Trip Rate	Net Multi-Modal Fee
URBAN				
210	Single Family (Detached) - 1,200 sf or less	du	6.15	\$6,425
210	Single Family (Detached) - 1,201 to 2,000 sf	du	7.81	\$8,218
210	Single Family (Detached) - 2,001 to 3,500 sf	du	9.63	\$10,163
210	Single Family (Detached) - greater than 3,500 sf	du	10.07	\$10,640

**Table A-9
Calculated Single Family Tiered Fee Rates (SUBURBAN)**

ITE LUC	Land Use	Unit	Trip Rate	Net Impact Fee
SUBURBAN				
210	Single Family (Detached) - 1,200 sf or less	du	6.15	\$7,973
210	Single Family (Detached) - 1,201 to 2,000 sf	du	7.81	\$10,138
210	Single Family (Detached) - 2,001 to 3,500 sf	du	9.63	\$12,509
210	Single Family (Detached) - greater than 3,500 sf	du	10.07	\$13,082

Table A-10
Calculated Single Family Tiered Fee Rates (RURAL)

ITE LUC	Land Use	Unit	Trip Rate	Net Impact Fee
RURAL				
210	Single Family (Detached) - 1,200 sf or less	du	6.15	\$9,113
210	Single Family (Detached) - 1,201 to 2,000 sf	du	7.81	\$11,586
210	Single Family (Detached) - 2,001 to 3,500 sf	du	9.63	\$14,294
210	Single Family (Detached) - greater than 3,500 sf	du	10.07	\$14,949

Demand Variable Changes

Since the last demand component update in 2012, the trip generation rate (TGR), trip length (TL), and percent new trips (PNT) have changed for several land uses. These variables were updated based on additional data included in the Florida Studies database (including local Orange County studies) and the use of the ITE 10th Edition Trip Generation Reference Report. Table A-11 presents the changes to the gross VMT while Tables A-12 through A-14 provide detail on each individual input variable. For the trip length comparison in Table A-13, it is important to note that these figures reflect the trip length figures used in the impact fee calculations prior to the application of local adjustment factor to reflect longer trip lengths in Orange County.

Table A-11
Percent Change in Gross VMT of Impact Fee Land Uses

ITE LUC	Land Use	Unit	GVMT 2012	GVMT 2020	GVMT %	Explanation
RESIDENTIAL:						
210	Single Family (Detached) - 1,200 sf or less	du	25.85	20.36	-21%	Single Family TGR tiering by square footage added
210	Single Family (Detached) - 1,201 to 2,000 sf	du	25.85	25.85	0%	Single Family TGR tiering by square footage added
210	Single Family (Detached) - 2,001 to 3,500 sf	du	25.85	31.88	23%	Single Family TGR tiering by square footage added
210	Single Family (Detached) - greater than 3,500 sf	du	25.85	33.33	29%	Single Family TGR tiering by square footage added
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 floors)	du	16.83	18.67	11%	Re-alignment of multi-family land uses in ITE 10th Edition
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	16.83	13.87	-18%	Re-alignment of multi-family land uses in ITE 10th Edition
222	Multi-Family Housing (High-Rise, >10 floors)	du	10.66	11.35	6%	Re-alignment of multi-family land uses in ITE 10th Edition
225	Student Housing (Adjacent to Campus)	bedroom	-	4.02	-	Unit change (previously "per du"), TGR & TL update, see Tables A-12 and A-13
225	Student Housing (Over 1/2 mile from Campus)	bedroom	-	7.60	-	Unit change (previously "per du"), TGR & TL update, see Tables A-12 and A-13
231	Mid-Rise Residential w/1st floor Commercial	du	-	8.77	-	New land use
232	High-Rise Residential w/1st floor Commercial	du	-	5.13	-	New land use
240	Mobile Home Park	du	9.59	9.59	0%	No change
251	Senior Adult Housing - Detached (Retirement Community/ Age-Restricted Single-Family)	du	8.48	9.49	12%	TGR update, see Table A-12
252	Senior Adult Housing - Attached (Retirement Community/ Age-Restricted Single-Family)	du	-	7.23	-	New land use
265	Time Share	du	13.91	17.13	23%	TGR update, see Table A-12
LODGING:						
310	Hotel/Tourist Hotel	room	13.14	11.47	-13%	TGR update, see Table A-12
320	Motel	room	9.41	5.60	-40%	TGR update, see Table A-12
RECREATIONAL:						
430	Golf Course	acre	15.01	11.14	-26%	TGR update, see Table A-12
437	Bowling Alley	1,000 sf	77.24	30.13	-61%	TGR update, see Table A-12
443	Movie Theater	1,000 sf	76.25	80.19	5%	TGR update, see Table A-12
491	Racquet Club	1,000 sf	33.96	47.68	40%	TGR update, see Table A-12
492	Health/Fitness Club	1,000 sf	79.71	83.51	5%	TGR update, see Table A-12
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	-	30.55	-	New land use
INSTITUTIONAL:						
522	School	1,000 sf	52.85	26.71	-49%	TGR, TL & PNT update, see Tables A-12, A-13, and A-14
560	Public Assembly	1,000 sf	34.94	12.23	-65%	TGR, TL & PNT update, see Tables A-12, A-13, and A-14
565	Day Care	1,000 sf	55.62	36.77	-34%	TGR update, see Table A-12
590	Library	1,000 sf	91.22	116.86	28%	TGR update, see Table A-12
MEDICAL:						
610	Hospital	bed	30.10	57.63	91%	TGR & PNT update, see Tables A-12 and A-14
620	Nursing Home	1,000 sf	2.86	7.65	167%	TGR update, see Table A-12
640	Animal Hospital/Veterinary Clinic	1,000 sf	67.97	16.09	-76%	TGR & TL update, see Tables A-12 and A-13
OFFICE:						
710	General Office 50,000 sf or less	1,000 sf	37.07	25.66	-31%	TGR update, see Table A-12
710	General Office 50,001-100,000 sf	1,000 sf	31.60	25.14	-20%	TGR update, see Table A-12
710	General Office 100,001-200,000 sf	1,000 sf	26.94	24.61	-9%	TGR update, see Table A-12
710	General Office greater than 200,000 sf	1,000 sf	22.98	24.12	5%	TGR update, see Table A-12
720	Small Medical/Dental Office (10,000 sq ft or less)	1,000 sf	85.75	58.85	-31%	TGR update, see Table A-12
720	Medical/Dental Office	1,000 sf	85.75	84.27	-2%	TGR update, see Table A-12
732	Post Office	1,000 sf	136.51	131.15	-4%	TGR update, see Table A-12
RETAIL:						
815	Free-Standing Discount Store	1,000 sf	46.02	42.71	-7%	TGR update, see Table A-12
816	Hardware/Paint Store	1,000 sf	26.86	4.79	-82%	TGR update, see Table A-12
820	Retail/Tourist Retail: 50,000 sfgla or less	1,000 sfgla	45.32	39.30	-13%	TGR update, see Table A-12
820	Retail/Tourist Retail: 50,001-100,000 sfgla	1,000 sfgla	48.21	42.68	-11%	TGR update, see Table A-12
820	Retail/Tourist Retail: 100,001-200,000 sfgla	1,000 sfgla	42.84	38.72	-10%	TGR update, see Table A-12
820	Retail/Tourist Retail: 200,001-300,000 sfgla	1,000 sfgla	41.36	37.84	-9%	TGR update, see Table A-12
820	Retail/Tourist Retail: 300,001-400,000 sfgla	1,000 sfgla	40.28	37.18	-8%	TGR update, see Table A-12
820	Retail/Tourist Retail: 400,001-500,000 sfgla	1,000 sfgla	39.87	37.04	-7%	TGR update, see Table A-12
820	Retail/Tourist Retail: 500,001-1,000,000 sfgla	1,000 sfgla	41.03	38.93	-5%	TGR update, see Table A-12
820	Retail/Tourist Retail: 1,000,001-1,200,000 sfgla	1,000 sfgla	41.66	39.72	-5%	TGR update, see Table A-12
820	Retail/Tourist Retail: greater than 1,200,000 sfgla	1,000 sfgla	42.52	40.75	-4%	TGR update, see Table A-12
840/841	New/Used Auto Sales	1,000 sf	47.97	44.66	-7%	TGR update, see Table A-12
850	Supermarket	1,000 sf	60.21	62.11	3%	TGR update, see Table A-12
853	Convenience Market w/Gas Pumps	1,000 sf	163.86	132.39	-19%	TGR update, see Table A-12
862	Home Improvement Superstore	1,000 sf	23.96	24.71	3%	TGR update, see Table A-12
863	Electronics Superstore	1,000 sf	12.30	21.49	75%	TGR, TL & PNT update, see Tables A-12, A-13, and A-14
880/881	Drug Store	1,000 sf	85.81	34.73	-60%	TGR, TL & PNT update, see Tables A-12, A-13, and A-14
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	-	33.60	-	New land use
912	Bank/Savings Drive-In	1,000 sf	90.15	58.09	-36%	TGR update, see Table A-12
925	Drinking Place	1,000 sf	30.96	59.48	92%	TGR, TL & PNT update, see Tables A-12, A-13, and A-14
931	Quality Restaurant	1,000 sf	110.13	104.00	-6%	TGR update, see Table A-12
932	High-Turnover Restaurant	1,000 sf	131.22	119.58	-9%	TGR update, see Table A-12
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	303.79	286.86	-6%	TGR update, see Table A-12
942	Auto Service	1,000 sf	52.17	36.74	-30%	TGR, TL & PNT update, see Tables A-12, A-13, and A-14
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	36.83	37.58	2%	TGR update, see Table A-12
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	-	44.87	-	New land use
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	-	50.37	-	New land use
947	Self-Service Car Wash	wash station	80.05	80.05	0%	No change
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	16.51	11.75	-29%	TGR update, see Table A-12
140	Manufacturing	1,000 sf	9.05	9.31	3%	TGR update, see Table A-12
150	Warehouse	1,000 sf	8.43	4.12	-51%	TGR update, see Table A-12
151	Mini-Warehouse	1,000 sf	3.07	2.41	-21%	TGR & TL update, see Tables A-12 and A-13
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	-	3.32	-	New land use

- Gross VMT = TGR * TL * PNT / 2
- Individual input variables are shown in Tables A-12 through A-14
- The trip length values used to calculate the GVMT do NOT include the TL adjustment factors that are applied in the impact fee rate calculations. The TL shown in Table A-13 provide a comparison to the 2012 report of the unadjusted TL values
- See Appendix E for additional information

Table A-12
Percent Change in Trip Generation Rate of Impact Fee Land Uses

ITE LUC	Land Use	Unit	TGR 2012	TGR 2020	TGR %	Explanation
RESIDENTIAL:						
210	Single Family (Detached) - 1,200 sf or less	du	7.81	6.15	-21%	Single Family tiering by square footage added
210	Single Family (Detached) - 1,201 to 2,000 sf	du	7.81	7.81	0%	Single Family tiering by square footage added
210	Single Family (Detached) - 2,001 to 3,500 sf	du	7.81	9.63	23%	Single Family tiering by square footage added
210	Single Family (Detached) - greater than 3,500 sf	du	7.81	10.07	29%	Single Family tiering by square footage added
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 floors)	du	6.60	7.32	11%	Re-alignment of multi-family land uses in ITE 10th Edition
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	6.60	5.44	-18%	Re-alignment of multi-family land uses in ITE 10th Edition
222	Multi-Family Housing (High-Rise, >10 floors)	du	4.18	4.45	6%	Re-alignment of multi-family land uses in ITE 10th Edition
225	Student Housing (Adjacent to Campus)	bedroom	-	3.15	-	Updated TGR in ITE 10th Edition, unit change (previously "per du")
225	Student Housing (Over 1/2 mile from Campus)	bedroom	-	3.97	-	Updated TGR in ITE 10th Edition, unit change (previously "per du")
231	Mid-Rise Residential w/1st floor Commercial	du	-	3.44	-	New land use
232	High-Rise Residential w/1st floor Commercial	du	-	2.01	-	New land use
240	Mobile Home Park	du	4.17	4.17	0%	No change
251	Senior Adult Housing - Detached (Retirement Community/ Age-Restricted Single-Family)	du	3.13	3.50	12%	Updated TGR in ITE 10th Edition
252	Senior Adult Housing - Attached (Retirement Community/ Age-Restricted Single-Family)	du	-	3.33	-	New land use
265	Time Share	du	7.01	8.63	23%	Updated TGR in ITE 10th Edition
LODGING:						
310	Hotel/Tourist Hotel	room	6.36	5.55	-13%	Additional FL Studies added and updated TGR in ITE 10th Edition
320	Motel	room	5.63	3.35	-40%	Updated TGR in ITE 10th Edition
RECREATIONAL:						
430	Golf Course	acre	5.04	3.74	-26%	Updated TGR in ITE 10th Edition
437	Bowling Alley	1,000 sf	33.33	13.00	-61%	Updated TGR in ITE 10th Edition (peak hour adjusted for daily)
443	Movie Theater	1,000 sf	78.06	82.30	5%	Updated TGR in ITE 10th Edition
491	Racquet Club	1,000 sf	14.03	19.70	40%	Updated TGR in ITE 10th Edition (peak hour adjusted for daily)
492	Health/Fitness Club	1,000 sf	32.93	34.50	5%	Updated TGR in ITE 10th Edition (peak hour adjusted for daily)
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	-	21.33	-	New land use
INSTITUTIONAL:						
522	School	1,000 sf	13.78	20.17	46%	Updated TGR in ITE 10th Edition
560	Public Assembly	1,000 sf	9.11	6.95	-24%	Updated TGR in ITE 10th Edition
565	Day Care	1,000 sf	75.07	49.63	-34%	Updated TGR in ITE 10th Edition
590	Library	1,000 sf	56.24	72.05	28%	Updated TGR in ITE 10th Edition
MEDICAL:						
610	Hospital	bed	11.81	22.32	89%	Updated TGR in ITE 10th Edition
620	Nursing Home	1,000 sf	2.48	6.64	168%	Updated TGR in ITE 10th Edition
640	Animal Hospital/Veterinary Clinic	1,000 sf	28.66	24.20	-16%	Updated TGR in ITE 10th Edition
OFFICE:						
710	General Office 50,000 sf or less	1,000 sf	15.65	10.83	-31%	Updated TGR equation in ITE 10th Edition
710	General Office 50,001-100,000 sf	1,000 sf	13.34	10.61	-20%	Updated TGR equation in ITE 10th Edition
710	General Office 100,001-200,000 sf	1,000 sf	11.37	10.39	-9%	Updated TGR equation in ITE 10th Edition
710	General Office greater than 200,000 sf	1,000 sf	9.70	10.18	5%	Updated TGR equation in ITE 10th Edition
720	Small Medical/Dental Office (10,000 sq ft or less)	1,000 sf	34.72	23.83	-31%	New land use (change shown from the medical/dental office)
720	Medical/Dental Office	1,000 sf	34.72	34.12	-2%	Updated TGR in ITE 10th Edition
732	Post Office	1,000 sf	108.19	103.94	-4%	Updated TGR in ITE 10th Edition
RETAIL:						
815	Free-Standing Discount Store	1,000 sf	57.24	53.12	-7%	Updated TGR in ITE 10th Edition
816	Hardware/Paint Store	1,000 sf	51.29	9.14	-82%	Updated TGR in ITE 10th Edition
820	Retail/Tourist Retail: 50,000 sfgla or less	1,000 sfgla	86.56	75.05	-13%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: 50,001-100,000 sfgla	1,000 sfgla	67.91	60.12	-11%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: 100,001-200,000 sfgla	1,000 sfgla	53.28	48.16	-10%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: 200,001-300,000 sfgla	1,000 sfgla	46.23	42.30	-9%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: 300,001-400,000 sfgla	1,000 sfgla	41.80	38.58	-8%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: 400,001-500,000 sfgla	1,000 sfgla	38.66	35.92	-7%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: 500,001-1,000,000 sfgla	1,000 sfgla	30.33	28.78	-5%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: 1,000,001-1,200,000 sfgla	1,000 sfgla	28.46	27.14	-5%	Updated TGR equation in ITE 10th Edition
820	Retail/Tourist Retail: greater than 1,200,000 sfgla	1,000 sfgla	26.96	25.84	-4%	Updated TGR equation in ITE 10th Edition
840/841	New/Used Auto Sales	1,000 sf	26.40	24.58	-7%	Updated TGR in ITE 10th Edition
850	Supermarket	1,000 sf	103.38	106.64	3%	Updated TGR in ITE 10th Edition
853	Convenience Market w/Gas Pumps	1,000 sf	775.14	626.25	-19%	Updated TGR in ITE 10th Edition
862	Home Improvement Superstore	1,000 sf	29.80	30.74	3%	Updated TGR in ITE 10th Edition
863	Electronics Superstore	1,000 sf	45.04	41.05	-9%	Updated TGR in ITE 10th Edition
880/881	Drug Store	1,000 sf	88.46	104.37	18%	Updated TGR in ITE 10th Edition
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	-	59.39	-	New land use. TGR from ITE 10th (PM 4-6pm adjusted for daily)
912	Bank/Savings Drive-In	1,000 sf	159.34	102.66	-36%	Updated TGR in ITE 10th Edition
925	Drinking Place	1,000 sf	113.40	113.60	0%	Updated TGR in ITE 10th Edition (peak hour adjusted for daily)
931	Quality Restaurant	1,000 sf	91.10	86.03	-6%	Updated TGR in ITE 10th Edition
932	High-Turnover Restaurant	1,000 sf	116.60	106.26	-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	-6%	Updated TGR in ITE 10th Edition
942	Auto Service	1,000 sf	25.67	28.19	10%	Updated TGR in ITE 10th Edition (peak hour adjusted for daily)
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	168.56	172.01	2%	Updated TGR in ITE 10th Edition
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	-	205.36	-	New land use
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	-	230.52	-	New land use
947	Self-Service Car Wash	wash station	108.00	108.00	0%	No change
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	6.97	4.96	-29%	Updated TGR in ITE 10th Edition
140	Manufacturing	1,000 sf	3.82	3.93	3%	Updated TGR in ITE 10th Edition
150	Warehouse	1,000 sf	3.56	1.74	-51%	Updated TGR in ITE 10th Edition
151	Mini-Warehouse	1,000 sf	2.15	1.49	-31%	Additional FL Studies added
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	-	1.40	-	New land use

See Appendix E for additional information

**Table A-13
Percent Change in Trip Length (Unadjusted) of Impact Fee Land Uses**

ITE LUC	Land Use	Unit	TL 2012	TL 2020	TL %	Explanation
RESIDENTIAL:						
210	Single Family (Detached) - 1,200 sf or less	du	6.62	6.62	0%	No change
210	Single Family (Detached) - 1,201 to 2,000 sf	du	6.62	6.62	0%	No change
210	Single Family (Detached) - 2,001 to 3,500 sf	du	6.62	6.62	0%	No change
210	Single Family (Detached) - greater than 3,500 sf	du	6.62	6.62	0%	No change
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 floors)	du	5.10	5.10	0%	No change
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	5.10	5.10	0%	No change
222	Multi-Family Housing (High-Rise, >10 floors)	du	5.10	5.10	0%	No change
225	Student Housing (Adjacent to Campus)	bedroom	5.10	2.55	-50%	Updated to use 50% of LUC 220
225	Student Housing (Over 1/2 mile from Campus)	bedroom	5.10	3.83	-25%	Updated to use 75% of LUC 220
231	Mid-Rise Residential w/1st floor Commercial	du	-	5.10	-	New land use
232	High-Rise Residential w/1st floor Commercial	du	-	5.10	-	New land use
240	Mobile Home Park	du	4.60	4.60	0%	No change
251	Senior Adult Housing - Detached (Retirement Community/ Age-Restricted Single-Family)	du	5.42	5.42	0%	No change
252	Senior Adult Housing - Attached (Retirement Community/ Age-Restricted Single-Family)	du	-	4.34	-	New land use
265	Time Share	du	3.97	3.97	0%	No change
LODGING:						
310	Hotel/Tourist Hotel	room	6.26	6.26	0%	No change
320	Motel	room	4.34	4.34	0%	No change
RECREATIONAL:						
430	Golf Course	acre	6.62	6.62	0%	No change
437	Bowling Alley	1,000 sf	5.15	5.15	0%	No change
443	Movie Theater	1,000 sf	2.22	2.24	1%	Updated weighted average calculation
491	Racquet Club	1,000 sf	5.15	5.15	0%	No change
492	Health/Fitness Club	1,000 sf	5.15	5.15	0%	No change
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	-	3.37	-	New land use
INSTITUTIONAL:						
522	School	1,000 sf	7.67	3.31	-57%	Updated to use 50% of single family per review of travel demand models
560	Public Assembly	1,000 sf	7.67	3.91	-49%	Updated to use the midpoint of office and retail (App. A)
565	Day Care	1,000 sf	2.03	2.03	0%	No change
590	Library	1,000 sf	6.62	6.62	0%	No change
MEDICAL:						
610	Hospital	bed	6.62	6.62	0%	No change
620	Nursing Home	1,000 sf	2.59	2.59	0%	No change
640	Animal Hospital/Veterinary Clinic	1,000 sf	5.10	1.90	-63%	Updated to use FL Studies; previously used 2004 study
OFFICE:						
710	General Office 50,000 sf or less	1,000 sf	5.15	5.15	0%	No change
710	General Office 50,001-100,000 sf	1,000 sf	5.15	5.15	0%	No change
710	General Office 100,001-200,000 sf	1,000 sf	5.15	5.15	0%	No change
710	General Office greater than 200,000 sf	1,000 sf	5.15	5.15	0%	No change
720	Small Medical/Dental Office	1,000 sf	5.55	5.55	0%	No change
720	Medical/Dental Office	1,000 sf	5.55	5.55	0%	No change
732	Post Office	1,000 sf	5.15	5.15	0%	No change
RETAIL:						
815	Free-Standing Discount Store	1,000 sf	2.40	2.40	0%	No change
816	Hardware/Paint Store	1,000 sf	1.87	1.87	0%	No change
820	Retail/Tourist Retail: 50,000 sf or less	1,000 sf	1.87	1.87	0%	No change
820	Retail/Tourist Retail: 50,001-100,000 sf	1,000 sf	2.29	2.29	0%	No change
820	Retail/Tourist Retail: 100,001-200,000 sf	1,000 sf	2.40	2.40	0%	No change
820	Retail/Tourist Retail: 200,001-300,000 sf	1,000 sf	2.52	2.52	0%	No change
820	Retail/Tourist Retail: 300,001-400,000 sf	1,000 sf	2.64	2.64	0%	No change
820	Retail/Tourist Retail: 400,001-500,000 sf	1,000 sf	2.75	2.75	0%	No change
820	Retail/Tourist Retail: 500,001-1,000,000 sf	1,000 sf	3.34	3.34	0%	No change
820	Retail/Tourist Retail: 1,000,001-1,200,000 sf	1,000 sf	3.57	3.57	0%	No change
820	Retail/Tourist Retail: greater than 1,200,000 sf	1,000 sf	3.80	3.80	0%	No change
840/841	New/Used Auto Sales	1,000 sf	4.60	4.60	0%	No change
850	Supermarket	1,000 sf	2.08	2.08	0%	No change
853	Convenience Market w/Gas Pumps	1,000 sf	1.51	1.51	0%	No change
862	Home Improvement Superstore	1,000 sf	2.40	2.40	0%	No change
863	Electronics Superstore	1,000 sf	1.27	1.87	47%	Updated to <50,000 sq ft retail tier; previously used <10,000 sq ft
880/881	Drug Store	1,000 sf	3.88	2.08	-46%	Updated to use FL Studies; previously used 2004 study
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	-	2.46	-	New land use
912	Bank/Savings Drive-In	1,000 sf	2.46	2.46	0%	No change
925	Drinking Place	1,000 sf	1.27	1.87	47%	Updated to <50,000 sq ft retail tier; previously used <10,000 sq ft
931	Quality Restaurant	1,000 sf	3.14	3.14	0%	No change
932	High-Turnover Restaurant	1,000 sf	3.17	3.17	0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	2.05	2.05	0%	No change
942	Auto Service	1,000 sf	7.97	3.62	-55%	Updated to use FL Studies; previously used 2004 study
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	1.90	1.90	0%	No change
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	-	1.90	-	New land use
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	-	1.90	-	New land use
947	Self-Service Car Wash	wash station	2.18	2.18	0%	No change
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	5.15	5.15	0%	No change
140	Manufacturing	1,000 sf	5.15	5.15	0%	No change
150	Warehouse	1,000 sf	5.15	5.15	0%	No change
151	Mini-Warehouse	1,000 sf	3.10	3.51	13%	Updated to use the midpoint of office and retail (<50k sq ft)
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	-	5.15	-	New land use

- The trip length values shown do NOT include the TL adjustment factors that are applied in the impact fee rate calculations. The TL shown in Table A-13 provide a comparison to the 2012 report of the raw, unadjusted TL values
- See Appendix E for additional information

Table A-14
Percent Change in Percent New Trips of Impact Fee Land Uses

ITE LUC	Land Use	Unit	PNT 2012	PNT 2020	PNT %	Explanation
RESIDENTIAL:						
210	Single Family (Detached) - 1,200 sf or less	du	100%	100%	0%	No change
210	Single Family (Detached) - 1,201 to 2,000 sf	du	100%	100%	0%	No change
210	Single Family (Detached) - 2,001 to 3,500 sf	du	100%	100%	0%	No change
210	Single Family (Detached) - greater than 3,500 sf	du	100%	100%	0%	No change
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 floors)	du	100%	100%	0%	No change
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	100%	100%	0%	No change
222	Multi-Family Housing (High-Rise, >10 floors)	du	100%	100%	0%	No change
225	Student Housing (Adjacent to Campus)	bedroom	100%	100%	0%	No change
225	Student Housing (Over 1/2 mile from Campus)	bedroom	100%	100%	0%	No change
231	Mid-Rise Residential w/1st floor Commercial	du	-	100%	-	New land use
232	High-Rise Residential w/1st floor Commercial	du	-	100%	-	New land use
240	Mobile Home Park	du	100%	100%	0%	No change
251	Senior Adult Housing - Detached (Retirement Community/ Age-Restricted Single-Family)	du	100%	100%	0%	No change
252	Senior Adult Housing - Attached (Retirement Community/ Age-Restricted Single-Family)	du	-	100%	-	New land use
265	Time Share	du	100%	100%	0%	No change
LODGING:						
310	Hotel/Tourist Hotel	room	66%	66%	0%	No change
320	Motel	room	77%	77%	0%	No change
RECREATIONAL:						
430	Golf Course	acre	90%	90%	0%	No change
437	Bowling Alley	1,000 sf	90%	90%	0%	No change
443	Movie Theater	1,000 sf	88%	87%	-1%	Updated weighted average calculation
491	Racquet Club	1,000 sf	94%	94%	0%	No change
492	Health/Fitness Club	1,000 sf	94%	94%	0%	No change
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	-	85%	-	New land use
INSTITUTIONAL:						
522	School	1,000 sf	100%	80%	-20%	Updated; based on office land use w/adjustment
560	Public Assembly	1,000 sf	100%	90%	-10%	Updated; based on office land use
565	Day Care	1,000 sf	73%	73%	0%	No change
590	Library	1,000 sf	49%	49%	0%	No change
MEDICAL:						
610	Hospital	bed	77%	78%	1%	Updated; based on midpoint of office and hotel
620	Nursing Home	1,000 sf	89%	89%	0%	No change
640	Animal Hospital/Veterinary Clinic	1,000 sf	93%	70%	-25%	Updated to use FL Studies; previously used 2004 study
OFFICE:						
710	General Office 50,000 sf or less	1,000 sf	92%	92%	0%	No change
710	General Office 50,001-100,000 sf	1,000 sf	92%	92%	0%	No change
710	General Office 100,001-200,000 sf	1,000 sf	92%	92%	0%	No change
710	General Office greater than 200,000 sf	1,000 sf	92%	92%	0%	No change
720	Small Medical/Dental Office	1,000 sf	89%	89%	0%	No change
720	Medical/Dental Office	1,000 sf	89%	89%	0%	No change
732	Post Office	1,000 sf	49%	49%	0%	No change
RETAIL:						
815	Free-Standing Discount Store	1,000 sf	67%	67%	0%	No change
816	Hardware/Paint Store	1,000 sf	56%	56%	0%	No change
820	Retail/Tourist Retail: 50,000 sfgla or less	1,000 sfgla	56%	56%	0%	No change
820	Retail/Tourist Retail: 50,001-100,000 sfgla	1,000 sfgla	62%	62%	0%	No change
820	Retail/Tourist Retail: 100,001-200,000 sfgla	1,000 sfgla	67%	67%	0%	No change
820	Retail/Tourist Retail: 200,001-300,000 sfgla	1,000 sfgla	71%	71%	0%	No change
820	Retail/Tourist Retail: 300,001-400,000 sfgla	1,000 sfgla	73%	73%	0%	No change
820	Retail/Tourist Retail: 400,001-500,000 sfgla	1,000 sfgla	75%	75%	0%	No change
820	Retail/Tourist Retail: 500,001-1,000,000 sfgla	1,000 sfgla	81%	81%	0%	No change
820	Retail/Tourist Retail: 1,000,001-1,200,000 sfgla	1,000 sfgla	82%	82%	0%	No change
820	Retail/Tourist Retail: greater than 1,200,000 sfgla	1,000 sfgla	83%	83%	0%	No change
840/841	New/Used Auto Sales	1,000 sf	79%	79%	0%	No change
850	Supermarket	1,000 sf	56%	56%	0%	No change
853	Convenience Market w/Gas Pumps	1,000 sf	28%	28%	0%	No change
862	Home Improvement Superstore	1,000 sf	67%	67%	0%	No change
863	Electronics Superstore	1,000 sf	43%	56%	30%	Updated to <50,000 sq ft retail tier; previously used <10,000 sq ft
880/881	Drug Store	1,000 sf	50%	32%	-36%	Updated to use FL Studies; previously used 2004 study
SERVICES:						
911	Bank/Savings Walk-In	1,000 sf	-	46%	-	New land use
912	Bank/Savings Drive-In	1,000 sf	46%	46%	0%	No change
925	Drinking Place	1,000 sf	43%	56%	30%	Updated to <50,000 sq ft retail tier; previously used <10,000 sq ft
931	Quality Restaurant	1,000 sf	77%	77%	0%	No change
932	High-Turnover Restaurant	1,000 sf	71%	71%	0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	58%	58%	0%	No change
942	Auto Service	1,000 sf	51%	72%	41%	Updated to use FL Studies; previously used 2004 study
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	23%	23%	0%	No change
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	-	23%	-	New land use
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	-	23%	-	New land use
947	Self-Service Car Wash	wash station	68%	68%	0%	No change
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	92%	92%	0%	No change
140	Manufacturing	1,000 sf	92%	92%	0%	No change
150	Warehouse	1,000 sf	92%	92%	0%	No change
151	Mini-Warehouse	1,000 sf	92%	92%	0%	No change
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	-	92%	-	New land use

See Appendix E for additional information

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 the transportation 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 database includes several local Orange County studies (highlighted).

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	-	6.00	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				

ITE Average Trip Generation Rate (LUC 220: Low-Rise):

7.32

ITE Average Trip Generation Rate (LUC 221: Mid-Rise):

5.44

ITE Average Trip Generation Rate (LUC 222: High-Rise):

4.45

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: 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: 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.	-	-	-	Tindale Oliver
Total Size	208		1				Average Trip Length: -			
ITE	486		6				Weighted Average Trip Length: -			
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			
								76.6		
								ITE Average Trip Generation Rate:		3.35

Land Use 444: Movie Theater

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	24.7	Oct-89	151	116	113.10	2p-8p	2.70	77.0	235.13	Tindale Oliver
Pinellas Co, FL	34.0	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale Oliver
Total Size	58.7		2	273			Average Trip Length: 2.30			
ITE	28.0		1				Weighted Average Trip Length: 2.24			
Blended total	86.7									
								87.4		
								Weighted Average Trip Generation Rate:		84.31
								ITE Average Trip Generation Rate:		78.09
								Blend of FL Studies and ITE Average Trip Generation Rate:		82.30

Land Use 492: Health/Fitness Club

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	31	-	-	7.90	94.0	-	Kimley-Horn & Associates
Total Size			33				Average Trip Length: n/a			
ITE	37		8					94.0		
								ITE Average Trip Generation Rate (adjusted):		34.50

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									
								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									
								89.0		
								ITE Average Trip Generation Rate (per 1,000 sq ft):		6.64

Land Use 640: Animal Hospital/Veterinary Clinic

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
St. Petersburg, FL	4.0	-	-	-	21.50	-	-	-	-	Tindale Oliver
Clearwater, FL	3.0	Sep-89	-	-	44.00	-	1.90	70.0	-	Tindale Oliver
Clearwater, FL	2.0	Aug-89	-	-	-	-	1.90	70.0	-	Tindale Oliver
Total Size	7.0		3	0			Average Trip Length: 1.90			
ITE	18.0		6				Weighted Average Trip Length: 1.90			
	25.0									
								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			
								92.3		
								Weighted Percent New Trip Average:		

Land Use 720: Small Medical/Dental Office Building

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

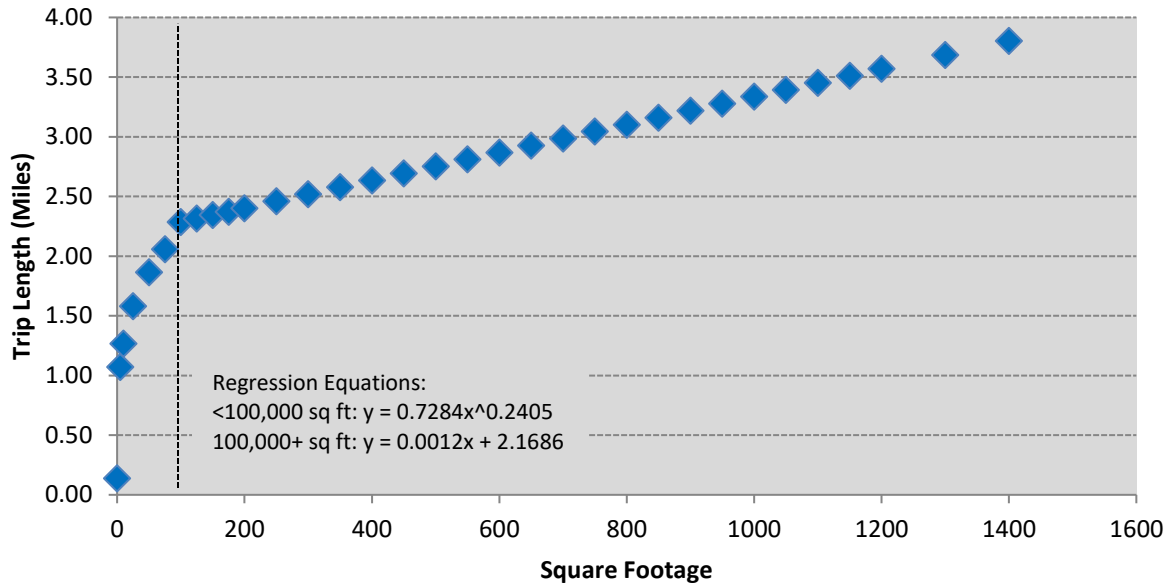
Land Use 720: Medical/Dental Office Building

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

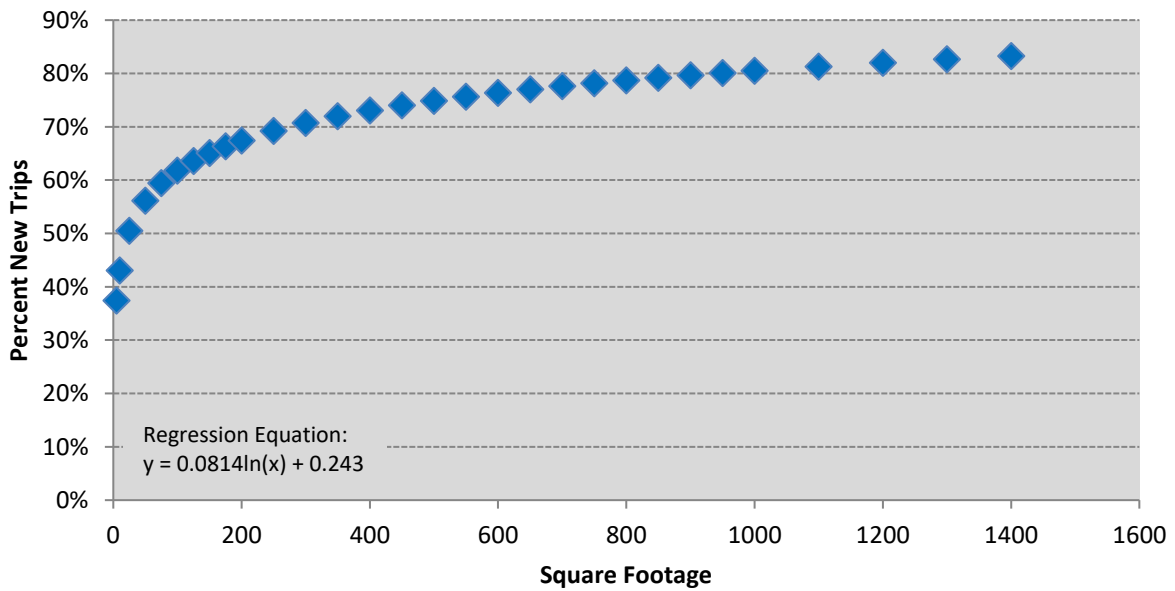
Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	527	348	-	-	-	66.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	170	-	-	-	1.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	354	269	-	-	-	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	-	-	84.0	-	Street Smarts
Sarasota Co, FL	110.0	Jun-93	58	58	122.14	-	3.20	-	-	Sarasota County
Sarasota Co, FL	146.1	Jun-93	65	65	51.53	-	2.80	-	-	Sarasota County
Sarasota Co, FL	157.5	Jun-93	57	57	79.79	-	3.40	-	-	Sarasota County
Sarasota Co, FL	191.0	Jun-93	62	62	66.79	-	5.90	-	-	Sarasota County
Hernando Co, FL	107.8	May-96	608	331	77.60	9a-6p	4.68	54.5	197.85	Tindale Oliver
Charlotte Co, FL	88.0	Oct-97	-	-	73.50	9a-5p	1.80	57.1	75.56	Tindale Oliver
Charlotte Co, FL	191.9	Oct-97	-	-	72.00	9a-5p	2.40	50.9	87.97	Tindale Oliver
Charlotte Co, FL	51.3	Oct-97	-	-	43.00	9a-5p	2.70	51.8	60.08	Tindale Oliver
Lake Co, FL	67.8	Apr-01	246	177	102.60	-	3.40	71.2	248.37	Tindale Oliver
Lake Co, FL	72.3	Apr-01	444	376	65.30	-	4.50	59.0	173.37	Tindale Oliver
Pasco Co, FL	65.6	Apr-02	222	-	145.64	9a-5p	1.46	46.9	99.62	Tindale Oliver
Pasco Co, FL	75.8	Apr-02	134	-	38.23	9a-5p	2.36	58.2	52.52	Tindale Oliver
Citrus Co, FL	185.0	Oct-03	-	784	55.84	8a-6p	2.40	88.1	118.05	Tindale Oliver
Citrus Co, FL	91.3	Nov-03	-	390	54.50	8a-6p	1.60	88.0	76.77	Tindale Oliver
Bozeman, MT	104.3	Dec-06	359	359	46.96	-	3.35	49.0	77.08	Tindale Oliver
Bozeman, MT	159.9	Dec-06	502	502	56.49	-	1.56	54.0	47.59	Tindale Oliver
Bozeman, MT	35.9	Dec-06	329	329	69.30	-	1.39	74.0	71.28	Tindale Oliver
Total Size	5,757.5		7,536		Average Trip Length: 2.66					

Figure A-2
LUC 820: Retail/Shopping Center – Florida Curve Trip Length Regression



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

Figure A-3
LUC 820: Retail/Shopping Center – Florida Curve Percent New Trips Regression



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

Land Use 840/841: New/Used Automobile Sales

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
St.Petersburg, FL	43.0	Oct-89	152	120	-	9a-5p	4.70	79.0	-	Tindale Oliver
Clearwater, FL	43.0	Oct-89	136	106	29.40	9a-5p	4.50	78.0	103.19	Tindale Oliver
Orange Co, FL	13.8	1997	-	-	35.75	-	-	-	-	Orange County
Orange Co, FL	34.4	1998	-	-	23.45	-	-	-	-	Orange County
Orange Co, FL	66.3	2001	-	-	28.50	-	-	-	-	Orange County
Orange Co, FL	39.1	2002	-	-	10.48	-	-	-	-	Orange County
Orange Co, FL	116.7	2003	-	-	22.18	-	-	-	-	Orange County
Orange Co, FL	51.7	2007	-	-	40.34	-	-	-	-	L-TEC
Orange Co, FL	36.6	-	-	-	15.17	-	-	-	-	Orange County
Orange Co, FL	216.4	2008	-	-	13.45	-	-	-	-	Orange County
Total Size	618.0		8	288			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 853: Convenience Market with Gasoline Pumps

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	72	-	-	-	2.00	-	-	Kimley-Horn & Associates
Marion Co, FL	1.1	Jun-91	77	20	544.80	24hr.	0.89	26.0	126.07	Tindale Oliver
Marion Co, FL	2.1	Jun-91	66	24	997.60	24hr.	1.67	36.4	606.42	Tindale Oliver
Marion Co, FL	4.4	Jun-91	85	25	486.70	48hrs.	1.06	29.4	151.68	Tindale Oliver
Collier Co, FL	-	Aug-91	96	38	-	-	1.19	39.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	78	16	-	-	1.06	20.5	-	Tindale Oliver
Tampa, FL	2.3	10/13-15/92	239	74	-	24hr.	1.06	31.1	-	Tindale Oliver
Ellenton, FL	3.3	10/20-22/92	124	44	-	24hr.	0.96	35.3	-	Tindale Oliver
Tampa, FL	3.8	11/10-12/92	142	23	-	24hr.	3.13	16.4	-	Tindale Oliver
Marion Co, FL	2.5	Apr-02	87	-	719.79	24hr.	1.62	32.8	322.19	Kimley-Horn & Associates
Marion Co, FL	2.5	Apr-02	23	-	610.46	24hr.	1.77	11.7	126.61	Kimley-Horn & Associates
Marion Co, FL	3.0	Apr-02	59	-	606.02	24hr.	0.83	32.6	195.00	Kimley-Horn & Associates
Total Size	25.1		9	1,148			Average Trip Length: 1.44			
ITE	102.0		34				Weighted Average Trip Length: 1.51			
Blended Total	127.1							Weighted Percent New Trip Average:	27.7	
	117.6							Average Trip Generation Rate:		639.68
								ITE Average Trip Generation Rate:		624.20
								Blend of FL Studies and ITE Average Trip Generation Rate:		626.25

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

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pasco Co, FL	11.1	Apr-02	138	38	88.97	-	2.05	27.5	50.23	Tindale Oliver
Pasco Co, FL	12.0	Apr-02	212	90	122.16	-	2.04	42.5	105.79	Tindale Oliver
Pasco Co, FL	15.1	Apr-02	1192	54	97.96	-	2.13	28.1	58.69	Tindale Oliver
Total Size	38.2		3	1,542			Average Trip Length: 2.07			
ITE (LUC 880)	66.0		6				Weighted Average Trip Length: 2.08			
ITE (LUC 881)	208.0		16					Weighted Percent New Trip Average:	32.0	
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 912: Drive-In Bank

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	77	-	-	-	2.40	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	211	-	-	-	-	54.0	-	Kimley-Horn & Associates
Clearwater, FL	0.4	Aug-89	113	52	-	9a-6p	5.20	46.0	-	Tindale Oliver
Largo, FL	2.0	Sep-89	129	94	-	-	1.60	73.0	-	Tindale Oliver
Seminole, FL	4.5	Oct-89	-	-	-	-	-	-	-	Tindale Oliver
Marion Co, FL	2.3	Jun-91	69	29	-	24hr.	1.33	42.0	-	Tindale Oliver
Marion Co, FL	3.1	Jun-91	47	32	-	24hr.	1.75	68.1	-	Tindale Oliver
Marion Co, FL	2.5	Jul-91	57	26	-	48hrs.	2.70	45.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	162	96	-	24hr.	0.88	59.3	-	Tindale Oliver
Collier Co, FL	-	Aug-91	116	54	-	-	1.58	46.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	142	68	-	-	2.08	47.9	-	Tindale Oliver
Hernando Co, FL	5.4	May-96	164	41	-	9a-6p	2.77	24.7	-	Tindale Oliver
Marion Co, FL	2.4	Apr-02	70	-	-	24hr.	3.55	54.6	-	Kimley-Horn & Associates
Marion Co, FL	2.7	May-02	50	-	246.66	24hr.	2.66	40.5	265.44	Kimley-Horn & Associates
Total Size	25.2		9	1,407			Average Trip Length: 2.38			
ITE	147.0		21				Weighted Average Trip Length: 2.46			
Blended total	172.2							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: 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					
	98.0				Weighted Average Trip Generation Rate: 110.63					
					ITE Average Trip Generation Rate: 83.84					
					Blend of FL Studies and ITE Average Trip Generation Rate: 86.03					

Land Use 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 with and without 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
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	
								ITE Average Trip Generation Rate - per fuel position (LUC 944):		172.01
								ITE Average Trip Generation Rate - per fuel position (LUC 945):		205.36
								Blended ITE Average Trip Generation Rate - per fuel position:		184.84

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	-	-	-	2.50	57.0	-	Tindale Oliver
Collier Co, FL	8	Jan-09	186	-	-	-	1.96	72.0	-	Tindale Oliver
Total Size	29		3	778			Average Trip Length: 1.94			
ITE	5		1				Weighted Average Trip Length: 2.18			
								Weighted Percent New Trip Average:	67.7	

Land Use N/A: Dance Studio

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Collier Co, FL	7.000	Jul-08	-	-	30.29	-	-	-	-	Tindale Oliver
Collier Co, FL	20.48	Jul-08	-	-	17.19	-	-	-	-	Tindale Oliver
Collier Co, FL	8.705	Jul-08	-	-	23.89	-	-	-	-	Tindale Oliver
Total Size	36.2		3				Average Trip Length: n/a			
							Weighted Average Trip Length: n/a			
								Weighted Average Trip Generation Rate:		21.33

Land Use N/A: Specialty Retail Center

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Orlando, FL	56.5	Jan-96	-	602	-	varied	3.54	87.9	-	LCE, Inc.
Collier Co, FL	12.0	May-99	-	13	19.70	8a-6p	3.70	75.0	54.67	Tindale Oliver
Collier Co, FL	12.0	May-99	-	146	127.50	8a-6p	2.24	84.3	240.76	Tindale Oliver
Total Size	80.5		3				Average Trip Length: 3.16			
ITE	100.0		4				Weighted Average Trip Length: 3.37			
Blended total	156.5							Weighted Percent New Trip Average:	85.4	

Evaluation of Mixed-Use Developments

Mixed-Use Internal Capture

To correspond with adopted fiscal neutrality and sustainability guiding policies, Orange County has made efforts to define and encourage infill and redevelopment activity and create mixed-use developments, Traditional Neighborhood Developments (TND), and Transit Oriented Developments (TOD). In addition, the County’s Comprehensive Plan historically has designated the International Drive tourist corridor as an Activity Center (AC) and implemented I-Drive District Overlay Zone within the past year. This Overlay Zone is an example of transect-based planning and describes the site design requirements in terms of road layout, intersection spacing, requirements of sidewalks, interconnectivity, spacing between uses, etc. These types of requirements are critical in mixed-use developments’ ability to reduce trips. If designed correctly, these developments tend to have reduced travel demand which in turn reduces the need to provide additional transportation infrastructure.

Mixed-Use Models

This section provides a summary of more commonly used models in estimating the reduction of travel achieved by mixed-use development.

- Historically, the ITE model has been the primary model used to quantify internal capture. ITE groups land uses into three categories:
 - Residential;
 - Office; and
 - Retail.

Internal capture calculations focus on trip reduction, especially between residential and retail uses. The data is available for weekday P.M. peak hour, midday, and “daily,” which is based on data collection between noon and 6:30 PM. ITE calculations fail to capture much of the interaction between residential and office land uses. Compared to raw data used for verification, ITE method error rate is about one-half.

- Several publications by National Cooperative Highway Research Program (NCHRP) made improvements to the original ITE approach, which were summarized in the NCHRP 684. This improved estimate method was developed based on existing survey data from prior studies plus three pilot data collection surveys for this study.
 - Although the model developed as part of NCHRP 684 continued to focus on trip reduction, three land uses were added: restaurant, hotel, and cinema. These resulted for a higher internal capture percentage. **The authors caution users to limit their applications to these six uses, and that the model was not tested for any additional land uses.** The model should only be used for development up to 300 acres.
 - NCHRP Report 684 also added weekday A.M. peak hour and created a land use classification structure that would permit disaggregation of the six land uses to more detailed categories should enough data become available.
 - Included the **effects of proximity (convenient walking distance) between interacting land uses to represent both compactness and design.** The report states that several planners and architects recommend ¼-mile or longer walking distances. However, developers contacted for the study reported that acceptable walking distances range from 600 feet to 1,000 feet. The study found that when the major uses were within a convenient (e.g., covered walkways, etc.) and short walking distance, the capture rate increased.

- This method reduced the estimation error by half compared to the original ITE method, resulting in an error rate of about one-fourth of the raw trip generation rates.
- Since the late 1980s, there have been numerous studies of various census and regional travel survey databases, limited site data collection, and studies and surveys of related travel and development characteristics that could contribute useful material for developing an improved estimation technique. Internal trip capture rates estimated in this research vary widely depending on conditions and land uses, but for developments with major commercial components, capture rates typically reached up to more than 30 percent. For mixed-use neighborhoods and small communities, internal capture reached 50 percent and even higher.
- Other widely used approach is a policy-based flat percentage reduction in external trips. Such percentages are established by local planning, zoning, or transportation engineering officials for use in transportation impact analyses (TIAs) prepared to support applications for zoning, subdivision, site plan approval, or access permits. The percentages are typically arbitrarily selected and tend to range from 5 percent to 25 percent, with 10 percent being most commonly used discount factor.

Table A-15 provides a summary of some of these studies and resulting internal capture levels.

**Table A-15
Comparison of Mixed-Use Models**

Source	Reference	Range of Internal Capture
Research Studies		
ITE 2nd Edition	Institute of Transportation Engineers Handbook, 2nd Ed.	5-25%
NCHRP 684/ITE 3rd Edition	National Cooperative Highway Research Program	28-41%
EPX MXD Model v4.0	EPA, Fehr & Peers	8-28%
ITE 1998 surveys (origins)	NCHRP 684, PDF pg 19	0-53%
ITE 1998 surveys (destinations)	NCHRP 684, PDF pg 19	0-37%
Districtwide TGR Study, FDOT, District IV, March 1995	NCHRP 684, PDF pg 20	28-41%
FDOT Trip Characteristics Study of MXDs, FDOT, District IV, March 1993	NCHRP 684, PDF pg 21 (Table 8)	7-62%
Trip Generation for MXDs, Technical Committee Report, Colorado-Wyoming Section, ITE, January 1986	NCHRP 684, PDF pg 23	25%
Brandermill PUD Traffic Generation Study, Technical Report, JHK & Associates, Alexandria, Virginia, June 1984	NCHRP 684, PDF pg 23	45-55%
Kittelson & Associates, Crocker Center, Mizner Park, Galleria	NCHRP 684, PDF pg 25	38-41%
Mehara and Keller	NCHRP 684, PDF pg 25	0-40%
Local Government Practices		
Transportation Impact Analyses (ITE Method)	NCHRP 684, PDF pg 11	5-25%

Internal Capture Sensitivity Analysis

This section illustrates potential internal capture reductions that may occur if proposed developments include the right mix of land uses. Note that this analysis only considers the mix of uses and not the specific design standards.

Tables A-16 through A-18 present a sensitivity analysis for internal capture that includes developments of all levels, in terms of both units of development and percent of travel. Observations include:

- When single family units dominate the overall development (generating over 60 percent of trips or over 80 percent of vehicle miles of travel (VMT)), there does not seem to be any substantial internal capture.
- In cases where there are three or more uses with some level of activity, the internal capture improves. The internal capture rate is higher when travel generated by each land use is balanced (e.g., no one land use exceeds 50 percent of trips).
- Availability of retail (including restaurants) is important in achieving high levels of internal capture.

- Travel demand characteristics used in the standard impact fee calculations evolved over time to recognize reduction in travel due to the availability of multiple uses at a regional level.
- Any additional internal capture that is attributed to a mixed-use development needs to be due to the increase in pedestrian travel as well as travel within the development. Some of the variables that will determine the level internal capture include:
 - Scale of development;
 - Complementary land uses;
 - Proximity and connectivity between each pair of land uses, especially the layout of the land uses relative to each other; and
 - Other characteristics such as proximity to transit and pedestrian access within and around the site.
- Industry models used to measure internal capture suggest that to the extent travel distribution from each land use within the mixed-use development is balanced, the level of internal capture increases. When one land use is dominant, internal capture percentage decreases. For example, when residential development generates more than 60 percent of trips and 80 percent of VMT, the resulting internal capture is negligible. On the other hand, a mix of at least three different uses, with none of the uses generating more than 50 percent of travel, result in higher levels of internal capture.

As previously mentioned, the NCHRP model does not account for proximity of uses, density, and other design elements. It is recommended that potential mixed-use developments include elements of connectivity, promote walkability between land uses, and include access to other travel modes (transit, bike lanes, etc) when possible. These factors, along with a balanced mix of uses, will yield the most favorable internal capture rates.

Due to the large scale of potential future developments, it may be difficult to achieve reasonable walkability and enhanced trip capture. By focusing on smaller, inter-connected areas, developers can work towards creating a truly “mixed-use” community. The sensitivity analysis in Tables A-16 through A-18 provide general guidelines that can be applied to future development in order to achieve the best balance of uses.

**Table A-16
Comparison of Mixed-Use Internal Capture**

Scenario	Single Family DU's	Hotel Rooms	Retail Sq Ft	Office Sq Ft	Restaurant Sq Ft	AM Peak Hr: IC %	PM Peak Hr: IC %	Average Internal Capture %	Trip Distribution				
									Single Family	Hotel	Retail	Office	Restaurant
Scenario #1.01	50	50	10,000	10,000	2,000	19%	29%	24%	20%	15%	33%	24%	8%
Scenario #1.02	50	60	10,000	10,000	2,000	18%	29%	24%	20%	17%	32%	23%	8%
Scenario #1.03	50	75	10,000	10,000	2,000	18%	28%	23%	19%	20%	31%	22%	8%
Scenario #1.04	50	90	10,000	10,000	2,000	17%	27%	22%	18%	23%	30%	22%	8%
Scenario #1.05	50	120	10,000	10,000	2,000	15%	26%	21%	17%	28%	28%	20%	7%
Scenario #1.06	50	200	10,000	10,000	2,000	13%	22%	18%	15%	38%	24%	17%	6%
Scenario #1.07	50	300	10,000	10,000	2,000	10%	19%	15%	12%	47%	20%	15%	5%
Scenario #1.08	50	400	10,000	10,000	2,000	9%	17%	13%	11%	54%	18%	13%	4%
Scenario #1.09	50	500	10,000	10,000	2,000	8%	15%	12%	10%	59%	16%	11%	4%
Scenario #1.10	50	600	10,000	10,000	2,000	7%	14%	11%	9%	63%	14%	10%	4%
Scenario #1.11	50	50	20,000	10,000	2,000	19%	27%	23%	17%	12%	44%	20%	7%
Scenario #1.12	50	50	50,000	10,000	2,000	18%	22%	20%	12%	9%	59%	15%	5%
Scenario #1.13	50	50	80,000	10,000	2,000	16%	18%	17%	10%	7%	66%	12%	4%
Scenario #1.14	50	50	100,000	10,000	2,000	15%	16%	16%	9%	7%	69%	11%	4%
Scenario #1.15	50	50	300,000	10,000	2,000	10%	9%	10%	5%	4%	82%	6%	2%
Scenario #1.16	50	50	500,000	10,000	2,000	8%	7%	8%	4%	3%	87%	5%	2%
Scenario #1.17	50	50	1,000,000	10,000	2,000	6%	4%	5%	3%	2%	91%	3%	1%
Scenario #1.18	50	50	2,000,000	10,000	2,000	4%	3%	4%	2%	1%	94%	2%	1%
Scenario #1.19	50	50	3,000,000	10,000	2,000	3%	2%	3%	1%	1%	95%	2%	1%
Scenario #1.20	50	50	10,000	20,000	2,000	20%	28%	24%	19%	14%	31%	29%	8%
Scenario #1.21	50	50	10,000	50,000	2,000	19%	26%	23%	16%	12%	26%	39%	7%
Scenario #1.22	50	50	10,000	80,000	2,000	19%	24%	22%	14%	10%	23%	46%	6%
Scenario #1.23	50	50	10,000	100,000	2,000	18%	23%	21%	13%	10%	22%	50%	5%
Scenario #1.24	50	50	10,000	300,000	2,000	13%	15%	14%	8%	6%	13%	70%	3%
Scenario #1.25	50	50	10,000	500,000	2,000	9%	11%	10%	6%	4%	10%	78%	2%
Scenario #1.26	50	50	10,000	1,000,000	2,000	6%	7%	7%	4%	3%	6%	86%	2%
Scenario #1.27	50	50	10,000	2,000,000	2,000	3%	4%	4%	2%	2%	3%	92%	1%
Scenario #1.28	50	50	10,000	3,000,000	2,000	3%	3%	3%	2%	1%	2%	94%	1%
Scenario #1.29	50	50	10,000	10,000	5,000	22%	36%	29%	18%	13%	29%	21%	18%
Scenario #1.30	50	50	10,000	10,000	7,000	22%	40%	31%	17%	12%	27%	20%	24%
Scenario #1.31	50	50	10,000	10,000	10,000	19%	43%	31%	15%	11%	25%	18%	31%
Scenario #1.32	50	50	10,000	10,000	15,000	16%	45%	31%	13%	10%	22%	16%	40%
Scenario #1.33	50	50	10,000	10,000	30,000	10%	40%	25%	9%	7%	15%	11%	57%
Scenario #1.34	50	50	10,000	10,000	50,000	7%	32%	20%	7%	5%	11%	8%	69%
Scenario #1.35	50	50	10,000	10,000	100,000	4%	20%	12%	4%	3%	7%	5%	82%
Scenario #1.36	50	50	10,000	10,000	200,000	2%	11%	7%	2%	2%	4%	3%	90%
Scenario #1.37	50	50	10,000	10,000	400,000	1%	6%	4%	1%	1%	2%	1%	95%
Scenario #1.38	50	60	20,000	20,000	5,000	25%	32%	29%	14%	12%	37%	22%	15%
Scenario #1.39	50	75	50,000	50,000	7,000	28%	27%	28%	9%	10%	45%	23%	13%
Scenario #1.40	50	90	80,000	80,000	10,000	28%	26%	27%	7%	9%	46%	23%	15%
Scenario #1.41	50	120	100,000	100,000	15,000	28%	27%	28%	6%	10%	44%	22%	18%
Scenario #1.42	50	200	300,000	300,000	30,000	28%	23%	26%	3%	8%	46%	26%	18%
Scenario #1.43	50	300	500,000	500,000	50,000	28%	23%	26%	2%	8%	43%	26%	21%
Scenario #1.44	50	400	1,000,000	1,000,000	100,000	28%	24%	26%	1%	6%	40%	28%	24%
Scenario #1.45	50	500	2,000,000	2,000,000	200,000	27%	25%	26%	1%	4%	37%	30%	28%
Scenario #1.46	50	600	3,000,000	3,000,000	400,000	23%	30%	27%	0%	3%	31%	28%	37%
Scenario #1.47	50	50	3,000,000	3,000,000	400,000	65%	27%	46%	0%	0%	32%	29%	38%
Scenario #1.48	50	600	10,000	3,000,000	400,000	18%	11%	15%	1%	5%	1%	41%	53%
Scenario #1.49	50	600	3,000,000	10,000	400,000	6%	33%	20%	1%	5%	43%	1%	51%
Scenario #1.50	50	600	3,000,000	3,000,000	2,000	14%	7%	11%	1%	5%	50%	44%	0%

Notes:

- Each scenario includes a different mix of dwelling units, hotel rooms and non-residential development.
- Using the ITE 9th Edition handbook, AM and PM Peak Hour trip generation rates are applied to each land use and each development scenario. This results in the total AM and PM Peak Hour trips. Using the direction distribution provided in the ITE handbook, the “entering” and “exiting” trips are determined.
- The resulting trips are entered into the NCHRP internal capture model which outputs the internal capture percentages for both AM and PM Peak Hour.
- The average internal capture shown in the tab above reflects the average of the AM and PM Peak Hour internal capture.
- The trip distribution illustrates the proportion of trip that is attributed to each land use in each scenario. The scenarios which include a balanced distribution of trip tend to yield higher internal capture.

**Table A-17
Comparison of Mixed-Use Internal Capture**

Scenario	Single Family DU's	Hotel Rooms	Retail Sq Ft	Office Sq Ft	Restaurant Sq Ft	AM Peak Hr: IC %	PM Peak Hr: IC %	Average Internal Capture %	Trip Distribution				
									Single Family	Hotel	Retail	Office	Restaurant
Scenario #2.01	1,000	50	10,000	10,000	2,000	5%	11%	8%	79%	4%	9%	6%	2%
Scenario #2.02	1,000	60	10,000	10,000	2,000	5%	11%	8%	79%	4%	8%	6%	2%
Scenario #2.03	1,000	75	10,000	10,000	2,000	5%	11%	8%	78%	5%	8%	6%	2%
Scenario #2.04	1,000	90	10,000	10,000	2,000	5%	11%	8%	77%	6%	8%	6%	2%
Scenario #2.05	1,000	120	10,000	10,000	2,000	5%	11%	8%	76%	8%	8%	6%	2%
Scenario #2.06	1,000	200	10,000	10,000	2,000	5%	11%	8%	72%	12%	8%	6%	2%
Scenario #2.07	1,000	300	10,000	10,000	2,000	5%	10%	8%	68%	17%	7%	5%	2%
Scenario #2.08	1,000	400	10,000	10,000	2,000	4%	10%	7%	65%	21%	7%	5%	2%
Scenario #2.09	1,000	500	10,000	10,000	2,000	4%	9%	7%	62%	25%	7%	5%	2%
Scenario #2.10	1,000	600	10,000	10,000	2,000	4%	9%	7%	59%	28%	6%	5%	2%
Scenario #2.11	1,000	50	20,000	10,000	2,000	6%	13%	10%	76%	4%	13%	6%	2%
Scenario #2.12	1,000	50	50,000	10,000	2,000	7%	17%	12%	68%	3%	21%	5%	2%
Scenario #2.13	1,000	50	80,000	10,000	2,000	6%	19%	13%	64%	3%	27%	5%	2%
Scenario #2.14	1,000	50	100,000	10,000	2,000	6%	20%	13%	61%	3%	30%	5%	2%
Scenario #2.15	1,000	50	300,000	10,000	2,000	5%	25%	15%	46%	2%	47%	4%	1%
Scenario #2.16	1,000	50	500,000	10,000	2,000	5%	27%	16%	39%	2%	55%	3%	1%
Scenario #2.17	1,000	50	1,000,000	10,000	2,000	4%	22%	13%	30%	1%	66%	2%	1%
Scenario #2.18	1,000	50	2,000,000	10,000	2,000	3%	16%	10%	21%	1%	75%	2%	1%
Scenario #2.19	1,000	50	3,000,000	10,000	2,000	3%	12%	8%	17%	1%	80%	1%	0%
Scenario #2.20	1,000	50	10,000	20,000	2,000	6%	11%	9%	78%	4%	8%	8%	2%
Scenario #2.21	1,000	50	10,000	50,000	2,000	7%	11%	9%	75%	4%	8%	12%	2%
Scenario #2.22	1,000	50	10,000	80,000	2,000	8%	11%	10%	72%	3%	8%	15%	2%
Scenario #2.23	1,000	50	10,000	100,000	2,000	8%	11%	10%	70%	3%	8%	17%	2%
Scenario #2.24	1,000	50	10,000	300,000	2,000	9%	10%	10%	57%	3%	6%	32%	2%
Scenario #2.25	1,000	50	10,000	500,000	2,000	7%	9%	8%	49%	2%	5%	42%	1%
Scenario #2.26	1,000	50	10,000	1,000,000	2,000	5%	7%	6%	37%	2%	4%	57%	1%
Scenario #2.27	1,000	50	10,000	2,000,000	2,000	4%	5%	5%	25%	1%	3%	71%	1%
Scenario #2.28	1,000	50	10,000	3,000,000	2,000	3%	4%	4%	19%	1%	2%	78%	1%
Scenario #2.29	1,000	50	10,000	10,000	5,000	7%	13%	10%	77%	4%	8%	6%	5%
Scenario #2.30	1,000	50	10,000	10,000	7,000	7%	15%	11%	75%	4%	8%	6%	7%
Scenario #2.31	1,000	50	10,000	10,000	10,000	8%	18%	13%	73%	4%	8%	6%	10%
Scenario #2.32	1,000	50	10,000	10,000	15,000	9%	21%	15%	70%	3%	7%	5%	14%
Scenario #2.33	1,000	50	10,000	10,000	30,000	11%	24%	18%	61%	3%	7%	5%	25%
Scenario #2.34	1,000	50	10,000	10,000	50,000	13%	26%	20%	53%	3%	6%	4%	35%
Scenario #2.35	1,000	50	10,000	10,000	100,000	15%	26%	21%	39%	2%	4%	3%	52%
Scenario #2.36	1,000	50	10,000	10,000	200,000	9%	18%	14%	26%	1%	3%	2%	68%
Scenario #2.37	1,000	50	10,000	10,000	400,000	5%	11%	8%	15%	1%	2%	1%	81%
Scenario #2.38	1,000	60	20,000	20,000	5,000	9%	16%	13%	72%	4%	12%	7%	5%
Scenario #2.39	1,000	75	50,000	50,000	7,000	13%	21%	17%	61%	4%	19%	10%	6%
Scenario #2.40	1,000	90	80,000	80,000	10,000	15%	25%	20%	54%	4%	23%	11%	7%
Scenario #2.41	1,000	120	100,000	100,000	15,000	18%	28%	23%	49%	5%	24%	12%	10%
Scenario #2.42	1,000	200	300,000	300,000	30,000	24%	35%	30%	32%	5%	32%	18%	13%
Scenario #2.43	1,000	300	500,000	500,000	50,000	27%	39%	33%	24%	6%	34%	21%	16%
Scenario #2.44	1,000	400	1,000,000	1,000,000	100,000	30%	38%	34%	16%	5%	35%	24%	21%
Scenario #2.45	1,000	500	2,000,000	2,000,000	200,000	28%	34%	31%	10%	4%	34%	27%	26%
Scenario #2.46	1,000	600	3,000,000	3,000,000	400,000	24%	35%	30%	6%	3%	30%	26%	34%
Scenario #2.47	1,000	50	3,000,000	3,000,000	400,000	63%	33%	48%	7%	0%	30%	27%	35%
Scenario #2.48	1,000	600	10,000	3,000,000	400,000	20%	14%	17%	9%	4%	1%	37%	48%
Scenario #2.49	1,000	600	3,000,000	10,000	400,000	9%	39%	24%	9%	4%	40%	1%	47%
Scenario #2.50	1,000	600	3,000,000	3,000,000	2,000	13%	14%	14%	10%	5%	45%	40%	0%

Notes:

- Each scenario includes a different mix of dwelling units, hotel rooms and non-residential development.
- Using the ITE 9th Edition handbook, AM and PM Peak Hour trip generation rates are applied to each land use and each development scenario. This results in the total AM and PM Peak Hour trips. Using the direction distribution provided in the ITE handbook, the “entering” and “exiting” trips are determined.
- The resulting trips are entered into the NCHRP internal capture model which outputs the internal capture percentages for both AM and PM Peak Hour.
- The average internal capture shown in the tab above reflects the average of the AM and PM Peak Hour internal capture.
- The trip distribution illustrates the proportion of trip that is attributed to each land use in each scenario. The scenarios which include a balanced distribution of trip tend to yield higher internal capture.

**Table A-18
Comparison of Mixed-Use Internal Capture**

Scenario	Single Family DU's	Hotel Rooms	Retail Sq Ft	Office Sq Ft	Restaurant Sq Ft	AM Peak Hr: IC %	PM Peak Hr: IC %	Average Internal Capture %	Trip Distribution				
									Single Family	Hotel	Retail	Office	Restaurant
Scenario #3.01	5,000	50	10,000	10,000	2,000	1%	3%	2%	95%	1%	2%	2%	1%
Scenario #3.02	5,000	60	10,000	10,000	2,000	1%	3%	2%	94%	1%	2%	2%	1%
Scenario #3.03	5,000	75	10,000	10,000	2,000	1%	3%	2%	94%	1%	2%	2%	1%
Scenario #3.04	5,000	90	10,000	10,000	2,000	1%	3%	2%	94%	2%	2%	2%	1%
Scenario #3.05	5,000	120	10,000	10,000	2,000	1%	3%	2%	93%	2%	2%	2%	1%
Scenario #3.06	5,000	200	10,000	10,000	2,000	1%	3%	2%	92%	3%	2%	2%	1%
Scenario #3.07	5,000	300	10,000	10,000	2,000	1%	4%	3%	91%	5%	2%	2%	1%
Scenario #3.08	5,000	400	10,000	10,000	2,000	1%	4%	3%	89%	6%	2%	2%	1%
Scenario #3.09	5,000	500	10,000	10,000	2,000	1%	4%	3%	88%	8%	2%	1%	1%
Scenario #3.10	5,000	600	10,000	10,000	2,000	1%	4%	3%	87%	9%	2%	1%	1%
Scenario #3.11	5,000	50	20,000	10,000	2,000	1%	4%	3%	93%	1%	3%	2%	1%
Scenario #3.12	5,000	50	50,000	10,000	2,000	2%	6%	4%	91%	1%	6%	2%	1%
Scenario #3.13	5,000	50	80,000	10,000	2,000	2%	7%	5%	89%	1%	8%	2%	1%
Scenario #3.14	5,000	50	100,000	10,000	2,000	2%	7%	5%	88%	1%	9%	1%	1%
Scenario #3.15	5,000	50	300,000	10,000	2,000	3%	11%	7%	80%	1%	18%	1%	0%
Scenario #3.16	5,000	50	500,000	10,000	2,000	3%	14%	9%	75%	1%	23%	1%	0%
Scenario #3.17	5,000	50	1,000,000	10,000	2,000	3%	17%	10%	66%	1%	32%	1%	0%
Scenario #3.18	5,000	50	2,000,000	10,000	2,000	3%	21%	12%	55%	1%	43%	1%	0%
Scenario #3.19	5,000	50	3,000,000	10,000	2,000	3%	23%	13%	49%	1%	49%	1%	0%
Scenario #3.20	5,000	50	10,000	20,000	2,000	1%	3%	2%	94%	1%	2%	2%	1%
Scenario #3.21	5,000	50	10,000	50,000	2,000	2%	3%	3%	93%	1%	2%	3%	1%
Scenario #3.22	5,000	50	10,000	80,000	2,000	2%	4%	3%	92%	1%	2%	4%	1%
Scenario #3.23	5,000	50	10,000	100,000	2,000	2%	4%	3%	91%	1%	2%	5%	1%
Scenario #3.24	5,000	50	10,000	300,000	2,000	3%	5%	4%	86%	1%	2%	11%	1%
Scenario #3.25	5,000	50	10,000	500,000	2,000	3%	5%	4%	81%	1%	2%	15%	0%
Scenario #3.26	5,000	50	10,000	1,000,000	2,000	3%	5%	4%	72%	1%	2%	25%	0%
Scenario #3.27	5,000	50	10,000	2,000,000	2,000	3%	5%	4%	60%	1%	1%	38%	0%
Scenario #3.28	5,000	50	10,000	3,000,000	2,000	3%	4%	4%	52%	1%	1%	46%	0%
Scenario #3.29	5,000	50	10,000	10,000	5,000	2%	4%	3%	94%	1%	2%	2%	1%
Scenario #3.30	5,000	50	10,000	10,000	7,000	2%	5%	4%	93%	1%	2%	2%	2%
Scenario #3.31	5,000	50	10,000	10,000	10,000	2%	5%	4%	93%	1%	2%	2%	3%
Scenario #3.32	5,000	50	10,000	10,000	15,000	2%	6%	4%	91%	1%	2%	2%	4%
Scenario #3.33	5,000	50	10,000	10,000	30,000	3%	8%	6%	88%	1%	2%	1%	8%
Scenario #3.34	5,000	50	10,000	10,000	50,000	4%	10%	7%	84%	1%	2%	1%	12%
Scenario #3.35	5,000	50	10,000	10,000	100,000	7%	12%	10%	74%	1%	2%	1%	22%
Scenario #3.36	5,000	50	10,000	10,000	200,000	10%	15%	13%	61%	1%	1%	1%	36%
Scenario #3.37	5,000	50	10,000	10,000	400,000	14%	18%	16%	45%	0%	1%	1%	53%
Scenario #3.38	5,000	60	20,000	20,000	5,000	2%	5%	4%	92%	1%	3%	2%	1%
Scenario #3.39	5,000	75	50,000	50,000	7,000	4%	7%	6%	88%	1%	6%	3%	2%
Scenario #3.40	5,000	90	80,000	80,000	10,000	5%	10%	8%	84%	2%	8%	4%	2%
Scenario #3.41	5,000	120	100,000	100,000	15,000	6%	12%	9%	81%	2%	9%	4%	4%
Scenario #3.42	5,000	200	300,000	300,000	30,000	11%	19%	15%	68%	3%	15%	8%	6%
Scenario #3.43	5,000	300	500,000	500,000	50,000	15%	24%	20%	59%	3%	18%	11%	9%
Scenario #3.44	5,000	400	1,000,000	1,000,000	100,000	20%	31%	26%	46%	3%	22%	16%	13%
Scenario #3.45	5,000	500	2,000,000	2,000,000	200,000	25%	37%	31%	33%	3%	25%	20%	19%
Scenario #3.46	5,000	600	3,000,000	3,000,000	400,000	27%	44%	36%	24%	3%	24%	22%	28%
Scenario #3.47	5,000	50	3,000,000	3,000,000	400,000	57%	41%	49%	24%	0%	25%	22%	29%
Scenario #3.48	5,000	600	10,000	3,000,000	400,000	23%	19%	21%	31%	3%	1%	28%	37%
Scenario #3.49	5,000	600	3,000,000	10,000	400,000	16%	48%	32%	30%	3%	30%	1%	36%
Scenario #3.50	5,000	600	3,000,000	3,000,000	2,000	10%	23%	17%	33%	3%	33%	30%	0%

Notes:

- Each scenario includes a different mix of dwelling units, hotel rooms and non-residential development.
- Using the ITE 9th Edition handbook, AM and PM Peak Hour trip generation rates are applied to each land use and each development scenario. This results in the total AM and PM Peak Hour trips. Using the direction distribution provided in the ITE handbook, the “entering” and “exiting” trips are determined.
- The resulting trips are entered into the NCHRP internal capture model which outputs the internal capture percentages for both AM and PM Peak Hour.
- The average internal capture shown in the tab above reflects the average of the AM and PM Peak Hour internal capture.
- The trip distribution illustrates the proportion of trips that is attributed to each land use in each scenario. The scenarios which include a balanced distribution of trips tend to yield higher internal capture.

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Table A-19 illustrates the projected internal capture reduction for local example developments. These development levels were derived from the County’s Comprehensive Plan Future Land Use Element. As shown, both developments are weighted toward residential in terms of trips and result in a limited internal capture.

**Table A-19
Orange County Internal Capture Example**

Secnario	Single Family DU's	Hotel Rooms	Retail Sq Ft	Office Sq Ft	AM Peak Hr: IC %	PM Peak Hr: IC %	Average Internal Capture %	Trip Distribution			
								Single Family	Hotel	Retail	Office
Innovation Place	5,500	200	1,235,000	2,267,000	9%	18%	14%	49%	1%	24%	25%
Sunbridge	7,400	500	880,000	5,470,000	8%	12%	10%	45%	2%	13%	40%

Source: NCHRP 684 Internal Capture Model

Development details for Innovation Place as shown in FLU 8.1.4 of the County’s Comprehensive Plan

Development details for Sunbridge as provided by staff via the “Sunbridge Fact Sheet”

APPENDIX B
Cost Component Calculations

Appendix B: Cost Component

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

- Design
- Right-of-Way
- Construction/CEI
- Roadway Capacity
- Transit Capital Costs

Design

The design cost per lane mile was based on a review of recently completed and ongoing projects in Orange County. As shown in Table B-1, projects in Orange County averaged approximately \$340,000 per lane mile for design. When compared to a local construction cost of approximately \$2.75 million (excluding CEI; as shown in Table B-5), design is equivalent to approximately 12 percent of the construction cost per lane mile. This ratio falls within the range observed in several other recent impact fee studies in Florida. As shown in Table B-2, design factors from other communities ranged from 6 percent to 14 percent with a weighted average of 11 percent.

For purposes of this study, the design cost for county roads was calculated at \$340,000, or approximately 12 percent of the construction cost (excluding CEI) per lane mile.

Table B-1
Design Cost for County Roads – Orange County

CIP #	Project Name	From	To	Year	Improvement	Length	Lanes Added	Lane Miles Added	Design Cost	Cost per Lane Mile
3017	Rock Springs Rd	Ponkan Rd	Kelly Park Rd	1996	2 to 4 Lanes	2.10	2	4.20	\$1,466,024	\$349,053
3038a	Clarcona-Ocoee Rd	Ocoee-Apopka Rd	Hiawasse Rd	2000	2 to 4 Lanes	5.08	2	10.16	\$2,106,461	\$207,329
3045	Holden Ave	JYP	OBT	2003	0/2 to 4 Lanes	1.24	2/4	3.50	\$1,295,324	\$370,093
3096a	Kennedy Blvd	All American Blvd	Wymore Rd	2000	2 to 4 Lanes	2.03	2	4.06	\$1,641,051	\$404,200
3097	All American Blvd	Edgewater Dr	Forest City Rd	2005	2 to 4 Lanes	1.06	2	2.12	\$1,361,667	\$642,296
5001a	John Young Pkwy	SR 528	FL Turnpike	2009	4 to 6 Lanes	2.34	2	4.68	\$816,979	\$174,568
5023	Edgewater Dr	Clarcona-Ocoee Rd	Pine Hills Rd	2005	2 to 4 Lanes	1.51	2	3.02	\$2,107,966	\$698,002
5024a	Econ Tr	Lake Underhill	SR 50	2008	2 to 4 Lanes	2.40	2	4.80	\$3,150,355	\$656,324
5027a	Texas Ave	Oak Ridge Rd	Holden Ave	2008	2 to 4 Lanes	1.76	2	3.52	\$1,419,796	\$403,351
5029a	Valencia College Ln	Goldenrod Rd	Econlockhatchee Tr	2007	2 to 4 Lanes	1.90	2	3.80	\$2,153,633	\$566,746
5059c	Woodbury Rd	S. of SR 50	Challenger Pkwy	2008	2 to 4 Lanes	0.65	2	1.30	\$538,566	\$414,282
5062a	Alafaya Tr	Avalon Park Blvd	Mark Twain Blvd	2005	2 to 4 Lanes	3.83	2	7.66	\$1,879,773	\$245,401
5066a	CR 535 Seg A	Magnolia Park Ct	SR 429	2007	2 to 4 Lanes	1.37	2	2.74	\$1,003,106	\$366,097
5066b	CR 535 Seg C&E	Ficquette Rd	Butler Ridge Rd	2007	2 to 4 Lanes	1.10	2	2.20	\$945,254	\$429,661
5067	CR 535 Seg F	Overstreet Rd	Fossick Rd	2013	2 to 4 Lanes	0.60	2	1.20	\$289,032	\$240,860
5068	Reams Rd	Delmar	Taborfield	2013	2 to 4 Lanes	0.36	2	0.72	\$166,519	\$231,276
5085a	Boggy Creek Rd	Osceola Co. Line	SR 417	2008	2 to 4 Lanes	1.19	2	2.38	\$1,614,195	\$678,233
5090b	Lake Underhill	Goldenrod Rd	Chickasaw Tr	2008	2 to 4 Lanes	0.69	2	1.38	\$670,883	\$486,147
5090d	Lake Underhill	Econlockhatchee Tr	Rouse Rd	2014	2 to 4 Lanes	1.87	2	3.74	\$1,602,515	\$428,480
5091	Wildwood	International Dr	Palm Pkwy	2011	2 to 4 Lanes	1.87	2	3.74	\$1,795,605	\$480,108
5101	Narcoossee Rd	Osceola Co. Line	SR 417	2008	2 to 6 Lanes	3.80	4	15.20	\$820,000	\$53,947
5102	Sand Lake Rd	President's Dr	FL Mall	2001	4 to 6 Lanes	1.00	2	2.00	\$896,820	\$448,410
5107	International Dr	Westwood Blvd	Westwood Blvd	2010	4 to 6 Lanes	2.20	2	4.40	\$1,015,146	\$230,715
5110	Taft-Vineland Rd	Central FL Pkwy	John Young Pkwy	2007	2 to 4 Lanes	0.50	2	1.00	\$555,370	\$555,370
5111	Wetherbee Rd	Balcombe Rd	Orange Ave	2010	2 to 4 Lanes	1.50	2	3.00	\$958,400	\$319,467
5140	Ficquette Rd	Summerlake Blvd	Overstreet Rd	2018	2 to 4 Lanes	1.50	2	3.00	\$1,368,055	\$456,018
Total								99.52	\$33,638,495	\$340,000

Source: Orange County Transportation Planning Division; Community, Environment & Development Services Department and Orange County Development Engineering Division. The data shown represent the full detail that was available.

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

Year	City/County	City/County Roadways (Cost per Lane Mile)		
		Design	Constr.	Design Ratio
2012	Osceola	\$371,196	\$2,651,400	14%
2012	City of Orlando	\$288,000	\$2,400,000	12%
2012	City of Sarasota	\$240,000	\$2,400,000	10%
2013	Hernando	\$198,000	\$1,980,000	10%
2013	Charlotte	\$220,000	\$2,200,000	10%
2014	Indian River	\$159,000	\$1,598,000	10%
2015	Collier	\$270,000	\$2,700,000	10%
2015	Brevard	\$242,000	\$2,023,000	12%
2015	Sumter	\$210,000	\$2,100,000	10%
2015	Marion	\$167,000	\$2,668,000	6%
2015	Palm Beach	\$224,000	\$1,759,000	13%
2016	Hillsborough	\$348,000	\$2,897,000	12%
2016	St. Lucie	\$220,000	\$2,200,000	10%
2017	Clay	\$239,000	\$2,385,000	10%
2018	City of Tampa	\$403,000	\$3,100,000	13%
2018	City of Hallandale Beach	\$171,000	\$1,710,000	10%
2018	City of Oviedo	\$319,000	\$2,900,000	11%
2018	Collier	\$385,000	\$3,500,000	11%
Average		\$259,678	\$2,398,411	11%

Source: Recent impact fee studies conducted throughout Florida

Right-of-Way

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

To estimate the ROW cost for Orange County, Tindale Oliver conducted a review of recently completed ROW acquisitions along capacity expansion projects in Orange County and reviewed ROW-to-construction cost ratios from recent transportation impact fee studies from other counties in Florida. As shown in Table B-3, recent ROW costs from 17 Orange County improvements indicated a weighted average cost of approximately \$1.20 million per lane mile. This cost was then compared to the weighted average construction cost per added lane mile (\$2.75 million, shown in Table B-5) for recent Orange County improvement projects, calculating a ROW-to-construction ratio of approximately 44 percent. This ratio is within the range of the ROW-to-construction factors for recent studies throughout Florida, which ranged from 26 percent to 60 percent with an average of 41 percent (see Table B-4 for additional detail).

Table B-3
Right-of-Way Cost for County Roads – Orange County

CIP #	Project Name	From	To	Year	Improvement	Length	Lanes Added	Lane Miles Added	ROW Cost	Cost per Lane Mile
3017	Rock Springs Rd	Ponkan Rd	Kelly Park Rd	2008	2 to 4 Lanes	2.10	2	4.20	\$1,893,491	\$450,831
3018a	Rouse Rd	Lake Underhill	Corporate Blvd	2011	2 to 4 Lanes	4.15	2	8.30	\$26,918,176	\$3,243,154
3038a	Clarcona-Ocoee Rd	Ocoee-Apopka Rd	Hiawasse Rd	2009	2 to 4 lanes	5.08	2	10.16	\$15,082,963	\$1,484,544
3045	Holden Ave	JYP	OBT	2015	0/2 to 4 Lanes	1.24	2/4	3.50	\$12,874,389	\$3,678,397
3097	All American Blvd	Edgewater Dr	Forest City Rd	TBD	2 to 4 Lanes	1.06	2	2.12	\$11,288,484	\$5,324,757
5024b	Econ Trail	SR 408	SR 50	2015	2 to 4 Lanes	1.376	2	2.75	\$1,312,402	\$477,237
5029c	Valencia College Ln	OOCEA	Econlockhatchee Tr	2013	2 to 4 Lanes	0.90	2	1.80	\$5,334,487	\$2,963,604
5062a	Alafaya Tr	Avalon Park Blvd	Mark Twain Blvd	2011	2 to 4 Lanes	3.83	2	7.66	\$723,164	\$94,408
5066a	CR 535 Seg A	Magnolia Park Ct	SR 429	2011	2 to 4 Lanes	1.37	2	2.74	\$2,552,940	\$931,730
5066b	CR 535 Seg C&E	Fiquette Rd	Butler Ridge Rd	2008	2 to 4 Lanes	1.10	2	2.20	\$1,960,704	\$891,229
5067	CR 535 Seg F	Overstreet Rd	Fossick Rd	2016	2 to 4 Lanes	0.60	2	1.20	\$110,485	\$92,071
5068	Reams Rd	Delmar	Taborfield	2015	2 to 4 Lanes	0.36	2	0.72	\$13,884	\$19,283
5085c	Boggy Creek Rd North	BCID Intersection	SR 417	-	2 to 4 Lanes	0.21	2	0.42	\$883,168	\$2,102,781
5089b	Destination Pkwy 1A	International Dr	Tradeshow Blvd	2008	2 to 4 Lanes	0.35	2	0.70	\$1,758,440	\$2,512,057
5090b	Lake Underhill	Goldenrod Rd	Chickasaw Tr	2012	2 to 4 Lanes	0.69	2	1.38	\$30,686	\$22,236
5101	Narcoossee Rd	Osceola Co. Line	SR 417	2012	2 to 6 Lanes	3.80	4	15.20	\$201,064	\$13,228
5107	International Dr	Westwood Blvd	Westwood Blvd	2013	4 to 6 Lanes	2.20	2	4.40	\$22,425	\$5,097
Total								69.45	\$82,961,352	\$1,200,000

Source: Orange County Transportation Planning Division; Community, Environment & Development Services Department and Orange County Development Engineering Division. The data shown represent the full detail that staff was able to provide

Table B-4
Right-of-Way Cost Factor for County – Recent Impact Fee Studies

Year	City/County	City/County Roadways (Cost per Lane Mile)		
		ROW	Constr.	ROW Ratio
2012	Osceola	\$1,087,074	\$2,651,400	41%
2012	City of Orlando	\$1,080,000	\$2,400,000	45%
2012	City of Sarasota	\$620,000	\$2,400,000	26%
2013	Hernando	\$811,800	\$1,980,000	41%
2013	Charlotte	\$1,034,000	\$2,200,000	47%
2014	Indian River	\$656,000	\$1,598,000	41%
2015	Collier	\$863,000	\$2,700,000	32%
2015	Brevard	\$708,000	\$2,023,000	35%
2015	Sumter	\$945,000	\$2,100,000	45%
2015	Marion	\$1,001,000	\$1,668,000	60%
2015	Palm Beach	\$721,000	\$1,759,000	41%
2016	Hillsborough	\$1,448,000	\$2,897,000	50%
2016	St. Lucie	\$990,000	\$2,200,000	45%
2017	Clay	\$954,000	\$2,385,000	40%
2018	Collier	\$1,208,000	\$3,500,000	35%
Average		\$941,792	\$2,297,427	41%

Source: Recent impact fee studies conducted throughout Florida

Construction/CEI

The construction/CEI cost for county roads (curb & gutter, urban section design) was based on Orange County projects and the cost of recent projects in other communities in Florida. As shown in Table B-5, the review of construction data calculated a weighted average cost of \$3.00 million per lane mile. It should be noted that the construction cost data in Table B-5 include construction engineering and inspection (CEI) costs. Based on the CEI-to-construction cost ratios observed in recent impact fee studies throughout Florida (approximately 9 percent), the CEI and construction portions of the cost per lane mile figure were estimated.

- Construction ≈ \$2,750,000
- CEI ≈ \$250,000

In addition to Orange County improvements, recent bids/completed projects from other communities throughout Florida were reviewed to increase the sample size of data. This review, as shown in Table B-6, included approximately 147 lane miles of improvements across 13 different counties, averaging \$2.87 million per lane mile. However, the construction cost data for these improvements do not include associated CEI costs. With CEI estimated at approximately nine percent of construction costs (based on recently completed impact fee studies throughout Florida), the statewide figure would increase to approximately \$3.10 million per lane mile for County roads.

Based on the recent Orange County projects and supported by the projects from throughout Florida, a construction cost of **\$3.00 million** per lane mile was used in the impact fee calculation.

**Table B-5
Construction/CEI Cost for County Roads – Orange County**

CIP #	Project Name	From	To	Year	Improvement	Length	Lanes Added	Lane Miles Added	Construction/CEI Cost	Cost per Lane Mile
3018a	Rouse Rd	Lake Underhill Rd	SR 50	2013	2 to 4 Lanes	1.55	2	3.10	\$8,343,305	\$2,691,389
3038a	Clarcona-Ocoee Rd	SR 429	Clark Rd	2012	2 to 4 Lanes	2.13	2	4.26	\$8,608,970	\$2,020,885
3045	Holden Ave	John Young Pkwy	Orange Blossom Tr	2019	0/2 to 4 Lanes	1.24	2/4	3.50	\$20,657,990	\$5,902,283
3095	Palm Pkwy/AVR Connector	Palm Pkwy	Apopka-Vineland Rd	2019	0 to 4 Lanes	1.50	4	6.00	\$7,927,033	\$1,321,172
5001a	John Young Parkway	SR 528	FL Turnpike	2012	4 to 6 Lanes	2.34	2	4.68	\$14,108,710	\$3,014,682
5024b	Econ Trail	SR 408	SR 50	2012	2 to 4 Lanes	1.376	2	2.75	\$8,805,928	\$3,202,156
5067	CR 535 Seg F	Overstreet Rd	Fossick Rd	2014	2 to 4 Lanes	0.60	2	1.20	\$3,586,534	\$2,988,778
5068	Reams Rd	Delmar Ave	Taborfield Ave	2017	2 to 4 Lanes	0.36	2	0.72	\$3,746,796	\$5,203,883
5089c	Destination Pkwy 1B/2A	Tradeshow Blvd	Lake Cay	2017	2 to 4 Lanes	0.78	2	1.56	\$6,714,729	\$4,304,313
5090b	Lake Underhill Rd	Goldenrod Rd	Chickasaw Tr	2013	2 to 4 Lanes	0.69	2	1.38	\$7,002,038	\$5,073,941
5107	International Dr	Westwood Blvd	Westwood Blvd	2015	4 to 6 Lanes	2.20	2	4.40	\$18,435,028	\$4,189,779
-	Porter Rd	Avalon Rd	Hamlin Groves Tr	2018	2 to 4 lanes	1.06	2	2.12	\$3,118,145	\$1,470,823
-	Innovation Way Seg 3B	Magnolia Woods Blvd	Yellow Jasmine Dr	2018	0 to 2 lanes	0.30	2	0.61	\$596,909	\$978,539
-	Boggy Creek Rd North	South Access Rd	Wetherbee Rd	2019	2 to 4 lanes	1.29	2	2.58	\$9,434,917	\$3,656,945
-	Hamlin Groves Ph I	New Independence Pkwy	N. approx 2800 LF	2017	0 to 4 Lanes	0.62	4	2.48	\$2,272,939	\$916,508
Total (Construction & CEI)								41.34	\$123,359,971	\$3,000,000
Estimated CEI Portion⁽¹⁾										\$250,000
Estimated Construction Portion⁽¹⁾										\$2,750,000

1) The CEI portion was estimated based on the CEI-to-construction cost ratios observed in several recent impact fee studies throughout Florida, which average approximately 9% of the construction costs (per lane mile)

Source: Orange County Transportation Planning Division; Community, Environment & Development Services Department and Orange County Development Engineering Division. The data shown represent the full detail that staff was able to provide

**Table B-6
Construction Cost for County Roads - Improvements from Other Jurisdictions throughout Florida**

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile	
Indian River	4	Oslo Rd Ph. III	43rd Ave	58th Ave	2012	Bid	2 to 4	Urban	1.15	2	2.30	\$3,812,202	\$1,657,479	
Indian River	4	66th Ave	SR 60	49th St	2012	Bid	2 to 4	Urban	3.05	2	6.10	\$20,773,389	\$3,405,474	
Polk	1	Kathleen Rd (CR 35A) Ph. II	Galloway Rd	Duff Rd	2012	Bid	2 to 4	Urban	3.00	2	6.00	\$17,813,685	\$2,968,948	
Polk	1	Bartow Northern Connector Ph. I	US 98	US 17	2012	Bid	0 to 4	Urban	2.00	4	8.00	\$11,255,736	\$1,406,967	
Volusia	5	Tymber Creek Rd	S. of SR 40	N. of Peruvian Ln	2012	Bid	2 to 4	Urban	0.89	2	1.78	\$5,276,057	\$2,964,077	
Palm Beach	4	Jog Rd	N. of SR 710	N. of Florida's Turnpike	2012	Bid	0 to 4	Urban	0.70	4	2.80	\$3,413,874	\$1,219,241	
Palm Beach	4	West Atlantic Ave	W. of Lyons Rd	Starkey Rd	2012	Bid	2 to 4	Urban	0.80	2	1.60	\$8,818,727	\$5,511,704	
Palm Beach	4	60th St N & SR 7 Ext.	E. of Royal Palm Beach Blvd	SR 7	2012	Bid	0 to 2	Urban	1.50	2	3.00	\$3,821,404	\$1,273,801	
Brevard	5	Babcock St	S. of Foundation Park Blvd	Malabar Rd	2013	Bid	2 to 4	Urban	12.40	2	24.80	\$56,000,000	\$2,258,065	
Collier	1	Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2013	Bid	4 to 6	Urban	2.00	2	4.00	\$17,122,640	\$4,280,660	
Marion	5	SW 110th St	US 41	SW 200th Ave	2013	Bid	0 to 2	Urban	0.11	2	0.22	\$438,765	\$1,994,386	
Marion	5	NW 35th St	NW 35th Avenue Rd	NW 27th Ave	2013	Bid	0 to 4	Urban	0.50	4	4.60	\$8,616,236	\$1,873,095	
Marion	5	NW 35th St	NW 27th Ave	US 441	2013	Bid	2 to 4	Urban	1.30	2				
Sumter	5	C-466A, Ph. III	US 301 N	Powell Rd	2013	Bid	2 to 3/4	Urban	1.10	2	2.20	\$4,283,842	\$1,947,201	
Collier	1	Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	Bid	2 to 4	Urban	2.40	2	4.80	\$16,003,504	\$3,334,063	
Brevard	5	St. Johns Heritage Pkwy	SE of I-95 Intersection	US 192 (Space Coast Pkwy)	2014	Bid	0 to 2	Sub-Urb	3.11	2	6.22	\$16,763,567	\$2,695,107	
Hillsborough	7	Turkey Creek Rd	Dr. MLK Blvd	Sydney Rd	2014	Bid	2 to 4	Urban	1.40	2	2.80	\$6,166,000	\$2,202,143	
Sarasota	1	Bee Ridge Rd	Mauna Loa Blvd	Iona Rd	2014	Bid	2 to 4	Urban	2.68	2	5.36	\$14,066,523	\$2,624,351	
St. Lucie	4	W Midway Rd (CR 712)	Selvitz Rd	South 25th St	2014	Bid	2 to 4	Urban	1.00	2	2.00	\$6,144,000	\$3,072,000	
Lake	5	N Hancock Rd Ext.	Old 50	Gatewood Dr	2014	Bid	0/2 to 4	Urban	1.50	2/4	5.00	\$8,185,574	\$1,637,115	
Polk	1	CR 655 & CR 559A	Pace Rd & N of CR 559A	N of CR 559A & SR 599	2014	Bid	2 to 4	Urban	2.60	2	5.20	\$10,793,552	\$2,075,683	
Volusia	5	Howland Blvd	Courtland Blvd	N of SR 415	2014	Bid	2 to 4	Urban	2.08	2	4.16	\$11,110,480	\$2,670,788	
Hillsborough	7	Citrus Park Extension	Sheldon Dr	Countryway Blvd	2015	Bid	0 to 4	Urban	2.70	4	10.80	\$46,942,585	\$4,346,536	
Polk	1	Ernie Caldwell Blvd	Pine Tree Tr	US 17/92	2015	Bid	0 to 4	Urban	2.41	4	9.64	\$19,535,391	\$2,026,493	
Volusia	5	LPGA Blvd	Jimmy Ann Dr/Grand Reserve	Derbyshire Rd	2016	Bid	2 to 4	Urban	0.68	2	1.36	\$3,758,279	\$2,763,440	
St. Lucie	4	W Midway Rd (CR 712)	W. of South 25th St	E. of SR 5 (US 1)	2016	Bid	2 to 4	Urban	1.77	2	3.54	\$24,415,701	\$6,897,091	
Volusia	5	Howland Blvd	Providence Blvd	Elkcam Blvd	2017	Bid	2 to 4	Urban	2.15	2	4.30	\$10,850,000	\$2,523,256	
Volusia	5	Orange Camp Rd	MLK Blvd	I-4 in DeLand	2017	Bid	2 to 4	Urban	0.75	2	1.50	\$10,332,000	\$6,888,000	
Lake	5	CR 466A, Ph. IIIA	Poinsettia Ave	Century Ave	2018	Bid	2 to 4	Urban	0.42	2	0.84	\$3,062,456	\$3,645,781	
Lee	1	Alico Rd	Ben Hill Griffin Pkwy	E. of Airport Haul Rd	2018	Bid	2 to 4	Urban	1.78	2	3.56	\$18,062,562	\$5,073,753	
Lee	1	Homestead Rd	S. of Sunrise Blvd	N. of Alabama Rd	2018	Bid	2 to 4	Urban	2.25	2	4.50	\$14,041,919	\$3,120,426	
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:	32	147.08	\$421,680,650	\$2,870,000

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

Roadway Capacity

As shown in Table B-7, the average capacity per lane mile was based on the projects in the Metroplan 2040 Long Range Transportation Plan's Cost Feasible and Needs Plans. This listing of projects reflects the mix of improvements that will yield the vehicle-miles of capacity (VMC) that will be built in Orange County. The resulting weighted average capacity per lane mile of approximately 9,000 was used in the transportation impact fee calculation.

Transit Capital Costs – Multi-Modal Fee

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

First, Table B-8 calculates the person-miles of capacity added for each new transit vehicle on the road. This calculation adjusts for the fact that buses have a significantly higher person-capacity than passenger vehicles. This table also identifies transit capital cost variables that will be used to calculate the added capital cost of constructing/expanding a roadway with transit facilities.

Next, Table B-9 combines the roadway VMC and the transit PMC to calculate the marginal change in cost per PMC. First, the roadway characteristics, including cost and capacity, were used to calculate the roadway cost per VMC for a generic 26-mile roadway segment. Then, an adjustment factor was applied to recognize that incorporating transit along a segment of roadway decreases the vehicle-capacity as the bus makes intermittent stops and interrupts the free-flowing traffic. As shown in Table B-9, the bus blockage adjustment factor is much higher for a 2-lane roadway than for a 4-lane roadway. On a 2-lane road, all cars get caught behind the bus during a stop, while on a 4-lane roadway, there is an unobstructed travel lane that cars can use to pass-by or maneuver around the slower transit vehicle. This adjusted VMC was then converted to PMC using the vehicle-miles to person-miles adjustment factor (1.40) previously discussed in this report. The additional person-capacity from the buses was added to the adjusted roadway PMC. The person-miles of capacity that a transit system would add to the stretch of roadway (Table B-8) mitigates the decrease in vehicle-miles of capacity due to the bus blockage adjustments.

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

As a final step, the increased costs were then weighted by the lane mile distribution of new road construction and lane addition improvements in the Metroplan 2040 Long Range Transportation Plan. As shown, the plan calls for a higher number of lane addition improvements through 2040.

When the marginal cost of transit is included and weighted by this ratio, the resulting percent change is approximately 2.66 percent. Essentially, adding transit does not have a significant effect on the cost per person-mile of capacity for new road construction and lane addition improvements.

As it is currently structured, the transit model detailed in Tables B-8 and B-9 assumes that transit-miles and road-miles will be added to the system at the same rate. If the County builds more transit-miles, this will increase the bus traffic on existing roads, adding more stops, higher stop frequency, and creating additional bus blockage. As a result, the capital cost per person-mile for a roadway with transit would increase in relation to the ratio of added transit-miles vs. roadway-miles. For example, if the transit-mile investment was double that of roadway construction/expansion, the 2.66 percent change calculated in Table B-9 would increase to approximately 5.32 percent. The annual construction figures for transit-miles and road-miles should be tracked by the County and adjusted for in subsequent transportation impact fee update studies.

**Table B-8
Multi-Modal Cost per Person-Mile of Capacity**

Input	Local Transit	
Transit Person-Miles of Capacity Calculation		Source:
Vehicle Capacity ⁽¹⁾	50	1) Source: Local transit is assumed to have 40 seats with a 25 percent standing room capacity equivalent
Number of Vehicles (20% fleet margin) ⁽²⁾	2	2) Cycle time (Item 9) divided by headway time (Item 6) increased by 20 percent to accommodate the required fleet margin
Service Span (hours) ⁽³⁾	16	3) Source: Assumption based on current LYNX routes
Cycles/Hour (aka Peak Vehicles) ⁽⁴⁾	1.00	4) Headway time (Item 6) divided by 60
Cycles per Day ⁽⁵⁾	16	5) Service span (Item 3) multiplied by the cycles/hour (Item 4)
Headway Time (minutes) ⁽⁶⁾	60	6) Source: Assumption based on current LYNX routes
Speed (mph) ⁽⁷⁾	14	7) Source: Integrated National Transit Database Analysis System (INTDAS). 6-yr average
Round Trip Length (miles) ⁽⁸⁾	26.0	8) Source: Average trip length of current LYNX routes
Cycle Time (minutes) ⁽⁹⁾	111	9) Round trip length (Item 8) divided by speed (Item 7) multiplied by 60
Total Person-Miles of Capacity ⁽¹⁰⁾	20,800	10) Vehicle capacity (Item 1) multiplied by the cycles per day (Item 5) multiplied by the round trip length (Item 8)
Load Factor/System Capacity ⁽¹¹⁾	30%	11) Source: Optimistic assumption based on future goals
Adjusted Person-Miles of Capacity ⁽¹²⁾	6,240	12) Total person-miles of capacity (Item 10) multiplied by the load factor (Item 11)
Capital Cost Variables		
Stops per Mile (w/o Shelter) ⁽¹³⁾	3	13) Source: Model assumes 3 bench stops per mile
Shelters per Mile ⁽¹⁴⁾	1	14) Source: Model assumes 1 shelter stop per mile
Vehicle Cost ⁽¹⁵⁾	\$600,000	15) Source: Assumption based on local characteristics and industry knowledge
Simple Bus Stop ⁽¹⁶⁾	\$10,000	16) Source: Assumption based on local characteristics and industry knowledge
Sheltered Bus Stop ⁽¹⁷⁾	\$30,000	17) Source: Assumption based on local characteristics and industry knowledge

**Table B-9
Multi-Modal Fee: Transit Component Model**

Item	New Road Construction		Lane Additions	
	Roadway	Transit	Roadway	Transit
Roadway Characteristics:				
Roadway Cost per Mile ⁽¹⁾	\$9,080,000		\$9,080,000	
Roadway Segment Length (miles) ⁽²⁾	26.0		26.0	
Roadway Segment Cost ⁽³⁾	\$236,080,000	PMC	\$236,080,000	PMC
Average Capacity Added (per mile) ⁽⁴⁾	18,000	25,200	18,000	25,200
VMC/PMC Added (entire segment) ⁽⁵⁾	468,000	655,200	468,000	655,200
Roadway Cost per VMC/PMC ⁽⁶⁾	\$504.44	\$360.32	\$504.44	\$360.32
Transit Capacity:				
Adjustment for Bus Blockage ⁽⁷⁾	3.2%	-	1.6%	-
VMC/PMC Added (transit deduction) ⁽⁸⁾	14,976	20,966	7,488	10,483
VMC/PMC Added (less transit deduction) ⁽⁹⁾	453,024	634,234	460,512	644,717
PMC Added (transit addition ONLY) ⁽¹⁰⁾		6,240		6,240
Net PMC Added (transit effect included) ⁽¹¹⁾		640,474		650,957
Road/Transit Cost per PMC (Road Capital) ⁽¹²⁾		\$368.60		\$362.67
Transit Infrastructure:				
Buses Needed ⁽¹³⁾	2	\$1,200,000	2	\$1,200,000
Stops per mile (both sides of street) ⁽¹⁴⁾	3	\$1,560,000	3	\$1,560,000
Shelters per mile (both sides of street) ⁽¹⁵⁾	1	<u>\$1,560,000</u>	1	<u>\$1,560,000</u>
Total infrastructure ⁽¹⁶⁾		\$4,320,000		\$4,320,000
Multi-Modal Cost per PMC:				
Road/Transit Cost per PMC ⁽¹⁷⁾		\$375.35		\$369.30
Percent Change ⁽¹⁸⁾		4.17%		2.49%
Weighted Multi-Modal Cost per PMC:				
Lane Mile Distribution w/Transit Facilities ⁽¹⁹⁾		10%		90%
Weighted Roadway Cost per PMC ⁽²⁰⁾		\$36.03		\$324.29
Weighted Road/Transit Cost per PMC ⁽²¹⁾		\$37.53		\$332.37
Weighted Average Multi-Modal Cost per PMC:				
Weighted Average Roadway Cost per PMC (new road construction and lane additions) ⁽²²⁾				\$360.32
Weighted Average Road/Transit Cost per PMC (new road construction and lane additions) ⁽²³⁾				\$369.90
Percent Change ⁽²⁴⁾				2.66%

Source:

- 1) Source: Table 1, adjusted to cost "per mile"
- 2) Source: Average length of LYNX route
- 3) Roadway cost per mile (Item 1) multiplied by the roadway segment length (Item 2)
- 4) Source: Table 2, adjusted to capacity "per mile"
- 5) Roadway segment length (Item 2) multiplied by the average capacity added (Item 4) for both VMC and PMC
- 6) Roadway segment cost (Item 3) divided by the VMC/PMC added (Item 5) individually
- 7) Source: 2010 Highway Capacity Manual, Equation 18-9
- 8) VMC added (Item 5) multiplied by the adjustment for bus blockage (Item 7). For PMC, multiply the VMC by 1.40 persons per vehicle
- 9) VMC/PMC added (entire segment) (Item 5) less the VMC/PMC added (transit deduction) (Item 8) for VMC and PMC individually
- 10) Source: Table B-8, Adjusted Person-Miles of Capacity (Item 12)
- 11) PMC added (less transit deduction) (Item 9) plus the PMC added (transit addition ONLY) (Item 10)
- 12) Road segment cost (Item 3) divided by the net PMC added (transit effect included) (Item 11)
- 13) Number of vehicles (see Table B-8, Item 2) multiplied by the vehicle cost (see Table B-8, Item 15)
- 14) Stops per mile (3) multiplied by the roadway segment length (Item 2) multiplied by the cost per stop (Table B-8, Item 16)
- 15) Shelters per mile (1) multiplied by the roadway segment length (Item 2) multiplied by the cost per shelter (Table B-8, Item 17)
- 16) Sum of buses needed (Item 13), stops needed (Item 14), and shelters needed (Item 15)
- 17) Sum of the roadway segment cost (Item 3) and the total transit infrastructure cost (Item 16) divided by the net PMC added (Item 11)
- 18) Percent difference between the road/transit cost per PMC (Item 17) and the Roadway cost per PMC (Item 6)
- 19) Source: Estimate based on mix of Cost Feasible and Needs Plan improvements
- 20) Roadway cost per PMC (Item 6) multiplied by the lane mile distribution (Item 19)
- 21) Road/Transit cost per PMC (Item 17) multiplied by the lane mile distribution (Item 19)
- 22) Sum of the weighted roadway cost per PMC (Item 20) for new road construction and lane additions
- 23) Sum of the weighted road/transit cost per PMC (Item 21) for new road construction and lane additions
- 24) Percent difference between the weighted average road/transit cost per PMC (Item 23) and the weighted average roadway cost per PMC (Item 22)

APPENDIX C
Credit Component Calculations

Appendix C: Credit Component

This appendix presents the detailed calculations for the credit component. Of the available funding sources, County fuel taxes that are collected in Orange 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.
- Orange County currently dedicates these revenues to capacity improvements and operations/maintenance.

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.
- Orange County currently dedicates these revenues to capacity improvements and operations/maintenance.

3. 1st Local Option Tax (up to 6¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county.
- Proceeds may be used to fund transportation expenditures.

- To accommodate statewide equalization, all six cents are automatically levied on diesel fuel in every county, regardless of whether a county is levying the tax on motor fuel at all or at the maximum rate.
- Proceeds are distributed to a county and its municipalities according to a mutually agreed upon distribution ratio, or by using a formula contained in the Florida Statutes.
- Orange County currently dedicates a small portion to capacity expansion, with most of these revenues going towards operations/maintenance.

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 2019-20 data represent projected fuel tax distributions to Orange 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 \$7.2 million of annual revenue will be generated for the County from one penny of fuel tax in Orange County.

Table C-1
Estimated Fuel Tax Distribution Allocated to Capital Programs for
Orange County & Municipalities, FY 2019-20⁽¹⁾

Tax	Amount of Levy per Gallon	Total Distribution	Distribution per Penny
Constitutional Fuel Tax	\$0.02	\$12,989,743	\$6,494,872
County Fuel Tax	\$0.01	\$5,714,513	\$5,714,513
1st Local Option (1-6 cents)	\$0.06	\$46,070,352	\$7,678,392
Total	\$0.09	\$64,774,608	
Weighted Average per Penny⁽²⁾			\$7,197,179

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

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

- City (Orlando) capital project funding (cash funding)

- County capital project funding (cash funding)
 - INVEST, fuel tax, proportionate fair share fund
 - LYNX capital contribution
 - Ad Valorem funding (separate credit calculations are included in Appendix D)
- State capital project funding

The annual expenditures from each revenue source (except for ad valorem tax revenues) are converted to equivalent fuel tax pennies to be able to create a connection between travel by each land use and non-impact fee revenue contributions. In the case of ad valorem tax revenues used toward capacity expansion projects, the credit is based on average taxable value of each land use. These calculations are included in Appendix D.

City Capital Project Funding (Roads ONLY)

A review of Orlando’s future roadway financing programs indicate that the City is primarily funding roadway capacity-expansion improvements with fuel tax revenues. As shown in Table C-2, a City credit of 0.1 pennies will be included in the roadway impact fee calculation.

Table C-2
City Fuel Tax Equivalent Pennies - Roadways

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽²⁾	Equivalent Pennies ⁽³⁾
Fuel Tax Expenditures (FY 2019-2023) ⁽¹⁾	\$2,580,000	5	\$7,197,179	\$0.001
Total				\$0.001

1) Source: Table C-8

2) Source: Table C-1

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

County Capital Project Funding (Roads ONLY)

A review of the County’s future roadway financing programs indicated that a combination of fuel tax, INVEST, and proportionate fair share revenues are used to fund roadway capacity expansion projects, in addition to ad valorem funds (see Appendix D) and impact fee funds (not credit eligible). As shown in Table C-3, Orange County uses 4.9 equivalent pennies for capacity-expansion projects such as new road construction, lane additions, and intersection improvements.

**Table C-3
County Fuel Tax Equivalent Pennies - Roadways**

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Fuel Tax/Prop. Share Exp. (FY 2019-2023) ⁽¹⁾	\$43,060,482	5	\$7,197,179	\$0.012
INVEST, CIP funds ⁽²⁾	\$132,953,070	5	\$7,197,179	\$0.037
Total	\$176,013,552			\$0.049

1) Source: Table C-9

2) Source: Table C-9

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 (Roads ONLY)

In the calculation of the equivalent pennies of fuel tax from the State, expenditures on roadway capacity-expansion spanning a 10-year period (from FY 2010 to FY 2019) were reviewed. From these expenditures, a list of improvements was developed, including lane additions, new road construction, intersection improvements, interchanges, traffic signal projects, etc. The use of a 10-year period, for purposes of developing a State credit for roadway capacity-expansion projects, results in a stable credit, as it accounts for the volatility in FDOT spending in the county over short periods of time.

The total cost of the historical roadway capacity-expansion projects:

- FY 2010-2014 work plan equates to 9.1 pennies
- FY 2015-2019 work plan equates to 8.0 pennies

The combined weighted average over the 16-year period of state expenditure for capacity-expansion roadway projects results in a total of 9.3 equivalent pennies. Table C-4 documents this calculation. The specific projects that were used in the equivalent penny calculations are summarized in Table C-4.

**Table C-4
State Fuel Tax Equivalent Pennies - Roadways**

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Historical Work Program (FY 2015-2019) ⁽¹⁾	\$286,550,946	5	\$7,197,179	\$0.080
Historical Work Program (FY 2010-2014) ⁽²⁾	\$328,449,775	5	\$7,197,179	\$0.091
Total	\$615,000,721	10	\$7,197,179	\$0.085

1) Source: Table C-10

2) Source: Table C-10

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

Capital Improvement Credit – Multi-Modal

For the multi-modal fee, the capital improvement credit includes the roadway expenditures previously detailed along with the capacity-expansion expenditures for multi-modal improvements in Orange County.

City Capital Project Funding (Multi-Modal)

A review of Orlando’s future transportation financing programs indicate that the City is primarily funding capacity-expansion improvements with fuel tax revenues. As shown in Table C-5, a City credit of 0.3 pennies will be included in the multi-modal transportation impact fee calculation.

**Table C-5
City Fuel Tax Equivalent Pennies – Multi-Modal**

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Fuel Tax Expenditures (FY 2019-2023) ⁽¹⁾	\$12,561,000	5	\$7,197,179	\$0.003
Total				\$0.003

1) Source: Table C-8

2) Source: Table C-1

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

County Capital Project Funding (Multi-Modal)

As shown in Table C-6, when capacity funding for multimodal projects is considered, Orange County uses 5.4 equivalent pennies from non-impact fee and non-ad valorem funding for projects such as new road construction, lane additions, transit lanes, sidewalks, and intersection improvements. A separate ad valorem credit analysis is located in Appendix D.

**Table C-6
County Fuel Tax Equivalent Pennies – Multi-Modal**

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽⁴⁾	Equivalent Pennies ⁽⁵⁾
Fuel Tax/Prop. Share Exp. (FY 2019-2023) ⁽¹⁾	\$53,060,482	5	\$7,197,179	\$0.015
INVEST, CIP funds ⁽²⁾	\$132,953,070	5	\$7,197,179	\$0.037
LYNX Capital Contribution ⁽³⁾	\$1,793,000	1	\$7,197,179	\$0.002
Total	\$187,806,552			\$0.054

1) Source: Table C-9

2) Source: Table C-9

3) Source: LYNX Funding Detail Report, September 2019

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

State Capital Project Funding (Multi-Modal)

In the calculation of the equivalent pennies of fuel tax from the State, expenditures on transportation capacity-expansion spanning a 10-year period (from FY 2010 to FY 2019) were reviewed. From these, a list of improvements was developed, including lane additions, new road construction, intersection improvements, interchanges, traffic signal projects, vehicle acquisition, capital for fixed route service, sidewalks etc.

Several of the transit expenditures did not contain enough detail to determine if the expenditure was capacity expansion or operations/maintenance. For example, vehicle purchases are grouped into a single expenditure without indicating if the vehicles are replacements or are associated with expanded service. Therefore, the total transit expenditures were adjusted to 60 percent to account for the portion of expenditures associated with operations/maintenance. The use of a 60 percent adjustment factor was based on the distribution of Section 5307 expenditures projected in the County’s latest Transit Development Plan.

The total cost of the historical transportation capacity-expansion projects:

- FY 2010-2014 work plan equates to 13.4 pennies
- FY 2015-2019 work plan equates to 14.6 pennies

The combined weighted average over the 10-year period of state expenditure for multi-modal capacity-expansion projects results in a total of 14.0 equivalent pennies. Table C-7 documents this calculation. The specific projects that were used in the equivalent penny calculations are summarized in Tables C-10 and C-11.

**Table C-7
State Fuel Tax Equivalent Pennies**

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Historical Work Program (FY 2015-2019) ⁽¹⁾	\$525,208,503	5	\$7,197,179	\$0.146
Historical Work Program (FY 2010-2014) ⁽²⁾	\$483,685,935	5	\$7,197,179	\$0.134
Total	\$1,008,894,438	10	\$7,197,179	\$0.140

1) Source: Table C-11

2) Source: Table C-11

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

**Table C-8
City of Orlando - Capital Improvement Program, FY 2018/19 to FY 2022/23**

ID	Project Name	Road Capacity	Multi-Modal Capacity	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	Total
94-812-008	Bicycle Plan Implementation	-	Yes	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
08-660-001	New Traffic Signal Locations	Yes	Yes	\$100,000	\$370,000	\$370,000	\$370,000	\$370,000	\$1,580,000
81-755-004	Regional Computerized Signal System	Yes	Yes	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
19-TSP-002	Robinson Street "Complete Streets"	-	Yes	\$0	\$0	\$6,481,000	\$0	\$0	\$6,481,000
84-722-039	School Safety Sidewalk Program	-	Yes	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
05-734-026	Traffic Counts and Travel Time Studies	Yes	Yes	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
19-TSP-001	Virginia Drive Improvements	-	Yes	\$250,000	\$0	\$500,000	\$500,000	\$1,000,000	\$2,250,000
Total - Roads				\$300,000	\$570,000	\$570,000	\$570,000	\$570,000	\$2,580,000
Total - Multi-Modal				\$800,000	\$820,000	\$7,801,000	\$1,320,000	\$1,820,000	\$12,561,000

Source: City of Orlando CIP, FY 2019-2023

**Table C-9
Orange County - Capital Improvement Program, FY 2018/19 to FY 2022/23**

Project Number	Project Title	Road Capacity	Multi-Modal Capacity	Funding	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	Total
2722	Intersection WID/CW	Yes	Yes	Fuel Tax/Prop. Share	\$3,500,100	\$3,000,100	\$3,000,100	\$3,000,100	\$3,000,100	\$15,500,500
2752	R. Crotty Pkwy (436-Dean)	Yes	Yes	INVEST	\$400,000	\$0	\$3,625,526	\$0	\$0	\$4,025,526
2766	ROW & Drainage	Yes	Yes	Fuel Tax/Prop. Share	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000
2841	Sidewalk Program C-W	-	Yes	Fuel Tax/Prop. Share	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$10,000,000
3073	Kirkman Rd Extension Study	Yes	Yes	Ad Valorem	\$100	\$0	\$0	\$0	\$0	\$100
3074	International Dr Ultimate Tran Study	Yes	Yes	Ad Valorem	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000
3096	Kennedy Blvd (Forest Cty - I-4)	Yes	Yes	INVEST	\$0	\$600,000	\$5,000,000	\$6,100,000	\$1,700,000	\$13,400,000
		Yes	Yes	Fuel Tax/Prop. Share	\$3,500,000	\$3,000,000	\$3,500,000	\$0	\$0	\$10,000,000
3097	All American (OBT - Forest Cty)	Yes	Yes	Fuel Tax/Prop. Share	\$2,200,000	\$300,000	\$4,309,688	\$400,000	\$0	\$7,209,688
5001	John Young Pkwy/6-Lane	Yes	Yes	Ad Valorem	\$100	\$500,000	\$100	\$0	\$0	\$500,200
5004	Chuluota Rd	Yes	Yes	INVEST	\$619,000	\$1,228,000	\$3,995,600	\$3,488,400	\$0	\$9,331,000
		Yes	Yes	Fuel Tax/Prop. Share	\$69,274	\$0	\$0	\$0	\$0	\$69,274
5005	McCulloch Rd	Yes	Yes	INVEST	\$796,272	\$1,946,160	\$1,946,160	\$375,280	\$3,604,928	\$8,668,800
5006	CR 545 Village H ROW	Yes	Yes	Fuel Tax/Prop. Share	\$155,920	\$0	\$0	\$0	\$0	\$155,920
5024	Econ Trail (Lk Underhill - SR 50)	Yes	Yes	INVEST	\$2,500,000	\$10,700,000	\$9,800,000	\$347,669	\$0	\$23,347,669
5027	Texas Ave (Oak Rdg - Holden)	Yes	Yes	INVEST	\$0	\$2,479,176	\$900,000	\$0	\$0	\$3,379,176
5033	Raleigh St Impr (Kirkman Rd to Ivey Ln)	Yes	Yes	Fuel Tax/Prop. Share	\$1,250,000	\$0	\$0	\$0	\$0	\$1,250,000
5059	Woodbury Rd Study	Yes	Yes	Fuel Tax/Prop. Share	\$100	\$0	\$0	\$0	\$0	\$100
5070	I-Drive Transit Lanes	-	Yes	Ad Valorem	\$5,000,000	\$9,000,000	\$4,532,955	\$500,000	\$0	\$19,032,955
5084	Holden Heights Ph. IV	Yes	Yes	Fuel Tax/Prop. Share	\$50,000	\$0	\$0	\$0	\$0	\$50,000
5085	Boggy Creek Rd	Yes	Yes	INVEST	\$3,731,005	\$4,025,000	\$238,727	\$0	\$0	\$7,994,732
5089	Destination Pkwy	Yes	Yes	Ad Valorem	\$220,000	\$0	\$0	\$0	\$0	\$220,000
5090	Lk Uhill (Chickasaw - Rouse)	Yes	Yes	INVEST	\$1,950,000	\$650,000	\$5,500,000	\$9,300,000	\$3,900,000	\$21,300,000
5095	Pedestrian Enhancements	-	Yes	Ad Valorem	\$600,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,200,000
5109	Legacy - Holden Ave (JYP - OBT)	Yes	Yes	Ad Valorem	\$3,242,748	\$0	\$0	\$0	\$0	\$3,242,748
5121	Legacy - Texas Ave	Yes	Yes	Ad Valorem	\$4,554,929	\$0	\$0	\$0	\$0	\$4,554,929
5122	Legacy - Valencia College Ln	Yes	Yes	Ad Valorem	\$48,478	\$0	\$0	\$0	\$0	\$48,478
5139	Reams (Summerlk - Taborfld)	Yes	Yes	INVEST	\$1,639,700	\$2,139,700	\$4,270,600	\$4,364,167	\$12,160,000	\$24,574,167
5140	Ficquette (Summerlk - Overst)	Yes	Yes	INVEST	\$1,000,000	\$2,000,000	\$4,000,000	\$5,200,000	\$4,732,000	\$16,932,000
2720	Signal Installation CW	Yes	Yes	Fuel Tax/Prop. Share	\$1,760,000	\$1,760,000	\$1,760,000	\$1,760,000	\$1,760,000	\$8,800,000
Total - Roadway (Fuel Tax/Prop. Share):					\$12,490,394	\$8,065,100	\$12,574,788	\$5,165,100	\$4,765,100	\$43,060,482
Total - Roadway (INVEST):					\$12,635,977	\$25,768,036	\$39,276,613	\$29,175,516	\$26,096,928	\$132,953,070
Total - Roadway (Ad Valorem):					\$9,066,355	\$500,000	\$100	\$0	\$0	\$9,566,455
Total - Roadway					\$34,192,726	\$34,333,136	\$51,851,501	\$34,340,616	\$30,862,028	\$185,580,007
Total - Multi-Modal (Fuel Tax/Prop. Share):					\$14,490,394	\$10,065,100	\$14,574,788	\$7,165,100	\$6,765,100	\$53,060,482
Total - Multi-Modal (INVEST):					\$12,635,977	\$25,768,036	\$39,276,613	\$29,175,516	\$26,096,928	\$132,953,070
Total - Multi-Modal (Ad Valorem):					\$14,666,355	\$9,900,000	\$4,933,055	\$900,000	\$400,000	\$30,799,410
Total - Multi-Modal:					\$41,792,726	\$45,733,136	\$58,784,456	\$37,240,616	\$33,262,028	\$216,812,962

Source: Orange County Transportation Planning Division; Community, Environment & Development Services Department

**Table C-10
Florida Department of Transportation, District 5 – Orange County Work Program FY 2010 to FY 2019, Roadways ONLY**

ID	Description	Wkmx Description	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
238429-5	SR 50 FROM LAKE CO LINE TO EAST OF TURNPIKE RAMP	ADD LANES & RECONSTRUCT	\$0	\$0	\$433	\$9,002	\$184	\$0	\$0	\$0	\$0	\$0	\$9,619
239203-2	SR 50 FROM W OF SR 436 TO 0.2 MILE W OF SR 417 (GRWY)	ADD LANES & REHABILITATE PVMNT	\$2,538,607	\$571,271	\$3,750	\$5,401	\$0	\$0	\$0	\$0	\$0	\$0	\$3,119,029
239203-3	SR 50 FROM 0.3MI E OF S R417 (GRWY) TO CR 425 (DEAN RD)	ADD LANES & REHABILITATE PVMNT	\$9,269,279	\$10,606,271	\$9,094,227	\$9,004,786	\$9,000,000	\$9,000,000	\$9,000,000	\$9,000,000	\$7,400,597	\$0	\$81,375,160
239203-4	SR 50 (COLONIAL DR) FROM E OF CR 425 (DEAN RD) TO E OF OLD CHENEY HWY	ADD LANES & REHABILITATE PVMNT	\$693,407	\$497,837	\$183,839	\$252,054	\$50,206,209	\$130,371	\$413,836	\$2,384,646	\$49,381	\$57,344	\$54,868,924
239203-7	SR 50 EAST OF OLD CHENEY HWY TO CHULUOTA RD	ADD LANES & REHABILITATE PVMNT	\$0	\$0	\$0	\$0	\$0	\$2,741,400	\$31,929	\$6,252	\$2,053	\$2,960	\$2,784,594
239203-8	SR 50 CHULUOTA RD TO SR 520	ADD LANES & REHABILITATE PVMNT	\$0	\$0	\$0	\$0	\$0	\$2,866,925	\$28,392	\$10,163	\$2,362	\$10,536	\$2,918,378
239266-3	SR 15 (HOFFNER RD) FROM N OF LEE VISTA BLVD TO W OF SR 436	ADD LANES & RECONSTRUCT	\$105,975	\$745,829	\$112,730	\$51,039	\$641,092	\$23,393,682	\$124,821	\$2,420,755	\$323,806	\$1,452,553	\$29,372,282
239266-4	SR 15 HOFFNER AVE FROM W OF SR 436 TO CONWAY ROAD	ADD LANES & RECONSTRUCT	\$0	\$0	\$0	\$0	\$0	\$10,734,891	\$34,045	\$1,246,538	\$208,870	\$367,739	\$12,592,083
239288-1	SR 435 KIRKMAN ROAD FROM 1700' S. OF CONROY RD TO SR 50	ADD LANES & RECONSTRUCT	\$106,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$106,000
239304-1	SR 530 (US 192) FROM LAKE CO LINE TO E OF SECRET LAKE DR	ADD LANES & RECONSTRUCT	\$15,756	\$3,918	\$106,077	\$8,678,226	\$968,150	\$30,467	\$621	\$0	\$0	\$0	\$9,803,215
239422-1	SR 434 FOREST CITY FROM SR 424 EDGEWATER DR TO SEMINOLE CO LINE	ADD LANES & RECONSTRUCT	\$0	\$11,754	\$1,604,769	\$28,076	\$39,956	\$15,135	\$1,608,585	\$323,145	\$672,297	\$706,416	\$5,010,133
239496-2	SR 423/434 EXTENSION FROM SHADER RD TO SR 424 (EDGEWATER DR)	NEW ROAD CONSTRUCTION	\$332,031	\$45,266,588	\$922,689	\$282,468	\$144,930	\$1,019	\$0	\$0	\$0	\$0	\$46,949,725
239496-3	SR 423 (JOHN YOUNG PARKWAY) WIDENING FROM SR 50 TO SHADER RD	ADD LANES & RECONSTRUCT	\$0	\$3,810	\$2,390,502	\$224,889	\$317,366	\$103,977	\$83,215	\$1,066,809	\$29,846,940	\$730,222	\$34,767,730
239535-2	SR 50 FROM E RAMP TPK TO AVALON RD	ADD LANES & RECONSTRUCT	\$296,541	\$78,287	\$8,224,102	\$89,883	\$148,166	\$8,558	\$6,637	\$1,009	\$152	\$0	\$8,853,335
239535-3	SR 50 SR 429 (WESTERN BELTWAY) TO E OF WEST OAKS MALL	ADD LANES & RECONSTRUCT	\$1,067,414	\$94,226	\$225,080	\$615,552	\$277,930	\$29,102,430	\$1,321,839	\$4,626,346	\$1,602,799	\$972,841	\$39,906,457
239535-4	SR 50 FROM GOOD HOMES RD TO PINE HILLS RD	ADD LANES & RECONSTRUCT	\$1,551,880	\$567,377	\$937,461	\$49,241	\$138,384	\$0	\$0	\$0	\$391	\$368	\$3,245,102
239535-5	SR 50 FROM E OF WEST OAKS MALL TO W OF GOOD HOMES RD	ADD LANES & RECONSTRUCT	\$0	\$31,246	\$14,137,919	\$306,796	\$1,130,853	\$505,650	\$43,120	\$22,063	\$17,892	\$3,525	\$16,199,064
407143-2	SR 482 FROM E END OF BRIDGE OVER TURNPIKE TO ORANGE BLOSSOM TRAIL	ADD LANES & REHABILITATE PVMNT	\$1,178	\$13	\$649	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,840
407143-3	SR 482(SAND LAKE RD) FROM TURKEY LAKE RD TO PRESIDENTS DR	ADD LANES & RECONSTRUCT	\$2,153,052	\$13,480,514	\$2,178,718	\$1,605,096	\$59,115	\$19,119	\$9,510	\$1,774,907	\$350	\$8,824	\$21,289,205
407143-4	SR 482 SAND LAKE RD FROM W OF INTERNATIONAL DR TO UNIVERSAL BLVD	ADD LANES & RECONSTRUCT	\$0	\$0	\$0	\$0	\$617,706	\$7,248	\$10,216,205	\$174,501	\$627,887	\$1,198,450	\$12,841,997
407143-5	SR 482 SAND LAKE RD FROM UNIVERSAL BLVD TO W OF JOHN YOUNG PARKWAY	ADD LANES & RECONSTRUCT	\$0	\$0	\$0	\$0	\$7,086	\$1,331,046	\$37,399,820	\$240,924	\$1,400,353	\$1,826,069	\$42,205,298
407143-6	JOHN YOUNG PARKWAY AT SR 482 SAND LAKE RD OVERPASS	ADD LANES & RECONSTRUCT	\$0	\$873	\$427	\$0	\$0	\$19,314	\$23,105,275	\$16,786	\$292,793	\$541,142	\$23,976,610
408429-2	SR 15/600 (US 17/92) ORLANDO AVE FROM S OF NOTTINGHAM ST TO MONROE AVE	URBAN CORRIDOR IMPROVEMENTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,582,329	\$212,641	\$2,794,970
410983-1	SR 50 FROM W OF AVALON RD SR 429 (WESTERN BELTWAY)	ADD LANES & RECONSTRUCT	\$18,339,966	\$457,105	\$960,554	\$8,491	\$2,194	\$291	\$0	\$0	\$0	\$0	\$19,768,601
413019-5	ORANGE TRAFFIC ENGINEERING CONTRACTS	TRAFFIC SIGNALS	\$633,047	\$662,626	\$683,206	\$724,904	\$839,419	\$786,206	\$1,386,543	\$1,993,862	\$2,080,041	\$2,080,577	\$11,870,431
414999-1	SR 50 FROM PETE PARRISH/SILVERTON TO SPRINGDALE RD	TRAFFIC SIGNALS	\$0	\$0	\$5,624	\$684,026	\$103,097	\$87,707	\$617	\$0	\$0	\$26,034	\$907,105
414999-2	SR 50 AT MERCY DRIVE	TRAFFIC SIGNALS	\$0	\$0	\$0	\$0	\$241,335	\$42,294	\$622	\$0	\$0	\$25,344	\$309,595
416368-1	SR 527/SR 426 PEDESTRIAN CORRIDOR FROM 17-92 (MILLS) TO LAKEMONT	INTERSECTION IMPROVEMENT	\$489,640	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$489,640
416724-1	ORANGE COUNTYWIDE ADVANCE ROW ACQUISITION	RIGHT OF WAY - FUTURE CAPACITY	\$1,391	\$6,887,799	\$10,230,153	\$14,082,226	\$6,031,130	\$1,210,674	\$955,519	\$763,131	\$2,701	\$385,012	\$40,549,736
417258-1	INTERNATIONAL DRIVE FROM OAK RIDGE ROAD TO W OF UNIVERSAL BLVD	TRAFFIC OPS IMPROVEMENT	\$300,185	\$0	\$0	\$5,170,540	\$2,642	\$3,657	\$604	\$69	\$0	\$0	\$5,477,697
421217-2	SR 482 (MCCOY RD) @ GONDOLA DR TRAFFIC SIGNAL INSTALLATION	TRAFFIC SIGNALS	\$65,431	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65,431
422223-1	SR 438 (SILVERSTAR) @ ORANGE AVE/INTERSECTION PEDESTRIAN SAFETY IMPROV	ADD LEFT TURN LANE(S)	\$0	\$306,429	\$52,754	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$359,183
423029-1	SR 535 AT INTERNATIONAL DRIVE	TRAFFIC SIGNALS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$927,740	\$11,289	\$38,334	\$977,363
423856-1	SR 15/600 (US 17/92) AT HORATIO AVE INTERSECT TRAFFIC OPS IMPROVEMENT	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$1,076,155	\$486,009	\$188,038	\$2,786	\$207	\$0	\$0	\$0	\$1,753,195
424217-1	SR 414 (MAITLAND BLVD) FROM SR 400 (I-4) TO CR 427 (MAITLAND AVE)	ADD LANES & REHABILITATE PVMNT	\$0	\$350,829	\$97,141	\$45,994	\$1,545,007	\$528,965	\$30,054	\$325,673	\$331,008	\$8,739,598	\$11,994,269
424530-1	SR 500 US 441 FROM OAKRIDGE RD TO 34TH STREET	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$2,652,603	\$66,106	\$309	\$0	\$0	\$0	\$0	\$6,920	\$2,725,938
425833-1	OPTICOM GPS SYSTEM ORLANDO CITYWIDE ON-SYSTEM SIGNALS	TRAFFIC CONTROL DEVICES/SYSTEM	\$1,086,024	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,086,024
425833-2	OPTICOM GPS SYSTEM ORLANDO CITYWIDE OFF-SHS INTERSECTIONS	TRAFFIC CONTROL DEVICES/SYSTEM	\$600,691	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$600,691
426341-1	EXPAND/UPGRADE REGIONAL COMPUTERIZED ITS DOWNTOWN ORLANDO SYSTEM	OTHER ITS	\$3,154,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,154,100
427046-2	ORANGE COUNTY TRAFFIC SIGNAL RETIMING COUNTYWIDE	TRAFFIC SIGNAL UPDATE	\$473,850	\$488,100	\$488,844	\$488,478	\$510,057	\$691,989	\$0	\$0	\$0	\$0	\$3,141,318
427046-5	TRAFFIC SIGNAL RETIMING (ORANGE, OSCEOLA, SEMINOLE)	TRAFFIC SIGNAL UPDATE	\$0	\$0	\$0	\$0	\$0	\$0	\$1,243,119	\$0	\$0	\$0	\$1,243,119
427047-1	SR 500 (US 441) FROM LANDSTREET ROAD TO OAKRIDGE ROAD	INTERSECTION IMPROVEMENT	\$0	\$3,094	\$2,342,935	\$237,831	\$16,569	\$0	\$0	\$0	\$0	\$0	\$2,600,429
427114-1	INTERSECTION MAQUIRE ROAD AND PARK AVENUE NEW ROUNDABOUT WINDERMER	NEW ROAD CONSTRUCTION	\$245,983	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$245,983
427851-2	NORTH THISTLE LANE FROM N OF OLD COLONY RD TO S OF MOWHAWK TRAIL	INTERSECTION IMPROVEMENT	\$0	\$42,707	\$93,812	\$714	\$0	\$0	\$0	\$0	\$0	\$0	\$137,233
428093-1	KELLER ROAD AT WESTHALL LANE	TRAFFIC SIGNAL UPDATE	\$176,029	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$176,029
428184-1	WATERFORD CHASE PARK WAY AT AVALON PARK BLVD INTERSECTION	INTERSECTION IMPROVEMENT	\$297,687	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$297,687
428588-1	SR 551 (GOLDENROD) & EDGEWATER DR TRAFFIC CONTROL SYSTEM (2 LOCATIONS)	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$293,784	\$840	\$0	\$0	\$0	\$0	\$0	\$0	\$159	\$294,783
428952-1	SR 434 FROM N OF SR 50 TO W OF STRATEGY BLVD	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$20,106	\$14,583	\$1,106,814	\$909	\$0	\$19	\$0	\$134	\$1,142,565
428986-1	CITYWIDE FIBER OPTIC CABLE WITHIN ORLANDO CITY LIMITS	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$409,240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$409,240
428986-2	CITYWIDE FIBER OPTIC CABLE WITHIN ORLANDO CITY LIMITS	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$249,118	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$249,118
429611-1	FORT CHRISTMAS ROAD AT WHEELER ROAD	INTERSECTION IMPROVEMENT	\$0	\$0	\$130,317	\$0	\$845,116	\$1,158	\$740	\$0	\$0	\$0	\$977,331
430027-1	ORANGE COUNTYWIDE ATMS PROJECT ON SYSTEM/OFF SYSTEM	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$5,092,967	\$3,115	\$3,386	\$42	\$0	\$0	\$0	\$0	\$5,099,510
430155-1	SR 50 OUTFALL SURVEY	PRELIMINARY ENGINEERING	\$0	\$0	\$655	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$655
430201-1	CITY OF ORLANDO REGIONAL COMPUTERIZED SIGNAL SYSTEM	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$3,799,075	\$2,269	\$2,219	\$42	\$0	\$0	\$0	\$0	\$3,803,605
430569-1	SR 438 (SILVER STAR RD) FROM 2ND STREET TO SILVER CREST BLVD	INTERSECTION IMPROVEMENT	\$0	\$252,178	\$16,956	\$1,035,118	\$88,862	\$97	\$0	\$0	\$0	\$0	\$1,393,211
431081-1	WEKIVA PARKWAY LINE AND GRADE ORANGE COUNTY SEGMENT	NEW ROAD CONSTRUCTION	\$0	\$0	\$1,868,548	\$82,647	\$9,655	\$91	\$234	\$99	\$0	\$101	\$1,961,375
431163-4	SR 46 (WEKIVA PKWY) REALIGNMENT LAKE CO. LINE TO SYS INTERCH WITH SR 42	NEW ROAD CONSTRUCTION	\$0	\$0	\$0	\$367	\$0	\$0	\$63	\$0	\$0	\$2,569	\$2,999
431184-1	SR 527 (ORANGE AVE) FROM IVANHOE BLVD TO SR 15/600	PRELIMINARY ENGINEERING	\$0	\$0	\$1,822	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,822
432064-1	US 17-92 FROM PARK AVENUE TO PACKWOOD AVENUE	TRAFFIC SIGNAL UPDATE	\$0	\$0	\$141,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$141,000
432076-1	ORANGE-LYNX FUNDING OPPORTUNITY #: FTA-2012-006-TPM-VTCL	TRANSIT IMPROVEMENT	\$0	\$0	\$0	\$1,056,800	\$0	\$0	\$0	\$0	\$0	\$0	\$1,056,800

Table C-10 (continued)
Florida Department of Transportation, District 5 – Orange County Work Program FY 2010 to FY 2019, Roadways ONLY

ID	Description	Wkms Description	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
432226-1	SR 426 AT SR 436	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$0	\$0	\$243,219	\$1,208,021	\$61,325	\$0	\$0	\$0	\$1,512,565
433130-1	ORLANDO SUNRAIL STATION ROAD IMPROVEMENTS (TWO LOCATIONS)	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$0	\$3,940,480	\$92,960	\$0	\$0	\$0	\$0	\$0	\$4,033,440
433621-1	SR 414 (MAITLAND BLVD) FROM SR 434 WB AT MAITLAND SUMMIT BLVD	ADD TURN LANE(S)	\$0	\$0	\$0	\$341,130	\$5,251	\$0	\$0	\$0	\$0	\$0	\$346,381
433648-1	SR 527 (ORANGE AVE) FROM S OF LAKE GATLIN RD TO NORTH OF HOLDEN AVE	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$0	\$608,313	\$25,808	\$45,317	\$2,459,948	\$105,804	\$184,055	\$6,854	\$3,436,099
433663-1	SAND LAKE RD/TPK INTERCHANGE (SR 482/SR 91) (MP 257)	INTERCHANGE (NEW)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,866	\$0	\$0	\$6,866
434694-1	SR 552 AT SR 436	ADD TURN LANE(S)	\$0	\$0	\$0	\$0	\$6,175	\$278,951	\$27,355	\$779,069	\$74,103	\$241	\$1,165,894
434917-1	SR 482/US 441 (ADAPTIVE SIGNALS) COUNTY WIDE	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$2,506,139	\$1	\$0	\$0	\$0	\$0	\$2,506,140
435525-1	GATLIN AVE AND KENNEDY AVE & GATLIN AVE AND ARROW RD IMPROVEMENTS	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,337,700	\$1,337,700
435526-1	SR 434 (ALAFAYA TRAIL) AT CORPORATE BLVD	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$218,351	\$8	\$135	\$379	\$0	\$289,500	\$508,373
435527-1	POWERS DRIVE AT NORTH LANE	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$201,000	\$201,000
435529-1	ORANGE COUNTY ATMS AT VARIOUS LOCATIONS COUNTYWIDE	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$3,299,999	\$32	\$66,560	\$0	\$0	\$0	\$3,366,591
435554-1	VINELAND AVENUE AT SR 535	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$298,841	\$8	\$135	\$352	\$0	\$0	\$299,336
435587-1	WALLACE RD AT DR PHILLIPS BLVD	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,429,695	\$68,459	\$1,498,154
436346-1	UCF BIG DATA RESEARCH	ADV TRAVELER INFORMATION SYSTM	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$100,000	\$100,000	\$200,000	\$500,000
436508-1	US 441 (SR 500/600) FROM S OF SAND LAKE RD TO KALEY ST	TRAFFIC SIGNALS	\$0	\$0	\$0	\$0	\$0	\$302,400	\$0	\$0	\$0	\$0	\$302,400
437175-1	SR 535/VINELAND RD FROM ORANGE/OSCEOLA COUNTY LINE TO I-4	PD&E/EMO STUDY	\$0	\$0	\$0	\$0	\$0	\$0	\$113,920	\$0	\$129,819	\$0	\$243,739
437508-1	ORLANDO CITYWIDE PEDESTRIAN TRAFFIC SIGNALS	TRAFFIC SIGNALS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$443,000	\$443,000
437592-1	SR 600/SR 500/US 441/US 17-92 FROM S OF SR 482 (SAND LAKE RD) TO N OF SR 482	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$8,213	\$769,582	\$14,815	\$1,521,339	\$2,313,949
437597-1	SR 50/WEST COLONIAL DR FROM WEST OF CARTER ROAD TO EAST OF CARTER ROAD	TRAFFIC OPS IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$175,209	\$7,655	\$732	\$6,375	\$189,971
439074-1	CITY OF ORLANDO TRAFFIC SIGNAL UPGRADES	ATMS - ARTERIAL TRAFFIC MGMT	\$0	\$0	\$0	\$0	\$0	\$0	\$398,910	\$0	\$0	\$0	\$398,910
439133-1	SR 15 @ CURRY FORD RD	TRAFFIC SIGNAL UPDATE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$357,003	\$13,869	\$370,872
440314-1	PD&E FOR COLONIAL PARKWAY (SR 504) - WOODBURY ROAD TO SR 520	PD&E/EMO STUDY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,988	\$0	\$0	\$1,988
440821-2	UCF AUTOMATED SHUTTLE SERVICE	ITS COMMUNICATION SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$840,000	\$840,000
441197-1	SR 426 (FAIRBANKS AVE) FROM SR 15 (US 17/92/SR 600/ORLANDO AVE) TO WARD	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,804	\$40,671	\$63,475
441395-1	US 441 AT ROSAMOND DRIVE	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$441,506	\$441,506
441400-1	SADLER RD @ US 441	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$493,464	\$493,464
441402-1	CR 439/TURKEY LAKE RD @ VINELAND RD	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$187,518	\$187,518
441490-1	UNIVERSITY BLVD @ DEAN RD	INTERSECTION IMPROVEMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$493,134	\$20,000	\$513,134
441616-1	ORANGE COUNTY ATM PHASE #4 - COUNTYWIDE ROADS	ITS COMMUNICATION SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$377,115	\$377,115
442087-1	SR 552 AT FREDRICA DRIVE (SIGNALIZATION)	TRAFFIC SIGNALS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$310,000	\$310,000
442088-1	SR 50 AT O-BERRY HOOVER RD - SIGNALS INSTALLATION	TRAFFIC SIGNALS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000	\$300,000
442544-1	CITY OF ORLANDO ATSPM TRAFFIC CONTROL DEVICES	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$479,825	\$500,000	\$979,825
442545-1	ORANGE COUNTY ATSPM EQUIPMENT TRAFFIC CONTROL DEVICES	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,089,937	\$1,089,937
442548-1	CITY OF ORLANDO ATMS MODULE TRAFFIC CONTROL DEVICES	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$160,000	\$160,000
442549-1	ORANGE COUNTY ATMS MODULE TRAFFIC CONTROL DEVICES/SYSTEM PROJECT	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$186,400	\$186,400
442550-1	METROPLAN AREA REMOTE ATSPM EQUIPMENT TRAFFIC CONTROL DEVICES/SYSTEM	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$449,409	\$449,409
442687-1	ICM FOR METROPLAN AREA SIGNAL DEVICE INSTALLATION	TRAFFIC CONTROL DEVICES/SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$475,000	\$843,530	\$1,318,530
442739-1	ADAPTIVE TRAFFIC SIGNAL INTERFACE WITH TRAIN AVL	ITS COMMUNICATION SYSTEM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000
442740-1	ORLANDO ATCMTD COMMUNICATIONS SERVICES	OTHER ITS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$111,427	\$211,427
442741-1	CONNECTED AND AUTONOMOUS VEHICLE ATCMTD RESEARCH	OTHER ITS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000
442742-1	ATCMTD MOBILITY AND SAFETY BEFORE AND AFTER STUDY	OTHER ITS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$100,000
443817-1	SR 435 KIRKMAN RD EXT TO CARRIER DR INTERSECTION	NEW ROAD CONSTRUCTION	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,052	\$20,000	\$40,052
Total - Roadways			\$43,995,144	\$82,362,823	\$69,879,439	\$50,282,650	\$81,929,719	\$85,202,878	\$90,457,882	\$29,097,132	\$51,337,328	\$30,455,726	\$615,000,721
Total - Roadways - Timeframe Summary						FY 2010-2014:	\$328,449,775				FY 2015-2019:	\$286,550,946	\$615,000,721

Source: FDOT, District 5

Table C-12
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>

Source: See Table C-13

Table C-13

Annual Vehicle Distance Traveled in Miles and Related Data (2017) - By Highway Category and Vehicle Type^{1/}

Published March 2019										TABLE VM-1
YEAR	ITEM	LIGHT DUTY VEHICLES SHORT WB ⁽²⁾	MOTOR-CYCLES	BUSES	LIGHT DUTY VEHICLES LONG WB ⁽²⁾	SINGLE-UNIT TRUCKS ⁽³⁾	COMBINATION TRUCKS	SUBTOTALS		ALL MOTOR VEHICLES
								ALL LIGHT VEHICLES ⁽²⁾	SINGLE-UNIT 2-AXLE 6-TIRE OR MORE AND COMBINATION TRUCKS	
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
Ad Valorem Credit

Appendix D: Ad Valorem Credit

This appendix presents the detailed ad valorem credit calculations for each land use in Orange County's transportation impact fee schedule.

Residential Land Uses

In determining the ad valorem credit for residential land uses, the study evaluated the taxable values for new residential properties in Orange County. For this analysis, residential buildings constructed since 2009 were classified as "new". The following data was reviewed for each residential land uses:

- Weighted average, median, minimum, and maximum taxable value per square foot for new properties (built since 2009) and all properties within Orange County; and
- Professional judgement based on extensive impact fee experience in other communities in Florida.

It should be noted that the ad valorem revenues used towards transportation capital projects is a fixed amount and not a percentage of the County's ad valorem revenues. Over the next five years and beyond, this amount will be limited to \$6.2 million per year (multi-modal) or \$1.9 million per year (roads only)⁴. As presented in Table D-1, the taxable value of a new home (\$334,000) was used to calculate the present value of the ad valorem credit. The resulting 1-mil taxes are brought to present value based on an interest rate of 4.0 percent, which is consistent with current market trends and the interest rate at which the County is likely to borrow. Table D-1 also provides the portion of the 1-mil collections that would be used toward transportation capital expansion projects. It is estimated that Orange County will spend five (5) percent of a mil of ad valorem revenue to fund multi-modal capacity expansion projects and two (2) percent of a mil for roadway capacity expansion projects. Tables D-2 through D-10 present this same analysis for the other residential land uses in the Orange County transportation impact fee schedule.

Note:

- Multi-Family ad valorem credit was used for Student Housing. For Student Housing per bedroom, estimated three bedrooms per dwelling unit.
- Multi-Family ad valorem credit was used for Mid-Rise/High-Rise with 1st floor Commercial.
- Condominium ad valorem credit (Tables D-5 and D-10) was used for Timeshare.

⁴ Additional detail can be found in Appendix C, Table C-9

Table D-1
1-Mil Credit Calculation for Single Family Homes - MULTI-MODAL

Item		Figure
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459
County General Fund Millage ⁽²⁾		4.4347
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$6,160,000
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		5%
Average taxable value of a new home ⁽⁶⁾		\$334,000
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%

Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$334,000	n/a	\$334,000	\$334.00	\$17	\$17
2021					\$16	\$15
2022					\$15	\$14
2023					\$14	\$13
2024					\$14	\$12
2025					\$13	\$11
2026					\$12	\$10
2027					\$11	\$9
2028					\$11	\$8
2029					\$10	\$7
2030					\$10	\$7
2031					\$9	\$6
2032					\$9	\$5
2033					\$8	\$5
2034					\$8	\$4
2035					\$7	\$4
2036					\$7	\$4
2037					\$7	\$3
2038					\$6	\$3
2039					\$6	\$3
2040					\$6	\$3
2041					\$5	\$2
2042					\$5	\$2
2043					\$5	\$2
2044					\$4	\$2
2045					\$4	\$2
Total					\$239	\$173
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for multi-modal transportation capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new homes (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-2
1-Mil Credit Calculation for Multi-Family Apartments - MULTI-MODAL

Item		Figure
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459
County General Fund Millage ⁽²⁾		4.4347
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$6,160,000
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		5%
Average taxable value of a multi-family unit ⁽⁶⁾		\$179,000
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%

Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$179,000	n/a	\$179,000	\$179.00	\$9	\$9
2021					\$9	\$8
2022					\$8	\$7
2023					\$8	\$7
2024					\$7	\$6
2025					\$7	\$6
2026					\$6	\$5
2027					\$6	\$5
2028					\$6	\$4
2029					\$5	\$4
2030					\$5	\$3
2031					\$5	\$3
2032					\$5	\$3
2033					\$4	\$3
2034					\$4	\$2
2035					\$4	\$2
2036					\$4	\$2
2037					\$3	\$2
2038					\$3	\$2
2039					\$3	\$1
2040					\$3	\$1
2041					\$3	\$1
2042					\$3	\$1
2043					\$2	\$1
2044					\$2	\$1
2045					\$2	\$1
Total					\$126	\$90
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for multi-modal transportation capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new apartments (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-3
1-Mil Credit Calculation for Mobile Homes - MULTI-MODAL

Item		Figure				
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459				
County General Fund Millage ⁽²⁾		4.4347				
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150				
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$6,160,000				
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		5%				
Average taxable value of a mobile home ⁽⁶⁾		\$67,000				
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%				
Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$67,000	n/a	\$67,000	\$67.00	\$3	\$3
2021					\$3	\$3
2022					\$3	\$2
2023					\$3	\$2
2024					\$2	\$2
2025					\$2	\$2
2026					\$2	\$2
2027					\$2	\$2
2028					\$2	\$1
2029					\$2	\$1
2030					\$2	\$1
2031					\$2	\$1
2032					\$2	\$1
2033					\$1	\$1
2034					\$1	\$1
2035					\$1	\$1
2036					\$1	\$1
2037					\$1	\$1
2038					\$1	\$1
2039					\$1	\$0
2040					\$1	\$0
2041					\$1	\$0
2042					\$1	\$0
2043					\$1	\$0
2044					\$1	\$0
2045					\$1	\$0
Total					\$42	\$29
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for multi-modal transportation capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new mobile homes (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-4
1-Mil Credit Calculation for Retirement Homes - MULTI-MODAL

Item		Figure
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459
County General Fund Millage ⁽²⁾		4.4347
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$6,160,000
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		5%
Average taxable value of a retirement home (per du) ⁽⁶⁾		\$190,000
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%

Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$190,000	n/a	\$190,000	\$190.00	\$10	\$10
2021					\$9	\$9
2022					\$9	\$8
2023					\$8	\$8
2024					\$8	\$7
2025					\$8	\$6
2026					\$7	\$6
2027					\$7	\$5
2028					\$6	\$5
2029					\$6	\$4
2030					\$6	\$4
2031					\$5	\$3
2032					\$5	\$3
2033					\$5	\$3
2034					\$5	\$3
2035					\$4	\$2
2036					\$4	\$2
2037					\$4	\$2
2038					\$4	\$2
2039					\$3	\$2
2040					\$3	\$1
2041					\$3	\$1
2042					\$3	\$1
2043					\$3	\$1
2044					\$3	\$1
2045					\$2	\$1
Total					\$140	\$100
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for multi-modal transportation capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new retirement home unit (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-5
1-Mil Credit Calculation for Condominiums - MULTI-MODAL

Item		Figure
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459
County General Fund Millage ⁽²⁾		4.4347
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$6,160,000
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		5%
Average taxable value of a condominium (per du) ⁽⁶⁾		\$284,000
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%

Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$284,000	n/a	\$284,000	\$284.00	\$15	\$15
2021					\$14	\$14
2022					\$13	\$12
2023					\$13	\$11
2024					\$12	\$10
2025					\$11	\$9
2026					\$11	\$8
2027					\$10	\$8
2028					\$10	\$7
2029					\$9	\$6
2030					\$9	\$6
2031					\$8	\$5
2032					\$8	\$5
2033					\$7	\$4
2034					\$7	\$4
2035					\$6	\$4
2036					\$6	\$3
2037					\$6	\$3
2038					\$5	\$3
2039					\$5	\$2
2040					\$5	\$2
2041					\$5	\$2
2042					\$4	\$2
2043					\$4	\$2
2044					\$4	\$2
2045					\$4	\$1
Total					\$211	\$150
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for multi-modal transportation capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new condo unit (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-6
1-Mil Credit Calculation for Single Family Homes – ROADS ONLY

Item		Figure
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459
County General Fund Millage ⁽²⁾		4.4347
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$1,913,000
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		2%
Average taxable value of a new home ⁽⁶⁾		\$334,000
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%

Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$334,000	n/a	\$334,000	\$334.00	\$5	\$5
2021					\$5	\$5
2022					\$4	\$4
2023					\$4	\$4
2024					\$4	\$3
2025					\$4	\$3
2026					\$4	\$3
2027					\$3	\$3
2028					\$3	\$2
2029					\$3	\$2
2030					\$3	\$2
2031					\$3	\$2
2032					\$3	\$2
2033					\$2	\$1
2034					\$2	\$1
2035					\$2	\$1
2036					\$2	\$1
2037					\$2	\$1
2038					\$2	\$1
2039					\$2	\$1
2040					\$2	\$1
2041					\$2	\$1
2042					\$1	\$1
2043					\$1	\$1
2044					\$1	\$1
2045					\$1	\$0
Total					\$70	\$52
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for roadway capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new homes (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-7
1-Mil Credit Calculation for Multi-Family Apartments - ROADS ONLY

Item		Figure
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459
County General Fund Millage ⁽²⁾		4.4347
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$1,913,000
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		2%
Average taxable value of a multi-family unit ⁽⁶⁾		\$179,000
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%

Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$179,000	n/a	\$179,000	\$179.00	\$3	\$3
2021					\$3	\$3
2022					\$3	\$2
2023					\$3	\$2
2024					\$2	\$2
2025					\$2	\$2
2026					\$2	\$2
2027					\$2	\$2
2028					\$2	\$1
2029					\$2	\$1
2030					\$2	\$1
2031					\$2	\$1
2032					\$2	\$1
2033					\$1	\$1
2034					\$1	\$1
2035					\$1	\$1
2036					\$1	\$1
2037					\$1	\$1
2038					\$1	\$1
2039					\$1	\$0
2040					\$1	\$0
2041					\$1	\$0
2042					\$1	\$0
2043					\$1	\$0
2044					\$1	\$0
2045					\$1	\$0
Total					\$42	\$29
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for roadway capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new apartments (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-8
1-Mil Credit Calculation for Mobile Homes - ROADS ONLY

Item		Figure				
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459				
County General Fund Millage ⁽²⁾		4.4347				
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150				
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$1,913,000				
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		2%				
Average taxable value of a mobile home ⁽⁶⁾		\$67,000				
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%				
Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$67,000	n/a	\$67,000	\$67.00	\$1	\$1
2021					\$1	\$1
2022					\$1	\$1
2023					\$1	\$1
2024					\$1	\$1
2025					\$1	\$1
2026					\$1	\$1
2027					\$1	\$1
2028					\$1	\$0
2029					\$1	\$0
2030					\$1	\$0
2031					\$1	\$0
2032					\$1	\$0
2033					\$0	\$0
2034					\$0	\$0
2035					\$0	\$0
2036					\$0	\$0
2037					\$0	\$0
2038					\$0	\$0
2039					\$0	\$0
2040					\$0	\$0
2041					\$0	\$0
2042					\$0	\$0
2043					\$0	\$0
2044					\$0	\$0
2045					\$0	\$0
Total					\$14	\$8
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for roadway capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new mobile homes (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-9

1-Mil Credit Calculation for Retirement Homes - ROADS ONLY

Item		Figure
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459
County General Fund Millage ⁽²⁾		4.4347
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$1,913,000
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		2%
Average taxable value of a retirement home (per du) ⁽⁶⁾		\$190,000
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%

Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$190,000	n/a	\$190,000	\$190.00	\$3	\$3
2021					\$3	\$3
2022					\$3	\$2
2023					\$3	\$2
2024					\$2	\$2
2025					\$2	\$2
2026					\$2	\$2
2027					\$2	\$2
2028					\$2	\$1
2029					\$2	\$1
2030					\$2	\$1
2031					\$2	\$1
2032					\$2	\$1
2033					\$1	\$1
2034					\$1	\$1
2035					\$1	\$1
2036					\$1	\$1
2037					\$1	\$1
2038					\$1	\$1
2039					\$1	\$0
2040					\$1	\$0
2041					\$1	\$0
2042					\$1	\$0
2043					\$1	\$0
2044					\$1	\$0
2045					\$1	\$0
Total					\$42	\$29
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for roadway capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new retirement home unit (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Table D-10
1-Mil Credit Calculation for Condominiums - ROADS ONLY

Item		Figure				
Total Allocation from the General Fund FY 2018/19 ⁽¹⁾		\$531,499,459				
County General Fund Millage ⁽²⁾		4.4347				
Revenues Generated from 1-mil ⁽³⁾		\$119,850,150				
Annual ad valorem revenue that goes to transportation capacity ⁽⁴⁾		\$1,913,000				
Percentage of millage used for transportation capacity expansion projects ⁽⁵⁾		2%				
Average taxable value of a condominium (per du) ⁽⁶⁾		\$284,000				
Annual increase in the countywide taxable values ⁽⁷⁾		5.8%				
Year	Taxable Value	Market Value	Value Used for Credit	1-Mil Tax	Ad Valorem for Transportation	Present Value
2020	\$284,000	n/a	\$284,000	\$284.00	\$5	\$5
2021					\$5	\$5
2022					\$4	\$4
2023					\$4	\$4
2024					\$4	\$3
2025					\$4	\$3
2026					\$4	\$3
2027					\$3	\$3
2028					\$3	\$2
2029					\$3	\$2
2030					\$3	\$2
2031					\$3	\$2
2032					\$3	\$2
2033					\$2	\$1
2034					\$2	\$1
2035					\$2	\$1
2036					\$2	\$1
2037					\$2	\$1
2038					\$2	\$1
2039					\$2	\$1
2040					\$2	\$1
2041					\$2	\$1
2042					\$1	\$1
2043					\$1	\$1
2044					\$1	\$1
2045					\$1	\$0
Total					\$70	\$52
Interest Rate⁽⁸⁾						4.0%

- 1) Source: Orange County FY 2019 Adopted Budget
- 2) Total millage assessed to residents within Orange County applied to the General Fund
- 3) Total projected allocation from the general fund (Item 1) divided by the County's millage rate (Item 2)
- 4) Source: Avg annual ad valorem revenues for roadway capacity from FY 2019-2023; Table C-9
- 5) Annual ad valorem revenues for capacity expansion (Item 4) divided by the revenue generated by 1-mil (Item 3)
- 6) Source: Average taxable value for new condo unit (built since 2009) in Orange County
- 7) Source: Review of average annual increase in countywide taxable values for Orange County (2000-2019)
- 8) Source: Interest rate estimated for new bond issues in Orange County

Non-Residential Land Uses

Table D-11 provides an explanation of ad valorem credit calculated for non-residential land uses. To determine the taxable value of a unit for each land use, the taxable value of recently built properties (2009 to present) was compared to the taxable value for all properties in the County database, for each respective land use. Based on a review of factors such as the weighted average, median, minimum, and maximum values per square foot, a unit value was estimated for each land use or a comparable land use category was identified. It should be noted that the 1-mil credit calculations for these land uses represent broad estimated and are based on the Consultant's experience in other jurisdictions and knowledge of the industry.

In calculating the present value of non-residential land uses, an annual value increase of approximately six (6) percent was used for commercial, institutional, and industrial land uses based on a review of the annual increase in taxable values for the respective land use category from 2000 to 2019 in Orange County.

Table D-11

1-Mil Credit Calculation for Non-Residential Land Uses

ITE LUC	Land Use	Unit	Taxable Value of Unit ⁽¹⁾	1-Mil Credit ⁽²⁾				Methodology
				Multi-Modal		Roads ONLY		
				Annual	Total	Annual	Total	
Lodging:								
310	Hotel/Tourist Hotel	room	\$94,000	\$5	\$81	\$2	\$33	Estimates an average size of 400 sq ft per room and an average cost of \$235 per sq ft
320	Motel	room	\$70,500	\$4	\$65	\$1	\$17	Estimates an average size of 300 sq ft per room and an average cost of \$235 per sq ft
Recreational:								
430	Golf Course	acre	\$220,000	\$11	\$179	\$4	\$65	Cost per acre is estimated at \$220,000 based on the value of vacant commercial land in Orange County
437	Bowling Alley	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
444	Movie Theater	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
491	Racquet Club	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
492	Health Club	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
Institutional:								
522	School	1,000 sf	\$170,000	\$9	\$146	\$3	\$48	Based on taxable value of recently built private schools (\$170 per sq ft)
560	Public Assembly	1,000 sf	-	\$0	\$0	\$0	\$0	Public assembly land uses are exempt from paying property taxes
565	Day Care	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Comparable to General Office (\$190 per sq ft)
590	Library	1,000 sf	-	\$0	\$0	\$0	\$0	Library land uses are exempt from paying property taxes
Medical:								
610	Hospital	bed	\$16,000	\$1	\$17	\$0	\$0	Estimates an average size of 100 sq ft per bed (accounting for surrounding area) and an average cost of \$160 per sq ft
620	Nursing Home	1,000 sf	\$165,000	\$8	\$130	\$3	\$48	Based on taxable value of recently built Homes for the Aged (\$165 per sq ft)
640	Animal Hospital/Veterinary Clinic	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Comparable to General Office (\$190 per sq ft)
Office:								
710	General Office 50,000 sf or less	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Office Buildings (\$190 per sq ft)
710	General Office 50,001-100,000 sf	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Office Buildings (\$190 per sq ft)
710	General Office 100,001-200,000 sf	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Office Buildings (\$190 per sq ft)
710	General Office greater than 200,000 sf	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Office Buildings (\$190 per sq ft)
720	Small Medical/Dental Office (10,000 sf or less)	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Comparable to General Office (\$190 per sq ft)
720	Medical/Dental Office	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Comparable to General Office (\$190 per sq ft)
732	Post Office	1,000 sf	\$190,000	\$10	\$163	\$3	\$48	Comparable to General Office (\$190 per sq ft)
Retail:								
815	Free-Standing Discount Store	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
816	Hardware/Paint	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
820	Retail/Tourist Retail: 50,000 sfgla or less	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: 50,001-100,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: 100,001-200,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: 200,001-300,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: 300,001-400,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: 400,001-500,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: 500,001-1,000,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: 1,000,001-1,200,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
820	Retail/Tourist Retail: greater than 1,200,000 sfgla	1,000 sfgla	\$185,000	\$10	\$163	\$3	\$48	Based on taxable value of recently built Retail land uses (\$185 per sq ft)
840/841	New/Used Auto Sales	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
850	Supermarket	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
853	Convenience Market w/Gas Pumps	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
862	Home Improvement Superstore	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
863	Electronics Superstore	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
880/881	Pharmacy/Drug Store with and w/o Drive-Thru	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)

Table D-11 (continued)
1-Mil Credit Calculation for Non-Residential Land Uses

ITE LUC	Land Use	Unit	Taxable Value of Unit ⁽¹⁾	1-Mil Credit ⁽²⁾				Methodology
				Multi-Modal		Roads ONLY		
				Annual	Total	Annual	Total	
Services:								
911	Bank/Savings Walk-In	1,000 sf	\$550,000	\$28	\$456	\$9	\$146	Based on taxable value of recently built Bank land uses (\$550 per sq ft)
912	Bank/Savings Drive-In	1,000 sf	\$550,000	\$28	\$456	\$9	\$146	Based on taxable value of recently built Bank land uses (\$550 per sq ft)
925	Drinking Place	1,000 sf	\$185,000	\$10	\$163	\$3	\$48	Comparable to Retail land use (\$185 per sq ft)
931	Quality Restaurant	1,000 sf	\$360,000	\$19	\$309	\$6	\$98	Based on taxable value of recently built Restaurant land uses (\$360 per sq ft)
932	High-Turnover Restaurant	1,000 sf	\$360,000	\$19	\$309	\$6	\$98	Based on taxable value of recently built Restaurant land uses (\$360 per sq ft)
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	\$440,000	\$23	\$374	\$7	\$115	Based on taxable value of recently built Fast Food Restaurant land uses (\$440 per sq ft)
942	Auto Service	1,000 sf	\$150,000	\$8	\$130	\$2	\$33	Based on taxable value of recently built Auto Sales/Repair land uses (\$150 per sq ft)
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	\$15,355	\$1	\$17	\$0	\$0	Estimates that 1,000 sq ft of space can accommodate 4 rows and 3 fueling positions per row and an average cost of \$185 per sq ft based on the Retail land use
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	\$15,355	\$1	\$17	\$0	\$0	
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	\$15,355	\$1	\$17	\$0	\$0	
947	Self-Service Car Wash	wash stn.	\$60,125	\$3	\$48	\$1	\$17	Estimates the sq ft per service bay is 325 ft (25 x 13 ft) and a cost of \$185 per sq ft based on the Retail land use
Industrial:								
110	General Light Industrial	1,000 sf	\$80,000	\$4	\$65	\$1	\$17	Comparable to Manufacturing land use (\$80 per sq ft)
140	Manufacturing	1,000 sf	\$80,000	\$4	\$65	\$1	\$17	Based on taxable value of recently built Manufacturing land uses (\$80 per sq ft)
150	Warehousing	1,000 sf	\$75,000	\$4	\$65	\$1	\$17	Based on taxable value of recently built Warehouse land uses (\$75 per sq ft)
151	Mini-Warehouse	1,000 sf	\$75,000	\$4	\$65	\$1	\$17	Comparable to Warehousing land use (\$75 per sq ft)
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	\$75,000	\$4	\$65	\$1	\$17	Comparable to Warehousing land use (\$75 per sq ft)

1) Source: Based on information from the Orange County 2019 NAL parcel database
2) Present value of the ad valorem credit to be applied to the transportation impact fee

APPENDIX E
Calculated Impact Fee Schedule

Appendix E: Calculated Impact Fee Schedule

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

Table E-1 presents a summary of current Orange County impact fee rates and the calculated rates for each option. If the County opts to keep the current fee districts, the updated fee rates will come from Table E-2 (Urban) and Table E-3 (Non-Urban). If the County elects to move to three fee districts, the updated impact fee rates are shown in Table E-2 (Urban), Table E-3 (Suburban), and Table E-4 (Rural).

**Table E-1
Impact Fee Rate Summary**

ITE LUC	Land Use	Unit	2012 Calculated (100%) ⁽¹⁾		Current Adopted (56%) ⁽²⁾		Calculated Rates (100%)		
			Non-AMA	AMA	Non-AMA	AMA	Urban ⁽³⁾	Non-Urban/ Suburban ⁽⁴⁾	Rural ⁽⁵⁾
RESIDENTIAL:									
210	Single Family (Detached) - 1,200 sf or less	du	\$6,961	\$6,716	\$3,898	\$3,761	\$6,425	\$7,973	\$9,113
210	Single Family (Detached) - 1,201 to 2,000 sf	du	\$6,961	\$6,716	\$3,898	\$3,761	\$8,218	\$10,138	\$11,586
210	Single Family (Detached) - 2,001 to 3,500 sf	du	\$6,961	\$6,716	\$3,898	\$3,761	\$10,163	\$12,509	\$14,294
210	Single Family (Detached) - greater than 3,500 sf	du	\$6,961	\$6,716	\$3,898	\$3,761	\$10,640	\$13,082	\$14,949
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 Floors)	du	\$4,507	\$4,348	\$2,524	\$2,435	\$5,937	\$7,303	\$8,349
221	Multi-Family Housing (Mid-Rise, 3-10 Floors)	du	\$4,507	\$4,348	\$2,524	\$2,435	\$4,395	\$5,421	\$6,198
222	Multi-Family Housing (High-Rise, >10 Floors)	du	\$2,854	\$2,756	\$1,598	\$1,543	\$3,580	\$4,430	\$5,066
225	Student Housing (Adjacent to Campus)	bedroom	-	-	-	-	\$1,246	\$1,555	\$1,780
225	Student Housing (Over 1/2 Mile from Campus)	bedroom	-	-	-	-	\$2,410	\$2,973	\$3,399
231	Mid-Rise Residential w/1st Floor Commercial	du	-	-	-	-	\$2,744	\$3,417	\$3,909
232	High-Rise Residential w/1st Floor Commercial	du	-	-	-	-	\$1,571	\$1,986	\$2,274
240	Mobile Home Park	du	\$2,565	\$2,480	\$1,436	\$1,389	\$3,054	\$3,755	\$4,292
251	Senior Adult Housing - Detached (Retirement Community/Age-Restricted Single-Family)	du	\$2,275	\$2,203	\$1,274	\$1,234	\$2,975	\$3,704	\$4,236
252	Senior Adult Housing - Attached (Retirement Community/Age-Restricted Single-Family)	du	\$2,275	\$2,203	\$1,274	\$1,234	\$2,220	\$2,803	\$3,208
265	Time Share	du	\$3,707	\$3,570	\$2,076	\$1,999	\$5,343	\$6,660	\$7,619
LODGING:									
310	Hotel/Tourist Hotel	room	\$3,532	\$3,410	\$1,978	\$1,910	\$3,033	\$3,519	\$3,746
320	Motel	room	\$2,519	\$2,419	\$1,411	\$1,355	\$1,440	\$1,713	\$1,823
RECREATIONAL:									
430	Golf Course	acre	\$4,049	\$3,901	\$2,267	\$2,185	\$2,841	\$3,388	\$3,608
437	Bowling Alley	1,000 sf	\$20,722	\$19,984	\$11,604	\$11,191	\$7,992	\$9,284	\$9,881
443	Movie Theater	1,000 sf	\$19,912	\$19,103	\$11,151	\$10,698	\$20,895	\$24,343	\$25,929
491	Racquet Club	1,000 sf	\$9,117	\$8,783	\$5,106	\$4,918	\$12,734	\$14,714	\$15,658
492	Health/Fitness Club	1,000 sf	\$21,382	\$20,620	\$11,974	\$11,547	\$22,427	\$25,811	\$27,464
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	-	-	-	-	\$8,010	\$9,357	\$9,961
INSTITUTIONAL:									
522	School	1,000 sf	\$12,453	\$12,025	\$6,974	\$6,734	\$6,998	\$8,166	\$8,696
560	Public Assembly	1,000 sf	\$8,239	\$7,943	\$4,614	\$4,448	\$3,284	\$3,767	\$4,010
565	Day Care	1,000 sf	\$12,576	\$12,038	\$7,043	\$6,741	\$9,446	\$11,107	\$11,834
590	Library	1,000 sf	\$21,456	\$20,694	\$12,015	\$11,589	\$31,734	\$36,269	\$38,581
MEDICAL:									
610	Hospital	bed	\$7,086	\$6,827	\$3,968	\$3,823	\$15,641	\$17,887	\$19,028
620	Nursing Home	1,000 sf	\$659	\$634	\$369	\$355	\$1,899	\$2,288	\$2,439
640	Animal Hospital/Veterinary Clinic	1,000 sf	\$15,930	\$15,351	\$8,921	\$8,597	\$4,047	\$4,841	\$5,160
OFFICE:									
710	General Office 50,000 sf or less	1,000 sf	\$9,953	\$9,596	\$5,574	\$5,374	\$8,132	\$10,037	\$11,473
710	General Office 50,001-100,000 sf	1,000 sf	\$8,479	\$8,170	\$4,748	\$4,575	\$7,953	\$9,834	\$11,241
710	General Office 100,001-200,000 sf	1,000 sf	\$7,232	\$6,974	\$4,050	\$3,905	\$7,790	\$9,633	\$11,011
710	General Office greater than 200,000 sf	1,000 sf	\$6,169	\$5,947	\$3,455	\$3,330	\$7,621	\$9,425	\$10,775
720	Small Medical/Dental Office (10,000 sf or less)	1,000 sf	\$23,035	\$22,225	\$12,900	\$12,446	\$18,872	\$23,107	\$26,402
720	Medical/Dental Office	1,000 sf	\$23,035	\$22,225	\$12,900	\$12,446	\$27,101	\$33,099	\$37,817
732	Post Office	1,000 sf	\$36,621	\$35,318	\$20,508	\$19,778	\$42,201	\$51,502	\$58,845
RETAIL:									
815	Free-Standing Discount Store	1,000 sf	\$10,507	\$10,069	\$5,884	\$5,639	\$11,105	\$12,981	\$13,826
816	Hardware/Paint Store	1,000 sf	\$6,033	\$5,770	\$3,378	\$3,231	\$1,079	\$1,404	\$1,499
820	Retail/Tourist Retail: 50,000 sf or less	1,000 sf	\$10,178	\$9,741	\$5,700	\$5,455	\$10,051	\$11,818	\$12,594
820	Retail/Tourist Retail: 50,001-100,000 sf	1,000 sf	\$10,956	\$10,493	\$6,135	\$5,876	\$11,052	\$12,926	\$13,769
820	Retail/Tourist Retail: 100,001-200,000 sf	1,000 sf	\$9,780	\$9,368	\$5,477	\$5,246	\$10,052	\$11,763	\$12,529
820	Retail/Tourist Retail: 200,001-300,000 sf	1,000 sf	\$9,476	\$9,090	\$5,307	\$5,090	\$9,852	\$11,532	\$12,282
820	Retail/Tourist Retail: 300,001-400,000 sf	1,000 sf	\$9,230	\$8,857	\$5,169	\$4,960	\$9,676	\$11,312	\$12,047
820	Retail/Tourist Retail: 400,001-500,000 sf	1,000 sf	\$9,170	\$8,796	\$5,135	\$4,926	\$9,667	\$11,301	\$12,035
820	Retail/Tourist Retail: 500,001-1,000,000 sf	1,000 sf	\$9,498	\$9,139	\$5,319	\$5,118	\$10,244	\$11,928	\$12,699
820	Retail/Tourist Retail: 1,000,001-1,200,000 sf	1,000 sf	\$9,664	\$9,292	\$5,412	\$5,204	\$10,475	\$12,188	\$12,975
820	Retail/Tourist Retail: greater than 1,200,000 sf	1,000 sf	\$9,883	\$9,499	\$5,534	\$5,319	\$10,770	\$12,517	\$13,323
840/841	New/Used Auto Sales	1,000 sf	\$11,207	\$10,786	\$6,276	\$6,040	\$11,875	\$13,755	\$14,639
850	Supermarket	1,000 sf	\$13,609	\$13,034	\$7,621	\$7,299	\$16,070	\$18,789	\$20,016
853	Convenience Market w/Gas Pumps	1,000 sf	\$36,448	\$34,734	\$20,411	\$19,451	\$33,899	\$39,800	\$42,428
862	Home Improvement Superstore	1,000 sf	\$5,462	\$5,238	\$3,059	\$2,933	\$6,359	\$7,492	\$7,981
863	Electronics Superstore	1,000 sf	\$2,682	\$2,542	\$1,502	\$1,424	\$5,427	\$6,440	\$6,865
880/881	Drug Store	1,000 sf	\$19,928	\$19,173	\$11,160	\$10,737	\$8,915	\$10,476	\$11,162
SERVICES:									
911	Bank/Savings Walk-In	1,000 sf	\$20,581	\$19,733	\$11,525	\$11,050	\$8,404	\$10,094	\$10,758
912	Bank/Savings Drive-In	1,000 sf	\$20,581	\$19,733	\$11,525	\$11,050	\$14,868	\$17,571	\$18,719
925	Drinking Place	1,000 sf	\$6,739	\$6,411	\$3,774	\$3,590	\$15,293	\$17,918	\$19,094
931	Quality Restaurant	1,000 sf	\$25,452	\$24,447	\$14,253	\$13,690	\$27,456	\$31,864	\$33,925
932	High-Turnover Restaurant	1,000 sf	\$30,310	\$29,132	\$16,974	\$16,314	\$31,604	\$36,650	\$39,017
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	\$68,684	\$65,731	\$38,463	\$36,809	\$74,592	\$86,876	\$92,547
942	Auto Service	1,000 sf	\$12,306	\$11,876	\$6,891	\$6,651	\$9,708	\$11,271	\$11,998
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	\$8,321	\$7,957	\$4,660	\$4,456	\$9,798	\$11,409	\$12,154
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	\$8,321	\$7,957	\$4,660	\$4,456	\$11,709	\$13,620	\$14,511
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	\$8,321	\$7,957	\$4,660	\$4,456	\$13,136	\$15,287	\$16,286
947	Self-Service Car Wash	wash station	\$18,197	\$17,421	\$10,190	\$9,756	\$20,980	\$24,344	\$25,929
INDUSTRIAL:									
110	General Light Industrial	1,000 sf	\$3,863	\$3,728	\$2,163	\$2,088	\$3,117	\$3,857	\$4,410
140	Manufacturing	1,000 sf	\$2,116	\$2,043	\$1,185	\$1,144	\$2,447	\$3,049	\$3,487
150	Warehouse	1,000 sf	\$1,977	\$1,903	\$1,107	\$1,066	\$1,050	\$1,347	\$1,541
151	Mini-Warehouse	1,000 sf	\$707	\$682	\$396	\$382	\$578	\$780	\$893
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	\$707	\$682	\$396	\$382	\$839	\$1,075	\$1,231

1) Source: Orange County Transportation Impact Fee Update, November 29, 2012

2) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees were adopted at 42 percent in 2012 and increased to 56 percent in 2014

3) Source: Table E-2

4) Source: Table E-3

5) Source: Table E-4

Highlight indicates a new land use or re-alignment of uses. Additional explanation is provided on page 7.

**Table E-2
Calculated Multi-Modal Impact Fee Schedule – Urban Fee District**

		Gasoline Tax				City Revenues:				Unit Cost per Lane Mile:				Interstate/Toll Facility Adjustment Factor:					
		\$ per gallon to capital:		\$0.197		\$0.003				\$4,540,000				36.1%					
		Facility life (years):		25		\$0.054				Average VMC per Lane Mile:		9,000		Cost per VMC:		\$504.44			
		Interest rate:		4.0%		\$0.140				Fuel Efficiency:		18.92 mpg							
										Effective days per year:		365							
ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Residential:																			
210	Single Family (Detached) - 1,200 sf or less	du	6.15	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	16.27	\$8,207	\$103	\$1,609	\$173	\$6,425	\$3,898	65%
210	Single Family (Detached) - 1,201 to 2,000 sf	du	7.81	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	20.66	\$10,422	\$130	\$2,031	\$173	\$8,218	\$3,898	111%
210	Single Family (Detached) - 2,001 to 3,500 sf	du	9.63	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	25.48	\$12,851	\$161	\$2,515	\$173	\$10,163	\$3,898	161%
210	Single Family (Detached) - greater than 3,500 sf	du	10.07	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	26.64	\$13,438	\$168	\$2,625	\$173	\$10,640	\$3,898	173%
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 floors)	du	7.32	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	14.92	\$7,527	\$96	\$1,500	\$90	\$5,937	\$2,524	135%
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	5.44	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	11.09	\$5,594	\$71	\$1,109	\$90	\$4,395	\$2,524	74%
222	Multi-Family Housing (High-Rise, >10 floors)	du	4.45	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	9.07	\$4,576	\$58	\$906	\$90	\$3,580	\$1,598	124%
225	Student Housing (Adjacent to Campus)	bedroom	3.15	ITE 10th Edition	2.55	1.25	3.19	3.69	Same as LUC 220 (adjusted)	100%	n/a	3.21	\$1,620	\$22	\$344	\$30	\$1,246	-	-
225	Student Housing (Over 1/2 mile from Campus)	bedroom	3.97	ITE 10th Edition	3.83	1.25	4.79	5.29	Same as LUC 220 (adjusted)	100%	n/a	6.08	\$3,065	\$40	\$625	\$30	\$2,410	-	-
231	Mid-Rise Residential w/1st floor Commercial	du	3.44	ITE 10th Edition	5.10	1.25	6.38	6.88	Same as LUC 220	100%	n/a	7.01	\$3,537	\$45	\$703	\$90	\$2,744	-	-
232	High-Rise Residential w/1st floor Commercial	du	2.01	ITE 10th Edition (adjusted)	5.10	1.25	6.38	6.88	Same as LUC 220	100%	n/a	4.10	\$2,067	\$26	\$406	\$90	\$1,571	-	-
240	Mobile Home Park	du	4.17	Appendix A: LUC 240	4.60	1.25	5.75	6.25	Appendix A: LUC 240	100%	n/a	7.66	\$3,864	\$50	\$781	\$29	\$3,054	\$1,436	113%
251	Senior Adult Housing - Detached (Retirement Community/Age-Restricted Single Family)	du	3.50	Appendix A: LUC 251	5.42	1.25	6.78	7.28	Appendix A: LUC 251	100%	n/a	7.58	\$3,825	\$48	\$750	\$100	\$2,975	\$1,274	134%
252	Senior Adult Housing - Attached (Retirement Community/Age-Restricted Single Family)	du	3.33	Appendix A: LUC 252	4.34	1.25	5.43	5.93	Same as LUC 251 (adjusted) ⁽⁵⁾	100%	n/a	5.78	\$2,914	\$38	\$594	\$100	\$2,220	\$1,274	74%
265	Time Share	du	8.63	ITE 10th Edition	3.97	1.25	4.96	5.46	Previous Report	100%	n/a	13.68	\$6,899	\$90	\$1,406	\$150	\$5,343	\$2,076	157%
Lodging:																			
310	Hotel/Tourist Hotel	room	5.55	Appendix A: LUC 310	6.26	1.05	6.57	7.07	Appendix A: LUC 310	66%	Appendix A: LUC 310	7.69	\$3,879	\$49	\$765	\$81	\$3,033	\$1,978	53%
320	Motel	room	3.35	ITE 10th Edition	4.34	1.05	4.56	5.06	Appendix A: LUC 320	77%	Appendix A: LUC 320	3.76	\$1,896	\$25	\$391	\$65	\$1,440	\$1,411	2%
Recreational:																			
430	Golf Course	acre	3.74	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	90%	Based on LUC 710	7.47	\$3,770	\$48	\$750	\$179	\$2,841	\$2,267	25%
437	Bowling Alley	1,000 sf	13.00	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	90%	Based on LUC 710	20.22	\$10,201	\$131	\$2,046	\$163	\$7,992	\$11,604	-31%
444	Movie Theater with or without Matinee	1,000 sf	82.30	Appendix A: LUC 444	2.24	1.05	2.35	2.85	Appendix A: LUC 444	87%	Appendix A: LUC 444	53.76	\$27,119	\$388	\$6,061	\$163	\$20,895	\$11,151	87%
491	Racquet Club	1,000 sf	19.70	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	94%	Same as LUC 492	32.01	\$16,146	\$208	\$3,249	\$163	\$12,734	\$5,106	149%
492	Health/Fitness Club	1,000 sf	34.50	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	94%	Appendix A: LUC 492	56.06	\$28,276	\$364	\$5,686	\$163	\$22,427	\$11,974	87%
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	21.33	Appendix A: LUC N/A Dance Studio	3.37	1.05	3.54	4.04	Appendix A: LUC N/A Specialty Retail	85%	Appendix A: LUC N/A Specialty Retail	20.51	\$10,344	\$139	\$2,171	\$163	\$8,010	-	-
Institutional:																			
522	School	1,000 sf	20.17	ITE 10th Edition	3.31	1.05	3.48	3.98	50% of LUC 210: Travel Demand Model	80%	Based on LUC 710 (adjusted) ⁽⁶⁾	17.94	\$9,050	\$122	\$1,906	\$146	\$6,998	\$6,974	0%
560	Public Assembly	1,000 sf	6.95	ITE 10th Edition	3.91	1.05	4.11	4.61	Midpoint of LUC 710 & LUC 820 (App. A)	90%	Based on LUC 710	8.21	\$4,143	\$55	\$859	\$0	\$3,284	\$4,614	-29%
565	Day Care	1,000 sf	49.63	Appendix A: LUC 565	2.03	1.05	2.13	2.63	Appendix A: LUC 565	73%	Appendix A: LUC 565	24.66	\$12,437	\$181	\$2,828	\$163	\$9,446	\$7,043	34%

Table E-2 (continued)
Calculated Multi-Modal Impact Fee Schedule – Urban Fee District

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Institutional:																			
590	Library	1,000 sf	72.05	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	49%	Previous Report	78.39	\$39,545	\$500	\$7,811	\$0	\$31,734	\$12,015	164%
Medical:																			
610	Hospital	bed	22.32	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	78%	Midpoint of LUC 310 & LUC 720	38.66	\$19,501	\$246	\$3,843	\$17	\$15,641	\$3,968	294%
620	Nursing Home	1,000 sf	6.64	ITE 10th Edition	2.59	1.05	2.72	3.22	Appendix A: LUC 620	89%	Appendix A: LUC 620	5.14	\$2,591	\$36	\$562	\$130	\$1,899	\$369	415%
640	Animal Hospital/Veterinary Clinic	1,000 sf	24.20	Appendix A: LUC 640	1.90	1.05	2.00	2.50	Appendix A: LUC 640	70%	Appendix A: LUC 640	10.82	\$5,460	\$80	\$1,250	\$163	\$4,047	\$8,921	-55%
Office:																			
710	General Office 50,000 sf or less ⁽⁴⁾	1,000 sf	10.83	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	20.50	\$10,341	\$131	\$2,046	\$163	\$8,132	\$5,574	46%
710	General Office 50,001-100,000 sf ⁽⁴⁾	1,000 sf	10.61	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	20.08	\$10,131	\$129	\$2,015	\$163	\$7,953	\$4,748	68%
710	General Office 100,001-200,000 sf ⁽⁴⁾	1,000 sf	10.39	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	19.67	\$9,921	\$126	\$1,968	\$163	\$7,790	\$4,050	92%
710	General Office greater than 200,000 sf ⁽⁴⁾	1,000 sf	10.18	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	19.27	\$9,721	\$124	\$1,937	\$163	\$7,621	\$3,455	121%
720	Small Medical/Dental Office (10,000 sf or less)	1,000 sf	23.83	Appendix A: LUC 720 Small Medical/Dental	5.55	1.25	6.94	7.44	Appendix A: LUC 720	89%	Appendix A: LUC 720	47.03	\$23,722	\$300	\$4,687	\$163	\$18,872	\$12,900	46%
720	Medical/Dental Office	1,000 sf	34.12	Appendix A: LUC 720	5.55	1.25	6.94	7.44	Appendix A: LUC 720	89%	Appendix A: LUC 720	67.33	\$33,966	\$429	\$6,702	\$163	\$27,101	\$12,900	110%
732	Post Office	1,000 sf	103.94	ITE 10th Edition	5.15	1.25	6.44	6.94	Same as LUC 710	49%	Previous Report	104.79	\$52,862	\$672	\$10,498	\$163	\$42,201	\$20,508	106%
Retail:																			
815	Free-Standing Discount Store	1,000 sf	53.12	ITE 10th Edition	2.40	1.05	2.52	3.02	Same as LUC 820 (100-200k)	67%	Same as LUC 820 (100-200k)	28.66	\$14,455	\$204	\$3,187	\$163	\$11,105	\$5,884	89%
816	Hardware/Paint	1,000 sf	9.14	ITE 10th Edition	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	3.21	\$1,617	\$24	\$375	\$163	\$1,079	\$3,378	-68%
820	Retail/Tourist Retail: 50,000 sfgla or less ⁽⁴⁾	1,000 sfgla	75.05	ITE 10th equation	1.87	1.05	1.96	2.46	Appendix A: Figure A-2	56%	Appendix A: Figure A-3	26.32	\$13,276	\$196	\$3,062	\$163	\$10,051	\$5,700	76%
820	Retail/Tourist Retail: 50,001-100,000 sfgla ⁽⁴⁾	1,000 sfgla	60.12	ITE 10th equation	2.29	1.05	2.40	2.90	Appendix A: Figure A-2	62%	Appendix A: Figure A-3	28.58	\$14,418	\$205	\$3,203	\$163	\$11,052	\$6,135	80%
820	Retail/Tourist Retail: 100,001-200,000 sfgla ⁽⁴⁾	1,000 sfgla	48.16	ITE 10th equation	2.40	1.05	2.52	3.02	Appendix A: Figure A-2	67%	Appendix A: Figure A-3	25.98	\$13,105	\$185	\$2,890	\$163	\$10,052	\$5,477	84%
820	Retail/Tourist Retail: 200,001-300,000 sfgla ⁽⁴⁾	1,000 sfgla	42.30	ITE 10th equation	2.52	1.05	2.65	3.15	Appendix A: Figure A-2	71%	Appendix A: Figure A-3	25.43	\$12,827	\$180	\$2,812	\$163	\$9,852	\$5,307	86%
820	Retail/Tourist Retail: 300,001-400,000 sfgla ⁽⁴⁾	1,000 sfgla	38.58	ITE 10th equation	2.64	1.05	2.77	3.27	Appendix A: Figure A-2	73%	Appendix A: Figure A-3	24.93	\$12,573	\$175	\$2,734	\$163	\$9,676	\$5,169	87%
820	Retail/Tourist Retail: 400,001-500,000 sfgla ⁽⁴⁾	1,000 sfgla	35.92	ITE 10th equation	2.75	1.05	2.89	3.39	Appendix A: Figure A-2	75%	Appendix A: Figure A-3	24.88	\$12,548	\$174	\$2,718	\$163	\$9,667	\$5,135	88%
820	Retail/Tourist Retail: 500,001-1,000,000 sfgla ⁽⁴⁾	1,000 sfgla	28.78	ITE 10th equation	3.34	1.05	3.51	4.01	Appendix A: Figure A-2	81%	Appendix A: Figure A-3	26.14	\$13,188	\$178	\$2,781	\$163	\$10,244	\$5,319	93%
820	Retail/Tourist Retail: 1,000,001-1,200,000 sfgla ⁽⁴⁾	1,000 sfgla	27.14	ITE 10th equation	3.57	1.05	3.75	4.25	Appendix A: Figure A-2	82%	Appendix A: Figure A-3	26.66	\$13,450	\$180	\$2,812	\$163	\$10,475	\$5,412	94%
820	Retail/Tourist Retail: greater than 1,200,000 sfgla ⁽⁴⁾	1,000 sfgla	25.84	ITE 10th equation	3.80	1.05	3.99	4.49	Appendix A: Figure A-2	83%	Appendix A: Figure A-3	27.34	\$13,792	\$183	\$2,859	\$163	\$10,770	\$5,534	95%
840/841	New/Used Auto Sales	1,000 sf	24.58	Appendix A: LUC 840/841	4.60	1.05	4.83	5.33	Appendix A: LUC 840/841	79%	Appendix A: LUC 840/841	29.97	\$15,116	\$197	\$3,078	\$163	\$11,875	\$6,276	89%
850	Supermarket	1,000 sf	106.64	Appendix A: LUC 850	2.08	1.05	2.18	2.68	Appendix A: LUC 850	56%	Appendix A: LUC 850	41.59	\$20,982	\$304	\$4,749	\$163	\$16,070	\$7,621	111%
853	Convenience Market w/Gas Pumps	1,000 sf	626.25	Appendix A: LUC 853	1.51	1.05	1.59	2.09	Appendix A: LUC 853	28%	Appendix A: LUC 853	89.08	\$44,935	\$696	\$10,873	\$163	\$33,899	\$20,411	66%
862	Home Improvement Superstore	1,000 sf	30.74	ITE 10th Edition	2.40	1.05	2.52	3.02	Same as LUC 820 (100-200k)	67%	Same as LUC 820 (100-200k)	16.58	\$8,365	\$118	\$1,843	\$163	\$6,359	\$3,059	108%
863	Electronics Superstore	1,000 sf	41.05	ITE 10th Edition	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	14.40	\$7,262	\$107	\$1,672	\$163	\$5,427	\$1,502	261%
880/881	Drug Store	1,000 sf	104.37	Appendix A: LUC 880/881	2.08	1.05	2.18	2.68	Appendix A: LUC 880/881	32%	Appendix A: LUC 880/881	23.26	\$11,734	\$170	\$2,656	\$163	\$8,915	\$11,160	-20%

Table E-2 (continued)
Calculated Multi-Modal Impact Fee Schedule – Urban Fee District

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Services:																			
911	Bank/Savings Walk-In	1,000 sf	59.39	ITE 10th Edition (adjusted)	2.46	1.05	2.58	3.08	Same as LUC 912	46%	Same as LUC 912	22.52	\$11,360	\$160	\$2,500	\$456	\$8,404	\$11,525	-27%
912	Bank/Savings Drive-In	1,000 sf	102.66	Appendix A: LUC 912	2.46	1.05	2.58	3.08	Appendix A: LUC 912	46%	Appendix A: LUC 912	38.93	\$19,636	\$276	\$4,312	\$456	\$14,868	\$11,525	29%
925	Drinking Place	1,000 sf	113.60	ITE 10th Edition (adjusted)	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	39.84	\$20,096	\$297	\$4,640	\$163	\$15,293	\$3,774	305%
931	Quality Restaurant	1,000 sf	86.03	Appendix A: LUC 931	3.14	1.05	3.30	3.80	Appendix A: LUC 931	77%	Appendix A: LUC 931	69.84	\$35,232	\$478	\$7,467	\$309	\$27,456	\$14,253	93%
932	High-Turnover Restaurant	1,000 sf	106.26	Appendix A: LUC 932	3.17	1.05	3.33	3.83	Appendix A: LUC 932	71%	Appendix A: LUC 932	80.27	\$40,490	\$549	\$8,577	\$309	\$31,604	\$16,974	86%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	482.53	Appendix A: LUC 934	2.05	1.05	2.15	2.65	Appendix A: LUC 934	58%	Appendix A: LUC 934	192.25	\$96,978	\$1,409	\$22,012	\$374	\$74,592	\$38,463	94%
942	Auto Service	1,000 sf	28.19	Appendix A: LUC 942	3.62	1.05	3.80	4.30	Appendix A: LUC 942	72%	Appendix A: LUC 942	24.64	\$12,431	\$166	\$2,593	\$130	\$9,708	\$6,891	41%
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	172.01	ITE 10th Edition	1.90	1.05	2.00	2.50	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	25.28	\$12,752	\$188	\$2,937	\$17	\$9,798	\$4,660	110%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	205.36	ITE 10th Edition	1.90	1.05	2.00	2.50	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	30.18	\$15,225	\$224	\$3,499	\$17	\$11,709	\$4,660	151%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	230.52	ITE 10th Edition	1.90	1.05	2.00	2.50	Same as LUC 945	23%	Same as LUC 945	33.88	\$17,090	\$252	\$3,937	\$17	\$13,136	\$4,660	182%
947	Self-Service Car Wash	wash stn.	108.00	ITE 10th Edition	2.18	1.05	2.29	2.79	Appendix A: LUC 947	68%	Appendix A: LUC 947	53.73	\$27,105	\$389	\$6,077	\$48	\$20,980	\$10,190	106%
Industrial:																			
110	General Light Industrial	1,000 sf	4.96	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	7.89	\$3,979	\$51	\$797	\$65	\$3,117	\$2,163	44%
140	Manufacturing	1,000 sf	3.93	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	6.25	\$3,153	\$41	\$641	\$65	\$2,447	\$1,185	106%
150	Warehousing	1,000 sf	1.74	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	2.77	\$1,396	\$18	\$281	\$65	\$1,050	\$1,107	-5%
151	Mini-Warehouse	1,000 sf	1.49	Appendix A: LUC 151	3.51	1.05	3.69	4.19	Midpoint of LUC 710 & LUC 820 <50k	92%	Same as LUC 710	1.62	\$815	\$11	\$172	\$65	\$578	\$396	46%
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	1.40	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	2.23	\$1,123	\$14	\$219	\$65	\$839	\$396	112%

1) Initial trip length multiplied by the trip length adjustment factor

2) Net PMT 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

3) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees were adopted at 42 percent in 2012 and phased to 56 percent in 2014. Senior Adult Housing – Detached (LUC 251) rate is shown for Senior Adult Housing – Attached (LUC 252). Mini-Warehouse (LUC 151) rate is shown for High-Cube Warehouse (LUC 154)

4) The trip rates for office and retail/shopping center use an end-point regression value

5) The trip length for Senior Adult Housing Detached was based on the trip length for LUC 252, but was then adjusted by 80% based on the relationship of the trip lengths for LUC 210 (Single Family Detached) and LUC 220 (Multi-Family)

6) The percent new trips for schools was estimated at 90 percent, based on LUC 710, but then adjusted to 80% to provide a conservative fee rate. This adjustment reflects the nature of the elementary and middle school uses where attendees are unable to drive and are dropped off by parents on their way to another destination

*Refer to the Trip Characteristics Database section of Appendix A for additional support detail and backup information

**Table E-3
Calculated Transportation Impact Fee Schedule – Non-Urban/Suburban Fee District**

		Gasoline Tax				City Revenues:		County Revenues:		State Revenues:		Unit Cost per Lane Mile:		Average VMC per Lane Mile:		Fuel Efficiency:		Effective days per year:		Interstate/Toll Facility Adjustment Factor:		Cost per VMC (Residential/Office/Industrial):		Cost per VMC (Other Non-Residential):		
		\$0.135	\$0.001	\$0.001	\$0.049	\$0.085	\$4,540,000	8,100	8,550	18.92 mpg	365	36.1%	\$560.49	\$530.99												
ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change							
Residential:																										
210	Single Family (Detached) - 1,200 sf or less	du	6.15	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	16.27	\$9,119	\$70	\$1,094	\$52	\$7,973	\$3,898	105%							
210	Single Family (Detached) - 1,201 to 2,000 sf	du	7.81	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	20.66	\$11,580	\$89	\$1,390	\$52	\$10,138	\$3,898	160%							
210	Single Family (Detached) - 2,001 to 3,500 sf	du	9.63	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	25.48	\$14,279	\$110	\$1,718	\$52	\$12,509	\$3,898	221%							
210	Single Family (Detached) - greater than 3,500 sf	du	10.07	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	26.64	\$14,931	\$115	\$1,797	\$52	\$13,082	\$3,898	236%							
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 floors)	du	7.32	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	14.92	\$8,363	\$66	\$1,031	\$29	\$7,303	\$2,524	189%							
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	5.44	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	11.09	\$6,215	\$49	\$765	\$29	\$5,421	\$2,524	115%							
222	Multi-Family Housing (High-Rise, >10 floors)	du	4.45	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	9.07	\$5,084	\$40	\$625	\$29	\$4,430	\$1,598	177%							
225	Student Housing (Adjacent to Campus)	bedroom	3.15	ITE 10th Edition	2.55	1.25	3.19	3.69	Same as LUC 220 (adjusted)	100%	n/a	3.21	\$1,799	\$15	\$234	\$10	\$1,555	-	-							
225	Student Housing (Over 1/2 mile from Campus)	bedroom	3.97	ITE 10th Edition	3.83	1.25	4.79	5.29	Same as LUC 220 (adjusted)	100%	n/a	6.08	\$3,405	\$27	\$422	\$10	\$2,973	-	-							
231	Mid-Rise Residential w/1st floor Commercial	du	3.44	ITE 10th Edition	5.10	1.25	6.38	6.88	Same as LUC 220	100%	n/a	7.01	\$3,930	\$31	\$484	\$29	\$3,417	-	-							
232	High-Rise Residential w/1st floor Commercial	du	2.01	ITE 10th Edition (adjusted)	5.10	1.25	6.38	6.88	Same as LUC 220	100%	n/a	4.10	\$2,296	\$18	\$281	\$29	\$1,986	-	-							
240	Mobile Home Park	du	4.17	Appendix A: LUC 240	4.60	1.25	5.75	6.25	Appendix A: LUC 240	100%	n/a	7.66	\$4,294	\$34	\$531	\$8	\$3,755	\$1,436	161%							
251	Senior Adult Housing - Detached (Retirement Community/Age-Restricted Single Family)	du	3.50	Appendix A: LUC 251	5.42	1.25	6.78	7.28	Appendix A: LUC 251	100%	n/a	7.58	\$4,249	\$33	\$516	\$29	\$3,704	\$1,274	191%							
252	Senior Adult Housing - Attached (Retirement Community/Age-Restricted Single Family)	du	3.33	Appendix A: LUC 252	4.34	1.25	5.43	5.93	Same as LUC 251 (adjusted) ⁽⁵⁾	100%	n/a	5.78	\$3,238	\$26	\$406	\$29	\$2,803	\$1,274	120%							
265	Time Share	du	8.63	ITE 10th Edition	3.97	1.25	4.96	5.46	Previous Report	100%	n/a	13.68	\$7,665	\$61	\$953	\$52	\$6,660	\$2,076	221%							
Lodging:																										
310	Hotel/Tourist Hotel	room	5.55	Appendix A: LUC 310	6.26	1.05	6.57	7.07	Appendix A: LUC 310	66%	Appendix A: LUC 310	7.69	\$4,083	\$34	\$531	\$33	\$3,519	\$1,978	78%							
320	Motel	room	3.35	ITE 10th Edition	4.34	1.05	4.56	5.06	Appendix A: LUC 320	77%	Appendix A: LUC 320	3.76	\$1,996	\$17	\$266	\$17	\$1,713	\$1,411	21%							
Recreational:																										
430	Golf Course	acre	3.74	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	90%	Based on LUC 710	7.47	\$3,969	\$33	\$516	\$65	\$3,388	\$2,267	49%							
437	Bowling Alley	1,000 sf	13.00	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	90%	Based on LUC 710	20.22	\$10,738	\$90	\$1,406	\$48	\$9,284	\$11,604	-20%							
444	Movie Theater with or without Matinee	1,000 sf	82.30	Appendix A: LUC 444	2.24	1.05	2.35	2.85	Appendix A: LUC 444	87%	Appendix A: LUC 444	53.76	\$28,546	\$266	\$4,155	\$48	\$24,343	\$11,151	118%							
491	Racquet Club	1,000 sf	19.70	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	94%	Same as LUC 492	32.01	\$16,996	\$143	\$2,234	\$48	\$14,714	\$5,106	188%							
492	Health/Fitness Club	1,000 sf	34.50	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	94%	Appendix A: LUC 492	56.06	\$29,765	\$250	\$3,906	\$48	\$25,811	\$11,974	116%							
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	21.33	Appendix A: LUC N/A Dance Studio	3.37	1.05	3.54	4.04	Appendix A: LUC N/A Specialty Retail	85%	Appendix A: LUC N/A Specialty Retail	20.51	\$10,889	\$95	\$1,484	\$48	\$9,357	-	-							
Institutional:																										
522	School	1,000 sf	20.17	ITE 10th Edition	3.31	1.05	3.48	3.98	50% of LUC 210: Travel Demand Model	80%	Based on LUC 710 (adjusted) ⁽⁶⁾	17.94	\$9,526	\$84	\$1,312	\$48	\$8,166	\$6,974	17%							
560	Public Assembly	1,000 sf	6.95	ITE 10th Edition	3.91	1.05	4.11	4.61	Midpoint of LUC 710 & LUC 820 (App. A)	90%	Based on LUC 710	8.21	\$4,361	\$38	\$594	\$0	\$3,767	\$4,614	-18%							
565	Day Care	1,000 sf	49.63	Appendix A: LUC 565	2.03	1.05	2.13	2.63	Appendix A: LUC 565	73%	Appendix A: LUC 565	24.66	\$13,092	\$124	\$1,937	\$48	\$11,107	\$7,043	58%							

Table E-3 (continued)
Calculated Transportation Impact Fee Schedule – Non-Urban/Suburban Fee District

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Institutional:																			
590	Library	1,000 sf	72.05	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	49%	Previous Report	78.39	\$41,627	\$343	\$5,358	\$0	\$36,269	\$12,015	202%
Medical:																			
610	Hospital	bed	22.32	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	78%	Midpoint of LUC 310 & LUC 720	38.66	\$20,527	\$169	\$2,640	\$0	\$17,887	\$3,968	351%
620	Nursing Home	1,000 sf	6.64	ITE 10th Edition	2.59	1.05	2.72	3.22	Appendix A: LUC 620	89%	Appendix A: LUC 620	5.14	\$2,727	\$25	\$391	\$48	\$2,288	\$369	520%
640	Animal Hospital/Veterinary Clinic	1,000 sf	24.20	Appendix A: LUC 640	1.90	1.05	2.00	2.50	Appendix A: LUC 640	70%	Appendix A: LUC 640	10.82	\$5,748	\$55	\$859	\$48	\$4,841	\$8,921	-46%
Office:																			
710	General Office 50,000 sf or less ⁽⁴⁾	1,000 sf	10.83	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	20.50	\$11,491	\$90	\$1,406	\$48	\$10,037	\$5,574	80%
710	General Office 50,001-100,000 sf ⁽⁴⁾	1,000 sf	10.61	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	20.08	\$11,257	\$88	\$1,375	\$48	\$9,834	\$4,748	107%
710	General Office 100,001-200,000 sf ⁽⁴⁾	1,000 sf	10.39	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	19.67	\$11,024	\$86	\$1,343	\$48	\$9,633	\$4,050	138%
710	General Office greater than 200,000 sf ⁽⁴⁾	1,000 sf	10.18	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	19.27	\$10,801	\$85	\$1,328	\$48	\$9,425	\$3,455	173%
720	Small Medical/Dental Office (10,000 sf or less)	1,000 sf	23.83	Appendix A: LUC 720 Small Medical/Dental	5.55	1.25	6.94	7.44	Appendix A: LUC 720	89%	Appendix A: LUC 720	47.03	\$26,358	\$205	\$3,203	\$48	\$23,107	\$12,900	79%
720	Medical/Dental Office	1,000 sf	34.12	Appendix A: LUC 720	5.55	1.25	6.94	7.44	Appendix A: LUC 720	89%	Appendix A: LUC 720	67.33	\$37,740	\$294	\$4,593	\$48	\$33,099	\$12,900	157%
732	Post Office	1,000 sf	103.94	ITE 10th Edition	5.15	1.25	6.44	6.94	Same as LUC 710	49%	Previous Report	104.79	\$58,736	\$460	\$7,186	\$48	\$51,502	\$20,508	151%
Retail:																			
815	Free-Standing Discount Store	1,000 sf	53.12	ITE 10th Edition	2.40	1.05	2.52	3.02	Same as LUC 820 (100-200k)	67%	Same as LUC 820 (100-200k)	28.66	\$15,216	\$140	\$2,187	\$48	\$12,981	\$5,884	121%
816	Hardware/Paint	1,000 sf	9.14	ITE 10th Edition	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	3.21	\$1,702	\$16	\$250	\$48	\$1,404	\$3,378	-58%
820	Retail/Tourist Retail: 50,000 sfgla or less ⁽⁴⁾	1,000 sfgla	75.05	ITE 10th equation	1.87	1.05	1.96	2.46	Appendix A: Figure A-2	56%	Appendix A: Figure A-3	26.32	\$13,975	\$135	\$2,109	\$48	\$11,818	\$5,700	107%
820	Retail/Tourist Retail: 50,001-100,000 sfgla ⁽⁴⁾	1,000 sfgla	60.12	ITE 10th equation	2.29	1.05	2.40	2.90	Appendix A: Figure A-2	62%	Appendix A: Figure A-3	28.58	\$15,177	\$141	\$2,203	\$48	\$12,926	\$6,135	111%
820	Retail/Tourist Retail: 100,001-200,000 sfgla ⁽⁴⁾	1,000 sfgla	48.16	ITE 10th equation	2.40	1.05	2.52	3.02	Appendix A: Figure A-2	67%	Appendix A: Figure A-3	25.98	\$13,795	\$127	\$1,984	\$48	\$11,763	\$5,477	115%
820	Retail/Tourist Retail: 200,001-300,000 sfgla ⁽⁴⁾	1,000 sfgla	42.30	ITE 10th equation	2.52	1.05	2.65	3.15	Appendix A: Figure A-2	71%	Appendix A: Figure A-3	25.43	\$13,502	\$123	\$1,922	\$48	\$11,532	\$5,307	117%
820	Retail/Tourist Retail: 300,001-400,000 sfgla ⁽⁴⁾	1,000 sfgla	38.58	ITE 10th equation	2.64	1.05	2.77	3.27	Appendix A: Figure A-2	73%	Appendix A: Figure A-3	24.93	\$13,235	\$120	\$1,875	\$48	\$11,312	\$5,169	119%
820	Retail/Tourist Retail: 400,001-500,000 sfgla ⁽⁴⁾	1,000 sfgla	35.92	ITE 10th equation	2.75	1.05	2.89	3.39	Appendix A: Figure A-2	75%	Appendix A: Figure A-3	24.88	\$13,208	\$119	\$1,859	\$48	\$11,301	\$5,135	120%
820	Retail/Tourist Retail: 500,001-1,000,000 sfgla ⁽⁴⁾	1,000 sfgla	28.78	ITE 10th equation	3.34	1.05	3.51	4.01	Appendix A: Figure A-2	81%	Appendix A: Figure A-3	26.14	\$13,882	\$122	\$1,906	\$48	\$11,928	\$5,319	124%
820	Retail/Tourist Retail: 1,000,001-1,200,000 sfgla ⁽⁴⁾	1,000 sfgla	27.14	ITE 10th equation	3.57	1.05	3.75	4.25	Appendix A: Figure A-2	82%	Appendix A: Figure A-3	26.66	\$14,158	\$123	\$1,922	\$48	\$12,188	\$5,412	125%
820	Retail/Tourist Retail: greater than 1,200,000 sfgla ⁽⁴⁾	1,000 sfgla	25.84	ITE 10th equation	3.80	1.05	3.99	4.49	Appendix A: Figure A-2	83%	Appendix A: Figure A-3	27.34	\$14,518	\$125	\$1,953	\$48	\$12,517	\$5,534	126%
840/841	New/Used Auto Sales	1,000 sf	24.58	Appendix A: LUC 840/841	4.60	1.05	4.83	5.33	Appendix A: LUC 840/841	79%	Appendix A: LUC 840/841	29.97	\$15,912	\$135	\$2,109	\$48	\$13,755	\$6,276	119%
850	Supermarket	1,000 sf	106.64	Appendix A: LUC 850	2.08	1.05	2.18	2.68	Appendix A: LUC 850	56%	Appendix A: LUC 850	41.59	\$22,086	\$208	\$3,249	\$48	\$18,789	\$7,621	147%
853	Convenience Market w/Gas Pumps	1,000 sf	626.25	Appendix A: LUC 853	1.51	1.05	1.59	2.09	Appendix A: LUC 853	28%	Appendix A: LUC 853	89.08	\$47,300	\$477	\$7,452	\$48	\$39,800	\$20,411	95%
862	Home Improvement Superstore	1,000 sf	30.74	ITE 10th Edition	2.40	1.05	2.52	3.02	Same as LUC 820 (100-200k)	67%	Same as LUC 820 (100-200k)	16.58	\$8,805	\$81	\$1,265	\$48	\$7,492	\$3,059	145%
863	Electronics Superstore	1,000 sf	41.05	ITE 10th Edition	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	14.40	\$7,644	\$74	\$1,156	\$48	\$6,440	\$1,502	329%
880/881	Drug Store	1,000 sf	104.37	Appendix A: LUC 880/881	2.08	1.05	2.18	2.68	Appendix A: LUC 880/881	32%	Appendix A: LUC 880/881	23.26	\$12,352	\$117	\$1,828	\$48	\$10,476	\$11,160	-6%

Table E-3 (continued)
Calculated Transportation Impact Fee Schedule – Non-Urban/Suburban Fee District

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Services:																			
911	Bank/Savings Walk-In	1,000 sf	59.39	ITE 10th Edition (adjusted)	2.46	1.05	2.58	3.08	Same as LUC 912	46%	Same as LUC 912	22.52	\$11,958	\$110	\$1,718	\$146	\$10,094	\$11,525	-12%
912	Bank/Savings Drive-In	1,000 sf	102.66	Appendix A: LUC 912	2.46	1.05	2.58	3.08	Appendix A: LUC 912	46%	Appendix A: LUC 912	38.93	\$20,670	\$189	\$2,953	\$146	\$17,571	\$11,525	52%
925	Drinking Place	1,000 sf	113.60	ITE 10th Edition (adjusted)	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	39.84	\$21,153	\$204	\$3,187	\$48	\$17,918	\$3,774	375%
931	Quality Restaurant	1,000 sf	86.03	Appendix A: LUC 931	3.14	1.05	3.30	3.80	Appendix A: LUC 931	77%	Appendix A: LUC 931	69.84	\$37,086	\$328	\$5,124	\$98	\$31,864	\$14,253	124%
932	High-Turnover Restaurant	1,000 sf	106.26	Appendix A: LUC 932	3.17	1.05	3.33	3.83	Appendix A: LUC 932	71%	Appendix A: LUC 932	80.27	\$42,622	\$376	\$5,874	\$98	\$36,650	\$16,974	116%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	482.53	Appendix A: LUC 934	2.05	1.05	2.15	2.65	Appendix A: LUC 934	58%	Appendix A: LUC 934	192.25	\$102,082	\$966	\$15,091	\$115	\$86,876	\$38,463	126%
942	Auto Service	1,000 sf	28.19	Appendix A: LUC 942	3.62	1.05	3.80	4.30	Appendix A: LUC 942	72%	Appendix A: LUC 942	24.64	\$13,085	\$114	\$1,781	\$33	\$11,271	\$6,891	64%
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	172.01	ITE 10th Edition	1.90	1.05	2.00	2.50	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	25.28	\$13,424	\$129	\$2,015	\$0	\$11,409	\$4,660	145%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	205.36	ITE 10th Edition	1.90	1.05	2.00	2.50	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	30.18	\$16,026	\$154	\$2,406	\$0	\$13,620	\$4,660	192%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	230.52	ITE 10th Edition	1.90	1.05	2.00	2.50	Same as LUC 945	23%	Same as LUC 945	33.88	\$17,990	\$173	\$2,703	\$0	\$15,287	\$4,660	228%
947	Self-Service Car Wash	wash stn.	108.00	ITE 10th Edition	2.18	1.05	2.29	2.79	Appendix A: LUC 947	68%	Appendix A: LUC 947	53.73	\$28,532	\$267	\$4,171	\$17	\$24,344	\$10,190	139%
Industrial:																			
110	General Light Industrial	1,000 sf	4.96	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	7.89	\$4,421	\$35	\$547	\$17	\$3,857	\$2,163	78%
140	Manufacturing	1,000 sf	3.93	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	6.25	\$3,503	\$28	\$437	\$17	\$3,049	\$1,185	157%
150	Warehousing	1,000 sf	1.74	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	2.77	\$1,551	\$12	\$187	\$17	\$1,347	\$1,107	22%
151	Mini-Warehouse	1,000 sf	1.49	Appendix A: LUC 151	3.51	1.05	3.69	4.19	Midpoint of LUC 710 & LUC 820 <50k	92%	Same as LUC 710	1.62	\$906	\$7	\$109	\$17	\$780	\$396	97%
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	1.40	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	2.23	\$1,248	\$10	\$156	\$17	\$1,075	\$396	171%

1) Initial trip length multiplied by the trip length adjustment factor

2) 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

3) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees were adopted at 42 percent in 2012 and phased to 56 percent in 2014. Senior Adult Housing – Detached (LUC 251) rate is shown for Senior Adult Housing – Attached (LUC 252). Mini-Warehouse (LUC 151) rate is shown for High-Cube Warehouse (LUC 154)

4) The trip rates for office and retail/shopping center use an end-point regression value

5) The trip length for Senior Adult Housing Detached was based on the trip length for LUC 252, but was then adjusted by 80% based on the relationship of the trip lengths for LUC 210 (Single Family Detached) and LUC 220 (Multi-Family)

6) The percent new trips for schools was estimated at 90 percent, based on LUC 710, but then adjusted to 80% to provide a conservative fee rate. This adjustment reflects the nature of the elementary and middle school uses where attendees are unable to drive and are dropped off by parents on their way to another destination

*Refer to the Trip Characteristics Database section of Appendix A for additional support detail and backup information

**Table E-4
Calculated Transportation Impact Fee Schedule – Rural Fee District**

Gasoline Tax		City Revenues:		Unit Cost per Lane Mile:		Interstate/Toll Facility Adjustment Factor:													
\$ per gallon to capital: \$0.135		\$0.001		\$4,540,000		36.1%													
Facility life (years): 25		\$0.049		Average VMC per Lane Mile: 7,200 8,100		Cost per VMC (Residential/Office/Industrial): \$630.56													
Interest rate: 4.0%		\$0.085		Fuel Efficiency: 18.92 mpg		Cost per VMC (Other Non-Residential): \$560.49													
				Effective days per year: 365															
ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Residential:																			
210	Single Family (Detached) - 1,200 sf or less	du	6.15	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	16.27	\$10,259	\$70	\$1,094	\$52	\$9,113	\$3,898	134%
210	Single Family (Detached) - 1,201 to 2,000 sf	du	7.81	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	20.66	\$13,028	\$89	\$1,390	\$52	\$11,586	\$3,898	197%
210	Single Family (Detached) - 2,001 to 3,500 sf	du	9.63	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	25.48	\$16,064	\$110	\$1,718	\$52	\$14,294	\$3,898	267%
210	Single Family (Detached) - greater than 3,500 sf	du	10.07	PUMS Tiering Analysis (Appendix A)	6.62	1.25	8.28	8.78	Appendix A: LUC 210	100%	n/a	26.64	\$16,798	\$115	\$1,797	\$52	\$14,949	\$3,898	284%
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 floors)	du	7.32	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	14.92	\$9,409	\$66	\$1,031	\$29	\$8,349	\$2,524	231%
221	Multi-Family Housing (Mid-Rise, 3-10 floors)	du	5.44	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	11.09	\$6,992	\$49	\$765	\$29	\$6,198	\$2,524	146%
222	Multi-Family Housing (High-Rise, >10 floors)	du	4.45	ITE 10th Edition	5.10	1.25	6.38	6.88	Appendix A: LUC 220/221/222	100%	n/a	9.07	\$5,720	\$40	\$625	\$29	\$5,066	\$1,598	217%
225	Student Housing (Adjacent to Campus)	bedroom	3.15	ITE 10th Edition	2.55	1.25	3.19	3.69	Same as LUC 220 (adjusted)	100%	n/a	3.21	\$2,024	\$15	\$234	\$10	\$1,780	-	-
225	Student Housing (Over 1/2 mile from Campus)	bedroom	3.97	ITE 10th Edition	3.83	1.25	4.79	5.29	Same as LUC 220 (adjusted)	100%	n/a	6.08	\$3,831	\$27	\$422	\$10	\$3,399	-	-
231	Mid-Rise Residential w/1st floor Commercial	du	3.44	ITE 10th Edition	5.10	1.25	6.38	6.88	Same as LUC 220	100%	n/a	7.01	\$4,422	\$31	\$484	\$29	\$3,909	-	-
232	High-Rise Residential w/1st floor Commercial	du	2.01	ITE 10th Edition (adjusted)	5.10	1.25	6.38	6.88	Same as LUC 220	100%	n/a	4.10	\$2,584	\$18	\$281	\$29	\$2,274	-	-
240	Mobile Home Park	du	4.17	Appendix A: LUC 240	4.60	1.25	5.75	6.25	Appendix A: LUC 240	100%	n/a	7.66	\$4,831	\$34	\$531	\$8	\$4,292	\$1,436	199%
251	Senior Adult Housing - Detached (Retirement Community/Age-Restricted Single Family)	du	3.50	Appendix A: LUC 251	5.42	1.25	6.78	7.28	Appendix A: LUC 251	100%	n/a	7.58	\$4,781	\$33	\$516	\$29	\$4,236	\$1,274	232%
252	Senior Adult Housing - Attached (Retirement Community/Age-Restricted Single Family)	du	3.33	Appendix A: LUC 252	4.34	1.25	5.43	5.93	Same as LUC 251 (adjusted) ⁽⁵⁾	100%	n/a	5.78	\$3,643	\$26	\$406	\$29	\$3,208	\$1,274	152%
265	Time Share	du	8.63	ITE 10th Edition	3.97	1.25	4.96	5.46	Previous Report	100%	n/a	13.68	\$8,624	\$61	\$953	\$52	\$7,619	\$2,076	267%
Lodging:																			
310	Hotel/Tourist Hotel	room	5.55	Appendix A: LUC 310	6.26	1.05	6.57	7.07	Appendix A: LUC 310	66%	Appendix A: LUC 310	7.69	\$4,310	\$34	\$531	\$33	\$3,746	\$1,978	89%
320	Motel	room	3.35	ITE 10th Edition	4.34	1.05	4.56	5.06	Appendix A: LUC 320	77%	Appendix A: LUC 320	3.76	\$2,106	\$17	\$266	\$17	\$1,823	\$1,411	29%
Recreational:																			
430	Golf Course	acre	3.74	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	90%	Based on LUC 710	7.47	\$4,189	\$33	\$516	\$65	\$3,608	\$2,267	59%
437	Bowling Alley	1,000 sf	13.00	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	90%	Based on LUC 710	20.22	\$11,335	\$90	\$1,406	\$48	\$9,881	\$11,604	-15%
444	Movie Theater with or without Matinee	1,000 sf	82.30	Appendix A: LUC 444	2.24	1.05	2.35	2.85	Appendix A: LUC 444	87%	Appendix A: LUC 444	53.76	\$30,132	\$266	\$4,155	\$48	\$25,929	\$11,151	133%
491	Racquet Club	1,000 sf	19.70	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	94%	Same as LUC 492	32.01	\$17,940	\$143	\$2,234	\$48	\$15,658	\$5,106	207%
492	Health/Fitness Club	1,000 sf	34.50	ITE 10th Edition (adjusted)	5.15	1.05	5.41	5.91	Same as LUC 710	94%	Appendix A: LUC 492	56.06	\$31,418	\$250	\$3,906	\$48	\$27,464	\$11,974	129%
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	21.33	Appendix A: LUC N/A Dance Studio	3.37	1.05	3.54	4.04	Appendix A: LUC N/A Specialty Retail	85%	Appendix A: LUC N/A Specialty Retail	20.51	\$11,493	\$95	\$1,484	\$48	\$9,961	-	-
Institutional:																			
522	School	1,000 sf	20.17	ITE 10th Edition	3.31	1.05	3.48	3.98	50% of LUC 210: Travel Demand Model	80%	Based on LUC 710 (adjusted) ⁽⁶⁾	17.94	\$10,056	\$84	\$1,312	\$48	\$8,696	\$6,974	25%
560	Public Assembly	1,000 sf	6.95	ITE 10th Edition	3.91	1.05	4.11	4.61	Midpoint of LUC 710 & LUC 820 (App. A)	90%	Based on LUC 710	8.21	\$4,604	\$38	\$594	\$0	\$4,010	\$4,614	-13%
565	Day Care	1,000 sf	49.63	Appendix A: LUC 565	2.03	1.05	2.13	2.63	Appendix A: LUC 565	73%	Appendix A: LUC 565	24.66	\$13,819	\$124	\$1,937	\$48	\$11,834	\$7,043	68%

Table E-4 (continued)
Calculated Transportation Impact Fee Schedule – Rural Fee District

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Institutional:																			
590	Library	1,000 sf	72.05	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	49%	Previous Report	78.39	\$43,939	\$343	\$5,358	\$0	\$38,581	\$12,015	221%
Medical:																			
610	Hospital	bed	22.32	ITE 10th Edition	6.62	1.05	6.95	7.45	Same as LUC 210	78%	Midpoint of LUC 310 & LUC 720	38.66	\$21,668	\$169	\$2,640	\$0	\$19,028	\$3,968	380%
620	Nursing Home	1,000 sf	6.64	ITE 10th Edition	2.59	1.05	2.72	3.22	Appendix A: LUC 620	89%	Appendix A: LUC 620	5.14	\$2,878	\$25	\$391	\$48	\$2,439	\$369	561%
640	Animal Hospital/Veterinary Clinic	1,000 sf	24.20	Appendix A: LUC 640	1.90	1.05	2.00	2.50	Appendix A: LUC 640	70%	Appendix A: LUC 640	10.82	\$6,067	\$55	\$859	\$48	\$5,160	\$8,921	-42%
Office:																			
710	General Office 50,000 sf or less ⁽⁴⁾	1,000 sf	10.83	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	20.50	\$12,927	\$90	\$1,406	\$48	\$11,473	\$5,574	106%
710	General Office 50,001-100,000 sf ⁽⁴⁾	1,000 sf	10.61	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	20.08	\$12,664	\$88	\$1,375	\$48	\$11,241	\$4,748	137%
710	General Office 100,001-200,000 sf ⁽⁴⁾	1,000 sf	10.39	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	19.67	\$12,402	\$86	\$1,343	\$48	\$11,011	\$4,050	172%
710	General Office greater than 200,000 sf ⁽⁴⁾	1,000 sf	10.18	ITE 10th equation	5.15	1.25	6.44	6.94	Appendix A: LUC 710	92%	Appendix A: LUC 710	19.27	\$12,151	\$85	\$1,328	\$48	\$10,775	\$3,455	212%
720	Small Medical/Dental Office (10,000 sf or less)	1,000 sf	23.83	Appendix A: LUC 720 Small Medical/Dental	5.55	1.25	6.94	7.44	Appendix A: LUC 720	89%	Appendix A: LUC 720	47.03	\$29,653	\$205	\$3,203	\$48	\$26,402	\$12,900	105%
720	Medical/Dental Office	1,000 sf	34.12	Appendix A: LUC 720	5.55	1.25	6.94	7.44	Appendix A: LUC 720	89%	Appendix A: LUC 720	67.33	\$42,458	\$294	\$4,593	\$48	\$37,817	\$12,900	193%
732	Post Office	1,000 sf	103.94	ITE 10th Edition	5.15	1.25	6.44	6.94	Same as LUC 710	49%	Previous Report	104.79	\$66,079	\$460	\$7,186	\$48	\$58,845	\$20,508	187%
Retail:																			
815	Free-Standing Discount Store	1,000 sf	53.12	ITE 10th Edition	2.40	1.05	2.52	3.02	Same as LUC 820 (100-200k)	67%	Same as LUC 820 (100-200k)	28.66	\$16,061	\$140	\$2,187	\$48	\$13,826	\$5,884	135%
816	Hardware/Paint	1,000 sf	9.14	ITE 10th Edition	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	3.21	\$1,797	\$16	\$250	\$48	\$1,499	\$3,378	-56%
820	Retail/Tourist Retail: 50,000 sfgla or less ⁽⁴⁾	1,000 sfgla	75.05	ITE 10th equation	1.87	1.05	1.96	2.46	Appendix A: Figure A-2	56%	Appendix A: Figure A-3	26.32	\$14,751	\$135	\$2,109	\$48	\$12,594	\$5,700	121%
820	Retail/Tourist Retail: 50,001-100,000 sfgla ⁽⁴⁾	1,000 sfgla	60.12	ITE 10th equation	2.29	1.05	2.40	2.90	Appendix A: Figure A-2	62%	Appendix A: Figure A-3	28.58	\$16,020	\$141	\$2,203	\$48	\$13,769	\$6,135	124%
820	Retail/Tourist Retail: 100,001-200,000 sfgla ⁽⁴⁾	1,000 sfgla	48.16	ITE 10th equation	2.40	1.05	2.52	3.02	Appendix A: Figure A-2	67%	Appendix A: Figure A-3	25.98	\$14,561	\$127	\$1,984	\$48	\$12,529	\$5,477	129%
820	Retail/Tourist Retail: 200,001-300,000 sfgla ⁽⁴⁾	1,000 sfgla	42.30	ITE 10th equation	2.52	1.05	2.65	3.15	Appendix A: Figure A-2	71%	Appendix A: Figure A-3	25.43	\$14,252	\$123	\$1,922	\$48	\$12,282	\$5,307	131%
820	Retail/Tourist Retail: 300,001-400,000 sfgla ⁽⁴⁾	1,000 sfgla	38.58	ITE 10th equation	2.64	1.05	2.77	3.27	Appendix A: Figure A-2	73%	Appendix A: Figure A-3	24.93	\$13,970	\$120	\$1,875	\$48	\$12,047	\$5,169	133%
820	Retail/Tourist Retail: 400,001-500,000 sfgla ⁽⁴⁾	1,000 sfgla	35.92	ITE 10th equation	2.75	1.05	2.89	3.39	Appendix A: Figure A-2	75%	Appendix A: Figure A-3	24.88	\$13,942	\$119	\$1,859	\$48	\$12,035	\$5,135	134%
820	Retail/Tourist Retail: 500,001-1,000,000 sfgla ⁽⁴⁾	1,000 sfgla	28.78	ITE 10th equation	3.34	1.05	3.51	4.01	Appendix A: Figure A-2	81%	Appendix A: Figure A-3	26.14	\$14,653	\$122	\$1,906	\$48	\$12,699	\$5,319	139%
820	Retail/Tourist Retail: 1,000,001-1,200,000 sfgla ⁽⁴⁾	1,000 sfgla	27.14	ITE 10th equation	3.57	1.05	3.75	4.25	Appendix A: Figure A-2	82%	Appendix A: Figure A-3	26.66	\$14,945	\$123	\$1,922	\$48	\$12,975	\$5,412	140%
820	Retail/Tourist Retail: greater than 1,200,000 sfgla ⁽⁴⁾	1,000 sfgla	25.84	ITE 10th equation	3.80	1.05	3.99	4.49	Appendix A: Figure A-2	83%	Appendix A: Figure A-3	27.34	\$15,324	\$125	\$1,953	\$48	\$13,323	\$5,534	141%
840/841	New/Used Auto Sales	1,000 sf	24.58	Appendix A: LUC 840/841	4.60	1.05	4.83	5.33	Appendix A: LUC 840/841	79%	Appendix A: LUC 840/841	29.97	\$16,796	\$135	\$2,109	\$48	\$14,639	\$6,276	133%
850	Supermarket	1,000 sf	106.64	Appendix A: LUC 850	2.08	1.05	2.18	2.68	Appendix A: LUC 850	56%	Appendix A: LUC 850	41.59	\$23,313	\$208	\$3,249	\$48	\$20,016	\$7,621	163%
853	Convenience Market w/Gas Pumps	1,000 sf	626.25	Appendix A: LUC 853	1.51	1.05	1.59	2.09	Appendix A: LUC 853	28%	Appendix A: LUC 853	89.08	\$49,928	\$477	\$7,452	\$48	\$42,428	\$20,411	108%
862	Home Improvement Superstore	1,000 sf	30.74	ITE 10th Edition	2.40	1.05	2.52	3.02	Same as LUC 820 (100-200k)	67%	Same as LUC 820 (100-200k)	16.58	\$9,294	\$81	\$1,265	\$48	\$7,981	\$3,059	161%
863	Electronics Superstore	1,000 sf	41.05	ITE 10th Edition	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	14.40	\$8,069	\$74	\$1,156	\$48	\$6,865	\$1,502	357%
880/881	Drug Store	1,000 sf	104.37	Appendix A: LUC 880/881	2.08	1.05	2.18	2.68	Appendix A: LUC 880/881	32%	Appendix A: LUC 880/881	23.26	\$13,038	\$117	\$1,828	\$48	\$11,162	\$11,160	0%

Table E-4 (continued)
Calculated Transportation Impact Fee Schedule – Rural Fee District

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source*	Initial Trip Length	Trip Length Adj. Factor	Assessable Trip Length ⁽¹⁾	Total Trip Length	Trip Length Source*	% New Trips	% New Trips Source*	Net VMT ⁽²⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Ad Valorem Credit	Net Impact Fee	Current Fee ⁽³⁾	% Change
Services:																			
911	Bank/Savings Walk-In	1,000 sf	59.39	ITE 10th Edition (adjusted)	2.46	1.05	2.58	3.08	Same as LUC 912	46%	Same as LUC 912	22.52	\$12,622	\$110	\$1,718	\$146	\$10,758	\$11,525	-7%
912	Bank/Savings Drive-In	1,000 sf	102.66	Appendix A: LUC 912	2.46	1.05	2.58	3.08	Appendix A: LUC 912	46%	Appendix A: LUC 912	38.93	\$21,818	\$189	\$2,953	\$146	\$18,719	\$11,525	62%
925	Drinking Place	1,000 sf	113.60	ITE 10th Edition (adjusted)	1.87	1.05	1.96	2.46	Same as LUC 820 (<50k)	56%	Same as LUC 820 (<50k)	39.84	\$22,329	\$204	\$3,187	\$48	\$19,094	\$3,774	406%
931	Quality Restaurant	1,000 sf	86.03	Appendix A: LUC 931	3.14	1.05	3.30	3.80	Appendix A: LUC 931	77%	Appendix A: LUC 931	69.84	\$39,147	\$328	\$5,124	\$98	\$33,925	\$14,253	138%
932	High-Turnover Restaurant	1,000 sf	106.26	Appendix A: LUC 932	3.17	1.05	3.33	3.83	Appendix A: LUC 932	71%	Appendix A: LUC 932	80.27	\$44,989	\$376	\$5,874	\$98	\$39,017	\$16,974	130%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	482.53	Appendix A: LUC 934	2.05	1.05	2.15	2.65	Appendix A: LUC 934	58%	Appendix A: LUC 934	192.25	\$107,753	\$966	\$15,091	\$115	\$92,547	\$38,463	141%
942	Auto Service	1,000 sf	28.19	Appendix A: LUC 942	3.62	1.05	3.80	4.30	Appendix A: LUC 942	72%	Appendix A: LUC 942	24.64	\$13,812	\$114	\$1,781	\$33	\$11,998	\$6,891	74%
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	172.01	ITE 10th Edition	1.90	1.05	2.00	2.50	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	25.28	\$14,169	\$129	\$2,015	\$0	\$12,154	\$4,660	161%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	205.36	ITE 10th Edition	1.90	1.05	2.00	2.50	Appendix A: LUC 944/945	23%	Appendix A: LUC 944/945	30.18	\$16,917	\$154	\$2,406	\$0	\$14,511	\$4,660	211%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	230.52	ITE 10th Edition	1.90	1.05	2.00	2.50	Same as LUC 945	23%	Same as LUC 945	33.88	\$18,989	\$173	\$2,703	\$0	\$16,286	\$4,660	249%
947	Self-Service Car Wash	wash stn.	108.00	ITE 10th Edition	2.18	1.05	2.29	2.79	Appendix A: LUC 947	68%	Appendix A: LUC 947	53.73	\$30,117	\$267	\$4,171	\$17	\$25,929	\$10,190	154%
Industrial:																			
110	General Light Industrial	1,000 sf	4.96	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	7.89	\$4,974	\$35	\$547	\$17	\$4,410	\$2,163	104%
140	Manufacturing	1,000 sf	3.93	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	6.25	\$3,941	\$28	\$437	\$17	\$3,487	\$1,185	194%
150	Warehousing	1,000 sf	1.74	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	2.77	\$1,745	\$12	\$187	\$17	\$1,541	\$1,107	39%
151	Mini-Warehouse	1,000 sf	1.49	Appendix A: LUC 151	3.51	1.05	3.69	4.19	Midpoint of LUC 710 & LUC 820 <50k	92%	Same as LUC 710	1.62	\$1,019	\$7	\$109	\$17	\$893	\$396	126%
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	1.40	ITE 10th Edition	5.15	1.05	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	2.23	\$1,404	\$10	\$156	\$17	\$1,231	\$396	211%

1) Initial trip length multiplied by the trip length adjustment factor

2) 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

3) Source: Orange County Planning Division; Community, Environment & Development Services Department. Fees were adopted at 42 percent in 2012 and phased to 56 percent in 2014. Senior Adult Housing – Detached (LUC 251) rate is shown for Senior Adult Housing – Attached (LUC 252). Mini-Warehouse (LUC 151) rate is shown for High-Cube Warehouse (LUC 154)

4) The trip rates for office and retail/shopping center use an end-point regression value

5) The trip length for Senior Adult Housing Detached was based on the trip length for LUC 252, but was then adjusted by 80% based on the relationship of the trip lengths for LUC 210 (Single Family Detached) and LUC 220 (Multi-Family)

6) The percent new trips for schools was estimated at 90 percent, based on LUC 710, but then adjusted to 80% to provide a conservative fee rate. This adjustment reflects the nature of the elementary and middle school uses where attendees are unable to drive and are dropped off by parents on their way to another destination

*Refer to the Trip Characteristics Database section of Appendix A for additional support detail and backup information

APPENDIX F
Traffic Impact Studies:
PM Peak Hour Pass-By Rates

Appendix F: Traffic Impact Studies: PM Peak Hour Pass-By Rates

This appendix presents the PM peak hour pass-by rates that Orange County uses for traffic impact fee studies. This table is included for informational purposes only and is not related to the transportation impact fee study rate calculations.

The pass-by rates presented are used for specific site impact analysis to ensure safety and public welfare guidelines are met prior to the development of a given site. Though similar in name to the percent new trips values used in the impact fee calculation, these pass-by rates do not provide a comparable measure and are only used for traffic impact studies of specific sites.

**Table F-1
PM Peak Hour Pass-By Rates**

ITE LUC	Land Use	Unit	% New Trips	% Pass-by
RESIDENTIAL:				
210	Single Family (Detached)	du	100%	0%
220	Multi-Family Housing/Townhouse (Low-Rise, 1-2 Floors)	du	100%	0%
221	Multi-Family Housing (Mid-Rise, 3-10 Floors)	du	100%	0%
222	Multi-Family Housing (High-Rise, >10 Floors)	du	100%	0%
225	Student Housing (ITE - Adjacent to Campus)	bedroom	100%	0%
225	Student Housing (ITE - Over 1/2 Mile from Campus)	bedroom	100%	0%
231	Mid-Rise Residential w/1st Floor Commercial	du	100%	0%
232	High-Rise Residential w/1st Floor Commercial	du	100%	0%
240	Mobile Home Park	du	100%	0%
251	Senior Adult Housing - Detached (Retirement Community/Age-Restricted Single-Family)	du	100%	0%
252	Senior Adult Housing - Attached (Retirement Community/Age-Restricted Single-Family)	du	100%	0%
265	Time Share	du	100%	0%
LODGING:				
310	Hotel/Tourist Hotel	room	100%	0%
320	Motel	room	100%	0%
RECREATIONAL:				
430	Golf Course	acre	100%	0%
437	Bowling Alley	1,000 sf	100%	0%
444	Movie Theater	1,000 sf	100%	0%
491	Racquet Club	1,000 sf	100%	0%
492	Health/Fitness Club	1,000 sf	100%	0%
n/a	Dance Studio (Martial Arts/Music Lessons)	1,000 sf	100%	0%
INSTITUTIONAL:				
522	School	1,000 sf	100%	0%
560	Public Assembly	1,000 sf	100%	0%
565	Day Care	1,000 sf	100%	0%
590	Library	1,000 sf	100%	0%
MEDICAL:				
610	Hospital	bed	100%	0%
620	Nursing Home	1,000 sf	100%	0%
640	Animal Hospital/Veterinary Clinic	1,000 sf	100%	0%
OFFICE:				
710	General Office 50,000 sf or less	1,000 sf	100%	0%
710	General Office 50,001-100,000 sf	1,000 sf	100%	0%
710	General Office 100,001-200,000 sf	1,000 sf	100%	0%
710	General Office greater than 200,000 sf	1,000 sf	100%	0%
720	Small Medical/Dental Office (10,000 sf or less)	1,000 sf	100%	0%
720	Medical/Dental Office	1,000 sf	100%	0%
732	Post Office	1,000 sf	100%	0%
RETAIL:				
815	Free-Standing Discount Store	1,000 sf	83%	17%
816	Hardware/Paint Store	1,000 sf	74%	26%
820	Retail/Tourist Retail: 50,000 sf gla or less	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: 50,001-100,000 sf gla	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: 100,001-200,000 sf gla	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: 200,001-300,000 sf gla	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: 300,001-400,000 sf gla	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: 400,001-500,000 sf gla	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: 500,001-1,000,000 sf gla	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: 1,000,001-1,200,000 sf gla	1,000 sf gla	66%	34%
820	Retail/Tourist Retail: greater than 1,200,000 sf gla	1,000 sf gla	66%	34%
840/841	New/Used Auto Sales	1,000 sf	100%	0%
850	Supermarket	1,000 sf	64%	36%
853	Convenience Market w/Gas Pumps	1,000 sf	36%	64%
862	Home Improvement Superstore	1,000 sf	52%	48%
863	Electronics Superstore	1,000 sf	61%	39%
880/881	Drug Store	1,000 sf	47%	53%

**Table F-1 (continued)
PM Peak Hour Pass-By Rates**

ITE LUC	Land Use	Unit	% New Trips	% Pass-by
SERVICES:				
911	Bank/Savings Walk-In	1,000 sf	100%	0%
912	Bank/Savings Drive-In	1,000 sf	53%	47%
925	Drinking Place	1,000 sf	100%	0%
931	Quality Restaurant	1,000 sf	56%	44%
932	High-Turnover Restaurant	1,000 sf	57%	43%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	50%	50%
942	Auto Service	1,000 sf	100%	0%
944	Gas Station with or w/o Convenience Market <2,000 sq ft	fuel pos.	43%	57%
945	Gas Station w/Convenience Market 2,000-2,999 sq ft	fuel pos.	43%	57%
960	Gas Station w/Convenience Market 3,000+ sq ft	fuel pos.	43%	57%
947	Self-Service Car Wash	wash station	100%	0%
INDUSTRIAL:				
110	General Light Industrial	1,000 sf	100%	0%
140	Manufacturing	1,000 sf	100%	0%
150	Warehouse	1,000 sf	100%	0%
151	Mini-Warehouse	1,000 sf	100%	0%
154	High-Cube Transload and Short-Term Storage Warehouse	1,000 sf	100%	0%

Source: ITE Trip Generation Handbook, 3rd Edition and Orange County