CITY OF LONGWOOD

MOBILITY FEE TECHNICAL REPORT

DECEMBER 2023



NUE URBAN CONCEPTS
LAND USE · MOBILITY · PARKING · FEES

DDEC

futureplan

THE REPUBLIC OF DESIGN INC.

MOBILITY COHORT

CITY OF LONGWOOD
MOBILITY PLAN
&
MOBILITY FEE

TECHNICAL REPORT

DECEMBER 2023

Produced for: City of Longwood

Produced by: Jonathan B. Paul, AICP
Principal, NUE Urban Concepts, LLC
747 SW 2nd Ave, Suite 90
Gainesville, FL 32601
833-NUC-8484
nueurbanconcepts@gmail.com
www.nueurbanconcepts.com

© 2024 NUE Urban Concepts, LLC. All rights reserved. This material may not be reproduced, displayed, modified or distributed without the express prior written permission of the copyright holder. For permission, send written request to NUE Urban Concepts, LLC at 2000 PGA Blvd, Suite 4440 Palm Beach Gardens, FL 33408, or email nueurbanconcepts@gmail.com. This work may be reproduced, in whole or in part, without prior written permission, solely by the City of Longwood; provided all copies contain the following statement: "© 2024 NUE Urban Concepts, LLC. This work is reproduced with the permission of NUE Urban Concepts. No other use is permitted without the express prior written permission of NUE Urban Concepts, LLC. For permission, send written request to NUE Urban Concepts, LLC at 2000 PGA Blvd, Suite 4440 Palm Beach Gardens, FL 33408 or email nueurbanconcepts@gmail.com."

NUE URBAN CONCEPTS
LAND USE • MOBILITY • PARKING • FEES

NUE Urban Concepts, LLC
747 SW 2nd Ave, Suite 90
Gainesville, FL 32601
833-NUC-8484
nueurbanconcepts@gmail.com

December 4th, 2024

Shad M. Smith, P.E.
Director of Public Works/City Engineer
Engineering and Public Works Department
City of Longwood
907 E State Road 434
Longwood, FL 32750

Re: City of Longwood Mobility Fee Technical Report

Dear Shad:

Enclosed is the City of Longwood Mobility Fee Technical Report. This is a draft version prepared for consideration by the public and the City Commission based on the most recent and localized data consistent with Florida Statute. The 2045 Mobility Plan includes projects addressing future mobility needs for the residents, businesses, and visitors to Longwood. The 2045 Mobility Plan emphasizes expanding the City's multimodal transportation system to creating safer streets for all users, improve access and connectivity, and facilitate first-and-last miles solutions to the SunRail station.

The Mobility Fee is based on the mobility projects included in the 2045 Mobility Plan. The Mobility Fee as presently calculated is intended to replace Seminole County's Mobility Fee. The Technical Report provides data and analysis to guide the City and County in negotiations for the replacement of the County Mobility Fee consistent with Florida Statute Section 163.3177 (6)(h)(3). The Mobility Fee schedule features reduced Mobility Fees for affordable and workforce housing, and small retail business as permitted under Florida Statute Section 163.3180 (5)(f)(6). In order for development activity to utilize the reduced Mobility Fee rates the City of Longwood will need to establish criteria and the processes to receive City approval to be classified as one of these developments.

The Mobility Fee rates could become effective as of the date of adoption of the Mobility Fee Ordinance if they do not exceed the County's existing Mobility Fee. An increase in calculated Mobility Fees, not to exceed 12.5% above existing rates, could become effective 90 calendar days after adoption. Florida Statute 163.31801 requires increases to be phased-in equal increments over a two-year period where increases are 25% or less, and in equal increments over a four-year period where increases are between 25.01% and 50%. **All Mobility Fees in the City of Longwood Mobility Fee schedule either decrease compared to the County's mobility fees or increase less than 11%.** Therefore**, all mobility fees can become effective after 90 calendar days**. The calculated Mobility Fee is consistent with case law and the requirements of Florida Statute Sections 163.3180, 163.31801, and Chapter 380. The NUE Urban Concepts team looks forward to continuing working closely with City staff to finalize the Mobility Plan, Mobility Fee, and the Ordinance for adoption.

Sincerely,

Jonathan B. Paul

Jonathan B. Paul, AICP
Principal

TABLE OF CONTENTS

Figures	II
Tables	II
Maps & Appendix	III
Executive Summary	IV
Mobility Fee Schedule	VI
Introduction	1
Legislative Background	3
Impact Fee & Mobility Fee Comparison	9
The Impact Fee Act & Case Law Overview	10
Developing the Mobility Plan & Fee	21
Comprehensive Plan	22
Growth	24
Vehicle Miles of Travel (VMT)	25
Person Miles of Travel (PMT)	26
2045 City of Longwood Mobility Plan	28
City of Longwood Mobility Fee	35
Existing Conditions Evaluation (ECE)	36
Mobility Plan Project Summary	38
Funding	39
New Growth Evaluation (NGE)	41
Mobility Fee Assessment Areas	42
Person Miles of Capacity Rate (PMCr)	43
Person Travel Demand per Land Use (PTDu)	45
Mobility Fee Schedule	49
Mobility Fee Benefit District	56
Mobility Fee Comparison	57
Definitions	61
Recommended Next Steps	72
Conclusion	74

Figures

Figure 1.	Concurrency Cycle	8
Figure 2.	Developing a Mobility Plan & Mobility Fee	21
Figure 3.	Integrating Land Use, Transportation, Parking & Funding	22
Figure 4.	Person Miles of Travel Increase (PMTi)	26
Figure 5.	Moving People, Providing Choices	28
Figure 6.	Multimodal Elements	29
Figure 7.	Speed of Travel	30
Figure 8.	On-Street & Off-Street Multimodal Projects	31
Figure 9.	SunHub Mobility Hub	33
Figure 10.	Mobility Plan and Mobility Fee	35
Figure 11.	New Growth Evaluation Factor (NGEf)	41
Figure 12.	Person Miles of Capacity Rate (PMCr)	43
Figure 13.	Person Travel Demand Per Land Use (PTDu)	48
Figure 14.	Mobility Fee Calculation	50
Figure 15.	Mobility Fee Schedule Components	51
Figure 16	FDOT's Context Classification	73

Tables

Table 1.	Projected Growth	24
Table 2.	Growth in Vehicle Miles of Travel (VMT)	25
Table 3.	Increase in Person Miles of Travel (PMT)	27
Table 4.	2023 Existing Conditions Evaluation (ECE)	36
Table 5.	2023 Existing Travel by Road Ownership	37
Table 6.	Mobility Plan Projects Summary	38
Table 7.	Anticipated Funding (AF)	40
Table 8.	New Growth Evaluation (NGE)	41
Table 9.	Person Miles of Capacity Rate (PMCr)	44
Table 10.	Limited Access Evaluation Factor (LAEf)	46
Table 11.	Trip Purpose Factor (TPf)	47
Table 12.	Lane Miles & Daily Vehicle Miles of Travel (VMT)	58
Table 13.	Mobility Plan County Road Projects	59
Table 14.	Mobility Plan Unfunded County Road Projects	60

Maps

Map A.	**Mobility Study Area (MSA)**
Map B.	**Mobility Plan**
Map C.	**Mobility Plan & Bicycle & Pedestrian Master Plan**
Map D.	**Mobility Fee Assessment Areas**
Map E.	**Mobility Fee Benefit Districts**

Appendices

Appendix A.	**Florida Department of Economic Opportunity Guidance**
Appendix B.	**Florida Impact Fee Act**
Appendix C.	**Projected Growth in Vehicle Miles of Travel**
Appendix D.	**National Household Travel Survey for Florida**
Appendix E.	**Complete Streets Plan**
Appendix F.	**Intersections & Parking Plan**
Appendix G.	**Multimodal Plans, Studies, Programs & Policies Plan**
Appendix H.	**Traffic Characteristics Data (Mobility Study Area)**
Appendix I.	**FDOT Generalized Tables**
Appendix J.	**Trip Generation**
Appendix K.	**Person Travel Demand per Land Use (PTDu)**
Appendix L.	**Person Travel Characteristics**
Appendix M.	**Mobility Fee Schedule**
Appendix N.	**Vehicle Availability & Miles of Travel**
Appendix O.	**Mobility Fee Comparison**

The Remainder of This Page Intentionally Left Blank

EXECUTIVE SUMMARY

In 1985, the Florida Legislature passed the Growth Management Act that required all local governments in Florida to adopt Comprehensive Plans to guide future development and mandated that adequate public facilities be provided "concurrent" with the impacts of new development. Transportation concurrency became the measure used by local governments to ensure that adequate public facilities, in the form of road capacity, was available to meet the transportation demands from new development. By 1993, the Florida Legislature recognized that an unintended consequence of transportation concurrency is that it discouraged development in urban areas where road capacity was constrained and pushed development to suburban and rural areas where road capacity was either available or was cheaper to construct.

In 2007, the Legislature introduced the concept of mobility plans and mobility fees as an **alternative** to transportation concurrency, proportionate share, and road impact fees. In 2011, the Legislature eliminated state mandated transportation concurrency and made it optional for any local government. In 2013, the Legislature encouraged local governments, defined equally in Florida Statute as counties and municipalities, to adopt alternative mobility funding systems. Mobility fees, based on a **plan of improvements (aka mobility plan)**, are an alternative funding system that allows development to equitably mitigate its **transportation impact (i.e., traffic)** through a streamlined and transparent one-time payment to local governments. In 2019, the Legislature required mobility fees follow the same statutory process requirements as impact fees.

The City of Longwood 2045 Mobility Plan is a vision over the next 22 years to further develop an efficient, safe, and connected transportation system that provides travel choices for all users. The Mobility Plan features a mixture of **mobility projects** such as: **curbless shared streets, boardwalks, shared-use paths, trails, sidewalks, traffic calming, intersections, HAWKs, multimodal crossings, parking improvements, a mobility hub, and multimodal plans, studies, programs, and policies** to meet the mobility **"needs"** of the community.

The Mobility Fee features a single citywide Assessment Area and two Benefit Districts: 1) Citywide; and 2) Extra Jurisdictional. Benefit Districts are established to ensure Mobility Fees are spent on mobility projects to the **"benefit"** of development activity that paid the Mobility Fee. The Extra Jurisdictional Benefit District is established to address extra-jurisdictional impacts. **The City of Longwood 2045 Mobility Plan and Mobility Fee Technical Report, dated December 2023, documents future growth, the need for mobility projects, and the data and methodology used to develop a Mobility Fee that meets legally established dual rational nexus and rough proportionality tests, along with the requirements of Florida Statute Sections 163.3180, 163.31801 and Florida Statute Chapter 380.**

CITY OF LONGWOOD MOBILITY FEE		
Land Use Categories, Use Classifications, and Representative Uses	**Unit of Measure**	**Mobility Fee Non-Mixed-Use**
Residential & Lodging Uses		
Affordable or Workforce Residential [2, 3]	per dwelling unit	$488
Residential [3]	per 1,000 sq. ft.	$975
Overnight Lodging (Hotel, Inn, Motel, Resort) [4]	per room	$1,108
Institutional Uses		
Community Serving (Civic, Museum, Performing Arts, Place of Assembly or Worship)	per 1,000 sq. ft.	$672
Long Term Care (Assisted Living, Congregate Care Facility, Nursing Facility)	per 1,000 sq. ft.	$842
Private Education (Day Care, Private Primary School, Pre-K)	per 1,000 sq. ft.	$1,005
Industrial Uses		
Industrial (Assembly, Brewing, Distilling, Distribution, Fabrication, Flex Space, Manufacturing, Nursery, Outdoor Storage, Processing, Trades, Warehouse, Utilities) [5]	per 1,000 sq. ft.	$368
Recreational Uses		
Outdoor Commercial Recreation (Amusement, Golf, Multi-Purpose, Parks, Sports, Tennis) [4, 6]	per acre	$1,263
Indoor Commercial Recreation (Dance, Gym, Fitness, Indoor Sports, Kids Activities, Yoga) [4, 6]	per 1,000 sq. ft.	$2,576
Office Uses		
Office (General, Higher Education, Hospital, Professional)	per 1,000 sq. ft.	$1,184
Medical Office (Clinic, Dental, Emergency Care, Medical, Veterinary)	per 1,000 sq. ft.	$3,356
Commercial & Retail Uses		
Small Retail Business (Entertainment, Restaurant, Retail, Services) [7]	per 1,000 sq. ft.	$1,722
Retail (Discount, Entertainment, Financial, Retail, Services, Superstore) [8]	per 1,000 sq. ft.	$2,750
High Impact Retail (Bank, Pharmacy, Sit-Down Restaurant, Supermarket, Wine & Spirits) [9]	per 1,000 sq. ft.	$5,278
Convenience Retail (Convenience, Convenience with Gas, Quick Service Restaurant) [9]	per 1,000 sq. ft.	$8,413
Additive Fees for Commercial Services & Retail Uses [10]		
Bank Drive-Thru Lane or Free-Standing ATM [11]	per lane or ATM	$3,825
Motor Vehicle Cleaning (Detailing, Wash, Wax) [12]	per lane or stall, plus per 5 stations	$5,060
Motor Vehicle Charging or Fueling [13]	per charging or fueling position	$4,508
Motor Vehicle Service (Accessories, Brakes, Maintenance, Quick Lube, Repair, Tires) [14]	per bay or stall	$1,777
Quick Service Restaurant Drive-Thru [15]	per lane	$8,363

© 2024 NUE Urban Concepts, LLC. All rights reserved.

CITY OF LONGWOOD MOBILITY FEE		

[1] Reserved.

[2] The City of Longwood may elect to establish a program that establishes criteria to qualify as affordable or workforce housing. Shown as a reduced rate as permitted per Florida Statute (Fla. Sta.) 163.3180 (5) (f) 6. Can be waived by the City per Fla. Sta. 163.31801 (11) per affordable definition in Fla. Sta. 420.9071). Until the City establishes criteria to define affordable or workforce housing and an applicant receives formal approval as affordable or workforce housing, the affordable or workforce housing mobility fee rate would not be applicable.

[3] Residential square feet is the sum of the area (in square feet) of each dwelling unit measured from the exterior surface of the exterior walls or walls adjoining public spaces such as multifamily or dormitory hallways, or the centerline of common walls shared with other dwelling units. Square feet include all livable, habitable, and temperature controlled enclosed spaces (enclosed by doors, windows, or walls). This square footage does not include unconditioned garages or unenclosed areas under roof. For multifamily and dormitory uses, common hallways, lobbies, leasing offices, and residential amenities not accessible to the public are not included in the square feet calculation, unless that space is leased to a third-party use and provides drinks, food, goods, or services to the public or paid memberships available to individuals that do not reside in a dwelling unit.

[4] Any space that is leased to a third-party use or provides drinks, food, goods, or services to the public shall be required to pay the applicable mobility fee per the individual uses identified in the mobility fee schedule.

[5] Acreage for any unenclosed material and vehicle storage, including but not limited to boats, commercial vehicles, recreational vehicles (RV), and trailers, sales and display shall be converted to square footage.

[6] For Commercial Recreation Uses that feature both indoor facilities and outdoor recreation, the indoor shall be based on the indoor mobility fee rate, the outdoor shall be made on the outdoor rate, any other uses shall pay the applicable mobility fee for the land use.

[7] The City of Longwood may elect to establish a program that establishes criteria to qualify as a small retail business. Until the City establishes a program and an applicant receives formal approval, the small retail business mobility fee rate would not be applicable. Shown as a reduced rate as permitted per Florida Statute (Fla. Sta.) 163.3180 (5) (f) 6.

[8] Retail includes all uses that do not fall under High Impact or Convenience Retail and generate less than 75 daily trips per 1,000 sq. ft. per the latest ITE Generation Manual or alternative study.

[9] High Impact Retail includes banks, pharmacies, sit down restaurants (non fast food), grocery stores, supermarkets, beer, liquor, package, wine and spirits stores, bars, nightclubs, lounges. These uses generate between 75 and 250 daily trips per 1,000 sq. ft. per the latest ITE Generation Manual or alternative study. Convenience Retail includes convenience stores, gas stations, service stations, coffee, donut, sandwich, food and beverage that would be considered fast food or quick service restaurants. These uses generate between more than 250 daily trips per 1,000 sq. ft. per the latest ITE Generation Manual or alternative study.

[10] Additive mobility fees are assessed in addition to the mobility fee assessed with the square footage of the building.

[11] Bank shall pay the retail rate for the square footage of the building under the retail use category. Drive-thru lanes, Free Standing ATM's and Drive-thru lanes with ATM's are assessed a separate fee per lane or per ATM and are added to any mobility fee associated with a bank building. The free-standing ATM is for an ATM only and not an ATM within or part of another non-financial building, such as an ATM within a grocery store.

[12] Motor Vehicle cleaning shall mean any car wash, wax, or detail where a third party or automatic system performs the cleaning service. Mobility Fee are assessed per bay, lane, or stall, plus per every five finishing stations (vacumm, dry, wax, etc), plus a retail rate associated with any additional building square footage under retail uses. A facility with multiple payment or pre-paid membership lanes that enter a single tunnel are charged based on the number of lanes accessing the tunnel, plus finishing stations and any retail buildings.

[13] Rates per vehicle charging or fueling position apply to a convenience store, gas station, general store, grocery store, supermarket, superstore, variety store, wholesale club or service stations with fuel pumps. In addition, there shall be a separate mobility fee for the square footage of any retail building per the applicable mobility fee rate under commercial and retail uses. The number of charging or fueling positions is based on the maximum number of vehicles that could be charged or fueled at one time. Non-commercial vehicle charging stations associated with residential or non-residential uses that are required by the City or are provided by the owner as an amenity and not a commercial purpose shall not be assessed a mobility fee.

[14] Motor Vehicle service includes maintenance, repair, and servicing of motor vehicles. Mobility Fee are assessed per bay or stall, plus a retail rate associated with any additional building square footage under retail uses for waiting areas, parts, supplies, and transactions.

[15] Any drive-thru associated with a quick service restaurant will be an additive fee in addition to the applicable retail mobility fee per square foot of the building. The number of drive-thru lanes will be based on the number of lanes present when an individual places an order or picks up an order, whichever is greater. Quick service restaurants include those in convenience stores or multi-tenant buildings.

© 2024 NUE Urban Concepts, LLC. All rights reserved.

This Page Was Left Intentionally Blank

INTRODUCTION

Located in Central Florida, just north of Orlando, the City of Longwood offers safe, family-oriented suburban living to its 16,842 residents. With a SunRail station located downtown and quick access to Interstate 4, Longwood provides convenient access to many of the region's attractions such as Disney World and Universal Studios, Orlando International Airport, and Kennedy Space Center. The city is also conveniently located within a reasonable distance from the region's major employment centers such Downtown Orlando, Downtown Sanford, and Lake Mary. The University of Central Florida, the largest student enrollment in Florida with roughly 70,000 students as of 2021, is located less than twenty miles south of the center of Longwood.

In 2009, the Florida Legislature designated Seminole County as a Dense Urban Land Area (DULA), resulting in the County and its municipalities becoming Transportation Concurrency Exception Areas (TCEAs). The City of Longwood has amended its Comprehensive Plan to establish the legislative intent to adopt a Mobility Plan and a Mobility Fee as a replacement for TCEA polices, proportionate share, and Seminole County's Mobility Fee.

The 2045 Mobility Plan establishes a framework over the next 22 years to move people and provide choices through mobility projects established to meet the **"needs"** of projected growth in population and employment and increases in vehicle and person miles of travel. The Mobility Plan Consists of three distinct plans: **1) Complete Streets Plan**; **2) Intersections & Parking Plan**; and **3) Multimodal Plans, Studies, Programs, and Policies Plan**.

The Mobility Plan includes mobility projects **including curbless shared streets, boardwalks, shared-use paths, trails, sidewalks, traffic calming, intersections, Pedestrian Hybrid Beacons (PHB), multimodal crossings, parking improvements, a mobility hub, and multimodal plans, studies, programs, and policies.** The goal of the Mobility Plan as a whole, is to build upon the Bicycle & Pedestrian Master Plan and existing proposed/planned projects to 1) create a complete, integrated, multimodal transportation system to move people to, from, and within the City of Longwood; 2) improve the safety for people; 3) to increase multimodal access and connectivity to and between the Downtown Historic and Station Core districts; 4) to enhance regional multimodal connectivity by facilitating first-and-last mile solutions to the SunRail station.

The mobility projects identified in the 2045 Mobility Plan form the basis for the City of Longwood Mobility Fee consistent with Florida Statutes 163.3180 and 163.31801. **The Mobility Fee is intended to replace Seminole County's Mobility Fee** with a streamlined and simplified way for development activity to mitigate its transportation impact through payment of a one-time

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Mobility Fee to the City of Longwood. The Mobility Fee collected from development activity will be used to fund mobility projects identified in the 2045 Mobility Plan to provide a mobility **"benefit"** to development activity that pays the Mobility Fee. **Development activity includes the construction, alteration, modification, expansion, redevelopment, rehabilitation, or remodeling of buildings, facilities, or structures, change of occupancy or use, special uses, variances, and any use of land that results in an increase in person travel demand above the existing use of land.**

The Mobility Fee schedule will provide a city-wide **Assessment Area** and two **Benefit Districts**: 1) Mobility Fee Benefit District for current City limits; and 2) Extra Jurisdictional Benefit District to meet the **"benefits"** requirement of the dual rational nexus test. The second Benefit District allows the City to address extra jurisdictional impacts.

The Mobility Fee schedule also includes reduced rates for affordable and workforce housing and for small retail businesses consistent with Florida Statute Section 163.3180 (5)(f)6. The reduced Mobility Fee rates will not apply to development activity until the City determines the process to qualify as affordable and workforce housing and small retail businesses.

A comparative analysis was undertaken to guide the City and County in negotiations for the replacement of the County Mobility Fee. The City needs to meet with Seminole County to discuss replacement of the County's Mobility Fee with the City's Mobility Fee. The discussion should include determining potential set asides of Mobility Fee funds for funding improvements on County Roads. The analysis of existing vehicle miles of travel (VMT) shows that 35% of travel in the Mobility Study Area occurs on County Roads. The share of the cost of mobility projects on County Roads within the Mobility Study Area is roughly 3%, while the share of unfunded mobility projects on County Roads in the Mobility Plan is just under 2%.

The City of Longwood 2045 Mobility Plan and Mobility Fee Technical Report, dated December 2023, documents future growth, the need for mobility projects, and the data and methodology used to develop a Mobility Fee that meets legally established dual rational nexus and rough proportionality tests, along with the requirements of Florida Statute Sections 163.3180, 163.31801, and Florida Statute Chapter 380.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

LEGISLATIVE BACKGROUND

The State of Florida passed the Growth Management Act of 1985 that required all local governments in Florida adopt Comprehensive Plans to guide future development. The Act mandated that adequate public facilities must be provided "concurrent" with the impacts of new development. State mandated "concurrency" was adopted to ensure the health, safety, and general welfare of the public by ensuring that adequate public facilities would be in place to accommodate the demand for public facilities created by new development.

Transportation concurrency became the measure used by the Florida Department of Community Affairs (DCA), Florida Department of Transportation (FDOT), Regional Planning Councils (RPCs), and local governments to ensure that adequate public facilities, in the form of road capacity, was available to meet the transportation demands from new development. To meet the travel demand impacts of new development and be deemed "concurrent", transportation concurrency was primarily addressed by constructing new roads and widening existing roads.

Traditional transportation concurrency allowed governmental entities to deny development where road capacity was not available to meet the travel demands from new development. Transportation concurrency also allowed governmental entities to require that developments be timed or phased concurrent with the addition of new road capacity. In addition, transportation concurrency also allowed governmental entities to require new development to improve (widen) roads that were already overcapacity (aka "deficient" or "backlogged').

In urban areas throughout Florida, traditional transportation concurrency had the unintended consequence of limiting and stopping growth in urban areas. This occurred because roads were often over capacity based on traffic already on the roads or the combination of that traffic and trips from approved developments. Further, the ability to add road capacity in urban areas was more limited as right-of-way was often constrained by existing development and utilities, physical barriers, and environmental protections.

Stopping development in urban areas encouraged suburban sprawl by forcing new development to suburban and rural areas where road capacity was either readily available or cheaper to construct. In the late 90's, as the unintended impact of transportation concurrency became more apparent, the Legislature adopted Statutes to provide urban areas with alternatives to address the impact of new development through Transportation Concurrency Exception Areas (TCEA) and Transportation Concurrency Management Areas (TCMA).

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The intent of TCEAs and TCMAs was to allow local governments alternative solutions to provide mobility within urban areas by means other than providing road capacity and to allow infill and redevelopment in urban areas. In the mid 2000's, Florida experienced phenomenal growth that strained the ability of local governments to provide the necessary infrastructure to accommodate that growth. Many communities across the State started to deny new developments, substantially raise impact fees, and require significant transportation capacity improvements. In 2005, the Legislature enacted several laws that weakened the ability of local governments to implement transportation concurrency by allowing new development to make proportionate share payments to mitigate its travel demand. The Legislature also introduced Multi-Modal Transportation Districts (MMTD) for areas that did not meet requirements to qualify for TCEAs or TCMAs.

In 2007, the Florida Legislature introduced the concept of mobility plans and mobility fees to allow development to equitably mitigate its impact and placed additional restrictions on the ability of local governments to charge new development for over capacity roadways. The Legislature directed the Florida Department of Community Affairs (DCA) and the Florida Department of Transportation (FDOT) to evaluate mobility plans and fees and report the findings to the Legislature in 2009.

In 2009, the Legislature designated Dense Urban Land Areas (DULA), which are communities with a population greater than 1,000 persons per square mile, as TCEA's. The Legislature accepted the findings of the DCA and FDOT analysis for mobility plans and mobility fees but did not take any formal action as the State was in the great recession. The Legislature also placed further restrictions on local government's ability to implement transportation concurrency, by adding direction on how to calculate proportionate share and how overcapacity roads are addressed.

In 2011, the Florida Legislature through House Bill (HB) 7207 adopted the "Community Planning Act" which implemented the most substantial changes to Florida's growth management laws since the 1985 "Local Government Comprehensive Planning and Land Development Regulation Act," which had guided comprehensive planning in Florida for decades. The 2011 legislative session eliminated State mandated concurrency, made concurrency optional for local governments, and eliminated the Florida Department of Community Affairs (DCA) and replaced it with the Florida Department of Economic Opportunity (DEO). The Act essentially removed the DEO, Florida Department of Transportation (FDOT), and Regional Planning Councils (RPC) from the transportation concurrency review process. Although local governments are still required to adopt and implement a comprehensive plan, the requirements changed significantly and shifted more discretion to local governments to plan for mobility within their community and enacted further restrictions on the implementation of transportation concurrency, proportionate share, and backlogged roads.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The Florida Legislature did not include any provisions in House Bill 7207 exempting local governments existing transportation concurrency system, when it elected to abolish statewide transportation concurrency, made transportation concurrency optional for local governments, and enacted further restrictions on the implementation of transportation concurrency. Florida Statute Section 163.3180(1) provides local governments with flexibility to establish concurrency requirements:

"Sanitary sewer, solid waste, drainage, and potable water are the only public facilities and services subject to the concurrency requirement on a statewide basis. Additional public facilities and services may not be made subject to concurrency on a statewide basis without approval by the Legislature; however, any local government may extend the concurrency requirement so that it applies to additional public facilities within its jurisdiction".

House Bill 319, passed by the Florida Legislature in 2013, amended the Community Planning Act and brought about more changes in how local governments could implement transportation concurrency and further recognized the ability of local governments to adopt alternative mobility funding system, such as mobility fees based on a plan of improvements, to allow development, consistent with an adopted Comprehensive Plan, to equitably mitigate its travel demand impact. Florida Statute Section 163.3180(5)(i) states:

"If a local government elects to repeal transportation concurrency, it is encouraged to adopt an alternative mobility funding system that uses one or more of the tools and techniques identified in paragraph (f). Any alternative mobility funding system adopted may not be used to deny, time, or phase an application for site plan approval, plat approval, final subdivision approval, building permits, or the functional equivalent of such approvals provided that the developer agrees to pay for the development's identified transportation impacts via the funding mechanism implemented by the local government. The revenue from the funding mechanism used in the alternative system must be used to implement the needs of the local government's plan which serves as the basis for the fee imposed. A mobility fee-based funding system must comply with the dual rational nexus test applicable to impact fees. An alternative system that is not mobility fee-based shall not be applied in a manner that imposes upon new development any responsibility for funding an existing transportation deficiency as defined in paragraph (h)."

Florida Statute Section 163.3164(29) very clearly defines a local government as: ***"any county or municipality"***. If the Legislature had intended for a County or Charter County to be exempt from provisions of the Community Planning Act or to have authority over a municipality as it relates to transportation concurrency, impact fees, or mobility fees, it would have either included specific references or defined city and county separately, not cohesively as a **"local government."**

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The Community Planning Act did not elect to **"grandfather"** any local governments existing transportation concurrency system and did not place restrictions on any local government from repealing transportation concurrency or adopting an alternative mobility funding system in either House Bill 7207 adopted in 2011 or House Bill 319 adopted in 2013. After 20 years of amending Florida Statute Section 163.3180 (roughly every two (2) years over a 20-year period between 1993 and 2013) the Legislature was fully aware that local governments through-out Florida implemented alternatives to transportation concurrency and elected not to provide any exemptions in 2013 to preempt Florida Statute Section 163.3180, like it did in 2009.

In 2009, the Legislature enacted statutory provisions in Florida Statute Section 163.3180 (5)(b)5. that exempted Broward County and Florida Statute Section 163.3180 (5)(b)6. that exempted Miami Dade County from specific statutory requirements related to transportation concurrency exception area requirements. Those exemptions were repealed as part of the 2011 Community Planning Act that made concurrency optional and eliminated statutory provisions related to dense urban land areas (DULAs), long term transportation concurrency management areas (TCMAs), multimodal transportation districts (MMTDs), and transportation concurrency exception areas (TCEAs). The Legislature clearly had established prior precedent in exempting certain local governments from requirements under Florida Statute Section 163.3180 and elected not to do so in 2011 and 2013.

Prior to the passage of the Florida Community Planning Act by the Legislature on June 2, 2011, transportation concurrency was mandatory for local governments statewide, except those with approved TCEAs or MMTDs. After adoption of the Community Planning Act, transportation concurrency became optional for any local government and the Legislature encouraged local governments to adopt alternative mobility funding systems and specifically references mobility fees, based on a plan for mobility improvements.

Accordingly, the Florida Department of Economic Opportunity (DEO), which replaced the Department of Community Affairs, provides the following direction related to elimination of transportation concurrency and adoption of a mobility fee-based plan, in accordance with Florida Statute 163.3180 **(Appendix A)**:

"Transportation Concurrency

In accordance with the Community Planning Act, local governments may establish a system that assesses landowners the costs of maintaining specified levels of service for components of the local government's transportation system when the projected impacts of their development would adversely impact the system. This system, known as a concurrency management system, must be based on the local government's comprehensive plan. Specifically, the local government comprehensive plan must provide the principles, guidelines, standards, and strategies, including adopted levels of service, to guide the application of its transportation concurrency management system.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Prior to June 2, 2011, transportation concurrency was mandatory for local governments. Now that transportation concurrency is optional, if a local government chooses, it may eliminate the transportation concurrency provisions from its comprehensive plan and is encouraged to adopt a mobility fee based plan in its place (see below). Adoption of a mobility fee-based plan must be accomplished by a plan amendment that follows the Expedited State Review Process. A plan amendment to eliminate transportation concurrency is not subject to state review.

It is important to point out that whether or not a local government chooses to use a transportation concurrency system, it is required to retain level of service standards for its roadways for purposes of capital improvement planning. The standards must be appropriate and based on professionally accepted studies, and the capital improvements that are necessary to meet the adopted levels of service standards must be included in the five-year schedule of capital improvements. Additionally, all local governments, whether implementing transportation concurrency or not, must adhere to the transportation planning requirements of section 163.3177(6)(b), Florida Statutes.

Mobility Fee Based Plans

If a local government elects to repeal transportation concurrency, it is encouraged to adopt an alternative mobility funding system that uses one or more of the tools and techniques identified in section 163.3180(5)(f), Florida Statutes:

Adoption of long-term strategies to facilitate development patterns that support multimodal solutions, including urban design, appropriate land use mixes, intensity, and density.

Adoption of an area wide level of service not dependent on any single road segment function.
Exempting or discounting impacts of locally desired development.

Assigning secondary priority to vehicle mobility and primary priority to ensuring a safe, comfortable, and attractive pedestrian environment with convenient interconnection to transit.

Establishing multimodal level of service standards that rely primarily on non-vehicular modes of transportation where existing or planned community design will provide adequate a level of mobility.

Reducing impact fees or local access fees to promote development within urban areas, multimodal transportation districts, and a balance of mixed-use development in certain areas or districts, or for affordable or workforce housing."

The Community Planning Act includes specific requirements for **any local government** that elects to maintain transportation concurrency. These requirements are to be addressed in the local governments comprehensive plan and capital improvements required to meet adopted level of service standards are required to be included in the capital improvements element five (5) year schedule of improvements.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

In 2019, the Florida Legislature, through House Bill 7103, amended the Community Planning Act and required mobility fees to be governed by the same procedures as impact fees. This amendment further confirmed that mobility fees are an equivalent form of mitigation to impact fees that allow development to mitigate its impact to the transportation system consistent with the needs identified in the local governments adopted mobility plan per Florida Statute Section 163.3180(5)(i):

"If a local government elects to repeal transportation concurrency, it is encouraged to adopt an alternative mobility funding system that uses one or more of the tools and techniques identified in paragraph (f). Any alternative mobility funding system adopted may not be used to deny, time, or phase an application for site plan approval, plat approval, final subdivision approval, building permits, or the functional equivalent of such approvals provided that the developer agrees to pay for the development's identified transportation impacts via the funding mechanism implemented by the local government. The revenue from the funding mechanism used in the alternative system must be used to implement the needs of the local government's plan which serves as the basis for the fee imposed. A mobility fee-based funding system must comply with s. 163.31801 governing impact fees. An alternative system that is not mobility fee-based shall not be applied in a manner that imposes upon new development any responsibility for funding an existing transportation deficiency as defined in paragraph (h)." (underline emphasis added)

Figure 1. Concurrency Cycle



The elimination of state mandated transportation concurrency was the culmination of 20 years of amendments to Florida Statute Section 163.3180 and a recognition that governments cannot build their way out of congestion. The allowance to adopt alternative mobility funding systems was a recognition of the need for government to proactively plan for mobility, instead of reactively regulate road capacity **(Figure 1).**

Further, Florida Statute defines **"local governments"** as both **"counties and municipalities"** and did not provide counties any preemptions over cities or grandfather in any county transportation concurrency, proportionate share, or impact fee system. The Legislature recognized impact fees, mobility fees, and other mitigation as equal options in both the requirement to provide credits for proportionate share payments and improvements, and as alternatives mobility funding systems to replace transportation concurrency and proportionate share systems under Florida Statute Section 163.3180.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

IMPACT FEE & MOBILITY FEE COMPARISON

The Florida Constitution grants local governments broad home rule authority to establish special assessments, impact fees, mobility fees, franchise fees, user fees, and service charges as revenue sources to fund specific governmental functions and capital infrastructure. Payment of impact fees or mobility fees are one of the primary ways local governments can require new development, along with redevelopment or expansion of existing land uses that generate additional transportation demand, to mitigate its impact to a local governments transportation system. While road impact fees and mobility fees are both intended to be means in which a development can mitigate its transportation impact, the following are the major differences between the two fees:

Road Impact Fees

- Partially or fully fund road capacity improvements, including new roads, the widening of existing roads, and the addition or extension of turn lanes at intersections to move people driving vehicles (i.e., cars, trucks, SUVs, motorcycles).
- Are based on increases in trip generation, vehicle trip length, and road capacity, along with the cost of road capacity improvements and the projected vehicle miles of travel from development.
- Maybe based on either an adopted LOS standard (aka standards or consumption-based fee) or on future road improvements (aka plan or improvements-based fee).

Mobility Fees

- Pay for the cost associated with adding new multimodal capacity to move people walking, bicycling, scooting, riding transit, driving vehicles, or using shared mobility technology.
- Partially or fully fund multimodal projects, including sidewalks, paths, trails, bike lanes, streetscape and landscape, complete and low speed streets, micromobility (i.e., electric bikes, electric scooters) devices, programs, and services, microtransit (i.e., golf carts, neighborhood electric vehicles, autonomous transit shuttles, trolleys) circulators, services and vehicles, new roads, the widening of existing roads, and turn lanes, signals, and ADA upgrades at intersections.
- Are based on increases in person trips, person trip lengths, and person miles of capacity from multimodal projects, along with projected person miles of travel from development.
- Assessment areas may include all or portions of a municipality or county, and may vary based on geographic location (e.g., downtown) or type of development (e.g., mixed-use).
- Must be based on future multimodal projects adopted as part of a mobility plan and incorporated or referenced in the local governments Comprehensive Plan.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

THE IMPACT FEE ACT & CASE LAW OVERVIEW

Local governments through-out Florida began adopting road impact fees in the late 70's and early 80's as a means for new development to pay for its traffic impact and provide local governments with revenues to fund transportation infrastructure improvements. Counties, especially Charter Counties, began to require that municipalities collect road impact fees on their behalf to fund improvements to the county road system. Throughout the 1980's, 1990's, and 2000's, municipalities through-out Florida challenged the ability of counties to compel municipalities to collect road impact fees for new development. The opposition stemmed in part from an unintended consequence of transportation concurrency which was that it essentially stopped development in urban areas (aka "municipalities"). Both municipalities and development activity were constrained in their ability to add road capacity due to cost of acquiring developed land and fierce opposition from existing residents concerned about increased traffic and the impact new road capacity would have on their homes.

The inability of development activity in urban areas to meet transportation concurrency resulted in development moving to suburban and rural areas (aka "urban sprawl") where fewer residents would come out in opposition to new road capacity improvements and road capacity was either available or was cheaper to construct. Municipalities found themselves in the unenviable position of sending road impact fees to counties, when development activity did meet concurrency, only to see those road impact fees being spent on new road capacity projects outside of urban areas that made it even easier for development activity to continue to sprawl outside municipalities.

Further, the courts frequently sided with counties, as municipalities that did challenge the legality of counties compelling them to collect impact fees did not offer alternatives to show how they would address the traffic impacts from new development. These challenges all occurred prior to the Florida Legislature adopting the "Impact Fee Act" through Florida Statute 163.31801. Further, these challenges also existed prior to the introduction of mobility plans and mobility fees and the adoption of the "Community Planning Act" through Florida Statute 163.3180.

Before the Florida "Impact Fee Act" was adopted, many local governments had already developed impact fees through their home rule powers. In 2006, the Legislature adopted the "Impact Fee Act" to provide process requirements for the adoption of impact fees and formally recognized the authority of local governments to adopt impact fees. Prior to 2006, the Florida Legislature, unlike many States throughout the U.S. that had adopted enabling legislation, elected to defer to the significant case law that had been developed in both Florida and throughout the U.S. to provide guidance to local governments to adopt impact fees.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

In 2009, the Legislature made several changes to the "Impact Fee Act", the most significant of which was placing the burden of proof on local governments, through a preponderance of the evidence, that the imposition of the fee meets legal precedent and the requirements of Florida Statute Section 163.31801. Prior to the 2009 amendment, Courts generally deferred to local governments as to the validity of an imposed impact fee and placed the burden of proof, that an imposed impact fee was invalid or unconstitutional on the plaintiff. Prior to 2020, there had yet to be a legal challenge to impact fees in Florida since the 2009 legislation, due in large part to the great recession and the fact that many local governments either reduced impact fees or placed a moratorium on impact fees between 2009 and 2015.

In 2019, the Legislature, through HB 207 and HB 7103, made several changes to the "Impact Fee Act", the most significant of which was the requirement that fees not be collected before building permit. The changes also expanded on the requirements of the dual rational nexus test, the collection and expenditure of fees, credits for improvements and administrative cost.

In 2020, the Legislature, through SB 1066, made several additional changes to the Impact Fee Act to clarify that new or updated impact fees cannot be assessed on a permit if the permit application was pending prior to the new or updated fee. The bill also made credits assignable and transferable to third parties.

In 2021, the Legislature, through HB 337 made significant amendments to the "Impact Fee Act", which the Governor subsequently approved. The amendments require that impact fees be based on planned improvements and that there is a clear nexus between the need for improvements and the impact from new development. The amendments have a greater impact on increases to existing impact fees and have phasing requirements for increases to existing fees. There are provisions that allow a local government to fully implement updated fees based on a finding of extraordinary circumstances, holding public hearings, and requiring a super majority approval by elected officials. Florida Statute Section 163.31801 now reads as follows **(Appendix B)**:

"(1) This section may be cited as the "Florida Impact Fee Act."

(2) The Legislature finds that impact fees are an important source of revenue for a local government to use in funding the infrastructure necessitated by new growth. The Legislature further finds that impact fees are an outgrowth of the home rule power of a local government to provide certain services within its jurisdiction. Due to the growth of impact fee collections and local governments' reliance on impact fees, it is the intent of the Legislature to ensure that, when a county or municipality adopts an impact fee by ordinance or a special district adopts an impact fee by resolution, the governing authority complies with this section.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

(3) For purposes of this section, the term:

(a) "Infrastructure" means a fixed capital expenditure or fixed capital outlay, excluding the cost of repairs or maintenance, associated with the construction, reconstruction, or improvement of public facilities that have a life expectancy of at least 5 years; related land acquisition, land improvement, design, engineering, and permitting costs; and other related construction costs required to bring the public facility into service. The term also includes a fire department vehicle, an emergency medical service vehicle, a sheriff's office vehicle, a police department vehicle, a school bus as defined in s. 1006.25, and the equipment necessary to outfit the vehicle or bus for its official use. For independent special fire control districts, the term includes new facilities as defined in s. 191.009(4).

(b) "Public facilities" has the same meaning as in s. 163.3164 and includes emergency medical, fire, and law enforcement facilities.

(4) At a minimum, each local government that adopts and collects an impact fee by ordinance and each special district that adopts, collects, and administers an impact fee by resolution must:

(a) Ensure that the calculation of the impact fee is based on the most recent and localized data.

(b) Provide for accounting and reporting of impact fee collections and expenditures and account for the revenues and expenditures of such impact fee in a separate accounting fund.

(c) Limit administrative charges for the collection of impact fees to actual costs.

(d) Provide notice at least 90 days before the effective date of an ordinance or resolution imposing a new or increased impact fee. A local government is not required to wait 90 days to decrease, suspend, or eliminate an impact fee. Unless the result is to reduce the total mitigation costs or impact fees imposed on an applicant, new or increased impact fees may not apply to current or pending permit applications submitted before the effective date of a new or increased impact fee.

(e) Ensure that collection of the impact fee may not be required to occur earlier than the date of issuance of the building permit for the property that is subject to the fee.

(f) Ensure that the impact fee is proportional and reasonably connected to, or has a rational nexus with, the need for additional capital facilities and the increased impact generated by the new residential or commercial construction.

(g) Ensure that the impact fee is proportional and reasonably connected to, or has a rational nexus with, the expenditures of the funds collected and the benefits accruing to the new residential or nonresidential construction.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

(h) Specifically earmark funds collected under the impact fee for use in acquiring, constructing, or improving capital facilities to benefit new users.

(i) Ensure that revenues generated by the impact fee are used, in whole or in part, to pay existing debt or 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 or nonresidential construction.

(5)(a) Notwithstanding any charter provision, comprehensive plan policy, ordinance, development order, development permit, or resolution, the local government or special district must credit against the collection of the impact fee any contribution, whether identified in a proportionate share agreement or other form of exaction, related to public facilities or infrastructure, including land dedication, site planning and design, or construction. Any contribution must be applied on a dollar-for-dollar basis at fair market value to reduce any impact fee collected for the general category or class of public facilities or infrastructure for which the contribution was made.

(b) If a local government or special district does not charge and collect an impact fee for the general category or class of public facilities or infrastructure contributed, a credit may not be applied under paragraph (a).

(6) A local government, school district, or special district may increase an impact fee only as provided in this subsection.

(a) An impact fee may be increased only pursuant to a plan for the imposition, collection, and use of the increased impact fees which complies with this section.

(b) An increase to a current impact fee rate of not more than 25 percent of the current rate must be implemented in two equal annual increments beginning with the date on which the increased fee is adopted.

(c) An increase to a current impact fee rate which exceeds 25 percent but is not more than 50 percent of the current rate must be implemented in four equal installments beginning with the date the increased fee is adopted.

(d) An impact fee increase may not exceed 50 percent of the current impact fee rate.

(e) An impact fee may not be increased more than once every 4 years.

(f) An impact fee may not be increased retroactively for a previous or current fiscal or calendar year.

(g) A local government, school district, or special district may increase an impact fee rate beyond the phase-in limitations established under paragraph (b), paragraph (c), paragraph (d), or paragraph (e) by establishing the need for such increase in full compliance with the requirements of subsection (4), provided the following criteria are met:

© 2023 NUE Urban Concepts, LLC. All rights reserved.

1. *A demonstrated need study justifying any increase in excess of those authorized in paragraph (b), paragraph (c), paragraph (d), or paragraph (e) has been completed within the 12 months before the adoption of the impact fee increase and expressly demonstrates the extraordinary circumstances necessitating the need to exceed the phase-in limitations.*

2. *The local government jurisdiction has held not less than two publicly noticed workshops dedicated to the extraordinary circumstances necessitating the need to exceed the phase-in limitations set forth in paragraph (b), paragraph (c), paragraph (d), or paragraph (e).*

3. *The impact fee increase ordinance is approved by at least a two-thirds vote of the governing body.*

(h) This subsection operates retroactively to January 1, 2021.

(7) If an impact fee is increased, the holder of any impact fee credits, whether such credits are granted under s. 163.3180, s. 380.06, or otherwise, which were in existence before the increase, is entitled to the full benefit of the intensity or density prepaid by the credit balance as of the date it was first established.

(8) A local government, school district, or special district must submit with its annual financial report required under s. 218.32 or its financial audit report required under s. 218.39 a separate affidavit signed by its chief financial officer or, if there is no chief financial officer, its executive officer attesting, to the best of his or her knowledge, that all impact fees were collected and expended by the local government, school district, or special district, or were collected and expended on its behalf, in full compliance with the spending period provision in the local ordinance or resolution, and that funds expended from each impact fee account were used only to acquire, construct, or improve specific infrastructure needs.

(9) In any action challenging an impact fee or the government's failure to provide required dollar-for-dollar credits for the payment of impact fees as provided in s. 163.3180(6)(h)2.b., the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee or credit meets the requirements of state legal precedent and this section. The court may not use a deferential standard for the benefit of the government.

(10) Impact fee credits are assignable and transferable at any time after establishment from one development or parcel to any other that is within the same impact fee zone or impact fee district or that is within an adjoining impact fee zone or impact fee district within the same local government jurisdiction and which receives benefits from the improvement or contribution that generated the credits. This subsection applies to all impact fee credits regardless of whether the credits were established before or after the date the act become law.

(11) A county, municipality, or special district may provide an exception or waiver for an impact fee for the development or construction of housing that is affordable, as defined in s. 420.9071. If a county, municipality, or special district provides such an exception or waiver, it is not required to use any revenues to offset the impact.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

(12) This section does not apply to water and sewer connection fees.

(13) In addition to the items that must be reported in the annual financial reports under s. 218.32, a local government, school district county, municipality, or special district must report all of the following information data on all impact fees charged:

(a) The specific purpose of the impact fee, including the specific infrastructure needs to be met, including, but not limited to, transportation, parks, water, sewer, and schools.

(b) The impact fee schedule policy describing the method of calculating impact fees, such as flat fees, tiered scales based on number of bedrooms, or tiered scales based on square footage.

(c) The amount assessed for each purpose and for each type of dwelling.

(d) The total amount of impact fees charged by type of dwelling.

(e) Each exception and waiver provided for construction or development of housing that is affordable."

One of the purposes of this Technical Report, consistent with Florida Statute Section 163.31801(4)(f) and (g), is to demonstrate that Longwood's Mobility Fee is proportional and reasonably connected to, or has a rational nexus with, both the **"need"** for mobility projects and the mobility **"benefits"** provided to those who pay the fee, otherwise known as the "dual rational nexus test", herein further described as:

The "Need" for additional (new) capital facilities (projects) to accommodate the increase in demand (impact) from growth (development activity), and

The "Benefit" that the new growth receives from the payment and expenditure of fees to construct the new capital facilities (projects).

In addition to the "dual rational nexus test", the U.S. Supreme Court in Dolan v. Tigard also established a "rough proportionality test" to address the relationship between the amount of a fee imposed on development activity and the impact of the development activity. The "rough proportionality test" requires that there be a reasonable relationship (proportional and reasonably connected) between the impact fee and the impact of development activity based upon the applicable unit of measure for residential and non-residential uses. The "rough proportionality test" further requires that the variables used to calculate a fee are reasonably assignable and attributable to the impact of development activity.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The Courts recognized the authority of a municipality to impose “impact fees” in Florida occurred in 1975 in the case of City of Dunedin v. Contractors and Builders Association of Pinellas County, 312 So.2d 763 (2d DCA. Fla., 1975), where the court held: “that the so-called impact fee did not constitute taxes but was a charge using the utility services under Ch. 180, F. S.”

The Court set forth the following criteria to validate the establishment of an impact fee:

"…where the growth patterns are such that an existing water or sewer system will have to be expanded in the near future, a municipality may properly charge for the privilege of connecting to the system a fee which is in excess of the physical cost of connection, if this fee does not exceed a proportionate part of the amount reasonably necessary to finance the expansion and is earmarked for that purpose." 312 So.2d 763, 766, (1975).

The case was appealed to the Florida Supreme Court and a decision rendered in the case of Contractors and Builders Association of Pinellas County v. City of Dunedin 329 So.2d 314 (Fla. 1976), in which the Second District Court's decision was reversed. The Court held that "impact fees" did not constitute a tax; that they were user charges analogous to fees collected by privately owned utilities for services rendered.

However, the Court reversed the decision, based on the finding that the City did not create a separate fund where impact fees collected would be deposited and earmarked for the specific purpose for which they were collected, finding:

"The failure to include necessary restrictions on the use of the fund is bound to result in confusion, at best. City personnel may come and go before the fund is exhausted, yet there is nothing in writing to guide their use of these moneys, although certain uses, even within the water and sewer systems, would undercut the legal basis for the fund's existence. There is no justification for such casual handling of public moneys, and we therefore hold that the ordinance is defective for failure to spell out necessary restrictions on the use of fees it authorizes to be collected. Nothing we decide, however prevents Dunedin from adopting another sewer connection charge ordinance, incorporating appropriate restrictions on use of the revenues it produces. Dunedin is at liberty, moreover, to adopt an ordinance restricting the use of moneys already collected. We pretermit any discussion of refunds for that reason.” 329 So.2d 314 321, 322 (Fla. 1976)

The case tied impact fees directly to growth and recognized the authority of a local government to impose fees to provide capacity to accommodate new growth and basing the fee on a proportionate share of the cost of the needed capacity. The ruling also established the need for local government to create a separate account to deposit impact fee collections to help ensure those funds are expended on infrastructure capacity.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The Utah Supreme Court had ruled on several cases related to the imposition of impact fees by local governments before hearing Banberry v. South Jordan. In the case, the Court held that: "the fair contribution of the fee-paying party should not exceed the expense thereof met by others. To comply with this standard a municipal fee related to service like water and sewer must not require newly developed properties to bear more than their equitable share of the capital costs in relation to the benefits conferred" (Banberry Development Corporation v. South Jordan City, 631 P. 2d 899 (Utah 1981). To provide further guidance for the imposition of impact fees, the court articulated seven factors which must be considered (Banberry Development Corporation v. South Jordan City, 631 P. 2d 904 (Utah 1981):

"(1) the cost of existing capital facilities;

(2) the manner of financing existing capital facilities (such as user charges, special assessments, bonded indebtedness, general taxes or federal grants);

(3) the relative extent to which the newly developed properties and the other properties in the municipality have already contributed to the cost of existing capital facilities (by such means as user charges, special assessments, or payment from the proceeds of general taxes);

(4) the relative extent to which the newly developed properties in the municipality will contribute to the cost of existing capital facilities in the future;

(5) the extent to which the newly developed properties are entitled to a credit because the municipality is requiring their developers or owners (by contractual arrangement or otherwise) to provide common facilities (inside or outside the proposed development) that have been provided by the municipality and financed through general taxation or other means (apart from user fees) in other parts of the municipality;

(6) extraordinary costs, if any, in servicing the newly developed properties; and

(7) the time-price differential inherent in fair comparisons of amounts paid at different times."

The Court rulings in Florida, Utah and elsewhere in the U.S. during the 1970's and early 1980's led to the first use of what ultimately became known as the "dual rational nexus test" in Hollywood, Inc. v. Broward County; which involved a Broward County ordinance that required a developer to dedicated land or pay a fee for the County park system. The Florida Fourth District Court of Appeal found to establish a reasonable requirement for dedication of land or payment of an impact fee that:

"… the local government must demonstrate a reasonable connection, or rational nexus between the need for additional capital facilities and the growth of the population generated by the subdivision. In addition, the government must show a reasonable connection, or rational nexus, between the expenditures of the funds collected and the benefits accruing to the subdivision. In order to satisfy this latter requirement, the ordinance must specifically earmark the funds collected for the use in acquiring capital facilities to benefit new residents." (Hollywood, Inc. v. Broward County, 431 So. 2d 606 (Fla. 4th DCA), rev. denied, 440 So. 2d 352 (Fla. 1983).

© 2023 NUE Urban Concepts, LLC. All rights reserved.

In 1987, the first of two major cases were heard before the U.S. Supreme Court that have come to define what is now commonly referred to as the "dual rational nexus test". The first case was Nollan v. California Coastal Commission which involved the Commission requiring the Nollan family to dedicate a public access easement to the beach in exchange for permitting the replacement of a bungalow with a larger home which the Commission held would block the public's view of the beach. Justice Scalia delivered the decision of the Court: "The lack of nexus between the condition and the original purpose of the building restriction converts that purpose to something other than what it was...Unless the permit condition serves the same governmental purpose as the development ban, the building restriction is not a valid regulation of land use but an out-and-out plan of extortion (Nollan v. California Coastal Commission, 483 U. S. 825 (1987)". The Court found that there must be an essential nexus between an exaction and the government's legitimate interest being advanced by that exaction (Nollan v. California Coastal Commission, 483 U. S. 836, 837 (1987).

The second case, Dolan v. Tigard, heard by the U.S. Supreme Court in 1994 solidified the elements of the "dual rational nexus test". The Petitioner Dolan, owner, and operator of a Plumbing & Electrical Supply store in the City of Tigard, Oregon, applied for a permit to expand the store and pave the parking lot of her store. The City Planning Commission granted conditional approval, dependent on the property owner dedicating land to a public greenway along an adjacent creek and developing a pedestrian and bicycle pathway to relieve traffic congestion. The decision was affirmed by the Oregon State Land Use Board of Appeal and the Oregon Supreme Court. The U.S. Supreme Court overturned the ruling of the Oregon Supreme Court and held:

"Under the well-settled doctrine of "unconstitutional conditions," the government may not require a person to give up a constitutional right in exchange for a discretionary benefit conferred by the government where the property sought has little or no relationship to the benefit. In evaluating Dolan's claim, it must be determined whether an "essential nexus" exists between a legitimate state interest and the permit condition. Nollan v. California Coastal Commission, 483 U. S. 825, 837. If one does, then it must be decided whether the degree of the exactions demanded by the permit conditions bears the required relationship to the projected impact of the proposed development." Dolan v. City of Tigard, 512 U.S. 383, 386 (1994)

The U.S. Supreme Court in addition to upholding the "essential nexus" requirement from Nollan also introduced the "rough proportionality" test and held that:

"In deciding the second question-whether the city's findings are constitutionally sufficient to justify the conditions imposed on Dolan's permit-the necessary connection required by the Fifth Amendment is "rough proportionality." No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the proposed development's impact. This is essentially the "reasonable relationship" test adopted by the majority of the state courts. Dolan v. City of Tigard, 512 U.S. 388, 391 (1994)"

© 2023 NUE Urban Concepts, LLC. All rights reserved.

An often-overlooked component of Dolan v. City of Tigard is the recognition that while multimodal facilities may off-set traffic congestion there is a need to demonstrate or quantify how the dedication of a pedestrian / bicycle pathway would offset the traffic demand generated. per the following excerpt from the opinion of the Court delivered by Chief Justice Rehnquist:

"The city made the following specific findings relevant to the pedestrian/bicycle pathway: "In addition, the proposed expanded use of this site is anticipated to generate additional vehicular traffic thereby increasing congestion on nearby collector and arterial streets. Creation of a convenient, safe pedestrian/bicycle pathway system as an alternative means of transportation could offset some of the traffic demand on these nearby streets and lessen the increase in traffic congestion." We think a term such as "rough proportionality" best encapsulates what we hold to be the requirement of the Fifth Amendment. No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development.

With respect to the pedestrian/bicycle pathway, we have no doubt that the city was correct in finding that the larger retail sales facility proposed by petitioner will increase traffic on the streets of the Central Business District. The city estimates that the proposed development would generate roughly 435 additional trips per day. Dedications for streets, sidewalks, and other public ways are generally reasonable exactions to avoid excessive congestion from a proposed property use. But on the record before us, the city has not met its burden of demonstrating that the additional number of vehicle and bicycle trips generated by the petitioner's development reasonably relate to the city's requirement for a dedication of the pedestrian/bicycle pathway easement. The city simply found that the creation of the pathway "could offset some of the traffic demand . . . and lessen the increase in traffic congestion."

"As Justice Peterson of the Supreme Court of Oregon explained in his dissenting opinion, however, "[t]he findings of fact that the bicycle pathway system could offset some of the traffic demand' is a far cry from a finding that the bicycle pathway system will, or is likely to, offset some of the traffic demand." 317 Ore., at 127, 854 P. 2d, at 447 (emphasis in original). No precise mathematical calculation is required, but the city must make some effort to quantify its findings in support of the dedication for the pedestrian/bicycle pathway beyond the conclusory statement that it could offset some of the traffic demand generated." Dolan v. City of Tigard, 512 U.S. 687 (1994).

The U.S. Supreme Court recently affirmed, through Koontz vs. St. Johns River Water Management District, that the "dual rational nexus" test equally applies to monetary exactions in the same manner as a governmental regulation requiring the dedication of land. Justice Alito described:

"Our decisions in Nollan v. California Coastal Commission, 483 U. S. 825 (1987), and Dolan v. City of Tigard, 512 U. S. 374 (1994), provide important protection against the misuse of the power of land-use regulation. In those cases, we held that a unit of government may not condition the approval of a land-use permit on the owner's relinquishment of a portion of his property unless there is a "nexus" and "rough proportionality" between the government's demand and the effects of the proposed land use. In this case, the St. Johns River Water Management District (District) believes that it circumvented Nollan and Dolan because of the way in which it structured its handling of a permit application

© 2023 NUE Urban Concepts, LLC. All rights reserved.

submitted by Coy Koontz, Sr., whose estate is represented in this Court by Coy Koontz, Jr. The District did not approve his application on the condition that he surrender an interest in his land. Instead, the District, after suggesting that he could obtain approval by signing over such an interest, denied his application because he refused to yield." Koontz v. St. Johns River Water Management District 1333 S. Ct. 2586 (2013).

"That carving out a different rule for monetary exactions would make no sense. Monetary exactions—particularly, fees imposed "in lieu" of real property dedications—are "commonplace" and are "functionally equivalent to other types of land use exactions." To subject monetary exactions to lesser, or no, protection would make it "very easy for land-use permitting officials to evade the limitations of Nollan and Dolan." Furthermore, such a rule would effectively render Nollan and Dolan dead letters "because the government need only provide a permit applicant with one alternative that satisfies the nexus and rough proportionality standard, a permitting authority wishing to exact an easement could simply give the owner a choice of either surrendering an easement or making a payment equal to the easement's value." Koontz v. St. Johns River Water Management District 1333 S. Ct. 2599 (2013).

The Florida First District Court of Appeals recently affirmed, through The BoCC of Santa Rosa County vs. the Builders Association of West Florida, that impact fees are required to meet the "dual rational nexus" test to avoid being found to be an unconstitutional tax. The Court cited the following sections of Florida Statute:

"Second, the Florida Impact Fee Act sets forth the minimum statutory requirements for a valid impact fee. § 163.31801(3), Fla. Stat. (2019). The Act requires impact fees to be based on the "most recent and localized data." § 163.31801(3)(a), Fla. Stat." The Board of County Commissioners v. Home Builders Assoc. of West Florida, Inc., 325 So. 3d 981, 985 (Fla. Dist. Ct. App. 2021).

The Court cited expert testimony that the County's school impact fee did not recognize differences in growth or needs that would be the basis for different fees based on geographic location and needs due to new growth:

"the impact fees failed the dual rational nexus test because they did not account for the differences between the northern and southern parts of the county. This resulted in impact fees that were disproportionate to the growth in these geographical regions." The Board of County Commissioners v. Home Builders Assoc. of West Florida, Inc., 325 So. 3d 981, 985 (Fla. Dist. Ct. App. 2021).

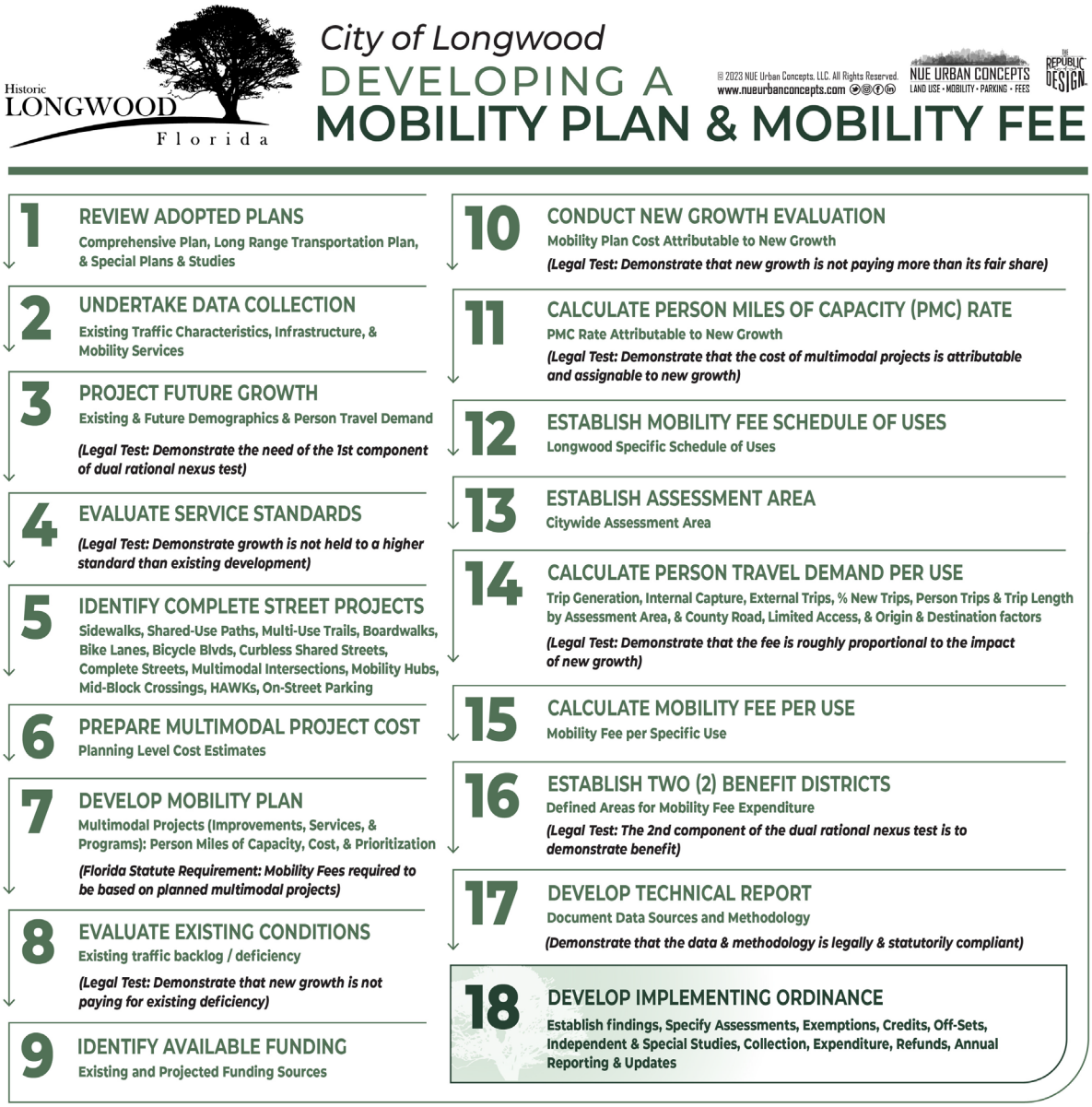
The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

DEVELOPING THE MOBILITY PLAN & FEE

There were multiple steps that went into development of the 2045 Mobility Plan and Mobility Fee for the City of Longwood. The following is a step-by-step overview of the process used to develop the Mobility Plan and Mobility Fee consistent with legal and statutory requirements **(Figure 2).**

Figure 2. Developing a Mobility Plan & Mobility Fee



© 2023 NUE Urban Concepts, LLC. All rights reserved.

COMPREHENSIVE PLAN

The City amended the Multi-Modal Transportation Element of the Comprehensive Plan to establish the legislative intent to adopt a mobility fee to fund multimodal projects to encourage walking, bicycling, transit ridership, and the efficient use of the transportation system. The following are pertinent goals, objectives, and policies in the Multi-Modal Transportation Element **(Figure 3)**:

Figure 3. Integrating Land Use, Transportation, Parking & Funding



MULTI-MODAL TRANSPORTATION ELEMENT

GOAL 1: TO DEVELOP AND MAINTAIN A CITY-WIDE MULTI-MODAL TRANSPORTATION SYSTEM THAT PROVIDES FOR AND SUPPORTS THE TRANSPORTATION NEEDS OF RESIDENTS AND VISITORS ALONG WITH PROVIDING AND ENHANCING MOBILITY CHOICE IN A SAFE, EFFICIENT, COST-EFFECTIVE, AND AESTHETICALLY PLEASING MANNER.

Objective 1.1. ***"In order to ensure that the City's multi-modal transportation systems are functioning at acceptable levels to accommodate current needs and future growth, to establish benchmarks and priorities geared toward the improvement of mobility options and in which to direct available funding and planning efforts, the City shall establish level of service standards for all modes of transportation."***

Policy 1.1.6. ***"Prior to the adoption of a Mobility Fee Impact Schedule new development that will have anything but a di minimus impact on any transportation system within the City shall be required to provide an analysis of those impacts along with a mitigation strategy to include but not be limited to developer-funded bike, pedestrian, and transit improvements on and off-site."***

Objective 1.2. ***"To ensure that the City of Longwood improves mobility choices for its residents and visitors through the provision of public transit options along with well-maintained pedestrian and bicycle facilities, providing for the improvement of these facilities through a comprehensive approach to the planning for bicycles and pedestrians and continue to implement the plan by continuing to increase the availability of sidewalks, pedestrian paths, and/or bikeways through public and private efforts."***

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Policy 1.2.2. ***"As part of the annual budgeting process, the City shall consider funding sidewalk, pedestrian ways and/or bike paths as funding becomes available. The City shall also require and support provisions for such facilities as part of State and County road improvements."***

Objective 2.1. ***"The City of Longwood, as a Transportation Concurrency Exception Area (TCEA) shall explore land use and funding strategies to realize stated mobility goals."***

Policy 2.1.1. ***"The City will continue to work with Seminole County, FDOT, and MetroPlan Orlando to promote, develop, and fund mobility improvements within the City."***

Objective 2.2. ***"The City shall continue to seek methods and sources to fund new transportation improvements and programs, including multi-modal facilities."***

Policy 2.2.2. ***"Mobility Fees - The City shall evaluate and prepare a Mobility Fee Schedule and methodology of determination to include all multi-modal transportation impacts projected from new construction and apply fees accordingly for the construction of identified necessary and desirable improvements."***

Policy 2.2.6. ***"Alternative Funding Sources to Supplement Transit Funds — The City shall evaluate the feasibility of establishing special assessment districts, impact fees or other alternative methods to fund ongoing, operating, management and capital costs for transit serving the City of Longwood. Any special City transit funding source is intended to augment but not supplant funds provided by LYNX, Seminole County, Orange County and other governments served by the same sub-regional transit systems serving Longwood."***

Objective 3.1. ***"Support the expansion of the SunRail commuter rail system, bus transportation, and bicycle and pedestrian facilities and avoid transportation system improvements that favor the use of single-occupancy vehicles as the primary means of transportation."***

Policy 3.1.2. ***"Encourage travel on the SunRail system."***

Policy 3.1.3. ***"The City working with the appropriate transportation provider shall enhance connections and encourage ease of transfer between the SunRail station and other transit modes by supporting the expansion of public transportation including additional bus routes and park-and-ride parking facilities."***

Policy 3.1.6. ***"The City shall continue to request that FDOT, MetroPlan Orlando, and the County use funds targeted for road widening projects for alternative mobility system projects related to the SunRail station, additional bus routes, pedestrian access, bike facilities and other transportation system management improvements."***

© 2023 NUE Urban Concepts, LLC. All rights reserved.

GROWTH

The first requirement of the **"dual rational nexus"** for the City's Mobility Fee is to demonstrate that there is a need for mobility projects to accommodate projected growth in person travel demand. An evaluation of the existing and projected population and employment was conducted for the City of Longwood Mobility Study Area **(Map A).** The data was obtained from the Traffic Analysis Zones (TAZs) used in Central Florida Regional Planning Model (CFRPM). Population and employment data for Seminole County was also extracted from the CFRPM.

The Mobility Study Area includes all of the City of Longwood and is bounded on the north by Green Way Blvd, General Hutchinson Pkwy, and EE Williamson Rd, on the east by SR 419, Winter Park Dr, and US Hwy 17, on the south by SR 436, and on the west by Interstate 4 **(Map A)**. The Mobility Study Area extends beyond the existing City of Longwood municipal limits in recognition that travel, and trips do not stop at City limits, and to address extra-jurisdictional impact to the County and State transportation system.

The CFRPM was developed by the Florida Department of Transportation (FDOT) District Five (Central Florida) and used by MetroPlan Orlando in development of the 2045 Long Range Transportation Plan (LRTP). The CFRPM demonstrates that there is projected to be an increase in both population and employment for both the Mobility Study Area and Seminole County **(Table 1)**. The projected increase in both population and employment will generate additional person travel demand and will create a need for new mobility projects to meet that demand.

TABLE 1. PROJECTED GROWTH

	Longwood Mobility Study Area		Seminole County	
Year	Population	Employment	Population	Employment
2020	49,738	33,333	496,060	221,415
2045	54,220	43,480	588,887	364,473
Increase	4,482	10,147	92,827	143,058

Source: 2020 and 2045 Population and Employment were extracted using the FDOT District 5 Central Florida Regional Planning Model Version 7.0 developed by the Florida Department of Transportation (FDOT) District 5 (Central Florida). Population and employment data were obtained from the CFRPM Traffic Analysis Zones **(Appendix C)**. 2023 Population and Employment were obtained by applying the annual growth rate between 2020 (model base year) and 2045. The Longwood Mobility Study Area includes areas that are outside the current municipal limits **(Map A).** The projected increase was obtained based on the difference between 2023 and 2045. Population growth is projected to increase by 9% (4,482 / 49,738 = .090). Employment growth is projected to increase by 31% (10,147/ 33,333 = .308).

© 2023 NUE Urban Concepts, LLC. All rights reserved.

VEHICLE MILES OF TRAVEL (VMT)

The growth in vehicle miles of travel (VMT) is one of the factors evaluated to determine the need for future mobility projects within the Mobility Study Area. Future traffic does not terminate at City limits, thus the evaluation of VMT data includes the road network within the Mobility Study Area **(Map A)**. The model analyses evaluated projected growth in vehicle miles of travel (VMT) for City, County, and State roads for the model study network **(Appendix C)**. The latest version of the Central Florida Regional Planning Model (CFRPM) was used to determine the VMT growth within the Mobility Study Area between 2023 and 2045 **(Table 2)**.

TABLE 2. GROWTH IN VEHICLE MILES OF TRAVEL (VMT)

Year	Arterial & Collector Roads	Limited Access	Total
2020 (Model base year)	1,210,498	548,824	1,759,322
2023 (Mobility Plan base year)	1,223,972	563,003	1,786,974
2045 (Mobility Plan future year)	1,327,471	678,805	2,006,276
VMT increase (2023 to 2045)	103,499	115,802	219,301

Source: Projected growth in VMT prepared by NUE Urban Concepts, LLC **(Appendix C)**. The 2020 base year and 2045 future year VMT were extracted using the FDOT District 5 Central Florida Regional Planning Model Version 7.0. The model files were obtained from MetroPlan Orlando. The annual growth rate of travel on arterial and collector roads is 0.37% and 0.85% for the limited access facility, I-4. The model growth rates were used to calculate the 2023 Mobility Plan base year VMT. The VMT increase is based on the difference between 2023 and 2045. VMT increase on arterials and collectors is projected to grow by 8.5% (103,499/1,223,972 = .085). VMT increase on limited access facilities is projected to grow by 21.0% (115,802/563,003 = .206).

The Mobility Fee methodology will use the projected VMT on Interstate 4 (aka Limited Access Facility) to adjust person travel demand for uses in the Mobility Fee schedule. Travel on limited access facilities is excluded from both mobility fee studies as improvements are funded by federal and state gas tax revenues, and the facilities serve intercity and regional travel.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

PERSON MILES OF TRAVEL (PMT)

The growth in vehicle miles of travel (VMT) is often used in road impact fees to evaluate the need for road capacity improvements to move vehicles. Mobility Fees utilize person miles of travel (PMT) to evaluate the need for multimodal projects to move people. To account for multimodal trips made by people walking, biking, riding transit, and the number of people per vehicle (aka vehicle occupancy), the projected increase in vehicle miles of travel (VMT) demand is converted into person miles of travel (PMT) demand for arterial and collector roads.

The conversion is based on person and vehicle trips and trip length data for Florida obtained from the 2017 National Household Travel Survey (NHTS). The NHTS data is used to calculate a person miles of travel factor (PMTf) based on PMT and VMT per trip purpose. The evaluation of the vehicle and person data from the 2017 NHTS resulted in a person miles of travel factor (PMTf) of 1.88 **(Appendix D)**. The increase in person miles of travel (PMT) is based on the projected increase in vehicle miles of travel (VMT) multiplied by the applicable person miles of travel factor (PMTf) illustrated in further detail on **Figure 4**.

Figure 4: Person Miles of Travel Increase (PMTi)

Person Miles of Travel increase (PMTi)

∑ VMT = (∑ Vehicle per Trip x ∑ Average Vehicle Trip Length)

∑ PMT = (∑ Persons per Trip x ∑ Average Person Trip Length)

PMTf = (∑ of PMT / ∑ of VMT)

VMTi = (2045 VMT - 2023 VMT)

PMTi = (VMTi x PMTf)

WHERE:

VMT = Vehicle Miles of Travel

PMT = Person Miles of Travel

∑ VMT = Sum of Vehicle Miles of Travel by trip purpose (Appendix D)

∑ PMT = Sum of Person Miles of Travel by trip purpose (Appendix D)

PMTf = Person Miles of Travel factor of 1.88 (Appendix D)

VMTi = Vehicle Miles of Travel Increase (Table 2)

PMTi = Person Miles of Travel increase (Table 3)

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The projected increase in PMT within the Mobility Fee Study Area, excluding Interstate 4, between the Mobility Plan base year of 2023 and the future year of 2045 is **194,578** **(Table 3)**. The increase was calculated as follows per the formula illustrated in **Figure 4**:

VMT increase x PMTf (103,449 x 1.88) = 194,578

The projected increase of **194,578** person miles of travel (PMT) demonstrates that there is future person miles or travel demand projected by 2045 that will result in the **"need"** for mobility projects to accommodate the increase in person travel demand **(Table 3)**. The documented increase in PMT and the identification of needed mobility projects via the Mobility Plan demonstrates compliance with the **"needs"** test of the dual rational nexus test.

TABLE 3. INCREASE IN PERSON MILES OF TRAVEL (PMTi)

2045 Vehicle Miles of Travel Increase (VMTi)	**103,499**
Person Miles of Travel Factor	**1.88**
Total Increase in Person Miles of Travel (PMTi)	**194,578**

Source: The 2045 VMT increase was obtained from **Table 2**. PMTi obtained by multiplying VMTi by 1.88 in **Figure 4**.

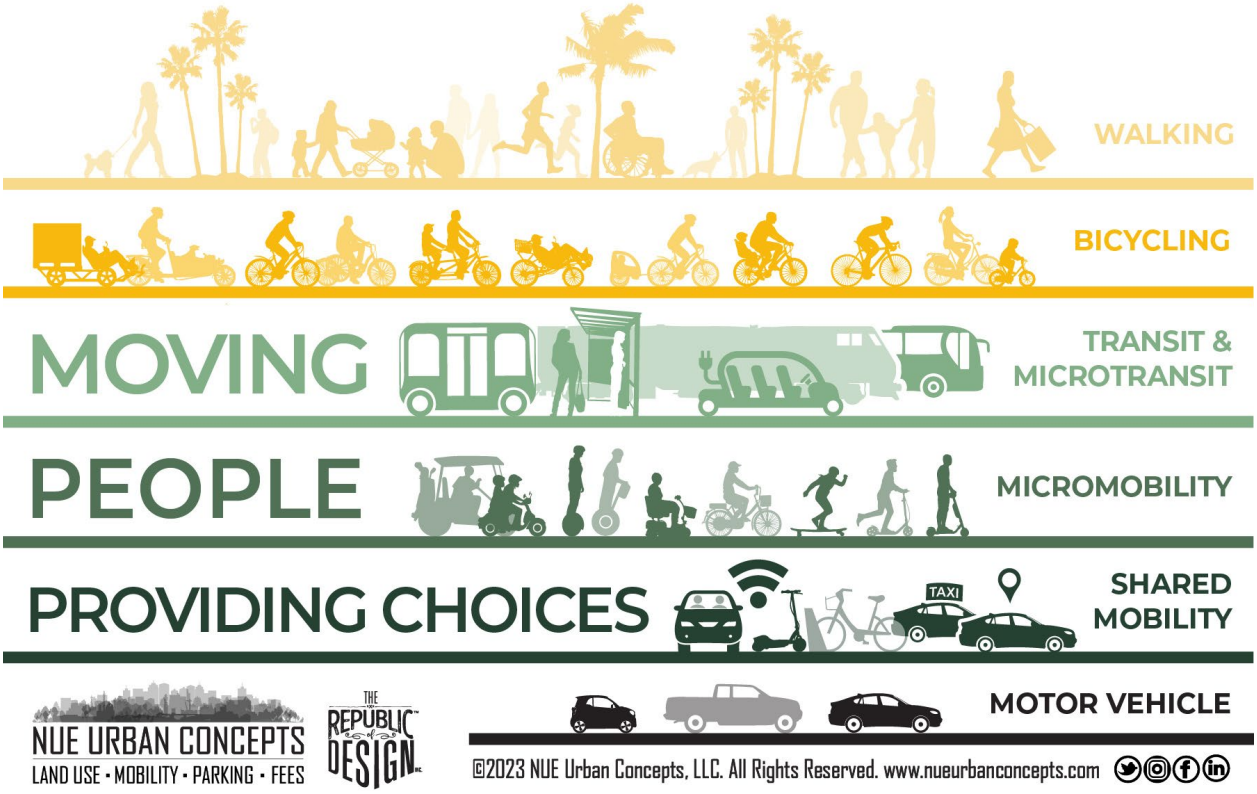
The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

2045 City of Longwood Mobility Plan

The 2045 Mobility Plan served as the basis to develop the City's Mobility Fee. The Mobility Plan will provide a foundation for Longwood to proactively prioritize multimodal projects to meet the growth, travel, and mobility needs of the community in a manner that is coordinated with the Future Land Use Element in the Comprehensive Plan. The Mobility Plan is a vision, over the next 22 years, for how the City's transportation system will continue the transition from moving vehicles, towards a multimodal system focused on safely moving people, whether they choose to continue driving their cars, or decide to walk, bicycle, ride transit, or use a new mobility technology **(Figure 5)**.

Figure 5. Moving People, Providing Choices



The mobility projects identified in the Mobility Plan were established based on the multimodal elements necessary to transition from a transportation system focused on moving cars, towards a safe, comfortable, and convenient multimodal system focused on moving people **(Figure 6)**. The multimodal elements to encourage walking and bicycling do not differ much from those that encourage driving: **(1) Mobility; (2) Equity; (3) Accessibility; (4) Connectivity; (5) Visibility; (6) Continuity; (7) Safety; (8) Comfort; and (9) Social Value.** If multimodal systems for moving people were built like those for moving cars, far more people would walk, bike, and ride transit.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

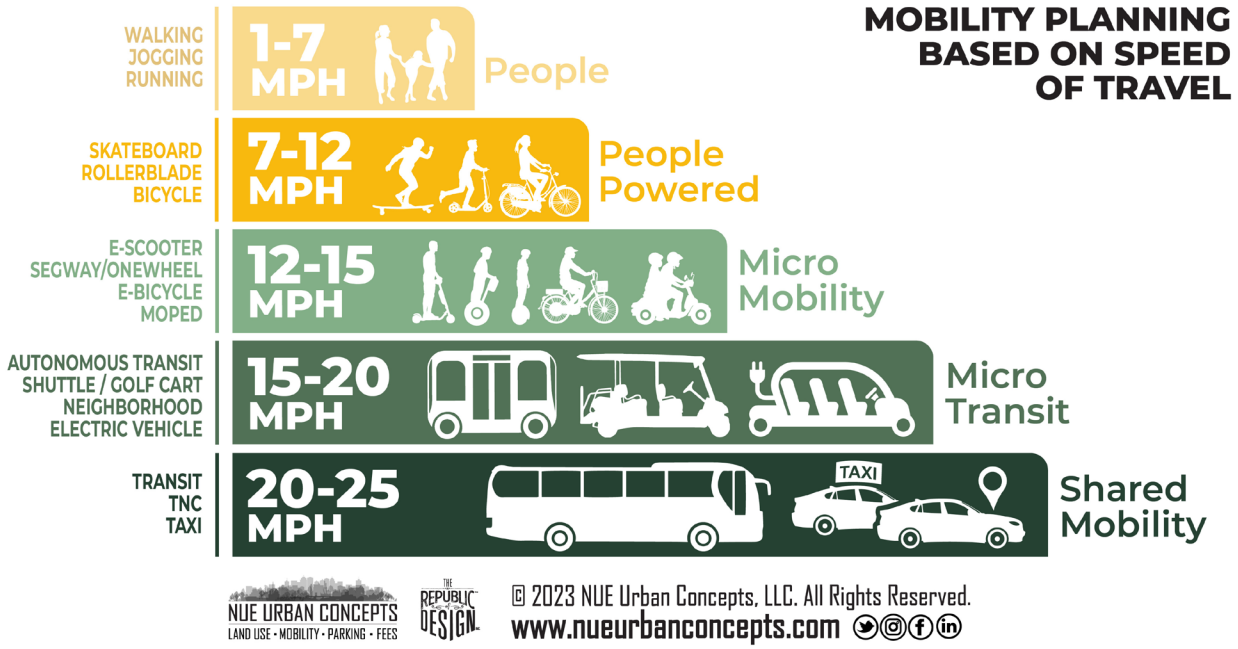
Figure 6. Multimodal Elements



© 2023 NUE Urban Concepts, LLC. All rights reserved.

Transportation modes are often grouped into two categories, cars and "multimodal." While slowing the speed of cars makes the biggest overall impact on street safety for other road users, there are significant speed differentials between different modes that can create unsafe situations. To facilitate the transition from a transportation system focused on moving cars towards a multimodal system focused on the movement of people, it's important to understand that the speed of travel varies greatly whether a person is walking, bicycling, scooting, riding transit or driving a car. The speed of multimodal travel generally falls within five tiers, each of which requires appropriate multimodal improvements, to accommodate the desired speed of travel **(**Figure 7**)**.

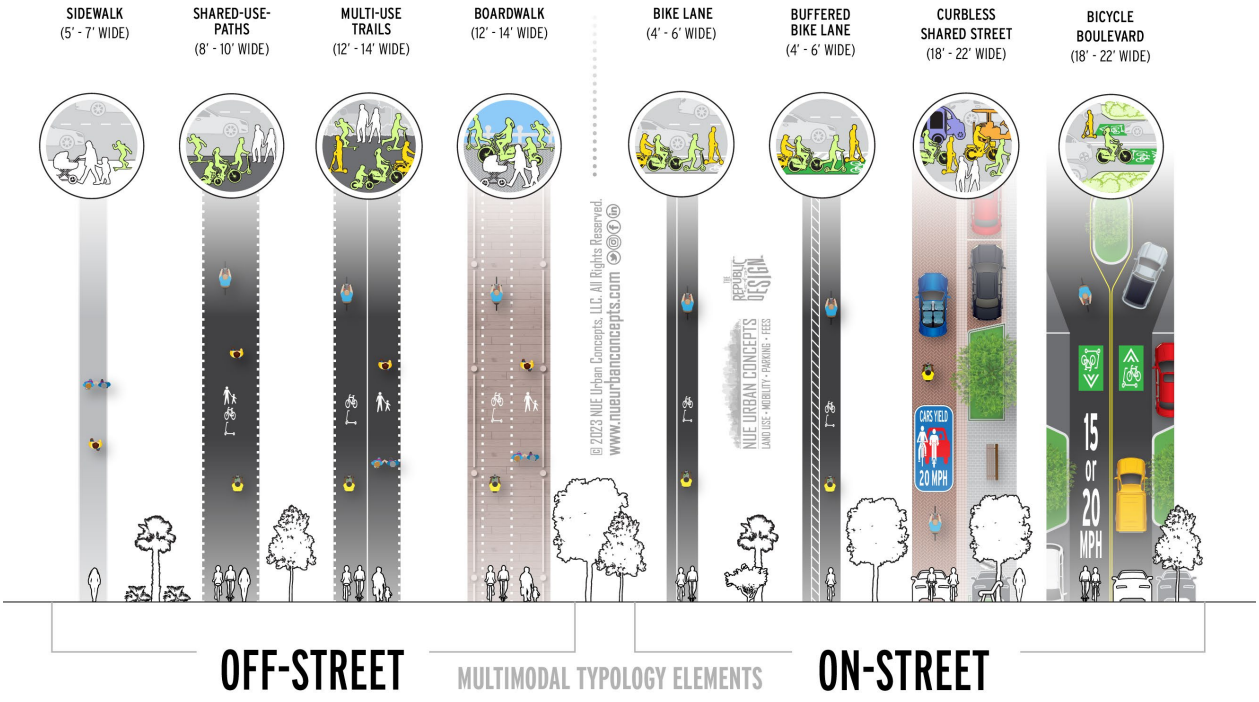
Figure 7. Speed of Travel



The Mobility Plan attempts to accommodate multiple modes, traveling at varying speeds, with infrastructure that is appropriate and safe for each mode. As micromobility (e.g., electric bikes and electric scooters), microtransit (e.g., golf carts, neighborhood electric vehicles, and autonomous transit shuttles), and shared mobility (e.g., transit, ride-hail, and car-share) devices, services, and programs expand, there will be a need to reimagine and repurpose road and street rights-of-way and travel lanes to accommodate different speeds of travel. Future updates of the Mobility Plan may involve additional multimodal projects to accommodate desired modes of travel and reflect new mobility technology.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Figure 8. On-Street & Off-Street Multimodal Projects



The Mobility Plan recommends a variety of multimodal facilities including sidewalks, boardwalks, shared-use paths, multi-use trials, curbless shared streets, and complete streets. The above graphic (**Figure 8**) illustrates the types of multimodal projects, both on-street and off-street, that are included in the Mobility Plan. Bicycle lanes and bicycle boulevards are also shown because, while not recommended directly in the Mobility Plan, such project types are recommended in the City of Longwood's Bicycle and Pedestrian Master Plan, which is incorporated into the Mobility Plan and Mobility Fee.

The 2045 Mobility Plan consists of separate subplans for Complete Streets, Intersections & Parking, and Multimodal Plans, Studies, Programs & Policies. Mobility Projects for the Complete Streets Plan and the Intersections & Parking Plan are shown on **Map B**. To illustrate a complete picture of connectivity within the future multimodal transportation system, **Map C** maps projects in the Mobility Plan with projects recommended in the City of Longwood Bicycle & Pedestrian Master Plan. Detailed project information can be found in the be found in the City of Longwood Bicycle & Pedestrian Master Plan. The following are the components of the 2045 Mobility Plan:

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Complete Streets Plan (Appendix E)

The Complete Streets Plan features new complete streets and complete streets retrofits, curbless shared streets, boardwalks, traffic calming, shared-use paths, and multi-use trails **(Map B)**. The Complete Streets Plan also incorporates the City of Longwood Bicycle & Pedestrian Master Plan which recommends sidewalks, shared lane markings, bicycle lanes, boardwalks, shared-use paths, and a bicycle boulevard.

The goal of the Complete Streets Plan, and the Mobility Plan as a whole, is to build upon the Bicycle & Pedestrian Master Plan and existing proposed/planned projects to 1) create a complete, integrated, multimodal transportation system to move people to, from, and within the City of Longwood; 2) improve the safety for people; 3) to increase multimodal access and connectivity to and between the Downtown Historic and Station Core districts; 4) to enhance regional multimodal connectivity by facilitating first-and-last mile solutions to the SunRail station.

To achieve these goals, the Complete Streets Plan recommends curbless shared streets on Warren Ave and W Church Ave between Milwee St and CR 427/Ronald Reagan Blvd and on Wilma Street between Warren Ave and W Church Ave to enhance placemaking and to facilitate a defined, walkable center for the Historic District as redevelopment occurs. West of CR 427/Ronald Reagan, shared-use paths and multi-use trails are recommended between neighborhoods to increase multimodal connectivity, enhance placemaking, and draw people into the Historic District and Station Core.

In the area south of SR 434 and west of CR 427/Ronald Reagan Blvd (southwest quadrant) there is a large property containing wetlands. There is a desire to develop a portion of this property to expand the adjacent industrial park and to enhance public access and enjoyment of this area through a system of boardwalks. In anticipation of this future development, the Mobility Plan recommends approximately one (1) mile of boardwalk to provide access to the wetlands from the Cascade Heights retirement community and residential neighborhoods southwest of Longwood city limits that would provide public space similar to that seen in nearby communities such as Maitland and Altamonte Springs. The boardwalk would also connect two commercial centers along SR 434.

No road widenings are proposed because the City's collector and arterial roads and either built out or designated as constrained roadways. The Plan does include complete street retrofits on SR 434, CR 427/Ronald Reagan Blvd, and US Hwy 17 to be reconstructed with pedestrian and bicycle facilities and amenities, streetscape, and landscape. The Plan includes two new complete streets: Bennet Dr Extension and Savage Ct Extension to improve connectivity in anticipation of the future development.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Intersections & Parking Plan (Appendix F)

The Intersections & Parking Plan features proposed intersection improvements, midblock crossings, Pedestrian Hybrid Beacons (PHB), and a trail crossing to improve safety, traffic operations, and connectivity **(Map B)**. Additionally, the Bicycle & Pedestrian Master Plan includes raised intersections. Multimodal Intersection Improvements ensure that multimodal safety and connectivity do not stop at intersections by including signage and pavement markings for enhanced visibility. A Multimodal Intersection Improvement is included at W Church Ave and CR 427/Ronald Reagan Blvd which currently poses a significant barrier for multimodal connectivity between the western part of the Historic District and the Station Core District. Several PHBs are recommended on SR 434 and CR 427/Ronald Reagan Blvd to reduce barriers to safe, multimodal access. Reconstruction of the intersection of SR 434 and CR 427/Ronald Reagan was included from Seminole County's 2040 Transportation Master Plan and proposes major intersection improvements to address safety, multimodal connectivity, and circulation impacted by adjacent railroad crossings.

To facilitate first-and-last time solutions and connectivity to transit, the Intersections & Parking Plan provides for site acquisition, design, engineering, and construction of various parking improvements in the Station Core and Downtown Historic District including a mobility hub. This allows the City to begin collecting funds for innovative parking improvements while continuing to explore what improvements will best meet the needs of the community. The city could consider converting the existing SunRail surface parking lot between E Church Ave and E Warren Ave into the SunHub. The SunHub (Figure 9) could offer amenities, shared mobility, and parking capacity. The city may also consider a public-private partnership to add additional levels to the existing parking garage currently serving the Weston Park Apartments at the Longwood SunRail station. A public-private partnership could also be leveraged to implement a future parking garage at the location of the existing SunRail Parking surface lot.

Figure 9. SunHub Mobility Hub



© 2023 NUE Urban Concepts, LLC. All rights reserved.

Multimodal Plans, Studies, Programs & Policies (Appendix G)

The final subplan proposes multimodal plans, studies, programs, and policies to supplement and facilitate the recommended multimodal infrastructure projects. The Plan includes a Vision Zero Action Plan, Residential Traffic Calming Program, Sidewalks Improvements Program, Bus Stop Relocation, Wayfinding Program, Tactical Urbanism Program, ADA Transition Plan Implementation, the City of Longwood Bicycle & Pedestrian Master Plan update, a Railroad Safety Study, and a Micromobility & Microtransit Program.

The Railroad Safety Study is included to address safety concerns at the railroad crossing at Georgia Ave. The study should consider closing the railroad crossing at Georgia Ave and explore future alternative safe crossings south of SR 434 that would aid in alleviating congestion on SR 434.

The Micromobility & Microtransit Program is included to address the City's desire to diversify mobility and encourage new modes of transportation throughout the City. The Program will regulate the use of personal and shared micromobility devices (e.g., e-bike, e-scooters) and low speed electric vehicles (golf carts, on-demand microtransit, neighborhood electric vehicles) within the City and will address hours of operation, safety, shared mobility providers, rentals, and equipment. The City will need to coordinate with FDOT and Seminole County regarding use of micromobility devices and low speed electric vehicles on and crossing US Hwy 17, SR 434, and on County Roads.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

CITY OF LONGWOOD MOBILITY FEE

The basis for the City of Longwood Mobility Fee are the projects identified in the 2045 Mobility Plan consistent with Florida Statutes 163.3180 and 163.31801. ***Mobility Plan projects consist of improvements including curbless shared streets, boardwalks, shared-use paths, trails, sidewalks, traffic calming, intersections, Pedestrian Hybrid Beacons, multimodal crossings, trail crossings, parking improvements, a mobility hub, and multimodal plans, studies, programs, and policies.*** The Mobility Fee collected from development activity will be used to fund 2045 Mobility Plan projects **(Figure 10)**. ***Development activity includes the construction, alteration, modification, expansion, redevelopment, rehabilitation, or remodeling of buildings, facilities, or structures, change of occupancy or use, special uses, variances, and any use of land that results in an increase in person travel demand above the existing use of land.***

The projects identified in the 2045 Mobility Plan are intended to provide the person miles of capacity needed to meet future person miles of travel, consistent with the **"needs"** requirement of the dual rational nexus test. The Mobility Fees collected from development activity are to be used to fund the 2045 Mobility Plan projects needed that provide a mobility benefit to development activity and serve the increase in person travel demand from the development activity, consistent with the **"benefits"** requirement of the dual rational nexus test.

Figure 10. Mobility Plan and Mobility Fee



© 2023 NUE Urban Concepts, LLC. All rights reserved.

EXISTING CONDITIONS EVALUATION (ECE)

Florida Statute prohibits local governments from charging new development for an existing transportation deficiency (aka over capacity or backlogged roads), except for Mobility Fees. Per Florida Statute Section 163.3180(i), Mobility Fees can be assessed to cure an existing transportation deficiency, other alternative mobility funding systems may not. While not required, in an abundance of caution, the capacity of the major road system has been evaluated on a system-wide basis to ensure that development activity is not being charged for existing transportation deficiencies.

The existing conditions evaluation (ECE) is achieved by dividing vehicle miles of travel (VMT) by vehicle miles of capacity (VMC). A VMT/VMC ratio greater than 1.00 indicates that there are system deficiencies. The Mobility Study Road Network evaluated includes major roads within the Mobility Study Area including City, County, and State roads **(Appendix H)**. Based on the evaluation of existing conditions, the VMT/VMC ratio for 2023 is 0.74 **(Table 4)**. Thus, development activity is not being assessed for existing backlog in the transportation system. While the segment of SR 434 from Warren Ave to CR 427 / Ronald Reagan is currently failing, the major roads evaluated as a system currently provide adequate capacity to meet existing travel demand and accommodate future development activity. For purposes of the Mobility Fee calculation, the existing conditions evaluation factor (ECEf) is set to 1.00.

TABLE 4. 2023 EXISTING CONDITIONS EVALUATION (ECE)

Functional Classification	Length (miles)	Lane Miles	2023 VMT	2023 VMC	VMT to VMC (VMT/VMC)
Minor Collector	11.4	23.9	70,624	221,627	0.32
Major Collector	10.0	24.0	130,743	214,851	0.61
Minor Arterial	9.1	31.7	182,283	295,245	0.62
Principal Arterial	11.7	61.3	486,956	597,766	0.81
Limited Access	3.7	21.9	548,230	594,220	0.92
Total	45.9	162.8	1,418,836	1,923,708	0.74

Source: Existing conditions evaluation is based on Traffic Characteristics Data for the County (Appendix H). The Traffic Characteristics Data was obtained from the County and FDOT. VMT is based on AADT x length of a road segment. VMC is based on the daily capacity x length of a road segment. Capacities for roads are based on the FDOT Generalized Tables **(Appendix I).** The Mobility Study Area and Network is illustrated in **Map A.**

© 2023 NUE Urban Concepts, LLC. All rights reserved.

To evaluate potential impact to County and State Roads from development activity, a further analysis of existing (2023) conditions was developed. The analysis includes total length of facilities, total lane miles, vehicle miles of travel (VMT), vehicle miles of capacity (VMC), and a breakdown of percentages by road ownership **(Table 5)**. The analysis illustrates that the VMT on City Streets is estimated to be 5% in 2023, with over 34% occurring on County Roads and more than 60% on State Roads.

In terms of the total length of roads, 17.4% are owned and maintained by the City, with County Roads accounting for nearly 49% and State Roads just close to 34%, respectively. Based on the metrics evaluated below, the County Road system represents 49% of the transportation network in the Mobility Study Area (MSA) and accommodates almost 35% of the travel. City and County Roads represent 66% of the transportation network in the MSA and carry almost 40% of the current vehicle miles of travel. This is only travel on major roads and does not include travel on all the local streets maintained by the City or on limited access roads (Interstate 4).

TABLE 5. 2023 EXISTING TRAVEL BY ROAD OWNERSHIP

Government Entity	Length (miles)	Lane Miles	2023 VMT	2023 VMC
City	7.3	15.7	43,663	117,261
County	20.6	58.3	299,986	552,631
State	14.3	66.8	526,986	659,596
Total	42.2	140.9	870,606	1,329,488
City	17.4%	11.2%	5.0%	8.8%
County	48.8%	41.4%	34.5%	41.6%
State	33.8%	47.5%	60.5%	49.6%
Total	100.0%	100.0%	100.0%	100.0%

Source: Traffic Characteristics Data within the Mobility Study Area **(Appendix H).**

© 2023 NUE Urban Concepts, LLC. All rights reserved.

MOBILITY PLAN PROJECT SUMMARY

The 2045 Mobility Plan includes detailed descriptions for each mobility project that serves as the basis for development of the Mobility Fee. These mobility projects are necessary to meet future person miles of travel demand. Planning level cost estimates have been developed for the mobility projects based on cost from the City, County, FDOT District Five (Central Florida), and MetroPlan Orlando **(Appendix E,F,G)**.

The person miles of capacity (PMC) have been calculated for mobility projects **(Appendix E,F,G)**. The FDOT Generalized Service Volume Tables were used to establish daily vehicle capacities for each mobility project. To account for vehicle occupancy, road capacities are multiplied by a Vehicle Occupancy factor of 1.81 based on the 2017 National Household Travel Survey **(Appendix D)**. These multimodal capacities have been used to evaluate the share of Mobility Plan Cost that is attributable to development activity.

The Mobility Plan projects include existing funded or partially funded projects that are intended to address existing traffic such as improvements on SR 434, CR 427/Ronald Reagan, and US Hwy 17. The following is a summary of the total number, length, planning level cost, and person miles of capacity for the Mobility Plan projects **(Table 6).**

TABLE 6. MOBILITY PLAN PROJECT SUMMARY

Improvements	Length (Miles) or Number of Intersections	Planning Level Cost Estimates	Person Miles of Capacity
Multimodal Projects: Complete Streets	22.1 miles	$85,848,394	165,921
Multimodal Projects: Intersections	27 Intersections	$48,511,000	37,600
Multimodal Projects: Parking	1 mobility hub & 40 parking stalls	$6,441,440	6,441
Plans, Studies, Programs & Policies	13	$15,292,369	32,177
	Total	$156,093,203	242,140

Source: Complete Streets Plan **(Appendix E)**. Intersections & Parking Plan **(Appendix F)**. Multimodal Plans, Studies, Programs & Policies Plan (**Appendix G**). Planning level cost estimates were developed based on cost from the City, County, FDOT District Five (Central Florida), and MetroPlan Orlando; Person Miles of Capacity = daily vehicle capacity x Vehicle Occupancy Factor of 1.81 based on data from the 2017 National Household Travel Survey. Daily vehicle capacities were determined using FDOT Generalized Service Volume Tables.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

FUNDING

The availability of funding for Mobility Plan projects over the next 22 years is projected to come from a variety of funding sources. Seminole County and Longwood can allocate a portion of gas taxes and infrastructure sales tax towards Mobility Plan projects. Gas taxes have been declining locally, statewide, and nationally as vehicles have become more fuel efficient and the percentage of electric vehicles and hybrid vehicles increase. The Federal Government has not raised gas taxes in a number of years. The State of Florida annually adjusts gas taxes on the first day of the year based on the prior year Consumer Price Index to adjust for inflation. The vast majority of gas taxes at all levels of government are largely earmarked for maintenance and operations of the existing transportation system, leaving minimal revenues available for new capacity and multimodal improvements.

There has been some discussion of a VMT tax to replace the gas tax at the federal and state level. There are several states that are testing pilot programs for a VMT tax. Given the current political climate, a VMT tax is unlikely to pass anytime soon. However, as a greater number of electric vehicles and autonomous vehicles come online, there may be renewed interest in replacing the gas tax with a VMT fee in the future. The County's existing infrastructure sales tax provides a broader opportunity to have available funds to contribute towards Mobility Plan projects. However, the sales tax is set to expire in 2024. If the County intends to place an infrastructure sales tax on the 2024 ballot, it requires voter approval.

MetroPlan Orlando has available funding identified through the 2045 Cost Feasible Long Range Transportation Plan (LRTP). A large portion of projected funding is allocated towards improvements on the Strategic Intermodal System (SIS), with a significant amount of the funds allocated toward the Florida Turnpike, Interstate 4, and the various tolled Expressways in Central Florida. Historically, MetroPlan has a number of funding opportunities through grants and various pools of funds identified in the LRTP to allocate towards multimodal projects in Orange, Osceola, and Seminole Counties and the municipalities in each County. The City of Longwood has already had success in the past in getting projects included and funded through the LRTP. Therefore, it is viable to anticipate future funding for multimodal projects in the Mobility Plan from MetroPlan Orlando.

Seminole County currently collects a mobility fee within the City of Longwood and unincorporated County. The City of Longwood does not currently collect a Road Impact Fee. The City is intending to replace the County's mobility fee within the City with its mobility fee. The County would still have revenues available from development within unincorporated County that will provide funding for projects on County Roads. A portion of the Mobility Study Area is within unincorporated County and

© 2023 NUE Urban Concepts, LLC. All rights reserved.

to the extent development activity occurs within this area, those County mobility fees could go towards projects such as those identified in the Mobility Study Area.

The infrastructure sales tax is set to expire in 2024. The residents of Seminole County have historically backed infrastructure sales tax referendums and the County has had a track record of funding improvements with sales tax revenues that it told residents it would fund. Should the sales tax not be extended, then both the County and City will need to re-evaluate future needs.

FDOT and MetroPlan have various capacity funding sources available for multimodal projects on State Roads 434 and US Hwy 17. The City and County have identified funding on their Sales Tax lists for improvements to CR 427/Ronald Reagan Blvd. The total Anticipated Funding for mobility projects is $87,707,839 **(Table 7)**. A significant portion of this funding is for the portions of SR 434 and US Hwy 17 and the intersection of SR 434 and CR 427/Ronald Reagan Blvd. The approval of an extension to the infrastructure sales tax would provide additional funding for mobility projects. However, given the current sales tax is set to expire, anticipated funding does not include sales tax beyond 2024.

TABLE 7. ANTICIPATED FUNDING

Improvements	Length (Miles) or Number	Anticipated Funding	Person Miles of Capacity (PMC)
Longwood Bicycle & Pedestrian Plan	12.37	$1,385,000	46,105
CR 427 (Ronald Reagan Blvd)	1.14	$1,750,000	17,784
SR 434	2.98	$30,785,639	27,703
PHB at SR 434 & Savage Ct	1	$894,600	1,200
PHB at SR 434 & Milwee St	1	$639,000	1,200
PHB at SR 434 & Myrtle St	1	$639,000	1,200
Intersection of US Hwy 17 & Florida Ave	1	$2,736,000	4,000
Intersection of US Hwy 17 & W Church Ave	1	$1,641,600	2,000
US Hwy 17-92	2.31	$20,720,000	36,036
SR 434 & US Hwy 17-92 Intersection	1	$2,347,000	3,000
SR 434 & CR 427 (Ronald Reagan Blvd) Intersection	1	$24,170,000	12,000
Total	18.80 & 7	$87,707,839	152,228
Total Mobility Plan Cost & Capacity		$156,093,203	242,140
Attributable Mobility Plan Cost & Capacity		$68,385,365	89,912

Source: Complete Streets Plan **(Appendix E)**. Intersections & Parking Plan **(Appendix F)**.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

NEW GROWTH EVALUATION (NGE)

A new growth evaluation has been conducted to ensure that development activity is not paying for more than its fair share of the cost of the mobility projects identified in the Mobility Plan, as required by case law and Florida Statute. The new growth evaluation is based on the increase in person miles of travel (PMT) and the attributable person miles of capacity (PMC) from the Mobility Plan projects. The new growth evaluation factor (NGEf) calculation is illustrated on **Figure 11**.

FIGURE 11. NEW GROWTH EVALUATION FACTOR (NGEf)

New Growth Evaluation factor (NGEf)

PMCi = (PMCmp - PMCae)

NGEf = (PMTi / PMCi)

If NGEf > 1.00, then the NGEf is set at 1.00

Where:

PMCmp = Person Miles of Capacity from Mobility Plan (Table 6)

PMCae = Person Miles of Capacity attributable to existing development (Table 7)

PMTi = Person Miles of Travel increase (Table 3)

PMCi = Person Miles of Capacity Increase (Table 7)

NGEf = New Growth Evaluation factor (Table 8)

Prepared by NUE Urban Concepts, LLC

The projected PMTi / PMCi ratio is 0.80 **(**Table 8**)**. A PMT / PMC ratio of 0.80 means that the Mobility Plan includes 20% more person miles of capacity (PMC) than what is needed to accommodate projected increases in person miles of travel (PMT). This 20% represents the share of funded mobility projects needed to meet current traffic demands, in addition to a portion of the new person miles of capacity that is attributable to existing travel demand. For purposes of the calculation of the Mobility Fee rate, the NGEf is set to 0.80 to reduce the overall cost of the Mobility Plan attributable to development activity **(**Table 8**)**.

TABLE 8. NEW GROWTH EVALUATION FACTOR (NGEf)

Increase in Person Miles of Travel (PMTi)	**194,578**
Increase in Person Miles of Capacity (PMCi)	**242,140**
New Growth Evaluation Factor (NGEf)	**0.80**

Source: The Increase in Person Miles of Travel (PMTi) was obtained from Table 3. The Increase in Attributable Person Miles of Capacity (PMC) was obtained from Table 7. The New Growth Evaluation factor (NGEf) obtained by dividing PMTi by PMCi: (194,578 / 242,140 = 0.80).

© 2023 NUE Urban Concepts, LLC. All rights reserved.

MOBILITY FEE ASSESSMENT AREAS

There are two kinds of geographic areas in mobility fee systems: assessment areas and benefit districts. Assessment areas are based on either a physical location, such as a downtown, or a type of development pattern, such as a traditional neighborhood development (TND).

Development activity within the City only pays the mobility fee rate applicable to the Assessment Area in which the development activity is located. A benefit district is a geographic location within which mobility fees collected are earmarked for expenditure as required by the **"benefits"** test of the dual rational nexus test.

The establishment of different assessment areas is done in recognition that certain geographic locations or types of developments will result in shorter trips, more people walking and bicycling, and higher levels of internal capture; thus, minimizing impact to the external roadway network. Multiple assessment areas are established for mobility fees to reflect differences due to internal capture or external distribution of trips.

Seminole County's mobility fee has three assessment areas: (1) urban; (2) suburban; and (3) rural. The City of Longwood is largely within the urban assessment area of Seminole County's mobility fee, with a small portion of the City east of US Hwy 17 in the suburban assessment area.

Due to the compact nature of Longwood, the Mobility Fee schedule will provide a single city-wide Assessment Area. The Comprehensive Plan features the Historic Downtown District and Station Core District, which seek to preserve historic character including urban form, promote a greater mixture of uses, and facilitate transit-oriented development. In the future, the City may elect to establish Assessment Areas based on these predefined geographic areas or establish criteria for developments to qualify as mixed-use to reflect internal capture and transit mode share.

The Mobility Fee Assessment Area map features a uniform Assessment Area based on current City limits **(Map D)**. If the City desires to geographically define an Assessment Area for mixed-use, then the Mobility Fee Assessment Area would need to be revised to reflect the boundary for the designated mixed-use area.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

PERSON MILES OF CAPACITY RATE (PMCR)

The first component for calculating a Mobility Fee for land uses in the Mobility Fee schedule is the calculation of a person miles of capacity rate (PMCr). The attributable planning level cost (PLCa) is based on the Mobility Plan cost (MPC) and anticipated funding (AF) for mobility projects. The assignable Mobility Plan cost (MPCa) is calculated through multiplying attributable planning level cost (PLCa) by the existing conditions evaluation factor (ECEf) and the new growth evaluation factor (NGEf). The assignable Mobility Plan cost (MPCa) is then divided by the increase in person miles of capacity (PMCi) to determine the person miles of capacity rate (PMCr) **(**Figure 12**)**.

FIGURE 12. PERSON MILES OF CAPACITY RATE (PMCr)

Person Miles of Capacity rate (PMCr)

PLCa = (MPC - AF)

MPCa = ((PLCa x ECEf) x NGEf)

PMCr = (MPCa / PMCi)

Where:

MPC = Mobility Plan Cost (Table 6)

AF = Anticipated Funding (Table 7)

PLCa = Attributable Planning Level Cost (Table 7)

ECEf = Existing Conditions Evaluation factor of 1.00 (Table 4)

NGEf = New Growth Evaluation factor of 0.80 (Table 8)

MPCa = Assignable Mobility Plan Cost (Table 9)

PMCi = Attributable Person Miles of Capacity (Table 7)

PMCr = Person Miles of Capacity Rate

Prepared by NUE Urban Concepts, LLC

The following is the calculation for the Person Miles of Capacity Rate (PMCr) illustrated in Figure 12:

(MPC - AF) = PLCa; ((PLCa x ECEf) x NGEf) = MPCa; (MPCa / PMCi) = PMCr.

($156,093,203 - $87,707,839) = $68,385,365; (($68,385,365 x 1.00) x 0.80) = $54,952,949; ($54,952,949 / 242,140) = $226.95

© 2023 NUE Urban Concepts, LLC. All rights reserved.

With an assignable Mobility Plan Cost (MPCa) of **$54,952,949** and a Person Miles of Capacity increase (PMCi) of **242,140**, the calculated Person Miles of Capacity PMC rate (PMCr) is **$226.95 (Table 9)**. The PMCr will be multiplied by the Person Travel Demand per land use on the Mobility Fee schedule to calculate the Mobility Fee rate per land use.

TABLE 9. PERSON MILES OF CAPACITY RATE (PMCr)

Mobility Plan Cost (MPC)	**$156,093,203**
Anticipated Funding (AF)	**$87,707,839**
Attributable Planning Level Cost (PLCa)	**$68,385,365**
Existing Conditions Evaluation Factor (ECEf)	**1.00**
New Growth Evaluation Factor (NGEf)	**0.80**
Assignable Mobility Plan Cost (MPCa)	**$54,952,949**
Person Miles of Capacity Increase (PMCi)	**242,140**
Person Miles of Capacity Rate (PMCr)	**$226.95**

Source: The unfunded cost of multimodal projects is obtained from **Table 7.** The existing conditions evaluation factor is obtained from **Table 4.** The new growth evaluation factor is obtained from **Table 8.** The person miles of capacity rate (PMCr) are determined per the calculation in **Figure 12.**

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

PERSON TRAVEL DEMAND PER USE (PTDU)

The second component for calculating a Mobility Fee for land uses in the Mobility Fee schedule is the calculation of person travel demand (PTD) for each use. The factors utilized in the calculation of person travel demand (PTD) for each use are the principal means to achieve the "rough proportionality" test established by the courts and Florida Statute 163.31801.

Trip Generation

Trip generation rates are based on daily trip information published in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th edition.* The detail for the daily trip generation rates for each land use is included in **Appendix J**. For uses where daily trips are not provided or there are only a few samples, the AM and PM Peak hours of adjacent street traffic were averaged and divided by a peak-to-daily ratio to derive daily trips.

The Mobility Fee schedule requires that trip generation rates for non-residential uses be based on multiple land uses. The trip generation for Mobility Fee schedule land uses such as Community Serving, Long Term Care, and Overnight Lodging are based on weighted AM and PM trip generation data to develop the daily trip generation rates. Additional detail is provided in **Appendix J.**

The simplest way to calculate the daily trip generation rate for a use, where trip generation is based on multiple trip generation rates, would be to simply average the trip rates. The issue with a simple average is that the ITE Manual may only have one (1) or two (2) studies for a given land use and 50 studies for another use. Generally, the greater the number of studies, the more accurate the trip generation rate is for a given use. To ensure that a trip generation rate based on one (1) study does not have the same weight as a trip generation rate based on 30 studies, a weighted trip generation rate is calculated for each Land Use where daily trips are based on more than one ITE land use code.

% New Trips

The percentage of new trips is based on a combination of the various pass-by analyses provided in ITE's Trip Generation Handbook, 3rd edition and various traffic studies conducted throughout Florida. The percentage of new trips differs slightly from the commonly used pass-by trip term as it is the percentage difference in trips after pass-by trips are deducted. The concept is better understood based on the following example:

(10 trips x (100% - 30% pass-by rate)) = 7 trips or 70% new trips).

© 2023 NUE Urban Concepts, LLC. All rights reserved.

While ITE's Trip Generation does not recognize pass-by rates for uses other than retail, pass-by rates are utilized for uses such as medical offices, day care, entertainment, and recreation use to reflect how people move about the community. A pass-by trip is a trip that is traveling and stops at another land use between an origin point (commonly a dwelling) and a destination (place of employment). The detail for the % new trips is included in **Appendix J**.

Person Trip Factor (PTf) & Person Trip Length (PTl)

The person trip factor (PTf) is used to convert vehicle trips to person trips based on the recently released 2017 National Household Travel Survey (NHTS). The person trip length (PTl) is used to convert person trips to person travel demand (PTD). The NHTS data is based on 4,744 unique survey data points for trips that average 5.0 miles or less in length. The person trip factors, and person trip lengths vary by trip purpose. Several trip purposes have been combined to reflect trip characteristics more accurately for the uses established in the Mobility Fee schedule **(Appendix K)**.

Limited Access Evaluation Factor (LAEf)

Travel on Interstate 4, which is a limited access facility, is excluded from Mobility Fee calculations as the Interstate System is principally funded and maintained by the Federal Government in coordination with FDOT. To ensure development activity is not charged for travel on I-4, a limited access factor has been developed. The factor is developed based on 2023 vehicle miles of travel from the CFRPM **(Table 2)**. The limited access evaluation factor (LAEf) of 0.68 is applied to person trip lengths to account for the 32.0% of travel occurring on I-4 in 2023 **(Table 10).** The following is the calculation for the limited access evaluation factor (LAEf):

Arterial & Collector Roads VMT divided by Total VMT = Limited Access Evaluation factor

1,223,972 + 563,003 = 1,786,974; (1,223,972 / 1,786,974) = 0.68

TABLE 10. LIMITED ACCESS EVALUATION FACTOR (LAEf)

Facility	2023 VMT
Arterial & Collector Roads VMT	1,223,972
Limited Access VMT (I-4)	563,003
Total VMT	1,786,974
Limited Access Evaluation Factor (LAEf)	0.68

Source: The 2023 VMT data was obtained using the CFRPM Version 7.0 and obtained from Table 2.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Trip Purpose Factor (TPf)

Trip generation rates represent trip-ends at the site of a land use. Thus, a single origin trip from home to work counts as one trip-end for the residence and from work to the residence as one trip-end, for a total of two trip ends. This distributes the impact of travel between origins and destinations of trips based on the overall share of travel by trip purpose **(Table 11)**. The application of the trip purpose factor (TPf) eliminates double charging development activity for the same trip. The TPf is used in the calculation of PTDu **(Appendix L).**

TABLE 11. TRIP PURPOSE FACTOR (TPf)

Trip Purpose	Person Miles of Travel (PMT)	Trip Purpose Factor (TPf)
Home	5,874	0.412
Other	3,285	0.231
Shopping	5,089	0.357
Total	14,248	1.000

Source: Person Miles of Travel **(Appendix L).** Shopping based trips include buying meals, goods, services, and running errands **(Appendix L).** Other trips include family care, entertainment, exercise, medical, religious, school, and work trips **(Appendix L).**

Person Travel Demand per Land Use (PTDu)

The result of multiplying trip generation rates, internal capture, percentage of new trips, the person trip factor, the person trip length, the limited access evaluation factor, and the trip purpose factor are the establishment of a Person Travel Demand per land use (PTDu) **(Appendix K)**. The PTD per land use reflects the projected travel during an average weekday by the various uses in the Mobility Fee schedule. The following is an example of the calculation for PTDu for a residential dwelling within a mixed-use Assessment Area **(Figure 13)**:

(((Trip Generation x % New Trips) x Person Trip Factor) x

(Person Trip Length x Limited Access Evaluation factor)) x Trip Purpose Factor) = PTDu

(((4.20 x 1.00) x 1.79) x (2.04 x 0.68)) x 0.412) = 4.30

© 2023 NUE Urban Concepts, LLC. All rights reserved.

FIGURE 13. PERSON TRAVEL DEMAND PER USE (PTDu)

Person Travel Demand per Land Use (PTDu) per Assessment Area

$$PTDu = (((TG \times \%\ NEW) \times PTf) \times (PTl \times LAEf)) \times TPf)$$

Where:

PTDu = Person Travel Demand per use (Appendix K)

TG = Trip Generation (Appendix J)

% NEW = Percent of Trips that are Primary Trips (Appendix J)

PTf = Person Trip Factor by Trip Purpose (Appendix L)

PTl = Person Trip Length by Trip Purpose (Appendix K)

LAEf = Limited Acess Evaluation factor of 0.68 (Table 10)

TPf = Trip Purpose Factor

Prepared by NUE Urban Concepts, LLC

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

MOBILITY FEE SCHEDULE

To ensure the rough proportionality test is addressed, the person travel demand of individual land uses is evaluated through the development of a Mobility Fee schedule **(Appendix M)**. The Mobility Fee is based on the person travel demand for each use (PTDu) listed on the Mobility Fee schedule multiplied by the person miles of capacity rate (PMCr).

The calculated person travel demand for each use (PTDu) represents the full person travel demand impact of that land use within the City **(Appendix K)**. The Mobility Plan and Mobility Fee has been developed to provide the mobility projects needed on City, County, and State Roads to address growth in future travel demand within the Mobility Study Area and allow development activity to mitigate its impact by payment of a Mobility Fee to the City of Longwood.

The Mobility Fee schedule provides fees on per 1,000 square foot or applicable unit of measure basis **(Appendix M)**. The Mobility Fees assessed on development activity at the time of building permit application are calculated on a per square foot basis or applicable unit of measure. The calculation for determining the Mobility Fee per land use is illustrated in **Figure 14** and uses the per 1,000 square foot unit of metric as an example.

The following is an example of the Mobility Fee calculation for a 1,750 sq. ft. residential dwelling (r) where the unit of measure (UM) is per 1,000 sq. ft.:

(PTDur x PMCrr) = Mobility Fee rate residential (MFrr);

Residential Sq. Ft. (Rsf) / UMu = UMrr;

UMrr x MFrr = Mobility Fee (MFr).

(4.30 x $226.95) = $975; (1,750 / 1,000) = 1.75; (1.75 x $975) = $1,706

The following is an example of the Mobility Fee calculation for 110-room overnight accommodations (oa) where the unit of measure (UM) is the number of rooms:

(PTDuoa x PMCroa) = Mobility Fee rate (MFroa);

Number of Rooms (UMoa) x MFroa = Mobility Fee (MFoa)

(4.88 x $226.95) = $1,108; (110 x $1,108) = $121,880

© 2023 NUE Urban Concepts, LLC. All rights reserved.

FIGURE 14. MOBILITY FEE CALCULATION

Mobility Fee per use (MFu)

MFru = (PTDu x PMCru)

Land Uses with unit of measure per 1,000 sq. ft.

UMru = (Usf / UMu)

MFu = (MFru x UMru)

Land Uses with unit of measure other than per 1,000 sq. ft.

MFu = (MFru x UMu)

Where:

PTDu = Person Travel Demand per land use (Appendix K)

PMCr = Person Miles of Capacity Rate (Table 9)

Usf = Land Use square footage

UMu = Unit of Measure per land use (Appendix M)

UMru = Unit of Measure rate per land use

MFru = Mobility Fee rate per land use (Appendix M)

MFu = Mobility Fee assessed per land use (Appendix M)

Prepared by NUE Urban Concepts, LLC

The Mobility Fee schedule seeks to strike a balance between the City's Comprehensive Plan and current market trends. The uses included on the Mobility Fee schedule enable Longwood to use the Mobility Fee as an additional tool to further integrate land use and transportation planning consistent with the City's Comprehensive Plan. The calculated Mobility Fee per land use by Assessment Area is provided in **Appendix M**.

The Mobility Fee schedule of uses are broken down into five (5) components that are further described below the figure: (1) category of land uses; (2) individual land use classifications; (3) representative land uses; (4) Assessment Area; and (5) the mobility fee rates per land use. The following is an example the five (5) components of the mobility fee schedule **(Figure 15).**

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

FIGURE 15. MOBILITY FEE SCHEDULE COMPONENTS

Five (5) Components of a Mobility Fee Schedule	
Use Categories, Uses Classifications, & Representative Uses	**(4th Assessment Areas)**
(1st Use Category) = Institutional Uses per sq. ft.	
(2nd Use Classification) = Community Serving **(3rd Representative Use) = (Civic, Museum, Performing Arts, Place of Assembly)**	**(5th Mobility Fee Rates) for each of the assessment areas**

The first (1st) component are overall categories of land uses, such as residential or office. Under each overall category there are multiple uses for which a mobility fee is calculated. The overall category is generally consistent with the function of a given land use for the individual land use classification. These overall categories are generally consistent with the County Comprehensive Plan and the ITE Trip Generation Manual. These categories headings also specify if the individual uses are calculated on a per 1,000 square feet or a different unit of measure, such as the number of rooms for overnight lodging.

The second (2nd) component are individual land use classifications, such as community serving or commercial storage. These individual land use classifications have similar person travel demand characteristics and / or similar functions to the overall land use category. These individual land use classifications are generally consistent with the ITE Trip Generation Manual classification under a give category of land uses. The individual land use classifications will specify the unit of measure to calculate the mobility fee if it differs from a rate per 1,000 square feet.

The third (3rd) component are representative land uses under the individual land use classifications. These representative land uses are shown in brackets such as (Child Care, Day Care, Private Primary School, Pre-K) after the individual land use classification of Private Education. These representative land uses have similar person travel demand characteristics and functions to the individual land use classification.

Theses land uses are not exhaustive and are intended to serve as a guide to describe the types of use that would be assessed a mobility fee based on the rate for the individual land use classification. The definition of each individual land use classification provides further detail on the types of representative land uses would fall under an individual land use classification. These representative land uses are generally consistent with the ITE Trip Generation Manual classification under a give category of land uses and individual land use classifications.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The fourth (4th) component is the single city-wide Assessment Area. If there were multiple Assessment Areas, they would be illustrated here on the Mobility Fee schedule. The Mobility Fee rates under the mixed-use Assessment Area are lower due to the factoring of internal capture into the person travel demand per use calculation.

The fifth (5th) component are the Mobility Fee rates per land use classification. The Mobility Fee for an individual land use is determined by multiplying the mobility fee rate by the applicable unit of measure.

Residential Land Uses

The Mobility Fee schedule proposes a streamlined approach to residential mobility fees that is easy to administer and addresses affordability. The schedule proposes a flat residential Mobility Fee rate per square foot for residential uses, regardless of the type of residential use. The Mobility Fee is set up so that a 600 sq. ft. studio pays for 600 sq. ft., a 1,200 sq. ft. two-bedroom apartment pays for 1,200 sq. ft., and a 2,000 sq. ft. single-family detached dwelling pays for 2,000 sq. ft. There is a direct correlation between the size of a unit and the Mobility Fee to be paid.

The calculation of Mobility Fees per sq. ft. fee is consistent with how the building industry prices permits and is a tool available to the City to address affordability. The transition to a flat residential Mobility Fee rate, regardless of the type of residential use, reflects that as the size of a residential dwelling unit increases, there is a corresponding increase in the number of vehicles and an increase in the number of vehicles corresponds to an increase in number of trips based on data from the 2017 National Household Travel Survey **(Appendix D)**.

Affordable or Workforce Housing

The Mobility Fee schedule features a calculated Mobility Fee rate for affordable and workforce housing that is lower than the rate for residential uses in recognition that trip generation data for affordable housing, coupled with the number of households without access to a vehicle available, provides a defensible technical basis for having a lower mobility fee rate. The calculated mobility fee rate is roughly 50% of market rate residential uses and recognizing a lower rate for affordable and workforce housing is consistent with Florida Statute Section 163.3180 (5)(f)6.

Due to the various factors involved with determining what housing would qualify for the affordable or workforce housing designation, it is recommended that Longwood develop criteria for new development to qualify as providing affordable or workforce housing to be eligible for the lower Mobility Fee. Florida Statute Section 163.31801 (11) also allows the City to waive the Mobility Fee for affordable housing per Florida Statute Section 420.9071.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Institutional Uses

The Mobility Fee schedule features three (3) institutional use classifications: (1) community serving; (2) long term care; and (3) private education. Community serving uses include civic uses, museums, performing arts venues, and places of assembly, such as clubs, lodges, and places of worship. Long term care uses include assisted living facilities, congregate care facilities, and nursing homes. Private education uses include day cares, private schools, and Pre-K. Public and charter schools are exempt from mobility fees and impact fees per Florida Statue.

Recreational Uses

The Mobility Fee schedule includes two (2) recreational use classifications: (1) outdoor commercial recreation; and (2) indoor commercial recreation. Outdoor recreation uses consist of uses such as golf courses, tennis courts, and multipurpose recreation facilities, and the mobility fee is based on the number of acres. A separate indoor commercial recreation category is included and is based on a rate per sq. ft. for indoor uses such as gyms, health clubs, yoga, and dance studios. The use classifications have similar trip and trip length characteristics and reflect current real estate market trends.

Industrial Uses

The Mobility Fee schedule features a single industrial use category. The category includes general industrial uses such as assembly, manufacturing, and trades, along with commercial storage, such as mini-warehouses, outdoor storage, and warehouses.

Office Uses

The Mobility Fee schedule features two (2) office use categories. The first use is for general office uses such as accounting or real estate. The general office use also includes banking, hospitals, financial services, and higher education. The second use is medical, such as clinics, dentist, medical doctors, and veterinary. Medical uses generate two to three times the number of trips as a non-medical office use.

Commercial and Retail Land Uses

The Mobility Fee schedule proposes four commercial and retail use classifications: (1) small retail business; (2) retail; (3) food and beverage retail; and (4) convenience retail. To support smaller and more often local retail uses and in recognition that national chain retail uses have greater transportation impacts, a small retail business category has been established with a mobility fee that is 50% less than the retail land use.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

It is recommended that the City work with Seminole County, local Chambers of Commerce, and small businesses within the community to develop criteria to qualify as a small business. This ensures that a broader representation is part of the effort and utilizes their local knowledge to develop criteria that reflects the needs of the community. Until criteria are developed, and a use is designated or approved, the small retail business Mobility Fee would not go into effect.

A significant update in the 11th edition of the ITE Trip Generation Manual is the addition of several multi-tenant retail center use classifications. This change prompted the development of a general retail use classification. These uses tend to have similar trip generation characteristics that are generally less than 75 trips per 1,000 square feet.

The third category is food and beverage. These uses tend to have similar trip generation characteristics of roughly 75 to 125 trips per 1,000 square feet. The fourth category is convenience uses such as gas stations and fast-food restaurants. These uses tend to have trip generation rates over 250 trips per 1,000 square feet.

To reflect higher travel demand, there are also five (5) individual uses that will be assessed additive mobility fees. As more land uses downsize, a Mobility Fee based solely on building size does not fully capture the travel demand impact of certain high travel demand uses. A Mobility Fee for any retail building would be assessed at the appropriate mobility fee rate.

In addition, uses with a bank, quick service restaurant, or pharmacy drive-thru, a car wash, or a commercial motor vehicle charging or fueling position would pay additive fees based on the number of features proposed for the new development activity or existing development retrofit.

Quick service restaurant (aka fast food) uses have the highest impact of any retail land use and are experiencing a transformation where buildings are getting smaller, while the number of drive-thru lanes and delivery services are increasing. Due to their high travel demand impact, an additive fee has been calculated per quick service restaurant (QSR) drive-thru lane to capture the impact of QSR uses that offer one or more drive-thru lanes.

Some QSR uses are migrating to walk-up ordering, outdoor seating only, with two drive-thru lanes and one delivery pick-up lane, further increasing travel demand. This impact is not captured by simply evaluating the building.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Convenience uses have primarily been uses with motor vehicle fueling. Increasingly superstores, supermarkets, variety stores, and wholesale clubs have started to add vehicle fueling. The additive mobility fees will be assessed to any use that offers commercial vehicle charging and fueling and is accessible to the public or through a membership club. The mobility fee is assessed per commercial charging station or fueling position. Any motor vehicle charging station that does not charge for service will not be assessed a mobility fee, such as charging stations provided in a public or private garage that do not charge for use.

Uses with a car wash shall be required to pay a mobility fee per lane, stall, or bay for the use, plus any mobility fee associated with any building space that are not captured as part of a lane, stall, or bay. Any building solely for maintenance or supply purposes that does not include any accessible spaces for personnel would not be required to pay a mobility fee beyond that associated with the additive fee for the car wash.

Some financial institutions, especially Credit Unions, are increasing their brick-and-mortar presence to attract additional customers. Other banks are eliminating branches entirely and just offering drive-thru or walk-up free-standing ATMs. For banks with drive-thru lanes, an additional Mobility Fee is assessed per drive-thru lane. A Mobility Fee is also assessed for any free-standing walk-up ATMs or ATMs accessed via drive-thru lanes.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

MOBILITY FEE BENEFIT DISTRICTS

The benefit test of the dual rational nexus test requires that local governments establish defined areas or districts within which mobility fees collected are earmarked for expenditure. The geographic limits of the proposed Mobility Fee Benefit District include both current City limits and an extra jurisdictional boundary **(Map A).** The extension of a Mobility Fee Benefit District beyond current City limits was done in recognition that travel demand does not start or stop at the municipal limits of Longwood **(Map E)**.

Having a Mobility Fee Benefit District that extends beyond current City limits ensures that the City can expend Mobility Fees on projects identified in the Mobility Plan outside City limits that cross enclaves or terminate at logical endpoints. On of the projects included in the Mobility Plan through the Bicycle & Pedestrian Master Plan is a recommended study for a potential trail extending east from Lake Emma Rd along a powerline easement. This future trial would extend beyond city limits. If the limits of the Mobility Fee Benefit District mirrored existing municipal limits, then mobility fees could not be expended for projects outside of the City.

There may be instances when a local City match for improvements on County or State Roads would advance Mobility Plan projects. The Mobility Fee Benefit District provides the City with flexibility to work in partnership with other governmental entities to improve mobility within the Mobility Study Area. The City would be required to establish a Mobility Fee fund account to ensure that Mobility Fees are expended within the Benefit District and are appropriately accounted for to address annual State mandated audit requirements for Mobility Fee collections and expenditures.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

MOBILITY FEE COMPARISON

A comparison between the City of Longwood Mobility Fee and the Seminole County Mobility Fee has been prepared **(Appendix O).** As currently calculated, the City of Longwood Mobility Fee is intended to replace the Seminole County Mobility Fee.

The Seminole County Mobility Fee was adopted in 2021 based on a technical report prepared in 2020. The County Mobility Fee methodology was primarily based on road capacity, increases in vehicle miles of travel, and the need for future road improvements based on the Seminole County 2040 Long Range Transportation Plan. The County's Mobility Fee also used the Central Florida Regional Planning Model developed for the MetroPlan Orlando 2040 Long Range Transportation Plan (LRTP). The County's Mobility Fee is also based on the 10th Edition of the ITE Trip Generation Manual. At the time the County adopted its Mobility Fee, it utilized the most recent and localized data available at that time.

The City of Longwood Mobility Fee is based on the 2045 Mobility Plan. Future travel demand is based on the latest Central Florida Regional Travel Demand Model prepared for the MetroPlan Orlando 2045 Long Range Transportation Plan (LRTP). The Mobility Fee calculations are also based on the 11th Edition of the ITE Trip Generation Manual, released in October of 2021.

The Mobility Fee has been calculated to fully mitigate the impact of development activity on City, County, and State Roads. The Mobility Fees have also been calculated to replace the County's Mobility Fee. There are County Road projects that are part of the City's Mobility Plan. There are also County Roads within the City on which City and County residents, businesses, and visitors utilize for everyday travel. The City and County will need to enter into an interlocal agreement to determine how to address impact to County Roads.

To assist in determining how best to address impact on County Roads and the replacement of the County's Mobility Fee within the City of Longwood, analyses have been undertaken. The first analysis looked at the total lane miles and vehicle miles of travel within the Mobility Study Area. The analysis was performed as part of the existing conditions evaluation for the Mobility Study Area. Within the Mobility Study Area, just under 36% of all lane miles were maintained by the County **(Table 12)**. The total vehicle miles traveled (VMT) on County Roads within the Mobility Study Area was just over 21% **(Table 12)**. The share of lane miles on County Roads has been used as a reference point by other local governments to determine mitigation.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

TABLE 12. LANE MILES & DAILY VEHICLE MILES OF TRAVEL (VMT)

Maintaining Entity	LANE MILES		2023 DAILY VMT	
City	15.7	9.7%	43,663	3.1%
County	58.3	35.8%	299,986	21.1%
State	66.8	41.1%	526,956	37.1%
Limited Access	21.9	13.5%	548,230	38.6%
Total	162.8	100%	1,418,836	100%

Source: 2023 Areawide VMT & VMC Analysis by Ownership **(Table 5)**. Limited Access is Interstate 4.

The share of the overall cost of the Mobility Plan is also being used as a metric to gauge mitigation and more accurately reflects the total share of future needs on City, County, and State Roads. The use of vehicle miles of travel is more reflective of current travel patterns, not future travel or the need for mobility project to meet the demands of development activity.

The 2045 Mobility Plan has numerous components that include both funded and unfunded mobility projects. The 2045 Mobility Plan does not account for an extension of an infrastructure sales tax within Seminole County. County Road projects included in the Mobility Plan, both funded and unfunded, consist of a 0.26 mile shared-use path on Rangeline Rd and 0.74 miles of sidewalk on North St, as part of the Bicycle and Pedestrian Master Plan and a County-planned 1.14 miles of Complete Street Retrofit to CR 427 / Ronald Reagan Blvd and the intersection of SR 434 and CR 427 / Ronald Reagan Blvd. The Mobility Plan itself recommends two (2) PHBs and two (2) multimodal intersection improvements along CR 427 / Ronald Reagan Blvd at Wildermere, Georgia Ave, Maine Ave, and W Church Ave.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

The analysis in **Table 13** shows that County projects make up close to 6% of the total mileage of new projects in the Mobility Plan, just over 3% of the total Mobility Plan Cost and almost 11% of the of the total increase in Person Miles of Capacity. The total cost for mobility projects on County Roads is **$4,932,000**, while the total cost of the Mobility Plan is estimated at **$156,093,203**.

TABLE 13. MOBILITY PLAN COUNTY ROAD PROJECTS

County Road	Miles		Planning Level Cost (PLC)		Person Miles of Capacity (PMC)	
Longwood Bicycle & Pedestrian Master Plan (Recommended Projects on County Roads)	1.75	4.88%	$1,444,000	0.93%	5,867	2.42%
CR 427 / Ronald Reagan Blvd	1.14	3.18%	$1,750,000	1.12%	17,784	7.34%
Ronald Reagan Blvd & Wildmere PHB	0.00	0.00%	$710,000	0.45%	1,200	0.50%
Ronald Reagan Blvd & Main Ave Intersection	0.00	0.00%	$532,000	0.34%	1,000	0.41%
Ronald Reagan Blvd & W Church Ave Intersection	0.00	0.00%	$532,000	0.34%	1,000	0.41%
Ronald Reagan Blvd & Georgia Ave PHB	0.00	0.00%	$710,000	0.45%	1,200	0.50%
Total County Road Projects	2.89	8.06%	$5,678,000	3.64%	28,051	11.58%
Total Mobility Plan	35.84	100.00%	$156,093,203	100.00%	242,140	100.00%

Source: Complete Streets Plan (**Appendix E**). Intersections & Parking Plan (**Appendix F**).

Table 13 shows the cost of all County improvements included in the Mobility Plan and their percentage of the total Mobility Plan cost. **Table 14** shows the portion of unfunded County improvements, compared to the total Mobility Plan cost. The Complete Street Retrofit on CR 427 / Ronald Reagan Blvd will be jointly funded by the County the City. All other County Road projects recommended in the Mobility Plan are assumed to be unfunded.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Unfunded County Road projects make up less than 3% of the total mileage of new projects in the Mobility Plan. The County Road share drops slightly when accounting for unfunded Mobility Plan projects versus the total cost of the Mobility Plan. Unfunded County projects account for just over 2% of the total Mobility Plan cost, while accounting for almost 4% of the of the total increase in Person Miles of Capacity.

TABLE 14. MOBILITY PLAN UNFUNDED COUNTY ROAD PROJECTS

County Road	Miles		Planning Level Cost (PLC)		Person Miles of Capacity (PMC)	
Longwood Bicycle & Pedestrian Master Plan (Recommended Projects on County Roads)	1.75	4.88%	$1,444,000	0.93%	5,867	2.42%
Ronald Reagan Blvd & Wildmere PHB	0.00	0.00%	$710,000	0.45%	1,200	0.50%
Ronald Reagan Blvd & Main Ave Intersection	0.00	0.00%	$532,000	0.34%	1,000	0.41%
Ronald Reagan Blvd & W Church Ave Intersection	0.00	0.00%	$532,000	0.34%	1,000	0.41%
Ronald Reagan Blvd & Georgia Ave PHB	0.00	0.00%	$710,000	0.45%	1,200	0.50%
Total Unfunded County Road Projects	1.75	4.88%	$3,928,000	2.52%	10,267	4.24%
Total Mobility Plan	35.84	100.00%	$156,093,203	100.00%	242,140	100.00%

Source: Complete Streets Plan (**Appendix E**). Intersections & Parking Plan (**Appendix F**).

The recommended County Road projects in the Bicycle and Pedestrian Master Plan were assumed to be unfunded. Intersection projects proposed on CR 427 / Ronald Reagan Blvd were assumed to be unfunded, however the City could chose to assume a certain percentage of County funding. This would further reduce the percentage of unfunded County projects.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

DEFINITIONS

Access Improvements mean on-site improvements required to provide motor vehicle and multimodal ingress and egress to development activity, which may include rights-of-way, easements, paving of adjacent or connecting roadways, turn lanes and deceleration/acceleration lanes, sidewalks, bike lanes, trails, paths, transit stops, mobility hubs, along with traffic control devices, roundabouts, traffic signals, mid-block crossings, mid-block signals, signage, markings, drainage, and utilities intended to serve the development activity.

Additive Fee means a mobility fee rate based on a unit of measure that generates high levels of person travel demand per unit such as service bays, car wash stalls, or fueling for motor vehicles or drive-thru lanes for banks, quick service restaurants, and pharmacies. Additive mobility fees per unit of measure are assessed in addition to mobility fees assessed per use based on square footage or the applicable unit of measure for the use.

Affordable or Workforce Residential means a dwelling unit and shall include those uses specified in the ITE Trip Generation Manual under the Land Use Code Series 200, except for Land Use Codes 253, 254, and 255. Residential includes accessory dwelling units, dormitories, and tiny homes. The City may elect to establish a program that establishes criteria to qualify as affordable or workforce housing. Until the City establishes a program, and an applicant receives formal approval, the affordable or workforce housing mobility fee rate would not be applicable.

Amenities and Ancillary Uses means buildings, structures, and lands with a clubhouse, meeting spaces, laundry facilities, guard houses, fields, courts, indoor or outdoor recreation uses, garages, parking structures, barns, sheds, landscape maintenance facilities that do not generate additional person travel demand, are not open to the public, are not a commercial use. These amenities are generally associated with residential developments and overnight lodging. These uses are not assessed a mobility fee unless they are open to the public and charge for use either through cash or electronic payment or through membership or club dues.

Assessment Area means a geographic area of the City or a specific development pattern where mobility fees are assessed on development activity.

Bank Drive-Thru or Free-Standing ATM means any bank, financial institution, credit union, with a drive-thru lane used for banking purposes such as deposits, withdrawals, balance inquires, or bill pay. The drive-thru may include either a teller window, pneumatic device for transferring banking information or funds, or an Automated Teller Machine (ATM). An ATM inside or attached to a building that has a use open to the public or end user is not assessed a separate fee as a stand-alone ATM. This use also includes free standing bank drive-thru lanes and freestanding walk-up or drive-thru ATM machines. The fee shall be based upon the total number of drive-thru lanes with a banking window, pneumatic device, or ATM and/or the total number of free-standing ATM's. Free-standing ATM's may be either walk-up or feature drive-thru lanes.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Benefit District means areas a geographic area of the City where mobility fees paid by development activity are expended on Mobility Plan projects.

Capacity means the maximum sustainable flow rate, at a service standard, at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a bicycle facility, pedestrian facility, roadway, or shared-use multimodal facility during a given time-period under prevailing conditions. For transit, the capacity is the maximum number of persons reasonably accommodated riding a transit vehicle, along with the frequency and duration of transit service.

Commercial and Retail Uses mean those commercial activities which provide for sale, lease, or rent of goods, products, services, vehicles, or accommodations for use by individuals, businesses, or groups and which include those uses specified in the ITE Trip Generation Manual under Land Use Code Series 800 and 900.

Community Serving means those uses that are operated by non-profit civic organizations, governmental entities, foundations, or fraternal organizations, including places of assembly. Community serving also includes uses such as YMCA, museum, art studio, gallery, cultural center, community meeting spaces, community theater, library, or a fraternal or masonic lodge or club, or any community and civic based uses that do not sell retail goods or services for profit and that participates in community and public activities. Food, beverages, goods, and services may be offered for ancillary fundraising and sales to support the community serving use.

Complete Streets means a transportation policy and design approach that requires multimodal transportation improvements to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation and to allow for safe travel by those walking, bicycling or using other forms of non-motorized travel, riding public transportation or driving motor vehicles or low speed electric vehicles. Separate and defined spaces are provided for the various modes of travel planned within the street cross-section.

Convenience Retail shall mean a use that sell convenience beverages, food, goods, products, and fuel. Uses include convenience stores, gas stations, fast food, and quick service restaurants with and without drive-thru lanes. Convenience retail uses fall under ITE Land Use Code Series 800 and 900 and include retail uses that generate 250 or more trips per 1,000 square feet or similar trips per an equivalent unit of measure.

Development Activity shall mean new residential and non-residential construction, any new land development or site preparation activity, any new construction of buildings or structures, any modification, reconstruction, redevelopment, or upgrade of buildings or structures, any change of use of a building, land, or structure, and any special exception approval, variance, or special use permit that results in an increase in person travel demand (aka impact) above the demand generated by the existing use of property. Property includes submerged lands.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

High Impact Retail shall mean grocery stores, supermarkets, superstores, variety stores, package stores, liquor, or alcohol for off-site consumption, where 50% or more of the gross square footage of the use is for the sale of edible or drinkable goods. These uses may offer other goods, products, and services such as on-site consumption of food or beverages, pharmacies, cleaning and household supplies, pharmacies, and other personal services. High Impact Retail uses also include banks, credit unions, sit-down restaurants, and pharmacies. These uses generally generate between 75 and 250 daily trips per 1,000 sq. ft.

Indoor Commercial Recreation means facilities that primarily focus on individual or group fitness, exercise, training or provide recreational activities. The uses typically provide exercise, dance or cheerleading classes, weightlifting, yoga, Pilates, cross-fit training, fitness, and gymnastics equipment. Indoor commercial recreation also includes uses such as bowling, pool, darts, arcades, video games, batting cages, trampolines, laser tag, bounce houses, skating, climbing walls, and performance centers. Food, beverages, equipment, and services may be offered for ancillary sales.

Industrial means uses that typically have ancillary office space and may have display or merchandise display areas for various trades and industries that are not open to the general public. Industrial uses are also located in land uses and zoning districts intended for industrial uses. Commercial storage means facilities or acreage in which one or more warehouses, storage units or vaults are rented for the storage of goods and/or acreage or is providing for the storage of boats, RVs, vehicle trailers and other physical items that are larger than what is typically stored within an enclosed structure. The acreage for outdoor storage, excluding drive aisles, buffers, and stormwater management areas, shall be converted to square footage for purposes of calculating the fee. This shall not include an individual's personal property where such items are stored by the owner of the land and not for commercial purposes, subject to allowance by land development and zoning regulations.

Industrial Uses means those activities which are predominantly engaged in the assembly, distribution, fabrication, finishing, packaging, processing, production, storage, and/or warehousing of goods and products and which include those uses specified in the ITE Trip Generation Manual under Land Use Code Series 000 and 100 but excluding governmental uses.

Institutional Uses means those public or quasi-public uses that serve one or more community's social, educational, health, cultural, and religious needs and which include those uses specified in the ITE Trip Generation Manual under the Land Use Code Series 500, and includes Land Use Codes 253, 254, 255, and 620. Land Use Codes 540 and 550 are included in office uses and 580 and 590 falls under community serving. Federal, state, and local government institutional uses, except for community development districts, are exempt from payment of mobility fees.

ITE Trip Generation Manual means and refers to the latest edition of the report entitled "Trip Generation" produced by the Institute of Transportation Engineers (ITE), and any official updates hereto.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Level of Service (LOS) means a quantitative stratification of the level of service provided to a facility, roadway, or service stratified into six letter grade levels, with "A" describing the highest level and "F" describing the lowest level; a discrete stratification of a level of service continuum.

Long Term Care means communities designed for long term care of on-site residents, such as assisted living facilities, congregate care facilities and nursing homes, with common dining and on-site health facilities for residents that is not a general retail or commercial use open to the public. This use includes ITE Trip Generation Manual Land Use Codes 253, 254, 255, and 620.

Low Speed Streets mean a multimodal transportation facility based on either the Dutch Woonerf concept that treats all modes equally with no defined spaces for any mode or bicycle boulevards which feature pavement markings, signage and posted speed limits. Low speed streets also include shared streets which typically do not have raised curbs, distinct pavement markings, traffic control devices, defined parking spaces, or vehicular speed limit signs or have posted speed limits fifteen (15) miles per hour or less. A low-speed street often features signage and sometimes a speed limit that indicates there are multiple users of the shared street.

Medical Office means a building or buildings that provide medical, dental, or veterinary services and care. Medical office shall also include any clinics, emergency care uses, and any uses specified in the ITE Trip Generation Manual under Land Use Code Series 600, including Land Use Code 720. Land Use Code 620 is included under Long Term Care land uses.

Micromobility means electric powered personal mobility devices such as electric bicycles, electric scooters, hoverboards, One-Wheel, Unicycle, electric skateboards, and other electric assisted personal mobility devices. Low speed vehicles such as golf carts or mopeds are not considered personal micromobility devices.

Microtransit Vehicle means low speed vehicles such as autonomous transit shuttles, golf carts neighborhood electric vehicles, or trolleys subject to requirements established by a governmental entity responsible for approval, permitting or regulating said vehicles.

Mobile Residence means land uses for the temporary or permanent placement of mobile homes, RVs, tiny homes on wheels, or travel trailers within predefined lots or spaces that have connections for communications, electric, water and wastewater. Mobile residential parks may have common amenities and ancillary buildings with recreation uses, laundry and park office that do not generate additional travel demand and are not assessed a mobility fee.

Mobility means the ability to move people and goods from an origin to a destination by multiple modes of travel in a timely (speed) manner.

Mobility Fee means a monetary exaction imposed on new development activity to fund projects identified in a mobility plan.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Mobility Fee Expenses means expenditures for: (a) the repayment of principal and interest or any redemption premium for loans, advances, bonds, bond anticipation notes, and any other form of indebtedness then outstanding consistent with statutory allowances and used to advance mobility projects identified in the Mobility Plan; (b) reasonable administrative and overhead expenses necessary or incidental to expanding and improving mobility projects; (c) crosswalks, traffic control and crossing warning devices, landscape, trees, multimodal way finding, irrigation, hardscape, and lighting related to projects; (d) micromobility devices, microtransit vehicles, programs and services, (e) transit circulators, facilities, programs, shuttles, services and vehicles; (f) reasonable expenses for engineering studies, stormwater reports, soil borings, tests, surveys, construction plans, and legal and other professional advice or financial analysis relating to projects; (g) the acquisition of right-of-way and easements for the improvements, including the costs incurred in connection with the exercise of eminent domain; (h) the clearance and preparation of any site, including the demolition of structures on the site and relocation of utilities; (i) floodplain compensation, wetland mitigation and stormwater management facilities; (j) all expenses incidental to or connected with the issuance, sale, redemption, retirement, or purchase of bonds, bond anticipation notes, or other forms of indebtedness, including funding of any reserve, redemption, or other fund or account provided for in the ordinance or resolution authorizing such bonds, notes, or other form of indebtedness consistent with statutory allowances and used to advance mobility projects identified in the Mobility Plan; (k) reasonable costs of planning, design, engineering, and construction, including mobilization, maintenance of traffic during construction and CEI (construction engineering and inspection) services of mobility projects, (l) county administration, implementation updates to the mobility plan and mobility fee, including any analysis, assessments, counts, data collection, plans, programs or studies needed for mobility projects, (m), local match for federal, state and county funded projects.

Mobility Fee Off-Set means the equivalent amount of a mobility fee associated with an existing use of a building that is being redeveloped or where a change of occupancy or use is requested. The equivalent mobility fee shall be based on the current use of the building, or the most recent use of the building for a vacant building. Upon demolition of a building, offsets shall be available for up to five years from the date of demolition, unless otherwise provided for in a written agreement with the City or specified in an implementing ordinance.

Mobility Fee Schedule means the uses for which a Mobility Fee is to be assessed on development activity within Mobility Fee Assessment Areas. The schedule includes the Mobility Fee rates per unit of measure for each land use.

Mobility Fee Technical Report shall mean the City of Longwood 2045 Mobility Plan and Mobility Fee Technical Report dated December 2023 and prepared by NUE Urban Concepts, LLC that documents the analysis, data and methodology used to develop a Mobility Fee and is adopted pursuant to an implementing ordinance which authorizes imposition of the Mobility Fee. This may also be referenced as Mobility Plan and Mobility Fee Technical Report, Technical Report, or 2045 Mobility Plan and Mobility Fee Technical Report.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Mobility Plan shall mean the Complete Streets Plan, Intersections & Parking Plan, and Multimodal Plans, Studies, Programs, and Policies Plan included in the City of Longwood 2045 Mobility Plan dated December 2023 and prepared by NUE Urban Concepts, LLC that identifies mobility projects within the City to meet future person travel demand between 2023 and 2045 and serves as the basis for the City's Mobility Fee.

Mobility Plan Implementation shall mean mobility projects identified in the Mobility Plan in recognition that the Mobility Plan may be amended over time, development activity improvements maybe required beyond their impact and eligible to apply for credits, and that the Capital Improvements Program is updated annually and may include amended or new mobility projects.

Mobility Project shall mean corridor and intersection improvements such as bike lanes, buffered bike lanes, protected bike lanes, intersections, interchanges, landscape, shared-use paths, trails, greenways, boardwalks, multimodal lanes, pedestrian overpasses or underpasses, roads, roundabouts, sidewalks, streets, and streetscape. Mobility projects also include policies, programs and services, wayfinding, micromobility devices, and microtransit vehicles and lanes. Projects can include new or additional road travel lanes and turn lanes, upgrade of roads that results in a change in functionally classification of the road, complete and low speed streets, new or upgraded traffic signals, traffic synchronization, mobilization, maintenance of traffic, survey, geotechnical and engineering, utilities, construction, PD&E, planning, engineering and inspection, utility relocation, right-of-way, easements, land acquisition, stormwater management facilities. These projects may also be referred to as Mobility Plan projects, multimodal projects, or projects in the Mobility Fee Technical Report and Mobility Fee Ordinance.

Mode means the choice of travel that a person undertakes and can include walking, jogging, running, bicycling, paddling, scooting, flying, driving a vehicle, riding a boat, transit, taxi or using a new mobility technology.

Motor Vehicle means a car, SUV, truck, van, or motorcycle that is either electric powered, gasoline powered, a hybrid, or some other fuel source that propels the motor vehicle.

Motor Vehicle Charging or Fueling means the total number of vehicles that can be charged or fueled at one time (fueling positions). Increasingly, land uses such as superstores, (i.e., super Wal-Mart), variety stores, (i.e., Dollar General), and wholesale clubs (i.e., Costco) are also offering vehicle charging and fueling with or with/out small convenience stores. Outside of Florida, several grocery store chains are also starting to sell fuel. Free standing vehicle charging stations that charge a fee for use and are not a requirement of the City as an ancillary use of a development shall be required to pay a mobility fee. The mobility fee rate per charging or fueling position would be in addition to any mobility fee per square foot under the applicable retail land use with vehicle charging or fueling. Motor vehicle charging stations that are not a primary use or function of a commercial or retail use and are either required by the City or provided as an ancillary use are exempt from payment of the mobility fee. The City shall have the ability to determine if a charging or fueling station is a commercial use.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Motor Vehicle Cleaning shall mean a building, stalls, stations, or tunnels for the cleaning, detailing, polishing, washing, or waxing of motor vehicles or boats which fall under the description of ITE Trip Generation Manual Land Use Code Series 800 and 900. This use includes full-service, partial service, and self-service uses. The unit of measure shall be the number of bays or stalls for self-service cleaning, and the number of approach lanes for automated, semi-automated, or tunnel washes where payment is rendered or a card, code, or other means is used to access the cleaning service. For uses with automated, semi-automated, or tunnels, finishing stations for detailing, drying, or vacuuming Mobility Fees shall also be assessed at a rate of one (1) station per every five (5) finishing stations. For uses with self-service bays or stalls, which typically feature a greater number of facilities than automated or semi-automated facilities, finishing stations for detailing, drying, or vacuuming, Mobility Fees shall also be assessed at a rate of one (1) station per every ten (10) finishing stations.

Motor Vehicle Service shall mean a building, bays, service bays, stalls, or stations for the routine maintenance of motor vehicles including oil changes, cleaning, or replacing filters, replacing windshield wipers, changing tires, providing for maintenance, service, and repair, and changing and topping off vehicle fluids and falls under the description of ITE Trip Generation Manual Land Use Code Series 800 and 900. Any building square footage associated with motor vehicle service would fall under retail uses and pay the applicable mobility fee per the square footage of the building not associated with the quick lube service.

Multimodal means multiple modes of travel including, but not limited to walking, bicycling, jogging, rollerblading, skating, scootering, riding transit, driving a golf cart, low speed electric vehicle or motor vehicle.

Multimodal facility means a sidewalk, bicycle lane, buffered or protected bicycle lane, multimodal or flex lane, high occupancy vehicle lane, shared-use path, trail, greenway, boardwalk, transit stop, transit station, transit pull-out, crosswalk, mid-block crossing, pedestrian signal, mobility hub, low speed street, shared street, traffic calmed street, streetscape, hardscape, or traffic calming.

Non-Residential Square Feet means the sum of the gross floor area (in square feet) of the area of each floor level under cover, including cellars, basements, mezzanines, penthouses, corridors, lobbies, stores, and offices, that are within the principal outside faces of exterior walls, not including architectural setbacks or projections. Included are all areas that have floor surfaces with clear standing head room (six feet six inches, minimum) and are used as part of primary use of the property of their use. If an area within or adjacent to the principal outside faces of the exterior walls is not enclosed, such as outdoor restaurant seating, areas used for storage of goods and materials, or merchandise display, and is determined to be a part of the primary use of property, this gross floor area is considered part of the overall square footage of the building. Areas for parking, circulation, ingress, egress, buffers, conservation, walkways, landscape, stormwater management, and easements or areas granted for transit stops or multimodal parking are not included in the calculation of square feet.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Office means banks, financial services, general offices, hospitals, higher education, post-secondary trade schools, and professional activities primarily involving the provision of professional or skilled services, including but not limited to accounting, legal, real estate, insurance, financial, engineering, architecture, accounting, and technology.

Office Uses means those businesses which provide professional services to individuals, businesses, or groups and which include those uses in the ITE Trip Generation Manual under Land Use Code Series 600 and 700 and includes Land Use Codes 540, 550, 911 and 912. Land Use Code 620 is included under institutional uses.

Off-site Improvement means improvements located outside of the boundaries of development activity or on the opposite side of a right-of-way not adjacent to the boundary of the development activity, excluding improvements such as mid-block crossings, traffic signals, left turn lanes that are part of development activity relate access improvements. If an improvement provides a benefit to person travel not associated with development activity such as a turn lane serving another development or an off-site sidewalk connection to a school or park shall generally be considered an off-site improvement. Off-site improvements also include mobility projects that are not a site-related or development activity requirement of the Comprehensive Plan, land development regulations, development order condition, or a condition of a access or right-of-way permit.

Outdoor Commercial Recreation means outdoor recreational activity including land uses with miniature golf, batting cages, video arcade, bumper boats, go-carts, golf driving ranges, tennis, racquet or basketball courts, soccer, baseball and softball fields, paintball, skating, cycling or biking that require paid admittance, membership or some other type of fee for use. Buildings for refreshments, bathrooms, changing and retail may be included. The fee shall be based upon the total acreage of the facility for active uses outside of buildings and all buildings used to carry out a primary function of the land use activity. Areas for parking, buffers and stormwater that are not active features of the land use are excluded from the fee acreage. The use would generally fall under the ITE Land Use Code Series 400.

Overnight Lodging means places of accommodations, such as bed and breakfast, inns, motels, hotels and resorts that provide places for sleeping and bathing and may include supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, and limited recreational facilities (pool, fitness room) intended for primary use by guest(s) and which include those uses specified in the ITE Trip Generation Manual under the Land Use Code Series 300.

Person Miles of Capacity (PMC) means the number of persons "capacity" that can be accommodated, at a determined standard, on a facility while walking, bicycling, riding transit, driving, or using a mobility assisted device over a defined distance.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Person Miles of Travel (PMT) means a unit used to measure person travel made by one person where each mile traveled is counted as one person mile. PMT is calculated by multiplying person trip length by the number of person trips. The increase in future person miles of travel is used to plan multimodal project needs that form the basis for a mobility fee.

Person Miles of Travel Factor (PMTf) shall mean the factor utilized to convert vehicle miles of travel to person miles of travel based on the 2017 National Household Travel Survey.

Person Travel Demand (PTD) means travel demand from development activity based on trip generation, pass-by trips, person trips, person trip lengths, limited access travel, urban area travel, and both the origin and destination of trips. The resulting mobility fees are roughly proportional to the person travel demand per use and assessment area provided on the mobility fee schedule.

Person Trip (PT) means a trip by one person by one or more modes of travel including, but not limited to, driving a motor vehicle or low speed electric vehicle, riding transit, walking, bicycling or form of person powered, electric powered or gasoline powered device.

Person Trip Length (PTl) means the length, in miles, of a person trip per trip purpose.

Private Education means building or buildings used for pre-school, private school, childcare, or day care where students are educated by a non-governmental entity with grades ranging from pre-kindergarten to 12th grade. Private schools do not include Charter Schools, which are exempt from local government fees per Florida Statute. Childcare and day care shall mean a facility where care for young children is provided, normally during the daytime hours. Day care facilities generally include classrooms, offices, eating areas and playgrounds. Postsecondary education falls under office uses. These uses are under ITE Trip Generation Manual under Land Use Code Series 500.

Quality of Service (QOS) means a quantitative stratification of the quality of service of personal mobility stratified into six letter grade levels, with "A" describing the highest quality and "F" describing the lowest quality: a discrete stratification of a quality-of-service continuum.

Quick Service Restaurant Drive-Thru means a quick service restaurant where an order for food is placed or a pick-up/delivery lane where an order is picked-up by either a customer that placed an online order or a delivery service. Quick service restaurants are establishments serving beverages, food, or both with higher turnover, quick service, and may feature either counter service or selection of items from a counter and would fall under the descriptions of ITE Trip Generation Manual Land Use Codes 930, 933, 934, 935, 936, 937, and 938. The vehicle will proceed to one or more common pick-up windows, lockers, stations, or functional equivalent after the order has been placed. Quick service restaurant with drive-thru may be located in multi-tenant retail or free-standing retail buildings. This use also includes any quick service restaurants that do not offer indoor seating and are intended to primarily be served by vehicle delivery services or pick-up or drive-thru only orders placed online. These uses may provide a walk-up order window.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Recreation Uses mean those public or quasi-public uses that serve a community's social, cultural, fitness, entertainment, and recreational needs, which include applicable land uses specified in the ITE Trip Generation Manual under Land Use Code Series 400 and 500.

Residential Uses mean a dwelling unit and shall include those uses specified in the ITE Trip Generation Manual under the Land Use Code Series 200.

Residential means a dwelling unit and shall include those uses specified in the ITE Trip Generation Manual under the Land Use Code Series 200, except for Land Use Codes 253, 254, and 255. Residential includes tiny homes, accessory dwelling units, and dormitories.

Residential and Lodging Uses means a dwelling unit or room in overnight accommodations or mobile home or RV park and shall include those uses specified in the ITE Trip Generation Manual under the Land Use Code Series 200 and 300 and Land Use Code 416. Land Use Codes 253, 254, and 255 are considered institutional uses.

Residential Square Feet means the sum of the area (in square feet) of each dwelling unit measured from the exterior surface of the exterior walls or walls adjoining public spaces such as multifamily or dormitory hallways, or the centerline of common walls shared with other dwelling units. Square feet include all livable, habitable, and temperature controlled enclosed spaces (enclosed by doors, windows, or walls). This square footage does not include unconditioned garages or unenclosed areas under roof. For multifamily and dormitory uses, common hallways, lobbies, leasing offices, and residential amenities are not included in the square feet calculation, unless that space is leased to a third-party use and provides drinks, food, goods, or services to the public or paid memberships available to individuals that do not reside in a dwelling unit.

Retail means entertainment, personal service, restaurant, and retail uses. This includes land uses under ITE Land Use Codes Series 400, 800, and 900. Retail includes all uses that do not fall under High Impact or Convenience Retail uses.

Service Standard means the adopted or desired quality or level of service for a bicycle facility, pedestrian facility, roadway, shared-use multimodal facility, or transit.

Shell Building means the foundational and structural elements that separate interior and exterior space and includes the roof, walls, windows, doors, mechanical systems, and rough plumbing and electric. Common areas are typically finished. Interior spaces are designed to be finished by the tenant with wall coverings, ceiling, flooring, lighting, electrical and plumbing finishes, and furnishings. The floor may or may not be finished with concrete to allow for flexibility in the location of plumbing service lines.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Small Retail Business means entertainment, personal service, restaurant, and retail uses. Buildings maybe either free-standing or multi-tenant. The City of Longwood may elect to establish a program that establishes criteria to qualify as a small retail business. Until the City establishes a program, and an applicant receives formal approval, the small retail business mobility fee rate would not be applicable. This includes land uses under ITE Land Use Codes Series 400, 800, and 900.

Streetscape means hardscape elements such as pavers, benches, lighting, trash and recycling receptacles, fountains, seating, shade structure, crosswalks, landscape elements such as canopy and understory trees, shrubs, bushes, grasses and flowers, green infrastructure and architectural structures and projections that provide shade and protection from various weather conditions.

Trip means travel between locations, often times between an origin, such as a home, to a destination, such as a business, but the trip can end and begin at the same location, such as walking a dog in the neighborhood where the home is both the origin and destination.

Trip Length shall mean the length of a trip per trip purpose.

Trip Purpose means the primary purpose at the destination of a trip such as travel to buy goods, services, or meals, entertainment, recreation, school, work, places of assembly, errands, medical, day care, or work related. Trip purpose may be either home based, meaning the trip originates at a residence, or non-home based, meaning the trip originates at a destination other than a residence.

Use shall mean a use of land for residential or non-residential purposes. For Mobility Fee purposes the terms land use and use are interchangeable. The inclusion of a land use or use on the Mobility Fee schedule does not mean that land use or use is permitted by the City's Comprehensive Plan or Land Development Regulations. Any defined term in this Technical Report does not supersedes definitions in the City's Comprehensive Plan or Land Development Regulations for purposes of non-mobility fee related items.

Vehicle Miles of Travel (VMT) means a unit to measure vehicle travel made by a motor vehicle where each mile traveled is counted as one vehicle mile regardless of the number of persons in the vehicle. VMT is calculated by multiplying the length of a road segment by the total number of vehicles on that road segment.

Vehicle Occupancy (VO) means the total number of persons in a single motor vehicle making a trip.

Vehicle Trip means a single motor vehicle, regardless of the number of persons in the motor vehicle.

The Remainder of This Page Intentionally Left Blank

© 2023 NUE Urban Concepts, LLC. All rights reserved.

RECOMMENDED NEXT STEPS

The adoption of the 2045 Mobility Plan and Mobility Fee may require additional tasks to administer and implement the Plan and Fee. The following are recommended next steps that the City of Longwood should consider commencing:

(1) **Seminole County Mobility Fee Coordination:** Longwood should begin discussions with Seminole County on addressing impact on County Roads and a share of Mobility Fees to be set aside as a local match for funding the design and construction of improvements to County Roads. The City will need to address the County's Mobility Fee Ordinance requirements to replace the County Mobility Fee with a City Mobility Fee. The City will also need to develop an interlocal agreement with the County related to collection of County Mobility Fees. Longwood should begin discussions with the County on integrating the Mobility Plan projects into the 2024 sales tax referendum and consideration of the Charter County Infrastructure Surtax.

(2) **FDOT, MetroPlan Orlando Coordination:** Longwood should begin discussions with FDOT and MetroPlan on integrating the Mobility Plan projects into the 2045 LRTP and closely coordinate with both parties as MetroPlan begins to start the development of the 2050 LRTP. The coordination should also address the incorporation of Mobility Plan projects into existing funded and planned projects, and the pursuit of funding for Mobility Plan projects through existing or upcoming grant and funding request opportunities.

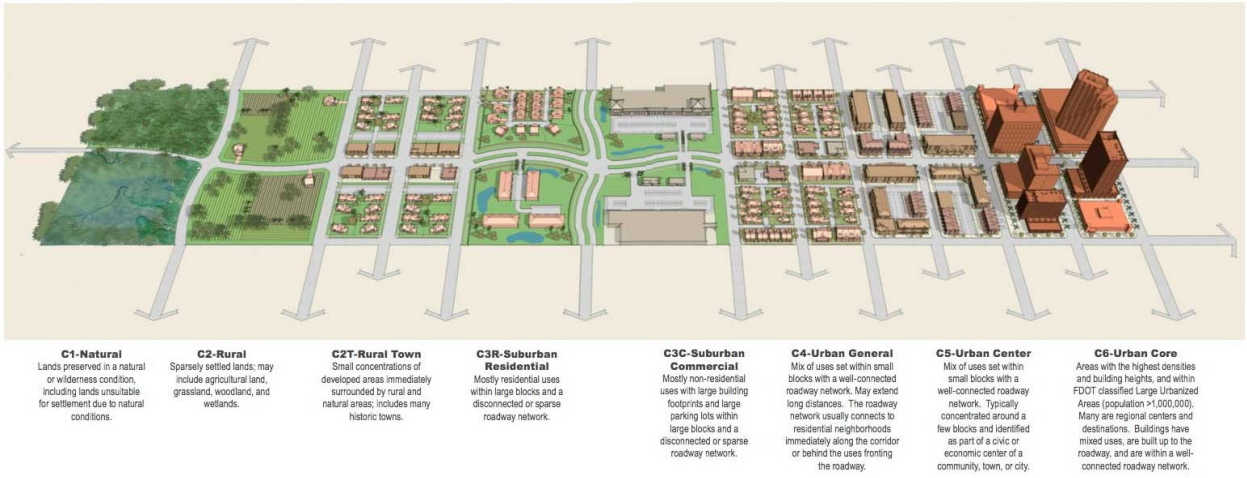
(3) **Comprehensive Plan Amendment:** Within one year from the date of adoption of the Mobility Fee, the City will need to amend the Comprehensive Plan to recognize adoption of the 2045 Mobility Plan and Mobility Fee and remove policies related to Transportation Concurrency Exception Areas (TCEA's), Transportation Concurrency, and proportionate share. The Amendment would need to update the various tables of improvements to ensure internal consistency.

(4) **Multimodal Quality of Service Standards (QOS) & Land Development Regulations:** Longwood should consider developing Complete Street design standards and policies based on Multimodal Quality of Service (QOS) standards to implement the 2045 Mobility Plan. Longwood should also consider replacing traffic impact analysis with site access analysis or mobility solutions reports to incorporate the 2045 Mobility Plan and ensure new development is addressing both vehicular and multimodal transportation. The LDRs should the update to ensure that new development is designing its internal streets in a Complete

© 2023 NUE Urban Concepts, LLC. All rights reserved.

Street manner and that external impacts and improvements appropriately address multimodal transportation. Longwood should also consider implementing FDOT's Context Classification **(Figure 16)**.

Figure 16. FDOT's Context Classification



(7) **Service Charge Study:** Longwood should also consider undertaking or updating a service charge study. Florida Statute limits administrative charges to the cost of administering and implementing mobility fees. The service charge study would provide a factual basis for assessment of a service charge to offset administrative cost. The service charge would also address future updates and application fees for special studies, request for credits or offsets, and special assessments.

(8) **Administrative Procedures:** Longwood should consider developing or updating administrative procedures to administer and implement the Mobility Plan and Mobility Fees. The mobility fee ordinance will address big picture legal and statutory requirements. Administrative procedures will govern day-to-day administration and provide the City with continuity of service should staff turnover occur.

(9) **Multimodal Baseline Analysis:** Longwood should consider a comprehensive inventory of its existing multimodal network and developing GIS files to digitally map its multimodal network. The analysis should utilize multimodal quality of service standards and establish baseline conditions and current QOS levels provided. This will enable the City to measure performance of the mobility plan over time. The City should also start an annual traffic count program for its streets where data is not collected by the County or FDOT. The counts would allow the City to monitor progress of the Mobility Plan.

© 2023 NUE Urban Concepts, LLC. All rights reserved.

CONCLUSION

The City of Longwood's Mobility Fee is based on the projects identified in the 2045 Mobility Plan. The future travel demand analysis provided in this Technical Report clearly demonstrates there is growth in travel demand projected within the City. The Mobility Plan establishes the framework over the next 22-years to move people, provide choices, and meet future travel demand through expansion of the City's multimodal transportation system by adding curbless shared streets, boardwalks, shared-use paths, trails, sidewalks, traffic calming, intersections, PHBs, multimodal crossings, parking improvements, a mobility hub, and multimodal plans, studies, programs, and policies.

The City's Mobility Fee is a streamlined, equitable way for development activity to mitigate its impact to the multimodal transportation system. Mobility Plan projects and the Mobility Fee are based on the projected increase in person miles of travel and person miles of capacity between 2023 and 2045: consistent with the **"needs"** requirement of the dual rational nexus test. The Mobility Fee is also based on the person travel demands attributable to new development activity and is roughly proportional to the impact the development has on the City, County, and State Roads within the Mobility Study Area, consistent with Florida Statute Sections 163.3180 and 163.31801.

The implementation of a Mobility Fee Benefit District, where a Mobility Fee paid by development activity is to be expended to fund multimodal projects within a Mobility Fee Benefit District, ensures that the Mobility Fee will meet the **"benefits"** requirement of the dual rational nexus test. The City's Mobility Fee will be assessed and collected by the City on development activity that results in an increase in person travel demand within the City. The Mobility Fee has been developed to offset the impact of development activity on City, County, and State Roads within the Study Area.

The City needs to meet with Seminole County to discuss replacement of the County's Mobility Fee with the City's Mobility Fee. The discussion should include determining potential set asides of Mobility Fee funds for funding improvements on County Roads. The analysis of existing vehicle miles of travel (VMT) for County Roads within the Mobility Study Area is 35%. The share of the cost of mobility projects on County Roads within the Mobility Study Area is roughly 3%. The share of unfunded mobility projects on County Roads in the Mobility Plan is just under 2%.

The Mobility Fee includes some increases that are above the current County Mobility Fee. The City can charge a Mobility Fee upon adoption of the Mobility Fee ordinance, so long as the Mobility Fee does not exceed the County's Mobility Fee. The City could then phase-in the increase in Mobility Fees 90 days after adoption of the ordinance at a rate not to exceed 12.5%

© 2023 NUE Urban Concepts, LLC. All rights reserved.

per year above current fees. All of the City fees are either less than or roughly 10% above County Mobility Fees, therefore all City fees can go into effect either immediately after adoption or after 90 days following adoption.

The City will need to develop a program for development activity to qualify for the reduced affordable and workforce housing rate and the small retail business rates on the Mobility Fee schedule. The Technical Report also identifies several additional actions that the City should consider undertaking.

The 2045 Mobility Plan, based on growth in population and increases in person miles of travel, includes mobility projects that provide the person capacity **"needed"** to meet the travel demands of development activity. The new growth evaluation demonstrates that new development is not being assessed more than its **"attributable and assignable"** share of the cost of the Mobility Plan.

The person travel demand for each use included in the Mobility Fee schedule meets the **"rough proportionality test"** established through case law. The establishment of Mobility Fee Benefit Districts ensures that Mobility Fees will be expended to provide a mobility **"benefit"** to development activity that pays a Mobility Fee. Payment of the Mobility Fee addresses mitigation of the person travel demand generated by development activity within the City. The 2045 Mobility Plan and the Mobility Fee meets the **"dual rational nexus test"** and is consistent with the requirements of Florida Statute Sections 163.3180, 163.31801 and Florida Statute Chapter 380.

The Remainder of This Page Intentionally Left Blank

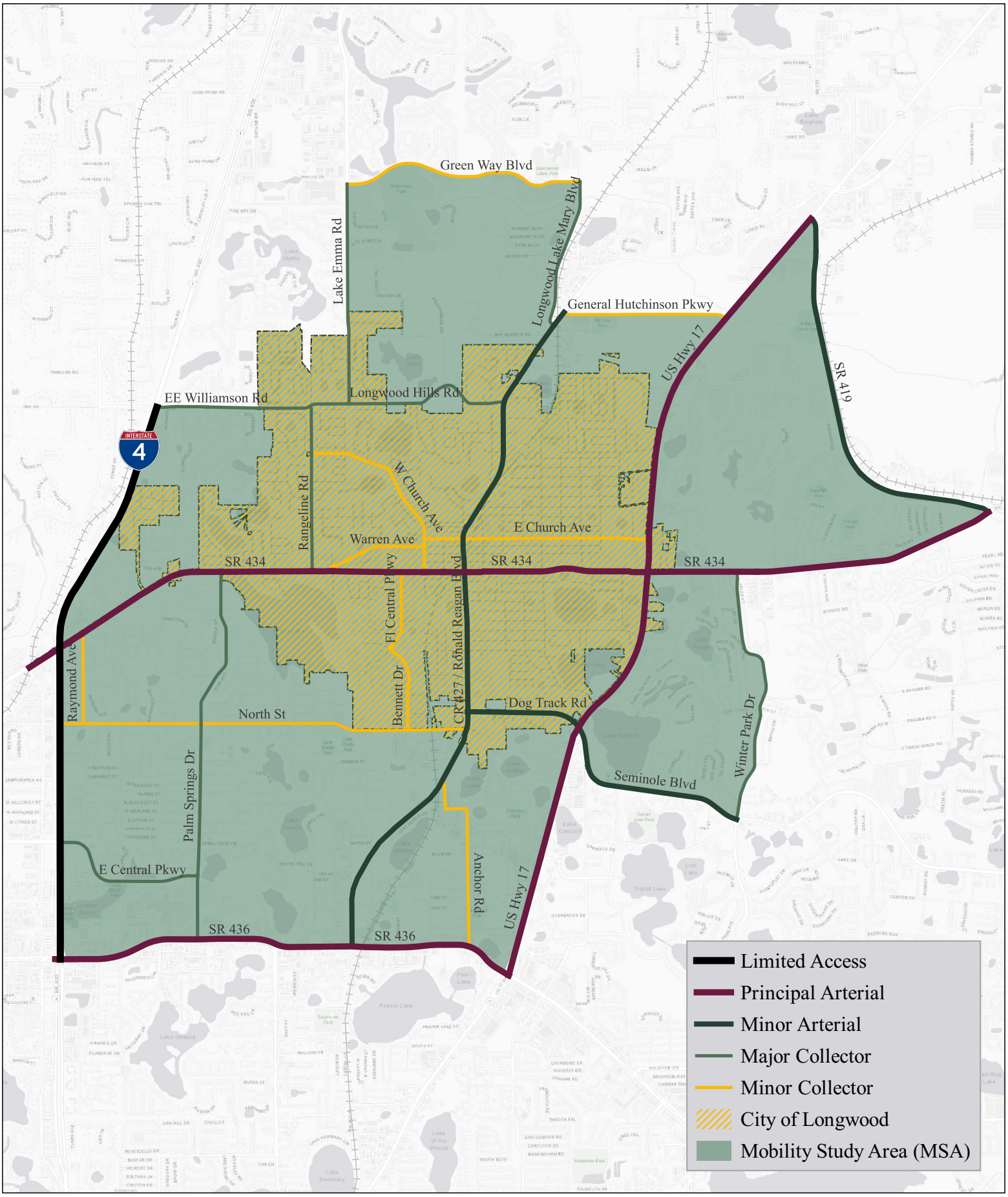
© 2023 NUE Urban Concepts, LLC. All rights reserved.

MAP A

Mobility Study Area (MSA)

CITY OF LONGWOOD 2045 MOBILITY PLAN

Mobility Study Area & Network



0 0.5 1 mi

MOBILITY COHORT

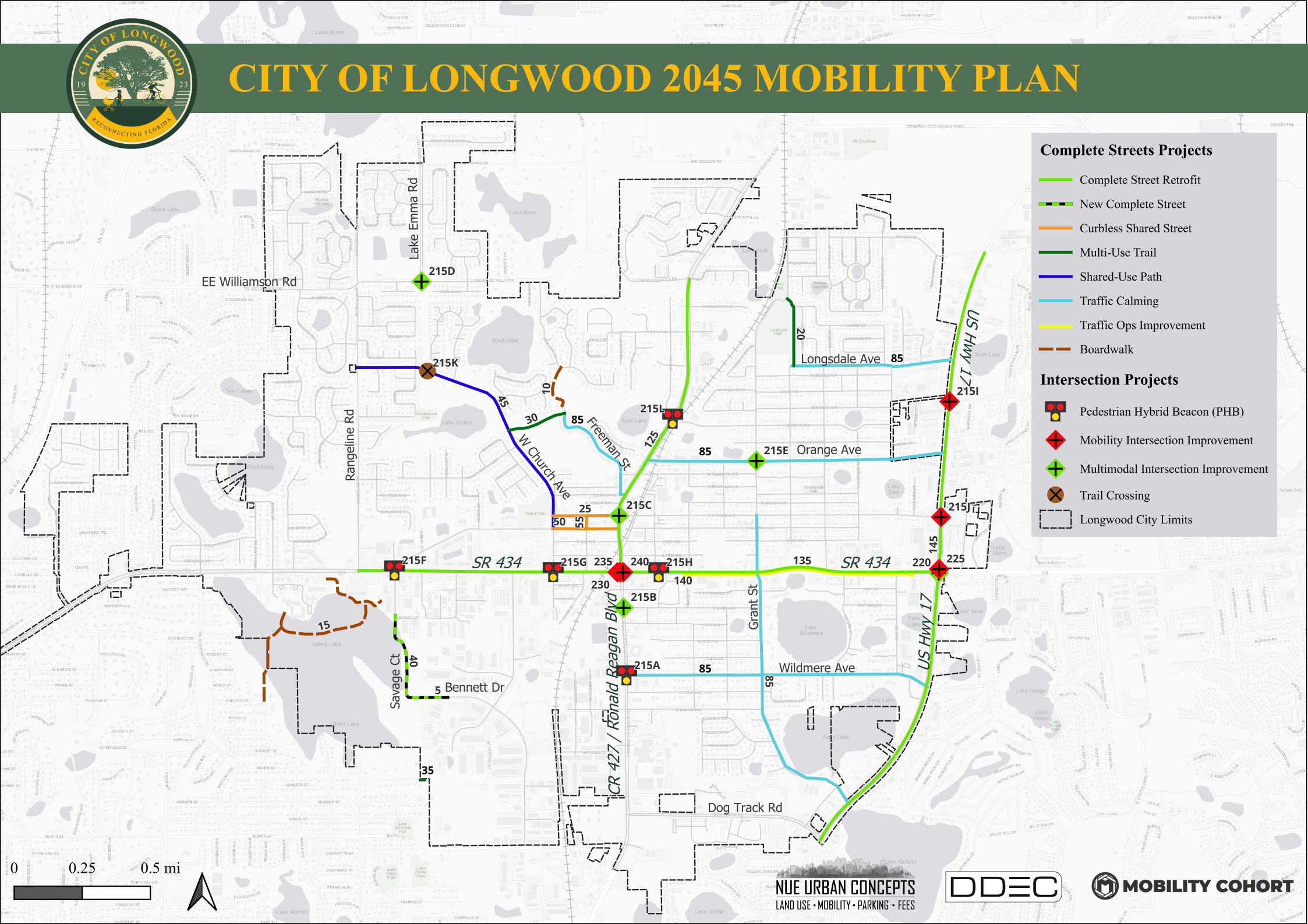
DDEC
REINVENTING THE WAY OUR WORLD MOVES

NUE URBAN CONCEPTS
LAND USE • MOBILITY • PARKING • FEES

MAP B

Mobility Plan

CITY OF LONGWOOD 2045 MOBILITY PLAN



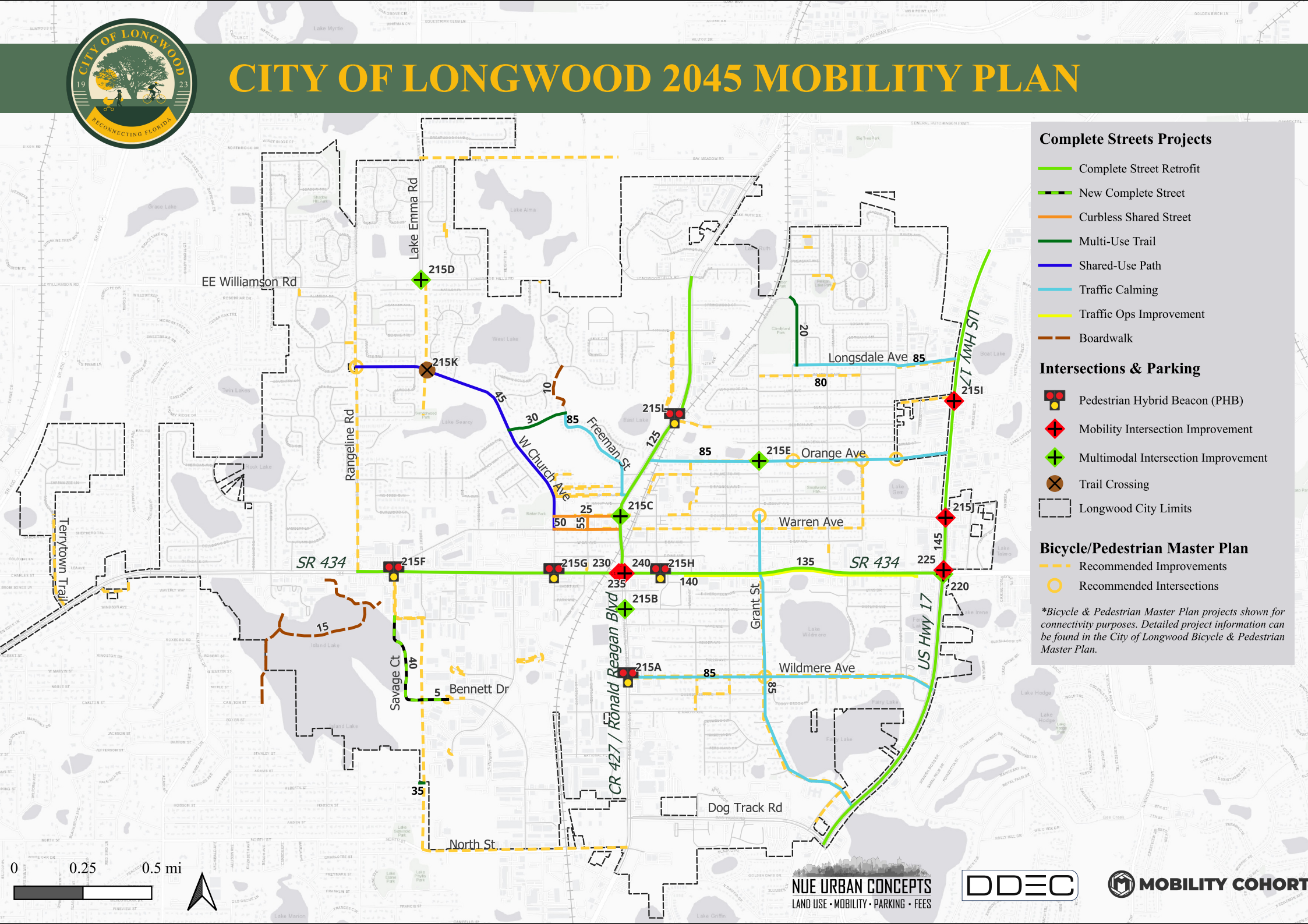
MAP C

Mobility Plan

&

Bicycle & Pedestrian Master Plan

CITY OF LONGWOOD 2045 MOBILITY PLAN



Complete Streets Projects

- Complete Street Retrofit
- New Complete Street
- Curbless Shared Street
- Multi-Use Trail
- Shared-Use Path
- Traffic Calming
- Traffic Ops Improvement
- Boardwalk

Intersections & Parking

- Pedestrian Hybrid Beacon (PHB)
- Mobility Intersection Improvement
- Multimodal Intersection Improvement
- Trail Crossing
- Longwood City Limits

Bicycle/Pedestrian Master Plan

- Recommended Improvements
- Recommended Intersections

**Bicycle & Pedestrian Master Plan projects shown for connectivity purposes. Detailed project information can be found in the City of Longwood Bicycle & Pedestrian Master Plan.*

NUE URBAN CONCEPTS
LAND USE · MOBILITY · PARKING · FEES

DDEC

MOBILITY COHORT

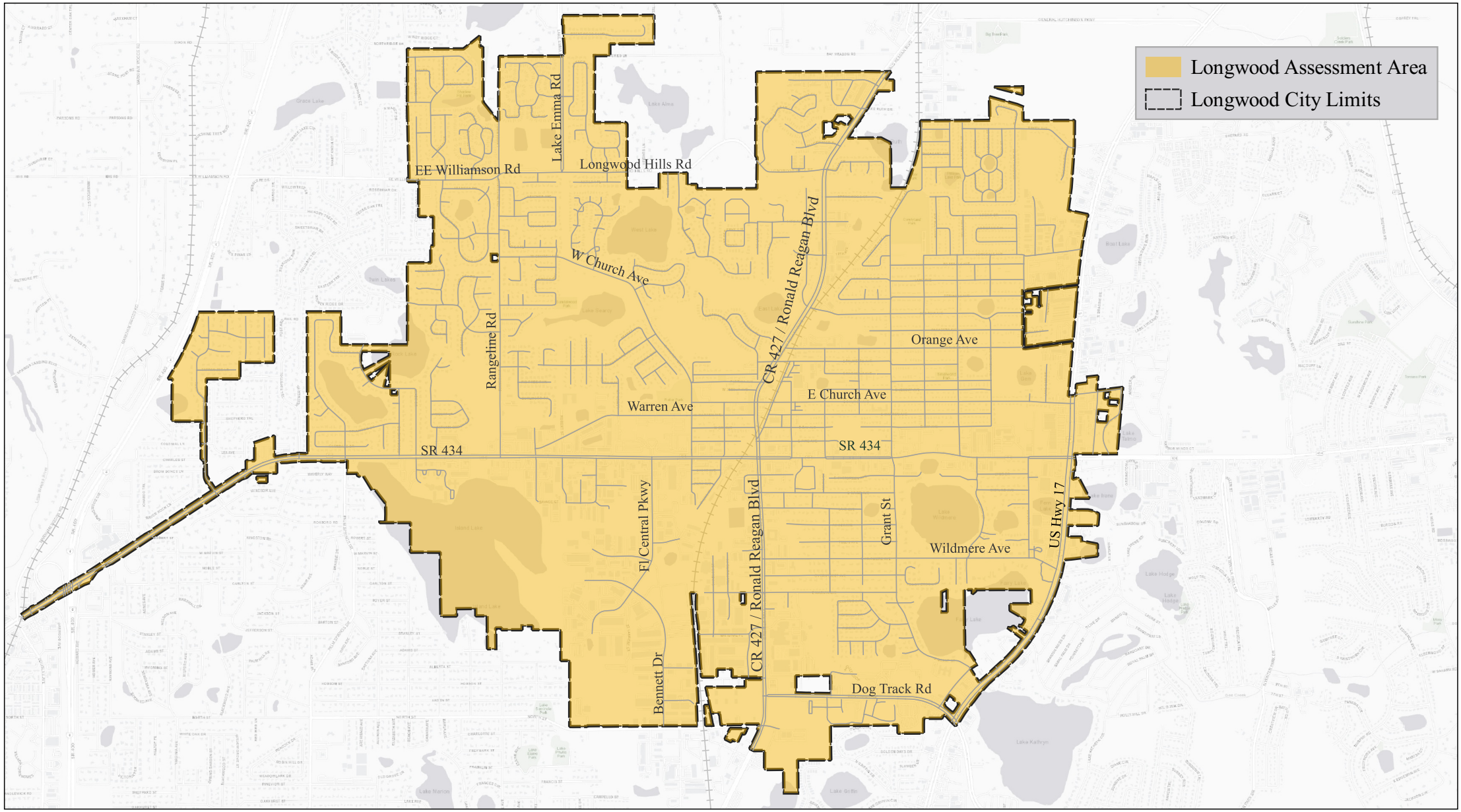
MAP D

Mobility Fee

Assessment Area

CITY OF LONGWOOD 2045 MOBILITY PLAN

Assessment Area



MOBILITY COHORT

DDEC

REINVENTING THE WAY OUR WORLD MOVES

NUE URBAN CONCEPTS

LAND USE • MOBILITY • PARKING • FEES

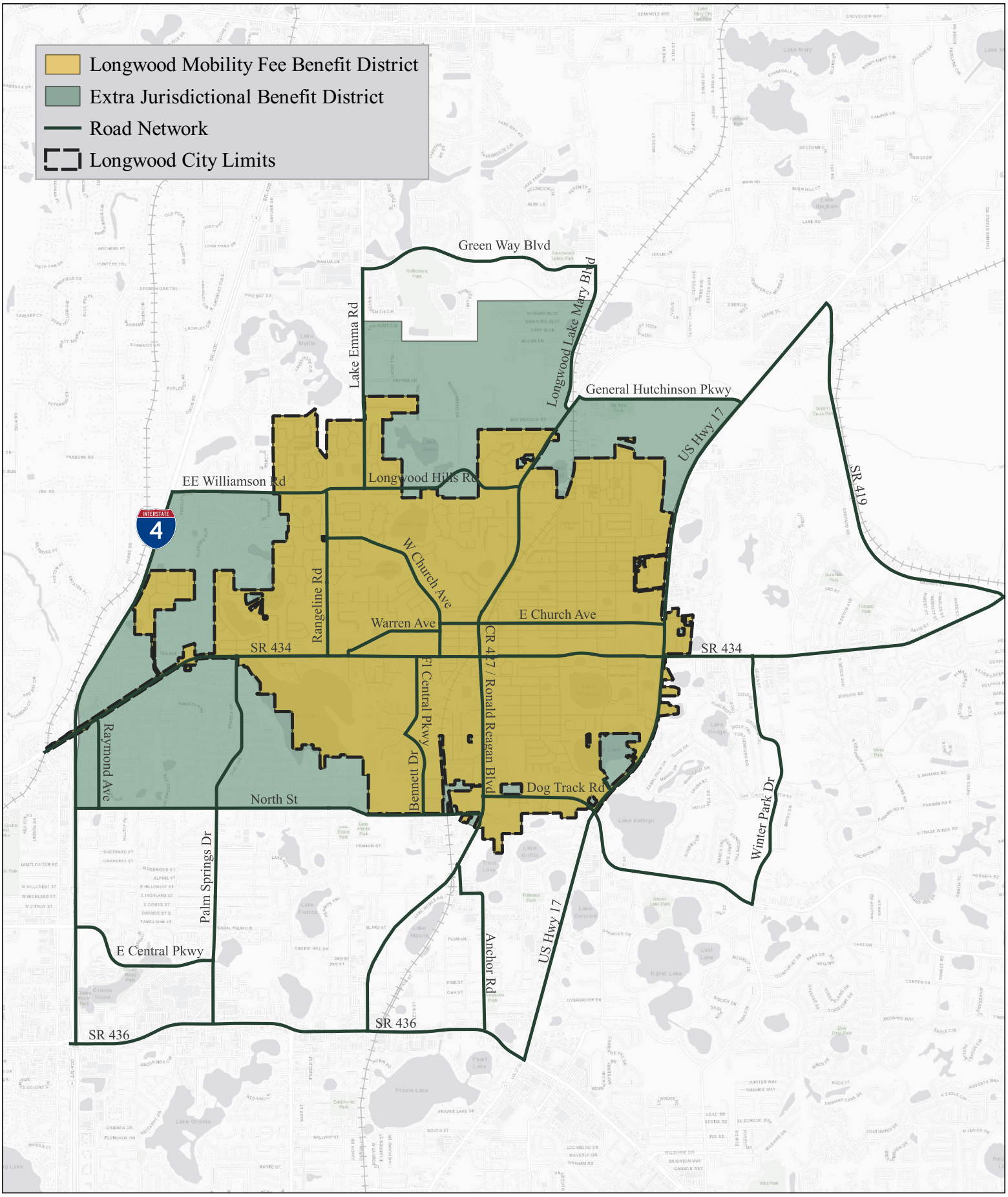
MAP E

Mobility Fee

Benefit District

CITY OF LONGWOOD 2045 MOBILITY PLAN

Benefit Districts



0 0.5 1 mi

NUE URBAN CONCEPTS
LAND USE • MOBILITY • PARKING • FEES

DDEC

MOBILITY COHORT

APPENDIX A:

Florida Department of Economic Opportunity (DEO) Transportation Guidance

Transportation Planning

Community Planning
Community Planning Table of Contents
Areas of Critical State Concern Program
Accessing Comprehensive Plans and Plan Amendments (Florida Papers)
ORC Reports and Notices of Intent
Evaluation and Appraisal Review of the Comprehensive Plan
General Information About Developments of Regional Impact and Florida Quality Developments
Developments of Regional Impact Repository
List of Local Governments Qualifying as Dense Urban Land Areas
Revitalization of Expired Homeowners Association Declarations and Covenants
Community Planning Staff Directory (Alphabetical)
Community Planning Review Team Assignments
Community Services
Community Development Block Grants
Community Partnerships
Broadband
Small and Minority Business Resources
Rural Community Programs
Special Districts
Homeowner Assistance

Transportation Element

Section 163.3177(6)(b), Florida Statutes, establishes the requirements for transportation and mobility planning in local government comprehensive plans. Comprehensive plans must focus on providing a multimodal transportation system that emphasizes public transportation systems, where feasible, and encourages economic development through flexible transportation and mobility options for Florida communities. Links to transportation planning related issues and organizations are included below to help provide additional information on transportation mobility planning in Florida.

Multimodal Transportation

A multimodal transportation system recognizes the importance of providing mobility options through a variety of integrated travel modes, such as by bus or rail transit, bicycle, automobile, or foot. A well-designed multimodal transportation network minimizes impacts to the environment and enhances the livability of neighborhoods by increasing transportation options, expanding access, and increasing connectivity between destinations.

A well-designed and efficient transportation network can help create a sustainable development pattern that contributes to the community's prosperity, enhances transportation efficiency by minimizing vehicle trips and contributes to a healthier environment by reducing air pollution and greenhouse gas emissions.

The Transportation Element of a local government's comprehensive plan should contain policies that will create a well-connected multi-modal transportation network; support increased residential densities and commercial intensity; help walking become more practical for short trips; support bicycling for both short- and long-distance trips; improve transit to serve frequented destinations; conserve energy resources; reduce greenhouse gas emissions and air pollution; while maintaining vehicular access and circulation. Key multimodal transportation strategies can include the following:

- Create an interconnecting grid network of streets, connectors, arterials and sidewalks that provide a complete and accessible transportation network;
- Establish land use patterns that support a mixture of residential, commercial and retail uses, and dense populations and urban intensities, so that transit service may be provided more efficiently and economically;
- Increase the viability of pedestrian and bicycle travel;
- Integrate land use and transportation planning to create communities that provide transportation choice; and,
- Accommodate the flow of freight throughout the state so that the economy can continue to grow.

Other multimodal transportation planning efforts, such as transit-oriented developments, defined in section 163.3164(46), Florida Statutes, are being developed and planned by the Cities of Boca Raton, Clearwater, Gainesville, Jacksonville, Miami, Tampa and West Palm Beach, and in Broward, Miami-Dade, Palm Beach and Pinellas Counties and other locations. Below are a several examples of successful multimodal transportation planning efforts in Florida:

- **Alachua County, Department of Growth Management, Transportation Planning** - Alachua County's Mobility Plan includes transit-oriented development and multimodal transportation planning as one of several methods being implemented to provide mobility options.
- **City of Gainesville, Planning Department, Comprehensive Planning** - The City of Gainesville comprehensive plan includes six mixed-use categories and eight Special Area Plans based on Traditional Neighborhood Development standards and an established Urban Infill and Redevelopment Area.

Complete Streets

Complete Streets is a transportation strategy to develop an integrated, connected networks of streets that are safe and accessible for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. According to Smart Growth America and the National Complete Streets Coalition, *Complete Streets* make active transportation such as walking and bicycling convenient, provide increased access to employment centers, commerce, and educational institutions, and allow greater choice in travel.

In Florida, complete streets are *context-sensitive*. For example, a street considered complete for use within a dense urban area would look and function very differently from one located in a rural area, and a complete suburban street would look and function differently from both the urban and rural complete streets. One way to think about what elements are necessary to create a complete street is to determine its context within the community and based upon that context, match the design and operation of that street with the direction and guidance provided in the local government's comprehensive plan.

As an example, some communities use an Urban-Rural Transect (or simply *Transect*) to assign portions of their community into approximately five or six "context zones" based on the degree of development intensity desired and geographic location, ranging from very low intensity rural context zones to more intense urban context zones. For each context zone, the community establishes a context in terms of appropriate public facility design, urban design, general spatial form, and appropriate street types.

This approach allows the local government to determine, in its comprehensive plan or other public planning document, which portions of the community fit within which context zone, and to provide guidance within the comprehensive plan as to what mobility functions (such as walking, biking, transit use) are most important in that context zone, and what design features and operational characteristics are appropriate for streets in that location.

Several examples of communities have initiated complete streets planning in Florida. Here are a few excellent examples:

- Model Design Manual for Living Streets - Los Angeles County, 2011
- Deerfield Beach Complete Street Guidelines
- Ft. Lauderdale Complete Streets

Transportation Concurrency

In accordance with the Community Planning Act, local governments may establish a system that assesses landowners the costs of maintaining specified levels of service for components of the local government's transportation system when the projected impacts of their development would adversely impact the system. This system, known as a concurrency management system, must be based on the local government's comprehensive plan. Specifically, the local government comprehensive plan must provide the principles, guidelines, standards, and strategies, including adopted levels of service, to guide the application of its transportation concurrency management system.

Prior to June 2, 2011, transportation concurrency was mandatory for local governments. Now that transportation concurrency is optional, if a local government chooses, it may eliminate the transportation concurrency provisions from its comprehensive plan and is encouraged to adopt a mobility fee based plan in its place (see below). Adoption of a mobility fee based plan must be accomplished by a plan amendment that follows the Expedited State Review Process. A plan amendment to eliminate transportation concurrency is not subject to state review.

It is important to point out that whether or not a local government chooses to use a transportation concurrency system, it is required to retain level of service standards for its roadways for purposes of capital improvement planning. The standards must be appropriate and based on professionally accepted studies, and the capital improvements that are necessary to meet the adopted levels of service standards must be included in the five-year schedule of capital improvements. Additionally, all local governments, whether implementing transportation concurrency or not, must adhere to the transportation planning requirements of section 163.3177(6)(b), Florida Statutes.

Mobility Fee Based Plans

If a local government elects to repeal transportation concurrency, it is encouraged to adopt an alternative mobility funding system that uses one or more of the tools and techniques identified in section 163.3180(5)(f), Florida Statutes:

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

Requirements for Transportation Concurrency

If a local government elects to use transportation concurrency, it must adhere to the following concurrency requirements in section 163.3180(5), Florida Statutes:

- Include principles, guidelines, standards, and strategies, including adopted levels of service, to guide the application of concurrency to transportation.
- Use professionally accepted studies to evaluate the appropriate levels of service.
- Adopt appropriate amendments to the capital improvements element of the comprehensive plan consistent with the requirements of section 163.3177(3), Florida Statutes.
- Allow for proportionate share contributions to mitigate transportation impacts for all developments, including developments of regional impact (DRIs), consistent with section 163.3180(5)(h), Florida Statutes.
- Consult with the Florida Department of Transportation when proposed amendments affect the Strategic Intermodal System.
- Exempt public transit facilities from concurrency.

In addition, local governments are encouraged to develop tools and techniques to complement the application of transportation concurrency consistent with section 163.3180(5)(f), Florida Statutes, and to coordinate with adjacent local governments for the purpose of using common methodologies for measuring impacts to transportation facilities.

Links

- Florida Department of Transportation - Florida Transportation Plan
- Model Regulations and Plan Amendments for Multimodal Transportation Districts
- Florida Metropolitan Planning Organizations
- Florida Department of Transportation - Forecasting and Trends Office
- East Central Florida Corridor Task Force
- Florida Scenic Highways
- Transportation Site Impact Handbook
- Florida Transit-Oriented Development
- A / Framework for Transit Oriented Development in Florida, published March 2011
- Florida Department of Transportation - Pedestrian and Bicycle Design
- Florida Department of Transportation, Public Transit Office
- Florida Safe Mobility for Life Coalition
- Florida Safe Mobility for Life Coalition's Aging in Place Checklist
- The Florida Greenbook
- Pasco County Mobility Fees

© 2020 State of Florida Department of Economic Opportunity

APPENDIX B

Florida Impact Fee Act

CHAPTER 2021-63

Committee Substitute for Committee Substitute for Committee Substitute for House Bill No. 337

An act relating to impact fees; amending s. 163.31801, F.S.; defining the terms "infrastructure" and "public facilities"; requiring local governments and special districts to credit against the collection of impact fees any contribution related to public facilities or infrastructure; providing conditions under which credits may not be applied; providing limitations on impact fee increases; providing for retroactive operation; requiring specified entities to submit an affidavit attesting that impact fees were appropriately collected and expended; providing that impact fee credits are assignable and transferable regardless of when they the credits were established; requiring school districts to report specified information regarding impact fees; providing a directive to the Division of Law Revision; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 163.31801, Florida Statutes, is amended to read:

163.31801 Impact fees; short title; intent; minimum requirements; audits; challenges.—

(1) This section may be cited as the "Florida Impact Fee Act."

(2) The Legislature finds that impact fees are an important source of revenue for a local government to use in funding the infrastructure necessitated by new growth. The Legislature further finds that impact fees are an outgrowth of the home rule power of a local government to provide certain services within its jurisdiction. Due to the growth of impact fee collections and local governments' reliance on impact fees, it is the intent of the Legislature to ensure that, when a county or municipality adopts an impact fee by ordinance or a special district adopts an impact fee by resolution, the governing authority complies with this section.

(3) For purposes of this section, the term:

(a) "Infrastructure" means a fixed capital expenditure or fixed capital outlay, excluding the cost of repairs or maintenance, associated with the construction, reconstruction, or improvement of public facilities that have a life expectancy of at least 5 years; related land acquisition, land improvement, design, engineering, and permitting costs; and other related construction costs required to bring the public facility into service. The term also includes a fire department vehicle, an emergency medical service vehicle, a sheriff's office vehicle, a police department vehicle, a school bus as defined in s. 1006.25, and the equipment necessary to outfit the vehicle or bus for its

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

official use. For independent special fire control districts, the term includes new facilities as defined in s. 191.009(4).

(b) "Public facilities" has the same meaning as in s. 163.3164 and includes emergency medical, fire, and law enforcement facilities.

(4)~~(3)~~ At a minimum, each local government that adopts and collects an impact fee by ordinance and each special district that adopts, collects, and administers an impact fee by resolution must ~~an impact fee adopted by ordinance of a county or municipality or by resolution of a special district must satisfy all of the following conditions~~:

(a) Ensure that the calculation of the impact fee is ~~must be~~ based on the most recent and localized data.

(b) ~~The local government must~~ Provide for accounting and reporting of impact fee collections and expenditures and~~. If a local governmental entity imposes an impact fee to address its infrastructure needs, the entity must~~ account for the revenues and expenditures of such impact fee in a separate accounting fund.

(c) Limit administrative charges for the collection of impact fees ~~must be limited~~ to actual costs.

(d) ~~The local government must~~ Provide notice at least ~~not less than~~ 90 days before the effective date of an ordinance or resolution imposing a new or increased impact fee. A local government ~~county or municipality~~ is not required to wait 90 days to decrease, suspend, or eliminate an impact fee. Unless the result is to reduce the total mitigation costs or impact fees imposed on an applicant, new or increased impact fees may not apply to current or pending permit applications submitted before the effective date of ~~an ordinance or resolution imposing~~ a new or increased impact fee.

(e) Ensure that collection of the impact fee may not be required to occur earlier than the date of issuance of the building permit for the property that is subject to the fee.

(f) Ensure that the impact fee is ~~must be~~ proportional and reasonably connected to, or has ~~have~~ a rational nexus with, the need for additional capital facilities and the increased impact generated by the new residential or commercial construction.

(g) Ensure that the impact fee is ~~must be~~ proportional and reasonably connected to, or has ~~have~~ a rational nexus with, the expenditures of the funds collected and the benefits accruing to the new residential or nonresidential construction.

(h) ~~The local government must~~ Specifically earmark funds collected under the impact fee for use in acquiring, constructing, or improving capital facilities to benefit new users.

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

(i) Ensure that revenues generated by the impact fee are ~~may~~ not ~~be~~ used, in whole or in part, to pay existing debt or 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 or nonresidential construction.

(5)(a)~~(4)~~ Notwithstanding any charter provision, comprehensive plan policy, ordinance, development order, development permit, or resolution, the local government or special district must credit against the collection of the impact fee any contribution, whether identified in a proportionate share agreement or other form of exaction, related to public ~~education~~ facilities or infrastructure, including land dedication, site planning and design, or construction. Any contribution must be applied on a dollar-for-dollar basis at fair market value to reduce any ~~education-based~~ impact fee collected for the general category or class of public facilities or infrastructure for which the contribution was made ~~fees on a dollar-for-dollar basis at fair market value~~.

(b) If a local government or special district does not charge and collect an impact fee for the general category or class of public facilities or infrastructure contributed, a credit may not be applied under paragraph (a).

(6)~~(5)~~ A local government, school district, or special district may increase an impact fee only as provided in this subsection.

(a) An impact fee may be increased only pursuant to a plan for the imposition, collection, and use of the increased impact fees which complies with this section.

(b) An increase to a current impact fee rate of not more than 25 percent of the current rate must be implemented in two equal annual increments beginning with the date on which the increased fee is adopted.

(c) An increase to a current impact fee rate which exceeds 25 percent but is not more than 50 percent of the current rate must be implemented in four equal installments beginning with the date the increased fee is adopted.

(d) An impact fee increase may not exceed 50 percent of the current impact fee rate.

(e) An impact fee may not be increased more than once every 4 years.

(f) An impact fee may not be increased retroactively for a previous or current fiscal or calendar year.

(g) A local government, school district, or special district may increase an impact fee rate beyond the phase-in limitations established under paragraph (b), paragraph (c), paragraph (d), or paragraph (e) by establishing the need for such increase in full compliance with the requirements of subsection (4), provided the following criteria are met:

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

1. A demonstrated need study justifying any increase in excess of those authorized in paragraph (b), paragraph (c), paragraph (d), or paragraph (e) has been completed within the 12 months before the adoption of the impact fee increase and expressly demonstrates the extraordinary circumstances necessitating the need to exceed the phase-in limitations.

2. The local government jurisdiction has held not less than two publicly noticed workshops dedicated to the extraordinary circumstances necessitating the need to exceed the phase-in limitations set forth in paragraph (b), paragraph (c), paragraph (d), or paragraph (e).

3. The impact fee increase ordinance is approved by at least a two-thirds vote of the governing body.

(h) This subsection operates retroactively to January 1, 2021.

(7) If an impact fee is increased ~~a local government increases its impact fee rates~~, the holder of any impact fee credits, whether such credits are granted under s. 163.3180, s. 380.06, or otherwise, which were in existence before the increase, is entitled to the full benefit of the intensity or density prepaid by the credit balance as of the date it was first established. ~~This subsection shall operate prospectively and not retrospectively.~~

(8)~~(6)~~ A local government, school district, or special district must submit with its annual financial report required under s. 218.32 or its financial audit report required under s. 218.39 a separate affidavit signed by its chief financial officer or, if there is no chief financial officer, its executive officer attesting, to the best of his or her knowledge, that all impact fees were collected and expended by the local government, school district, or special district, or were collected and expended on its behalf, in full compliance with the spending period provision in the local ordinance or resolution, and that funds expended from each impact fee account were used only to acquire, construct, or improve specific infrastructure needs ~~Audits of financial statements of local governmental entities and district school boards which are performed by a certified public accountant pursuant to s. 218.39 and submitted to the Auditor General must include an affidavit signed by the chief financial officer of the local governmental entity or district school board stating that the local governmental entity or district school board has complied with this section~~.

(9)~~(7)~~ In any action challenging an impact fee or the government's failure to provide required dollar-for-dollar credits for the payment of impact fees as provided in s. 163.3180(6)(h)2.b., the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee or credit meets the requirements of state legal precedent and this section. The court may not use a deferential standard for the benefit of the government.

(10)~~(8)~~ Impact fee credits are assignable and transferable at any time after establishment from one development or parcel to any other that is

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

within the same impact fee zone or impact fee district or that is within an adjoining impact fee zone or impact fee district within the same local government jurisdiction and which receives benefits from the improvement or contribution that generated the credits. This subsection applies to all impact fee credits regardless of whether the credits were established before or after the effective date of this act.

(11)~~(9)~~ A county, municipality, or special district may provide an exception or waiver for an impact fee for the development or construction of housing that is affordable, as defined in s. 420.9071. If a county, municipality, or special district provides such an exception or waiver, it is not required to use any revenues to offset the impact.

(12)~~(10)~~ This section does not apply to water and sewer connection fees.

(13)~~(11)~~ In addition to the items that must be reported in the annual financial reports under s. 218.32, a local government, school district ~~county, municipality~~, or special district must report all of the following information ~~data~~ on all impact fees charged:

(a) The specific purpose of the impact fee, including the specific infrastructure needs to be met, including, but not limited to, transportation, parks, water, sewer, and schools.

(b) The impact fee schedule policy describing the method of calculating impact fees, such as flat fees, tiered scales based on number of bedrooms, or tiered scales based on square footage.

(c) The amount assessed for each purpose and for each type of dwelling.

(d) The total amount of impact fees charged by type of dwelling.

(e) Each exception and waiver provided for construction or development of housing that is affordable.

Section 2. The Division of Law Revision is directed to replace the phrase "the effective date of this act" wherever it occurs in this act with the date the act becomes a law.

Section 3. This act shall take effect upon becoming a law.

Approved by the Governor June 4, 2021.

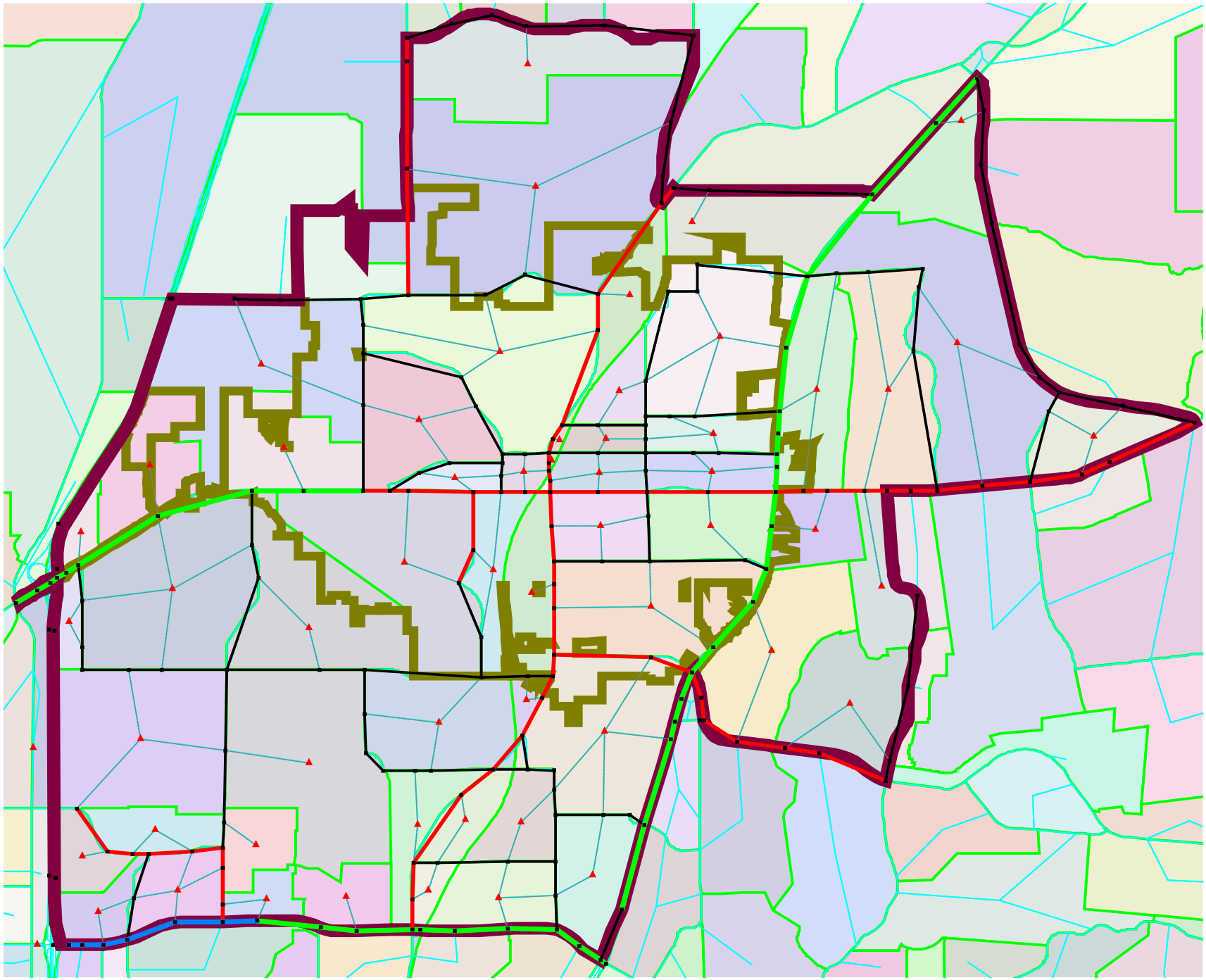
Filed in Office Secretary of State June 4, 2021.

CODING: Words ~~stricken~~ are deletions; words underlined are additions.

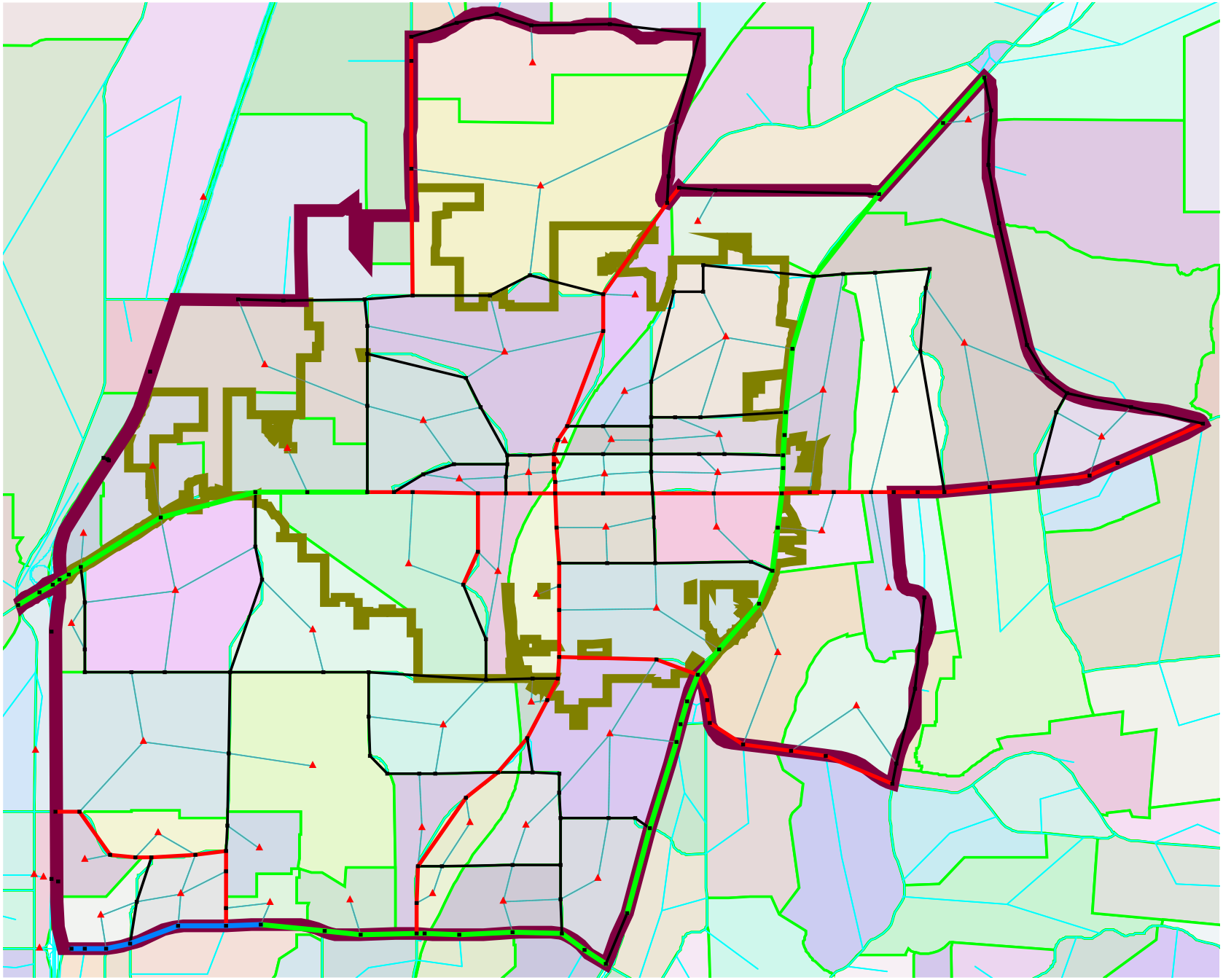
APPENDIX C

Projected Growth in Vehicle Miles of Travel

Mobility Study Area (MSA)
2020 Model Network



Mobility Study Area (MSA)
2045 Model Network



APPENDIX C: PROJECTED GROWTH IN VEHICLE MILES OF TRAVEL (VMT)					
Mobility Plan Study Area		**Limited Access**		**Total**	
Year	**Vehicle Miles of Travel (VMT)**	**Year**	**Vehicle Miles of Travel (VMT)**	**Year**	**Vehicle Miles of Travel (VMT)**
2020	1,210,498	2020	548,824	2020	1,759,322
2021	1,214,973	2021	553,510	2021	1,768,483
2022	1,219,464	2022	558,236	2022	1,777,700
2023	1,223,972	2023	563,003	2023	1,786,974
2024	1,228,496	2024	567,810	2024	1,796,306
2025	1,233,038	2025	572,658	2025	1,805,696
2026	1,237,596	2026	577,548	2026	1,815,143
2027	1,242,170	2027	582,479	2027	1,824,649
2028	1,246,762	2028	587,453	2028	1,834,215
2029	1,251,371	2029	592,469	2029	1,843,839
2030	1,255,997	2030	597,527	2030	1,853,524
2031	1,260,640	2031	602,629	2031	1,863,269
2032	1,265,300	2032	607,775	2032	1,873,074
2033	1,269,977	2033	612,964	2033	1,882,941
2034	1,274,671	2034	618,198	2034	1,892,869
2035	1,279,383	2035	623,477	2035	1,902,860
2036	1,284,113	2036	628,800	2036	1,912,913
2037	1,288,859	2037	634,169	2037	1,923,029
2038	1,293,624	2038	639,584	2038	1,933,208
2039	1,298,406	2039	645,045	2039	1,943,451
2040	1,303,205	2040	650,553	2040	1,953,758
2041	1,308,023	2041	656,108	2041	1,964,130
2042	1,312,858	2042	661,710	2042	1,974,568
2043	1,317,711	2043	667,360	2043	1,985,071
2044	1,322,582	2044	673,058	2044	1,995,640
2045	1,327,471	2045	678,805	2045	2,006,276

Source: Central Florida Regional Planning Model v. 7.0. Mobility Plan Study Area annual growth rate: 0.37%. Limited Access annual growth rate: 0.85%

APPENDIX D

2017 National Household Travel Survey Data: Florida

Appendix D: 2017 National Household Travel Survey Data for Florida: Florida Travel 5.0 Miles or Less													
Trip Purpose	Trip Length	Number of Trips	Average Trip Length	Number of Persons per Trip	Person Trip factor (PTf)	Person Miles of Travel (PMT)	Average Person Trip Length	Person Miles of Travel factor (PMTf)	Vehicle Miles of Travel (VMT)	Average Vehicle Trip Length	Number of Vehicles	# of Persons per Vehicle	Vehicle Occupancy factor (Vof)
Buy Goods	1,497	760	1.97	1,287	1.69	2,476	1.92	1.68	1,471	2.04	720	1,241	1.72
Buy Meals	785	389	2.02	856	2.20	1,786	2.09	2.34	763	2.27	336	724	2.15
Buy Services	250	120	2.08	218	1.82	467	2.14	1.87	249	2.13	117	214	1.83
Family Care	11	6	1.81	13	2.17	24	1.86	2.58	9	1.87	5	11	2.20
Entertainment (Social)	252	130	1.94	304	2.34	628	2.07	2.77	227	2.36	96	220	2.29
Errands (Library Post, Office, Services)	239	142	1.68	212	1.49	361	1.70	1.58	229	1.92	119	186	1.56
Exercise	263	194	1.36	273	1.41	366	1.34	1.84	199	2.12	94	136	1.45
Home	3,162	1,616	1.96	2,886	1.79	5,874	2.04	2.01	2,925	2.27	1,291	2,426	1.88
Medical	162	63	2.57	90	1.43	227	2.52	1.41	161	2.63	61	88	1.44
Religious	199	86	2.31	187	2.17	452	2.42	2.32	195	2.50	78	176	2.26
School	203	90	2.26	192	2.13	421	2.19	2.24	188	2.44	77	173	2.25
Work	961	405	2.37	520	1.28	1,167	2.24	1.23	947	2.56	370	466	1.26
Total	7,984	4,001	2.00	7,038	1.76	14,248	2.02	1.88	7,562	2.25	3,364	6,061	1.80

Note: 2017 National Household Travel Survey Data for the State of Florida based on trips of 5.0 miles or less in length. A total of 4,001 unique survey's were used in the analysis. Person Trip factor (PTf) calculated by dividing total number of persons by total number of trips per trip purpose. Vehicle Occupancy factor (VOf) calculated by dividing total number of persons per vehicle by total number of vehicle trips per trip purpose. Person Miles of Travel (PMT) calculated by multplying number of persons per trip by average person trip length per trip purpose. Vehicle Miles of Travel (VMT) calculated by multplying number of vehicles per trip by average vehicle trip length per trip purpose.

APPENDIX E

Complete Streets Plan

APPENDIX E: CITY OF LONGWOOD MOBILITY PLAN: COMPLETE STREETS PLAN

Project / Map ID	Facility Name	From	To	Length (Miles)	Project Type	Construction/ Maintenance Entity	Project Description	Project Source	Time Frame	Planning Level Cost (PLC)	Person Miles of Capacity (PMC)	Funding	Funding Sources
Mobility Plan Projects													
Complete Streets													
5	Bennet Dr Extension	Existing Terminus of Bennet Dr	Recommended Highline Drive Trail	0.09	New Complete Street	City	Construct a new two (2) lane road. Add Complete Street elements including a 8' to 10' separated, shared-use path on both sides of corridor. PD&E Study needed. Alignment shown is preliminary. Final alignment to be determined.	2045 Mobility Plan	2036-2040	$543,164	2,233	No	Mobility Fees & Other Sources
10	Boardwalk (Hidden Oak to Longwood Plantation)	Bucksaw Pl	Freeman St	0.17	Boardwalk	City	Construct 12'-14' wide multi-use boardwalk.	2046 Mobility Plan	2026-2030	$649,740	1,428	No	Mobility Fees & Other Sources
15	Boardwalk (Southwest Longwood)	Landover Pl	Beach Ave	1.00	Boardwalk	City	Construct 12'-14' wide multi-use boardwalk.	2047 Mobility Plan	2036-2040	$3,822,000	8,400	No	Mobility Fees & Other Sources
20	Candyland Trail	Arbor Park / Grant St	Longdale Ave	0.26	Multi-Use Trail	City	Construct 12'-14' wide multi-use trail.	2045 Mobility Plan	2026-2030	$320,640	1,560	No	Mobility Fees & Other Sources
25	E Church Ave	Milwee St	CR 427 / Ronald Reagan Blvd	0.23	Curbless Shared Street	City	Convert to a low speed (15 MPH) curbless shared street, to be constructed with redevelopment, with on-street parking or flexible curbside loading zones. Incorporate complete street design elements such as landscape, streetscape and hardscape including shade trees, raised planters, bench seating, pergolas for shade, water fountains, trash receptacles and decorative street pole lighting.	2045 Mobility Plan	2041-2045	$6,279,000	4,600	No	Mobility Fees & Other Sources
30	Multimodal Connection	Church Ave	Freeman St	0.22	Multi-Use Trail	City	Construct 12'-14' wide multi-use trail.	2045 Mobility Plan	2031-2035	$271,311	1,320	No	Mobility Fees & Other Sources
35	Multimodal Connection	Alberta St	Recommended Highline Drive Trail	0.02	Multi-Use Trail	City	Construct 12'-14' wide multi-use trail.	2045 Mobility Plan	2036-2040	$24,665	120	No	Mobility Fees & Other Sources
40	Savage Ct Extension	Current Southern Terminus of Savage Ct	Bennett Dr Extension (MPID #5)	0.37	New Complete Street	City	Construct a new two (2) lane road. Add Complete Street elements including a 8' to 10' separated, shared-use path on both sides of corridor. PD&E Study needed. Alignment shown is preliminary. Final alignment to be determined.	2046 Mobility Plan	2041-2045	$2,233,008	9,180	No	Mobility Fees & Other Sources
45	W Church Ave	Rangeline Rd	SR 434	1.07	Shared-Use Path	City	Add 8'-10' shared-use path where right-of-way allows;	2045 Mobility Plan	2041-2045	$1,099,632	3,852	No	Mobility Fees & Other Sources
50	Warren Ave	Milwee St	CR 427 / Ronald Reagan Blvd	0.23	Curbless Shared Street	City	Convert to a low speed (15 MPH) curbless shared street, to be constructed with redevelopment, with on-street parking or flexible curbside loading zones. Incorporate complete street design elements such as landscape, streetscape and hardscape including shade trees, raised planters, bench seating, pergolas for shade, water fountains, trash receptacles and decorative street pole lighting.	2045 Mobility Plan	2041-2045	$6,279,000	4,600	No	Mobility Fees & Other Sources
55	Wilma Ave	Church Ave	Warren Ave	0.05	Curbless Shared Street	City	Convert to a low speed (15 MPH) curbless shared street, to be constructed with redevelopment, with on-street parking or flexible curbside loading zones. Incorporate complete street design elements such as landscape, streetscape and hardscape including shade trees, raised planters, bench seating, pergolas for shade, water fountains, trash receptacles and decorative street pole lighting.	2045 Mobility Plan	2041-2045	$1,365,000	1,000	No	Mobility Fees & Other Sources
Pre-existing Planned & Proposed Projects (for inclusion in the Mobility Fee)													
125	CR 427 / Ronald Reagan Blvd	SR 434	Longwood Hills Rd	1.14	Complete Street Retrofit	City / County	Upgrade road, with resurfacing and restriping, and add Complete Streets elements including sidewalk construction in existing ROW to improve pedestrian and bicycle accessibility	2040 Seminole County Transportation Master Plan (Tier 1, 11)	2023-2025	$1,750,000	17,784	$1,750,000	Sales Tax Capital Plan (2015-2025) Seminole County Potential Major Projects; City of Longwood Sales Tax List
130	Longwood Bicycle & Pedestrian Plan Implementation Projects	City of Longwood	City of Longwood	12.37	Projects	City / County	Implement the adopted City of Longwood Bicycle / Pedestrian Master Plan.	Longwood Bicycle & Pedestrian Plan	2023-2045	$8,476,080	46,105	$1,385,000	Mobility Fees, FDOT, and Capital Improvements Budget
135	SR 434	Oleander St	525' West of US Hwy 17	0.84	Traffic Ops Improvement	FDOT	Includes preliminary engineering, ROW, & construction.	FDOT 5 Yr Work Plan; MetroPlan TIP (4438381)	2023-2026	$12,295,154	12,295	$11,065,638.60	Anticipate 90% FDOT funding
140	SR 434	Rangeline Rd	US 17-92	2.14	Complete Street Retrofit	FDOT	Complete Street with shared-use path.	MetroPlan Orlando Prioritized Project List (2150)	2026-2030	$19,720,000	15,408	$19,720,000	FDOT
145	US 17-92	Shepard Rd	Dog Track Rd	2.31	Complete Street Retrofit	FDOT	Complete Streets / Safety / Ops.	MetroPlan Orlando Prioritized Project List (2157)	2026-2030	$20,720,000	36,036	$20,720,000	FDOT
ID 150-199 Reserved													

Note: Planning level cost estimates have been developed for complete streets projects based on cost from the City, County, FDOT District Five (Central Florida), and MetroPlan Orlando; Person Miles of Capacity = daily vehicle capacity x Vehicle Occupancy Factor of 1.81 based on data from the 2017 National Household Travel Survey. Daily vehicle capacities were determined using FDOT Generalized Service Volume Tables; Time frames are initial projections. Each year the City of Longwood City Commission will prioritize projects through the annual Capital Improvements Program. ***Source:*** Mobility Plan prepared by the Mobility Cohort.

APPENDIX F

Intersections & Parking Plan

APPENDIX F: CITY OF LONGWOOD MOBILITY PLAN: INTERSECTIONS & PARKING PLAN

Project / Map ID	Facility Name	Cross Street	Project Type	Construction Entity	Project Description	Project Source	Time Frame	Planning Level Cost (PLC)	Person Miles of Capacity (PMC)	Funded	Funding Source
Mobility Plan Projects											
Parking											
200	Longwood St	Church Ave	Mobility Hub & Strategic Parking Management	City	Site acquisition, design, engineering, and construction of various parking improvements in the Station Core and Downtown Historic District including a mobility hub. The mobility hub aka SunHub and other strategic parking management improvements should focus on integration of first and last mile solutions with the SunRail station and provide opportunities for using multimodal transportation modes to access the station.	2045 Mobility Plan	2036-2045	$5,171,440	5,171	No	Mobility Fee and Other Sources
205	On-Street Parking	City of Longwood	Parking	City	Implement 40 on-street parking spaces in locations to be determined throughout the city. Spaces should be implemented in small strips of two (2) to three (3) parallel spaces. Implementation may include regular or ribbon curb with brick pavers. Cost includes minor sidewalk reconstruction.	2045 Mobility Plan	2023-2045	$1,270,000	1,270	No	Mobility Fee and Other Sources
Intersections											
210	Local mid-block crossings	Citywide	Mid-block Crossing	City	Implement up to ten (10) mid-block crossings with multimodal safety improvements citywide.	2045 Mobility Plan	2026-2045	$8,100,000	6,000	No	Mobility Fee and Other Sources
215	**Intersection Improvements**	**City of Longwood**	**Intersection Improvements**	**City/County/State**	**Intersection improvements throughout the city.**	**2045 Mobility Plan**	**2023-2045**	**$11,181,000**	**31,600**	**No**	**Mobility Fee and Other Sources**
215A	CR 427 / Ronald Reagan	Wildmere Dr	Pedestrian Hybrid Beacon (PHB)	County	Install PHB for controlled mid-block crossing; Request County to conduct a road safety audit for the installation of safe pedestrian crossing.	2045 Mobility Plan	2036-2040	$710,000	1,200	No	Mobility Fee and Other Sources
215B	CR 427 / Ronald Reagan	Maine Ave	Multimodal Intersection Improvement	County	Minor intersection improvements: update signing and pavement markings plan for enhanced intersection crossing.	2045 Mobility Plan	2031-2035	$532,000	1,000	No	Mobility Fee and Other Sources
215C	CR 427 / Ronald Reagan	Church Ave	Multimodal Intersection Improvement	County	Minor intersection improvements: update signing and pavement markings plan for enhanced intersection crossing.	2045 Mobility Plan	2036-2040	$532,000	1,000	No	Mobility Fee and Other Sources
215D	Longwood Hills Ave	Lake Emma	Multimodal Intersection Improvement	City	Minor intersection improvements: update signing and pavement markings plan for enhanced intersection crossing.	2045 Mobility Plan	2026-2030	$532,000	1,000	No	Mobility Fee and Other Sources
215E	Orange Ave	Grant St	Multimodal Intersection Improvement	City	Minor intersection improvements: update signing and pavement markings plan for enhanced intersection crossing.	2045 Mobility Plan	2023-2025	$532,000	1,000	No	Mobility Fee and Other Sources
215F	SR 434	Savage Ct	Pedestrian Hybrid Beacon (PHB)	FDOT	Phase 1: Install PHB for controlled mid-block crossing; Request FDOT to conduct a road safety audit for the installation of safe pedestrian crossing. Phase 2: Conduct a traffic signal study.	2045 Mobility Plan	3036-2040	$994,000	1,200	$894,600.0	Anticipate 90% FDOT funding
215G	SR 434	Milwee St	Pedestrian Hybrid Beacon (PHB)	FDOT	Install PHB for controlled mid-block crossing; Request FDOT to conduct a road safety audit for the installation of safe pedestrian crossing.	2045 Mobility Plan	2031-2035	$710,000	1,200	$639,000.0	Anticipate 90% FDOT funding
215H	SR 434	~75 feet east of Myrtle St	Pedestrian Hybrid Beacon (PHB)	FDOT	Install PHB for controlled mid-block crossing; Request FDOT to conduct a road safety audit for the installation of safe pedestrian crossing.	2045 Mobility Plan	2026-2030	$710,000	1,200	$639,000.0	Anticipate 90% FDOT funding
215I	US Hwy 17	~100' south of Florida Ave	Mobility Intersection Improvement	FDOT	Install full, signalized intersection and multimodal safety enhancements.	2045 Mobility Plan	2031-2035	$3,040,000	4,000	$2,736,000.0	Anticipate 90% FDOT funding
215J	US Hwy 17	W Church Ave	Mobility Intersection Improvement	FDOT	Add eastbound left turn lane and multimodal safety improvements.	2045 Mobility Plan	2036-2040	$1,824,000	2,000	$1,641,600.0	Anticipate 90% FDOT funding
215K	W Church Ave	Recommended Utility Easement Trail	Trail Crossing	City	Add safe trail crossing on W Church Ave.	2045 Mobility Plan	2026-2030	$355,000	600	No	Mobility Fee and Other Sources
215L	CR 427 / Ronald Reagan	Georgia Ave	Pedestrian Hybrid Beacon (PHB)	County	Install PHB for controlled mid-block crossing within directional median; Request County to conduct a road safety audit for the installation of safe pedestrian crossing.	2045 Mobility Plan	2026-2030	$710,000	1,200	No	Mobility Fee and Other Sources
Pre-existing Planned & Proposed Intersection Projects (for inclusion in the Mobility Fee)											
220	SR 434	US Hwy 17	Multimodal Intersection Improvement	FDOT	Address pedestrian and safety issues at the intersection with potential refuge islands, shorter crossing distances, pedestrian signal phase improvements.	Seminole County 2040 Transportation Plan County Project Needs List Tier 1 (8); Sales Tax Capital Plan (2015-2025) Seminole County Potential Minor Roadway & Safety Projects	2023-2025	$430,000	1,000	$430,000	Sales Tax
225	SR 434	US Hwy 17	Mobility Intersection Improvement	FDOT	Implement safety improvements.	MetroPlan Metropolitan Transportation Plan Unfunded Needs (2114)	2041-2045	$2,130,000	2,000	$1,917,000.0	Anticipate 90% FDOT funding

APPENDIX F: CITY OF LONGWOOD MOBILITY PLAN: INTERSECTIONS & PARKING PLAN

Project / Map ID	Facility Name	Cross Street	Project Type	Construction Entity	Project Description	Project Source	Time Frame	Planning Level Cost (PLC)	Person Miles of Capacity (PMC)	Funded	Funding Source
230	SR 434	CR 427 / Ronald Reagan Blvd	Mobility Intersection Improvement	FDOT	Beginning with a study phase to evaluate alternatives, this project proposes major intersection improvements to address safety and circulation impacted by adjacent rail road crossings. May include a southbound right turn bypass road to SR 434 and signal upgrades. The project should also look at ways to enhance multimodal connectivity between areas east and west of CR 427/Ronald Reagan Blvd.	Seminole County 2040 Transportation Plan County Project Needs List Tier 1 (23); Sales Tax Capital Plan (2015-2025) Seminole County Potential Major Projects	2026-2040	$1,670,000	4,000	$1,670,000	Sales Tax
235	SR 434	CR 427 / Ronald Reagan Blvd	Mobility Intersection Improvement	FDOT	Add dual left and right turn lanes from Wilma St to Myrtle St.	Seminole County 2040 Transportation Plan State Project Needs List (S-30); MetroPlan Orlando Prioritized Project List	2036-2040	$15,000,000	4,000	$13,500,000.0	Anticipate 90% FDOT funding
240	SR 434	CR 427 / Ronald Reagan Blvd	Mobility Intersection Improvement	FDOT	Improve intersection.	Seminole County 2040 Transportation Plan State Project Needs List (S-7); MetroPlan Orlando Prioritized Project List	2036-2040	$10,000,000	4,000	$9,000,000.0	Anticipate 90% FDOT funding

Note: Planning level cost estimates have been developed for intersections and parking projects based on cost from the City, County, FDOT District Five (Central Florida), and MetroPlan Orlando; Person Miles of Capacity = daily vehicle capacity x Vehicle Occupancy Factor of 1.81 based on data from the 2017 National Household Travel Survey. Daily vehicle capacities were determined using FDOT Generalized Service Volume Tables; Time frames are initial projections. Each year the City of Longwood City Commission will prioritize projects through the annual Capital Improvements Program.***Source:*** Mobility Plan prepared by the Mobility Cohort.

APPENDIX G

Multimodal Plans, Studies, Programs & Policies Plan

APPENDIX G: CITY OF LONGWOOD MOBILITY PLAN: MULTIMODAL PLANS, STUDIES, PROGRAMS & POLICIES PLAN

Project / Map ID	Facility Name	From	To	Length (Miles)	Project Type	Construction/ Maintenance Entity	Project Description	Project Source	Time Frame	Planning Level Cost (PLC)	Person Miles of Capacity (PMC)	Funding	Funding Sources
60	Micromobility & Microtransit Ordinance	Citywide	Citywide	-	Policy	City	Adopt a Micromobility & Low Speed Electric Vehicles Ordinance to codify the Micromobility & Low Speed Electric Vehicles Program.	2045 Mobility Plan	2023-2025	$200,000	200	No	Mobility Fees & Other Sources
65	Micromobility & Microtransit Program	Citywide	Citywide	-	Program	City	The City will develop a Micromobility & Microtransit Program regulating the use of personal and shared micromobility devices (e.g., e-bike, e-scooters) and low speed electric vehicles (golf carts, on-demand microtransit, neighborhood electric vehicles) within the City. The City will coordinate with FDOT regarding use of micromobility devices and low speed electric vehicles on and crossing US Hwy 17 and SR 434. The City will coordinate with Seminole County and adjacent municipalities regarding use of micromobility devices and low speed electric vehicles on and crossing County Roads and within adjacent municipalities. The Program will address hours of operation, safety, shared mobility providers, rentals, and equipment.	2045 Mobility Plan	2026-2045	$500,000	500	No	Mobility Fees & Other Sources
70	Vision Zero Ordinance	Citywide	Citywide	-	Plan	City	Adopt a Vision Zero Policy to codify and guide implementation of the Vision Zero Action Plan.	2045 Mobility Plan	2023-2025	$50,000	50	No	Mobility Fees & Other Sources
75	Vision Zero Action Plan	Citywide	Citywide	-	Policy	City	Create a Safe Systems Vision Zero Action Plan to implement the Vision Zero Policy.	2045 Mobility Plan	2026-2045	$250,000	250	No	Mobility Fees & Other Sources
80	Residential Traffic Calming Ordinance	Citywide	Citywide	-	Policy	City	Adopt a Residential Traffic Calming ordinance to codify the Residential Traffic Calming Program.	2045 Mobility Plan	2026-2030	$75,000	75	No	Mobility Fees & Other Sources
85	Residential Traffic Calming Program	Citywide	Citywide	5.33	Program	City	The City should develop a Residential Traffic Calming Program as a follow-on effort to the Mobility Plan. The limits of the Residential Traffic Calming Program and Ordinance shall be the City limits. Priority streets include Grant St, Orange Ave, Wildmere Ave, Longdale Ave, and Freeman St which have been identified as part of the Primary Multimodal Network. The purpose of the Residential Traffic Calming Program will be to slow down vehicle traffic and prioritize the safe and efficient movement of people bicycling, walking, and accessing transit. The Program shall establish various traffic calming horizontal elements to be implemented such as using pavement markings to designate on-street parking or on-street bike / multimodal lanes to narrow effective travel lane widths from to slow cars down. The Program shall also establish criteria for vertical elements such as chicanes, speed tables, chokers, or curb extensions. In addition, the Program shall also establish criteria for traffic control devices at intersections, such as stop signs, mini traffic circles, and roundabouts. The Residential Traffic Calming Program shall also establish prioritization criteria, study parameters, and a resident request process. Construct traffic calming improvements as warranted. Traffic calming measures will also include resurfacing where necessary.	2045 Mobility Plan	2023-2045	$2,134,132	6,396	No	Mobility Fees & Other Sources
90	Sidewalk Improvements Program	Citywide	Citywide	8.00	Program	City	Construct approximately eight (8) miles of sidewalk improvements throughout the city. Exact location of sidewalk improvements should be determined in conjunction with planned Capital Improvements Program (CIP) projects.	2045 Mobility Plan	2023-2045	$6,577,237	19,200	No	Mobility Fees & Other Sources
95	Wayfinding Program	Citywide	Citywide	-	Program	City	Implement a way finding program to enhance the efficiency of the transportation system, improve access, and facilitate placemaking. Wayfinding and route signage is an essential component of multimodal planning elements beyond construction of a continuous, interconnected network of multimodal infrastructure. Wayfinding can be both physical and virtual tools that provide predictability and consistency in the way people find their point of interests around town. The Wayfinding Program should include development of a brand identity and design standards and specifications for signage, maps, a digital app, etc. that is unique and locally distinct.	2045 Mobility Plan	2023-2025	$500,000	500	No	Mobility Fees & Other Sources
100	Railroad Safety Study	Railroad Crossings	Railroad Crossings	-	Study	City	The City should conduct a Railroad Safety Study to address safety concerns at the railroad crossing at Georgia Ave. The study should consider closing the railroad crossing at Georgia Ave and explore future alternative safe crossings south of SR 434 that would aid in alleviating congestion on SR 434.	2045 Mobility Plan	2023-2025	$200,000	200	No	Mobility Fees & Other Sources
105	Bus stop relocation	SR 434	SR 434	-	Program	City	Evaluate existing needs to add new bus stops and / or improve or relocated existing bus stops on SR 434. Will require coordination with Lynx.	2045 Mobility Plan	2026-2030	$910,000	910	No	Mobility Fees & Other Sources
110	Tactical Urbanism Program	Citywide	Citywide	-	Program	City	Tactical urbanism is an experimental, low cost approach to street design that uses scalable, quick-build interventions to catalyze long-term change. Tactical urbanism is often implemented with high levels of engagement from the community. Tactical urbanism projects utilize low cost materials such as paint, planters, plastic delineators, street furniture, cones, crates, and barriers to implement improvements such as crosswalks, curb extensions, open streets, parklets, pedestrian plazas, walk lanes, traffic signal box art and bicycle parking. The Tactical Urbanism Program should create a tactical urbanism guide that establishes what types of street interventions are permitted, the project process – including permitting, who can apply, public engagement, site plan, traffic control plan - materials that can be used, design standards, permitted locations, installation and safety, maintenance, and monitoring and evaluation.	2045 Mobility Plan	2023-2025	$546,000	546	No	Mobility Fees & Other Sources
115	ADA Transition Plan Implementation	Citywide	Citywide	-	Plan	City	Create and update Title VI policy, LEP plan and ADA transition plan to be consistent with Federal requirements.	2045 Mobility Plan	2031-2035	$3,000,000	3,000	No	Mobility Fees & Other Sources
116	City of Longwood Bicycle & Pedestrian Plan Update	City of Longwood	City of Longwood	-	Plan	City	Two future updates to the City of Longwood Bicycle / Pedestrian Master Plan.	2045 Mobility Plan	2030-2045	$350,000	350	No	Mobility Fees & Other Sources

Note: Planning level cost estimates have been developed for plans, studies, programs, and policies based on cost from the City, County, FDOT District Five (Central Florida), and MetroPlan Orlando; Person Miles of Capacity are estimated at 10% of the project cost; Time frames are initial projections. Each year the City of Longwood City Commission will prioritize projects through the annual Capital Improvements Program. ***Source:*** Mobility Plan prepared by the Mobility Cohort.

APPENDIX H

Traffic Characteristics Data: Mobility Study Area

APPENDIX H: TRAFFIC CHARACTERISTICS DATA (MOBILITY STUDY AREA)

Name	From Street	To Street	Functional Classification	Maintaining Entity	FDOT Context Classification	Travel Lanes	Speed Limit	Length (mi)	Lane Miles	LOS Standard	AADT	Year of Count	Count Source	Daily Capacity	Growth Factors	2023 AADT	2023 VMT	2023 VMC	2045 AADT	2045 VMT	2045 VMC
Anchor Rd	Pulmosa Ave	Melody Ln	Minor Collector	City of Castleberry	C3C	2	35	0.25	0.50	C	8,188	2023	County	11,016	0.37%	8,200	2,050	2,754	8900	2225	2,754
Anchor Rd	Melody Ln	SR 436	Minor Collector	City of Castleberry	C3C	2	35	0.62	1.24	C	8,684	2023	County	11,016	0.37%	8,700	5,394	6,830	9400	5828	6,830
Bennett Dr	Florida Central Pkwy	North St	Minor Collector	City	C3C	2	35	0.56	1.12	E	8,500	2022	FDOT	15,624	0.37%	8,500	4,760	8,749	9300	5208	8,749
CR 427 / Ronald Reagan Blvd	General Hutchinson Pkwy	Longwood Lake Mary Blvd	Minor Arterial	County	C3C	4	30	0.12	0.48	E	21,088	2023	County	34,587	0.37%	21,100	2,532	4,150	22900	2748	4,150
CR 427 / Ronald Reagan Blvd	Longwood Lake Mary Blvd	Longwood Hills Rd	Minor Arterial	County	C3C	4	45	0.58	2.32	E	26,164	2023	County	34,587	0.37%	26,200	15,196	20,060	28400	16472	20,060
CR 427 / Ronald Reagan Blvd	Longwood Hills Rd	Orange Ave	Minor Arterial	County	C3C	4	45	0.71	2.84	E	29,271	2023	County	34,587	0.37%	29,300	20,803	24,557	31700	22507	24,557
CR 427 / Ronald Reagan Blvd	Orange Ave	Florida Ave	Minor Arterial	County	C4	4	35	0.15	0.60	E	29,271	2023	County	38,556	0.37%	29,300	4,395	5,783	31700	4755	5,783
CR 427 / Ronald Reagan Blvd	Florida Ave	SR 434	Minor Arterial	County	C4	4	30	0.29	1.16	E	24,761	2023	County	40,483	0.37%	24,800	7,192	11,740	26900	7801	11,740
CR 427 / Ronald Reagan Blvd	SR 434	Dog Track Rd	Minor Arterial	County	C4	4	45	0.89	3.56	E	22,647	2023	County	38,556	0.37%	22,600	20,091	34,276	24600	21869.4	34,276
CR 427 / Ronald Reagan Blvd	Dog Track Rd	North St	Minor Arterial	County	C3C	4	45	0.11	0.45	E	23,359	2023	County	34,582	0.37%	23,400	2,644	3,908	25300	2858.9	3,908
CR 427 / Ronald Reagan Blvd	North St	SR 436	Minor Arterial	County	C3C	4	45	1.64	6.56	E	12,790	2023	County	34,582	0.37%	12,800	20,992	56,714	13900	22796	56,714
Dog Track Rd	CR 427 / Ronald Reagan Blvd	US Hwy 17	Minor Arterial	County	C3C	4	40	0.74	2.96	E	21,031	2023	County	34,582	0.37%	21,000	15,540	25,591	22800	16872	25,591
E Central Pkwy	I-4	Northlake Blvd	Major Collector	County	C3C	4	35	0.61	2.44	E	25,735	2023	County	34,582	0.37%	25,700	15,677	21,095	27900	17019	21,095
E Central Pkwy	Northlake Blvd	Altamonte Mall	Major Collector	County	C3C	4	35	0.23	0.92	E	17,490	2023	County	34,582	0.37%	17,500	4,025	7,954	19000	4370	7,954
E Central Pkwy	Altamonte Mall	Palm Springs Dr	Major Collector	County	C3C	4	35	0.16	0.65	E	18,192	2023	County	34,582	0.37%	18,200	2,948	5,602	19700	3191.4	5,602
E Church Ave	CR 427 / Ronald Reagan Blvd	US Hwy 17	Minor Collector	City	C4	2	25	1.18	2.36	E	2,937	2023	County	17,280	0.37%	2,900	3,422	20,390	3200	3776	20,390
EE Williamson Rd	I-4	Tollgate Tree Trl	Major Collector	County	C3R	2	35	0.32	0.64	E	10,712	2022	County	21,168	0.37%	10,800	3,456	6,774	11700	3744	6,774
EE Williamson Rd	Tollgate Trl	Rangeline Rd	Major Collector	County	C3R	2	35	0.66	1.32	E	9,038	2022	County	21,168	0.37%	9,100	6,006	13,971	9800	6468	13,971
Florida Central Pkwy	SR 434	Bennett Dr	Minor Collector	City	C3C	4	35	0.51	2.04	E	8,500	2022	FDOT	32,940	0.37%	8,500	4,335	16,799	9300	4743	16,799
General Hutchinson Pkwy	CR 427 / Ronald Reagan Blvd	US Hwy 17	Minor Collector	County	C1	2	45	1.04	2.08	E	4,762	2023	County	34,582	0.37%	4,800	4,992	35,965	5200	5408	35,965
Green Way Blvd	Lake Emma Rd	Lake Park Dr	Minor Collector	County	C3R	2	30	1.08	2.16	E	7,206	2023	County	21,168	0.37%	7,200	7,776	22,861	7800	8424	22,861
Green Way Blvd	Lake Park Dr	Longwood Lake Mary Blvd	Minor Collector	County	C3R	2	30	0.48	0.96	E	7,522	2023	County	21,168	0.37%	7,500	3,600	10,161	8200	3936	10,161
I-4	EE Williamson Rd	I-4 Westbound Rest Area	Limited Access	Limited Access	Urbanized	6	65	0.94	5.64	D	148,931	2022	FDOT	162,800	0.85%	150,200	141,188	153,032	181100	170234	153,032
I-4	I-4 Westbound Rest Area	SR 436	Limited Access	Limited Access	Urbanized	6	60	2.71	16.26	D	148,931	2022	FDOT	162,800	0.85%	150,200	407,042	441,188	181100	490781	441,188
Lake Emma Rd	Green Way Blvd	Longwood Hills Rd	Major Collector	County	C3R	4	35	0.59	2.35	E	15,928	2023	County	35,249	0.37%	15,900	9,349	20,726	17300	10172.4	20,726
Longwood Hills Rd	Rangeline Rd	Lake Emma Rd	Major Collector	County	C3R	2	35	0.25	0.50	E	16,959	2022	County	21,168	0.37%	17,000	4,216	5,250	18500	4588	5,250
Longwood Hills Rd	Lake Emma Rd	CR 427 / Ronald Reagan Rd	Major Collector	County	C3R	2	30	1.08	2.16	E	12,839	2022	County	21,168	0.37%	12,900	13,906	22,819	14000	15092	22,819
Longwood Lake Mary Blvd	Green Way Blvd	CR 427 / Ronald Reagan Rd	Major Collector	County	C3R	2	40	0.96	1.92	E	16,666	2023	County	21,168	0.37%	16,700	16,032	20,321	18100	17376	20,321
Lyman Rd	CR 427 / Ronald Reagan Blvd	Plumosa Ave	Minor Collector	City of Castleberry	C3C	2	30	0.19	0.38	C	6,792	2023	County	11,016	0.37%	6,800	1,292	2,093	7400	1406	2,093
Milwee St	E Church Ave	SR 434	Minor Collector	City	C4	2	30	0.21	0.42	E	2,600	2022	FDOT	17,280	0.37%	2,600	549	3,646	2800	590.8	3,646
North St	Howard Ave	Palm Springs Dr	Minor Collector	County	C3R	2	30	0.88	1.76	E	5,368	2023	County	16,128	0.37%	5,400	4,752	14,193	5800	5104	14,193
North St	Palm Springs Dr	Seminole Blvd	Minor Collector	County	C3R	2	35	0.73	1.46	E	9,911	2023	County	16,128	0.37%	9,900	7,227	11,773	10700	7811	11,773
North St	Seminole Blvd	CR 427 / Ronald Reagan Rd	Minor Collector	County	C3C	2	35	0.99	1.98	E	10,392	2023	County	20,506	0.37%	10,400	10,296	20,301	11300	11187	20,301
Palm Springs Dr	SR 434	North St	Major Collector	County	C3R	2	30	1.03	2.06	E	6,616	2023	County	16,128	0.37%	6,600	6,798	16,612	7200	7416	16,612
Palm Springs Dr	North St	Highland St	Major Collector	County	C3R	2	30	0.56	1.12	E	14,253	2023	County	16,128	0.37%	14,300	8,008	9,032	15500	8680	9,032
Palm Springs Dr	Highland St	E Central Pkwy	Major Collector	County	C3R	2	30	0.40	0.80	E	14,253	2023	County	16,128	0.37%	14,300	5,720	6,451	15500	6200	6,451
Palm Springs Dr	E Central Pkwy	SR 436	Major Collector	County	C3C	4	30	0.40	1.60	E	25,268	2023	County	34,587	0.37%	25,300	10,120	13,835	27400	10960	13,835
Plumosa Ave	Lynman Rd	Anchor Rd	Minor Collector	City of Castleberry	C3C	2	35	0.13	0.26	C	9,465	2023	County	15,624	0.37%	9,500	1,235	2,031	10300	1339	2,031
Rangeline Rd	EE Williamson Rd	W Church Ave	Major Collector	County	C3R	2	25	0.30	0.61	E	9,801	2023	County	17,992	0.37%	9,800	2,969	5,452	10600	3211.8	5,452
Rangeline Rd	W Church Ave	Devonshire Blvd	Major Collector	County	C3R	2	35	0.28	0.56	E	8,923	2023	County	21,168	0.37%	8,900	2,492	5,927	9700	2716	5,927
Rangeline Rd	Devonshire Blvd	SR 434	Major Collector	County	C3R	2	35	0.47	0.93	E	8,923	2023	County	21,168	0.37%	8,900	4,147	9,864	9700	4520.2	9,864
Raymond Ave	SR 434	North St	Minor Collector	County	C3R	2	30	0.58	1.16	E	5,461	2023	County	21,168	0.37%	5,500	3,190	12,277	5900	3422	12,277
Seminola Blvd	US Hwy 17	Button Rd	Minor Arterial	County	C3R	4	40	0.26	1.04	E	18,656	2023	County	37,010	0.37%	18,700	4,862	9,623	20200	5252	9,623
Seminola Blvd	Button Rd	Winter Park Dr	Minor Arterial	County	C3R	4	40	1.05	4.20	E	26,716	2023	County	35,249	0.37%	26,700	28,035	37,011	29000	30450	37,011
SR 419	US Hwy 17	Golden Birch Ln	Minor Arterial	State	C3C	4	45	0.22	0.88	E	15,854	2023	County	34,587	0.37%	15,900	3,498	7,609	17200	3784	7,609
SR 419	Golden Birch Ln	Soldier Creek	Minor Arterial	State	C3C	2	45	0.58	1.16	E	15,854	2023	County	20,506	0.37%	15,900	9,222	11,893	17200	9976	11,893
SR 419	Soldier Creek	Edgemon Ave	Minor Arterial	State	C1	2	55	0.88	1.76	E	15,854	2023	County	26,932	0.37%	15,900	13,992	23,700	17200	15136	23,700
SR 419	Edgemon Ave	SR 434	Minor Arterial	State	C3R	2	55	0.88	1.76	E	15,121	2023	County	21,168	0.37%	15,100	13,288	18,628	16400	14432	18,628
SR 434	Markham Woods Rd	I-4	Principal Arterial	State	C3C	6	35	0.23	1.38	E	47,595	2023	Coun ty	57,373	0.37%	47,600	10,948	13,196	51600	11868	13,196
SR 434	I-4	Raymond Ave	Principal Arterial	State	C3R	6	35	0.16	0.96	E	52,583	2023	Coun ty	60,747	0.37%	52,600	8,416	9,720	57000	9120	9,720
SR 434	Raymond Ave	Palm Springs Dr	Principal Arterial	State	C3R	6	45	1.00	6.00	E	47,982	2023	Coun ty	57,855	0.37%	48,000	48,000	57,855	52000	52000	57,855
SR 434	Palm Springs Dr	Harbors Way	Principal Arterial	State	C3R	6	45	0.34	2.04	E	46,962	2023	Coun ty	57,855	0.37%	47,000	15,980	19,671	50900	17306	19,671
SR 434	Harbors Way	Rangline Rd	Principal Arterial	State	C3C	5	45	0.24	1.20	E	46,962	2023	Coun ty	50,439	0.37%	47,000	11,280	12,105	50900	12216	12,105
SR 434	Rangline Rd	Warren St	Principal Arterial	State	C3C	5	45	0.13	0.66	E	49,192	2023	Coun ty	50,439	0.37%	49,200	6,494	6,658	53400	7048.8	6,658
SR 434	Warren Ave	Milwee St	Principal Arterial	State	C4	4	45	0.58	2.33	E	49,192	2023	Coun ty	42,840	0.37%	49,200	28,634	24,933	53400	31078.8	24,933
SR 434	Milwee St	Wilma St	Principal Arterial	State	C4	4	45	0.12	0.50	E	49,192	2023	Coun ty	42,840	0.37%	49,200	6,101	5,312	53400	6621.6	5,312
SR 434	Wilma St	CR 427 / Ronald Reagan Blvd	Principal Arterial	State	C4	4	35	0.13	0.52	E	49,192	2023	Coun ty	42,840	0.37%	49,200	6,445	5,612	53400	6995.4	5,612
SR 434	CR 427 / Ronald Reagan Blvd	US Hwy 17	Principal Arterial	State	C4	4	45	1.17	4.69	E	27,039	2023	Coun ty	42,840	0.37%	27,000	31,644	50,208	29300	34339.6	50,208
SR 434	US Hwy 17	Belle Ave	Principal Arterial	State	C3R	4	45	0.70	2.80	E	35,114	2023	Coun ty	41,123	0.37%	35,100	24,570	28,786	38100	26670	28,786
SR 434	Belle Ave	SR 419	Principal Arterial	State	C3R	4	45	1.54	6.16	E	25,550	2023	Coun ty	39,165	0.37%	25,600	39,424	60,314	27700	42658	60,314
US Hwy 17	SR 419	Shepard Rd	Principal Arterial	State	C3C	6	50	1.38	8.28	E	36,511	2023	Coun ty	56,805	0.37%	36,500	50,370	78,391	39600	54648	78,391
US Hwy 17	Shepard Rd	E Church Ave	Principal Arterial	State	C3C	6	50	0.99	5.94	E	40,083	2023	Coun ty	56,805	0.37%	40,100	39,699	56,237	43500	43065	56,237
US Hwy 17	E Church Ave	SR 434	Principal Arterial	State	C3C	6	45	0.21	1.24	E	40,083	2023	Coun ty	56,805	0.37%	40,100	8,261	11,702	43500	8961	11,702
US Hwy 17	SR 434	Dog Track Rd	Principal Arterial	State	C3C	6	45	1.13	6.75	E	50,834	2023	Coun ty	56,805	0.37%	50,800	57,150	63,906	55100	61987.5	63,906
US Hwy 17	Dog Track Rd	Triple Lake Dr	Principal Arterial	State	C3C	6	45	0.86	5.16	E	55,777	2023	Coun ty	56,805	0.37%	55,800	47,988	48,852	60500	52030	48,852
US Hwy 17	Triple Lake Dr	SR 436	Principal Arterial	State	C3C	6	45	0.78	4.68	E	58,412	2023	Coun ty	56,805	0.37%	58,400	45,552	44,308	63400	49452	44,308
Warren Ave	SR 434	W Church Ave	Minor Collector	City	C4	2	25	0.65	1.29	E	3,400	2022	FDOT	14,688	0.37%	3,400	2,196	9,488	3700	2390.2	9,488
W Church Ave	Rangeline Rd	E Church Ave	Minor Collector	City	C3R	2	30	1.11	2.22	E	2,600	2022	FDOT	16,128	0.37%	2,600	2,883	17,886	2800	3105.2	17,886
W Church Ave	E Church Ave	CR 427 / Ronald Reagan Blvd	Minor Collector	City	C3R	2	25	0.25	0.50	E	2,700	2022	FDOT	13,708	0.37%	2,700	675	3,427	2900	725	3,427
Winter Park Dr	SR 434	Seminole Blvd	Major Collector	City of Castleberry	C3R	2	25	1.69	3.38	D	8,800	2022	FDOT	13,708	0.37%	8,800	14,872	23,167	9600	16224	23,167

Source: Traffic data provided by Florida Department of Transportation & Seminole County. LOS Standards based on City of Longwood, City of Castleberry, City of Altamonte Springs, and Seminole County adopted Comprehensive Plans. Daily Capacity based on FDOT Generalized Service Tables . Growth factors based on FDOT District 5 Central Florida Regional Planning Model v.7.0 . 2023 AADT projected from base year of traffic count multiplied by the annual application of the model growth factor. VMT is length x AADT. VMC is length x Daily Capacity. 2045 AADT and VMT derived by applying growth rates.

APPENDIX I

FDOT Generalized Service Tables

Limited Access

Freeway Generalized Service Volume Tables

Peak Hour Directional

	B	C	D	E
(Core Urbanized)				
2 Lane	2,400	3,170	3,970	4,150
3 Lane	3,390	4,600	5,810	6,130
4 Lane	4,340	6,060	7,700	8,170
5 Lane	5,480	7,450	9,680	10,390
6 Lane	6,630	9,220	11,520	12,760
(Urbanized)				
2 Lane	2,500	3,300	4,070	4,240
3 Lane	3,570	4,900	6,080	6,360
4 Lane	4,720	6,500	8,090	8,490
5 Lane	5,790	8,020	10,020	10,610
(Transitioning)				
2 Lane	2,430	3,180	3,790	3,910
3 Lane	3,520	4,670	5,610	5,870
4 Lane	4,630	6,170	7,440	7,830
5 Lane	5,690	7,640	9,220	9,800
(Rural)				
2 Lane	2,010	2,770	3,270	3,650
3 Lane	2,820	3,990	4,770	5,470
4 Lane	3,630	5,220	6,260	7,300

Peak Hour Two-Way

	B	C	D	E
(Core Urbanized)				
4 Lane	4,360	5,760	7,220	7,550
6 Lane	6,160	8,360	10,560	11,150
8 Lane	7,890	11,020	14,000	14,850
10 Lane	9,960	13,550	17,600	18,890
12 Lane	12,050	16,760	20,950	23,200
(Urbanized)				
4 Lane	4,550	6,000	7,400	7,710
6 Lane	6,490	8,910	11,050	11,560
8 Lane	8,580	11,820	14,710	15,440
10 Lane	10,530	14,580	18,220	19,290
(Transitioning)				
4 Lane	4,420	5,780	6,890	7,110
6 Lane	6,400	8,490	10,200	10,670
8 Lane	8,420	11,220	13,530	14,240
10 Lane	10,350	13,890	16,760	17,820
(Rural)				
4 Lane	3,650	5,040	5,950	6,640
6 Lane	5,130	7,250	8,670	9,950
8 Lane	6,600	9,490	11,380	13,270

AADT

	B	C	D	E
(Core Urbanized)				
4 Lane	51,300	67,800	84,900	88,800
6 Lane	72,500	98,400	124,200	131,200
8 Lane	92,800	129,600	164,700	174,700
10 Lane	117,200	159,400	207,100	222,200
12 Lane	141,800	197,200	246,500	272,900
(Urbanized)				
4 Lane	50,600	66,700	82,200	85,700
6 Lane	72,100	99,000	122,800	128,400
8 Lane	95,300	131,300	163,400	171,600
10 Lane	117,000	162,000	202,400	214,300
(Transitioning)				
4 Lane	45,100	59,000	70,300	72,600
6 Lane	65,300	86,600	104,100	108,900
8 Lane	85,900	114,500	138,100	145,300
10 Lane	105,600	141,700	171,000	181,800
(Rural)				
4 Lane	34,800	48,000	56,700	63,200
6 Lane	48,900	69,000	82,600	94,800
8 Lane	62,900	90,400	108,400	126,400

Adjustment Factors

Auxiliary Lanes Present in Analysis Direction Adjustment: +1,000
Ramp Metering Present Adjustment: Multiply by 1.05

Auxiliary Lanes Present in Analysis Direction Adjustment: +1,800
Ramp Metering Present Adjustment: Multiply by 1.05

Auxiliary Lanes Present in Analysis Direction Adjustment: +20,000
Ramp Metering Present Adjustment: Multiply by 1.05

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

Limited Access

Freeway Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

	Core Urbanized	Urbanized	Transitioning	Rural
Number of Lanes (one direction)	2-6	2.5	2-5	2-4
Posted Speed (mph)	65	70	70	70
Auxiliary Lanes	No	No	No	No
Lane Width (feet)	12	12	12	12
Total Ramp Density (ramps/mile)	1.33	2.67	0.50	0.17
Facility Length (miles)	3	3	6	18
Terrain	Level	Level	Level	Level

Traffic Characteristics

	Core Urbanized	Urbanized	Transitioning	Rural
Planning Analysis Hour Factor (K)	0.085	0.090	0.098	0.105
Directional Distribution Factor (D)	0.55	0.55	0.55	0.55
Peak Hour Factor (PHF)	0.95	0.95	0.92	0.88
Base Free Flow Speed (mph)	70	75	75	75
Heavy Vehicle Percent (%)	4%	4%	9%	12%
Speed Adjustment Factor (SAF)	0.975	0.975	0.975	0.975
Capacity Adjustment Factor (CAF)	0.968	0.968	0.968	0.968

C1 & C2

Motor Vehicle Highway Generalized Service Volume Tables



(C1-Natural & C2-Rural)

Peak Hour Directional

	B	C	D	E
1 Lane	240	430	730	1,490
2 Lane	1,670	2,390	2,910	3,340
3 Lane	2,510	3,570	4,370	5,010

Peak Hour Two-Way

	B	C	D	E
2 Lane	440	780	1,330	2,710
4 Lane	3,040	4,350	5,290	6,070
6 Lane	4,560	6,490	7,950	9,110

AADT

	B	C	D	E
2 Lane	4,600	8,200	14,000	28,500
4 Lane	32,000	45,800	55,700	63,900
6 Lane	48,000	68,300	83,700	95,900

Adjustment Factors

2 Lane Divided Roadway with Exclusive Left Turn Adjustment: Multiply by 1.05
Multilane Undivided Highway with Exclusive Left Turn Adjustment: Multiply by 0.95
Multilane Undivided Highway without Exclusive Left Turn Adjustment:: Multiply by 0.75

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

C1 & C2

Motor Vehicle Highway Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

	C1	C2
Number of Lanes (one direction)	1	2-3
Posted Speed (mph)	55	55
Base Free Flow Speed (mph)	60	60
Median Type	Undivided	Divided
Shoulder Width (feet)	3	6
Lane Width (feet)	12	12
% No Passing Zone	20%	
Access-Point Density (access/mile)	2	2
Terrain	Level	Level

Traffic Characteristics

	C1	C2
Planning Analysis Hour Factor (K)	0.095	0.095
Directional Distribution Factor (D)	0.55	0.55
Peak Hour Factor (PHF)	0.88	0.88
Heavy Vehicle Percent (%)	5%	10%
Speed Adjustment Factor (SAF)	0.975	0.975
Capacity Adjustment Factor (CAF)	0.968	0.968

C3C & C3R

Motor Vehicle Arterial Generalized Service Volume Tables



(C3C-Suburban Commercial)

Peak Hour Directional

	B	C	D	E
1 Lane	*	760	1,070	**
2 Lane	*	1,520	1,810	**
3 Lane	*	2,360	2,680	**
4 Lane	*	3,170	3,180	**

Peak Hour Two-Way

	B	C	D	E
2 Lane	*	1,380	1,950	**
4 Lane	*	2,760	3,290	**
6 Lane	*	4,290	4,870	**
8 Lane	*	5,760	5,780	**

AADT

	B	C	D	E
2 Lane	*	15,300	21,700	**
4 Lane	*	30,700	36,600	**
6 Lane	*	47,700	54,100	**
8 Lane	*	64,000	64,200	**



(C3R-Suburban Residential)

	B	C	D	E
1 Lane	*	970	1,110	**
2 Lane	*	1,700	1,850	**
3 Lane	*	2,620	2,730	**

	B	C	D	E
2 Lane	*	1,760	2,020	**
4 Lane	*	3,090	3,360	**
6 Lane	*	4,760	4,960	**

	B	C	D	E
2 Lane	*	19,600	22,400	**
4 Lane	*	34,300	37,300	**
6 Lane	*	52,900	55,100	**

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

C3C & C3R

Motor Vehicle Arterial Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

	C3C	C3R
Number of Lanes (one direction)	1-4	1-3
Posted Speed (mph)	45	45
Facility Length (miles)	3.98	2.57

Traffic Characteristics

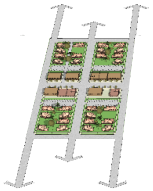
	C3C		C3R	
Planning Analysis Hour Factor (K)	0.09		0.09	
Directional Distribution Factor (D)	0.55		0.55	
Peak Hour Factor (PHF)	0.95		0.92	
Base Saturation Flow Rate	1,950		1,950	
Heavy Vehicle Percent (%)	4		4	
Lane Width	12		12	
Median Type	Non Restrictive (1 lane)	Restrictive (2,3,4 lanes)	Non Restrictive (1 lane)	Restrictive (2,3 lanes)
Roadway Edge Type	Curbed		Flush	
On-Street Parking	None		None	

Control Characteristics

	C3C		C3R
Cycle Length	160		190
Major Street Through g/c	0.5 (1,2,3 lanes)	0.45 (4 lanes)	0.5
Yellow Change Interval	5.1		5.1
Red Change Interval	2		2
Number of Signals	10		5

C2T, C4, C5, & C6

Motor Vehicle Arterial Generalized Service Volume Tables



(C2T-Rural Town)

Peak Hour Directional

	B	C	D	E
1 Lane	*	720	940	**
2 Lane	*	1,140	1,640	**
3 Lane	*	2,120	2,510	**

Peak Hour Two-Way

	B	C	D	E
2 Lane	*	1,310	1,710	**
4 Lane	*	2,070	2,980	**
6 Lane	*	3,850	4,560	**

AADT

	B	C	D	E
2 Lane	*	13,800	18,000	**
4 Lane	*	21,800	31,400	**
6 Lane	*	40,500	48,000	**



(C4-Urban General)

	B	C	D	E
1 Lane	*	*	870	1,190
2 Lane	*	1,210	1,790	2,020
3 Lane	*	2,210	2,810	2,990
4 Lane	*	2,590	3,310	3,510

	B	C	D	E
2 Lane	*	*	1,580	2,160
4 Lane	*	2,200	3,250	3,670
6 Lane	*	4,020	5,110	5,440
8 Lane	*	4,710	6,020	6,380

	B	C	D	E
2 Lane	*	*	17,600	24,000
4 Lane	*	24,400	36,100	40,800
6 Lane	*	44,700	56,800	60,400
8 Lane	*	52,300	66,900	70,900

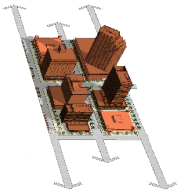


(C5-Urban Center)

	B	C	D	E
1 Lane	*	*	690	1,080
2 Lane	*	1,290	1,900	2,130
3 Lane	*	1,410	2,670	3,110
4 Lane	*	2,910	3,560	3,640

	B	C	D	E
2 Lane	*	*	1,250	1,960
4 Lane	*	2,350	3,450	3,870
6 Lane	*	2,560	4,850	5,650
8 Lane	*	5,290	6,470	6,620

	B	C	D	E
2 Lane	*	*	13,900	21,800
4 Lane	*	26,100	38,300	43,000
6 Lane	*	28,400	53,900	62,800
8 Lane	*	58,800	71,900	73,600



(C6-Urban Core)

	B	C	D	E
1 Lane	*	***	790	1,030
2 Lane	*	***	1,490	1,920
3 Lane	*	***	2,730	2,940
4 Lane	*	***	3,250	3,490

	B	C	D	E
2 Lane	*	***	1,440	1,870
4 Lane	*	***	2,710	3,490
6 Lane	*	***	4,960	5,350
8 Lane	*	***	5,910	6,350

	B	C	D	E
2 Lane	*	***	16,000	20,800
4 Lane	*	***	30,100	38,800
6 Lane	*	***	55,100	59,400
8 Lane	*	***	65,700	70,600

Adjustment Factors

The peak hour directional service volumes should be adjust by multiplying by 1.2 for one-way facilities
The AADT service volumes should be adjusted by multiplying 0.6 for one way facilities 2 Lane Divided Roadway with an Exclusive Left Turn Lane(s): Multiply by 1.05
2 lane Undivided Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.80
Exclusive right turn lane(s): Multiply by 1.05
Multilane Undivided Roadway with an Exclusive Left Turn Lane(s): Multiply by 0.95
Multilane Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.75
Non-State Signalized Roadway: Multiply by 0.90

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.
* Cannot be achieved using table input value defaults.
** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached.

C2T, C4, C5, & C6

Motor Vehicle Arterial Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

	C2T	C4	C5	C6
Number of Lanes (one direction)	1-3	1-4	1-4	1-4
Posted Speed (mph)	40	45	35	30
Facility Length (miles)	0.78	1.83	1.18	0.74
Number of Signals	4	9	9	7

Traffic Characteristics

	C2T	C4	C5	C6
Planning Analysis Hour Factor (K)	0.095	0.09	0.09	0.09
Directional Distribution Factor (D)	0.55	0.55	0.55	0.55
Peak Hour Factor (PHF)	0.92	0.95	0.95	0.95
Base Saturation Flow Rate	1,700	1,950	1,950	1,950
Heavy Vehicle Percent (%)	5	3	2	2
Lane Width	11	11	10	10
Median Type	Non Restrictive	Non Restrictive	Non Restrictive	Non Restrictive
Roadway Edge Type	Curb	Curb	Curb	Curb
On-Street Parking	50%	100%	100%	100%

Signal Characteristics

	C2T	C4		C5		C6	
Cycle Length	90	170		150		120	
Major Street Through g/c	0.47	0.52 (1,2,3 lanes)	0.47 (4 lanes)	0.55 (1,2,3 lanes)	0.48 (4 lanes)	0.52 (1,2,3 lanes)	0.46 (4 lanes)
Yellow Change Interval	4.4	4.8		4		3.7	
Red Change Interval	2	2		2		2	

APPENDIX J

Trip Generation

APPENDIX J: TRIP GENERATION				
Use Categories, Use Classifications, and Representative Uses	Unit of Measure	Trip Generation [1]	% New Trips	ITE Land Use Codes
Residential / Lodging Uses				
Affordable & Workforce Residential	per dwelling	2.10	1.00	50% or Residential
Residential	per 1,000 sq. ft.	4.20	1.00	See Residential
Overnight Lodging (Hotel, Inn, Motel, Resort)	per room	6.67	0.70	See Overnight Lodging
Mobile Residence (Mobile Home, Recreational Vehicle, Travel Trailer)	per space or lot	4.47	0.70	See Mobile Residence
Institutional Uses				
Community Serving (Civic, Museum, Performing Arts, Place of Assembly or Worship)	per 1,000 sq. ft.	5.52	0.85	560, 580 [2]
Long Term Care (Assisted Living, Congregate Care Facility, Nursing Facility)	per 1,000 sq. ft.	6.68	1.00	See Long Term Care
Private Education (Day Care, Private Primary School, Pre-K)	per 1,000 sq. ft.	9.82	0.85	See Private Education
Industrial Uses				
Industrial (Assembly, Manufacturing, Nursery, Outdoor Storage, Warehouse, Utilities)	per 1,000 sq. ft.	3.69	1.00	See Industrial
Recreational Uses				
Outdoor Commercial Recreation (Amusement, Golf, Multi-Purpose, Parks, Sports, Tennis)	per acre	12.19	1.00	411, 430, 432, 480, 488, 490, 491 [3]
Indoor Commercial Recreation (Dance, Gym, Fitness, Indoor Sports, Kids Activities, Yoga)	per 1,000 sq. ft.	24.86	1.00	See Indoor Recreation
Office Uses				
Office (General, Higher Education, Hospital, Professional)	per 1,000 sq. ft.	11.58	1.00	See Office
Medical Office (Clinic, Dental, Emergency Care, Medical, Veterinary)	per 1,000 sq. ft.	32.84	1.00	See Medical Office
Commercial & Retail Uses				
Small Retail Business (Entertainment, Restaurant, Retail, Services)	per 1,000 sq. ft.	21.00	0.40	50% of Retail
Retail (Discount, Entertainment, Financial, Retail, Services, Superstore)	per 1,000 sq. ft.	42.00	0.35	See Retail
High Impact Retail (Bank, Pharmacy, Sit-Down Restaurant, Supermarket, Wine & Spirits)	per 1,000 sq. ft.	106.33	0.25	See High Impact Retail
Convenience Retail (Convenience, Motor Vehicle Charging & Fueling, Quick Service Restaurant)	per 1,000 sq. ft.	323.32	0.15	See Convenience Retail
Additive Fees for Commercial Services & Retail Uses				
Bank Drive-Thru Lane or Free-Standing ATM	per lane or ATM	137.06	0.20	912 [4]
Motor Vehicle Cleaning (Detailing, Wash, Wax)	per lane or stall	145.84	0.20	947, 948, 949 [5]
Motor Vehicle Charging or Fueling	per charging or fueling position	161.50	0.20	See Motor Vehicle Fueling
Motor Vehicle Service (Accessories, Brakes, Maintenance, Quick Lube, Repair, Tires)	per bay or stall	34.15	0.30	See Motor Vehicle Service
Quick Service Restaurant Drive-Thru	per lane	187.85	0.20	See Quick Service Restaurant

APPENDIX J: TRIP GENERATION

1 Institute of Transportation Engineers (ITE) 11th Edition Trip Generation Manual. The trip generation rates are based on the weekday trip generation rate per the indicated land use code. For uses where daily trips are not provided, the AM and PM Peak hours of adjacent street traffic where averaged and divided by a peak-to-daily ratio of 0.1 (on average 10% of daily traffic occurs during peak periods). For land uses with more than one ITE code, the trip generation was calculated by weighting trips based on the number of studies completed as indicated in the ITE Trip Generation Manual to ensure that a trip generation rate based on one (1) study does not have the same weight as a trip generation rate based on thirty (30) studies. Weighting is based on the total number of studies for each ITE Code listed under a use classification. The total studies per use were divided by the sum of studies completed for all ITE codes listed under a use classification. The final trip generation is equal to the sum of the weight per ITE code times the trip generation rate per ITE Code. See footnotes Residential and Private Education Trip Generation for examples. Internal Capture rate is 25%. The Internal Capture Factor is (1- 0.25 = 0.75). Adjusted Trip Generation obtained by multiplying Trip Generation be 0.75.

[2] The rate for Church (ITE Code 560) and Museum (ITE Code 580) is based on conversion of AM and PM Peak Hour of Adjacent Street Traffic to Daily trips based on a peak-to-daily ratio of 0.07 (7% of daily traffic occurs during peak hours). Daily trip generation: (ITE 560) (((0.32+.049)/2)/0.07) = 5.786; (ITE 580) (((0.28+ 0.18)/2)/0.07) = 3.29 The following are the number of AM and PM studies per ITE Code: (560) = 17; (580) = 2. Community Serving Study Weight: 17 + 2 = 19; (ITE 560) 17/19 = .895, (ITE 580) 2/19 = .105. Community Serving Weighted Trips: (ITE 560) 5.786 x .895 = 5.18; (ITE 580) 3.29 x .105 = 0.35. Community Serving Weighted Trip Generation: 5.18 + 0.35 = 5.52 (numbers rounded to nearest 100th place).

[3] Golf driving range converted to acreage at two (2) tee positions per one (1) acre, Soccer Complex fields converted to acres at ratio of 2 acres per 1 field, Racquet / Tennis Club assume 2 courts plus accessory buildings per acre. Utilized vehicle occupancy of two (2) persons per vehicle for all uses.

[4] The rate for Bank Drive-Thru or Free Standing ATM is based on the AM and PM trip generation per drive-thru lane per ITE Code 912. The following is the Trip Generation per drive-thru lane: AM = 8.54; PM = 27.07. The following are the peak hour factors per drive-thru lane based on ITE Time of Day Travel for the 11th Edition of the ITE manual: AM = 0.063; PM = 0.102. The following are the number of Studies per Peak Hour: AM = 36; PM = 109. Total Studies = 145. Weighted Trip Study (TSw): AM 36/145 = 0.248; PM 109/145 = 0.752. Weighted Trip Generation (TGw): AM 8.54 x 0.248 = 2.12; PM 27.07 x .0.752 = 20.35. Net TGw: 2.12 + 20.35 = 22.47. Weighted Peak Hour Factor (PHw): AM 0.063 x 0.248 = 0.016; PM 0.102 x .0.752 = 0.077. Net PHw: 0.016 + 0.077 = 0.092. Net Trip Generation = (TGw / PHw) or 22.47 / 0.092 = 243.40 (numbers rounded to nearest 100th place). Net Trip Generation per drive-thru lane: 243.39 - 106.33 = 137.06. The number of trips assigned per 1,000 sq. ft. for banks = 106.33 per ITE Code 912. There is an additive Mobility Fee per drive-thru lane or free standing ATM.

[5] The rate for Motor Vehicle or Boat Cleaning is based on the trip generation for the following: Self Serve Car Wash (ITE Code 947), Automated Car Wash (ITE Code 948), Car Wash & Detail (ITE Code 949). The following is the Trip Generation per ITE Code: (947) = 108; (948) = 77.5; and (949) = 156.2. The daily trip generation for ITE Codes 947 and 949 are provided per stall with an average of five (5) stalls. The trip generation for ITE Code 948 is for the Peak Hour only and for one (1) tunnel. To provide for an equal comparison, the trip generation for ITE Codes 947 and 949 was multiplied by five (5) to account for the five stall and maximum trip generation. For ITE Code 948, the Peak Hour trips were converted to Daily Trips using a peak to daily ratio of 0.10 (10% of daily traffic occurs during the Peak Hour. Calculated Daily Trip Generation by ITE Code: (947) = 108 x 5 = 540; (948) = 77.5 / .10 = 775; and (949) = 156.2 x 5 = 781. The following are the number of Studies per ITE Code: (947) = 1; (948) = 3; and (949) = 1.. Total Studies = 5. Weighted Trip Study (TSw): (ITE 947) 1/5 = 0.20; (ITE 948) 3/5 = 0.60; and (ITE 949) 1/5 = 0.20. Weighted Trip Generation: (ITE 947) 540 x .2 = 108; (ITE 948) 775 x .60 = 465; and (ITE 949) 781 x .2 = 156.2. Trip Generation: 108 + 465 + 156.2 = 729.20 (numbers rounded to nearest 100th place). Net Trip Generation: 729.20 / 5 = 145.84. The Net Trip Generation is adjusted to account for the number of bays, lanes, stalls or tunnels that may be present for Motor Vehicle Cleaning Facilities. Facilities with tunnels or a single service bay generally have multiple finishing stations for detailing and vacuuming. These finishing stations factor into the equation as they reduce the overall number of bays or stalls and still accommodate higher trip generation rates.

RESIDENTIAL TRIP GENERATION								
Residential Use	**ITE Land Use Code**	**Trip Generation**	**Total Number of Studies**	**Square Footage**	**Square Footage Adjusted**	**Trip Generation per 1,000 sq. ft.**	**Trip Study (Weighted)**	**Trip Generation (Weighted)**
Single Family Detached	**210**	**9.43**	**174**	**2,400**	**2.4**	**3.93**	**0.674**	**2.65**
Single Family Attached	**215**	**7.2**	**22**	**1,600**	**1.6**	**4.50**	**0.085**	**0.38**
Multi-Family (Low-Rise)	**220**	**6.74**	**22**	**1,200**	**1.2**	**5.62**	**0.085**	**0.48**
Multi-Family (Mid-Rise)	**221**	**4.54**	**11**	**1,100**	**1.1**	**4.13**	**0.043**	**0.18**
Multi-Family (High Rise)	**222**	**4.54**	**8**	**1,000**	**1**	**4.54**	**0.031**	**0.14**
Senior Adult Housing (Single-Family)	**251**	**4.31**	**15**	**900**	**0.9**	**4.79**	**0.058**	**0.28**
Senior Housing Attached (Multi-Family)	**252**	**3.24**	**6**	**800**	**0.8**	**4.05**	**0.023**	**0.09**
Total	**--**	**--**	**258**	**--**	**--**	**--**	**--**	**4.20**

Notes: Residential trip generation rates were converted into trip rates per 1,000 square feet. The first step in the conversion was assigning typical square footage for Lake Park by type of unit per the 11th Edition of the ITE Trip Generation Manual. The assigned square footage of each unit type is then divided by 1,000 (square footage adjusted). Trip Generation is then adjusted for localized occupancy where ITE provides occupancy characteristics. A Trip Study weighting is then calculated based on the number of studies per use. A Trip Generation weight is then calculated based on the weighted trip studies. Affordable, Attainable and Workforce Housing is 50% of the residential rate. Lake Park may elect to establish programs that establish criteria to qualify for affordable, attainable, and workforce residential designations.

OVERNIGHT LODGING TRIP GENERATION												
ITE LAND USE	ITE LAND USE CODE	VARIABLE	AM PEAK (7 to 9)	AM PEAK FACTOR	AM NUMBER OF STUDIES	PM PEAK (4 to 6)	PM PEAK FACTOR	PM NUMBER OF STUDIES	TOTAL NUMBER OF STUDIES	CALCULATED DAILY	TRIP STUDIED (WEIGHTED)	TRIP GENERATION (WEIGHTED)
HOTEL	310	ROOM	0.46	0.053	28	0.59	0.077	31	59	8.17	0.30	2.46
ALL SUITES HOTEL	311	ROOM	0.34	0.052	9	0.36	0.077	10	19	5.61	0.10	0.54
BUSINESS HOTEL	312	ROOM	0.36	0.071	17	0.31	0.069	24	41	4.78	0.21	1.00
MOTEL	320	ROOM	0.35	0.066	15	0.36	0.071	20	35	5.19	0.18	0.93
RESORT HOTEL	330	ROOM	0.32	0.050	6	0.41	0.050	9	15	7.30	0.08	0.56
TIMESHARE	265	ROOM	0.40	0.060	14	0.63	0.060	13	27	8.58	0.14	1.18
TOTAL	--	--	--	--	89	--	--	107	196	--	1.00	6.67

Notes: Overnight Lodging Trip Generation based on the AM and PM Peak of adjacent street traffic per room based on the 11th Edition of the ITE Trip Generation Manual due to the limited number of daily studies. The total number of studies (TS) conducted for the AM and PM Peaks are used to calculate a Trip Study Weight (TSW). The Daily Trips (DT) generation is based on the average of the AM Peak divided by the AM Peak factor and the PM Peak divided by the PM Peak factor. AM and PM Peak factors based on the 11th Edition ITE Trip Generation Manual Vehicle Time of Day Distribution for Vehicles. The Trip Generation Weight (TGW) is calculated based on daily trips multiplied by Trip Study Weighting. The total trips per room is the sum of the weighted Trip Generation (TGW). Hotel Example: DT = ((0.46 / .053) + (0.59 / 0.077)) = 8.17; TSW = (59 / 196) = 0.30; TGW = (8.17 x 0.30) = 2.46. Hotel Trip Generation: Sum (2.46 + 0.54 + 1.00 + 0.93 + 0.56 +1.18) = 6.67. ***Average values in the last row are shown in italics for informational purposes only.***

MOBILE RESIDENCE TRIP GENERATION												
ITE LAND USE	ITE LAND USE CODE	VARIABLE	AM PEAK (7 to 9)	AM PEAK FACTOR	AM NUMBER OF STUDIES	PM PEAK (4 to 6)	PM PEAK FACTOR	PM NUMBER OF STUDIES	TOTAL NUMBER OF STUDIES	CALCULATED DAILY	TRIP STUDIED (WEIGHTED)	TRIP GENERATION (WEIGHTED)
MOBILE HOME PARK	420	UNIT	0.39	0.079	9	0.58	0.094	9	18	5.55	0.45	2.50
RV PARK	416	LOT	0.21	0.066	4	0.27	0.071	6	10	3.49	0.25	0.87
RECREATIONAL HOME	260	ROOM	0.22	0.060	6	0.29	0.080	6	12	3.65	0.30	1.09
TOTAL	--	--	--	--	19	--	--	21	40	--	1.00	4.47

Notes: Mobile Residence Trip Generation based on the AM and PM Peak of adjacent street traffic per room based on the 11th Edition of the ITE Trip Generation Manual due to the limited number of daily studies. The total number of studies (TS) conducted for the AM and PM Peaks are used to calculate a Trip Study Weight (TSW). The Daily Trips (DT) generation is based on the average of the AM Peak divided by the AM Peak factor and the PM Peak divided by the PM Peak factor. AM and PM Peak factors based on the 11th Edition ITE Trip Generation Manual Vehicle Time of Day Distribution for Vehicles. The Trip Generation Weight (TGW) is calculated based on daily trips multiplied by Trip Study Weighting. The total trips per room is the sum of the weighted Trip Generation (TGW). RV Park Example: DT = ((0.21 / .066) + (0.27 / 0.071)) = 3.49; TSW = (10 / 40) = 0.25; TGW = (3.49 x 0.50) = 0.87. RV Park Trip Generation: Sum (2.50 + 0.87 + 1.09) = 4.47. ***Average values in the last row are shown in italics for informational purposes only.***

LONG TERM CARE TRIP GENERATION												
ITE LAND USE	ITE LAND USE CODE	VARIABLE	AM PEAK TRIPS (7 to 9)	AM PEAK FACTOR	AM NUMBER OF STUDIES	PM PEAK TRIPS (4 to 6)	PM PEAK FACTOR	PM NUMBER OF STUDIES	TOTAL NUMBER OF STUDIES	CALCULATED DAILY	TRIP STUDIED (WEIGHTED)	TRIP GENERATION (WEIGHTED)
CONGREGATE CARE FACILITY	253	DWELLING	0.08	0.047	8	0.18	0.081	9	17	1.96	0.23	0.46
CONTINUING CARE RETIREMENT COMMUNITY	255	UNITS	0.15	0.047	15	0.19	0.081	15	30	2.77	0.41	1.14
LONG TERM CARE TRIP GENERATION PER 1,000 SQ. FT.												
CONGREGATE CARE FACILITY	253	1000 SQ. FT.	0.26	0.047	8	0.59	0.081	9	17	6.48	0.23	1.51
ASSISTED LIVING	254	1000 SQ. FT.	0.38	0.093	5	0.48	0.088	5	10	4.77	0.14	0.65
CONTINUING CARE RETIREMENT COMMUNITY	255	1000 SQ. FT.	0.38	0.047	15	0.48	0.081	15	30	6.92	0.41	2.84
NURSING HOME	620	1000 SQ. FT.	0.55	0.075	8	0.59	0.074	8	16	7.65	0.22	1.68
TOTAL / *AVERAGE*			*0.39*	*0.066*	36	*0.53*	*0.081*	37	73	*6.46*	1.00	6.68

Notes: Long Term Care Trip Generation based on the AM and PM Peak of adjacent street traffic based on the 11th Edition of the ITE Trip Generation Manual due to the limited number of daily studies. Congregate Care Facilities and Continuing Care Retirement Community were converted from units to 1,000 sq. ft. based on unit sizes of 330 sq. ft. and 400 sq. ft. respectively. Congregate Care Facilities AM and PM Peak Trips were multiplied by 3.3 to convert 330 sq. ft. units to 1,000 sq. ft. Continuing Care Retirement Community AM and PM Peak Trips were multiplied by 2.5 to convert 400 sq. ft. units to 1,000 sq. ft. The total number of studies (TS) conducted for the AM and PM Peaks are used to calculate a Trip Study Weight (TSW). The Daily Trips (DT) generation is based on the average of the AM Peak divided by the AM Peak factor and the PM Peak divided by the PM Peak factor. AM and PM Peak factors based on the 11th Edition ITE Trip Generation Manual Vehicle Time of Day Distribution for Vehicles. The Trip Generation Weight (TGW) is calculated based on daily trips multiplied by Trip Study Weighting. The total trips per 1,000 sq. ft. is the sum of the weighted Trip Generation (TGW). Nursing Home Example: DT = ((0.55 / .075) + (0.59 / 0.074)) = 7.65; TSW = (16 / 73) = 0.22; TGW = (7.65 x 0.22) = 1.68. Long Term Care TG: Sum(1.51 + 0.65 + 2.84 + 1.68) = 6.68. ***Average values in the last row are shown in italics for informational purposes only.***

PRIVATE EDUCATION TRIP GENERATION										
ITE LAND USE	ITE LAND USE CODE	VARIABLE	AM PEAK OF GENERATOR	NUMBER OF STUDIES	PM PEAK OF GENERATOR	TOTAL NUMBER OF STUDIES	CALCULATED DAILY	TOTAL NUMBER OF STUDIES	TRIP STUDIED (WEIGHTED)	TRIP GENERATION (WEIGHTED)
ELEMENTARY SCHOOL	520	STUDENTS	0.75	46	0.45	54	1.80	100	0.19	0.34
MIDDLE SCHOOL / JR HIGH SCHOOL	522	STUDENTS	0.74	25	0.36	29	1.65	54	0.10	0.17
HIGH SCHOOL	525	STUDENTS	0.51	51	0.32	65	1.25	116	0.22	0.28
PRIVATE K-8	530	STUDENTS	1.01	14	0.6	12	2.42	26	0.05	0.12
PRIVATE K-12	532	STUDENTS	0.8	5	0.53	3	2.00	8	0.02	0.03
PRIVATE HIGH SCHOOL	534	STUDENTS	0.66	4	0.40	4	1.59	8	0.02	0.02
CHARTER ELEMENTARY SCHOOL	536	STUDENTS	1.07	26	0.72	27	2.69	53	0.10	0.27
CHARTER HIGH SCHOOL	538	STUDENTS	0.94	4	0.73	4	2.51	8	0.02	0.04
DAY CARE	565	STUDENTS	0.79	75	0.81	75	2.40	150	0.29	0.69
TOTAL								523	1.00	1.96

CALCULATED DAILY TRIP GENERATION RATE PER 1,000 SQ. FT. IS 9.82 PER 1,000 SQ. FT.

DAILY TRIP GENERATION RATE OF 9.82 PER 1,000 SQ. FT. BASED ON 1,000 SQ. FT. DIVIDED BY THE AVERAGE SQUARE FEET PER STUDENT OF 200 SQ. FT. MULTIPLIED BY WEIGHTED TRIP GENERATION PER STUDENT: (1,000 / 200 = 5.00); (1.96 X 5.00 = 13.76). TRIP GENERATION ROUNDED TO NEAREST 100TH PLACE. DAILY TRIPS BASED ON THE SUM OF THE AM AND PM PEAK HOUR OF GENERATOR TIMES A PEAK-TO-DAILY FACTOR OF 1.5: (E.G., CHARTER HIGH SCHOOL 0.94 + 0.73 = 1.67; 1.67 X 1.5 = 2.51). PEAK HOUR DATA HAD SIGNIFICANTLY MORE STUDIES THAN DAILY DATA. TOTAL NUMBER OF STUDIES BASED ON THE SUM OF THE NUMBER OF STUDIES FOR THE AM AND PM PEAK HOUR OF GENERATOR PER SCHOOL TYPE. ALL TRIP GENERATION DATA BASED ON THE ITE TRIP GENERATION MANUAL, 11TH EDITION.

AVERAGE SQUARE FEET PER STUDENT = 142.5 SQ. FT. BASED ON A WEIGHTED AVERAGE OF STUDENTS PER SCHOOL TYPE BASED ON TABLE 10 FROM THE FLORIDA DEPARTMENT OF EDUCATION REVIEW & ADJUSTMENT FOR FLORIDA'S COST PER STUDENT STATION (JANUARY 2020).

INDUSTRIAL TRIP GENERATION						
ITE LAND USE	ITE LAND USE CODE	UNIT OF MEASURE	DAILY TRIP GENERATION	TOTAL NUMBER OF STUDIES	TRIP STUDIED (WEIGHTED)	TRIP GENERATION (WEIGHTED)
LIGHT INDUSTRIAL	110	1,000 SQ. FT.	4.87	37	0.117	0.572
INDUSTRIAL PARK	130	1,000 SQ. FT.	3.37	27	0.086	0.289
MANUFACTURING	140	1,000 SQ. FT.	4.75	53	0.168	0.799
WAREHOUSE	150	1,000 SQ. FT.	1.71	31	0.098	0.168
MINI-WAREHOUSE	151	1,000 SQ. FT.	1.45	16	0.051	0.074
HIGH CUBE TRANSLOAD	154	1,000 SQ. FT.	1.4	91	0.289	0.404
HIGH CUBE FULLFILLMENT	155	1,000 SQ. FT.	1.81	10	0.032	0.057
HIGH CUBE FULLFILLMENT - SORTING	155	1,000 SQ. FT.	6.44	2	0.006	0.041
HIGH CUBE PARCEL HUB	156	1,000 SQ. FT.	4.63	8	0.025	0.118
HIGH CUBE COLD STORAGE	157	1,000 SQ. FT.	2.12	5	0.016	0.034
DATA CENTER	160	1,000 SQ. FT.	0.99	2	0.006	0.006
UTILITY	170	1,000 SQ. FT.	12.29	13	0.041	0.507
SPECIALTY TRADE	180	1,000 SQ. FT.	9.82	20	0.063	0.623
AVERAGE (STUDIES = TOTAL)			4.28	315	1.00	3.69

Notes: Industrial Trip Generation based on the Daily Rate from the 11th Edition of the ITE Trip Generation Manual. The total number of studies (TS) conducted for Daily Trips are used to calculate a Trip Study Weight (TSW). The Trip Generation Weight (TGW) is calculated based on daily trips multiplied by Trip Study Weighting. The total trips per 1,000 sq. ft. is the sum of the weighted Trip Generation (TGW). Light Industrial Example: TSW = (37 / 315) = 0.117; TGW = (4.87 x 0.117) = 0.572. Industrial TG: Sum(0.572 + 0.289 + 0.799 + 0.168 + 0.074 + 0.404 + 0.057 + 0.041 + 0.118 + 0.034 + 0.0006 + 0.507 + 0.623) = 3.69. ***Average values in the last row are shown in italics for informational purposes only.***

INDOOR COMMERCIAL RECREATION TRIP GENERATION												
ITE LAND USE	ITE LAND USE CODE	VARIABLE	AM PEAK (7 to 9)	AM PEAK FACTOR	AM NUMBER OF STUDIES	PM PEAK (4 to 6)	PM PEAK FACTOR	PM NUMBER OF STUDIES	TOTAL NUMBER OF STUDIES	CALCULATED DAILY	TRIP STUDIED (WEIGHTED)	TRIP GENERATION (WEIGHTED)
ROCK CLIMBING GYM	434	1,000 SQ. FT.	1.40	0.068	1	1.64	0.123	1	2	16.96	0.04	0.65
MULTI-PURPOSE	435	1,000 SQ. FT.	0.00	0.068	0	3.58	0.123	3	3	14.55	0.06	0.84
TRAMPOLINE PARK	436	1,000 SQ. FT.	0.00	0.068	0	1.50	0.123	3	3	6.10	0.06	0.35
BOWLING ALLEY	437	1,000 SQ. FT.	0.81	0.068	1	1.16	0.123	5	6	10.67	0.12	1.23
HEALTH / FITNESS	492	1,000 SQ. FT.	1.31	0.068	6	3.45	0.123	8	14	23.66	0.27	6.37
ATHLETIC CLUB	493	1,000 SQ. FT.	3.16	0.068	2	6.29	0.123	3	5	48.80	0.10	4.69
COMMUNITY CENTER	495	1,000 SQ. FT.	1.91	0.068	12	2.50	0.123	15	27	24.21	0.52	12.57
TOTAL	--	--	--	0.068	21	--	0.123	31	52	--	1.00	24.86

Notes: Indoor Commercial Recreation Trip Generation based on the AM and PM Peak of adjacent street traffic per 1,000 squate feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual due to the limited number of daily studies. The total number of studies (TS) conducted for the AM and PM Peaks are used to calculate a Trip Study Weight (TSW). The Daily Trips (DT) generation is based on the average of the AM Peak divided by the AM Peak factor and the PM Peak divided by the PM Peak factor. AM and PM Peak factors based on the 11th Edition ITE Trip Generation Manual Vehicle Time of Day Distribution for Vehicles for ITE Land Use Code 495 (Recreational Community Center). This was the only indoor recreational use with a reported daily trip distribution. The Trip Generation Weight (TGW) is calculated based on daily trips multiplied by Trip Study Weighting. The total trips per 1,000 SQ. FT. is the sum of the weighted Trip Generation (TGW). Community Center Example: DT = ((1.91 / .068) + (2.50 / 0.123)) = 24.21; TSW = (27 / 52) = 0.52; TGW = (24.41 x 0.52) = 12.57. Indoor Commercial Recreation Trip Generation is the sum of (0.65 + 0.84 + 0.35 + 1.23 + 6.37 + 4.69 + 12.57) = 24.86. ***Average values in the last row are shown in italics for informational purposes only.***

OFFICE TRIP GENERATION						
USE	ITE	VARIABLE	DAILY TRIPS (DT)	NUMBER OF STUDIES (TS)	WEIGHTED TRIP STUDY (TSw)	WEIGHTED TRIP GENERATION (TGw)
OFFICE	710	1,000 SQ. FT.	10.84	59	0.38	4.15
SMALL OFFICE	712	1,000 SQ. FT.	14.39	21	0.14	1.96
CORPORATE HEADQUATERS	714	1,000 SQ. FT.	7.95	7	0.05	0.36
SINGLE TENANT	715	1,000 SQ. FT.	13.07	12	0.08	1.02
HOSPITAL	610	1,000 SQ. FT.	10.77	7	0.05	0.49
OFFICE PARK	750	1,000 SQ. FT.	11.07	10	0.06	0.72
RESEARCH & DEVELOPMENT	760	1,000 SQ. FT.	11.08	22	0.14	1.58
BUSINESS PARK	770	1,000 SQ. FT.	12.44	16	0.10	1.29
TOTAL			11.45	154	1.00	11.58

Notes: Office Trip Generation based on Daily Weekday Trip Generation per 1,000 squate feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual. The total number of studies (TS) conducted are used to calculate a Weighted Trip Study (TSw). The Daily Trips (DT) generation is based on ITE Trip Generation Manual 11th edition. The Weighted Trip Generation (TGw) is calculated based on Daily Trips (DT) multiplied by the Weighted Trip Study (TSw). The total trips per 1,000 SQ. FT. is the sum of the Weighted Trip Generation (TGw). Office Example: TSw = (59 / 154) = 0.38; TGw = (10.84 x 0.38) = 4.15. Office Trip Generation is the sum of (4.15 + 1.96 + 0.36 + 1.02 + 0.49 + 0.72 + 1.58 + 1.29) = 11.58. ***Average values in the last row are shown in italics for informational purposes only.***

MEDICAL OFFICE TRIP GENERATION						
USE	**ITE**	**VARIABLE**	**DAILY TRIPS (DT)**	**NUMBER OF STUDIES (TS)**	**WEIGHTED TRIP STUDY (TSw)**	**WEIGHTED TRIP GENERATION (TGw)**
HOSPITAL	**610**	**1,000 SQ. FT.**	**10.77**	**7**	**0.16**	**1.71**
MEDICAL OFFICE	**720**	**1,000 SQ. FT.**	**36.00**	**18**	**0.41**	**14.73**
CLINIC	**630**	**1,000 SQ. FT.**	**37.60**	**9**	**0.20**	**7.69**
VETERINARY	**640**	**1,000 SQ. FT.**	**21.50**	**6**	**0.14**	**2.93**
EMERGENCY CARE	**650**	**1,000 SQ. FT.**	**24.94**	**4**	**0.09**	**2.27**
TOTAL			**26.16**	**44**	**1.00**	**29.33**

Notes: Medical Office Trip Generation based on Daily Weekday Trip Generation per 1,000 square feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual. The total number of studies (TS) conducted are used to calculate a Weighted Trip Study (TSw). The Daily Trips (DT) generation is based on ITE Trip Generation Manual 11th edition. The Weighted Trip Generation (TGw) is calculated based on Daily Trips (DT) multiplied by the Weighted Trip Study (TSw). The total trips per 1,000 SQ. FT. is the sum of the Weighted Trip Generation (TGw). Medical Office Example: TSw = (18 / 44) = 0.41; TGw = (36.00 x 0.41) = 14.73. Medical Office Trip Generation is the sum of (1.71 + 14.73 + 7.69 + 2.93 + 2.27 + 29.33). ***Average values in the last row are shown in italics for informational purposes only.***

RETAIL TRIP GENERATION						
USE	ITE LAND USE CODE	UNIT OF MEASURE	DAILY TRIPS (DT)	NUMBER OF STUDIES (TS)	WEIGHTED TRIP STUDY (TSw)	WEIGHTED TRIP GENERATION (TGw)
BUILDING MATERIALS & LUMBER	812	1,000 SQ. FT.	17.05	13	0.03	0.57
FREE STANDING DISCOUNT SUPERSTORE	813	1,000 SQ. FT.	50.52	72	0.19	9.42
VARIETY STORE	814	1,000 SQ. FT.	63.66	29	0.08	4.78
FREE STANDING DISCOUNT STORE	815	1,000 SQ. FT.	53.87	21	0.05	2.93
NURSERY GARDEN CENTER	817	1,000 SQ. FT.	68.10	10	0.03	1.76
MULTI-TENANT GREATER THAN 150K	820	1,000 SQ. FT.	37.01	108	0.28	10.36
MULTI-TENANT 40K to 150K WITHOUT SUPERMARKET	821	1,000 SQ. FT.	67.52	7	0.02	1.22
MULTI-TENANT UNDER 40K	822	1,000 SQ. FT.	54.45	4	0.01	0.56
AUTO SALES NEW	840	1,000 SQ. FT.	27.84	18	0.05	1.30
AUTO SALES USED	841	1,000 SQ. FT.	27.06	14	0.04	0.98
AUTO PARTS SALES	843	1,000 SQ. FT.	55.34	12	0.03	1.72
TIRE STORE	848	1,000 SQ. FT.	27.69	13	0.03	0.93
DISCOUNT CLUB	857	1,000 SQ. FT.	42.46	20	0.05	2.20
SPORTING GOODS SUPERSTORE	861	1,000 SQ. FT.	23.78	8	0.02	0.49
HOME IMPROVEMENT	862	1,000 SQ. FT.	30.74	19	0.05	1.51
ELECTRONIC SUPERSTORE	863	1,000 SQ. FT.	41.05	5	0.01	0.53
DISCOUNT HOME FURNISHINGS	869	1,000 SQ. FT.	20.00	8	0.02	0.41
DEPARTMENT STORE	875	1,000 SQ. FT.	22.88	5	0.01	0.30
TOTAL		1,000 SQ. FT.	40.61	386	1.00	42.00

Notes: Retail Trip Generation based on Daily Weekday Trip (DT) Generation per 1,000 square feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual. The simple average for daily trips is for information purposes only to illustrate the difference compared to weighted trips. The total number of studies (TS) conducted are used to calculate a Weighted Trip Study (TSw). The Weighted Trip Generation (TGw) is calculated based on Daily Trips (DT) multiplied by the Weighted Trip Study (TSw). The total trips per 1,000 SQ. FT. is the sum of the Weighted Trip Generation (TGw). Variety Store Example: TSw = (29 / 386) = 0.08; TGw = (63.66 x 0.08) = 4.78. Retail Trip Generation is the sum of (0.57 + 9.42 + 4.78 + 2.93 + 1.76 + 10.36 + 1.22 + 0.56 + 1.30 + 0.98 + 1.72 + 0.93 + 2.20 + 0.49 + 1.51 + 0.53 + 0.41 + 0.30) = 42.00. ***Average values in the last row are shown in italics for informational purposes only.***

HIGH IMPACT RETAIL TRIP GENERATION						
USE	**ITE LAND USE CODE**	**UNIT OF MEASURE**	**DAILY TRIPS (DT)**	**NUMBER OF STUDIES (TS)**	**WEIGHTED TRIP STUDY (TSw)**	**WEIGHTED TRIP GENERATION (TGw)**
MULTI-TENANT 40K to 150K WITH SUPERMARKET	**821**	**1,000 SQ. FT.**	**94.49**	**17**	**0.12**	**11.00**
SUPERMARKET	**850**	**1,000 SQ. FT.**	**93.84**	**22**	**0.15**	**14.14**
PHARMACY WITH DRIVE-THRU	**881**	**1,000 SQ. FT.**	**108.4**	**16**	**0.11**	**11.88**
MARIJUANA DISPENSARY	**882**	**1,000 SQ. FT.**	**211.12**	**7**	**0.05**	**10.12**
LIQUOR STORE	**899**	**1,000 SQ. FT.**	**107.21**	**5**	**0.03**	**3.67**
DRIVE-IN BANK	**912**	**1,000 SQ. FT.**	**100.35**	**19**	**0.13**	**13.06**
FINE DINING RESTAURANT	**931**	**1,000 SQ. FT.**	**83.84**	**10**	**0.07**	**5.74**
HIGH TURN OVER RESTAURANT	**932**	**1,000 SQ. FT.**	**107.2**	**50**	**0.34**	**36.71**
TOTAL		**1,000 SQ. FT.**	**113.31**	**146**	**1.00**	**106.33**

Notes: High Impact Retail Trip Generation based on Daily Weekday Trip (DT) Generation per 1,000 square feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual. The simple average for daily trips is for information purposes only to illustrate the difference compared to weighted trips. The total number of studies (TS) conducted are used to calculate a Weighted Trip Study (TSw). The Weighted Trip Generation (TGw) is calculated based on Daily Trips (DT) multiplied by the Weighted Trip Study (TSw). The total trips per 1,000 SQ. FT. is the sum of the Weighted Trip Generation (TGw). Supermarket Example: TSw = (22 / 146) = 0.15; TGw = (93.84 x 0.15) = 14.14. High Impact Retail Trip Generation is the sum of (11.00 + 14.14 + 11.88 + 10.12 + 3.67 + 13.06 + 36.71) = 106.33. ***Average values in the last row are shown in italics for informational purposes only.***

CONVENIENCE RETAIL TRIP GENERATION						
USE	ITE LAND USE CODE	UNIT OF MEASURE	DAILY TRIPS (DT)	NUMBER OF STUDIES (TS)	WEIGHTED TRIP STUDY (TSw)	WEIGHTED TRIP GENERATION (TGw)
CONVENIENCE STORE	851	1,000 SQ. FT.	762.28	8	0.05	36.08
FAST FOOD WITHOUT DRIVE-THRU	933	1,000 SQ. FT.	450.49	6	0.04	15.99
FAST FOOD WITH DRIVE-THRU	934	1,000 SQ. FT.	467.5	71	0.42	196.40
COFFEE DONUT WITHOUT DRIVE-THRU	936	1,000 SQ. FT.	930.80	25	0.15	137.69
COFFEE DONUT WITH DRIVE-THRU	937	1,000 SQ. FT.	533.57	6	0.04	18.94
CONVENIENCE STORE WITH GAS (2 TO 8 POSITIONS)	945	1,000 SQ. FT.	624.2	34	0.20	125.58
CONVENIENCE STORE WITH GAS (9 TO 15 POSITIONS)	945	1,000 SQ. FT.	700.43	11	0.07	45.59
CONVENIENCE STORE WITH GAS (16 TO 24 POSITIONS)	945	1,000 SQ. FT.	1283.38	8	0.05	60.75
TOTAL		1,000 SQ. FT.	719.08	169	1.00	637.03
FAST FOOD WITH DRIVE-THRU NO INDOOR SEATING	935	PER DRIVE-THRU	888.06	6	0.06	54.37
COFFEE DONUT WITH DRIVE-THRU NO INDOOR SEATING	938	PER DRIVE-THRU	398.10	20	0.20	81.24
GASOLINE SERVICE STATION	944	PER FUEL POSITION	172.01	18	0.18	31.59
CONVENIENCE STORE WITH GAS (2-4K)	945	PER FUEL POSITION	265.12	48	0.49	129.85
CONVENIENCE STORE WITH GAS (4-5.5K)	945	PER FUEL POSITION	257.13	5	0.05	13.12
CONVENIENCE STORE WITH GAS (5.5-10K)	945	PER FUEL POSITION	345.75	1	0.01	3.53
TOTAL			387.69	98	1.00	313.71
NET TRIP GENERATION (BASED ON TGw PER 1,000 SQ. FT. MINUS TGw PER DRIVE-THRU & FUEL POSITION: 637.03 - 313.71 = 323.32)						323.32

Notes: The Coffee Donut without drive-thru (ITE Code 936) daily trips based on AM Peak trips of 93.08 divided by a peak hour factor of .10 (93.08 / 0.10 = 930.08) based on ITE Trip Generation time of day distribution for ITE Code 937. The Fast-Food with drive-thru and no indoor seating (ITE Code 935) daily trips based on PM Peak trips of 59.5. divided by a peak hour factor of .067 (59.50 / 0.067 = 888.06) based on ITE Trip Generation time of day distribution for ITE Code 937. The Coffee Donut with drive-thru and no indoor seating (ITE Code 938) daily trips based on AM Peak trips of 39.81 divided by a peak hour factor of .10 (39.81 / 0.10 = 398.10) based on ITE Trip Generation time of day distribution for ITE Code 937. Convenience Retail Trip Generation based on Daily Weekday Trip (DT) Generation per 1,000 square feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual. The simple average for daily trips is for information purposes only to illustrate the difference compared to weighted trips. The total number of studies (TS) conducted are used to calculate a Weighted Trip Study (TSw). The Weighted Trip Generation (TGw) is calculated based on Daily Trips (DT) multiplied by the Weighted Trip Study (TSw). The total trips per 1,000 SQ. FT. is the sum of the Weighted Trip Generation (TGw). Convenience Store Example: TSw = (8 / 169) = 0.05; TGw = (762.28 x 0.05) = 36.08. Convenience Retail Trip Generation is the sum of (36.08 + 15.99 + 196.40 + 137.69 + 18.94 + 125.58 + 45.59 + 60.75) = 637.03. The trip generation for convenience retail is reduced by the trip generation associated with drive-thru lanes and fuel positions: (637.03 - 313.71 = 323.32). ***Average values in the last row are shown in italics for informational purposes only.***

MOTOR VEHICLE CHARGING & FUELING TRIP GENERATION						
GASOLINE SERVICE STATION	944	PER FUEL POSITION	172.01	18	0.25	43.00
CONVENIENCE STORE WITH GAS (2-4K)	945	PER FUEL POSITION	265.12	48	0.67	176.75
CONVENIENCE STORE WITH GAS (4-5.5K)	945	PER FUEL POSITION	257.13	5	0.07	17.86
CONVENIENCE STORE WITH GAS (5.5-10K)	945	PER FUEL POSITION	345.75	1	0.01	4.80
TOTAL			260.00	72	1.00	242.41
NET TRIP GENERATION (BASED ON TGw PER FUEL POSITION X 2 (PER 1,000 SQ. FT.) MINUS TGw PER DRIVE-THRU & FUEL POSITION: ((242.21 x 2) - 323.32 = 161.50)						161.50

USE	ITE LAND USE CODE	UNIT OF MEASURE	PASS-BY RATE (PB)	NUMBER OF STUDIES (TS)	WEIGHTED PASS-BY STUDY (PBw)	WEIGHTED PASS-BY (PBw)
GASOLINE SERVICE STATION (AM)	944	PER FUEL POSITION	0.63	12	0.11	0.07
GASOLINE SERVICE STATION (PM)	944	PER FUEL POSITION	0.57	17	0.15	0.09
CONVENIENCE STORE WITH GAS (AM) 2-8 FUEL POSITIONS	945	PER FUEL POSITION	0.60	16	0.14	0.08
CONVENIENCE STORE WITH GAS (AM) 9-20 FUEL POSITIONS	945	PER FUEL POSITION	0.76	28	0.25	0.19
CONVENIENCE STORE WITH GAS (PM) 2-8 FUEL POSITIONS	945	PER FUEL POSITION	0.56	12	0.11	0.06
CONVENIENCE STORE WITH GAS (PM) 9-20 FUEL POSITIONS	945	PER FUEL POSITION	0.75	28	0.25	0.19
TOTAL			0.65	113	1.00	0.67

Notes: Motor Vehicle charging and fueling positions based on Daily Weekday Trip (DT) Generation per 1,000 square feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual. The simple average for daily trips is for information purposes only to illustrate the difference compared to weighted trips. The total number of studies (TS) conducted are used to calculate a Weighted Trip Study (TSw). The Weighted Trip Generation (TGw) is calculated based on Daily Trips (DT) multiplied by the Weighted Trip Study (TSw). The total trips per 1,000 SQ. FT. is the sum of the Weighted Trip Generation (TGw). Gasoline Service Station Example: TSw = (18 / 72) = 0.25; TGw = (172.01 x 0.25) = 43.00. Motor Vehicle charging and fueling positions Trip Generation is the sum of (43.00 + 176.75 + 17.86 + 4.80) = 241.21. The average number of fuel positions is two (2) per 1,000 Sq. Ft. The trip generation per fuel position is reduced by the trip generation associated with convenience retail: ((242.21 x 2) - 323.32 = 161.50). Pass-By (aka % New Trips) based on same methodology. Pass-by rates based on ITE Trip Generation Manual, 11th Edition. ***Average values in the last row are shown in italics for informational purposes only.***

MOTOR VEHICLE SERVICE TRIP GENERATION												
ITE LAND USE	ITE LAND USE CODE	VARIABLE	AM PEAK (7 to 9)	AM PEAK FACTOR	AM NUMBER OF STUDIES	PM PEAK (4 to 6)	PM PEAK FACTOR	PM NUMBER OF STUDIES	TOTAL NUMBER OF STUDIES (TS)	CALCULATED DAILY TRIPS (DT)	WEIGHTED TRIP STUDY (TSw)	WEIGHTED TRIP GENERATION (TGw)
TIRE STORE	848	SERVICE BAY	2.10	0.066	9	3.42	0.091	10	19	34.70	0.35	11.99
TIRE SUPERSTORE	849	SERVICE BAY	2.01	0.066	11	3.17	0.091	12	23	32.64	0.42	13.65
QUICK LUBE VEHICLE SHOP	941	SERVICE BAY	3.00	0.083	1	4.85	0.115	10	11	39.16	0.20	7.83
AUTOMOBILE CARE CENTER	942	SERVICE BAY	1.52	0.083	1	2.17	0.115	1	2	18.59	0.04	0.68
TOTAL	--	--	--	--	22	--	--	33	55	--	1.00	34.15

Notes: Motor Vehicle Service Trip Generation based on the AM and PM Peak of adjacent street traffic per Service Bay based on the 11th Edition of the ITE Trip Generation Manual due to the limited number of daily studies. The total number of studies (TS) conducted for the AM and PM Peaks are used to calculate a Weighted Trip Study (TSw). The Daily Trips (DT) generation is based on the average of the AM Peak divided by the AM Peak factor and the PM Peak divided by the PM Peak factor. AM and PM Peak factors based on the 11th Edition ITE Trip Generation Manual Vehicle Time of Day Distribution for Vehicles for ITE Land Use Codes 848 and 941. The Weighted Trip Generation Weight (TGw) is calculated based on Daily Trips multiplied by Weighted Trip Study. The total trips per Service Bay is the sum of the Weighted Trip Generation (WTG). Tire Store Example: DT = ((2.10 / .066) + (3.42 / 0.091)) = 34.70; TSw = (19 / 55) = 0.35; TGw = (34.70 x 0.35) = 11.99. Motor Vehicle Service Trip Generation per bay is the sum of (11.99 + 13.65 + 7.83 + 0.68) = 34.15. ***Average values in the last row are shown in italics for informational purposes only.***

QUICK SERVICE RESTAURANT DRIVE-THRU TRIP GENERATION						
USE	**ITE LAND USE CODE**	**UNIT OF MEASURE**	**DAILY TRIPS (DT)**	**NUMBER OF STUDIES (TS)**	**WEIGHTED TRIP STUDY (TSw)**	**WEIGHTED TRIP GENERATION (TGw)**
FAST FOOD WITH DRIVE-THRU NO INDOOR SEATING	935	PER DRIVE-THRU	888.06	6	0.23	204.94
COFFEE DONUT WITH DRIVE-THRU NO INDOOR SEATING (AM)	938	PER DRIVE-THRU	398.10	20	0.77	306.23
TOTAL			643.08	26	1.00	511.17
NET TRIP GENERATION (BASED ON TGw PER DRIVE-THRU MINUS CONVENIENCE RETAIL TGw PER 1,000 SQ. FT.: 511.17 - 323.32 = 187.85)						187.85

USE	ITE LAND USE CODE	UNIT OF MEASURE	PASS-BY RATE (PB)	NUMBER OF STUDIES (TS)	WEIGHTED PASS-BY STUDY (PBw)	WEIGHTED PASS-BY (PBw)
FAST FOOD WITH DRIVE-THRU NO INDOOR SEATING	935	PER DRIVE-THRU	0.31	2	0.40	0.12
COFFEE DONUT WITH DRIVE-THRU NO INDOOR SEATING	938	PER DRIVE-THRU	0.90	3	0.60	0.54
TOTAL			0.61	5	1.00	0.66

Notes: The Coffee Donut without drive-thru (ITE Code 936) daily trips based on AM Peak trips of 93.08 divided by a peak hour factor of .10 (93.08 / 0.10 = 930.08) based on ITE Trip Generation time of day distribution for ITE Code 937. The Fast-Food with drive-thru and no indoor seating (ITE Code 935) daily trips based on PM Peak trips of 59.5. divided by a peak hour factor of .067 (59.50 / 0.067 = 888.06) based on ITE Trip Generation time of day distribution for ITE Code 937. The Coffee Donut with drive-thru and no indoor seating (ITE Code 938) daily trips based on AM Peak trips of 39.81 divided by a peak hour factor of .10 (39.81 / 0.10 = 398.10) based on ITE Trip Generation time of day distribution for ITE Code 937. Quick Service Restaurant Drive-Thru Trip Generation based on Daily Weekday Trip (DT) Generation per 1,000 square feet (SQ. FT.) based on the 11th Edition of the ITE Trip Generation Manual. The simple average for daily trips is for information purposes only to illustrate the difference compared to weighted trips. The total number of studies (TS) conducted are used to calculate a Weighted Trip Study (TSw). The Weighted Trip Generation (TGw) is calculated based on Daily Trips (DT) multiplied by the Weighted Trip Study (TSw). The total trips per 1,000 SQ. FT. is the sum of the Weighted Trip Generation (TGw). Fast Food With Drive-Thru and No Indoor Seating Example: TSw = (6 / 26) = 0.23; TGw = (888.06 x 0.23) = 204.94. Quick Service Restaurant Drive-Thru Trip Generation is the sum of (204.94 + 306.23) = 511.17. The trip generation per drive-thru lane is reduced by the trip generation associated with convenience retail: (511.17 - 323.32 = 187.85). Pass-By (aka % New Trips) based on same methodology. Pass-by rates based on ITE Trip Generation Manual, 11th Edition. ***Average values in the last row are shown in italics for informational purposes only.***

APPENDIX K

Person Travel Demand
Per Land Use (PTDu)

APPENDIX K: PERSON TRAVEL DEMAND PER LAND USE (PTDu)					
Use Categories, Use Classifications, and Representative Uses	**Unit of Measure**	**Person Trip Factor (PTf)**	**Person Trip Length (PTl)**	**Trip Purpose Factor (TPf)**	**Person Travel Demand (PTD)**
Residential & Lodging Uses					
Affordable, Attainable & Workforce Residential	**per 1,000 sq. ft.**	1.79	2.04	0.412	2.15
Residential	**per 1,000 sq. ft.**	1.79	2.04	0.412	4.30
Overnight Lodging (Hotel, Inn, Motel, Resort)	**per room**	1.83	2.04	0.412	4.88
Mobile Residence (Mobile Home, Recreational Vehicle, Travel Trailer)	**per space or lot**	1.79	2.04	0.412	3.20
Institutional Uses					
Community Serving (Civic, Museum, Performing Arts, Place of Assembly or Worship)	**per 1,000 sq. ft.**	1.96	2.05	0.231	2.79
Long Term Care (Assisted Living, Congregate Care Facility, Nursing Facility)	**per 1,000 sq. ft.**	1.76	2.01	0.231	3.71
Private Education (Day Care, Private Primary School, Pre-K)	**per 1,000 sq. ft.**	1.75	1.93	0.231	4.17
Industrial Uses					
Industrial (Assembly, Manufacturing, Nursery, Outdoor Storage, Warehouse, Utilities)	**per 1,000 sq. ft.**	1.34	2.09	0.231	1.62
Recreational Uses					
Outdoor Commercial Recreation (Amusement, Golf, Multi-Purpose, Parks, Sports, Tennis)	**per acre**	1.69	1.72	0.231	5.57
Indoor Commercial Recreation (Dance, Gym, Fitness, Indoor Sports, Kids Activities, Yoga)	**per 1,000 sq. ft.**	1.69	1.72	0.231	11.35
Office Uses					
Office (General, Higher Education, Hospital, Professional)	**per 1,000 sq. ft.**	1.28	2.24	0.231	5.22
Medical Office (Clinic, Dental, Emergency Care, Medical, Veterinary)	**per 1,000 sq. ft.**	1.47	1.95	0.231	14.79
Commercial & Retail Uses					
Small Retail Business (Entertainment, Restaurant, Retail, Services)	**per 1,000 sq. ft.**	1.87	1.99	0.357	7.59
Retail (Discount, Entertainment, Financial, Retail, Services, Superstore)	**per 1,000 sq. ft.**	1.75	1.94	0.357	12.12
High Impact Retail (Bank, Pharmacy, Sit-Down Restaurant, Supermarket, Wine & Spirits)	**per 1,000 sq. ft.**	1.82	1.98	0.357	23.25
Convenience Retail (Convenience, Motor Vehicle Charging & Fueling, Quick Service Restaurant)	**per 1,000 sq. ft.**	1.64	1.92	0.357	37.07
Additive Fees for Commercial Services & Retail Uses					
Bank Drive-Thru Lane or Free-Standing ATM	**per lane or ATM**	1.49	1.70	0.357	16.86
Motor Vehicle Cleaning (Detailing, Wash, Wax)	**per lane or stall**	1.64	1.92	0.357	22.30
Motor Vehicle Charging or Fueling	**per charging or fueling position**	1.49	1.70	0.357	19.86
Motor Vehicle Service (Accessories, Brakes, Maintenance, Quick Lube, Repair, Tires)	**per lane**	1.64	1.92	0.357	7.83
Quick Service Restaurant Drive-Thru	**per lane**	2.01	2.01	0.357	36.85

APPENDIX L

Person Travel Characteristics

APPENDIX L: TRIP CHARACTERISTICS BY TRIP PURPOSE		
Trip Purpose	Person Miles of Travel (PMT)	Trip Purpose Factor (TPf)
Home	**5,874**	**0.412**
Goods	**2,476**	**0.174**
Meals	**1,786**	**0.125**
Services	**467**	**0.033**
Errands	**361**	**0.025**
Shopping Total	**5,089**	**0.357**
Family Care	**24**	**0.002**
Entertainment	**628**	**0.044**
Exercise	**366**	**0.026**
Medical	**227**	**0.016**
Religious	**452**	**0.032**
School	**421**	**0.030**
Work	**1,167**	**0.082**
Other Total	**3,285**	**0.231**
Total	**14,248**	**1.000**
Source: 2017 NHTS **(Appendix D)**.		

APPENDIX M

Mobility Fee Schedule

APPENDIX M: CITY OF LONGWOOD MOBILITY FEE		
Land Use Categories, Use Classifications, and Representative Uses	**Unit of Measure**	**Mobility Fee**
Residential & Lodging Uses		
Affordable or Workforce Residential [2, 3]	per dwelling unit	$488
Residential [3]	per 1,000 sq. ft.	$975
Overnight Lodging (Hotel, Inn, Motel, Resort) [4]	per room	$1,108
Institutional Uses		
Community Serving (Civic, Museum, Performing Arts, Place of Assembly or Worship)	per 1,000 sq. ft.	$672
Long Term Care (Assisted Living, Congregate Care Facility, Nursing Facility)	per 1,000 sq. ft.	$842
Private Education (Day Care, Private Primary School, Pre-K)	per 1,000 sq. ft.	$1,005
Industrial Uses		
Industrial (Assembly, Brewing, Distilling, Distribution, Fabrication, Flex Space, Manufacturing, Nursery, Outdoor Storage, Processing, Trades, Warehouse, Utilities) [5]	per 1,000 sq. ft.	$368
Recreational Uses		
Outdoor Commercial Recreation (Amusement, Golf, Multi-Purpose, Parks, Sports, Tennis) [4, 6]	per acre	$1,263
Indoor Commercial Recreation (Dance, Gym, Fitness, Indoor Sports, Kids Activities, Yoga) [4, 6]	per 1,000 sq. ft.	$2,576
Office Uses		
Office (General, Higher Education, Hospital, Professional)	per 1,000 sq. ft.	$1,184
Medical Office (Clinic, Dental, Emergency Care, Medical, Veterinary)	per 1,000 sq. ft.	$3,356
Commercial & Retail Uses		
Small Retail Business (Entertainment, Restaurant, Retail, Services) [7]	per 1,000 sq. ft.	$1,722
Retail (Discount, Entertainment, Financial, Retail, Services, Superstore) [8]	per 1,000 sq. ft.	$2,750
High Impact Retail (Bank, Pharmacy, Sit-Down Restaurant, Supermarket, Wine & Spirits) [9]	per 1,000 sq. ft.	$5,278
Convenience Retail (Convenience, Convenience with Gas, Quick Service Restaurant) [9]	per 1,000 sq. ft.	$8,413
Additive Fees for Commercial Services & Retail Uses [10]		
Bank Drive-Thru Lane or Free-Standing ATM [11]	per lane or ATM	$3,825
Motor Vehicle Cleaning (Detailing, Wash, Wax) [12]	per lane or stall, plus per 5 stations	$5,060
Motor Vehicle Charging or Fueling [13]	per charging or fueling position	$4,508
Motor Vehicle Service (Accessories, Brakes, Maintenance, Quick Lube, Repair, Tires) [14]	per bay or stall	$1,777
Quick Service Restaurant Drive-Thru [15]	per lane	$8,363

APPENDIX M: CITY OF LONGWOOD MOBILITY FEE

[1] Reserved.

[2] The City of Longwood may elect to establish a program that establishes criteria to qualify as affordable or workforce housing. Shown as a reduced rate as permitted per Florida Statute (Fla. Sta.) 163.3180 (5) (f) 6. Can be waived by the City per Fla. Sta. 163.31801 (11) per affordable definition in Fla. Sta. 420.9071). Until the City establishes criteria to define affordable or workforce housing and an applicant receives formal approval as affordable or workforce housing, the affordable or workforce housing mobility fee rate would not be applicable.

[3] Residential square feet is the sum of the area (in square feet) of each dwelling unit measured from the exterior surface of the exterior walls or walls adjoining public spaces such as multifamily or dormitory hallways, or the centerline of common walls shared with other dwelling units. Square feet include all livable, habitable, and temperature controlled enclosed spaces (enclosed by doors, windows, or walls). This square footage does not include unconditioned garages or unenclosed areas under roof. For multifamily and dormitory uses, common hallways, lobbies, leasing offices, and residential amenities not accessible to the public are not included in the square feet calculation, unless that space is leased to a third-party use and provides drinks, food, goods, or services to the public or paid memberships available to individuals that do not reside in a dwelling unit.

[4] Any space that is leased to a third-party use or provides drinks, food, goods, or services to the public shall be required to pay the applicable mobility fee per the individual uses identified in the mobility fee schedule.

[5] Acreage for any unenclosed material and vehicle storage, including but not limited to boats, commercial vehicles, recreational vehicles (RV), and trailers, sales and display shall be converted to square footage.

[6] For Commercial Recreation Uses that feature both indoor facilities and outdoor recreation, the indoor shall be based on the indoor mobility fee rate, the outdoor shall be made on the outdoor rate, any other uses shall pay the applicable mobility fee for the land use.

[7] The City of Longwood may elect to establish a program that establishes criteria to qualify as a small retail business. Until the City establishes a program and an applicant receives formal approval, the small retail business mobility fee rate would not be applicable. Shown as a reduced rate as permitted per Florida Statute (Fla. Sta.) 163.3180 (5) (f) 6.

[8] Retail includes all uses that do not fall under High Impact or Convenience Retail and generate less than 75 daily trips per 1,000 sq. ft. per the latest ITE Generation Manual or alternative study.

[9] High Impact Retail includes banks, pharmacies, sit down restaurants (non fast food), grocery stores, supermarkets, beer, liquor, package, wine and spirits stores, bars, nightclubs, lounges. These uses generate between 75 and 250 daily trips per 1,000 sq. ft. per the latest ITE Generation Manual or alternative study. Convenience Retail includes convenience stores, gas stations, service stations, coffee, donut, sandwich, food and beverage that would be considered fast food or quick service restaurants. These uses generate between more than 250 daily trips per 1,000 sq. ft. per the latest ITE Generation Manual or alternative study.

[10] Additive mobility fees are assessed in addition to the mobility fee assessed with the square footage of the building.

[11] Bank shall pay the retail rate for the square footage of the building under the retail use category. Drive-thru lanes, Free Standing ATM's and Drive-thru lanes with ATM's are assessed a separate fee per lane or per ATM and are added to any mobility fee associated with a bank building. The free-standing ATM is for an ATM only and not an ATM within or part of another non-financial building, such as an ATM within a grocery store.

[12] Motor Vehicle cleaning shall mean any car wash, wax, or detail where a third party or automatic system performs the cleaning service. Mobility Fee are assessed per bay, lane, or stall, plus per every five finishing stations (vacumm, dry, wax, etc), plus a retail rate associated with any additional building square footage under retail uses. A facility with multiple payment or pre-paid membership lanes that enter a single tunnel are charged based on the number of lanes accessing the tunnel, plus finishing stations and any retail buildings.

[13] Rates per vehicle charging or fueling position apply to a convenience store, gas station, general store, grocery store, supermarket, superstore, variety store, wholesale club or service stations with fuel pumps. In addition, there shall be a separate mobility fee for the square footage of any retail building per the applicable mobility fee rate under commercial and retail uses. The number of charging or fueling positions is based on the maximum number of vehicles that could be charged or fueled at one time. Non-commercial vehicle charging stations associated with residential or non-residential uses that are required by the City or are provided by the owner as an amenity and not a commercial purpose shall not be assessed a mobility fee.

[14] Motor Vehicle service includes maintenance, repair, and servicing of motor vehicles. Mobility Fee are assessed per bay or stall, plus a retail rate associated with any additional building square footage under retail uses for waiting areas, parts, supplies, and transactions.

[15] Any drive-thru associated with a quick service restaurant will be an additive fee in addition to the applicable retail mobility fee per square foot of the building. The number of drive-thru lanes will be based on the number of lanes present when an individual places an order or picks up an order, whichever is greater. Quick service restaurants include those in convenience stores or multi-tenant buildings.

APPENDIX N

Vehicle Availability &
Miles of Travel

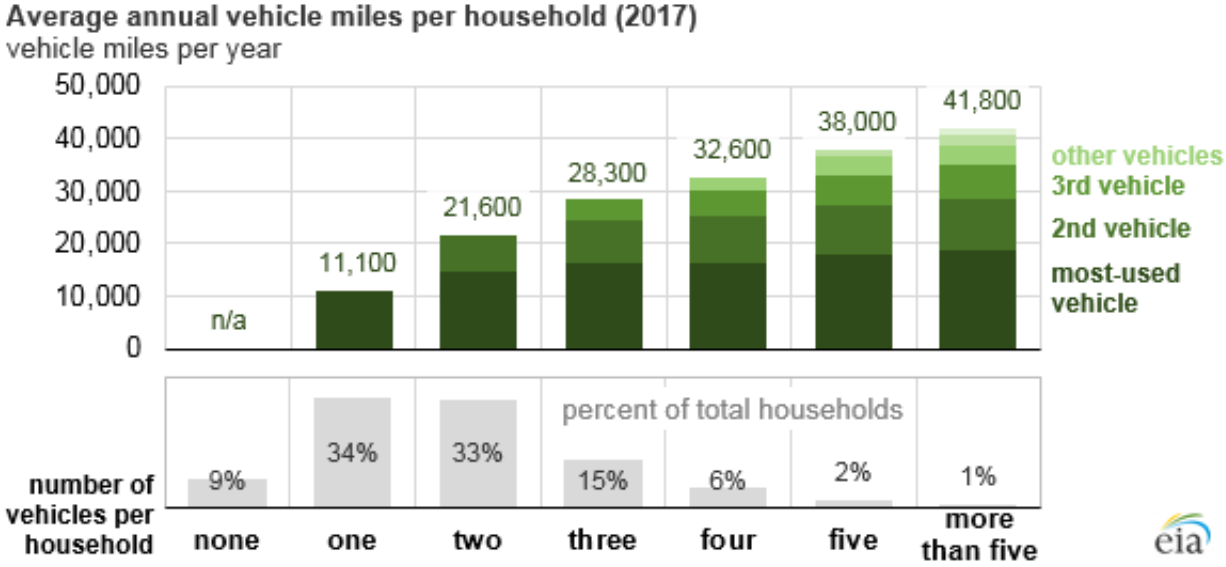
U.S. Energy Information Administration

Skip to sub-navigation

Today in Energy

June 7, 2018

U.S. households with more vehicles travel more but use additional vehicles less



Source: U.S. Energy Information Administration, based on U.S. Department of Transportation, Federal Highway Administration, 2017 National Household Travel Survey

Households in the United States with more vehicles not only travel more, but they often put more miles on their most-used (primary) vehicle compared with households with fewer vehicles, according to the Federal Highway Administration's National Household Travel Survey (NHTS). Households with just one vehicle drove an average of about 11,100 miles per year, while households with more than five vehicles traveled a total of about 41,800 miles; each additional vehicle within a household had less average use. About two-thirds of households have either one or two vehicles.

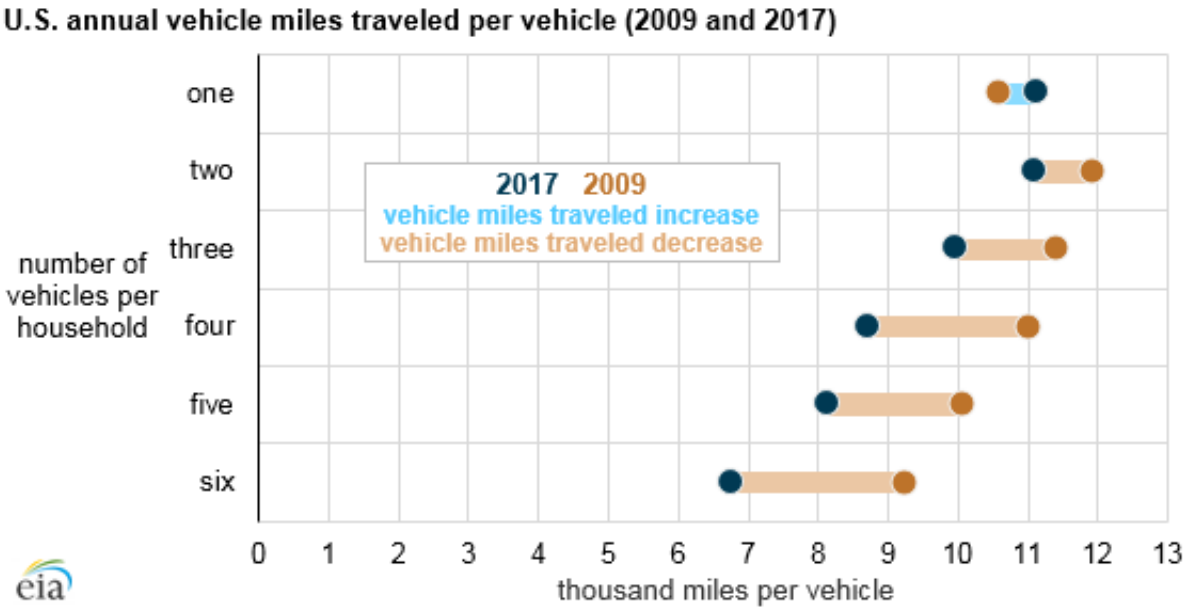
U.S. households with more vehicles also tend to drive their primary vehicle more than households with fewer vehicles. While a two-vehicle household travels about 14,600 miles annually with the most-used vehicle, a five- or more vehicle household travels about 18,600 miles annually with the most-used vehicle.

For U.S. households with more than one vehicle, the average use per vehicle within a household is greatest in a two-vehicle home, where the average vehicle travels about 11,000 miles. This average declines as households add more vehicles; a six-vehicle home averages about 6,700 miles per vehicle.

Gasoline consumption by household vehicles depends on both driving behavior (measured by vehicle miles traveled, or VMT) and vehicle fuel economy (measured in miles per gallon). Changes in gasoline prices are typically the primary factor in short-term fluctuations in gasoline expenditures, while changes in VMT and fuel economy (i.e., vehicle purchases) are more likely to influence longer-term trends.

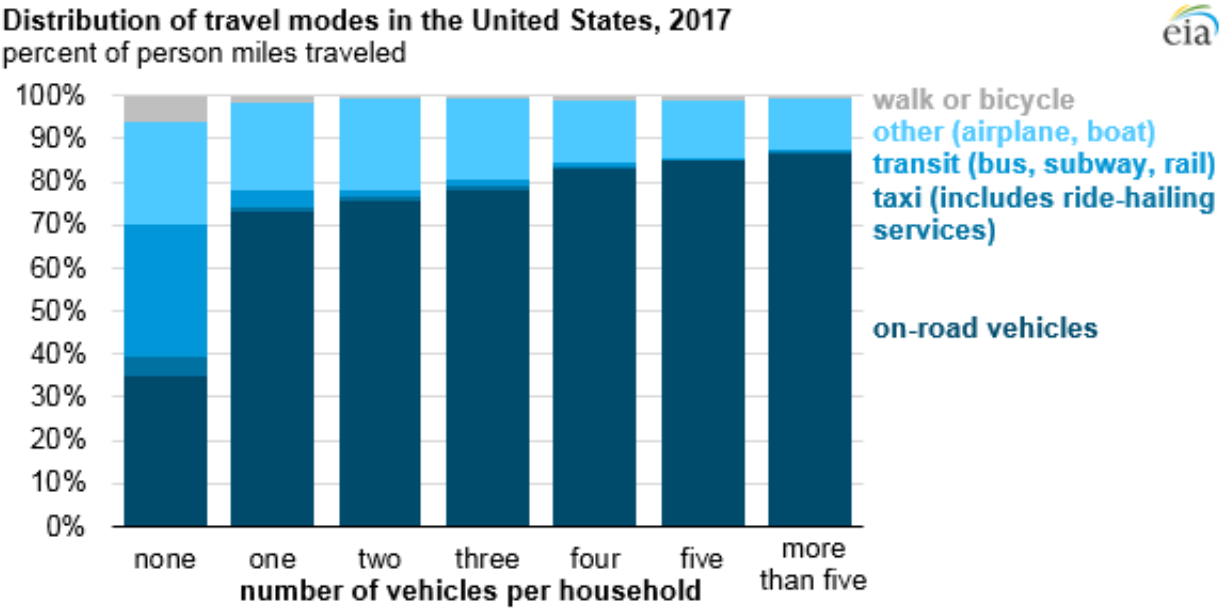
In 2017, the total VMT for household vehicles was 2.11 trillion vehicle miles, down from the 2.25 trillion vehicle miles reported by NHTS for 2009, the previous NHTS survey year. Vehicle travel in households with only one vehicle increased from 2009 to 2017, which was

the only category to do so.



Source: U.S. Energy Information Administration, based on U.S. Department of Transportation, Federal Highway Administration, 2017 National Household Travel Survey and *Technical Memo*

People in households in the United States without vehicles may still have access to vehicle travel or travel by other modes. Based on annualized person miles traveled, on average, a person in a zero-vehicle household uses transit modes such as bus, subway, and rail about eight times more than households with one or more vehicles. Similarly, these same zero-vehicle households take greater advantage of taxis and non-motorized modes of travel such as walking or biking.



Source: U.S. Energy Information Administration, based on U.S. Department of Transportation, Federal Highway Administration, 2017 National Household Travel Survey

The NHTS has been conducted by the U.S. Department of Transportation's Federal Highway Administration eight times since 1969. The latest data year for this survey is 2017, a year with relatively low gasoline prices, which tends to increase vehicle travel.

Principal contributor: Mark Schipper

APPENDIX O

Mobility Fee Comparison

APPENDIX O: CITY OF LONGWOOD MOBILITY FEE COMPARISON				
Use Categories, Use Classifications, and Representative Uses ***Caution: This comparison is between two different fees, each using different methodologies and data, performed by different consulting firms, and last updated at different times.***	**Unit of Measure**	**City of Longwood Mobility Fee**	**Seminole County Mobility Fee**	**Percent Change**
Residential & Lodging Uses				
Affordable or Workforce Residential [1]	per dwelling unit	$488	$741	-34.20%
Residential [2]	per 1,000 sq. ft.	$975	$1,258	-22.45%
Overnight Lodging (Hotel, Inn, Motel, Resort) [3]	per room	$1,108	$1,086	2.05%
Institutional Uses				
Community Serving (Civic, Museum, Performing Arts, Place of Assembly or Worship) [5]	per 1,000 sq. ft.	$672	$652	3.08%
Long Term Care (Assisted Living, Congregate Care Facility, Nursing Facility) [6]	per 1,000 sq. ft.	$842	$840	0.29%
Private Education (Day Care, Private Primary School, Pre-K) [7]	per 1,000 sq. ft.	$1,005	$990	1.52%
Industrial Uses				
Industrial (Assembly, Brewing, Distilling, Distribution, Fabrication, Flex Space, Manufacturing, Nursery, Outdoor Storage, Processing, Trades, Warehouse, Utilities) [8]	per 1,000 sq. ft.	$368	$530	-30.42%
Recreational Uses				
Outdoor Commercial Recreation (Amusement, Golf, Multi-Purpose, Parks, Sports, Tennis) [9]	per acre	$1,263	--	--
Indoor Commercial Recreation (Dance, Gym, Fitness, Indoor Sports, Kids Activities, Yoga) [10]	per 1,000 sq. ft.	$2,576	$2,975	-13.41%
Office Uses				
Office (General, Higher Education, Hospital, Professional) [11]	per 1,000 sq. ft.	$1,184	$1,470	-19.48%
Medical Office (Clinic, Dental, Emergency Care, Medical, Veterinary) [12]	per 1,000 sq. ft.	$3,356	$5,614	-40.22%

APPENDIX O: CITY OF LONGWOOD MOBILITY FEE COMPARISON				
Commercial & Retail Uses				
Small Retail Business (Entertainment, Restaurant, Retail, Services) [13]	per 1,000 sq. ft.	$1,722	$1,737	-0.85%
Retail (Discount, Entertainment, Financial, Retail, Services, Superstore) [14]	per 1,000 sq. ft.	$2,750	$2,523	8.98%
High Impact Retail (Bank, Pharmacy, Sit-Down Restaurant, Supermarket, Wine & Spirits) [15]	per 1,000 sq. ft.	$5,278	$4,920	7.27%
Convenience Retail (Convenience, Convenience with Gas, Quick Service Restaurant) [16]	per 1,000 sq. ft.	$8,413	$7,686	9.47%
Additive Fees for Commercial Services & Retail Uses				
Bank Drive-Thru Lane or Free-Standing ATM [17]	per lane or ATM	$3,825	--	--
Motor Vehicle Cleaning (Detailing, Wash, Wax) [18]	per lane or stall, plus per 5 stations	$5,060	--	--
Motor Vehicle Charging or Fueling [19]	per charging or fueling position	$4,508	$4,223	6.74%
Motor Vehicle Service (Accessories, Brakes, Maintenance, Quick Lube, Repair, Tires) [20]	per bay or stall	$1,777	$1,603	10.87%
Quick Service Restaurant Drive-Thru [21]	per lane	$8,363	--	--

APPENDIX O: CITY OF LONGWOOD MOBILITY FEE COMPARISON

Note: The land use categories are not the same between the City Mobility Fee and the County Mobility Fee. The closest land use was chosen for comparative purposes. The Technical Report, Studies, and Ordinances for all fee should be evaluated for more detail regarding a specific fee. The Seminole County Mobility Fee was adopted in 2021 based on 2020 and earlier data, the City of Longwood Mobility Fee is pending adoption and based on the most recent and localized data available as of 2023.

[1] County Fee based on average of Affordable Housing for Single-Family and Multi-Family.
[2] County Fee based on average of Single Family less than 1,500 Sq. Ft. and Multi-Family 1 to 2 stories. City Mobility Fee calculated per sq. ft., so fee based on habitable sq. ft. per dwelling unit.
[3] County Fee based on Hotel.
[4] Reserved.
[5] County Fee based on Church.
[6] County Fee based on Nursing Home. Fee is per bed. Comparison assumes four beds per 1,000 sq. ft.
[7] County Fee based on Private K-12 per student and assumed 6 students per 1,000 sq. ft.
[8] County Fee based on average of Industrial and Passive Warehouse.
[9] County Fee only provide rate for a Golf Course per Hole. Not an equivalent use. Would be an independent calculation.
[10] County based on Fitness Center.
[11] County Fee based on Office.
[12] County Fee based on Medical Office.
[13] County Fee based on Retail less than 20,000. County does not have a small retail business. Note ITE 11th Edition Trip Generation significant change in retail trip generation.
[14] County Fee based on Retail 20,000 or greater. Note ITE 11th Edition Trip Generation significant change in retail trip generation.
[15] County Fee based on average of sit-down restaurant and supermarket. Note ITE 11th Edition Trip Generation significant change in supermarket trip generation and multi-tenant retail use.
[16] County Fee based on Convenience Retail.
[17] County does not have a comparable Fee. Would be a new use. Note ITE 11th Edition Trip Generation significant changed in bank trip generation.
[18] County does not have a Fee. Car washes are now automated and high trip generating land uses. Would be a new use.
[19] County Fee based on Gasoline Station. Note ITE 11th Edition Trip Generation significant change in convenience store with gas trip generation.
[20] County has a fee based on quick lube service.
[21] County does not have a comparable Fee. Would be a new use. Note quick service restaurants are actively adding drive-thru lanes and constructing quick service restaurant uses with multiple drive-thru's and no seating.

Contact: **Jonathan B. Paul, AICP | Principal**

North Central Florida Office:

747 SW 2nd Ave IMB 28,
Suite 190
Gainesville, FL 32601

Southeast Florida Office:

2000 PGA Blvd,
Suite 4440
Palm Beach Gardens, FL 33408

P 833-NUC-8484
E *nueurbanconcepts@gmail.com*

www.nueurbanconcepts.com



NUE URBAN CONCEPTS
LAND USE · MOBILITY · PARKING · FEES

DDEC

futureplan

THE REPUBLIC OF DESIGN INC.